

WASHINGTON GROVE CONNECTOR – CRABBS BRANCH WAY TO BROWN STREET

MANDATORY REFERRAL NARRATIVE

Mandatory Referral Application No: MR20XXXXX

November 1, 2024

Project Description

The Montgomery County Department of Transportation (MCDOT) is proposing a shared use path/trail connection from the existing terminus of Crabbs Branch Way to the terminus of Brown Street in Washington Grove in Derwood, MD. This connection was identified in the Shady Grove Sector Plan of 2006 and the Shady Grove Sector Plan Minor Amendment of 2021 as part of the recommendation to extend Crabbs Branch Way to Amity Drive. MCDOT performed a planning study for this connection as well as the associated side paths and trail to Brown Street. The findings of this study were presented to the Montgomery County Planning Board in April 2021 and July 2023. In their July 2023 letter, the Planning Board wrote, “Montgomery County Department of Transportation (MCDOT) should prioritize construction of the Brown Street Connector portion of the Washington Grove Connector Project, as this segment of the overall project has substantial public support, including from the Town of Washington Grove, is far along in the design process, and has relatively low cost.”

The proposed paved trail is 10 feet wide with 2-foot grassed shoulders and 3:1 side slopes tying to existing ground on each side. The trail will be lighted for its entire length. This typical section is in conformance with the Montgomery County Department of Planning’s Bicycle Facility Design Toolkit. The horizontal and vertical alignments were designed to minimize impacts to environmentally sensitive areas, trees and parkland; as well as to be constructed on county property to the extent possible. A portion of the trail will be on a raised boardwalk to reduce impacts to environmental resources as well as to avoid a significant grade change for users.

Hours of Operation

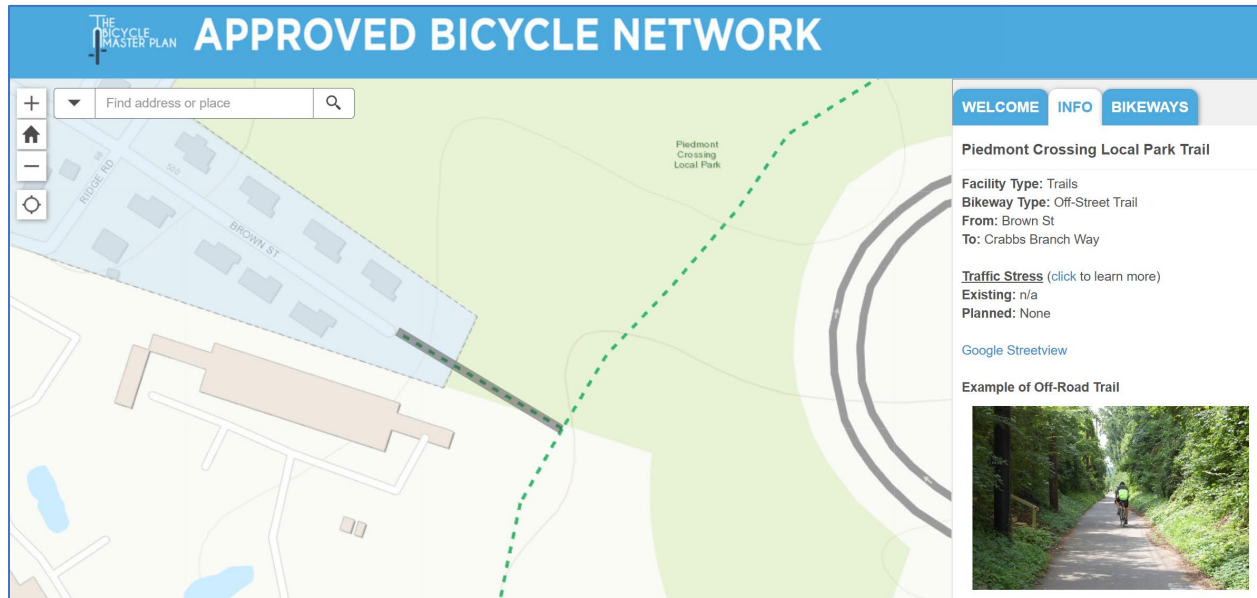
The trail will be available to the public 24 hours a day, 7 days a week, 365 days a year to allow access for bicyclists and pedestrians to travel from Washington Grove to the Shady Grove Metro Station and to future connections in Gaithersburg and beyond. It is expected that this trail will be used for both commuting and recreation.

