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# **MD 4 AT SUITLAND PARKWAY INTERCHANGE**

## **AIR QUALITY ANALYSIS CONFORMITY DETERMINATION**

July 2016

**Prince George's County, Maryland**



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



**MARYLAND DEPARTMENT OF TRANSPORTATION'S  
STATE HIGHWAY ADMINISTRATION**

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## I. INTRODUCTION

This report presents the results of a review of potential air quality impacts associated with updated proposed improvements to the intersection between MD 4 (Pennsylvania Avenue) and Suitland Parkway in Prince George's County, Maryland. A previous conformity determination was made on the proposed improvements dated 2013, for which the project scope has changed due to Practical Design Recommendations, thus requiring this review for air quality conformity. It was determined that the 2013 proposed improvements conformed to the requirements of the Clean Air Act (CAA) and the National Environmental Policy Act (NEPA) without a hot-spot analysis. This study is intended as an evaluation of the project level air quality impacts of the updated proposed intersection improvements and is provided to meet the requirements of the CAA and NEPA.

In the project area, MD 4 is a divided urban freeway expressway running north to south with two to three travel lanes in each direction. Suitland Parkway (MD 337) runs east to west with two travel lanes in each direction within the project limits (**Figure 1**). Land use within the project limits includes other developed lands, forest, commercial, and industrial.

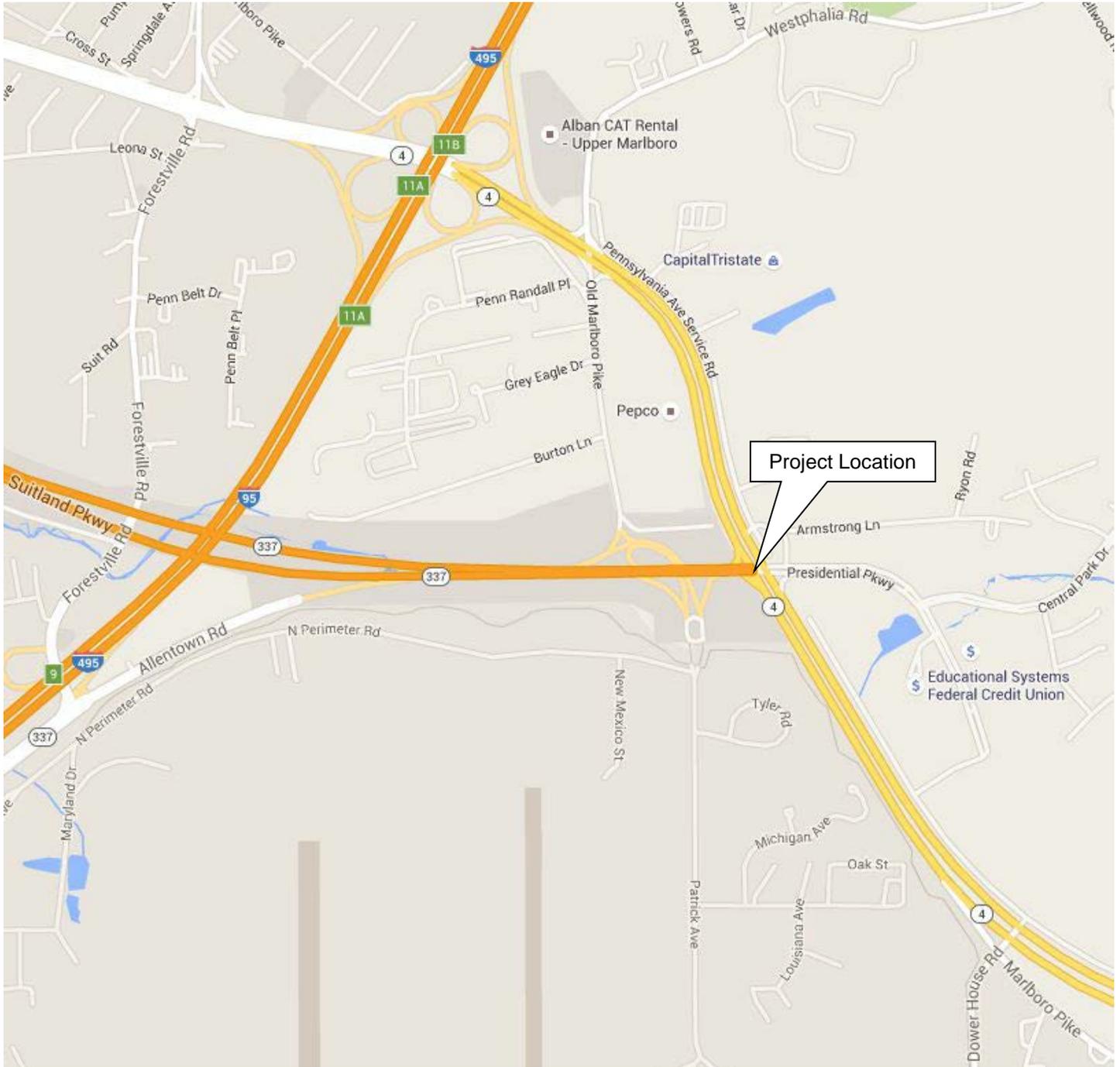
The purpose of the project is to improve safety and traffic operations to address existing and projected travel demand throughout the corridor. This will be accomplished by reconstructing the MD 4 and Suitland Parkway intersection to a grade separated interchange.

Northbound (NB) MD 4 improvements start at the Dower House Road intersection where a fourth NB lane develops prior to the diverge of a two-lane directional ramp, which widens to four lanes as the ramp approaches Central Park Drive. The directional ramp consists of two left turn lanes, one shared left-through lane and a channelized right turn lane to eastbound Central Park Drive at the intersection. The directional ramp from this intersection to NB MD 4 is a single lane that merges with two lanes from westbound Central Park Drive that eventually narrows to a two lane ramp merging into NB MD 4 creating three NB lanes on the MD 4 approach to Old Marlboro Pike. The three lanes on NB MD 4, north of the directional ramp diverge gore, narrow to two lanes prior to the new Suitland Parkway bridge over MD 4. Improvements along NB MD 4 end approximately 1,200 feet south of the Westphalia Road intersection with MD 4.

Southbound (SB) MD 4 improvements start at the merge lane from NB Old Marlboro Pike. A two-lane directional off-ramp diverges from the two lanes of SB MD 4 and continues to a new intersection with Suitland Parkway. This directional ramp also provides access to and from Old Marlboro Pike and from Joint Base Andrews. The directional ramp approach to Suitland Parkway consists of two left turn lanes, a through lane and a channelized right turn lane to westbound Suitland Parkway. The directional ramp from this intersection to SB MD 4 is a single lane that merges with two lanes from EB Suitland Park intersection that eventually creates a two lane ramp to tie into the two SB MD 4 lanes. SB MD 4 remains two lanes under the new Suitland Parkway bridge over MD 4. The four SB MD 4 lanes south of the directional ramp merge, narrow to tie into the existing three lanes approaching Dower House Road.

The EB Suitland Parkway improvements start west of the diverge to Patrick Avenue where a third lane develops. A two-lane ramp diverges to SB MD 4 and four lanes continue to an

intersection with the SB MD 4 ramps. The four EB Suitland Parkway lanes cross the bridge over MD 4 and the approach to the NB MD 4 ramp intersection consists of one left turn lane and three through lanes. These three through lanes widen to four east of the intersection with the addition of the right turn lane from the NB MD 4 directional ramp and develops into a six lane approach to Presidential Parkway with two left turn lanes, three through lanes, and a right turn lane.



**FIGURE 1 – Location Map**

WB Suitland Parkway/Central Park Drive improvements begin at the new intersection with Presidential Parkway where three through lanes widen to five at the approach to the intersection with the NB MD 4 ramp. This approach includes one right turn lanes, one shared right-through lane and three through lanes. Four lanes of WB Suitland cross the bridge over MD 4 and the approach to the intersection with SB MD 4 ramps includes three through lanes and one left turn lane to SB MD 4. West of the intersection, Suitland Parkway contains three lanes that narrow to the existing two lanes west of the diverge to Patrick Avenue.

This project also includes the relocation of a service road in the northeast quadrant of the interchange and a bike/multi-use path connecting Presidential Parkway and developments north of the project with Old Marlboro Pike parallel to the westbound lanes of Suitland Parkway. Refer to **Appendix A** for current project design plans.

## **II. AIR QUALITY BACKGROUND**

The Clean Air Act (CAA) Amendments 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 CAA and the Final Transportation Conformity Rule apply to the proposed transportation project because it involves federal action and funding.

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 implementation plan in effect under this chapter.”* The CAA, Title I, Section 176 (c) 1, 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 and achieving expeditious attainment of such standards; and that such activities will not:*

- i. cause or contribute to any new violation of any standard in any area;*
- ii. increase the frequency or severity of any existing violation of any standard in any area; or*
- iii. delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.”*

As required by the CAA, 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 (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> & PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). These national 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.

The CAA Amendments require that the EPA publish a designation 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, designating areas where pollutant levels exceed the NAAQS as nonattainment. After a nonattainment area improves conditions to meet the standard for the corresponding pollutant, it is re-designated 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 66964	Primary and Secondary	0.15 µg/m <sup>3</sup>	Rolling 3-Month Average	Not to be exceeded
Nitrogen Dioxide 77 FR 20218	Primary	100 ppb	1-hour	98 <sup>th</sup> percentile, averaged over 3 years
	Primary and Secondary	53 ppb	Annual	Annual Mean
Particulate Matter (PM <sub>10</sub> ) 78 FR 3086	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 <sub>2.5</sub> ) 71 FR 61144	Primary	12 µg/m <sup>3</sup>	Annual	Annual mean averaged over 3 years
	Secondary	15 µg/m <sup>3</sup>	Annual	Annual mean averaged over 3 years
	Primary and Secondary	35 µg/m <sup>3</sup>	24-hour	98 <sup>th</sup> percentile, averaged over 3 years
Ozone 80 FR 65292	Primary and Secondary	0.070 ppm	8-hour	Annual fourth highest daily maximum 8-hour concentration, averaged over 3 years
Sulfur Dioxide 77 FR 20218	Primary	75 ppb	1-hour	Not to be exceeded more than once per year
	Secondary	0.5 ppm	3-hour	

To comply with the CAA, EPA has issued proposed rules, guidance clarifications, and final rules concerning transportation conformity and pollutants for which standards have been set. Following is a summary of recent rules and clarifications:

- *Transportation Conformity Rule PM<sub>2.5</sub> and PM<sub>10</sub> Amendments; Final Rule*, March 24, 2010;
- *Using MOVES in Project-Level Carbon Monoxide Analyses*, December 2010;
- *Transportation Conformity Rule Restructuring Amendments*, March 14, 2012;
- *Transportation Conformity Regulations, as of April 2012*;
- *National Ambient Air Quality Standards for Particulate Matter*, January 15, 2013; and

- Update to the *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas*, November 2015.

EPA has only provided rules and guidance for project level analyses of CO and particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>).

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 CAA identified 188 air toxics. In 2001 EPA identified a list of 21 Mobile Source Air Toxics (MSATs), and highlighted six of these MSATs as “priority” MSAT. 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.

### **III. ENVIRONMENTAL ANALYSIS**

The MD 4 at Suitland Parkway interchange project is located in Prince George’s County, Maryland, which is part of the Washington, DC-MD-VA designated area. The CO maintenance period for this region ended March 16, 2016; therefore the area is no longer subject to transportation conformity in regards to CO. The area was classified as maintenance for the 1997 annual PM<sub>2.5</sub> standard by EPA on December 16, 2014. Maryland is neither within a PM<sub>10</sub> maintenance nor nonattainment area.

For regional conformity determination, states develop State Implementation Plans (SIPs) to establish a plan for attaining and maintaining the NAAQS, as required by the CAA. Proposed and existing transportation projects and programs are compiled in short term (covering approximately 2-6 years) and long term (covering approximately 20 years) plans called transportation improvement programs (TIPs) and long range plans, respectively, for urbanized areas. As defined by the United States Census Bureau, urbanized areas are geographic areas with a population greater than 50,000. These urbanized areas are governed by Metropolitan Planning Organizations (MPOs). MPOs are policy-making organizations which develop the TIPs and long range plans for their respective urbanized areas. Per 40 CFR 93.115, a project must be included in a long range plan and TIP that conforms to the SIP to achieve regional conformity. For the Washington, DC-MD-VA area, the National Capital Region Transportation Planning Board (NCRTPB) serves as the MPO. The current long range plan, the *2015 Financially Constrained Long Range Transportation Plan for the National Capital Region*, was adopted by NCRTPB on October 21, 2015. The latest TIP, covering fiscal years 2015 to 2020, was adopted by NCRTPB on October 15, 2014. This assessment includes regional conformity determination for the project.

At the project level, pollutants could possibly have localized (hot-spot) levels above the NAAQS. As outlined by 40 CFR 93.116 in the *Transportation Conformity Regulations, as of April 2012*, any highway or transit project which is proposed to receive funding assistance and/or approval through federal programs or the Federal Highway Administration (FHWA) must not

“cause or contribute to any new localized CO, PM<sub>10</sub>, and/or PM<sub>2.5</sub> violations, increase the frequency or severity of any existing CO, PM<sub>10</sub>, and/or PM<sub>2.5</sub> violations, or delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in CO, PM<sub>10</sub>, and PM<sub>2.5</sub> nonattainment and maintenance areas.” To determine project level conformity, analyses must be performed for the respective pollutant set in the corresponding nonattainment or maintenance area where a project is located. To make the determination that a project is conforming, consultation in accordance with 40 CFR 93.105 is completed via the Interagency Consultation Group (ICG). The ICG for Maryland Department of Transportation’s State Highway Administration (MDOT/SHA) projects includes a representative from FHWA, EPA, the Maryland Department of the Environment (MDE), and the appropriate MPO. This assessment includes a project level conformity determination.

#### IV. ENVIRONMENTAL CONSEQUENCES

##### 1. Regional Conformity

The currently approved NCRTPB long range transportation plan and TIP have been determined to conform to the requirements of the Clean Air Act Amendments of 1990 in accordance with 40 CFR 93.114. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. The current 2015-2020 TIP includes the project as part of ID 3547 and the current long range plan includes the project as part of ID 3446, therefore, the project is included in a regionally conforming TIP and long range plan that meet the requirements of 40 CFR 93.115.

##### 2. Project Level Conformity

Since Prince George’s County is a maintenance area for PM<sub>2.5</sub>, a project-specific PM<sub>2.5</sub> assessment has been provided.

To assist in analyzing potential project impacts to PM<sub>2.5</sub> levels, recent ambient air quality data from MDE air monitoring stations has been referenced. The closest MDE air monitoring station for the study area is located at the Prince George’s County Equestrian Center in Greater Upper Marlboro, Maryland. Monitoring data is also available at stations located at the Park Services Office in Washington, DC, and 2500 1<sup>st</sup> Street, NW in Washington, DC. All these stations are located in EPA Region 3. Monitored ambient, annual PM<sub>2.5</sub> data at these stations for the years 2013-2015 is presented in **Table 2** (see **Appendix B** for details).

**TABLE 2 – Monitored PM<sub>2.5</sub> Data 2013-2015**

Site (ordered by closest to farthest from project location)	Site 240338003 PG Co Equestrian Center Greater Upper Marlboro MD			Site 110010042 Park Services Office Washington DC			Site 110010043 2500 1 <sup>st</sup> Street, NW Washington DC		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Weighted Annual Mean (ug/m <sup>3</sup> )	7.9	7.8	8.4	8.3	9.1	9.2	11.6	9.9	10

On March 10, 2006, EPA issued a final rule to address localized impacts of particulate matter: “PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Analyses in Project-Level Transportation Conformity Determinations

*for the New PM<sub>2.5</sub> and Existing PM<sub>10</sub> National Ambient Air Quality Standards” (71 FR 12468).* These rule amendments require the assessment of localized air quality impacts of federally funded or approved transportation projects in PM<sub>10</sub> and PM<sub>2.5</sub> nonattainment and maintenance areas. In November 2013 EPA issued “*Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas,*” which helps state and local agencies complete quantitative PM<sub>2.5</sub> and PM<sub>10</sub> hot-spot analyses for project-level transportation conformity determinations of certain highway and transit projects.

Projects that require hot-spot analysis for PM<sub>2.5</sub> are those that are listed in 40 CFR 93.123(b)(1), which Appendix B to the December 2010 *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas* defines as examples of projects of local air quality concern and include:

- (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 PM<sub>10</sub> or PM<sub>2.5</sub> applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violations.*

As discussed in examples outlined in the preamble to the March 10, 2006 final rule, projects of local air quality concern, 40 CFR 93.123(b)(1)(i) and (ii), have been interpreted as applying to projects that would involve a significant increase in the number of diesel transit buses and diesel trucks on the existing facility. As provided in the November 2015 guidance, Appendix B, examples of projects that are of air quality concern and, therefore, covered by 40 CFR 93.123(b)(1)(i) and (ii) include the following:

- A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic;
- New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal;
- Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of-Service D, E, or F) that has a significant increase in the number of diesel trucks; and,
- Similar highway projects that involve a significant increase in the number of diesel transit busses and/or diesel trucks.

To assist with the ICG process, MDOT/SHA has prepared the following assessment of the proposed improvements:

- This project is considered under the following paragraph 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 local air quality concern based on the following considerations:
  - The proposed project involves the reconstruction of the MD 4 at Suitland Parkway interchange to a grade-separated interchange.
  - As shown in **Table 3**, MD 4 does not carry a significant number of diesel trucks; nor is there a significant increase in the percentage of diesel trucks between the future no-build and build conditions. For the 2035 no-build conditions along MD 4 between I-495/95 and Old Marlboro Pike/Westphalia Road, the total average daily traffic (ADT) volume is 116,000 vehicles and the total average daily number of diesel trucks is 7,981 vehicles. For the 2035 build conditions between I-495/95 and Old Marlboro Pike/Westphalia Road, the MD 4 ADT volume is 120,300 and the diesel truck volume is 8,277, an increase of 296 daily trucks. For the 2035 no-build conditions between Old Marlboro Pike/Westphalia Road and MD 337 (Suitland Parkway), the total MD 4 average daily traffic (ADT) volume is 95,000 vehicles and the total average daily number of diesel trucks is 4,864 vehicles. For the 2035 build conditions between Old Marlboro Pike/Westphalia Road and MD 337 (Suitland Parkway), the MD 4 ADT volume is 108,400 and the diesel truck volume is 5,561, an increase of 697 daily trucks. For the 2035 no-build conditions between MD 337 (Suitland Parkway) and Dower House Road, the total MD 4 average daily traffic (ADT) volume is 98,325 vehicles and the total average daily number of diesel trucks is 3,373 vehicles. For the 2035 build conditions between MD 337 (Suitland Parkway) and Dower House Road, the MD 4 ADT volume is 106,900 and the diesel truck volume is 3,667, an increase of 299 daily trucks. For the 2035 no-build conditions between Dower House Road and MD 223, the total MD 4 average daily traffic (ADT) volume is 81,500 vehicles and the total average daily number of diesel trucks is 3,431 vehicles. For the 2035 build conditions between Dower House Road and MD 223, the MD 4 ADT volume is 91,600 and the diesel truck volume is 3,866, an increase of 435 daily trucks.
  - Depicted truck percentages represent the amount of light, medium and heavy diesel truck activity along the 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, relieving system congestion and improving safety, but will not necessarily induce new truck traffic origin-destination patterns.

Based on review and analysis as discussed above, it is determined that the project will meet the CAA and 40 CFR 93.109 requirements for PM<sub>2.5</sub>. These requirements are met without a hot-spot analysis because the project has not been found to be a project of local air quality concern as outlined under 40 CFR 93.123(b)(1). The project will not cause or contribute to a new violation of the PM<sub>2.5</sub> NAAQS, increase the frequency or severity of any existing violation, or delay timely attainment of any PM<sub>2.5</sub> standard or any required interim PM<sub>2.5</sub> emission reductions or other milestones.

