

US 29 (COLUMBIA PIKE) FROM MUSGROVE ROAD TO FAIRLAND ROAD INTERCHANGE IMPROVEMENTS

AIR QUALITY ANALYSIS TECHNICAL REPORT

January 2016

Montgomery County, Maryland



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



**MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION**

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I. INTRODUCTION

This report presents the results of a review of air quality impacts associated with proposed improvements to US 29 (Columbia Pike) from the intersection with Musgrove Road to the intersection with Fairland Road in Montgomery County, Maryland. This study is intended as an evaluation of the project level air quality impacts of the proposed interchanges and associated improvements. This evaluation is provided to meet the requirements of the Clean Air Act (CAA) and the National Environmental Policy Act (NEPA).

US 29 is a divided urban freeway expressway running north to south with three to four lanes in both directions within the project limits. Land use along the corridor of the US 29 from Musgrove Road to Fairland Road project is a mix of institutional, commercial, and agriculture. The overall project extends approximately 0.76 mile between the US 29 intersections with Musgrove Road and Fairland Road (See **Figure 1**).

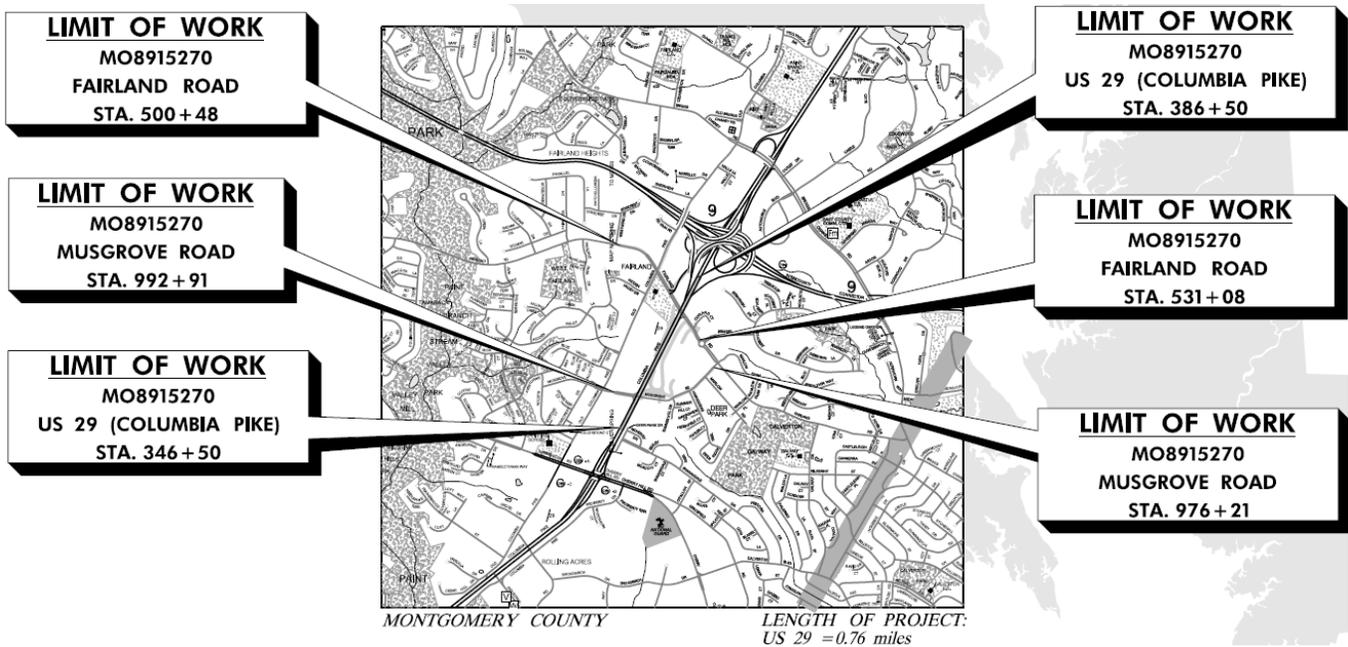


FIGURE 1 – Location Map

The purpose of the US 29 from Musgrove Road to Fairland Road project is to provide safe and efficient capacity along the US 29 corridor. This will be accomplished by reconstructing the existing signalized intersections at US 29 and Musgrove Road and US 29 and Fairland Road into interchanges, with a partial interchange at Musgrove Road and a full interchange at Fairland Road. Additional roadway improvements include resurfacing along US 29 and the construction of retaining walls. Refer to **Appendix A** for project design plans.

II. AIR QUALITY BACKGROUND

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

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

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

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

- Transportation Conformity Rule PM_{2.5} and PM₁₀ Amendments, March 10, 2006;
- Final PM Qualitative Guidance Clarification, June 12, 2009;
- Final PM Conformity Rule, March 10, 2010;
- Draft Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, May 26, 2010;
- Final Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, December 20, 2010;
- Final Transportation Conformity Guidance for Quantitative Hot-spot Analyses in CO Nonattainment and Maintenance Areas, December 2010;
- Transportation Conformity Rule Restructuring Amendments, March 2012;
- Transportation Conformity Regulations, as of April 2012;
- Interim Guidance Update on MSAT Analysis in NEPA, December 6, 2012; and
- Revised Air Quality Standards for Particle Pollution, Annual PM_{2.5} NAAQS, December 14, 2012
- Update to the Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, November 2013.

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

TABLE 1 - National Ambient Air Quality Standards (NAAQS)

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

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

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.

III. ENVIRONMENTAL ANALYSIS

The US 29 from Musgrove Road to Fairland Road project is located in Montgomery County, Maryland, which is included as part of the Washington-Arlington-Alexandria DC-VA-MD-WV

Metropolitan Statistical Area (MSA). The region has been classified as maintenance for the 1997 fine particulate (PM_{2.5}) standard. The MSA had been non-attainment for the 1997 PM_{2.5} standard; however, this area was re-designated as maintenance by the EPA on October 6, 2014. The MSA is neither in maintenance nor nonattainment for CO.

Transportation programs and plans must be evaluated for “conformity” to the applicable State Implementation Plan (SIP) provisions before projects can receive federal funding. Metropolitan Planning Organizations (MPOs) are designated to evaluate projects and develop conforming transportation plans for the assigned MSAs, and to document project and plan conformity with SIP provisions. This is accomplished through the development of Transportation Improvement Programs (TIPs) and Long Range Transportation Plans (LRTPs). The TIP generally presents the SIP-conforming projects anticipated in an MSA over the next several years while an LRTP covers a longer period. On a regional level, a project is considered to be conforming if it is a part of a conforming TIP and LRTP.

For the Washington-Arlington-Alexandria DC-VA-MD-WV MSA, the National Capital Region Transportation Planning Board (NCRTPB) serves as the MPO. Montgomery County is a member of NCRTPB. NCRTPB develops the TIP and LRTP for the region, including Montgomery County. Furthermore, it performs the related regional conformity analysis. The current LRTP, referred to as the 2014 Constrained Long-Range Transportation Plan, was adopted by NCRTPB on October 15, 2014. The latest TIP, covering the period of fiscal year 2015 to fiscal year 2020, was also adopted by NCRTPB on October 15, 2014.

IV. ENVIRONMENTAL CONSEQUENCES

In addition to the regional conformity analysis, any federally funded project within a nonattainment or maintenance area for carbon monoxide or particulate matter must be analyzed at the project level. At the project level, the pollutants could possibly have localized (“hot-spot”) levels above the criteria. Although the US 29 from Musgrove Road to Fairland Road project is not in a CO nonattainment or maintenance area subject to the conformity determination requirements of 40 CFR 93.116, a qualitative CO assessment has been included. Since Montgomery County is within a maintenance area for PM_{2.5}, a project-specific PM_{2.5} assessment has been provided.

The closest MDE air monitoring station for the study area is located at the Howard University Lab in Beltsville, Maryland. In addition, monitoring data is available at other monitoring stations including those located at 2500 1st Street (DC), Verizon (DC), and the Lathrop E. Smith Center (MD). All sites are in EPA Region 3. Monitored air quality data within or near the study area for the years 2012-2014 is presented in **Table 2**. Details of the monitoring information are located in **Appendix B**.

TABLE 2 - Ambient Air Quality Monitoring Data 2012-2014

Site (ordered by closest to project limits)			Site 240330030 Howard University Lab Beltsville MD			Site 110010043 2500 1 st Street Washington DC			Site 110010023 Verizon Washington DC		
Year			2012	2013	2014	2012	2013	2014	2012	2013	2014
Carbon Monoxide (CO) [ppm]	1- Hour	1st Maximum	1.3	1	1.5	2.5	2.1	1.6	2.5	5.8	2.1
		2nd Maximum	1.2	0.9	1	2.4	1.4	1.6	2.2	4.4	2
		Actual Exceedances	0	0	0	0	0	0	0	0	0
	8- Hour	1st Maximum	1.2	0.9	0.9	1.9	1.2	1.5	2	2.8	1.6
		2nd Maximum	0.9	0.9	0.8	1.8	1	1.2	1.9	2.5	1.5
		Actual Exceedances	0	0	0	0	0	0	0	0	0
Site (ordered by closest to project limits)			Site 240330030 Howard University Lab Beltsville MD			Site 240313001 Lathrop E. Smith Center Montgomery County MD			Site 110010043 2500 1st Street Washington DC		
Year			2012	2013	2014	2012	2013	2014	2012	2013	2014
Particulate Matter (PM _{2.5}) [ug/m ³]	24-Hour 98th Percentile		26	22	23	23	21	20	28	26	22
	Weighted Annual Mean		11.3	9.5	9.9	10.3	8.1	9	11.6	11.6	9.9

1. Carbon Monoxide (CO) Assessment

Code of Federal Regulations Title 40, Part 93-Subpart A (40CFR93A) implements section 176(c) of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 *et seq.*). Paragraph 40CFR93.102(b):*Geographic Applicability* states that the provisions of the subpart apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. Since the study area is not in a CO nonattainment or maintenance area and the project is not of a category outlined by 40 CFR 93.123(a)(1), a hot-spot conformity determination in conformance with 40 CFR 93.116 is not required, and as stated in 40 CFR 93.123(a)(2)(ii) a qualitative assessment that considers local factors is provided hereinafter.

As shown in **Table 2**, the maximum 1-hour monitored CO concentration of 5.8 ppm occurred in 2013 at Site 110010023, located at Verizon in Washington, DC. This concentration is only 16.6 percent of the 1-hour CO NAAQS of 35.0 ppm. The maximum 8-hour monitored CO concentration of 2.8 ppm occurred in the 2013 at the same site, which is only 31.1 percent of the 8-hour NAAQS of 9.0 ppm.

Table 3 summarizes the 2014, 2027 (No-Build/Build), and 2040 (No-Build/Build) traffic data along US 29, 0.20 miles south of Fairland Road, developed by SHA Data Services Engineering

Division on December 2, 2014 (see **Appendix C** for details). As shown in **Table 3**, significant changes to traffic volumes and/or vehicle mix are not predicted to occur because of this project. The US 29 from Musgrove Road to Fairland Road project does not result in significant traffic volumes, or changes in vehicle mix or other factors that would cause an increase in CO emissions relative to the No-Build conditions.

Table 3 - Traffic Data: US 29, 0.20 mi South of Fairland Road

Condition		Existing 2014	No-Build 2027	Build 2027	No-Build 2040	Build 2040
ADT		58,475	62,400	62,400	66,575	66,575
Percent Trucks	Gasoline	1.60	1.61	1.61	1.61	1.61
	Diesel	2.40	2.39	2.39	2.39	2.39
	Total	4	4	4	4	4
Daily Truck Volumes	Gasoline	936	1,005	1,005	1,072	1,072
	Diesel	1,403	1,491	1,491	1,591	1,591
	Total	2,339	2,496	2,496	2,663	2,663

In conclusion, because the ambient air quality data presented in **Table 2** demonstrates monitored CO concentrations in the project area are a percentage of the CO NAAQS, and the project traffic data in **Table 3** demonstrates the improvements will not result in increases in traffic volumes or changes in vehicle mix relative to the No-Build conditions, the construction of the US 29 from Musgrove Road to Fairland Road project will not cause or contribute to a new violation of the CO NAAQS.

2. Particulate Matter (PM_{2.5}) Assessment

The project is located in Montgomery County, which is in the Washington, DC-MD-VA, Fine Particulate Matter (PM_{2.5}) Maintenance Area. On November 13, 2009 EPA designated nonattainment areas based on the 2006 24-hour PM_{2.5} NAAQS. The Washington, DC-MD-VA, region was not designated as nonattainment for the 2006 standard, therefore the designations based on the 1997 NAAQS remain in effect. Montgomery County was designated as maintenance for PM_{2.5} on October 6, 2014, by EPA.

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: “*PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards*” (71 FR 12468). These rule amendments require the assessment of localized air quality impacts of federally funded or approved transportation projects in PM₁₀ and PM_{2.5} nonattainment and maintenance areas. On December 20, 2010, EPA issued “*Final Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas*,” (75 FR 79370), which helps state and local agencies complete quantitative PM_{2.5} and PM₁₀ hot-spot analyses for project-level transportation conformity determinations of certain highway and transit projects.

Projects that require hotspot analysis for PM_{2.5} are those that are projects of air quality concern as described in 40 CFR 93.123(b)(1):

- (i) *New highway projects that have a significant number of diesel vehicles, and expanded projects that have a significant increase in the number of diesel vehicles;*
- (ii) *Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;*
- (iii) *New bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location;*
- (iv) *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and*
- (v) *Projects in or affecting locations, areas, or categories of sites which are identified in the PM₁₀ or PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violations.*

As discussed in the examples of the preamble to the March 10, 2006 Final Rule for PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-Level Transportation Conformity Determinations (71 FR 12491), for projects involving the expansion of an existing highway, 40 CFR 93.123(b)(1)(i) has been interpreted as applying only to projects that would involve a significant increase in the number of diesel transit buses and diesel trucks on the existing facility.

