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MD 140:
NORTH OF PAINTERS MILL ROAD TO SOUTH
OF GARRISON VIEW ROAD

AIR QUALITY ANALYSIS
TECHNICAL REPORT

September 2013

Baltimore County, Maryland



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**



**MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION**

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I. INTRODUCTION

This report presents the results of a review of air quality impacts associated with the proposed widening for MD 140 from approximately 340 feet north of Painters Mill Road to approximately 770 feet south of Garrison View Road in Baltimore County, Maryland, in Owings Mills. This study is intended as an evaluation of the project level air quality impacts of the proposed improvements. This evaluation is provided to meet the requirements of the Clean Air Act (CAA) and the National Environmental Policy Act (NEPA).

MD 140 is primarily an undivided urban roadway running north to south with two lanes in each direction and left turning lanes at intersections. It serves as a commuter route to Baltimore and a route for local commercial shopping and business districts. The MD 140 area in Owings Mills consists of primarily commercial buildings with some residential areas. The overall study area is approximately 0.44 mile in length (See Figure 1).

The purpose of the project is to address safety and operational congestion along this portion of MD 140. This will be accomplished by widening MD 140 to the east to provide an additional northbound lane from north of Painters Mill Road to south of Garrison View Road, adding a left turn lane from MD 140 onto Painters Mill Road, and installing a raised median to prohibit left turns along MD 140 between Painters Mill Road and Garrison View Road. All widening will be to the outside of northbound MD 140. A five foot wide sidewalk will be installed along the northbound side of MD 140 between north of Painters Mill Road and Garrison View Road for pedestrians. An additional section of five foot sidewalk will be established along approximately 140 feet of southbound MD 140 at the southern end of the project. Other work activities include grinding, resurfacing, drainage, landscaping, signing, pavement marking, and signal modification. Refer to Appendix C for project design details.

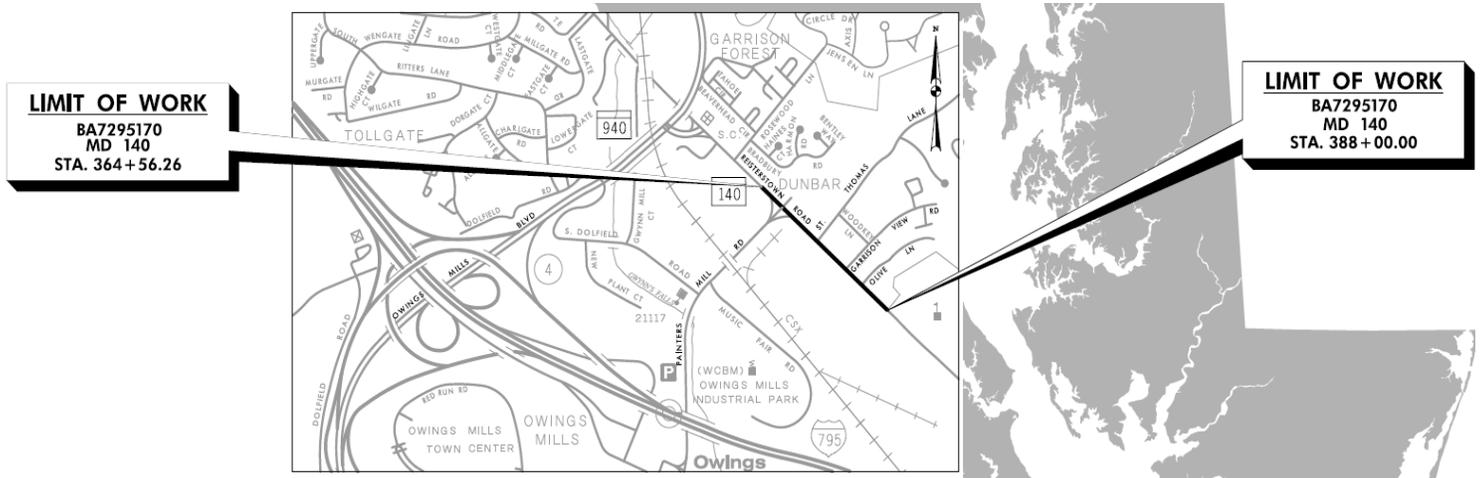


FIGURE 1 – PROJECT LOCATION

II. AIR QUALITY BACKGROUND

The Clean Air Act (CAA) Amendments of 1990 and the Final Transportation Conformity Rule [40 CFR Parts 51 and 93] direct the U.S. Environmental Protection Agency (EPA) to implement environmental policies and regulations that will ensure acceptable levels of air quality. Both the Clean Air Act and the Final Transportation Conformity Rule affect the proposed transportation project.

According to the CAA Title I, Section 176 (c) 2; “No federal agency may approve, accept, or fund any transportation plan, program, or project unless such plan, program, or project has been found to conform to any applicable State Implementation Plan (SIP) in effect under this act.” The Final Conformity Rule defines conformity as; “Conformity to an implementation plan’s purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards; and that such activities will not:

- Cause or contribute to any new violation of any NAAQS in any area;
- Increase the frequency or severity of any existing violation of any NAAQS in any area; or
- Delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in any area.”

To comply with the CAA, the Environmental Protection Agency (EPA) has issued Proposed Rules, Guidance Clarifications, and Final Rules concerning the Conformity Determination of fine and course particulates (PM_{2.5} and PM₁₀), Draft and Final Rules concerning quantitative analysis of CO and PM_{2.5}, and guidance on analysis of Mobile Source Air Toxics (MSATs). Following is a summary of recent rules and clarifications:

- Transportation Conformity Rule PM_{2.5} and PM₁₀ Amendments, March 10, 2006;
- Final PM Qualitative Guidance Clarification, June 12, 2009;
- Final PM Conformity Rule, March 10, 2010;
- Draft Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, May 26, 2010;
- Final Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, December 20, 2010;
- Final Transportation Conformity Guidance for Quantitative Hot-spot Analyses in CO Nonattainment and Maintenance Areas, December 2010;
- Transportation Conformity Rule Restructuring Amendments, March 2012;
- Transportation Conformity Regulations, as of April 2012;
- Interim Guidance Update on MSAT Analysis in NEPA, December 6, 2012; and
- Revised Air Quality Standards for Particle Pollution, Annual PM_{2.5} NAAQS, December 14, 2012.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants. These pollutants, known as criteria pollutants, are carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀& PM_{2.5}), sulfur dioxide (SO₂), and lead (pb). These federal standards are summarized in Table 1. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare, accounting for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare.

Section 107 of the 1977 Clean Air Act Amendment requires that EPA publish a list of all geographic areas in compliance with the NAAQS, as well as those areas not in compliance with the NAAQS. The designation of an area is made on a pollutant-by-pollutant basis. EPA’s area designations consist of: Attainment, Unclassified, Maintenance, and Nonattainment. Ambient air quality is monitored through a network of stations to determine conditions throughout the country. EPA reviews the monitoring data, and areas where air pollution levels persistently exceed the NAAQS may be designated “nonattainment” for one or more pollutants. After a nonattainment area improves conditions to meet the standard for a pollutant, it is redesignated as a maintenance area. Typically these designations are applied to entire counties or groups of counties.

**TABLE 1
NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)**

Pollutant	Primary/ Secondary	Primary Standards		Form
		Level	Averaging Time	
Carbon Monoxide 76 FR 54294	Primary	9 ppm	8-hour	Not to be exceeded more than once per year
		35 ppm	1-hour	
Lead 73 FR 669964	Primary and Secondary	0.15 µg/m ³	Rolling 3-Month Average	Not to be exceeded
Nitrogen Dioxide 75 FR 6464	Primary	100 ppb	1-hour	98 th percentile, averaged over 3 years
	Primary and Secondary	53 ppb	Annual	Annual Mean
Particulate Matter (PM ₁₀) 71 FR 61144	Primary and Secondary	150 µg/m	24-hour	Not to be exceeded more than once per year on average over 3 years
Particulate Matter (PM _{2.5}) 71 FR 61144	Primary	12 µg/m ³	Annual	Annual mean averaged over 3 years
	Secondary	15 µg/m ³	Annual	Annual mean averaged over 3 years
	Primary and Secondary	35 µg/m ³	24-hour	98 th percentile, averaged over 3 years
Ozone 73 FR 16436	Primary and Secondary	0.075 ppm	8-hour	Annual fourth highest daily maximum 8-hour concentration, averaged over 3 years
Sulfur Dioxide 75 FR 35520	Primary	75 ppb	1-hour	Not to be exceeded more than once per year
	Secondary	0.5 ppm	3-hour	

In addition to the criteria pollutants for which there are NAAQS, EPA also regulates air toxics. Toxic air pollutants are those pollutants known or suspected to cause cancer or other serious health effects. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners), and stationary sources (e.g., factories or refineries). The Clean Air Act (CAA) identified 188 air toxics. In 2001 EPA identified a list of 21 Mobile Source Air Toxics (MSAT), and highlighted six of these MSATs as “priority” MSAT.

Gases that trap heat in the atmosphere are often referred to as greenhouse gases (GHG). Greenhouse gases are necessary to life, as we know it, because they keep the planet’s surface warmer than it otherwise would be. This is referred to as the Greenhouse Effect. As concentrations of greenhouse gases are increasing, the Earth’s temperature appears to be increasing. The principal

greenhouse gases that enter the atmosphere because of human activities include carbon dioxide, methane, nitrous oxide, and fluorinated gases.

III. ENVIRONMENTAL ANALYSIS

The MD 140 project is located in Baltimore County, Maryland, which is included as a part of the Baltimore Metropolitan Statistical Area (MSA). The region has been classified as serious nonattainment with respect to the 1997 eight-hour ozone standard and nonattainment of the 1997 fine particulate (PM_{2.5}) standard. A portion of the MSA, the Baltimore Central Business District (CBD), had been non-attainment for carbon monoxide; however, this area has been re-designated as a CO Maintenance Area. This CO Maintenance Area is only the Baltimore CBD and does not extend to Baltimore County.

Transportation programs and plans must be evaluated for “conformity” to the applicable SIP provisions before projects can receive Federal funding. A Transportation Improvement Program (TIP) generally presents projects anticipated over the next several years while a Long Range Plan (LRP) covers a longer period. A Metropolitan Planning Organization (MPO) is designated to develop the TIP and LRP for a region, and to document their conformity with SIP provisions. For the Baltimore region, the Baltimore Regional Transportation Board (BRTB), which is part of the Baltimore Metropolitan Council (BMC), serves as the MPO. Baltimore County is a member of the BMC.

As the MPO, BRTB develops the TIP and LRP for the region, including Baltimore County. Furthermore, it performs the related regional conformity analysis. The current LRP, referred to as the *Long Range Metropolitan Transportation Plan: Plan It 2035*, was adopted by BRTB on November 14, 2011. The latest TIP, covering the period 2012 to 2015, was adopted by BRTB on November 14, 2011, and this project is covered by TIP ID number 63-1203-19. An updated conformity analysis covering both the TIP and LRP was also adopted on November 14, 2011.

At a regional level, a project is considered to be conforming if it is a part of a conforming TIP and LRP. The proposed project is a breakout of the CLRP *Plan It 2035* MD 140 project described as reconstruction and widening from 4 to 6 lanes, including bicycle and pedestrian improvements where appropriate, from Garrison View Road to Owings Mills Boulevard. The 2012-2015 TIP describes the project as MD 140, Reisterstown Road, and classifies it as a Regionally Significant and Non-Federally Funded project.

IV. ENVIRONMENTAL CONSEQUENCES

In addition to the regional conformity analysis, any Federally funded project within a nonattainment or maintenance area for carbon monoxide or particulate matter must be analyzed at the project-level. At the project level, the pollutants could possibly have localized (“hot-spot”) levels above the criteria. Although the MD 140: North of Painters Mill Road to South of Garrison View Road project is not in a CO nonattainment or maintenance area subject to the requirements of 40 CFR 93.116 concerning conformity determination, a qualitative CO assessment has been included. Since Baltimore County is a nonattainment area for PM_{2.5}, a project-specific PM_{2.5} assessment has also been provided.

The closest MDE air monitoring station for the study area is located at 600 Dorsey Road in Essex, Maryland. In addition, monitoring data is available at Delaware DNREC (Delaware Department of Natural Resources and Environmental Control) monitoring stations near Wilmington, Delaware and Newark, Delaware. All sites are in EPA Region 3. Monitored air quality data within or near the study

area for the years 2010-2012 is presented in Table 2. Monitoring information is located in Appendix A.

1. Carbon Monoxide (CO) Assessment

A portion of the Baltimore Metropolitan Statistical Area (MSA) is considered to be a maintenance area in terms of carbon monoxide (CO). This maintenance area only encompasses the Central Business District of Baltimore City, which previously had been in nonattainment. Baltimore County is not included in the Baltimore maintenance area, and therefore is not a nonattainment or a maintenance area. There has not been a local violation of the CO standard since 1988. Code of Federal Regulations Title 40, Part 93-Subpart A (40CFR93A) implements section 176(c) of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 *et seq.*). Paragraph 40CFR93.102 (b):*Geographic Applicability* states that the provisions of the subpart apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. Since the study area is not in a CO nonattainment or maintenance area, a hot-spot conformity determination in conformance with 40 CFR 93.116 is not required, and a qualitative assessment that considers local factors is provided hereinafter.

As shown in Table 2, the maximum 2010 1-hour monitored CO concentrations is 3.0 ppm at Site 240053001, located at 600 Dorsey Road in Essex Maryland. This concentration is only 8.6 percent of the 1-hour CO NAAQS of 35.0 ppm. The maximum 2010 8-hour monitored CO concentration is 2.2 ppm at this same site, which is only 22.2 percent of the 8-hour NAAQS of 9.0 ppm.

A review of data provided, including traffic data summarized in Table 3 (see Appendix D for details), demonstrates that the improvements to MD 140: North of Painters Mill Road to South of Garrison View Road will not result in significant increase in traffic volumes, or changes in vehicle mix that would cause an increase in emissions relative to the No-Build conditions.

In conclusion, improvements to MD 140: North of Painters Mill Road to South of Garrison View Road will not cause or contribute to a new violation of the CO NAAQS.

**TABLE 2
Ambient Air Quality Data 2010-2012**

			Site 240053001 600 Dorsey Road, Essex MD			Site 100032004 MLK Blvd, Wilmington DE			Site 100031007 Lums Pond State Park, DE		
			2010	2011	2012	2010	2011	2012	2010	2011	2012
Carbon Monoxide (CO) [ppm]	1-Hour	Maximum	3.0	2.3	2.3	1.7	1.7	2.1	-	-	-
		2nd Maximum	2.7	2.3	2.1	1.6	1.7	2.1	-	-	-
		# of Exceedances	0	0	0	0	0	0	-	-	-
	8-Hour	Maximum	2.2	1.7	1.6	1.3	1.5	1.8	-	-	-
		2nd Maximum	1.9	1.6	1.6	1.2	1.1	1.3	-	-	-
		# of Exceedances	0	0	0	0	0	0	-	-	-
Particulate Matter [ug/m ³]	PM2.5	98th Pct. 24-Hour	29	26	25	26	25	21	28	22	21
		# of Exceedances	0	0	0	0	0	0	0	0	0
		Mean Annual	11.6	10.7	10.7	11.3	10.3	10.6	10.0	8.8	8.5
		# of Exceedances	0	0	0	0	0	0	0	0	0

**TABLE 3
TRAFFIC DATA**

	MD 140 2013	No-Build MD 140 2033	Build MD 140 2033
ADT volumes	38,500	50,300	50,300
Percent Trucks (ADT)	5%	5%	5%
Daily Truck Volumes (ADTT) Total	1,925	2,515	2,515

2. Particulate Matter (PM_{2.5}) Assessment

The project is located in Baltimore County, which is in the Baltimore, MD, Fine Particulate Matter (PM_{2.5}) Nonattainment Area. This area was designated as nonattainment for PM_{2.5} on January 5, 2005 by 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. On November 13, 2009 EPA designated nonattainment areas based on the 2006 24-hour PM_{2.5} NAAQS. The Baltimore region was not designated as nonattainment for the 2006 standard, therefore the designations based on the 1997 NAAQS remain in effect.