**TABLE 3 - Traffic Data – MD 4**

Segment	Condition	Existing 2015	No-Build 2035	Build 2035
<b>I-495/95 to Old Marlboro Pike/Westphalia Road</b>	<b>ADT (vpd)</b>	59,875	116,000	120,300
	<b>Percent Diesel Trucks (%)</b>	6.88	6.88	6.88
	<b>Daily Truck Volumes (vpd)</b>	4,119	7,981	8,277
<b>Old Marlboro Pike/Westphalia Road to MD 337 (Suitland Parkway)</b>	<b>ADT (vpd)</b>	53,675	95,000	108,400
	<b>Percent Diesel Trucks (%)</b>	5.13	5.12	5.13
	<b>Daily Truck Volumes (vpd)</b>	2,754	4,864	5,561
<b>MD 337 (Suitland Parkway) to Dower House Road</b>	<b>ADT (vpd)</b>	75,800	98,325	106,900
	<b>Percent Diesel Trucks (%)</b>	3.43	3.43	3.43
	<b>Daily Truck Volumes (vpd)</b>	2,600	3,373	3,667
<b>Dower House Road to MD 223</b>	<b>ADT (vpd)</b>	70,275	81,500	91,600
	<b>Percent Diesel Trucks (%)</b>	4.21	4.21	4.22
	<b>Daily Truck Volumes (vpd)</b>	2,959	3,431	3,866

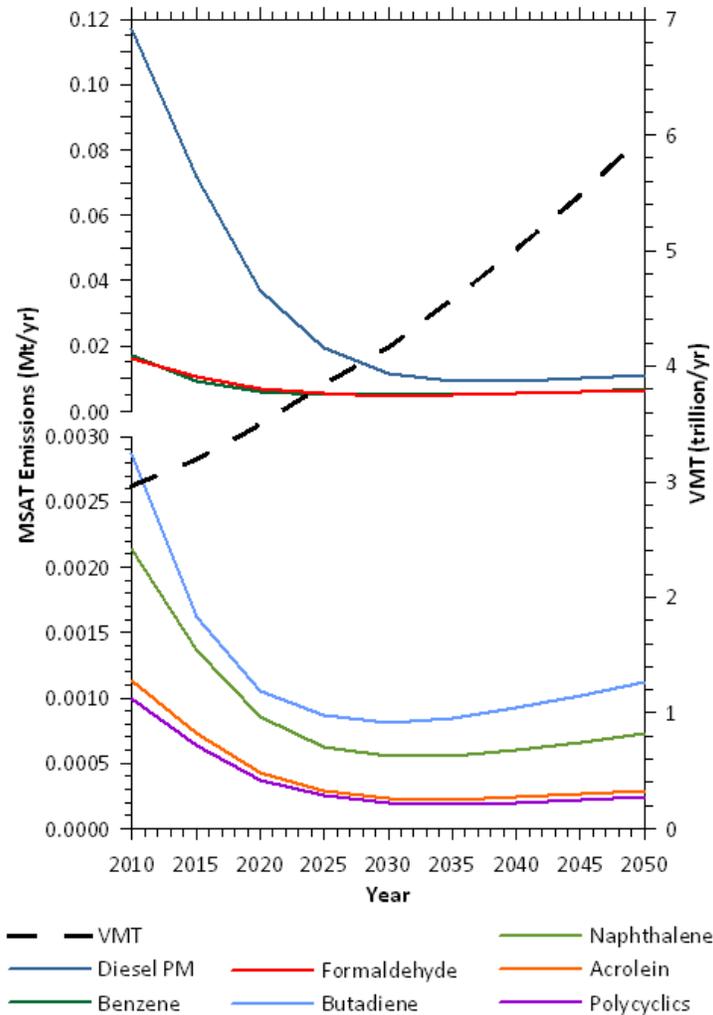
### 3. MSAT Assessment

The FHWA December 2012 *Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA* requires an assessment of MSATs under specific conditions. Since the projected no-build and build traffic are not significantly different, as reflected in **Table 3**, the project will have no meaningful impacts on traffic volumes or vehicle mixes. Therefore in accordance with the referenced FHWA guidance, the project would be considered a Project with No Meaningful Potential MSAT Effects.

The purpose of the project is to improve safety and traffic operations to address existing and projected travel demand throughout the corridor. 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 substantial 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 Motor Vehicle Emission Simulator (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 (Figure 2). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.



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.

**FIGURE 2 - National MSAT Emission Trends 1999 – 2050 for Vehicles Operating on Roadways Using EPA's MOVES2010b Model**

#### 4. 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. MDOT/SHA has addressed this possibility by establishing procedures to be followed by contractors involved in site work through publishing the *Standard Specifications for Construction and Materials*. 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 26.11.06.03 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 the construction impact of the project is insignificant.

#### **V. INTERAGENCY CONSULTATION GROUP / PUBLIC COORDINATION**

Copies of this air quality analysis were circulated to FHWA, EPA, MDE, and NCRTPB staff for a 15 day ICG review and comment period. EPA, MDE, and FHWA concurred that this project does not require a hot-spot analysis (**Appendix D**). This analysis will be placed on MDOT/SHA's website for a 15 day public review and comment period.

## **APPENDIX**

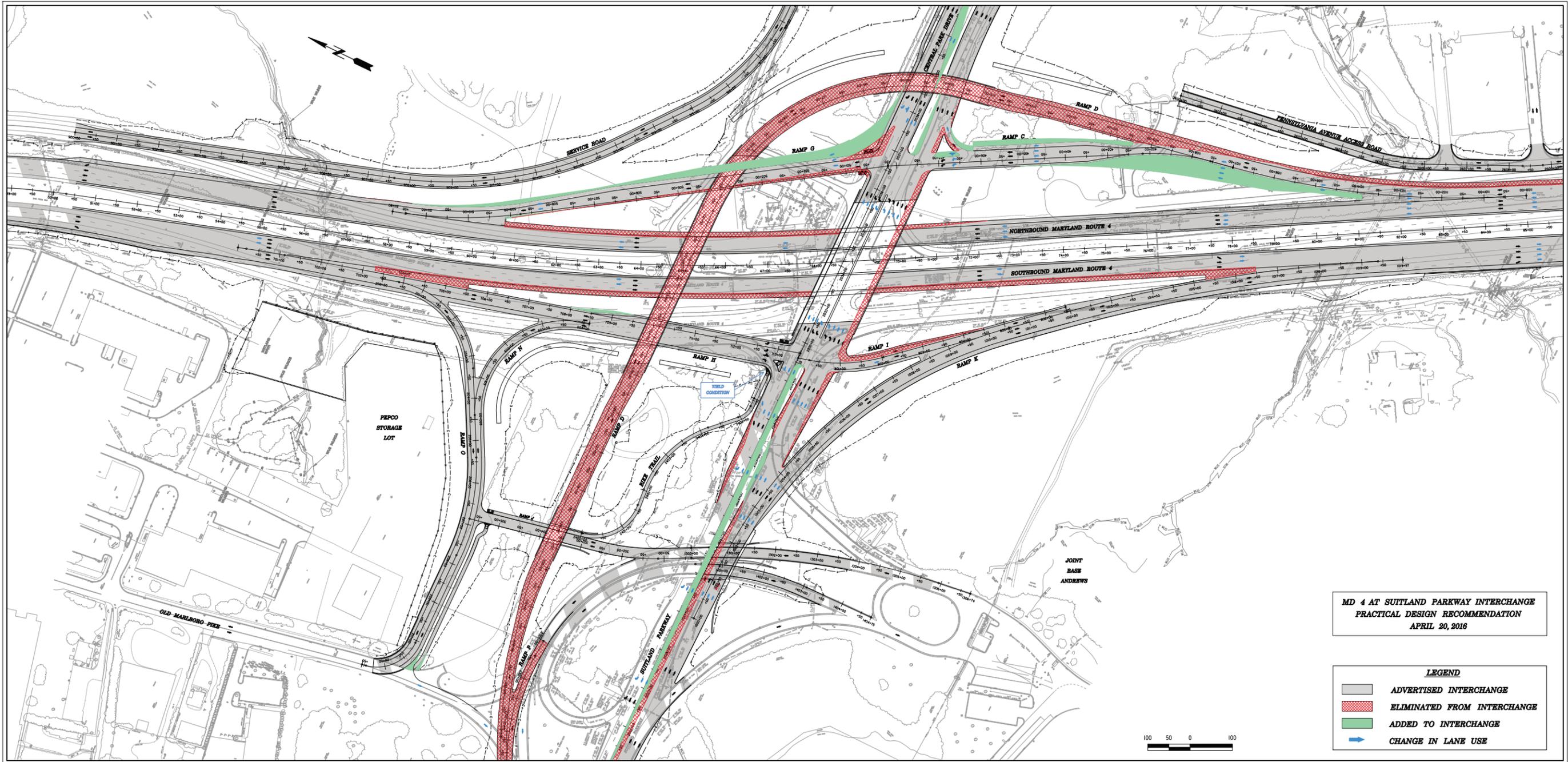
**A - PLANS**

**B - MONITORED PM<sub>2.5</sub> DATA 2013-2015**

**C - TRAFFIC DATA**

**D - INTERAGENCY CONSULTATION GROUP COORDINATION**

## **APPENDIX A - PLANS**



INDEX OF SHEETS  
SEE SHEET 2



Maryland Department of Transportation  
STATE HIGHWAY ADMINISTRATION  
PLANS OF PROPOSED HIGHWAY  
S.H.A. CONTRACT NO. PG6185170R  
FEDERAL AID PROJECT NO. ACHP-TIP-NHPP-G-259-1(83)N  
MD 4 AT SUITLAND PARKWAY INTERCHANGE  
IMPROVEMENTS

AASHTO DESIGN CRITERIA

THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE 2011 PUBLICATION OF AASHTO'S "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS."

STANDARD SPECIFICATIONS BOOK,  
BOOK OF STANDARDS AND MUTCD

ALL WORK ON THIS PROJECT SHALL CONFORM TO: THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATIONS SPECIFICATIONS ENTITLED STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED JULY 2008 REVISIONS THEREOF OR ADDITIONS THERETO; THE SPECIAL PROVISIONS INCLUDED IN THE INVITATION FOR BIDS BOOK; THE ADMINISTRATIONS BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES AND THE LATEST ADOPTED MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

RIGHT OF WAY

RIGHT OF WAY AND EASEMENT LINES SHOWN ON THESE PLANS ARE FOR ASSISTANCE IN INTERPRETING THE WAY. THEY ARE NOT OFFICIAL. FOR OFFICIAL FEE RIGHT OF WAY AND EASEMENT INFORMATION, SEE APPROPRIATE RIGHT OF WAY PLATS.

UTILITIES

THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE OF THE ACCURACY OF SAID LOCATIONS. THE ELECTRIC AND TELEPHONE WILL BE CONSTRUCTED BY OTHERS. WATER AND GAS RELOCATIONS INCLUDED IN THIS CONTRACT.

COMPLETENESS OF DOCUMENTS

THE STATE HIGHWAY ADMINISTRATION SHALL ONLY BE RESPONSIBLE FOR THE COMPLETENESS OF DOCUMENTS PROVIDED BY THE STATE HIGHWAY ADMINISTRATION. FAILURE TO ATTACH ADDENDA MAY CAUSE THE BID TO BE IRREGULAR.

ADA COMPLIANCE

THE DESIGN OF THIS PROJECT HAS INCORPORATED FACILITIES FOR THE ELDERLY AND HANDICAPPED IN COMPLIANCE WITH THE STATE AND FEDERAL LEGISLATION

ENVIRONMENTAL INFORMATION

MDE # 08-SF-0042

ALL STORMWATER MANAGEMENT FACILITIES CONSTRUCTED FOR CONTRACT NO. PG6185170R SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STATE HIGHWAY ADMINISTRATIONS BEST MANAGEMENT PRACTICES (BMP) INSPECTION AND REMEDIATION PROGRAM.

SEDIMENT AND EROSION CONTROL REGULATIONS WILL BE STRICTLY ENFORCED DURING CONSTRUCTION.

STANDARD STABILIZATION NOTE :

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN SEVEN (7) CALENDER DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN DAYS (7) AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

OWNERS / DEVELOPERS CERTIFICATION :

I / WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT, COMPLIANCE INSPECTORS.

**CONSTRUCTABILITY  
REVIEW  
APRIL 2016**

REVIEWED AND APPROVAL RECOMMENDED DATE

CHEF, HIGHWAY DESIGN DIVISION

APPROVAL RECOMMENDED DATE

DIRECTOR, OFFICE OF HIGHWAY DEVELOPMENT

APPROVED DATE

DEPUTY ADMINISTRATOR / CHIEF ENGINEER FOR PLANNING, ENGINEERING, REAL ESTATE AND ENVIRONMENT

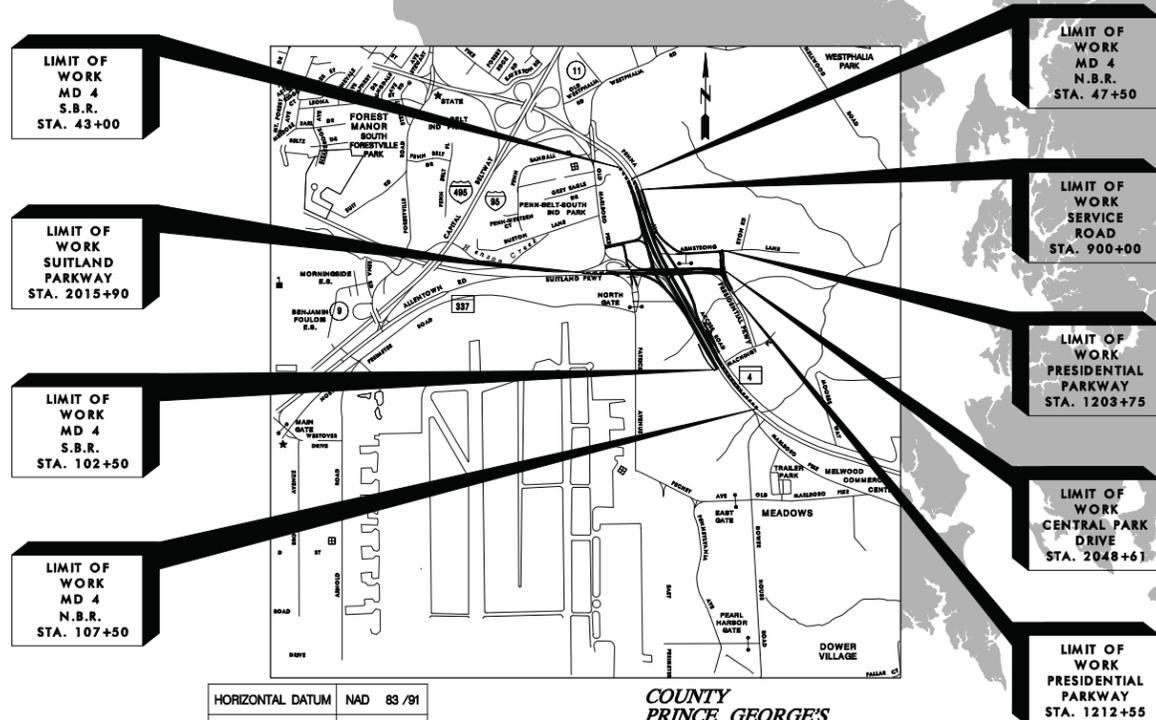
DRILL HOLES

DRILL HOLES

DRILL HOLES

BY: KVAUGHAN

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,  LICENSE NO. _____ EXPIRATION DATE _____	HIGHWAY DESIGN	HEIDI VAN LUVEN	DATE
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,  LICENSE NO. 31177 EXPIRATION DATE 02/01/2017	DRAINAGE DESIGN STORM WATER MANAGEMENT PLAN	GREG FOX	DATE
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,  LICENSE NO. _____ EXPIRATION DATE _____	TRAFFIC ENGINEER	KEITH RINIKER	DATE
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,  LICENSE NO. _____ EXPIRATION DATE _____	LANDSCAPE AND STREETSCAPE PLANS	JOAN FLOURA	DATE



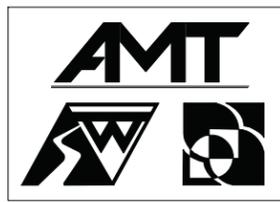
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VERTICAL DATUM NAVD 88

SCALE: 1"=2000'  
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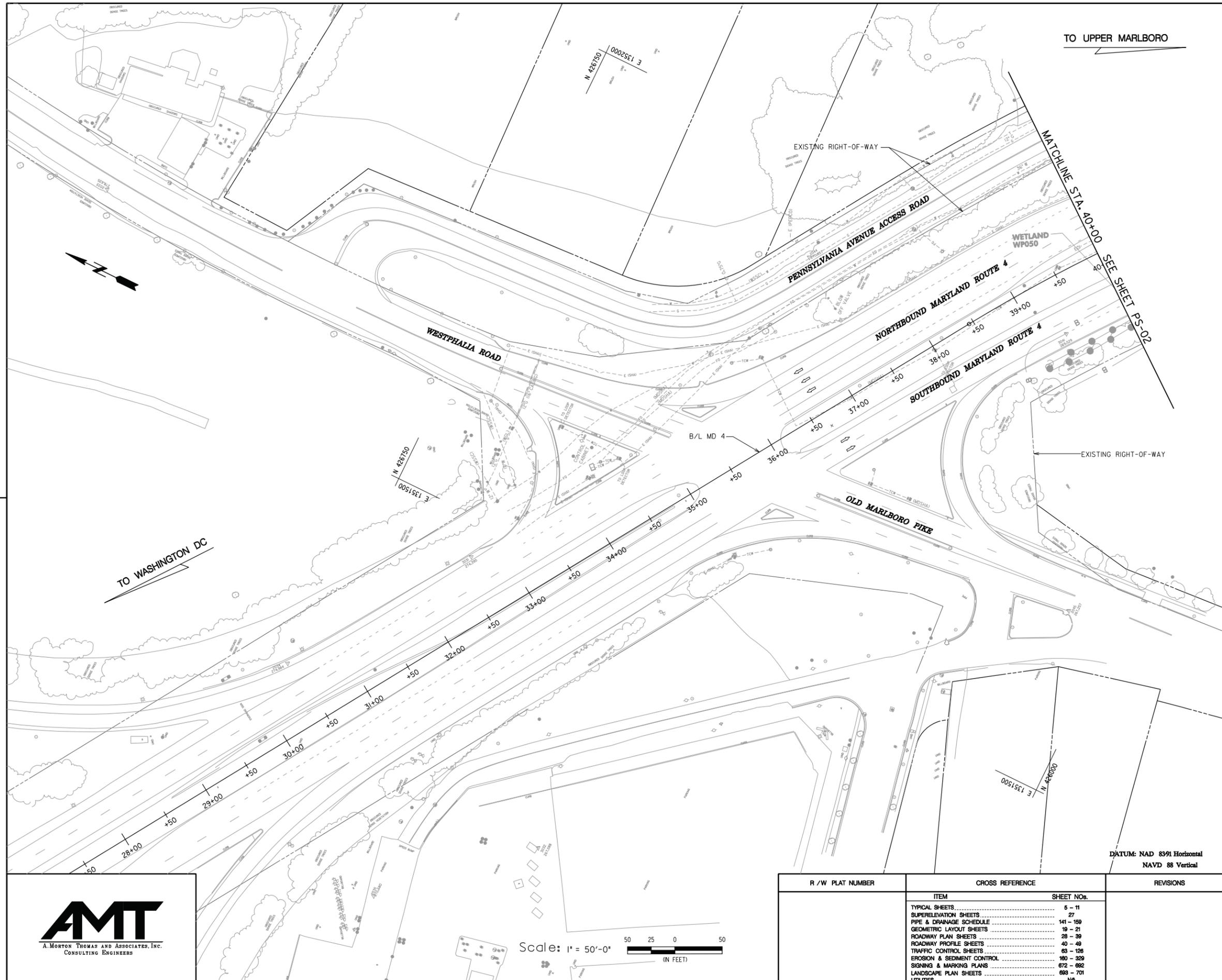
COUNTY PRINCE GEORGE'S  
LENGTH OF PROJECT:  
MD RTE. 4 = 1.22 miles  
SUITLAND PARKWAY/CENTRAL PARK DRIVE = 0.62 miles  
PRESIDENTIAL PARKWAY = 0.17 miles

ROADWAY	MD 4		SUITLAND PARKWAY	
	2014	2030	2014	2030
CONTROLS / YEARS	2014	2030	2014	2030
AVERAGE DAILY TRAFFIC (A.D.T.)	67,680	84,450	29,490	52,250
DESIGN HOURLY VOLUME (D.H.V.)	8%	8%	7%	7%
DIRECTIONAL DISTRIBUTION	52%	52%	51%	51%
% TRUCKS - A.D.T.	7%	7%	3%	3%
% TRUCKS - D.H.V.	6%	6%	1%	1%
DESIGN SPEED M. P. H.	70 MPH		55 MPH	
FUNCTIONAL CLASSIFICATION	URBAN FREEWAY		URBAN PARKWAY	
CONTROL OF ACCESS	PARTIAL		PARTIAL	
INTENSITY OF DEVELOPMENT	SUBURBAN		SUBURBAN	
TERRAIN	ROLLING		ROLLING	
ANTICIPATED POSTED SPEED	60 MPH		45 MPH	

R-O-W PLAT NUMBERS	SURVEY BOOK NUMBERS
59577	22782
57587	25503
57600	31447
57601	23683
57602	24983
57697	
57698	
57699	
57700	
57838	
57839	
57840	
57841	
57842	

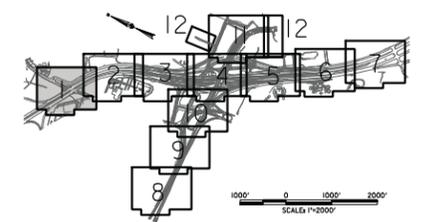


REVISIONS	



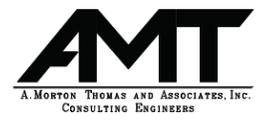
TO WASHINGTON DC

TO UPPER MARLBORO



**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 HIGHWAY DESIGN DIVISION  
 MD 4 AT SUTLAND PARKWAY INTERCHANGE  
 IMPROVEMENTS