Determination as to whether the US 29 from Musgrove Road to Fairland Road project is a *Project of Air Quality Concern* will be finalized by Interagency Consultation Group (ICG) coordination. To assist with the ICG coordination process, SHA has prepared the following assessment of the proposed improvements:

- The US 29 from Musgrove Road to Fairland Road project is considered under the following paragraphs of 40CFR93:
 - 40 CFR 93.123(b)(1)(i), as amended, which includes “*New highway projects that have a significant number of diesel vehicles, and expanded projects that have a significant increase in the number of diesel vehicles.*”
- The proposed improvements do not meet the criteria set forth in 40 CFR 93.123(b)(1)(i) to be considered a project of air quality concern based on the following considerations:
 - As shown in **Table 3**, US 29 does not carry a significant number of trucks; nor is there projected to be an increase in trucks as a result of the project. For both the 2040 No-Build and Build conditions, the total US 29 ADT volume is 66,575 vehicles and the total average daily number of trucks is 2,663 (4% of the ADT).
 - Depicted truck percentages represent the amount of light, medium and heavy truck activity along a given roadway segment. Unless predicated by significant land use changes (heavy truck generators), existing truck percentages are used as the primary factor in determining future percentages. The Build condition will improve operation of the roadway, relieving system congestion, but will not necessarily induce new truck traffic origin-destination patterns.

- A review of the traffic data demonstrates that there will not be a "significant" increase in the number of trucks from the No-Build condition to the Build condition.

Based on review and analysis as discussed above, it is determined that the proposed US 29 from Musgrove Road to Fairland Road project in Montgomery County will meet the Clean Air Act and 40 CFR 93.109 requirements for Fine Particulate Matter - PM_{2.5}. These requirements are met without a hot-spot analysis because the project has not been found to be a project of air quality concern as outlined under 40 CFR 93.123(b)(1). The project will not cause or contribute to a new violation of the PM_{2.5} NAAQS, or increase the frequency or severity of an existing violation.

3. Regional Conformity Determination

Section 176(c) of the Clean Air Act and the Federal Conformity Rule require that transportation plans and programs conform to the intent of the air quality state implementation plan (SIP) through a regional emissions analysis in PM_{2.5} nonattainment areas. The NCRTPB serves as the MPO, and therefore is responsible for the regional conformity determination.

- The currently approved NCRTPB LRTP, the *2014 Constrained Long-Range Plan*, and the *2015-2020 Transportation Improvement Program (TIP)* have been determined to conform to the requirements of the Clean Air Act Amendments of 1990. These represent the currently conforming LRTP and TIP in accordance with 40 CFR 93.114. The project is included in the LRTP under CLRP ID 1197, which covers improvements along US 29 from Sligo Creek Parkway to the Montgomery County and Howard County line. The Musgrove Road and Fairland Road interchanges are listed as a priority. The 2015-2020 TIP includes the project under TIP ID 3641, which describes the project as a construction of a new US 29 interchange at Musgrove and Fairland roads.
- The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. Conformity to the requirements of the Clean Air Act Amendments of 1990 means that the transportation activity will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS.

4. MSAT Assessment

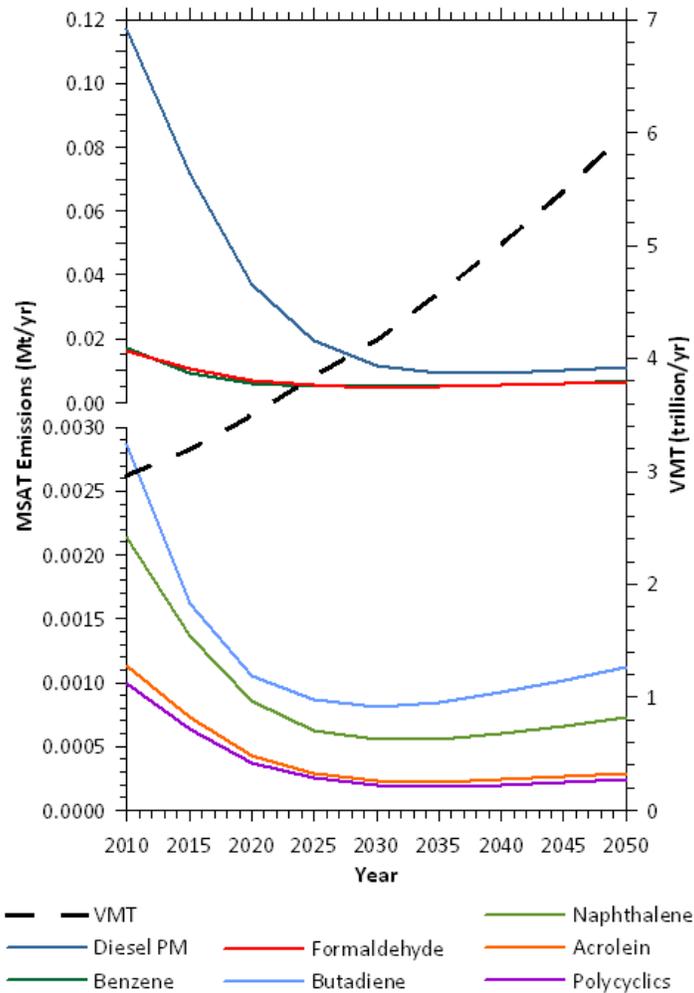
The Federal Highway Administration (FHWA) *Guidance Update on Mobile Source Air Toxic Analysis in NEPA* requires an assessment of MSATs under specific conditions. The EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer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

The purpose of the US 29 from Musgrove Road to Fairland Road project is to provide safe and efficient capacity along the US 29 corridor. This will be accomplished by reconstructing the existing signalized intersections at US 29 and Musgrove Road and US 29 and Fairland Road into interchanges, with a partial interchange at Musgrove Road and a full interchange at Fairland

Road. Additional roadway improvements include resurfacing along US 29 and the construction of retaining walls.

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 MOVES model forecasts a combined reduction of over 80 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 100 percent (see **Figure 2**). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.



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

5. Greenhouse Gas Assessment

Maryland's Greenhouse Gas Emission Reduction Act of 2009 (GGRA) seeks a reduction in greenhouse gas (GHG) emissions of 25 percent from the 2006 baseline by 2020. The Greenhouse Gas Reduction Plan was published October 2013 and puts the State on track to achieve the 25 percent GHG reduction required by the law. The Maryland Climate Change Commission (MCCC) was signed into law by Governor Hogan in 2015. The MCCC is charged with assessing future year goals for GHG emissions in Maryland.

Currently there are no Federal requirements for consideration of GHG impacts in transportation planning, however the Maryland Department of Transportation (MDOT), recognizes that

highway transportation accounts for approximately 28 percent of the GHGs in Maryland. In response to the GGRA, MDOT is exploring and implementing transportation and land use strategies to reduce GHG emissions programmatically as described in the Plan. The general GHG reduction strategies presented for the transportation sector in the Plan include: Transportation Technologies such as vehicle emission and fuel standards, on-road technologies and low emission vehicle initiatives; Public Transportation Initiatives; Pricing Initiatives; GHG Emission Impact evaluation of Major New Transportation Projects; and Bike and Pedestrian Initiatives. Initiatives outlined in the Plan also will help with restoration of the Chesapeake Bay, improving air quality and improving water quality throughout the State.

Much like environmental habitats, Maryland's transportation system is a network of interdependent elements and the interactions and synergy between each part impact the transportation system as a whole. GHG emissions from major transportation projects need to be considered as part of the planning process and recognition needs to be made that all projects may not reduce GHG emissions but as a whole the network needs to focus on reductions. Consequently project-level emissions analyses are less informative than analysis conducted at the regional, state, and national scale. EPA has not identified National Ambient Air Quality Standards for GHGs, but has finalized standards and adopted regulations to enable the production of a new generation of clean vehicles along with implementing cleaner fuel standard regulations to achieve significant reductions of GHG emissions.

The State Highway Administration continues to strive for improved operations and system efficiency through improved operations which typically goes hand in hand with GHG reductions. System operations improvements such as improved signal timing, roundabouts, reduced vehicle idling, congestion pricing and reduction, smoothing traffic flow, eliminating bottlenecks and encouraging eco-driving are incorporated into many SHA projects. Environmental benefits and consequences are considered on all projects prior to implementation.

6. Construction Impacts

The construction phase of the proposed project has the potential to impact the local ambient air quality by generating fugitive dust through activities such as demolition and materials handling. The State Highway Administration has addressed this possibility by establishing "Specifications for Construction and Materials" which specifies procedures to be followed by contractors involved in site work. The Maryland Air and Radiation Management Administration was consulted to determine the adequacy of the "Specifications" in terms of satisfying the requirements of the "Regulations Governing the Control of Air Pollution in the State of Maryland." The Maryland Air and Radiation Management Administration found the specifications to be consistent with the requirements of these regulations. Therefore, during the construction period, all appropriate measures (Code of Maryland Regulations 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 construction impact of the project is insignificant.

V. INTERAGENCY CONSULTATION GROUP / PUBLIC COORDINATION

Copies of this air quality analysis were circulated to FHWA, EPA, the Maryland Department of the Environment (MDE), and NC RTPB for a 15-day ICG review and comment period. FHWA, EPA, and MDE concurred that this project does not require a quantitative hot-spot analysis (Appendix D). With these concurrences, this Air Quality Analysis will be placed on SHA's website for a 15-day public review and comment period.

APPENDIX

A - PLANS

B - MONITORED AMBIENT AIR QUALITY DATA 2012-2014

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. MO8915270
FEDERAL AID PROJECT NO.
US 29 (COLUMBIA PIKE)
Musgrove Road to Fairland Road Interchange Improvements

AASHTO DESIGN CRITERIA

THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE 2001 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 PLANS. 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.

COMPLETENESS OF DOCUMENTS

THE STATE HIGHWAY ADMINISTRATION SHALL ONLY BE RESPONSIBLE FOR THE COMPLETENESS OF DOCUMENTS OBTAINED DIRECTLY FROM THE STATE HIGHWAY ADMINISTRATION'S CASHIER'S OFFICE. 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 # ##-XX-####

ALL STORMWATER MANAGEMENT FACILITIES CONSTRUCTED FOR CONTRACT NO. MO8915270 SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STATE HIGHWAY ADMINISTRATIONS BEST MANAGEMENT PRACTICES (BMP) INSPECTION AND REMEDIATION PROGRAM.

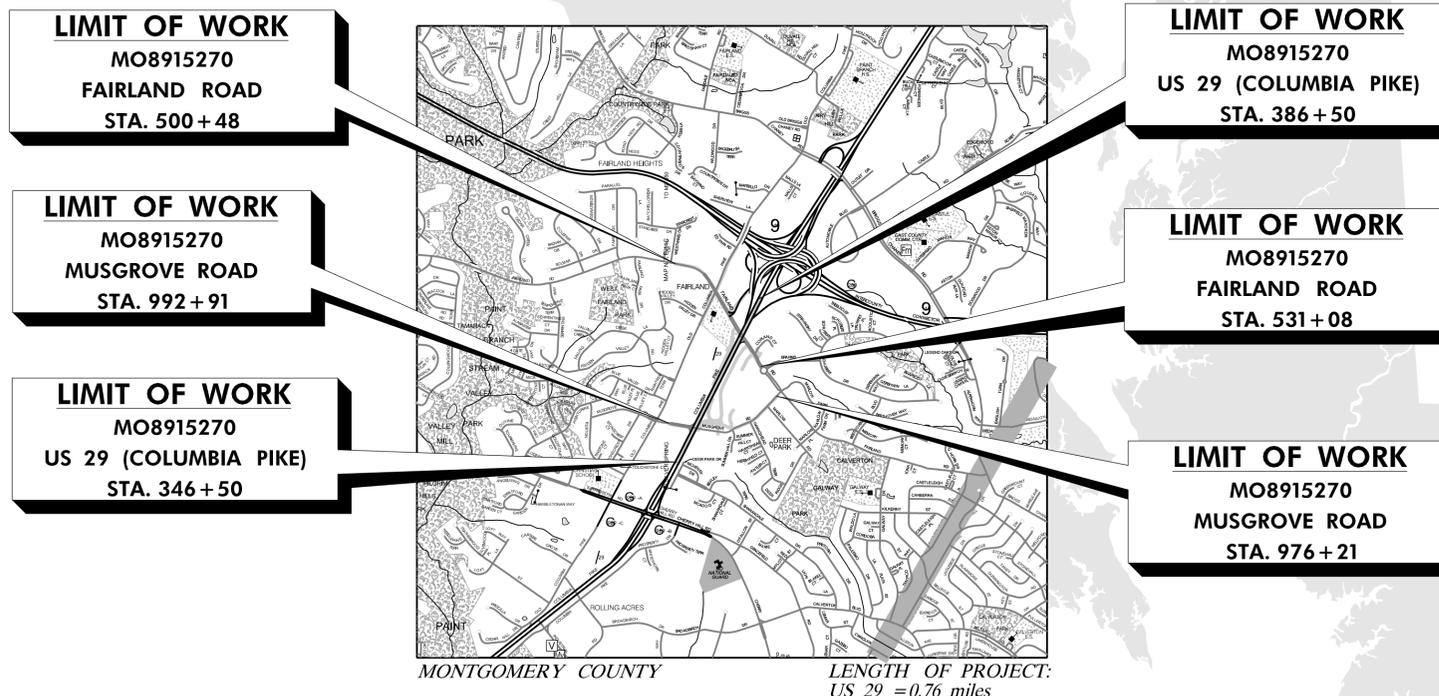
SEDIMENT AND EROSION CONTROL REGULATIONS WILL BE STRICTLY ENFORCED DURING CONSTRUCTION.

STANDARD STABILIZATION NOTE :

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR 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.

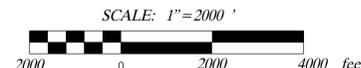
OWNERS / DEVELOPERS CERTIFICATION :

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.



MONTGOMERY COUNTY LENGTH OF PROJECT: US 29 = 0.76 miles

HORIZONTAL DATUM	NAD 83 / 91
VERTICAL DATUM	NAVD 88



R-O-W PLAT NUMBERS	SURVEY BOOK NUMBERS
	25320
	25321
	14879

DESIGN DESIGNATION	
ROADWAY	US 29
CONTROLS / YEARS	2014 2040
AVERAGE DAILY TRAFFIC (A.D.T.)	60,800 69,200
DESIGN HOURLY VOLUME (D.H.V.)	9% 9%
DIRECTIONAL DISTRIBUTION	60% 60%
% TRUCKS - A.D.T.	4% 4%
% TRUCKS - D.H.V.	3% 3%
DESIGN SPEED M. P. H.	60 M.P.H.
FUNCTIONAL CLASSIFICATION	EXPRESSWAY
CONTROL OF ACCESS	FULL
INTENSITY OF DEVELOPMENT	
TERRAIN	LEVEL
ANTICIPATED POSTED SPEED	55 M.P.H.

