



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Sandra I. Heiler
Chairman

Date: January 15, 2021

MEMORANDUM

TO: Mitra Pedoeem
Department of Permitting Services

FROM: Michael Kyne
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit: Construction of shared-use path with associated hardscape, lighting, grading, tree removals

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved** at the November 18, 2020 HPC meeting.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: MCDOT (**Yasamin Esmaili, Agent**)
Address: 23515 Frederick Road to 23200 Stringtown Road, Clarksburg

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Michael Kyne at 301.563.3403 or michael.kyne@montgomeryplanning.org to schedule a follow-up site visit.



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING

MD 355 - CLARKSBURG SHARED USE PATH

STA. 495+29 TO STA. 531+37 C. I. P. PROJECT NO. 501744

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	REQ'D	NOT REQ'D	PERMIT NO.	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			
DPS Roadside Trees Protection Plan	X			APPROVAL DATE	
N.P.D.E.S.	X				DATE FILED
FEMA LOMR (Required Post Construction)		X			
OTHERS:					
M-NCPCC - CONSTRUCTION	X				
MSHA ACCESS PERMIT	X				
DNR - ROADSIDE TREE PERMIT	X				

* A copy of the approved Roadside Trees Protection Plan must be delivered to the sediment control inspector at the preconstruction meeting.

RECEIVED
MARCH 20 2021
2:40:00 PM

DEPARTMENT OF TRANSPORTATION
10150 YORK ROAD, SUITE 200
HUNT VALLEY, MARYLAND 21034

March 20, 2021

TO: Mr. Mark J. Bodmann, P.E.
10150 York Road, Suite 200
Hunt Valley, Maryland 21034

FROM: Mr. Timothy H. Cupples, P.E.
100 Edison Park Drive, 4th Floor
Gaithersburg, MD 20878

RE: PRELIMINARY AND FINAL WATER QUALITY PLANNING DEVELOPMENT ATIONWAY MANAGEMENT PLAN FOR MD 355 SHARED USE PATH, CLARKSBURG, MONTGOMERY COUNTY, MARYLAND.

Dear Mr. Mark:

Based on a review by the Department of Permitting Services Review Staff, the Preliminary Final Water Quality Plan for the above project is acceptable. The Water Quality Plan proposed to meet required stormwater management goals via more detention and runoff improvements for the 30' and 60' sections on the west side of the MD 355 and MD 121 intersection. This approval is for the purposes of the Water Quality Plan of Action (WQPA) and does not constitute an approval of the project or its construction.

The following items will need to be addressed during the detailed and final sedimentation management plan stage:

1. A detailed plan of the stormwater management components will need to be developed.
2. Maximize the number of wetlands in the proposed stormwater detention to provide as much treatment (30:1:1) as possible.
3. Provide no release of the wetlands responsibility to the proposed detention structure.

This approval is not an indication of any change based on available information for the WQPA. Please contact the staff for any questions regarding this approval. Please refer to the WQPA for details.

This approval is based on all information provided in the preliminary final water quality plan. The approval is based on the information provided in the preliminary final water quality plan. Any changes to the information provided in the preliminary final water quality plan may require a revision to the approval. Please refer to the WQPA for details.

DPS
100 Edson Park Drive, 4th Floor
Gaithersburg, Maryland 20878
(301) 771-6111
www.montgomerycountymd.gov/dps

Checked by: Mark J. Bodmann, P.E.
March 20, 2021
Page 2

Handwritten signature: Mark J. Bodmann, Manager, Traffic Services Division, Division of Land Development Services.

146,909 146,909

55 110

LIMIT OF WORK
C.I.P. PROJECT NO. 501744
MD 355 (FREDERICK ROAD)
STA. 531+37

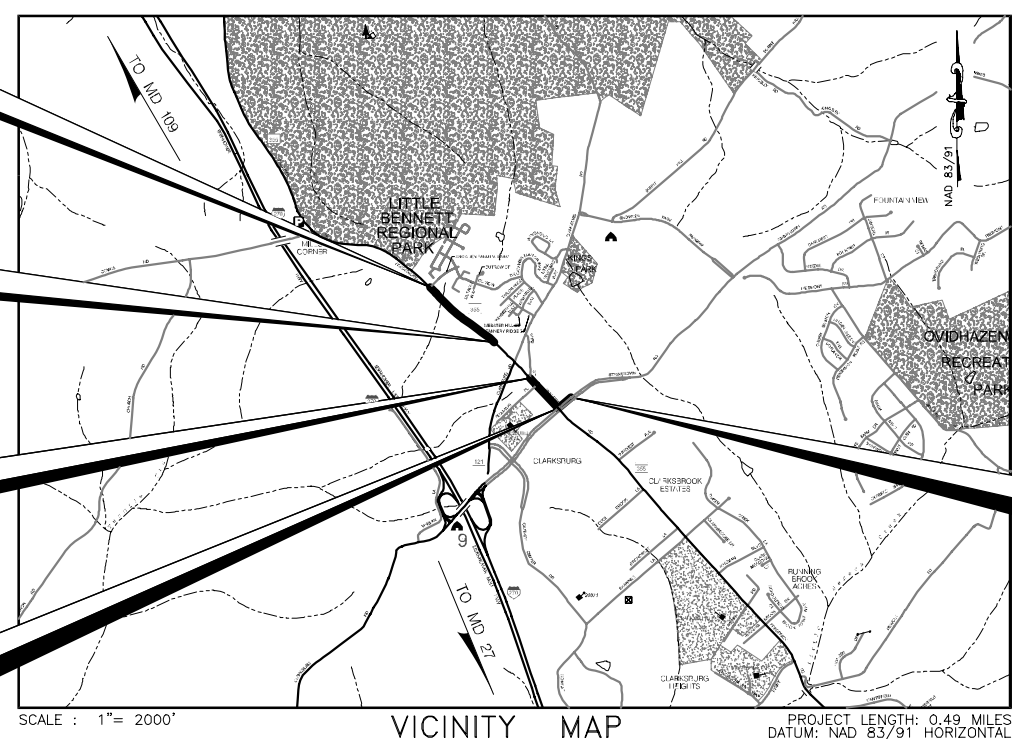
LIMIT OF WORK
C.I.P. PROJECT NO. 501744
MD 355 (FREDERICK ROAD)
STA. 515+21

LIMIT OF WORK
C.I.P. PROJECT NO. 508000
CLARKSBURG ROAD
STA. 515+21

LIMIT OF WORK
C.I.P. PROJECT NO. 501744
MD 355 (FREDERICK ROAD)
STA. 503+64

LIMIT OF WORK
C.I.P. PROJECT NO. 508000
CLARKSBURG ROAD
STA. 503+64

LIMIT OF WORK
C.I.P. PROJECT NO. 501744
MD 355 (FREDERICK ROAD)
SHARED USE PATH
STA. 495+29



LIMIT OF WORK
C.I.P. PROJECT NO. 501744
STRINGTOWN ROAD
STA. 703+11

REVIEWED
By Michael Kyne at 3:28 pm, Jan 15, 2021

APPROVED
Montgomery County
Historic Preservation Commission

Sandra J. Heiler

CERTIFICATION OF QUANTITIES
I HEREBY CERTIFY THAT THE ESTIMATED TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE 7305 CUBIC YARDS OF EXCAVATION AND 400 CUBIC YARDS OF FILL AND THAT THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE XXXX SQUARE FEET.

OWNER'S / DEVELOPER'S CERTIFICATION
I/WE 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 AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

DATE: _____
TIMOTHY H. CUPPLES, 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 OF AND TRANSPORTATION "DRAINAGE DESIGN" DATED NOVEMBER, 2013 (REV. JUNE 10, 2014) REGULATIONS 5-90., 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT

DATE: _____
GLENN MARSCHKE, P.E.
SENIOR ASSOCIATE, WALLACE MONTGOMERY

PLAN LOCATION OF SOIL BORING
SOIL BORING LOG SUMMARY SHEETS ARE INCLUDED IN THE INVITATION FOR BIDS BOOK.

ATTENTION
THIS SITE IS WITHIN THE ENVIRONMENTALLY SENSITIVE CLARKSBURG 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 LEO GALANKO AT 240-777-6242 AND THE MCDPS STAFF MEMBERS WILL ASSIST YOU IN DEVELOPING A SOLUTION BEFORE STREAM IMPACTS OCCUR. REMEMBER THAT THE FIELD IS A SPECIAL PROTECTION AREA (WITH YOU CALL) "LET'S WORK TOGETHER TO KEEP IT CLEAN" ACKNOWLEDGED: TIMOTHY H. CUPPLES, P.E. OWNER/DEVELOPER

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. 31487, EXPIRATION DATE: 03/18/2021

MARK J. BODMANN, P.E. DATE: _____

DATE: _____
GLENN MARSCHKE, P.E.
SENIOR ASSOCIATE, WALLACE MONTGOMERY

MONTGOMERY COUNTY DOT MAINTENANCE CERTIFICATION
I HEREBY CERTIFY THAT THE DEPARTMENT OF TRANSPORTATION WILL ASSUME MAINTENANCE RESPONSIBILITIES FOR ALL STORMWATER MANAGEMENT FACILITIES AS LISTED AND SHOWN, HEREON, IN ACCORDANCE WITH THE MEMORANDUM OF UNDERSTANDING BETWEEN THIS DEPARTMENT AND THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DATED SEPTEMBER 1, 1986. IF, FOR ANY REASON, FUTURE IMPROVEMENTS TO THE ROADWAY ARE PLANNED THAT WOULD IMPACT ANY OF THE STORMWATER MANAGEMENT FACILITIES INCLUDED HEREIN, THIS DEPARTMENT WILL NOTIFY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DURING THE PLANNING OR EARLY DESIGN STAGE OF SUCH IMPROVEMENTS.

DATE: _____
TIMOTHY H. CUPPLES, P.E.
CHIEF, DIVISION OF TRANSPORTATION ENGINEERING

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE, 4TH FLOOR
GAIHERSBURG, MD 20878

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED: _____ Date: _____

Chief, Division of Engineering Services
APPROVED: _____ Date: _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

TITLE SHEET
MD 355 - CLARKSBURG
SHARED USE PATH

SCALE: NO SCALE 08/2020

Project No.: C.I.P. PR. # 501744 SHEET 01 of 88



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FOR ALL CONSTRUCTION WITHIN THE STATE OF MD RIGHT-OF-WAY THE CONTRACTOR SHALL REFER TO THE SHA BOOK OF STANDARDS WHICH CAN BE ACCESSED AT:
[HTTP://APPS.ROADS.MARYLAND.GOV/BUSINESSWITHSHA/BIZSTDSPESCS/DESMANUALSTDPUB/PUBLICATIONSONLINE/OHD/BOOKSTD/INDEX/ASP](http://APPS.ROADS.MARYLAND.GOV/BUSINESSWITHSHA/BIZSTDSPESCS/DESMANUALSTDPUB/PUBLICATIONSONLINE/OHD/BOOKSTD/INDEX/ASP).


THE FOLLOWING LIST OF STANDARDS SHALL BE USED WITHIN THIS PROJECT:
 STD. NO.

MD 362.01	STANDARD TYPE H ENDWALL METAL OR CONCRETE ROUND PIPE
MD 368.01	STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE
MD 374.51	PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COG INLETS 5', 10', 15' & 20'
MD 374.55	PRECAST CONCRETE INLET SLABS AND ADJUSTMENT COLLARS FOR COG AND COS INLETS
MD 374.61	PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COS INLETS 5', 10', 15' & 20'
MD 374.68	PRECAST OR CAST-IN-PLACE COG/COS OPENING FOR 8" CURB 5' OR 10' ONLY
MD 378.03	STANDARD SINGLE OR DOUBLE OPENING TYPE K INLET OPEN-END GRATE NON-TRAFFIC AREAS
MD 383.00	48" SQUARE STANDARD SHALLOW MANHOLE
MD 578.01	REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES
MD 580.03	NEW COMBINATION CURB AND GUTTER PLACEMENT ALONG EXISTING PAVEMENT
MD 580.08	DRIVEWAYS AND BIKE PATHS PAVEMENT SECTIONS
MD 620.02	STANDARD TYPES A & B CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER
MD 620.03	DEPRESSED CURB FOR COMBINATION CURB AND GUTTER AND DEPRESSED CURB FOR SIDEWALK RAMPS
MD 630.02	STANDARD ENTRANCE CONSTRUCTION RESIDENTIAL & COMMERCIAL METHOD NO. 2
MD 635.01	MAILBOX PLACEMENT DETAILS
MD 655.11	SIDEWALK RAMPS PERPENDICULAR
MD 655.40	DETECTABLE WARNING SURFACES
MD 657.00	STANDARD STAIRWAYS
MC 811.01	METHODS OF GRADING SIDE SLOPES
SUP-FR(FN)-301	CHAIN LINK SAFETY FENCE-RETAINING WALLS AND BOX CULVERTS GENERAL NOTES
SUP-FR(FN)-302	TYPE III CHAIN LINK SAFETY FENCE-RETAINING WALLS AND BOX CULVERTS
REBAR-BL-101	BAR LAP DIMENSIONS FOR GRADE 60 REINFORCING STEEL IN MIX NO. 3 (3500 P.S.I.) CONCRETE
REBAR-DL-101	DEVELOPMENT LENGTH DIMENSIONS GRADE 60 REINFORCING STEEL IN MIX NO. 3 (3500 P.S.I.) CONCRETE
REBAR-BB-101	BAR BEND TYPES
REBAR-BB-102	REINFORCING STEEL HOOK TABLES AND DIAGRAMS
RW-301	RETAINING WALL AND WING WALL DRAINAGE SYSTEMS

NOTE: ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION.

UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

 MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE, 4TH FLOOR GAITHERSBURG, MD 20878	
RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Engineering Services	Date
Designed by : J.D.W.	Drawn by : J.D.W.
Checked by : S.R.R.	

PLAN SHEET INDX-01
 INDEX OF SHEETS
MD 355 - CLARKSBURG
SHARED USE PATH

SCALE : NO SCALE 08/2020
 Project No. : C.I.P. PR. # 501744 SHEET 02 of 88



WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10150 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410.494.9093 Tel / 410.667.0925 Fax
www.wallacemontgomery.com A United Utility Partner

GENERAL NOTES

- THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MARYLAND STATE HIGHWAY ADMINISTRATION DATED JULY 2019, 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 PUBLIC WORKS AND TRANSPORTATION STANDARDS, AND SOIL CONSERVATION SERVICE POND CONSTRUCTION SPECIFICATIONS FOR MARYLAND.
- FOR CONSTRUCTION, ALL HORIZONTAL CONTROL SHALL BE STATE HIGHWAY ADMINISTRATION NAD 83/91 AND VERTICAL CONTROL NAVD 88.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION 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 ON THIS PLAN OR SIX (6) INCHES, WHICHEVER IS LESS, THE CONTRACTOR SHALL CONTACT THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION'S PROJECT INSPECTOR AND THE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
- CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE. REPAIRS TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION, MUST BE MADE AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COST TO MONTGOMERY COUNTY BEFORE PROCEEDING WITH CONSTRUCTION.
- GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE IN BOTH TEMPORARY AND PERMANENT CONDITIONS.
- DISTURBED AREAS ADJACENT TO ESTABLISHED LAWNS SHALL BE SODDED. OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
- CLEARING TO BE LIMITED TO THE "LIMIT OF DISTURBANCE" AS SHOWN ON THE PLANS.
- 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 THE SUPERVISION OF W.S.S.C., CALL (301) 699-4420
- ALL STORM DRAINS SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE NOTED.
- ALL UTILITY POLES NOTED FOR RELOCATION SHALL BE PERFORMED BY OTHERS.
- 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 BEFORE STARTING A JOB. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES - MARYLAND FOREST, PARK AND WILDLIFE SERVICE WHOSE TELEPHONE NUMBER IS (301) 854-6060. THE PERMIT PROCESS TAKES SEVERAL DAYS. TAKE THIS INTO CONSIDERATION BEFORE STARTING A JOB.
- THE LOCATION OF RIGHT-OF-WAY AND EASEMENT LINES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS. PLEASE REFER TO THE APPROPRIATE RIGHT-OF-WAY PLAT FILES NO. 776 TO 781.
- CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD.
- REINFORCING STEEL DESIGN: (f_s=24,000 PSI)
- CONCRETE COMPRESSIVE STRENGTH FOR DESIGN SHALL BE f'_c=3000 psi. ALL CONCRETE SHALL BE MIX NO.2 f'_c=3000 psi UNLESS OTHERWISE NOTED.
- REINFORCING STEEL SHALL CONFORM TO "ASTM" A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER ACI 318 REQUIREMENTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED.
- WHEN THE DROP OF THE MAIN LINE THROUGH A STRUCTURE IS GREATER THAN THAT WHICH CAN BE ACCOMMODATED BY A SHAPED CHANNEL WITH THE INVERT ON A 1.5 FOOT HORIZONTAL TO 1 FOOT VERTICAL SLOPE, THE BOTTOM OF THE STRUCTURE SHALL BE LINED WITH GRANITE BLOCKS AT LEAST 4 INCHES THICK. NO SHAPED CHANNEL WILL BE REQUIRED FOR THIS TYPE OF CONSTRUCTION, BUT THE BOTTOM OF THE STRUCTURE SHALL SLOPE AT LEAST 1/2 INCH PER FOOT TOWARD THE INVERT OF THE OUTLET PIPE.
- FOR ADDITIONAL NOTES ON DRAINAGE STRUCTURES AND RETAINING WALLS SEE NOTES ELSEWHERE IN PLANS.
- WHERE CURB AND GUTTER ENDS ARE EXPOSED, PROVIDE A NOSE DOWN SECTION AT 3:1 SLOPE.
- DISTURBED AREAS TO BE PERMANENTLY GRASS SHALL RECEIVE 2" OF TOPSOIL.
- STORM DRAIN AND UTILITY INSTALLATION WITHIN SHA RIGHT-OF-WAY AND IN EXISTING PAVEMENT SHALL BE IN ACCORDANCE WITH MD 578.01. ALL COSTS ASSOCIATED WITH MEETING THE REQUIREMENTS OF MD 578.01 SHALL BE INCIDENTAL TO THE APPLICABLE UTILITIES AND STORM DRAIN ITEMS.
- SUBSURFACE INVESTIGATION RESULTS (TEST HOLES, SOIL BORINGS, ETC.) WILL BE MADE AVAILABLE TO THE CONTRACTOR.
- PROPOSED INLETS AND ASSOCIATED PIPE EXTENSIONS SHALL BE CONNECTED TO THE NEAREST SOUND JOINT OF THE EXISTING PIPE AND IN COMPLIANCE WITH THE CONCRETE COLLAR CONNECTION DETAIL SHOWN ON THE STORM DRAIN SCHEDULE SHEET. PIPE CONNECTIONS WHETHER NEW PIPES TO EXISTING PIPES, NEW INLETS TO EXISTING PIPES, OR NEW PIPES TO EXISTING INLETS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCIDENTAL TO PERTINENT STORM DRAIN ITEMS.
- NOTIFY MR. TONY GOODMAN (703) 750-4708 OF WASHINGTON GAS, FOR STAND BY, 48 HOURS PRIOR TO ANY EXCAVATION IN THE VICINITY OF NATURAL GAS TRANSMISSION LINES.
- ANY RELOCATION OF EXISTING NATURAL GAS TRANSMISSION LINES MAY ONLY BE ABLE TO BE PERFORMED DURING THE NON-HEATING SEASON, MAY THROUGH SEPTEMBER.

EXPLANATORY NOTES AND REFERENCES

SIGHT DISTANCES: STOPPING SITE DISTANCES FOR VERTICAL CREST CURVES ARE BASED ON A HEIGHT OF EYE OF 3.5' AND A HEIGHT OF OBJECT OF 2'-0".

PIPE CULVERTS: ALL PIPE LENGTHS AND LOCATIONS SHALL BE VERIFIED IN THE FIELD AND CHECKED BY THE ENGINEER BEFORE ORDERING.

INVERT ELEVATIONS: ALL INVERT ELEVATIONS HAVE BEEN CALCULATED WITH THE MOST RELIABLE DATA AVAILABLE. FIELD CHANGES WILL BE AT THE DIRECTION OF THE ENGINEER.

CONVENTIONAL SIGNS

PROPOSED MEDIAN BARRIER	
ELECTRICAL HAND BOX - SIGNALS	
EXISTING GROUND LINE	
PROPOSED TRAFFIC BARRIER	
EXISTING TRAFFIC BARRIER	
FENCE LINE	
EXISTING RIGHT OF WAY LINE	
PROPOSED RIGHT OF WAY LINE	
EASEMENT	
PROPERTY LINE	
EXISTING ROADWAY	
RAILROAD	
BASE OR SURVEY LINE	
FIRE HYDRANT	
PROPOSED CULVERT	
EXISTING CULVERT	
EXISTING DROP INLET	
UTILITY POLE	
EXISTING CURB & GUTTER	
WETLAND	
HEDGE	
WATER LINE	
SANITARY SEWER LINE	
GAS LINE	
SOIL BORING TARGET	SB-01
TEST PIT LOCATION	TH-01
EXISTING SANITARY MANHOLE	M.H.
EXISTING STORM DRAIN MANHOLE	M.H.
WATERS OF U.S. (AND ID NUMBERS)	WUS4
STORM DRAIN STRUCTURE IDENTIFICATION	

FIELD SURVEY NOTES

- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED BY WALLACE MONTGOMERY DECEMBER 19-21, 2016. SUPPLEMENTAL SURVEYS WERE PERFORMED JANUARY-MARCH 2017.
- GANNETT FLEMING TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED BY MERCADO CONSULTANTS APRIL 2017.
- TOPOGRAPHIC INFORMATION SHOWN ALONG THE NORTHBOUND SIDE OF MD355 FROM STA. 500+10+ TO STA 502+10+ IS FROM CONSTRUCTION DRAWINGS DATED SEPTEMBER 2015 FOR THE CLARKSBURG CONNECTOR PROJECT AND MAY NOT REPRESENT CURRENT EXISTING CONDITIONS. CONSTRUCTION DRAWINGS DATED SEPTEMBER 2015 FOR THE CLARKSBURG CONNECTOR PROJECT PROVIDED BY MCDOT.

ABBREVIATIONS

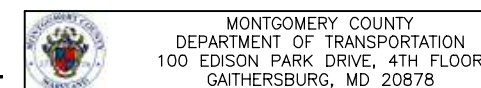
ABUT	-	ABUTMENT	P/C	-	POINT OF CROWN
ACCT. NO.	-	ACCOUNT NUMBER	P.C.	-	POINT OF CURVATURE
APPROX.	-	APPROXIMATE	P.C.C.	-	POINT OF COMPOUND CURVATURE
ASPH	-	ASPHALT SURFACE	P/GE	-	PROFILE GRADE ELEVATION
BK.	-	BACK	P.G.L.	-	PROFILE GRADE LINE
BL	-	BASELINE	P/GL	-	PROFILE GROUND LINE
BLVD	-	BOULEVARD	PIE	-	PUBLIC IMPROVEMENT EASEMENT
BRG.	-	BEARING, BORING	P.I.	-	POINT OF INTERSECTION
B.R.L.	-	BUILDING RESTRICTION LINE	PROP.	-	PROPOSED
CATV	-	CABLE TV	P.S.I.	-	POUNDS PER SQUARE INCH
CL	-	CENTERLINE	P.S.F.	-	POUNDS PER SQUARE FOOT
CONC.	-	CONCRETE	P.O.B.	-	POINT OF BEGINNING
CMP	-	CORRUGATED METAL PIPE	P.O.E.	-	POINT OF ENDING
CORR.	-	CORRECTION (V.C.)	P/R	-	POINT OF ROTATION
CSW	-	CONCRETE SIDEWALK	P.P.C.C.	-	PLAIN PORTLAND CEMENT CONCRETE
CSXT	-	CSX RAILROAD	P.T.	-	POINT OF TANGENT
C.Y.	-	CUBIC YARDS	PUE	-	PUBLIC UTILITY EASEMENT
Dc	-	DEGREE OF CURVE	P.V.C.	-	POINT OF VERTICAL CURVE
DELTA	-	CENTRAL ANGLE (CURVE DATA)	P.V.J.	-	POINT OF VERTICAL INTERSECTION
DEV	-	DEVELOPMENT	P.V.R.C.	-	POINT OF VERTICAL REVERSE CURVE
DIA.	-	DIAMETER	PVT.	-	PAVEMENT
DI	-	EXISTING DRAIN INLET	P.V.T.	-	POINT OF VERTICAL TANGENCY
E	-	EXTERNAL DISTANCE (CURVE DATA)	R	-	RADIUS (CURVE DATA)
EA.	-	EACH	R.C.P.	-	REINFORCED CONCRETE PIPE
E.B.R.	-	EAST BOUND ROADWAY	RT.	-	RIGHT
ELEV., EL	-	ELEVATION	R/W	-	RIGHT OF WAY
EX., EXIST.	-	EXISTING	S.B.R.	-	SOUTH BOUND ROADWAY
EXP.	-	EXPANSION	SDWK.	-	SIDEWALK
F.S.	-	FAR SIDE	SC	-	STORMCEPTOR
F/O	-	FIBER OPTIC	SD	-	STORM DRAIN
F.215	-	FOLIO	SF	-	SQUARE FEET
HI	-	HIGH POINT	SHA	-	STATE HIGHWAY ADMINISTRATION
INV.	-	INVERT	S.Y.	-	SQUARE YARDS
L	-	LENGTH OF CURVE (CURVE DATA)	SPP	-	STRUCTURAL PLATE PIPE
LBS	-	POUNDS	STA.	-	STATION
L.F.	-	LINEAR FEET	STD.	-	STANDARD
LO	-	LOW POINT	SSD	-	STOPPING SIGHT DISTANCE
LT.	-	LEFT	SMH	-	SANITARY MANHOLE
L.5660	-	LIBER	SWM	-	STORM WATER MANAGEMENT
MAX.	-	MAXIMUM	SW-I	-	STORM WATER MANAGEMENT BORING
MC	-	MONTGOMERY COUNTY	T	-	TANGENT (CURVE DATA)
MD	-	MARYLAND	TBD	-	TO BE DETERMINED
M.H., MH	-	MANHOLE	TC	-	TOP OF CURB
MIN.	-	MINIMUM	TRANS	-	TRANSFORMER
MOD.	-	MODIFIED	TRAV	-	TRAVERSE POINT
MSE	-	MECHANICAL STABILIZED EARTH	TYP.	-	TYPICAL
N.B.R.	-	NORTH BOUND ROADWAY	UG	-	UNDERGROUND
N.D.C.	-	NOSE DOWN CURB	UTIL.	-	UTILITY STRUCTURE
NO.	-	NUMBER	VC	-	VERTICAL CURVE
NORM.	-	NORMAL	W	-	WATER LINE
NRI	-	NATURAL RESOURCE INVENTORY	W.B.R.	-	WEST BOUND ROADWAY
FSD	-	FOREST STAND DELINEATION	W.P.	-	WORKING POINT
N.S.	-	NEAR SIDE			
NTS	-	NOT TO SCALE			



UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

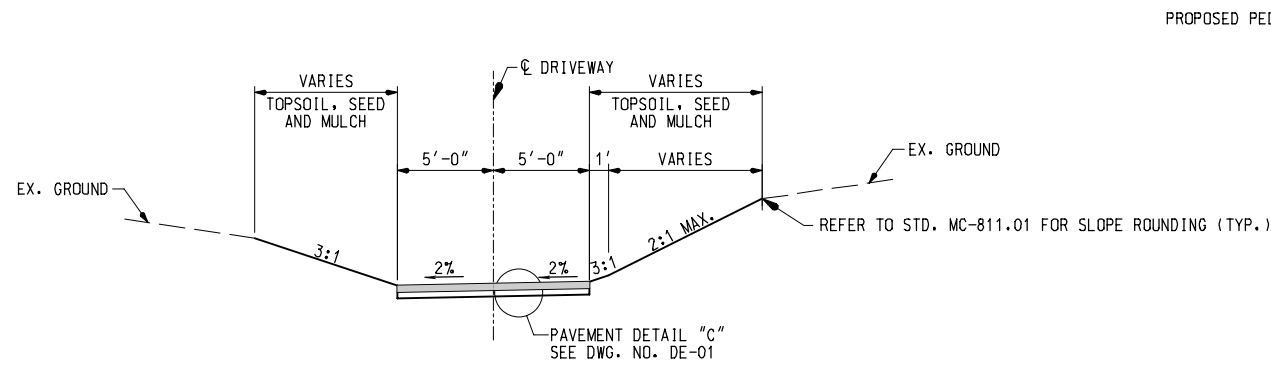
NO.	REVISION	DATE	BY



RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Engineering Services	Date
Designed by : J.D.W.	Drawn by : J.D.W. Checked by : S.R.R.

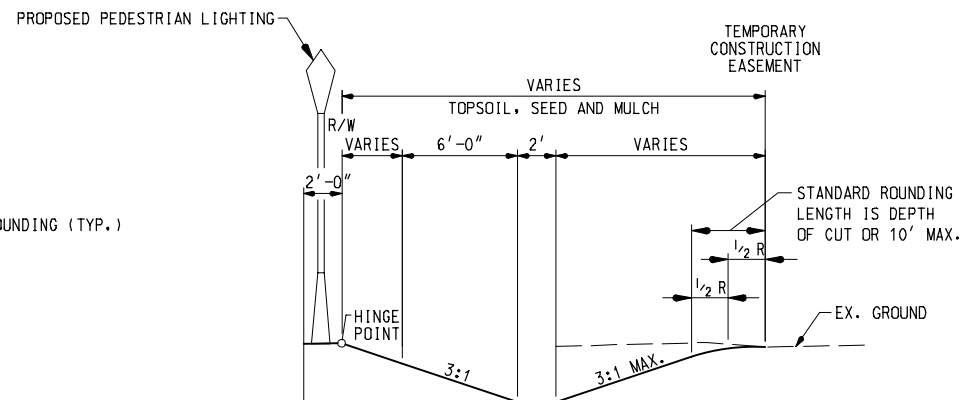
PLAN SHEET GN-01 GENERAL NOTES AND DEFINITIONS MD 355 - CLARKSBURG SHARED USE PATH

SCALE : NO SCALE 08/2020
Project No. : C.I.P., PR. # 501744 SHEET 03 of 88



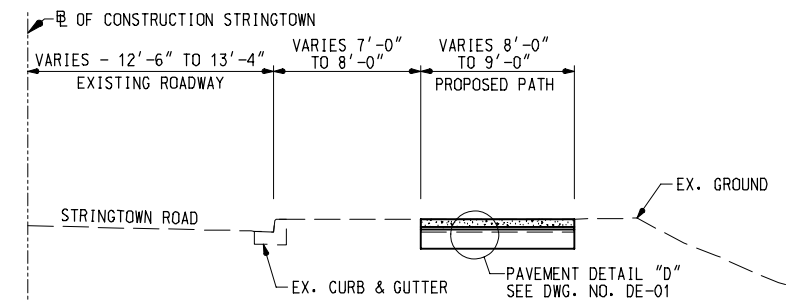
DRIVEWAY SECTION BEYOND STANDARD ENTRANCE LIMITS

STA. 523+92
NOT TO SCALE



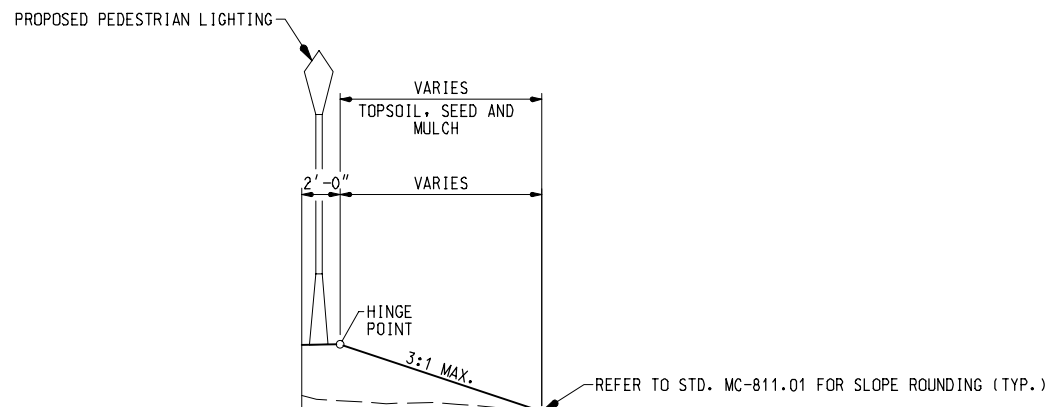
PROPOSED PEDESTRIAN LIGHTING

STA. 528+00 TO STA. 528+50
NOT TO SCALE



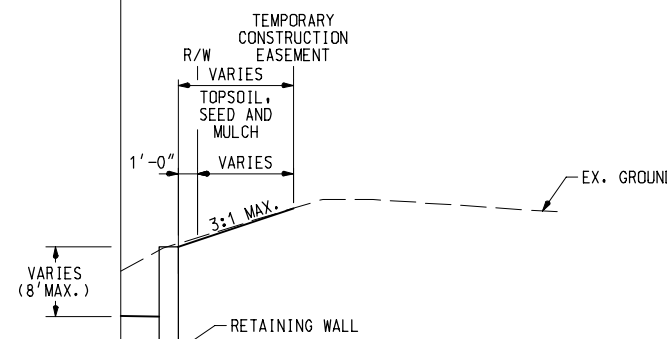
STRINGTOWN ROAD NORMAL SECTION

STA. 701+76 TO STA. 703+11
NOT TO SCALE



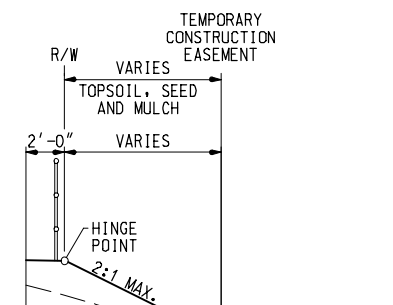
PROPOSED PEDESTRIAN LIGHTING

STA. 501+60 TO STA. 503+64
NOT TO SCALE



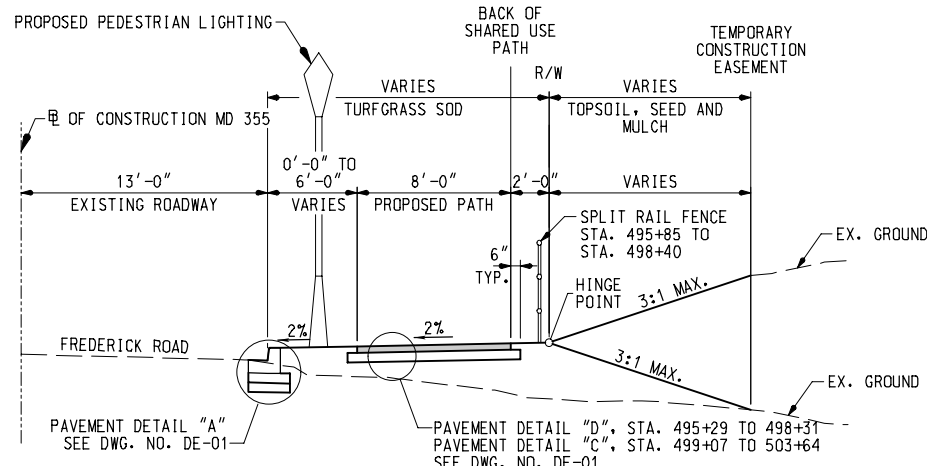
RETAINING WALL SECTION

STA. 522+89 TO STA. 523+80
NOT TO SCALE



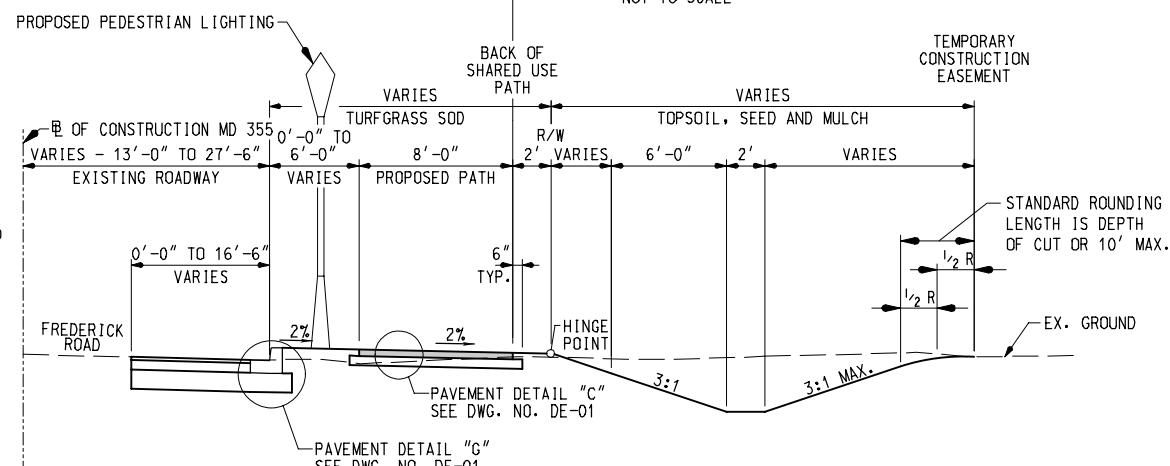
PINCH POINT SECTION

STA. 530+45 TO STA. 530+65
NOT TO SCALE



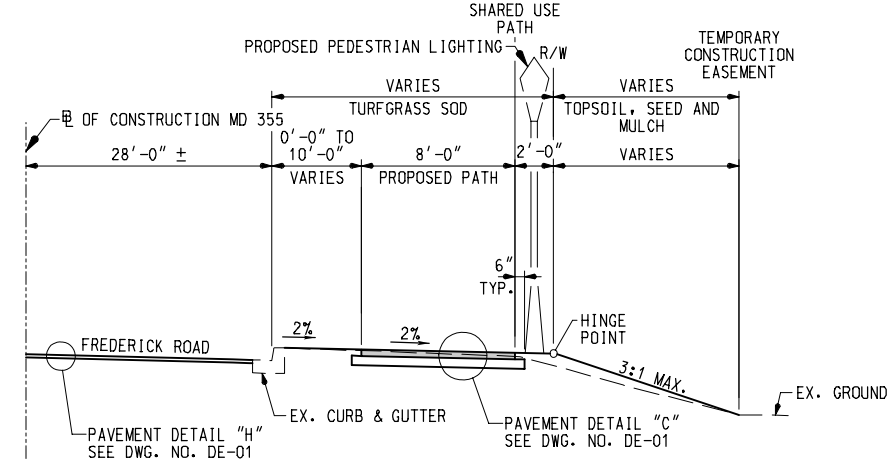
SOUTH OF CLARKSBURG ROAD NORMAL SECTION

STA. 495+29 TO STA. 503+64
NOT TO SCALE



NORTH OF CLARKSBURG ROAD NORMAL SECTION

PROPOSED CURB SECTION
STA. 515+00 TO STA. 528+50
NOT TO SCALE



NORTH OF CLARKSBURG ROAD NORMAL SECTION

EXISTING CURB SECTION
STA. 528+60 TO STA. 531+37
NOT TO SCALE



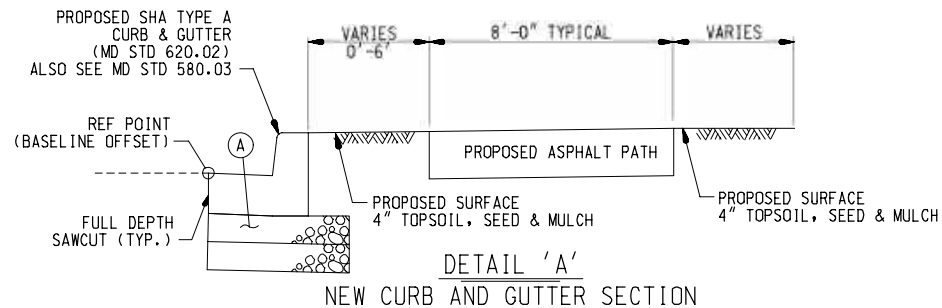
UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY

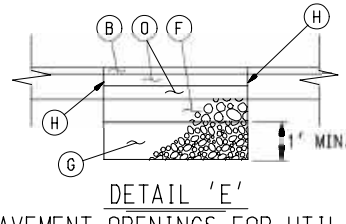
 MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE, 4TH FLOOR GAITHERSBURG, MD 20878	
RECOMMENDED FOR APPROVAL	Date
Chief, Design Section	
APPROVED	
Chief, Division of Engineering Services	Date
Designed by: J.D.W.	Drawn by: J.D.W.
Checked by: S.R.R.	

**PLAN SHEETS-01
TYPICAL SECTIONS
MD 355 - CLARKSBURG
SHARED USE PATH**

SCALE: N.T.S. 08/2020
Project No.: C.I.P., PR. # 501744 SHEET 04 of 88

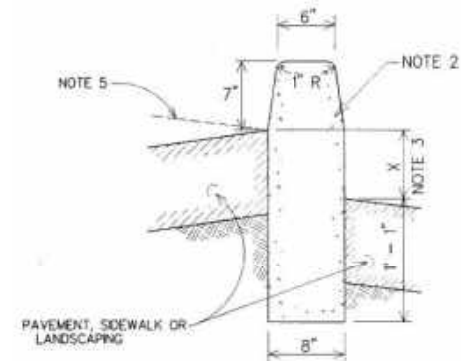


NOT TO SCALE
 (A) 12" BASE COURSE USING GRADED AGGREGATE (2-6" LIFTS)
 (INCIDENTAL TO C&G PAYMENT)



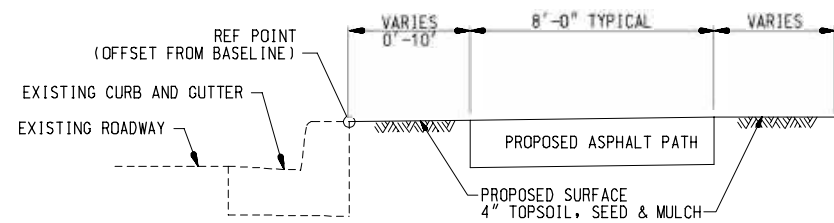
DETAIL 'E'
 REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES
 NOT TO SCALE

(B) 2.0" SUPERPAVE ASPHALT MIX 9.5mm SURFACE, PG 64S-22, L2
 (D) 4.0" SUPERPAVE ASPHALT MIX 19.0mm BASE, PG 64S-22, L2
 (F) 6.0" GRADED AGGREGATE BASE COURSE
 (G) NO. 57 AGGREGATE
 (H) FULL DEPTH SAWCUT (TYP.)

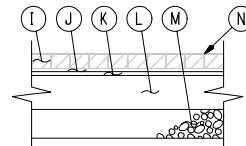


NOTE 5
 NOTE 2
 NOTE 3
 1. CURB & GUTTER TO BE USED WHERE STORM WATER WILL COLLECT AT FACE OF CURB EXCEPT AS DIRECTED BY THE ENGINEER.
 2. MIX #2 OR MIX #6 CONCRETE AS DIRECTED ON PLANS.
 3. SPECIAL DESIGN AS RETAINING WALL WHERE THIS DIMENSION EXCEEDS 18 INCHES. THIS BARRIER IS FOR USE ONLY IN OFF-STREET AREAS WHERE VEHICLE SPEEDS ARE MINIMAL.

BARRIER CURB DETAIL
 NOT TO SCALE

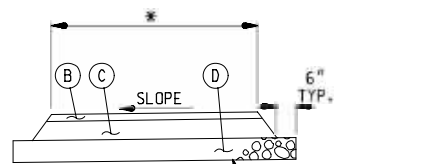


DETAIL 'B'
 EXISTING CURBED SECTION
 NOT TO SCALE

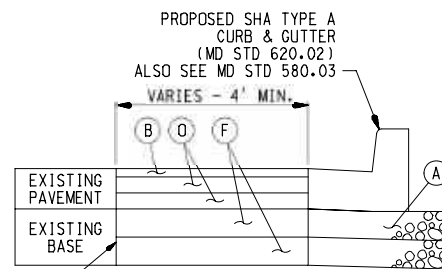


DETAIL 'F'
 BRICK DRIVEWAY FOR ENTRANCE AT STA. 498+69
 NOT TO SCALE

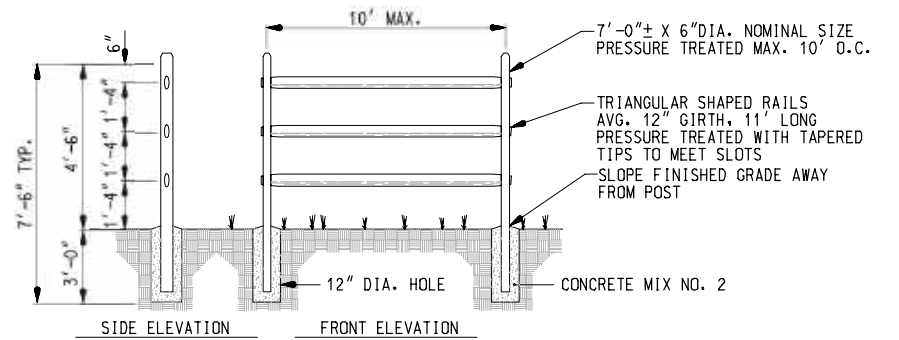
(I) 4"x8"x2 1/4" MIN. BRICK PAVERS WITH HAND TIGHT JOINTS AND 3:1 SAND CEMENT SWEEP
 (J) ADHESIVE COAT - NEOPRENE MODIFIED ASPHALT PRIMECOAT - LOW VISCOSITY LIQUID ASPHALT
 (K) 3/4" BITUMINOUS SETTING BED (ADJUST THICKNESS IF PAVEMENT THICKNESS VARIES)
 (L) 7" POURED CONCRETE BASE, 3500 PSI, 6"x6"x2.1x2.1 WELDED WIRE CONTINUOUS WITHIN SLAB
 (M) 6.0" DENSE GRADED AGGREGATE BASE COURSE
 (N) FINISH GRADE OF PAVEMENT



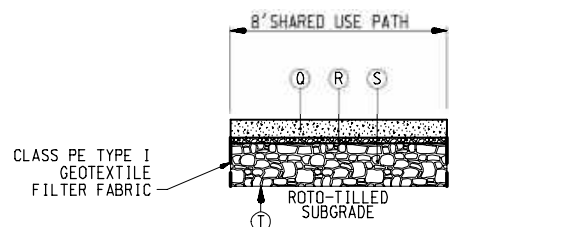
DETAIL 'C'
 NEW PROPOSED ASPHALT PATH
 NOT TO SCALE
 (B) 2.0" SUPERPAVE ASPHALT MIX 9.5mm SURFACE, PG 64S-22, L2
 (C) 3.0" SUPERPAVE ASPHALT MIX 19.0mm BASE, PG 64S-22, L2
 (D) 4.0" GRADED AGGREGATE BASE COURSE
 * 8'-0" FOR SHARED USE PATH, 10'-0" AND VARIES FOR DRIVEWAYS



DETAIL 'G'
 SHA TYPICAL PAVEMENT
 NOT TO SCALE
 (A) 12" BASE COURSE USING GRADED AGGREGATE (2-6" LIFTS)
 (INCIDENTAL TO C&G PAYMENT)
 (B) 2.0" SUPERPAVE ASPHALT MIX 9.5mm SURFACE, PG 64S-22, L2
 (D) 4.0" SUPERPAVE ASPHALT MIX 19.0mm BASE, PG 64S-22, L2
 (F) 6.0" GRADED AGGREGATE BASE COURSE
 (H) FULL DEPTH SAWCUT (TYP.)

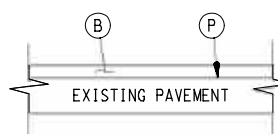


SPLIT RAIL FENCE DETAIL
 NOT TO SCALE



DETAIL 'D'
 PERMEABLE PAVEMENT - SHARED USE PATH
 NOT TO SCALE

(Q) 5.0" PERVIOUS CONCRETE SIDEWALK
 (R) 1.5" AASHTO NO. 8 CHOKER STONE COURSE
 (S) 12.0" WASHED AASHTO NO. 2 AGGREGATE RESERVOIR
 (T) LIMITS OF EXCAVATION (NO GEOTEXTILE)
 ROTO-TILL SUBGRADE PRIOR TO INSTALLATION



DETAIL 'H'
 SHA FINE MILLING AND OVERLAY
 NOT TO SCALE
 (B) 2.0" SUPERPAVE ASPHALT MIX 9.5mm
 (P) TOP OF EXISTING PAVEMENT AFTER 2.0" FINE MILLING

PERVIOUS CONCRETE SIDEWALK NOTES:

- CONTRACTOR SHALL INSTALL PERVIOUS CONCRETE SIDEWALK PER SPECIFICATIONS.
- REFER TO SECTION 902 OF MDT SHA STANDARD SPECIFICATIONS, JULY 2019 OR LATEST VERSION, FOR PERVIOUS CONCRETE.
- SUBGRADE MUST BE LEVEL. ROTO-TILL SUBGRADE PRIOR TO INSTALLATION. INSTALL STEPS AS NEEDED TO MAINTAIN MINIMUM 6 INCHES OF AGGREGATE.
- CONSTRUCTION SPECIFICATIONS SHALL MEET MDE STORMWATER DESIGN MANUAL APPENDIX B-4.

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section
 APPROVED _____ Date _____

Chief, Division of Engineering Services
 _____ Date _____

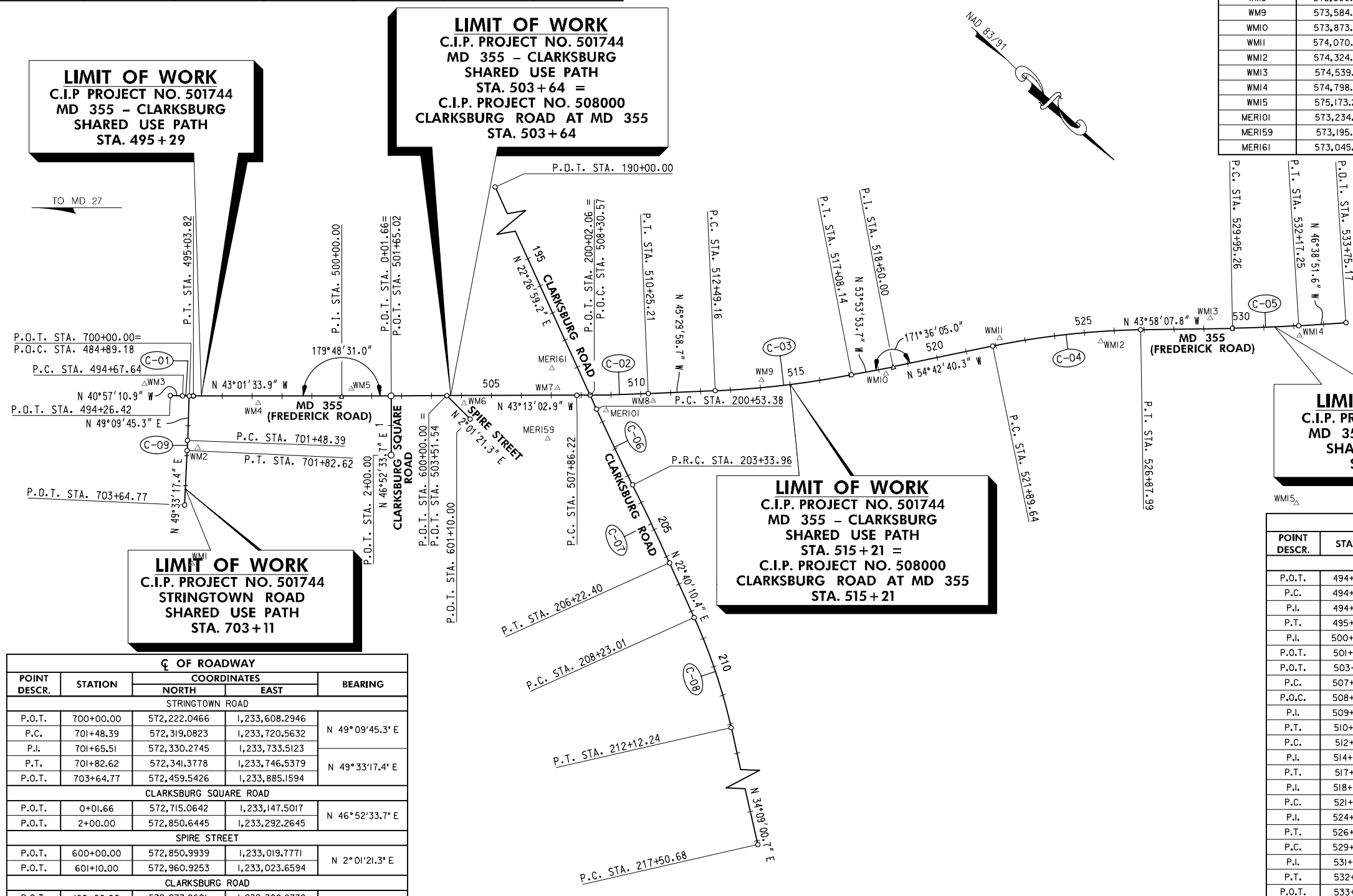
Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET DE-01
 PAVEMENT DETAILS
 MD 355 - CLARKSBURG
 SHARED USE PATH

SCALE: NOT TO SCALE 08/2020
 Project No.: C.I.P. PR. # 501744 SHEET 05 of 88

CURVE DATA								
CURVE	BASILINE	DELTA	Dc	RADIUS	TANGENT	LENGTH	CHORD	EXTERNAL
C-01	MD 355 (FREDERICK ROAD)	2°04'23.0" LT.	5°43'55.1"	1,000.00'	18.09'	36.18'	36.18'	0.16'
C-02	MD 355 (FREDERICK ROAD)	2°16'55.8" LT.	0°57'17.8"	6,000.00'	119.51'	238.99'	238.97'	1.19'
C-03	MD 355 (FREDERICK ROAD)	8°23'55.0" LT.	1°49'47.7"	3,131.21'	229.90'	458.98'	458.57'	8.43'
C-04	MD 355 (FREDERICK ROAD)	10°44'32.5" RT.	2°09'20.6"	2,658.00'	249.91'	498.35'	497.62'	11.72'
C-05	MD 355 (FREDERICK ROAD)	2°40'43.8" LT.	1°12'24.3"	4,748.00'	111.02'	221.99'	221.97'	1.30'
C-06	CLARKSBURG ROAD	1°50'45.7" LT.	0°39'28.6"	140.30'	8.708.41'	280.58'	280.57'	1.13'
C-07	CLARKSBURG ROAD	2°03'56.9" RT.	0°42'58.3"	8,000.00'	144.24'	288.44'	288.43'	1.30'
C-08	CLARKSBURG ROAD	11°28'50.3" RT.	2°56'58.6"	1,942.49'	195.27'	389.23'	388.58'	9.79'
C-09	STRINGTOWN ROAD	0°23'32.1" RT.	1°08'45.3"	5,000.00'	17.12'	34.23'	34.23'	0.03'

POINT NO.	COORDINATES		ELEVATION	DESCRIPTION
	NORTH	EAST		
WMI	572,612.1750	1,234,012.7190	647.365	REBAR & CAP
WM2	572,360.6198	1,233,715.0813	656.216	REBAR & CAP
WM3	572,085.4874	1,233,681.0420	669.500	REBAR & CAP
WM4	572,406.9292	1,233,468.6510	655.793	REBAR & CAP
WM5	572,601.9950	1,233,221.1993	663.426	REBAR & CAP
WM6	572,910.5108	1,232,999.3619	656.127	REBAR & CAP
WM7	573,103.5557	1,232,748.6685	640.521	REBAR & CAP
WM8	573,366.8426	1,232,561.8287	647.495	REBAR & CAP
WM9	573,584.3873	1,232,263.7441	666.701	REBAR & CAP
WM10	573,873.8993	1,231,964.4479	652.919	MAG NAIL
WM11	574,070.6373	1,231,618.4007	658.264	REBAR & CAP
WM12	574,324.7651	1,231,395.1291	642.679	REBAR & CAP
WM13	574,539.8173	1,231,088.9347	626.893	REBAR & CAP
WM14	574,798.7957	1,230,928.3124	636.191	REBAR & CAP
WM15	575,173.2046	1,231,345.2351	657.911	REBAR & CAP
MER101	573,234.1295	1,232,692.8439	640.58	
MER159	573,195.9319	1,232,895.0696	651.80	
MER161	573,045.9194	1,232,713.7816	635.25	



☐ OF ROADWAY				
POINT DESCR.	STATION	COORDINATES		BEARING
		NORTH	EAST	
STRINGTOWN ROAD				
P.O.T.	700+00.00	572,222.0466	1,233,608.2946	
P.C.	701+48.39	572,319.0823	1,233,720.5632	N 49°09'45.3" E
P.I.	701+65.51	572,330.2745	1,233,733.5123	
P.T.	701+82.62	572,341.3778	1,233,746.5379	N 49°33'17.4" E
P.O.T.	703+64.77	572,459.5426	1,233,885.1594	
CLARKSBURG SQUARE ROAD				
P.O.T.	0+01.66	572,715.0642	1,233,147.5017	N 46°52'33.7" E
P.O.T.	2+00.00	572,850.6445	1,233,292.2645	
SPIRE STREET				
P.O.T.	600+00.00	572,850.9939	1,233,019.7771	N 2°01'21.3" E
P.O.T.	601+10.00	572,960.9253	1,233,023.6594	
CLARKSBURG ROAD				
P.O.T.	190+00.00	572,273.8601	1,232,308.9732	
P.O.T.	200+02.06	573,199.9788	1,232,691.6332	N 22°26'59.2" E
P.C.	200+53.38	573,247.4110	1,232,711.2315	
P.I.	201+93.68	573,377.0795	1,232,764.8088	
P.R.C.	203+33.96	573,508.4065	1,232,814.8112	N 20°36'13.5" E
P.I.	204+78.20	573,643.4176	1,232,864.9386	
P.T.	206+22.40	573,776.5112	1,232,920.5298	N 22°40'10.4" E
P.C.	208+23.01	573,961.6211	1,232,997.8474	
P.I.	210+18.28	574,141.8028	1,233,073.1066	
P.T.	212+12.24	574,303.4002	1,233,182.7229	N 34°09'00.7" E
P.C.	217+50.68	573,748.9952	1,233,484.9832	

POINT DESCR.	STATION	COORDINATES		BEARING
		NORTH	EAST	
MD 355 (FREDERICK ROAD)				
P.O.T.	494+26.42	572,174.0566	1,233,650.2792	
P.C.	494+67.64	572,205.1882	1,233,623.2616	N 40°57'10.9" W
P.I.	494+85.73	572,218.8527	1,233,611.4029	
P.T.	495+03.82	572,232.0793	1,233,599.0577	N 43°01'33.9" W
P.I.	500+00.00	572,594.8068	1,233,260.4999	
P.O.T.	501+65.02	572,715.0642	1,233,147.5017	
P.O.T.	503+51.54	572,850.9939	1,233,019.7771	N 43°13'02.9" W
P.C.	507+86.22	573,167.7764	1,232,722.1166	
P.O.C.	508+30.57	573,199.9788	1,232,691.6332	
P.I.	509+05.73	573,254.8699	1,232,640.2803	
P.T.	510+25.21	573,338.6356	1,232,555.0408	N 45°29'58.7" W
P.C.	512+49.16	573,495.6056	1,232,395.3090	
P.I.	514+79.06	573,656.7479	1,232,231.3315	
P.T.	517+08.14	573,792.2117	1,232,045.5762	N 53°53'53.7" W
P.I.	518+50.00	573,875.7952	1,231,930.9620	
P.C.	521+89.64	574,072.0056	1,231,653.7294	N 54°42'40.3" W
P.I.	524+39.55	574,216.3760	1,231,449.7432	
P.T.	526+87.99	574,396.2380	1,231,276.2415	N 43°58'07.8" W
P.C.	529+95.26	574,617.3863	1,231,062.9135	
P.I.	531+06.28	574,697.2867	1,230,985.8387	
P.T.	532+17.25	574,773.4974	1,230,905.1137	N 46°38'51.6" W
P.O.T.	533+75.17	574,881.9025	1,230,790.2873	

200 0 200 400
SCALE: 1" = 200'

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

**PLAN SHEET GS-01
GEOMETRY LAYOUT
MD 355 - CLARKSBURG
SHARED USE PATH**

SCALE: 1" = 200'

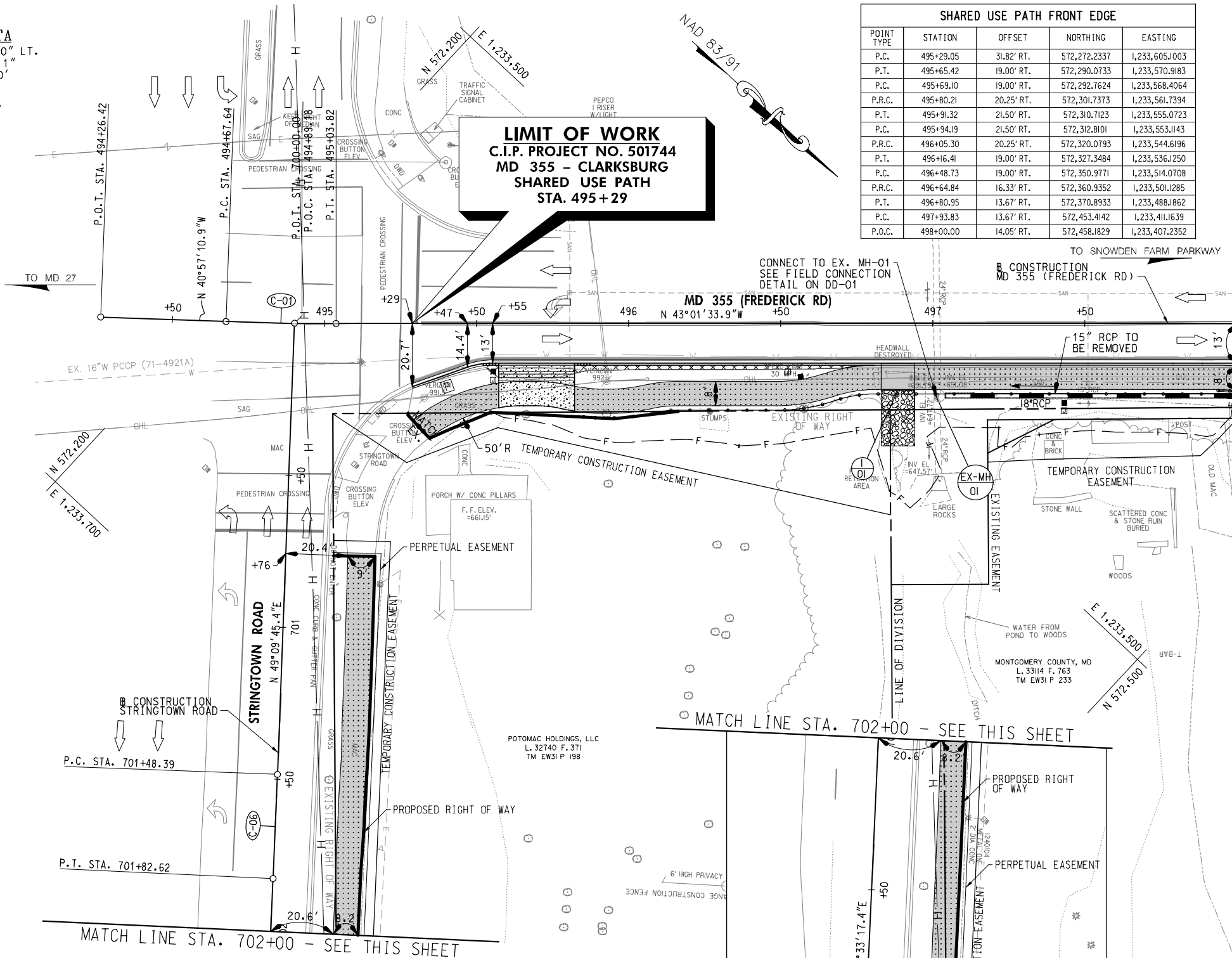
Project No.: C.I.P. PR. # 501744 SHEET 07 of 88

08/2020

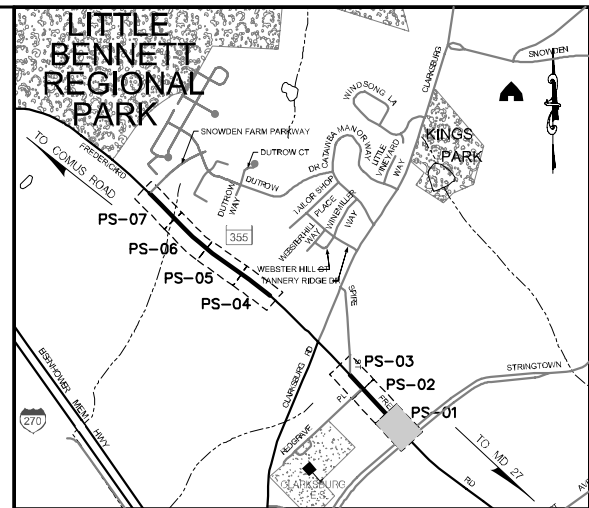
WALLACE MONTGOMERY
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10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.8093 Tel / 410.667.0925 Fax
www.WallaceMontgomery.com A Limited Liability Partnership

Plotter: 9/24/2020
FILE: M:\PROJ\214013.0010\Highwaya\Cadd\p08-P01_MD355.dgn

C-01
CURVE DATA
 DELTA = 2°04'23.0" LT.
 Dc = 5°43'55.1"
 R = 1,000.00'
 L = 36.18'
 T = 18.09'
 CH = 36.18'
 E = 0.16'



POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.C.	495+29.05	31.82' RT.	572,272.2337	1,233,605.1003
P.T.	495+65.42	19.00' RT.	572,290.0733	1,233,570.9183
P.C.	495+69.10	19.00' RT.	572,292.7624	1,233,568.4064
P.R.C.	495+80.21	20.25' RT.	572,301.7373	1,233,561.7394
P.T.	495+91.32	21.50' RT.	572,310.7123	1,233,555.0723
P.C.	495+94.19	21.50' RT.	572,312.8101	1,233,553.1143
P.R.C.	496+05.30	20.25' RT.	572,320.0793	1,233,544.6196
P.T.	496+16.41	19.00' RT.	572,327.3484	1,233,536.1250
P.C.	496+48.73	19.00' RT.	572,350.9771	1,233,514.0708
P.R.C.	496+64.84	16.33' RT.	572,360.9352	1,233,501.1285
P.T.	496+80.95	13.67' RT.	572,370.8933	1,233,488.1862
P.C.	497+93.83	13.67' RT.	572,453.4142	1,233,411.1639
P.O.C.	498+00.00	14.05' RT.	572,458.1829	1,233,407.2352



LOCATION MAP
 SCALE 1"=1000'

- STANDARD TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)**
 272 L.F. MD 355 (FREDERICK ROAD) - STA. 495+29 TO STA. 498+00, RT.
- SPLIT RAIL FENCE**
 216 L.F. MD 355 (FREDERICK ROAD) - STA. 495+85 TO STA. 498+00, RT.
- REMOVAL OF EXISTING PAVEMENT**
 1 C.Y. MD 355 (FREDERICK ROAD) - STA. 495+53 TO STA. 495+57, RT.
 5 C.Y. MD 355 (FREDERICK ROAD) - STA. 495+82 TO STA. 496+81, RT.
- REMOVAL OF EXISTING MASONRY**
 1 C.Y. MD 355 (FREDERICK ROAD) - STA. 496+90, RT. (EXISTING HEADWALL)
- CLASS I RIPRAP FOR SLOPE AND CHANNEL PROTECTION**
 22 S.Y. MD 355 (FREDERICK ROAD) - STA. 496+89, RT.
- BARRIER CURB (SEE DWG. NO. TS-01)**
 6 L.F. MD 355 (FREDERICK ROAD) - STA. 497+94 TO STA. 498+00, RT.
- 8 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX NO. 9 (MD 630.02)**
 38 S.Y. MD 355 (FREDERICK ROAD) - STA. 495+57 TO STA. 495+82, RT.

