

Rainbow Drive/Thompson Road, Briggs Chaney Middle School Bus Lot, Mandatory Referral, MR2016023

- JP* Joshua Penn, Planner Coordinator, Joshua.Penn@montgomeryplanning.org, 301-495-4546
- FVB* Frederick Vernon Boyd, Master Plan Supervisor, Fred.Boyd@montgomeryplanning.org, 301-495-4654
- KRR* Kipling Reynolds AICP, Chief Area 3, Kipling.Reynolds@montgomeryplanning.org, 301-495-4645

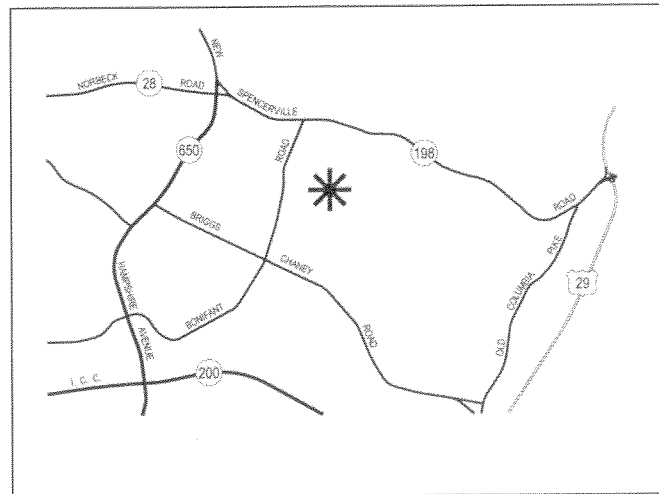
Completed: 05/27/16

Description

A. Mandatory Referral 2016023, Rainbow Drive/Thompson Road, Briggs Chaney Middle School Bus Lot

Reconstruction of the bus lot for Briggs Chaney Middle School. Construction includes a 26-foot wide asphalt driveway and associated sidewalks from the current bus lot to the intersection of Rainbow Drive and Thompson Road. Southwest of the intersection of Rainbow Drive and Thompson Road, in Silver Spring. Cloverly Master Plan (1997)

- Master Plan: 1997 Cloverly Master Plan
- Applicant: Montgomery County Department of Transportation
- Filing Date: April 15, 2016



Summary

- The review of this Mandatory Referral is in two parts: **Item A - Mandatory Referral MR2016023**, and **Item B – Preliminary/Final Water Quality Plan MR2016023**, discussed in a separate staff report.
- Staff recommends approval of the Mandatory Referral with comments to be transmitted to the Montgomery County Department of Transportation (Item A).
- This project is located within the Upper Paint Branch Special Protection Area (SPA) and on publicly owned property. Approval of a water quality plan is required under Section 19-62 of the Montgomery County Code. The Planning Board must take separate action on the Preliminary/Final Water Quality Plan (Item B) prior to taking action on the Mandatory Referral.
- This project will provide a new one-way bus lane entering from Rainbow Drive and exiting on to Thompson Lane and eliminating the single entrance bus loop currently servicing the school.

RECOMMENDATIONS:

Transmit the following comments to the Montgomery County Department of Transportation:

1. The project must adhere to the approved Forest Conservation Plan Exemption/Tree Save Plan and Preliminary/Final Water Quality Plan.

Previous Board Actions

The Briggs Chaney Middle School bus lot was previously included in the application for MR2010804 Thompson Road Connection, which went to the Planning Board on June 10, 2010. The bus lot design plans were behind the schedule of the roadway connection and MCDOT requested that the bus lot be dropped from the project being reviewed by the Board. Subsequently, the Thompson Road connection project was approved with comments and recommendations.

Mandatory Referral Review

The Montgomery County Department of Transportation (MCDOT) proposal for the construction of the 26-foot wide asphalt driveway and associated sidewalks from the current bus lot to the intersection of Rainbow Drive and Thompson Road requires the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review and approval by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized.

The Montgomery County Forest Conservation Law is applicable to the project. However, the project qualifies for, and has been granted, an exemption by Planning Department staff (#42016065E) under the provisions of Section 22A-5(t) as a "Modification of existing non-residential property." In addition, the project is located in the Upper Paint Branch Special Protection Area and is therefore subject to Water Quality Plan requirements. A summary of this review is provided in this staff report with a more complete analysis provided in the associated Preliminary/Final Water Quality Plan staff report (Item B).

Site Description

The project is located on the north side of the Briggs Chaney Middle School, directly in front of the existing building. At the existing bus loop entrance, there are woods on both sides of the existing drive. The proposed work focuses on the east side of the existing drive outside of the wooded area. The rest of the area contains a line of trees dominated by white pines, as well as an open grassy area.

Project Description

The project provides a 26-foot-wide asphalt driveway from the intersection of Rainbow Drive and Thompson Road to the bus lot. The addition of the driveway creates a one-way bus drive, eliminating the single entrance/exit loop that exists currently. The project also provides a 6-foot to 8-foot-wide concrete sidewalk along the proposed driveway. A bio-swale with 9'-2" of bottom width and a 3:1 side slope will be constructed between the proposed driveway and the sidewalk. A grass swale that is 4'-6" wide with a 3:1 side slope will be constructed behind and along the curb just north of the school building for stormwater management purposes.

Master Plan Consistency

The Cloverly Master Plan (1997) makes specific recommendations for Thompson Road and Briggs Chaney Middle School to enhance the safety for the drop-off of students. The Master Plan did not recommend a specific design. It was anticipated at the time that any related projects would be done on either right-of-way or Montgomery County Public Schools property and be reviewed by the Planning Board under the Mandatory Referral procedure.

The proposed one-way driveway was selected to eliminate pedestrian conflicts that can occur with the current single entrance bus loop design. The project is consistent with the recommendations in the Master Plan.

Public Outreach

A notice of the Mandatory Referral was sent to area citizens associations. In addition, MCDOT sent an updated newsletter to adjacent and confronting property owners in April of 2016.

Impacts to Parkland

This application has no impacts on Parkland.

ENVIRONMENT

Environmental Guidelines

The project area does not contain any environmental buffers, streams, other sensitive features. It is located in the Cloverly Master Plan area, the Upper Paint Branch Special Protection Area, and within the Upper Paint Branch watershed, which is classified by the State of Maryland as Use Class III waters. The project is in compliance with the Environmental Guidelines.

Forest Conservation

The Application meets the requirements of Chapter 22A of the Montgomery County Forest Conservation Law. The accompanying Preliminary/Final Water Quality Plan staff report (Item B) includes a complete analysis.

Special Protection Areas (SPA) Water Quality Plan

This project is located within the Upper Paint Branch SPA and on publicly owned property. The Mandatory Referral project is required to obtain approval of a water quality plan under Section 19-62 of the Montgomery County Code. The Preliminary/Final Water Quality Plan staff report (Item B) includes a complete analysis.

CONCLUSION

Staff recommends that the Planning Board approves the Mandatory Referral and transmits recommendations as specified on page two of this staff report.

ATTACHMENTS

- A. MCDOT Mandatory Referral Request
- B. Rainbow Drive – Thompson Road Bus Lot Reconstruction SPA Plan



Attachment A

DEPARTMENT OF TRANSPORTATION

Isiah Leggett
County Executive

April 8, 2016

Al R. Roshdiah
Director

Casey Anderson, Planning Board Chair
The Maryland-National Capital Park and Planning Commission
Montgomery County Planning Board
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: Rainbow Drive-Thompson Road-
Bus Lot Reconstruction
CIP No. 501511
Upper Paint Branch
Special Protection Area (SPA)

Dear Mr. Anderson:

This letter is to request your agency's review of the above referenced project for Mandatory Referral.