REVISIONS	
NOTE:	
See Sheet No. 2 for List of Revised Sheet Numbers	

PRELIMINARY INVESTIGATION SUBMITTAL
JUNE 2, 2015

REVIEWED AND APPROVAL RECOMMENDED DATE

CHIEF, 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: BENKIEFER



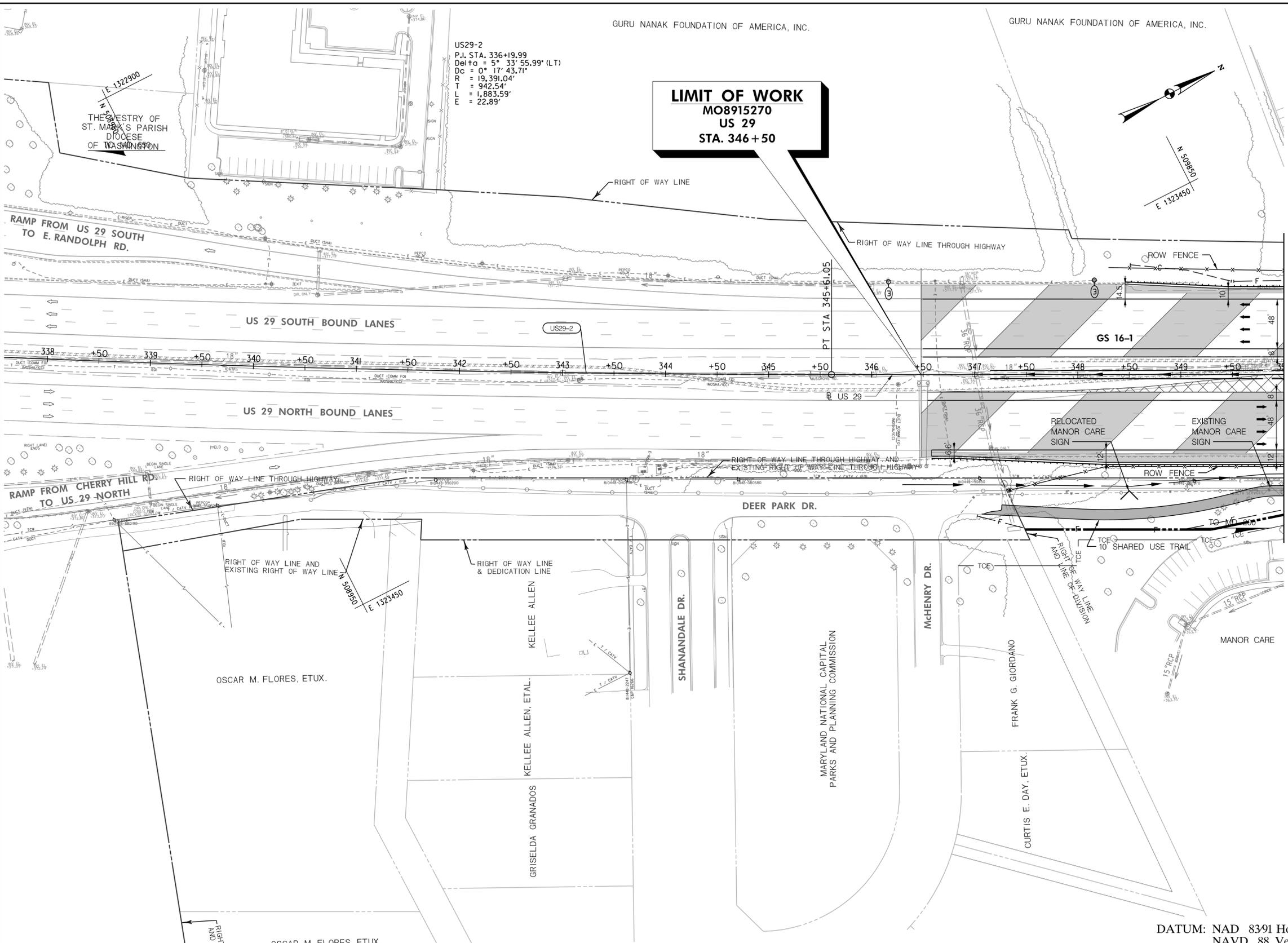
HUNT VALLEY, MARYLAND

GURU NANAK FOUNDATION OF AMERICA, INC.

GURU NANAK FOUNDATION OF AMERICA, INC.

US29-2
 P.I. STA. 336+19.99
 Del'to = 5° 33' 55.99" (LT)
 Dc = 0° 17' 43.71"
 R = 19,391.04'
 T = 942.54'
 L = 1,883.59'
 E = 22.89'

LIMIT OF WORK
MO8915270
US 29
STA. 346 + 50



MATCH LINE STA. 350+00 - SEE DWG. NO. PS-02

QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)

Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

ROADWAY LEGEND	
	FULL DEPTH RECONSTRUCTION
	OVERLAY
	SHARED USE PATH
	SIDEWALK
	EXISTING SIDEWALK/PAVEMENT REMOVAL

R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	ITEM	SHEET NOS.
	TYPICAL SHEETS	4 - 13
	SUPERELEVATION SHEETS	
	PIPE & DRAINAGE SCHEDULE	
	GEOMETRIC LAYOUT SHEETS	16 - 19
	ROADWAY PLAN SHEETS	20 - 31
	ROADWAY PROFILE SHEETS	32 - 41
	TRAFFIC CONTROL SHEETS	42 - 71
	EROSION & SEDIMENT CONTROL	
	SIGNING & MARKING PLANS	
	LANDSCAPE PLAN SHEETS	
	STRUCTURES	72 - 74

ROADWAY PLAN	
SCALE 1" = 50'	ADVERTISED DATE 10/17/2017 CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY
DRAWN BY CAW	LOGMILE
CHECKED BY MWM	HORIZONTAL SCALE
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE
DRAWING NO. PS-01	OF 12 SHEET NO. 20 OF 74

PLOTTED: Tuesday, June 02, 2015 AT 03:51 PM
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PREPARED BY
URS
 HUNT VALLEY, MARYLAND

BY: Ben_Kiefer -

QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

ROADWAY PLAN

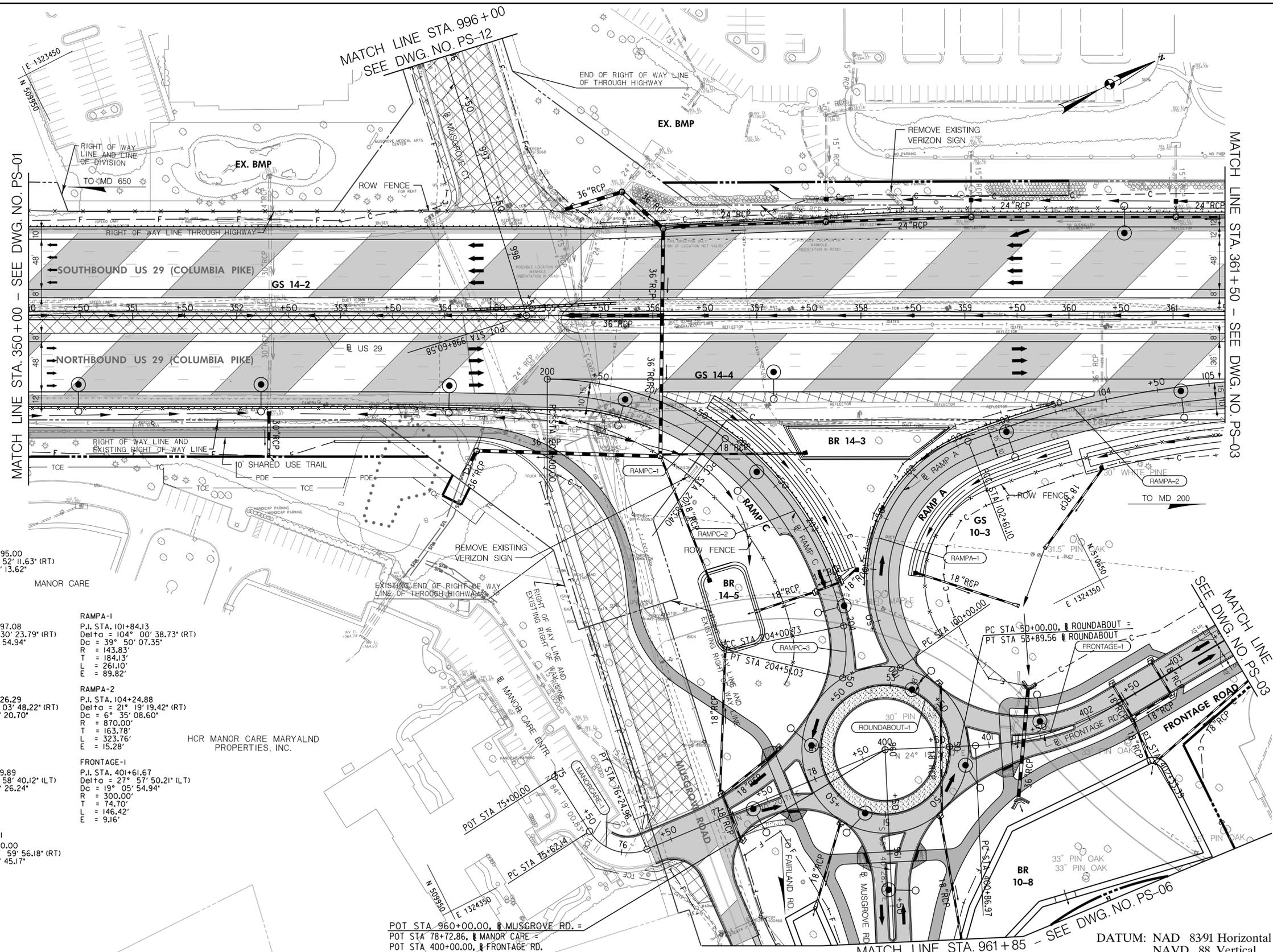
SCALE 1" = 50'	ADVERTISED DATE 10/7/2017	CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY	
DRAWN BY CAW	LOGMILE	
CHECKED BY MWM	HORIZONTAL SCALE	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE	
DRAWING NO. PS-02	OF 12	SHEET NO. 21 OF 74

PLOTTED: Tuesday, June 02, 2015 AT 03:51 PM
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ROADWAY LEGEND	R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
OVERLAY		TYPICAL SHEETS	4 - 13
SHARED USE PATH		SUPERELEVATION SHEETS	
SIDEWALK		PIPE & DRAINAGE SCHEDULE	
EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
		ROADWAY PLAN SHEETS	20 - 31
		ROADWAY PROFILE SHEETS	32 - 41
		TRAFFIC CONTROL SHEETS	42 - 71
		EROSION & SEDIMENT CONTROL	
		SIGNING & MARKING PLANS	
		LANDSCAPE PLAN SHEETS	
		STRUCTURES	72 - 74

POT STA 960+00.00, MUSGROVE RD. =
 POT STA 78+72.86, MANOR CARE =
 POT STA 400+00.00, FRONTAGE RD.

MATCH LINE STA. 961+85 - SEE DWG. NO. PS-06
 DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical



- RAMPC-1**
 P.I. STA. 200+95.00
 Delta = 36° 52' 11.63" (RT)
 Dc = 20° 06' 13.62"
 R = 285.00'
 T = 95.00'
 L = 183.40'
 E = 15.42'
- RAMPC-2**
 P.I. STA. 202+97.08
 Delta = 41° 30' 23.79" (RT)
 Dc = 19° 05' 54.94"
 R = 300.00'
 T = 113.68'
 L = 217.33'
 E = 20.82'
- RAMPC-3**
 P.I. STA. 204+26.29
 Delta = 25° 03' 48.22" (RT)
 Dc = 49° 49' 20.70"
 R = 115.00'
 T = 25.56'
 L = 50.31'
 E = 2.81'
- MANORCARE-1**
 P.I. STA. 75+99.89
 Delta = 79° 58' 40.12" (LT)
 Dc = 127° 19' 26.24"
 R = 45.00'
 T = 37.74'
 L = 62.81'
 E = 13.73'
- ROUNDABOUT-1**
 P.I. STA. 50+00.00
 Delta = 359° 59' 56.18" (RT)
 Dc = 62° 00' 24' 45.17"
 R = 62.00'
 T = 0.00'
 L = 389.56'
 E = 124.00'
- RAMPA-1**
 P.I. STA. 101+84.13
 Delta = 104° 00' 38.73" (RT)
 Dc = 39° 50' 07.35"
 R = 143.83'
 T = 184.13'
 L = 261.10'
 E = 89.82'
- RAMPA-2**
 P.I. STA. 104+24.88
 Delta = 21° 19' 19.42" (RT)
 Dc = 6° 35' 08.60"
 R = 870.00'
 T = 163.78'
 L = 323.76'
 E = 15.28'
- FRONTAGE-1**
 P.I. STA. 401+61.67
 Delta = 27° 57' 50.21" (LT)
 Dc = 191° 05' 54.94"
 R = 300.00'
 T = 74.70'
 L = 146.42'
 E = 9.16'

HCR MANOR CARE MARYALND
 PROPERTIES, INC.