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. On December 20, 2010, EPA issued "*Final Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas*", (75FR79370), which helps state and local agencies complete quantitative PM_{2.5} and PM₁₀ hot-spot analyses for project-level transportation conformity determinations of certain highway and transit projects. This guidance included a two-year grace period until December 20, 2012. Because this project was commenced prior to the end of the grace period, a quantitative analysis is not required for this project.

Projects that require hotspot analysis for PM_{2.5} are those that are *Projects of Air Quality Concern* as enumerated in 40 CFR 93.123(b)(1):

- (i) *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;*
- (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 significantly increase the 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 PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violations.*

As discussed in the examples of the preamble to the March 10, 2006 Final Rule for PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-Level Transportation Conformity Determinations (71 FR 12491), 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.

Determination as to whether the MD 140: North of Painters Mill Road to South of Garrison View Road project is a *Project of Air Quality Concern* will be finalized by Interagency Consultation. To assist with the Interagency Consultation process, SHA has prepared the following assessment of the proposed improvements:

- The MD 140: North of Painters Mill Road to South of Garrison View Road Project is considered under the following paragraphs of 40 CFR 93:
 - 40 CFR 92.123(b)(1)(i), as amended, which includes "*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.”

- The proposed improvements do not meet the criteria set forth in 40 CFR 93.123(b)(1)(i) to be considered a project of “air quality concern” based on the following considerations:
 - The proposed improvement for MD 140 involves adding a lane to MD 140 along the northbound direction by widening to the outside from approximately 340 feet north of Painters Mill Road to approximately 770 feet south of Garrison View Road.
 - As shown in Table 3, MD 140 does not carry a significant number of trucks; nor will there be a significant increase in trucks. For both the No-build and Build conditions, the MD 140 2033 ADT volume is 50,300 vehicles and the average daily number of trucks is 2,515.
- A review of the traffic data demonstrates that there will not be a "significant" increase in the number of trucks from the No-Build condition to the Build. The projected 2033 ADT represents the unconstrained user demand. This demand will not change under a Build scenario, assuming that the real demand includes traffic that has previously shifted to alternate routes in the network due to congestion and returns with the availability of additional capacity. Depicted truck percentages represent the amount of light, medium and heavy truck activity along a given roadway segment. Unless predicated by significant land use changes (heavy truck generators), existing truck percentages are used as the primary factor in determining future percentages. The Build condition will improve operation of the roadway and intersections, relieving system congestion, but will not necessarily induce new truck traffic origin-destination patterns.
- 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 air quality state implementation plan (SIP) through a regional emissions analysis in PM_{2.5} nonattainment areas. The Baltimore Regional Transportation Board (BRTB) serves as the Metropolitan Planning Organization (MPO), and therefore it is responsible for the regional conformity determination.
- The currently approved BRTB Long Range Metropolitan Transportation Plan (LRP), referred to as *Plan It 2035*, and the *2012-2015 Transportation Improvement Program (TIP)* have been determined to conform to the requirements of the Clean Air Act Amendments of 1990. These represent the currently conforming LRP and TIP in accordance with 40 CFR 93.114. MD 140: North of Painters Mill Road to South of Garrison View Road is considered part of the Regionally Significant and Non-Federally Funded project MD 140, Reisterstown Road, in the 2012-2015 TIP.
- The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. Conformity to the requirements of the Clean Air Act Amendments of 1990 means that the transportation activity will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS.
- Based on review and analysis as discussed above, it is determined that the proposed improvements of MD 140: North of Painters Mill Road to South of Garrison View Road in Baltimore County will meet the Clean Air Act and 40 CFR 93.109 requirements for Fine Particulate Matter – PM_{2.5}. These requirements are met without a hot-spot analysis because the project has not been found to be a project of air quality concern as defined under 40 CFR 93.123(b)(1). The project will not cause or contribute to a new violation of the PM_{2.5} NAAQS, or increase the frequency or severity of an existing violation.

3. MSAT Assessment

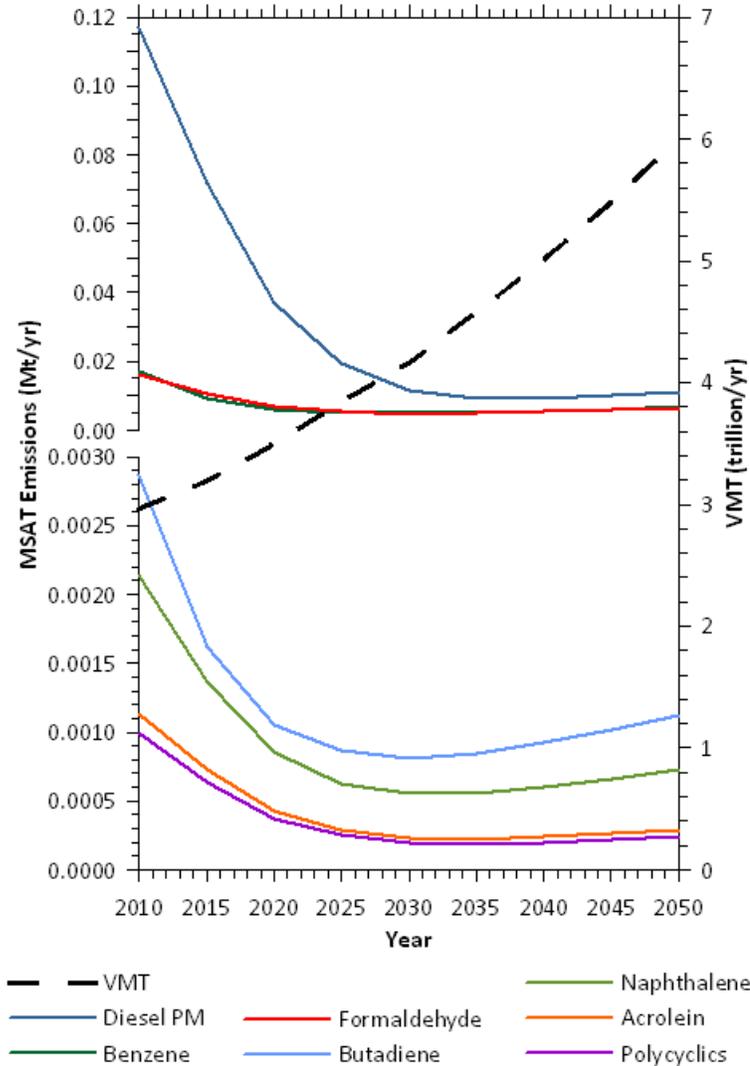
The Federal Highway Administration (FHWA) *Guidance Update on Mobile Source Air Toxic Analysis in NEPA* requires an assessment of Mobile Source Air Toxics (MSAT) under specific conditions. The EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers. These seven MSATs are: acrolein; benzene; 1,3-butadiene; diesel exhaust (organic gases and diesel particulate matter); formaldehyde; naphthalene; and polycyclic organic matter. Since the projected No-Build and Build traffic are substantially the same, as reflected in Table 3, the project will have no meaningful impacts on traffic volumes or vehicle mixes. Therefore in accordance with the above referenced FHWA guidance, the project would be considered a **Project with No Meaningful Potential MSAT Effects.**

The purpose of the project is to address safety and operational congestion along this portion of MD 140. This will be accomplished by widening MD 140 to the east to provide an additional northbound lane from north of Painters Mill Road to south of Garrison View Road, adding a left turn lane onto Painters Mill Road, and installing a raised median to prohibit left turns from MD 140 between Painters Mill Road and Garrison View Road. All widening will be to the outside of northbound MD 140. A five foot wide sidewalk will be installed along the north MD 140 between north of Painters Mill Road and Garrison View Road for pedestrians. An additional section of five foot sidewalk will be established along approximately the last 140 feet of southbound MD 140 at the southern end of the project.

This project has been determined to generate minimal air quality impacts for CAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES model forecasts a combined reduction of over 80 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 100 percent (see Figure 2). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

**FIGURE 2:
NATIONAL MSAT EMISSION TRENDS 1999 - 2050
FOR VEHICLES OPERATING ON ROADWAYS
USING EPA'S MOVES2010b MODEL**



Note: Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors.

Source: EPA MOVES2010b model runs conducted during May - June 2012 by FHWA.

4. Greenhouse Gas Assessment

From a NEPA perspective, it is analytically problematic to conduct a project level cumulative effects analysis of greenhouse gas emissions on a global-scale problem. Also, while Criteria Pollutant emissions last in the atmosphere for months, CO₂ emissions remain in the atmosphere far longer - over 100 years - and therefore require a much more sustained, intergenerational effort. Finally, due to the interactions between elements of the transportation system as a whole, project-level emissions analyses would be less informative than ones conducted at regional, state, or national levels. Because of these concerns, FHWA concluded that the CO₂ emissions cannot be usefully evaluated in the same way that other vehicle emissions are addressed. However, it can be stated

that estimates of CO₂ emissions, a primary factor in greenhouse gases, are based on the amount of direct energy required. The direct energy values represent the energy required for vehicle propulsion. This energy is a function of traffic characteristics such as volume, speed, distance traveled, vehicle mix, and thermal value of the fuel being used. A review of traffic data for the project reveals that, because there will not be a significant change in traffic volumes from the No-build to Build conditions, CO₂ emission burdens will most likely result in almost no change as compared to the existing conditions.

In 2009, Maryland Governor Martin O'Malley and the Maryland General Assembly passed the Greenhouse Gas Emission Reduction Act of 2009 (GGRA). The law requires the State to develop and implement a Plan (the GGRA Plan or the Plan) to reduce greenhouse gas (GHG) emissions 25 percent from a 2006 baseline by 2020. The Greenhouse Gas Emissions Reduction Act Plan was published July 25, 2013. The Plan puts the State on track to achieve the 25 percent GHG reduction required by the law while also creating jobs and improving Maryland's economy. Initiatives outlined in the Plan also will help with other environmental priorities, including restoration of the Chesapeake Bay, improving air quality and other critical energy and national security issues.

5. Construction Impacts

The construction phase of the proposed project has the potential to impact the local ambient air quality by generating fugitive dust through activities such as demolition and materials handling. The State Highway Administration has addressed this possibility by establishing "Specifications for Construction and Materials" which specifies procedures to be followed by contractors involved in site work. The Maryland Air and Radiation Management Administration was consulted to determine the adequacy of the "Specifications" in terms of satisfying the requirements of the "Regulations Governing the Control of Air Pollution in the State of Maryland". The Maryland Air and Radiation Management Administration found the specifications to be consistent with the requirements of these regulations. Therefore, during the construction period, all appropriate measures (Code of Maryland Regulations 10.18.06.03 D) would be incorporated to minimize the impact of the proposed transportation improvements on the air quality of the area. Mobile source emissions can also be minimized during construction by not permitting idling delivery trucks or other equipment during periods of unloading or other non-active use. The existing number of traffic lanes should be maintained during construction, to the maximum extent possible, and construction schedules should be planned in a manner that will not create traffic disruption and increase air pollutants. Application of these measures will ensure that construction impact of the project is insignificant.

V. AGENCY COORDINATION / INTERAGENCY CONSULTATION

By email dated August 19, 2013, copies of this air quality analysis will be circulated to the Federal Highway Administration (FHWA), the Environmental Protection Agency (EPA), the Maryland Department of the Environment (MDE), and the Baltimore Regional Transportation Board (BRTB) for a 15-day Interagency Consultation review and comment period. Response emails were received from EPA, BRTB, MDE and FHWA. All agencies agreed the project is not a project of air quality concern and does not require a hot-spot analysis. MDE had a question about the proposed land use and FHWA inquired about the TIP number, which has been confirmed. This Air Quality Analysis will be placed on SHA's website for a 15 day public review and comment period. Refer to Appendix B for Interagency Consultation emails.

APPENDIX

A: MONITORED AMBIENT AIR QUALITY DATA 2010-2012

B: INTERAGENCY CONSULTATION CORRESPONDENCE

C: PROJECT MAPPING

D: TRAFFIC MEMO



APPENDIX A: MONITORED AMBIENT AIR QUALITY DATA 2010-2012



Monitor Values Report

Geographic Area: Maryland

Pollutant: CO

Year: 2010

Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	8096	3	2.7	0	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
1 HOUR	4500	0.4	0.4	0	None	1	240230002	Frostburg Reservoir, Finzel	Not in a city	Garrett	MD	03
1 HOUR	8107	1.5	1.3	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
1 HOUR	7781	2.1	1.9	0	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

Get detailed information about this report, including column descriptions, at http://www.epa.gov/airquality/airdata/ad_about_reports.html#mon

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: CO

Year: 2010

Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	8107	2.2	1.9	0	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
8-HR RUN AVG END HOUR	4564	0.4	0.4	0	None	1	240230002	Frostburg Reservoir, Finzel	Not in a city	Garrett	MD	03
8-HR RUN AVG END HOUR	8103	1	1	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
8-HR RUN AVG END HOUR	7818	1.5	1.4	0	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: CO

Year: 2011

Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	8230	2.3	2.3	0	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
1 HOUR	8343	0.4	0.4	0	None	1	240230002	Frostburg Reservoir, Finzel	Not in a city	Garrett	MD	03
1 HOUR	8183	1.7	1.3	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
1 HOUR	8533	2.3	2.2	0	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: CO

Year: 2011

Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	8224	1.7	1.6	0	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
8-HR RUN AVG END HOUR	8430	0.4	0.3	0	None	1	240230002	Frostburg Reservoir, Finzel	Not in a city	Garrett	MD	03
8-HR RUN AVG END HOUR	8145	1.1	0.8	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
8-HR RUN AVG END HOUR	8548	1.8	1.5	0	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: CO

Year: 2012

Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	8485	2.3	2.1	0	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
1 HOUR	5921	0.3	0.3	0	None	1	240190004	University Of Maryland For Environmental And Estuarine Studies	Not in a city	Dorchester	MD	03
1 HOUR	8182	1.8	0.8	0	None	1	240230002	Frostburg Reservoir, Finzel	Not in a city	Garrett	MD	03
1 HOUR	8571	1.3	1.2	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
1 HOUR	8626	2.5	2.5	0	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: CO

Year: 2012

Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	8554	1.6	1.6	0	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
8-HR RUN AVG END HOUR	6011	0.3	0.3	0	None	1	240190004	University Of Maryland For Environmental And Estuarine Studies	Not in a city	Dorchester	MD	03
8-HR RUN AVG END HOUR	8210	0.4	0.4	0	None	1	240230002	Frostburg Reservoir, Finzel	Not in a city	Garrett	MD	03
8-HR RUN AVG END HOUR	8651	1.2	0.9	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
8-HR RUN AVG END HOUR	8713	2.1	1.6	0	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: CO