Master Plan Conformance

As described above, this trail connection was identified in the Shady Grove Sector Plan of 2006 and the Shady Grove Sector Plan Minor Amendment of 2021 as part of the recommendation to extend Crabbs Branch Way to Amity Drive. The findings of MCDOT’s planning study were presented to the Montgomery County Planning Board who recommended, “Montgomery County Department of Transportation (MCDOT) should prioritize construction of the Brown Street Connector portion of the Washington Grove Connector Project, as this segment of the overall project has substantial public support, including from the Town of Washington Grove, is far along in the design process, and has

relatively low cost.” This scope was presented to the Transportation and Environment Committee of the County Council in February 2024 where it was received positively and recommended for funding.

This trail connection appears on the Montgomery County Bicycle Map as shown below:



Pedestrian and Bicycle Safety Impact Statement

The purpose and intent of this project is to provide a safe, paved trail for users that is fully separated from traffic. This project will have only positive impacts on bicycle and pedestrian safety.

Applicable County Standards

The proposed paved trail is 10 feet wide with 2-foot grassed shoulders and 3:1 side slopes tying to existing ground on each side and will be lighted for its length. This typical section is in conformance with the Montgomery County Department of Planning’s Bicycle Facility Design Toolkit. The horizontal and vertical alignments were designed to minimize impacts to environmentally sensitive areas, trees and parkland; as well as to be constructed on county property to the extent possible. A portion of the trail will be on a raised boardwalk to reduce impacts to environmental resources as well as to avoid a drastic grade change for users.

Historic Properties/Archaeological Resources

A preliminary archaeological review was conducted in 2020 that covered the area of multiple possible trail alignments connecting Crabbs Branch Way to Brown Street and Amity Drive as described in the Shady Grove Master Plan. The proposed alignment from Crabbs Branch Way to Brown Street falls outside of the high prehistorical potential zone found on the Piedmont Crossing Local Park. This project is not expected to have an impact on any historic properties; therefore, a Historic Area Work Permit will not be required.

WASHINGTON GROVE CONNECTOR

CRABBS BRANCH WAY TO BROWN STREET

Mandatory Referral Project Narrative, November 2024

Project Phasing

The project will be constructed in one phase.

Land Not in Public Ownership

The northern end of the trail will terminate at Brown Street on land owned by the Town of Washington Grove. The county is working with the town to secure a perpetual easement to construct and maintain this portion of the trail. The rest of the project is located on County owned property. The entire project is in publicly held land.

Project Funding

Project design and construction are funded under the Montgomery County Capital Improvement Program, Bikeway Program Minor Projects. This program is county funded and intended to fund design and construction of bikeway network specified by Master Plans.

Potential Impacts to Public Parkland

The proposed trail is adjacent to Piedmont Crossing Local Park and Washington Grove Meadow Conservation Park. This project has no direct physical impact on these parks and proposes no disturbance on either of these properties. Lighting for the trail has been designed in consultation with Parks staff to ensure it is designed to minimize impacts in the park. This coordination will continue through to the final design phase as well.

Environmental Resources

As indicated on the Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) approved October 2024, the project will impact stream and stream buffer. The Department of Natural Resources has confirmed that there are not rare, threatened or endangered species in the project area.