PREPARED BY
 HUNT VALLEY, MARYLAND

BY: Ben Kiefer

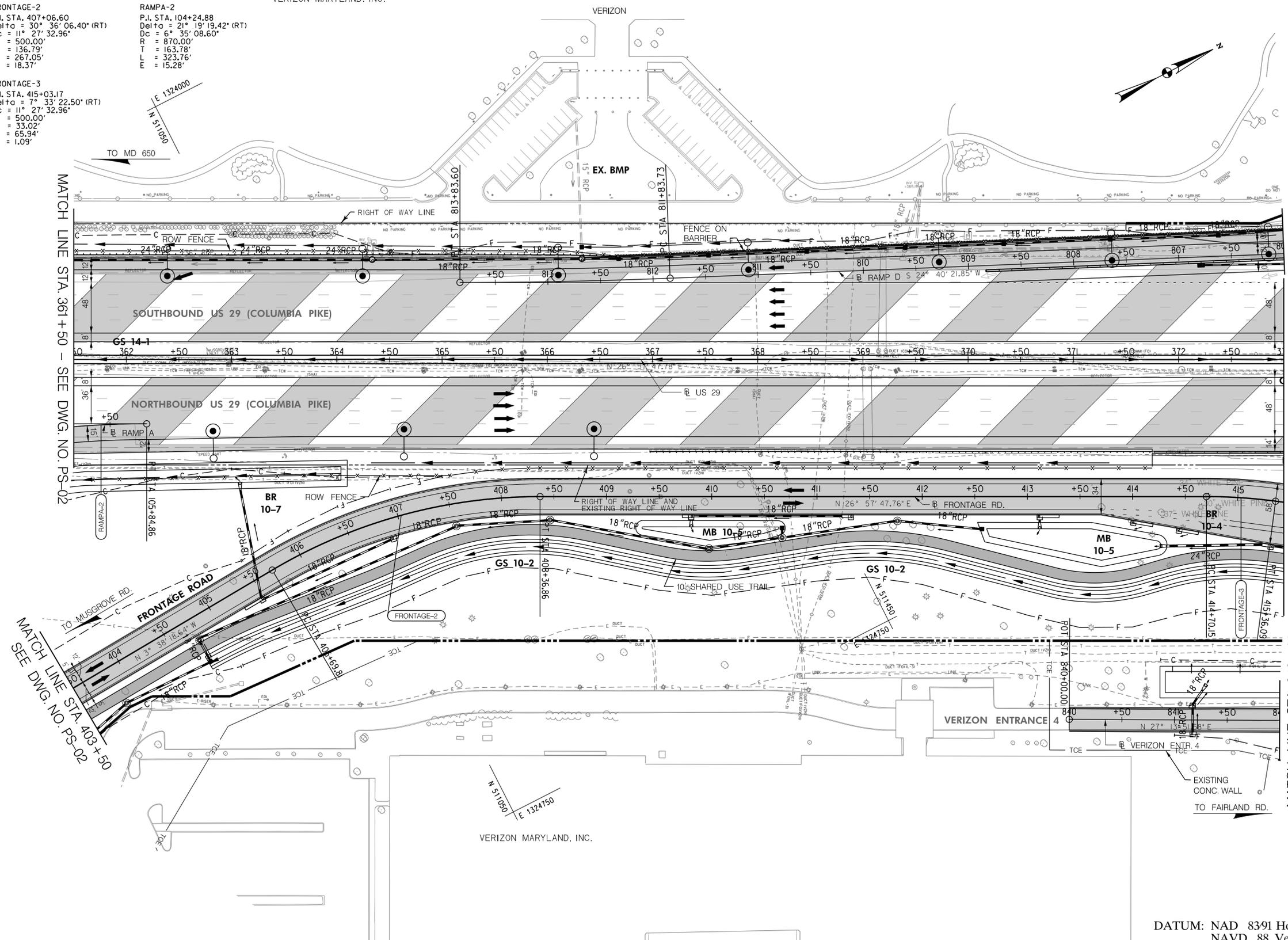
FRONTAGE-2
 P.I. STA. 407+06.60
 Delta = 30° 36' 06.40" (RT)
 Dc = 11° 27' 32.96"
 R = 500.00'
 T = 136.79'
 L = 267.05'
 E = 18.37'

RAMPA-2
 P.I. STA. 104+24.88
 Delta = 21° 19' 19.42" (RT)
 Dc = 6° 35' 08.60"
 R = 870.00'
 T = 163.78'
 L = 323.76'
 E = 15.28'

FRONTAGE-3
 P.I. STA. 415+03.17
 Delta = 7° 33' 22.50" (RT)
 Dc = 11° 27' 32.96"
 R = 500.00'
 T = 33.02'
 L = 65.94'
 E = 1.09'

VERIZON MARYLAND, INC.

VERIZON



MATCH LINE STA. 361+50 - SEE DWG. NO. PS-02

MATCH LINE STA. 373+00 - SEE DWG. NO. PS-04

MATCH LINE STA. 403+50
 SEE DWG. NO. PS-02

MATCH LINE STA. 842+00
 SEE DWG. NO. PS-09

QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)

Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

ROADWAY LEGEND	
	FULL DEPTH RECONSTRUCTION
	OVERLAY
	SHARED USE PATH
	SIDEWALK
	EXISTING SIDEWALK/PAVEMENT REMOVAL

R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	ITEM	SHEET NOS.
	TYPICAL SHEETS	4 - 13
	SUPERELEVATION SHEETS	
	PIPE & DRAINAGE SCHEDULE	
	GEOMETRIC LAYOUT SHEETS	16 - 19
	ROADWAY PLAN SHEETS	20 - 31
	ROADWAY PROFILE SHEETS	32 - 41
	TRAFFIC CONTROL SHEETS	42 - 71
	EROSION & SEDIMENT CONTROL	
	SIGNING & MARKING PLANS	
	LANDSCAPE PLAN SHEETS	
	STRUCTURES	72 - 74

ROADWAY PLAN	
SCALE 1" = 50'	ADVERTISED DATE 10/7/2017 CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY
DRAWN BY CAW	LOGMILE
CHECKED BY MWM	HORIZONTAL SCALE
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE
DRAWING NO. PS-03	OF 12 SHEET NO. 22 OF 74

PREPARED BY
URS
 HUNT VALLEY, MARYLAND

BY: Ben_Kiefer

RAMPD-1
 P.I. STA. 801+02.25
 Delta = 57° 50' 48.02" (LT)
 Dc = 45° 50' 11.84"
 R = 125.00'
 T = 69.07'
 L = 126.20'
 E = 17.81'

RAMPD-2
 P.I. STA. 803+84.96
 Delta = 22° 23' 22.54" (RT)
 Dc = 13° 54' 24.27"
 R = 412.00'
 T = 81.91'
 L = 161.72'
 E = 8.06'

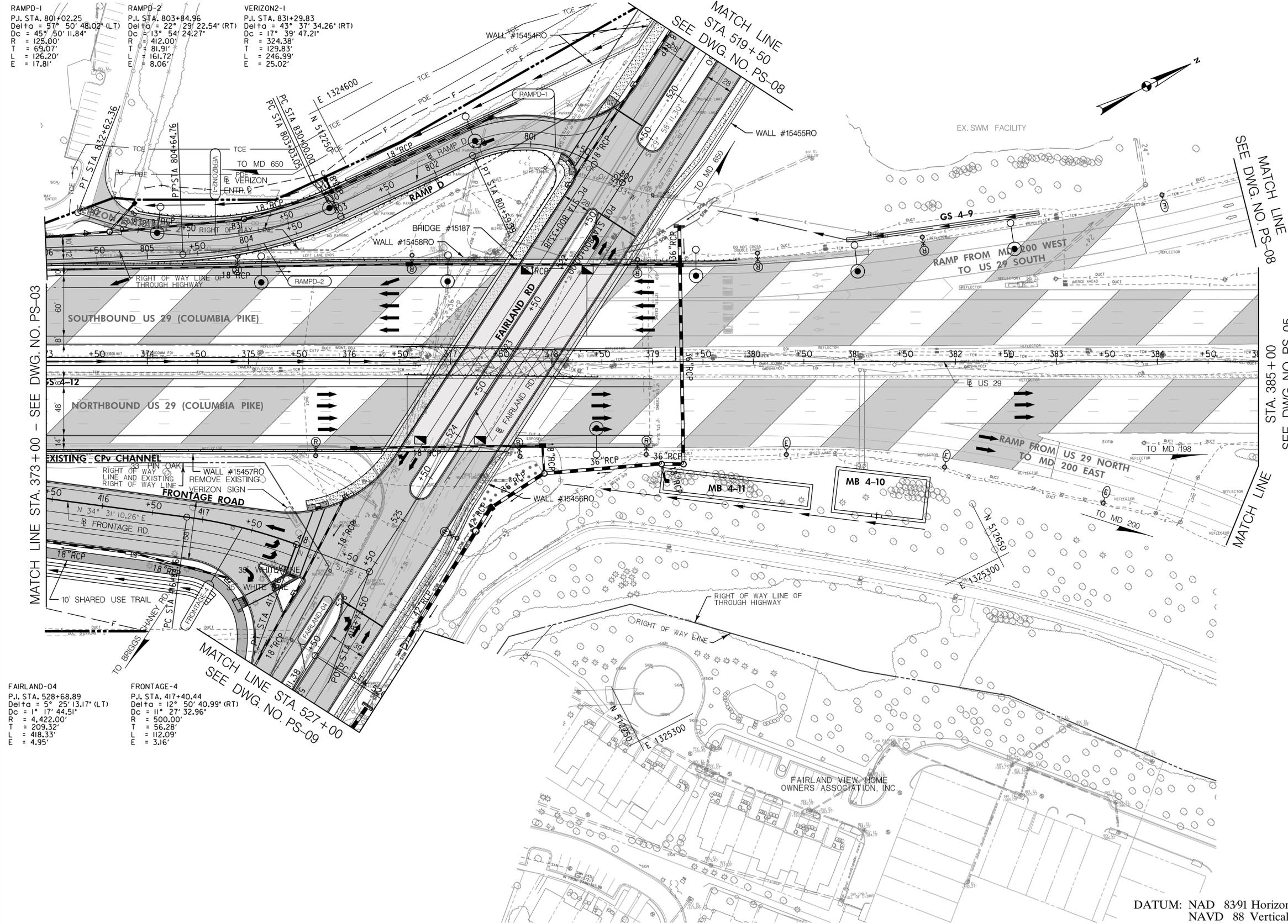
VERIZON-1
 P.I. STA. 831+29.83
 Delta = 43° 37' 34.26" (RT)
 Dc = 17° 39' 47.21"
 R = 324.38'
 T = 129.83'
 L = 246.99'
 E = 25.02'

FAIRLAND-04
 P.I. STA. 528+68.89
 Delta = 5° 25' 13.17" (LT)
 Dc = 1° 17' 44.51"
 R = 4,422.00'
 T = 209.32'
 L = 418.33'
 E = 4.95'

FRONTAGE-4
 P.I. STA. 417+40.44
 Delta = 12° 50' 40.99" (RT)
 Dc = 11° 27' 32.96"
 R = 500.00'
 T = 56.28'
 L = 112.09'
 E = 3.16'

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)

Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

ROADWAY LEGEND		R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
	OVERLAY		TYPICAL SHEETS	4 - 13
	SHARED USE PATH		SUPERELEVATION SHEETS	
	SIDEWALK		PIPE & DRAINAGE SCHEDULE	
	EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
			ROADWAY PLAN SHEETS	20 - 31
			ROADWAY PROFILE SHEETS	32 - 41
			TRAFFIC CONTROL SHEETS	42 - 71
			EROSION & SEDIMENT CONTROL	
			SIGNING & MARKING PLANS	
			LANDSCAPE PLAN SHEETS	72 - 74
			STRUCTURES	

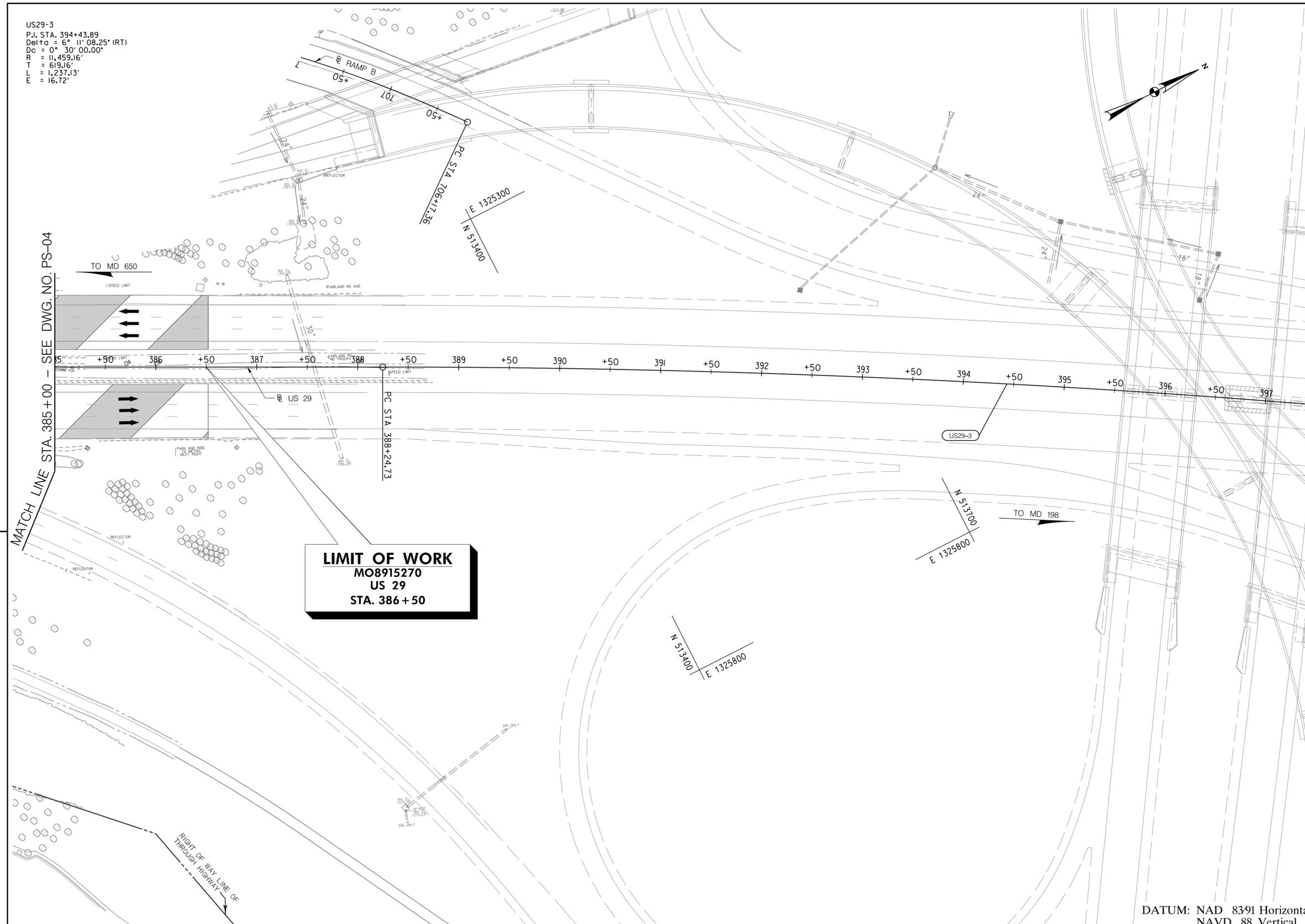
ROADWAY PLAN	
SCALE 1" = 50'	ADVERTISED DATE 10/7/2017 CONTRACT NO. M08915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY
DRAWN BY CAW	LOGMILE
CHECKED BY MWM	HORIZONTAL SCALE
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE
DRAWING NO. PS-04	OF 12 SHEET NO. 23 OF 74

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URS
 HUNT VALLEY, MARYLAND

BY: Ben_Kiefer

US29-3
 P.I. STA. 394+43.89
 Delta = 6° 11' 08.25" (RT)
 Dc = 0° 30' 00.00"
 R = 11,459.16'
 T = 619.16'
 L = 1,237.13'
 E = 16.72'