Year: 2010

Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	7828	1.4	1.4	0	None	1	100031008	Route 9, Delaware City	Not in a city	New Castle	DE	03
1 HOUR	8618	1.7	1.6	0	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
1 HOUR	8655	1.1	0.7	0	None	1	340071001	Ancora State Hospital, 202 Spring Garden Road	Winslow (Township of)	Camden	NJ	02
1 HOUR	8716	2.3	2.1	0	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
1 HOUR	8237	3.1	3	0	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: CO

Year: 2010

Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	7866	1.2	1.2	0	None	1	100031008	Route 9, Delaware City	Not in a city	New Castle	DE	03
8-HR RUN AVG END HOUR	8607	1.3	1.2	0	None	1	100032004	Milk Blvd And Justison St.	Wilmington	New Castle	DE	03
8-HR RUN AVG END HOUR	8680	0.4	0.4	0	None	1	340071001	Ancora State Hospital, 202 Spring Garden Road	Winslow (Township of)	Camden	NJ	02
8-HR RUN AVG END HOUR	8715	1.8	1.7	0	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
8-HR RUN AVG END HOUR	8575	2.4	1.8	0	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: CO

Year: 2011

Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	8615	1.6	1.1	0	None	1	100031008	Route 9, Delaware City	Not in a city	New Castle	DE	03
1 HOUR	8422	1.7	1.7	0	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
1 HOUR	4196	0.7	0.6	0	None	1	340071001	Ancora State Hospital, 202 Spring Garden Road	Winslow (Township of)	Camden	NJ	02
1 HOUR	8684	2.4	2.1	0	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
1 HOUR	7893	2.6	2.5	0	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
1 HOUR	7669	2.2	2.1	0	None	1	421011002	5200 Pennypack Park Philadelphia, Pa. 19136	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: CO

Year: 2011

Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	8633	0.8	0.7	0	None	1	100031008	Route 9, Delaware City	Not in a city	New Castle	DE	03
8-HR RUN AVG END HOUR	8429	1.5	1.1	0	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
8-HR RUN AVG END HOUR	4216	0.3	0.3	0	None	1	340071001	Ancora State Hospital, 202 Spring Garden Road	Winslow (Township of)	Camden	NJ	02
8-HR RUN AVG END HOUR	8681	1.8	1.8	0	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
8-HR RUN AVG END HOUR	8137	2.2	1.7	0	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
8-HR RUN AVG END HOUR	7820	1.2	1.2	0	None	1	421011002	5200 Pennypack Park Philadelphia, Pa. 19136	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: CO

Year: 2012

Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	7509	1.2	1.2	0	None	1	100031008	Route 9, Delaware City	Not in a city	New Castle	DE	03
1 HOUR	8220	2.1	2.1	0	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
1 HOUR	5859	2.2	2.2	0	None	1	340070002	266 Spruce Street	Camden	Camden	NJ	02
1 HOUR	8492	2.1	1.9	0	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
1 HOUR	8088	2.7	2.3	0	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
1 HOUR	7803	2.1	2.1	0	None	1	421011002	5200 Pennypack Park Philadelphia, Pa. 19136	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: CO

Year: 2012

Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	7514	1.1	0.8	0	None	1	100031008	Route 9, Delaware City	Not in a city	New Castle	DE	03
8-HR RUN AVG END HOUR	8253	1.8	1.3	0	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
8-HR RUN AVG END HOUR	5879	1.7	1.4	0	None	1	340070002	266 Spruce Street	Camden	Camden	NJ	02
8-HR RUN AVG END HOUR	8488	1.3	1.2	0	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
8-HR RUN AVG END HOUR	8516	1.9	1.5	0	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
8-HR RUN AVG END HOUR	7921	1.6	1.5	0	None	1	421011002	5200 Pennypack Park Philadelphia, Pa. 19136	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: PM2.5

Year: 2010

Exceptional Events: Included (if any)

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	352	36.1	34.7	33.4	33.1	28	11	None	1	240031003	Anne Arundel Co. Public Works Bldg. 7409 Baltimore Annapolis Blvd.	Glen Burnie	Anne Arundel	MD	03
24 HOUR	118	32	29.7	21.1	21	21	10.3	None	1	240051007	Padonia Elementary School, 9834 Greenside Drive	Cockeysville	Baltimore	MD	03
24 HOUR	30	31.5	20	19.1	17.7	32	11.5	None	2	240051007	Padonia Elementary School, 9834 Greenside Drive	Cockeysville	Baltimore	MD	03
24 HOUR	112	37.3	33.6	28.6	25.2	29	11.6	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
24 HOUR	57	20.8	18.4	18.4	17	21	9.2	None	1	240150003	4600 Telegraph Road	Not in a city	Cecil	MD	03
24 HOUR	112	24.4	23.2	21.6	20.7	22	9.5	None	1	240251001	Edgewood Chemical Biological Center (Apg), Waehli Road	Edgewood	Harford	MD	03
24 HOUR	50	18.6	17.7	17.2	16.9	19	9.1	None	1	240313001	Lathrop E. Smith Environmental Education Center, 5110 Meadowside Lane	Not in a city	Montgomery	MD	03
24 HOUR	115	35.7	32.4	24.9	24.9	25	11.5	None	1	240330025	Bladensburg Volunteer Fire Department, 4213 Edmondson Road	Bladensburg	Prince George's	MD	03
24 HOUR	107	34.4	20.3	19.8	18.6	20	9.4	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24 HOUR	12	17.2	14.4	14	13.8	17	9.8	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24 HOUR	112	21.4	21.3	20.9	19.9	21	9.5	None	1	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
24 HOUR	27	19.3	18.6	15.1	14.2	19	10.1	None	2	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: PM2.5

Year: 2011

Exceptional Events: Included (if any)

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	112	26.4	24.7	24.4	22.7	24	10.7	None	1	240031003	Anne Arundel Co. Public Works Bldg. 7409 Baltimore Annapolis Blvd.	Glen Burnie	Anne Arundel	MD	03
24 HOUR	110	28.6	27.2	22.8	20.9	23	9.7	None	1	240051007	Padonia Elementary School, 9834 Greenside Drive	Cockeysville	Baltimore	MD	03
24 HOUR	28	26.8	21.2	20.2	17.5	27	10	None	2	240051007	Padonia Elementary School, 9834 Greenside Drive	Cockeysville	Baltimore	MD	03
24 HOUR	116	26.7	26.6	26.3	26.3	26	10.7	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
24 HOUR	72	25	24.5	20.6	20.5	25	10.3	None	1	240251001	Edgewood Chemical Biological Center (Apg), Waehli Road	Edgewood	Harford	MD	03
24 HOUR	108	27	25.4	22.6	21.6	23	10.1	None	1	240330025	Bladensburg Volunteer Fire Department, 4213 Edmondson Road	Bladensburg	Prince George's	MD	03
24 HOUR	123	24.7	22	21.8	21	22	8.7	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24 HOUR	37	24.3	15.1	12.7	12.7	24	8.2	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24 HOUR	118	28.8	25.8	21.1	20.4	21	8.9	None	1	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
24 HOUR	28	15	13.9	12.7	11.9	15	7.8	None	2	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
24 HOUR	115	26.4	25.2	23.2	21.7	23	9.9	None	1	245100006	Northeast Police Station, 1900 Argonne Drive	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Maryland

Pollutant: PM2.5

Year: 2012

Exceptional Events: Included (if any)

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	119	30.1	23.4	23	21.7	23	10.2	None	1	240031003	Anne Arundel Co. Public Works Bldg. 7409 Baltimore Annapolis Blvd.	Glen Burnie	Anne Arundel	MD	03
24 HOUR	112	29.5	22.6	21.5	18.3	22	8.9	None	1	240051007	Padonia Elementary School, 9834 Greenside Drive	Cockeysville	Baltimore	MD	03
24 HOUR	41	21	18	16.8	13.7	21	9.1	None	2	240051007	Padonia Elementary School, 9834 Greenside Drive	Cockeysville	Baltimore	MD	03
24 HOUR	116	28.2	25.5	24.7	23.6	25	10.7	None	1	240053001	600 Dorsey Avenue	Essex	Baltimore	MD	03
24 HOUR	121	25	22.3	21.7	20.8	22	8.5	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24 HOUR	43	25	22.1	15.4	13.9	25	8.3	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24 HOUR	96	24.7	23.8	15	14.7	24	7.9	None	1	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
24 HOUR	35	14.8	14.7	14.2	12.6	15	7.8	None	2	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
24 HOUR	121	23.8	22.5	22.1	21.8	22	9.3	None	1	245100007	Northwest Police Station, 5271 Reistertown Road	Baltimore	Baltimore (City)	MD	03
24 HOUR	111	23.7	22.6	22.5	20	23	9.6	None	1	245100008	Baltimore City Fire Dept.-Truck Company 20; 5714 Eastern Avenue , Baltimore, Maryland 21224	Baltimore	Baltimore (City)	MD	03
24 HOUR	304	26.3	25.5	24.4	23.7	23	10	None	1	245100040	Oldtown Fire Station, 1100 Hillen Street	Baltimore	Baltimore (City)	MD	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: PM2.5

Year: 2010

Exceptional Events: Included (if any)

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	117	28.9	26.2	24.3	23.6	24	10.2	None	1	100031003	River Road Park, Bellefonte	Not in a city	New Castle	DE	03
24 HOUR	114	28.6	27.9	27.5	19.7	28	10	None	1	100031007	Lums Pond State Park	Not in a city	New Castle	DE	03
24 HOUR	113	28.2	25.2	24.9	22	25	10.4	None	1	100031012	Univ. De North Campus	Newark	New Castle	DE	03
24 HOUR	345	40	32.7	30.4	30.3	28	10.6	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24 HOUR	51	25.9	22.9	20	19.2	26	11.3	None	2	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24 HOUR	57	20.8	18.4	18.4	17	21	9.2	None	1	240150003	4600 Telegraph Road	Not in a city	Cecil	MD	03
24 HOUR	117	29	25.2	23.4	22	23	9.5	None	1	340071007	Morris Delair Water Treatment Plant, Off Griffith-Morgan Lane	Pennsauken (Pensauken)	Camden	NJ	02
24 HOUR	113	24.9	22.9	21.6	20.9	22	9.1	None	1	340150004	Municipal Maintenance Yard, North School Street, North Of Morse Avenue	Greenwich (Township of)	Gloucester	NJ	02
24 HOUR	343	43.8	33.6	33	31.5	29	10.4	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
24 HOUR	51	26.8	25.6	21.2	20.5	26	11	None	2	420450002	Front St & Norris St	Chester	Delaware	PA	03
24 HOUR	326	38.9	30.9	30.5	29.4	26	9.5	None	1	420910013	State Armory - 1046 Belvoir Rd	Norristown	Montgomery	PA	03
24 HOUR	329	44.2	34.2	33.6	29.7	28	10.7	None	1	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
24 HOUR	52	25.2	24.7	21.7	20.8	25	11	None	2	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
24 HOUR	352	27.7	26.3	26.1	25.8	25	9.6	None	1	421010024	Grant-Ashton Roads Phila Ne Airport	Philadelphia	Philadelphia	PA	03
24 HOUR	316	42.7	32	31.6	30.3	32	10.9	None	1	421010047	500 South Broad Street-Parking Lot (Chs)	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: PM2.5

Year: 2010

Exceptional Events: Included (if any)

Duration Description=24-HR BLK AVG

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24-HR BLK AVG	347	64.8	47.8	36.3	36.2	33	12	None	3	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24-HR BLK AVG	315	34.8	33.4	33	32.7	32	12	None	3	240150003	4600 Telegraph Road	Not in a city	Cecil	MD	03
24-HR BLK AVG	191	50.6	43.3	38.4	35.2	35	12.7	None	3	420170012	Rockview Lane	Bristol	Bucks	PA	03
24-HR BLK AVG	341	39	38.9	38.6	36.7	35	13.8	None	3	420290100	New Garden Airport - Toughkenamon	Not in a city	Chester	PA	03
24-HR BLK AVG	346	42.6	34.5	33.8	33.7	33	13.5	None	3	420450002	Front St & Norris St	Chester	Delaware	PA	03
24-HR BLK AVG	79	41.1	32.6	31.9	31	33	11.8	None	3	420910013	State Armory - 1046 Belvoir Rd	Norristown	Montgomery	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: PM2.5

Year: 2011

Exceptional Events: Included (if any)

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	109	25.5	23	22.4	20.4	22	9.4	None	1	100031003	River Road Park, Bellefonte	Not in a city	New Castle	DE	03
24 HOUR	109	27	21.5	21	20.9	22	8.8	None	1	100031007	Lums Pond State Park	Not in a city	New Castle	DE	03
24 HOUR	107	26.2	23.9	22.2	22	22	10.4	None	1	100031012	Univ. De North Campus	Newark	New Castle	DE	03
24 HOUR	323	32	31.2	30.3	30.2	25	10.3	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24 HOUR	53	28.6	24.1	24	17.3	24	9.6	None	2	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24 HOUR	120	27	26.3	24.3	24	24	10.1	None	1	340071007	Morris Delair Water Treatment Plant, Off Griffith-Morgan Lane	Pennsauken (Pennsauken)	Camden	NJ	02
24 HOUR	117	30.7	23.8	22.2	22	22	9.4	None	1	340150004	Municipal Maintenance Yard, North School Street, North Of Morse Avenue	Greenwich (Township of)	Gloucester	NJ	02
24 HOUR	340	49.6	35	34.2	34	30	11.7	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
24 HOUR	55	27.4	23.5	21.8	17.5	24	9.8	None	2	420450002	Front St & Norris St	Chester	Delaware	PA	03
24 HOUR	339	33.7	33.2	31	28.8	28	10.2	None	1	420910013	State Armory - 1046 Belvoir Rd	Norristown	Montgomery	PA	03
24 HOUR	57	25.3	23.7	17.7	16.1	24	8.9	None	2	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
24 HOUR	308	37	34.5	31.5	31.4	32	11.3	None	1	421010047	500 South Broad Street-Parking Lot (Chs)	Philadelphia	Philadelphia	PA	03
24 HOUR	310	37.2	32.1	32.1	31	28	11.4	None	4	421010047	500 South Broad Street-Parking Lot (Chs)	Philadelphia	Philadelphia	PA	03
24 HOUR	335	36	32.8	32.6	32.4	31	11.4	None	1	421010055	24th & Ritner Streets	Philadelphia	Philadelphia	PA	03

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Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: PM2.5

Year: 2011

Exceptional Events: Included (if any)

Duration Description=24-HR BLK AVG

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24-HR BLK AVG	349	41	37.8	34.5	34.4	30	12.1	None	3	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24-HR BLK AVG	336	37.2	32.1	31.4	30.5	29	10.9	None	3	240150003	4600 Telegraph Road	Not in a city	Cecil	MD	03
24-HR BLK AVG	345	55.6	39.3	35.7	34.6	32	11.8	None	3	420170012	Rockview Lane	Bristol	Bucks	PA	03
24-HR BLK AVG	297	47.1	40.3	36.7	35	34	13.3	None	3	420290100	New Garden Airport - Toughkenamon	Not in a city	Chester	PA	03
24-HR BLK AVG	336	39.8	36.5	35.5	34.3	29	13	None	3	420450002	Front St & Norris St	Chester	Delaware	PA	03
24-HR BLK AVG	311	42.4	36.2	35.8	35	30	11.7	None	3	420910013	State Armory - 1046 Belvoir Rd	Norristown	Montgomery	PA	03
24-HR BLK AVG	346	40.2	39.2	35.9	35.2	30	13.4	None	3	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
24-HR BLK AVG	270	30.5	19.3	19.1	16.5	19	8.4	None	3	421011002	5200 Pennypack Park Philadelphia, Pa. 19136	Philadelphia	Philadelphia	PA	03