Public Outreach

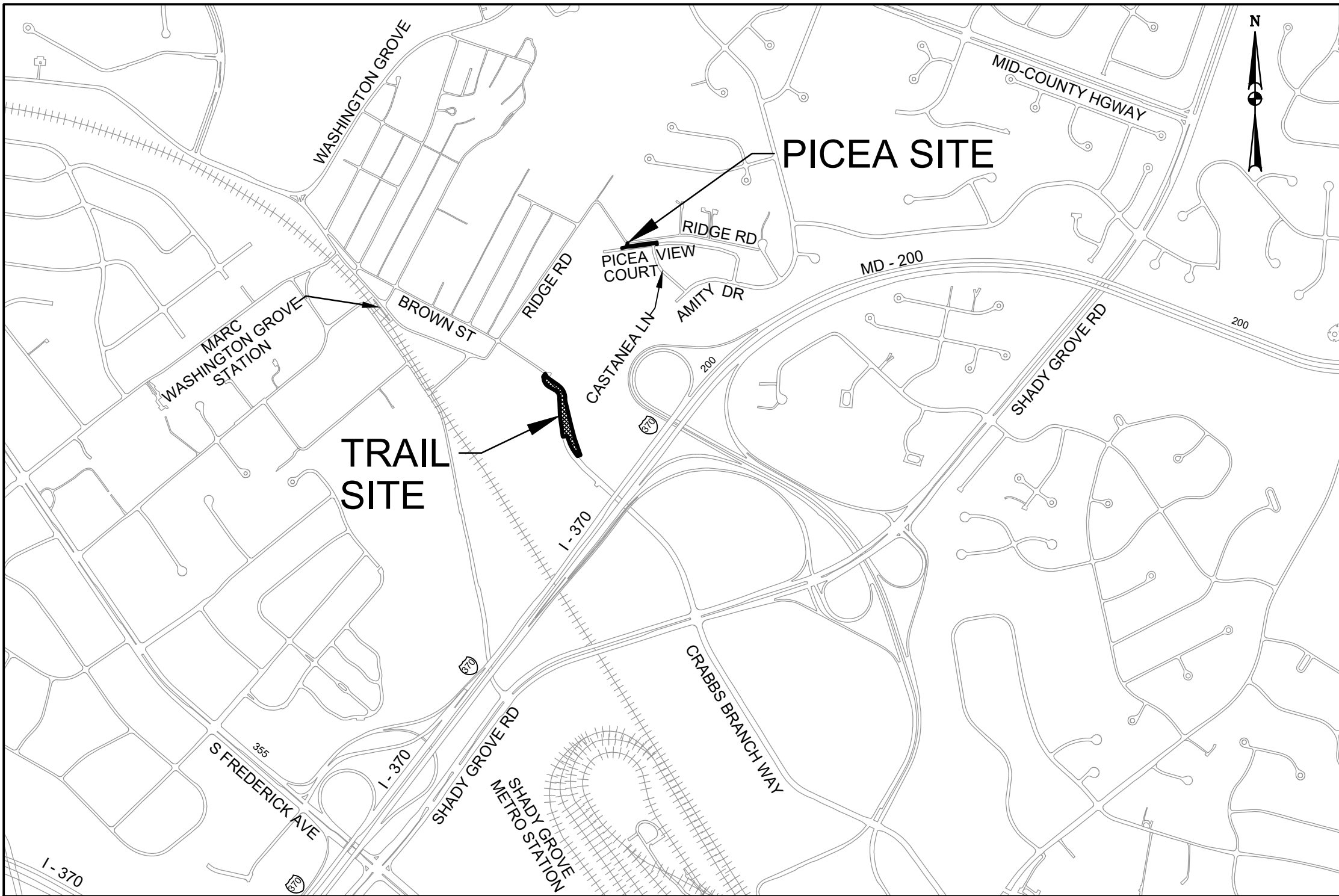
MCDOT has conducted multiple outreach events for this project. A Public Workshop was held February 13, 2020, a Public Virtual Meeting was held February 17, 2021, and a Hybrid Public Meeting held was April 13, 2023. There has been on going, consistent coordination with the Town of Washington Grove; and future public meetings and a public hearing will be conducted as the design progresses.