The Montgomery County Department of Transportation (MCDOT) proposes the reconfiguration and reconstruction of the bus lot at Briggs Chaney Middle School. The project provides a 26-foot wide asphalt driveway from the intersection of Rainbow Drive and Thompson Road to the bus lot to create one-way bus loop. The one-way bus loop was requested by Montgomery County Public School in exchange of their easement dedication to the County for the roadway construction portion of Rainbow Drive-Thompson Road Connection. The roadway construction is adjacent to the school and was completed in November 2015. The above referenced project also provides a concrete sidewalk with its width varying from six feet to eight feet along the proposed driveway. For stormwater management/environmental site design, a bio-swale is proposed between the proposed driveway and the sidewalk and a flat bottom grass swale is proposed behind and along the curb at the bus lot.

The project is located in Upper Paint Branch SPA. The net additional impervious area as a result of the project would be 1,219 ft². The Rainbow Drive Sidewalk and Pavement Removal project (CIP No. 506747) approved by Department of Permitting Services in May 26, 2010 created 3,476 ft² of credit for the pavement removal.

The project will provide a safer transportation connection for pedestrians and the school buses to Briggs Chaney Middle School.

Division of Transportation Engineering

100 Edison Park Drive, 4th Floor • Gaithersburg, Maryland 20878 • 240-777-7220 • 240-777-7277
www.montgomerycountymd.gov

Attachment A

Mr. Anderson
April 8, 2016
Page 2 of 2

Maryland Historical Trust determined that there are no historic properties affected by the project according to their response, dated September 3, 2009. Maryland Department of Natural Resources and United States Department of the Interior, Fish and Wildlife Services confirmed no existence of any endangered species in or near the project site according to their letters dated October 13, 2009 and September 30, 2009 respectively.

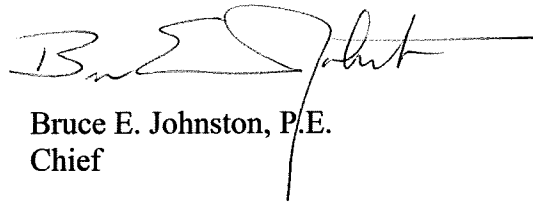
The Forest Conservation Exemption No. 42016065E was approved for the project by the Development Applications & Regulatory Coordination of M-NCPPC on November 4, 2015.

The project design is scheduled to be completed in June 2016. The construction for the project is scheduled to start in July 2016 with two months of construction duration.

The project is funded solely by the County's General Obligation bonds.

If you have any questions, please contact Rebecca Park, Project Manager, at 240-777-7263 or rebecca.park@montgomerycountymd.gov.

Sincerely,



Bruce E. Johnston, P.E.
Chief

BEJ:gl

cc: Dan Sheridan, P.E., MCDOT-Transportation Planning and Design Section
Rebecca Park, P.E., MCDOT-Transportation Planning and Design Section



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROADWAY IMPROVEMENT RAINBOW DRIVE-THOMPSON ROAD BUS LOT RECONSTRUCTION

C. I. P. PROJECT NO. 501511

PRELIMINARY DESIGN

MCDOT	MCDPS	INDEX OF SHEETS
1	1	TITLE SHEET
2	2	TYPICAL SECTIONS
3	3	PLAN VIEW
4		ROADWAY PROFILE
5	4	DRAINAGE AREA MAP-EXISTING CONDITION
6	5	DRAINAGE AREA MAP-PROPOSED CONDITION
7	6	SWM DETAIL SHEET

ATTENTION

THIS SITE IS WITHIN THE ENVIRONMENTALLY SENSITIVE
UPPER PAINT BRANCH SPECIAL PROTECTION AREA
TO HELP PROTECT THE DELICATE AQUATIC HABITAT
FROM THE IMPACTS OF LAND DEVELOPMENT
THESE PLANS MUST BE STRICTLY ADHERED TO

IF THERE IS A PROBLEM, CALL
Mark Etheridge AT 240-777-6338

AND THE MCDPS STAFF MEMBER WILL ASSIST YOU
IN DEVELOPING A SOLUTION BEFORE STREAM IMPACTS OCCUR
(MENTION THAT THE SITE IS WITHIN A SPECIAL PROTECTION AREA WHEN YOU CALL)

"LET'S WORK TOGETHER TO KEEP IT CLEAN"

ACKNOWLEDGED _____
OWNER/DEVELOPER

DEVELOPER'S / BUILDER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL 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 OF A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

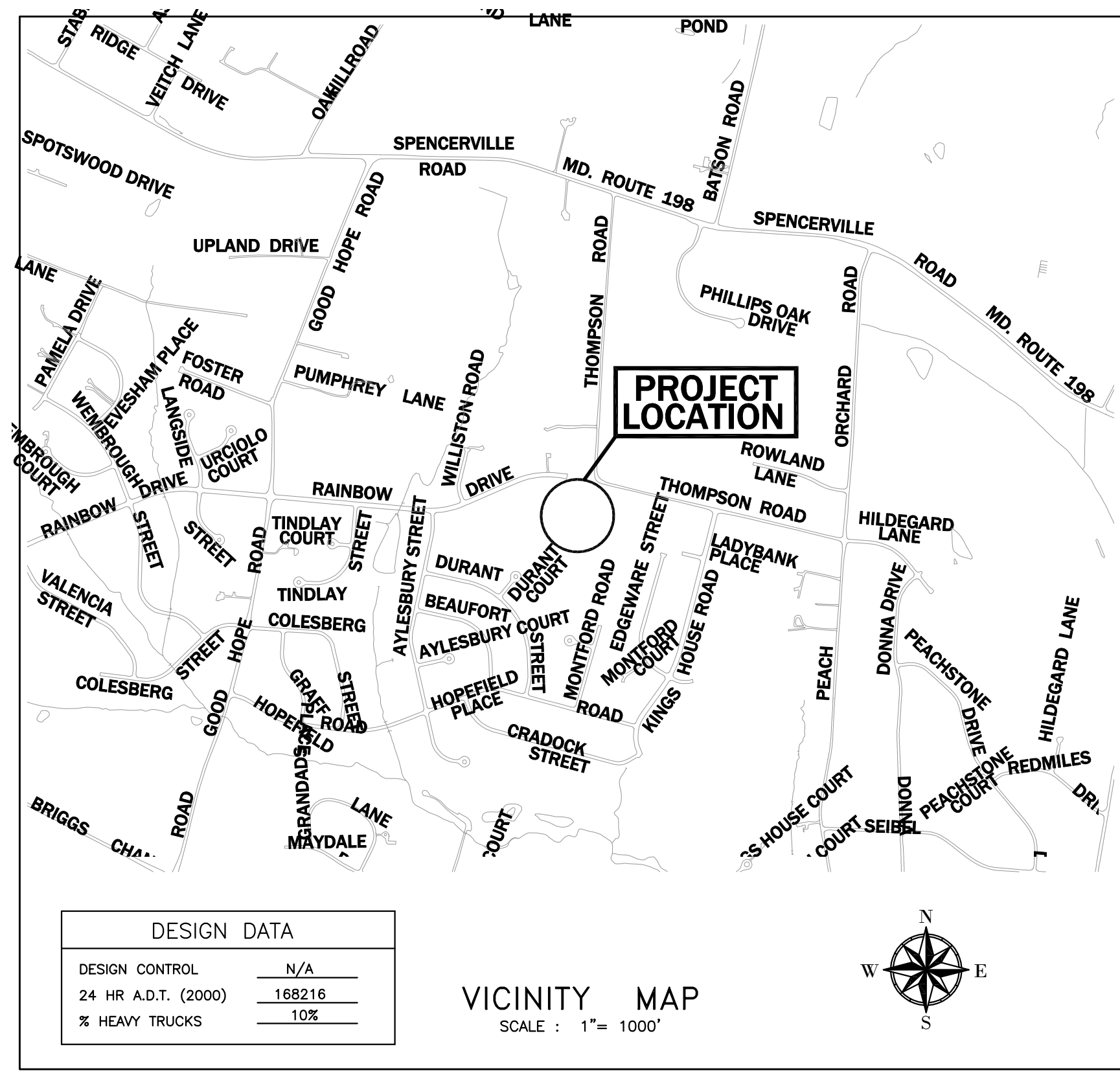
DATE _____
BRUCE E. JOHNSTON, P.E.
CHIEF, DIVISION OF
TRANSPORTATION ENGINEERING

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATIONS 5-90, 7-02AM and 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN DESIGN CRITERIA" DATED NOVEMBER, 2013.