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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: PM2.5

Year: 2012

Exceptional Events: Included (if any)

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	116	24.8	21.9	21.5	20.2	22	9.3	None	1	100031003	River Road Park, Bellefonte	Not in a city	New Castle	DE	03
24 HOUR	110	23.8	22.7	21.1	18.2	21	8.5	None	1	100031007	Lums Pond State Park	Not in a city	New Castle	DE	03
24 HOUR	110	23.4	22	21.3	20.7	21	9.4	None	1	100031012	Univ. De North Campus	Newark	New Castle	DE	03
24 HOUR	336	30.6	30.2	28.7	28.2	24	10.3	None	1	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24 HOUR	56	23.3	21.4	21.3	20.4	21	10.6	None	2	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24 HOUR	75	23	21.5	19.7	19.3	22	9.7	None	1	340070002	266 Spruce Street	Camden	Camden	NJ	02
24 HOUR	119	23.2	20.9	19.8	19.4	20	9	None	1	340071007	Morris Delair Water Treatment Plant, Off Griffith-Morgan Lane	Pennsauken (Pensauken)	Camden	NJ	02
24 HOUR	121	25.2	22.3	21.8	20.9	22	9.4	None	1	340150004	Municipal Maintenance Yard, North School Street, North Of Morse Avenue	Greenwich (Township of)	Gloucester	NJ	02
24 HOUR	342	36	35.2	34.9	34.9	29	10.9	None	1	420170012	Rockview Lane	Bristol	Bucks	PA	03
24 HOUR	78	24.8	24.2	23	22.7	24	10.4	None	1	420290100	New Garden Airport - Toughkenamon	Not in a city	Chester	PA	03
24 HOUR	54	23.5	23.3	22.2	19.6	23	10.8	None	2	420450002	Front St & Norris St	Chester	Delaware	PA	03
24 HOUR	337	28	27.5	26.5	25.7	23	9.9	None	1	420910013	State Armory - 1046 Belvoir Rd	Norristown	Montgomery	PA	03
24 HOUR	47	21.1	19.3	18.9	18.7	21	9.7	None	2	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
24 HOUR	337	34.7	27.3	24.2	24.2	24	10.2	None	1	421010047	500 South Broad Street-Parking Lot (Chs)	Philadelphia	Philadelphia	PA	03
24 HOUR	331	33.7	26.9	25	24.6	22	10.1	None	4	421010047	500 South Broad Street-Parking Lot (Chs)	Philadelphia	Philadelphia	PA	03

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<http://www.epa.gov/airquality/airdata/ad_contacts.html>

Readers are cautioned not to rank order geographic areas based on AirData reports. Air pollution levels measured at a particular monitoring site are not necessarily representative of the air quality for an entire county or urban area.

This report is based on monitor-level summary statistics. Air quality standards for some pollutants (PM2.5 and Pb) allow for combining data from multiple monitors into a site-level summary statistic that can be compared to the standard. In those cases, the site-level statistics may differ from the monitor-level statistics upon which this report is based.

Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

Monitor Values Report

Geographic Area: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

Pollutant: PM2.5

Year: 2012

Exceptional Events: Included (if any)

Duration Description=24-HR BLK AVG

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24-HR BLK AVG	352	31.7	31.2	30	29.3	26	11.3	None	3	100032004	Mlk Blvd And Justison St.	Wilmington	New Castle	DE	03
24-HR BLK AVG	354	26	25.2	23.3	23.2	22	9.3	None	3	240150003	4600 Telegraph Road	Not in a city	Cecil	MD	03
24-HR BLK AVG	342	40.5	36.3	36.2	35.3	27	10.9	None	3	420170012	Rockview Lane	Bristol	Bucks	PA	03
24-HR BLK AVG	317	29.9	27	26.9	24.6	23	9.7	None	3	420290100	New Garden Airport - Toughkenamon	Not in a city	Chester	PA	03
24-HR BLK AVG	288	35.5	33.9	32.2	31.7	31	13.1	None	3	420450002	Front St & Norris St	Chester	Delaware	PA	03
24-HR BLK AVG	332	27.5	25.8	24.8	24.2	23	8	None	3	420910013	State Armory - 1046 Belvoir Rd	Norristown	Montgomery	PA	03
24-HR BLK AVG	359	40.4	36	34	33.5	31	16.5	None	3	421010004	1501 E. Lycoming Ave.	Philadelphia	Philadelphia	PA	03
24-HR BLK AVG	293	31.1	28.7	25.1	24.6	25	11.5	None	3	421011002	5200 Pennypack Park Philadelphia, Pa. 19136	Philadelphia	Philadelphia	PA	03

Get detailed information about this report, including column descriptions, at http://www.epa.gov/airquality/airdata/ad_about_reports.html#mon

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems.

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This report is based on monitor-level summary statistics. Air quality standards for some pollutants (PM2.5 and Pb) allow for combining data from multiple monitors into a site-level summary statistic that can be compared to the standard. In those cases, the site-level statistics may differ from the monitor-level statistics upon which this report is based.

Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>

Generated: June 19, 2013

APPENDIX B: INTERAGENCY CONSULTATION CORRESPONDENCE



Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Wednesday, August 28, 2013 8:41 AM
To: Nicole M. Hebert; Shawn Burnett
Subject: FW: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

FYI

From: Khadr, Asrah [<mailto:Khadr.Asrah@epa.gov>]
Sent: Tuesday, August 27, 2013 4:02 PM
To: Christina Brandt
Cc: Becoat, gregory; Rudnick, Barbara; McCurdy, Alaina
Subject: RE: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

I concur with the recommendation provided in the Air Quality Analysis Technical Report that this project does not require a hot-spot analysis.

Asrah Khadr, Environmental Engineer, EIT
U.S. Environmental Protection Agency, Region III
Air Protection Division
Office of Air Program Planning
1650 Arch Street
Philadelphia, PA 19103
Phone: 215-814-2071

From: Christina Brandt [<mailto:CBrandt@sha.state.md.us>]
Sent: Monday, August 19, 2013 9:39 AM
To: 'bhug@mde.state.md.us'; 'jeanette.mar@dot.gov'; McCurdy, Alaina; Rudnick, Barbara; Becoat, gregory; Khadr, Asrah; 'mrutkowski@mde.state.md.us'; 'Sara Tomlinson'; 'Regina Aris'
Cc: 'Shawn Burnett'; 'Nicole M. Hebert'
Subject: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Good Morning,

Attached is the PM2.5 Conformity Determination for the MD 140 from south of Painter's Mill Road to North of Garrison View Road project located in Baltimore County, Maryland.

SHA is requesting concurrence that this project meets the requirements of the Clean Air Act and 40 CFR 93 without an additional quantitative hot-spot analysis.

The proposed project is listed in the 2012-2015 TIP with ID# 63-1203-19.

Please review and provide concurrence/comments prior to September 3, 2013.

Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Wednesday, September 04, 2013 7:10 AM
To: Shawn Burnett; Nicole M. Hebert
Subject: FW: MD 140 North of Painters Mill Rd to South of Garrison View Rd

From: Howard Simons
Sent: Tuesday, September 03, 2013 5:08 PM
To: Sara Tomlinson
Cc: Brian J. Hug; 'Marcia Ways'; Mary Jane Rutkowski; Christina Brandt; Heather Murphy
Subject: RE: MD 140 North of Painters Mill Rd to South of Garrison View Rd

I have reviewed this project and concur that the project is not of AQ concern. Unless making a early delivery off over Reisterstown road the majority of trucks will remain on I-795.

From: Sara Tomlinson [<mailto:stomlinson@baltometro.org>]
Sent: Tuesday, September 03, 2013 3:44 PM
To: Brian Hug; Mary Jane Rutkowski; Howard Simons; Tyson Byrne; Emery Hines; Regina Aris
Subject: MD 140 North of Painters Mill Rd to South of Garrison View Rd

Hi all,

SHA has developed an air quality report for the MD 140 North of Painters Mill Rd to South of Garrison View Rd project in Baltimore County. You should have already received this report by email. The report concludes that the project is not "of air quality concern" and therefore does not require a hot spot analysis. They are asking that the ICG concur with this decision.

Staff also recommends that this project is not of air quality concern. The SHA report indicates that there is no difference between no-build and build daily truck volumes.

Please indicate whether or not you agree with the SHA assessment.

Thank you,
Sara Tomlinson

Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Wednesday, September 04, 2013 10:14 AM
To: Shawn Burnett; Nicole M. Hebert
Subject: FW: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

FYI

From: Mary Jane Rutkowski -MDE- [mailto:maryjane.rutkowski@maryland.gov]
Sent: Wednesday, September 04, 2013 10:12 AM
To: Christina Brandt
Subject: Re: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Thanks Chrissy! I sent our response to Sara Tomlinson yesterday -- no objections.

On Wed, Sep 4, 2013 at 10:07 AM, Christina Brandt <CBrandt@sha.state.md.us> wrote:

Good Morning Mary Jane,

While the property along southbound MD 140 is be slated for new commercial development, the previous zoning/land use was industrial/manufacturing. Since the commercial site would be likely to generate equal or fewer truck trips, we assumed that the change in land use was not significant and would not impact air quality. Please feel free to give me a call if you would like to discuss further.

Thank You!

Chrissy

Christina Brandt

Environmental Manager

OPPE-Environmental Planning Division

MD State Highway Administration

707 North Calvert Street, Mail Stop C-301

Baltimore, MD 21202

Phone: [410-545-2874](tel:410-545-2874)

E-mail: cbrandt@sha.state.md.us

From: Mary Jane Rutkowski -MDE- [mailto:maryjane.rutkowski@maryland.gov]

Sent: Tuesday, September 03, 2013 4:24 PM

To: Christina Brandt

Cc: Sara Tomlinson; Brian Hug -MDE-

Subject: Re: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Hi Chrissy

I am reviewing the MD-140 project and I have a question -
- If that stretch of roadway is along a commercial site that is slated for new development (I'm thinking a new Wegmans grocery store), doesn't that count as a significant change in land use? I am inclined to think that the new development could attract significant truck traffic to its site. Combined with the trucks that were using other roads to avoid the congested road and are now anticipated to return, is it reasonable to assume no air quality impact?

I am inclined to concur with BMC staff that there is no significant air quality impact, but I would like answers, if possible. Thanks!

Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Thursday, September 05, 2013 7:28 AM
To: Shawn Burnett; Nicole M. Hebert
Subject: FW: MD 140 from south of Painter's Mill Road to North of Garrison View Road

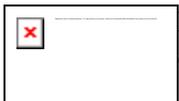
I think this is everyone, right?

From: Sara Tomlinson [<mailto:stomlinson@baltometro.org>]
Sent: Wednesday, September 04, 2013 4:47 PM
To: Christina Brandt
Cc: Todd Lang; Regina Aris
Subject: MD 140 from south of Painter's Mill Road to North of Garrison View Road

The Interagency Consultation Group of the Baltimore Regional Transportation Board **concurs** that the MD 140 from south of Painter's Mill Road to North of Garrison View Road project is *not a project of air quality concern*.

Thank you,

Sara Tomlinson



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Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Wednesday, September 11, 2013 9:08 AM
To: Shawn Burnett; Nicole M. Hebert
Subject: FW: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Hi Shawn and Nicole,

I am following up with RIPD on Jeanette's question. This should be the last concurrence so can you finalize the report and I will have it posted.

Thanks!!

Chrissy

From: Jeanette.Mar@dot.gov [<mailto:Jeanette.Mar@dot.gov>]
Sent: Tuesday, September 10, 2013 5:55 PM
To: Christina Brandt
Subject: RE: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Hi Chrissy:

I concur that the MD 140 from south of Painter's Mill Road to north of Garrison View Road project meets the requirements of the CAA and 40 CFR 93 and does not need an additional quantitative hot-spot analysis.

But I have one question on the TIP. I could not find this project 63-1203-19 in the Baltimore County 2012 TIP. What year is this project in the TIP? Do I have the correct project number? Please check for me.

Thanks!

Jeanette

Jeanette Mar
Environmental Program Manager
FHWA - DelMar Division
10 South Howard Street, Suite 2450
Baltimore, MD 21201
phone (410) 779-7152
fax (410) 962-4054

From: Christina Brandt [<mailto:CBrandt@sha.state.md.us>]
Sent: Tuesday, September 10, 2013 9:15 AM
To: Mar, Jeanette (FHWA)
Subject: FW: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Good Morning Jeanette,

I wanted to follow up to see if you had any comments on the attached report. Let me know if you need more time to review.

Thanks!

Chrissy

From: Christina Brandt
Sent: Monday, August 19, 2013 9:39 AM
To: 'bhug@mde.state.md.us'; 'jeanette.mar@dot.gov'; 'McCurdy.Alaina@epa.gov'; 'Rudnick.Barbara@epamail.epa.gov'; 'Becoat, gregory'; 'Khadr, Asrah'; 'mrutkowski@mde.state.md.us'; 'Sara Tomlinson'; 'Regina Aris'
Cc: 'Shawn Burnett'; 'Nicole M. Hebert'
Subject: MD 140 from Painters' Mill Rd to Garrison View Rd - Air Quality Interagency Consultation

Good Morning,

Attached is the PM2.5 Conformity Determination for the MD 140 from south of Painter's Mill Road to North of Garrison View Road project located in Baltimore County, Maryland.

SHA is requesting concurrence that this project meets the requirements of the Clean Air Act and 40 CFR 93 without an additional quantitative hot-spot analysis.

The proposed project is listed in the 2012-2015 TIP with ID# 63-1203-19.

Please review and provide concurrence/comments prior to September 3, 2013.