SHEET NO.	TOTAL SHEETS
01	29

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
WASHINGTON GROVE CONNECTOR FROM CRABBS BRANCH WAY TO BROWN STREET
AND
PICEA VIEW COURT SIDEWALK FROM PICEA VIEW COURT TO RIDGE ROAD
FACILITY PLANNING PHASE II CIP PROJECT NO. 509337
FACILITY PLANNING 35% DESIGN

INDEX OF SHEETS

SHEET NO.	DWG. NO.	DESCRIPTION
1	G001	TITLE SHEET
2	G002	LEGEND AND SYMBOLS
3	G003	TYPICAL TRAIL CROSS SECTION
4	C101	TREE CLEARING AND STRIPPING DEMOLITION PLAN 1 OF 2
5	C102	TREE CLEARING AND STRIPPING DEMOLITION PLAN 2 OF 2
6	C103	TREE CLEARING AND STRIPPING DEMOLITION PLAN PICEA - LONG
7	C104	TREE CLEARING AND STRIPPING DEMOLITION PLAN PICEA - SHORT
8	C200	TRAIL GEOMETRIC LAYOUT
9	C201	TRAIL SITE LAYOUT AND PROFILE 1 OF 2
10	C202	TRAIL SITE LAYOUT AND PROFILE 2 OF 2
11	C203	SIDEWALK GEOMETRIC LAYOUT PICEA - LONG
12	C204	SIDEWALK GEOMETRIC LAYOUT PICEA - SHORT
13	C205	SIDEWALK LAYOUT PICEA - LONG
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15	C301	TRAIL ROUGH GRADING PLAN SHEET 1 OF 2
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17	C303	CROSS SECTIONS
18	C304	SIDEWALK ROUGH GRADING PLAN PICEA - LONG
19	C305	SIDEWALK ROUGH GRADING PLAN PICEA - SHORT
20	C401	CIVIL DETAILS
21	C501	EROSION AND SEDIMENT CONTROL SHEET 1 OF 2
22	C502	EROSION AND SEDIMENT CONTROL SHEET 2 OF 2
23	S001	STRUCTURAL NOTES
24	S201	STRUCTURAL PLAN AND DETAILS
25	S401	STRUCTURAL DETAILS
26	LD101	TRAIL LANDSCAPE PLAN 1 OF 2
27	LD102	TRAIL LANDSCAPE PLAN 2 OF 2
28	LD103	SIDEWALK LANDSCAPE PLAN
29	LD104	LANDSCAPE NOTES AND DETAILS



VICINITY MAP

SCALE: 1" = 1,000'

MONTGOMERY COUNTY

LENGTH OF PROJECT

WASHINGTON GROVE CONNECTOR TRAIL = 0.17 MILES

GENERAL NOTES

- EXISTING TOPOGRAPHIC CONDITIONS BASED ON FIELD SURVEY PERFORMED BY AULTEC, INC, DATED SEPTEMBER 28, 2023 AND SUPPLEMENTED BY MONTGOMERY COUNTY RECORDS. PROPERTY LINES SHOWN ARE BASED ON AVAILABLE RECORDS.
- THE HORIZONTAL DATUM OF THIS SURVEY IS NAD83/2011 (MARYLAND COORDINATE SYSTEM) AND THE VERTICAL DATUM IS NAVD88.
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE MARYLAND STATE HIGHWAY ADMINISTRATION, MONTGOMERY COUNTY, AND THE WASHINGTON SUBURBAN SANITARY COMMISSION.
- CLEARING AND GRUBBING, AND DEMOLITION ARE TO BE LIMITED TO THE LIMIT OF DISTURBANCE (LOD) AS SHOWN ON THE PLANS.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN OR SIX (6) INCHES, WHICHEVER IS LESS, CONTACT MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
- CALL "MISS UTILITY" AT 1-800-257-7777 FORTY- EIGHT (48) HOURS PRIOR TO BEGINNING EXCAVATION. THE CONTRACTOR MUST NOTIFY ALL UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THIS AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED NY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
- ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
- THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO EXISTING SANITARY MANHOLES TO FINAL GRADE AS NEEDED.
- RIGHT OF WAY LINES SHOWN ARE NOT OFFICIAL. FOR OFFICIAL RIGHT OF WAY AND EASEMENT INFORMATION SEE APPROPRIATE RIGHT OF WAY PLATS.
- REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- ALL DISTURBED AREAS TO BE SEEDED AND MULCHED UNLESS OTHERWISE NOTED. ALL DISTURBED AREAS SHALL BE TOPSOILED PER THE MONTGOMERY COUNTY STANDARDS AND SPECIFICATIONS PRIOR TO FINAL VEGETATIVE STABILIZATION.