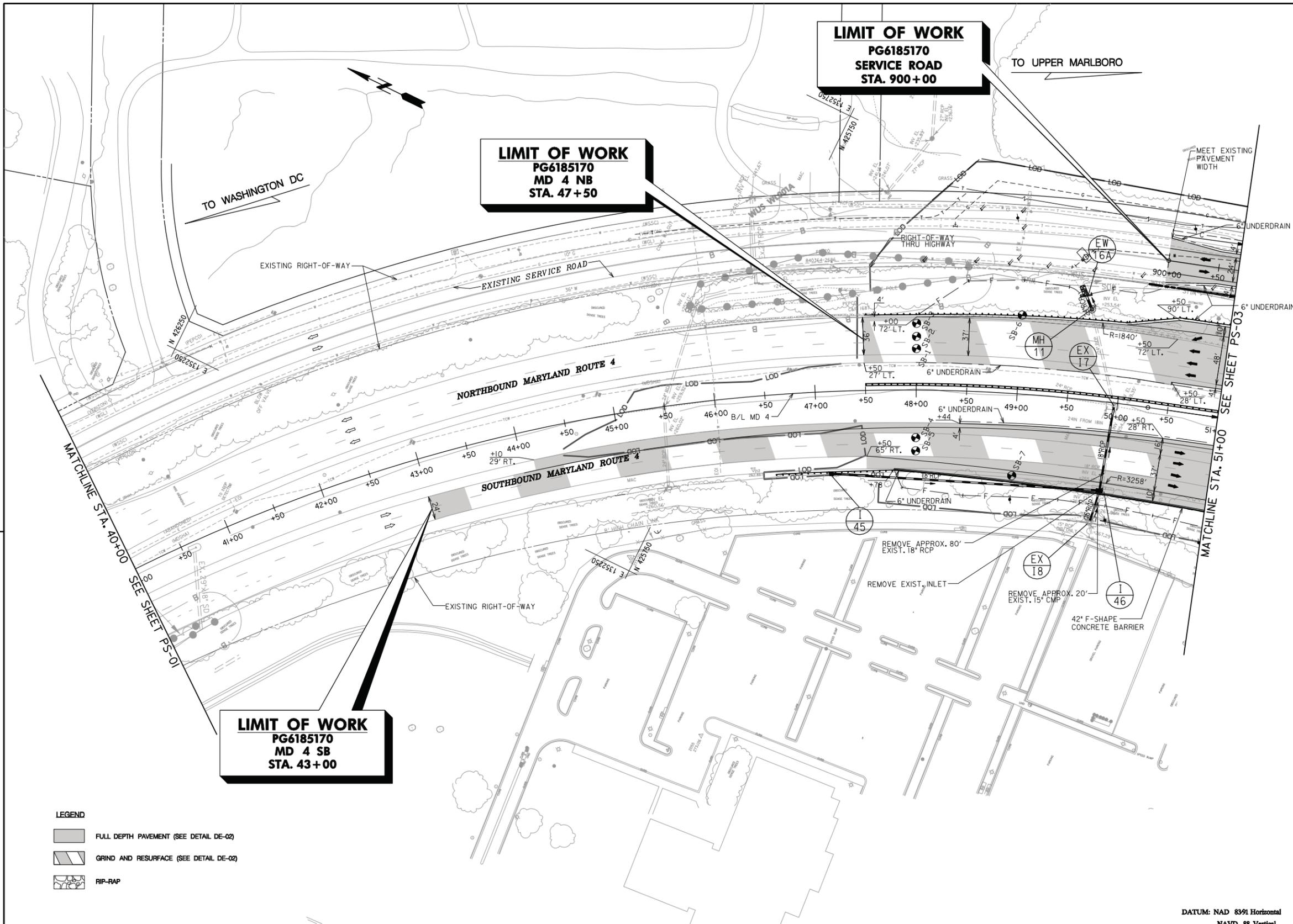
DAIUM: NAD 83/1 Horizontal  
 NAVD 88 Vertical



Scale: 1" = 50'-0"  
 50 25 0 50  
 (IN FEET)

R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	ITEM	SHEET NOS.
	TYPICAL SHEETS .....	6 - 11
	SUPERELEVATION SHEETS .....	27
	PIPE & DRAINAGE SCHEDULE .....	141 - 159
	GEOMETRIC LAYOUT SHEETS .....	19 - 21
	ROADWAY PLAN SHEETS .....	28 - 39
	ROADWAY PROFILE SHEETS .....	40 - 49
	TRAFFIC CONTROL SHEETS .....	63 - 126
	EROSION & SEDIMENT CONTROL .....	160 - 329
	SIGNING & MARKING PLANS .....	672 - 682
	LANDSCAPE PLAN SHEETS .....	683 - 701
	UTILITIES .....	NA

ROADWAY PLAN			
SCALE	AS SHOWN	DATE	APRIL 2016
CONTRACT NO.	PG6185170		
DESIGNED BY	KV	COUNTY	PRINCE GEORGES
DRAWN BY	KV	LOGMILE	08.430
CHECKED BY	KW	HORIZONTAL SCALE	AS SHOWN
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	AS SHOWN
DRAWING NO.	PS-01	SHEET NO.	28 OF 705



**LIMIT OF WORK**  
**PG6185170**  
**SERVICE ROAD**  
**STA. 900+00**

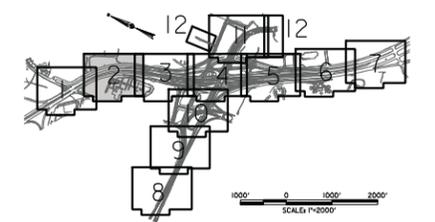
**LIMIT OF WORK**  
**PG6185170**  
**MD 4 NB**  
**STA. 47+50**

**LIMIT OF WORK**  
**PG6185170**  
**MD 4 SB**  
**STA. 43+00**

- LEGEND**
- FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
  - GRIND AND RESURFACE (SEE DETAIL DE-02)
  - RIP-RAP

**QUANTITY NOTES**

TRAFFIC BARRIER END TREATMENT		
TYPE E END TREATMENT (MD-605.06)	MD 4 - STA. 47+50 (5.7' LT)	1 EA
TYPE B END TREATMENT (MD-605.02)	MD 4 - STA. 46+45 (79.0' RT)	1 EA
W BEAM MEDIAN TRAFFIC BARRIER		
MD 605.28-01	MD 4 - STA. 47+50 - 51+00 (5.7' LT)	350 LF
W BEAM SINGLE FACE TRAFFIC BARRIER (6 FOOT POSTS)		
MD-605.25	MD 4 - STA. 47+50 - 51+00 (LT)	350 LF
MD-605.25	MD 4 - STA. 46+82 - 47+75 (79.0' RT)	75 LF
TRAFFIC BARRIER END SECTION/ANCHORAGE		
SPlice TO EXIST. MD-605.23	MD 4 47+75 (79' LT)	1 EA
MD-605.43	MD 4 47+75 (78' RT)	1 EA
42' F-SHAPE CONCRETE BARRIER		
MD 648.54	MD 4 - STA. 47+75 79' RT - 51+00 (194' RT)	325 LF
REMOVAL OF EXISTING TRAFFIC BARRIER		
	MD 4 - STA. 47+50 - 51+00 (LT)	350 LF



**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
HIGHWAY DESIGN DIVISION

MD 4 AT SUTLAND PARKWAY INTERCHANGE  
IMPROVEMENTS

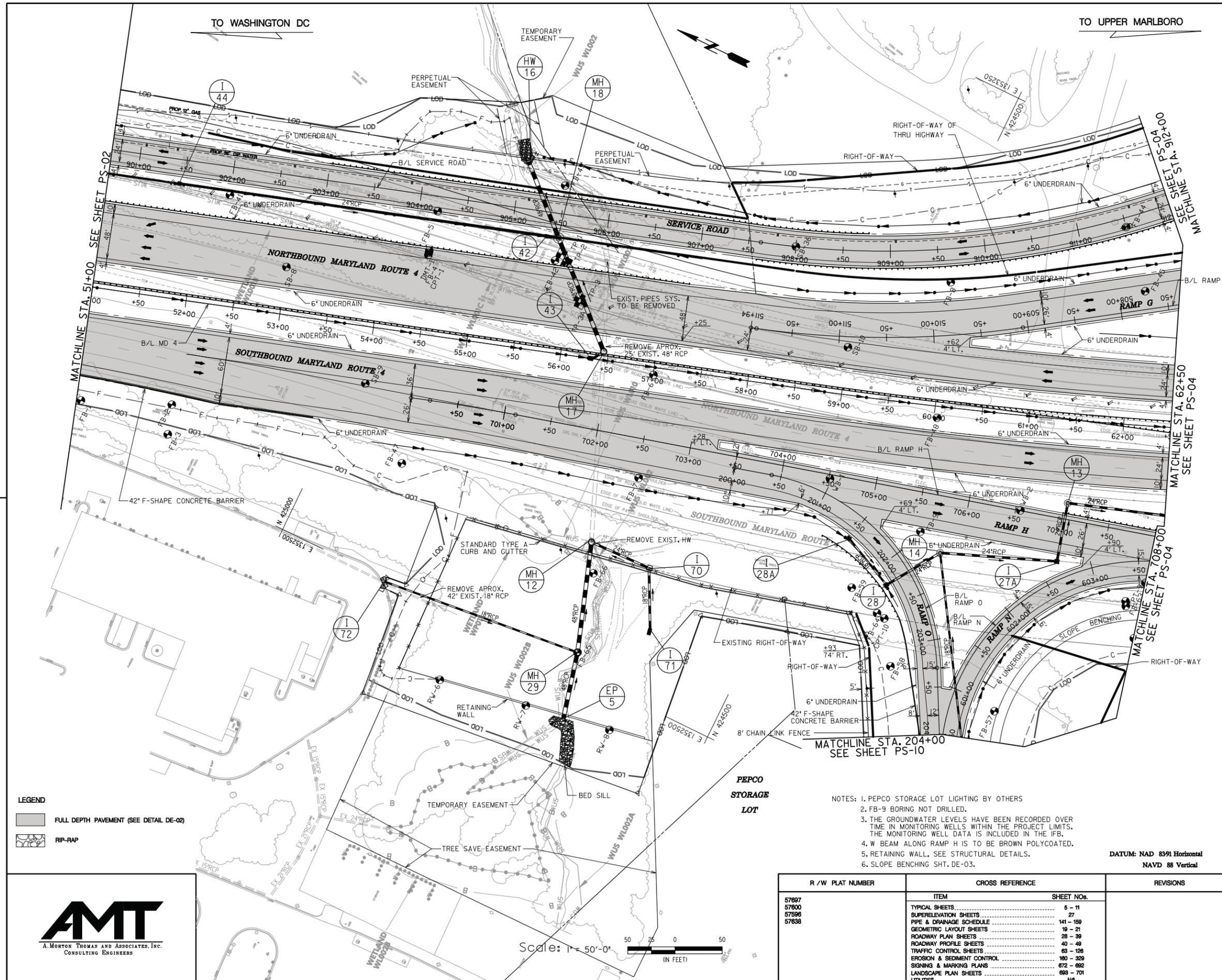
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NAVD 88 Vertical



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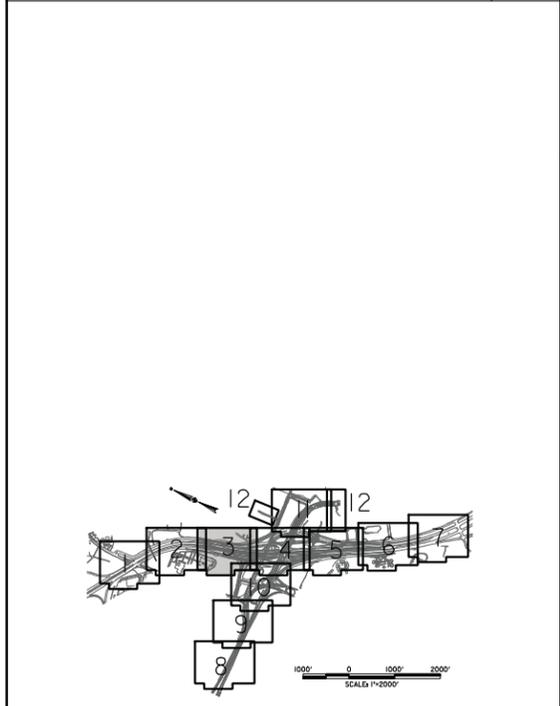
R /W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57638	ITEM SHEET NOs.	
	TYPICAL SHEETS.....	6 - 11
	SUPERELEVATION SHEETS.....	27
	PIPE & DRAINAGE SCHEDULE.....	141 - 159
	GEOMETRIC LAYOUT SHEETS.....	19 - 21
	ROADWAY PLAN SHEETS.....	28 - 39
	ROADWAY PROFILE SHEETS.....	40 - 49
	TRAFFIC CONTROL SHEETS.....	83 - 128
	EROSION & SEDIMENT CONTROL.....	160 - 329
	SIGNING & MARKING PLANS.....	672 - 682
	LANDSCAPE PLAN SHEETS.....	683 - 701
	UTILITIES.....	NA

ROADWAY PLAN			
SCALE	AS SHOWN	DATE	APRIL 2016
CONTRACT NO.	PG6185170		
DESIGNED BY	KV	COUNTY	PRINCE GEORGES
DRAWN BY	KV	LOGMILE	08.430
CHECKED BY	KW	HORIZONTAL SCALE	AS SHOWN
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	AS SHOWN
DRAWING NO.	PS-02	SHEET NO.	29 OF 705



**QUANTITY NOTES**

TRAFFIC BARRIER END TREATMENT		
TYPE B END TREATMENT (MD-605.02)	SERVICE RD - STA. 907+60 - 907+98 (18.0' RT)	1 EA
TYPE B END TREATMENT (MD-605.02)	SERVICE RD - STA. 908+40 - 908+78 (18.0' LT)	1 EA
TYPE B END TREATMENT (MD-605.02)	MD 4 - STA. 56+97 - 57+25 (92.0' LT)	1 EA
TYPE C END TREATMENT (MD-605.03)	RAMP H - STA. 707+00 - 707+50 (6.0' LT)	1 EA
TYPE C END TREATMENT (MD-605.03)	SERVICE RD - STA. 903+00 - 903+50 (18.0' LT)	1 EA
TYPE C END TREATMENT (MD-605.03)	RAMP O - STA. 201+22 - 201+72 (40' RT)	1 EA
W BEAM MEDIAN TRAFFIC BARRIER		
MD-605.28-01	MD 4 - STA. 51+00 - 62+50 (5.7' LT)	1150 LF
W BEAM SINGLE FACE TRAFFIC BARRIER (6 FOOT POSTS)		
MD-605.25	MD 4 - STA. 51+00 - 56+97 (84.0' LT)	597 LF
MD-605.25	SERVICE RD - STA. 903+00 - 908+40 (18.0' LT)	540 LF
MD-605.25	SERVICE RD - STA. 907+98 - 912+00 (18.0' RT)	402 LF
MD-605.25	RAMP H - STA. STA. 707+00 - 708+00 (6.0' LT)	50 LF
MD-605.25	RAMP O - STA. 201+72 - 202+47 (30.0' RT)	75 LF
TRAFFIC BARRIER END SECTION/ANCHORAGE (MD 605.41)		
	RAMP O - STA. 202+65 (30.0 RT)	1 EA
42" F-SHAPE CONCRETE BARRIER		
STD. NO. MD. 648.54	MD 4 - STA. 51+00 - 53+50	250 LF
STD. NO. MD. 648.54	RAMP O - STA. 202+65 - 203+05 (30' RT)	40 LF
STD. NO. MD. 648.54	RAMP O - STA. 203+05 (30' RT) - 204+00 (21' RT)	95 LF
CONCRETE CURB & GUTTER (MD 620.02, TYPE A) 8" DEPTH		
PEPCO STORAGE LOT	RAMP H 700+80 RT. TO RAMP O 202+40 RT.	420 LF
8' CHAIN LINK FENCE (MD 690.01)		
PEPCO STORAGE LOT		700 LF
REMOVAL OF EXISTING TRAFFIC BARRIER		
	MD 4 - STA. 51+00 - 56+60 (LT)	560 LF



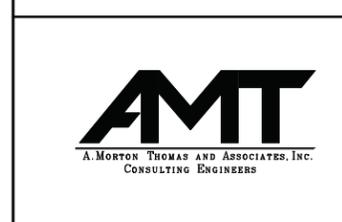
**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
HIGHWAY DESIGN DIVISION

MD 4 AT SUITLAND PARKWAY INTERCHANGE  
IMPROVEMENTS

**LEGEND**

■ FULL DEPTH PAVEMENT (SEE DETAIL DE-02)

▨ RIP-RAP

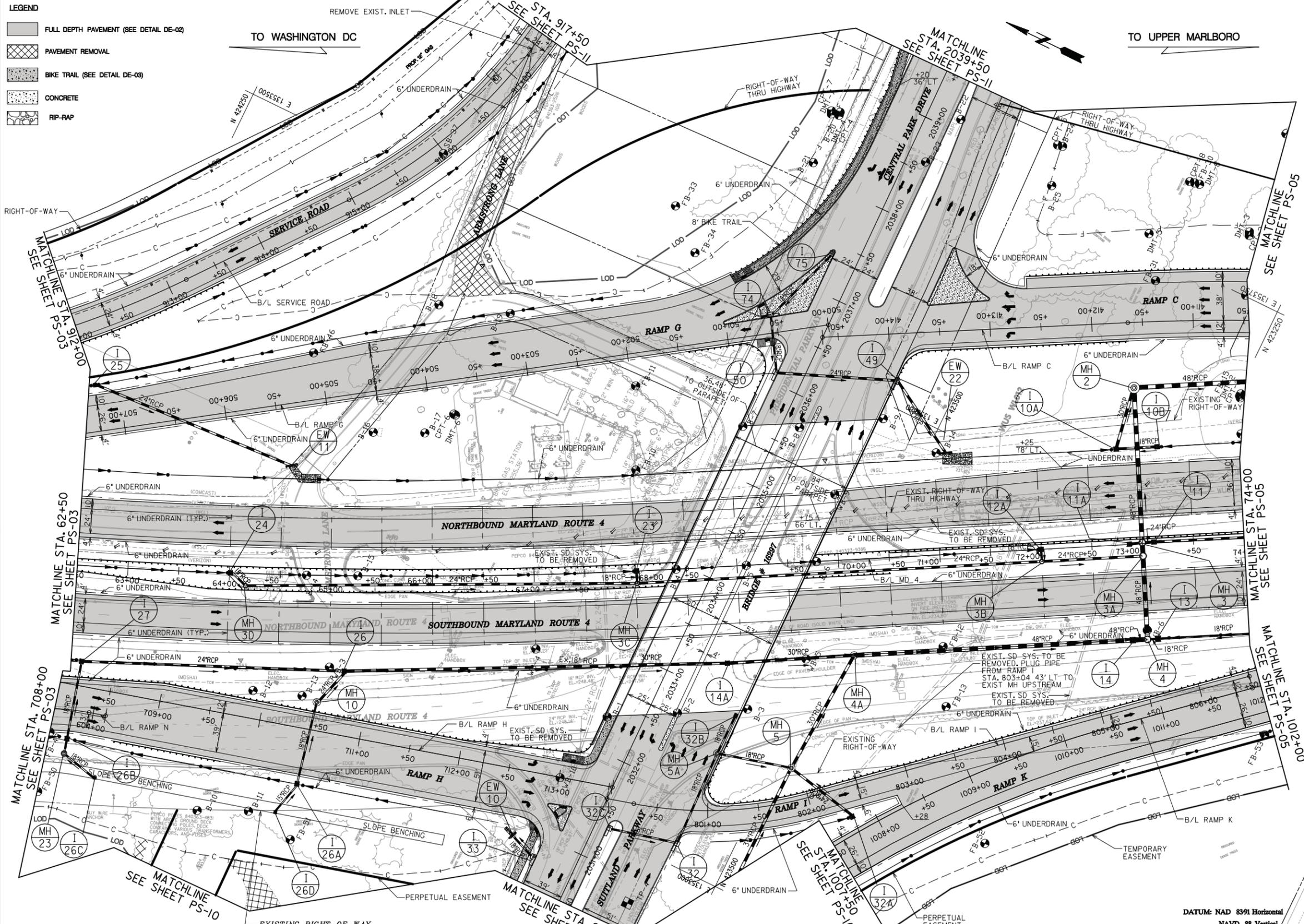


- NOTES:
1. PEPCO STORAGE LOT LIGHTING BY OTHERS
  2. FB-9 BORING NOT DRILLED.
  3. THE GROUNDWATER LEVELS HAVE BEEN RECORDED OVER TIME IN MONITORING WELLS WITHIN THE PROJECT LIMITS. THE MONITORING WELL DATA IS INCLUDED IN THE IFB.
  4. W BEAM ALONG RAMP H IS TO BE BROWN POLYCOATED.
  5. RETAINING WALL, SEE STRUCTURAL DETAILS.
  6. SLOPE BENCHING SHT. DE-03.