Thank you,

Chrissy

Christina Brandt

Environmental Manager

OPPE-Environmental Planning Division

MD State Highway Administration

APPENDIX C: PROJECT MAPPING

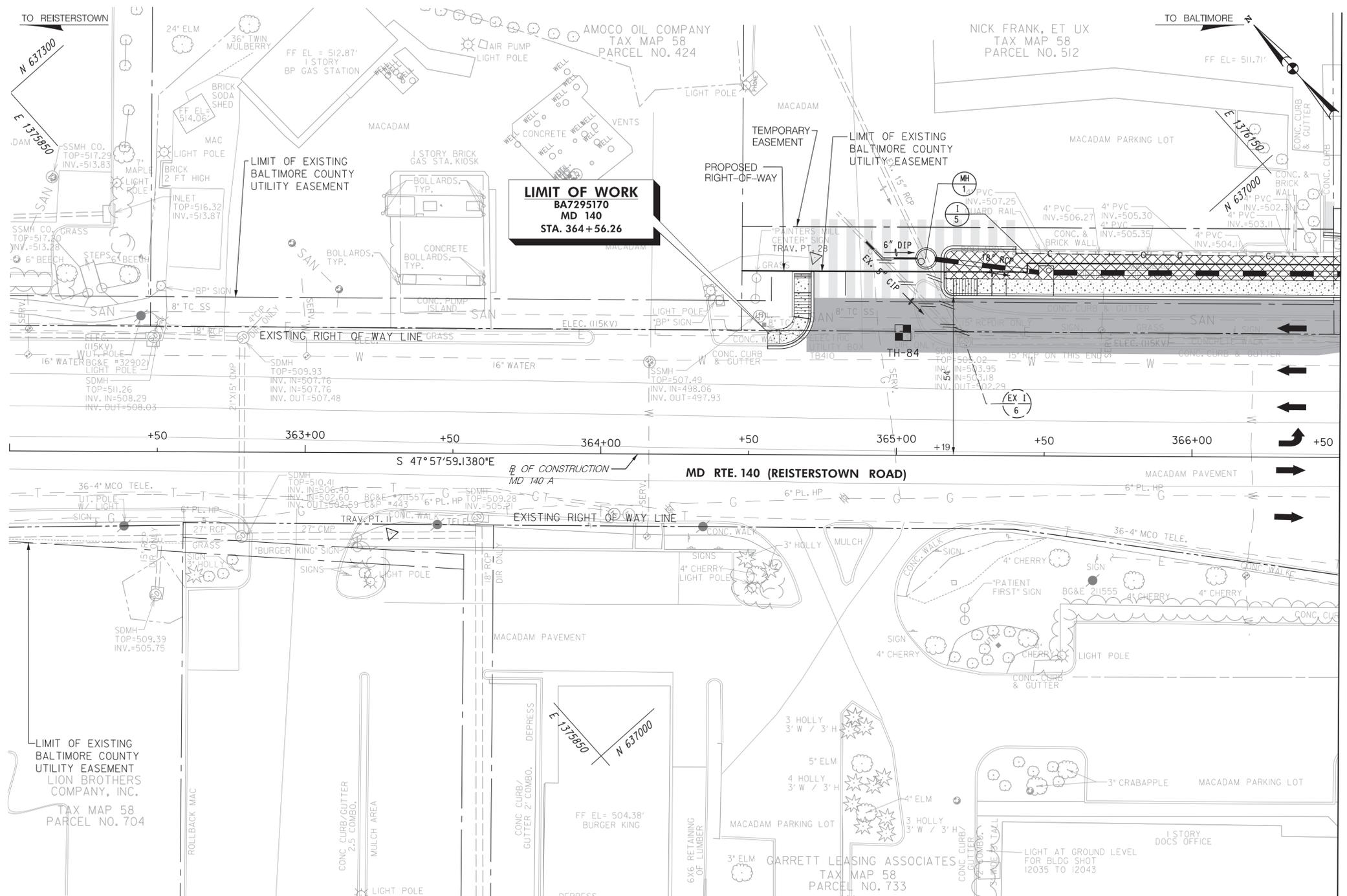


TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 84	365+02.02	-41.36	637038.5533	1376021.2704	501.11'	4.53'	8" STEEL CONDUIT ELECTRIC

REMOVE EXISTING PIPE CULVERT				
BASELINE	START STATION / OFFSET	END STATION / OFFSET	LENGTH (LF)	REMARKS
MD 140	365+26.39' LT	366+50.40' LT	124	24" CMP

REMOVE EXISTING STORM DRAIN STRUCTURES				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	365+23	38' LT	1	INLET

QUANTITY NOTES		
MODIFIED STANDARD TYPE 'A' COMBINATION CONCRETE CURB AND GUTTER 12 INCH GUTTER PAN 12 INCH DEPTH (SEE STD. NO. MD 620.02)		
STATION	L.F.	REMARKS
364+56 TO 364+72, LT	35'	
365+15 TO 366+50, LT	172'	
366+44 TO 366+50, LT	6'	
1' CONCRETE SLOT		
STATION	L.F.	REMARKS
364+56 TO 364+69, LT	15'	
5 INCH CONCRETE SIDEWALK		
STATION	S.F.	REMARKS
364+56 TO 364+70, LT	146	ISLAND
365+16 TO 366+50, LT	666	
SIDEWALK RAMP		
STATION	TYPE	REMARKS
364+70.18, 57.2 LT	TYPE B	
365+16.54, 57.2 LT	TYPE B	
PLACE FURNISHED TOPSOIL 4 INCH DEPTH		
STATION	S.Y.	REMARKS
365+16 TO 366+50, LT	124	
TURFGRASS ESTABLISHMENT		
STATION	S.Y.	REMARKS
365+16 TO 366+50, LT	124	
6 INCH PERFORATED CIRCULAR PIPE UNDERDRAIN (SEE STD. NO. MD 387.11)		
STATION	L.F.	REMARKS
365+17 TO 366+50, LT	133'	
STANDARD TYPE A CURB 8 INCH X 16 INCH		
STATION	L.F.	REMARKS
364+65 TO 364+71, LT	19'	H. RAMP



MATCH LINE STA. 366+50 - SEE SHEET PS-02

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

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	TYPE 'B' SOIL STABILIZATION MATTING
	PROPOSED TRAVEL LANE
	DRIVEWAY / PARKING HMA
	TREE REMOVAL
	DETECTABLE WARNING SURFACE
	EXISTING UTILITY POLE
	RELOCATED UTILITY POLE

WARNING:
 2-115,000 - volt high-pressure oil filled (@250 PSI) pipe type cables. Hand digging is required when working in the area of the cables and BGE inspector needs to be present. Call BGE @ 410-291-3094 or 410-291-3121 48 hours prior to excavation to have inspector present. Damage to these cables is extremely costly to those who damage them.

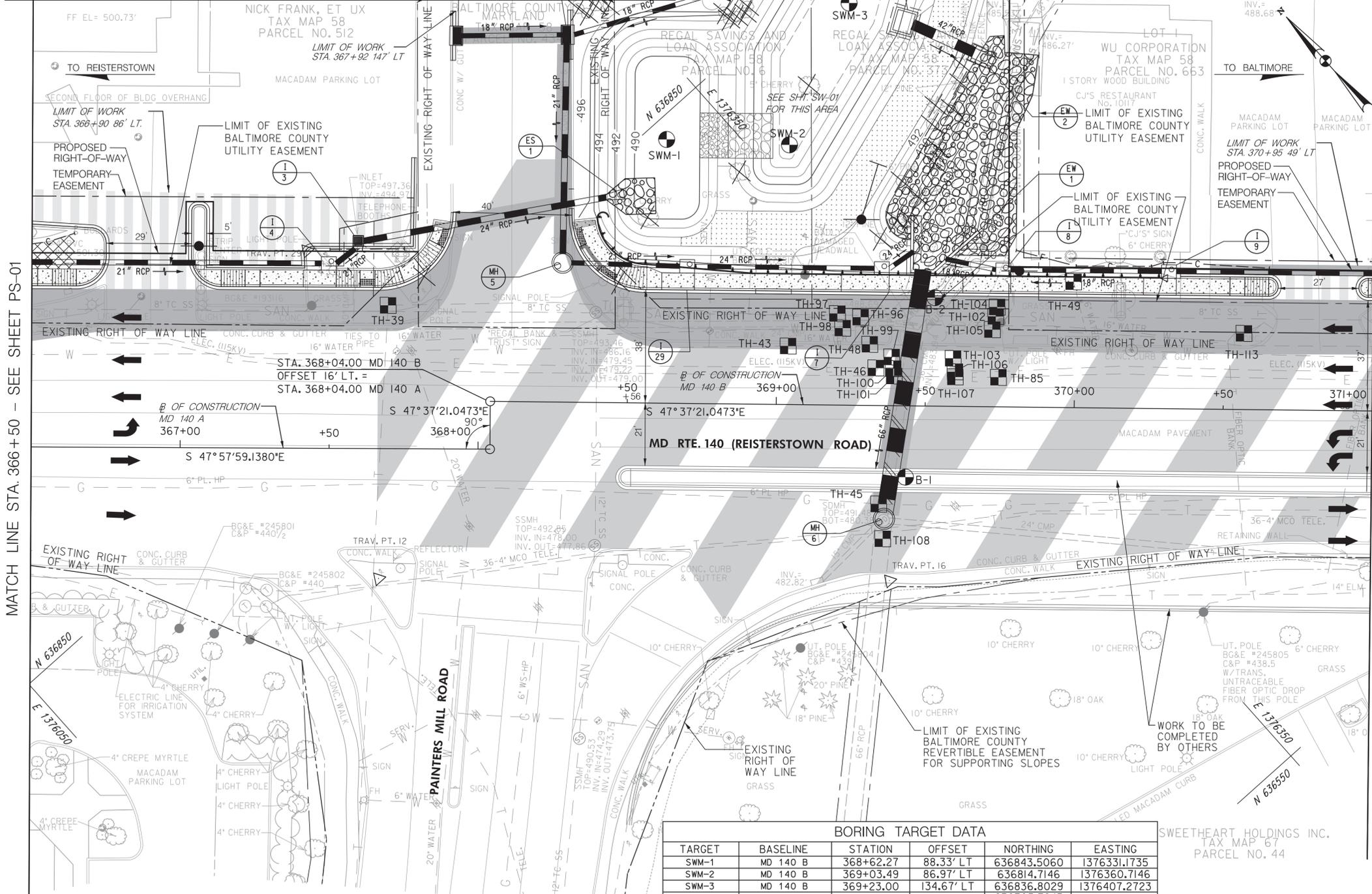
0 10 20 40
 SCALE IN FEET

CROSS REFERENCE	R / W PLAT NUMBER	REVISIONS
ITEM SHEET NOS.		
TYPICAL SECTION SHEETS	TS-01	
GEOMETRIC LAYOUT SHEETS	GS-01	
ROADWAY PROFILE SHEETS	PR-01	

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
 NORTH OF PAINTERS MILL ROAD TO
 SOUTH OF GARRISON VIEW ROAD

ROADWAY PLAN			
SCALE	1" = 20'	DATE	MAY 3, 2013
CONTRACT NO.	BA7295170		
DESIGNED BY	DIR /JDG	COUNTY	BALTIMORE COUNTY
DRAWN BY	SJS	LOGMILE	4.580 TO 5.025
CHECKED BY	KBK	HORIZONTAL SCALE	N/A
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	N/A
DRAWING NO.	PS-01	OF	07
SHEET NO.	17	OF	

TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 39	367+69.60	-48.01	636864.3291	1376224.4674	494.94'	1.70'	(3)-2" CABLES TELEPHONE F.O.
TH # 43	369+03.77	-19.6	636764.7582	1376315.5089	488.59'	3.40'	30" C.I. WATER
TH # 45	369+34.74	32.97	636705.0452	1376302.9536	488.36'	3.22'	6" PLASTIC GAS
TH # 46	369+33.33	-12.58	636739.6512	1376332.6091	489.33'	2.45'	8" STEEL CONDUIT ELECTRIC
TH # 48	369+31.17	-20.49	636746.9468	1376336.3476	488.60'	3.16'	16" C.I. WATER
TH # 49	369+99.36	-42.15	636716.9934	1376401.3217	487.82'	4.75'	1/2" COPPER WATER
TH # 85	369+74.47	-9.87	636709.9223	1376361.1764	488.93'	3.00'	8" STEEL CONDUIT ELECTRIC



MATCH LINE STA. 366+50 - SEE SHEET PS-01

MATCH LINE STA. 371+00 - SEE SHEET PS-03

QUANTITY NOTES

MODIFIED STANDARD TYPE 'A' COMBINATION CONCRETE CURB AND GUTTER 12 INCH GUTTER PAN 12 INCH DEPTH (SEE STD. NO. MD 620.02)		
STATION	L.F.	REMARKS
366+50 TO 366+74, LT	63'	
367+03 TO 367+91, LT	255'	
368+30 TO 370+68, LT	300'	
370+95 TO 371+00, LT	13'	

1' CONCRETE SLOT		
STATION	L.F.	REMARKS
370+35 TO 370+68, LT	33'	
370+95 TO 371+00, LT	5'	

5 INCH CONCRETE SIDEWALK		
STATION	S.F.	REMARKS
366+50 TO 366+73, LT	104	
367+05 TO 367+89, LT	440	
368+31 TO 370+67, LT	1274	
370+95 TO 371+00, LT	18	

SIDEWALK RAMP AND DETECTABLE WARNING SURFACE (MD STD 655.40)		
STATION	TYPE	WARNING SURFACE (SF)
366+69.72, 56.0 LT	TYPE A	
367+08.71, 56.0 LT	TYPE A	
367+62.63, 54.7 LT	655.12	10
367+89.03, 70.5 LT	655.12	12
368+32.76, 55.2 LT	655.12	12
368+42.62, 42.6 LT	655.12	12
370+67.35, 41.2 LT	TYPE B	
370+95.79, 41.2 LT	TYPE B	

PLACE FURNISHED TOPSOIL 4 INCH DEPTH		
STATION	S.Y.	REMARKS
366+50 TO 366+74, LT	29	
367+04 TO 367+08, LT	8	
367+42 TO 367+85, LT	27	
368+52 TO 369+45, LT	28	
369+76 TO 370+35, LT	23	

TURFGRASS ESTABLISHMENT		
STATION	S.Y.	REMARKS
366+50 TO 366+74, LT	29	
367+04 TO 367+08, LT	8	
367+42 TO 367+85, LT	27	
368+52 TO 369+45, LT	28	
369+76 TO 370+35, LT	23	

6 INCH PERFORATED CIRCULAR PIPE UNDERDRAIN (SEE STD. NO. MD 387.11)		
STATION	L.F.	REMARKS
366+50 TO 367+90, LT	148'	
368+33 TO 371+00, LT	276'	

GRIDING HOT MIX ASPHALT 0 TO 2 INCH		
STATION	S.Y.	REMARKS
367+66 TO 371+00, LT	2,695	

STANDARD TYPE A CURB 8 INCH X 16 INCH		
STATION	L.F.	REMARKS
367+52 TO 367+91, LT	47'	ALONG RAMP
368+31 TO 368+56, LT	33'	ALONG RAMP

SEE SHEET PS-07 FOR ADDITIONAL QUANTITIES, TEST PIT, CHART (103-113) AND PIPE REMOVAL SCHEDULES.		
--	--	--

BORING TARGET DATA					
TARGET	BASELINE	STATION	OFFSET	NORTHING	EASTING
SWM-1	MD 140 B	368+62.27	88.33' LT	636843.5060	1376331.1735
SWM-2	MD 140 B	369+03.49	86.97' LT	636814.7146	1376360.7146
SWM-3	MD 140 B	369+23.00	134.67' LT	636836.8029	1376407.2723
B-1	MD 140 B	369+43.62	23.86' RT	636705.7943	1376315.6475
B-2	MD 140 B	369+52.88	36.33' LT	636744.0207	1376363.0667

WARNING:
2-115,000 - volt high-pressure oil filled (@250 PSI) pipe type cables. Hand digging is required when working in the area of the cables and BGE inspector needs to be present. Call BGE @ 410-291-3094 or 410-291-3121 48 hours prior to excavation to have inspector present. Damage to these cables is extremely costly to those who damage them.