- NOTES:**
- ALL CONSTRUCTION WITHIN THE SHA RIGHT OF WAY SHALL CONFORM TO SHA STANDARD CERTIFICATIONS AND DETAILS FOR CONSTRUCTION AND MATERIALS.
 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADII FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS, AND ARE NOT PART OF THIS CONTRACT.

LEGEND

	SHARED USE PATH		SPLIT RAIL FENCE
	PERMEABLE PAVEMENT		TRAFFIC BARRIER
	FULL DEPTH PAVEMENT		CLARKSBURG HISTORIC DISTRICT BOUNDARY
	GRINDING & ASPHALT RESURFACING		PEDESTRIAN LIGHT POLE AND JUNCTION BOX
	CONCRETE DRIVEWAY		BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTOCELL
	PAVEMENT REMOVAL		STORM DRAIN SYMBOLS
	RIPRAP		PIPE INLET
	TOP OF CUT		END SECTION
	TOE OF FILL		STD. MANHOLE
	WETLAND		ENDWALL
	WETLAND BUFFER		
	WATERS OF THE US		
	CONSTRUCTION		

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 www.wallacemontgomery.com

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
 APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET PS-01
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 495+29 TO STA. 498+00
 SCALE 1"=20' 08/2020

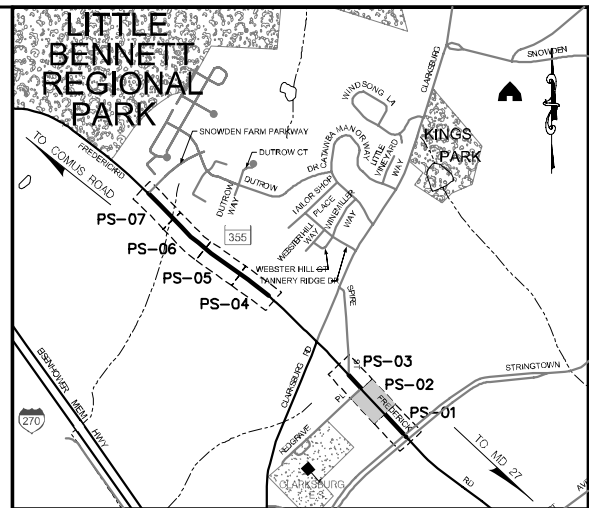
Project No.: C.I.P. PR. # 501744 SHEET 08 of 88

LETTER: 9/22/2020
 FILE: M:\603\174013\0010\Highway\Code\pHD-P001_MD355.dgn

CLARKSBURG TAVERN'S ENTRANCE WORKING POINTS				
CONTROL POINT	STATION	NORTHING	EASTING	OFFSET
1	498+33.76	572,482.1489	1,233,383.4319	13.00' RT.
2	498+58.76	572,517.4833	1,233,384.6497	38.00' RT.
3	498+58.76	572,523.6301	1,233,391.2354	47.01' RT.
4	498+78.76	572,540.0332	1,233,379.4982	49.62' RT.
5	498+78.76	572,532.1042	1,233,371.0031	38.00' RT.
6	499+03.76	572,533.3220	1,233,335.6687	13.00' RT.

SHARED USE PATH FRONT EDGE				
POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.O.C.	498+00.00	14.05' RT.	572,458.1829	1,233,407.2352
P.R.C.	498+11.34	16.83' RT.	572,468.3765	1,233,401.5304
P.T.	498+28.86	20.00' RT.	572,483.3384	1,233,391.8970
P.C.	498+32.22	20.00' RT.	572,485.7967	1,233,389.6026
P.T.	498+38.83	19.56' RT.	572,490.3283	1,233,384.7730
P.C.	498+39.75	19.44' RT.	572,490.9178	1,233,384.0548
P.T.	498+45.51	19.01' RT.	572,494.8371	1,233,379.8064
P.O.T.	498+93.82	18.00' RT.	572,529.4680	1,233,346.1054
P.C.	499+31.82	18.00' RT.	572,557.2429	1,233,320.1813
P.R.C.	499+45.46	15.83' RT.	572,565.7339	1,233,309.2923
P.T.	499+59.09	13.67' RT.	572,574.2249	1,233,298.4033
P.C.	499+62.79	13.67' RT.	572,576.9285	1,233,295.8798
P.R.C.	499.76.43	15.83' RT.	572,588.3762	1,233,288.1587
P.T.	499+90.06	18.00' RT.	572,599.8239	1,233,280.4376
P.I.	500+00.00	18.00' RT.	572,607.1098	1,233,273.6372
P.O.T.	501+37.27	18.00' RT.	572,707.1718	1,233,179.6152

UTILITY ADJUSTMENTS			
UTILITY	STATION	OFFSET	REMARKS
WATER LINE (WSSC)	498+21 TO 500+57	11' RT. TO 11' RT.	WSSC WORK WILL BE DONE UNDER SAME CONTRACT
WATER VALVE (WSSC)	499+45	15' RT.	
WATER HOUSE CONNECTION (WSSC)	499+55	15' RT.	
FIRE HYDRANT (WSSC)	499+65	18' RT.	
WATER HOUSE CONNECTION (WSSC)	500+36	18' RT.	
CURB STOP (WSSC)	500+80	21' RT.	



LOCATION MAP
SCALE 1"=1000'

STANDARD TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)	
82 L.F.	MD 355 (FREDERICK ROAD) - STA. 498+00 TO STA. 498+60, RT.
303 L.F.	MD 355 (FREDERICK ROAD) - STA. 498+78 TO STA. 501+50, RT.

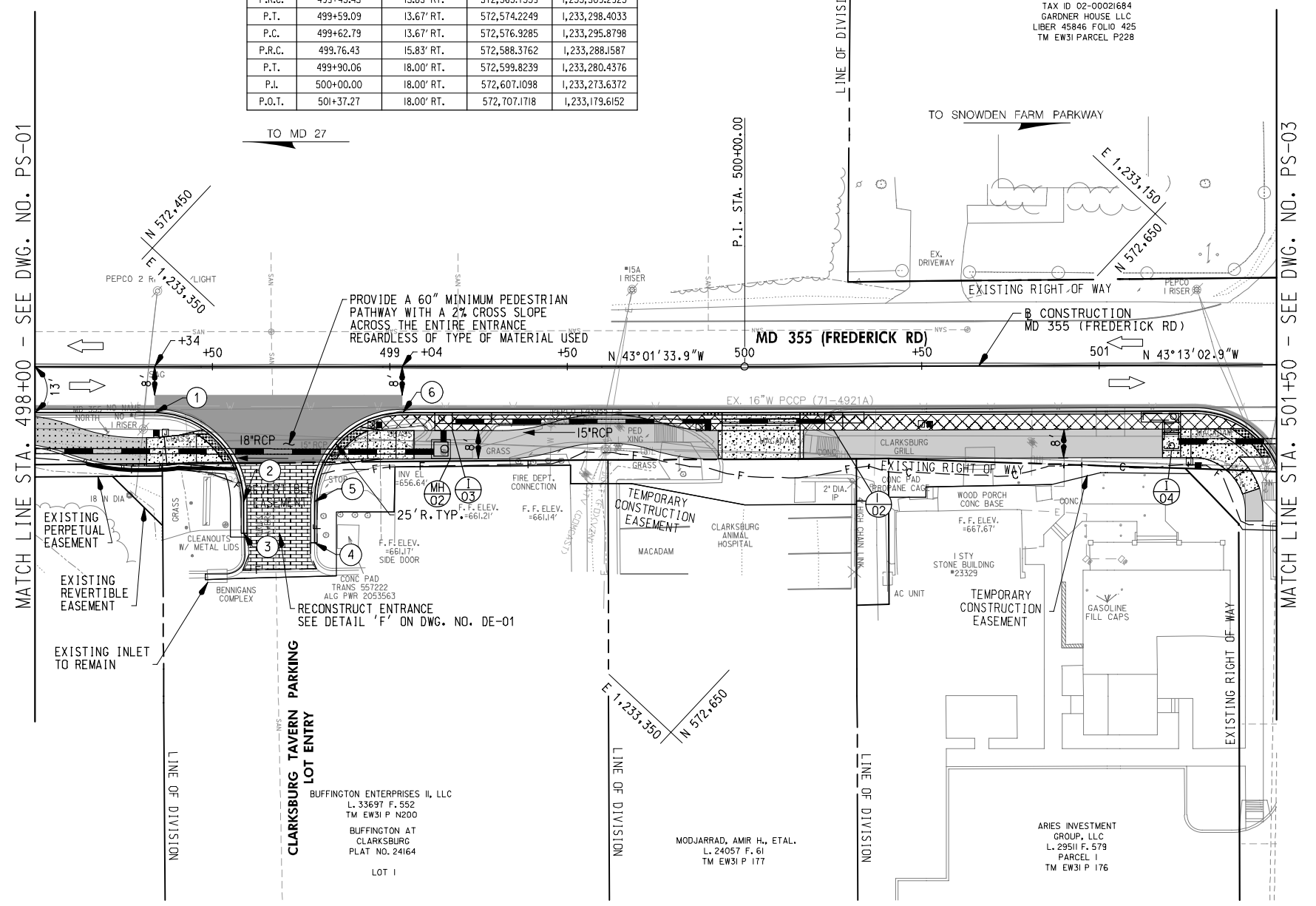
REMOVAL OF EXISTING PAVEMENT	
7 C.Y.	MD 355 (FREDERICK ROAD) - STA. 498+92 TO STA. 499+59
3 C.Y.	MD 355 (FREDERICK ROAD) - STA. 499+63 TO STA. 499+94
19 C.Y.	MD 355 (FREDERICK ROAD) - STA. 500+16 TO STA. 501+41

DETECTABLE WARNING SURFACE FOR CURB RAMPS (MD 655.40)	
22 S.F.	MD 355 (FREDERICK ROAD) - STA. 498+53, RT.
23 S.F.	MD 355 (FREDERICK ROAD) - STA. 498+86, RT.
23 S.F.	MD 355 (FREDERICK ROAD) - STA. 501+45, RT.

SIDEWALK RAMP CONSTRUCTION	
MD 355 (FREDERICK ROAD) - STA. 498+53, RT.	MD 655.11
MD 355 (FREDERICK ROAD) - STA. 498+86, RT.	MD 655.11
MD 355 (FREDERICK ROAD) - STA. 501+45, RT.	MD 655.11

8 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX NO. 9 (MD 630.02)	
32 S.Y.	MD 355 (FREDERICK ROAD) - STA. 499+94 TO STA. 500+16, RT.

BARRIER CURB (SEE DWG. NO. TS-01)	
44 L.F.	MD 355 (FREDERICK ROAD) - STA. 498+00 TO STA. 498+44, RT.



- NOTES:
- ALL CONSTRUCTION WITHIN THE SHA RIGHT OF WAY SHALL CONFORM TO SHA STANDARD CERTIFICATIONS AND DETAILS FOR CONSTRUCTION AND MATERIALS.
 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADIUS FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS, AND ARE NOT PART OF THIS CONTRACT.

<p>LEGEND</p> <p>— C — TOP OF CUT</p> <p>— F — TOE OF FILL</p> <p>• • • • WETLAND</p> <p>— B — WETLAND BUFFER</p> <p>— WUS — WATERS OF THE US</p> <p>102 +50</p> <p>CONSTRUCTION</p>	<p>— SPLIT RAIL FENCE</p> <p>— TRAFFIC BARRIER</p> <p>— CLARKSBURG HISTORIC DISTRICT BOUNDARY</p> <p>— PEDESTRIAN LIGHT POLE AND JUNCTION BOX</p> <p>— BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTOCELL</p> <p>PIPE INLET STORM DRAIN SYMBOLS</p> <p>END SECTION STD. MANHOLE ENDWALL</p>
---	---

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10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacemontgomery.com

UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____

APPROVED

Chief, Division of Engineering Services _____ Date _____

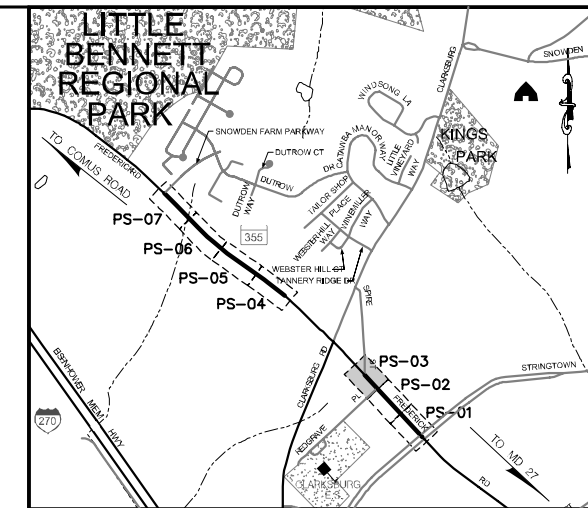
Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET PS-02
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 498+00 TO STA. 501+50
SCALE 1"=20' 08/2020

Project No.: C.I.P. PR. # 501744 SHEET 09 of 88

SHARED USE PATH FRONT EDGE				
POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.C.	501+86.94	26.00' RT.	572,748.8475	1,233,151.4328
P.T.	502+02.94	18.00' RT.	572,755.0295	1,233,134.6463
P.O.T.	503+54.36	18.00' RT.	572,865.3176	1,233,030.9593

UTILITY ADJUSTMENTS			
UTILITY	STATION	OFFSET	REMARKS
SANITARY SEWER MANHOLE (WSSC)	501+73	22' RT.	RELOCATE BY OTHERS
WATER METER (WSSC)	503+39	30' RT.	RELOCATE BY OTHERS



LOCATION MAP
SCALE 1"=1000'

STANDARD TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)	
16 L.F.	MD 355 (FREDERICK ROAD) - STA. 501+50 TO STA. 501+52, RT.
162 L.F.	MD 355 (FREDERICK ROAD) - STA. 501+78 TO STA. 503+20, RT.

STANDARD TYPE 'A' CURB (MD 620.02)	
94 L.F.	MD 355 (FREDERICK ROAD) - STA. 502+24 TO STA. 502+66, RT.

REMOVAL OF EXISTING PAVEMENT	
11 C.Y.	MD 355 (FREDERICK ROAD) - STA. 502+05 TO STA. 502+75, RT.
9 C.Y.	MD 355 (FREDERICK ROAD) - STA. 502+95 TO STA. 503+51, RT.

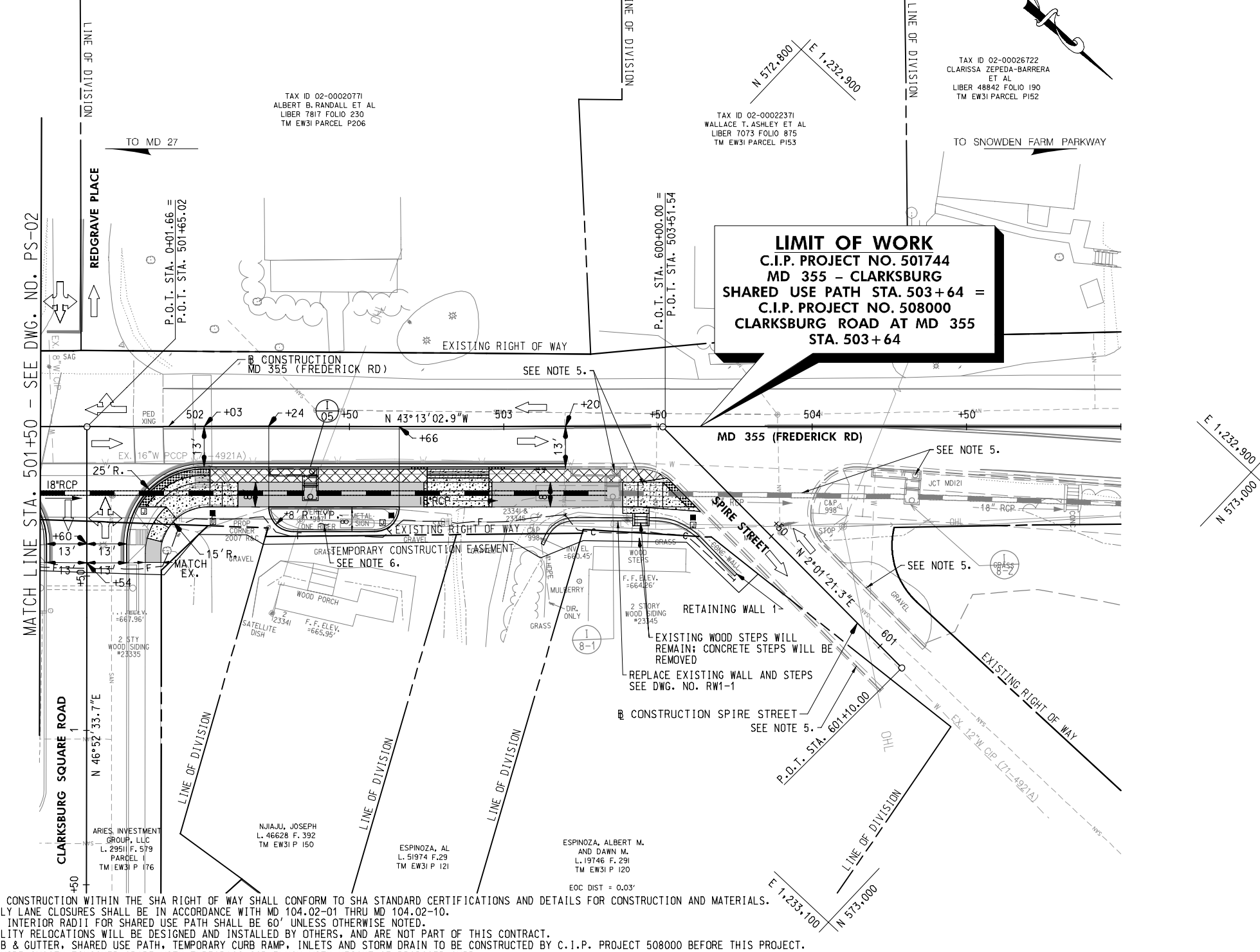
DETECTABLE WARNING SURFACE FOR CURB RAMPS (MD 655.40)	
52 S.F.	MD 355 (FREDERICK ROAD) - STA. 501+92, RT.
23 S.F.	MD 355 (FREDERICK ROAD) - STA. 503+58, RT.

SIDEWALK RAMP CONSTRUCTION	
MD 355 (FREDERICK ROAD) - STA. 501+92, RT.	MD 655.13
MD 355 (FREDERICK ROAD) - STA. 503+58, RT.	MD 655.11

8 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX NO. 9 (MD 630.02)	
30 S.Y.	MD 355 (FREDERICK ROAD) - STA. 502+75 TO STA. 502+95, RT.

RELOCATE MAILBOX	
2 EA.	MD 355 (FREDERICK ROAD) - STA. 503+11, RT.

CONCRETE STEPS (MD 657.00)	
1 C.Y.	MD 355 (FREDERICK ROAD) - STA. 503+44, RT.



LIMIT OF WORK
C.I.P. PROJECT NO. 501744
MD 355 - CLARKSBURG
SHARED USE PATH STA. 503+64 =
C.I.P. PROJECT NO. 508000
CLARKSBURG ROAD AT MD 355
STA. 503+64

- NOTES:
- ALL CONSTRUCTION WITHIN THE SHA RIGHT OF WAY SHALL CONFORM TO SHA STANDARD CERTIFICATIONS AND DETAILS FOR CONSTRUCTION AND MATERIALS.
 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADII FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS, AND ARE NOT PART OF THIS CONTRACT.
 - CURB & GUTTER, SHARED USE PATH, TEMPORARY CURB RAMP, INLETS AND STORM DRAIN TO BE CONSTRUCTED BY C.I.P. PROJECT 508000 BEFORE THIS PROJECT.
 - PROVIDE SMOOTH FINISHED GRADE WITH TURFGRASS SOD FLUSH WITH HEIGHT OF PROPOSED CURB.

	SHARED USE PATH		TOP OF CUT		SPLIT RAIL FENCE
	PERMEABLE PAVEMENT		TOE OF FILL		CLARKSBURG HISTORIC DISTRICT BOUNDARY
	FULL DEPTH PAVEMENT		WETLAND		PEDESTRIAN LIGHT POLE
	GRINDING & ASPHALT RESURFACING		WETLAND BUFFER		BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTOCCELL
	CONCRETE DRIVEWAY		WATERS OF THE US		STORM DRAIN
	PAVEMENT REMOVAL		CONSTRUCTION		INLET
	RIPRAP				MANHOLE
					ENDWALL

UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET PS-03
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 501+50 TO STA. 505+00

SCALE: 1"=20' 08/2020

Project No.: C.I.P. PR. # 501744 SHEET 10 of 88

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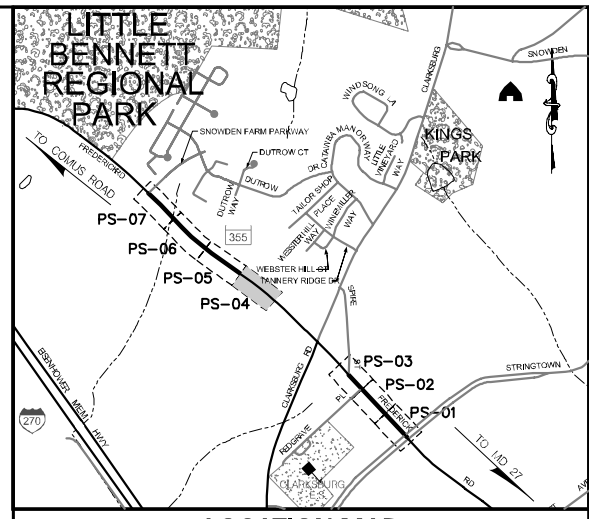
C-03
CURVE DATA
 DELTA = 8°23'55.0" LT.
 Dc = 1'49"47.7"
 R = 3,131.21'
 L = 458.98'
 T = 229.90'
 CH = 458.98'
 E = 8.43'

SHARED USE PATH FRONT EDGE				
POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.C.	515+27.58	17.52' RT.	573,695.2089	1,232,199.4379
P.R.C.	515+56.56	17.52' RT.	573,713.6047	1,232,176.8347
P.C.C.	515+69.87	19.00' RT.	573,723.1358	1,232,167.3279
P.T.	517+08.15	19.00' RT.	573,807.5622	1,232,056.7704
P.L.	518+50.00	19.00' RT.	573,891.2251	1,231,942.0473
P.O.T.	519+00.00	19.00' RT.	573,920.1877	1,231,901.1249

UTILITY ADJUSTMENTS			
UTILITY	STATION	OFFSET	REMARKS
WATER LINE (WSSC)	518+27 TO 518+70	12' RT. TO 12' RT.	RELOCATE BY OTHERS
WATER METER (WSSC)	518+27	29' RT.	RELOCATE BY OTHERS
UTILITY POLE (VERIZON)	516+52	21' RT.	RELOCATE BY OTHERS
UTILITY POLE (VERIZON)	518+05	19' RT.	RELOCATE BY OTHERS

DRIVEWAY STAKEOUT POINTS - STA. 518+38			
POINT	STATION	OFFSET	ELEVATION
1	518+28	27' RT.	653.32
2	518+48	27' RT.	653.32
3	518+36	44' RT.	654.39
4	518+44	43.5' RT.	654.25

FOR PAVEMENT SECTION, REFER TO DETAIL 'C' ON DE-01



LOCATION MAP
 SCALE 1"=1000'

STANDARD TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)
 371 L.F. MD 355 (FREDERICK ROAD) - STA. 515+28 TO STA. 519+00, RT.

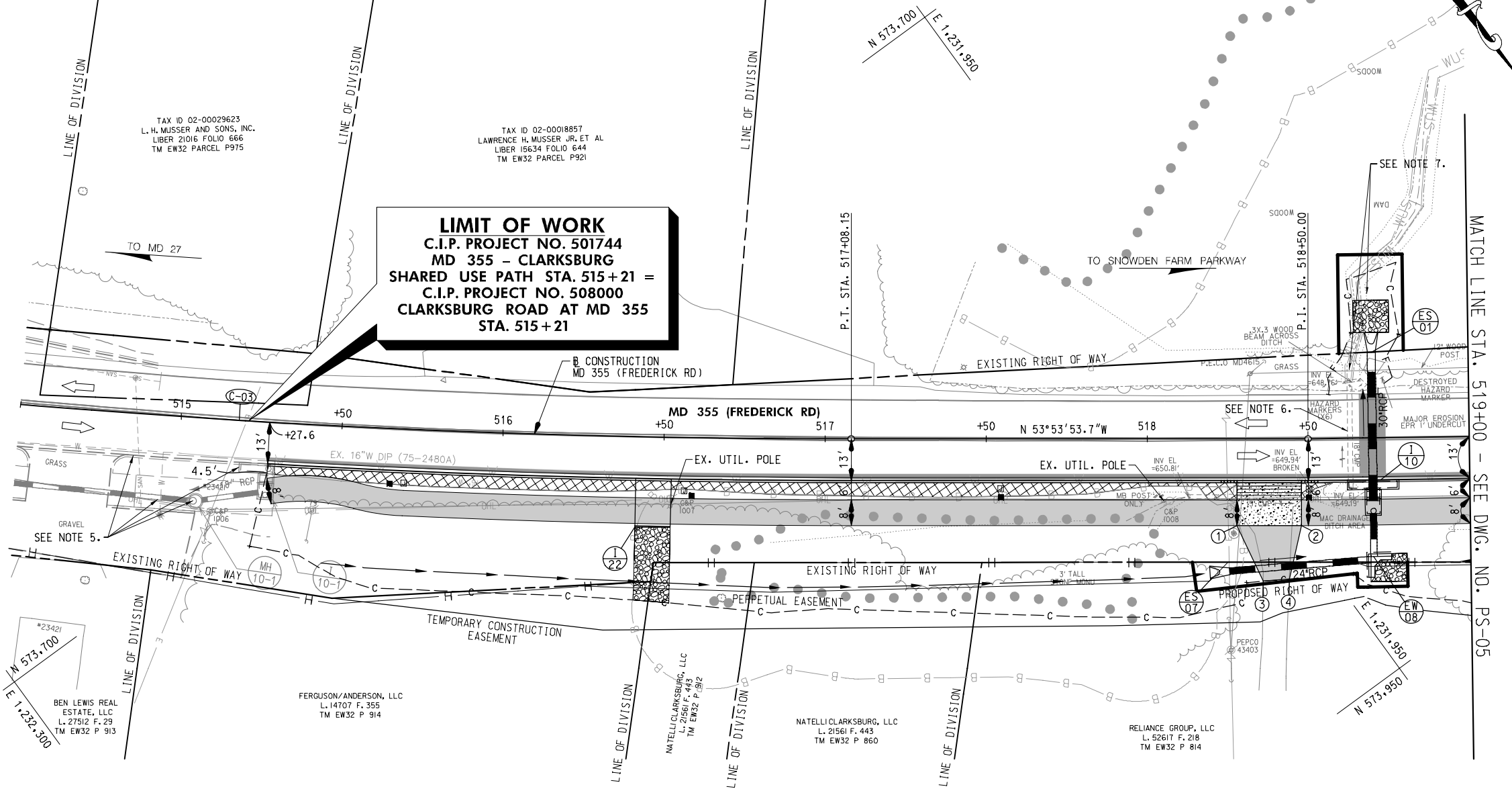
REMOVAL OF EXISTING PAVEMENT
 38 C.Y. MD 355 (FREDERICK ROAD) - STA. 516+30 TO STA. 518+28, RT.
 1 C.Y. MD 355 (FREDERICK ROAD) - STA. 518+48 TO STA. 518+57, RT.

8 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX NO. 9 (MD 630.02)
 30 S.Y. MD 355 (FREDERICK ROAD) - STA. 518+28 TO STA. 518+48, RT.

CLASS I RIPRAP FOR SLOPE AND CHANNEL PROTECTION
 28 S.Y. MD 355 (FREDERICK ROAD) - STA. 516+47, RT.
 12 S.Y. MD 355 (FREDERICK ROAD) - STA. 518+70, LT.
 9 S.Y. MD 355 (FREDERICK ROAD) - STA. 518+75, RT.

FLOWABLE BACKFILL FOR PIPE ABANDONMENT
 2 C.Y. MD 355 (FREDERICK ROAD) - STA. 518+63, 15' RT. TO 17' LT.

LIMIT OF WORK
 C.I.P. PROJECT NO. 501744
 MD 355 - CLARKSBURG
 SHARED USE PATH STA. 515+21 =
 C.I.P. PROJECT NO. 508000
 CLARKSBURG ROAD AT MD 355
 STA. 515+21



- NOTES:**
- ALL CONSTRUCTION WITHIN THE SHA RIGHT OF WAY SHALL CONFORM TO SHA STANDARD CERTIFICATIONS AND DETAILS FOR CONSTRUCTION AND MATERIALS.
 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADII FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS, AND ARE NOT PART OF THIS CONTRACT.
 - CURB & GUTTER, SHARED USE PATH, TEMPORARY CURB RAMP, INLETS, MANHOLE AND STORM DRAIN TO BE CONSTRUCTED BY C.I.P. PROJECT 508000 BEFORE THIS PROJECT.
 - ABANDON EXISTING 18" CMP STORM DRAIN USING FLOWABLE BACKFILL.
 - REGRADE EXISTING CHANNEL. REFER TO RIPRAP CHANNEL DETAIL ON DD-01 AND GRADING ON SC-07.

LEGEND

	SHARED USE PATH		SPLIT RAIL FENCE
	PERMEABLE PAVEMENT		TRAFFIC BARRIER
	FULL DEPTH PAVEMENT		CLARKSBURG HISTORIC DISTRICT BOUNDARY
	GRINDING & ASPHALT RESURFACING		PEDESTRIAN LIGHT POLE AND JUNCTION BOX
	CONCRETE DRIVEWAY		BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTOCELL
	PAVEMENT REMOVAL		STORM DRAIN SYMBOLS
	RIPRAP		PIPE INLET
	TOP OF CUT		END SECTION MANHOLE
	TOE OF FILL		STD. MANHOLE
	WETLAND		END WALL
	WETLAND BUFFER		
	WATERS OF THE US		
	CONSTRUCTION		

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
 APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET PS-04
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 514+50 TO STA. 519+00
 SCALE: 1"=20' 08/2020

Project No.: C.I.P. PR. # 501744 SHEET 11 of 88

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10150 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410.494.8093 Tel / 410.667.0925 Fax
 www.wallacemontgomery.com A Limited Liability Partnership

FILED: 8/22/2020
 FILED: 8/22/2020 13:0010\Highways\Cadd_pHD-P004_MD355.dgn

C-04

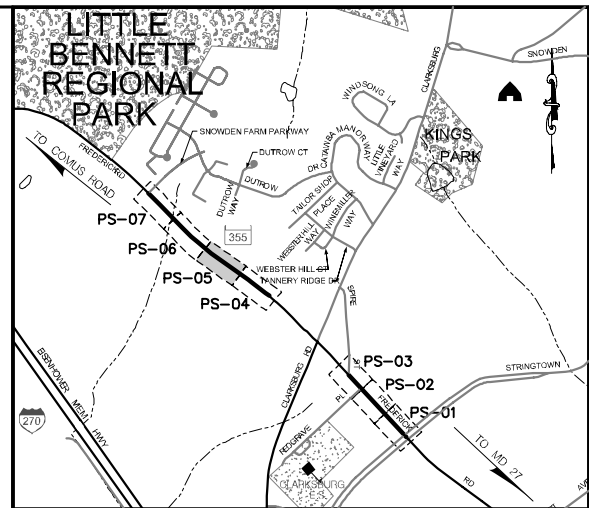
CURVE DATA
 DELTA = 10°44'32.5" RT.
 Dc = 2°09'20.6"
 R = 2,658.00'
 L = 498.35'
 T = 249.91'
 CH = 497.62'
 E = 11.72'

SHARED USE PATH FRONT EDGE				
POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.O.T.	519+00.00	19.00' RT.	573,920.877	1,231,901.249
P.C.	519+35.10	19.00' RT.	573,940.4648	1,231,872.4747
P.R.C.	519+49.21	20.43' RT.	573,949.7856	1,231,861.7906
P.R.C.	519+73.39	20.43' RT.	573,963.7548	1,231,842.0531
P.T.	519+87.49	19.00' RT.	573,970.7314	1,231,829.7100
P.C.	520+80.82	19.00' RT.	574,024.6498	1,231,753.5268
P.R.C.	520+89.91	19.69' RT.	574,030.4652	1,231,746.5084
P.T.	521+00.52	20.50' RT.	574,037.2498	1,231,738.3202
P.C.	521+08.02	20.50' RT.	574,041.5826	1,231,732.1984
P.R.C.	521+18.62	19.69' RT.	574,047.0486	1,231,723.0770
P.T.	521+27.71	19.00' RT.	574,051.7338	1,231,715.2587
P.C.	521+58.67	19.00' RT.	574,069.6236	1,231,689.9817
P.R.C.	522+61.83	19.00' RT.	574,129.7094	1,231,606.7691
P.R.C.	522+74.53	17.63' RT.	574,136.1991	1,231,595.8730
P.C.C.	522+89.62	16.00' RT.	574,143.9834	1,231,582.9576
P.O.C.	523+50.00	16.00' RT.	574,181.0132	1,231,535.7227

UTILITY ADJUSTMENTS			
UTILITY	STATION	OFFSET	REMARKS
FIRE HYDRANT (WSSC)	519+55	21' RT.	RELOCATE BY OTHERS
WATER HOUSE CONNECTION (WSSC)	520+25	16' RT.	RELOCATE BY OTHERS
WATER METER (WSSC)	520+25	27' RT.	RELOCATE BY OTHERS

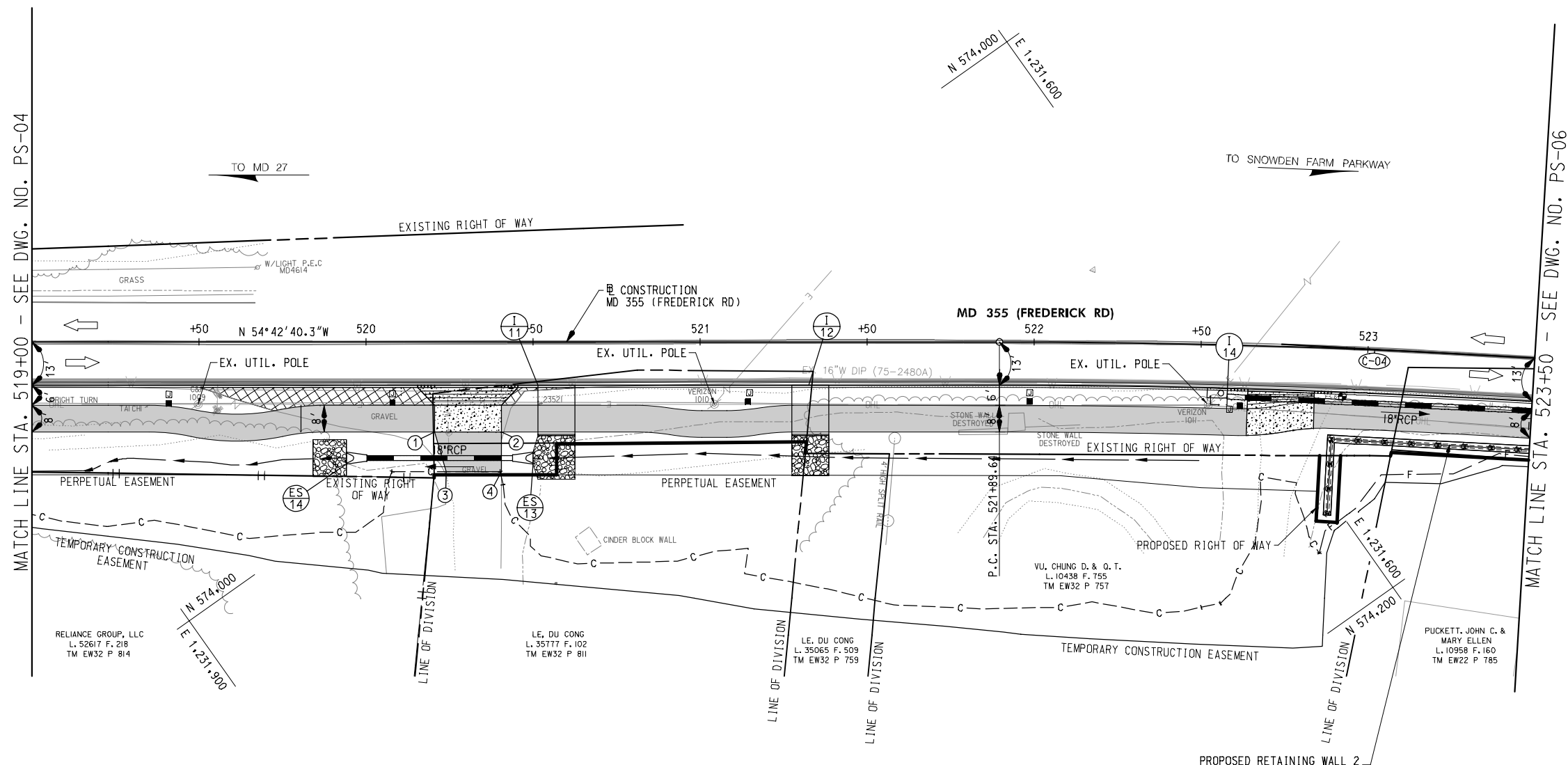
DRIVEWAY STAKEOUT POINTS - 520+30			
POINT	STATION	OFFSET	ELEVATION
1	520+20	27' RT.	654.85
2	520+40	27' RT.	655.00
3	520+24	39' RT.	656.71
4	520+40	39' RT.	657.36

FOR PAVEMENT SECTION, REFER TO DETAIL 'C' ON DE-01



LOCATION MAP
SCALE 1"=1000'

STANDARD TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)
449 L.F. MD 355 (FREDERICK ROAD) - STA. 519+00 TO STA. 523+50, RT.
REMOVAL OF EXISTING PAVEMENT
9 C.Y. MD 355 (FREDERICK ROAD) - STA. 519+52 TO STA. 520+11, RT. 1 C.Y. MD 355 (FREDERICK ROAD) - STA. 520+41 TO STA. 520+47, RT.
8 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX NO. 9 (MD 630.02)
33 S.Y. MD 355 (FREDERICK ROAD) - STA. 520+20 TO STA. 520+40, RT. 27 S.Y. MD 355 (FREDERICK ROAD) - STA. 522+64 TO STA. 522+84, RT.
REMOVAL OF EXISTING MASONRY
4 C.Y. MD 355 (FREDERICK ROAD) - STA. 521+90, RT. (STONE WALL)
RELOCATE MAILBOX
1 EA. MD 355 (FREDERICK ROAD) - STA. 520+44, RT.
REMOVE EXISTING FENCE
32 L.F. MD 355 (FREDERICK ROAD) - STA. 521+56 TO STA. 521+58, RT.
CLASS I RIPRAP FOR SLOPE AND CHANNEL PROTECTION
12 S.Y. MD 355 (FREDERICK ROAD) - STA. 519+89, RT. 16 S.Y. MD 355 (FREDERICK ROAD) - STA. 520+57, RT. 12 S.Y. MD 355 (FREDERICK ROAD) - STA. 521+33, RT.



- NOTES:**
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 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADIUS FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS, AND ARE NOT PART OF THIS CONTRACT.

LEGEND

	SHARED USE PATH		SPLIT RAIL FENCE
	PERMEABLE PAVEMENT		TRAFFIC BARRIER
	FULL DEPTH PAVEMENT		CLARKSBURG HISTORIC DISTRICT BOUNDARY
	GRINDING & ASPHALT RESURFACING		PEDESTRIAN LIGHT POLE AND JUNCTION BOX
	CONCRETE DRIVEWAY		BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTO CELL
	PAVEMENT REMOVAL		STORM DRAIN SYMBOLS
	RIPRAP		PIPE INLET
	TOP OF CUT		END SECTION
	TOE OF FILL		MANHOLE
	WETLAND		ENDWALL
	WETLAND BUFFER		
	WATERS OF THE US		
	CONSTRUCTION		

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 www.wallacemontgomery.com

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section
 APPROVED _____ Date _____

Chief, Division of Engineering Services
 APPROVED _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET PS-05
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
 STA. 519+00 TO STA. 523+50
 SCALE: 1"=20'

Project No.: C.L.P. PR. # 501744 SHEET 12 of 88

PLANTER: 8/22/2020
 FILE: M:\PROJECTS\21001\3.0010\Highways\Cadd_v\HD-P005_MD355.dgn

C-04

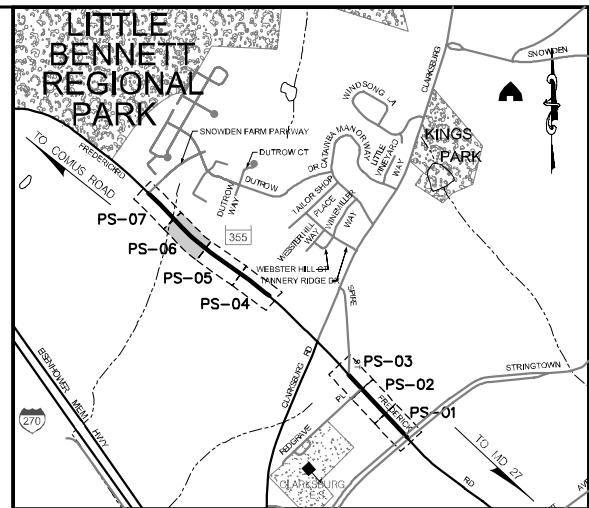
CURVE DATA
 DELTA = 10°44'32.5" RT.
 Dc = 2°09'20.6"
 R = 2,658.00'
 L = 498.35'
 T = 249.91'
 CH = 497.62'
 E = 11.72'

SHARED USE PATH FRONT EDGE				
POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.O.C.	523+50.00	16.00' RT.	574,181.0132	1,231,535.7227
P.C.C.	523+80.32	16.00' RT.	574,200.0082	1,231,512.3262
P.T.	523+93.40	17.22' RT.	574,209.2231	1,231,503.0813
P.C.	524+44.79	26.37' RT.	574,249.1345	1,231,470.0806
P.R.C.	524+61.94	31.47' RT.	574,264.0404	1,231,460.6110
P.C.C.	525+01.39	39.67' RT.	574,296.0701	1,231,436.9404
P.T.	526+87.99	39.67' RT.	574,423.7763	1,231,304.7893
P.C.	527+88.85	39.67' RT.	574,496.3689	1,231,234.7637
P.O.C.	528+00.00	38.62' RT.	574,503.6670	1,231,226.2721

UTILITY ADJUSTMENTS			
UTILITY	STATION	OFFSET	REMARKS
WATER HOUSE CONNECTION (WSSC)	523+80	12' RT.	RELOCATE BY OTHERS
UTILITY POLE (VERIZON)	524+11	21' RT.	RELOCATE BY OTHERS
UTILITY POLE (VERIZON)	524+87	28' RT.	RELOCATE BY OTHERS
UNDERGROUND FIBER OPTIC (VZN)	527+76	45' RT.	RELOCATE BY OTHERS

DRIVEWAY STAKEOUT POINTS - 523+92			
POINT	STATION	OFFSET	ELEVATION
1	523+87	24' RT.	653.00
2	523.97	26' RT.	652.98
3	523+89	37' RT.	655.45
4	523+99	36' RT.	655.34
5	523+90	62' RT.	661.36
6	524+00	61' RT.	661.16

FOR PAVEMENT SECTION, REFER TO DETAIL 'C' ON DE-01



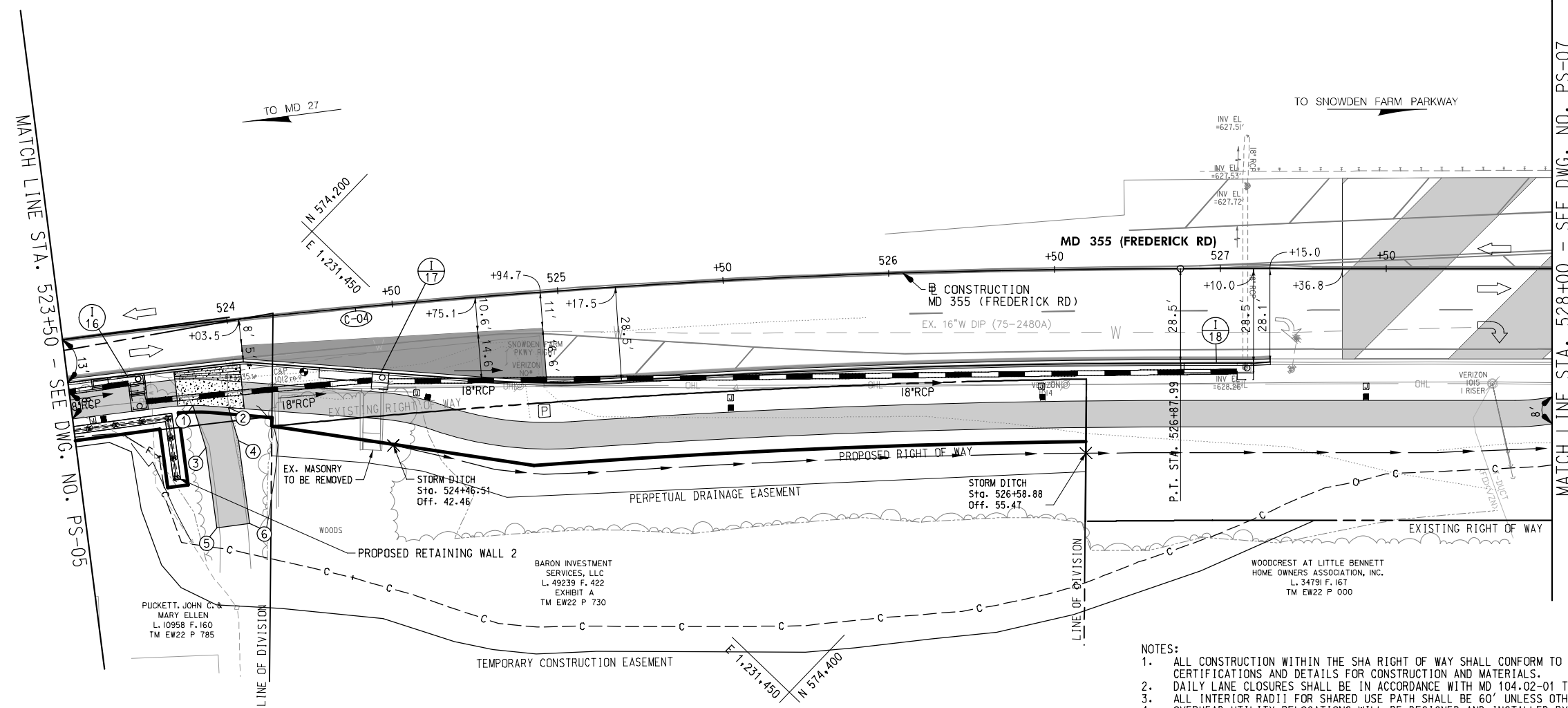
LOCATION MAP
SCALE 1"=1000'

STANDARD TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)
 364 L.F. MD 355 (FREDERICK ROAD) - STA. 523+50 TO STA. 527+15, RT.

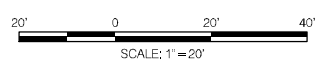
8 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX NO. 9 (MD 630.02)
 26 S.Y. MD 355 (FREDERICK ROAD) - STA. 523+82 TO STA. 524+02, RT.

REMOVAL OF EXISTING MASONRY
 20 C.Y. MD 355 (FREDERICK ROAD) - STA. 524+09 TO STA. 524+55, RT. (STONE WALL AND STEPS)

RELOCATE MAILBOX
 1 EA. MD 355 (FREDERICK ROAD) - STA. 524+03, RT.



- NOTES:**
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 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADIUS FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - OVERHEAD UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS.



SHARED USE PATH	TOP OF CUT	SPLIT RAIL FENCE
PERMEABLE PAVEMENT	TOE OF FILL	TRAFFIC BARRIER
FULL DEPTH PAVEMENT	WETLAND	CLARKSBURG HISTORIC DISTRICT BOUNDARY
GRINDING & ASPHALT RESURFACING	WETLAND BUFFER	PEDESTRIAN LIGHT POLE AND JUNCTION BOX
CONCRETE DRIVEWAY	WATERS OF THE US	BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTOCELL
PAVEMENT REMOVAL	CONSTRUCTION	STORM DRAIN SYMBOLS
RIPRAP		PIPE INLET SECTION

WALLACE MONTGOMERY
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 10150 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410.494.8093 Tel / 410.667.0925 Fax
 www.wallacemontgomery.com

UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
 APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

PLAN SHEET PS-06
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
 STA. 523+50 TO STA. 528+00
 SCALE: 1"=20' 08/2020

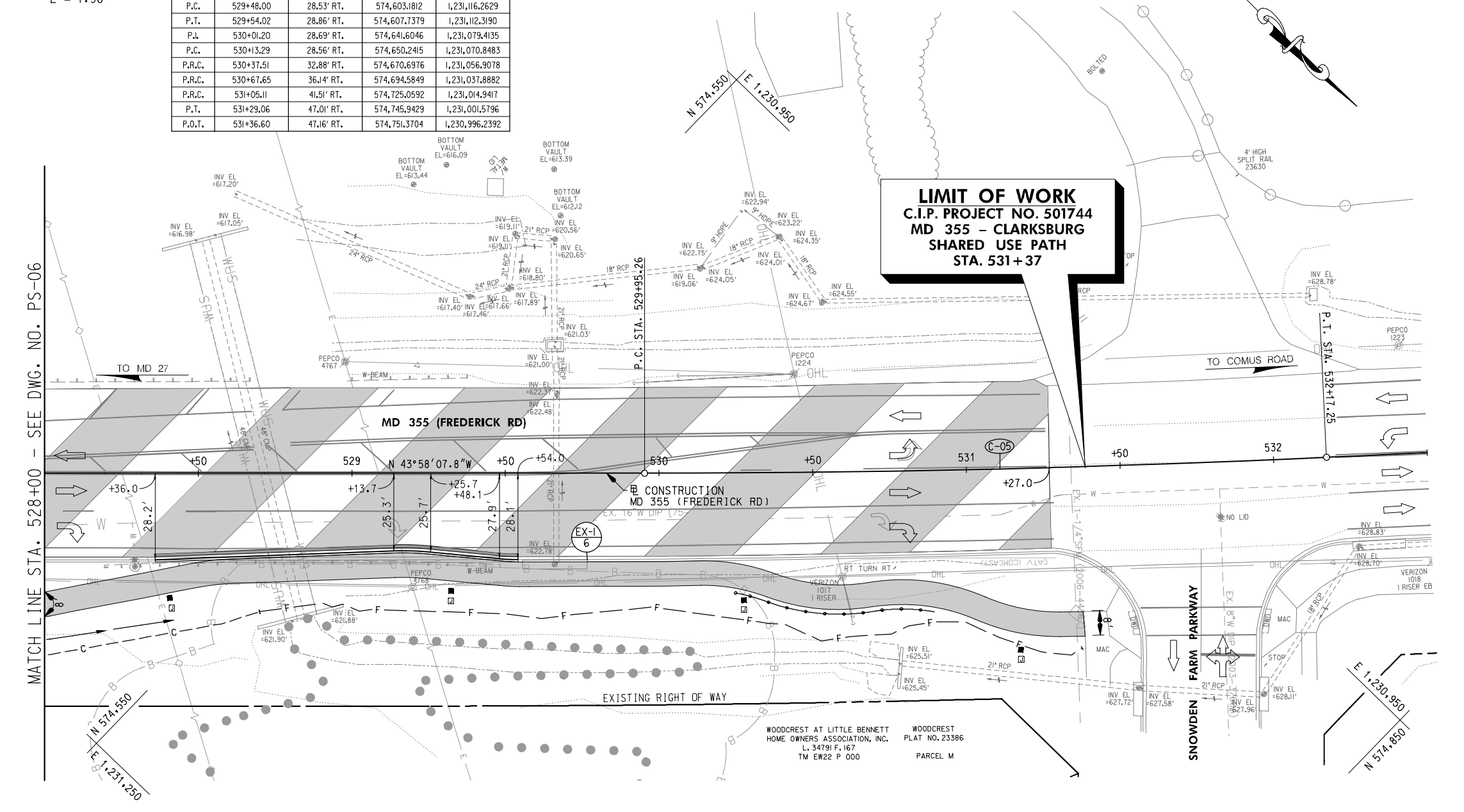
Project No.: C.I.P. PR. # 501744 SHEET 13 of 88

FILED: 8/22/2020
 FILE: N:\60121\013.0010\Highways\Cadd\pHD-P006_MD355.dgn

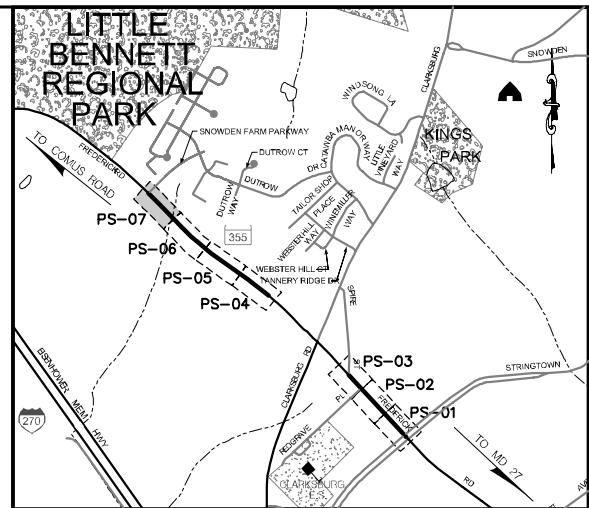
C-05

CURVE DATA
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 Dc = 1°12'24.3"
 R = 4,748.00'
 L = 221.99'
 T = 111.02'
 CH = 221.97'
 E = 1.30'

SHARED USE PATH FRONT EDGE				
POINT TYPE	STATION	OFFSET	NORTHING	EASTING
P.O.C.	528+00.00	38.62' RT.	574,503.6670	1,231,226.2721
P.T.	528+00.17	38.59' RT.	574,503.7691	1,231,226.2716
P.C.	528+49.10	29.19' RT.	574,532.4572	1,231,185.3909
P.T.	528+59.44	28.01' RT.	574,539.0779	1,231,177.3109
P.C.	529+13.77	26.01' RT.	574,576.7931	1,231,138.2140
P.T.	529+25.67	26.37' RT.	574,585.6084	1,231,130.2061
P.C.	529+48.00	28.53' RT.	574,603.1812	1,231,116.2629
P.T.	529+54.02	28.86' RT.	574,607.7379	1,231,112.3190
P.L.	530+01.20	28.69' RT.	574,641.6046	1,231,079.4135
P.C.	530+13.29	28.56' RT.	574,650.2415	1,231,070.8483
P.R.C.	530+37.51	32.88' RT.	574,670.6976	1,231,056.9078
P.R.C.	530+67.65	36.14' RT.	574,694.5849	1,231,037.8882
P.R.C.	531+05.11	41.51' RT.	574,725.0592	1,231,014.9417
P.T.	531+29.06	47.01' RT.	574,745.9429	1,231,001.5796
P.O.T.	531+36.60	47.16' RT.	574,751.3704	1,230,996.2392



LIMIT OF WORK
 C.I.P. PROJECT NO. 501744
 MD 355 - CLARKSBURG
 SHARED USE PATH
 STA. 531+37



LOCATION MAP
 SCALE 1"=1000'

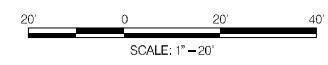
STANDARD TYPE A COMBINATION CURB AND GUTTER,
 12 INCH GUTTER PAN, 8 INCH MIN. DEPTH (MD 620.02)
 119 L.F. MD 355 (FREDERICK ROAD) - STA. 528+36 TO STA. 529+54, RT.

REMOVAL AND DISPOSAL OF EXISTING TRAFFIC
 BARRIER W BEAM
 134 L.F. MD 355 (FREDERICK ROAD) - STA. 528+20 TO STA. 529+48, RT.

SPLIT RAIL FENCE
 66 L.F. MD 355 (FREDERICK ROAD) - STA. 530+25 TO STA. 529+89, RT.

- NOTES:**
- ALL CONSTRUCTION WITHIN THE SHA RIGHT OF WAY SHALL CONFORM TO SHA STANDARD CERTIFICATIONS AND DETAILS FOR CONSTRUCTION AND MATERIALS.
 - DAILY LANE CLOSURES SHALL BE IN ACCORDANCE WITH MD 104.02-01 THRU MD 104.02-10.
 - ALL INTERIOR RADII FOR SHARED USE PATH SHALL BE 60' UNLESS OTHERWISE NOTED.
 - UTILITY RELOCATIONS WILL BE DESIGNED AND INSTALLED BY OTHERS, AND ARE NOT PART OF THIS CONTRACT.

	SHARED USE PATH		TOP OF CUT		SPLIT RAIL FENCE
	PERMEABLE PAVEMENT		TOE OF FILL		CLARKSBURG HISTORIC DISTRICT BOUNDARY
	FULL DEPTH PAVEMENT		WETLAND		PEDESTRIAN LIGHT POLE AND JUNCTION BOX
	GRINDING & ASPHALT RESURFACING		WETLAND BUFFER		BASE MOUNTED METERED SERVICE PEDESTAL WITH PHOTOCCELL
	CONCRETE DRIVEWAY		WATERS OF THE US		STORM DRAIN SYMBOLS
	PAVEMENT REMOVAL		CONSTRUCTION		PIPE INLET
	RIPRAP		STD. MANHOLE		END WALL



WALLACE MONTGOMERY
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 10150 York Road, Suite 200
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 410.494.9093 Tel / 410.667.0925 Fax
 www.wallacemontgomery.com

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
 APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

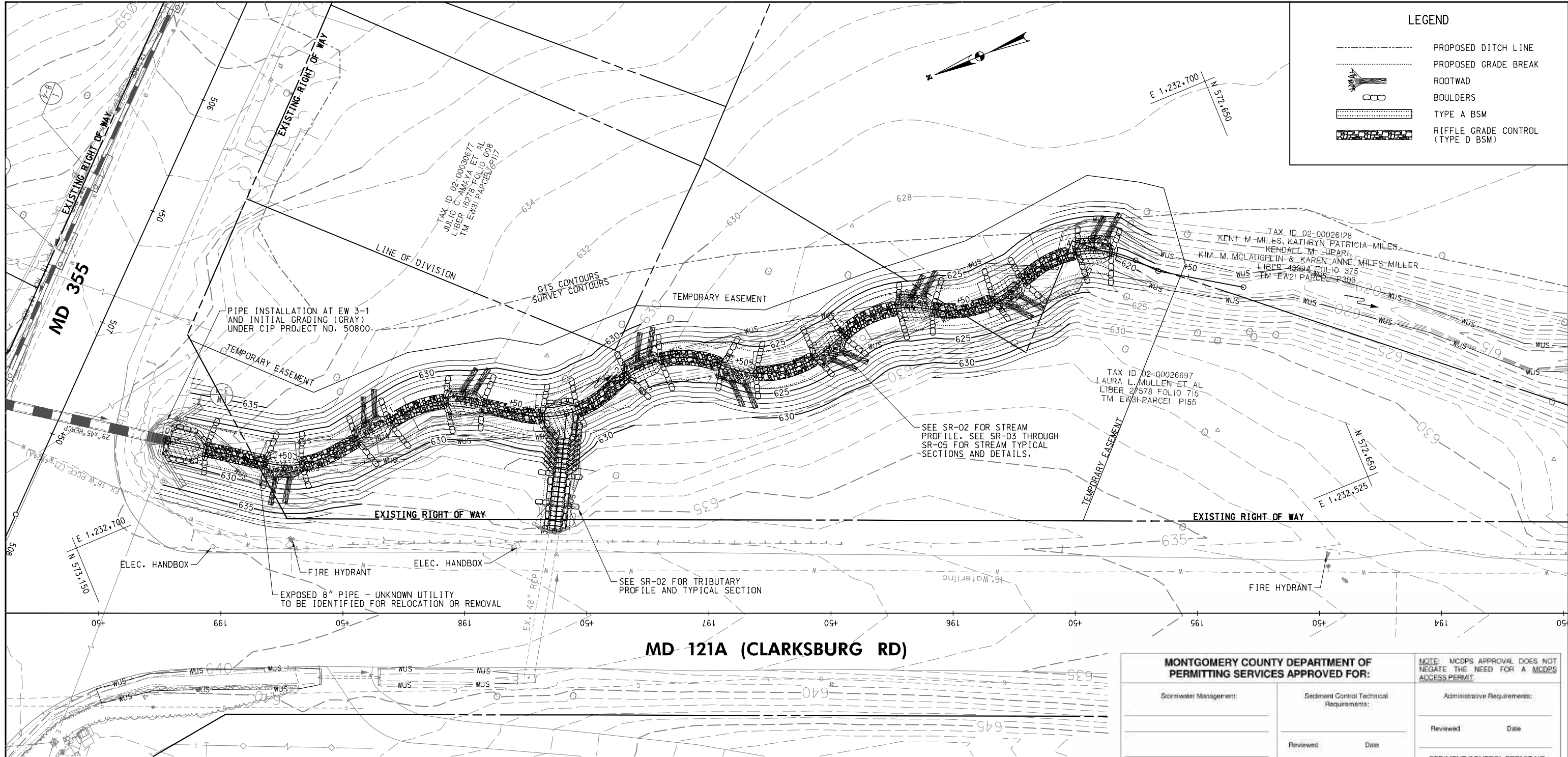
PLAN SHEET PS-07
ROADWAY PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
 STA. 528+00 TO STA. 531+37
 SCALE: 1"=20' 08/2020

Project No.: C.I.P. PR. # 501744 SHEET 14 of 88

PLANTER: 8/22/2020
 FILE: C:\Projects\210013\010\Highways\Cadd\PHD-PO07_MD355.dgn

LEGEND

- PROPOSED DITCH LINE
- PROPOSED GRADE BREAK
- ROOTWAD
- BOULDERS
- TYPE A BSM
- RIFFLE GRADE CONTROL (TYPE D BSM)



PLAN
SCALE: 1"=20'

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

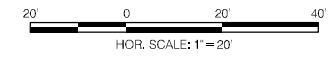
Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
Reviewed _____ Date _____	Reviewed _____ Date _____	Reviewed _____ Date _____
Approved _____ Date _____	Approved _____ Date _____	SEDIMENT CONTROL PERMIT NO. _____
SM FILE # _____		

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

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.

DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

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Hunt Valley, Maryland 21030
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UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

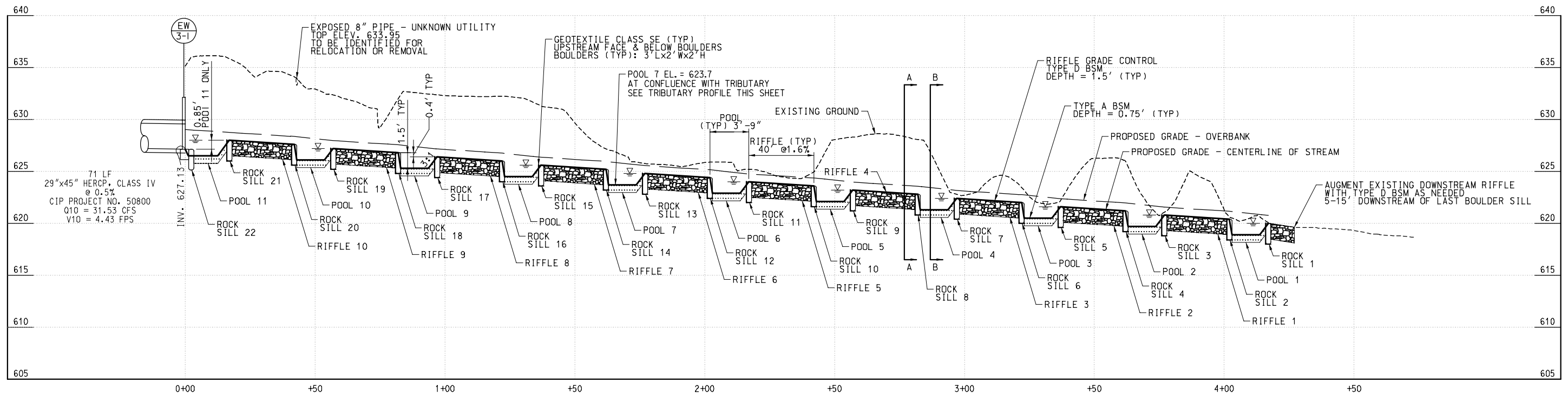
Designed by: L.E.W. Drawn by: L.E.W. Checked by: C.V.M.

PLAN SHEET SR-01
STREAM RESTORATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH

SCALE 1"=20' 08/2020

Project No.: C.I.P. PR. # 501744 SHEET 15 of 88

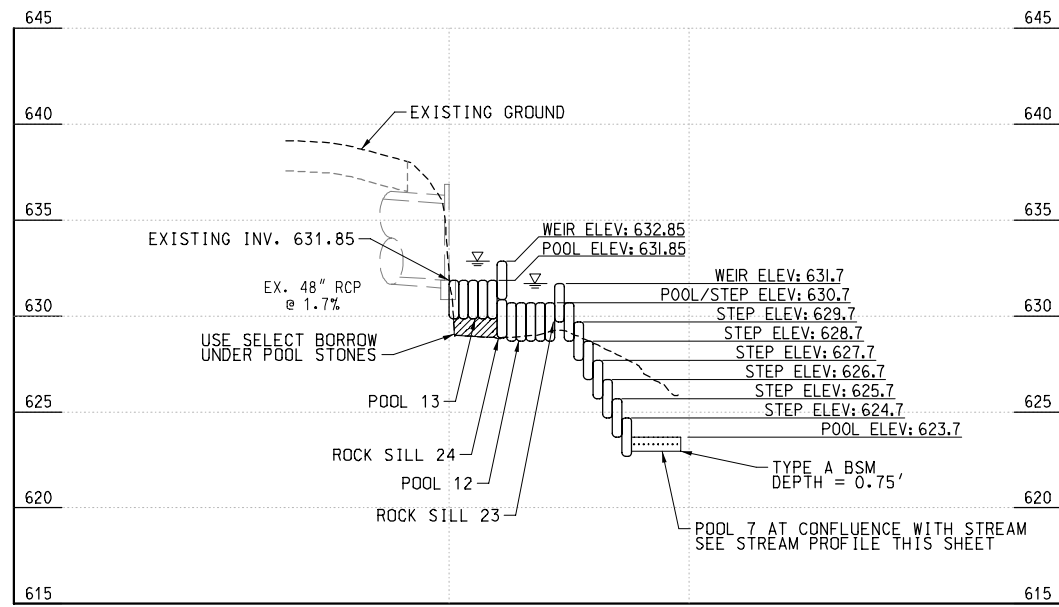
DATE: 8/24/2020
FILE: C:\Users\jw1013\OneDrive\Highways\Cadd-Drainage\pSR-P001_MD355.dgn



STREAM PROFILE

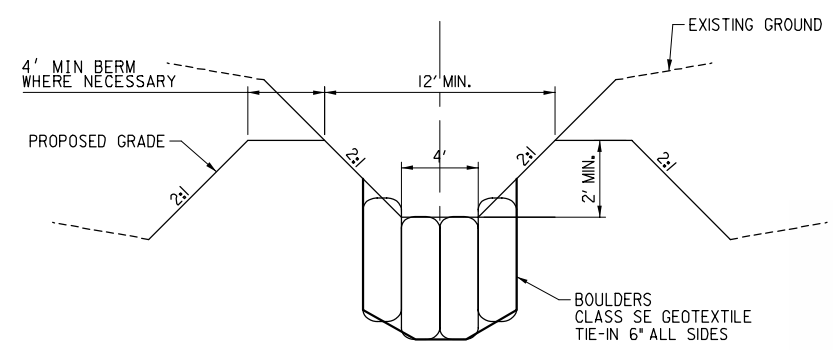
SCALE: HOR. 1"=20'
VERT. 1"=5'

NOTE:
SEE SR-03 THROUGH SR-05 FOR TYPICAL
SECTIONS AND DETAILS. CHANNEL DEPTHS
VARY BETWEEN SECTIONS ACCORDING TO
PROFILE.



TRIBUTARY PROFILE

SCALE: HOR. 1"=20'
VERT. 1"=5'



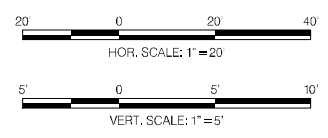
TRIBUTARY TYPICAL SECTION

NOT TO SCALE

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:		
Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
Reviewed: _____ Date: _____	Reviewed: _____ Date: _____	Reviewed: _____ Date: _____
Approved: _____ Date: _____	Approved: _____ Date: _____	SM FILE # _____

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

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.



WALLACE MONTGOMERY
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UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

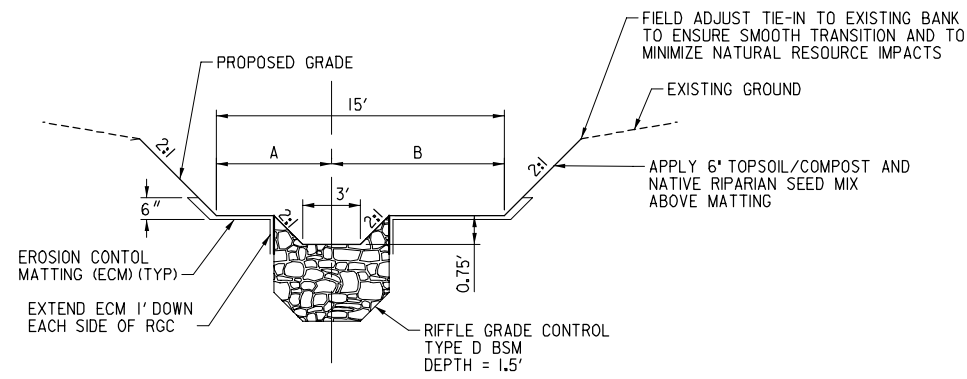
Chief, Division of Engineering Services _____ Date _____

Designed by: L.E.W. Drawn by: L.E.W. Checked by: C.V.M.

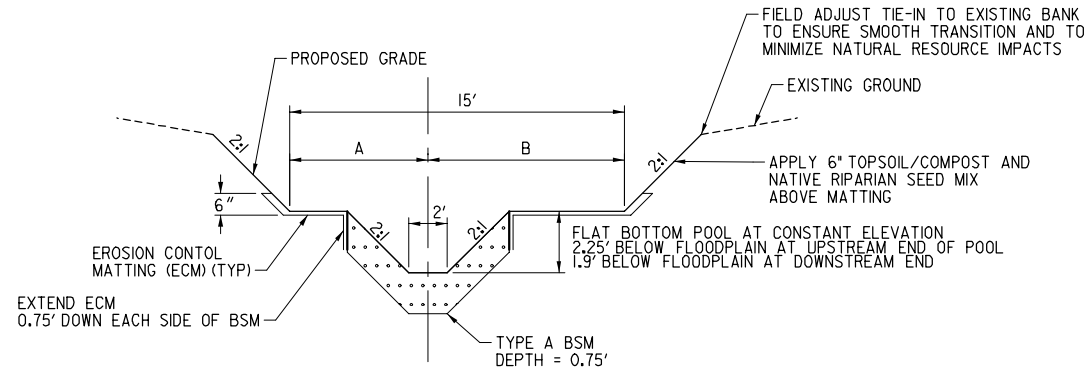
PLAN SHEET SR-02
STREAM RESTORATION PROFILE
MD 355 - CLARKSBURG
SHARED USE PATH

SCALE AS NOTED 08/2020
Project No.: C.I.P. PR. # 501744 SHEET 16 of 88

DATE: 8/24/2020
FILE: C:\Users\lwallac\OneDrive\Highway\Cadd-Drainage\pSR-P002_MD355.dgn



A-A RIFFLE TYPICAL SECTION
NOT TO SCALE



B-B POOL TYPICAL SECTION
NOT TO SCALE

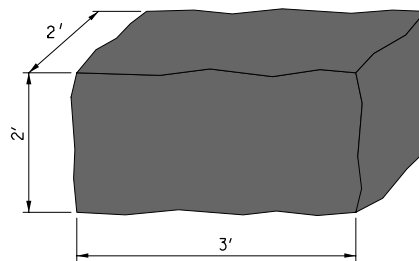
NOTE:
ADD ROOTWADS TO POOL AS SHOWN ON PLANS. PLACE ROOTWADS ON THE SIDE OF POOL WITH 3' FLOODPLAIN

OVERBANK STAKEOUT TABLE

STATION	A	B
0+00	9'	6'
0+70	6'	9'
1+35	9'	6'
1+90	6'	9'
2+40	9'	6'
2+90	6'	9'
3+35	9'	6'
3+70	6'	9'

NATIVE RIPARIAN SEED MIX

PERCENT	COMMON NAME	SCIENTIFIC NAME
25%	VIRGINIA WILD RYE	<i>Elymus virginicus</i>
10%	ANNUAL RYE	<i>Lolium multiflorum</i>
20%	RIVERBANK WILD RYE	<i>Elymus riparius</i>
15%	RED FESCUE	<i>Festuca rubra</i> L.
10%	DEERTONGUE	<i>Dischanthelium clandestinum</i>
20%	BOTTLEBRUSH	<i>Elymus hystrix</i>



TYPICAL BOULDER
NOT TO SCALE

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:			NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.
Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:	
Reviewed _____ Date _____	Reviewed _____ Date _____	Reviewed _____ Date _____	
Approved _____ Date _____	Approved _____ Date _____	SEDIMENT CONTROL PERMIT NO. _____	
SM FILE # _____			MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.

DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.



UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

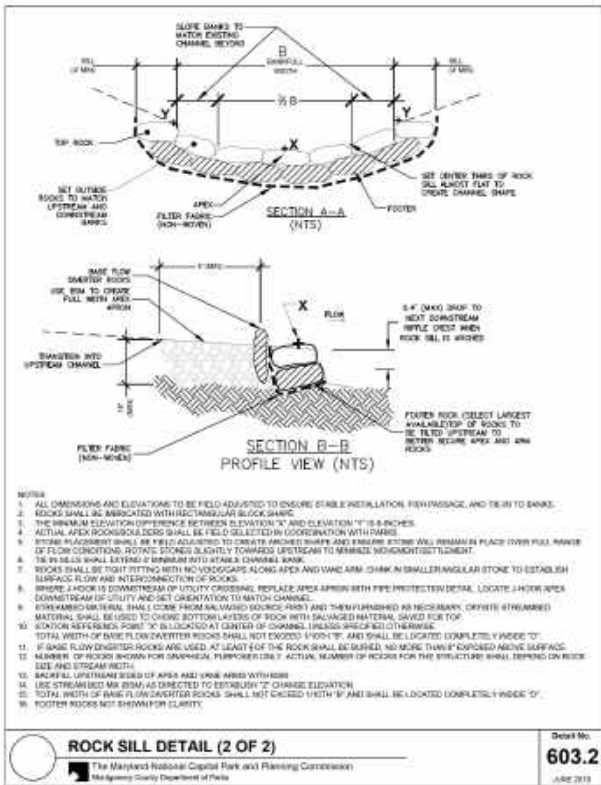
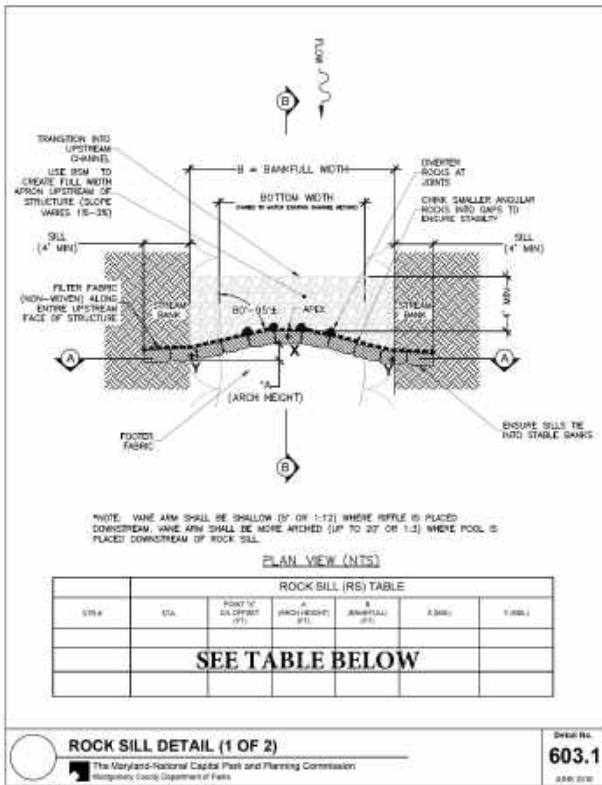
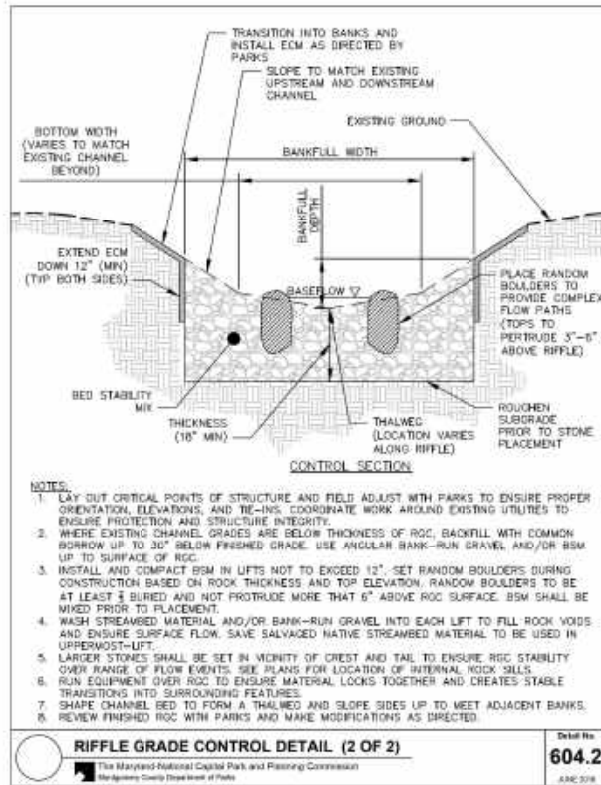
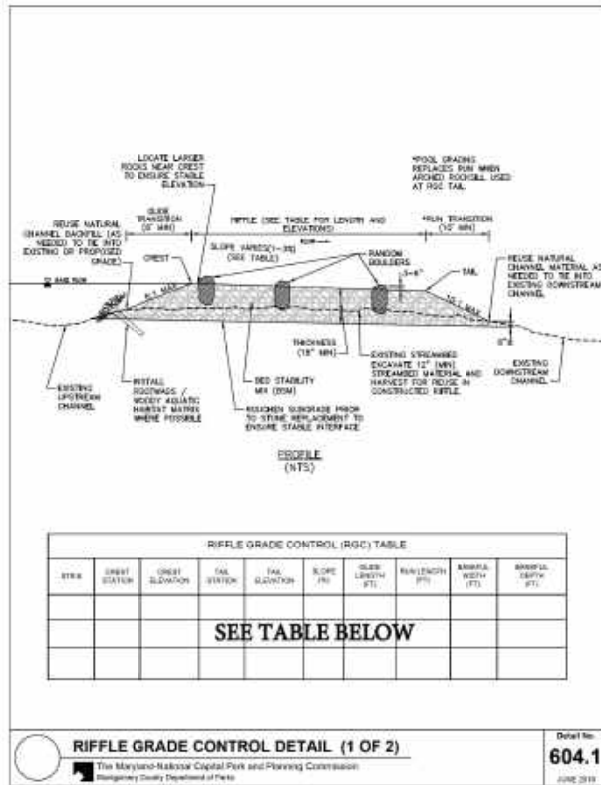
Chief, Division of Engineering Services _____ Date _____

Designed by : L.E.W. Drawn by : L.E.W. Checked by : C.V.M.

PLAN SHEET SR-03
STREAM RESTORATION TYP. SECTIONS
MD 355 - CLARKSBURG
SHARED USE PATH

SCALE N.T.S. 08/2020

Project No. : C.I.P. PR. # 501744 SHEET 17 of 88



RIFFLE GRADE CONTROL TABLE

STR #	CREST STA.	CREST ELEV.	TAIL STA.	TAIL ELEV.	SLOPE %	GLIDE LENGTH	RUN LENGTH	BANKFULL WIDTH	BANKFULL DEPTH
RIFFLE 10	0+17.0	628.0	0+42.0	627.6	1.6	N/A - ROCK SILL 21	N/A - ROCK SILL 20	6'	0.75'
RIFFLE 9	0+57.0	627.2	0+82.0	626.8	1.6	N/A - ROCK SILL 19	N/A - ROCK SILL 18	6'	0.75'
RIFFLE 8	0+97.0	626.4	1+22.0	626.0	1.6	N/A - ROCK SILL 17	N/A - ROCK SILL 16	6'	0.75'
RIFFLE 7	1+37.0	625.6	1+62.0	625.2	1.6	N/A - ROCK SILL 15	N/A - ROCK SILL 14	6'	0.75'
RIFFLE 6	1+77.0	624.8	2+02.0	624.4	1.6	N/A - ROCK SILL 13	N/A - ROCK SILL 12	6'	0.75'
RIFFLE 5	2+17.0	624.0	2+42.0	623.6	1.6	N/A - ROCK SILL 11	N/A - ROCK SILL 10	6'	0.75'
RIFFLE 4	2+57.0	623.2	2+82.0	622.8	1.6	N/A - ROCK SILL 9	N/A - ROCK SILL 8	6'	0.75'
RIFFLE 3	2+97.0	622.4	3+22.0	622.0	1.6	N/A - ROCK SILL 7	N/A - ROCK SILL 6	6'	0.75'
RIFFLE 2	3+37.0	621.6	3+62.0	621.2	1.6	N/A - ROCK SILL 5	N/A - ROCK SILL 4	6'	0.75'
RIFFLE 1	3+77.0	620.8	4+02.0	620.4	1.6	N/A - ROCK SILL 3	N/A - ROCK SILL 2	6'	0.75'

ROCK SILL TABLE

STR #	STA.	POINT 'X' C/L OFFSET	A ARCH HEIGHT	B BANKFULL	X ELEV.	Y ELEV.
ROCK SILL 22	0+02.3	0'	1'	15'	630.5	631.25
ROCK SILL 21	0+17.0	0'	1'	15'	628.0	628.75
ROCK SILL 20	0+42.0	0'	1'	15'	627.6	628.35
ROCK SILL 19	0+57.0	0'	1'	15'	627.2	627.95
ROCK SILL 18	0+82.0	0'	1'	15'	626.8	627.55
ROCK SILL 17	0+97.0	0'	1'	15'	626.4	627.15
ROCK SILL 16	1+22.0	0'	1'	15'	626.0	626.75
ROCK SILL 15	1+37.0	0'	1'	15'	625.6	626.35
ROCK SILL 14	1+62.0	0'	1'	15'	625.2	625.95
ROCK SILL 13	1+77.0	0'	1'	15'	624.8	625.55
ROCK SILL 12	2+02.0	0'	1'	15'	624.4	625.15
ROCK SILL 11	2+17.0	0'	1'	15'	624.0	624.75
ROCK SILL 10	2+42.0	0'	1'	15'	623.6	624.35
ROCK SILL 9	2+57.0	0'	1'	15'	623.2	623.95
ROCK SILL 8	2+82.0	0'	1'	15'	622.8	623.55
ROCK SILL 7	2+97.0	0'	1'	15'	622.4	623.15
ROCK SILL 6	3+22.0	0'	1'	15'	622.0	622.75
ROCK SILL 5	3+37.0	0'	1'	15'	621.6	622.35
ROCK SILL 4	3+62.0	0'	1'	15'	621.2	621.95
ROCK SILL 3	3+77.0	0'	1'	15'	620.8	621.55
ROCK SILL 2	4+02.0	0'	1'	15'	620.4	621.15
ROCK SILL 1	4+17.0	0'	1'	15'	620.0	620.75
ROCK SILL 24	30+11.0	0'	0'	12'	632.82	633.85
ROCK SILL 23	30+23.0	0'	0'	12'	631.7	632.7

Montgomery Parks Bed Stability Mix (BSM) Tables

Purpose: Bed Stability Mix (BSM) is a mixture of sand, gravel, cobble, and rock that was installed within stream channels to stabilize areas of high stress, provide channel shaping, and create long-term stability, sufficient flow, aquatic habitat, and fish passage.

BSM Types: Selection of BSM type for a particular project should be made based on channel use, stream gradient, anticipated water power, etc.

Type A: For small ephemeral intermittent channels.

Material Size	Percentage of BSM
3/8" Native BSM	10%
Woodschlag	10%
Class B	20%
Large Stone	10%
Total:	100%

Type B: For mid-large channels (BFW=24') with moderate stresses.

Material Size	Percentage of BSM
3/8" Native BSM	20%
Class B	30%
Class II	30%
Class III	40%
Total:	100%

Type C: For small intermittent perennial channels (BFW=9') w/low stresses.

Material Size	Percentage of BSM
3/8" Native BSM	40%
Woodschlag	10%
Large Stone	20%
Class B	30%
Total:	100%

Type D: For mid-large channels (BFW=24') with moderate stresses.

Material Size	Percentage of BSM
3/8" Native BSM	20%
Class B	30%
Class II	30%
Class III	20%
Total:	100%

Type E: For smaller perennial channels (BFW=12') w/low-moderate stresses.

Material Size	Percentage of BSM
3/8" Native BSM	40%
Large Stone	10%
Class B	30%
Class II	20%
Total:	100%

Type F: For large channels with higher stresses.

Material Size	Percentage of BSM
3/8" Native BSM	20%
Class B	30%
Class II	30%
Class III	40%
Total:	100%

Type G: For mid-size channels (BFW=18') with moderate-high stresses.

Material Size	Percentage of BSM
3/8" Native BSM	10%
Class B	20%
Class I	20%
Class II	30%
Total:	100%

Notes:

- Native Stone Bed Material (NSBM) should be harvested prior to channel grading for reuse, especially in upper 12" of BSM.
- BSM materials shall consist of clean natural materials (i.e., no concrete, asphalt, stone dust, etc.).
- Materials should be well mixed prior to in-stream placement, installed in 12" lifts, and washed in to promote surface flow.
- Wash (in Run-off and (R) (R) (R) into each lift to beds in material and establish surface flow at top of flow corridor.
- Placed BSM lifts should be placed to avoid into stream channel to ensure stability and smooth transition.
- Perkay permit common borrow to be incorporated into lower lifts of BSM and silica sand in upper layers if washed in BSM does not seal BSM.
- Installed BSM should be checked and augmented as needed once baseflow conditions are observed and following storm events.
- Alternative BSM types may be submitted by design team for site-specific approval by Parks.
- Percentages listed are by volume. Actual content of each component may vary 5% up or down.

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
Reviewed	Date	Reviewed
Approved	Date	Approved

SM FILE # _____

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

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.



UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____

APPROVED

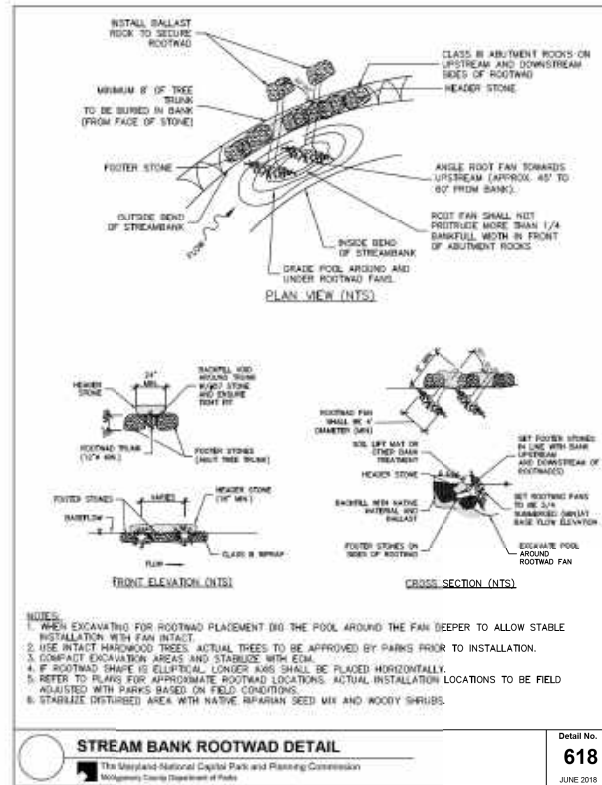
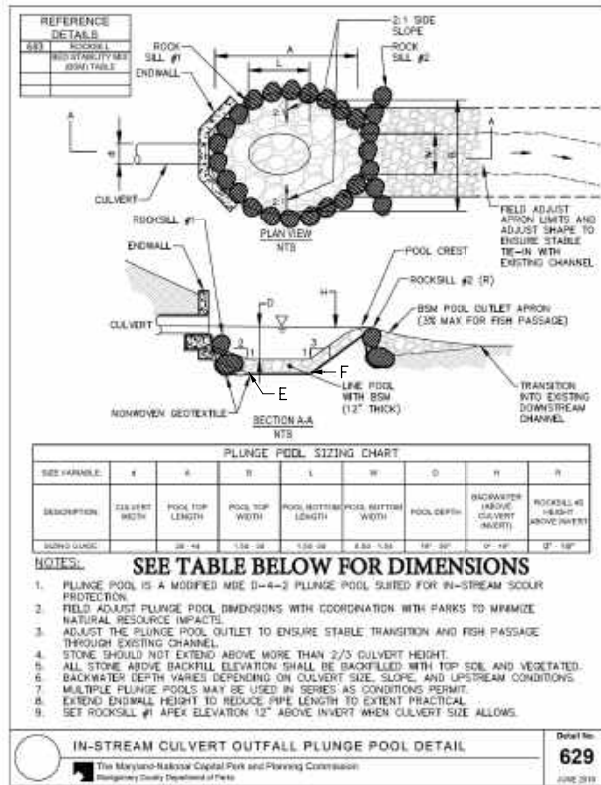
Chief, Division of Engineering Services _____ Date _____

Designed by : L.E.W. Drawn by : L.E.W. Checked by : C.V.M.

PLAN SHEET SR-04
STREAM RESTORATION DETAILS
MD 355 - CLARKSBURG
SHARED USE PATH

SCALE: N.T.S. 08/2020

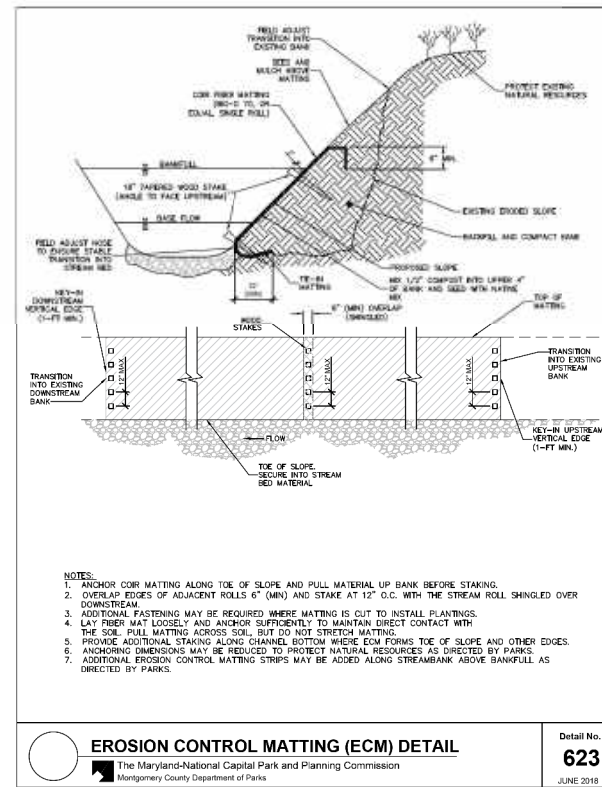
Project No. : C.I.P. PR. # 501744 SHEET 18 of 88



- Montgomery Parks Construction Notes for Stream Restoration on Parkland**
- A pre-construction meeting with the M-NCPPC (Parks) Construction Inspector, Urban Forester, Park Manager, Engineer, Contractor, and applicant's Stream Restoration Professionals (SRP) shall occur to ensure full understanding of the project goals, design intent, and field conditions at the time of construction. (The applicant is responsible for coordination with MDE and other regulatory agencies as required by permits.) Contact Jay Childs, Park Construction Manager, at 301.685.2574 to schedule this meeting.
 - Contractor shall be familiar with and implement MDE Waterway Construction Guidelines and MDE Best Management Practices for Working in Non-tidal Wetlands, Wetland Buffers, Waterways, and 100-Year Floodplain throughout construction. All in-channel construction shall occur "in the dry" with appropriate pump-around practices.
 - The applicant shall engage a SRP, an individual familiar with stream restoration revegetation design features and waterway construction techniques, to oversee in-stream construction activities to ensure stable channel construction, including appropriate field adjustments and natural resource protection. The applicant shall empower this person to direct Contractor's work as needed to ensure design intent is achieved. This person shall coordinate all adjustments and acceptance of structures with Parks as construction progresses.
 - Parks, in coordination with the SRP and contractor, may require minor adjustments to the layout/elevation of in-stream structures, streambank stabilization, and grading during construction to minimize disturbance to trees/tree roots and to ensure functionality of completed construction. Note that the contractor shall take care to protect trunks/roots designated to remain throughout construction.
 - Contractor shall layout critical design points (centerline station, offsets, elevations, structures, etc.) along the stream channel for review prior to structure installation. SRP shall coordinate with Parks to adjust/confirm stakesout to ensure channel stability and protect natural resources. Contractor shall be responsible for maintaining stakesout during construction until final acceptance by Parks. Contractor shall maintain level-logger equipment onsite to check grades as construction progresses.
 - Construction of in-stream revetments, including grade control, bank stabilization and habitat structures, shall be inspected by SRP and Parks under baseflow (not pump-around) conditions to determine any modifications required prior to acceptance. Additional inspections following storm events may result in additional modifications. Contractor is encouraged to utilize construction equipment for compaction of completed structures to ensure stability.
 - Access routes and staging areas shall be field adjusted with Parks to minimize impacts to natural resources. Equipment restrictions (e.g., <8 psi loaded ground pressure) may be required by Parks in sensitive areas. Access routes will be limited to 12' width, unless otherwise approved by Parks.
 - Contractor shall coordinate all tree protection measures and tree removals with Parks prior to construction. Protection measures, such as hardwood mats, tree planking, root aeration matting, equipment restrictions, mulch roads, tree protection fencing, etc. must be installed before equipment enters root areas.

- Contractor shall coordinate with Sediment Control Inspector and Parks to utilize trenchless sediment controls (i.e. compost socks, trenchless silt fences, etc.) and/or daily stabilization to avoid cutting through mature tree root systems. Where trenching is required, root pruning prior to excavation at the direction of Parks.
- Tree trunk/soil systems to remain shall not be damaged during placement of riprap, vegetated rock packs, riffle grade controls, rock dikes, and other revetments. Exact extent/orientation of stone placement shall be adjusted in the field, and work completed in a manner that minimizes impacts to terrestrial and aquatic natural resources.
- Contractor is responsible for control of water throughout construction, including stream flows and runoff through disturbed areas.
- In-stream areas where pump-around is removed at the end of the workday must be completed and stabilized daily. Disturbed areas above baseflow shall receive seed/mulch at the end of each workday. Once stream flow is re-established at the end of the workday, the contractor shall allow sufficient time to inspect the new flow pattern and make appropriate adjustments to ensure non-erosive conditions before vacating the site.
- Contractor is responsible for ensuring smooth transitions at upstream and downstream ends of work areas and between the streambed and its banks.
- Upon completion of in-stream revetments and channel grading, thalweg to be re-established as directed by the SRP and Parks.
- All exposed stone (including stone toe, imbricated rock walls, rock packs, etc.) above bankfull depth shall be backfilled with topsoil/compost to within 2-inches of rock surface and vegetated with native riparian seed and mulch.
- Voids should not be left in any completed in-stream structures. Structures should be checked in with BSM and/or stream bed mix to fill all voids. Constructed riffles and other grade control revetments will not be accepted by Parks until surficial baseflow is established.
- Applicant is responsible for completing fish rescues associated with all pump-arounds. Fish rescue teams should consist of properly trained personnel, based on Maryland Biological Stream Survey (MBSS) standards. A list of personnel certified in MBSS protocols can be found at <http://www.dnr.maryland.gov/streams/MBSSRegistry.asp>. Fish rescues require three (3) working days advanced notice to Parks.
- Where fish pool/aquatic habitat is specified for preservation or enhancement, completed construction should favor the following conditions:
 - Root-water interaction at baseflow
 - Maintaining void space between roots and undercut banks
 - Restoring post-construction flow patterns to provide adequate scour depth to naturally wash out pools and maintain adequate habitat
- Completed streambed profile shall not have revetment drops greater than six inches and constructed riffles shall not be steeper than 3% to ensure fish passage. Contractor will be required to modify/augment constructed revetments that exceed limits, or otherwise create fish passage restrictions at baseflow, as directed by SRP and Parks.

STR #	E STA.	F STA.	POOL ELEV.	POOL LENGTH	POOL BOTTOM WIDTH	POOL DEPTH	BACKWATER ABOVE CULVERT
POOL 11	0+03.3	0+12.5	626.5	11.2'	2'	1.5'	0.87'
POOL 10	0+43.0	0+53.7	626.1	10.7'	2'	1.1'	N/A
POOL 9	0+83.0	0+93.7	625.3	10.7'	2'	1.1'	N/A
POOL 8	1+23.0	1+33.7	624.5	10.7'	2'	1.1'	N/A
POOL 7	1+63.0	1+73.7	623.7	10.7'	2'	1.1'	N/A
POOL 6	2+03.0	2+13.7	622.9	10.7'	2'	1.1'	N/A
POOL 5	2+43.0	2+53.7	622.1	10.7'	2'	1.1'	N/A
POOL 4	2+83.0	2+93.7	621.3	10.7'	2'	1.1'	N/A
POOL 3	3+23.0	3+33.7	620.5	10.7'	2'	1.1'	N/A
POOL 2	3+63.0	3+73.7	619.7	10.7'	2'	1.1'	N/A
POOL 1	4+03.0	4+13.7	618.9	10.7'	2'	1.1'	N/A
POOL 13	30+00	30+10.0	631.85	10.0	4'	1.0'	LO
POOL 12	30+12.0	30+22.0	630.7	10.0	4'	1.0'	N/A



UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
100 EDIPSON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MD 20878

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

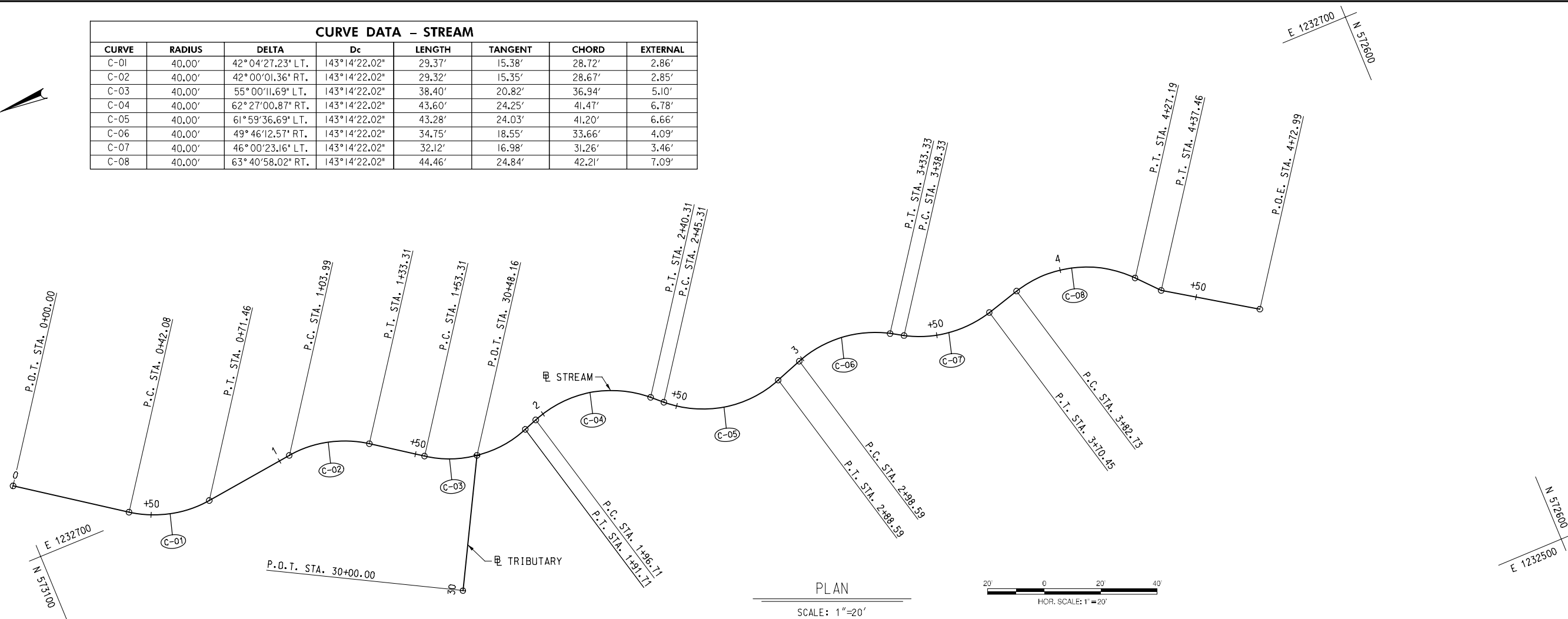
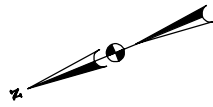
Designed by : L.E.W. Drawn by : L.E.W. Checked by : C.V.M.

**PLAN SHEET SR-05
STREAM RESTORATION DETAILS
MD 355 - CLARKSBURG
SHARED USE PATH**

SCALE N.T.S. 08/2020
Project No. : C.I.P. PR. # 501744 SHEET 19 of 88

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacemontgomery.com A United Liability Partnership

CURVE DATA - STREAM							
CURVE	RADIUS	DELTA	Dc	LENGTH	TANGENT	CHORD	EXTERNAL
C-01	40.00'	42°04'27.23" LT.	143°14'22.02"	29.37'	15.38'	28.72'	2.86'
C-02	40.00'	42°00'01.36" RT.	143°14'22.02"	29.32'	15.35'	28.67'	2.85'
C-03	40.00'	55°00'11.69" LT.	143°14'22.02"	38.40'	20.82'	36.94'	5.10'
C-04	40.00'	62°27'00.87" RT.	143°14'22.02"	43.60'	24.25'	41.47'	6.78'
C-05	40.00'	61°59'36.69" LT.	143°14'22.02"	43.28'	24.03'	41.20'	6.66'
C-06	40.00'	49°46'12.57" RT.	143°14'22.02"	34.75'	18.55'	33.66'	4.09'
C-07	40.00'	46°00'23.16" LT.	143°14'22.02"	32.12'	16.98'	31.26'	3.46'
C-08	40.00'	63°40'58.02" RT.	143°14'22.02"	44.46'	24.84'	42.21'	7.09'



PLAN
SCALE: 1"=20'

☒ OF CONSTRUCTION STREAM				
POINT DESCR.	STATION	COORDINATES		BEARING
		NORTH	EAST	
P.O.B.	0+00.00	573,099.5030	1,232,726.8023	
P.C.	0+42.08	573,065.1107	1,232,702.5517	S 35°11'17.76" W
P.I.	0+57.47	573,052.5376	1,232,693.6862	
P.T.	0+71.46	573,037.2643	1,232,695.5307	S 06°53'09.47" E
P.C.	1+03.99	573,004.9690	1,232,699.4309	
P.I.	1+19.34	572,989.7250	1,232,701.2718	
P.T.	1+33.31	572,977.1648	1,232,692.4396	S 35°06'51.90" W
P.C.	1+53.31	572,960.8047	1,232,680.9354	
P.I.	1+74.13	572,943.7704	1,232,668.9571	
P.T.	1+91.71	572,924.1884	1,232,676.0414	S 19°53'19.79" E
P.C.	1+96.71	572,919.4866	1,232,677.7424	
P.I.	2+20.96	572,896.6841	1,232,685.9917	
P.T.	2+40.31	572,878.8236	1,232,669.5903	S 42°33'41.08" W
P.C.	2+45.31	572,875.1408	1,232,666.2084	
P.I.	2+69.34	572,857.4404	1,232,649.9541	
P.T.	2+88.59	572,834.7780	1,232,657.9491	S 19°25'55.60" E
P.C.	2+98.59	572,825.3476	1,232,661.2760	
P.I.	3+17.14	572,807.8499	1,232,667.4489	
P.T.	3+33.33	572,791.8360	1,232,658.0769	S 30°20'16.97" W
P.C.	3+38.33	572,787.5207	1,232,655.5514	
P.I.	3+55.31	572,772.8645	1,232,646.9740	
P.T.	3+70.45	572,756.5139	1,232,651.5602	S 15°40'06.19" E
P.C.	3+82.73	572,744.6858	1,232,654.8779	
P.I.	4+07.58	572,720.7678	1,232,661.5867	
P.T.	4+27.19	572,704.1506	1,232,643.1220	S 48°00'51.83" W
P.I.	4+37.46	572,697.2803	1,232,635.4880	
P.O.T.	4+72.99	572,667.5362	1,232,616.0664	S 33°08'34.07" W

☒ OF CONSTRUCTION TRIBUTARY				
POINT DESCR.	STATION	COORDINATES		BEARING
		NORTH	EAST	
P.O.T.	30+00.00	572,966.4217	1,232,631.6960	
P.O.T.	30+48.16	572,943.5385	1,232,674.0699	S 61°37'46.28" E

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:			NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.
Stormwater Management:	Sediment Control Requirements:	Administrative Requirements:	
Reviewed _____ Date _____	Reviewed _____ Date _____	Reviewed _____ Date _____	
Approved _____ Date _____	Approved _____ Date _____	Approved _____ Date _____	
SM FILE # _____			
DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.			



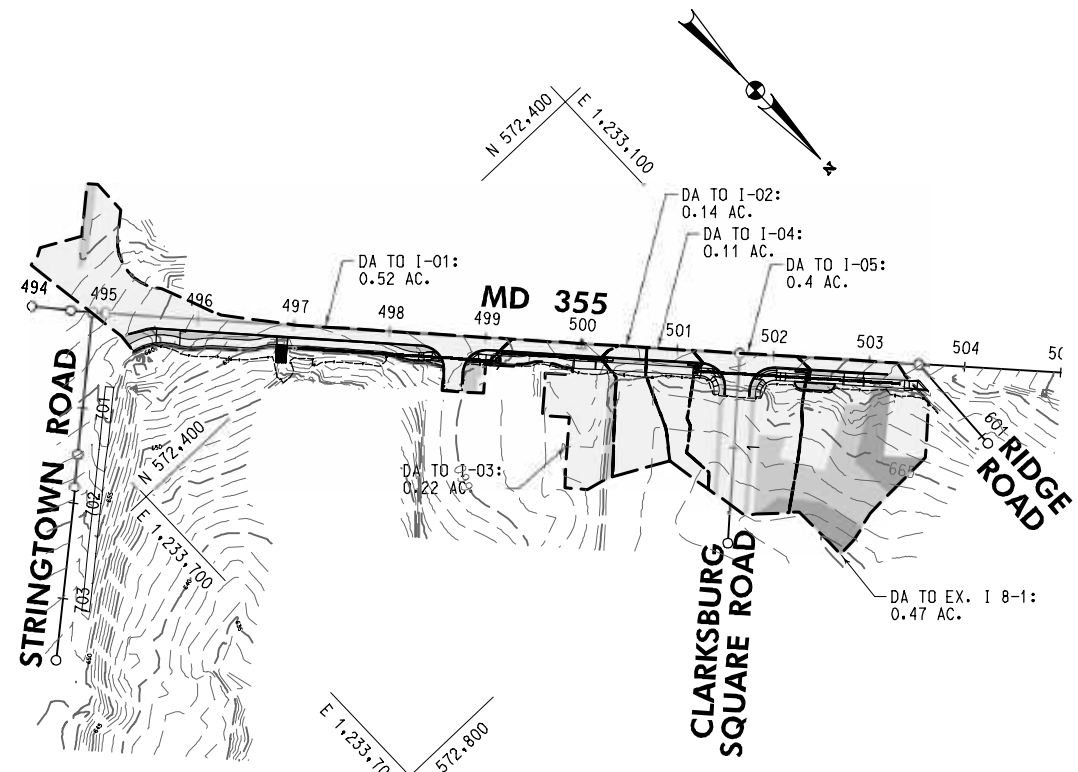
UPDATED 90% SUBMITTAL

NO.	REVISION	DATE	BY

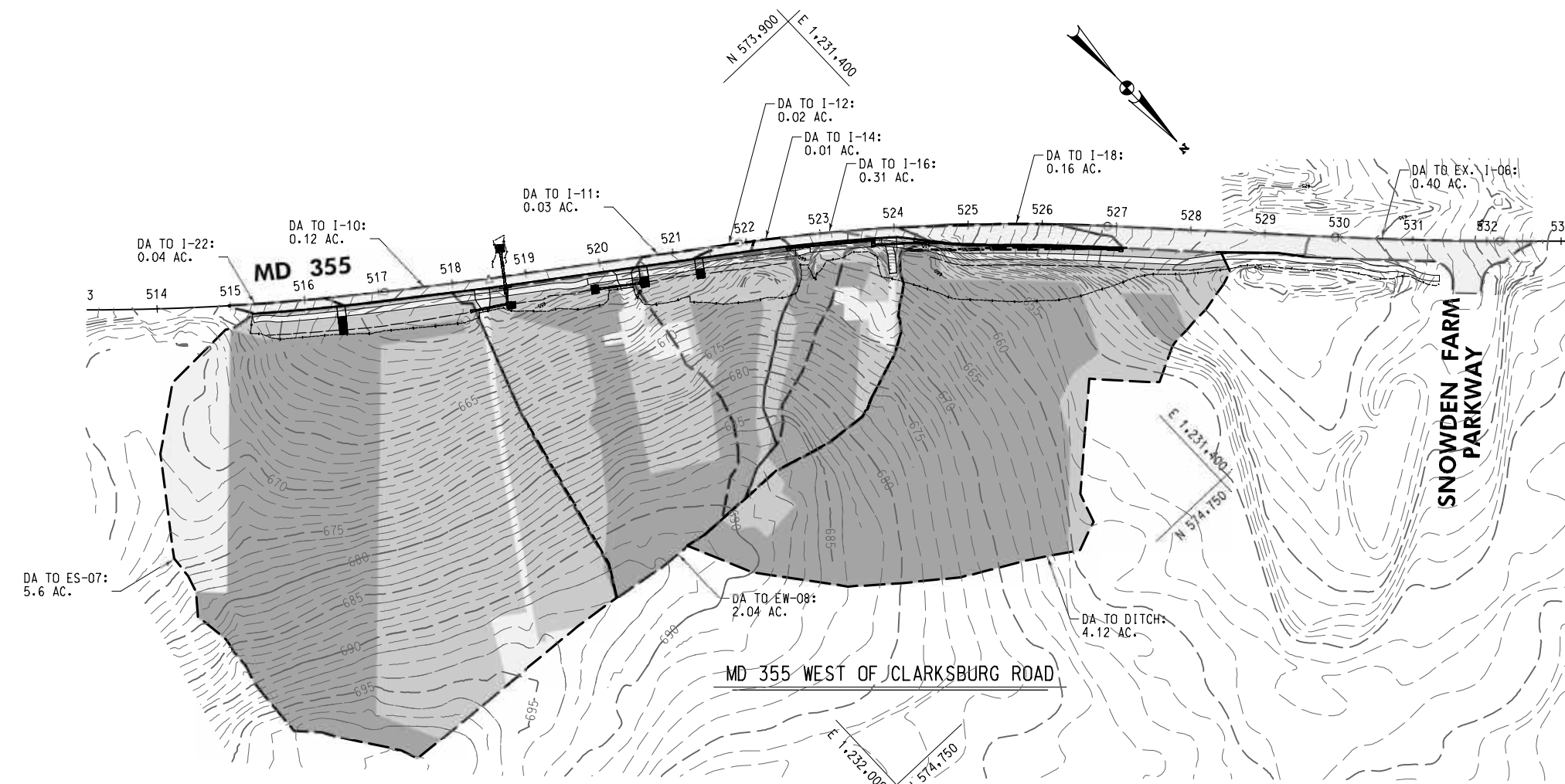
RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date _____
APPROVED	
Chief, Division of Engineering Services	Date _____
Designed by : L.E.W.	Drawn by : L.E.W. Checked by : C.V.M.

PLAN SHEET SR-06
STREAM RESTORATION GEOM. LAYOUT
MD 355 - CLARKSBURG
SHARED USE PATH

DATE: 8/24/2020
FILE: C:\V\63127013.0010\Highway\Cadd-Drainage\pSR-P006_MD355.dgn



MD 355 EAST OF CLARKSBURG ROAD



MD 355 WEST OF CLARKSBURG ROAD

LEGEND

	IMPERVIOUS AREA
	OPEN SPACE
	WOODED AREA

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10150 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410.494.9093 Tel / 410.667.0925 Fax
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UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section	Date
APPROVED	
Chief, Division of Engineering Services	Date

Designed by : J.D.W. Drawn by : J.D.W. Checked by : S.R.R.

**PLAN SHEET DA-01
 DRAINAGE AREA MAP
 MD 355 - CLARKSBURG
 SHARED USE PATH**

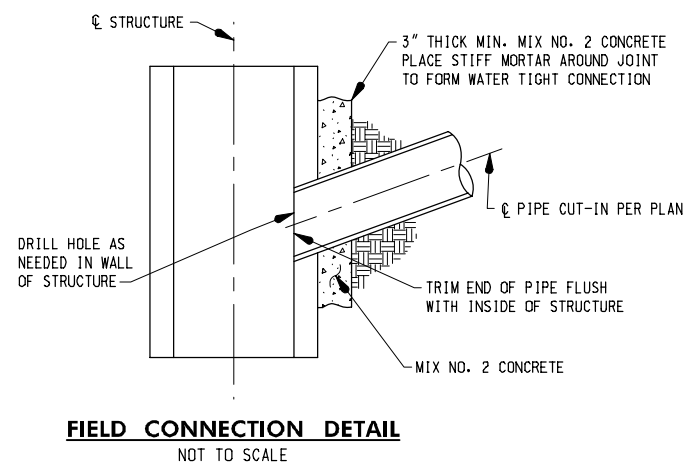
Project No. : C.I.P. PR. # 501744 SHEET 21 of 88

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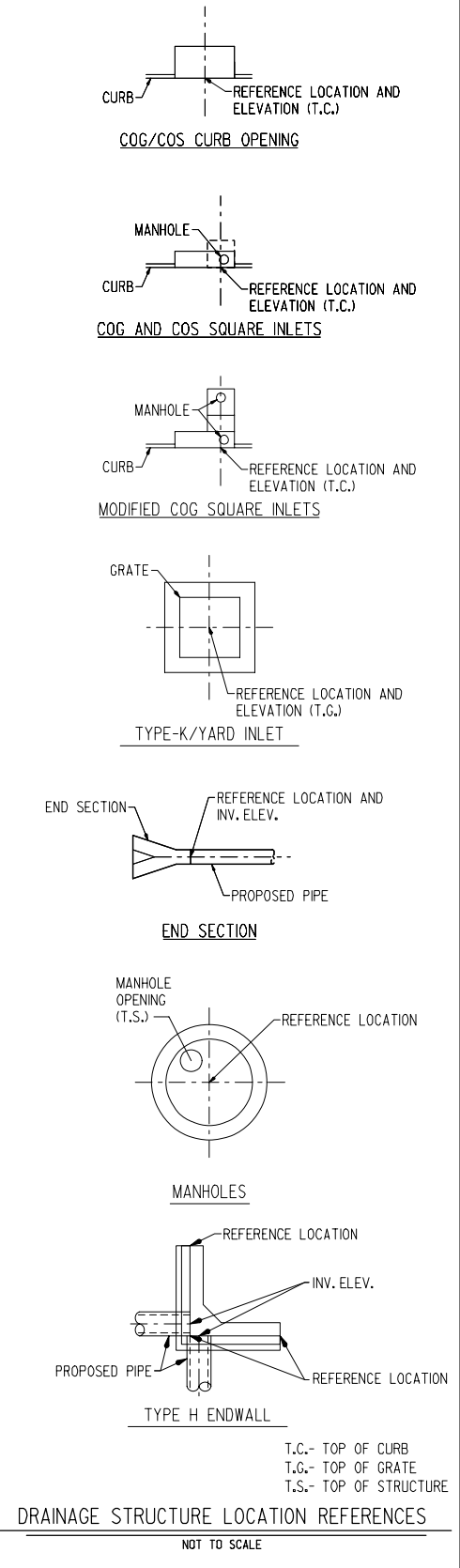
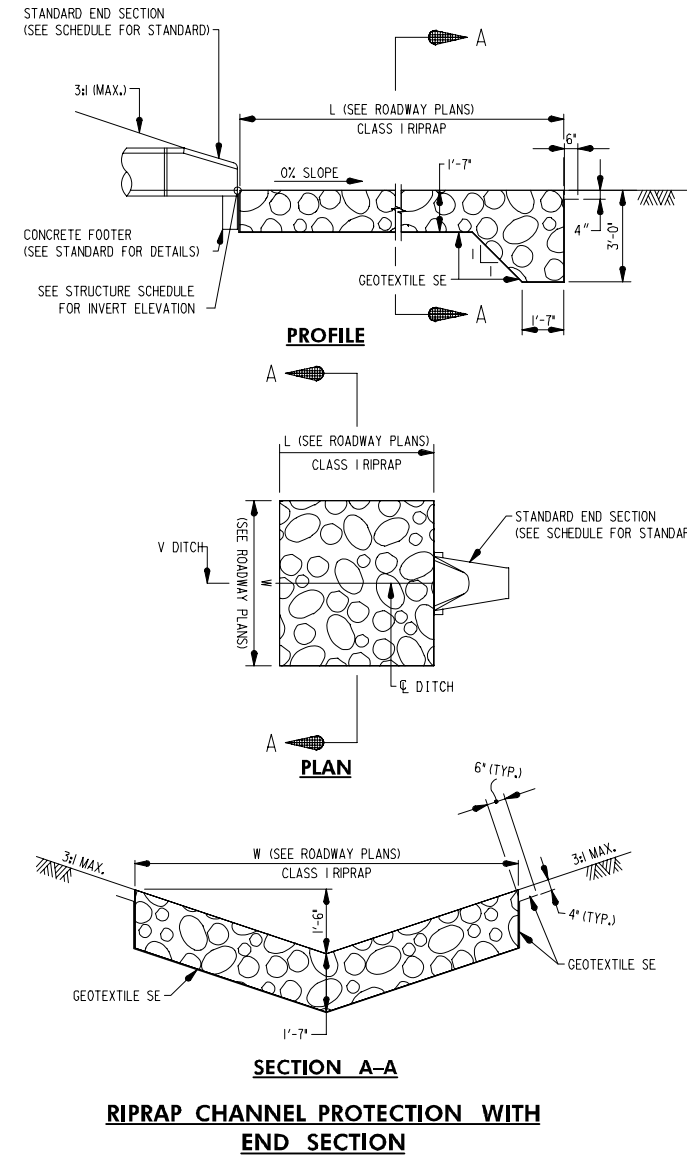
STRUCTURE SCHEDULE								
PLAN SHEET	NUMBER	STATION	OFFSET	TYPE	ELEVATION		STANDARD	VERTICAL DEPTH
					TOP	INV.		
PS-01	I-01	496+88.53	13.00' RT.	10' COG OPENING	657.27	N/A	MD 374.68	N/A
PS-02	I-02	500+25.07	13.00' RT.	STANDARD 10' COG INLET	662.79	656.62	MD 374.51	0.00
PS-02	I-03	499+15.20	13.00' RT.	STANDARD 15' COG INLET	660.41	654.10	MD 374.51	0.14
PS-02	I-04	501+20.27	13.00' RT.	MODIFIED 10' COG INLET *	663.40	657.40	SEE SHEET DD-02	0.00
PS-03	I-05	502+37.34	13.00' RT.	MODIFIED 15' COG INLET *	661.55	655.55	SEE SHEET DD-02	0.00
PS-04	I-22	516+47.01	13.00' RT.	10' COG OPENING	658.10	N/A	MD 374.68	N/A
PS-04	I-10	518+69.97	13.00' RT.	MODIFIED 15' COS INLET *	653.22	647.09	SEE SHEET DD-02	0.00
PS-05	I-11	520+57.00	13.00' RT.	10' COG OPENING	655.56	N/A	MD 374.68	N/A
PS-05	I-12	521+33.00	13.00' RT.	10' COG OPENING	657.22	N/A	MD 374.68	N/A
PS-05	I-14	522+55.72	13.00' RT.	STANDARD 5' COG INLET	658.25	652.08	MD 374.51	0.00
PS-06	I-16	523+70.69	13.00' RT.	MODIFIED 15' COG INLET *	653.80	647.63	SEE SHEET DD-02	0.00
PS-06	I-17	524+44.68	20.27' RT.	STANDARD 20' COG INLET	649.51	643.33	MD 374.51	0.00
PS-06	I-18	527+07.54	28.50' RT.	STANDARD 20' COG INLET	633.64	628.26	MD 374.51	0.00
PS-04	ES-01	518+69.97	26.50' LT.	30" STANDARD CONCRETE END SECTION ROUND	N/A	646.03	MD 368.01	N/A
PS-04	ES-07	518+25.62	40.56' RT.	24" STANDARD CONCRETE END SECTION ROUND	N/A	650.83	MD 368.01	N/A
PS-05	ES-13	520+43.81	34.79' RT.	18" STANDARD CONCRETE END SECTION ROUND	N/A	653.64	MD 368.01	N/A
PS-05	ES-14	520+00.31	34.77' RT.	18" STANDARD CONCRETE END SECTION ROUND	N/A	652.86	MD 368.01	N/A
PS-04	EW-08	518+68.96	36.74' RT.	STANDARD TYPE H ENDWALL FOR 24 INCH PIPE	N/A	650.36	MD 362.01	N/A
		518+68.96	43.24' RT.					
		518+75.47	36.72' RT.					
PS-02	MH-02	499+14.47	23.22' RT.	48" SQUARE STANDARD SHALLOW MANHOLE	660.49	653.92	MD 383.00	1.15

* NOTE: THE CONTRACTOR MUST SUBMIT THE ASSOCIATED SHOP DRAWINGS (FOR REVIEW AND APPROVAL) TO MR. FRANK BROWN (FBROWN1@MDOT.MARYLAND.GOV) OF MDOT SHA OHD-HIGHWAY HYDRAULICS DIVISION.