I FURTHER CERTIFY THAT THE TOTAL AMOUNTS OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAVE BEEN COMPUTED TO BE 150 CUBIC YARDS OF EXCAVATION AND 10 CUBIC YARDS OF FILL AND THAT THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE A MAXIMUM OF 43,081 SQUARE FEET OR 0.99 ACRES.

DATE _____
DANIEL M. SHERIDAN
MD. REGISTRATION NO. 22475



DESIGN DATA	
DESIGN CONTROL	N/A
24 HR A.D.T. (2000)	188216
% HEAVY TRUCKS	10%

VICINITY MAP
SCALE: 1" = 1000'

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. 22475 EXPIRATION DATE _____

RELATED REQUIRED PERMITS					
To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for all projects.					
IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT					
TYPE OF PERMIT	REQD	NOT REQD	PERMIT #	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain District		X			
WATERWAYS/WETLAND(S):					
a. Corps of Engineers		X			
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE Dam Safety		X			
DNR Roadside Tree Care Permit		X		Approval Date	
DPS Roadside Tree Protection Plan		X		Approval Date	
N.P.D.E.S. NOTICE OF INTENT	X				DATE FILED
OTHERS (Please List):					

GENERAL NOTES

- THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MARYLAND STATE HIGHWAY ADMINISTRATION DATED JANUARY 2001, ALL ERRATA AND ADDENDA THERETO. THE MARYLAND STATE HIGHWAY ADMINISTRATION BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES, WASHINGTON SUBURBAN SANITARY COMMISSION (W.S.S.C.) STANDARDS, MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS, AND SOIL CONSERVATION SERVICE POND CONSTRUCTION SPECIFICATIONS FOR MARYLAND.
- FOR CONSTRUCTION, ALL HORIZONTAL SHALL BE BASED ON NAD 83/91, NAVD 88 DATUM.
- TYPES OF STORM DRAIN STRUCTURES REFER TO THE "DESIGN STANDARDS" OF MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION, UNLESS OTHERWISE NOTED.
- WHEN THE DROP ON THE MAIN LINE THROUGH A STORM DRAIN STRUCTURE CAN BE ACCOMMODATED BY AN INVERT SLOPE OF 1.5:1 OR FLATTER, A ROUNDED CHANNEL LINED WITH SEWER BRICK ON EDGE SHALL BE BUILT TO THE CROWN OF THE PIPES. WHEN THE INVERT SLOPES WOULD BE GREATER THAN 1.5:1 A SPECIAL INVERT SHALL BE CONSTRUCTED AS NOTED.
- ALL STORM DRAIN PIPE SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAIN STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS, AS APPROVED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN OR SIX (6) INCHES, WHICHEVER IS LESS, CONTACT MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
- REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- CALL "MISS UTILITY" AT 1-800-257-7777 FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.
- CLEARING IS TO BE LIMITED TO THE "LIMIT OF GRADING" AS SHOWN ON THE PLANS.
- ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
- DISTURBED AREAS ADJACENT TO ESTABLISHED LAWNS SHALL BE SODDED. OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
- THE CONTRACTOR SHALL OBTAIN A ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL, OR ROOT CUTTING ON TREES WITHIN THE PUBLIC RIGHT OF WAY. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES, MARYLAND FOREST, PARK AND WILDLIFE SERVICE, TELEPHONE 301-854-6060
- CONTACT THE WASHINGTON SUBURBAN SANITARY COMMISSION SYSTEM MAINTENANCE ENGINEER BEFORE EXCAVATING BENEATH OR IN THE VICINITY OF EXISTING WATER OR SEWER LINES. BACKFILL TO BE DONE UNDER SUPERVISION OF W.S.S.C. CALL 699-4420
- ALL UTILITY POLES NOTED FOR RELOCATION SHALL BE PERFORMED BY OTHERS.

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:			NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.
Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:	
Reviewed _____ Date _____	Reviewed _____ Date _____	Reviewed _____ Date _____	
Approved _____ Date _____	Approved _____ Date _____	Approved _____ Date _____	
SM/SLP NO. _____			MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED

OWNER/ADDRESS:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MD 20878

CONTACT:
REBECCA PARK, P.E.
PROJECT MANAGER
DESIGN SECTION
DIVISION OF TRANSPORTATION ENGINEERING
240-777-7263

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section _____ Date _____
APPROVED
Chief, Division of Transportation Engineering _____ Date _____

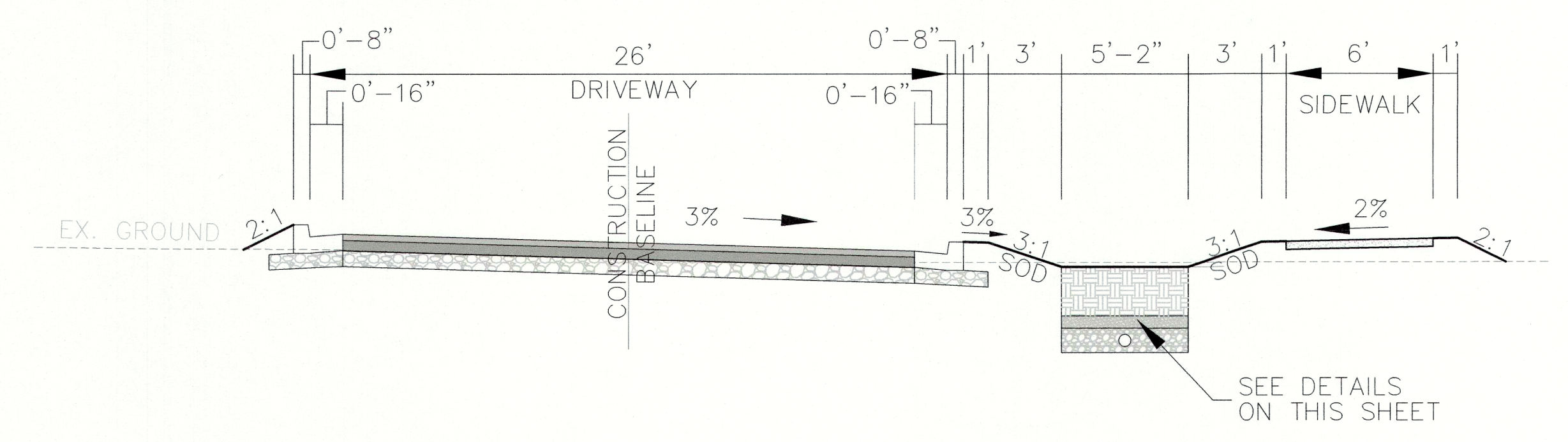
Designed by: RSP Drawn by: RSP Checked by: _____