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	TYPE 'B' SOIL STABILIZATION MATTING
	PROPOSED TRAVEL LANE
	DRIVEWAY / PARKING HMA
	TREE REMOVAL
	DETECTABLE WARNING SURFACE
	EXISTING UTILITY POLE
	RELOCATED UTILITY POLE

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DATUM: NAD 8391 Horizontal
NAVD 88 Vertical

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
NORTH OF PAINTERS MILL ROAD TO
SOUTH OF GARRISON VIEW ROAD

ROADWAY PLAN			
SCALE	1" = 20'	DATE	MAY 3, 2013
DESIGNED BY	DIR /JIG	COUNTY	BALTIMORE COUNTY
DRAWN BY	SJS	LOGMILE	4.580 TO 5.025
CHECKED BY	KBK	HORIZONTAL SCALE	N/A
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	N/A
DRAWING NO.	PS-02 OF 07	SHEET NO.	18 OF

PLOTTED: Friday, May 03, 2013 AT 02:46 PM
FILE: \\balrv02\2007\2007\07056_shahdd1\Task38_MD 140-Reisterstown\CADD\Plans\p410-P002_MD140.dgn

TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 57	371+69.47	-33.31	636595.8059	1376521.0235	490.22'	4.04'	(3)-1/4" CABLES ELECTRIC
TH # 58	371+77.27	-36.06	636592.5773	1376528.6422	492.11'	2.20'	(2)-1/4" CABLES TELEPHONE
TH # 59	371+85.94	-31.31	636583.2215	1376531.8430	494.15'	0.42'	1/4" CABLES TELEPHONE
TH # 67	372+86.00	-21.85	636508.7979	1376599.3829	490.79'	5.18'	16" D.I. WATER
TH #67A	372+86.98	-16.89	636504.4690	1376596.7670	492.23'	4.10'	16" D.I. WATER

TYPE A CURB - ANY HEIGHT		
STATION	L.F.	REMARKS
375+04 TO 375+50, LT	53'	

REMOVAL OF EXISTING CURB (ANY TYPE)		
STATION	L.F.	REMARKS
371+76 TO 371+92, LT	17'	
371+93 TO 371+93, LT	5'	
372+65 TO 372+67, LT	5'	
372+68 TO 372+73, LT	9'	
373+67 TO 374+34, LT	100'	

QUANTITY NOTES

MODIFIED STANDARD TYPE 'A' COMBINATION CONCRETE CURB AND GUTTER 12 INCH GUTTER PAN 12 INCH DEPTH (SEE STD. NO. MD 620.02)		
STATION	L.F.	REMARKS
371+00 TO 371+34, LT	72'	
371+64 TO 372+73, LT	280'	
373+06 TO 373+45, LT	60'	
373+61 TO 374+60, LT	122'	
373+61 TO 374+35, LT	81'	PARKING LOT
374+99 TO 375+50, LT	62'	
375+46 TO 375+50, LT	33'	PARKING LOT

1' CONCRETE SLOT		
STATION	L.F.	REMARKS
371+00 TO 371+34, LT	34'	
371+64 TO 371+75, LT	29'	
371+95 TO 372+62, LT	66'	
373+62 TO 374+35, LT	84'	
40+54 TO 40+62, LT	8'	
40+52 TO 40+53, LT	3'	
375+47 TO 375+50, LT	3'	

5 INCH CONCRETE SIDEWALK		
STATION	S.F.	REMARKS
371+00 TO 371+33, LT	164	
371+64 TO 372+72, LT	532	
373+03 TO 373+44, LT	224	
373+65 TO 374+58, LT	537	
375+02 TO 375+50, LT	317	

SIDEWALK RAMP AND DETECTABLE WARNING SURFACE (MD STD 655.40)		
STATION	TYPE	WARNING SURFACE (SF)
371+33.35, 41.2 LT	TYPE B	
371+64.68, 41.2 LT	TYPE B	
372+71.14, 39.9 LT	TYPE A	
373+04.66, 40.0 LT	TYPE A	
373+43.92, 40.2 LT	TYPE A	
373+66.21, 40.4 LT	TYPE A	
374+54.47, 42.8 LT	655.12	14
375+04.27, 42.7 LT	655.11	14

PLACE FURNISHED TOPSOIL 4 INCH DEPTH		
STATION	S.Y.	REMARKS
371+76 TO 371+92, LT	17	
372+65 TO 372+72, LT	6	
373+04 TO 373+44, LT	13	
373+61 TO 374+54, LT	113	
375+05 TO 375+50, LT	8	

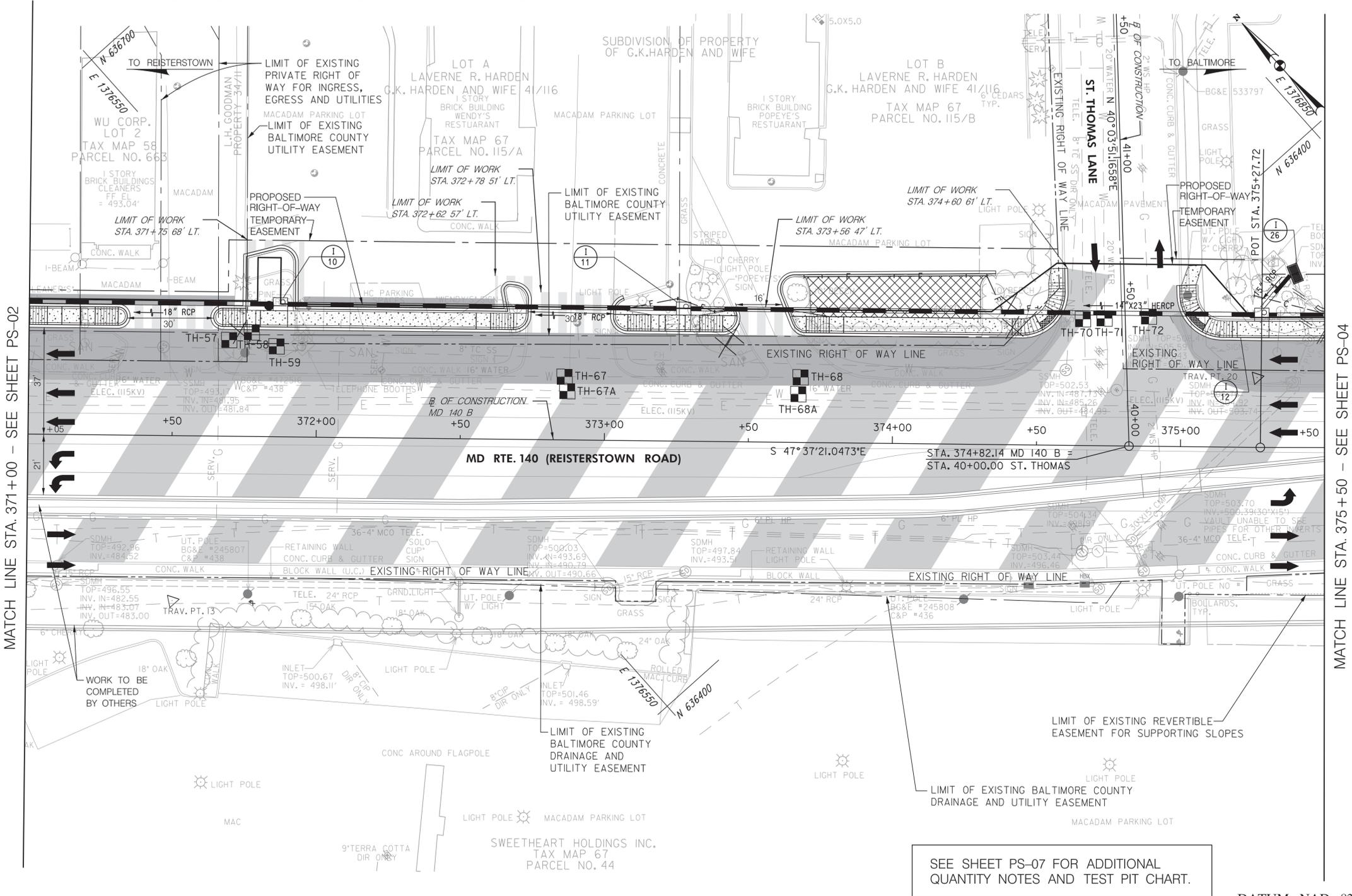
TURFGRASS ESTABLISHMENT		
STATION	S.Y.	REMARKS
371+76 TO 371+92, LT	17	
372+65 TO 372+72, LT	6	
373+04 TO 373+44, LT	13	
373+61 TO 374+54, LT	113	
375+05 TO 375+50, LT	8	

GRINDING HOT MIX ASPHALT 0 TO 2 INCH		
STATION	S.Y.	REMARKS
371+00 TO 375+50	2,928	

6 INCH PERFORATED CIRCULAR PIPE UNDERDRAIN (SEE STD. NO. MD 387.11)		
STATION	L.F.	REMARKS
371+00 TO 374+58, LT	364'	
375+01 TO 375+50, LT	56'	

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DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
NORTH OF PAINTERS MILL ROAD TO
SOUTH OF GARRISON VIEW ROAD

ROADWAY PLAN			
SCALE	1" = 20'	DATE	MAY 3, 2013
DESIGNED BY	DIR/JDG	COUNTY	BALTIMORE COUNTY
DRAWN BY	SJS	LOGMILE	4.580 TO 5.025
CHECKED BY	KBK	HORIZONTAL SCALE	N/A
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	N/A
DRAWING NO.	PS-03 OF 07	SHEET NO.	19 OF



MATCH LINE STA. 371+00 - SEE SHEET PS-02

MATCH LINE STA. 375+50 - SEE SHEET PS-04

SEE SHEET PS-07 FOR ADDITIONAL QUANTITY NOTES AND TEST PIT CHART.

DATUM: NAD 8391 Horizontal
NAVD 88 Vertical

WARNING:
2-115,000 - volt high-pressure oil filled (@250 PSI) pipe type cables. Hand digging is required when working in the area of the cables and BGE inspector needs to be present. Call BGE @ 410-291-3094 or 410-291-3121 48 hours prior to excavation to have inspector present. Damage to these cables is extremely costly to those who damage them.



PAVEMENT LEGEND	
	CARBIDE GRINDING & RESURFACING
	FULL DEPTH HMA
	CONCRETE SIDEWALK
	PAVEMENT / SIDEWALK REMOVAL
	TYPE 'B' SOIL STABILIZATION MATTING
	PROPOSED TRAVEL LANE
	DRIVEWAY / PARKING HMA
	TREE REMOVAL
	DETECTABLE WARNING SURFACE
	EXISTING UTILITY POLE
	RELOCATED UTILITY POLE

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MODIFIED STANDARD TYPE 'A' COMBINATION CONCRETE CURB AND GUTTER
12 INCH GUTTER PAN 12 INCH DEPTH
(SEE STD. NO. MD 620.02)

STATION	L.F.	REMARKS
375+50 TO 376+33, LT	174'	
376+68 TO 377+27, LT	104'	
377+51 TO 380+00, LT	283'	

1' CONCRETE SLOT

STATION	L.F.	REMARKS
375+50 TO 376+85, LT	85'	

5 INCH CONCRETE SIDEWALK

STATION	S.F.	REMARKS
375+50 TO 376+32, LT	423	
375+50 TO 376+33, LT	165	PARKING LOT
376+69 TO 377+26, LT	293	
377+52 TO 380+00, LT	1235	

SIDEWALK RAMP AND DETECTABLE WARNING SURFACE (MD STD 655.40)

STATION	TYPE	WARNING SURFACE (SF)
376+31.52, 39.9 LT	TYPE A	
376+70.30, 39.9 LT	TYPE A	
377+25.22, 39.8 LT	TYPE A	
377+53.57, 39.9 LT	TYPE A	
379+95.40, 38.7 LT	TYPE A	10

PLACE FURNISHED TOPSOIL 4 INCH DEPTH

STATION	S.Y.	REMARKS
376+69 TO 377+09, LT	10	
377+75 TO 380+00, LT	224	

TURFGRASS ESTABLISHMENT

STATION	S.Y.	REMARKS
376+69 TO 377+09, LT	10	
377+75 TO 380+00, LT	224	

GRINDING HOT MIX ASPHALT 0 TO 2 INCH

STATION	S.Y.	REMARKS
375+50 TO 380+00, LT	2,572	

6 INCH PERFORATED CIRCULAR PIPE UNDERDRAIN (SEE STD. NO. MD 387.11)

STATION	L.F.	REMARKS
375+50 TO 380+00, LT	450'	

TYPE A CURB - ANY HEIGHT

STATION	L.F.	REMARKS
375+50 TO 376+33, LT	83'	
376+90 TO 377+27, LT	37'	
377+52 TO 379+85, LT	233'	

STANDARD TYPE A CURB 8 INCH X 16 INCH

STATION	L.F.	REMARKS
379+85 TO 380+00, LT	15'	

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HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
NORTH OF PAINTERS MILL ROAD TO
SOUTH OF GARRISON VIEW ROAD

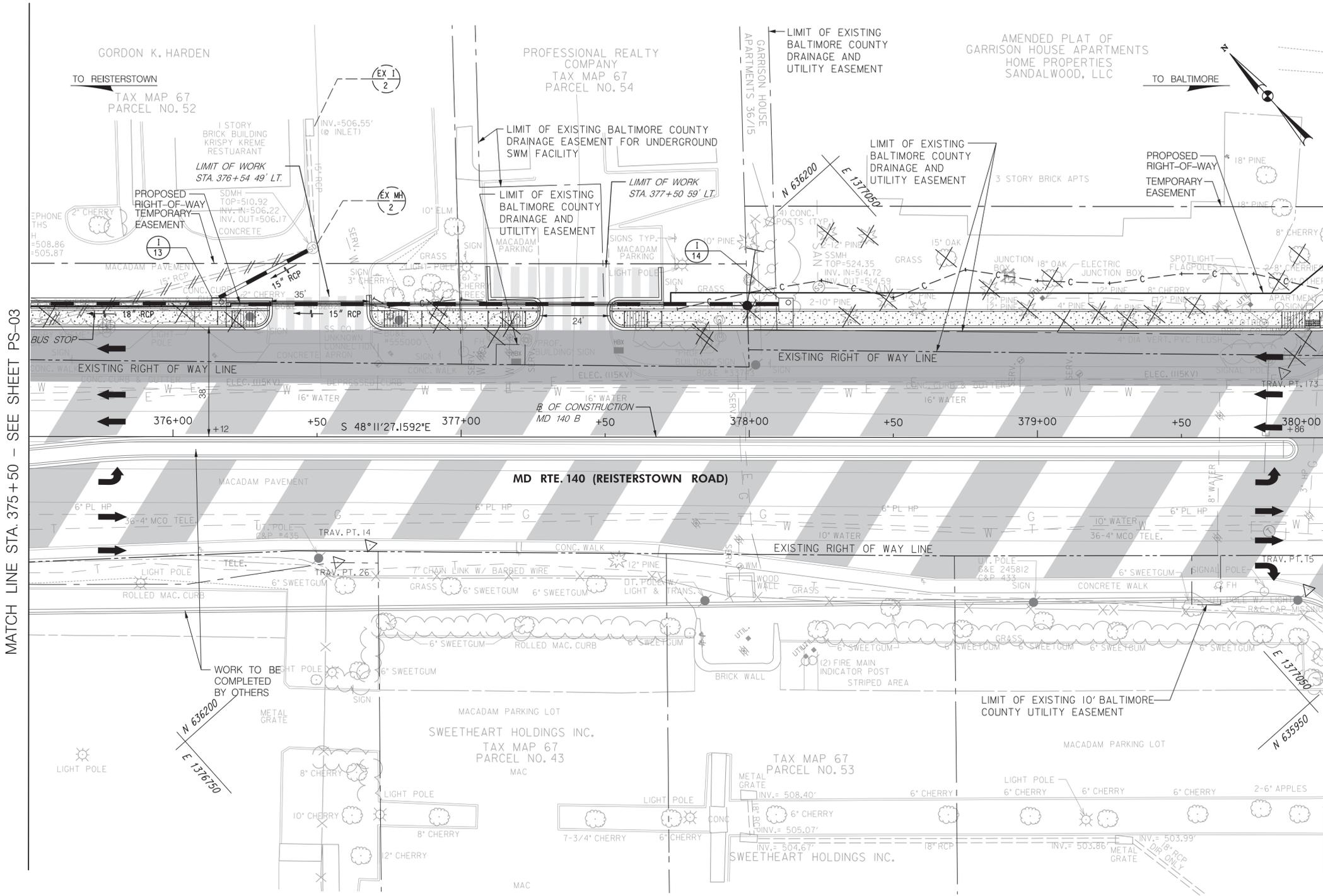
ROADWAY PLAN

SCALE 1" = 20' DATE MAY 3, 2013 CONTRACT NO. BA7295170

DESIGNED BY DIR/JDG COUNTY BALTIMORE COUNTY
DRAWN BY SJS LOGMILE 4.580 TO 5.025
CHECKED BY KBK HORIZONTAL SCALE N/A
F.A.P. NO. SEE TITLE SHEET VERTICAL SCALE N/A

DRAWING NO. **PS-04** OF **07** SHEET NO. 20 OF ?