PIPE SCHEDULE								
PLAN SHEET	STRUCTURE FROM	STRUCTURE TO	SIZE	UPSTREAM INV.	DOWNSTREAM INV.	TYPE	LENGTH	COMMENT
PS-01 & 02	MH-02	EX. MH-01	18"	651.60	648.76	RCP CLASS IV	209'	
PS-02	I-02	I-03	15"	652.97	652.02	RCP CLASS IV	106'	
PS-02	I-03	MH-02	18"	651.77	651.70	RCP CLASS IV	4'	
PS-02 & 03	I-04	I-05	18"	657.40	655.65	RCP CLASS IV	113'	
PS-03	I-05	EX. I 8-1	18"	655.55	651.99	RCP CLASS IV	94'	TIE-IN TO INLET CONSTRUCTED UNDER PROJECT NO. 508000
PS-04	ES-07	EW-08	24"	650.83	650.61	RCP CLASS IV	44'	
PS-04	EW-08	I-10	24"	650.36	649.70	RCP CLASS IV	14'	
PS-04	I-10	ES-01	30"	647.09	646.03	RCP CLASS IV	47'	
PS-05	ES-13	ES-14	18"	653.75	652.75	RCP CLASS IV	44'	
PS-05 & 06	I-14	I-16	18"	652.08	647.73	RCP CLASS IV	111'	
PS-06	I-16	I-17	18"	647.63	643.43	RCP CLASS IV	70'	
PS-06	I-17	I-18	18"	643.33	628.43	RCP CLASS IV	257'	



RIPRAP OUTFALL SCHEDULE										
STRUCTURE ID	L (FT)	W (FT)	T (IN)	H (FT)	CLASS	TYPE	QTY (SY)	CUTOFF WALL (LF)	Q10 (CFS)	V10 (FPS)
ES-01	10.0	9.0	19	1.50	CLASS I	ROP III	10	9.0	17.9	9.0



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 www.wallacemontgomery.com A United Liability Partnership

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

**PLAN SHEET DD-01
DRAINAGE SCHEDULE & DETAILS
MD 355 - CLARKSBURG
SHARED USE PATH**

SCALE: N.T.S. 08/2020

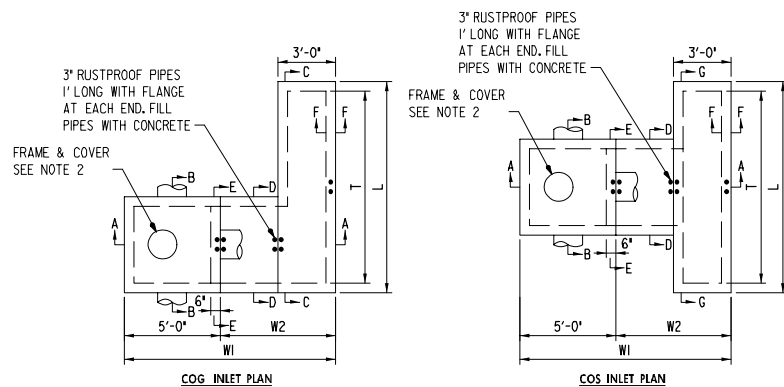
Project No.: C.I.P. PR. # 501744 SHEET 22 of 88

CONVEYANCE DITCH STAKEOUT				
PLAN SHEET	STATION	OFFSET	WIDTH	ELEVATION
PS-04	515+45.58	42.73' RT.	2'	661.00
PS-04	515+50.00	43.00' RT.	2'	660.33
PS-04	515+75.00	43.81' RT.	2'	658.02
PS-04	516+00.00	44.11' RT.	2'	656.86
PS-04	516+25.00	44.70' RT.	2'	655.84
PS-04	516+50.00	45.22' RT.	2'	654.54
PS-04	516+75.00	45.94' RT.	2'	653.66
PS-04	517+00.00	45.82' RT.	2'	652.37
PS-04	517+25.00	45.58' RT.	2'	651.77
PS-04	517+50.00	44.96' RT.	2'	651.28
PS-04	517+75.00	44.23' RT.	2'	651.00
PS-04	518+00.00	43.47' RT.	2'	650.93
PS-04	518+19.57	41.51' RT.	2'	650.87

CONVEYANCE DITCH STAKEOUT				
PLAN SHEET	STATION	OFFSET	WIDTH	ELEVATION
PS-04	518+75.00	38.80' RT.	2'	650.60
PS-04 & 05	519+00.00	38.70' RT.	2'	650.74
PS-05	519+25.00	35.38' RT.	2'	651.72
PS-05	519+50.00	35.84' RT.	2'	652.22
PS-05	519+75.00	35.23' RT.	2'	652.60
PS-05	519+94.15	34.87' RT.	2'	652.75

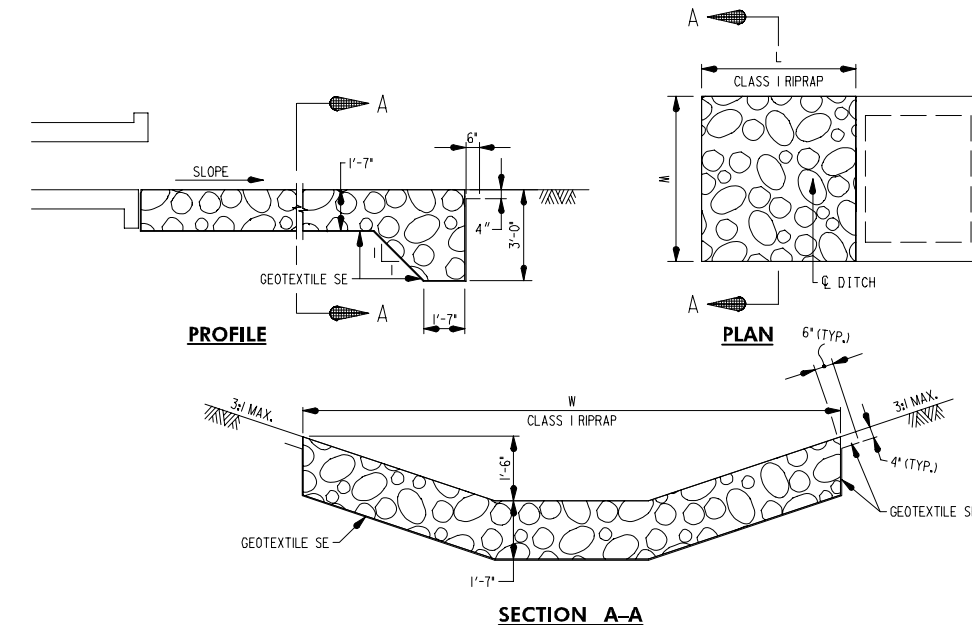
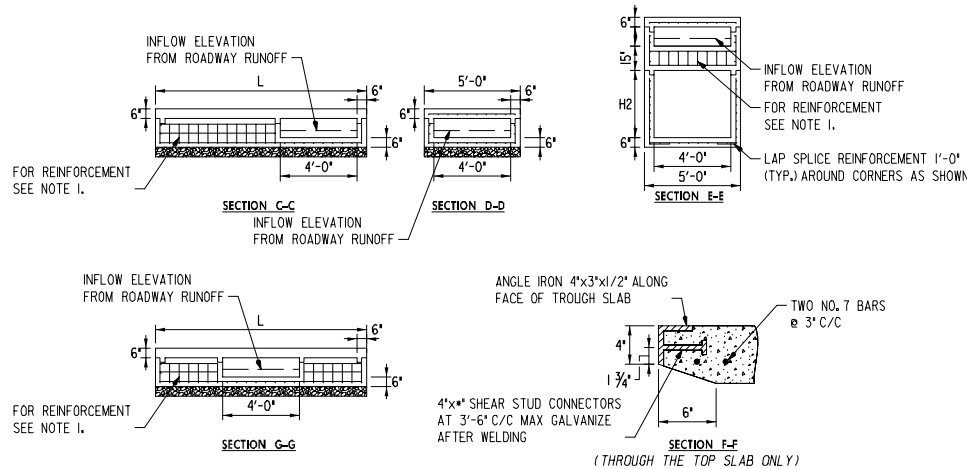
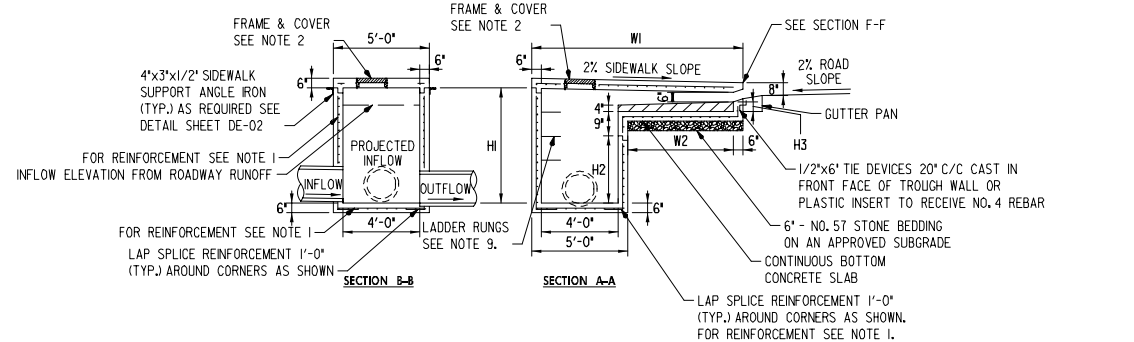
GRASS SWALE STAKEOUT				
PLAN SHEET	STATION	OFFSET	WIDTH	ELEVATION
PS-05	520+50.00	34.76' RT.	2'	653.75
PS-05	520+75.00	34.40' RT.	2'	654.36
PS-05	521+00.00	33.27' RT.	2'	654.95
PS-05	521+25.00	34.75' RT.	2'	655.50
PS-05	521+50.00	34.75' RT.	2'	656.05
PS-05	521+75.00	34.75' RT.	2'	656.48
PS-05	522+00.00	34.75' RT.	2'	656.84
PS-05	522+25.00	34.75' RT.	2'	656.89
PS-05	522+50.00	34.75' RT.	2'	656.94

CONVEYANCE DITCH STAKEOUT				
PLAN SHEET	STATION	OFFSET	WIDTH	ELEVATION
PS-06	524+46.51	42.46' RT.	2'	647.79
PS-06	524+50.00	43.19' RT.	2'	647.57
PS-06	524+75.00	51.70' RT.	2'	645.99
PS-06	525+00.00	55.42' RT.	2'	644.25
PS-06	525+25.00	55.42' RT.	2'	642.80
PS-06	525+50.00	55.42' RT.	2'	641.34
PS-06	525+75.00	55.42' RT.	2'	639.75
PS-06	526+00.00	55.42' RT.	2'	638.23
PS-06	526+25.00	55.42' RT.	2'	636.66
PS-06	526+50.00	55.42' RT.	2'	635.16
PS-06	526+75.00	55.42' RT.	2'	633.66
PS-06	527+00.00	55.42' RT.	2'	632.37
PS-06	527+25.00	55.42' RT.	2'	631.33
PS-06	527+50.00	55.42' RT.	2'	630.50
PS-06	527+75.00	55.04' RT.	2'	629.73
PS-06 & 07	528+00.00	54.37' RT.	2'	629.04
PS-07	528+25.00	49.57' RT.	2'	628.52
PS-07	528+38.61	46.95' RT.	2'	628.36



MODIFIED COG INLET DIMENSION TABLE							
INLET	T (FT)	L (FT)	H1 (FT)	H2 (FT)	H3 (IN)	W1 (FT)	W2 (FT)
I-04	10.0	11.0	5.72	3.80	5.44	11.0	6.0
I-05	15.0	16.0	5.72	3.80	5.44	11.0	6.0
I-16	15.0	16.0	5.72	3.80	5.44	11.0	6.0

MODIFIED COS INLET DIMENSION TABLE							
INLET	T (FT)	L (FT)	H1 (FT)	H2 (FT)	H3 (IN)	W1 (FT)	W2 (FT)
I-10	15.0	16.0	5.72	3.80	5.44	11.0	6.0



COG OPENING OUTFALL PROTECTION SCHEDULE										
STRUCTURE ID	Lg (FT)	W (FT)	T (IN)	H (FT)	CLASS	SLOPE	QTY (SY)	CUTOFF WALL (LF)	Q10 (CFS)	V10 (FPS)
I-01	18.2	11.0	19	N/A	CLASS I	33%	23	N/A	2.75	3.14
I-11	13.0	11.0	19	1.02	CLASS I	25%	16	N/A	0.2	1.04
I-12	12.0	11.0	19	1.02	CLASS I	25%	18	N/A	0.1	0.91
I-22	24.0	11.0	19	1.02	CLASS I	25%	30	N/A	0.2	1.19

NOTES

- INLET MAY BE PRECAST OR CAST IN PLACE. REINFORCEMENT SHALL BE EPOXY COATED NO. 4 BARS PLACED IN THE CENTER OF TOOLS, AND INCIDENTALS REQUIRED TO SATISFACTORILY CONSTRUCT THE INLET AND COMPLETE THE WORK. INLET WALLS AT 6" C/C TWO WAYS. REINFORCEMENT STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615, GRADE 60.
- FOR MANHOLE FRAME AND COVER SEE MD 383.61.
- CONCRETE SHALL BE MIX NO. 3.
- CURB OPENINGS SHALL NOT ENCRONCH ON CROSSWALK AREAS.
- A CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 2 IN/FT TOWARD THE OUTLET SHALL BE PROVIDED IN THE FIELD.
- GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
- SLOPED TROUGH FLOOR TO BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
- PRECAST INLET JOINTS - THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.
- LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-3" C/C. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
- ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123. SEE STDS. MD 374.55 & MD 374.64.
- SEE STANDARD MD 374.65 FOR DEPRESSED GUTTER PAN.
- CUSTOM COG/COS INLET SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH CUSTOM COG/COS INLET. PAYMENT WILL BE FULL COMPENSATION FOR ALL CONCRETE, REINFORCEMENT, LADDER RUNGS, EXCAVATION, LABOR, EQUIPMENT.

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

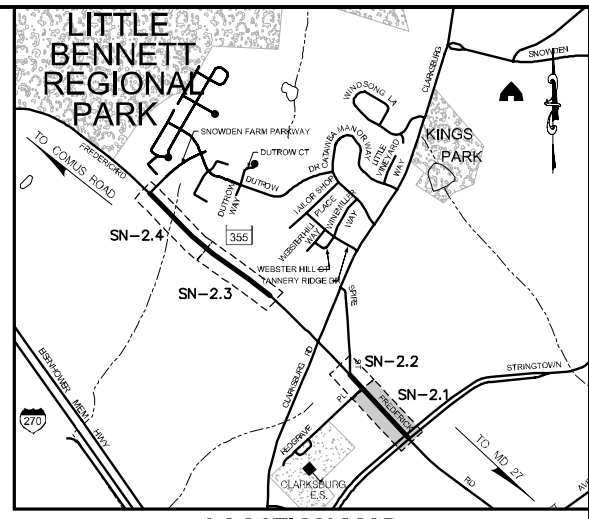
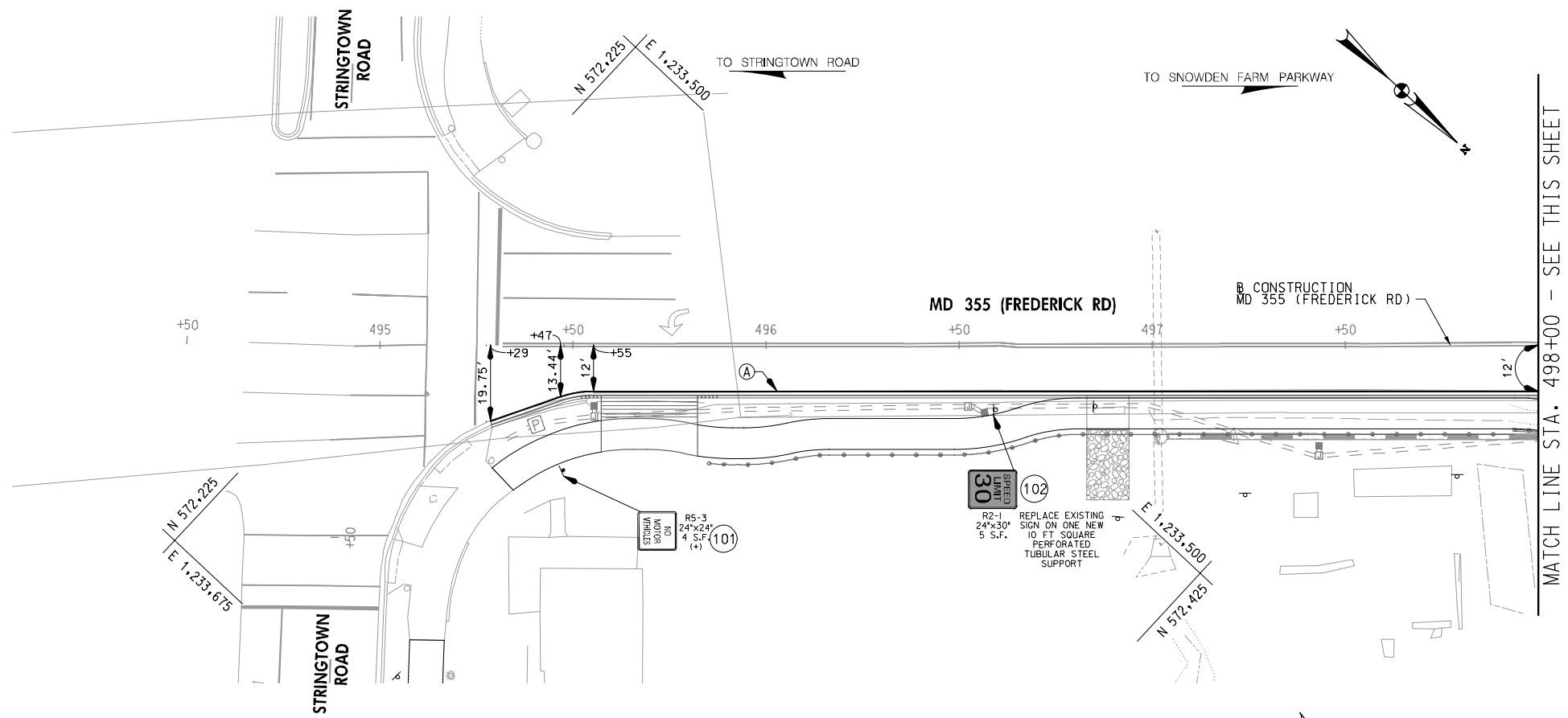
Designed by : J.D.W. Drawn by : J.D.W. Checked by : S.R.R.

PLAN SHEET DD-02
DRAINAGE DETAILS
MD 355 - CLARKSBURG
SHARED USE PATH

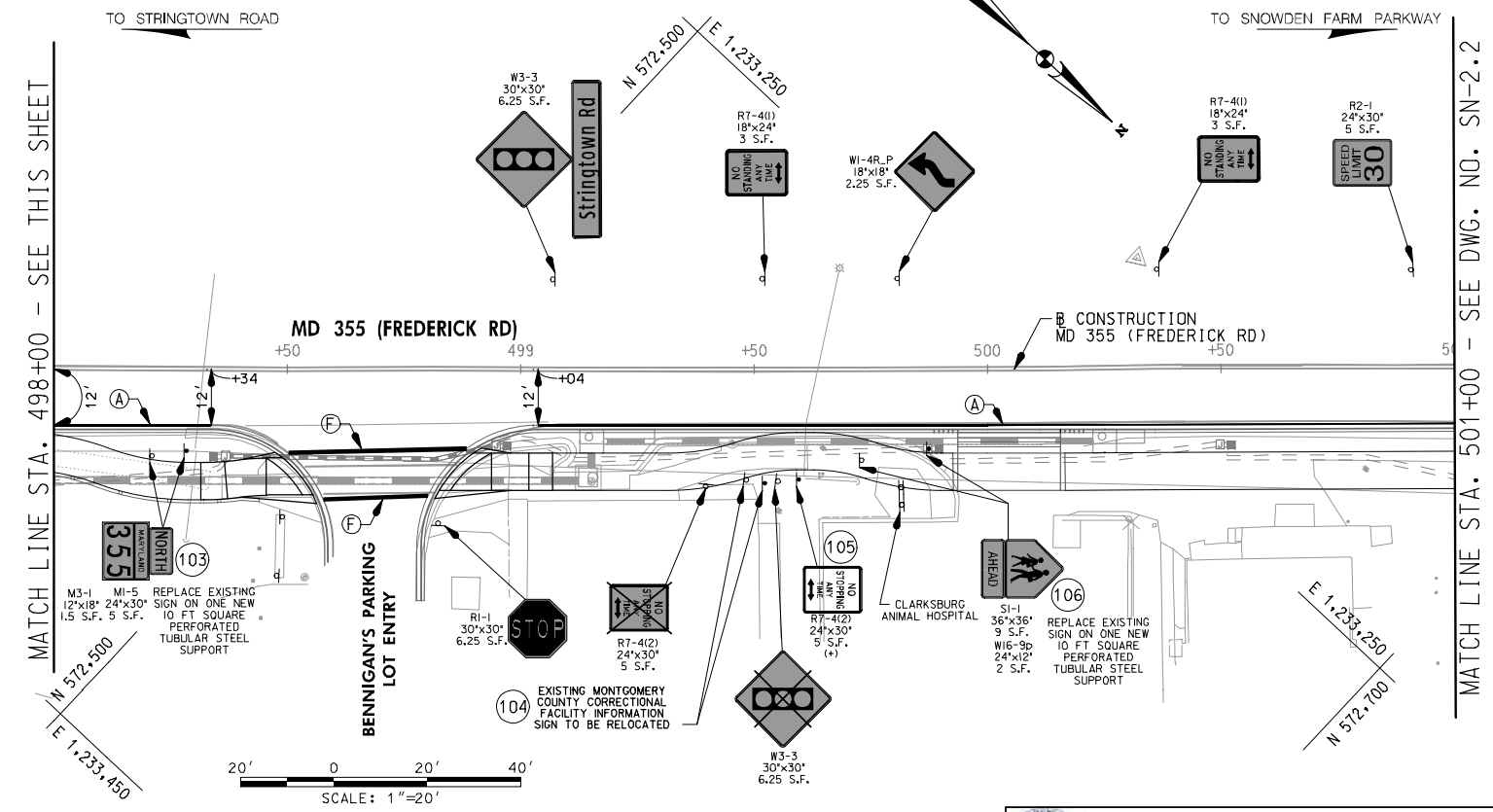
Project No. : C.I.P. PR. # 501744 SHEET 23 of 88

08/2020

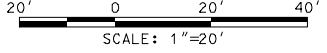
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Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
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LOCATION MAP
SCALE 1"=1000'



LEGEND	
	PROPOSED SIGN & SUPPORT
	EXISTING SIGN & SUPPORT
	EXISTING SIGN & SUPPORT TO BE REMOVED
	LANE USE ARROW
(A)	5' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
(B)	5' SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS
(C)	5' DASHED WHITE THERMOPLASTIC PAVEMENT MARKINGS (3' LINE, 9' SPACE)
(D)	5' SOLID DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKINGS
(E)	10' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
(F)	12' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
(G)	24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
(H)	THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
(I)	EXISTING PAVEMENT MARKINGS TO REMAIN
(J)	EXISTING PAVEMENT MARKINGS TO BE REMOVED
+	INSTALL ON ONE SQUARE PERFORATED TUBULAR STEEL SUPPORT



APPROVALS		REVISIONS	
TEAM LEADER			
ASST. DIV. CHIEF			
DIVISION CHIEF			
OFFICE DIRECTOR			

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

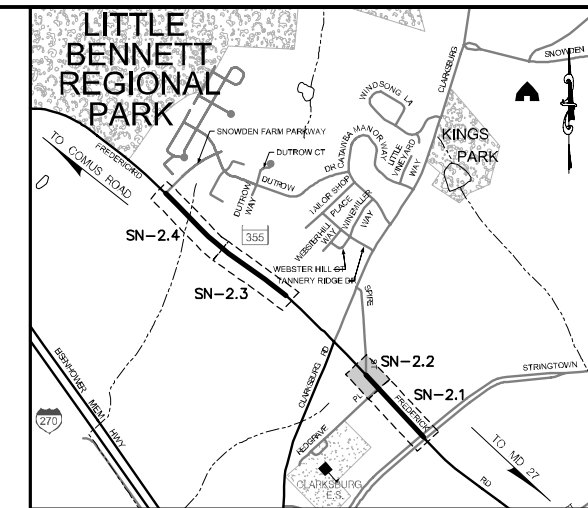
Designed by : J.D.W. Drawn by : J.D.W. Checked by : J.L.R.

PLAN SHEET SN-2.1
SIGNING & PAVEMENT MARKING PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 495+29 TO STA. 501+00

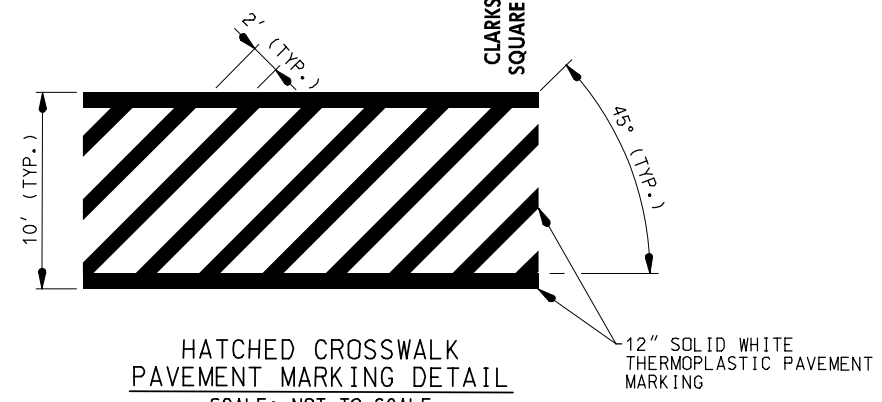
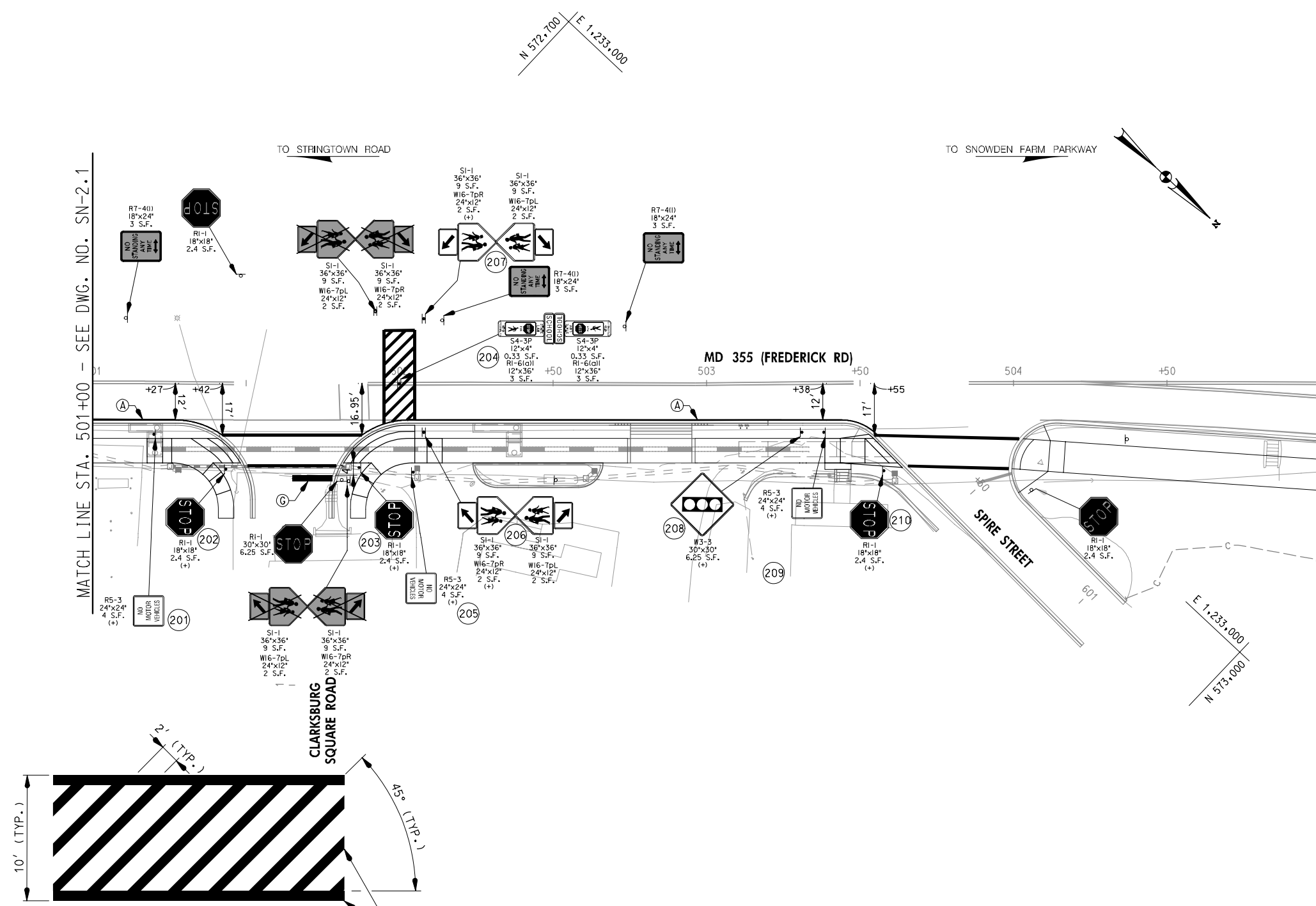
Project No. : C.I.P. PR. # 501744 SHEET 49 of 88

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacefmontgomery.com

FILED: 9/24/2020
FILE: C:\Users\jdw\OneDrive\Highways\Cadd\pSN-2001_MD355.dgn

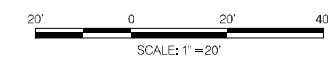


LOCATION MAP
SCALE 1"=1000'



LEGEND

	(A) 5' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	(B) 5' SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS
	(C) 5' DASHED WHITE THERMOPLASTIC PAVEMENT MARKINGS (3' LINE, 9' SPACE)
	(D) 5' SOLID DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKINGS
	(E) 10' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	(F) 12' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	(G) 24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
	(H) THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
	(I) EXISTING PAVEMENT MARKINGS TO REMAIN
	(J) EXISTING PAVEMENT MARKINGS TO BE REMOVED
	+ INSTALL ON ONE SQUARE PERFORATED TUBULAR STEEL SUPPORT



APPROVALS		REVISIONS	
TEAM LEADER			
ASST. DIV. CHIEF			
DIVISION CHIEF			
OFFICE DIRECTOR			

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

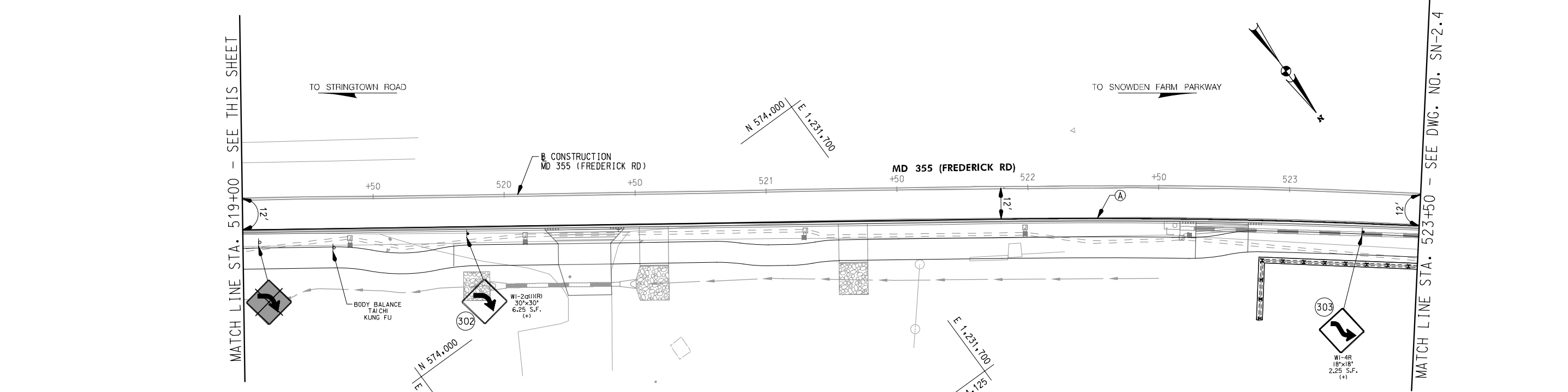
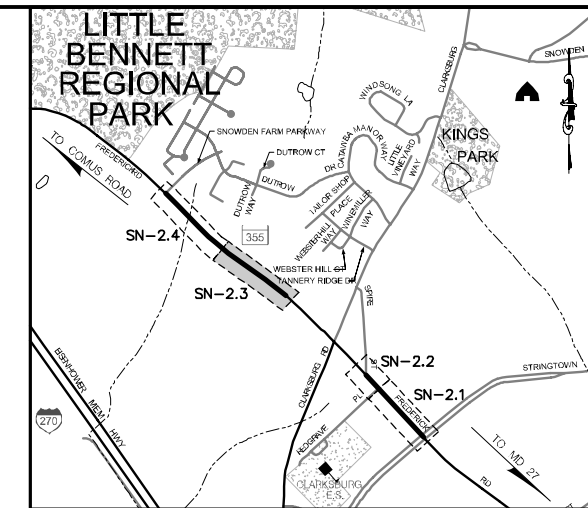
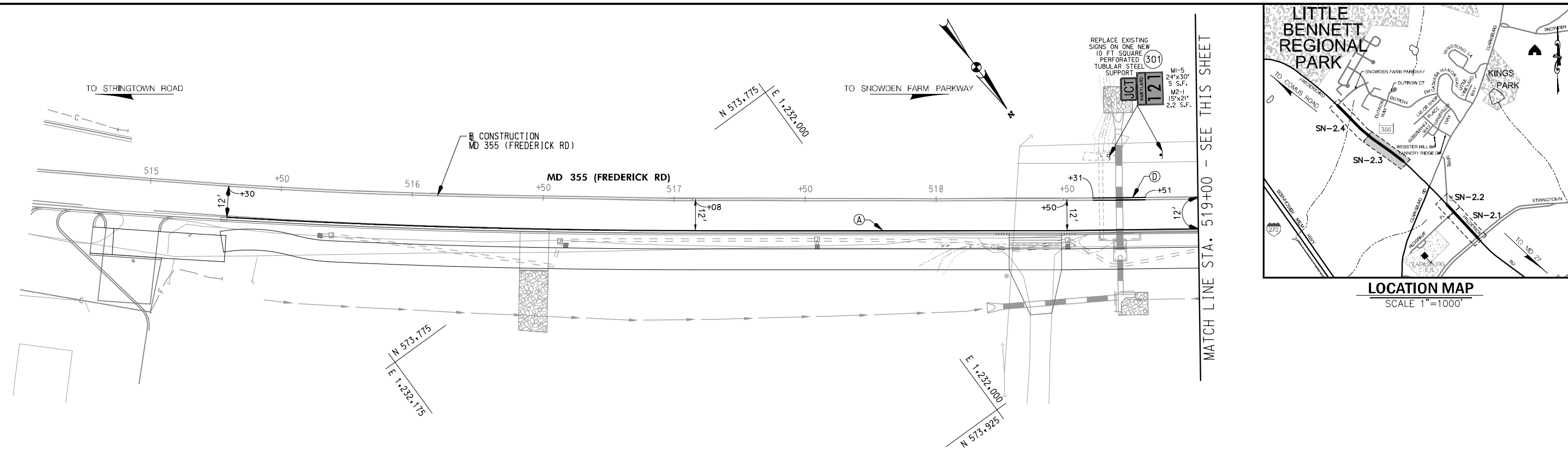
Designed by : J.D.W. Drawn by : J.D.W. Checked by : J.L.R.

PLAN SHEET SN-2.2
SIGNING & PAVEMENT MARKING PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 501+00 TO STA. 505+00

Project No. : C.I.P. PR. # 501744 SHEET 50 of 88

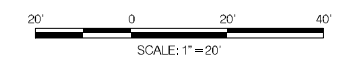
WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacefmontgomery.com

DATE: 9/24/2020
FILE: C:\V\603\21013.0010\Highway\Code\pSN-2002_MD355.dgn



LEGEND

	PROPOSED SIGN & SUPPORT	(A)	5' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	EXISTING SIGN & SUPPORT	(B)	5' SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS
	EXISTING SIGN & SUPPORT TO BE REMOVED	(C)	5' DASHED WHITE THERMOPLASTIC PAVEMENT MARKINGS (3' LINE, 9' SPACE)
	LANE USE ARROW	(D)	5' SOLID DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKINGS
		(E)	10' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
		(F)	12' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
		(G)	24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
		(H)	THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
		(I)	EXISTING PAVEMENT MARKINGS TO REMAIN
		(J)	EXISTING PAVEMENT MARKINGS TO BE REMOVED
		+	INSTALL ON ONE SQUARE PERFORATED TUBULAR STEEL SUPPORT



APPROVALS		REVISIONS	
TEAM LEADER			
ASST. DIV. CHIEF			
DIVISION CHIEF			
OFFICE DIRECTOR			

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by : J.D.W. Drawn by : J.D.W. Checked by : J.L.R.

PLAN SHEET SN-2.3
SIGNING & PAVEMENT MARKING PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 514+50 TO STA. 523+50

08/2020

Project No. : C.I.P. PR. # 501744 SHEET 51 of 88

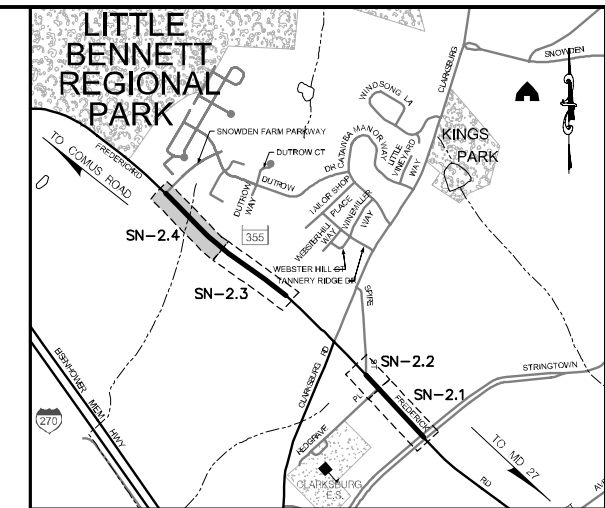
WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacemontgomery.com A Limited Liability Partnership

DATE: 8/24/2020
FILE: C:\V\603\21013.0010\Highwaya\Cadd_lpSN-2003_MD355.dgn

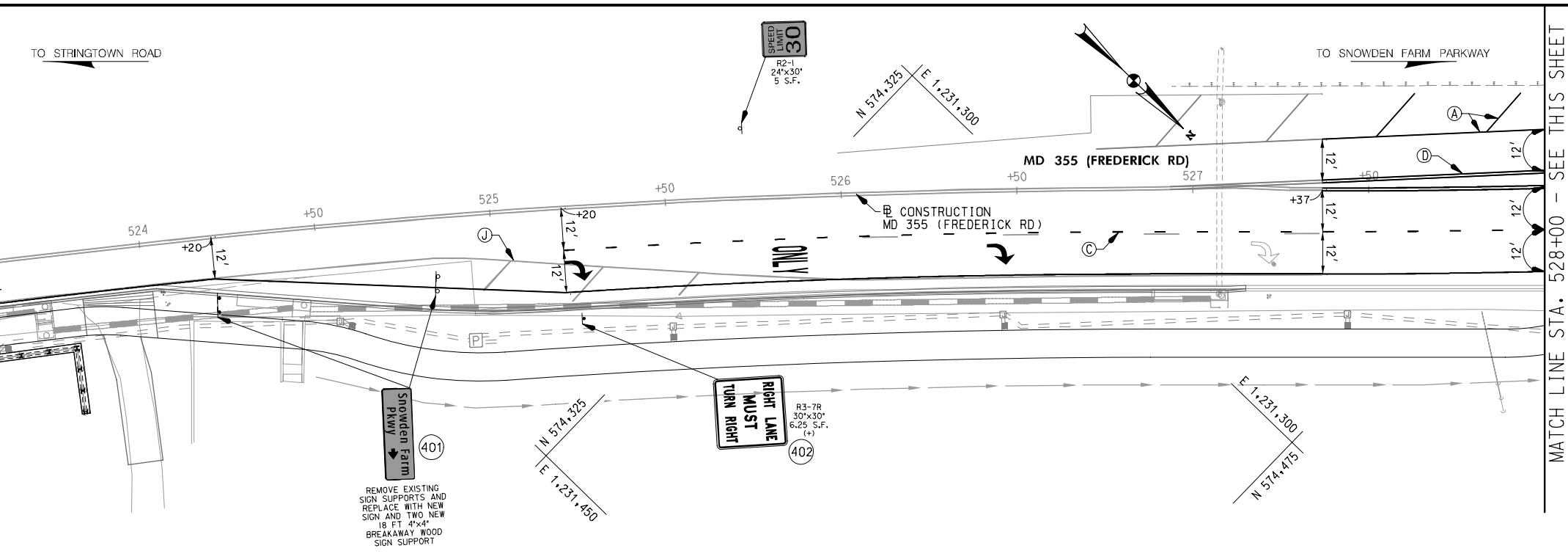
MATCH LINE STA. 523+50 - SEE DWG. NO. SN-2.3

TO STRINGTOWN ROAD

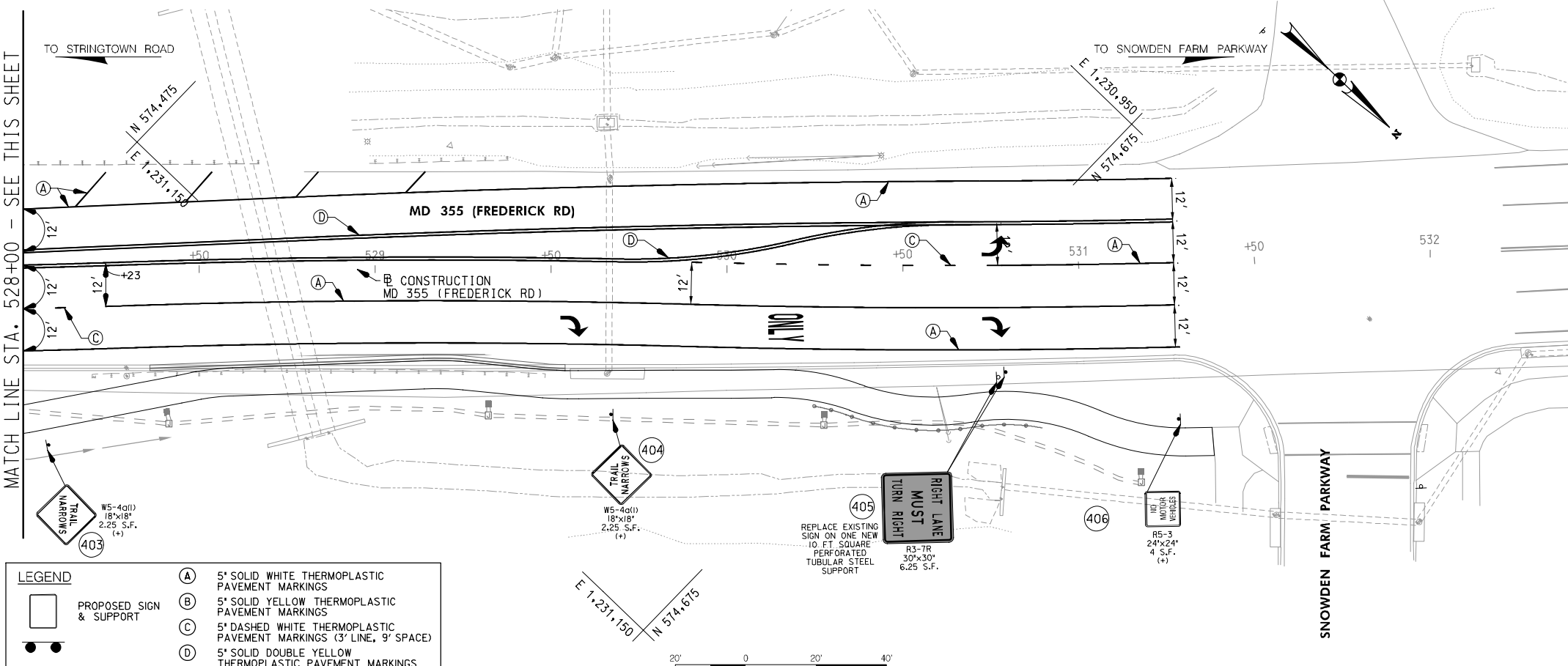
TO SNOWDEN FARM PARKWAY



LOCATION MAP
SCALE 1"=1000'

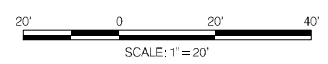


MATCH LINE STA. 528+00 - SEE THIS SHEET



LEGEND

	(A) 5' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	(B) 5' SOLID YELLOW THERMOPLASTIC PAVEMENT MARKINGS
	(C) 5' DASHED WHITE THERMOPLASTIC PAVEMENT MARKINGS (3' LINE, 9' SPACE)
	(D) 5' SOLID DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKINGS
	(E) 10' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	(F) 12' SOLID WHITE THERMOPLASTIC PAVEMENT MARKINGS
	(G) 24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
	(H) THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
	(I) EXISTING PAVEMENT MARKINGS TO REMAIN
	(J) EXISTING PAVEMENT MARKINGS TO BE REMOVED
	+ INSTALL ON ONE SQUARE PERFORATED TUBULAR STEEL SUPPORT



APPROVALS		REVISIONS	
TEAM LEADER			
ASST. DIV. CHIEF			
DIVISION CHIEF			
OFFICE DIRECTOR			

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

Chief, Division of Engineering Services _____ Date _____

Designed by : J.D.W. Drawn by : J.D.W. Checked by : J.L.R.

PLAN SHEET SN-2.4
SIGNING & PAVEMENT MARKING PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
STA. 523+50 TO STA. 532+50

Project No. : C.I.P. PR. # 501744 SHEET 52 of 88

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacemontgomery.com

DATE: 9/24/2020
FILE: C:\V\603\217013.001\0\Highway\1_Cadd\pSN-2004_MD355.dgn

SIGN NO.	REMARKS	CODE NUMBERS*												
		1	2	3	4	5	6	7	8	9	10	11	12	13
101	D11-1 (18"x24") 'BIKE ROUTE, R5-3 (24"x24") 'NO MOTOR VEHICLES'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	7	1	1									
102	RELOCATE R2-1 (24"x30") 'SPEED LIMIT 30'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT		1	1	5								
103	RELOCATE M3-1 (12"x18") 'NORTH', M1-5 (24"x30") 'MARYLAND 355'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT		1	1	6.5								
104	RELOCATE MONTGOMERY COUNTY CORRECTIONAL FACILITY SIGN	ONE SQ PERFORATED TUBULAR STEEL SUPPORT		1	1	2								
105	R7-4(2) (24"x30") 'NO STOPPING ANY TIME'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	5	1	1									
106	RELOCATE W16-9 (24"x12") 'AHEAD', S1-1 (36"x36") SCHOOL	ONE SQ PERFORATED TUBULAR STEEL SUPPORT		1	1	5								
	PAVEMENT MARKINGS						503		61		13			
201	D11-1 (18"x24") 'BIKE ROUTE, R5-3 (24"x24") 'NO MOTOR VEHICLES'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	7	1	1									
202	R1-1 (18"x18") 'STOP'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	2.25	1	1									
203	R1-1 (18"x18") 'STOP'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	2.25	1	1									
204	S4-3P (12"x4") 'SCHOOL' (2), R1-6(a)1 (12"x36") IN-STREET PEDESTRIAN CROSSING (2)		6.67											
205	D11-1 (18"x24") 'BIKE ROUTE, R5-3 (24"x24") 'NO MOTOR VEHICLES'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	7	1	1									
206	S1-1 (36"x36") SCHOOL (2), W16-7pR (24"x12") ARROW PLAQUE, W16-7pL (24"x12") ARROW PLAQUE	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	22	1	1									
207	S1-1 (36"x36") SCHOOL (2), W16-7pR (24"x12") ARROW PLAQUE, W16-7pL (24"x12") ARROW PLAQUE	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	22	1	1									
208	W3-3 (30"x30") SIGNAL AHEAD	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	6.25	1	1									
209	D11-1 (18"x24") 'BIKE ROUTE, R5-3 (24"x24") 'NO MOTOR VEHICLES'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	7	1	1									
210	R1-1 (18"x18") 'STOP'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	2.25	1	1									
	PAVEMENT MARKINGS						213		154					
301	RELOCATE M2-1 (15"x21") 'JCT, M1-5 (24"x30"), 'MARYLAND 121'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT		1	1	7.19								
302	W1-2a(1)(R) (30"x30") CURVE	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	6.25	1	1									
303	W1-4R (18"x18") REVERSE CURVE	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	2.25	1	1									
	PAVEMENT MARKINGS						820		40					
401	RELOCATE EXISTING SIGN	TWO 4"x4" WOOD SUPPORT												36
402	R3-7R (30"x30") 'RIGHT LANE MUST TURN RIGHT'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	6.25	1	1									
403	W5-4a(1) (18"x18") 'TRAIL NARROWS'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	2.25	1	1									
404	W5-4a(1) (18"x18") 'TRAIL NARROWS'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	2.25	1	1									
405	R3-7R (30"x30") 'RIGHT LANE MUST TURN RIGHT'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	6.25	1	1									
406	D11-1 (18"x24") 'BIKE ROUTE, R5-3 (24"x24") 'NO MOTOR VEHICLES'	ONE SQ PERFORATED TUBULAR STEEL SUPPORT	7	1	1									
	PAVEMENT MARKINGS						1384				126			
	SUBTOTAL THIS SHEET		129.17	23	23	25.69	2920	40	215		13	126		

* CODE NUMBER DESCRIPTION & UNIT		
CODE NUMBERS	DESCRIPTION	UNIT
1	SHEET ALUMINUM SIGNS	SF
2	SQUARE PERFORATED TUBULAR STEEL SIGN POSTS	EA
3	SQUARE TUBULAR STEEL ANCHOR BASES	EA
4	RELOCATE EXISTING GROUND MOUNTED SIGNS	SF
5	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF
6	5 INCH WHITE THERMOPLASTIC PAVEMENT MARKING LINES	LF
7	5 INCH YELLOW THERMOPLASTIC PAVEMENT MARKING LINES	LF
8	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF
9	16 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF
10	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF
11	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS	SF
12	BIKE LANE PREFORMED THERMOPLASTIC PAVEMENT MARKING WITH ARROW	SF
13	4"x4" WOOD SUPPORT	LF

REVISIONS			
NO.	REVISION	DATE	BY

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL



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

RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Engineering Services	Date
Designed by : J.D.W.	Drawn by : J.D.W.
Checked by : J.L.R.	

**PLAN SHEET SN-11.1
SIGNING & PAVEMENT MARKING PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
INDEX OF QUANTITIES**

08/2020

Project No. : C.I.P. PR. # 501744 SHEET 53 of 88

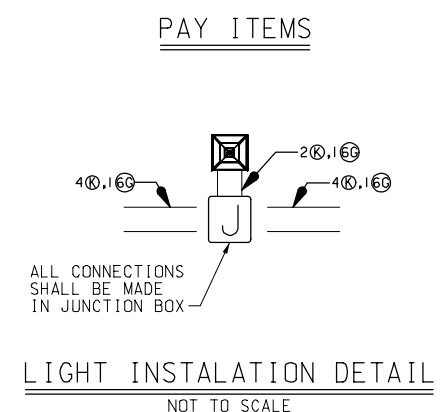
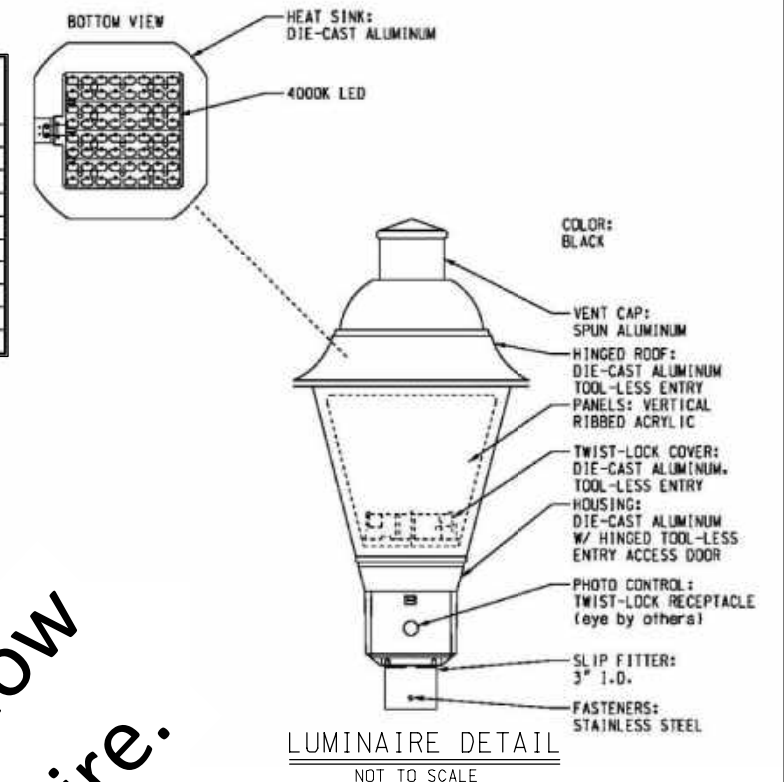


POLE SCHEDULE

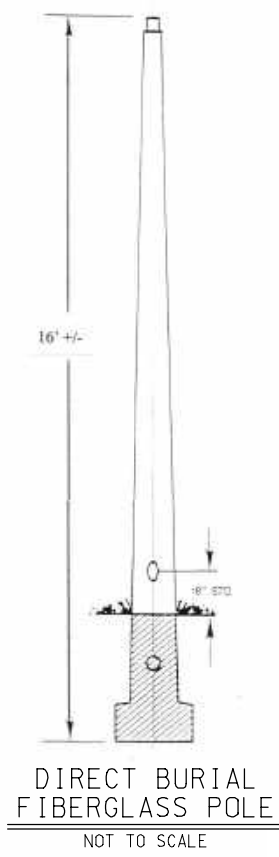
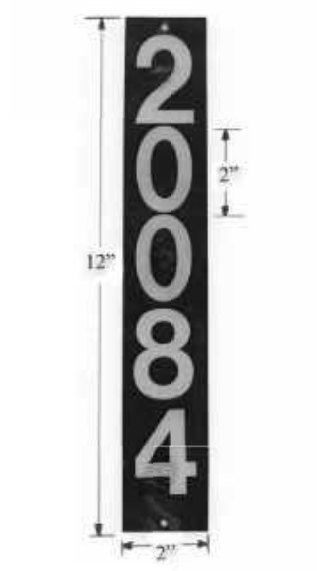
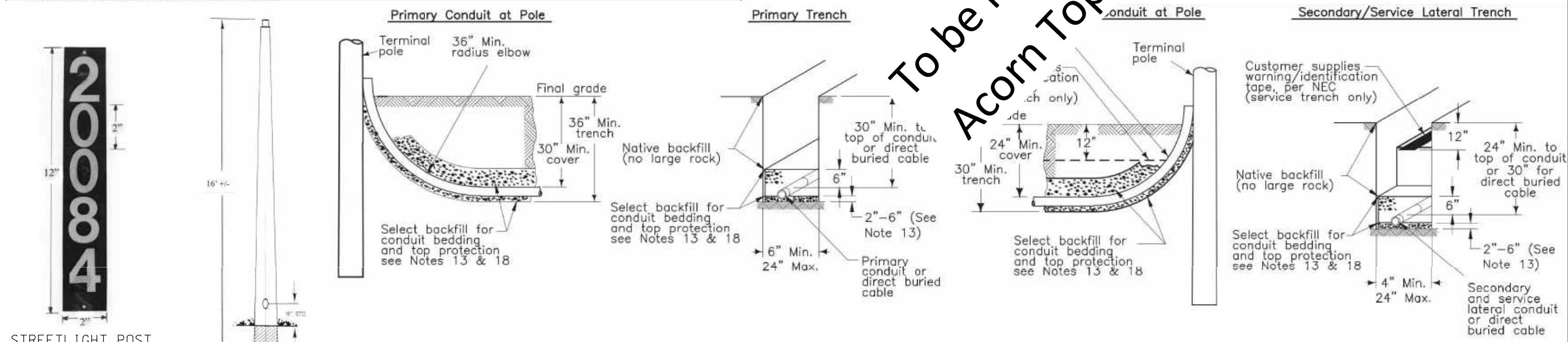
POLE NUMBER	TYPE OF POLE	POLE OFFSET FROM TRAVEL LANE **	STATION AND OFFSET	LUMINAIRE / WATTAGE	TYPE OF BASE	DRAWING NUMBER
22243	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	495+64, 17' RT	LED/53W	Breakaway	LT-02
22245	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	5'	496+57, 16' RT	LED/53W	Breakaway	LT-02
22247	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	14'	497+43, 26' RT	LED/53W	Breakaway	LT-02
22249	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	5'	498+35, 16' RT	LED/53W	Breakaway	LT-03
22251	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	498+97, 17' RT	LED/53W	Breakaway	LT-03
22253	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	499+90, 17' RT	LED/53W	Breakaway	LT-03
22255	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	500+52, 17' RT	LED/53W	Breakaway	LT-03
22257	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	16'	501+28, 28' RT	LED/53W	Breakaway	LT-03
22259	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	16'	502+06, 28' RT	LED/53W	Breakaway	LT-04
22261	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	17'	502+64, 29' RT	LED/53W	Breakaway	LT-04
22263	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	18'	503+61, 29' RT	LED/53W	Breakaway	LT-04
22265	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	515+65, 17' RT	LED/53W	Breakaway	LT-05
22267	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	516+59, 18' RT	LED/53W	Breakaway	LT-05
22269	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	517+55, 18' RT	LED/53W	Breakaway	LT-05
22271	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	518+50, 18' RT	LED/53W	Breakaway	LT-05
22273	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	519+41, 19' RT	LED/53W	Breakaway	LT-06
22275	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	520+08, 18' RT	LED/53W	Breakaway	LT-06
22277	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	521+14, 18' RT	LED/53W	Breakaway	LT-06
22279	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	521+99, 18' RT	LED/53W	Breakaway	LT-06
22281	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	522+62, 18' RT	LED/53W	Breakaway	LT-06
22283	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	7'	523+59, 18' RT	LED/53W	Breakaway	LT-07
22285	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	6'	524+57, 28' RT	LED/53W	Breakaway	LT-07
22287	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	8'	525+50, 36' RT	LED/53W	Breakaway	LT-07
22289	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	8'	526+45, 35' RT	LED/53W	Breakaway	LT-07
22291	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	10'	527+44, 36' RT	LED/53W	Breakaway	LT-07
22293	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	17'	528+41, 44' RT	LED/53W	Breakaway	LT-08
22295	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	16'	529+32, 43' RT	LED/53W	Breakaway	LT-08
22297	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	15'	530+27, 42' RT	LED/53W	Breakaway	LT-08
22299	16' BLACK FIBERGLASS WITH COLONIAL POST TOP	33'	531+16, 59' RT	LED/53W	Breakaway	LT-08

** - POLE OFFSET MEASURED TO THE CENTER OF THE POLE

CATEGORY CODE NO.	DESCRIPTION	UNIT	QUANTITY
800000	PEDESTRIAN POLE AND LUMINAIRE	EA	29
801003	CONCRETE FOR LIGHT FOUNDATION	CY	40
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	2400
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	2270
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	120
832016	CABLE - 1 CONDUCTOR, NO 6 AWG, TYPE USE, 600V	LF	8890
832019	CABLE - 1 CONDUCTOR, NO 10 AWG, TYPE THWN/THHN, 600V	LF	1400
834002	CONNECTOR KIT - TYPE II	EA	18
834003	CONNECTOR KIT - TYPE III	EA	40
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	29



To be revised to show Acorn Top luminaire.



WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
www.wallacemontgomery.com A United Liability Partnership

APPROVALS	REVISIONS
TEAM LEADER	
ASST. DIV. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	

UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section _____ Date _____
APPROVED

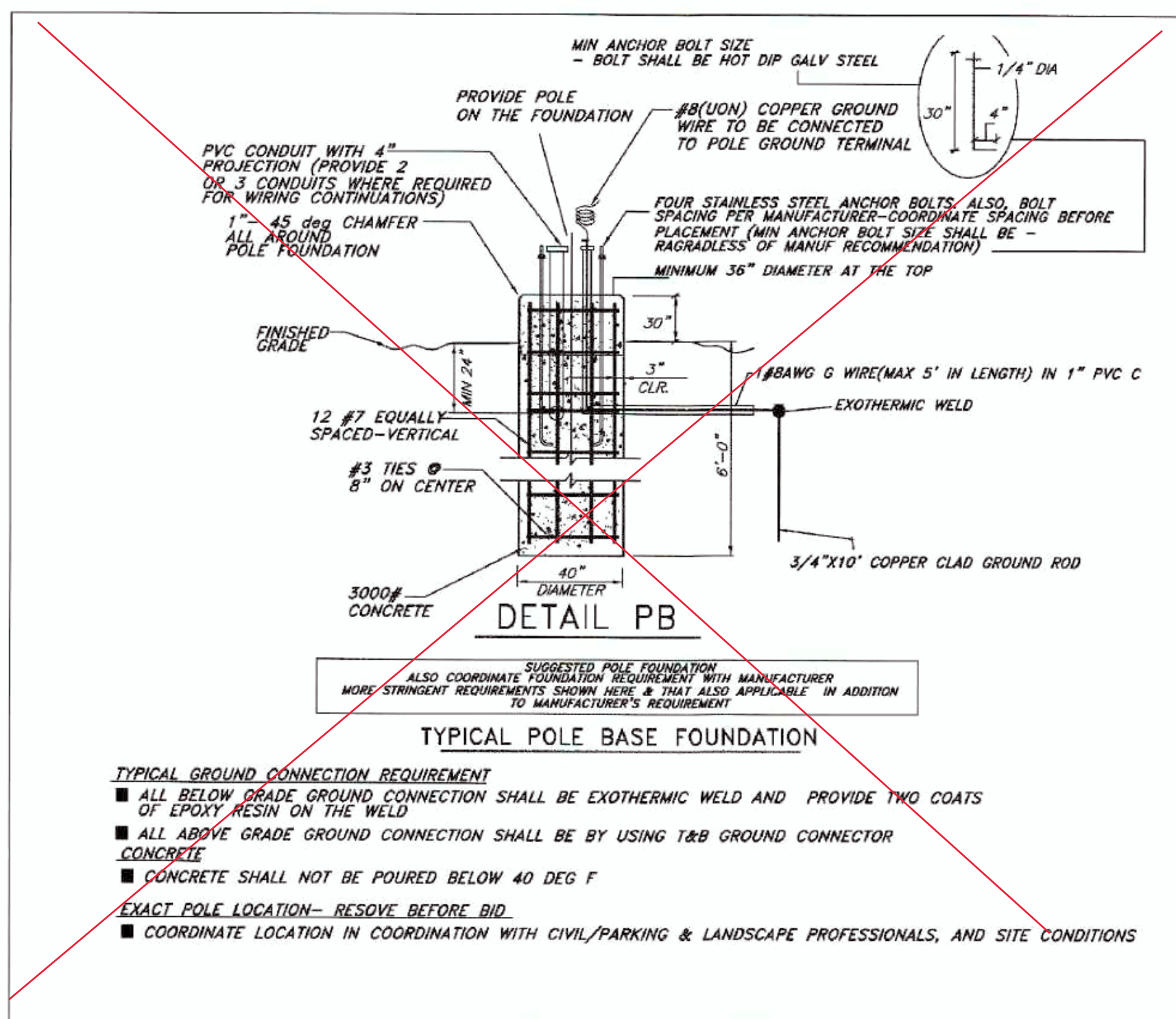
Chief, Division of Engineering Services _____ Date _____

Designed by: J.D.W. Drawn by: J.D.W. Checked by: S.R.R.

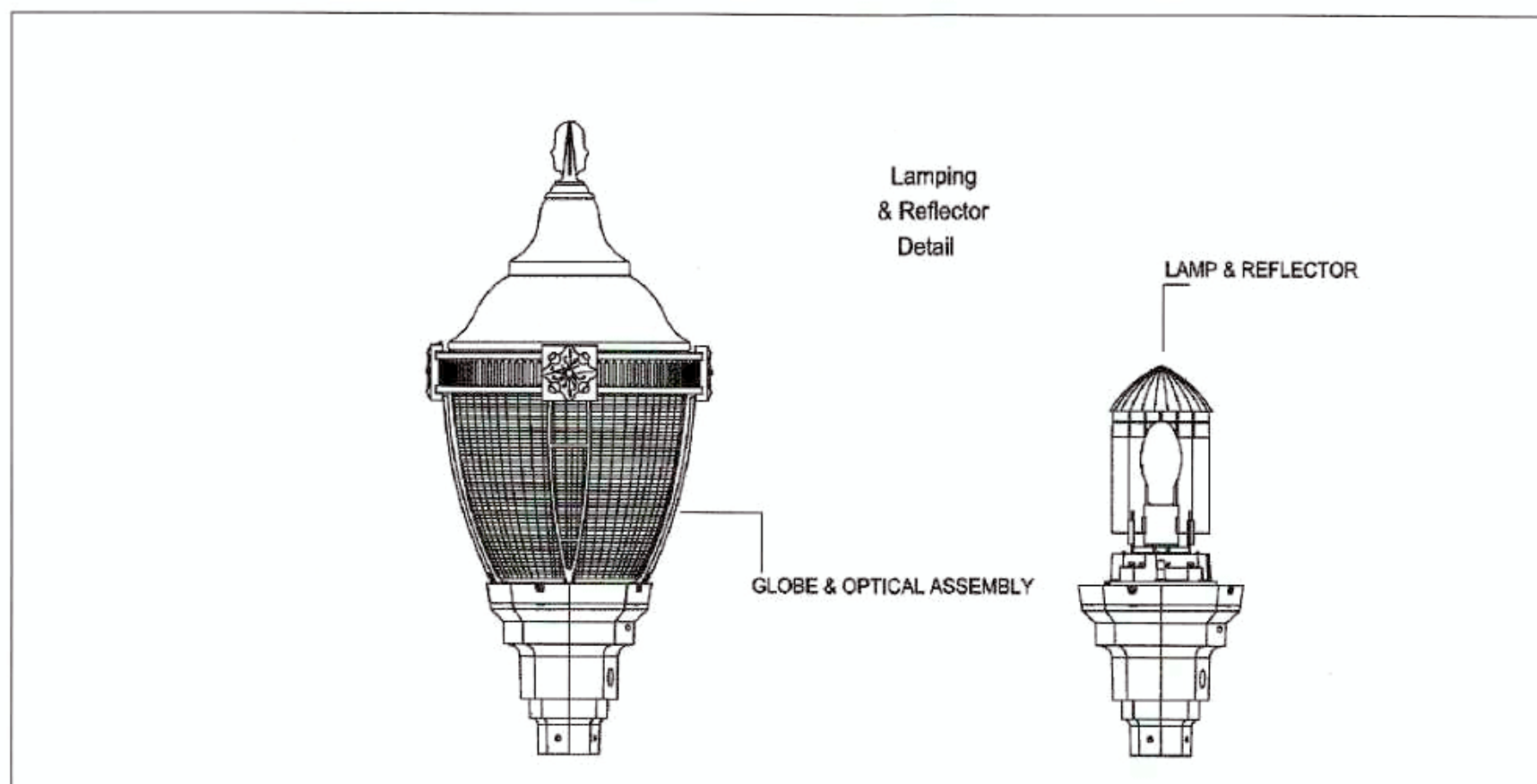
PLAN SHEET LT-01
LIGHTING PLANS
MD 355 - CLARKSBURG
SHARED USE PATH
DETAILS AND SCHEDULES

08/2020

Project No.: C.I.P. PR. # 501744 SHEET 54 of 88



REQUIREMENT, TYPICALLY APPLICABLE TO THE ENTIRE PROJECT:
DUE TO THE HISTORIC NATURE OF THE WORK CARE SHALL BE TAKEN NOT TO HARM EXISTING BUILDING/SITE FABRIC, INCLUDING WOOD AND MASONRY. FASTENERS AND LOCATIONS OF DEVICES ATTACHED TO WOOD OR MASONRY SHALL BE COORDINATED, AND REVIEWED AND APPROVED BY THE ARCHITECT.



TYPICAL REQUIREMENTS HOUSING:

- ALL HARDWARE SHALL BE STAINLESS STEEL & CAPTIVE
- OCTAGONAL STYLE FITTER IS CONSTRUCTED WITH 360 ALUMINUM ALLOY WITH BOTTOM HINGED DOOR FOR EASY ACCESS TO ELECTRICAL COMPONENTS
- WIRING BLOCK TO ACCEPT #8 STRANDED OR SOLID WIRES
- HEAVY CAST ALUMINUM POST FITTER UTILIZES 5/16-18 BLACK CADMIUM 4-STAINLESS STEEL SCREWS FOR MOUNT 3" O.D POST TENON
- GLOBE HOLDER HAS INTERNAL WATER TO PREVENT WATER INSIDE OF GLOBE & BALLAST COMPARTMENT
- GLOBE IS HELD BY UTILIZING 5/16-18 BLACK CADMIUM 4-STAINLESS STEEL FASTENERS
- FINISH IS POLYESTER THERMOSET POWDERCOAT.