DATE: NAD 83/91 Horizontal  
NAVD 88 Vertical

R /W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57897	TYPICAL SHEETS	6 - 11
57898	SUPERELEVATION SHEETS	27
57899	PIPE & DRAINAGE SCHEDULE	141 - 159
57900	GEOMETRIC LAYOUT SHEETS	19 - 21
57901	ROADWAY PLAN SHEETS	28 - 39
57902	ROADWAY PROFILE SHEETS	40 - 49
57903	TRAFFIC CONTROL SHEETS	83 - 126
57904	EROSION & SEDIMENT CONTROL	160 - 329
57905	SIGNING & MARKING PLANS	672 - 682
57906	LANDSCAPE PLAN SHEETS	683 - 701
57907	UTILITIES	NA





**LEGEND**

[Pattern]	FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
[Pattern]	PAVEMENT REMOVAL
[Pattern]	BIKE TRAIL (SEE DETAIL DE-03)
[Pattern]	CONCRETE
[Pattern]	RIP-RAP

**QUANTITY NOTES**

TRAFFIC BARRIER END TREATMENT		
TYPE B END TREATMENT (MD-605.02)	RAMP C - STA. 411+64 - 412+01 (18.0' LT)	1 EA
TYPE C END TREATMENT (MD-605.03)	SERVICE RD. STA. 913+00 - 913+50 (18.0' RT)	1 EA
TYPE K END TREATMENT (MD-605.03)	CENTRAL PARK DR. - STA. 2036+78 (108.0' LT)	1 EA
TYPE K END TREATMENT (MD-605.03)	MD 4 - STA. 70+50 (16.0' RT)	1 EA
TYPE K END TREATMENT (MD-605.10)	RAMP C - STA. 412+62 (50.0' LT.)	1 EA
TYPE K END TREATMENT (MD-605.10)	RAMP G - STA. 501+40 (16.0' LT.)	1 EA

W BEAM MEDIAN TRAFFIC BARRIER		
MD-605.28-01	MD 4 - STA. 62+50 - 74+00 (5.7' LT)	1100 LF

W BEAM SINGLE FACE TRAFFIC BARRIER (6 FOOT POSTS)		
MD-605.25	MD 4 - STA. 63+50 - 65+50 RT.	200 LF
MD-605.25	MD 4 - STA. 67+50 - 70+50 RT.	300 LF
MD-605.25	SERVICE RD - STA. 912+00 - 913+50 (180.0' RT)	100 LF
MD-605.25	RAMP H - STA. 708+00 - 713+32 (6.0' + LT)	532 LF
MD-605.25	RAMP I - K - STA. 801+16 - 806+93 (16.0' + LT)	537 LF
MD-605.25	RAMP G - STA. 500+66 - 501+40 (16.0' + LT)	130 LF
MD-605.25	RAMP C - STA. 412+01 - 414+04 (18.0' + LT)	232 LF
MD-605.25	RAMP C - STA. 410+50 - 412+62 (50.0' RT)	212 LF
MD-605.25	CENTRAL PARK DR. - STA. 2036+78 - 2039+50 (VARIES LT)	272 LF
MD-605.25	SUITLAND PARKWAY - STA. 2032+15 - 2032+47 (96.0' RT)	32 LF

TRAFFIC BARRIER END SECTION/ANCHORAGE		
W BEAM ANCHORAGE TO V. FACE (MD-605.44)	SUITLAND PKWY 2032+03 (36.0' LT)	1 EA
THREE BEAM ANCHORAGE TO V. FACE (MD-605.41)	SUITLAND PKWY 2032+66 (96.0' RT)	1 EA
THREE BEAM ANCHORAGE TO V. FACE (MD-605.41)	C. PARK DRIVE - STA. 2035+83 (36.0' LT)	1 EA
W BEAM ANCHORAGE TO V. FACE (MD-605.44)	C. PARK DRIVE - STA. 2036+43 (96.0' RT)	1 EA
W BEAM ANCHORAGE TO V. FACE (MD-605.42)	C. PARK DRIVE - STA. 2038+65 (39.0' RT)	1 EA
W BEAM ANCHORAGE TO V. FACE (MD-605.42)	C. PARK DRIVE - STA. 2039+10 (21.0' RT)	1 EA

4' MONOLITHIC CONCRETE MEDIAN (MD 645.01)		
TYPE A-1 SUITLAND PARKWAY STA. 2032+26 - BRIDGE		40 LF
TYPE A-1 BRIDGE - CENTRAL PARK DRIVE STA. 2035+99		17 LF

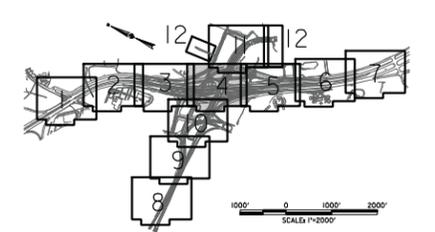
EASTERN FEDERAL LANDS CURB (SEE DETAIL DE-03)		
6' CURB SUITLAND PKWY, 2030+50, 39' LT. - 2031+09, 70' LT.		85 LF
6' CURB SUITLAND PKWY, 2030+50, 76' RT. - 2031+65, 78' RT.		125 LF
6' CURB, TRAFFIC ISLAND, 2031+40, LT.		102 LF
6' CURB, MEDIAN, 2030+50 - 2031+50		213 LF

CONCRETE CURB & GUTTER (MD 620.02, TYPE A) 9' DEPTH		
SUITLAND PKWY 2031+75, 56' LT. - 2032+40, 24' LT.		84 LF
SUITLAND PKWY 2032+00 - 2033+00, 82' RT.		100 LF
SUITLAND PKWY ISLAND 2031+12, 40' LT. - 2031+38, 40' LT.		80 LF
CENTRAL PARK DRIVE 2035+54, 24' LT. - 2036+19, 58' LT.		104 LF
CENTRAL PARK DRIVE 2036+73, 100' LT. - 2039+50, 36' LT.		298 LF
CENTRAL PARK DRIVE 2036+38, 82' RT. - 2036+92, 95' RT.		78 LF
CENTRAL PARK DRIVE 2037+90, 161' RT. - 2039+50, 81' RT.		160 LF
CENTRAL PARK DRIVE MEDIAN 2037+09 - 2039+50		500 LF
CENTRAL PARK DRIVE TRAFFIC ISLAND 2037+50, RT.		188 LF
CENTRAL PARK DRIVE TRAFFIC ISLAND 2037+00, LT.		282 LF

DETECTABLE WARNING SURFACE (MD655.40)			
RAMP G, 500+62 RT., 500+75 RT.	20 SF	RAMP H, 712+87 RT., 713+04 RT.	20 SF
RAMP G, 500+61 LT., 500+61 RT.	20 SF	RAMP H, 713+11 LT., 713+09 RT.	20 SF

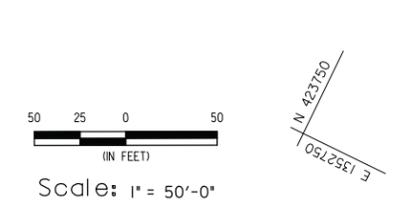
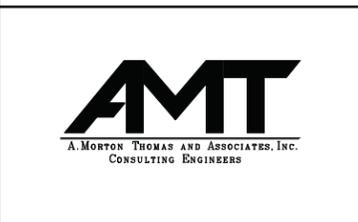
5' CONCRETE SIDEWALK RAMPS AND ISLANDS			
RAMP G, 500+75 RT. (TRAIL RAMP)	120 SF	RAMP H, 712+87 RT. (TRAIL RAMP)	120 SF
RAMP G, 500+61 LT. (TRAIL RAMP)	120 SF	RAMP H, 713+11 LT. (TRAIL RAMP)	120 SF
RAMP H, 713+00 RT. (ISLAND)	460 SF	RAMP C, 406+75 RT. (ISLAND)	1470 SF
RAMP G, 500+40 RT. (ISLAND)	2036 SF		

PAVEMENT REMOVAL			
RAMP G, 503+00 RT.	175 CY	RAMP H, 709+05 RT. 9 CY	RAMP H, 710+25 RT. 44 CY



**SHA** STATE OF MARYLAND  
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STATE HIGHWAY ADMINISTRATION  
HIGHWAY DESIGN DIVISION

**MD 4 AT SUITLAND PARKWAY INTERCHANGE IMPROVEMENTS**

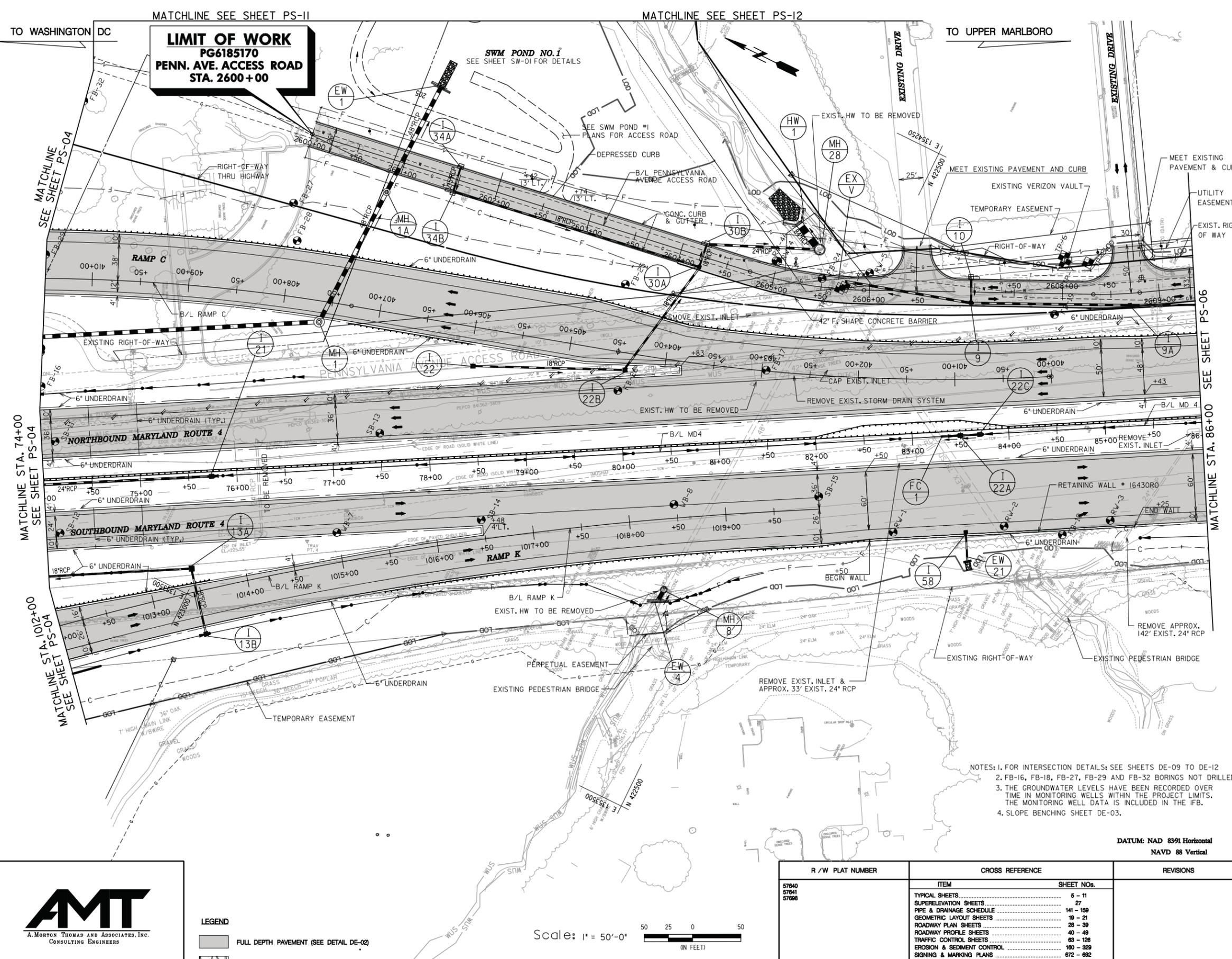


- NOTES: 1. FOR INTERSECTION DETAILS: SEE SHEETS DE-09 TO DE-12
2. THE GROUNDWATER LEVELS HAVE BEEN RECORDED OVER TIME IN MONITORING WELLS WITHIN THE PROJECT LIMITS. THE MONITORING WELL DATA IS INCLUDED IN THE IFB.
3. W BEAM ALONG RAMPS C, G, H, K AND I ARE TO BE BROWN POLYCOATED.
4. SLOPE BENCHING SHT. DE-03.

R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57686		
57687		
57800		
57698		
57333		

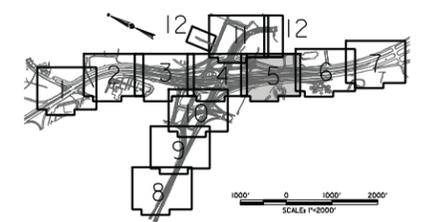
ITEM	SHEET NOS.
TYPICAL SHEETS	6 - 11
SUPERELEVATION SHEETS	2
PIPE & DRAINAGE SCHEDULE	141 - 159
GEOMETRIC LAYOUT SHEETS	19 - 21
ROADWAY PLAN SHEETS	28 - 39
ROADWAY PROFILE SHEETS	40 - 49
TRAFFIC CONTROL SHEETS	83 - 128
EROSION & SEDIMENT CONTROL	160 - 329
SIGNING & MARKING PLANS	672 - 682
LANDSCAPE PLAN SHEETS	683 - 701
UTILITIES	NA

ROADWAY PLAN		
SCALE AS SHOWN	DATE APRIL 2016	CONTRACT NO. PG6188170
DESIGNED BY	KV	COUNTY PRINCE GEORGES
DRAWN BY	KV	LOGMILE 08.430
CHECKED BY	KW	HORIZONTAL SCALE AS SHOWN
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE AS SHOWN
DRAWING NO. PS-04		SHEET NO. 31 OF 705



**LIMIT OF WORK**  
**PG6185170**  
**PENN. AVE. ACCESS ROAD**  
**STA. 2600+00**

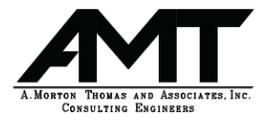
QUANTITY NOTES		
TRAFFIC BARRIER END TREATMENT		
TYPE C END TREATMENT (MD-605.03)	RAMP C - STA. 406+00 - 406+50 (18.0' LT)	1 EA
TYPE A END TREATMENT (MD-605.02)	RAMP K - STA. 1015+38 - 1015+51 (38.0' RT)	1 EA
TYPE K END TREATMENT (MD-605.10)	RAMP C - STA. 407+30 (18' LT)	1 EA
TYPE K END TREATMENT (MD-605.10)	RAMP K - STA. 1013+50 (9' LT)	1 EA
W BEAM MEDIAN TRAFFIC BARRIER		
MD-605.28-01	MD 4 - STA. 74+00 - 82+50 (5.7' LT)	850 LF
MD-605.28-01	MD 4 - STA. 83+50 - 86+00 (5.7' LT)	250 LF
W BEAM SINGLE FACE TRAFFIC BARRIER (6 FOOT POSTS)		
MD-605.25	RAMP I - K - STA. 1012+00 - 1013+62 (6.0' + LT)	162 LF
MD-605.25	RAMP C - STA. 400+00 - 410+50 (38.0'+50.0' RT)	1050 LF
MD-605.25	RAMP C - STA. 406+50 - 407+30 (18.0' LT)	80 LF
MD-605.25	RAMP K/MD 4 - STA. 1015+51 - 82+32 (38.0' LT)	521 LF
MD-605.25	MD 4 - STA. 84+50 - 86+00 (1104' LT.)	150 LF
TRAFFIC BARRIER END SECTION / ANCHORAGE		
W BEAM ANCHORAGE TO V. FACE (MD-605.42)	MD 4 - STA. 82+50 (102' RT)	1 EA
W BEAM SINGLE FACE TRAFFIC BARRIER		
MD-605.22	MD 4 SB - STA. 82+50 - 83+50	100 LF
MD-605.22	MD 4 NB - STA. 82+50 - 83+50	100 LF
42" F-SHAPE CONCRETE TRAFFIC BARRIER		
MD 648.54	PENN. AVE. ACCESS ROAD STA. 2604+00-2609+50 (14' RT)	537 LF
CONCRETE CURB AND GUTTER (COUNTY STD. 300.01)		
	PENN. AVE. ACCESS ROAD 2600+00 - 2609+37, LT.	965 LF
	PENN. AVE. ACCESS ROAD 2600+00 - 2609+37, RT.	937 LF
REMOVAL OF EXISTING TRAFFIC BARRIER		
	MD 4 - STA. 67+00 - 68+20 (LT)	310 LF
	MD 4 - STA. 71+00 - 76+00 (LT)	725 LF
	MD 4 - STA. 70+00 - 85+50 (RT)	1550 LF



- NOTES: 1. FOR INTERSECTION DETAILS; SEE SHEETS DE-09 TO DE-12  
 2. FB-16, FB-18, FB-27, FB-29 AND FB-32 BORINGS NOT DRILLED.  
 3. THE GROUNDWATER LEVELS HAVE BEEN RECORDED OVER TIME IN MONITORING WELLS WITHIN THE PROJECT LIMITS. THE MONITORING WELL DATA IS INCLUDED IN THE IFB.  
 4. SLOPE BENCHING SHEET DE-03.

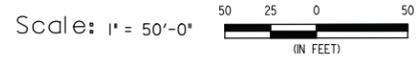
DATUM: NAD 83/91 Horizontal  
 NAVD 88 Vertical

**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 HIGHWAY DESIGN DIVISION  
 MD 4 AT SUTLAND PARKWAY INTERCHANGE  
 IMPROVEMENTS



**LEGEND**

	FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
	RIP-RAP



R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57840 57841 57898	ITEM SHEET NO.	
	TYPICAL SHEETS.....	6 - 11
	SUPERELEVATION SHEETS.....	27
	PIPE & DRAINAGE SCHEDULE.....	141 - 159
	GEOMETRIC LAYOUT SHEETS.....	19 - 21
	ROADWAY PLAN SHEETS.....	28 - 39
	ROADWAY PROFILE SHEETS.....	40 - 49
	TRAFFIC CONTROL SHEETS.....	83 - 128
	EROSION & SEDIMENT CONTROL.....	160 - 329
	SIGNING & MARKING PLANS.....	672 - 682
	LANDSCAPE PLAN SHEETS.....	683 - 701
	UTILITIES.....	NA

**ROADWAY PLAN**

SCALE AS SHOWN DATE APRIL 2016 CONTRACT NO. PG6185170

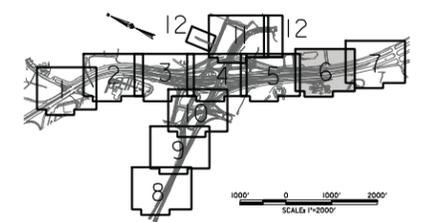
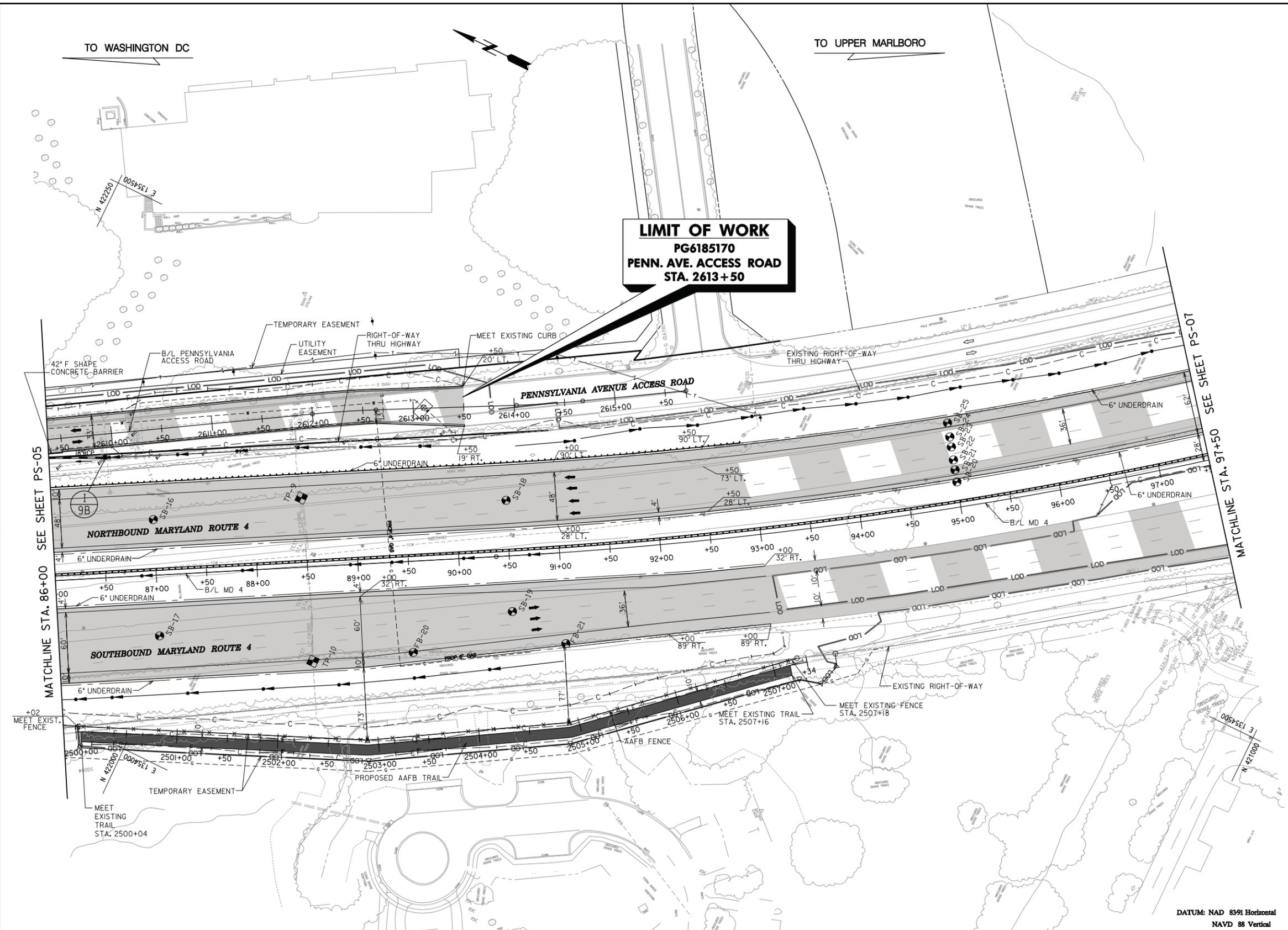
DESIGNED BY \_\_\_\_\_ KV COUNTY PRINCE GEORGES  
 DRAWN BY \_\_\_\_\_ KV LOGMILE 08.430  
 CHECKED BY \_\_\_\_\_ KW HORIZONTAL SCALE AS SHOWN  
 F.A.P. NO. SEE TITLE SHEET VERTICAL SCALE AS SHOWN

DRAWING NO. PS-05 SHEET NO. 32 OF 705

QUANTITY NOTES

TRAFFIC BARRIER END TREATMENT		
TYPE B END TREATMENT (MD-605.02)	MD 4 - STA. 92+52 - 92+90 (92' LT)	1 EA
W BEAM MEDIAN TRAFFIC BARRIER		
MD-605.28-01	MD 4 - STA. 86+00 - 97+50 (5.7' LT)	1150 LF
W BEAM SINGLE FACE TRAFFIC BARRIER (6 FOOT POSTS)		
MD-605.25	MD 4 - STA. 86+00 - 92+52 (104' LT)	652 LF
42" F-SHAPE CONCRETE TRAFFIC BARRIER (MD 648.54)		
PENN. AVE. ACCESS ROAD - STA. 2609+37-2609+50 (14' RT)		13 LF
CONCRETE CURB AND GUTTER (COUNTY STD. 300.01)		
PENN. AVE. ACCESS ROAD	2609+50-2613+50 RT	400 LF
PENN. AVE. ACCESS ROAD	2609+37-2613+40 LT	403 LF
AAFB SECURITY FENCE (DETAIL SHEET DE-03)		
DETAIL DE-03	STA 2500+00 - 2507+20	720 LF