TITLE SHEET

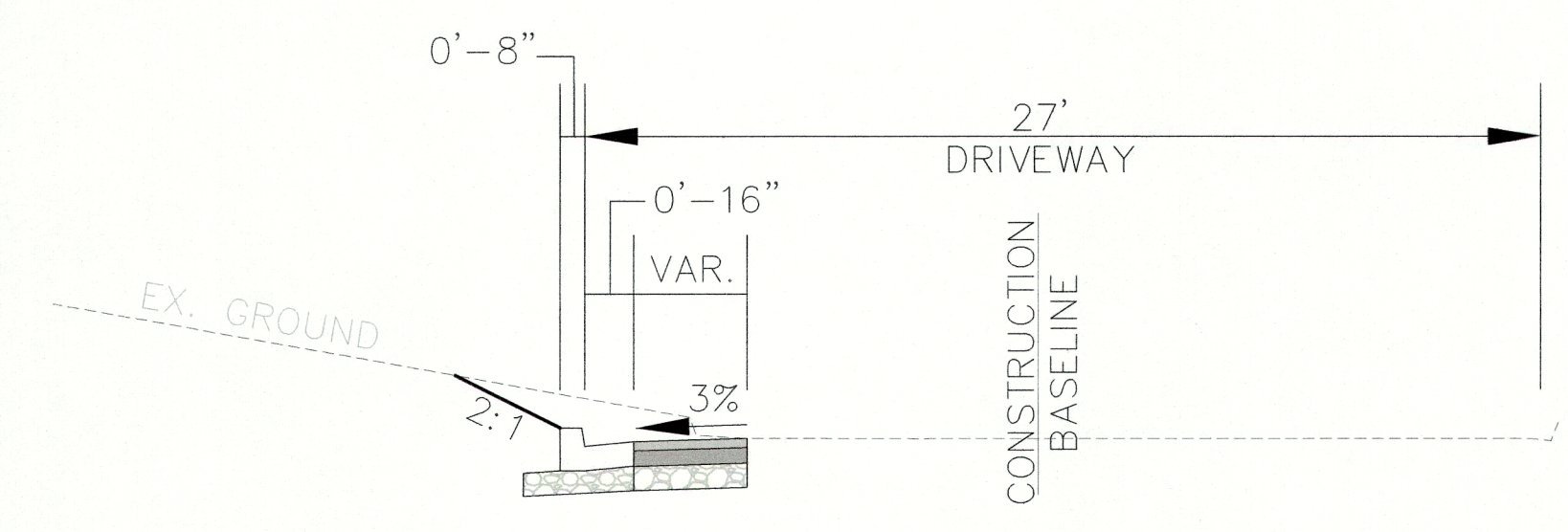
RAINBOW DRIVE-THOMPSON ROAD BUS LOT RECONSTRUCTION

DATE: APRIL 2016

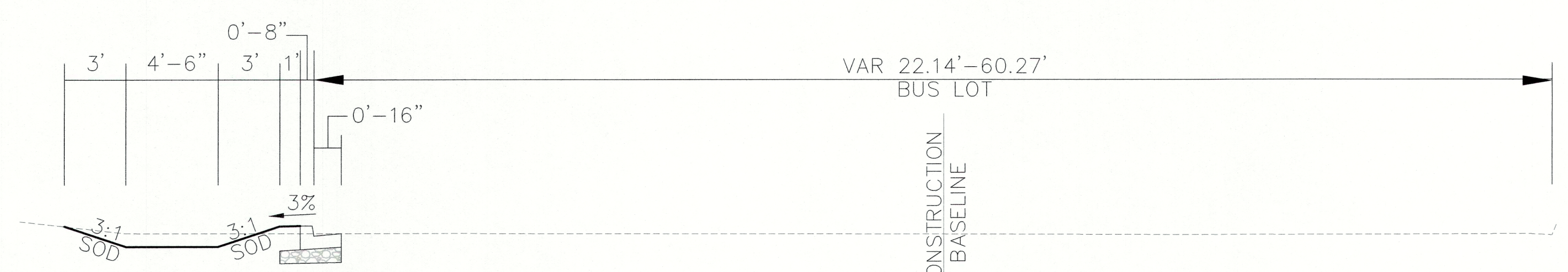
Project No. : 501511 SHEET 1 of 7



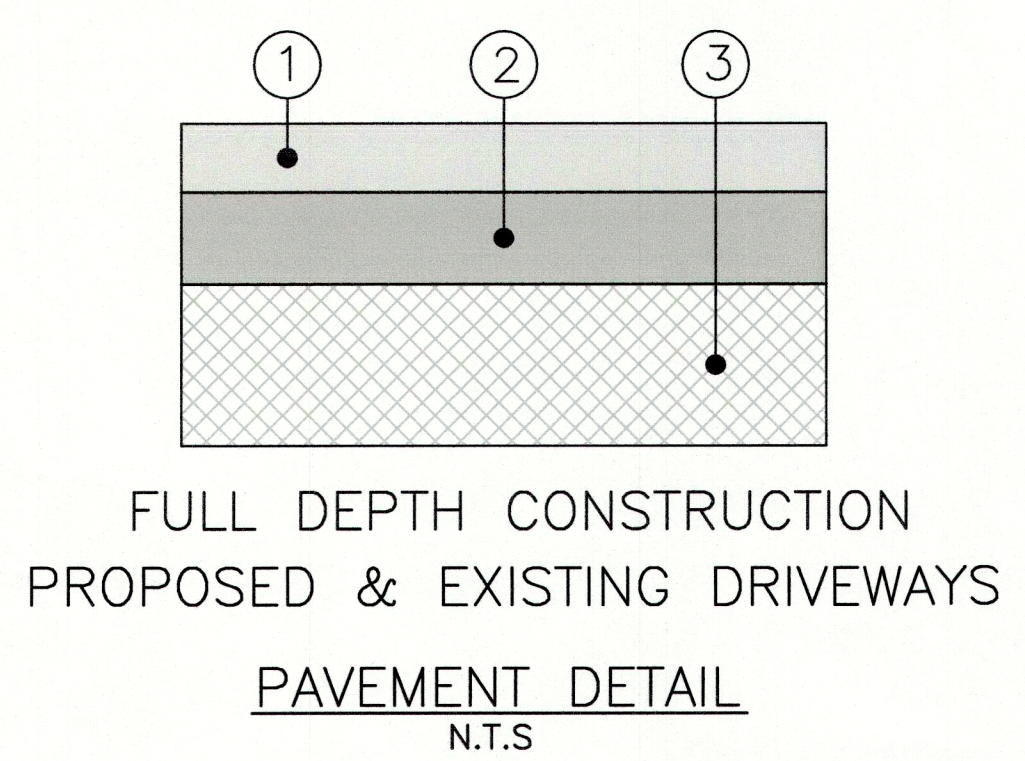
PROPOSED DRIVEWAY
STA 0+99.50 TO STA 2+26.50



EXISTING DRIVEWAY
STA 10+18 TO STA 12+35



BUS LOT-GRASS SWALE
STA 13+00 TO STA 15+00



- ① 3" BITUMINOUS CONCRETE SURFACE COURSE IN 2-1 1/2" LAYERS
- ② 5" BITUMINOUS CONCRETE BASE COURSE
- ③ APPROVED SUBGRADE

Bioretention Soil Media Mix

DESCRIPTION: Work consists of providing bioretention soil media mix (BSM) in low-impact development applications.

MATERIALS: The Bioretention Soil Mixture (BSM) is a mixture of planting soil, mulch, and sand consisting of the following:

ITEM	COMPOSITION BY VOLUME	REFERENCE
Planting Soil	80%	See below
Fluxed 20-40 Mesh Mulch	20%	See attached Section 7513
Sand (washed)	20%	ASTM C33 Fine Aggregate

The USDA textural classification of the Planting Soil for the BSM must be LOAMY SAND OR SANDY LOAM. Additionally, the Planting Soil must be tested and meet the following criteria:

ITEM	PERCENT BY WEIGHT	TEST METHOD
Sand (0.075-0.425 mm)	35 - 45%	AASHTO T88
Silt (0.075-0.002 mm)	0 - 5%	AASHTO T88
Clay (less than 0.002 mm)	10%	AASHTO T88
Organic Matter	1.5 - 10%	AASHTO T194

The chemical analysis for the Planting Soil must be as follows:

ASTM #1 SIEVE SIZE	MINIMUM PERCENT PASSING BY WEIGHT
2 in.	100
No. 4	90
No. 10	80

The BSM must meet the physical requirements as described below:

Item	Criteria	Test Method
Corrected pH	5.5 - 7.5	ASTM D4972
Magnesium	Minimum 32 ppm	*
Phosphorus (Phosphate - P ₂ O ₅)	Not to exceed 60 ppm	*
Potassium (K ₂ O)	Minimum 78 ppm	*
Soluble Salts	Not to exceed 500 ppm	*

* Use authorized soil test procedures.