GLOBE & OPTICAL ASSEMBLY

- TYPE V WIDE BODY GLOBE IS CONSTRUCTED OF CLEAR INJECTION MOLDED U.V. STABILIZED ACRYLIC

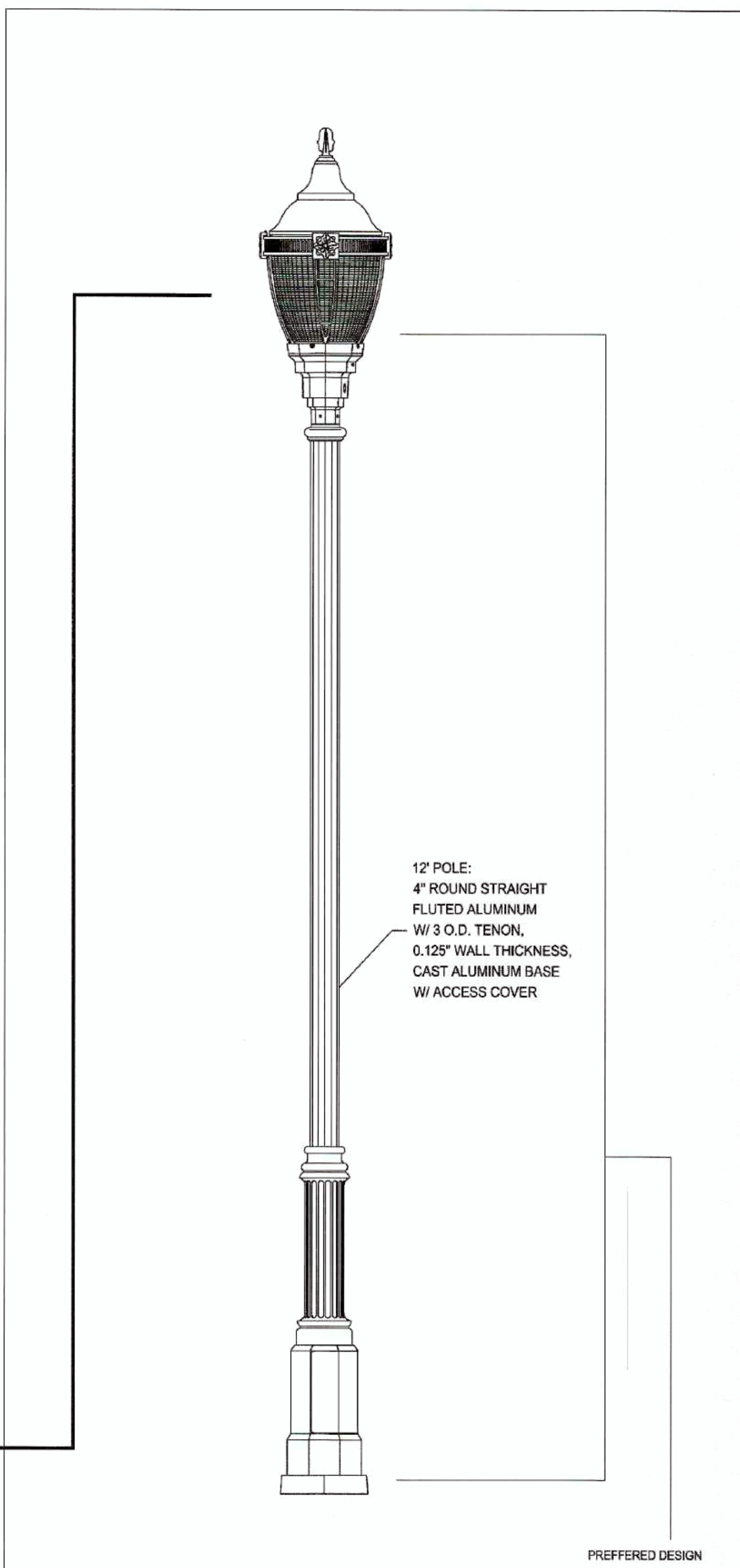
FINISH

- THERMOSTAT POLYESTER POWDERCOAT IS ELECTROSTATICALLY APPLIED AFTER FIVE STAGE CONVERSION CLEANING PROCESS AND BONDED BY HEAT FUSION THERMOSETTING.
- LAB TESTED FOR FADE RESISTANCE AND WEATHERABILITY IN ACCORDANCE WITH ASTM B117.

SUGGESTED MANUFACTURERS:
PHILLIPS HADCO
GLOBE & POLE BY SAME MANUFACTURER

DETAIL H1

TYPICAL LUM & ASSOCIATED REQUIREMENTS



TYPICAL REQUIREMENTS

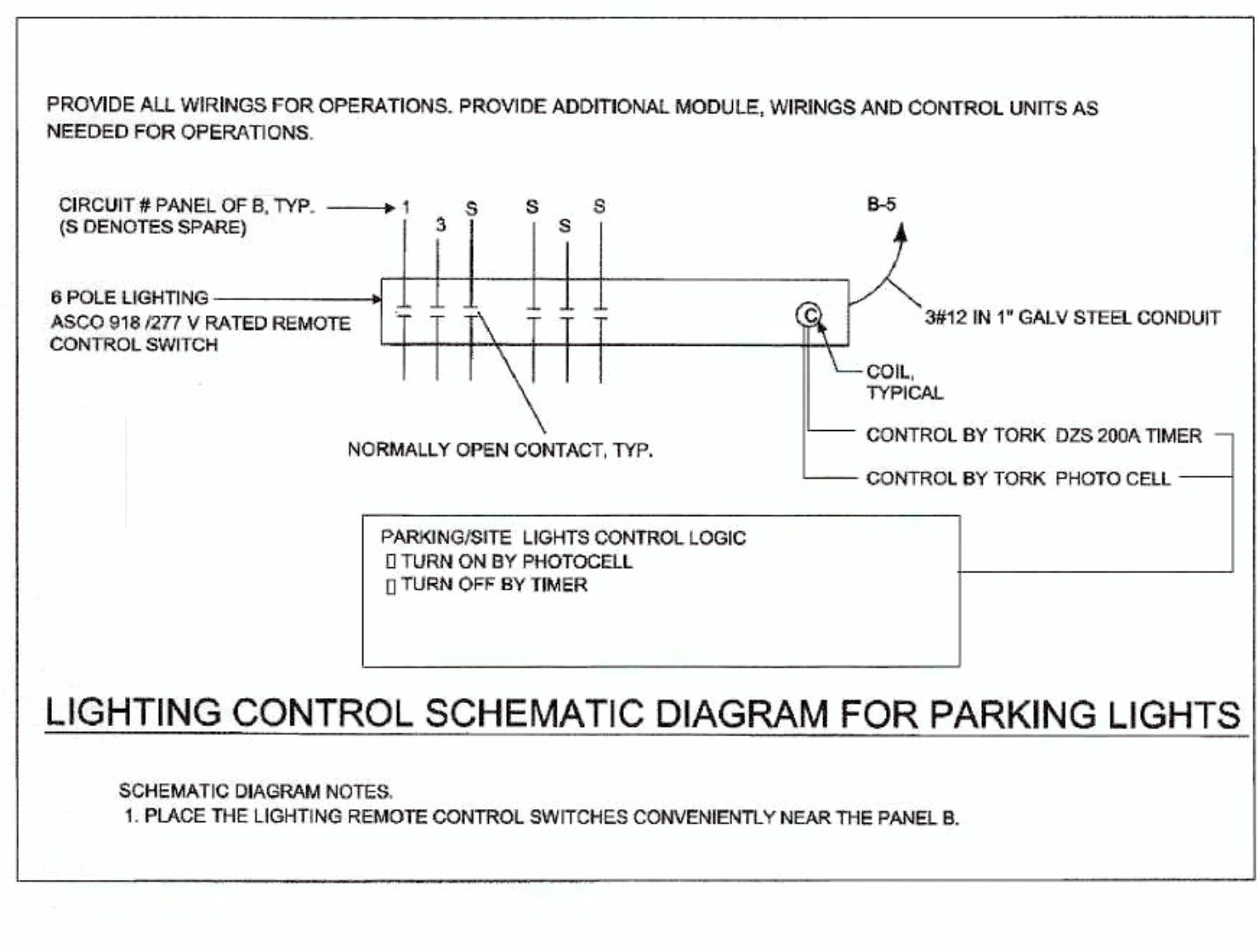
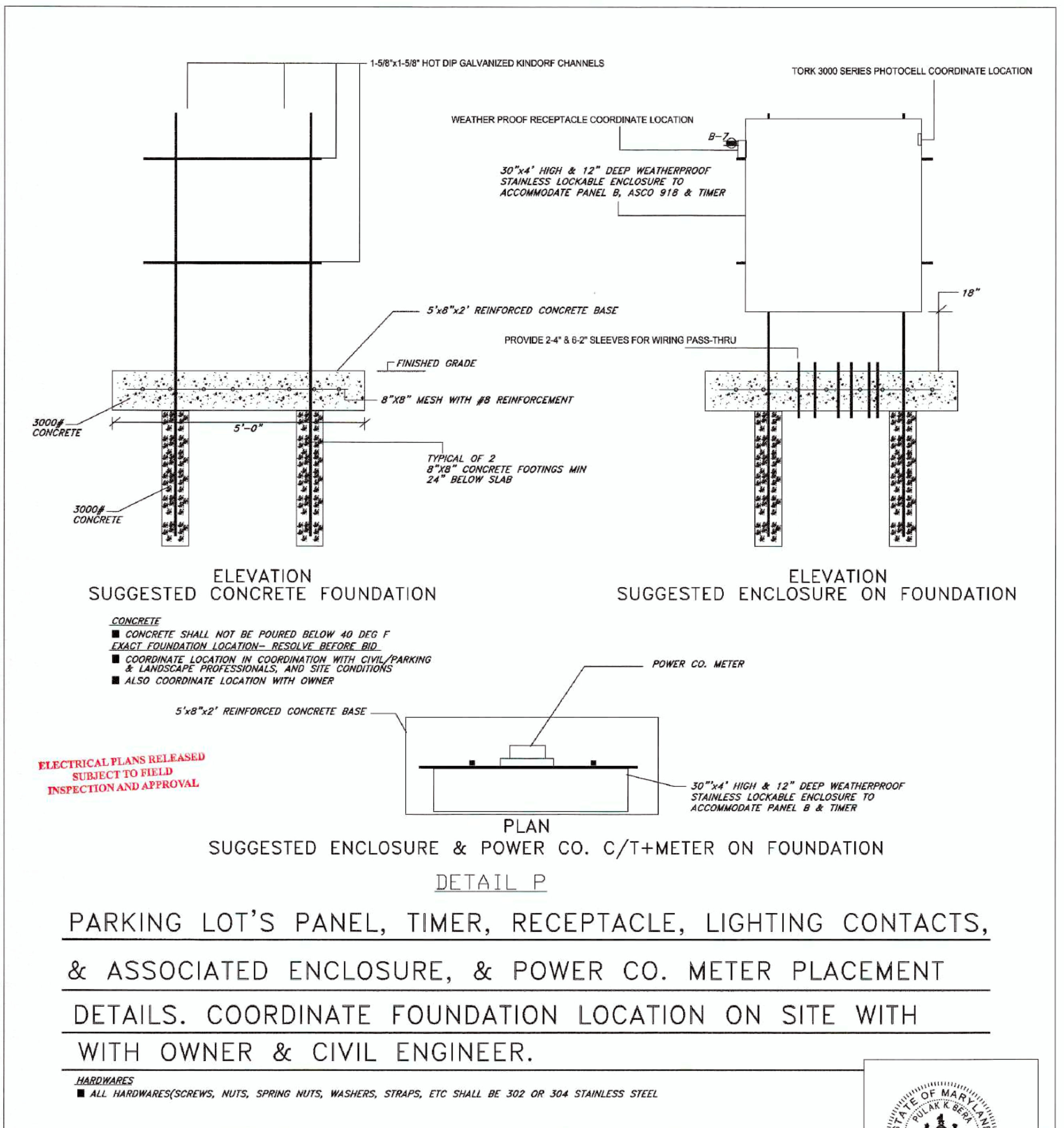
- ALL HARDWARE SHALL BE STAINLESS STEEL & CAPTIVE
- COLOR:
COORDINATE POLE COLOR WITH ARCHITECT

NOTICE:
THIS DRAWING IS FOR REFERENCE ONLY.

STREET LIGHTS 3 EACH ON CLARKSBURG SQUARE ROAD, THE LIGHTS MUST MATCH EXISTING LIGHTS ON CLARKSBURG SQUARE ROAD, CONTRACTOR MUST VERIFY EXISTING LIGHTS BEFORE ORDERING

DETAIL L1

TYPICAL PARKING LOT LIGHT STANDARD



749476
MONTGOMERY COUNTY
APPROVED AS NOTED
DIV. OF BUILDING CONSTRUCTION

PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSED ENGINEER: PULAK R. BERA
LICENSE NUMBER: 14927
EXPIRATION DATE: 5-17-2016
September 17th, 2015

Engineers: Bera Engineers, Inc.
13759 TRAVILAH ROAD
ROCKVILLE, Maryland 20850
Phone: (301) 309-2350
Fax: (301) 309-2538
BEI PROJECT NO. 13029.00

DR. HORACE WILSON HOUSE
23209 FREDERICK ROAD
CLARKSBURG, MARYLAND 20801
3RD TR/LC, OWNER

E-4

DATE	
REVISION	
ISSUE FOR	BUCHER/BORGES GROUP PLLC
DATE	TO NORTH WASHINGTON STREET, SITE A EASTON, MARYLAND 21601 PROJECT NO. 13029.00 DATE: 09/17/15 COPYRIGHT BUCHER/BORGES PLLC 2013
DATE	
ISSUE FOR	SITE LIGHT FIX. & POLE DETAILS
DATE	
ISSUE FOR	
DATE	

DRILL HOLES

DRILL HOLES

DRILL HOLES

Sequence of Events for Property Owners Required to Comply With Forest Conservation and/or Tree-Save Plans

Pre-Construction

1. An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged, but before any permanent grading begins. The property owner should contact the Montgomery County Planning Department's "Forest Staff" before construction to verify the limits of disturbance and discuss tree protection and construction measures. The developer's representative, construction superintendent, the project architect or landscape architect should meet with the project's tree protection measures, forest conservation inspector, and Department of Permitting Services (DPS) before construction begins. The forest conservation inspector should attend this pre-construction meeting.

2. No clearing or grading shall begin before tree protection measures have been implemented. Appropriate measures may include, but are not limited to:
- a. Backfilling
 - b. Crown reduction or pruning
 - c. Mulching
 - d. Fencing
 - e. Water table change
 - f. Root collar mulching

Measures not specified on the forest conservation plan may be required as determined by the forest conservation inspector in coordination with the architect.

3. A final on-site pre-construction meeting is an integral part of the approval process for forest conservation measures. The implementation of stressed, compromised trees must be observed by the forest conservation inspector on-site at 18787 Georgia Avenue, Silver Spring, MD 20910. The forest conservation inspector will determine if the final on-site pre-construction meeting is satisfactory during the pre-construction meeting.

4. Temporary tree protection devices shall be installed per the Forest Conservation Plan Tree Save Plan and prior to any construction activities. Tree protection devices shall be installed prior to the start of construction activities. The forest conservation inspector shall coordinate with the DPS to obtain a permit for temporary tree protection devices. The forest conservation inspector shall determine if the temporary tree protection devices meet the following criteria:
- a. City Reference No. 1155 High
 - b. Support structure with bracing between support poles (max 4 feet high with high visibility flagging)
 - c. 4 gauge 2 inch x 4 inch wooden wall bracing supported by steel T bar posts (minimum 4 feet high with high visibility flagging)

5. Temporary tree protection devices that become damaged or are not maintained by the contractor to the duration of construction project and shall not be used with equipment. The forest conservation inspector shall determine if the temporary tree protection devices are maintained in accordance with the approved plan. If the temporary tree protection devices are not maintained in accordance with the approved plan, the forest conservation inspector shall require the contractor to repair or replace the temporary tree protection devices before construction resumes.

6. Forest conservation signs shall be installed as required by the forest conservation inspector as shown on the approved plan.

7. Long term protection devices will be installed per the Forest Conservation Plan Tree Save Plan and attached details. Installation shall occur at the appropriate time during the construction project. Refer to the plan drawing for long term protection devices to be installed.

8. Routine inspections by the forest conservation inspector will occur during the construction project. Construction activities shall be suspended if the forest conservation inspector determines that the temporary tree protection devices do not meet the requirements of the approved plan.

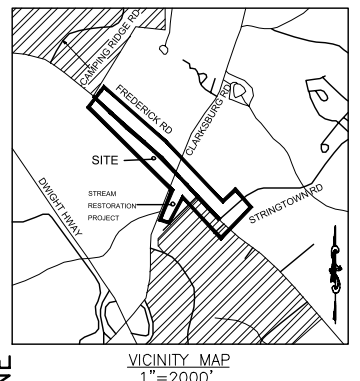
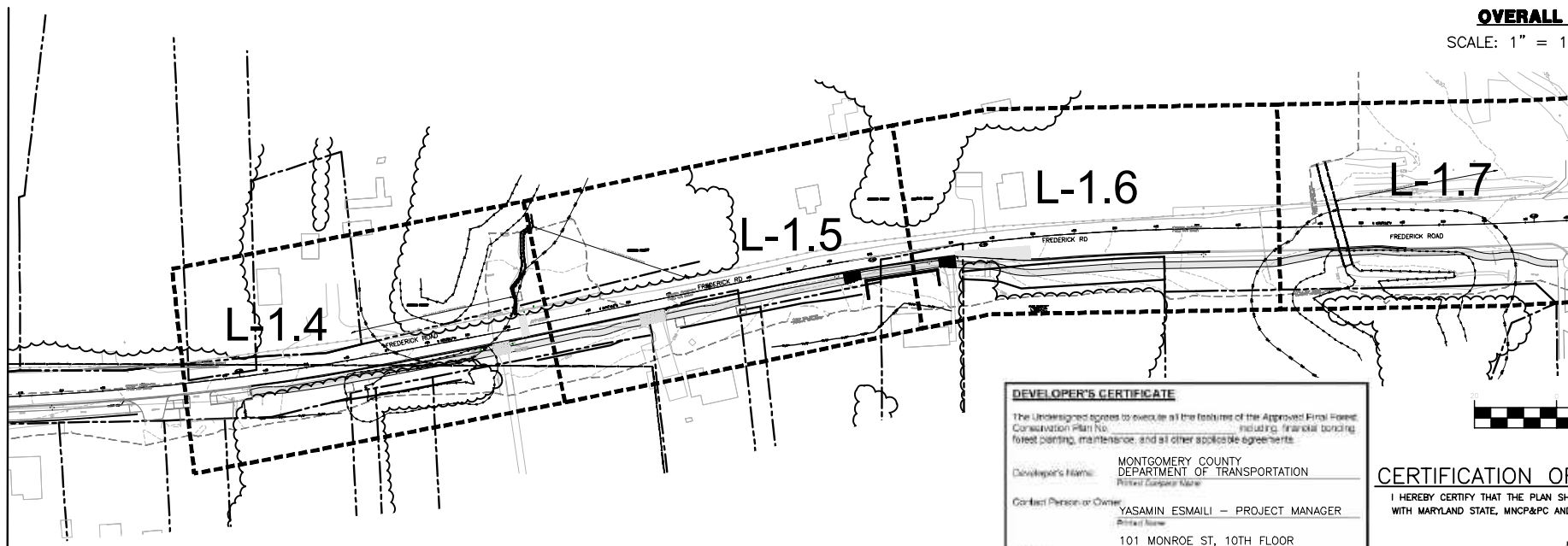
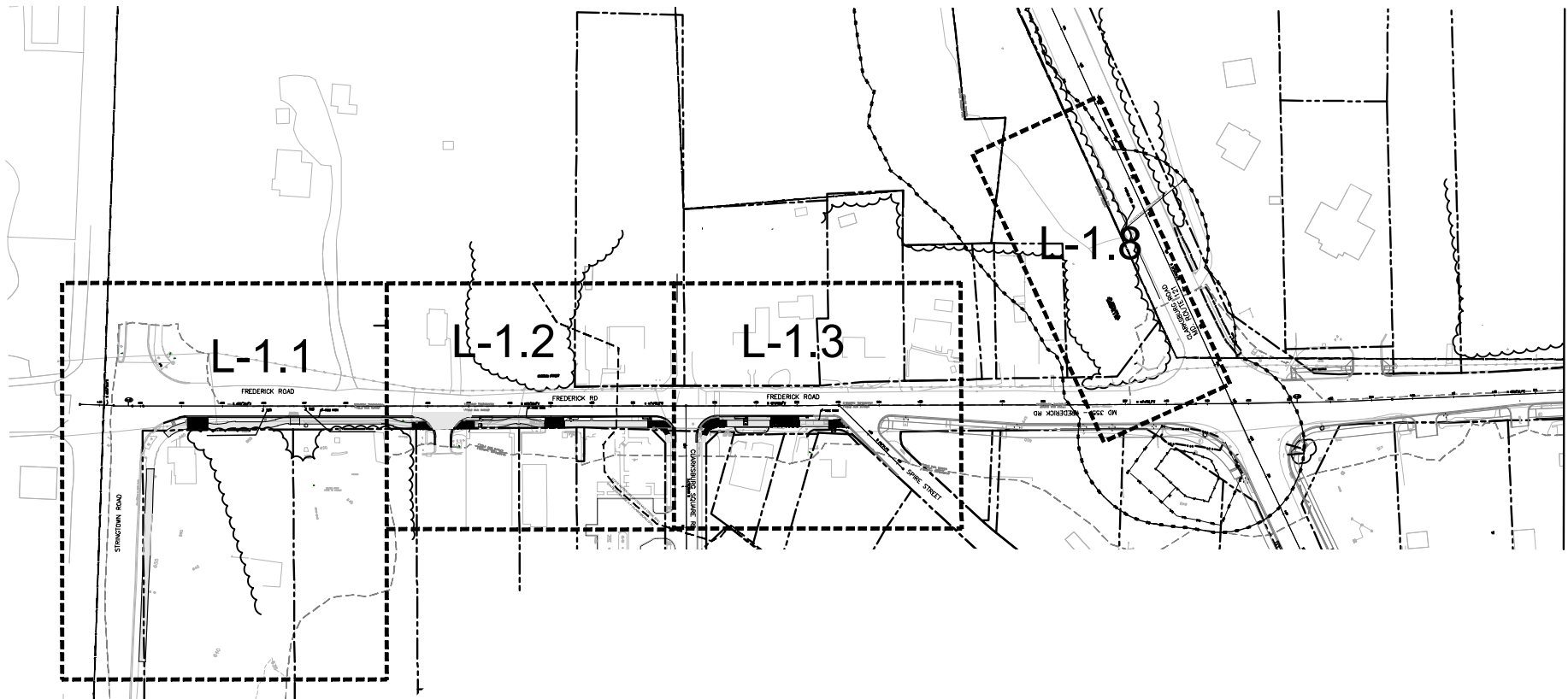
Post-Construction

9. After construction is completed, an inspection shall be conducted. Forest conservation measures include:
- a. Removal and replacement of staked and flagging devices
 - b. Cleanup of dead or dying limbs
 - c. Soil aeration
 - d. Mulching
 - e. Watering
 - f. Site repair
 - g. Cleanup of erosion control

10. After inspection and completion of the above items, the forest conservation inspector shall determine if the temporary tree protection devices shall be removed from the site. For any of the temporary tree protection devices that are not removed from the site, the contractor must be coordinated with the Department of Permitting Services and the forest conservation inspector. No additional grading, sodding, or final site cleanup shall be performed on the temporary tree protection devices.

LEGEND

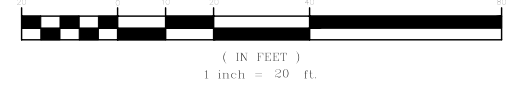
- FOREST TREELINE
- SCRUB AREA/SCREENING TREES/
NON-FOREST CANOPY
- LIMITS OF DISTURBANCE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- PROPOSED SHARED USE PATH
- WETLANDS
- 125' STREAM BUFFER
- HISTORIC DISTRICT



MATCHLINE

MATCHLINE

OVERALL SITE SCALE: 1" = 100'-0"



*NOTE: TREE CONSERVATION MEASURES, SUCH AS ROOT PRUNING, BRANCH PRUNING, TREE FERTILIZING, AND OTHER MEASURES PRESCRIBED BY THE PROJECT'S ARBORIST AT THE TIME OF THE LOD LAYOUT AND/OR INSTALLATION OF E&S MEASURES, MAY BE REQUIRED ALONG THE LINE OF CUT/FILL. DECISIONS ON TREE PROTECTION MEASURES MUST BE AGREED UPON BY A M-NCPPC FOREST CONSERVATION INSPECTOR BEFORE INSTALLATION.

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. _____ including, but not limited to, forest planting, maintenance, and all other applicable agreements.

Developer's Name: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
Printed Company Name: _____

Contact Person or Owner: YASAMIN ESMAILI - PROJECT MANAGER
Printed Name: _____

Address: 101 MONROE ST. 10TH FLOOR
ROCKVILLE, MD 20850
240-777-7226
Phone and Email: Yasamin.Esmaili@MontgomeryCountyMD.gov

Signature: _____

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

6.18.2020
DATE

Michael A. Norton
MICHAEL A. NORTON
MEMBER / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK	ADC MAP PAGE	9	GRID	B-3 C-3,4
TAX MAP	EW341,EW121	200 SHEET	233NW13,233NW14	PROJ. NO.	15-138
SCALE	AS SHOWN	DATE	AUGUST 2019	SHEET NO.	L-1.1A

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

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

PLAN SHEET L-1.1A
PRELIMINARY FOREST CONSERVATION PLAN OVERALL
MD 355 - CLARKSBURG SHARED USE PATH

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21080
410.484.8069 Tel / 410.667.0825 Fax
www.wallacemontgomery.com A Limited Liability Partnership

DRILL HOLES

DRILL HOLES

DRILL HOLES

FOREST CONSERVATION WORKSHEET
MD 355 - CLARKSBURG SHARED USE PATH

NET TRACT AREA	
A. Total tract area	3.58
B. Land dedication (e.g., utility facility, etc.)	0.00
C. Land dedication for roads or utilities (not being constructed by this owner)	0.00
D. Area to remain in commercial agricultural production, etc.	0.00
E. Other dedications (specify)	0.00
F. Net tract area	3.58

LAND USE CATEGORY (from Trees Technical Manual)
Input the number "1" under the appropriate land use until only one entry

AREA	MJH	ICA	ILR	MPU	0	0
0	0		0	0	0	0

G. Afforestation Threshold: 15% x F = 0.54
H. Conservation Threshold: 20% x F = 0.72

LANDING FORLES (Code)

L. Existing forest cover	1.18
J. Area of forest above afforestation threshold	0.64
K. Area of forest above conservation threshold	0.46

ORCA CHECK POINT

L. Forest retention above threshold with no mitigation	0.81
M. Clearing permitted without mitigation	0.37

PROPOSED FOREST CLEARING

N. Total area of forest to be cleared	1.18
O. Total area of forest to be retained	0.00

PLANTING REQUIREMENTS

H. Retention or for clearing above conservation threshold	0.12
I. Retention for clearing below conservation threshold	1.43
R. Credit for retention or above conservation threshold	0.00
S. Total reforestation required	1.55
T. Total afforestation required	0.00
L. Credit for landscaping may not exceed 20% of S	0.00
V. Total reforestation and afforestation required	1.55 *

*1.55 AC FORESTATION REQUIRED
- 0.48 AC AFFORESTATION PROVIDED

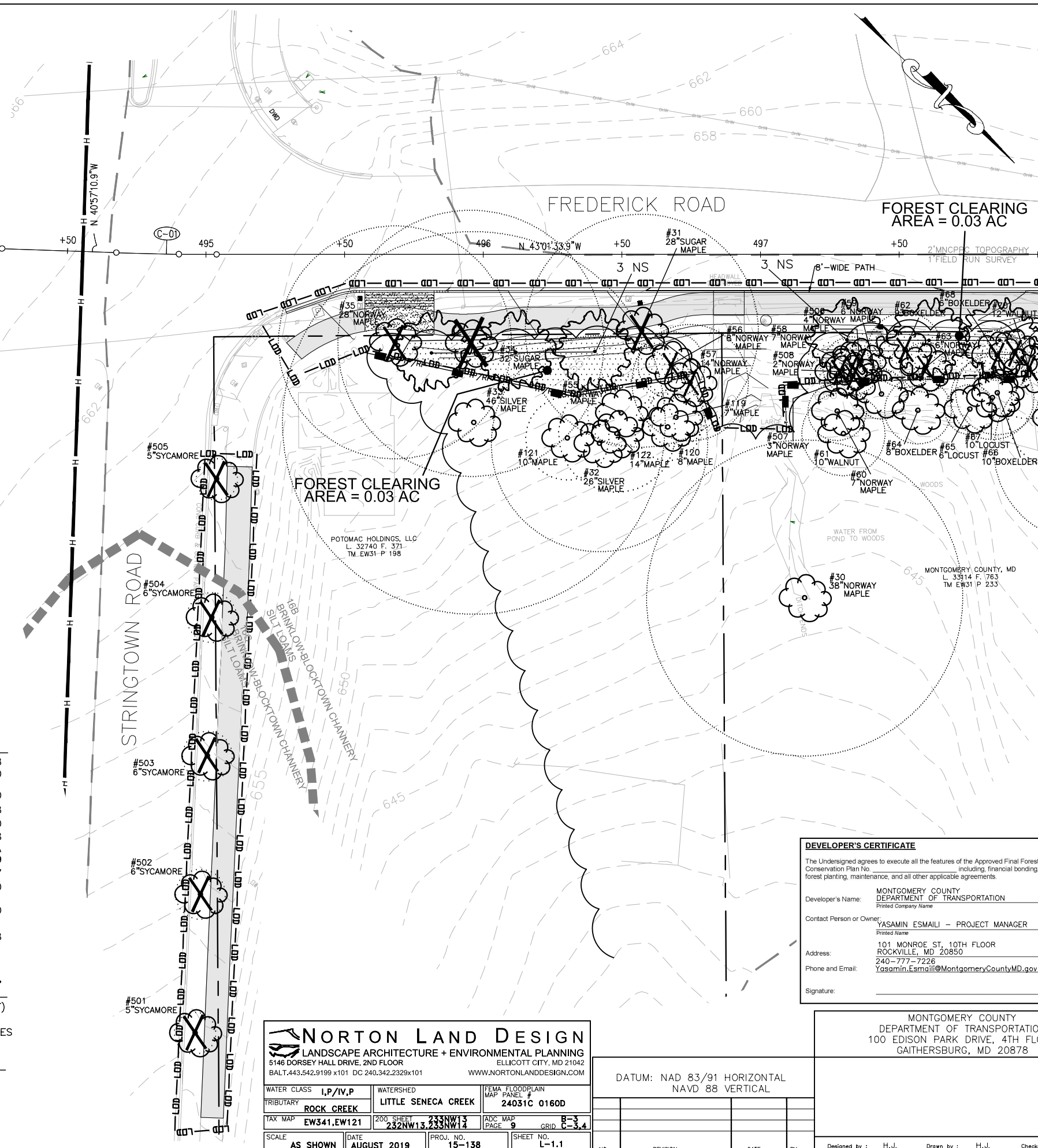
1.07 AC FOREST BANKING WILL BE PURCHASED

SITE TABULATIONS:

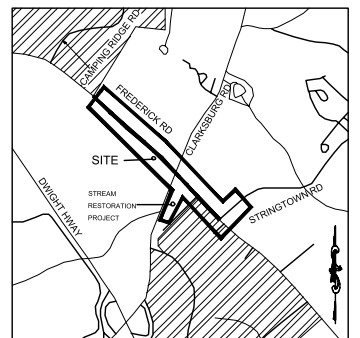
ACREAGE OF TRACT:	3.58
ACREAGE OF TRACT REMAINING IN AGRICULTURE:	0
ACREAGE OF ROAD AND UTILITY R/W WHICH WILL NOT BE IMPROVED AS PART OF DEV. APPLICATION:	0
ACREAGE OF EX. FOREST:	1.18
ACREAGE OF TOTAL FOREST RETENTION:	0.00
ACREAGE OF TOTAL FOREST CLEARED:	1.18
LAND USE CATEGORY:	IDA
AFFORESTATION THRESHOLD:	0.59
CONSERVATION THRESHOLD:	0.77
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITHIN WETLANDS:	0.00/0.07/0.00
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITHIN 100-YEAR FLOODPLAIN:	0.00/0.00/0.00
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITHIN STREAM BUFFERS:	0.00/0.62/0.48
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITH PRIORITY AREAS:	0.00/0.00/0.00
LINEAR EXTENT & AVERAGE WIDTH OF STREAM BUFFER:	342'/200'

TOTAL DBH INCHES OF SPECIMEN TREES REMOVED (OUTSIDE FOREST)
339 X 0.25 = 85 REQUIRED CALIPER INCHES MITIGATION
TOTAL DBH INCHES OF SPECIMEN TREE REMOVED ÷ 3" CALIPER TREES
= TOTAL TREES REQUIRED TO BE PLANTED
29 TOTAL 3" CALIPER TREES REQUIRED TO BE PLANTED

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LEGEND VICINITY MAP 1"=2000'

- EXISTING TREE >6" AND <24"DBH AND CRITICAL ROOT ZONE
- EXISTING SIGNIFICANT TREE ≥24" AND <30"DBH WITH TAG NUMBER
- EXISTING SPECIMEN TREE ≥30"DBH WITH TAG NUMBER
- FOREST TREELINE
- SCRUB AREA/SCREENING TREES/NON-FOREST CANOPY
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- HISTORIC DISTRICT
- TREE TO BE REMOVED
- TREE PROTECTION FENCE (TEMPORARY)
- TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
- FOREST CLEARING AREA
- PROPOSED SHARED USE PATH
- PROPOSED LIGHT POLES
- SOIL BOUNDARY
- PROPOSED MITIGATION TREE

GRAPHIC SCALE
1 inch = 20 ft

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. _____ including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
Printed Company Name

Contact Person or Owner: YASAMIN ESMAILI - PROJECT MANAGER
Printed Name

Address: 101 MONROE ST., 10TH FLOOR, ROCKVILLE, MD 20850
240-777-7226
Phone and Email: Yasamin.Esmaili@MontgomeryCountyMD.gov

Signature: _____

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

6.18.2020 DATE

MICHAEL A. NORTON
MONR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
5146 DORSEY HALL DRIVE, 2ND FLOOR, ELlicOTT CITY, MD 21042
BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK				
TAX MAP	EW341,EW121	200 SHEET	233NW13,233NW14	ADC MAP PAGE	9 GRID C-3,4
SCALE	AS SHOWN	DATE	AUGUST 2019	PROJ. NO.	15-138
				SHEET NO.	L-1.1

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

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by: H.J. Drawn by: H.J. Checked by: M.N.

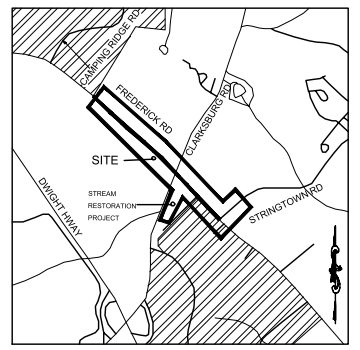
PLAN SHEET L-1.1
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG SHARED USE PATH

Project No.: C.J.P. PR. #501744 SHEET 63 of 88

DRILL HOLES

DRILL HOLES

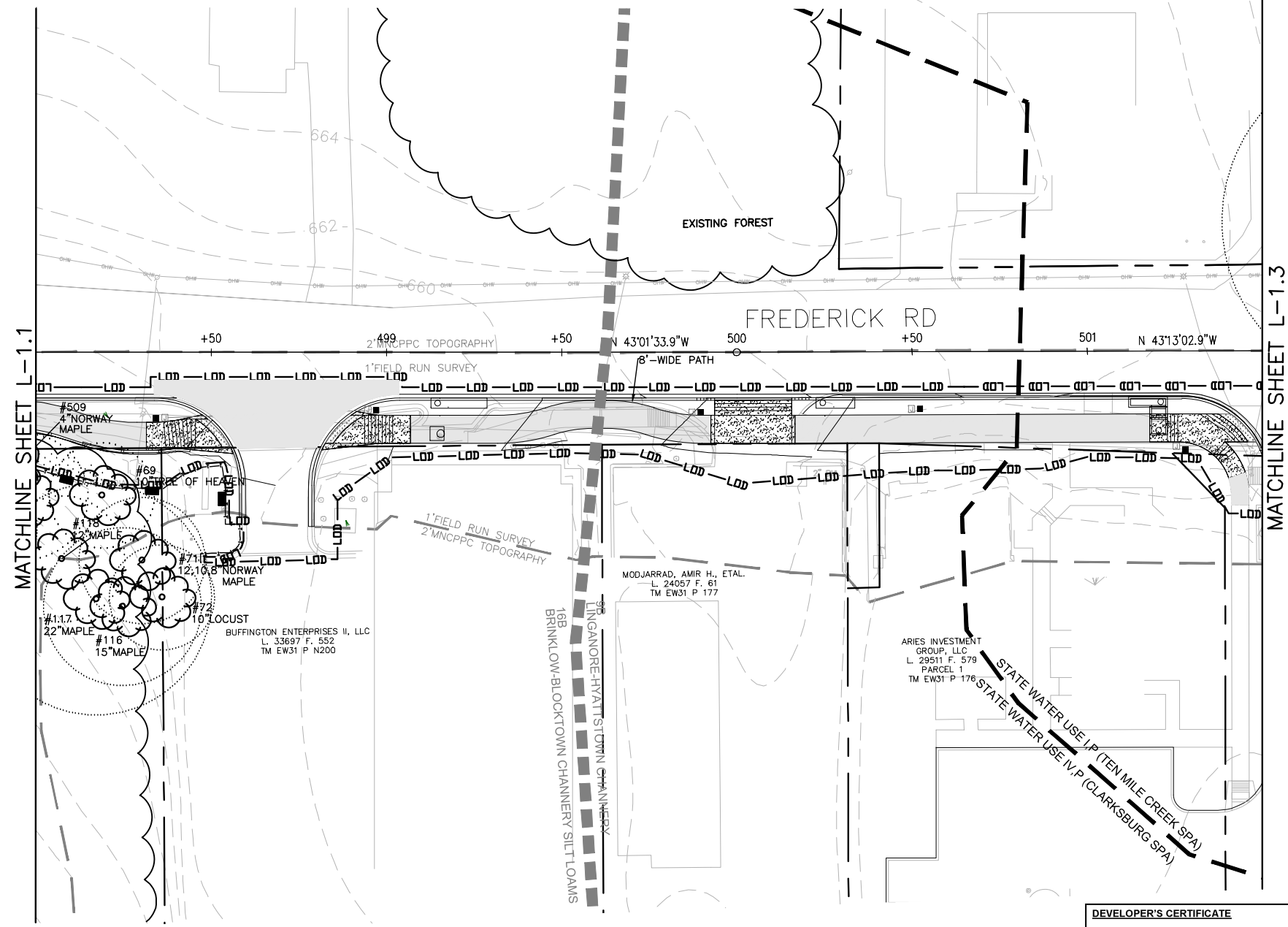
DRILL HOLES



VICINITY MAP
1"=2000'

LEGEND

- EXISTING TREE >6" AND <24"DBH AND CRITICAL ROOT ZONE
- #1 14" RED OAK EXISTING SIGNIFICANT TREE >24" AND <30"DBH WITH TAG NUMBER
- #2 26" RED OAK EXISTING SIGNIFICANT TREE >24" AND <30"DBH WITH TAG NUMBER
- #3 32" RED OAK EXISTING SPECIMEN TREE ≥30"DBH WITH TAG NUMBER
- FOREST TREELINE
- SCRUB AREA/SCREENING TREES/NON-FOREST CANOPY
- LIMITS OF DISTURBANCE
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- TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
- FOREST CLEARING AREA
- PROPOSED SHARED USE PATH
- PROPOSED LIGHT POLES
- PROPOSED MITIGATION TREE



MATCHLINE SHEET L-1.1

MATCHLINE SHEET L-1.3

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Contact Person or Owner: YASAMIN ESMAILI - PROJECT MANAGER
Printed Name

Address: 101 MONROE ST, 10TH FLOOR
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Phone and Email: 240-777-7226
Yasamin.Esmaili@MontgomeryCountyMD.gov

Signature: _____

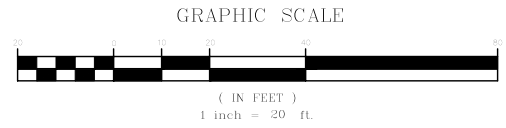
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6.18.2020
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MDNR / COMAR 08.19.06.01
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TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. 8-3, 4
TAX MAP	EW341,EW121	ZONING	232NW13,233NW12		
SCALE	AS SHOWN	DATE	AUGUST 2019	PROJ. NO.	15-138
				SHEET NO.	L-1.2

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

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

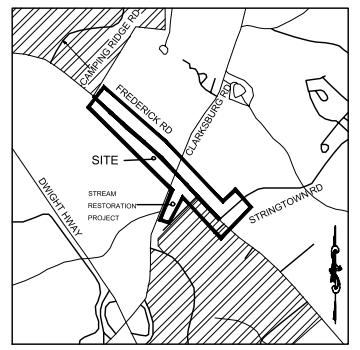
NO.	REVISION	DATE	BY

Designed by: H.J. Drawn by: H.J. Checked by: M.J.N.

PLAN SHEET L-1.2
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH

Project No.: C.J.P. PR. #501744 SHEET 64 of 88

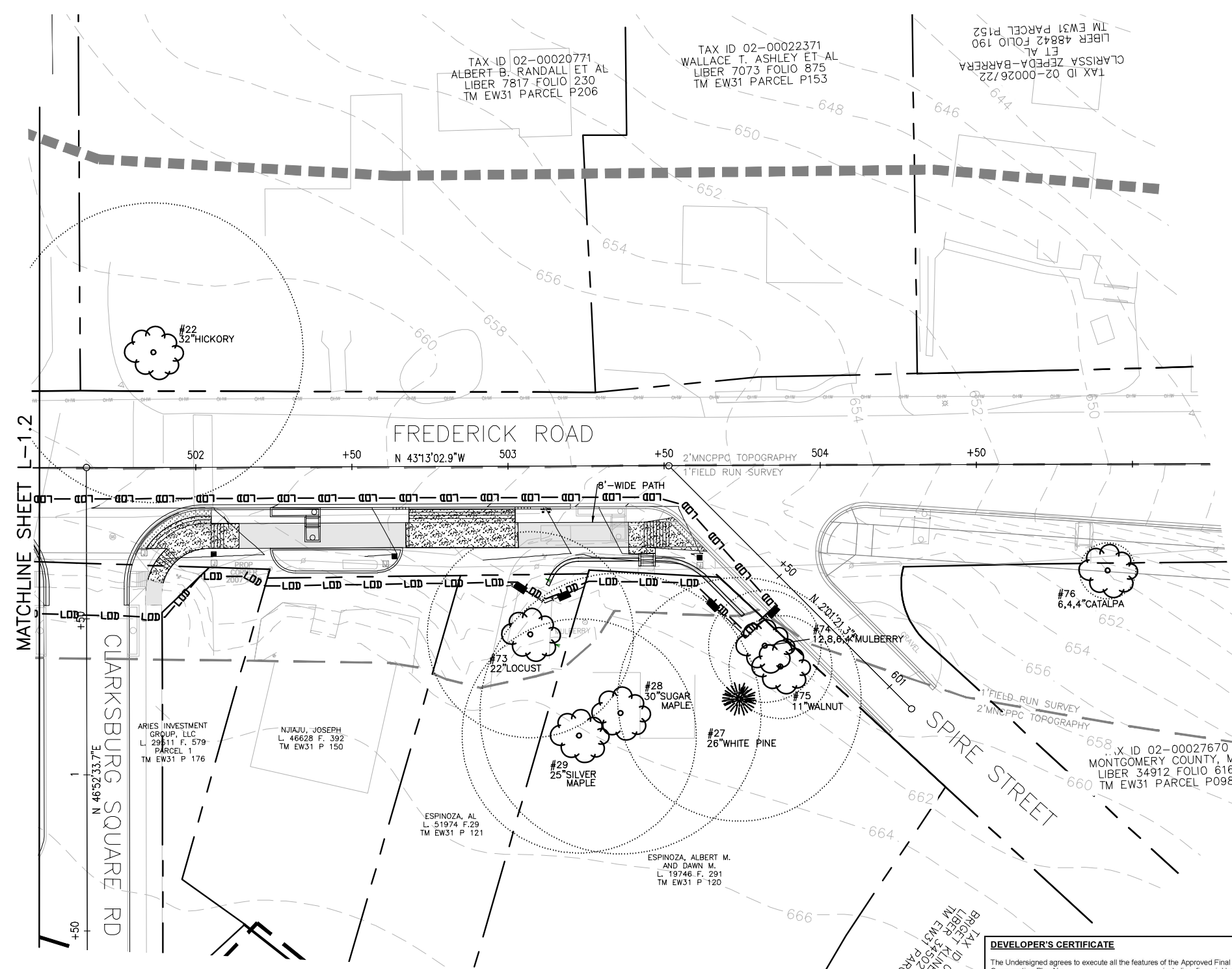
DRILL HOLES



VICINITY MAP
1"=2000'

LEGEND

- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
- 14" RED OAK
- 26" RED OAK
- 32" RED OAK
- EXISTING SIGNIFICANT TREE >24" AND <30" DBH WITH TAG NUMBER
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- FOREST CLEARING AREA
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- PROPOSED LIGHT POLES
- SOIL BOUNDARY
- PROPOSED MITIGATION TREE



MATCHLINE SHEET L-1.2

DEVELOPER'S CERTIFICATE

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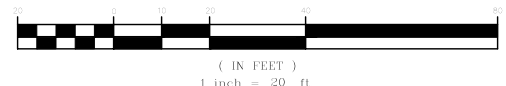
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 Signature: _____

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

6.18.2020
DATE
MICHAEL A. NORTON
MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

GRAPHIC SCALE



*NOTE: TREE CONSERVATION MEASURES, SUCH AS ROOT PRUNING, BRANCH PRUNING, TREE FERTILIZING, AND OTHER MEASURES PRESCRIBED BY THE PROJECT'S ARBORIST AT THE TIME OF THE LOD LAYOUT AND/OR INSTALLATION OF E&S MEASURES, MAY BE REQUIRED ALONG THE LINE OF CUT/FILL. DECISIONS ON TREE PROTECTION MEASURES MUST BE AGREED UPON BY A M-NCPPC FOREST CONSERVATION INSPECTOR BEFORE INSTALLATION.

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10150 York Road, Suite 200
 Hunt Valley, Maryland 21080
 410.484.8069 Tel / 410.667.0825 Fax
 www.wallacemontgomery.com

NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR BALT. 443.542.9199 x101 DC 240.342.2329x101
 ELLICOTT CITY, MD 21042
 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. 8-3, 4
TAX MAP	EW341,EW121	ZON. SHEET	233NW13, 233NW12		
SCALE	AS SHOWN	DATE	AUGUST 2019	PROJ. NO.	15-138
				SHEET NO.	L-1.3

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

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

PLAN SHEET L-1.3
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH

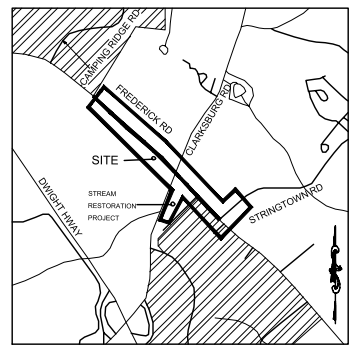
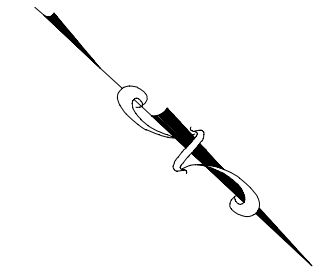
DRILL HOLES

DRILL HOLES

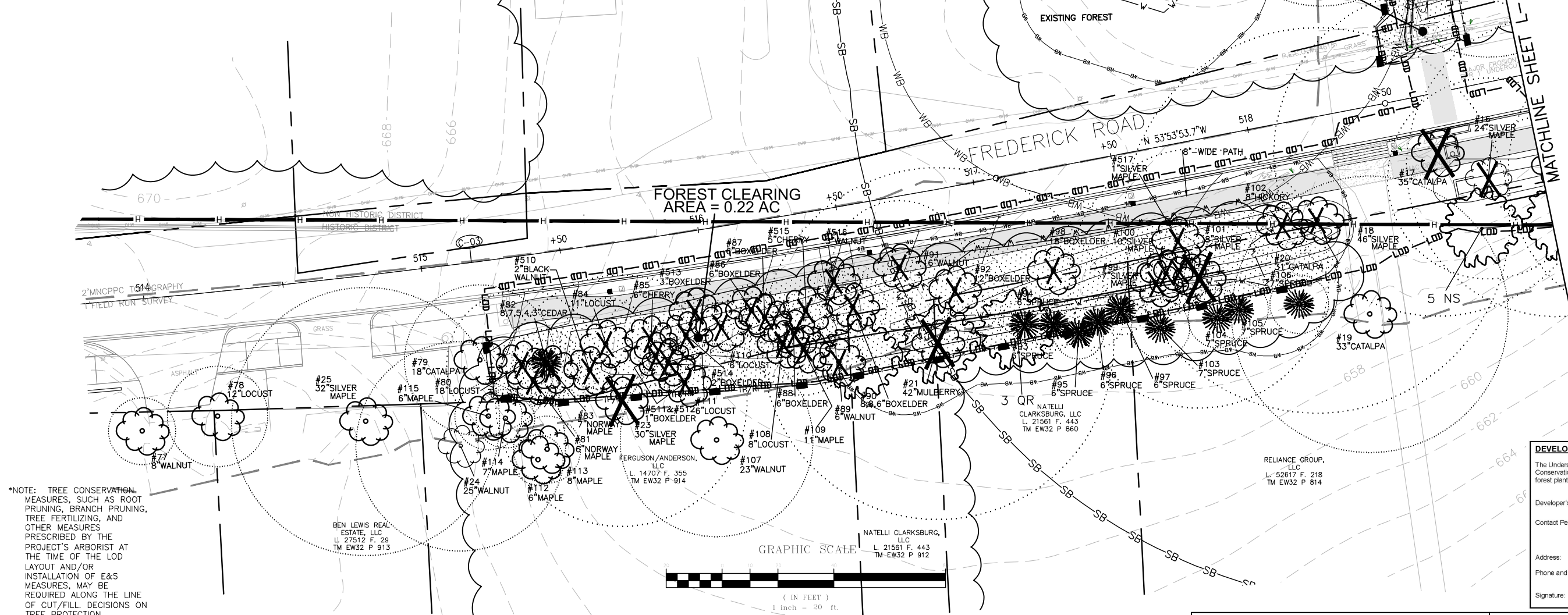
DRILL HOLES

LEGEND

- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
- EXISTING SIGNIFICANT TREE ≥24" AND <30" DBH WITH TAG NUMBER
- EXISTING SPECIMEN TREE ≥30" DBH WITH TAG NUMBER
- FOREST TREELINE
- SCRUB AREA/SCREENING TREES/NON-FOREST CANOPY
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- TREE TO BE REMOVED
- SOIL BOUNDARY
- HISTORIC DISTRICT
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
- FOREST CLEARING AREA
- PROPOSED TRAIL
- 25' STATE REGULATED WETLAND BUFFER
- 75' SPA WETLAND BUFFER
- STREAM BUFFER
- EXISTING WETLAND
- PROPOSED MITIGATION TREE
- PROPOSED LIGHT POLES



VICINITY MAP
1" = 2000'



*NOTE: TREE CONSERVATION MEASURES, SUCH AS ROOT PRUNING, BRANCH PRUNING, TREE FERTILIZING, AND OTHER MEASURES PRESCRIBED BY THE PROJECT'S ARBORIST AT THE TIME OF THE LOD LAYOUT AND/OR INSTALLATION OF E&S MEASURES, MAY BE REQUIRED ALONG THE LINE OF CUT/FILL. DECISIONS ON TREE PROTECTION MEASURES MUST BE AGREED UPON BY A M-NCPFC FOREST CONSERVATION INSPECTOR BEFORE INSTALLATION.

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNCPC&P AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

DATE
6.18.2020

M.A. Norton
MICHAEL A. NORTON
MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

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BALT. 443.542.9199 x101 DC 240.342.2329x101
ELLICOTT CITY, MD 21042
WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. 8-3, 4
TAX MAP	EW341,EW121	200. SHEET	232NW13, 233NW12		
SCALE	AS SHOWN	DATE	AUGUST 2019	PROJ. NO.	15-138
				SHEET NO.	L-1.4

DATUM:	NAD 83/91 HORIZONTAL NAVD 88 VERTICAL		
NO.	REVISION	DATE	BY

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

Designed by: H.J. Drawn by: H.J. Checked by: M.N.

DEVELOPER'S CERTIFICATE
The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. _____ including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
Printed Company Name

Contact Person or Owner: YASAMIN ESMAILI - PROJECT MANAGER
Printed Name

Address: 101 MONROE ST., 10TH FLOOR
ROCKVILLE, MD 20850
240-777-7226

Phone and Email: Yasamin.Esmaili@MontgomeryCountyMD.gov

Signature: _____

PLAN SHEET L-1.4
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH

Project No.: C.J.P. PR. #501744 SHEET 66 of 88 07/2018

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www.wallacemontgomery.com A Limited Liability Partnership

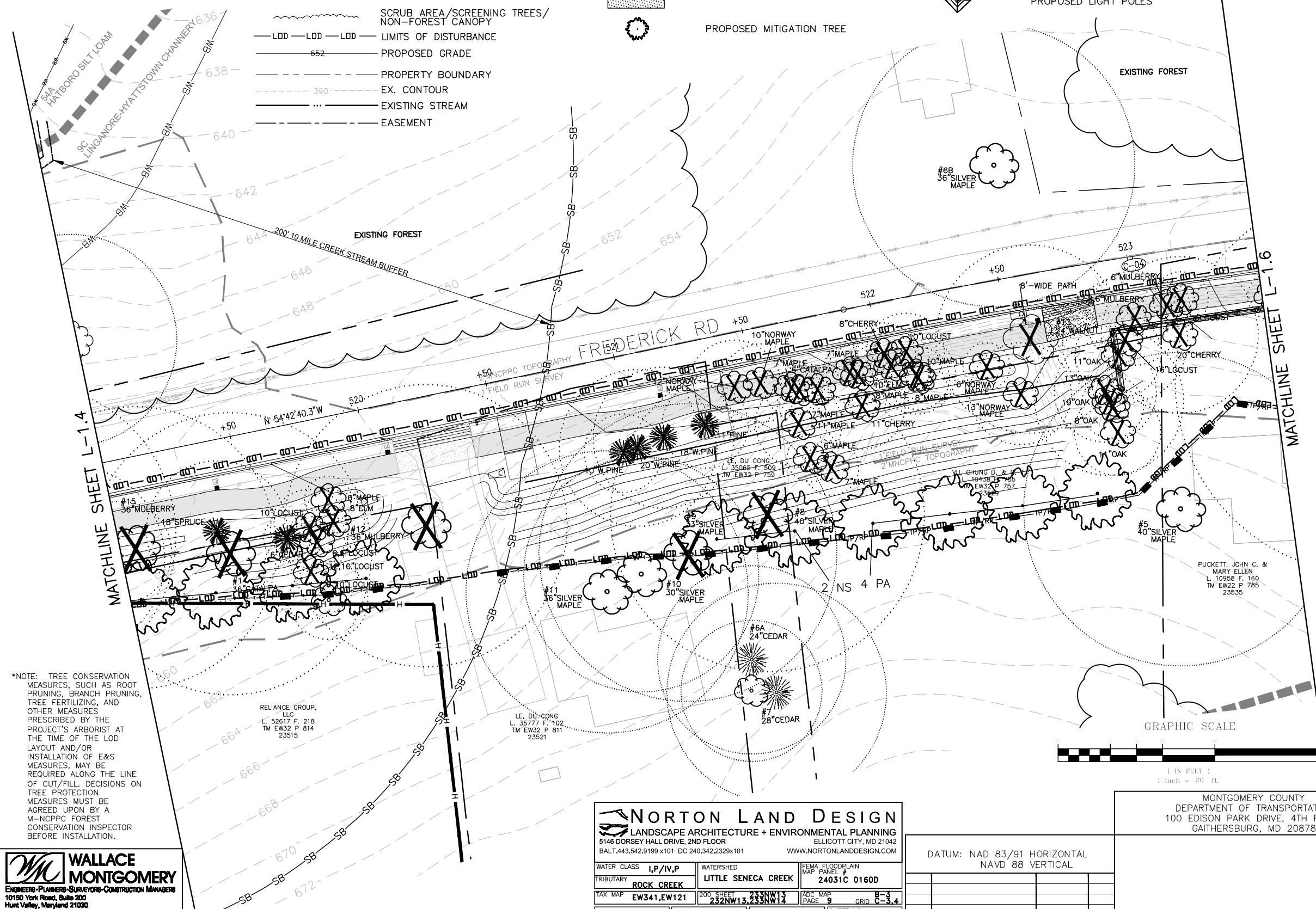
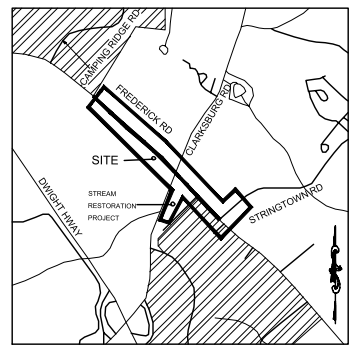
DRILL HOLES

DRILL HOLES

DRILL HOLES

LEGEND

- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
- 14" RED OAK
- #1 26" RED OAK EXISTING SIGNIFICANT TREE >24" AND <30" DBH WITH TAG NUMBER
- #2 32" RED OAK EXISTING SPECIMEN TREE ≥30" DBH WITH TAG NUMBER
- FOREST TREELINE
- SCRUB AREA/SCREENING TREES/NON-FOREST CANOPY
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- TREE TO BE REMOVED
- TREE PROTECTION FENCE (TEMPORARY)
- TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
- FOREST CLEARING AREA
- PROPOSED MITIGATION TREE
- PROPOSED SHARED USE PATH
- HISTORIC DISTRICT
- 25' STATE REGULATED WETLAND BUFFER
- 75' SPA WETLAND BUFFER
- STREAM BUFFER
- EXISTING WETLAND
- PROPOSED LIGHT POLES
- SOIL BOUNDARY



*NOTE: TREE CONSERVATION MEASURES, SUCH AS ROOT PRUNING, BRANCH PRUNING, TREE FERTILIZING, AND OTHER MEASURES PRESCRIBED BY THE PROJECT'S ARBORIST AT THE TIME OF THE LOD LAYOUT AND/OR INSTALLATION OF E&S MEASURES, MAY BE REQUIRED ALONG THE LINE OF CUT/FILL. DECISIONS ON TREE PROTECTION MEASURES MUST BE AGREED UPON BY A M-NGPPC FOREST CONSERVATION INSPECTOR BEFORE INSTALLATION.

RELIANCE GROUP, LLC
L. 52617 F. 218
TM EW32 P 814
23515

LE DU CONG
L. 35777 F. 102
TM EW32 P 811
23521

PUCKETT, JOHN C. & MARY ELLEN
L. 10958 F. 160
TM EW22 P 785
23535

DEVELOPER'S CERTIFICATE

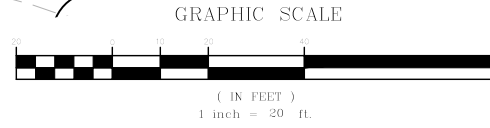
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Developer's Name: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
Contact Person or Owner: YASAMIN ESMAILI - PROJECT MANAGER
Address: 101 MONROE ST., 10TH FLOOR, ROCKVILLE, MD 20850
Phone and Email: 240-777-7226, Yasamin.Esmaili@MontgomeryCountyMD.gov
Signature: _____

CERTIFICATION OF QUALIFIED PROFESSIONAL
I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

6.18.2020
DATE

[Signature]
MICHAEL A. NORTON
MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL



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WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK	ADC MAP PAGE	9	CRID	8-3, 8-3, 4
TAX MAP	EW341,EW121	2008 SHEET	232NW13, 233NW13	PROJ. NO.	15-138
SCALE	AS SHOWN	DATE	AUGUST 2019	SHEET NO.	L-1.5

DATUM:	NAD 83/91 HORIZONTAL NAVD 88 VERTICAL		
NO.	REVISION	DATE	BY

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

Designed by: H.J. Drawn by: H.J. Checked by: M.N.

**PLAN SHEET L-1.5
PRELIMINARY FOREST
CONSERVATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH**

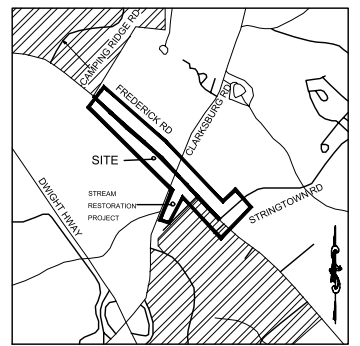
Project No.: C.J.P. PR. #501744 SHEET 67 of 88 07/2018

DRILL HOLES

DRILL HOLES

DRILL HOLES

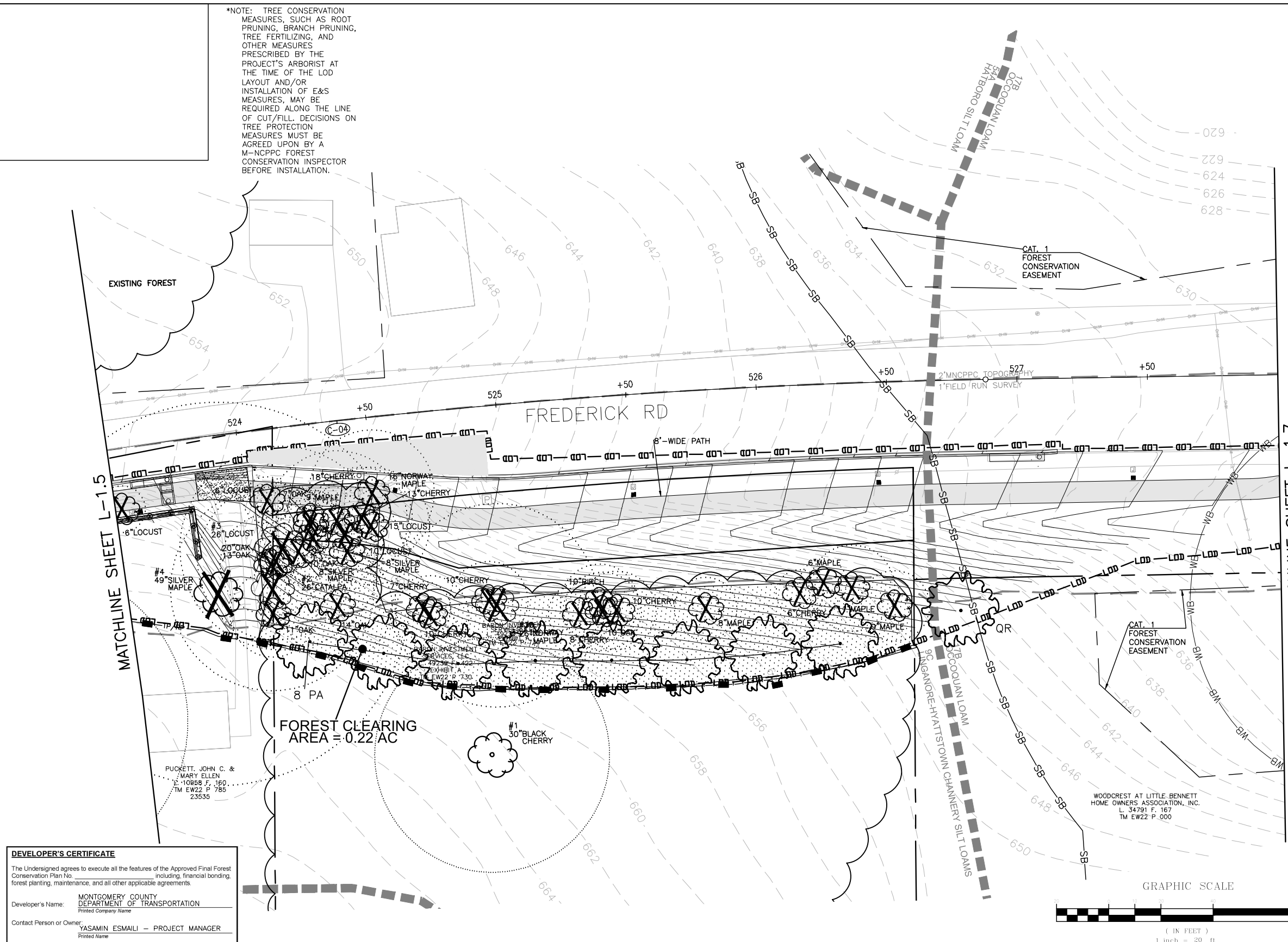
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VICINITY MAP
1"=2000'

LEGEND

- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
- #1 26" RED OAK EXISTING SIGNIFICANT TREE ≥24" AND <30" DBH WITH TAG NUMBER
- #2 32" RED OAK EXISTING SPECIMEN TREE ≥30" DBH WITH TAG NUMBER
- FOREST TREELINE
- SCRUB AREA/SCREENING TREES/NON-FOREST CANOPY
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- TREE TO BE REMOVED
- TREE PROTECTION FENCE (TEMPORARY)
- TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
- FOREST CLEARING AREA
- PROPOSED SHARED USE PATH
- 25' STATE REGULATED WETLAND BUFFER
- 75' SPA WETLAND BUFFER
- STREAM BUFFER
- EXISTING WETLAND
- PROPOSED LIGHT POLES
- SOIL BOUNDARY
- PROPOSED MITIGATION TREE



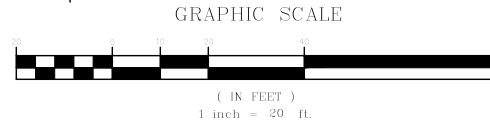
MATCHLINE SHEET L-1.5

MATCHLINE SHEET L-1.7

FOREST CLEARING AREA = 0.22 AC

PUCKETT, JOHN C. & MARY ELLEN
E. 10858 F. 160.
TM EW22 P. 785
23635

WOODCREST AT LITTLE BENNETT HOME OWNERS ASSOCIATION, INC.
L. 34791 F. 167
TM EW22 P. 000



DEVELOPER'S CERTIFICATE
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Phone and Email: 240-777-7226 Yasamin.Esmaili@MontgomeryCountyMD.gov

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Michael A. Norton
MICHAEL A. NORTON
MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

6.18.2020
DATE

NORTON LAND DESIGN LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM	
WATER CLASS I,P/IV,P	WATERSHED LITTLE SENECA CREEK
TRIBUTARY ROCK CREEK	FEMA FLOODPLAIN MAP PANEL # 24031C 0160D
TAX MAP EW341,EW121	ADC MAP PAGE 9 CRID. C-3.4
SCALE AS SHOWN	DATE AUGUST 2019
PROJ. NO. 15-138	SHEET NO. L-1.6

DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY

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

PLAN SHEET L-1.6
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG SHARED USE PATH

Project No.: C.J.P. PR. #501744 SHEET 68 of 88

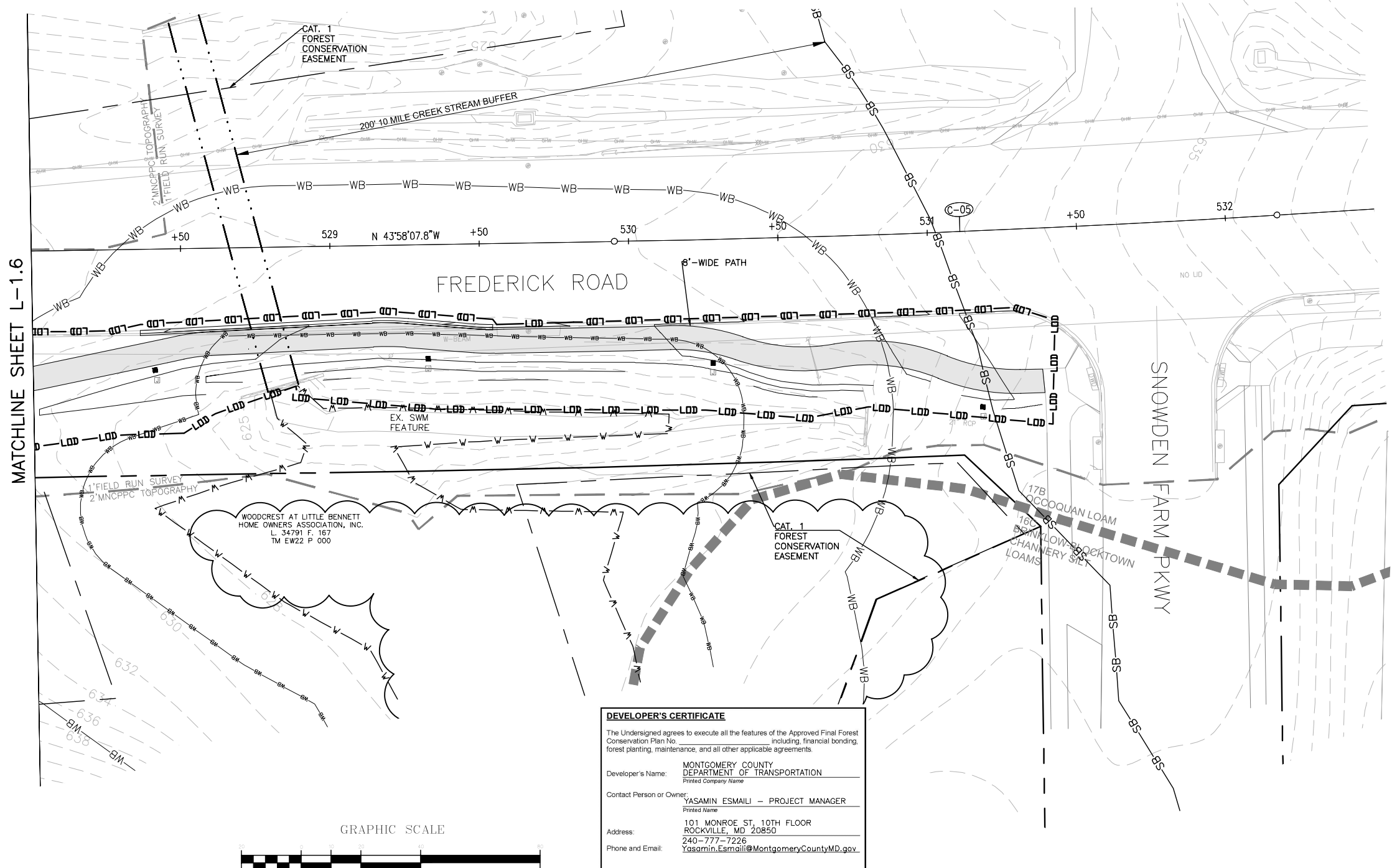
WALLACE MONTGOMERY
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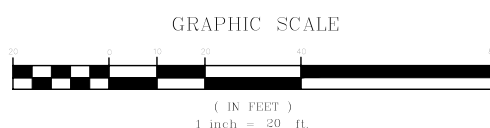
DRILL HOLES

DRILL HOLES

DRILL HOLES



MATCHLINE SHEET L-1.6



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6.18.2020
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 Printed Company Name

Contact Person or Owner: YASAMIN ESMALI - PROJECT MANAGER
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Address: 101 MONROE ST, 10TH FLOOR
 ROCKVILLE, MD 20850
 240-777-7226
 Phone and Email: Yasamin.Esmali@MontgomeryCountyMD.gov

Signature: _____

NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK	200 SHEET	232NW13, 233NW12	ADC MAP PAGE	9 CRID. 8-3.4
TAX MAP	EW341,EW121	SCALE	AS SHOWN	DATE	AUGUST 2019
PROJ. NO.	15-138	SHEET NO.	L-1.7	DESIGNED BY	H.J.