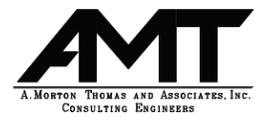
**LIMIT OF WORK**  
**PG6185170**  
**PENN. AVE. ACCESS ROAD**  
**STA. 2613+50**



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 STATE HIGHWAY ADMINISTRATION  
 HIGHWAY DESIGN DIVISION

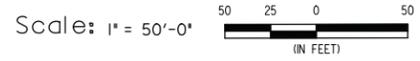
MD 4 AT SUTLAND PARKWAY INTERCHANGE  
 IMPROVEMENTS

DAIUM: NAD 83/91 Horizontal  
 NAVD 88 Vertical



**LEGEND**

	FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
	GRIND AND RESURFACE (SEE DETAIL DE-02)
	AAFB TRAIL (SEE DETAIL DE-03)



R /W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57841	ITEM SHEET NOS.	
	TYPICAL SHEETS.....	6 - 11
	SUPERELEVATION SHEETS.....	27
	PIPE & DRAINAGE SCHEDULE.....	141 - 159
	GEOMETRIC LAYOUT SHEETS.....	19 - 21
	ROADWAY PLAN SHEETS.....	28 - 39
	ROADWAY PROFILE SHEETS.....	40 - 49
	TRAFFIC CONTROL SHEETS.....	83 - 126
	EROSION & SEDIMENT CONTROL.....	160 - 329
	SIGNING & MARKING PLANS.....	672 - 682
	LANDSCAPE PLAN SHEETS.....	683 - 701
	UTILITIES.....	NA

ROADWAY PLAN		
SCALE AS SHOWN	DATE APRIL 2016	CONTRACT NO. PG6185170
DESIGNED BY _____ KV	COUNTY PRINCE GEORGES	
DRAWN BY _____ KV	LOGMILE 08.430	
CHECKED BY _____ KW	HORIZONTAL SCALE AS SHOWN	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE AS SHOWN	
DRAWING NO. PS-06	SHEET NO. 33 OF 705	

TO WASHINGTON DC

TO UPPER MARLBORO

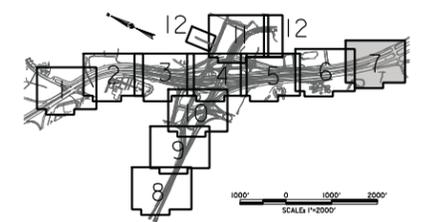
**LIMIT OF WORK**  
PG6185170  
MD 4 NB  
STA. 107+50

**LIMIT OF WORK**  
PG6185170  
MD 4 SB  
STA. 102+50

- LEGEND**
-  FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
  -  GRIND AND RESURFACE (SEE DETAIL DE-02)
  -  RIP-RAP (SEE PROFILE PP-03)

Scale: 1" = 50'-0"  
50 25 0 50  
(IN FEET)

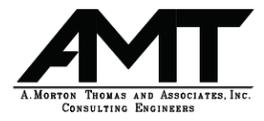
QUANTITY NOTES		
TRAFFIC BARRIER END TREATMENT		
TYPE E END TREATMENT (MD-605.06)	MD 4 - STA. 101+85 - 102+16 (5.7' LT)	1 EA
TYPE B END TREATMENT (MD-605.02)	MD 4 - STA. 99+50 + 99+87	1 EA
TYPE K END TREATMENT (MD-605.10)	MD 4 - STA. 98+27 (94' LT)	1 EA
W BEAM MEDIAN TRAFFIC BARRIER		
MD-605.28-01	MD 4 - STA. 97+50 - 101+85 (10.7' LT)	435 LF
W BEAM SINGLE FACE TRAFFIC BARRIER (6 FOOT POSTS)		
MD-605.25	MD 4 - STA. 98+50 - 99+50 (93.5' LT.)	100 LF



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HIGHWAY DESIGN DIVISION

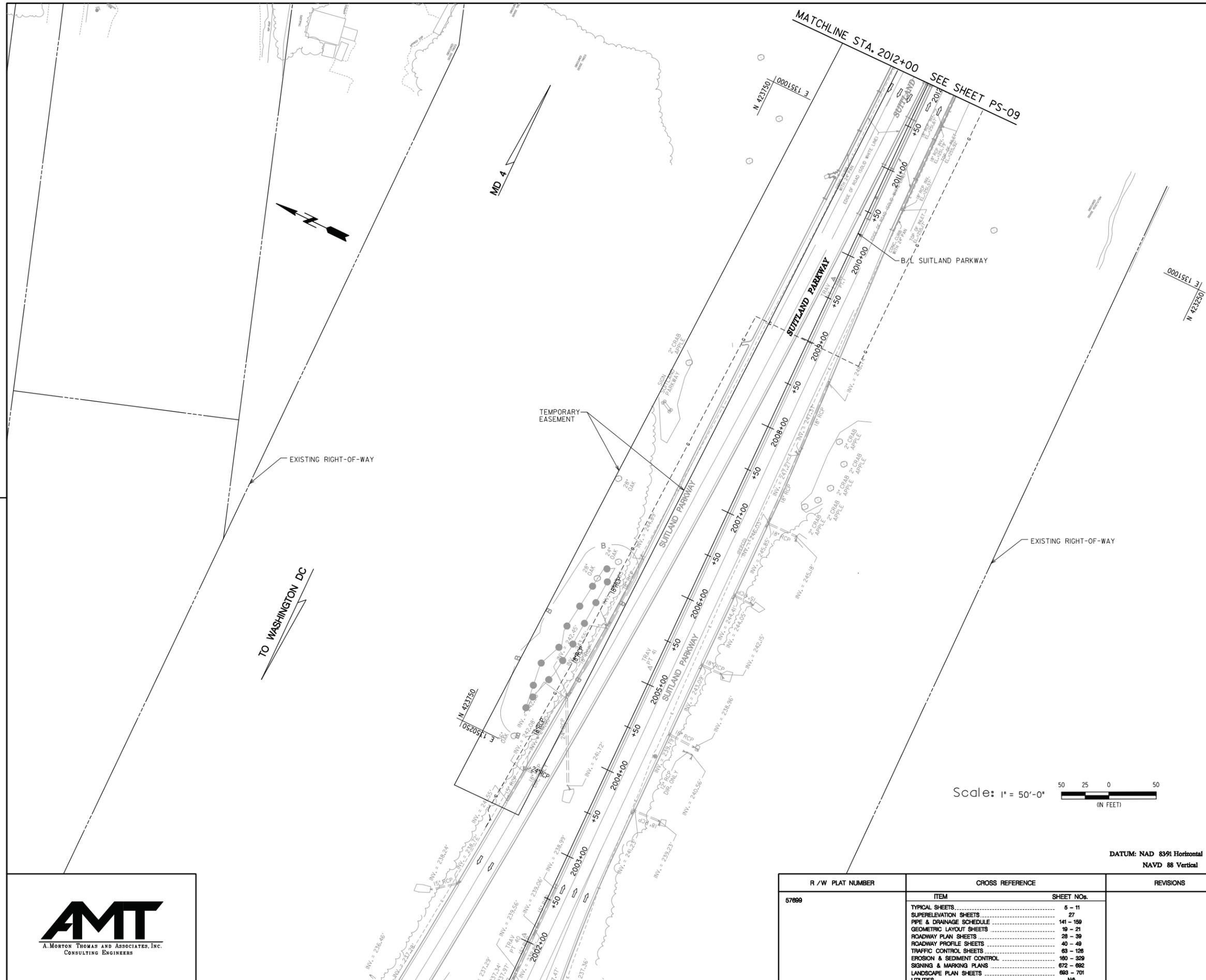
MD 4 AT SUTLAND PARKWAY INTERCHANGE  
IMPROVEMENTS

DATUM: NAD 83/91 Horizontal  
NAVD 88 Vertical

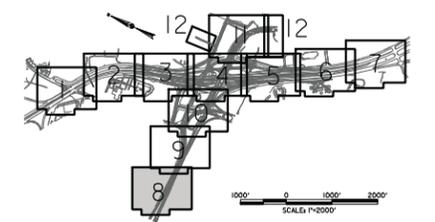


R /W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57641	ITEM SHEET NO.	
	TYPICAL SHEETS.....	6 - 11
	SUPERELEVATION SHEETS.....	27
	PIPE & DRAINAGE SCHEDULE.....	141 - 159
	GEOMETRIC LAYOUT SHEETS.....	19 - 21
	ROADWAY PLAN SHEETS.....	28 - 39
	ROADWAY PROFILE SHEETS.....	40 - 49
	TRAFFIC CONTROL SHEETS.....	63 - 126
	EROSION & SEDIMENT CONTROL.....	160 - 329
	SIGNING & MARKING PLANS.....	672 - 682
	LANDSCAPE PLAN SHEETS.....	683 - 701
	UTILITIES.....	NA

ROADWAY PLAN		
SCALE AS SHOWN	DATE APRIL 2016	CONTRACT NO. PG6185170
DESIGNED BY _____ KV	COUNTY PRINCE GEORGES	
DRAWN BY _____ KV	LOGMILE 08.430	
CHECKED BY _____ KW	HORIZONTAL SCALE AS SHOWN	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE AS SHOWN	
DRAWING NO. PS-07	SHEET NO. 34	OF 705

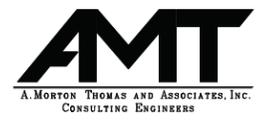


DATUM: NAD 83/91 Horizontal  
NAVD 88 Vertical



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STATE HIGHWAY ADMINISTRATION  
HIGHWAY DESIGN DIVISION

MD 4 AT SUTLAND PARKWAY INTERCHANGE  
IMPROVEMENTS

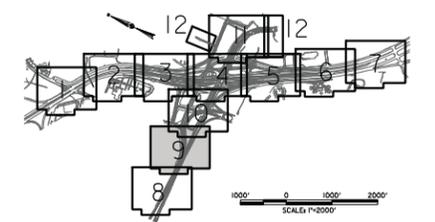
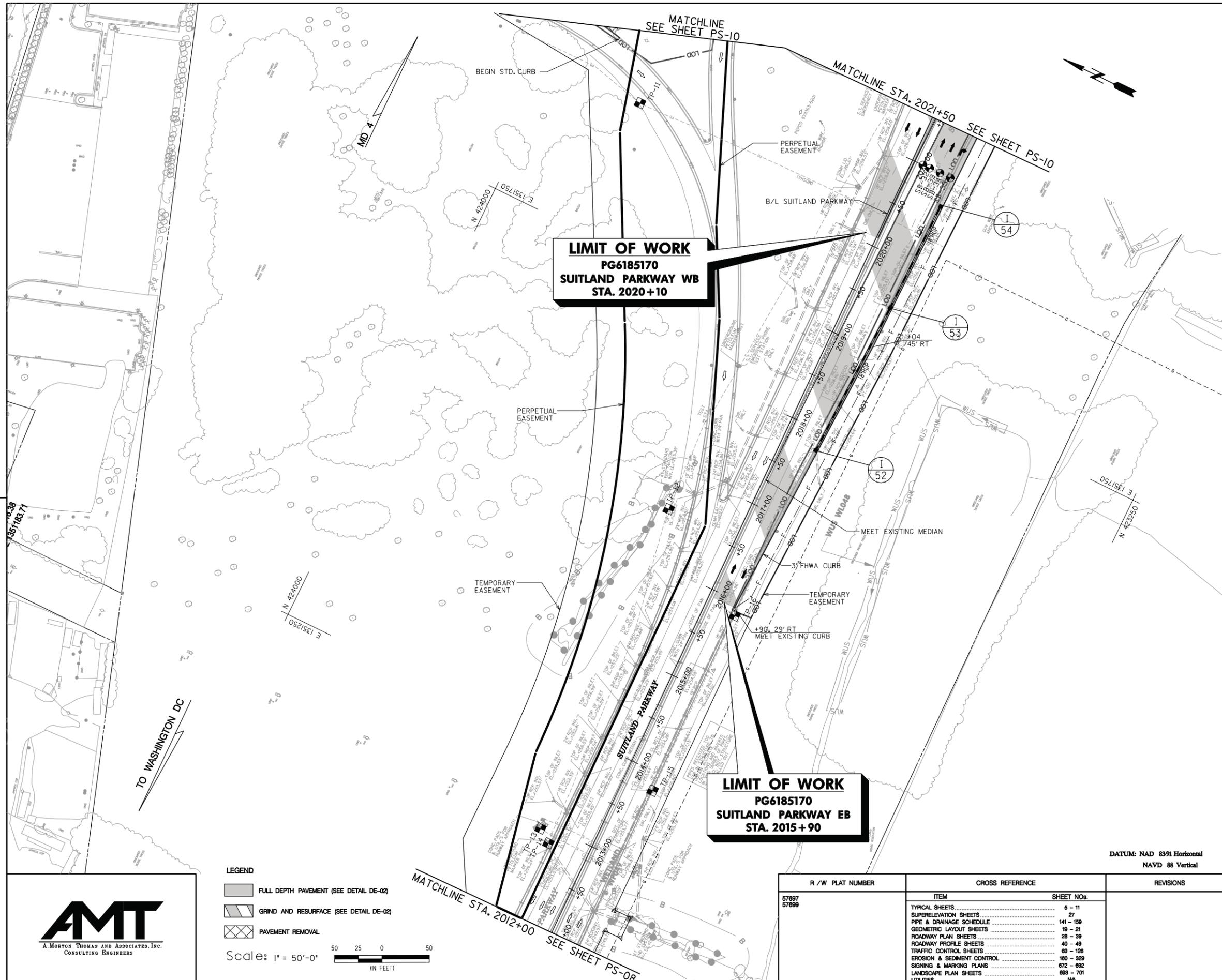


R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57699	ITEM SHEET NO.	
	TYPICAL SHEETS.....	5 - 11
	SUPERELEVATION SHEETS.....	27
	PIPE & DRAINAGE SCHEDULE.....	141 - 159
	GEOMETRIC LAYOUT SHEETS.....	19 - 21
	ROADWAY PLAN SHEETS.....	28 - 39
	ROADWAY PROFILE SHEETS.....	40 - 49
	TRAFFIC CONTROL SHEETS.....	83 - 128
	EROSION & SEDIMENT CONTROL.....	160 - 329
	SIGNING & MARKING PLANS.....	672 - 682
	LANDSCAPE PLAN SHEETS.....	683 - 701
	UTILITIES.....	NA

ROADWAY PLAN			
SCALE AS SHOWN	DATE APRIL 2016	CONTRACT NO. PG8185170	
DESIGNED BY KV	COUNTY PRINCE GEORGES		
DRAWN BY KV	LOGMILE 08.430		
CHECKED BY KW	HORIZONTAL SCALE AS SHOWN		
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE AS SHOWN		
DRAWING NO. PS-08	SHEET NO. 35	OF 705	

QUANTITY NOTES

FHWA EASTERN FEDERAL LANDS CURB (SEE SHEET DE-3)		
3" CURB SUTLAND PARKWAY - STA. 2015+90 - 2021+50, 29.0' - 52.0' RT.	550 LF	
6" CURB SUTLAND PARKWAY - STA. 2019+00 - 2021+50, 2.0' - 13.5' RT.	250 LF	
6" CURB SUTLAND PARKWAY - STA. 2020+10 - 2021+50, 1.0' - 3.5' RT.	140 LF	
6' MONOLITHIC MEDIAN		
STD. CONC. MEDIAN TYPE B (MD 645.02) SUTLAND PKWY-STA. 2017+30 - 2019+00	170 LF	



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HIGHWAY DESIGN DIVISION

MD 4 AT SUTLAND PARKWAY INTERCHANGE  
IMPROVEMENTS

DATUM: NAD 83/91 Horizontal  
NAVD 88 Vertical



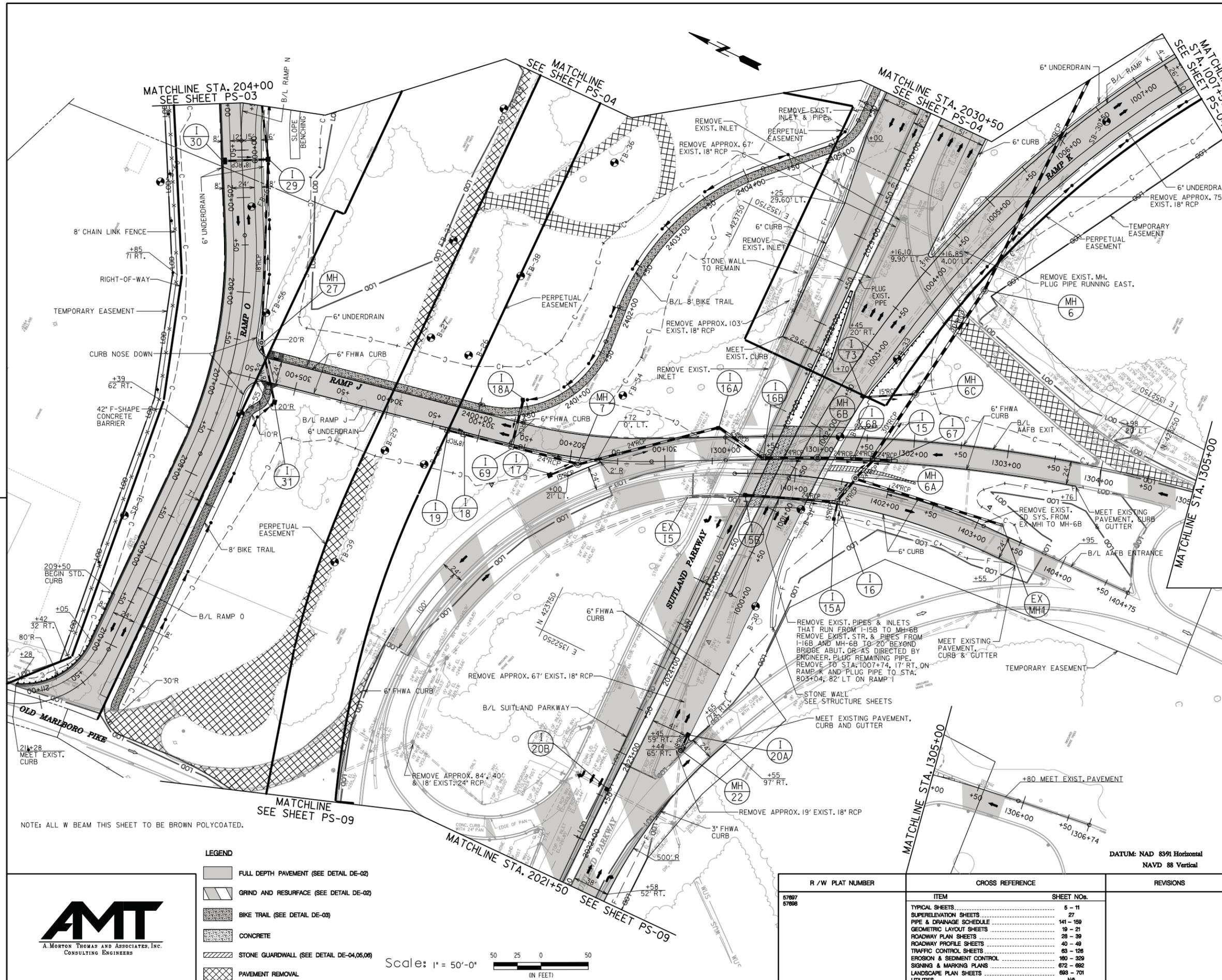
LEGEND

- FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
- GRIND AND RESURFACE (SEE DETAIL DE-02)
- PAVEMENT REMOVAL

Scale: 1" = 50'-0"

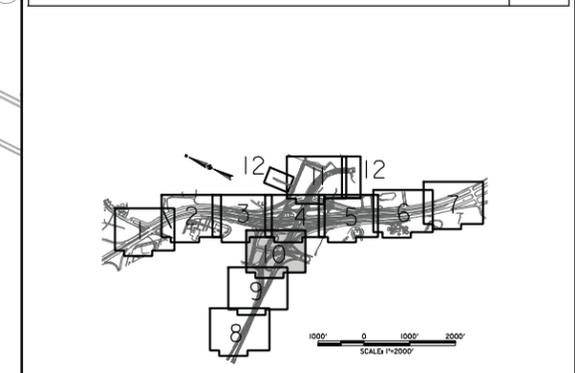
R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57897 57898	ITEM	SHEET NO.
	TYPICAL SHEETS .....	6 - 11
	SUPERELEVATION SHEETS .....	27
	PIPE & DRAINAGE SCHEDULE .....	141 - 159
	GEOMETRIC LAYOUT SHEETS .....	19 - 21
	ROADWAY PLAN SHEETS .....	28 - 39
	ROADWAY PROFILE SHEETS .....	40 - 49
	TRAFFIC CONTROL SHEETS .....	83 - 128
	EROSION & SEDIMENT CONTROL .....	160 - 329
	SIGNING & MARKING PLANS .....	672 - 682
	LANDSCAPE PLAN SHEETS .....	683 - 701
	UTILITIES .....	NA

ROADWAY PLAN			
SCALE	AS SHOWN	DATE	APRIL 2016
CONTRACT NO.	PG6185170		
DESIGNED BY	KV	COUNTY	PRINCE GEORGES
DRAWN BY	KV	LOGMILE	08.430
CHECKED BY	KW	HORIZONTAL SCALE	AS SHOWN
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	AS SHOWN
DRAWING NO.	PS-09	SHEET NO.	36 OF 705