35% SUBMITTAL
JULY, 2024

CERTIFICATION OF THE QUANTITIES

I/WE HEREBY CERTIFY THAT THE ESTIMATED TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO 110 CUBIC YARDS OF EXCAVATION, 745 CUBIC YARDS OF FILL AND THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE 19,500 SQUARE FEET OR 0.45 ACRES.

DATE:

NORMAN G. MIKSIC, P.E.

MD. REGISTRATION NO. 21262

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

CONTACT:
JEAN KAPUSNICK., P.E.
240-777-7240

DRAFT
NOT FOR CONSTRUCTION

Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20855
Phone: 301-590-3839 Fax:301-948-7174
www.sheladia.com

	15% BRIDGING DOCUMENTS	11/3/2023	
	35% BRIDGING DOCUMENTS	7/24/2024	
NO.	REVISION	DATE	BY

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TITLE SHEET

SCALE : AS SHOWN

G001

SYMBOLS

HDWL.	Headwall
HERCP	Horizontal Elliptical Reinforced Concrete Pipe
HP	High point
IN	Inch
I.S.T.	Inlet Sediment Trap
INV.	Invert
J.V.	Junction Box
K	K Inlet
L	Length
LF	Linear Feet
L.L.	Liquid Limit
LP	Low Point
L.P.	Light Pole
LT.	Left
MAC	Macadam
M.C.	Moisture Content
MAX.	Maximum
M.D.D.	Maximum Dry Content
MOD.	Modified
MIN.	Minimum
N	North
NB	Northbound
NE	Northeast
N.P.	Non-Plastic
O.C.	On Center
OHE	Overhead Electric
O.M.	Optimum Moisture
PAVT.	Pavement
P.C.	Point of Curvature
P.C.C.	Point of Compound Curvature
P/C	Point of Crown
P/GE	Profile Grade Elevation
P.G.E.	Profile Ground Elevation
P.G.L.	Profile Grade Line
P/GL	Profile Ground Line
P/R	Point of Rotation
P.I.	Plasticity Index
PI	Point of Intersection
POC	Point On Curve
POT	Point of Tangent
PPWP	Polyvinyl Chloride Profile Wall Pipe
PROP	Proposed
PRC	Point of Reverse Curve
PT	Point
P.T.	Point of Tangency
P.V.C.	Point of Vertical Curve
PVC	Polyvinyl Chloride
P.V.I.	Point of Vertical Intersection
P.V.R.C.	Point of Vertical Reverse Curve
P.V.T.	Point of Vertical Tangency
R	Radius
R.F.	Rock Fragments
RT	Right

ROW or R/W	Right of Way
RCP	Reinforced Concrete Pipe
RCPP	Reinforced Concrete Pressure
R.Q.D.	Rock Quality Designation
R.M.	Rootman
S	South
SAN.	Sanitary Sewer
SB or S/B	Southbound
S.D.	Storm Drain
S.D.D.	Surface Drain
S/E	Super Elevation
SF	Silt Fence
SF	Square Feet
SH.T.	Sheet
SPP	Structural Steel Plate Pipe
SPPA	Structural Steel Plate Pipe Arch
S.P.T.	Standard Penetration Testing
SRP	Steel Spiral Rib Pipe – Aluminized Type 2
SRPA	Steel Spiral Rib Pipe Arch – Aluminized Type 2
SSD	Stopping Sight Distance
SSF	Super Silt Fence
STD.	Standard
STA.	Station
SO	Single Opening.
SY	Square Yards
SWM	Stormwater Management
T	Tangent
T	Telephone
T.C.	Top of Cover
T	Top of Gate
T OR TL	Traverse Line
T.M.	Top of Manhole
TRAV.	Traverse
TS	Temporary Swale
T.S.	Top of Slab
T.S.	Topsoil
TYP.	Typical
U.D.	Underdrain
U.G.	Underground
U.P.	Utility Pole
USDA	United States Department of Agriculture
VEL	Vertical Clearance
V.C.L.	Vertical Curve Length
W	Water
W	West
WB	Westbound
WB	Wetland Buffer
W.M.	Water Meter
W.S.	Wrapped Steel
WUS	Water of the United States
W.V.	Water Valve