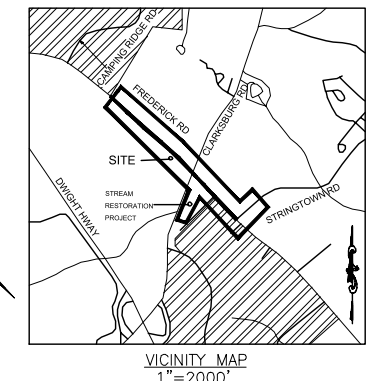
MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE, 4TH FLOOR
 GAITHERSBURG, MD 20878

NO.	REVISION	DATE	BY

Designed by: H.J. Drawn by: H.J. Checked by: M.N.

PLAN SHEET L-1.7
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG SHARED USE PATH

Project No.: C.J.P. PR. #501744 SHEET 69 of 88 07/2018



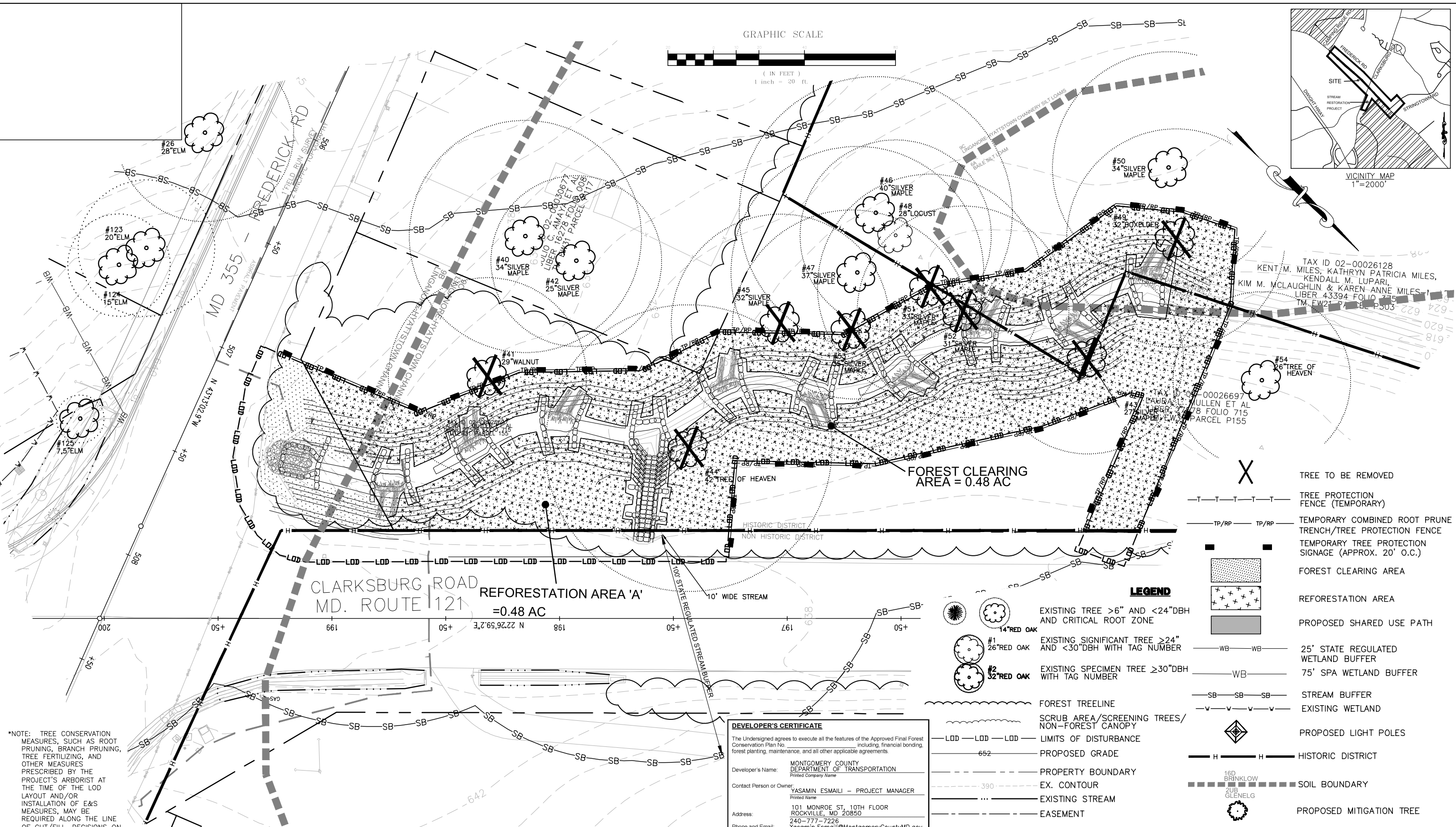
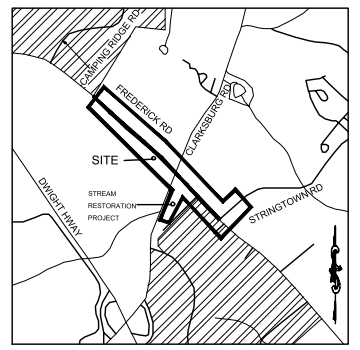
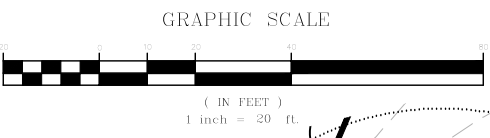
- LEGEND**
- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
 - 14" RED OAK
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 - #2 32" RED OAK EXISTING SPECIMEN TREE ≥30" DBH WITH TAG NUMBER
 - FOREST TREELINE
 - SCRUB AREA/SCREENING TREES/NON-FOREST CANOPY
 - LOD - LOD - LOD LIMITS OF DISTURBANCE
 - 652 PROPOSED GRADE
 - PROPERTY BOUNDARY
 - EX. CONTOUR
 - EXISTING STREAM
 - EASEMENT
 - TREE TO BE REMOVED
 - TREE PROTECTION FENCE (TEMPORARY)
 - TP/RP TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
 - TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
 - FOREST CLEARING AREA
 - PROPOSED SHARED USE PATH
 - WB - WB 25' STATE REGULATED WETLAND BUFFER
 - WB 75' SPA WETLAND BUFFER
 - SB - SB - SB STREAM BUFFER
 - EXISTING WETLAND
 - PROPOSED LIGHT POLES
 - SOIL BOUNDARY (16D BRINKLOW, 2UB GLENELG)
 - PROPOSED MITIGATION TREE

WALLACE MONTGOMERY
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DRILL HOLES

DRILL HOLES

DRILL HOLES



TAX ID 02-00026128
KENT M. MILES, KATHRYN PATRICIA MILES,
KENDALL M. LUPARI,
KIM M. MCLAUGHLIN & KAREN ANNE MILES
LIBER 43394 FOLIO 275
TM, EW21 P, EL, P303

TAX ID 02-00026697
MULLEN ET AL
LIBER 43394 FOLIO 715
PARCEL P155

- LEGEND**
- X TREE TO BE REMOVED
 - - - - - TREE PROTECTION FENCE (TEMPORARY)
 - TP/RP TP/RP TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
 - TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)
 - ▨ FOREST CLEARING AREA
 - ▨ REFORESTATION AREA
 - ▨ PROPOSED SHARED USE PATH
 - WB-WB 25' STATE REGULATED WETLAND BUFFER
 - WB-WB 75' SPA WETLAND BUFFER
 - SB-SB-SB STREAM BUFFER
 - - - - - EXISTING WETLAND
 - ◆ PROPOSED LIGHT POLES
 - H-H HISTORIC DISTRICT
 - 16D BRINKLOW 2UB GLENELG SOIL BOUNDARY
 - ⊙ PROPOSED MITIGATION TREE

*NOTE: TREE CONSERVATION MEASURES, SUCH AS ROOT PRUNING, BRANCH PRUNING, TREE FERTILIZING, AND OTHER MEASURES PRESCRIBED BY THE PROJECT'S ARBORIST AT THE TIME OF THE LOD LAYOUT AND/OR INSTALLATION OF E&S MEASURES, MAY BE REQUIRED ALONG THE LINE OF CUT/FILL. DECISIONS ON TREE PROTECTION MEASURES MUST BE AGREED UPON BY A M-NCPPC FOREST CONSERVATION INSPECTOR BEFORE INSTALLATION.

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Phone and Email: 240-777-7226
Yasamin.Esmaili@MontgomeryCountyMD.gov

Signature: _____

CERTIFICATION OF QUALIFIED PROFESSIONAL
I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION STATUTES.

16.18.2020
DATE
MICHAEL A. NORTON
MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
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WATER CLASS I, P, IV, P	WATERSHED LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL # 24031C 0160D
TRIBUTARY ROCK CREEK	TAX MAP EW341, EW121	200 SHEET 232NW13, 233NW12
SCALE AS SHOWN	DATE AUGUST 2019	PROJ. NO. 15-138
		SHEET NO. L-1.8

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

Designed by : H.J. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-1.8
PRELIMINARY FOREST CONSERVATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH

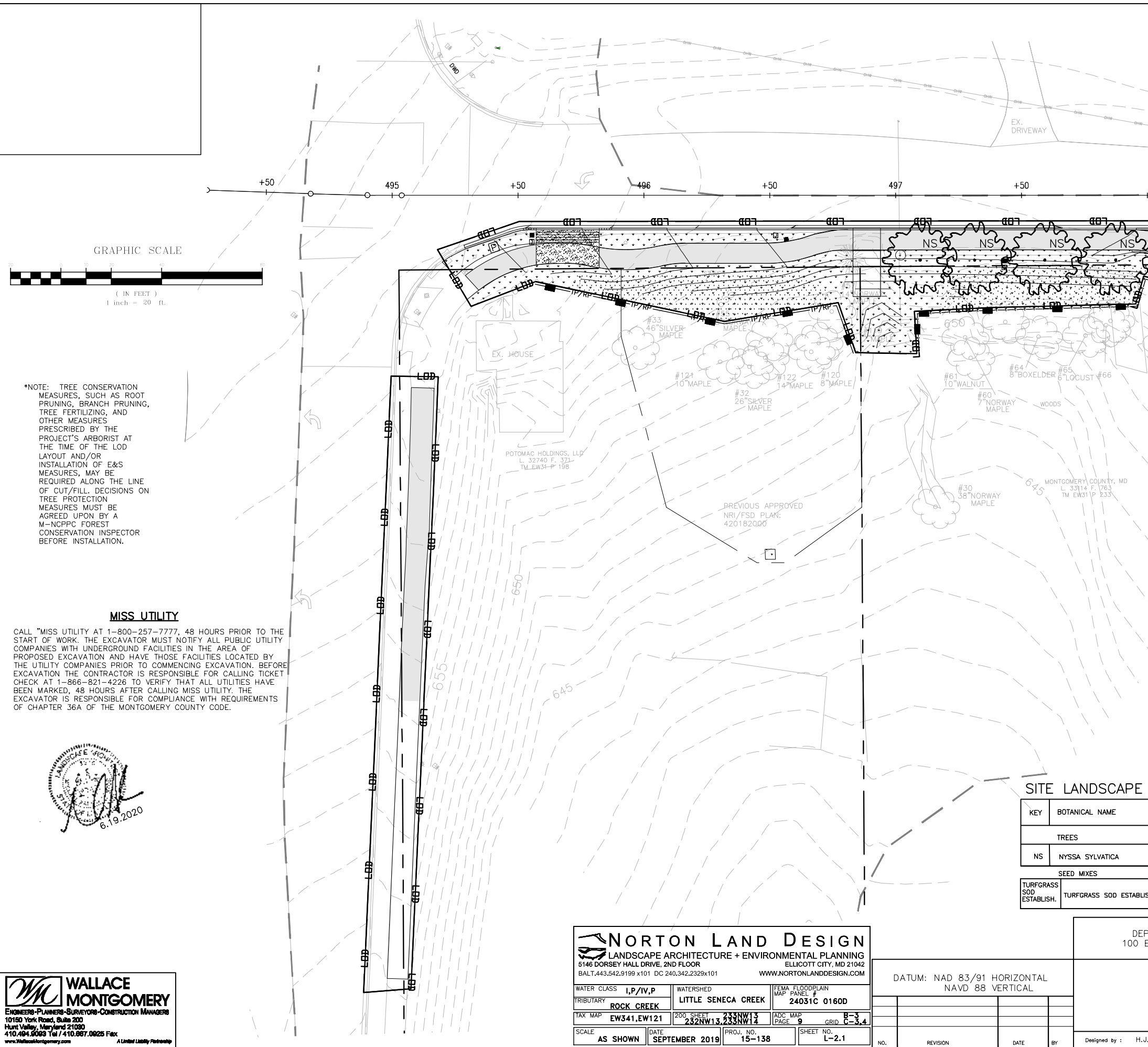
Project No. : C.J.P. PR. #501744 SHEET 70 of 88 07/2018

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21080
410.484.8069 Tel / 410.667.0825 Fax
www.wallacemontgomery.com A Limited Liability Partnership

DRILL HOLES

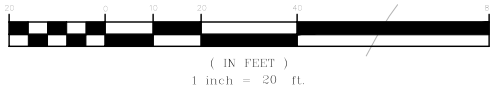
DRILL HOLES

DRILL HOLES



MATCHLINE SHEET L-2.2

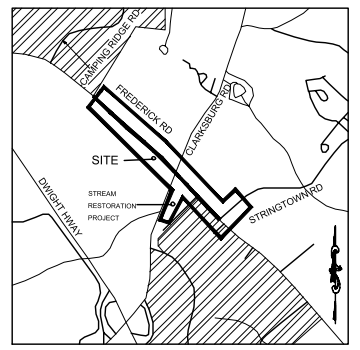
GRAPHIC SCALE



*NOTE: TREE CONSERVATION MEASURES, SUCH AS ROOT PRUNING, BRANCH PRUNING, TREE FERTILIZING, AND OTHER MEASURES PRESCRIBED BY THE PROJECT'S ARBORIST AT THE TIME OF THE LOD LAYOUT AND/OR INSTALLATION OF E&S MEASURES, MAY BE REQUIRED ALONG THE LINE OF CUT/FILL. DECISIONS ON TREE PROTECTION MEASURES MUST BE AGREED UPON BY A M-NPPPC FOREST CONSERVATION INSPECTOR BEFORE INSTALLATION.

MISS UTILITY

CALL "MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. BEFORE EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR CALLING TICKET CHECK AT 1-866-821-4226 TO VERIFY THAT ALL UTILITIES HAVE BEEN MARKED. 48 HOURS AFTER CALLING MISS UTILITY, THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.



LEGEND

- 14" RED OAK EXISTING TREE
- PROPOSED CANOPY TREE
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- PROPOSED SHARED USE PATH
- TURFGRASS SOD ESTABLISHMENT
- PROPOSED LIGHT POLES
- TREE PROTECTION FENCE (TEMPORARY)
- TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)

NOTE: SEE FOREST CONSERVATION PLAN FOR FOREST CLEARING & REFORESTATION INFORMATION.

SITE LANDSCAPE PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY	COMMENTS		
TREES									
NS	NYSSA SYLVATICA	BLACKGUM	2" CAL.	B&B	SHOWN	4			
SEED MIXES									
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUEGRASS				TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION

NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELICOTT CITY, MD 21042
 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9
TAX MAP	EW341,EW121	200 SHEET	232NW13,233NW14	GRID	B-3 C-3,4
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	L-2.1

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

**PLAN SHEET L-2.1
LANDSCAPE PLAN**

**MD 355 - CLARKSBURG
SHARED USE PATH**

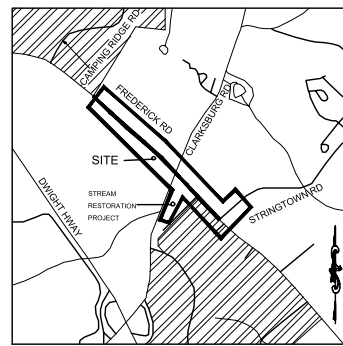
WALLACE MONTGOMERY
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DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

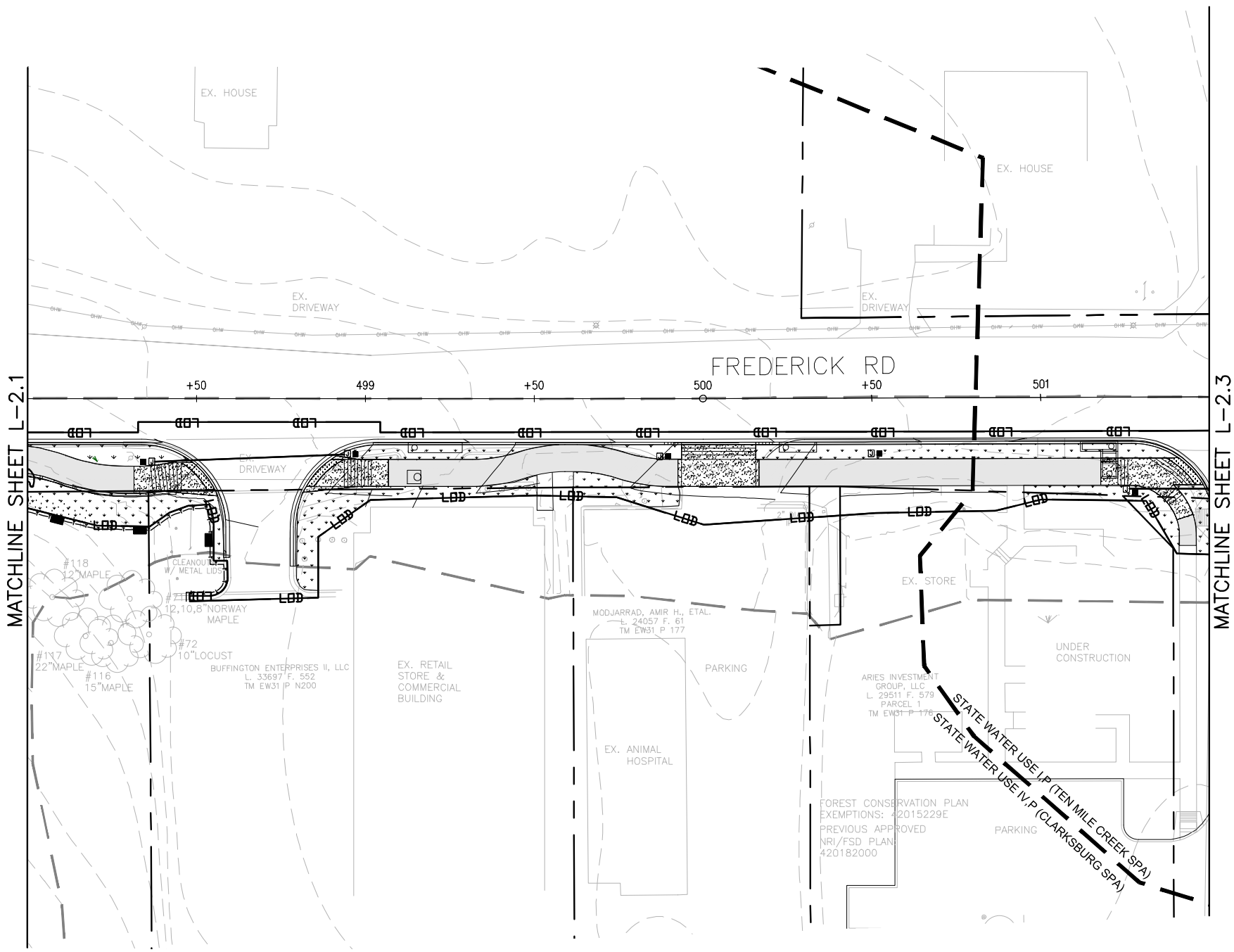
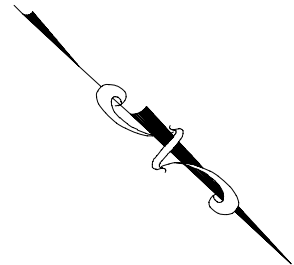
NO.	REVISION	DATE	BY

SITE LANDSCAPE PLANT SCHEDULE

SEED MIXES		TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS	TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION



VICINITY MAP
1"=2000'



MATCHLINE SHEET L-2.1

MATCHLINE SHEET L-2.3

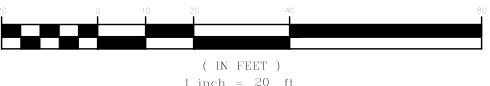
LEGEND

- 14" RED OAK EXISTING TREE
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
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- EASEMENT
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GRAPHIC SCALE



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TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. 8-3, 4
TAX MAP	EW341,EW121	2006 SHEET	232NW13,233NW12		
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	L-2.2

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

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : H.J. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-2.2
LANDSCAPE PLAN

MD 355 - CLARKSBURG
SHARED USE PATH

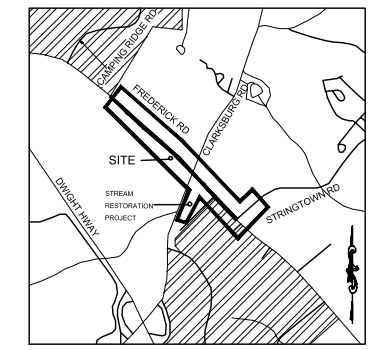
Project No. : C.J.P. PR. #501744 SHEET 73 of 88

DRILL HOLES

DRILL HOLES

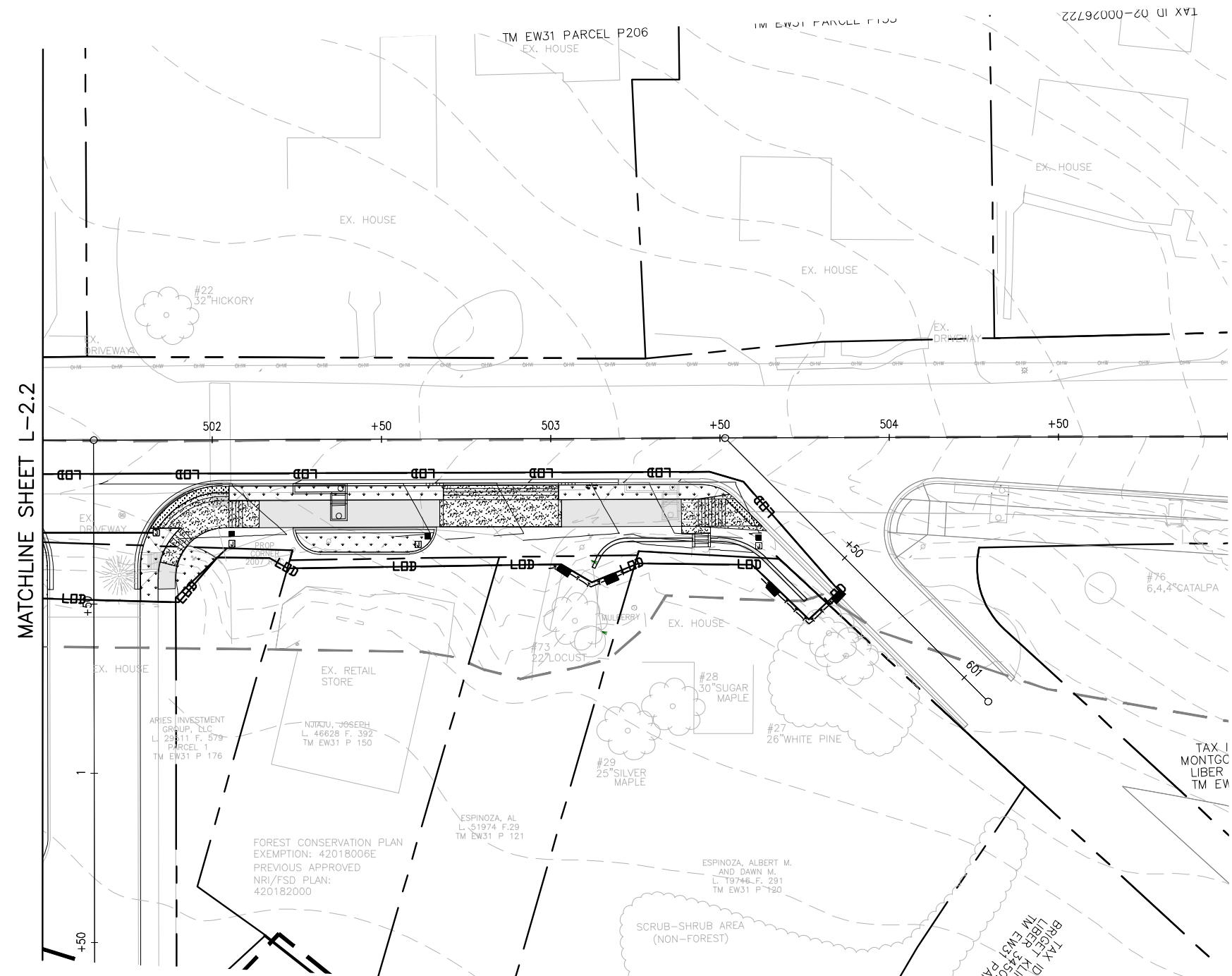
DRILL HOLES

DRILL HOLES



LEGEND

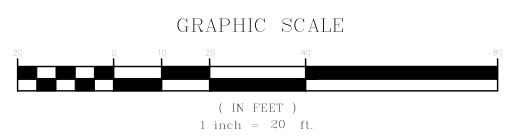
- 14" RED OAK EXISTING TREE
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
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- EXISTING STREAM
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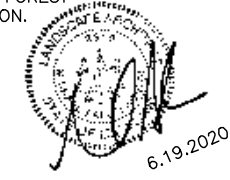
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SITE LANDSCAPE PLANT SCHEDULE

SEED MIXES					
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS	TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226
					STABILIZATION



NOTE: SEE FOREST CONSERVATION PLAN FOR FOREST CLEARING & REFORESTATION INFORMATION.



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TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. B-3 C-3.4
TAX MAP	EW341,EW121	ZON. SHEET	233NW13, 233NW12		
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	L-2.3

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

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : H.J. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-2.3
LANDSCAPE PLAN

MD 355 - CLARKSBURG
SHARED USE PATH

Project No. : C.J.P. PR. #501744 SHEET 74 of 88

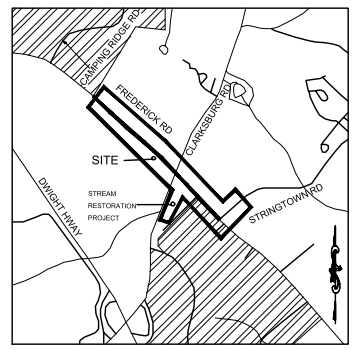
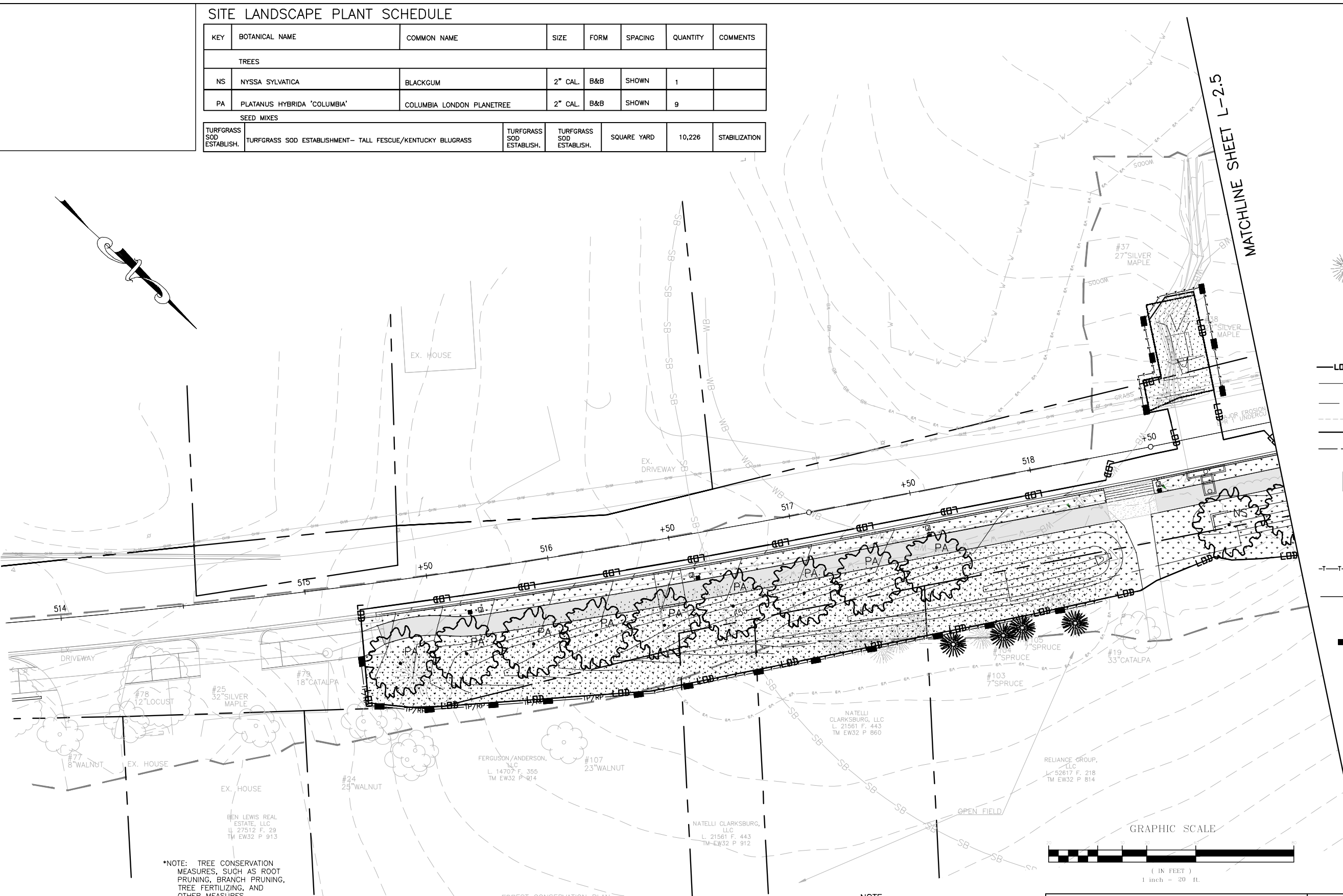
SITE LANDSCAPE PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY	COMMENTS
TREES							
NS	NYSSA SYLVATICA	BLACKGUM	2" CAL.	B&B	SHOWN	1	
PA	PLATANUS HYBRIDA 'COLUMBIA'	COLUMBIA LONDON PLANETREE	2" CAL.	B&B	SHOWN	9	
SEED MIXES							
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS	TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION	

DRILL HOLES

DRILL HOLES

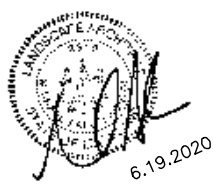
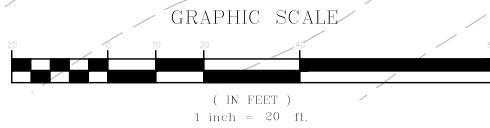
DRILL HOLES



VICINITY MAP
1"=2000'

LEGEND

- 14" RED OAK EXISTING TREE
- PROPOSED CANOPY TREE
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
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TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. 8-3.4
TAX MAP	EW341,EW121	2006 SHEET	232NW13,233NW13		
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	L-2.4

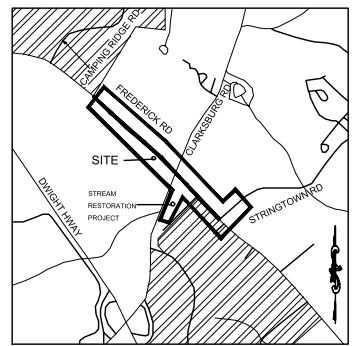
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MD 20878

PLAN SHEET L-2.4
LANDSCAPE PLAN
MD 355 - CLARKSBURG
SHARED USE PATH

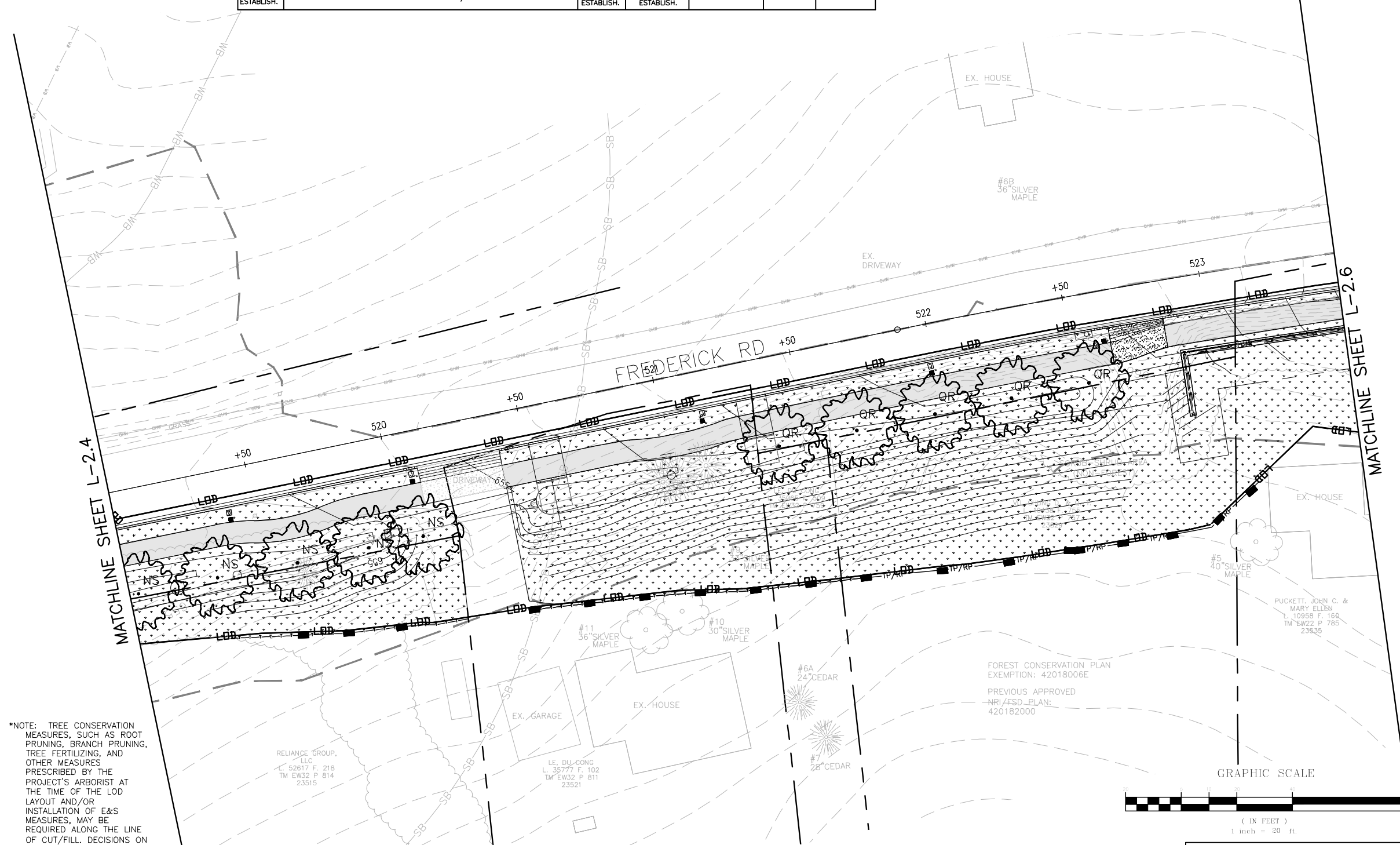
NO.	REVISION	DATE	BY

SITE LANDSCAPE PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY	COMMENTS
TREES							
NS	NYSSA SYLVATICA	BLACKGUM	2" CAL.	B&B	SHOWN	5	
QR	QUERCUS RUBRA	NORTHERN RED OAK	2" CAL.	B&B	SHOWN	5	
SEED MIXES							
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS		TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION



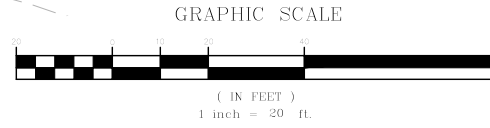
DRILL HOLES



LEGEND

- 14" RED OAK EXISTING TREE
- PROPOSED CANOPY TREE
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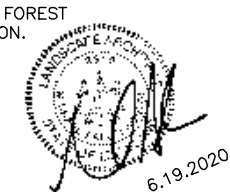
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RELIANCE GROUP, LLC
L: 52617 F: 218
TM EW32 P 814
23515

LE DU CONG
L: 35777 F: 102
TM EW32 P 811
23521

FOREST CONSERVATION PLAN
EXEMPTION: 42018006E
PREVIOUS APPROVED
NRI/FSD PLAN:
420182000

PUCKETT, JOHN C. &
MARY ELLEN
L: 10958 F: 160
TM EW22 P 785
23635



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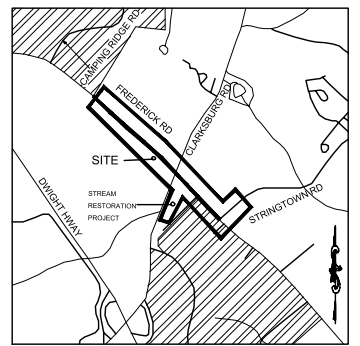
PLAN SHEET L-2.5
LANDSCAPE PLAN

MD 355 - CLARKSBURG
SHARED USE PATH

Project No. : C.J.P. PR. #501744 SHEET 76 of 88

SITE LANDSCAPE PLANT SCHEDULE

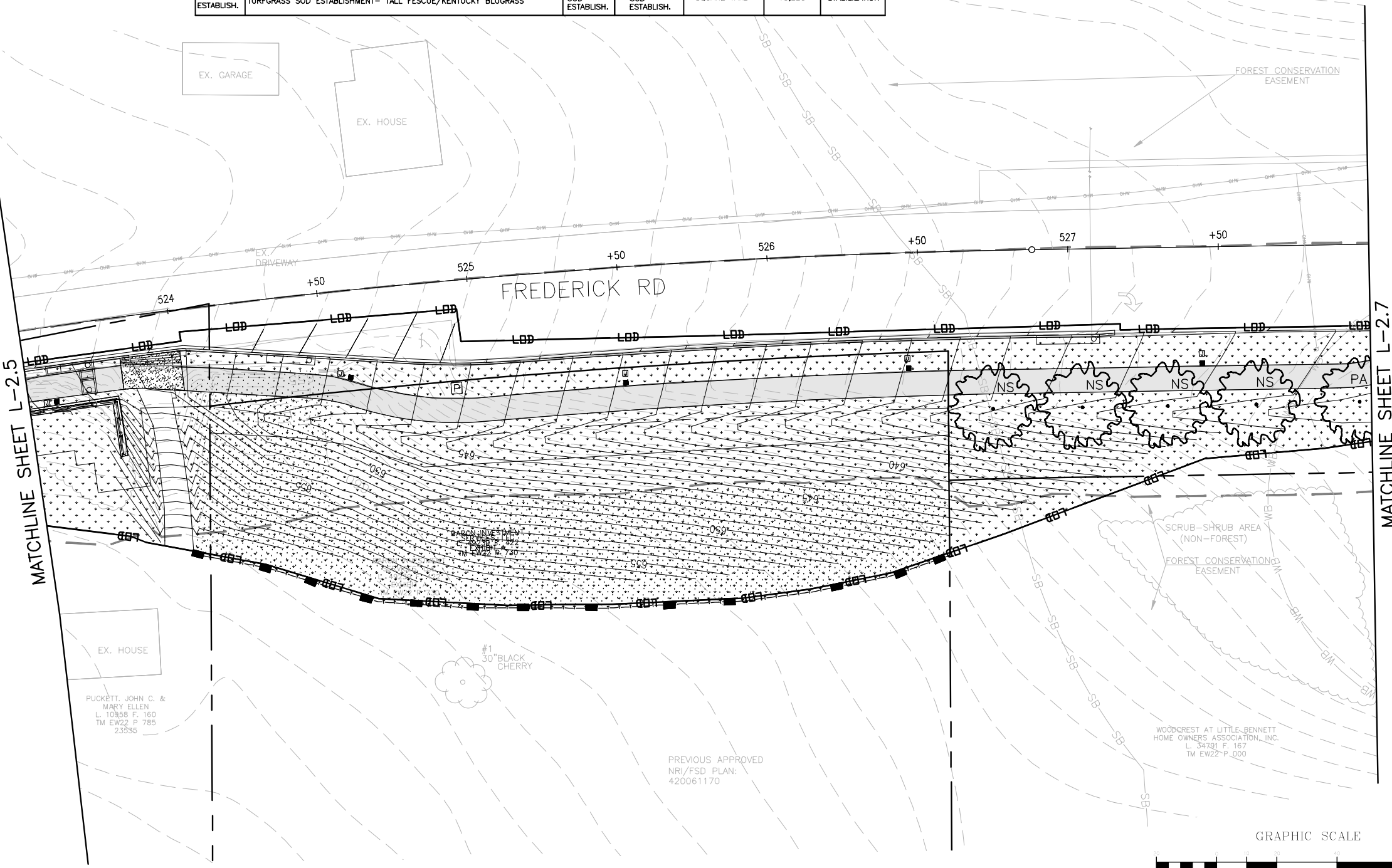
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PA	PLATANUS HYBRIDA 'COLUMBIA'	COLUMBIA LONDON PLANETREE	2" CAL.	B&B	SHOWN	1	
SEED MIXES							
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS		TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION



VICINITY MAP
1"=2000'

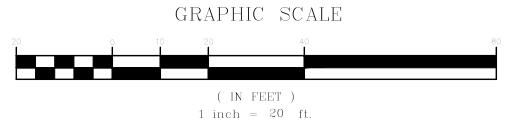
LEGEND

- 14" RED OAK EXISTING TREE
- PROPOSED CANOPY TREE
- LIMITS OF DISTURBANCE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- EX. CONTOUR
- EXISTING STREAM
- EASEMENT
- PROPOSED SHARED USE TRAIL
- TURFGRASS SOD ESTABLISHMENT
- PROPOSED LIGHT POLES
- TREE PROTECTION FENCE (TEMPORARY)
- TEMPORARY COMBINED ROOT PRUNE TRENCH/TREE PROTECTION FENCE
- TEMPORARY TREE PROTECTION SIGNAGE (APPROX. 20' O.C.)

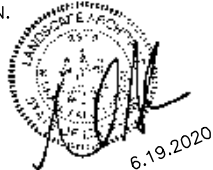


MATCHLINE SHEET L-2.5

MATCHLINE SHEET L-2.7



NOTE:
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WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID. 8-3.4
TAX MAP	EW341,EW121	ZONING	232NW13,233NW13		
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	L-2.6

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

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : H.J. Drawn by : H.J. Checked by : M.J.N.

PLAN SHEET L-2.6
LANDSCAPE PLAN

MD 355 - CLARKSBURG
SHARED USE PATH

Project No. : C.J.P. PR. #501744 SHEET 77 of 88

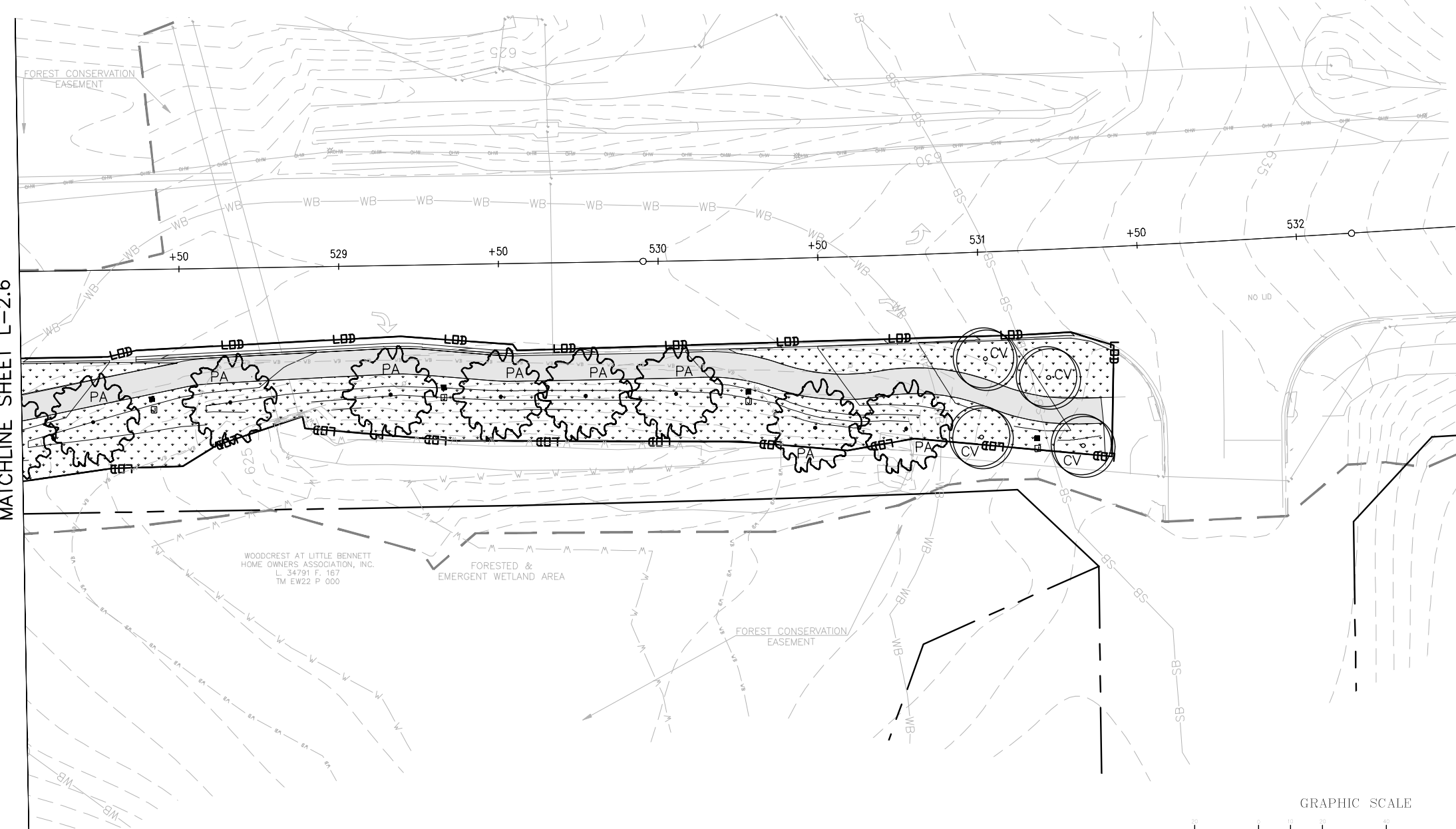
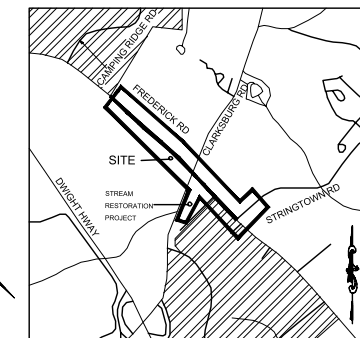
DRILL HOLES

DRILL HOLES

DRILL HOLES

SITE LANDSCAPE PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY	COMMENTS
TREES							
CV	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	7'-8'	B&B	SHOWN	4	
PA	PLATANUS HYBRIDA 'COLUMBIA'	COLUMBIA LONDON PLANETREE	2" CAL.	B&B	SHOWN	8	
SEED MIXES							
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS		TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION

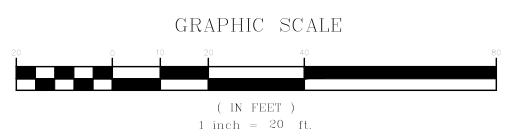


MATCHLINE SHEET L-2.6

LEGEND

	14" RED OAK	EXISTING TREE
	QP	PROPOSED CANOPY TREE
	CC	PROPOSED ORNAMENTAL TREE
	LDD	LIMITS OF DISTURBANCE
	652	PROPOSED GRADE
		PROPERTY BOUNDARY
	390	EXISTING CONTOUR
		EXISTING STREAM
		EASEMENT
		PROPOSED SHARED USE PATH
		TURFGRASS SOD ESTABLISHMENT
		PROPOSED LIGHT POLES

NOTE:
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WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK	ADC MAP #	9	CRID	8-3, 8-3.4
TAX MAP	EW341,EW121	2008 SHEET	233NW13, 233NW12	DATE	SEPTEMBER 2019
SCALE	AS SHOWN	PROJ. NO.	15-138	SHEET NO.	L-2.7

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

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : H.J. Drawn by : H.J. Checked by : M.N.

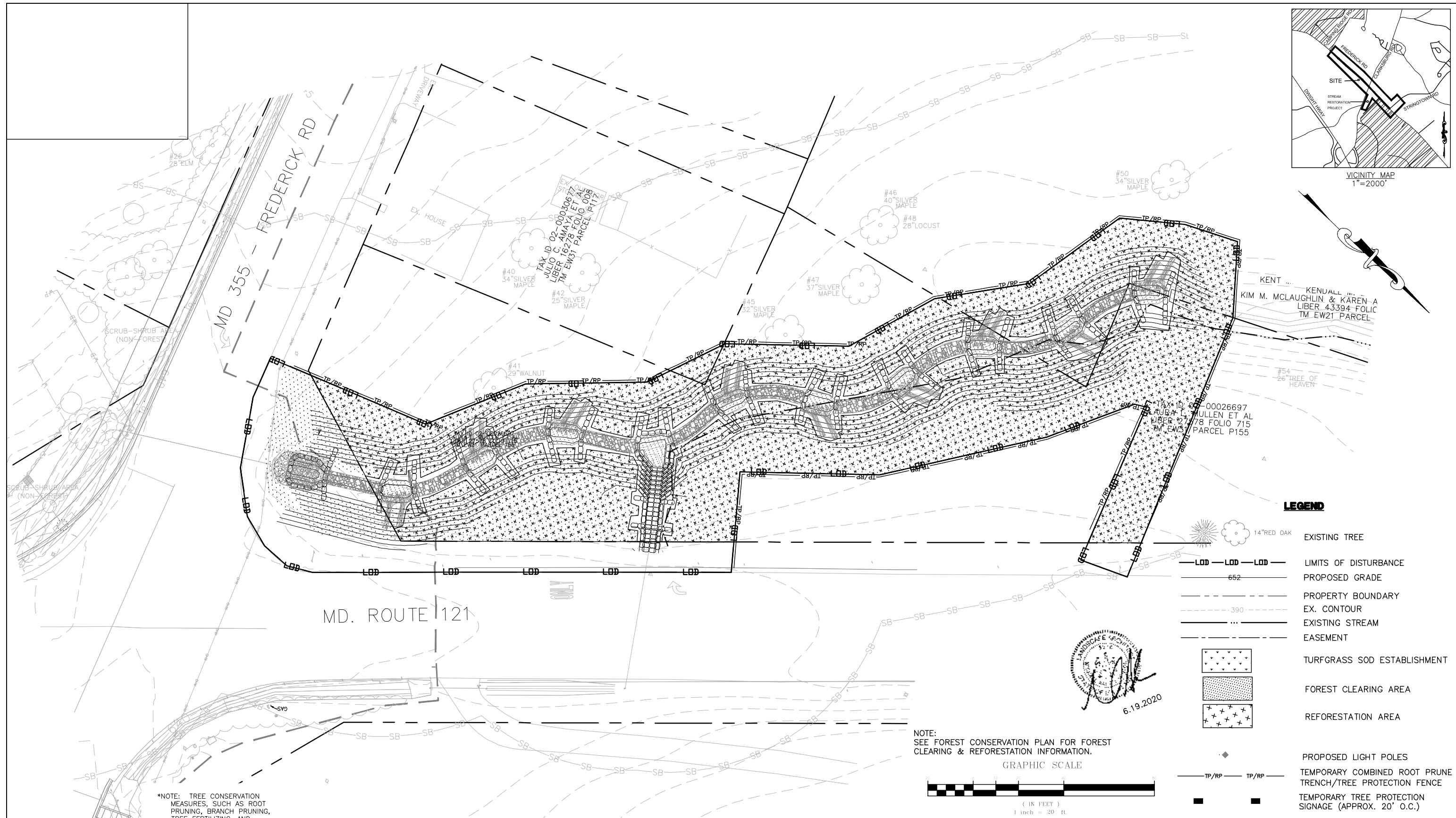
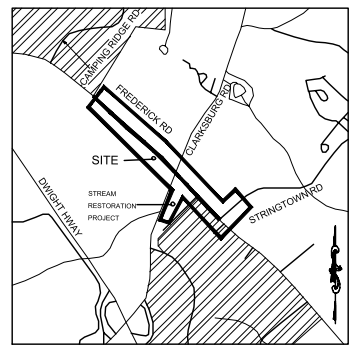
PLAN SHEET L-2.7
LANDSCAPE PLAN

MD 355 - CLARKSBURG
SHARED USE PATH

Project No. : C.J.P. PR. #501744 SHEET 78 of 88



DRILL HOLES

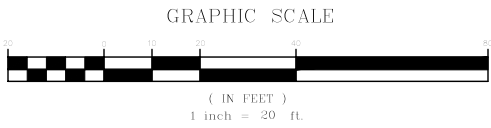


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TAX MAP	EW341,EW121	200 SHEET	232NW13,233NW13		
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	L-2.8

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 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE, 4TH FLOOR
 GAITHERSBURG, MD 20878

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : H.J. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-2.8
LANDSCAPE PLAN - MD 121

MD 355 - CLARKSBURG
SHARED USE PATH

Project No. : C.J.P. PR. #501744 SHEET 79 of 88 07/2018

DRILL HOLES

DRILL HOLES

DRILL HOLES

7.1 SHA LANDSCAPE NOTES:
Landscape construction within rights of way of the Maryland State Highway Administration (SHA) and within SHA property, easement areas and lands to be conveyed to SHA shall conform to these Notes. For guidance regarding design modifications during construction, refer to SHA Landscape Design Guide, SHA Landscape Estimating Manual, and SHA Environmental Guide for Access and District Permit Applicants at <http://www.roads.maryland.gov/index.aspx?PageId=25>

7.2 SHA Standard Specifications:
Landscape construction shall conform to Sections 701 through 716, and landscape materials shall conform to Section 920 of the most recent revision of SHA Standard Specifications for Construction and Materials, including all revisions and supplements, and as specified in these notes. These requirements shall supersede all other specifications for work on SHA property. All SHA specifications for landscaping and landscape materials published in 2008 have been replaced. Current Specifications are at <http://www.roads.maryland.gov/index.aspx?PageId=44>.

7.3 Erosion and Sediment Control Manager (ESCM):
Soil disturbance such as grading, excavation, soil placement or other activities that involve soil disturbance shall be supervised by an ESCM Manager with a valid "SHA Yellow Card" in conformance with SHA Standard Specifications and any applicable Erosion and Sediment Control Permit.

7.4 SHA Standard Details for Trees, Shrubs and Planting Beds:
The installation of trees, shrubs, planting beds and other landscape construction related to Section 710 of the SHA Standard Specifications shall conform to the "SHA Book of Standards for Highway & Incidental Structures - Category 7" at <http://apps.roads.maryland.gov/BusinessWithSHA/bizStdsSpecs/desManualStdPub/publicationsonline/ohd/bookstd/toccat7.asp>.

7.5 Temporary Stabilization:
Shall be installed in conformance with Section 704 to ensure that areas of soil disturbance are protected from wind, rainfall and flowing water until permanent stabilization is installed:
1. Temporary Mulch, either as temporary straw mulch or temporary matting mulch, shall be installed at the end of each working day to provide "same day stabilization" unless other approved stabilization is installed.
2. Temporary straw mulch shall be installed on areas and slopes flatter than 4:1; temporary matting mulch shall be applied on slopes 4:1 and steeper, and to areas within channels.
3. Temporary Seed shall be installed in lieu of Temporary Mulch when soil redisturbance is expected more than 30 days after soil disturbance. The required application rate shall be 100 lbs per acre of 37-0-0 (SCU) fertilizer.

7.6 Roadway Pavement Removal:
Areas of roadway pavement removal shall be excavated to remove pavements, aggregate base, and compacted soil to a minimum depth of 10 inches below the pavement surface, or as necessary to remove all materials unsuitable for landscaping. The excavated areas shall be restored with subsoil and topsoil as part of Soil Restoration.

7.7 Excavation and Debris Removal:
Debris related to the demolition of sidewalks, driveways, curbs, trees, stumps, roots, fencing, pipes, and other materials that may interfere with landscape installation or future maintenance shall be excavated as necessary for their complete removal and disposal.

7.8 Soil Restoration:
Areas of pavement removal, excavation or drilling in landscaped areas shall remove excavated debris and restore the subgrade with approved subsoil and topsoil placed in conformance with Section 701 of the SHA Standard Specifications.
1. A layer of approved topsoil of at least a 4-inch depth shall be placed on all disturbed areas flatter than 2:1 and in all channels prior to seeding, sodding or other landscaping, unless otherwise specified.
2. A layer of approved topsoil of at least a 2-inch depth shall be placed on all disturbed areas 2:1 and steeper prior to seeding, sodding or other landscaping, unless otherwise specified.
3. Bioretention Soil Mix (BSM) and other materials installed in conjunction with SPI 316 - Stormwater Filtration Facilities and SHA stormwater details shall be installed in conformance with SHA Landscape Notes and landscape plans. Plant materials and mulch shall be installed in BSM in conformance with stormwater details, Section 710 or other SHA Specifications.

7.9 Turfgrass Sod Establishment:
Shall be performed in all disturbed areas, or within the areas indicated in the plans, in conformance with Section 708 of the SHA Standard Specifications. The required application rate of 20-16-12 fertilizer shall be 200 lbs per acre, and no fertilizer shall be applied from November 15 to March 1.

7.11 Soil Stabilization Matting:
Shall be installed in conformance with Section 709 of the SHA Standard Specifications, in conjunction with Turfgrass Establishment per Section 705 or Meadow Establishment per Section 707 as follows:
1. Areas Flatter than 6:1. Type A or Type E matting may be installed in lieu of straw mulch and hydromulch binder in conjunction with Turfgrass Establishment.
2. Areas Steeper than 6:1 and Flatter than 4:1. Type A or Type E matting shall be installed in lieu of straw mulch and hydromulch binder in conjunction with Turfgrass Establishment, unless delineated and noted otherwise.
3. Channels, Stormwater Management Facilities, and Slopes 4:1 and Steeper Type A Soil Stabilization Matting shall be installed in lieu of straw mulch and hydromulch binder in conjunction with Turfgrass Establishment, unless delineated and noted otherwise.

7.13 Tree Preservation Areas:
Temporary Orange Construction Fence (TOCF) shall be installed in locations delineated on the plans as Tree Preservation Areas (TPA) in conformance with Section 120 of the SHA Standard Specification to protect existing trees and other vegetation during construction. Areas within TOCF shall be protected from all prohibited and restricted activities, per Section 120.

7.14 Roadside Tree Permit:
Tree removal, tree installation, tree root and branch pruning, and other regulated impacts to trees in the SHA right of way shall conform to the requirements of the Roadside Tree Permit (RTP) issued by the Maryland Department of Natural Resources, or the approved Forest Conservation Plan (FCP) of the local authority.
1. A copy of the RTP or FCP shall be submitted to the SHA Office of Environmental Design before work is performed, and a copy of the RTP or FCP shall be reproduced in the plans or be in possession of the applicant at the project site when the permitted work is performed.
2. A Maryland Licensed Tree Expert shall perform the specified tree operations in conformance with the SHA Standard Specifications and ANSI A300 Standards for Tree Care Operations.