Should the pH fall outside of the acceptable range, it may be modified with lime (to raise) or iron sulfate plus sulfur (to lower). The lime or iron sulfate must be mixed uniformly into the BSM prior to use in bioretention facilities.

Should the BSM not meet the minimum requirement for magnesium, it may be modified with magnesium sulfate. Likewise, should the BSM not meet the minimum requirement for potassium, it may be modified with potash. Magnesium sulfate and potash must be mixed uniformly into the BSM prior to use in bioretention facilities.

Mixing of the BSM to a homogeneous consistency must be done to the satisfaction of the Owner. The BSM must be a uniform mix, free of stones, clumps, roots or other similar objects larger than 2 inches excluding mulch. No other materials or substances must be added or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operation.

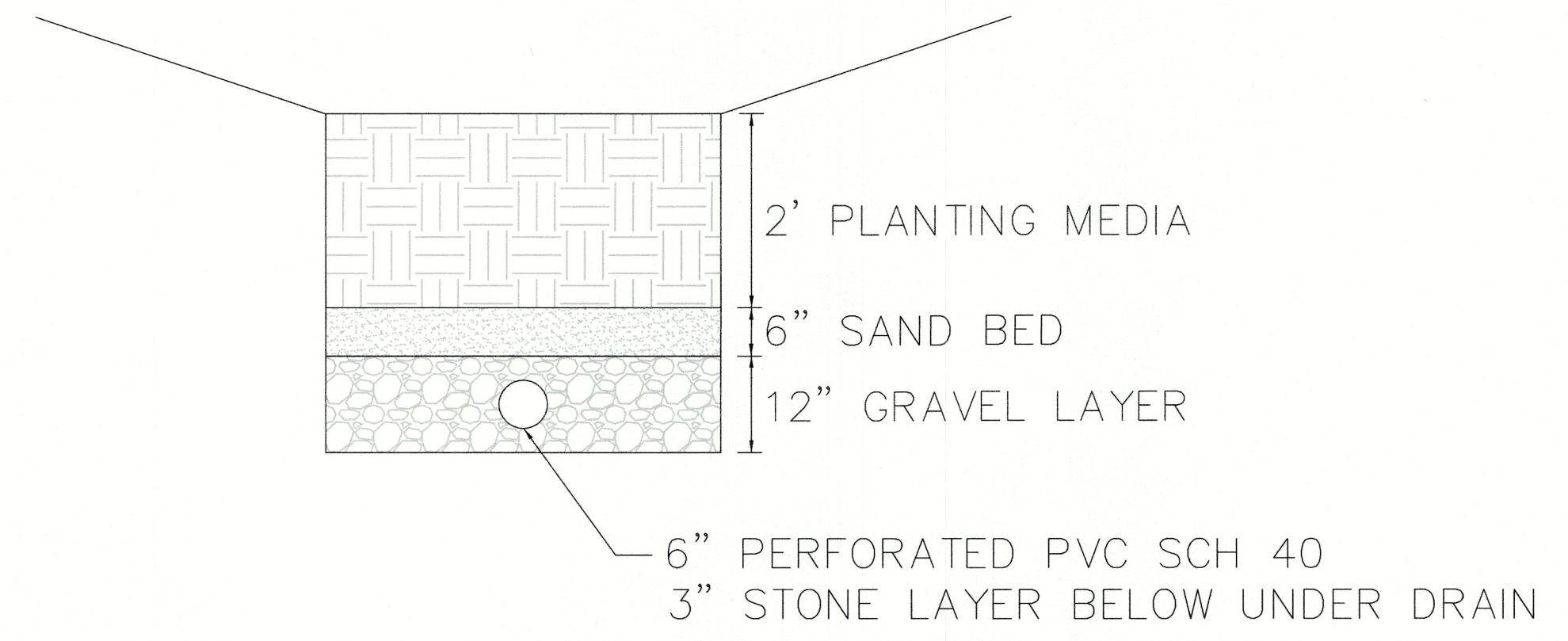
EXECUTION:

Submittals: Forty five days prior to construction, the Contractor must submit to the Owner the following documentation:

- The Contractor must submit the source of the BSM to the Owner for approval.
- The Contractor must submit the BSM soil test and classification, and physical soil parameters test results performed by a State of Testing Approved Certified Laboratory. The lab must verify that the Contractor BSM meets the specifications stated in the MATERIALS section above.

No time extensions will be granted should the proposed BSM fail to meet the requirements. Once a stockpile of the Planting Soil has been accepted, no material must be added to the stockpile.

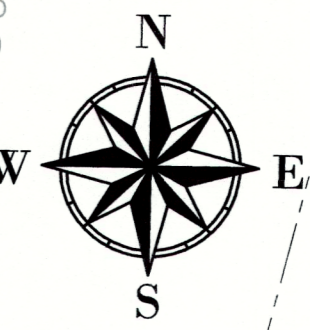
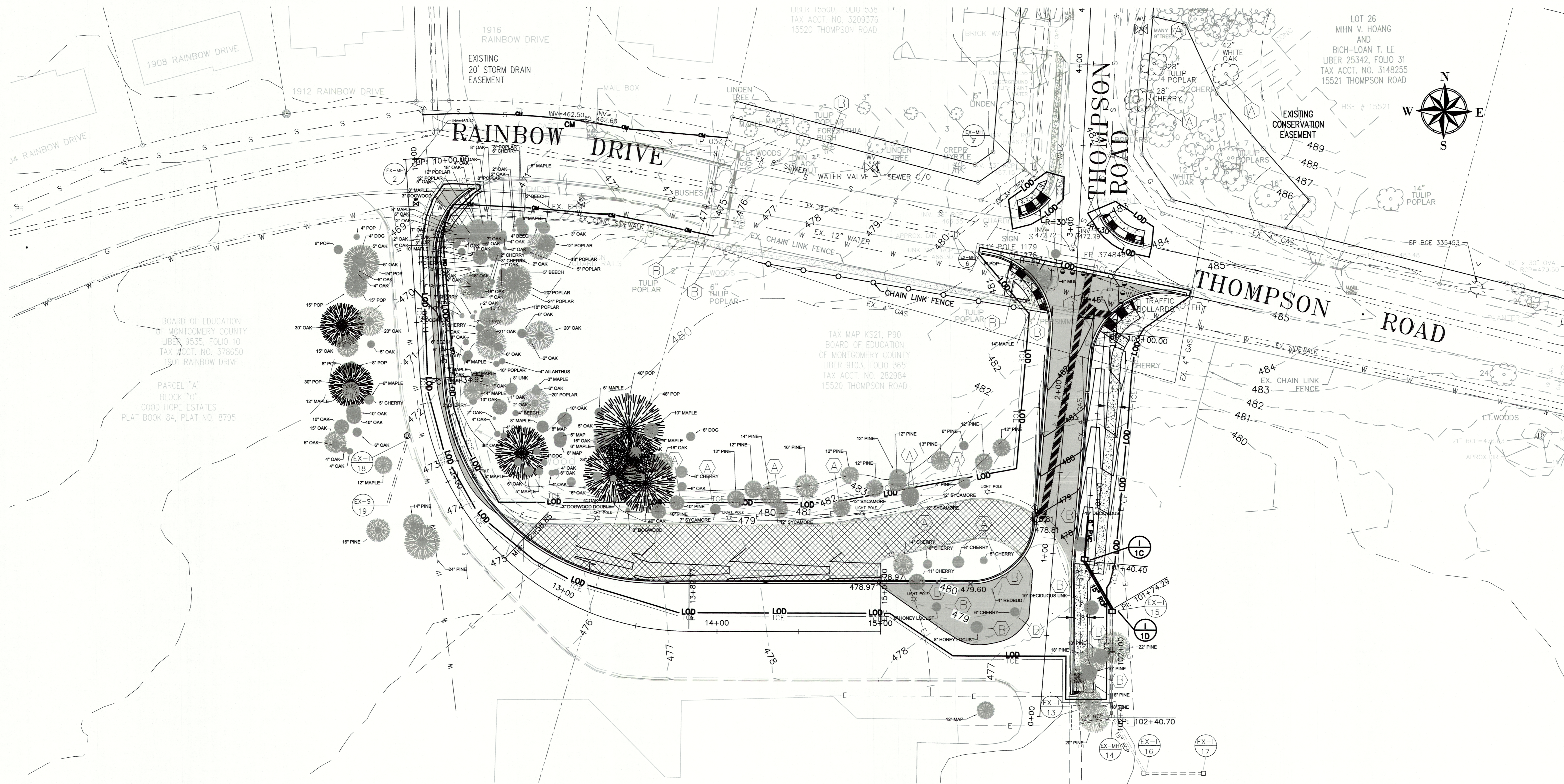
Installation: Bioretention soil media will be used in low-impact development applications. The product must meet the specifications stated above and in accordance to the Contract Documents or as directed by the Owner. Application equipment may include blowers applied on standard construction equipment used to maximize soil compaction.