LIMIT OF WORK
 MO8915270
 US 29
 STA. 386 + 50

MATCH LINE STA. 385+00 - SEE DWG. NO. PS-04

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 HIGHWAY DESIGN DIVISION
 US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

ROADWAY LEGEND		R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
	OVERLAY		TYPICAL SHEETS	4 - 13
	SHARED USE PATH		SUPERELEVATION SHEETS	
	SIDEWALK		PIPE & DRAINAGE SCHEDULE	
	EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
			ROADWAY PLAN SHEETS	20 - 31
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			TRAFFIC CONTROL SHEETS	42 - 71
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			SIGNING & MARKING PLANS	
			LANDSCAPE PLAN SHEETS	
			STRUCTURES	72 - 74

ROADWAY PLAN			
SCALE	1" = 50'	ADVERTISED DATE	10/17/2017
CONTRACT NO.	MO8915270	DESIGNED BY	WRF
COUNTY	MONTGOMERY COUNTY	DRAWN BY	CAW
LOGMILE		CHECKED BY	MWM
HORIZONTAL SCALE		F.A.P. NO.	SEE TITLE SHEET
VERTICAL SCALE		DRAWING NO.	PS-05
		OF	12
SHEET NO.	24	OF	74

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 HUNT VALLEY, MARYLAND

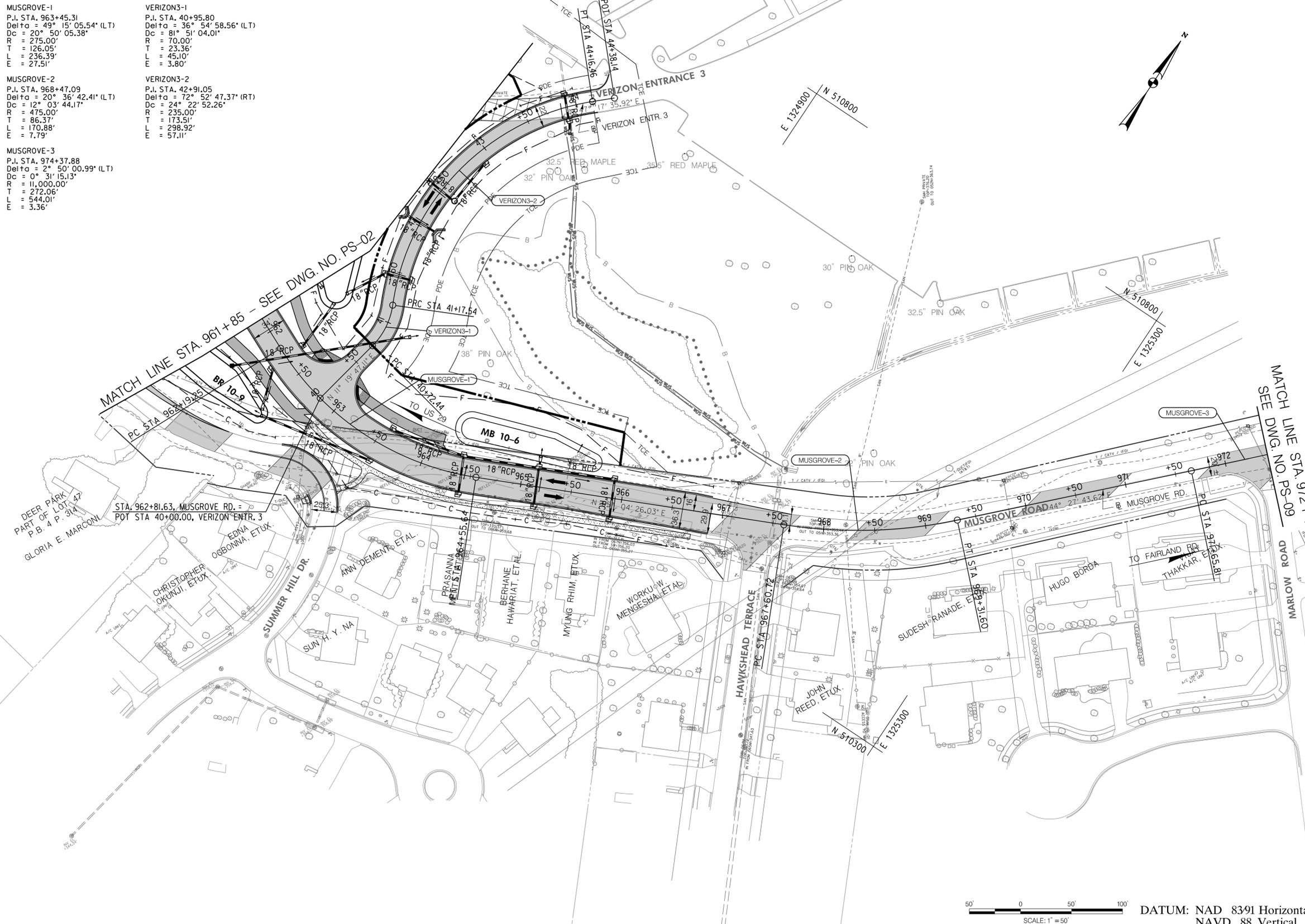
MUSGROVE-1
 P.I. STA. 963+45.31
 Del'to = 49° 15' 05.54" (LT)
 Dc = 20° 50' 05.38"
 R = 275.00'
 T = 126.05'
 L = 236.39'
 E = 27.51'

MUSGROVE-2
 P.I. STA. 968+47.09
 Del'to = 20° 36' 42.41" (LT)
 Dc = 12° 03' 44.17"
 R = 475.00'
 T = 86.37'
 L = 170.88'
 E = 7.79'

MUSGROVE-3
 P.I. STA. 974+37.88
 Del'to = 2° 50' 00.99" (LT)
 Dc = 0° 31' 15.13"
 R = 11,000.00'
 T = 272.06'
 L = 544.01'
 E = 3.36'

VERIZON3-1
 P.I. STA. 40+95.80
 Del'to = 36° 54' 58.56" (LT)
 Dc = 81° 51' 04.01"
 R = 70.00'
 T = 23.36'
 L = 45.10'
 E = 3.80'

VERIZON3-2
 P.I. STA. 42+91.05
 Del'to = 72° 52' 47.37" (RT)
 Dc = 24° 22' 52.26"
 R = 235.00'
 T = 173.51'
 L = 298.92'
 E = 57.11'



QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

ROADWAY PLAN

SCALE 1" = 50'	ADVERTISED DATE 10/7/2017	CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY	
DRAWN BY CAW	LOGMILE	
CHECKED BY MWM	HORIZONTAL SCALE	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE	
DRAWING NO. PS-06	OF 12	SHEET NO. 25 OF 74

ROADWAY LEGEND	R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS																								
<ul style="list-style-type: none"> FULL DEPTH RECONSTRUCTION OVERLAY SHARED USE PATH SIDEWALK EXISTING SIDEWALK/PAVEMENT REMOVAL 		<table border="1"> <thead> <tr> <th>ITEM</th> <th>SHEET NOS.</th> </tr> </thead> <tbody> <tr> <td>TYPICAL SHEETS</td> <td>4 - 13</td> </tr> <tr> <td>SUPERELEVATION SHEETS</td> <td></td> </tr> <tr> <td>PIPE & DRAINAGE SCHEDULE</td> <td></td> </tr> <tr> <td>GEOMETRIC LAYOUT SHEETS</td> <td>16 - 19</td> </tr> <tr> <td>ROADWAY PLAN SHEETS</td> <td>20 - 31</td> </tr> <tr> <td>ROADWAY PROFILE SHEETS</td> <td>32 - 41</td> </tr> <tr> <td>TRAFFIC CONTROL SHEETS</td> <td>42 - 71</td> </tr> <tr> <td>EROSION & SEDIMENT CONTROL</td> <td></td> </tr> <tr> <td>SIGNING & MARKING PLANS</td> <td></td> </tr> <tr> <td>LANDSCAPE PLAN SHEETS</td> <td></td> </tr> <tr> <td>STRUCTURES</td> <td>72 - 74</td> </tr> </tbody> </table>	ITEM	SHEET NOS.	TYPICAL SHEETS	4 - 13	SUPERELEVATION SHEETS		PIPE & DRAINAGE SCHEDULE		GEOMETRIC LAYOUT SHEETS	16 - 19	ROADWAY PLAN SHEETS	20 - 31	ROADWAY PROFILE SHEETS	32 - 41	TRAFFIC CONTROL SHEETS	42 - 71	EROSION & SEDIMENT CONTROL		SIGNING & MARKING PLANS		LANDSCAPE PLAN SHEETS		STRUCTURES	72 - 74	
ITEM	SHEET NOS.																										
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STRUCTURES	72 - 74																										

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PREPARED BY
URS
 HUNT VALLEY, MARYLAND

BY: Ben Kleifer

FAIRLAND-01
 P.I. STA. 505+18.60
 Delta = 26° 34' 48.71" (RT)
 Dc = 11° 56' 11.83"
 R = 480.00'
 T = 113.38'
 L = 222.68'
 E = 13.21'

FAIRLAND-02
 P.I. STA. 507+54.62
 Delta = 19° 48' 08.39" (RT)
 Dc = 7° 53' 31.13"
 R = 726.00'
 T = 126.72'
 L = 250.92'
 E = 10.98'



LIMIT OF WORK
 MO8915270
 FAIRLAND RD.
 STA. 500+48



QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

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

US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

ROADWAY LEGEND		R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
	OVERLAY		TYPICAL SHEETS	4 - 13
	SHARED USE PATH		SUPERELEVATION SHEETS	
	SIDEWALK		PIPE & DRAINAGE SCHEDULE	
	EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
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			STRUCTURES	72 - 74

ROADWAY PLAN			
SCALE 1" = 50'	ADVERTISED DATE 10/7/2017	CONTRACT NO. MO8915270	
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY		
DRAWN BY CAW	LOGMILE		
CHECKED BY MWM	HORIZONTAL SCALE		
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE		
DRAWING NO. PS-07	OF 12	SHEET NO. 26	OF 74

PREPARED BY
URS
 HUNT VALLEY, MARYLAND

ST. GREGORIOS MALAKARA
 ORTHODOX SYRIAN CHURCH OF
 WASHINGTON, DC

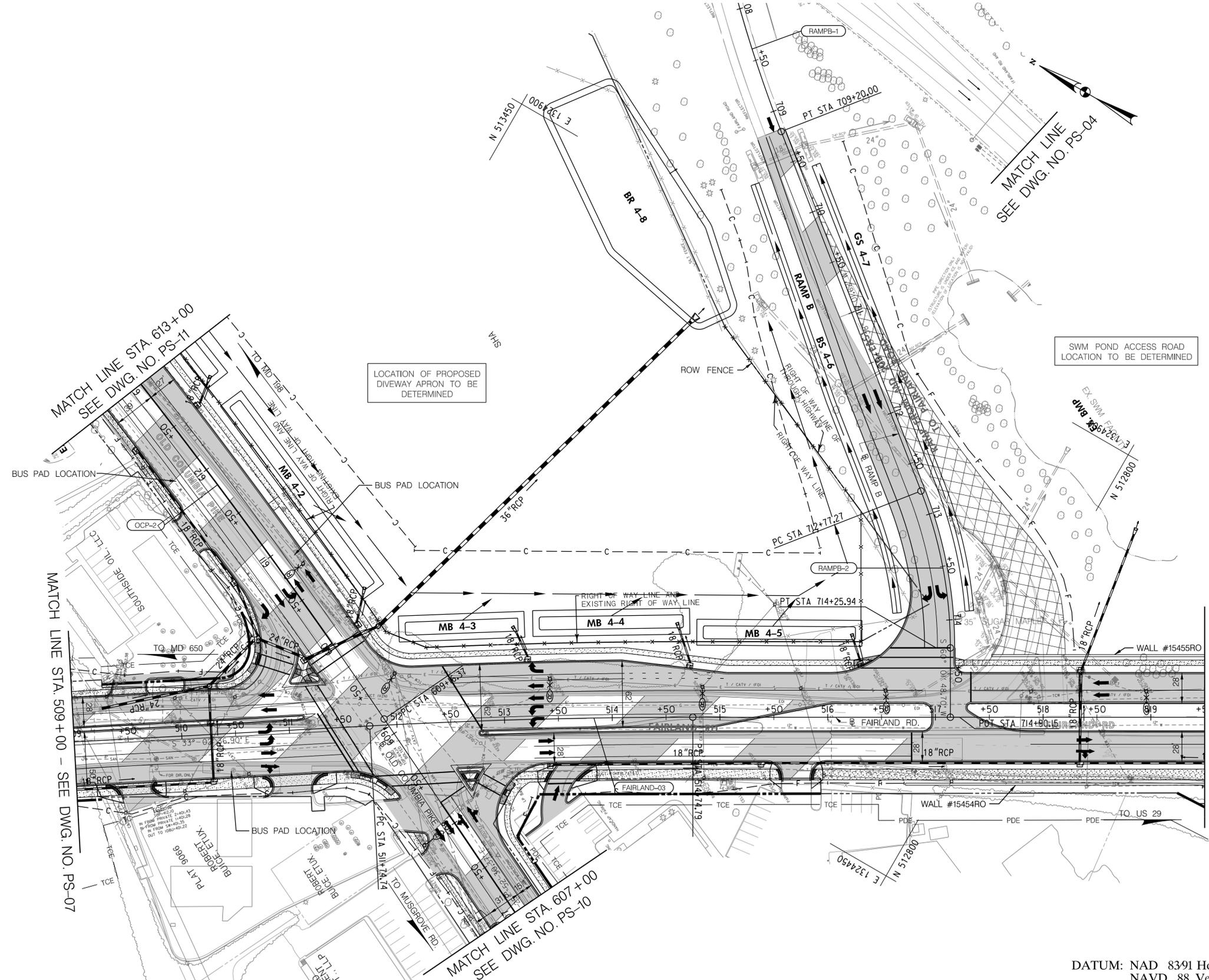
OCP-2
 P.I. STA. 611+82.98
 Delta = 5° 19' 41.94" (LT)
 Dc = 1° 00' 00.00"
 R = 5,729.58'
 T = 266.61'
 L = 532.83'
 E = 6.20'

FAIRLAND-03
 P.I. STA. 513+24.80
 Delta = 3° 04' 25.60" (RT)
 Dc = 1° 01' 27.91"
 R = 5,593.00'
 T = 150.06'
 L = 300.05'
 E = 2.01'