7.15 Trees and Other Plant Material Installation:
Trees, shrubs, perennials, annuals, bulbs, landscape beds, bark mulch and similar materials shall be installed in conformance with Section 710 and 711 of the SHA Standard Specifications. Tree and shrubs shall be pruned at the time of installation to ensure sidewalk clearance for pedestrians is maintained to a height of 8 feet. No tree or shrub shall be installed within 3 feet of curbs, sidewalks, or pavement edges

7.21 Tree Branch Pruning:
Shall be performed or directly supervised by a Maryland Licensed Tree Expert in conformance with ANSI A300 standards per Section 712 as necessary for any of the following: To install Temporary Orange Construction Fence (TOCF) along delineations on plans; to perform Tree Root Pruning along delineations on plans; to provide 8-foot clearance above sidewalk pavements and 16-foot clearance above roadway pavements; to repair tree wounds; and to perform other recommended cleaning, thinning, reducing, and pruning necessary to accommodate utilities. All debris shall be removed from SHA property

7.22 Tree Root Pruning:
Shall be performed along the line shown on the plans in conformance with Section 715. Tree Root Pruning shall be completed before beginning excavation or construction adjacent to trees to be preserved.

7.23 Tree Fertilizing:
Shall be performed in conformance with Operation 3 - Broadcast Fertilizing per Section 716. 20-16-12 fertilizer shall be applied to the soil surface under the dripline of trees at the rate of 200 lbs. per acre.

7.25 Future Maintenance:
Additional maintenance that may be required after hardscape, street furniture or plant materials are installed and accepted by SHA such as replacement, watering, weeding, mulching or pest control may be provided by the applicant when a permit for the proposed work is issued by the SHA District Office.

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TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9 CRID 8-3,4
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SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	LS-2.9



DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

SITE LANDSCAPE PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY	COMMENTS
TREES							
CV	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	7'-8'	B&B	SHOWN	4	
NS	NYSSA SYLVATICA	BLACKGUM	2" CAL.	B&B	SHOWN	18	
PA	PLATANUS HYBRIDA 'COLUMBIA'	COLUMBIA LONDON PLANETREE	2" CAL.	B&B	SHOWN	18	
QR	QUERCUS RUBRA	NORTHERN RED OAK	2" CAL.	B&B	SHOWN	5	

SEED MIXES							
TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISHMENT- TALL FESCUE/KENTUCKY BLUGRASS	TURFGRASS SOD ESTABLISH.	TURFGRASS SOD ESTABLISH.	SQUARE YARD	10,226	STABILIZATION	

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PLAN SHEET L-2.9
LANDSCAPE - NOTES
MD 355 - CLARKSBURG
SHARED USE PATH

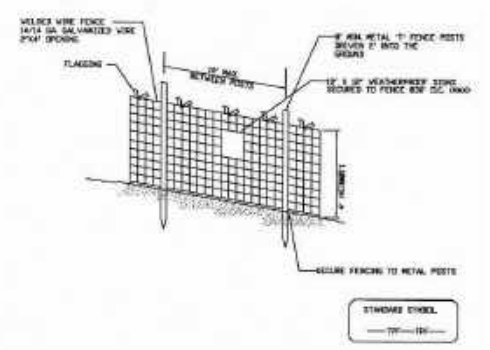
DRILL HOLES

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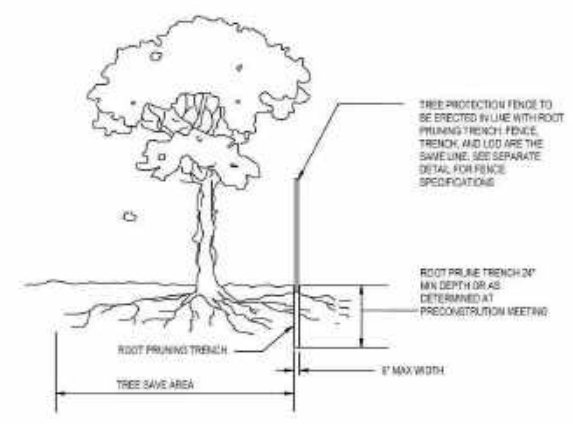
Tree Protection Fence Detail

Not to scale



- NOTES**
1. Practice may be combined with sediment control fencing.
 2. Location and limits of fencing should be coordinated in field with arborist.
 3. Boundaries of protection area should be staked prior to installing protective device.
 4. Root damage should be avoided.
 5. Protection signage is required.
 6. Fencing shall be maintained throughout construction.

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MontgomeryPlanning.org



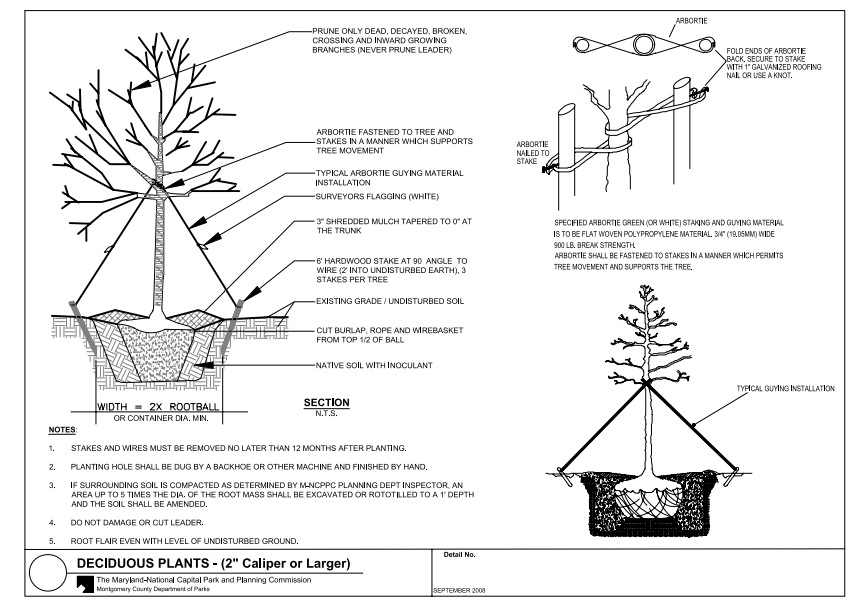
- NOTES:**
1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
 2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
 3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INSPECTOR.
 4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
 5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
 6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

ROOT PRUNING DETAIL NTS

FOREST RETENTION AREA SIGNAGE



- NOTE:**
SIGNAGE FOR FOREST RETENTION AREA TO BE PLACED 30' O.C. WHEN PLACED ON FENCE
1. Attachment of signs to trees is prohibited.
 2. Signs should be properly maintained.
 3. Avoid injury to roots when placing posts for the signs.



DECIDUOUS PLANTS - (2" Caliper or Larger)

The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Parks

SEPTEMBER 2008

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MISS UTILITY
CALL "MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. BEFORE EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR CALLING TICKET CHECK AT 1-866-821-4226 TO VERIFY THAT ALL UTILITIES HAVE BEEN MARKED, 48 HOURS AFTER CALLING MISS UTILITY. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK	ADC MAP PAGE	9	CRID	8-3, 8-3,4
TAX MAP	EW341,EW121	ZONING	233NW13, 233NW13		
SCALE	AS SHOWN	DATE	SEPTEMBER 2019	PROJ. NO.	15-138
				SHEET NO.	LS-2.10

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

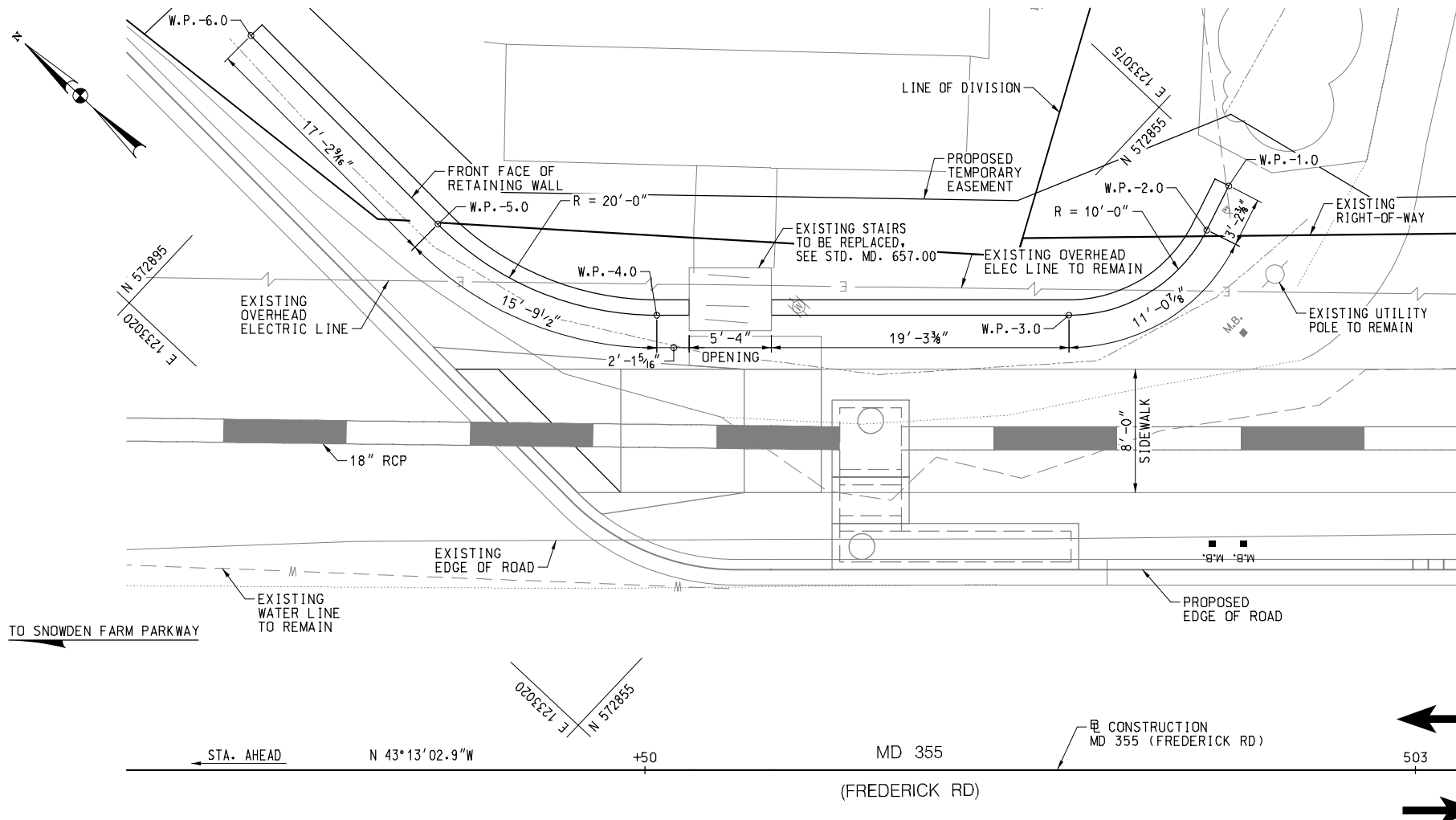
PLAN SHEET L-2.10
LANDSCAPE - DETAILS

MD 355 - CLARKSBURG
SHARED USE PATH

07/2018

Project No. : C.J.P. PR. #501744 SHEET 81 of 88

Designed by : H.J. Drawn by : H.J. Checked by : M.N.



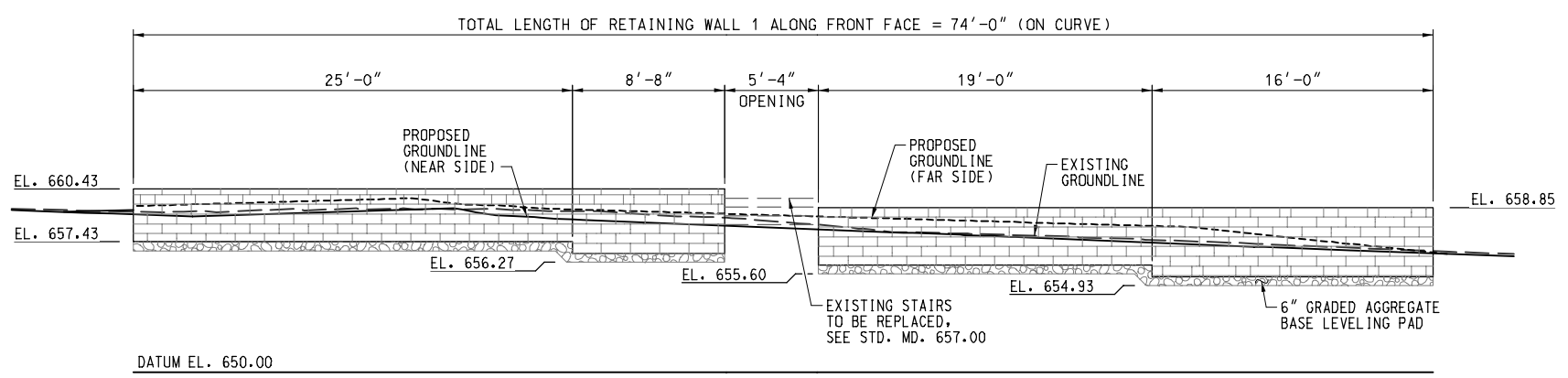
GENERAL NOTES:

- SPECIFICATIONS: - SHA SPECIFICATIONS DATED JULY 1, 2020
 - REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION
- KEYS: ALL KEYS ARE NOMINAL SIZE.

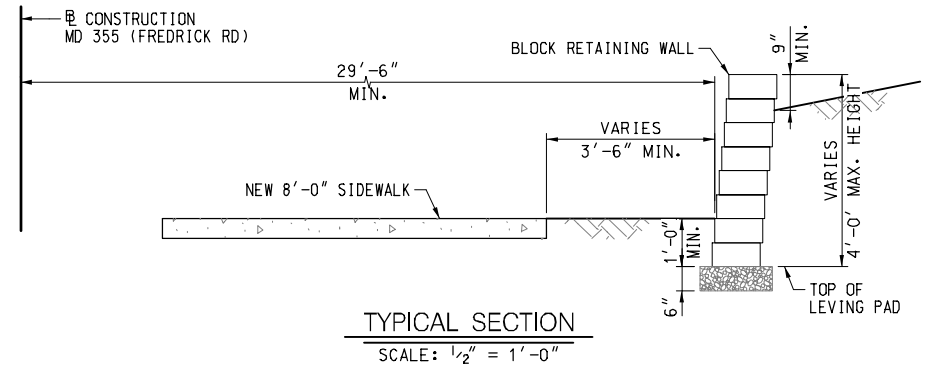
WORKING POINT DATA				
MARK	STATION	OFFSET	NORTHING	EASTING
W.P.-1.0	503+12.12	37.89' RT.	572,848.2137	1,233,074.3800
W.P.-2.0	503+13.55	35.03' RT.	572,847.2967	1,233,071.3143
W.P.-3.0	503+22.50	29.50' RT.	572,850.0296	1,233,061.1640
W.P.-4.0	503+49.22	29.50' RT.	572,869.5041	1,233,042.8621
W.P.-5.0	503+63.42	35.42' RT.	572,883.9054	1,233,037.4497
W.P.-6.0	503+75.54	47.64' RT.	572,901.1082	1,233,038.0572

NOTE:
 SOIL SHALL HAVE A MINIMUM ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF.

PLAN
 SCALE: 1" = 5'



ELEVATION
 SCALE: 1" = 5'



TYPICAL SECTION
 SCALE: 1/2" = 1'-0"

- NOTES:
- FOR ROADWAY PLANS, SEE DRAWING NO. PS-03.
 - SEE SPECIAL PROVISIONS FOR PRE-APPROVED ALTERNATE WALL SYSTEMS.

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10150 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410.494.9093 Tel / 410.667.0925 Fax
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UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

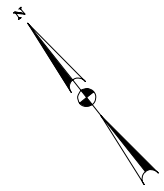
RECOMMENDED FOR APPROVAL

Chief, Design Section	Date
APPROVED	
Chief, Division of Engineering Services	Date
Designed by : M.E.P.	Drawn by : C.N.W.
Checked by : D.A.L.	

**RETAINING WALL 1
 GENERAL PLAN AND ELEVATION
 MD 355 - CLARKSBURG
 SHARED USE PATH**

SCALE: AS NOTED 08/2020
 Project No. : C.I.P. PR. # 501744 SHEET 83 of 88

RW1-1

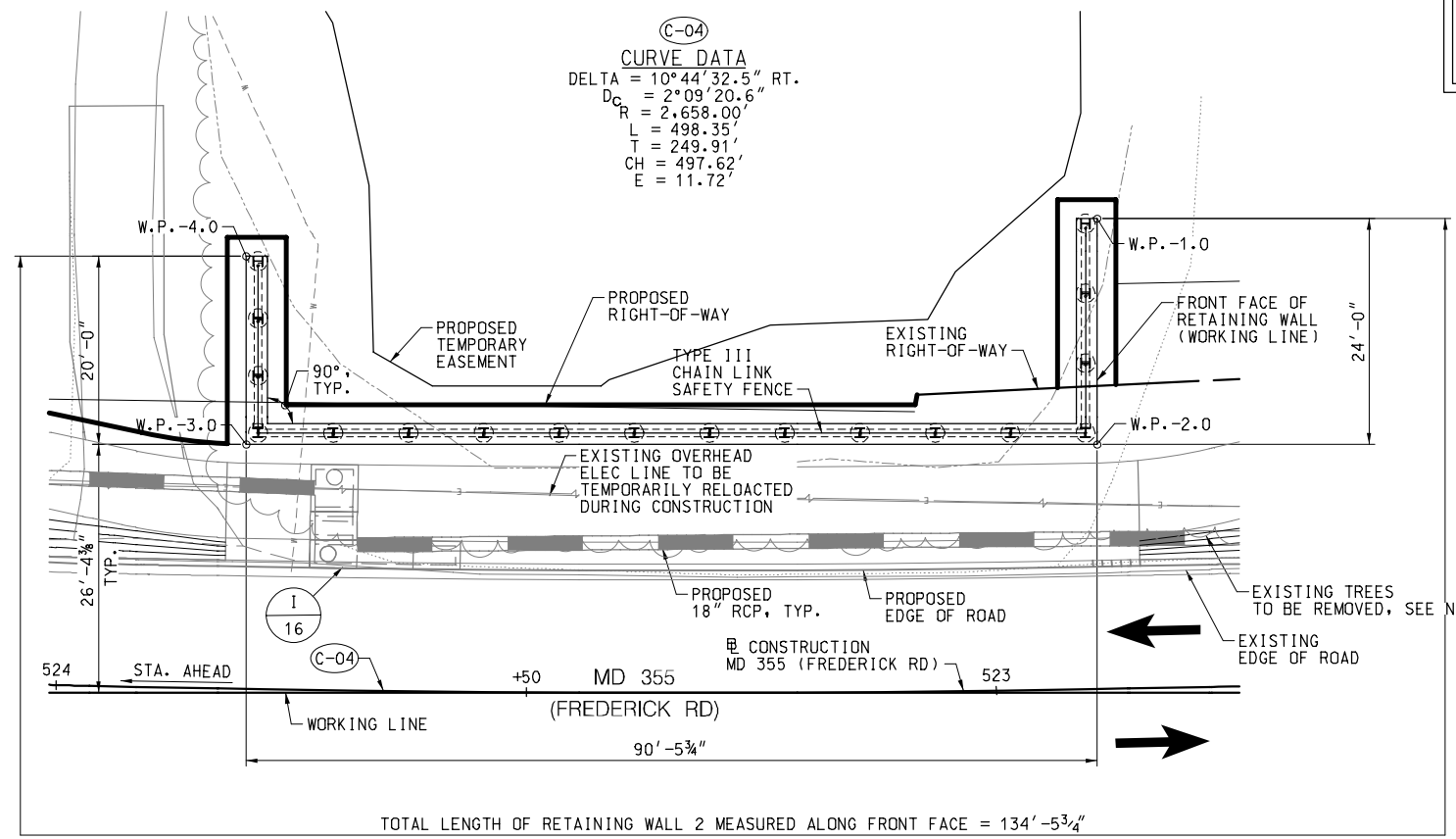


(C-04) CURVE DATA
 DELTA = 10° 44' 32.5" RT.
 $D_c = 2° 09' 20.6"$ RT.
 $R = 2,658.00'$
 $L = 498.35'$
 $T = 249.91'$
 $CH = 497.62'$
 $E = 11.72'$

NOTE:
 ORIENTATION OF THIS VIEW DOES NOT MATCH THE ORIENTATION OF THE HIGHWAY PLANS.

GENERAL NOTES:

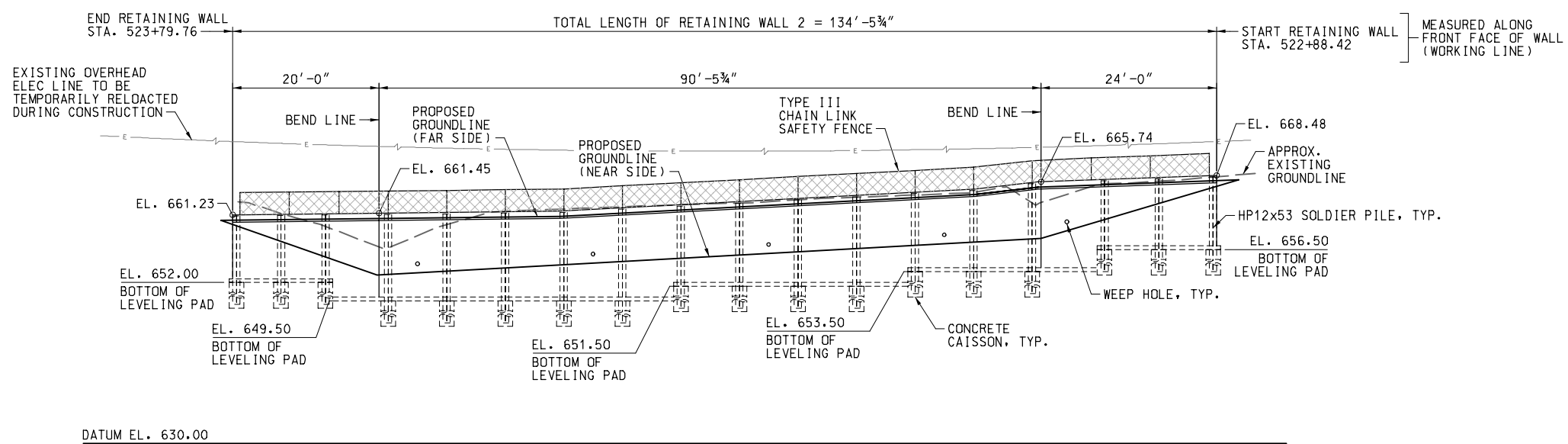
- SPECIFICATIONS:** MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JULY 2020.
- DESIGN:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2017.
- CONCRETE:** ALL CONCRETE SHALL BE MIX NO. 3 (3500 PSI).
 CONCRETE COMPRESSIVE STRENGTH FOR DESIGN SHALL BE $f'c = 3000$ PSI.
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, WITH A YIELD STRENGTH FOR DESIGN OF $f_y = 60000$ PSI.
 ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS.
 REINFORCING STEEL SHALL BE EPOXY COATED AS NOTED WITH AN EP IN THE PLANS.
 MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
- STRUCTURAL STEEL:** NEW STRUCTURAL STEEL SHALL CONFORM TO A709, GRADE 50. INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING OF M270, FOR PRIMARY LOAD CARRYING MEMBERS. REFER TO SECTION 909.01.



NOTE:
 EXISTING TREES WITHIN THE LIMIT OF DISTURBANCE WILL BE REMOVED TO PERFORM CONSTRUCTION. REFER TO DWG. NOS. L-1.5 AND L-1.6 FOR DETAILS.

WORKING POINT DATA				
MARK	STATION	OFFSET	NORTHING	EASTING
W.P.-1.0	522+88.41	48.99' RT.	574,170.2520	1,231,604.5600
W.P.-2.0	522+88.83	25.99' RT.	574,151.4458	1,231,589.6494
W.P.-3.0	523+80.21	25.99' RT.	574,207.6598	1,231,518.7486
W.P.-4.0	523+80.56	45.98' RT.	574,223.3517	1,231,531.1741

PLAN
 SCALE: 1" = 10'



- NOTES:**
- FOR GEOMETRIC AND FOOTING LAYOUT, SEE DRAWING RW2-2.
 - FOR RETAINING WALL TYPICAL SECTION, SEE DRAWING RW2-3.

ELEVATION
 SCALE: 1" = 10'
 (DEVELOPED ALONG FRONT FACE OF WALL)



UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

RECOMMENDED FOR APPROVAL

Chief, Design Section
 APPROVED _____ Date _____

Chief, Division of Engineering Services
 APPROVED _____ Date _____

Designed by : M.E.P. Drawn by : C.N.W. Checked by : D.A.L.

**RETAINING WALL 2
 GENERAL PLAN AND ELEVATION
 MD 355 - CLARKSBURG
 SHARED USE PATH**

SCALE: AS NOTED 08/2020

Project No. : C.I.P. PR. # 501744 SHEET 84 of 88

NOTE:
ORIENTATION OF THIS VIEW DOES NOT MATCH THE ORIENTATION OF THE HIGHWAY PLANS.

CAISSON SCHEDULE					
CAISSON NUMBER	STATION	OFFSET	WALL SECTION	TOP OF CAISSON ELEV.	BOTTOM OF CAISSON ELEV.
1	522+89.69	49.50 RT.	HP12x53	656.50	644.50
2	522+89.81	42.09 RT.	HP12x53	656.50	644.50
3	522+89.94	34.67 RT.	HP12x53	656.50	644.50
4	522+90.06	27.25 RT.	HP12x53	653.50	641.50
5	522+98.15	27.37 RT.	HP12x53	653.50	641.50
6	523+06.23	27.47 RT.	HP12x53	653.50	641.50
7	523+14.31	27.54 RT.	HP12x53	651.50	639.50
8	523+22.40	27.59 RT.	HP12x53	651.50	639.50
9	523+30.48	27.62 RT.	HP12x53	651.50	639.50
10	523+38.56	27.62 RT.	HP12x53	651.50	639.50
11	523+46.65	27.59 RT.	HP12x53	649.50	637.50
12	523+54.73	27.54 RT.	HP12x53	649.50	637.50
13	523+62.82	27.47 RT.	HP12x53	649.50	637.50
14	523+70.90	27.37 RT.	HP12x53	649.50	637.50
15	523+78.98	27.25 RT.	HP12x53	649.50	637.50
16	523+79.11	33.33 RT.	HP12x53	652.00	640.00
17	523+79.24	39.42 RT.	HP12x53	652.00	640.00
18	523+79.38	45.50 RT.	HP12x53	652.00	640.00

CAISSON INSTALLATION NOTES:

- EXCAVATED SHAFTS FOR CAISSONS BY AUGURING TO A MINIMUM EMBEDMENT OF 12'-0", WITH A MINIMUM ROCK SOCKET OF 5'-0". SEE SECTION ON SHEET RW1-3. ROCK SHALL BE DEFINED AS MATERIAL THAT CAN NOT BE DRILLED WITH A CME 75 DRILL RIG (OR EQUIVALENT) AND HOLLOW STEM AUGERS. WHEN ROCK IS ENCOUNTERED, CORE-DRILLING PROCEDURES WILL BE REQUIRED.
- INSTALL STEEL CASINGS AS EXCAVATION PROCEEDS. CASINGS SHALL BE FULL LENGTH AND WATER TIGHT AND SHALL BE SUFFICIENT TO WITHSTAND ALL STRESSES AND MAINTAIN THE SHAFT WALLS.
- WITHDRAW CASINGS PROGRESSIVELY AS CONCRETE IS PLACED.
- HOLES FOR SUCCESSIVE DRILLED SHAFTS SHALL NOT BE EXCAVATED UNTIL ADJACENT SHAFTS ARE FILLED WITH CONCRETE AND ALLOWED TO SET.
- DRILLED SHAFT TOLERANCES SHALL BE IN ACCORDANCE WITH SECTION 412.

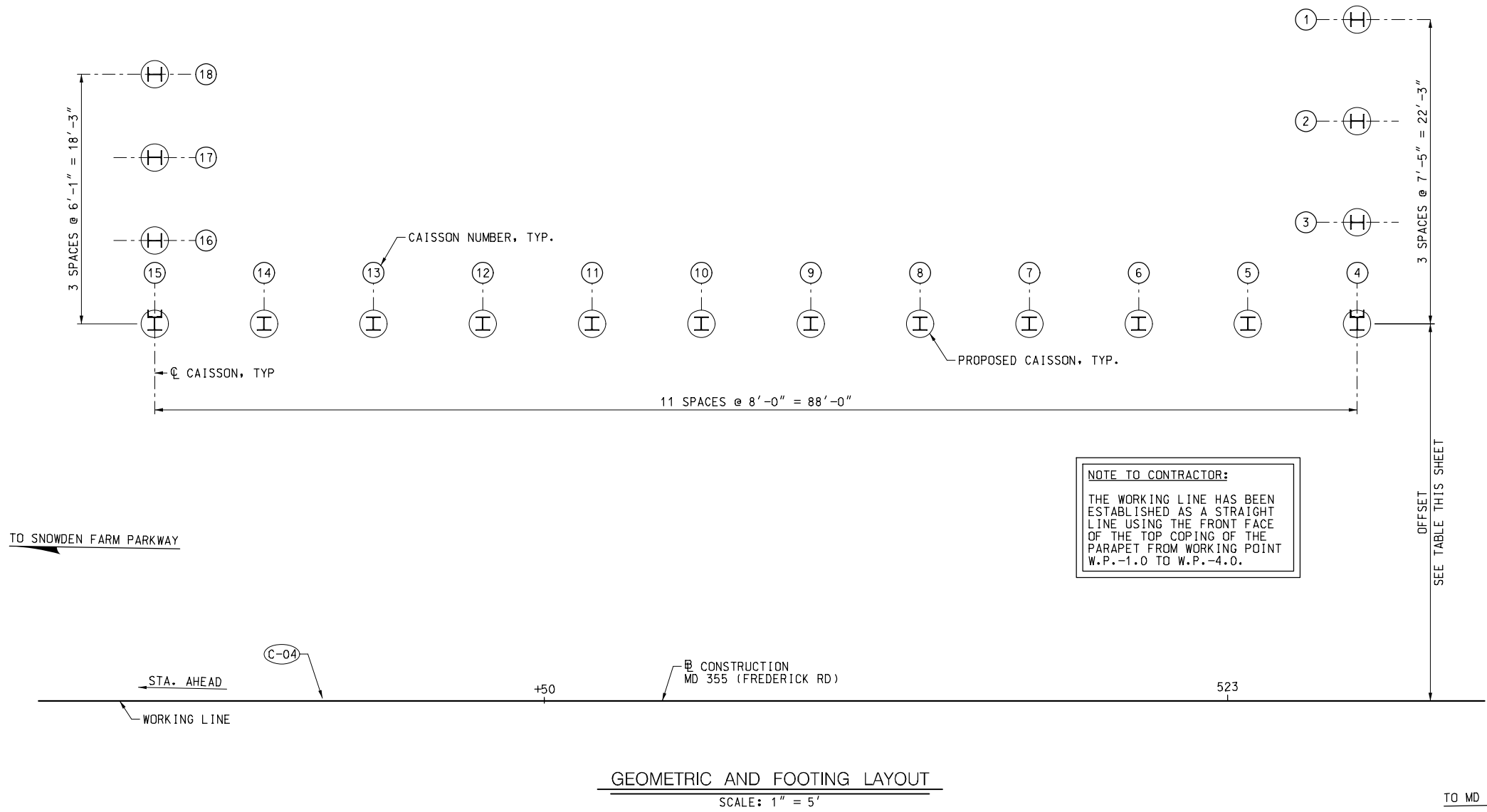
NOTE:
FOR GENERAL PLAN AND ELEVATION, SEE DRAWING RW2-1

RW2-2

**RETAINING WALL 2
GEOMETRIC AND FOOTING LAYOUT
MD 355 - CLARKSBURG
SHARED USE PATH**

SCALE: AS NOTED 08/2020
Project No.: C.I.P. PR. # 501744 SHEET 85 of 88

NOTE TO CONTRACTOR:
THE WORKING LINE HAS BEEN ESTABLISHED AS A STRAIGHT LINE USING THE FRONT FACE OF THE TOP COPING OF THE PARAPET FROM WORKING POINT W.P.-1.0 TO W.P.-4.0.



GEOMETRIC AND FOOTING LAYOUT
SCALE: 1" = 5'

C-04
CURVE DATA
DELTA = 10° 44' 32.5" RT.
Dc = 2° 09' 20.6"
R = 2,658.00'
L = 498.35'
T = 249.91'
CH = 497.62'
E = 11.72'

WALLACE MONTGOMERY
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UPDATED 90% SUBMITTAL

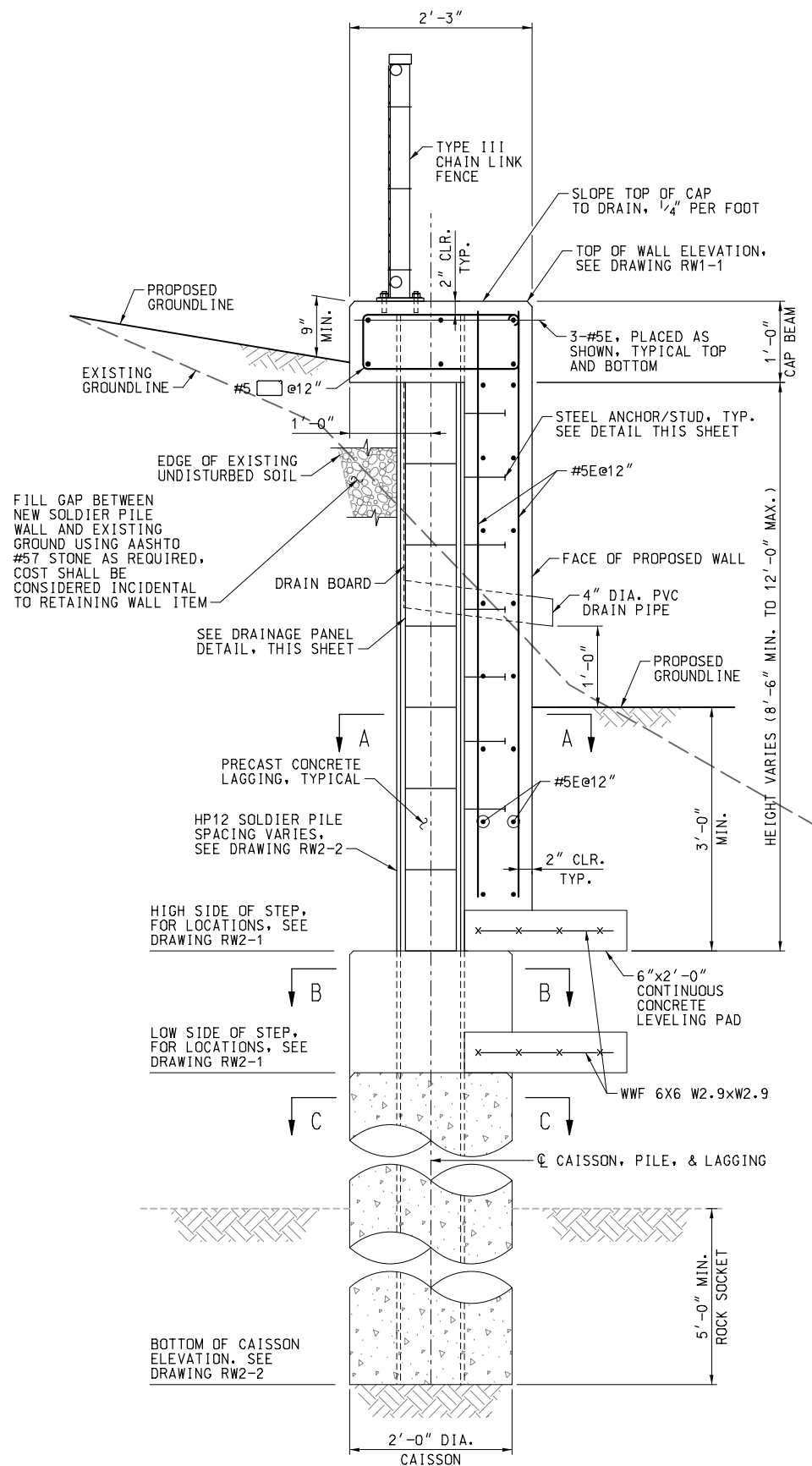
DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED _____ Date _____

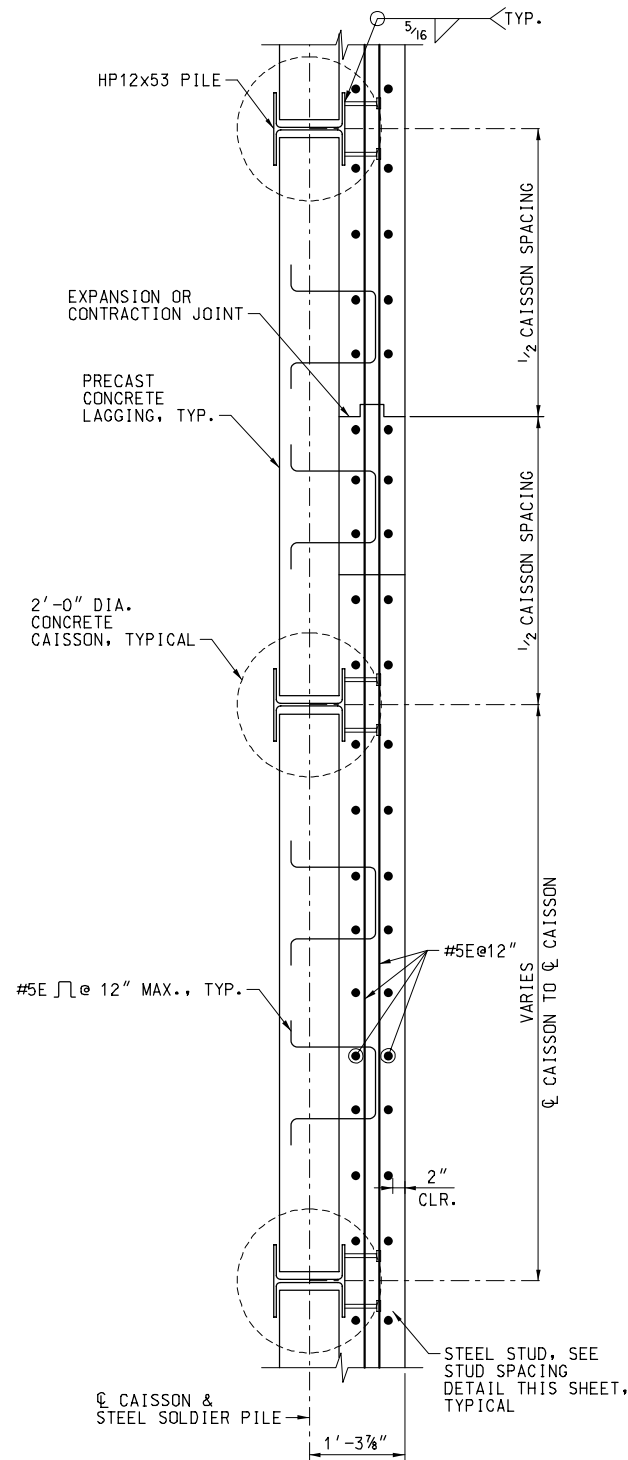
Chief, Division of Engineering Services
APPROVED _____ Date _____

Designed by: M.E.P. Drawn by: C.N.W. Checked by: D.A.L.



SOLDIER PILE RETAINING WALL TYPICAL SECTION

SCALE: 1" = 1'-0"

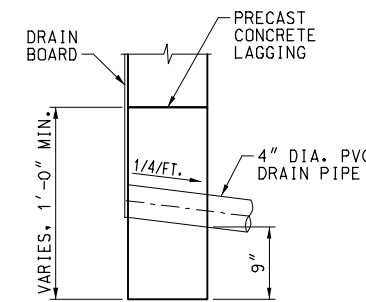


SECTION A-A

SCALE: 3/4" = 1'-0"

NOTES:

1. DRAIN PIPES NOT SHOWN FOR CLARITY. ALL REINFORCING IN FASCIA SHALL BE PLACED TO MISS DRAIN PIPES.
2. FOR PRECAST LAGGING DETAILS, SEE SHEET RW2-4.

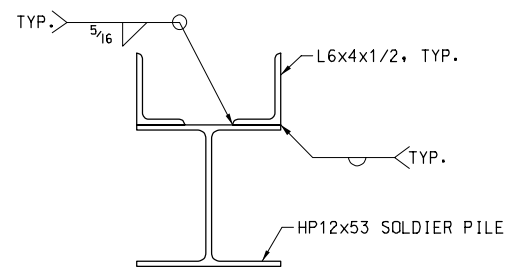


DRAINAGE PANEL DETAIL

SCALE: 1" = 1'-0"

NOTE:

DETAILS FOR ATTACHING DRAIN BOARD TO PVC DRAIN SHALL BE PREPARED BY CONTRACTOR AND SUBMITTED FOR APPROVAL.

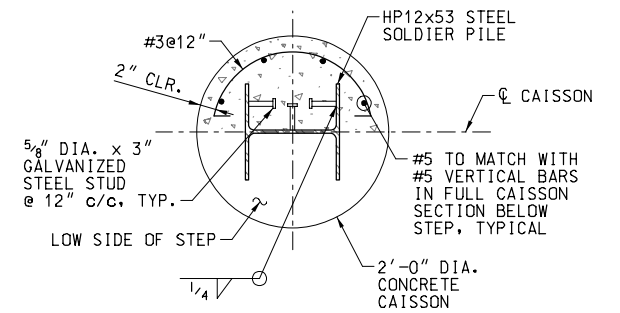


LAGGING CONNECTION DETAIL

SCALE: 1 1/2" = 1'-0"

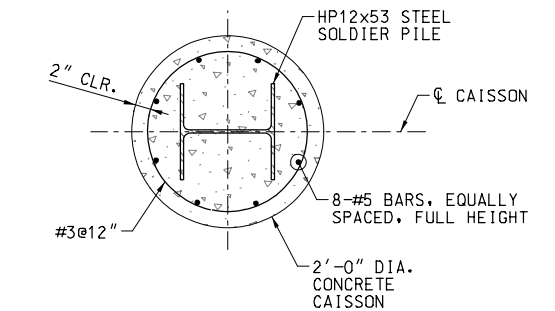
RETAINING WALL SEQUENCE OF CONSTRUCTION:

1. AUGUR HOLES FOR PROPOSED CAISSONS. ROCK SOCKETS SHALL BE PROVIDED WHERE INDICATED BY CORING INTO EXISTING ROCK. SEE CAISSON INSTALLATION NOTES ON SHEET RW2-2. ALL DRILLING SHALL BE COMPLETED FROM THE EXISTING ROADWAY.
2. INSTALL STEEL SOLDIER PILES AND PLACE CONCRETE IN CAISSON TO THE SPECIFIED ELEVATION.
3. POUR REMAINDER OF CONCRETE FACING AND CAP FOR THE WALL.
4. INSTALL NEW RAILING ON TOP OF RETAINING WALL.



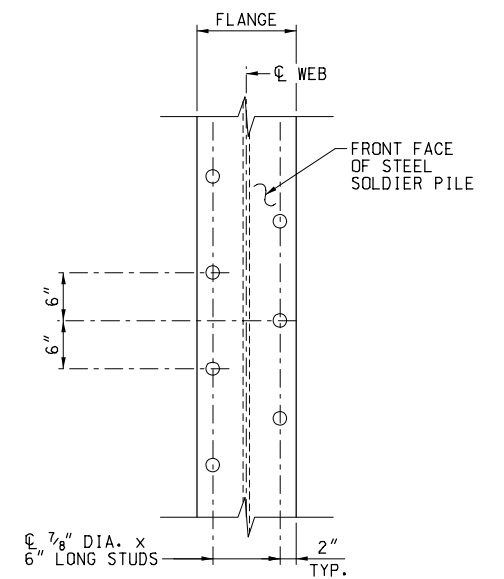
SECTION B-B
CAISSON STEP REINFORCEMENT

SCALE: 1" = 1'-0"



SECTION C-C
CAISSON REINFORCEMENT DETAIL

SCALE: 1" = 1'-0"



STUD SPACING DETAIL

SCALE: 1" = 1'-0"

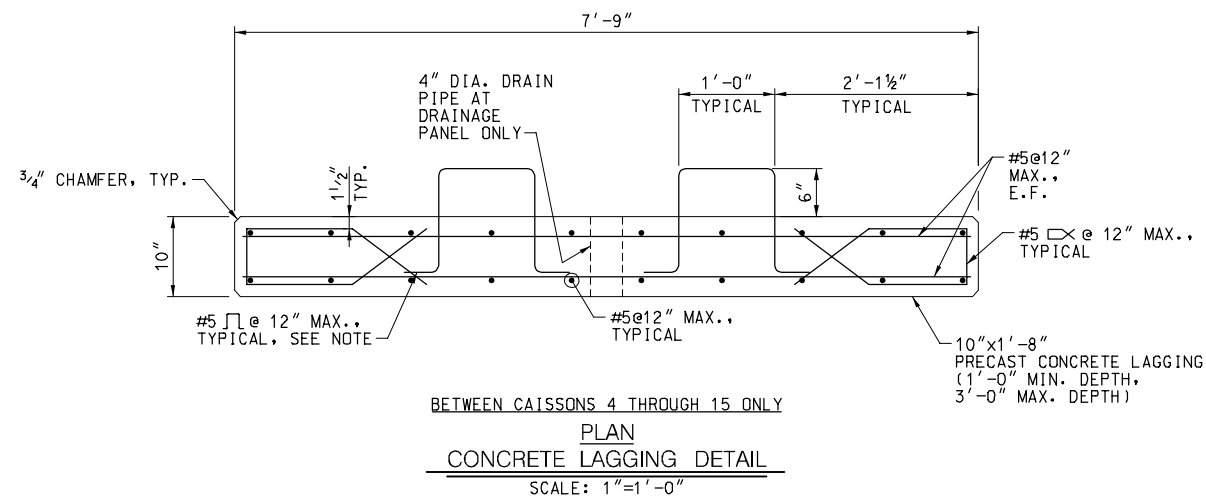
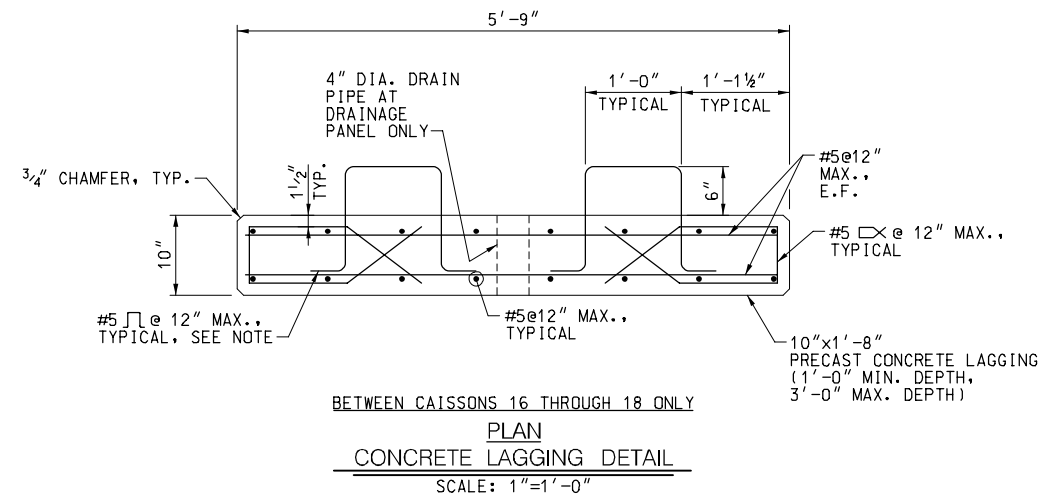
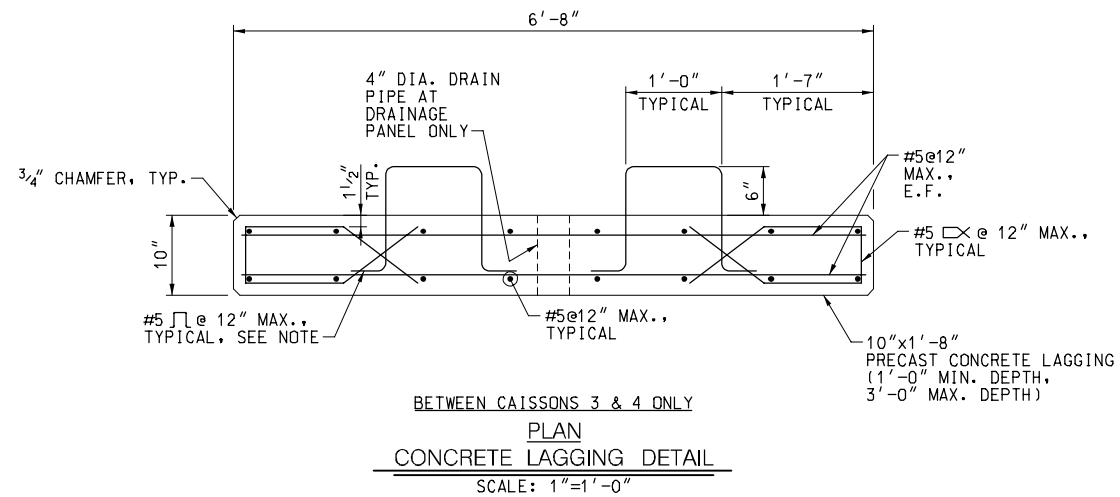
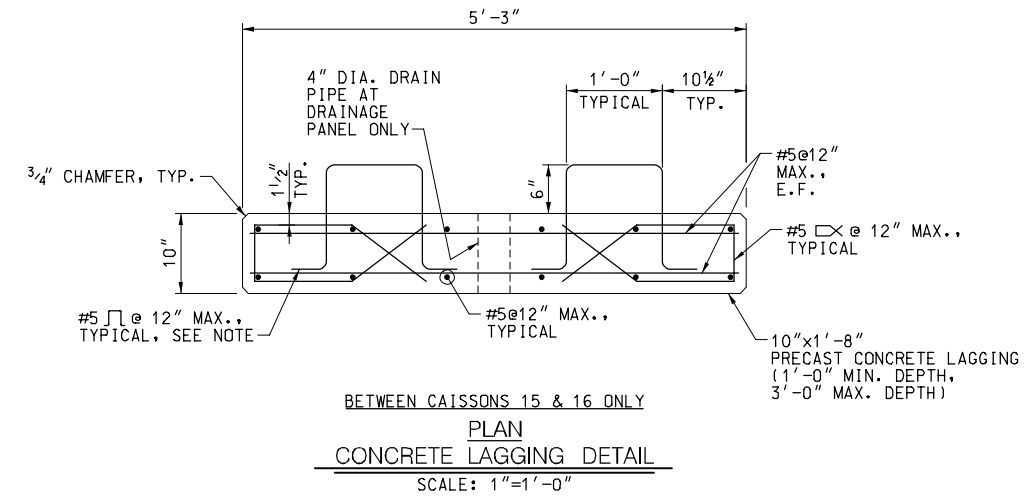
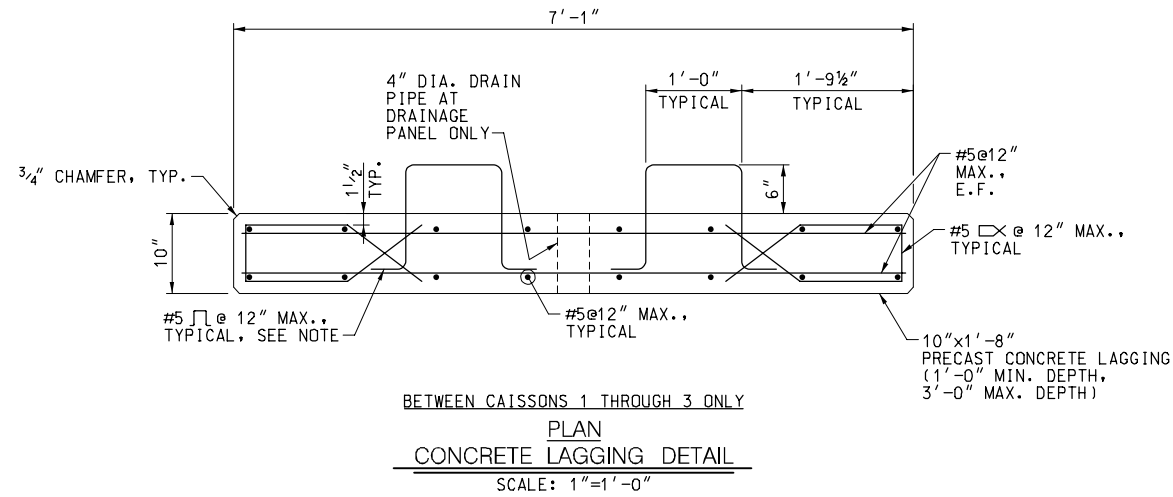
UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

RECOMMENDED FOR APPROVAL	
Chief, Design Section APPROVED	Date
Chief, Division of Engineering Services	Date
Designed by : M.E.P.	Drawn by : C.N.W.
Checked by : D.A.L.	

RETAINING WALL 2
TYPICAL SECTION AND DETAILS
MD 355 - CLARKSBURG
SHARED USE PATH



NOTE:
 STIRRUPS SHALL NOT BE USED
 IN LAGGING AT CONTRACTION AND
 EXPANSION JOINT LOCATIONS.

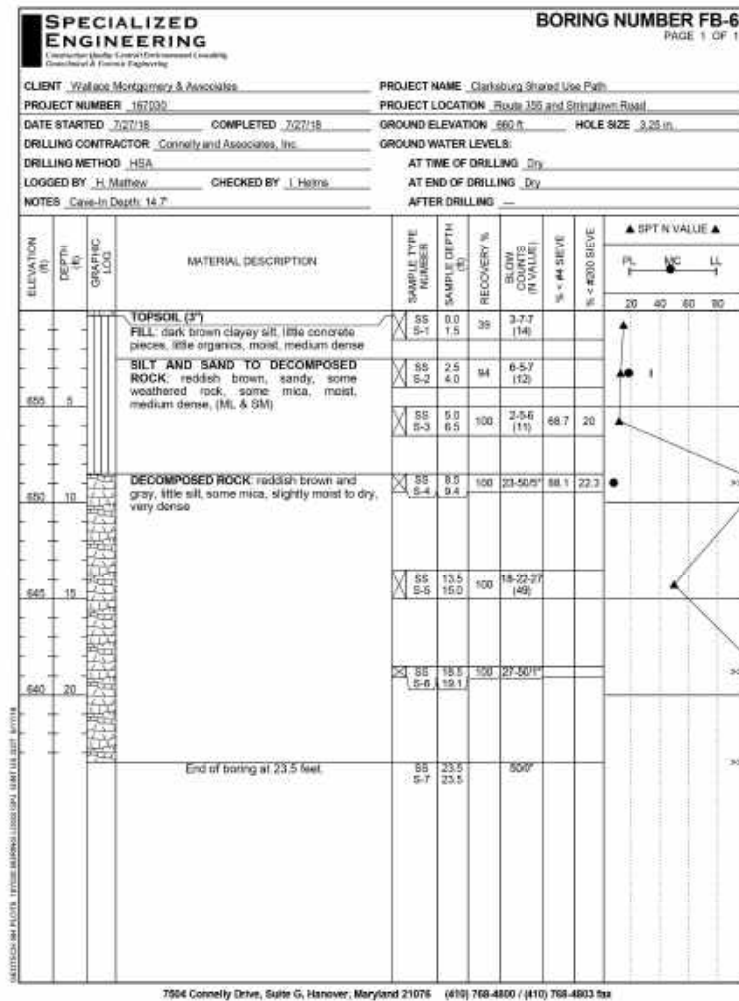
RW2-4

UPDATED 90% SUBMITTAL

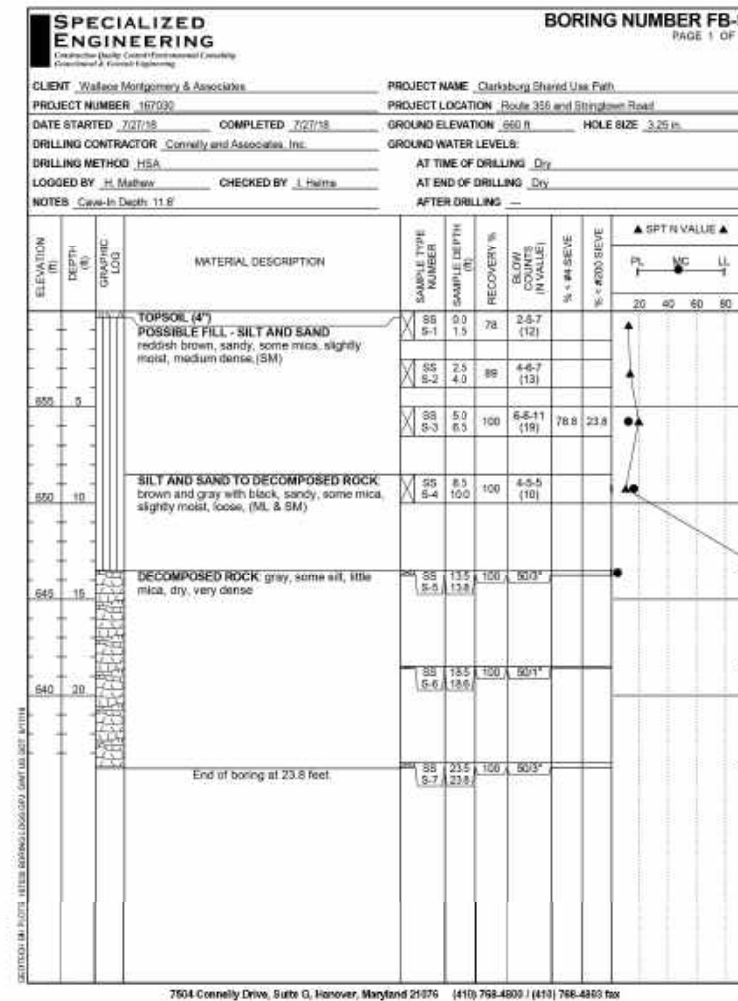
DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE, 4TH FLOOR GAITHERSBURG, MD 20878	
RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Engineering Services	Date
Designed by : M.E.P.	Drawn by : C.N.W.
Checked by : D.A.L.	

RETAINING WALL 2 PRECAST LAGGING DETAILS MD 355 - CLARKSBURG SHARED USE PATH	
Project No. : C.I.P. PR. # 501744	SHEET 87 of 88



BORING FB-6



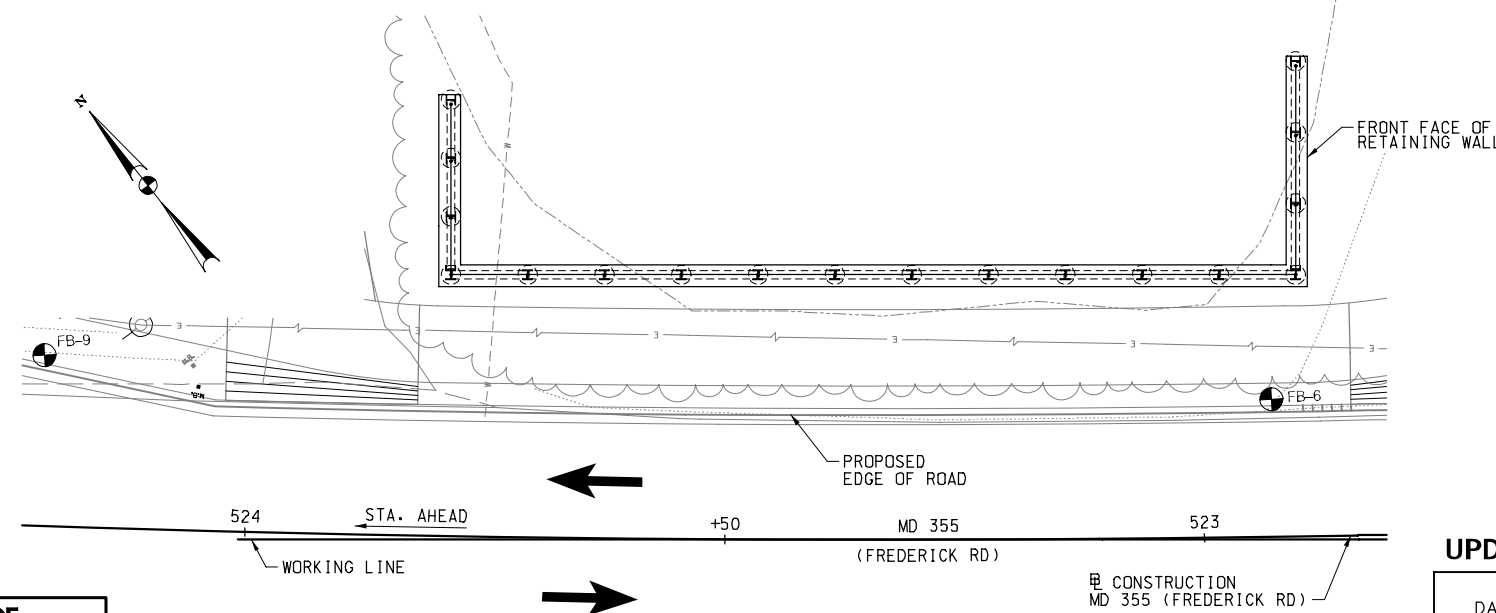
BORING FB-9

DATUM EL. 620.00

DATUM EL. 620.00

BORINGS AND DRIVE TESTS

SCALE: 1" = 5'



BORING LOCATION DATA					
BORING NUMBER	STATION	OFFSET	NORTHING	EASTING	DEPTH (FT)
FB-6	522+92.83	14.33' RT.	574,144.6029	1,231,579.4088	25.00
FB-9	524+21.47	17.84' RT.	574,227.6146	1,231,482.1133	25.00

BORING LOCATION PLAN
SCALE: 1" = 10'

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10150 York Road, Suite 200
Hunt Valley, Maryland 21030
410.494.9093 Tel / 410.667.0925 Fax
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UPDATED 90% SUBMITTAL

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

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

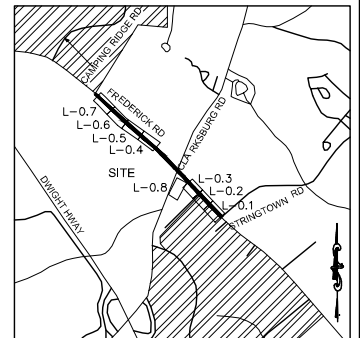
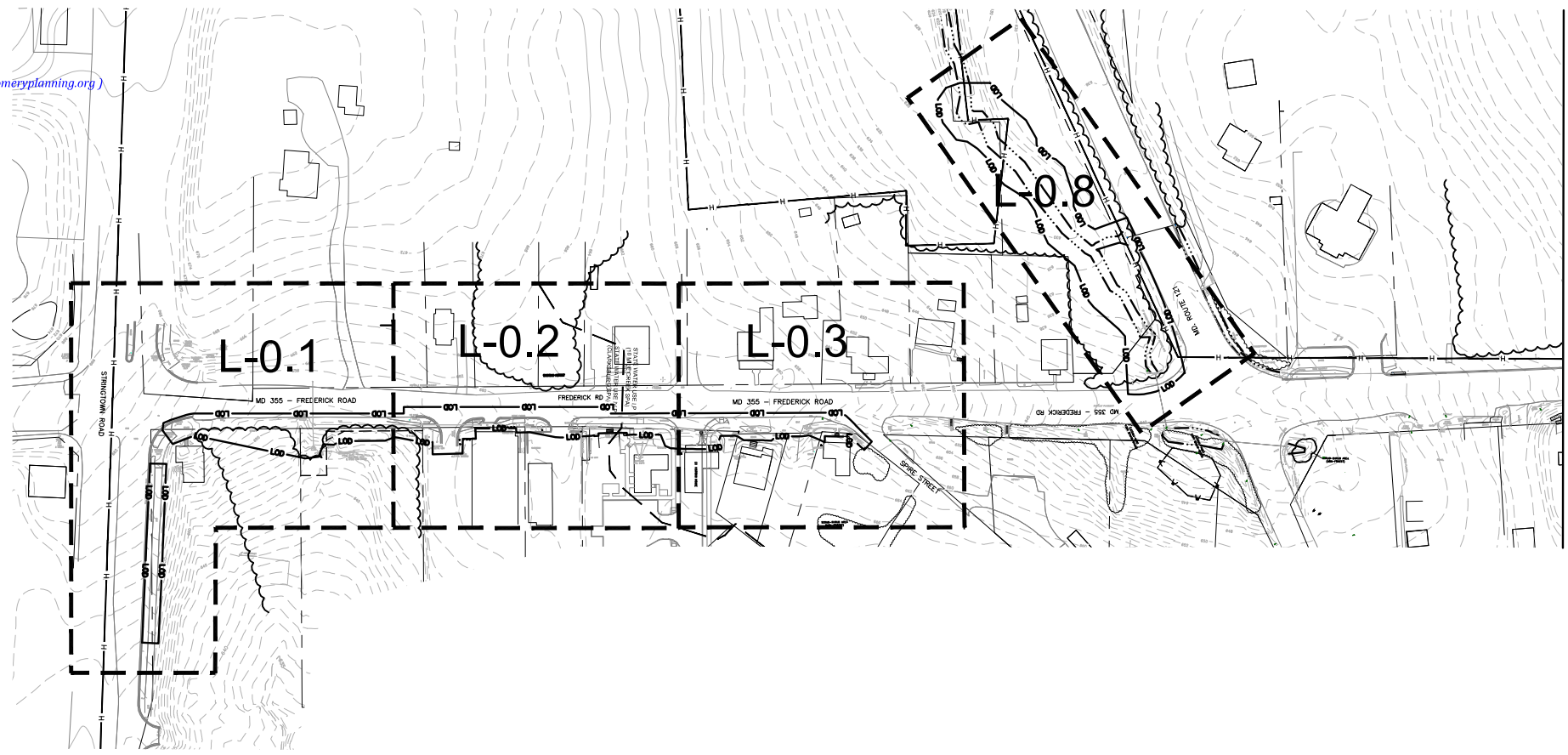
RECOMMENDED FOR APPROVAL	Date
Chief, Design Section	
APPROVED	
Chief, Division of Engineering Services	Date
Designed by : M.E.P.	Drawn by : C.N.W.
Checked by : D.A.L.	