DATUM: NAD 8391 Horizontal
NAVD 88 Vertical



MATCH LINE STA. 375+50 - SEE SHEET PS-03

MATCH LINE STA. 380+00 - SEE SHEET PS-05

PAVEMENT LEGEND

CARBIDE GRINDING & RESURFACING	DRIVEWAY / PARKING HMA
FULL DEPTH HMA	TREE REMOVAL
CONCRETE SIDEWALK	DETECTABLE WARNING SURFACE
PAVEMENT / SIDEWALK REMOVAL	EXISTING UTILITY POLE
TYPE 'B' SOIL STABILIZATION MATTING	RELOCATED UTILITY POLE
PROPOSED TRAVEL LANE	

WARNING:
2-115,000 - volt high-pressure oil filled (@250 PSI) pipe type cables. Hand digging is required when working in the area of the cables and BGE inspector needs to be present. Call BGE @ 410-291-3094 or 410-291-3121 48 hours prior to excavation to have inspector present. Damage to these cables is extremely costly to those who damage them.



CROSS REFERENCE	R / W PLAT NUMBER	REVISIONS
ITEM SHEET NOS.		
TYPICAL SECTION SHEETS		TS-01
GEOMETRIC LAYOUT SHEETS		GS-02
ROADWAY PROFILE SHEETS		PR-03

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TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 80	380+08.90	-58.12	636052.2682	1377160.6242	522.45'	1.44'	3" PLASTIC GAS
TH # 86	381+65.45	-12.69	635914.0437	1377247.0262	517.83'	2.00'	8" STEEL CONDUIT ELECTRIC
TH # I17	382+17.27	-38.16	635898.4859	1377302.6319	517.31'	3.85'	2" GAS
TH # I18	383+06.65	-41.36	635841.2902	1377371.3923	514.13'	3.12'	1" GAS

REMOVE EXISTING PIPE CULVERT				
BASELINE	START STATION / OFFSET	END STATION / OFFSET	LENGTH (LF)	REMARKS
MD 140	380+74.48' LT	380+89.30' LT	24	18" RCP
MD 140	380+92.28' LT	383+08.28' LT	217	18" RCP
MD 140	383+09.29' LT	383+09.41' LT	12	21" RCP
MD 140	383+12.27' LT	383+29.20' LT	19	27" RCP
MD 140	383+34.20' LT	383+67.23' LT	34	18" RCP

QUANTITY NOTES

MODIFIED STANDARD TYPE 'A' COMBINATION CONCRETE CURB AND GUTTER 12 INCH GUTTER PAN 12 INCH DEPTH (SEE STD. NO. MD 620.02)		
STATION	L.F.	REMARKS
380+00 TO 380+15, LT	42'	
380+33 TO 380+45, LT	84'	ISLAND
380+64 TO 383+58, LT	347'	
384+15 TO 384+50, LT	62'	

1' CONCRETE SLOT		
STATION	L.F.	REMARKS
50+47 TO 50+72, LT	24'	
50+39 TO 50+76, LT	37'	ISLAND
50+39 TO 50+78, LT	39'	ISLAND
50+46 TO 50+75, LT	29'	

5 INCH CONCRETE SIDEWALK		
STATION	S.F.	REMARKS
380+00 TO 380+14, LT	120	
380+34 TO 380+43, LT	83	ISLAND
380+64 TO 381+05, LT	258	

SIDEWALK RAMP AND DETECTABLE WARNING SURFACE (MD STD 655.40)		
STATION	TYPE	WARNING SURFACE (SF)
380+13.03, 56.2 LT	655.12	10
380+34.55, 56.2 LT	655.22	10
380+43.70, 56.2 LT	655.22	10
380+64.64, 56.5 LT	655.12	10

PLACE FURNISHED TOPSOIL 4 INCH DEPTH		
STATION	S.Y.	REMARKS
380+00 TO 380+15, LT	10	
380+65 TO 383+57, LT	585	
384+14 TO 384+50, LT	26	

TURFGRASS ESTABLISHMENT		
STATION	S.Y.	REMARKS
380+00 TO 380+15, LT	10	
380+65 TO 383+57, LT	585	
384+14 TO 384+50, LT	26	

GRINDING HOT MIX ASPHALT 0 TO 2 INCH		
STATION	S.Y.	REMARKS
380+00 TO 384+50, LT	3,706	

6 INCH PERFORATED CIRCULAR PIPE UNDERDRAIN (SEE STD. NO. MD 387.11)		
STATION	L.F.	REMARKS
380+00 TO 380+12, LT	18'	
380+63 TO 384+50, LT	402'	

STANDARD TYPE A CURB 8 INCH X 16 INCH		
STATION	L.F.	REMARKS
380+00 TO 380+14, LT	26'	H. RAMP
380+64 TO 380+72, LT	19'	H. RAMP

SEE SHEET PS-07 FOR ADDITIONAL PIPE REMOVAL SCHEDULES

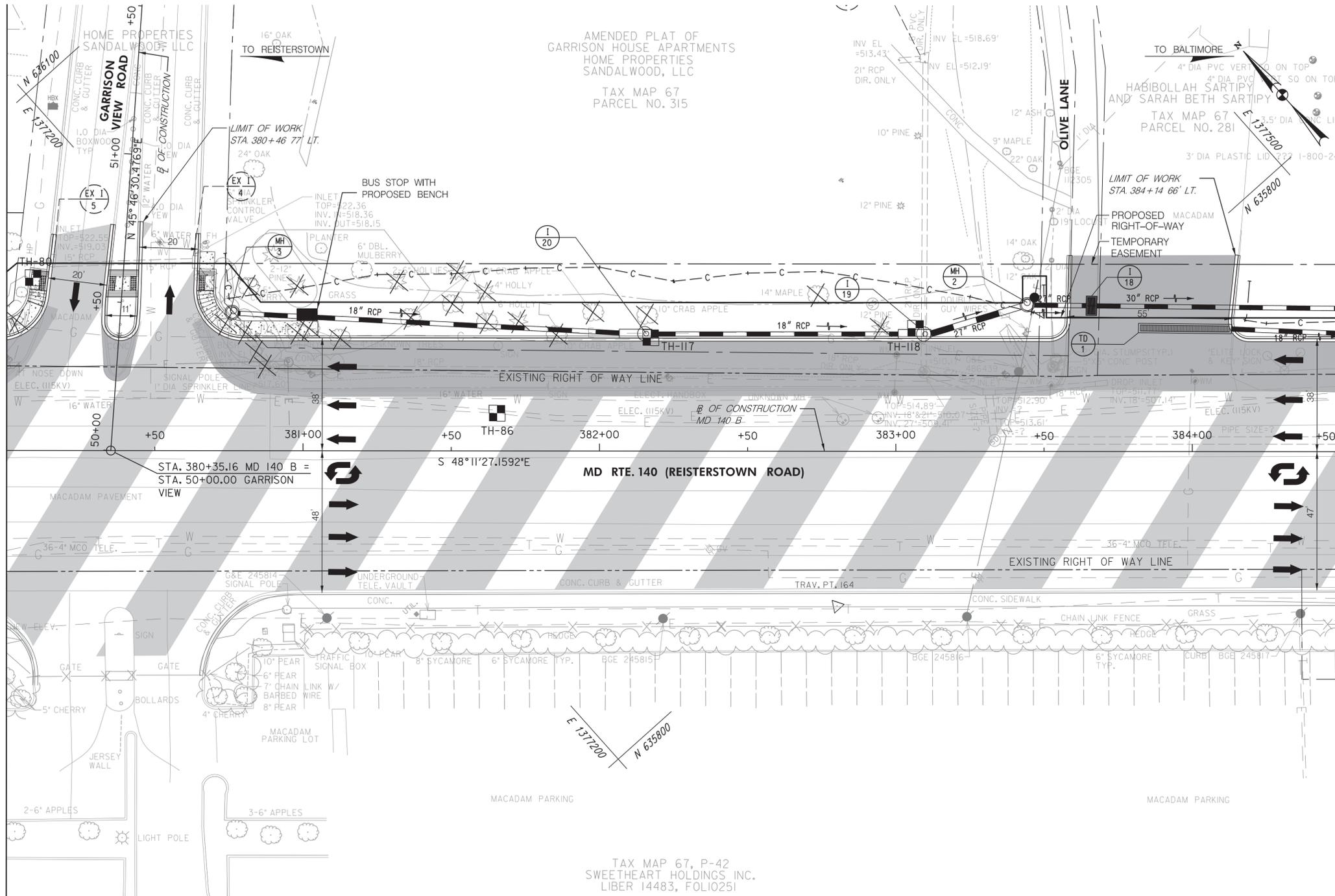
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
NORTH OF PAINTERS MILL ROAD TO
SOUTH OF GARRISON VIEW ROAD

DATUM: NAD 8391 Horizontal
NAVD 88 Vertical

ROADWAY PLAN

SCALE 1" = 20'	DATE MAY 3, 2013	CONTRACT NO. BA7295170
DESIGNED BY DIR/JDG	COUNTY BALTIMORE COUNTY	
DRAWN BY SJS	LOGMILE 4.580 TO 5.025	
CHECKED BY KBK	HORIZONTAL SCALE N/A	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE N/A	
DRAWING NO. PS-05 OF 07	SHEET NO. 21 OF	

PLOTTED: Friday, May 03, 2013 AT 01:53 PM
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MATCH LINE STA. 380+00 - SEE SHEET PS-04

MATCH LINE STA. 384+50 - SEE SHEET PS-06

PAVEMENT LEGEND	
	CARBIDE GRINDING & RESURFACING
	FULL DEPTH HMA
	CONCRETE SIDEWALK
	PAVEMENT / SIDEWALK REMOVAL
	TYPE 'B' SOIL STABILIZATION MATTING
	PROPOSED TRAVEL LANE
	DRIVEWAY / PARKING HMA
	TREE REMOVAL
	DETECTABLE WARNING SURFACE
	EXISTING UTILITY POLE
	RELOCATED UTILITY POLE

WARNING:
2-115,000 - volt high-pressure oil filled (@250 PSI) pipe type cables. Hand digging is required when working in the area of the cables and BGE inspector needs to be present. Call BGE @ 410-291-3094 or 410-291-3121 48 hours prior to excavation to have inspector present. Damage to these cables is extremely costly to those who damage them.



CROSS REFERENCE	R / W PLAT NUMBER	REVISIONS
ITEM SHEET NOS.		
TYPICAL SECTION SHEETS		TS-02
GEOMETRIC LAYOUT SHEETS		GS-02
ROADWAY PROFILE SHEETS		PR-04

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BY: droberts

TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 87	385+41.27	-20.51	635669.3375	1377532.3638	502.85'	5.10'	8" DUAL STEEL CONDUIT ELECTRIC

REMOVE EXISTING PIPE CULVERT				
BASELINE	START STATION / OFFSET	END STATION / OFFSET	LENGTH (LF)	REMARKS
MD 140	385+30, 44' RT	385+52, 139' RT	98	30" RCP

REMOVE EXISTING STORM DRAIN STRUCTURES				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	385+24	4' LT	1	MANHOLE
MD 140	385+30	42' RT	1	MANHOLE
MD 140	385+36	25' LT	1	INLET

QUANTITY NOTES

MODIFIED STANDARD TYPE 'A' COMBINATION CONCRETE CURB AND GUTTER 12 INCH GUTTER PAN 12 INCH DEPTH (SEE STD. NO. MD 620.02)		
STATION	L.F.	REMARKS
384+50 TO 384+88, LT	60'	
385+25 TO 385+69, LT	97'	
384+91 TO 385+15, RT	23'	
385+39 TO 385+57, RT	24'	
385+88 TO 386+27, LT	75'	
386+52 TO 386+78, LT	41'	
386+89 TO 387+56, LT	77'	
387+71 TO 387+90, RT	24'	

1' CONCRETE SLOT		
STATION	L.F.	REMARKS
384+91 TO 385+16, RT	24'	
385+38 TO 385+57, RT	25'	
386+89 TO 387+57, LT	80'	
387+72 TO 387+90, RT	24'	

5 INCH CONCRETE SIDEWALK		
STATION	S.F.	REMARKS
385+39 TO 387+84, RT	1227	

SIDEWALK RAMP AND DETECTABLE WARNING SURFACE (MD STD 655.40)		
STATION	TYPE	WARNING SURFACE (SF)
385+40.99, 48.2 RT	TYPE A	
387+82.17, 54.3 RT	655.12	11