**QUANTITY NOTES**

TRAFFIC BARRIER END TREATMENT		
TYPE K END TREATMENT (MD-605.01)	RAMP K - STA. 1003+50 (34.0' RT)	1 EA
TYPE C END TREATMENT (MD-605.03)	S. PKWY - STA. 2027+00 - 2027+50 (15' RT)	1 EA
TYPE C END TREATMENT (MD-605.03)	S. PKWY - STA. 2027+00 - 2027+50 (24' RT)	1 EA
TYPE B END TREATMENT (MD-605.02)	RAMP O - STA. 210+78 - 211+55 (21.0' RT)	1 EA
TYPE C END TREATMENT (MD-605.03)	S. PKWY - STA. 2027+95 - 2028+45 (15' RT)	1 EA
TYPE C END TREATMENT (MD-605.03)	S. PKWY - STA. 2027+95 - 2028+45 (17' RT)	1 EA
W BEAM TRAFFIC BARRIER (6 FOOT POSTS)		
W BEAM SINGLE FACE (MD-605.25)	S. PKWY - STA. 2027+50 - 2027+95 (15' RT)	45 LF
W BEAM SINGLE FACE (MD-605.25)	S. PKWY - STA. 2027+50 - 2027+95 (26' RT)	45 LF
W BEAM SINGLE FACE (MD-605.25)	RAMP O - STA. 209+68.0 - 210+78.0 (21.0' RT)	21 LF
TRAFFIC BARRIER END SECTION / ANCHORAGE		
W BEAM ANCHORAGE (MD-605.43)	RAMP O - STA. 209+50 (21.0' LT)	1 EA
TRAFFIC BARRIER W BEAM ANCHORAGE (MD-605.44)	S. PKWY - STA. 1002+55 (31.0' LT)	1 EA
42" F-SHAPE CONCRETE BARRIER		
STD. NO. MD. 648.54	RAMP O - STA. 204+00 - 209+50	550 LF
TRAFFIC BARRIER W BEAM SINGLE FACE		
MD-605.22	RAMP K - STA. 1002+55 - 1003+50	95 LF
FHWA EASTERN FEDERAL LANDS CURB (SEE SHEET DE-3)		
6" AAFB EXIT - STA. 1300+00 - 1303+76, 0' LT.	376 LF	
6" AAFB EXIT - STA. 1301+15 - 1303+76, 24' RT.	261 LF	
6" AAFB ENTRANCE - STA. 1401+15 - 1403+55, 0' LT.	240 LF	
6" AAFB ENTRANCE - STA. 1400+36 - 1403+55, 24' RT.	319 LF	
6" RAMP J - STA. 300+36 - 305+52, 24' RT.	520 LF	
6" RAMP J - STA. 301+70 - 305+52, 0' LT.	460 LF	
6" SUITLAND PARKWAY - STA. 2021+50 - 2030+50, 12' RT.	900 LF	
6" SUITLAND PARKWAY - STA. 2021+50 - 2030+50, 19'-28' RT.	900 LF	
3" SUITLAND PKWY 2021+50, 52' RT. - 2023+55, 97' RT.	245' LF	
6" SUITLAND PKWY 2029+13, 72.5' RT. - 2030+50, 76' RT.	137' LF	
6" AAFB EXIT 208+56, 264' LT. - 210+18, 285' LT.	182' LF	
6" SUITLAND PKWY 2023+61, 75' RT. - 2027+50, 76' RT.	495' LF	
CONCRETE CURB AND GUTTER (MD 620.02, TYPE A) 9" DEPTH		
RAMP O - STA. 209+50 - 211+28, 20' RT.	178 LF	
RAMP O - STA. 209+50 20' LT. - 210+25, 212' LT.	305 LF	
DETECTABLE WARNING SURFACE (MD 655.40)		
RAMP J 305+27, LT.	10 SF	
RAMP J 305+27, RT.	10 SF	
	5' CONCRETE	
SUITLAND PARKWAY BRIDGE MEDIAN	1186 SF	
SUITLAND PARKWAY BRIDGE SIDEWALK ALONG WING WALLS	225 SF	
SIDEWALK UNDERNEATH SUITLAND PARKWAY BRIDGE	125 SF	
PAVEMENT REMOVAL		
RAMP O, STA. 204+00 - 206+25 LT.	375 CY	
RAMP O, STA. 207+25 - 210+50 LT.	675 CY	
AAFBI EXIT RAMP, STA. 1302+25 - 1304+00 LT.	420 CY	
STONE GUARDWALL (SEE SHEETS DE-04 & DE-05)		
TYPE I GUARDWALL AAFB ENTRANCE RAMP 1401+36 - 1402+25	89 LF	
TYPE I GUARDWALL AAFB EXIT RAMP 1301+37 - 1301+60	27 LF	
	8' CHAIN LINK FENCE (MD 690.01)	
RAMP O STA. 204+00 - 210+25 RT.	625 LF	



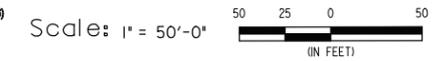
**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
HIGHWAY DESIGN DIVISION

MD 4 AT SUITLAND PARKWAY INTERCHANGE IMPROVEMENTS

NOTE: ALL W BEAM THIS SHEET TO BE BROWN POLYCOATED.

**LEGEND**

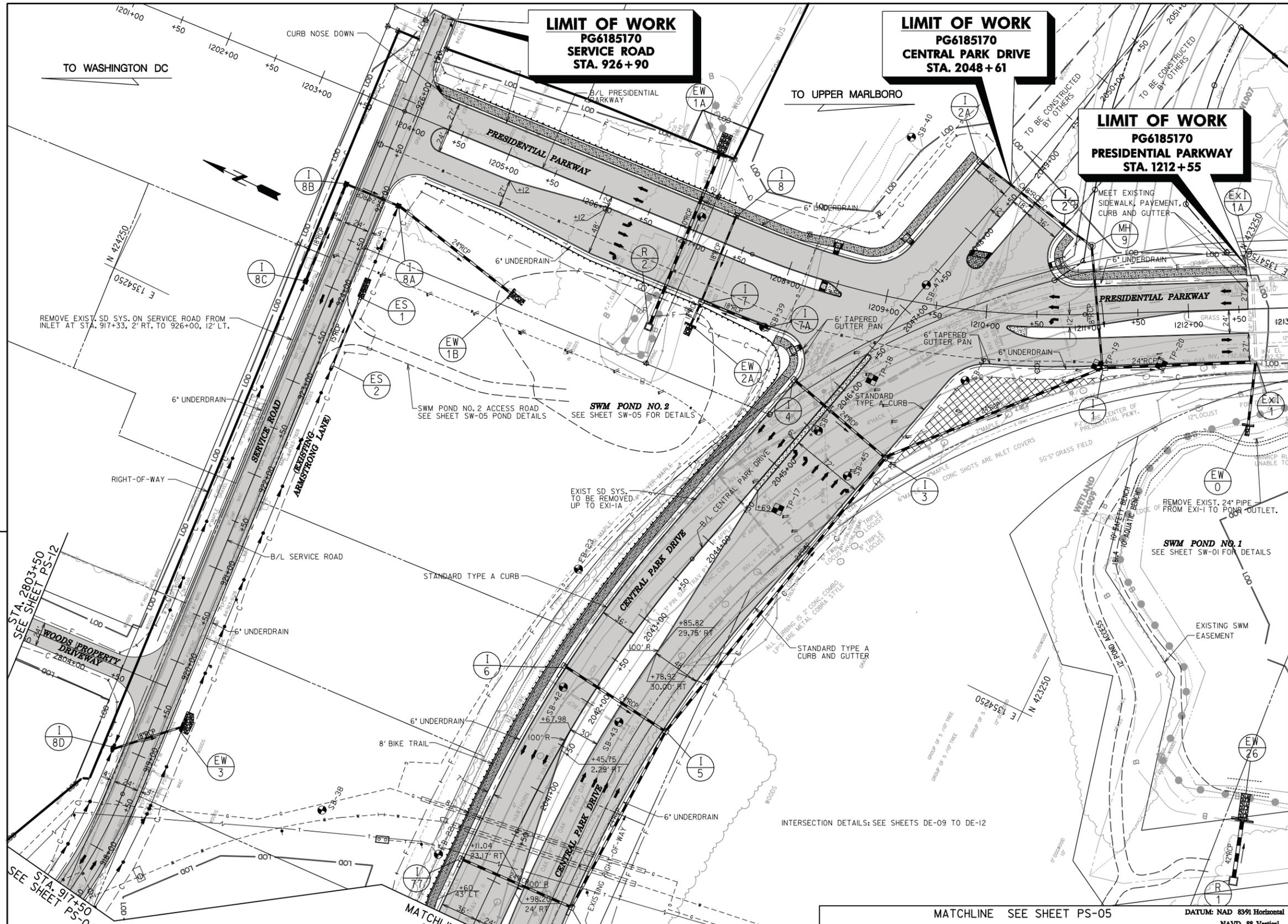
	FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
	GRIND AND RESURFACE (SEE DETAIL DE-02)
	BIKE TRAIL (SEE DETAIL DE-03)
	CONCRETE
	STONE GUARDWALL (SEE DETAIL DE-04,05,08)
	PAVEMENT REMOVAL



R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
57897 57898	ITEM	SHEET NO.
	TYPICAL SHEETS	6 - 11
	SUPERELEVATION SHEETS	27
	PIPE & DRAINAGE SCHEDULE	141 - 159
	GEOMETRIC LAYOUT SHEETS	19 - 21
	ROADWAY PLAN SHEETS	28 - 39
	ROADWAY PROFILE SHEETS	40 - 49
	TRAFFIC CONTROL SHEETS	83 - 128
	EROSION & SEDIMENT CONTROL	160 - 329
	SIGNING & MARKING PLANS	672 - 682
	LANDSCAPE PLAN SHEETS	683 - 701
	UTILITIES	NA

ROADWAY PLAN	
SCALE AS SHOWN	DATE APRIL 2016 CONTRACT NO. PG6185170
DESIGNED BY KV	COUNTY PRINCE GEORGES
DRAWN BY KV	LOGMILE 08.430
CHECKED BY KW	HORIZONTAL SCALE AS SHOWN
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE AS SHOWN
DRAWING NO. PS-10	SHEET NO. 37 OF 705





**QUANTITY NOTES**

TRAFFIC BARRIER END TREATMENT	
TYPE B END TREATMENT (MD-605.02) PRES. PKWY - STA. 1204+21 - 1204+58 (58.0' RT)	1 EA
TYPE K END SECTIONS (MD-605.10) PRESIDENTIAL PKWY - STA. 1204+28 (40.0' LT)	1 EA
TYPE C END TREATMENT (MD-605.03) CENTRAL PARK DRIVE - STA. 2039+62 TO 2040+12	1 EA
TYPE C END TREATMENT (MD-605.03) PRESIDENTIAL PKWY - STA. 1207+27 (40.0' LT)	1 EA

W BEAM TRAFFIC BARRIER (6 FOOT POSTS)	
W BEAM SINGLE FACE (MD-605.25) CENT. TO PRES. - STA. 2039+50 - 1204+58 (VARIES)	952 LF
W BEAM SINGLE FACE (MD-605.25) PRES. PKWY - STA. 1204+28 - 1206+77 (40.0' LT)	377 LF
W BEAM SINGLE FACE (MD-605.25) CEN. PARK DR. - STA. 2039+50 - 2039+60 (VARIES)	10 LF

CONCRETE CURB AND GUTTER (MD 620.02, TYPE A) 9" DEPTH	
CENTRAL PARK DRIVE MEDIAN - STA. 2039+50 - 2044+69	1038 LF
CENTRAL PARK DRIVE - STA. 2039+50, 78' RT. - 1210+08, 51' RT.	772 LF
CENTRAL PARK DRIVE - STA. 2039+50, 36' LT. - 2046+04, 52' LT.	654 LF

6' MONOLITHIC MEDIAN (MD 645.01)	
CENTRAL PARK DRIVE 2044+69 - 2046+40 TYPE A-1	171 LF

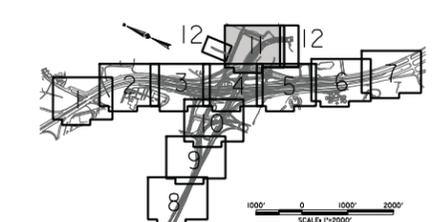
DETECTABLE WARNING SURFACE (MD655.40)	
PRESIDENTIAL PKY, 1208+39 - 4 LOCATIONS	40SF
1204+00 - 1 LOCATION	15SF
CENTRAL PARK DRIVE, 2047+49 - 4 LOCATIONS	40SF

5' CONCRETE SIDEWALK RAMPS	
PRESIDENTIAL PKY - TRAIL RAMP - 1208+39 LT. MD. 65513	104SF
PRESIDENTIAL PKY - TRAIL RAMP - 1208+28 RT. MD. 65513	104SF
CENTRAL PARK DRIVE - TRAIL RAMP - 2047+49 LT. MD. 65513	104SF
CENTRAL PARK DRIVE - TRAIL RAMP - 2048+44 RT. MD. 65513	104SF
PRESIDENTIAL PKY - TRAIL RAMP 1204+30 LT. - COUNTY STD. 300.07	60SF

5' CONCRETE MEDIAN	
CENTRAL PARK DRIVE, 2047+80 RT.	360SF

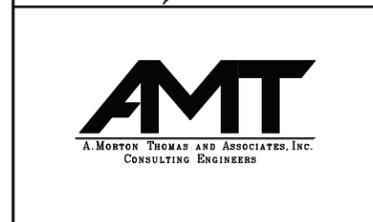
CONCRETE CURB AND GUTTER (COUNTY STD. 300.01)	
PRESIDENTIAL PARKWAY - STA. 1204+25, 51' RT. - 1212+55, 51' RT.	685 LF
PRESIDENTIAL PARKWAY - STA. 1204+25, 27' LT. - 2048+61, 36' LT.	598 LF
CENTRAL PARK DRIVE - STA. 2048+61, 66' RT - 1212+55, 27' LT.	247 LF
PRESIDENTIAL PARKWAY MEDIAN - STA. 1204+34 - 1208+56	844 LF
PRESIDENTIAL PARKWAY MEDIAN - STA. 1210+51 - 1212+55	408 LF
CENTRAL PARK DRIVE MEDIAN STA. 2047+88 - 2048+61	145 LF

PAVEMENT REMOVAL	
CENTRAL PARK DRIVE 2045+77 - 2047+94 RT	250 CY



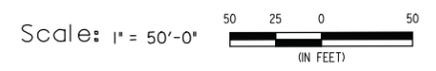
**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
HIGHWAY DESIGN DIVISION

MD 4 AT SUTLAND PARKWAY INTERCHANGE IMPROVEMENTS



**LEGEND**

- FULL DEPTH PAVEMENT (SEE DETAIL DE-02)
- BIKE TRAIL (SEE DETAIL DE-03)
- RIPRAP (SEE DETAIL PP-01)
- PAVEMENT REMOVAL

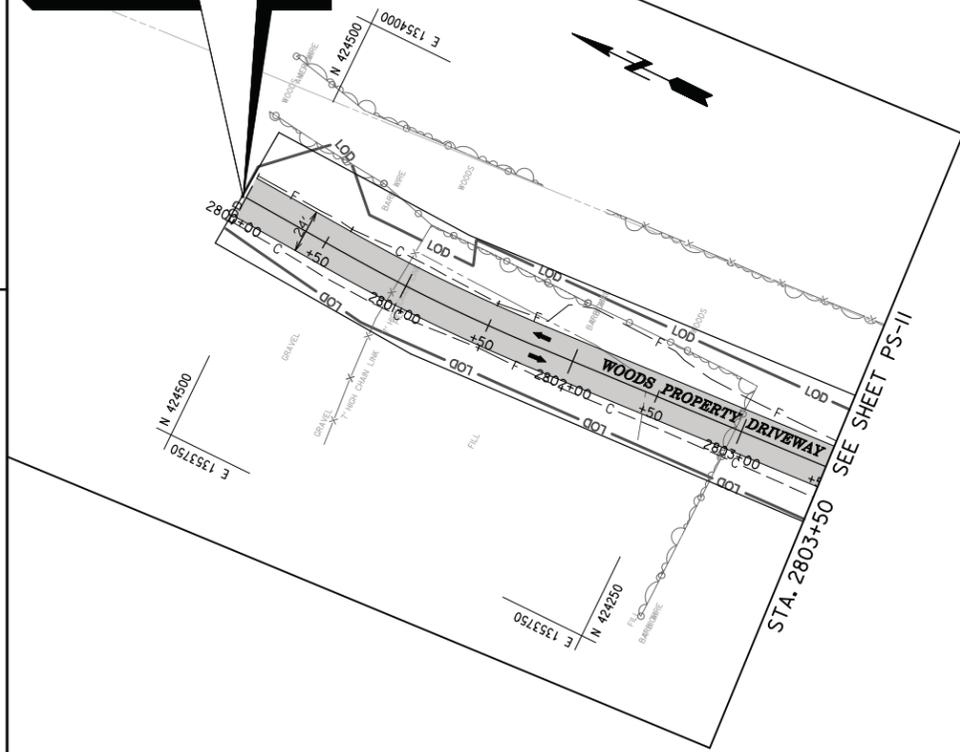


R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
53749	ITEM	SHEET NOS.
57639	TYPICAL SHEETS	6 - 11
57597	SUPERELEVATION SHEETS	27
57640	PIPE & DRAINAGE SCHEDULE	141 - 159
	GEOMETRIC LAYOUT SHEETS	19 - 21
	ROADWAY PLAN SHEETS	28 - 39
	ROADWAY PROFILE SHEETS	40 - 49
	TRAFFIC CONTROL SHEETS	83 - 126
	EROSION & SEDIMENT CONTROL	160 - 329
	SIGNING & MARKING PLANS	672 - 682
	LANDSCAPE PLAN SHEETS	683 - 701
	UTILITIES	NA

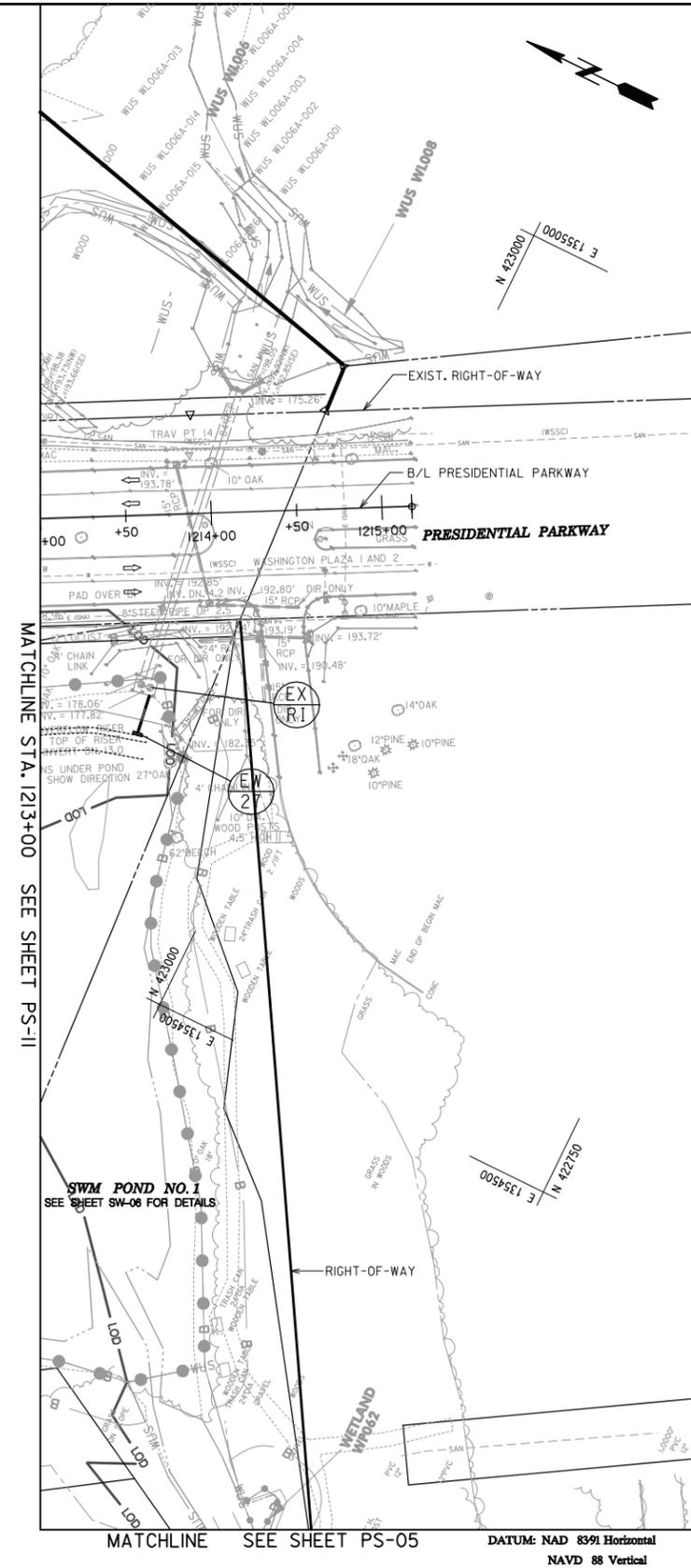
DATE: NAD 83/91 Horizontal  
NAVD 88 Vertical

ROADWAY PLAN	
SCALE AS SHOWN	DATE APRIL 2016
CONTRACT NO. PG6185170	
DESIGNED BY KV	COUNTY PRINCE GEORGES
DRAWN BY KV	LOGMILE 08.430
CHECKED BY KW	HORIZONTAL SCALE AS SHOWN
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE AS SHOWN
DRAWING NO. PS-11	SHEET NO. 38 OF 705

**LIMIT OF WORK**  
**PG6185170**  
**WOODS PROPERTY**  
**STA. 2800+00**



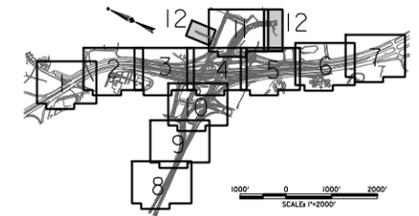
**LEGEND**  
 FULL DEPTH PAVEMENT (SEE DETAIL DE-02)



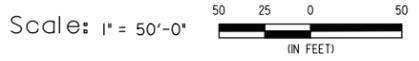
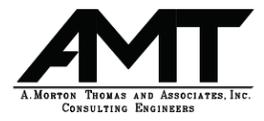
MATCHLINE STA. 1213+00 SEE SHEET PS-II

**SWM POND NO. 1**  
 SEE SHEET SW-06 FOR DETAILS

MATCHLINE SEE SHEET PS-05 DATUM: NAD 83/1 Horizontal  
 NAVD 88 Vertical



**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 HIGHWAY DESIGN DIVISION  
 MD 4 AT SUTLAND PARKWAY INTERCHANGE  
 IMPROVEMENTS



R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	ITEM	SHEET NOs.
	TYPICAL SHEETS .....	6 - 11
	SUPERELEVATION SHEETS .....	27
	PIPE & DRAINAGE SCHEDULE .....	141 - 159
	GEOMETRIC LAYOUT SHEETS .....	19 - 21
	ROADWAY PLAN SHEETS .....	28 - 39
	ROADWAY PROFILE SHEETS .....	40 - 49
	TRAFFIC CONTROL SHEETS .....	63 - 126
	EROSION & SEDIMENT CONTROL .....	160 - 329
	SIGNING & MARKING PLANS .....	672 - 682
	LANDSCAPE PLAN SHEETS .....	683 - 701
	UTILITIES .....	NA

ROADWAY PLAN			
SCALE	AS SHOWN	DATE	APRIL 2016
CONTRACT NO.	PG6185170		
DESIGNED BY	KV	COUNTY	PRINCE GEORGES
DRAWN BY	KV	LOGMILE	08.430
CHECKED BY	KW	HORIZONTAL SCALE	AS SHOWN
F.A.P. NO.	SEE TITLE SHEET	VERTICAL SCALE	AS SHOWN
DRAWING NO.	PS-12	SHEET NO.	39 OF 705

**APPENDIX B - MONITORED PM<sub>2.5</sub> DATA 2013-2015**

## Monitor Values Report

**Geographic Area:** Washington-Arlington-Alexandria, DC-VA-MD-WV

**Pollutant:** PM2.5

**Year:** 2013

**Exceptional Events:** Included (if any)

Note: The \* indicates the mean does not satisfy minimum data completeness criteria.