**BORING LOCATION PLAN
MD 355 - CLARKSBURG
SHARED USE PATH**

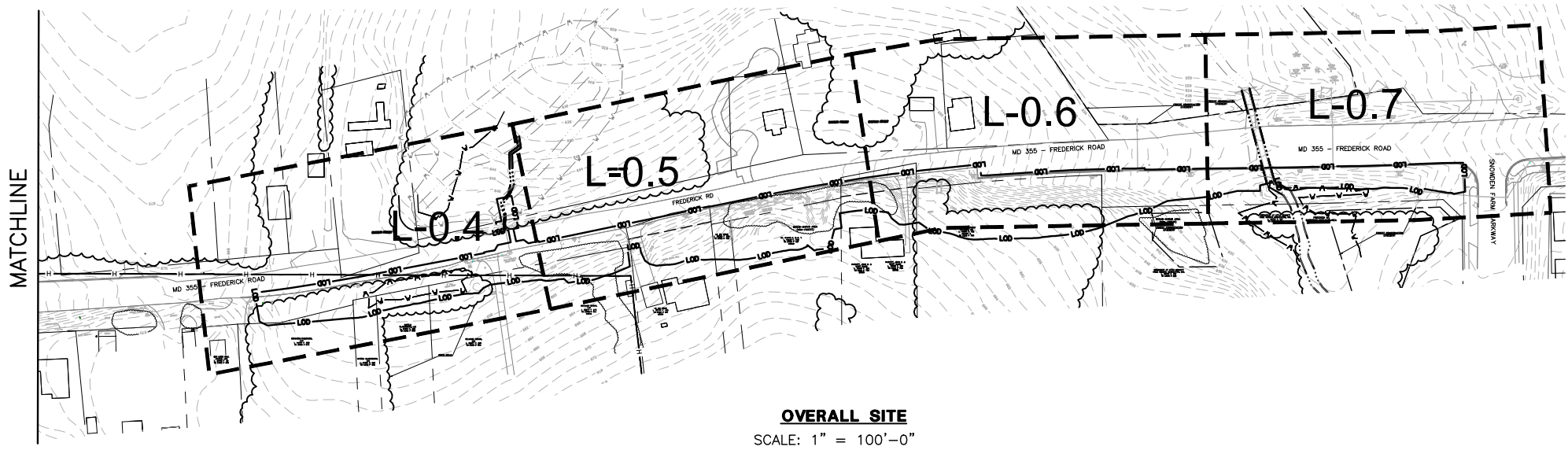
SCALE: AS NOTED 08/2020
Project No. : C.I.P. PR. # 501744 SHEET 88 of 88

RW2-5

MONTGOMERY PLANNING DEPARTMENT
 APPROVED - 420182000
 Katherine Nelson (katherine.nelson@montgomeryplanning.org)
 02/08/19



MATCHLINE

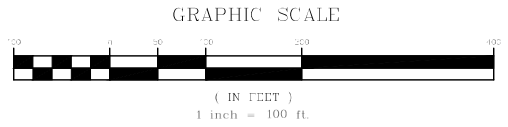


OVERALL SITE
 SCALE: 1" = 100'-0"

MATCHLINE

LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPERTY BOUNDARY
- EXISTING FOREST AREA
- EXISTING SCRUB-SHRUB AREA
- EXISTING FIELD DELINEATED STREAM
- EXISTING FIELD DELINEATED WETLAND
- STREAM BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
- WETLAND BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
- HISTORIC DISTRICT
- STATE WATER USE (SPA) DIVIDE LINE
- FOREST CONSERVATION EASEMENT



CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE ACCORDANCE WITH MARYLAND STATE, MNCPPC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
 DATE

 MICHAEL A. NORTON
 MONTGOMERY COUNTY REGISTERED PROFESSIONAL ENGINEER
 QUALIFIED PROFESSIONAL

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10180 York Road, Suite 200
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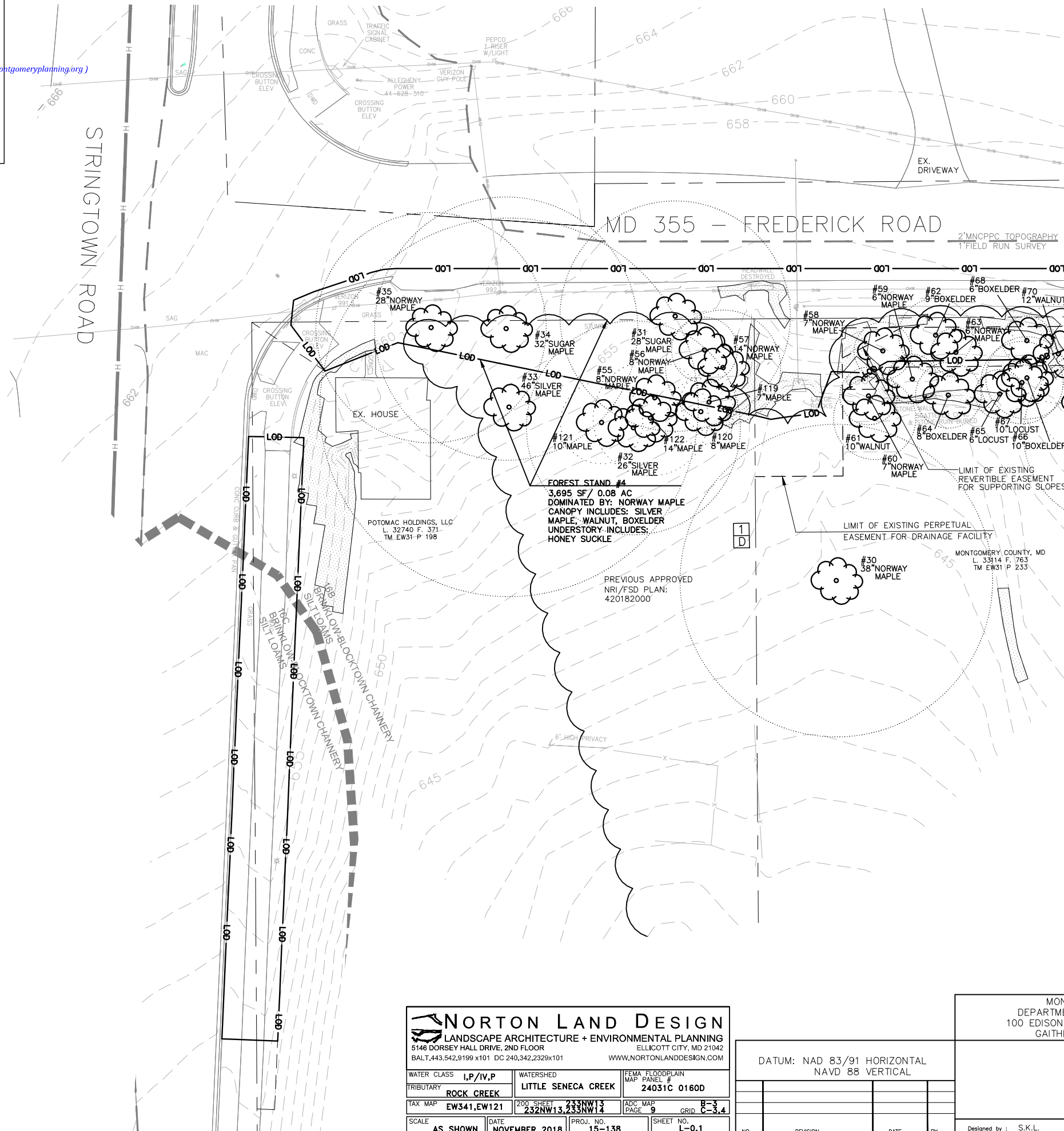
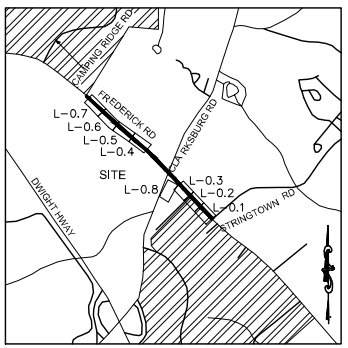
NORTON LAND DESIGN LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM			
WATER CLASS I,P/IV,P	WATERSHED LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL # 24031C 0160D	
TRIBUTARY ROCK CREEK			
TAX MAP EW341,EW121	ZONING 232NW13,233NW12	ADC MAP PAGE 9	GRID B-3, C-3,4
SCALE AS SHOWN	DATE NOVEMBER 2018	PROJ. NO. 15-138	SHEET NO. L-0.1A

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE, 4TH FLOOR GAITHERSBURG, MD 20878			
DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY
	Designed by :	S.K.L.	Drawn by :
		H.J.	Checked by :
		M.N.	

PLAN SHEET L-0.1A
NRI/FSD OVERALL PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000




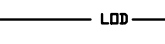


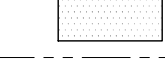

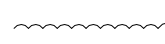
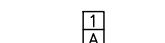
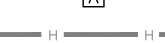


Project No. : C.I.P. PR. # 501744 SHEET 60 of 96

MONTGOMERY PLANNING DEPARTMENT
 APPROVED - 420182000
 Katherine Nelson (katherine.nelson@montgomeryplanning.org)
 02/08/19



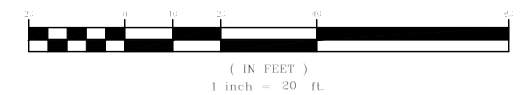
MATCHLINE SHEET L-0.2

LEGEND

-  #1 26" RED OAK EXISTING SIGNIFICANT TREE >24" AND <30" DBH AND CRITICAL ROOT ZONE
-  #2 32" RED OAK EXISTING SPECIMEN TREE >30" DBH* OR >6" WITHIN HISTORIC DISTRICT AND CRITICAL ROOT ZONE
-  SOIL BOUNDARY
-  LOD PROPOSED LIMITS OF DISTURBANCE
-  LIMITS OF SURVEY
-  MODERATE SLOPES 15% - 25%
-  STEEP SLOPES > 25%
-  PROPERTY BOUNDARY
-  EXISTING FOREST AREA
-  EXISTING SCRUB-SHRUB AREA
-  FOREST SAMPLE PLOT
-  HISTORIC DISTRICT
-  TEMPORARY EASEMENT

* EXISTING TREE >1" WITHIN HISTORIC DISTRICT WILL BE DELINEATED DURING FOREST CONSERVATION PLAN

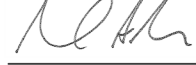
GRAPHIC SCALE



CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE ACCORDANCE WITH MARYLAND STATE, MNCP&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
DATE


 MICHAEL A. NORTON
 MDNR / COMAR 08.19.06.01
 QUALIFIED PROFESSIONAL

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10180 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410-484-9033 Tel / 410-667-0925 Fax
 www.wallacemontgomery.com

NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK				
TAX MAP	EW341,EW121	ZONING	2133NW13, 2133NW12	ADC MAP PAGE	9 GRID C-3,4
SCALE	AS SHOWN	DATE	NOVEMBER 2018	PROJ. NO.	15-138
				SHEET NO.	L-0.1

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

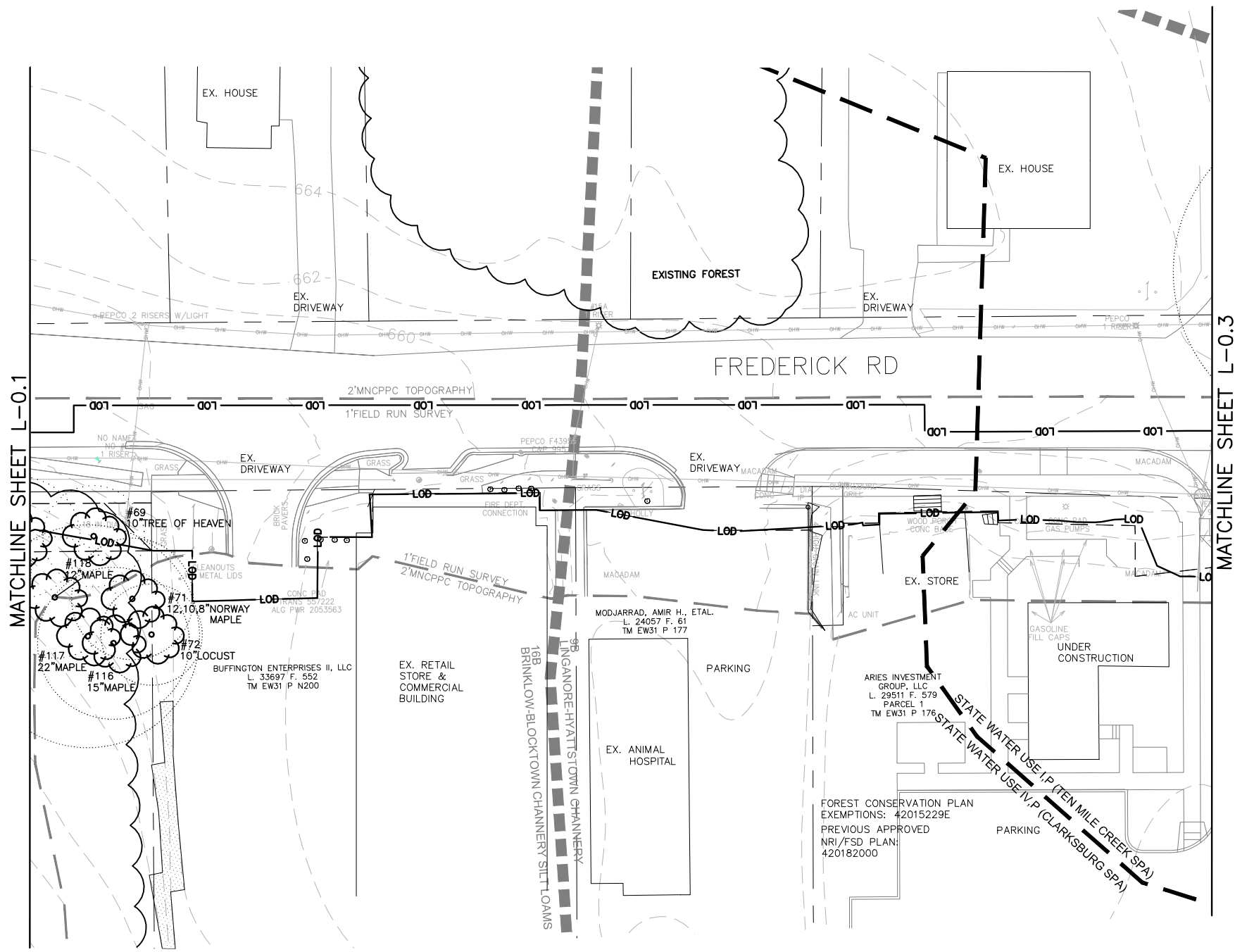
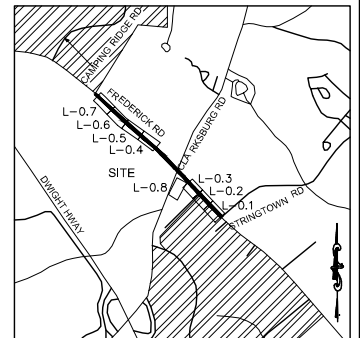
MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE, 4TH FLOOR
 GAITHERSBURG, MD 20878

Designed by : S.K.L. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-0.1
NRI/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

Project No. : C.I.P. PR. # 501744 SHEET 61 of 96

11/2018



LEGEND

- #1 26" RED OAK EXISTING SIGNIFICANT TREE ≥24" AND <30" DBH AND CRITICAL ROOT ZONE
- #2 32" RED OAK EXISTING SPECIMEN TREE ≥30" DBH * OR >6" WITHIN HISTORIC DISTRICT AND CRITICAL ROOT ZONE
- 16D 2UB SOIL BOUNDARY
- LOD PROPOSED LIMITS OF DISTURBANCE
- 1' SURVEY TOPO 2' MNCPPC TOPO LIMITS OF SURVEY
- MODERATE SLOPES 15% - 25%
- STEEP SLOPES ≥ 25%
- PROPERTY BOUNDARY
- EXISTING FOREST AREA
- STATE WATER USE I/P STATE WATER USE IV,P STATE WATER USE (SPA) DIVIDE LINE
- TEMPORARY EASEMENT

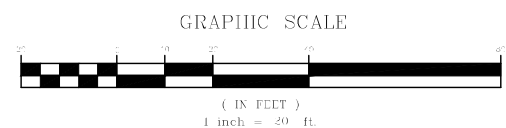
* EXISTING TREE >1" WITHIN HISTORIC DISTRICT WILL BE DELINEATED DURING FOREST CONSERVATION PLAN

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
DATE

[Signature]
 MICHAEL A. NORTON
 MDNR / COMAR 08.19.06.01
 QUALIFIED PROFESSIONAL



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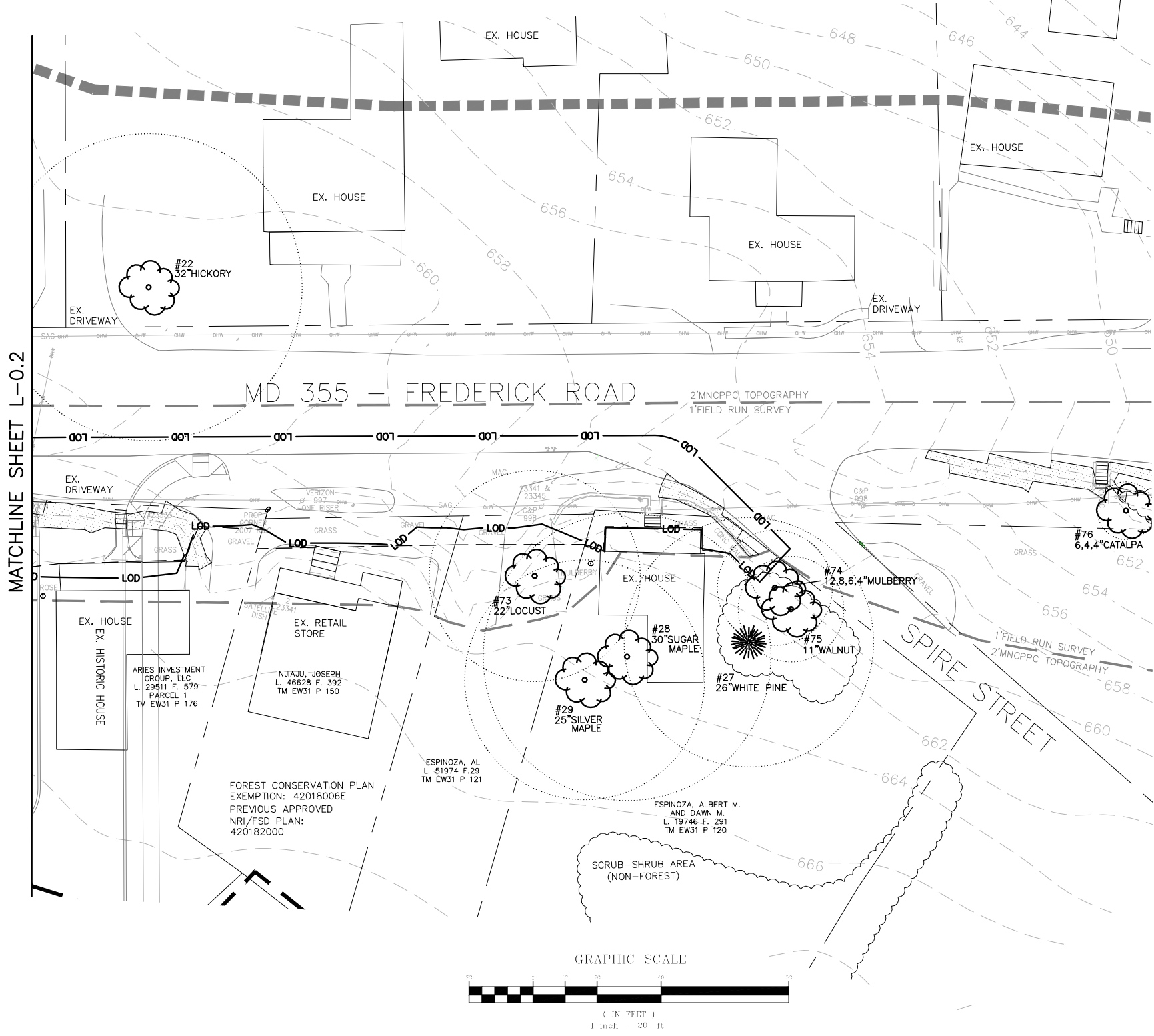
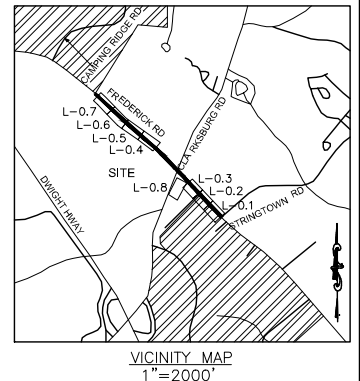
NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5148 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENEGA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK				
TAX MAP	EW341,EW121	200 SHEET	233NW13 232NW13,233NW14	ADC MAP PAGE	9 GRID C-3,4
SCALE	AS SHOWN	DATE	NOVEMBER 2018	PROJ. NO.	15-138
				SHEET NO.	L-0.2

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE, 4TH FLOOR GAITHERSBURG, MD 20878			
DATUM: NAD 83/91 HORIZONTAL NAVD 88 VERTICAL			
NO.	REVISION	DATE	BY
	Designed by :	S.K.L.	Drawn by :
	H.J.	Checked by :	M.N.

PLAN SHEET L-0.2
NRI/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000
 11/2018

Project No. : C.I.P. PR. # 501744 SHEET 62 of 96



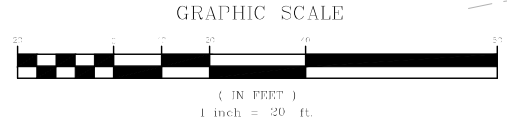
- LEGEND**
- #1 EXISTING SIGNIFICANT TREE ≥24" AND <30" DBH AND CRITICAL ROOT ZONE
 - #2 EXISTING SPECIMEN TREE ≥30" DBH * OR >6" WITHIN HISTORIC DISTRICT AND CRITICAL ROOT ZONE
 - SOIL BOUNDARY
 - PROPOSED LIMITS OF DISTURBANCE
 - LIMITS OF SURVEY
 - MODERATE SLOPES 15% - 25%
 - STEEP SLOPES ≥ 25%
 - PROPERTY BOUNDARY
 - EXISTING FOREST AREA
 - EXISTING SCRUB-SHRUB AREA
 - TEMPORARY EASEMENT
- * EXISTING TREE >1" WITHIN HISTORIC DISTRICT WILL BE DELINEATED DURING FOREST CONSERVATION PLAN

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
 DATE

 MICHAEL A. NORTON
 MDNR / COMAR 08.19.06.01
 QUALIFIED PROFESSIONAL



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NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELICOTT CITY, MD 21042
 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9
TAX MAP	EW341,EW121	ZONING	233NW13,233NW14	GRID	B-3, C-3,4
SCALE	AS SHOWN	DATE	NOVEMBER 2018	PROJ. NO.	15-138
				SHEET NO.	L-0.3

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

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : S.K.L. Drawn by : H.J. Checked by : M.N.

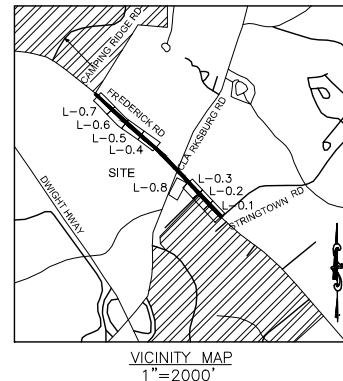
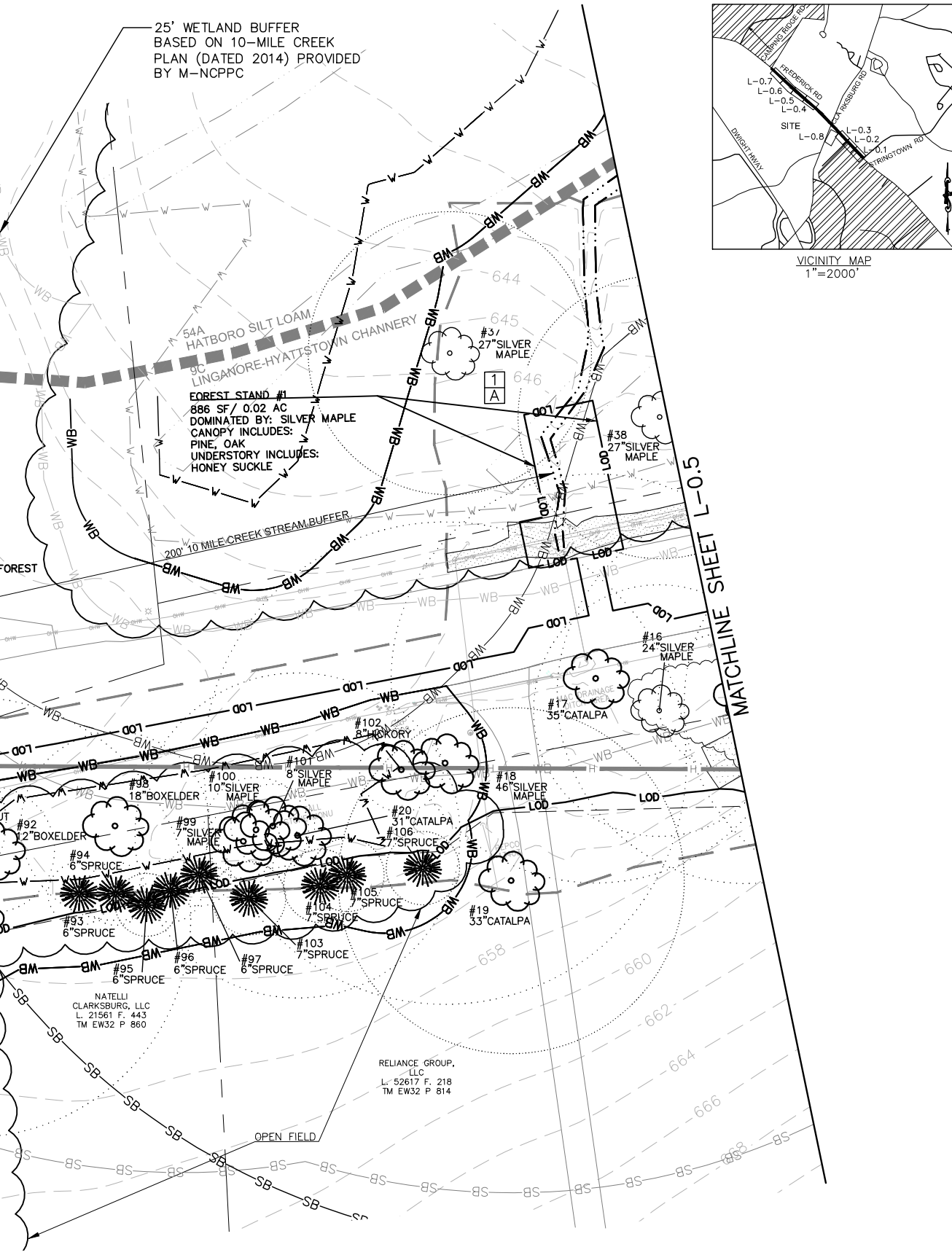
PLAN SHEET L-0.3
NRI/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

Project No. : C.I.P. PR. # 501744 SHEET 63 of 96



- LEGEND**
- #1 26" RED OAK
 - #2 32" RED OAK
 - SOIL BOUNDARY
 - PROPOSED LIMITS OF DISTURBANCE
 - LIMITS OF SURVEY
 - MODERATE SLOPES 15% - 25%
 - STEEP SLOPES ≥ 25%
 - PROPERTY BOUNDARY
 - EXISTING FOREST AREA
 - EXISTING SCRUB-SHRUB AREA
 - FOREST SAMPLE PLOT
 - TEMPORARY EASEMENT
 - HISTORIC DISTRICT

- EXISTING FIELD DELINEATED STREAM
- 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON FIELD DELINEATED STREAM
- EXISTING FIELD DELINEATED WETLAND
- 25' STATE REGULATED WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND
- 75' 10 MILE CREEK SPA WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND
- WETLAND BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
- 25' STATE REGULATED WETLAND BUFFER BASED ON M-NCPPC RESOURCE
- 75' 10 MILE CREEK SPA WETLAND BUFFER BASED ON M-NCPPC RESOURCE
- STREAM BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
- 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON M-NCPPC RESOURCE



* EXISTING TREE >1" WITHIN HISTORIC DISTRICT WILL BE DELINEATED DURING FOREST CONSERVATION PLAN

200' STREAM BUFFER BASED ON 10-MILE CREEK PLAN (DATED 2014) PROVIDED BY M-NCPPC

75' WETLAND BUFFER BASED ON 10-MILE CREEK PLAN (DATED 2014) PROVIDED BY M-NCPPC

MD 355 - FREDERICK ROAD

2" MNCPPC TOPOGRAPHY
1" FIELD RUN SURVEY



CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE ACCORDANCE WITH MARYLAND STATE, MNCPPC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
DATE

MICHAEL A. NORTON
MNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
5148 DORSEY HALL DRIVE, 2ND FLOOR ELICOTT CITY, MD 21042
BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

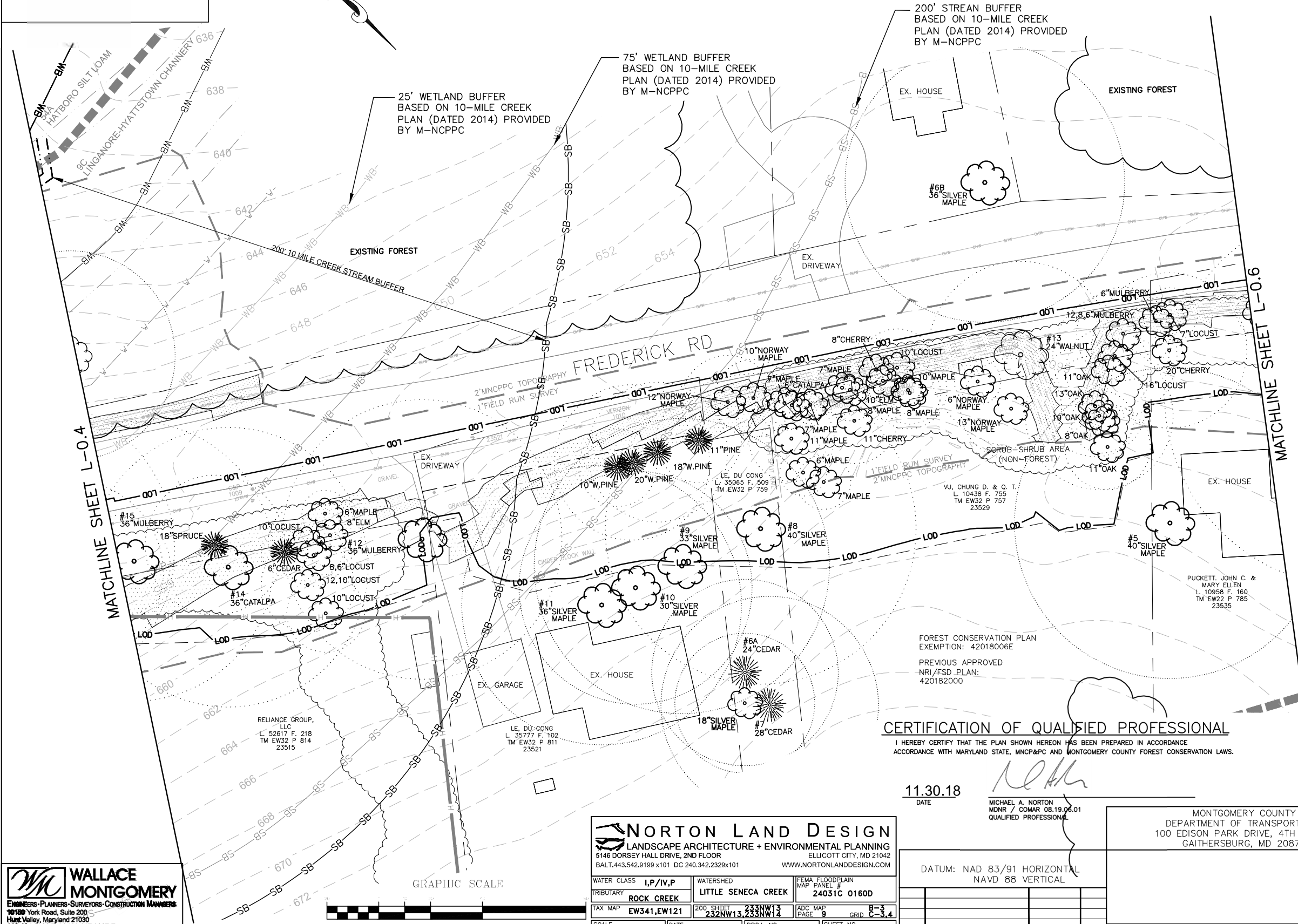
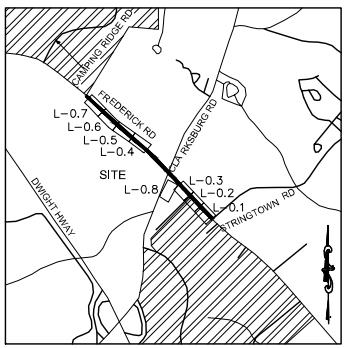
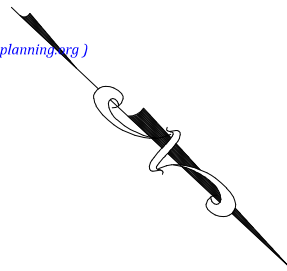
WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK				
TAX MAP	EW341,EW121	200 SHEET	233NW13, 233NW14	ADC MAP PAGE	9
SCALE	AS SHOWN	DATE	NOVEMBER 2018	PROJ. NO.	15-138
				SHEET NO.	L-0.4

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

NO.	REVISION	DATE	BY

PLAN SHEET L-0.4
NR/I/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

WALLACE MONTGOMERY
ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
10180 York Road, Suite 200
Hunt Valley, Maryland 21030
410-484-9093 Tel / 410-667-0925 Fax
www.wallacemontgomery.com



- LEGEND**
- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
 - #1 26" RED OAK
 - #2 32" RED OAK
 - EXISTING SIGNIFICANT TREE >24" AND <30" DBH AND CRITICAL ROOT ZONE
 - EXISTING SPECIMEN TREE >30" DBH OR >6" AND CRITICAL ROOT ZONE
 - SOIL BOUNDARY
 - PROPOSED LIMITS OF DISTURBANCE
 - LIMITS OF SURVEY
 - MODERATE SLOPES 15% - 25%
 - STEEP SLOPES ≥ 25%
 - PROPERTY BOUNDARY
 - EXISTING FOREST AREA
 - EXISTING SCRUB-SHRUB AREA
 - FOREST SAMPLE PLOT
 - HISTORIC DISTRICT
 - TEMPORARY EASEMENT
 - EXISTING FIELD DELINEATED STREAM
 - 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON FIELD DELINEATED STREAM
 - EXISTING FIELD DELINEATED WETLAND
 - 25' STATE REGULATED WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND
 - 75' 10 MILE CREEK SPA WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND
 - WETLAND BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
 - 25' STATE REGULATED WETLAND BUFFER BASED ON M-NCPPC RESOURCE
 - 75' 10 MILE CREEK SPA WETLAND BUFFER BASED ON M-NCPPC RESOURCE
 - STREAM BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
 - 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON M-NCPPC RESOURCE

CERTIFICATION OF QUALIFIED PROFESSIONAL
 I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNCPPC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
 DATE
 MICHAEL A. NORTON
 MONTGOMERY COUNTY REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
 QUALIFIED PROFESSIONAL

NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
 BALT. 443.542.9199 x101 DC 240.342.2329 x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK	200' SHEET	233NW13, 233NW14	ADC MAP PAGE	9
TAX MAP	EW341,EW121	PROJ. NO.	15-138	SHEET NO.	L-0.5
SCALE	AS SHOWN	DATE	NOVEMBER 2018	DESIGNED BY	S.K.L.

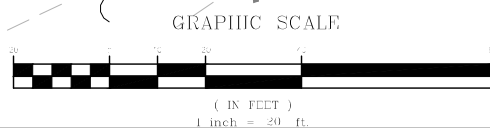
NO.	REVISION	DATE	BY

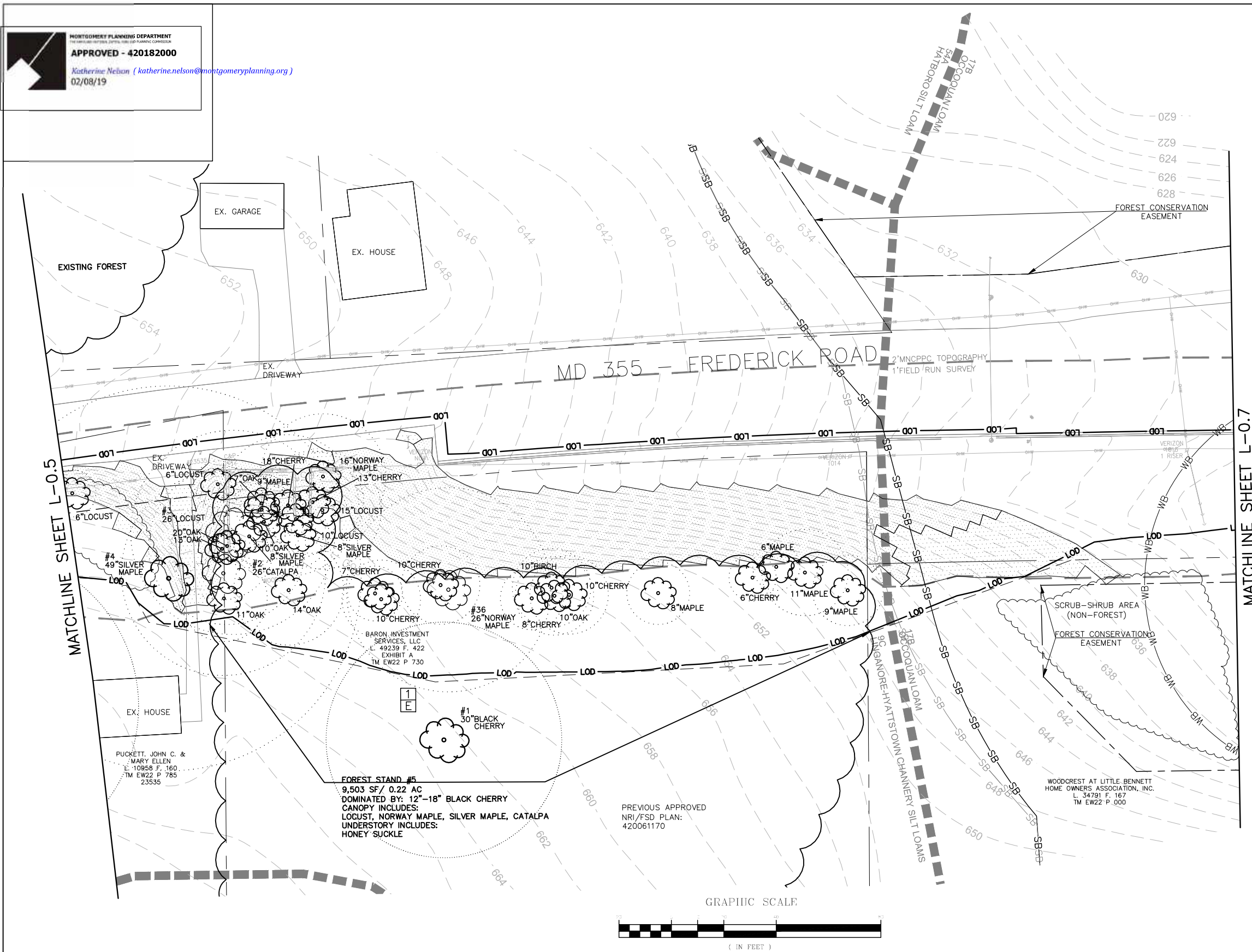
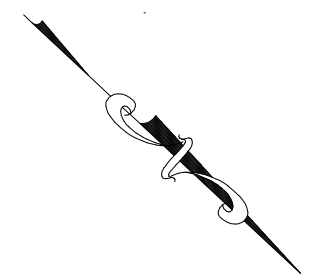
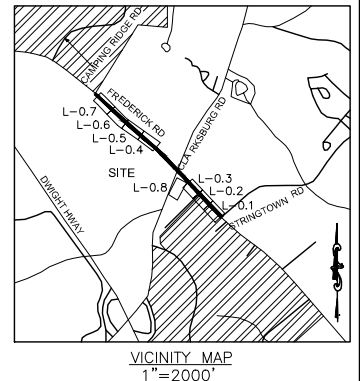
MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE, 4TH FLOOR
 GAITHERSBURG, MD 20878

PLAN SHEET L-0.5
NRI/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

Project No.: C.I.P. PR. # 501744 SHEET 65 of 96

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
 10180 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410-404-9033 Tel / 410-667-0925 Fax
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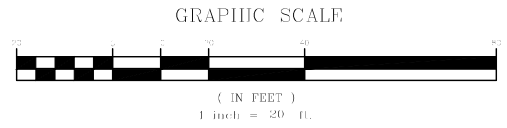




MATCHLINE SHEET L-0.7

MATCHLINE SHEET L-0.5

- LEGEND**
- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
 - 14" RED OAK
 - #1 26" RED OAK
 - #2 32" RED OAK
 - SOIL BOUNDARY
 - PROPOSED LIMITS OF DISTURBANCE
 - LIMITS OF SURVEY
 - MODERATE SLOPES 15% - 25%
 - STEEP SLOPES ≥ 25%
 - PROPERTY BOUNDARY
 - EXISTING FOREST AREA
 - EXISTING SCRUB-SHRUB AREA
 - FOREST CONSERVATION EASEMENT
 - TEMPORARY EASEMENT
 - 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON FIELD DELINEATED STREAM
 - 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON M-NCPPC RESOURCE
 - 75' 10 MILE CREEK SPA WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND



CERTIFICATION OF QUALIFIED PROFESSIONAL
 I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE ACCORDANCE WITH MARYLAND STATE, MNC&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
 DATE

 MICHAEL A. NORTON
 MONTGOMERY COUNTY REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
 QUALIFIED PROFESSIONAL

WALLACE MONTGOMERY
 ENGINEERS - PLANNERS - SURVEYORS - CONSTRUCTION MANAGERS
 10100 York Road, Suite 200
 Hunt Valley, Maryland 21030
 410-484-9033 Tel / 410-667-0925 Fax
 www.wallacemontgomery.com

NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
 BALT.443.542.9199 x101 DC 240.342.2329x101 WWW.NORTONLANDDESIGN.COM

WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL	24031C 0160D
TRIBUTARY	ROCK CREEK	200 SHEET	232NW13, 233NW14	ADC MAP PAGE	9
TAX MAP	EW341,EW121	CRID	B-3, C-3,4		
SCALE	AS SHOWN	DATE	NOVEMBER 2018	PROJ. NO.	15-138
				SHEET NO.	L-0.6

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

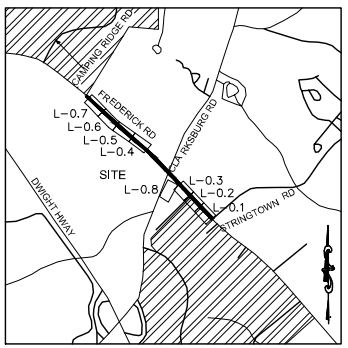
DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

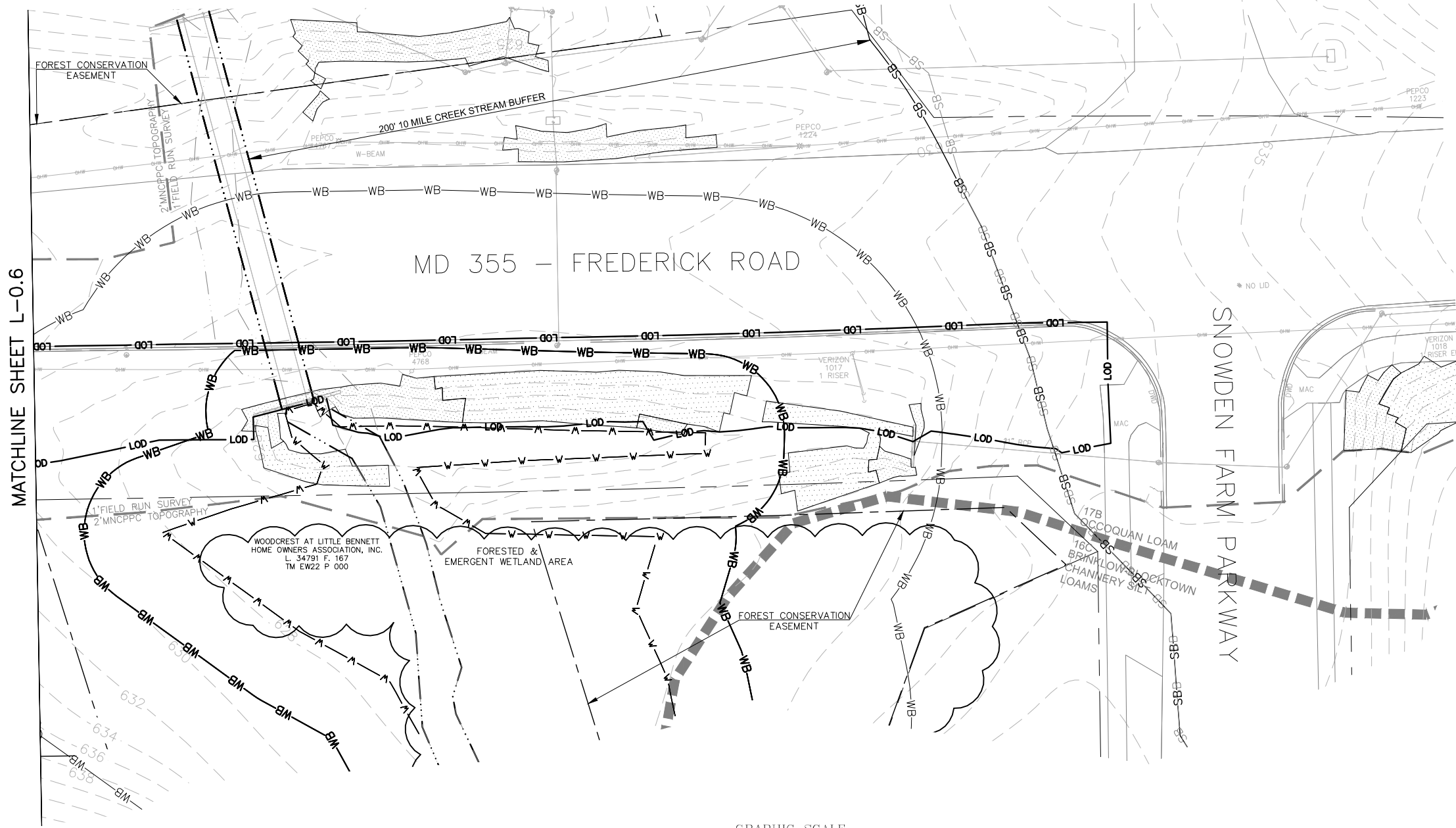
Designed by : S.K.L. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-0.6
NRI/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

Project No. : C.I.P. PR. # 501744 SHEET 66 of 96



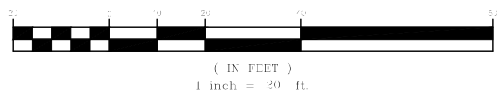
VICINITY MAP
1"=2000'



LEGEND

- 16D SOIL BOUNDARY
- 2UB SOIL BOUNDARY
- PROPOSED LIMITS OF DISTURBANCE
- LIMITS OF SURVEY
- MODERATE SLOPES 15% - 25%
- STEEP SLOPES \geq 25%
- PROPERTY BOUNDARY
- EXISTING FOREST AREA
- EXISTING SCRUB-SHRUB AREA
- FOREST CONSERVATION EASEMENT
- TEMPORARY EASEMENT
- EXISTING FIELD DELINEATED STREAM
- 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON FIELD DELINEATED STREAM
- STREAM BOUNDARY PROVIDED BY M-NCPPC BASED ON 10-MILE CREEK PLAN (DATED 2014)
- 200' 10 MILE CREEK SPA STREAM BUFFER BASED ON M-NCPPC RESOURCE
- EXISTING FIELD DELINEATED WETLAND
- 25' STATE REGULATED WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND
- 75' 10 MILE CREEK SPA WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND

GRAPHIC SCALE



CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE ACCORDANCE WITH MARYLAND STATE, MNCPPC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

11.30.18
DATE

[Signature]
 MICHAEL A. NORTON
 MDNR / COMAR 08.19.06.01
 QUALIFIED PROFESSIONAL

WALLACE MONTGOMERY
 ENGINEERS-PLANNERS-SURVEYORS-CONSTRUCTION MANAGERS
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NORTON LAND DESIGN
 LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 21042
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WATER CLASS	I,P/IV,P	WATERSHED	LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL #	24031C 0160D
TRIBUTARY	ROCK CREEK			ADC MAP PAGE	9
TAX MAP	EW341,EW121	ZONING	233NW13,233NW14	GRID	B-3, C-3,4
SCALE	AS SHOWN	DATE	NOVEMBER 2018	PROJ. NO.	15-138
				SHEET NO.	L-0.7

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

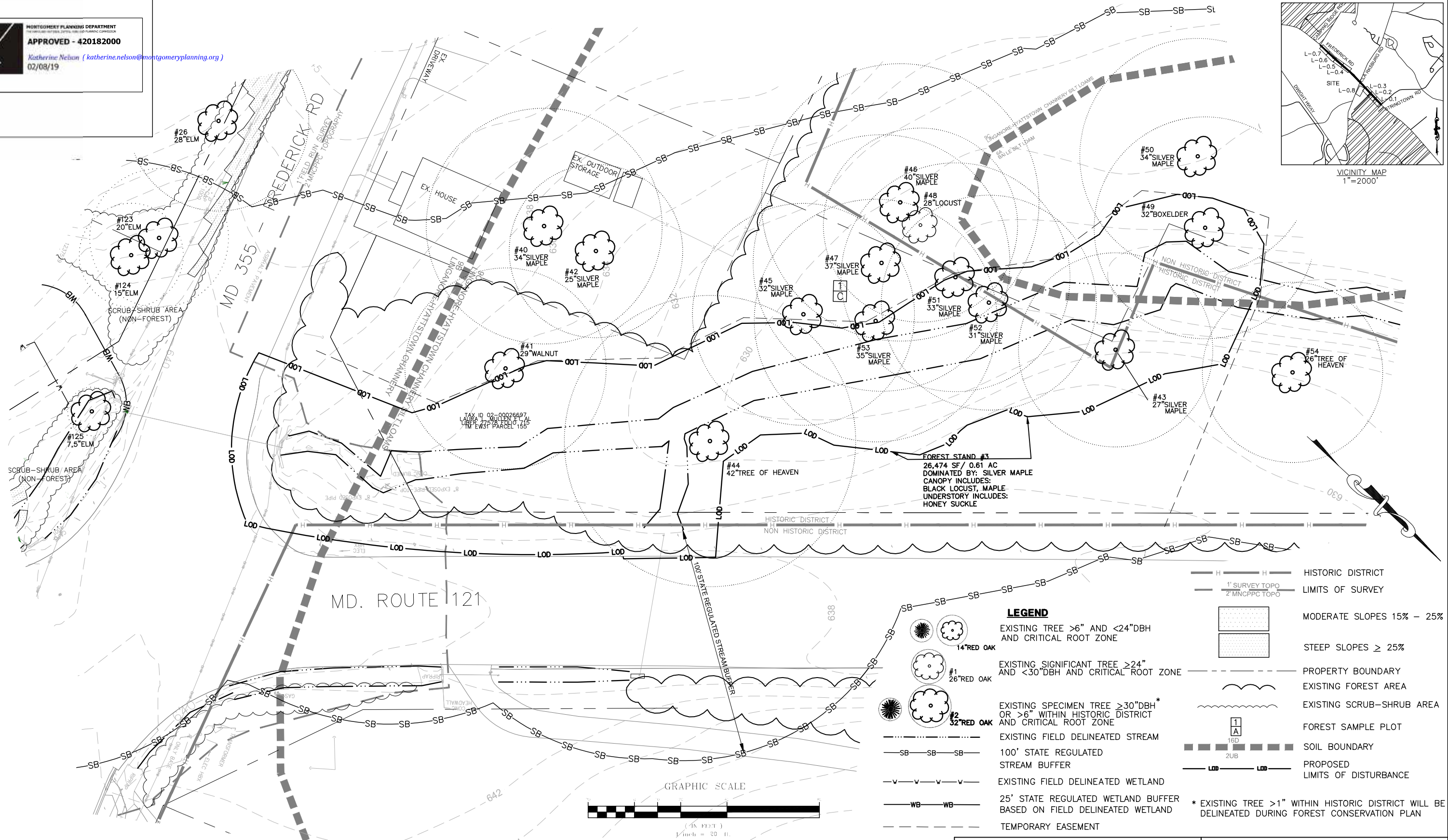
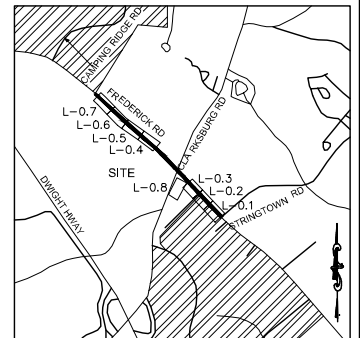
DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

NO.	REVISION	DATE	BY

Designed by : S.K.L. Drawn by : H.J. Checked by : M.N.

PLAN SHEET L-0.7
NR/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

Project No. : C.I.P. PR. # 501744 SHEET 67 of 96



LEGEND

- EXISTING TREE >6" AND <24" DBH AND CRITICAL ROOT ZONE
- EXISTING SIGNIFICANT TREE >24" AND <30" DBH AND CRITICAL ROOT ZONE
- EXISTING SPECIMEN TREE >30" DBH* OR >6" WITHIN HISTORIC DISTRICT AND CRITICAL ROOT ZONE
- EXISTING FIELD DELINEATED STREAM
- 100' STATE REGULATED STREAM BUFFER
- EXISTING FIELD DELINEATED WETLAND
- 25' STATE REGULATED WETLAND BUFFER BASED ON FIELD DELINEATED WETLAND
- TEMPORARY EASEMENT
- HISTORIC DISTRICT
- LIMITS OF SURVEY
- MODERATE SLOPES 15% - 25%
- STEEP SLOPES ≥ 25%
- PROPERTY BOUNDARY
- EXISTING FOREST AREA
- EXISTING SCRUB-SHRUB AREA
- FOREST SAMPLE PLOT
- SOIL BOUNDARY
- PROPOSED LIMITS OF DISTURBANCE

* EXISTING TREE >1" WITHIN HISTORIC DISTRICT WILL BE DELINEATED DURING FOREST CONSERVATION PLAN



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WATER CLASS I,P/IV,P	WATERSHED LITTLE SENECA CREEK	FEMA FLOODPLAIN MAP PANEL # 24031C 0160D
TRIBUTARY ROCK CREEK		
TAX MAP EW341,EW121	200 SHEET 232NW13,233NW12	ADC MAP PAGE 9 GRID C-3,4
SCALE AS SHOWN	DATE NOVEMBER 2018	PROJ. NO. 15-138
		SHEET NO. L-0.8

DATUM: NAD 83/91 HORIZONTAL
 NAVD 88 VERTICAL

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

PLAN SHEET L-0.8
NRI/FSD PLAN
MD 355 - CLARKSBURG
SHARED USE PATH
NO. 420182000

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Table with 10 columns: Line #, Species (Scientific Name), Species (Common Name), DBH (Inches), Critical Root Zone (CRZ), Tree, and Comments. It lists 125 trees with details on their species, size, and location.

Table titled 'MOISTURE TYPES/CRITICAL SPECIES TREE' with columns for Condition, Score, System, and Notes. It provides a summary of tree conditions.



SITE NARRATIVE AND FOREST SUMMARY

INTRODUCTION

Motion Land Design completed a Natural Resource Inventory & Forest Stand Delimitation for the project known as MD 355 - Clark'sburg Road Shared Use Path located in Clarksburg, Montgomery County, MD in April 2018.

GENERAL INFORMATION

This is a 2.82-acre site. The subject property is located along the right of way on Clark'sburg Rd. The property to the North is mostly the existing residential area.

ENVIRONMENTAL FEATURES

The FEMA flood map Community-Panel # 24031C 01000 indicates there is no floodplain on the property.

SOILS

The Soil Survey of Montgomery County, Maryland describes the soil types that are present on the property as follows. The general soil association for this part of the county is Urban Land-Viheaton-Glenside.

Soil type 9B - Langanore-Hyattstown channery silt loams, 3-8% slopes. These soils are well drained and gently sloping on broad ridgetops and side slopes.

Soil type 9C - Langanore-Hyattstown channery silt loams, 8-15% slopes. These are well drained, strongly sloping soils on broad ridgetops and side slopes.

18B - Brinklow-Blocktown channery silt loams, 3 to 8 percent slopes. These soils are well drained and gently sloping on broad ridgetops and side slopes.

18C - Brinklow-Blocktown channery silt loams, 8 to 15 percent slopes. These are soils that are well drained and strongly sloping on broad ridgetops and side slopes.

17B - Occoquan loam - 3 to 8 percent slopes. This soil is well drained and is on ridgetops and side slopes. The permeability of the site is moderate.

NONTIDAL WETLANDS

There were wetlands and wetland buffers observed within 100' of the LOD during the field investigation. Wetlands and 25' state regulated buffers were provided by Wallace Montgomery & Associates. Also 75' expanded buffers were applied due to special protection area regulation (Ten Mile Creek).

STREAMS AND DRAINAGEWAYS

There were streams observed on-site and within 100' of the LOD. The site is within the Little Seneca Creek - Ten Mile Creek Watershed, Use I-IV-F. The stream line was sourced from Wallace Montgomery & Associates. The 100' buffers were applied to stream lines within the historic district. The 200' buffers were applied to stream lines not within historic district, due to special protection area regulation (Ten Mile Creek).

TOPOGRAPHY AND STEEP SLOPES

The site generally slopes to the North to South from the center.

CRITICAL HABITATS

The MDNR have been notified of the project area and destruction. There appears to be no critical wildlife habitats from the field inspection. Copies of their correspondence will be provided when received.

CULTURAL FEATURES

This study area is located within the Clarksburg Historic. The Historic District boundary lines shown are sourced from Wallace Montgomery & Associates.

SOIL TABLE

Table with 7 columns: SOILS, ERODIBLE, HYDRIC, CONTAINS 15-25% SLOPES, CONTAINS > 25% SLOPES, CAPABILITY SUBCLASS SYMBOL, PRIME AGRICULTURAL SOIL. It lists soil types 9B, 9C, 16B, 16C, 17B and their characteristics.

NOTE

TREES #109-125 WERE PROVIDED BY OTHERS. SPECIES AND SIZE WILL BE CONFIRMED AT FCP SUBMITTAL.

DATUM: NAD 83/91 HORIZONTAL
NAVD 88 VERTICAL

FOREST STAND INFORMATION

The forest stand plot samples were done in a random method as outlined in Natural Resources Measurement, Avery, T.E., 1975, and Simplified Point Sample Crusting, Ashley, B.D., 1991. The plot size was 1/10 acre. Each individual stand has a minimum of one (1) forest sample plot.

The site contains a forest stand with total of 1.16 acres of forest on-site. There are significant specimen trees located within the forest stands. A list of the significant specimen trees in the study area along with the visual health is within this report. The individual forest areas are summarized below.

FOREST STAND #1

Forest Stand 1 (896 sq. ft. / 0.02 ac) is an upland hardwood area. The stand is dominated by 8"-22" silver maple. The canopy includes red oak and pine trees.

FOREST STAND #2

Forest Stand 2 (8,697 sq. ft. / 0.23 ac) is an upland hardwood area. The stand is dominated by 8"-22" silver maple. The canopy includes locust and sycamore trees.

FOREST STAND #3

Forest Stand 3 (36,474 sq. ft. / 0.81 ac) is an upland hardwood area. The stand is dominated by 30" silver maple. The canopy includes locust and sycamore trees.

FOREST STAND #4

Forest Stand 4 (3,895 sq. ft. / 0.09 ac) is an upland hardwood area. The stand is dominated by 30" silver maple. The canopy includes Norway maple and sugar maple.

FOREST STAND #5

Forest Stand 5 (9,503 sq. ft. / 0.22 ac) is an upland hardwood area. The stand is dominated by 12"-18" black cherry. The canopy includes black locust, Norway maple, catalpa, and silver maple.

GENERAL NRI/FSD NOTES

- 1. THIS PROPERTY IS WITHIN RIGHT OF WAY.
2. THE TOTAL TRACT AREA IS 2.82 ACRES.
3. SITE FIELD WORK WAS PERFORMED IN April, 2018 BY MICHAEL NORTON, NORTON LAND DESIGN LLC.
4. THIS SITE IS WITHIN THE LITTLE SENECA CREEK, USE I/IV-F.
5. THIS PROPERTY IS WITHIN A 10 MILE CREEK SPA.
6. THERE ARE WETLANDS AND WETLAND BUFFERS WITHIN 100' OF THE L.O.D. THE WETLANDS AND BUFFER LINES WERE SOURCED FROM WALLACE MONTGOMERY & ASSOCIATES.
7. THERE ARE STREAMS AND STREAM BUFFERS WITHIN 100' OF THE L.O.D. THE STREAM LINE WAS SOURCED FROM WALLACE MONTGOMERY & ASSOCIATES.
8. THERE IS NO FLOODPLAIN ASSOCIATED WITH THE PROPERTY ACCORDING TO THE FEMA ONLINE FIRMETTE MAP #24031C 01000.
9. 1" TOPOGRAPHY AND BOUNDARY SURVEY WAS PROVIDED BY WALLACE MONTGOMERY & ASSOCIATES, IN APRIL 2018. ADDITIONAL 2" TOPOGRAPHY DERIVED FROM MDCPPC, MONTGOMERY COUNTY TOPOGRAPHIC MAP SHEET 232NW13, 233NW13, & 233NW14.
10. THERE ARE NO PRIME AGRICULTURAL SOILS ON THE PROPERTY (SEE SOIL TABLE).
11. ALL TREES 24" AND GREATER WITHIN THE STUDY AREA ARE SURVEY LOCATED AND MEASURED WITH A FORESTERS DIAMETER TAPE MEASURE.
12. ALL TREES 24" AND GREATER OUTSIDE OF STUDY AREA ARE NOT LOCATED. ALL MAINTAINED STRUCTURES OFFSITE ARE LOCATED BY AVAILABLE AERIAL PHOTOGRAPHS AND/OR OCULAR ESTIMATE.
13. ALL TREES UNDER 24" ON-SITE ARE MEASURED BY OCULAR ESTIMATE ONLY.
14. NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON OR OFFSITE AT THE TIME OF THE FIELD INVESTIGATION. CORRESPONDENCE FROM MARYLAND DNR AND US FISH AND WILDLIFE SERVICE WILL BE PROVIDED WHEN RECEIVED.
15. NO TREES OCCUR WITHIN THE STUDY AREA WHICH ARE RECOGNIZED AS CURRENT STATE CHAMPION TREES.

THE SUBJECT PROPERTY IS LISTED AS CLARKSBURG HISTORIC SITE AS FOUND IN THE MDCPPC HISTORIC PROPERTIES INTERACTIVE MAP.

NRI/FSD TABULATION TABLE

Table with 2 columns: ACREAGE OF TRACT, ACREAGE OF EX. FOREST, ACREAGE OF EXISTING WETLANDS, ACREAGE OF FORESTED WETLANDS, ACREAGE OF WETLAND BUFFERS, ACREAGE OF STREAM BUFFERS, ACREAGE OF FORESTED STREAM BUFFER, ACREAGE OF 100 YEAR FLOODPLAIN, LINEAR EXTENT OF STREAMS, AVERAGE WIDTH OF STREAM BUFFER. Values range from 0.07* to 342'.

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Signature and name of Michael A. Norton, MNR, dated 11.30.18.



Table with 4 columns: WATER CLASS, TRIBUTARY, TAX MAP, SCALE. It lists project details like I,P,IV,P, WATERSHED, LITTLE SENECA CREEK, ROCK CREEK, and AS SHOWN.

Project title: PLAN SHEET L-0.9 NRI/FSD SITE NARRATIVE & FOREST SUMMARY MD 355 - CLARKSBURG SHARED USE PATH NO. 420182000. Includes sheet number 69 of 96 and date 11/2018.

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