RAMPB-1
 P.I. STA. 707+69.37
 Delta = 13° 20' 18.77" (LT)
 Dc = 4° 24' 26.52"
 R = 1,300.00'
 T = 152.01'
 L = 302.64'
 E = 8.86'

RAMPB-2
 P.I. STA. 713+52.47
 Delta = 21° 17' 47.08" (RT)
 Dc = 14° 19' 26.20"
 R = 400.00'
 T = 75.21'
 L = 148.68'
 E = 7.01'

QUANTITY NOTES



QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)

Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

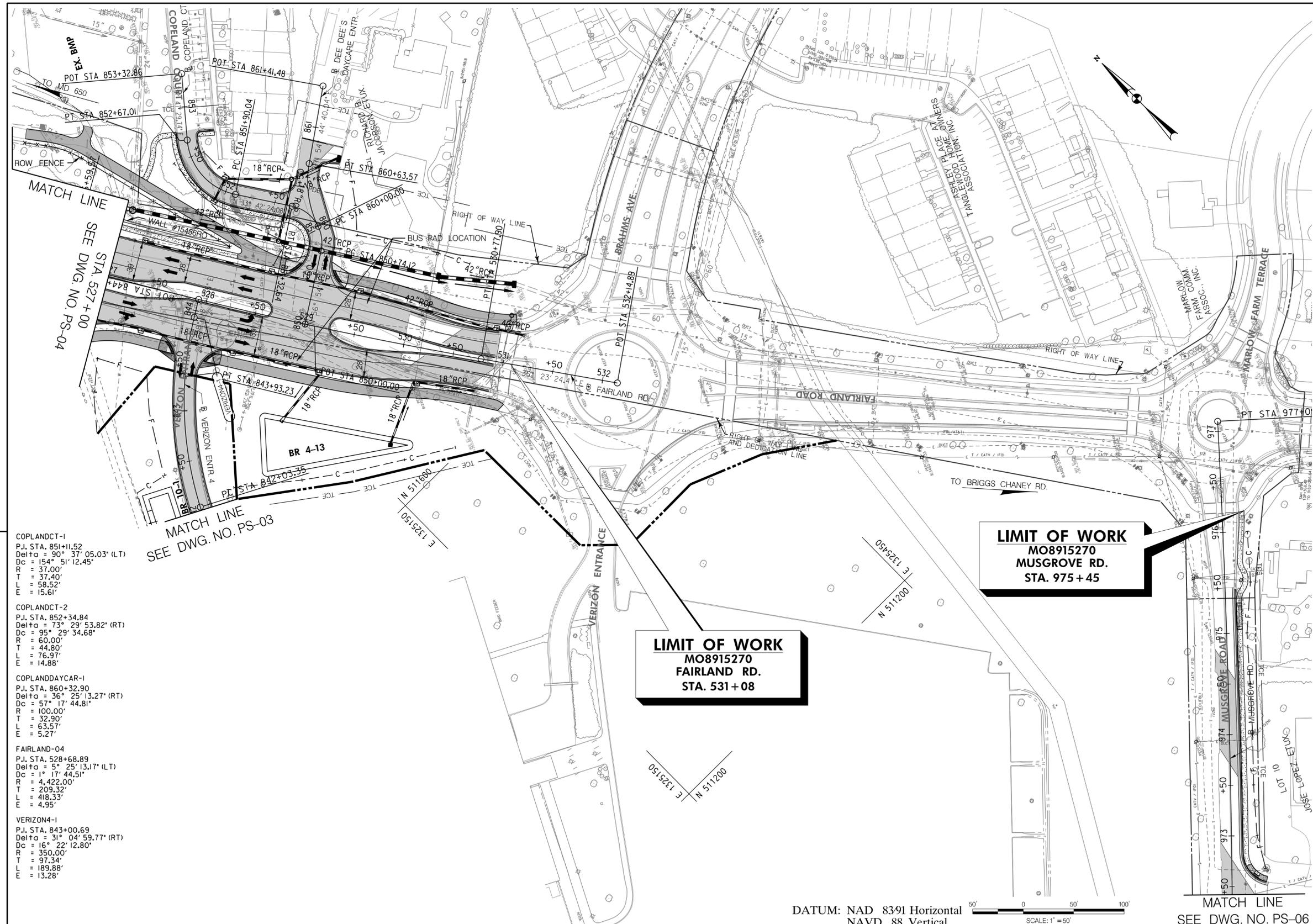
ROADWAY LEGEND		R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	FULL DEPTH RECONSTRUCTION		ITEM SHEET NOS.	
	OVERLAY		TYPICAL SHEETS..... 4 - 13	
	SHARED USE PATH		SUPERELEVATION SHEETS.....	
	SIDEWALK		PIPE & DRAINAGE SCHEDULE.....	
	EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS..... 16 - 19	
			ROADWAY PLAN SHEETS..... 20 - 31	
			ROADWAY PROFILE SHEETS..... 32 - 41	
			TRAFFIC CONTROL SHEETS..... 42 - 71	
			EROSION & SEDIMENT CONTROL.....	
			SIGNING & MARKING PLANS.....	
			LANDSCAPE PLAN SHEETS.....	
			STRUCTURES..... 72 - 74	

ROADWAY PLAN			
SCALE 1" = 50'	ADVERTISED DATE 10/7/2017	CONTRACT NO. MO8915270	
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY		
DRAWN BY CAW	LOGMILE		
CHECKED BY MWM	HORIZONTAL SCALE		
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE		
DRAWING NO. PS-08	OF 12	SHEET NO. 27	OF 74

PLOTTED: Tuesday, June 02, 2015 AT 03:51 PM
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BY: Ben_Kiefer



COPLANDCT-1
 P.I. STA. 851+11.52
 Delta = 90° 37' 05.03" (LT)
 Dc = 154' 51" 12.45"
 R = 37.00'
 T = 37.40'
 L = 58.52'
 E = 15.61'

COPLANDCT-2
 P.I. STA. 852+34.84
 Delta = 73° 29' 53.82" (RT)
 Dc = 95' 29' 34.68"
 R = 60.00'
 T = 44.80'
 L = 76.97'
 E = 14.88'

COPLANDDAYCAR-1
 P.I. STA. 860+32.90
 Delta = 36° 25' 13.27" (RT)
 Dc = 57' 17' 44.81"
 R = 100.00'
 T = 32.90'
 L = 63.57'
 E = 5.27'

FAIRLAND-04
 P.I. STA. 528+68.89
 Delta = 5° 25' 13.17" (LT)
 Dc = 1° 17' 44.51"
 R = 4,422.00'
 T = 209.32'
 L = 418.33'
 E = 4.95'

VERIZON4-1
 P.I. STA. 843+00.69
 Delta = 31° 04' 59.77" (RT)
 Dc = 16° 22' 12.80"
 R = 350.00'
 T = 97.34'
 L = 189.88'
 E = 13.28'

LIMIT OF WORK
 MO8915270
 FAIRLAND RD.
 STA. 531 + 08

LIMIT OF WORK
 MO8915270
 MUSGROVE RD.
 STA. 975 + 45

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

SCALE: 1" = 50'

MATCH LINE
 SEE DWG. NO. PS-06

QUANTITIES UNDER
 CONSTRUCTION



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

US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

ROADWAY PLAN

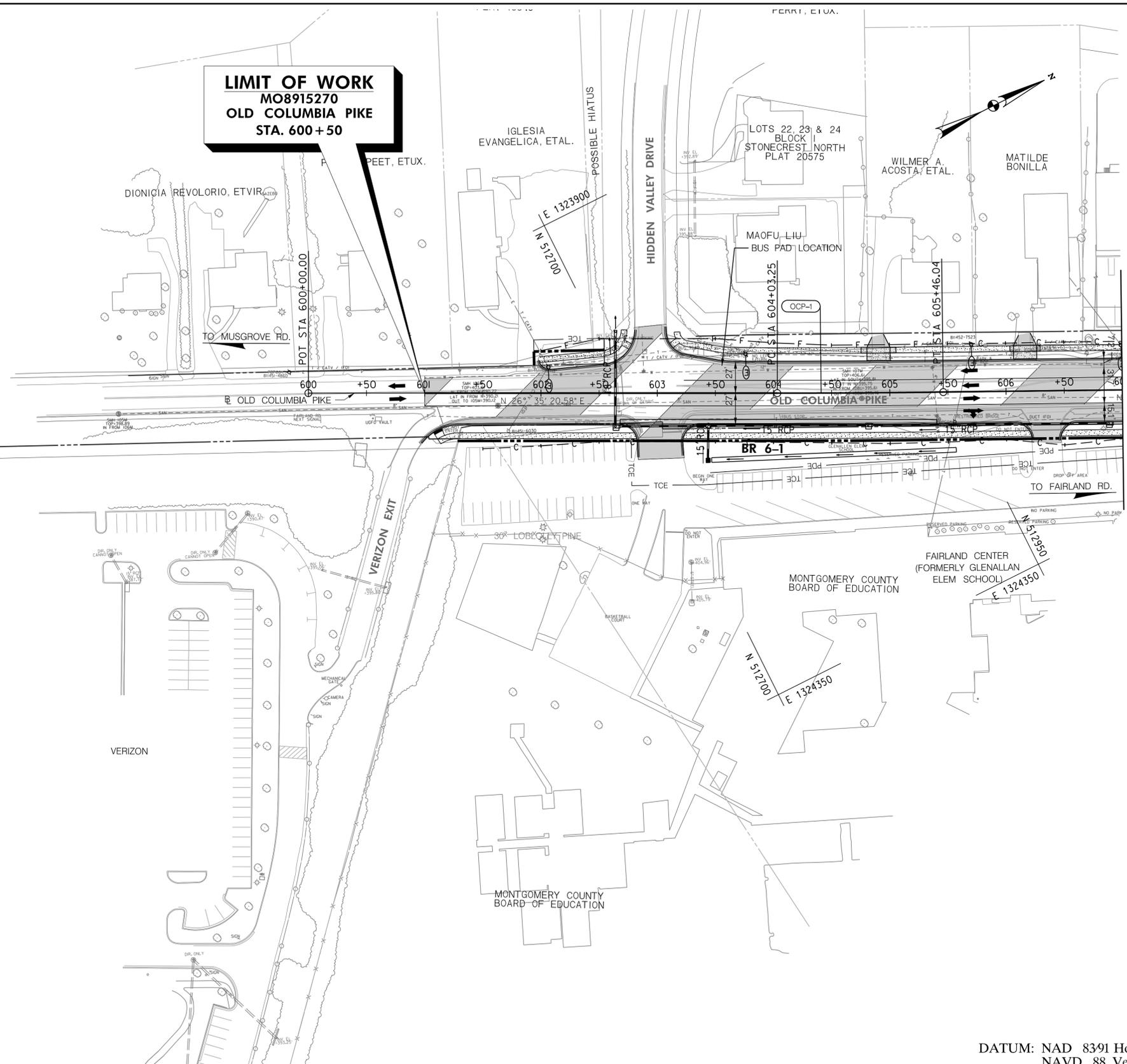
SCALE 1" = 50'	ADVERTISED DATE 10/7/2017	CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY	
DRAWN BY CAW	LOGMILE	
CHECKED BY MWM	HORIZONTAL SCALE	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE	
DRAWING NO. PS-09	OF 12	SHEET NO. 28 OF 74

ROADWAY LEGEND	R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
OVERLAY		TYPICAL SHEETS	4 - 13
SHARED USE PATH		SUPERELEVATION SHEETS	
SIDEWALK		PIPE & DRAINAGE SCHEDULE	
EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
		ROADWAY PLAN SHEETS	20 - 31
		ROADWAY PROFILE SHEETS	32 - 41
		TRAFFIC CONTROL SHEETS	42 - 71
		EROSION & SEDIMENT CONTROL	
		SIGNING & MARKING PLANS	
		LANDSCAPE PLAN SHEETS	
		STRUCTURES	72 - 74

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OCP-1
 P.I. STA. 604+74.64
 Delta = 0° 42' 50.22" (LT)
 Dc = 0° 30' 00.00"
 R = 11,459.16'
 T = 71.40'
 L = 142.79'
 E = 0.22'

QUANTITY NOTES



MATCH LINE STA. 607 + 00
 SEE DWG. NO. PS-08

QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

ROADWAY LEGEND		R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
	OVERLAY		TYPICAL SHEETS	4 - 13
	SHARED USE PATH		SUPERELEVATION SHEETS	
	SIDEWALK		PIPE & DRAINAGE SCHEDULE	
	EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
			ROADWAY PLAN SHEETS	20 - 31
			ROADWAY PROFILE SHEETS	32 - 41
			TRAFFIC CONTROL SHEETS	42 - 71
			EROSION & SEDIMENT CONTROL	
			SIGNING & MARKING PLANS	
			LANDSCAPE PLAN SHEETS	
			STRUCTURES	72 - 74

ROADWAY PLAN			
SCALE 1" = 50'	ADVERTISED DATE 10/17/2017	CONTRACT NO. MO8915270	
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY		
DRAWN BY CAW	LOGMILE		
CHECKED BY MWM	HORIZONTAL SCALE		
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE		
DRAWING NO. PS-10	OF 12	SHEET NO. 29	OF 74