PROPERTY LINE—RIGHT OF WAY LINE(ROW)

EDGE OF ROADWAY PAVING _____

CURB OR CURB AND GUTTER _____

EXISTING GROUND CONTOURS (5') _____

EXISTING GROUND CONTOURS (1') _____

WOOD FENCE _____

WIRE FENCE _____

GUARDRAIL _____

FIRE HYDRANT _____

EDGE OF WOODED AREAS _____

TREE (FREE STANDING) _____

SIGN _____

MAILBOX _____

UTILITY POLE _____

STORM DRAIN _____

SANITARY _____





_____ SD _____ SD

_____ SS _____ SS

The diagram illustrates a cross-section of a road with the following components from top to bottom:

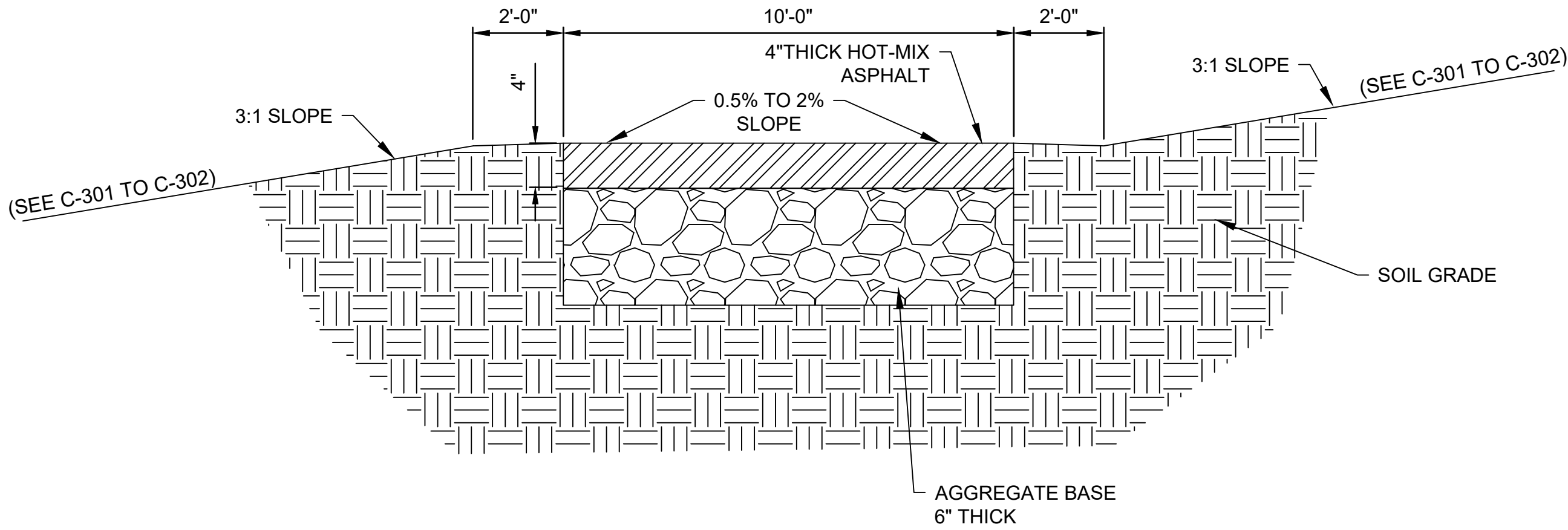
- CONSTRUCTION**: Indicated by a single horizontal line.
- CURB & GUTTER**: Indicated by two horizontal lines.
- TRAVERSE POINT**: Indicated by a triangle with a circle inside, positioned below the curb and gutter lines.
- LIMIT OF DISTURBANCE**: Indicated by two horizontal lines at the bottom.