BIO-SWALE
TYPICAL SECTION
NOT TO SCALE

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:		NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.
Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
Reviewed _____ Date _____	Reviewed _____ Date _____	Reviewed _____ Date _____
Approved _____ Date _____	Approved _____ Date _____	Approved _____ Date _____
SM/FILE NO. _____		MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED.

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND		TYPICAL SECTIONS	
RECOMMENDED FOR APPROVAL		RAINBOW DRIVE-THOMPSON ROAD BUS LOT RECONSTRUCTION	
Chief, Transportation Planning and Design Section	_____ Date _____	SCALE: 1"=5'	
Chief, Division of Transportation Engineering	_____ Date _____	DATE: MARCH 2016	
Designed by: RSP	Drawn by: RSP	Checked by: _____	Project No.: 501511 SHEET 2 of 7



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED SIDEWALK
- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE SIDEWALK TO BE REMOVED
- 479 — EX. CONTOUR MINOR 479 — PROPOSED CONTOUR MINOR
- 480 — EX. CONTOUR MAJOR 480 — PROPOSED CONTOUR MAJOR
- LOD — LIMIT OF DISTURBANCE TCE — TEMPORARY CONSTRUCTION EASEMENT
- W — EX. WATER
- S — EX. SEWER
- E — EX. ELECTRIC UNDERGROUND CABLE
- CM — EX. COMCAST UNDERGROUND CABLE
- EX. VERIZON UNDERGROUND CABLE

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:			NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT. MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL, IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED.
Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:	
_____	Reviewed _____ Date _____	Reviewed _____ Date _____	
Reviewed _____ Date _____	Approved _____ Date _____	_____	
Approved _____ Date _____			

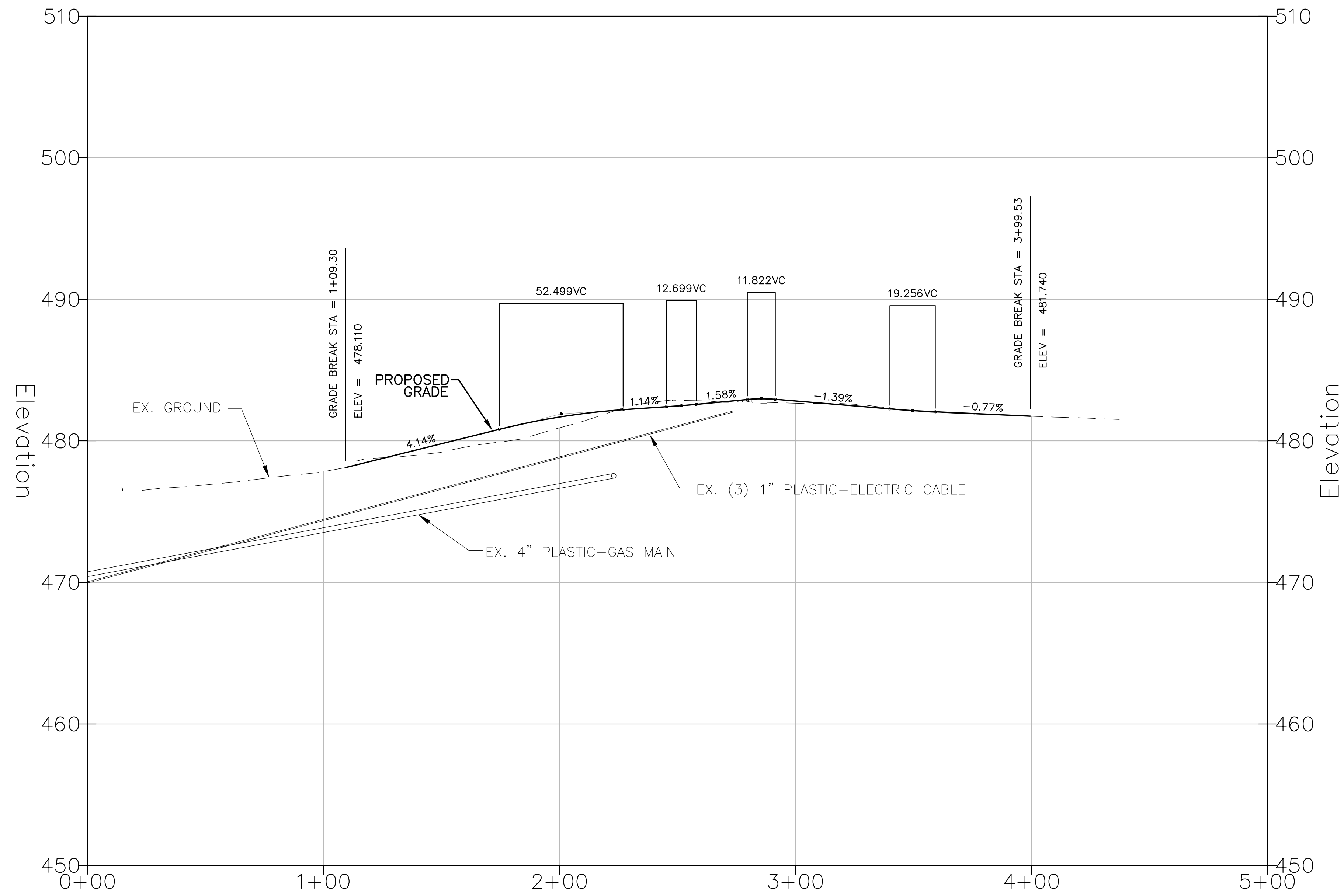
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND			
RECOMMENDED FOR APPROVAL			
Chief, Transportation Planning and Design Section _____		Date _____	
APPROVED			
Chief, Division of Transportation Engineering _____		Date _____	
Designed by: <u>RSP</u>	Drawn by: <u>RSP</u>	Checked by: _____	