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
355	27.6	25.8	25	24.6	23	9.3	None	1	110010041	420 34th Street N.E., Washington, Dc 20019	Washington	District of Columbia	DC	03
126	25.7	18.7	18.6	18.1	19	8.3	None	1	110010042	Park Services Office 1100 Ohio Drive	Washington	District of Columbia	DC	03
358	27.3	26.7	25.5	24.6	22	9.1	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
110	27.6	26	19.4	19	19	9.1	None	2	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
350	31	29.4	28.8	27.8	26	11.6	None	4	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
346	27.4	27.1	25.7	25.2	21	8.1	None	3	240313001	Lathrop E. Smith Environmental Education Center, 5110 Meadowside Lane	Not in a City	Montgomery	MD	03
121	22.2	20.1	18.6	17.5	19	7.8	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
32	21.7	18.5	16.4	12.7	22	8.2	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
323	27.9	26.8	25.6	24.5	21	9.5	None	3	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
106	23.5	20.4	17.2	15.5	17	7.5	None	1	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
50	16.6	15	15	14.7	17	7.9*	None	2	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03

Get detailed information about this report, including column descriptions, at [http://www.epa.gov/airquality/airdata/ad\\_about\\_reports.html#mon](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.  
<[http://www.epa.gov/airquality/airdata/ad\\_contacts.html](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: May 4, 2016

## Monitor Values Report

**Geographic Area:** Washington-Arlington-Alexandria, DC-VA-MD-WV

**Pollutant:** PM2.5

**Year:** 2014

**Exceptional Events:** Included (if any)

Note: The \* indicates the mean does not satisfy minimum data completeness criteria.

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
83	30.7	24.7	23.8	20.9	25	10.2*	None	1	110010041	420 34th Street N.E., Washington, Dc 20019	Washington	District of Columbia	DC	03
116	24.6	22.5	21.1	17.3	21	9.1	None	1	110010042	Park Services Office 1100 Ohio Drive	Washington	District of Columbia	DC	03
347	30.1	25.8	24.4	24.3	22	9.4	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
111	24	22.5	20.2	19.1	20	9.6	None	2	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
357	30.5	26.3	24	23.6	21	9.9	Included	4	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
340	27.7	23.2	23	21.9	20	9	None	3	240313001	Lathrop E. Smith Environmental Education Center, 5110 Meadows Lane	Not in a City	Montgomery	MD	03
119	22	18.1	17.4	16.2	17	7.8	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
29	13.9	13	12.9	10.7	14	6.7	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
341	26.7	26.1	26	24.8	23	9.9	None	3	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
115	20.4	17.1	15.4	14	15	7.8	None	1	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
57	17.3	15.9	13.2	13.1	16	7.1*	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: May 4, 2016

## Monitor Values Report

**Geographic Area:** Washington-Arlington-Alexandria, DC-VA-MD-WV

**Pollutant:** PM2.5

**Year:** 2015

**Exceptional Events:** Included (if any)

Note: The \* indicates the mean does not satisfy minimum data completeness criteria.

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
120	26.4	23.8	21.6	20.9	22	9.2	None	1	110010042	Park Services Office 1100 Ohio Drive	Washington	District of Columbia	DC	03
342	27.7	27.1	25	24.9	22	8.9	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
116	27.2	25.2	24.8	21.4	25	9.5	None	2	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
361	30.2	27	26.9	26.5	25	10	None	4	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
214	34	30.8	28.7	28.6	28	10.5*	None	1	110010051	3600 Benning Road N.E.	Washington	District of Columbia	DC	03
73	32.5	26.9	25	24.7	27	11.3*	None	2	110010051	3600 Benning Road N.E.	Washington	District of Columbia	DC	03
338	30.8	24.6	24.4	22.8	22	9.7	None	3	240313001	Lathrop E. Smith Environmental Education Center, 5110 Meadowside Lane	Not in a City	Montgomery	MD	03
90	28.4	19.9	19.6	19.4	20	8.9*	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
24	28.1	18.1	15.4	13.2	28	9.3*	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
345	32.5	27.7	26.7	26.1	24	11.2	None	3	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
93	23.8	18.7	18.3	17.8	19	8.4*	None	1	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: May 4, 2016

## Monitor Values Report

**Geographic Area:** Washington-Arlington-Alexandria, DC-VA-MD-WV

**Pollutant:** PM2.5

**Year:** 2015

**Exceptional Events:** Included (if any)

Note: The \* indicates the mean does not satisfy minimum data completeness criteria.

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
44	23.9	19.3	14.4	14.2	24	8.0*	None	2	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
118	26.6	22.7	20.9	20.4	21	9.2	None	1	510130020	S 18th And Hayes St	Arlington	Arlington	VA	03
116	26.1	23.2	20.8	20.5	21	9	None	2	510130020	S 18th And Hayes St	Arlington	Arlington	VA	03
357	25.3	24.1	23.1	21.7	20	8	None	1	510590030	Sta. 46-B9, Lee Park, Telegraph Road	Groveton	Fairfax	VA	03
113	26.7	24.5	21.9	21.4	22	9	None	1	511071005	38-I, Broad Run High School, Ashburn	Not in a City	Loudoun	VA	03

Get detailed information about this report, including column descriptions, at [http://www.epa.gov/airquality/airdata/ad\\_about\\_reports.html#mon](http://www.epa.gov/airquality/airdata/ad_about_reports.html#mon)

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<[http://www.epa.gov/airquality/airdata/ad\\_contacts.html](http://www.epa.gov/airquality/airdata/ad_contacts.html)>

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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: May 4, 2016

## **APPENDIX C - TRAFFIC DATA**

Larry Hogan, *Governor*  
Boyd K. Rutherford, *Lt. Governor*



Pete K. Rahn, *Secretary*  
Gregory C. Johnson, P.E., *Administrator*

## **MEMORANDUM**

**TO:** Mr. Donald Sparklin, Chief  
Environmental Planning Division  
Office of Planning and Preliminary Engineering

**ATTN:** Ms. Heather Lowe  
Project Manager

**FROM:** Ms. Lisa Shemer, Assistant Division Chief  
Data Services Engineering Division  
Office of Planning and Preliminary Engineering

**DATE:** June 3, 2016

**SUBJECT:** MD 4 at Suitland Parkway  
Prince George's County  
Project Number: PG618A21  
Environmental Traffic Data – Air Quality

In response to your request for environmental traffic data corresponding to the above project, we have provided data analyzed under the following conditions:

- 2015 Existing
- 2035 No-Build and Build

The limits of this analysis extends from IS 495/95 (Capital Beltway) to MD 223 (Woodyard Road) along MD 4. This segment of MD 4 has a posted speed limit of 55 miles per hour and classified as an urban freeway. The analysis was completed in four segments from:

- 1 IS495/95 to Old Marlboro Pike/Westphalia Road
- 2 Old Marlboro Pike/Westphalia Road to MD 337 (Suitland Parkway)
- 3 MD 337 (Suitland Parkway) to Dower House Road
- 4 Dower House Road to MD 223

The project limits and segmentations are displayed in Figure 1 below.

My telephone number/toll-free number is \_\_\_\_\_

Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone 410.545.0300 • [www.roads.maryland.gov](http://www.roads.maryland.gov)

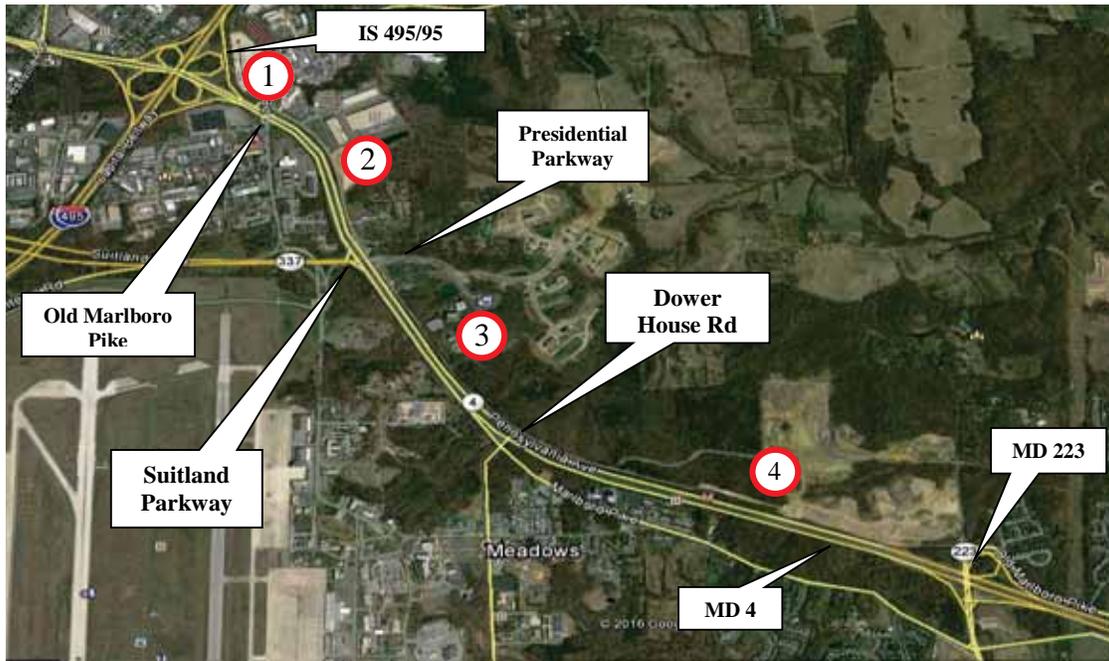


Figure 1: Area Map

The 2015 existing and 2035 no-build conditions from IS 495/95 to MD 337 were evaluated as a five lane divided roadway, composed of three through lanes in the northbound direction and two lanes southbound.



Figure 2: Segment 1 between IS 495/95 and Suitland Parkway

MD 4 northbound approaching the intersection at Suitland Parkway, transitions from three lanes to provide two left turn bays, three through lanes and one right turn bay. Southbound to the Suitland Parkway intersection, the roadway transitions from two lanes to provide two left turn bays, two through lanes and one right turn bay.



Figure 3: Existing Intersection - MD 4 at Suitland Parkway

The 2015 existing and 2035 no-build conditions from MD 337 to Dower House Road (Segment 2) were analyzed as a six lane divided roadway, three lanes per direction.



Figure 4: Segment 3 between Suitland Parkway and Dower House Road

MD 4 northbound approaching the intersection at Dower House Road transitions to provide three through lanes, one left and right turn bay. Southbound to the intersection, the transition forms a left turn bay and a right exit ramp leading to Marlboro Pike.



Figure 5: Existing Intersection - MD 4 at Dower House Road

The 2015 Existing and 2035 No-Build conditions from Dower House Road to MD 223 (Segment 3) were analyzed as a four lane divided freeway.



Figure 6: Segment 3 between Dower House Road and MD 223



Figure 7: MD 4 at MD 223 Interchange

The 2035 Future Build condition is proposed and analyzed as a six lane divided facility from north of MD 4 at Suitland Parkway to Dower House Road. The existing MD 4 at Suitland Parkway intersection would be reconstructed to provide a grade separated interchange, where Suitland Parkway will function as the overpass to MD 4.



Figure 8: Proposed MD 4 at Suitland Parkway Interchange

\* Please note that the “red” area(s) have been removed from proposed design and “green” area(s) have been added.

Mr. Donald Sparklin  
Page Four

For each condition, the following data is attached:

- Air Quality Traffic Data Summary Sheets
  - Title Sheet Data
  - Truck classification percentages by fuel type data
  - Hourly percentage of total ADT for diurnal curves
  - Level of Service breakpoints C/D, D/E and E/F volumes and speeds
- Mainline Diurnal Curves
- Classified counts used in this analysis:

If you have any questions or concerns, please contact the writer at 410-545-5648 or Ms. Chanel Torsell, DSED - Travel Forecasting & Analysis at 410-545-5644.

By:

  
Marion Milton  
Travel Forecasting and Analysis  
Data Services Engineering Division

Attachments: Air Quality Traffic Data Summary

cc: Mr. Joseph Kresslien  
Mr. Adam Green  
Ms. Chanel Torsell  
Ms. Christina Brandt  
Ms. Sarah Gary  
Mr. Armando Henriquez

## MD 4 at Suitland Parkway

Segment 1: From IS 495/95(Capital Beltway) to Westphalia Rd/Old Marlboro Pike

<b>Condition:</b>	<b>Existing</b>	<b>Future (No Build)</b>	<b>Future (Build)</b>
<b>Year:</b>	2015	2035	2035
<b>ADT:</b>	59,875	116,000	120,300
<b>DHV:</b>	7%	7%	7%
<b>Directional Distribution:</b>	56%	56%	56%
<b>% Trucks (ADT):</b>	10%	10%	10%
<b>% Trucks (DHV):</b>	7%	7%	7%
<b>Facility Type:</b>	Freeway	Freeway	Freeway
<b>Max LOS Reached:</b>			
Northbound	B	E	E
Southbound	C	F	D



<b>Condition:</b>	<b>Existing (2015)</b>			
	Light	Medium	Heavy	
<b>Average Daily Traffic:</b>	Trucks	Trucks	Trucks	Total
<b>Gasoline Powered:</b>	0.99%	1.92%	0.21%	3.12%
<b>Diesel Powered:</b>	0.99%	1.91%	3.98%	6.88%
<b>Total:</b>	1.98%	3.83%	4.19%	10.00%
	Light	Medium	Heavy	
<b>Design Hour Volume:</b>	Trucks	Trucks	Trucks	Total
<b>Gasoline Powered:</b>	0.68%	1.54%	0.13%	2.35%
<b>Diesel Powered:</b>	0.67%	1.54%	2.44%	4.65%
<b>Total:</b>	1.35%	3.08%	2.57%	7.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi/Hr.	Vol./Hr.	Mi/Hr.
<b>LOS C/D Breakpoint</b>	3,685	55.0	2,456	55.0
<b>LOS D/E Breakpoint</b>	4,929	54.7	3,286	54.7
<b>LOS E/F Breakpoint</b>	5,797	50.0	3,865	50.0

<b>Diurnal Curve:</b>	
<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.57%
1:00 AM	0.46%
2:00 AM	0.44%
3:00 AM	0.60%
4:00 AM	1.56%
5:00 AM	4.29%
6:00 AM	6.57%
7:00 AM	6.12%
8:00 AM	6.21%
9:00 AM	5.15%
10:00 AM	5.01%
11:00 AM	5.01%
12:00 PM	5.45%
1:00 PM	5.95%
2:00 PM	6.59%
3:00 PM	6.89%
4:00 PM	7.12%
5:00 PM	6.03%
6:00 PM	5.50%
7:00 PM	4.70%
8:00 PM	3.78%
9:00 PM	2.74%
10:00 PM	1.94%
11:00 PM	1.32%
<b>Total</b>	<b>100.00%</b>

### Classification Count Data

Station ID: B3119  
 Location: MD4-BETWEEN IS95 & OLD MARLBORO PIKE/WESTPHALIA RD  
 Date: Tuesday, August 25, 2015 to Wednesday, August 26, 2015

## MD 4 at Suitland Parkway

Segment 1: From IS 495/95(Capital Beltway) to Westphalia Rd/Old Marlboro Pike

**Condition: Future No Build (2035)**

**Diurnal Curve:**

<b>Average Daily Traffic:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.99%	1.92%	0.21%	3.12%
<b>Diesel Powered:</b>	0.99%	1.91%	3.98%	6.88%
<b>Total:</b>	1.98%	3.83%	4.19%	10.00%

<b>Design Hour Volume:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.66%	1.55%	0.13%	2.34%
<b>Diesel Powered:</b>	0.66%	1.55%	2.45%	4.66%
<b>Total:</b>	1.32%	3.10%	2.58%	7.00%

<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.58%
1:00 AM	0.46%
2:00 AM	0.44%
3:00 AM	0.60%
4:00 AM	1.56%
5:00 AM	4.29%
6:00 AM	6.58%
7:00 AM	6.12%
8:00 AM	6.21%
9:00 AM	5.15%
10:00 AM	5.01%
11:00 AM	5.01%
12:00 PM	5.45%
1:00 PM	5.95%
2:00 PM	6.59%
3:00 PM	6.89%
4:00 PM	7.12%
5:00 PM	6.03%
6:00 PM	5.50%
7:00 PM	4.70%
8:00 PM	3.78%
9:00 PM	2.74%
10:00 PM	1.94%
11:00 PM	1.30%
Total	100.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	3,679	54.9	2,453	54.9
<b>LOS D/E Breakpoint</b>	4,766	52.9	3,177	52.9
<b>LOS E/F Breakpoint</b>	5,410	51.2	3,607	51.2

## MD 4 at Suitland Parkway

Segment 1: From IS 495/95(Capital Beltway) to Westphalia Rd/Old Marlboro Pike

**Condition: Future Build (2035)**

<b>Average Daily Traffic:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	1.00%	1.91%	0.21%	3.12%
<b>Diesel Powered:</b>	1.00%	1.91%	3.97%	6.88%
<b>Total:</b>	2.00%	3.82%	4.18%	10.00%

<b>Design Hour Volume:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.68%	1.55%	0.13%	2.36%
<b>Diesel Powered:</b>	0.67%	1.54%	2.43%	4.64%
<b>Total:</b>	1.35%	3.09%	2.56%	7.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	3,684	55.0	3,684	55.0
<b>LOS D/E Breakpoint</b>	4,929	54.7	4,929	54.7
<b>LOS E/F Breakpoint</b>	5,797	50.0	5,797	50.0

<b>Diurnal Curve:</b>	
<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.57%
1:00 AM	0.46%
2:00 AM	0.44%
3:00 AM	0.60%
4:00 AM	1.56%
5:00 AM	4.29%
6:00 AM	6.57%
7:00 AM	6.12%
8:00 AM	6.21%
9:00 AM	5.15%
10:00 AM	5.01%
11:00 AM	5.01%
12:00 PM	5.45%
1:00 PM	5.95%
2:00 PM	6.59%
3:00 PM	6.89%
4:00 PM	7.12%
5:00 PM	6.03%
6:00 PM	5.50%
7:00 PM	4.70%
8:00 PM	3.78%
9:00 PM	2.74%
10:00 PM	1.94%
11:00 PM	1.32%
Total	100.00%

## MD 4 at Suitland Parkway

### Segment 2: From Westphalia Rd/Old Marlboro Pike to Suitland Parkway

	<b>Existing</b>	<b>Future (No Build)</b>	<b>Future (Build)</b>
<b>Condition:</b>			
<b>Year:</b>	2015	2035	2035
<b>ADT:</b>	53,675	95,000	108,400
<b>DHV:</b>	8%	8%	8%
<b>Directional Distribution:</b>	57%	57%	57%
<b>% Trucks (ADT):</b>	7%	7%	7%
<b>% Trucks (DHV):</b>	6%	6%	6%
<b>Facility Type:</b>	Freeway	Freeway	Freeway
<b>Max LOS Reached:</b>			
<b>Northbound</b>	C	D	E
<b>Southbound</b>	C	F	D



#### Condition: Existing (2015)

Average Daily Traffic:	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.50%	1.19%	0.18%	1.87%
<b>Diesel Powered:</b>	0.50%	1.18%	3.45%	5.13%
<b>Total:</b>	1.00%	2.37%	3.63%	7.00%

Design Hour Volume:	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.49%	1.15%	0.14%	1.78%
<b>Diesel Powered:</b>	0.48%	1.14%	2.60%	4.22%
<b>Total:</b>	0.97%	2.29%	2.74%	6.00%

Freeway LOS:	Northbound		Southbound	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	3,724	55.0	2,483	55.0
<b>LOS D/E Breakpoint</b>	4,982	54.7	3,322	54.7
<b>LOS E/F Breakpoint</b>	5,860	50.0	3,907	50.0