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BY: Ben_Kiefer

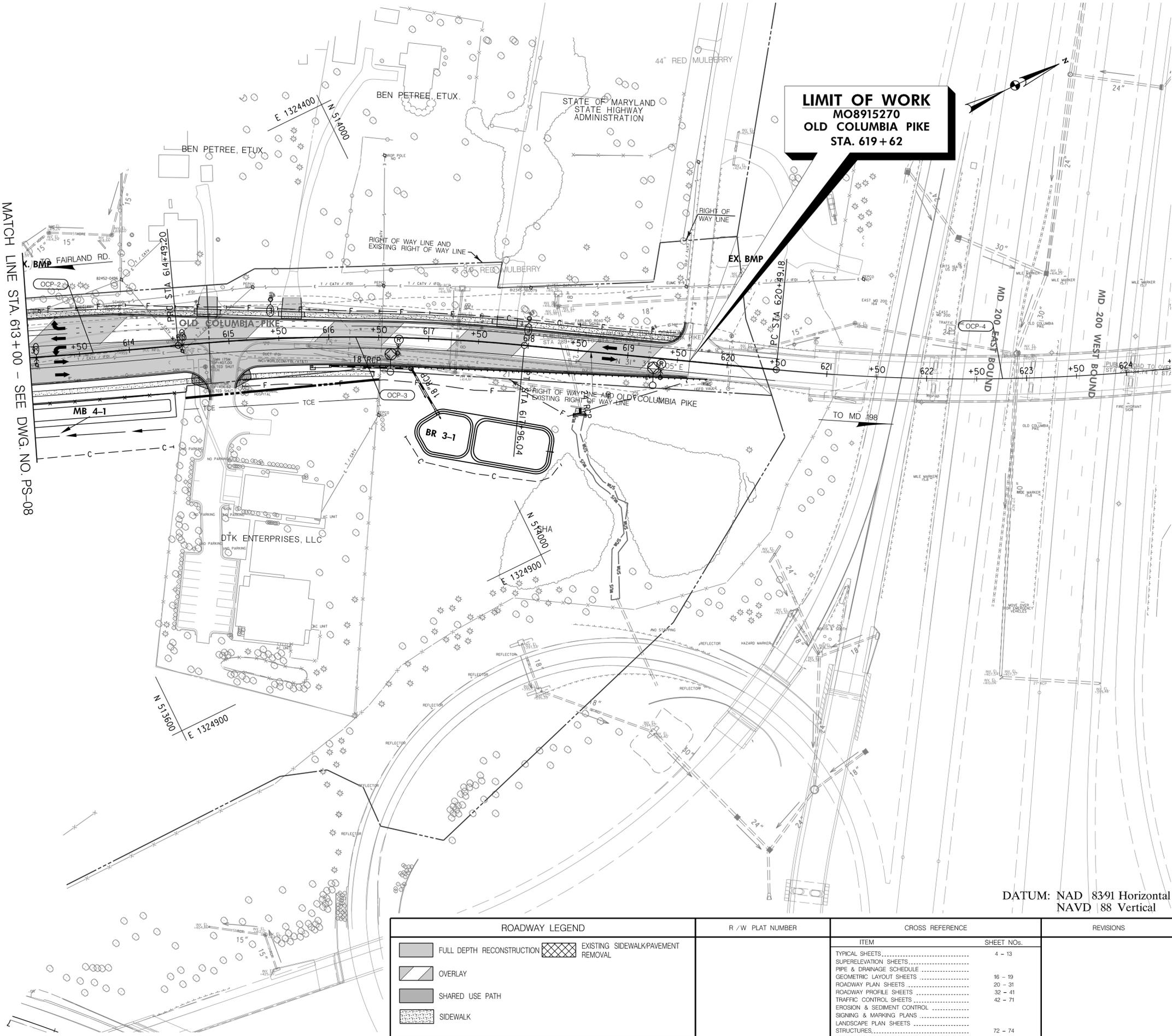
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OCP-2
 P.I. STA. 611+82.98
 Delta = 5° 19' 41.94" (LT)
 Dc = 1° 00' 00.00"
 R = 5,729.58'
 T = 266.61'
 L = 532.83'
 E = 6.20'

OCP-3
 P.I. STA. 616+23.15
 Delta = 11° 00' 28.62" (RT)
 Dc = 3° 10' 25.75"
 R = 1,805.26'
 T = 173.95'
 L = 346.84'
 E = 8.36'

OCP-4
 P.I. STA. 622+57.80
 Delta = 11° 54' 36.13" (LT)
 Dc = 2° 51' 53.24"
 R = 2,000.00'
 T = 208.62'
 L = 415.74'
 E = 10.85'

MATCH LINE STA. 613+00 - SEE DWG. NO. PS-08



QUANTITIES UNDER CONSTRUCTION



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

US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

ROADWAY LEGEND	
	FULL DEPTH RECONSTRUCTION
	OVERLAY
	SHARED USE PATH
	SIDEWALK
	EXISTING SIDEWALK/PAVEMENT REMOVAL

R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	ITEM	SHEET NOS.
	TYPICAL SHEETS	4 - 13
	SUPERELEVATION SHEETS	
	PIPE & DRAINAGE SCHEDULE	
	GEOMETRIC LAYOUT SHEETS	16 - 19
	ROADWAY PLAN SHEETS	20 - 31
	ROADWAY PROFILE SHEETS	32 - 41
	TRAFFIC CONTROL SHEETS	42 - 71
	EROSION & SEDIMENT CONTROL	
	SIGNING & MARKING PLANS	
	LANDSCAPE PLAN SHEETS	
	STRUCTURES	72 - 74

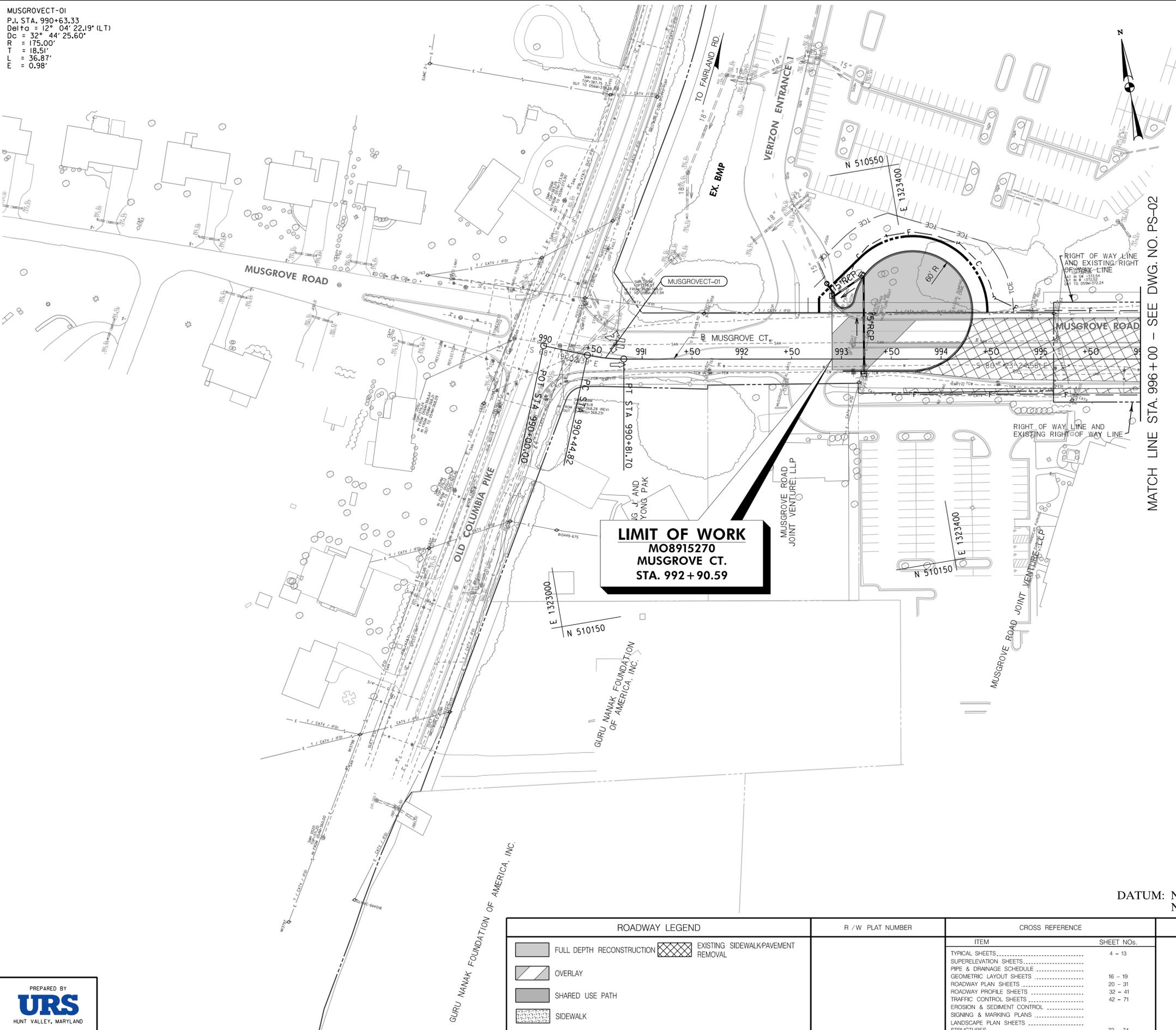
REVISIONS

ROADWAY PLAN	
SCALE 1" = 50'	ADVERTISED DATE 10/17/2017 CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY
DRAWN BY CAW	LOGMILE
CHECKED BY MWM	HORIZONTAL SCALE
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE
DRAWING NO. PS-11	OF 12 SHEET NO. 30 OF 74

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MUSGROVECT-01
 P.I. STA. 990+63.33
 Delta = 12° 04' 22.19" (LT)
 Dc = 32° 44' 25.60"
 R = 175.00'
 T = 18.51'
 L = 36.87'
 E = 0.98'

QUANTITY NOTES



MATCH LINE STA. 996+00 - SEE DWG. NO. PS-02

QUANTITIES UNDER CONSTRUCTION

LIMIT OF WORK
 MO8915270
 MUSGROVE CT.
 STA. 992+90.59

DATUM: NAD 8391 Horizontal
 NAVD 88 Vertical

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 HIGHWAY DESIGN DIVISION
 US 29 (COLUMBIA PIKE)
 Musgrove Road to Fairland Road Interchange Improvements

ROADWAY LEGEND		R / W PLAT NUMBER	CROSS REFERENCE	REVISIONS
	FULL DEPTH RECONSTRUCTION		ITEM	SHEET NOS.
	OVERLAY		TYPICAL SHEETS	4 - 13
	SHARED USE PATH		SUPERELEVATION SHEETS	
	SIDEWALK		PIPE & DRAINAGE SCHEDULE	
	EXISTING SIDEWALK/PAVEMENT REMOVAL		GEOMETRIC LAYOUT SHEETS	16 - 19
			ROADWAY PLAN SHEETS	20 - 31
			ROADWAY PROFILE SHEETS	32 - 41
			TRAFFIC CONTROL SHEETS	42 - 71
			EROSION & SEDIMENT CONTROL	
			SIGNING & MARKING PLANS	
			LANDSCAPE PLAN SHEETS	
			STRUCTURES	72 - 74

ROADWAY PLAN

SCALE 1" = 50'	ADVERTISED DATE 10/17/2017	CONTRACT NO. MO8915270
DESIGNED BY WRF	COUNTY MONTGOMERY COUNTY	
DRAWN BY CAW	LOGMILE	
CHECKED BY MWM	HORIZONTAL SCALE	
F.A.P. NO. SEE TITLE SHEET	VERTICAL SCALE	
DRAWING NO. PS-12	OF 12	SHEET NO. 31 OF 74

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 HUNT VALLEY, MARYLAND

BY: Ben_Kiefer

APPENDIX B - MONITORED AMBIENT AIR QUALITY DATA 2012-2014

Monitor Values Report

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

Pollutant: CO

Year: 2012

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8712	2	1.9	0	2.5	2.2	0	None	1	110010023	Verizon Phone Co.2055 L St. N.W.	Washington	District of Columbia	DC	03
8444	2.8	2.5	0	2.9	2.9	0	None	1	110010041	420 34th Street N.E.,Washington, Dc 20019	Washington	District of Columbia	DC	03
5238	1.9	1.8	0	2.5	2.4	0	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
8571	1.2	0.9	0	1.3	1.2	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
8569	1.6	1.4	0	1.7	1.6	0	None	1	510130020	S 18th And Hayes St	Arlington	Arlington	VA	03
5368	1.1	0.8	0	1.4	1.4	0	None	1	515100009	517 N Saint Asaph St, Alexandria Health	Alexandria	Alexandria City	VA	03
3092	1.6	1.6	0	1.9	1.7	0	None	1	515100021	3200 Colvin Street	Not in a City	Alexandria City	VA	03

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

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems.
<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: September 15, 2015

Monitor Values Report

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

Pollutant: CO

Year: 2013

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
7663	2.8	2.5	0	5.8	4.4	0	None	1	110010023	Verizon Phone Co.2055 L St. N.W.	Washington	District of Columbia	DC	03
8373	1.9	1.9	0	2.3	2.2	0	None	1	110010041	420 34th Street N.E.,Washington, Dc 20019	Washington	District of Columbia	DC	03
7715	1.2	1	0	2.1	1.4	0	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
8689	0.9	0.9	0	1	0.9	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
8517	1.1	1	0	1.2	1.2	0	None	1	510130020	S 18th And Hayes St	Arlington	Arlington	VA	03
8458	4.1	3.1	0	5.7	4.9	0	None	1	515100021	3200 Colvin Street	Not in a City	Alexandria City	VA	03

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

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems.
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Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>
Generated: September 15, 2015

Monitor Values Report

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

Pollutant: CO

Year: 2014

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8514	1.6	1.5	0	2.1	2	0	None	1	110010023	Verizon Phone Co.2055 L St. N.W.	Washington	District of Columbia	DC	03
2006	2.2	2	0	2.5	2.5	0	None	1	110010041	420 34th Street N.E.,Washington, Dc 20019	Washington	District of Columbia	DC	03
8623	1.5	1.2	0	1.6	1.6	0	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
6989	0.9	0.8	0	1.5	1	0	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
8511	1.3	1.1	0	1.8	1.6	0	None	1	510130020	S 18th And Hayes St	Arlington	Arlington	VA	03
8692	1.5	1.3	0	1.7	1.7	0	Included	1	515100021	3200 Colvin Street	Not in a City	Alexandria City	VA	03

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

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems.
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This report is based on monitor-level summary statistics. Air quality standards for some pollutants (PM2.5 and Pb) allow for combining data from multiple monitors into a site-level summary statistic that can be compared to the standard. In those cases, the site-level statistics may differ from the monitor-level statistics upon which this report is based.

Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>
Generated: September 15, 2015

Monitor Values Report

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

Pollutant: PM2.5

Year: 2012

Exceptional Events: Included (if any)

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
331	35.5	33.8	31.6	30.8	28	9.8	None	1	110010041	420 34th Street N.E., Washington, Dc 20019	Washington	District of Columbia	DC	03
112	31.2	27.7	24.3	22.5	24	9.8	None	1	110010042	Park Services Office 1100 Ohio Drive	Washington	District of Columbia	DC	03
360	34.1	31.9	28.4	26.1	24	9.6	None	1	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
120	31	23.6	23.5	22	24	9.3	None	2	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
349	37.3	37	34.7	33.8	28	11.6	Included	4	110010043	2500 1st Street, N.W. Washington Dc	Washington	District of Columbia	DC	03
356	33.1	30.2	29	25	23	10.3	None	3	240313001	Lathrop E. Smith Environmental Education Center, 5110 Meadowside Lane	Not in a City	Montgomery	MD	03
121	25	22.3	21.7	20.8	22	8.5	None	1	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
43	25	22.1	15.4	13.9	25	8.3	None	2	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
341	34.1	30.2	29.9	29.7	26	11.3	None	3	240330030	Howard University'S Beltsville Laboratory, 12003 Old Baltimore Pike	Beltsville	Prince George's	MD	03
97	24.7	23.8	15	14.7	24	7.8	None	1	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03
35	14.8	14.7	14.2	12.6	15	7.8	None	2	240338003	Pg County Equestrian Center, 14900 Pennsylvania Ave.	Greater Upper Marlboro	Prince George's	MD	03

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

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems.
<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: September 15, 2015

Monitor Values Report

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

Pollutant: PM2.5

Year: 2013

Exceptional Events: Included (if any)

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

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>

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: September 15, 2015

Monitor Values Report

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

Pollutant: PM2.5

Year: 2014

Exceptional Events: Included (if any)

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 Meadowside 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

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

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems.
<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: September 15, 2015

APPENDIX C - TRAFFIC DATA

US 29 FROM MUSGROVE ROAD TO FAIRLAND ROAD

Air Quality Traffic Data - Summary Sheet

Station ID: B150051
Location: US29-.20 MI S OF FAIRLAND RD
Date: Tuesday, October 28, 2014 to Wednesday, October 29, 2014
Project: US29 - from Fairland Rd to Musgrove Rd
FMIS: MO891A21

Condition:	Existing	Intermediate (No Build)	Intermediate (Build)	Future (No Build)	Future (Build)
Year:	2014	2027	2027	2040	2040
ADT:	58,475	62,400	62,400	66,575	66,575
DHV:	9%	9%	9%	9%	9%
Directional Distribution:	65%	65%	65%	65%	65%
% Trucks (ADT):	4%	4%	4%	4%	4%
% Trucks (DHV):	4%	4%	4%	4%	4%
Facility Type:	Freeway	Freeway	Multilane Highway	Multilane Highway	Multilane Highway
Max LOS Reached:					
Northbound	B	B	C	C	C
Southbound	B	B	C	D	D

Air Quality Traffic Data - Summary Sheet

Station ID: B150051
Location: US29-.20 MI S OF FAIRLAND RD
Date: Tuesday, October 28, 2014 to Wednesday, October 29, 2014
Project: US29 - from Fairland Rd to Musgrove Rd
FMIS: MO891A21

Condition: Existing (2014)

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Average Daily Traffic:				
Gasoline Powered:	0.52%	1.03%	0.05%	1.60%
Diesel Powered:	0.51%	1.03%	0.86%	2.40%
Total:	1.03%	2.06%	0.91%	4.00%

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Design Hour Volume:				
Gasoline Powered:	0.59%	1.03%	0.04%	1.66%
Diesel Powered:	0.58%	1.03%	0.73%	2.34%
Total:	1.17%	2.06%	0.77%	4.00%

	Volume	Speed	Volume	Speed
	5,048 vph	55.0 mph	5,048 vph	55.0 mph
	6,753 vph	54.7 mph	6,753 vph	54.7 mph
	7,942 vph	50.0 mph	7,942 vph	50.0 mph

Diurnal Curve:

Begin Hour	% of ADT
12:00 AM	0.87%
1:00 AM	0.31%
2:00 AM	0.21%
3:00 AM	0.21%
4:00 AM	0.47%
5:00 AM	1.72%
6:00 AM	5.88%
7:00 AM	7.95%
8:00 AM	8.24%
9:00 AM	6.06%
10:00 AM	4.31%
11:00 AM	4.34%
12:00 PM	4.57%
1:00 PM	4.68%
2:00 PM	5.54%
3:00 PM	6.52%
4:00 PM	7.61%
5:00 PM	8.18%
6:00 PM	7.37%
7:00 PM	5.07%
8:00 PM	3.78%
9:00 PM	2.92%
10:00 PM	1.97%
11:00 PM	1.22%
Total	100.00%

Air Quality Traffic Data - Summary Sheet

Station ID: B150051
Location: US29-.20 MI S OF FAIRLAND RD
Date: Tuesday, October 28, 2014 to Wednesday, October 29, 2014
Project: US29 - from Fairland Rd to Musgrove Rd
FMIS: MO891A21

Condition: Intermediate No Build (2027)

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Average Daily Traffic:				
Gasoline Powered:	0.52%	1.04%	0.05%	1.61%
Diesel Powered:	0.51%	1.03%	0.85%	2.39%
Total:	1.03%	2.07%	0.90%	4.00%

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Design Hour Volume:				
Gasoline Powered:	0.60%	1.02%	0.04%	1.66%
Diesel Powered:	0.60%	1.01%	0.73%	2.34%
Total:	1.20%	2.03%	0.77%	4.00%

Freeway LOS:	Northbound		Southbound	
	Volume	Speed	Volume	Speed
LOS C/D Breakpoint	5,048 vph	55.0 mph	5,048 vph	55.0 mph
LOS D/E Breakpoint	6,753 vph	54.7 mph	6,753 vph	54.7 mph
LOS E/F Breakpoint	7,943 vph	50.0 mph	7,943 vph	50.0 mph

Diurnal Curve:

Begin Hour	% of ADT
12:00 AM	0.87%
1:00 AM	0.31%
2:00 AM	0.21%
3:00 AM	0.21%
4:00 AM	0.47%
5:00 AM	1.72%
6:00 AM	5.88%
7:00 AM	7.95%
8:00 AM	8.24%
9:00 AM	6.06%
10:00 AM	4.31%
11:00 AM	4.34%
12:00 PM	4.58%
1:00 PM	4.68%
2:00 PM	5.54%
3:00 PM	6.52%
4:00 PM	7.61%
5:00 PM	8.18%
6:00 PM	7.37%
7:00 PM	5.07%
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11:00 PM	1.21%
Total	100.00%

Air Quality Traffic Data - Summary Sheet

Station ID: B150051
Location: US29-.20 MI S OF FAIRLAND RD
Date: Tuesday, October 28, 2014 to Wednesday, October 29, 2014
Project: US29 - from Fairland Rd to Musgrove Rd
FMIS: MO891A21

Condition: Intermediate Build (2027)

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Average Daily Traffic:				
Gasoline Powered:	0.52%	1.04%	0.05%	1.61%
Diesel Powered:	0.51%	1.03%	0.85%	2.39%
Total:	1.03%	2.07%	0.90%	4.00%

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Design Hour Volume:				
Gasoline Powered:	0.60%	1.02%	0.04%	1.66%
Diesel Powered:	0.60%	1.01%	0.73%	2.34%
Total:	1.20%	2.03%	0.77%	4.00%

Multilane Highway LOS:	Northbound		Southbound	
	Volume	Speed	Volume	Speed
LOS C/D Breakpoint	3,640 vph	54.9 mph	3,640 vph	54.9 mph
LOS D/E Breakpoint	4,716 vph	52.9 mph	4,716 vph	52.9 mph
LOS E/F Breakpoint	5,353 vph	51.2 mph	5,353 vph	51.2 mph

Diurnal Curve:

Begin Hour	% of ADT
12:00 AM	0.87%
1:00 AM	0.31%
2:00 AM	0.21%
3:00 AM	0.21%
4:00 AM	0.47%
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11:00 AM	4.34%
12:00 PM	4.58%
1:00 PM	4.68%
2:00 PM	5.54%
3:00 PM	6.52%
4:00 PM	7.61%
5:00 PM	8.18%
6:00 PM	7.37%
7:00 PM	5.07%
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10:00 PM	1.97%
11:00 PM	1.21%
Total	100.00%

Air Quality Traffic Data - Summary Sheet

Station ID: B150051
Location: US29-.20 MI S OF FAIRLAND RD
Date: Tuesday, October 28, 2014 to Wednesday, October 29, 2014
Project: US29 - from Fairland Rd to Musgrove Rd
FMIS: MO891A21

Condition: Future No Build (2040)

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Average Daily Traffic:				
Gasoline Powered:	0.52%	1.04%	0.05%	1.61%
Diesel Powered:	0.51%	1.03%	0.85%	2.39%
Total:	1.03%	2.07%	0.90%	4.00%

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Design Hour Volume:				
Gasoline Powered:	0.60%	1.03%	0.04%	1.67%
Diesel Powered:	0.59%	1.02%	0.72%	2.33%
Total:	1.19%	2.05%	0.76%	4.00%

Volume	Speed	Volume	Speed
3,641 vph	54.9 mph	3,641 vph	54.9 mph
4,717 vph	52.9 mph	4,717 vph	52.9 mph
5,354 vph	51.2 mph	5,354 vph	51.2 mph

Diurnal Curve:

Begin Hour	% of ADT
12:00 AM	0.87%
1:00 AM	0.31%
2:00 AM	0.21%
3:00 AM	0.21%
4:00 AM	0.47%
5:00 AM	1.72%
6:00 AM	5.88%
7:00 AM	7.95%
8:00 AM	8.24%
9:00 AM	6.06%
10:00 AM	4.31%
11:00 AM	4.34%
12:00 PM	4.58%
1:00 PM	4.68%
2:00 PM	5.54%
3:00 PM	6.52%
4:00 PM	7.61%
5:00 PM	8.18%
6:00 PM	7.37%
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11:00 PM	1.21%
Total	100.00%

Air Quality Traffic Data - Summary Sheet

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Location: US29-.20 MI S OF FAIRLAND RD
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Condition: Future Build (2040)

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Average Daily Traffic:				
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Total:	1.03%	2.07%	0.90%	4.00%

	Light Trucks	Medium Trucks	Heavy Trucks	Total
Design Hour Volume:				
Gasoline Powered:	0.60%	1.03%	0.04%	1.67%
Diesel Powered:	0.59%	1.02%	0.72%	2.33%
Total:	1.19%	2.05%	0.76%	4.00%

Multilane Highway LOS:	Northbound		Southbound	
	Volume	Speed	Volume	Speed
LOS C/D Breakpoint	3,641 vph	54.9 mph	3,641 vph	54.9 mph
LOS D/E Breakpoint	4,717 vph	52.9 mph	4,717 vph	52.9 mph
LOS E/F Breakpoint	5,354 vph	51.2 mph	5,354 vph	51.2 mph

Diurnal Curve:

Begin Hour	% of ADT
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6:00 AM	5.88%
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12:00 PM	4.58%
1:00 PM	4.68%
2:00 PM	5.54%
3:00 PM	6.52%
4:00 PM	7.61%
5:00 PM	8.18%
6:00 PM	7.37%
7:00 PM	5.07%
8:00 PM	3.78%
9:00 PM	2.92%
10:00 PM	1.97%
11:00 PM	1.21%
Total	100.00%

APPENDIX D - INTERAGENCY CONSULTATION GROUP COORDINATION

Nicole M. Hebert

From: joy.liang@dot.gov
Sent: Wednesday, December 23, 2015 3:59 PM
To: CBrandt@sha.state.md.us
Cc: Shawn Burnett; Nicole M. Hebert; brian.hug@maryland.gov; Rudnick.Barbara@epamail.epa.gov; becoat.gregory@epa.gov; Khadr.Asrah@epa.gov; Magerr.Kevin@epamail.epa.gov; jdesimone@mwcog.org; alexandra.brun@maryland.gov
Subject: RE: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

Hi Chrissy,

FHWA concurs that this project meets the requirements of the CAA and 40 CFR 93 and would not require an additional quantitative hot-spot analysis.

Thank you for the opportunity to review.

Joy

From: Christina Brandt [<mailto:CBrandt@sha.state.md.us>]
Sent: Thursday, December 10, 2015 10:38 AM
To: 'Brian Hug -MDE-'; 'Rudnick.Barbara@epamail.epa.gov'; 'Becoat, gregory'; 'Khadr, Asrah'; Liang, Joy (FHWA); 'Kevin Magerr'; 'Jennifer Desimone'; 'Alexandra Brun -MDE-'
Cc: 'Shawn Burnett'; 'Nicole M. Hebert'
Subject: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

Good Morning,

Attached is the Draft Air Quality Technical Report for the US 29 from Musgrove Rd to Fairland Rd project in Montgomery 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 2015-2020 TIP includes the project under TIP ID 3641.

Please review and provide concurrence/comments by December 28, 2015. Please let me know if you have any questions.

Thank you,

Chrissy

Christina Brandt

Environmental Manager

OPPE-Environmental Planning Division

MD State Highway Administration

707 North Calvert Street, Mail Stop C-301

Baltimore, MD 21202

Phone: 410-545-2874

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



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Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Wednesday, December 30, 2015 8:04 AM
To: Shawn Burnett; Nicole M. Hebert
Subject: FW: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

From: Khadr, Asrah [<mailto:Khadr.Asrah@epa.gov>]
Sent: Wednesday, December 30, 2015 7:58 AM
To: Christina Brandt
Subject: RE: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

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

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

From: Christina Brandt [<mailto:CBrandt@sha.state.md.us>]
Sent: Thursday, December 10, 2015 10:38 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>; 'joy.liang@dot.gov' <joy.liang@dot.gov>; Magerr, Kevin <Magerr.Kevin@epa.gov>; 'Jennifer Desimone' <jdesimone@mwkog.org>; 'Alexandra Brun -MDE-' <alexandra.brun@maryland.gov>
Cc: 'Shawn Burnett' <sburnett@wtbco.com>; 'Nicole M. Hebert' <nhebert@wtbco.com>
Subject: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

Good Morning,

Attached is the Draft Air Quality Technical Report for the US 29 from Musgrove Rd to Fairland Rd project in Montgomery County, Maryland.

Nicole M. Hebert

From: Christina Brandt <CBrandt@sha.state.md.us>
Sent: Monday, January 04, 2016 8:09 AM
To: Shawn Burnett; Nicole M. Hebert
Subject: FW: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

From: Alexandra Brun -MDE- [<mailto:alexandra.brun@maryland.gov>]
Sent: Thursday, December 31, 2015 1:07 PM
To: Christina Brandt
Subject: Re: US 29 Musgrove to Fairland Rd Improvement Project - Air Quality Interagency Consultation

Christina,

MDE concurs that this project meets the requirements of the CAA and 40 CFR 93 and would not require an additional quantitative hot-spot analysis.

Thank you,

Alex

On Thu, Dec 10, 2015 at 10:37 AM, Christina Brandt <CBrandt@sha.state.md.us> wrote:

Good Morning,

Attached is the Draft Air Quality Technical Report for the US 29 from Musgrove Rd to Fairland Rd project in Montgomery 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 2015-2020 TIP includes the project under TIP ID 3641.