PLAN VIEW
RAINBOW DRIVE-THOMPSON ROAD
BUS LOT RECONSTRUCTION

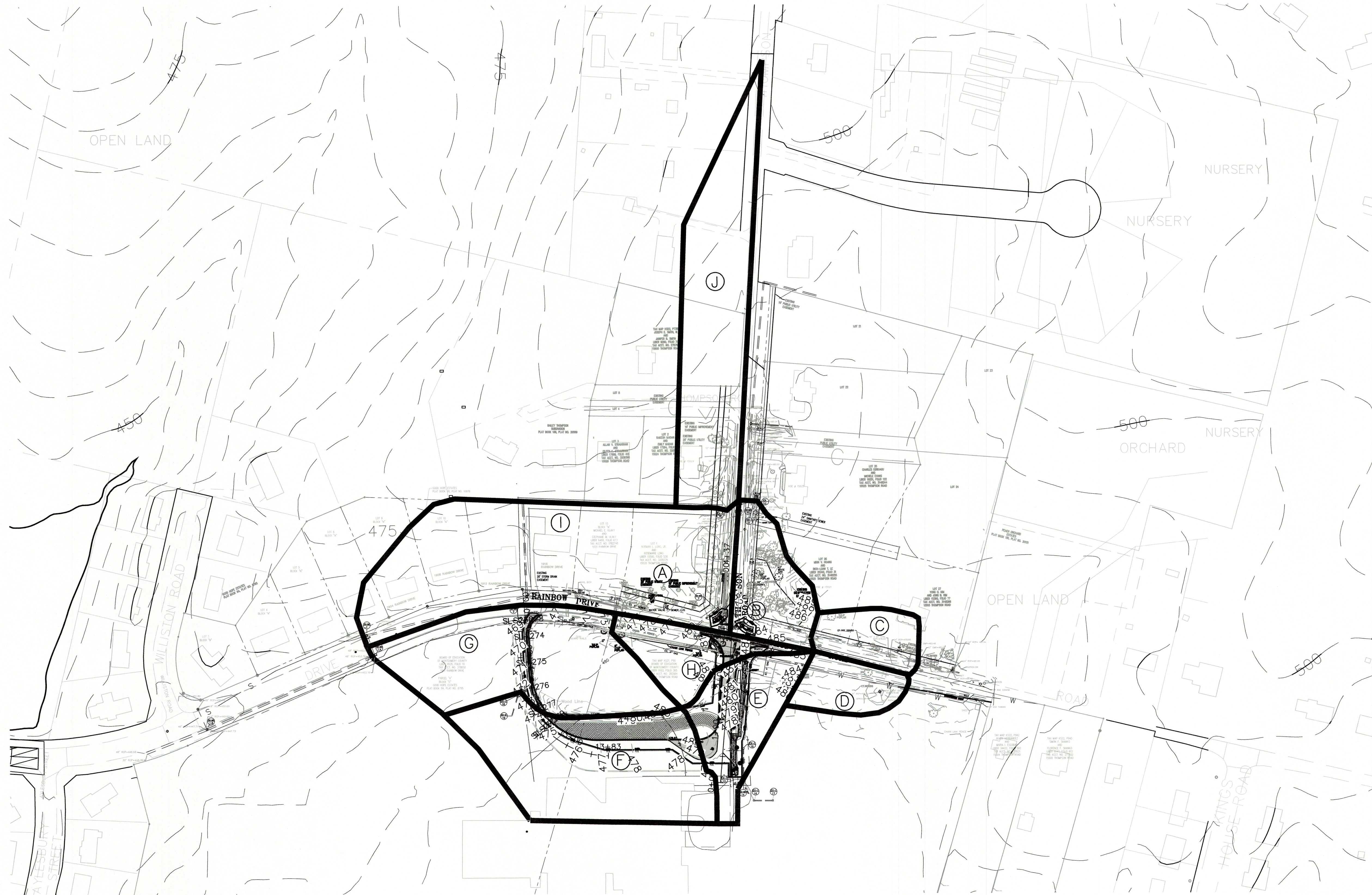
SCALE 1"=30' DATE: APRIL 2016

Project No. : 501511 SHEET 3 of 7

NO.	REVISION	DATE	BY



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND		PROFILE SHEET—NEW DRIVEWAY RAINBOW DRIVE—THOMPSON ROAD BUS LOT RECONSTRUCTION	
RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section _____ Date _____		SCALE: HORIZONTAL 1"=30' VERTICAL 1"=5'	
APPROVED Chief, Division of Transportation Engineering _____ Date _____		DATE JANUARY 2016	
Designed by: <u>RSP</u>	Drawn by: <u>RSP</u>	Checked by: _____	Project No. : <u>501511</u> SHEET <u>4</u> of <u>7</u>



DRAINAGE AREA	AREA (ACRES)
A	0.92
B	0.74
C	0.46
D	0.44
E	0.87
F	2.04
G	1.99
H	0.61
I	2.46
J	2.00

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:	Sediment Control Technical Requirements:
Reviewed _____ Date _____	Reviewed _____ Date _____
Approved _____ Date _____	Approved _____ Date _____
SM/FILE NO.	

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.

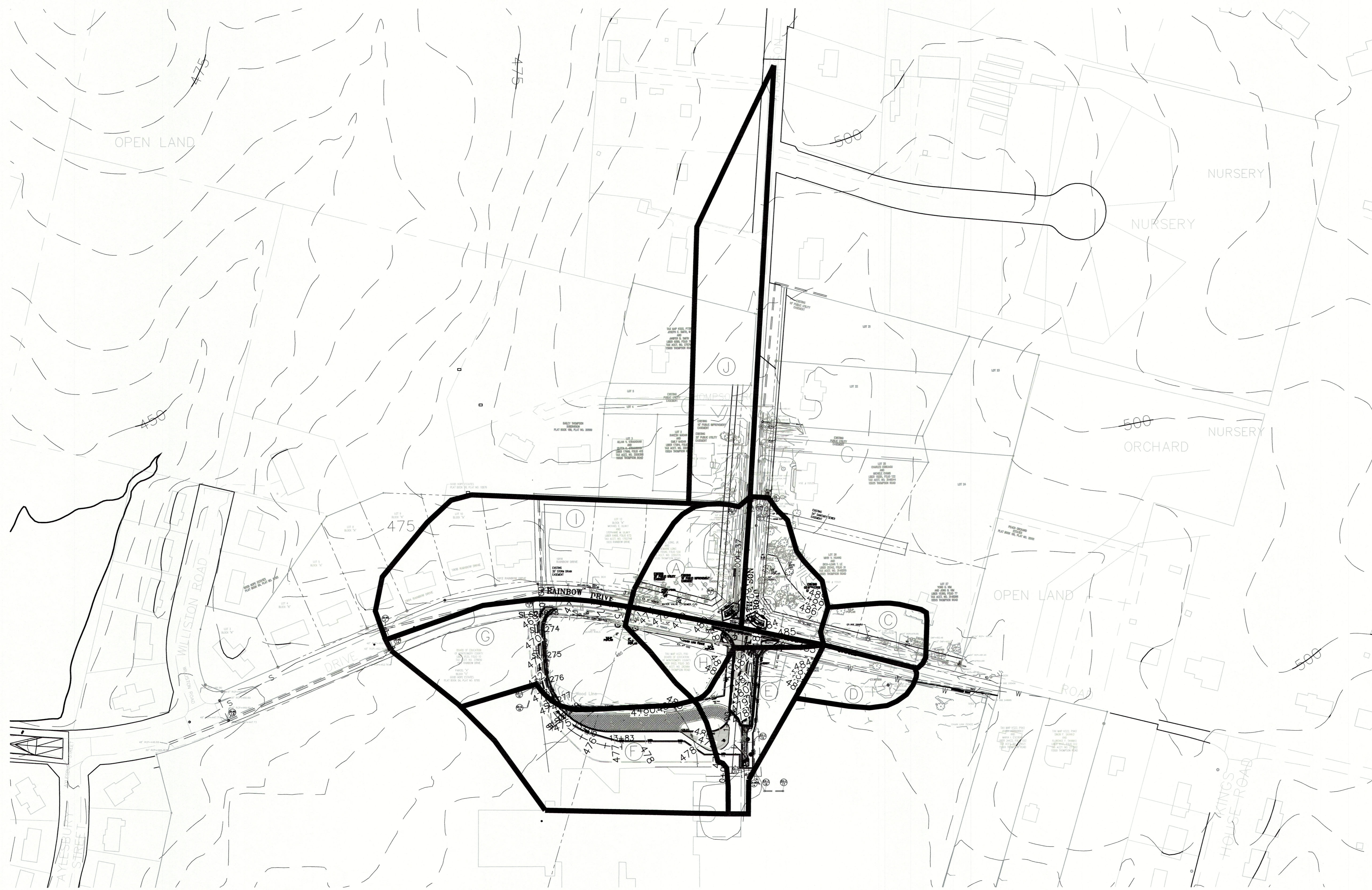
Administrative Requirements:
Reviewed _____ Date _____
Approved _____ Date _____
MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED.