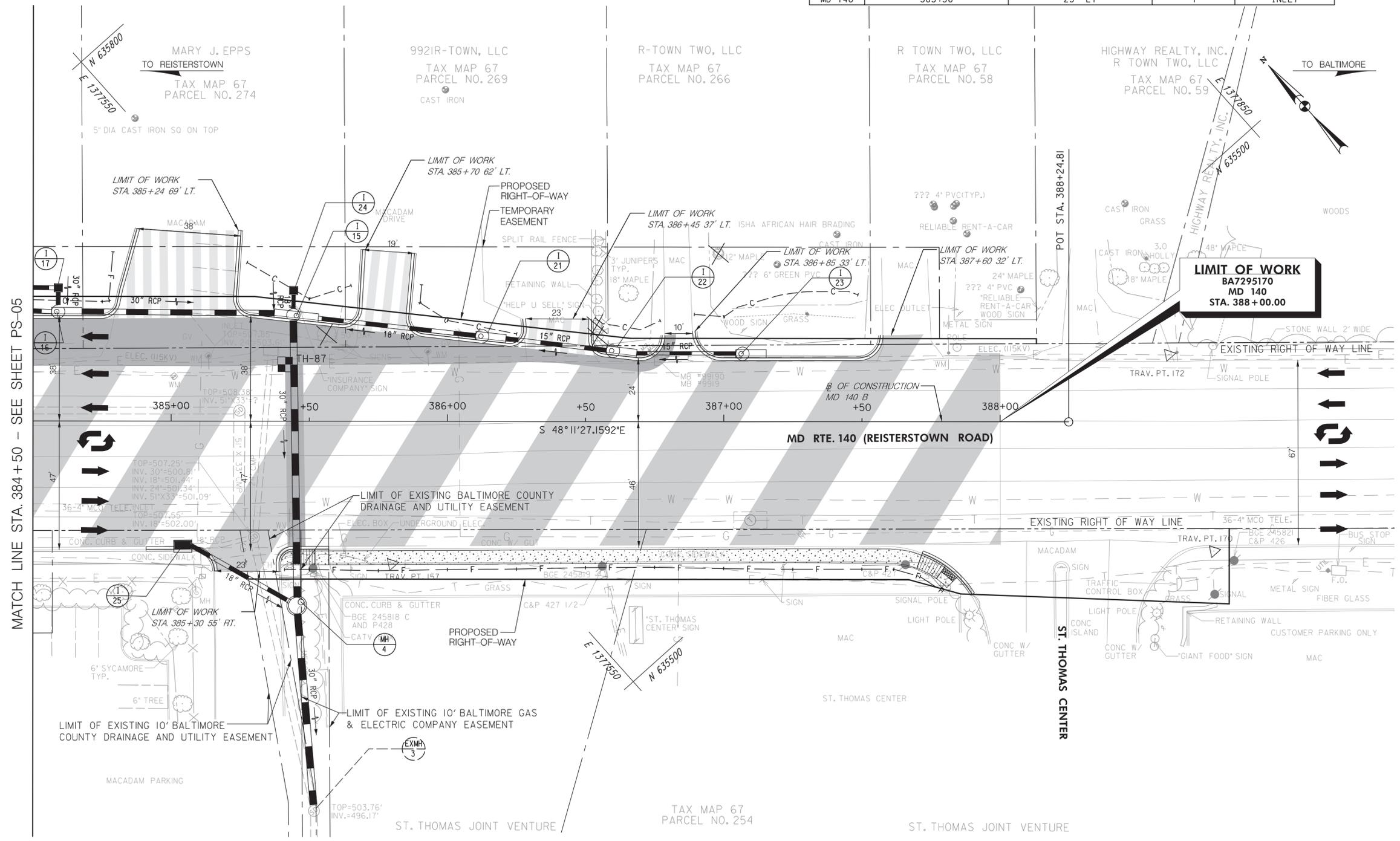
PLACE FURNISHED TOPSOIL 4 INCH DEPTH		
STATION	S.Y.	REMARKS
384+50 TO 384+87, LT	24	
385+24 TO 385+67, LT	60	
385+40 TO 387+89, RT	56	
385+87 TO 386+27, LT	32	
386+53 TO 386+77, LT	27	
386+89 TO 387+56, LT	140	

TURFGRASS ESTABLISHMENT		
STATION	S.Y.	REMARKS
384+50 TO 384+87, LT	24	
385+24 TO 385+67, LT	60	
385+40 TO 387+89, RT	56	
385+87 TO 386+27, LT	32	
386+53 TO 386+77, LT	27	
386+89 TO 387+56, LT	140	

GRINDING HOT MIX ASPHALT 0 TO 2 INCH		
STATION	S.Y.	REMARKS
384+50 TO 388+00, LT	2,633	

6 INCH PERFORATED CIRCULAR PIPE UNDERDRAIN (SEE STD. NO. MD 387.11)		
STATION	L.F.	REMARKS
384+50 TO 387+50, LT	300'	

SEE SHEET PS-07 FOR ADDITIONAL PIPE REMOVAL SCHEDULES



MATCH LINE STA. 384+50 - SEE SHEET PS-05

PAVEMENT LEGEND

	CARBIDE GRINDING & RESURFACING		DRIVEWAY / PARKING HMA
	FULL DEPTH HMA		TREE REMOVAL
	CONCRETE SIDEWALK		DETECTABLE WARNING SURFACE
	PAVEMENT / SIDEWALK REMOVAL		EXISTING UTILITY POLE
	TYPE 'B' SOIL STABILIZATION MATTING		RELOCATED UTILITY POLE
	PROPOSED TRAVEL LANE		

WARNING:
 2-115,000 - volt high-pressure oil filled (@250 PSI) pipe type cables. Hand digging is required when working in the area of the cables and BGE inspector needs to be present. Call BGE @ 410-291-3094 or 410-291-3121 48 hours prior to excavation to have inspector present. Damage to these cables is extremely costly to those who damage them.



CROSS REFERENCE	R / W PLAT NUMBER	REVISIONS
ITEM SHEET NOS.		
TYPICAL SECTION SHEETS.....	TS-02	
GEOMETRIC LAYOUT SHEETS.....	GS-02	
ROADWAY PROFILE SHEETS.....	PR-04, PR-05	

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
 NORTH OF PAINTERS MILL ROAD TO
 SOUTH OF GARRISON VIEW ROAD

ROADWAY PLAN			
SCALE	1" = 20'	DATE	MAY 3, 2013
CONTRACT NO.	BA7295170		
DESIGNED BY	DIR /JIG	COUNTY	BALTIMORE COUNTY
DRAWN BY	SJS	LOGMILE	4.580 TO 5.025
CHECKED BY	KBK	HORIZONTAL SCALE	N/A
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	N/A
DRAWING NO.	PS-06 OF 07	SHEET NO.	22 OF

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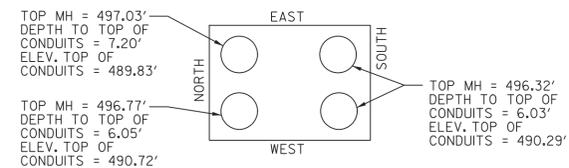
PLAN SHEET 2

TYPE C TRAFFIC BARRIER END TREATMENT SEE STD. NO. MD 605.03)			TRAFFIC BARRIER W BEAM USING 6 FOOT POST		
STATION	EA.	REMARKS	STATION	L.F.	REMARKS
369+78 TO 370+28, 44' LT	1	BEHIND SIDEWALK	368+39 TO 369+78, LT	150	OFFSET VARIES
TYPE K TRAFFIC BARRIER END TREATMENT SEE STD. NO. MD 605.10)			W BEAM BARRIER REFLECTIVE DELINEATORS (SEE STD. NO. MD 665.02)		
STATION	EA.	REMARKS	STATION	EA.	REMARKS
368+39, 62' LT	1	BEHIND SIDEWALK	368+39 TO 369+78, LT	3	

REMOVE EXISTING PIPE CULVERT				
BASELINE	START STATION / OFFSET	END STATION / OFFSET	LENGTH (LF)	REMARKS
MD 140	366+50, 39.7' LT	369+39, 27.6' LT	289	24" CMP
MD 140	369+36, 36' RT	369+46, 25' LT	62	STONE ARCH CULVERT

TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 96	369+28.01	-29.51	636755.7435	1376340.0936	NF 480.84'	10.34'	8" SANITARY SEWER
TH # 97	369+20.21	-30.62	636761.8223	1376335.0852	482.24'	9.30'	(4)-1 1/2" CABLES TELEPHONE F.O.
TH # 98	369+22.03	-25.80	636757.0342	1376333.1778	484.85'	7.22'	16" WATER
TH # 99	369+38.58	-16.31	636738.8640	1376339.0110	488.18'	3.39'	16" WATER
TH # 100	369+39.17	-12.42	636735.6240	1376336.8010	489.51'	2.25'	115 KV ELECTRIC
TH # 101	369+39.48	-9.94	636733.5570	1376335.3840	489.57'	2.27'	115 KV ELECTRIC
TH # 102	369+73.37	-33.42	636725.7331	1376374.1134	480.88'	10.66'	8" SANITARY SEWER
TH # 103	369+59.21	-16.04	636724.7700	1376354.0650	485.63'	6.04'	16" WATER
TH # 104	369+73.79	-30.27	636727.7778	1376376.5486	489.57'	10.00'	TELEPHONE F.O.
TH # 105	369+72.26	-25.84	636723.2081	1376370.3075	486.98'	4.02'	16" WATER
TH # 106	369+59.94	-11.60	636721.0090	1376351.5920	489.79'	2.00'	115 KV ELECTRIC
TH # 107	369+59.97	-9.88	636719.7030	1376350.4760	489.94'	1.90'	115 KV ELECTRIC
TH # 108	369+36.11	44.57	636695.4810	1376296.2280	487.66'	3.65'	36-4" MCO TELEPHONE
TH # 113	370+56.71	-25.48	636666.0251	1376432.4599	483.08'	8.70'	(4)-1 1/2" CABLES TELEPHONE F.O.

TEST PIT 38 VERIZON AS BUILT VAULT DETAIL (PLAN VIEW)



PLAN SHEET 5

REMOVE EXISTING STORM DRAIN STRUCTURES				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	380+90	28' LT	1	MANHOLE
MD 140	383+09	27' LT	1	MANHOLE
MD 140	383+32	20' LT	1	INLET
MD 140	383+33	4' LT	1	MANHOLE
MD 140	383+69	23' LT	1	INLET

BACK FILL EXISTING STORM DRAIN PIPE WITH FLOWABLE FILL				
BASELINE	START STATION	END STATION	LENGTH (LF)	REMARKS
MD 140	383+31, 19' LT	383+33, 6' LT	14	50"X31" CMP
MD 140	383+36, 4' LT	384+50, 4' LT	114	50"X31" CMP

BULKHEAD EXISTING STORM DRAIN PIPE				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	383+31	19' LT	1	50"X31" CMP
MD 140	383+33	6' LT	1	50"X31" CMP
MD 140	383+36	4' LT	1	50"X31" CMP

PLAN SHEET 6

BACK FILL EXISTING STORM DRAIN PIPE WITH FLOWABLE FILL				
BASELINE	START STATION	END STATION	LENGTH (LF)	REMARKS
MD 140	384+50, 4' LT	385+22, 4' LT	72	50"X31" CMP
MD 140	385+25, 2' LT	385+25, 36' RT	38	50"X31" CMP
MD 140	385+36, 23' LT	385+31, 39' RT	62	24" CMP
MD 140	385+37, 45' RT	385+27, 42' RT	12	18" RCP

BULKHEAD EXISTING STORM DRAIN PIPE				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	385+22	4' LT	1	50"X31" CMP
MD 140	385+25	2' LT	1	50"X31" CMP
MD 140	385+25	36' RT	1	50"X31" CMP
MD 140	385+36	23' LT	1	24" CMP
MD 140	385+31	39' RT	1	24" CMP
MD 140	385+17	45' RT	1	18" RCP
MD 140	385+27	42' RT	1	18" RCP

PLAN SHEET 3

REMOVE EXISTING PIPE CULVERT				
BASELINE	START STATION / OFFSET	END STATION / OFFSET	LENGTH (LF)	REMARKS
MD 140	375+39, 24' LT	375+43, 35' LT	11	10" PVC

REMOVE EXISTING STORM DRAIN STRUCTURES				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	375+39	23' LT	1	INLET

BACK FILL EXISTING STORM DRAIN PIPE WITH FLOWABLE FILL				
BASELINE	START STATION	END STATION	LENGTH (LF)	REMARKS
MD 140	374+85, 31' RT	375+38, 20' LT	75	30"X15" CMP

BULKHEAD EXISTING STORM DRAIN PIPE				
BASELINE	STATION	OFFSET	QUANTITY (EA)	REMARKS
MD 140	375+38	20' LT	1	30"X15" CMP

TEST PIT LOCATIONS							
NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION (TOP OF UTILITY)	DEPTH OF UTILITY	DESCRIPTION
TH # 68	373+67.90	-22.57	636454.1204	1376660.3718	494.60'	4.30'	16" D.I. WATER
TH #68A	373+67.18	-16.73	636450.2950	1376655.9100	495.08'	3.92'	16" D.I. WATER
TH # 70	374+65.67	-43.75	636403.8766	1376746.8736	493.90'	8.63'	30" WIDE DUCT BANK TELEPHONE
TH # 71	374+73.16	-44.07	636399.0627	1376752.6254	499.68'	3.16'	20" C.I. WATER
TH # 72	374+88.56	-44.92	636389.3092	1376764.5664	500.87'	2.16'	2" STEEL GAS

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
HIGHWAY DESIGN DIVISION
MD 140 (REISTERSTOWN ROAD)
NORTH OF PAINTERS MILL ROAD TO
SOUTH OF GARRISON VIEW ROAD

R / W PLAT NUMBER	REVISIONS	ROADWAY PLAN
		SCALE _____ DATE MAY 3, 2013 CONTRACT NO. BA7295170
		DESIGNED BY DIR /JDG COUNTY BALTIMORE COUNTY
		DRAWN BY SJS LOGMILE 4.580 TO 5.025
		CHECKED BY KBK HORIZONTAL SCALE N/A
		F.A.P. NO. SEE TITLE SHEET VERTICAL SCALE N/A
		DRAWING NO. PS-07 OF 07 SHEET NO. 23 OF



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Engineers | Construction Managers | Planners | Scientists
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APPENDIX D: TRAFFIC MEMO



MEMORANDUM

TO: Ms. Barb Solberg, Chief
Highway Design Division
Office of Highway Development

ATTN: Mr. Bayoan Ortiz

FROM: Morteza Tadayon, Chief
Data Services Engineering Division
Office of Planning and Preliminary Engineering

DATE: July 19, 2013

SUBJECT: Project Number: BA729A21
Baltimore County
Title Sheet/Loadometer Data
MD 140 – North of Painters Mill Road to South of Garrison View Road

In response to your recent request for traffic information and loadometer data for the above project, we offer the following:

MD 140 – South of Painters Mill Road

	<u>2013</u>	<u>2033</u>
Average Daily Traffic (ADT):	38,500	*50,300
Design Hour Volume (DHV):	9%	9%
Directional Distribution of DHV:	51%	51%
Percent Trucks – ADT:	5%	5%
Percent Trucks – DHV:	4%	4%

* Future ADT considers an interchange in place at I-795 and Dolfield Boulevard/Pleasant Hill Road, as reflected in the Constrained Long-Range Plan (CLRP).

Truck Breakdown:

	2A	3D	2S1	2S2	3S2	3S3	Total
2013 ADT: 38,500	1,377	283	20	80	132	33	1,925
2033 ADT: 50,300	1,799	370	26	105	172	43	2,515

Ms. Barb Solberg, Chief
Page Two

The FHWA Vehicle Classification Data for this project was based on the following:

FHWA Class	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
2013 ADT	51	32,256	4,268	365	1,012	259	24	100	132	33	0	0	0	38,500
2013 DHV	3	3,003	323	34	65	17	3	7	6	4	0	0	0	3,465
2033 ADT	67	42,137	5,581	477	1,322	339	31	131	172	43	0	0	0	50,300
2033 DHV	4	3,920	422	48	85	22	4	9	8	5	0	0	0	4,527

We recommend using Weigh-in-Motion Station 0009-88 to produce the needed loadometer data. An electronic copy of the loadometer output sheets will be forwarded to the Pavement and Geotechnical Division along with this memorandum.

If you have any questions or concerns, please contact the writer at 410-545-5643 or Ms. Lisa Shemer, Assistant Division Chief, Data Services Engineering Division at 410-545-5640.

By: _____

Eric Sideras
Travel Forecasting and Analysis
Data Services Engineering Division

cc: Mr. Paulo DeSousa
Ms. Mariefrance Guiteau
Mr. Derek Gunn
Ms. Erin Kuhn
Mr. Nate Moore
Ms. Lisa Shemer