Diurnal Curve:	
Begin Hour	% of ADT
12:00 AM	0.90%
1:00 AM	0.47%
2:00 AM	0.37%
3:00 AM	0.48%
4:00 AM	1.33%
5:00 AM	3.86%
6:00 AM	6.43%
7:00 AM	7.18%
8:00 AM	6.59%
9:00 AM	4.97%
10:00 AM	4.41%
11:00 AM	4.52%
12:00 PM	4.71%
1:00 PM	4.92%
2:00 PM	5.68%
3:00 PM	6.53%
4:00 PM	7.51%
5:00 PM	7.09%
6:00 PM	6.36%
7:00 PM	4.86%
8:00 PM	3.69%
9:00 PM	3.31%
10:00 PM	2.30%
11:00 PM	1.53%
Total	100.00%

#### Classification Count Data

Station ID: B160134  
 Location: MD4-.20 MI S OF OLD MARLBORO PIKE/WESTPHALIA RD  
 Date: Tuesday, May 24, 2013 to Wednesday, June 5, 2013

## MD 4 at Suitland Parkway

### Segment 2: From Westphalia Rd/Old Marlboro Pike to Suitland Parkway

**Condition: Future No Build (2035)**

	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Average Daily Traffic:</b>				
<b>Gasoline Powered:</b>	0.51%	1.19%	0.18%	1.88%
<b>Diesel Powered:</b>	0.50%	1.18%	3.44%	5.12%
<b>Total:</b>	1.01%	2.37%	4.62%	7.00%
<b>Design Hour Volume:</b>				
<b>Gasoline Powered:</b>	0.49%	1.15%	0.14%	1.78%
<b>Diesel Powered:</b>	0.48%	1.14%	2.60%	4.22%
<b>Total:</b>	0.97%	2.29%	2.74%	6.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	3,724	55.0	2,483	55.0
<b>LOS D/E Breakpoint</b>	4,982	54.7	3,321	54.7
<b>LOS E/F Breakpoint</b>	5,860	50.0	3,906	50.0

**Diurnal Curve:**

<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.90%
1:00 AM	0.47%
2:00 AM	0.37%
3:00 AM	0.48%
4:00 AM	1.33%
5:00 AM	3.86%
6:00 AM	6.43%
7:00 AM	7.18%
8:00 AM	6.59%
9:00 AM	4.97%
10:00 AM	4.41%
11:00 AM	4.52%
12:00 PM	4.71%
1:00 PM	4.92%
2:00 PM	5.68%
3:00 PM	6.53%
4:00 PM	7.51%
5:00 PM	7.09%
6:00 PM	6.35%
7:00 PM	4.86%
8:00 PM	3.69%
9:00 PM	3.30%
10:00 PM	2.30%
11:00 PM	1.55%
<b>Total</b>	<b>100.00%</b>

## MD 4 at Suitland Parkway

### Segment 2: From Westphalia Rd/Old Marlboro Pike to Suitland Parkway

**Condition: Future Build (2035)**

<b>Average Daily Traffic:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.51%	1.18%	0.18%	1.87%
<b>Diesel Powered:</b>	0.51%	1.18%	3.44%	5.13%
<b>Total:</b>	1.02%	2.36%	3.62%	7.00%

<b>Design Hour Volume:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.49%	1.14%	0.14%	1.77%
<b>Diesel Powered:</b>	0.48%	1.14%	2.61%	4.23%
<b>Total:</b>	0.97%	2.28%	2.75%	6.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	3,724	55.0	3,724	55.0
<b>LOS D/E Breakpoint</b>	4,982	54.7	4,982	54.7
<b>LOS E/F Breakpoint</b>	5,859	50.0	5,859	50.0

**Diurnal Curve:**

<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.90%
1:00 AM	0.47%
2:00 AM	0.37%
3:00 AM	0.48%
4:00 AM	1.33%
5:00 AM	3.86%
6:00 AM	6.43%
7:00 AM	7.18%
8:00 AM	6.59%
9:00 AM	4.97%
10:00 AM	4.41%
11:00 AM	4.52%
12:00 PM	4.71%
1:00 PM	4.92%
2:00 PM	5.68%
3:00 PM	6.53%
4:00 PM	7.51%
5:00 PM	7.09%
6:00 PM	6.36%
7:00 PM	4.86%
8:00 PM	3.69%
9:00 PM	3.30%
10:00 PM	2.30%
11:00 PM	1.54%
<b>Total</b>	<b>100.00%</b>

## MD 4 at Suitland Parkway

### Segment 3: From Suitland Parkway to Dower House Rd

<b>Condition:</b>	<b>Existing</b>	<b>Future (No Build)</b>	<b>Future (Build)</b>
<b>Year:</b>	2015	2035	2035
<b>ADT:</b>	75,800	98,325	106,900
<b>DHV:</b>	8%	8%	8%
<b>Directional Distribution:</b>	71%	71%	71%
<b>% Trucks (ADT):</b>	5%	5%	5%
<b>% Trucks (DHV):</b>	4%	4%	4%
<b>Facility Type:</b>	Freeway	Freeway	Freeway
<b>Max LOS Reached:</b>			
Northbound	D	E	E
Southbound	D	E	E



**Condition: Existing (2015)**

	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Average Daily Traffic:</b>				
<b>Gasoline Powered:</b>	0.39%	1.08%	0.10%	1.57%
<b>Diesel Powered:</b>	0.39%	1.08%	1.96%	3.43%
<b>Total:</b>	0.76%	2.16%	2.06%	5.00%
	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Design Hour Volume:</b>				
<b>Gasoline Powered:</b>	0.39%	0.82%	0.08%	1.29%
<b>Diesel Powered:</b>	0.38%	0.81%	1.52%	2.71%
<b>Total:</b>	0.77%	1.63%	1.60%	4.00%

**Diurnal Curve:**

Begin Hour	% of ADT
12:00 AM	0.70%
1:00 AM	0.40%
2:00 AM	0.36%
3:00 AM	0.56%
4:00 AM	1.90%
5:00 AM	5.07%
6:00 AM	6.65%
7:00 AM	7.25%
8:00 AM	6.57%
9:00 AM	5.18%
10:00 AM	4.20%
11:00 AM	4.03%
12:00 PM	4.25%
1:00 PM	4.67%
2:00 PM	5.64%
3:00 PM	6.65%
4:00 PM	7.01%
5:00 PM	7.58%
6:00 PM	6.69%
7:00 PM	4.71%
8:00 PM	3.75%
9:00 PM	2.79%
10:00 PM	2.01%
11:00 PM	1.38%
<b>Total</b>	<b>100.00%</b>

**Northbound                      Southbound**

	Northbound		Southbound	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>Freeway LOS:</b>				
<b>LOS C/D Breakpoint</b>	3,762	55.0	3,762	55.0
<b>LOS D/E Breakpoint</b>	5,033	54.7	5,033	54.7
<b>LOS E/F Breakpoint</b>	5,920	50.0	5,920	50.0

#### Classification Count Data

Station: B3118  
 Location: MD4-.50 MI S OF MD337  
 Date: Wednesday, September 9, 2015 to Tuesday, September 15, 2015

MD 4 at Suitland Parkway

Segment 3: From Suitland Parkway to Dower House Rd

Condition: Future No Build (2035)

Diurnal Curve:

	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Average Daily Traffic:</b>				
Gasoline Powered:	0.39%	1.08%	0.10%	1.57%
Diesel Powered:	0.39%	1.08%	1.96%	3.43%
<b>Total:</b>	<b>0.78%</b>	<b>2.16%</b>	<b>2.06%</b>	<b>5.00%</b>
	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Design Hour Volume:</b>				
Gasoline Powered:	0.38%	0.83%	0.08%	1.29%
Diesel Powered:	0.38%	0.82%	1.51%	2.71%
<b>Total:</b>	<b>0.76%</b>	<b>1.65%</b>	<b>1.59%</b>	<b>4.00%</b>

Begin Hour	% of ADT
12:00 AM	0.70%
1:00 AM	0.40%
2:00 AM	0.36%
3:00 AM	0.56%
4:00 AM	1.90%
5:00 AM	5.07%
6:00 AM	6.65%
7:00 AM	7.25%
8:00 AM	6.57%
9:00 AM	5.18%
10:00 AM	4.20%
11:00 AM	4.03%
12:00 PM	4.25%
1:00 PM	4.67%
2:00 PM	5.64%
3:00 PM	6.65%
4:00 PM	7.01%
5:00 PM	7.58%
6:00 PM	6.69%
7:00 PM	4.71%
8:00 PM	3.75%
9:00 PM	2.79%
10:00 PM	2.01%
11:00 PM	1.38%
<b>Total</b>	<b>100.00%</b>

Freeway LOS:	Northbound		Southbound	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
LOS C/D Breakpoint	3,580	55.0	3,580	55.0
LOS D/E Breakpoint	4,789	54.7	4,789	54.7
LOS E/F Breakpoint	5,632	50.0	5,632	50.0

## MD 4 at Suitland Parkway

### Segment 3: From Suitland Parkway to Dower House Rd

**Condition: Future Build (2035)**

<b>Average Daily Traffic:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.39%	1.08%	0.10%	1.57%
<b>Diesel Powered:</b>	0.39%	1.08%	1.96%	3.43%
<b>Total:</b>	0.78%	2.16%	2.06%	5.00%

<b>Design Hour Volume:</b>	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Gasoline Powered:</b>	0.38%	0.83%	0.08%	1.29%
<b>Diesel Powered:</b>	0.38%	0.82%	1.51%	2.71%
<b>Total:</b>	0.76%	1.65%	1.59%	4.00%

	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>Freeway LOS:</b>				
<b>LOS C/D Breakpoint</b>	3,762	55.0	3,762	55.0
<b>LOS D/E Breakpoint</b>	5,033	54.7	5,033	54.7
<b>LOS E/F Breakpoint</b>	5,919	50.0	5,919	50.0

<b>Diurnal Curve:</b>	
<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.70%
1:00 AM	0.40%
2:00 AM	0.36%
3:00 AM	0.56%
4:00 AM	1.90%
5:00 AM	5.07%
6:00 AM	6.75%
7:00 AM	7.07%
8:00 AM	6.66%
9:00 AM	5.18%
10:00 AM	4.20%
11:00 AM	4.03%
12:00 PM	4.25%
1:00 PM	4.67%
2:00 PM	5.64%
3:00 PM	6.65%
4:00 PM	7.01%
5:00 PM	7.58%
6:00 PM	6.69%
7:00 PM	4.71%
8:00 PM	3.75%
9:00 PM	2.79%
10:00 PM	2.01%
11:00 PM	1.37%
Total	100.00%

MD 4 at Suitland Parkway

Segment 4: From Dower House Rd to MD 223

<b>Condition:</b>	<b>Existing</b>	<b>Future (No Build)</b>	<b>Future (Build)</b>
<b>Year:</b>	2015	2035	2035
<b>ADT:</b>	70,275	81,500	91,600
<b>DHV:</b>	7%	7%	7%
<b>Directional Distribution:</b>	69%	69%	69%
<b>% Trucks (ADT):</b>	7%	7%	7%
<b>% Trucks (DHV):</b>	8%	8%	8%
<b>Facility Type:</b>	Freeway	Freeway	Freeway
<b>Max LOS Reached:</b>			
Northbound	F	F	E
Southbound	E	F	D



<b>Condition:</b>	<b>Existing (2015)</b>			
	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Average Daily Traffic:</b>				
<b>Gasoline Powered:</b>	0.67%	2.04%	0.08%	2.79%
<b>Diesel Powered:</b>	0.66%	2.03%	1.52%	4.21%
<b>Total:</b>	1.33%	4.07%	1.60%	7.00%
<b>Design Hour Volume:</b>				
<b>Gasoline Powered:</b>	0.68%	2.64%	0.07%	3.39%
<b>Diesel Powered:</b>	0.68%	2.64%	1.29%	4.61%
<b>Total:</b>	1.36%	5.28%	1.36%	8.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	2,466	55.0	2,466	55.0
<b>LOS D/E Breakpoint</b>	3,299	54.7	3,299	54.7
<b>LOS E/F Breakpoint</b>	3,881	50.0	3,881	50.0

<b>Diurnal Curve:</b>	
<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.77%
1:00 AM	0.45%
2:00 AM	0.37%
3:00 AM	0.54%
4:00 AM	1.62%
5:00 AM	5.09%
6:00 AM	6.82%
7:00 AM	6.49%
8:00 AM	6.43%
9:00 AM	5.08%
10:00 AM	4.07%
11:00 AM	4.12%
12:00 PM	4.48%
1:00 PM	4.77%
2:00 PM	5.62%
3:00 PM	6.63%
4:00 PM	7.80%
5:00 PM	7.47%
6:00 PM	6.40%
7:00 PM	4.43%
8:00 PM	3.65%
9:00 PM	3.20%
10:00 PM	2.25%
11:00 PM	1.45%
<b>Total</b>	<b>100.00%</b>

Station: B3117  
 Location: MD 4 – 0.30 MI NORTH OF MD 223  
 Date: Tuesday, June 7, 2011 to Wednesday, June 8, 2011

MD 4 at Suitland Parkway

Segment 4: From Dower House Rd to MD 223

**Condition: Future No Build (2035)**

	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Average Daily Traffic:</b>				
<b>Gasoline Powered:</b>	0.66%	2.05%	0.08%	2.79%
<b>Diesel Powered:</b>	0.66%	2.04%	1.51%	4.21%
<b>Total:</b>	1.32%	4.09%	1.59%	7.00%
<b>Design Hour Volume:</b>				
<b>Gasoline Powered:</b>	0.68%	2.65%	0.07%	3.40%
<b>Diesel Powered:</b>	0.67%	2.65%	1.28%	4.60%
<b>Total:</b>	1.35%	5.30%	1.35%	8.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	2,277	55.0	2,277	55.0
<b>LOS D/E Breakpoint</b>	3,046	54.7	3,046	54.7
<b>LOS E/F Breakpoint</b>	3,582	50.0	3,582	50.0

**Diurnal Curve:**

<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.77%
1:00 AM	0.45%
2:00 AM	0.37%
3:00 AM	0.54%
4:00 AM	1.62%
5:00 AM	5.09%
6:00 AM	6.82%
7:00 AM	6.49%
8:00 AM	6.43%
9:00 AM	5.08%
10:00 AM	4.07%
11:00 AM	4.12%
12:00 PM	4.48%
1:00 PM	4.77%
2:00 PM	5.62%
3:00 PM	6.63%
4:00 PM	7.80%
5:00 PM	7.47%
6:00 PM	6.41%
7:00 PM	4.43%
8:00 PM	3.65%
9:00 PM	3.20%
10:00 PM	2.25%
11:00 PM	1.44%
<b>Total</b>	<b>100.00%</b>

MD 4 at Suitland Parkway

Segment 4: From Dower House Rd to MD 223

**Condition: Future Build (2035)**

	Light Trucks	Medium Trucks	Heavy Trucks	Total
<b>Average Daily Traffic:</b>				
<b>Gasoline Powered:</b>	0.66%	2.04%	0.08%	2.78%
<b>Diesel Powered:</b>	0.66%	2.04%	1.52%	4.22%
<b>Total:</b>	1.32%	4.08%	1.60%	7.00%
<b>Design Hour Volume:</b>				
<b>Gasoline Powered:</b>	0.68%	2.65%	0.07%	3.40%
<b>Diesel Powered:</b>	0.67%	2.64%	1.29%	4.60%
<b>Total:</b>	1.35%	5.29%	1.36%	8.00%

<b>Freeway LOS:</b>	<b>Northbound</b>		<b>Southbound</b>	
	Vol./Hr.	Mi./Hr.	Vol./Hr.	Mi./Hr.
<b>LOS C/D Breakpoint</b>	3,700	55.0	3,700	55.0
<b>LOS D/E Breakpoint</b>	4,949	54.7	4,949	54.7
<b>LOS E/F Breakpoint</b>	5,821	50.0	5,821	50.0

**Diurnal Curve:**

<b>Begin Hour</b>	<b>% of ADT</b>
12:00 AM	0.77%
1:00 AM	0.45%
2:00 AM	0.37%
3:00 AM	0.53%
4:00 AM	1.62%
5:00 AM	5.09%
6:00 AM	6.82%
7:00 AM	6.49%
8:00 AM	6.43%
9:00 AM	5.08%
10:00 AM	4.07%
11:00 AM	4.12%
12:00 PM	4.48%
1:00 PM	4.77%
2:00 PM	5.62%
3:00 PM	6.63%
4:00 PM	7.80%
5:00 PM	7.48%
6:00 PM	6.41%
7:00 PM	4.43%
8:00 PM	3.65%
9:00 PM	3.20%
10:00 PM	2.25%
11:00 PM	1.44%
<b>Total</b>	<b>100.00%</b>

## **APPENDIX D - INTERAGENCY CONSULTATION GROUP COORDINATION**

## Nicole Hebert

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**From:** Christina Brandt <CBrandt@sha.state.md.us>  
**Sent:** Tuesday, July 26, 2016 9:12 AM  
**To:** Shawn Burnett; Nicole M. Hebert  
**Subject:** FW: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

---

From: Khadr, Asrah [mailto:Khadr.Asrah@epa.gov]  
Sent: Friday, July 15, 2016 2:29 PM  
To: Christina Brandt <CBrandt@sha.state.md.us>  
Cc: Rudnick, Barbara <Rudnick.Barbara@epa.gov>  
Subject: RE: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

Hi Chrissy,

EPA concurs with SHA's recommendation that this project does not require a quantitative hot-spot analysis.

Thanks,

Asrah Khadr, Environmental Engineer, EIT  
WISE SE-Program Manager  
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: Thursday, July 07, 2016 10:51 AM  
To: 'Brian Hug -MDE-' <brian.hug@maryland.gov>; Rudnick, Barbara <Rudnick.Barbara@epa.gov>; Becoat, gregory <becoat.gregory@epa.gov>; Khadr, Asrah <Khadr.Asrah@epa.gov>; Magerr, Kevin <Magerr.Kevin@epa.gov>; 'Alexandra Brun -MDE-' <alexandra.brun@maryland.gov>; 'jeanette.mar@dot.gov' <jeanette.mar@dot.gov>; 'jdesimone@mwkog.org' <jdesimone@mwkog.org>; Colleen Turner <cturner@mdot.state.md.us>  
Cc: 'Shawn Burnett' <sburnett@wtbco.com>; 'Nicole M. Hebert' <nhebert@wtbco.com>; Heather Lowe <HLowe@sha.state.md.us>  
Subject: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

Good Morning,

Attached is the Draft Air Quality Technical Report for the MD 4 at Suitland Parkway project in Prince George's 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 current 2015-2020 TIP includes the project as part of ID 3547.

Please review and provide concurrence/comments by July 21, 2016 . Please let me know if you have any questions.

Thank you,

Chrissy

Chrissy Brandt

*Environmental Manager – Team Leader*

*OPPE-Environmental Planning Division*

*Maryland Department of Transportation's*

*State Highway Administration*

*707 North Calvert Street, Baltimore, MD 21202*

*410-545-2874 / [cbrandt@sha.state.md.us](mailto:cbrandt@sha.state.md.us)*

*[www.roads.maryland.gov](http://www.roads.maryland.gov)*



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## Nicole Hebert

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**From:** Christina Brandt <CBrandt@sha.state.md.us>  
**Sent:** Wednesday, July 27, 2016 7:24 AM  
**To:** Shawn Burnett; Nicole M. Hebert  
**Subject:** FW: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

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**From:** Mar, Jeanette (FHWA) [mailto:Jeanette.Mar@dot.gov]  
**Sent:** Tuesday, July 26, 2016 5:23 PM  
**To:** Christina Brandt <CBrandt@sha.state.md.us>  
**Subject:** RE: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

Hi Chrissy:

FHWA concurs that the MD 4 at Suitland Parkway Project in Prince George's County, Maryland meets the requirements of the CAA and 40 CFR 93 and does not need an additional quantitative hot-spot analysis.

Thanks!

*Jeanette*

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

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**From:** Christina Brandt [mailto:CBrandt@sha.state.md.us]  
**Sent:** Thursday, July 07, 2016 10:51 AM  
**To:** 'Brian Hug -MDE-'; 'Rudnick.Barbara@epamail.epa.gov'; 'Becoat, gregory'; 'Khadr, Asrah'; 'Kevin Magerr'; 'Alexandra Brun -MDE-'; Mar, Jeanette (FHWA); 'jdesimone@mwcog.org'; Colleen Turner  
**Cc:** 'Shawn Burnett'; 'Nicole M. Hebert'; Heather Lowe  
**Subject:** MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

Good Morning,

Attached is the Draft Air Quality Technical Report for the MD 4 at Suitland Parkway project in Prince George's County, Maryland.

## Nicole Hebert

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**From:** Christina Brandt <CBrandt@sha.state.md.us>  
**Sent:** Tuesday, July 19, 2016 12:10 PM  
**To:** Shawn Burnett; Nicole M. Hebert  
**Subject:** FW: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

**From:** Alexandra Brun -MDE- [mailto:alexandra.brun@maryland.gov]  
**Sent:** Tuesday, July 19, 2016 11:47 AM  
**To:** Christina Brandt <CBrandt@sha.state.md.us>  
**Cc:** Brian Hug -MDE- <brian.hug@maryland.gov>  
**Subject:** Re: MD 4 at Suitland Parkway Improvement Project - Air Quality Interagency Consultation

Christina,

MDE has reviewed the air quality analysis for the MD 4 at Suitland Parkway project in Prince George's County, Maryland and concurs that it does not require an additional quantitative hot-spot analysis.

Thank you,

Alex

On Thu, Jul 7, 2016 at 10:50 AM, Christina Brandt <[CBrandt@sha.state.md.us](mailto:CBrandt@sha.state.md.us)> wrote:

Good Morning,

Attached is the Draft Air Quality Technical Report for the MD 4 at Suitland Parkway project in Prince George's 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 current 2015-2020 TIP includes the project as part of ID 3547.