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Transportation Planning and Design Section	_____ Date _____
APPROVED	
Chief, Division of Transportation Engineering	_____ Date _____
Designed by: RSP	Drawn by: RSP
Checked by: _____	

DRAINAGE AREA MAP EXISTING CONDITION RAINBOW DRIVE-THOMPSON ROAD BUS LOT RECONSTRUCTION	
SCALE : 1"=100'	DATE: APRIL 2016
Project No. : 501511	SHEET 5 of 7

S:\PROJECTS\Projects\501511 Rainbow Drive-Thompson Road\Phase II-MCPS Portion of Project\130308 Phase II-Thompson Road Connection-DA Map.dwg, 4/8/2016 11:17:11 AM, HP Designjet T7100ps HPGL2.pc3

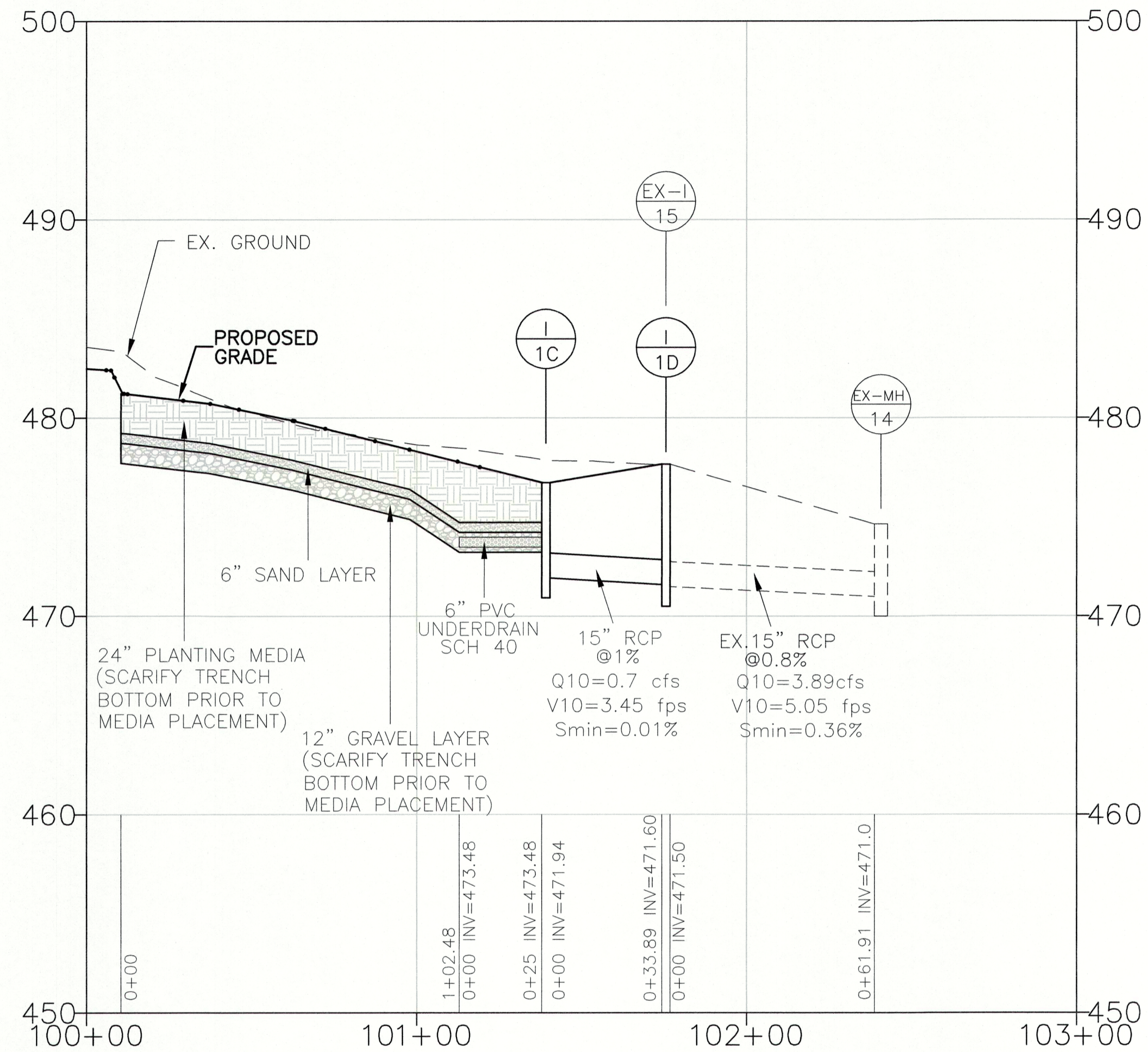


DRAINAGE AREA TABLE PROPOSED CONDITION	
DRAINAGE AREA	AREA (ACRES)
A	0.92
B	0.74
C	0.46
D	0.44
E	0.89
E1	0.15
F	2.04
G	1.99
H	0.59
I	2.46
J	2.00

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:		NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.	
Stormwater Management: _____ Reviewed Date _____ Approved Date _____ SAMPLE NO.	Sediment Control Technical Requirements: Reviewed Date _____ Approved Date	Administrative Requirements: Reviewed Date _____ _____ _____ MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL, IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED.	NO. REVISION DATE BY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Transportation Planning and Design Section	_____ Date
APPROVED	
Chief, Division of Transportation Engineering	_____ Date
Designed by: RSP	Drawn by: RSP Checked by: _____

DRAINAGE AREA MAP PROPOSED CONDITION RAINBOW DRIVE-THOMPSON ROAD BUS LOT RECONSTRUCTION	
SCALE : 1"=100'	DATE: APRIL 2016
Project No. : 501511	SHEET 6 of 7



PIPE SCHEDULE				
SIZE	TYPE	CLASS	LENGTH	REMARKS
6"	PVC		25'	UNDERDRAIN TO I-1C
15"	RCP	4	33.89'	I-1C TO I-1D

STRUCTURE SCHEDULE							
NO.	TYPE	WIDTH	STATION	OFFSET	TOP ELEV.	HEIGHT	STANDARD NO.
I-1C	J INLET AS A TERMINUS	D=5'-0"	0+98.25	19.40' RT	476.73'	5.79'	MC-506.02
I-1D	J INLET	D=5'-0"	0+67.94	38.85' RT	477.66'	7.16'	MC-506.01

BIO-SWALE

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR SWALES		
STAGE	MCDPS INSPECTOR INITIALS/DATE	OWNER/DEVELOPER INITIALS/DATE
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS Inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS Inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. The permittee must maintain a "record set" of approved SC/SM plans on-site at all times. Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead. Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.		
1. Placement of backfill of underdrains and installation of diaphragms, forebays, check dams, or weirs conforms to approved plans		
2. Final grading and establishment of permanent stabilization conforms to approved plans		

GRASS SWALE

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR SWALES		
STAGE	MCDPS INSPECTOR INITIALS/DATE	OWNER/DEVELOPER INITIALS/DATE
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS Inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS Inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. The permittee must maintain a "record set" of approved SC/SM plans on-site at all times. Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead. Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.		
1. Placement of backfill of underdrains and installation of diaphragms, forebays, check dams, or weirs conforms to approved plans		
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MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:		NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.
Stormwater Management: _____ Reviewed _____ Date _____ Approved _____ Date _____	Sediment Control Technical Requirements: Reviewed _____ Date _____ Approved _____ Date _____	Administrative Requirements: Reviewed _____ Date _____ _____ _____ _____ MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND			SWM DETAIL SHEET RAINBOW DRIVE-THOMPSON ROAD BUS LOT RECONSTRUCTION	
RECOMMENDED FOR APPROVAL			SCALE : HORIZONTAL 1"=30' VERTICAL 1"=5'	
Chief, Transportation Planning and Design Section APPROVED _____ Date _____			DATE: APRIL 2016	
Chief, Division of Transportation Engineering APPROVED _____ Date _____			Project No. : 501511 SHEET 7 of 7	
NO.	REVISION	DATE	BY	Designed by: RSP Drawn by: RSP Checked by: _____