On the right side of the diagram, there are two vertical lines labeled **4+00** and **5+00**, representing stationing. The **TRAVERSE POINT** is located between these two stationing markers.

ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
	EXISTING MAJOR CONTOUR LINE	①
	EXISTING MINOR CONTOUR LINE	②
	PROPOSED MAJOR CONTOUR LINE	③
	PROPOSED MINOR CONTOUR LINE	④

	15% BRIDGING DOCUMENTS	11/3/2023			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK LEGEND AND SYMBOLS	SCALE : NONE	G002	Project No. : <u>506337</u> of <u>29</u>
	35% BRIDGING DOCUMENTS	7/24/2024							
					RECOMMENDED FOR APPROVAL				
					Chief, Design Section				
					APPROVED				
					Chief, Division of Transportation Engineering				
NO.	REVISION	DATE	BY		Designed by: _____	Drawn by: _____	Checked by: _____		

SHEET NO.	TOTAL SHEETS
03	29



1 TYPICAL TRAIL CROSS SECTION
NOT TO SCALE

REGULAR HOT-MIX-ASPHALT



Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD, 20855
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MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Design Section APPROVED	Date
Chief, Division of Transportation Engineering	Date
Designed by: _____	Drawn by: _____
Checked by: _____	

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TYPICAL TRAIL CROSS SECTION

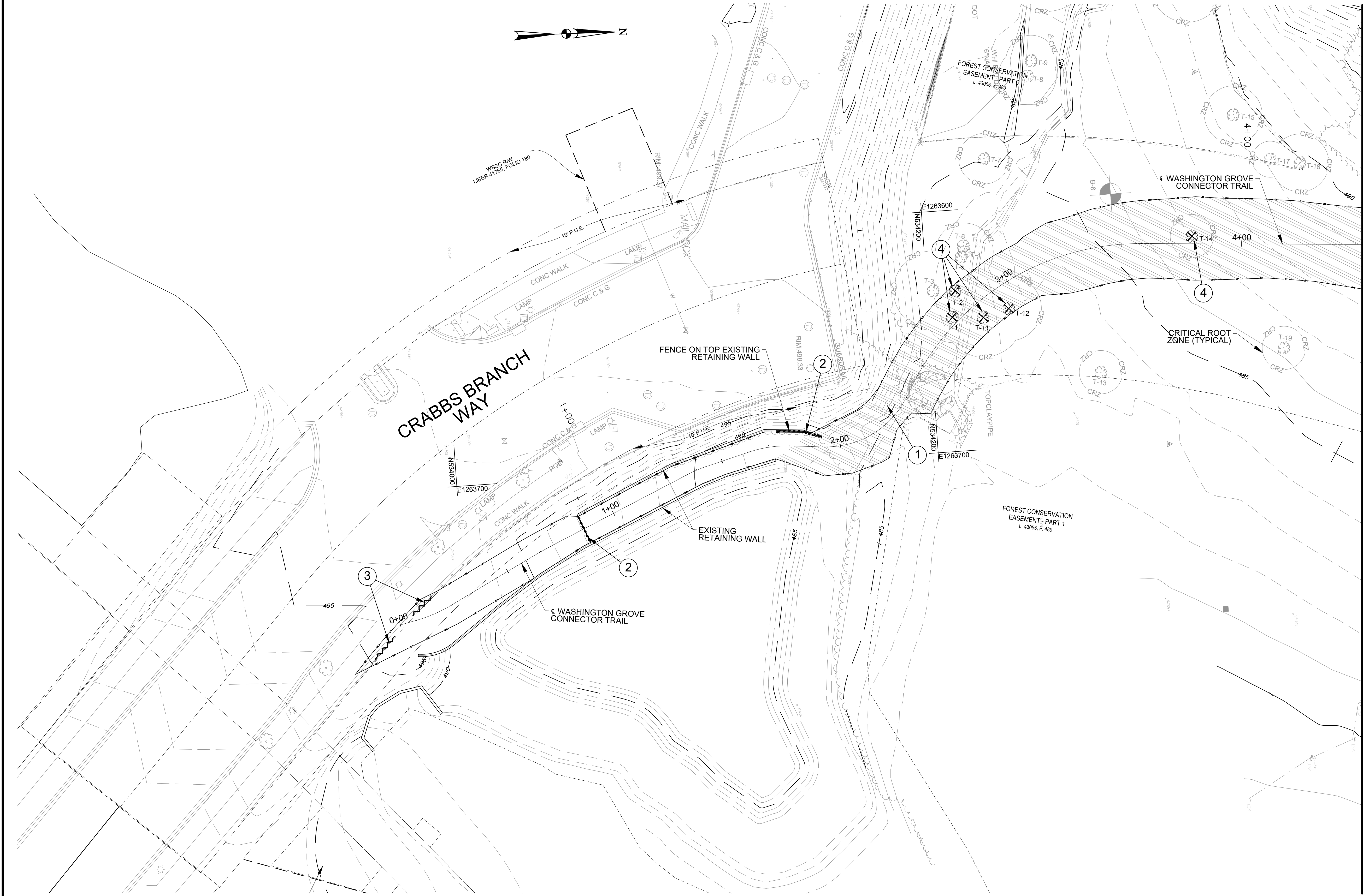
SCALE : NONE

G003

Project No. : 000337

03 of 29

SHEET NO.	TOTAL SHEETS
04	29



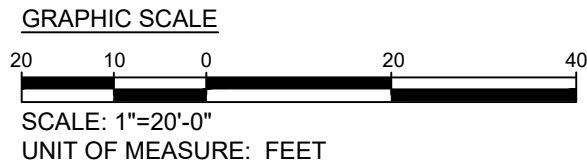
MATCHLINE A-A STA. 4+50 - SEE DWG. C-102

DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	LIGHT POLE
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

TREE REMOVAL TABLE		
TREE NO.	DIAMETER	TYPE
T1	7"	RED MAPLE
T2	11"	RED MAPLE
T11	11"	BLACK WALNUT
T12	11"	WHITE MULBERRY
T14	6"	EASTERN RED CEDAR

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	TREE CLEARING AND STRIPPING AREA	①
	REMOVE EXISTING FENCE	②
	REMOVE EXISTING GUARDRAIL	③
	REMOVE EXISTING TREE	④
	LIMIT OF DISTURBANCE AREA	
	DEMO NOTE	

NOTE:
SEE DWG C-201 TRAIL SITE LAYOUT AND PROFILE 1 OF 2.



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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED

Date

Chief, Division of Transportation Engineering

Date

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TREE CLEARING AND STRIPPING
DEMOLITION PLAN 1 OF 2

SCALE : AS SHOWN

C101

Project No.: 006937 04 of 29

SHEET NO.	TOTAL SHEETS
05	29

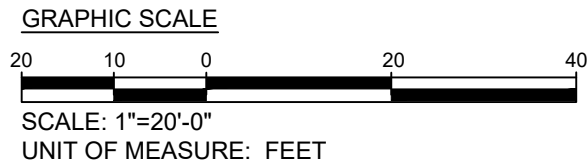


DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	STORM MH
	LIGHT POLE
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

TREE REMOVAL TABLE		
TREE NO.	DIAMETER	TYPE
T30	7"	BLACK WALNUT
T62	6"	BLACK LOCUST
T63	8"	WHITE MULBERRY
T64	11"	BLACK LOCUST
T65	13"	BLACK CHERRY
T66	14"	BLACK LOCUST
T67	14"	BLACK LOCUST
T68	14"	BLACK LOCUST
T69	9"	BLACK WALNUT
T70	10"	BLACK WALNUT
T71	8"	BLACK WALNUT
T72	6"	BOX ELDER MAPLE
T73	7"	BLACK CHERRY
T75	12"	SLIPPER ELM

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	TREE CLEARING AND STRIPPING AREA	①
	REMOVE EXISTING FENCE	②
	REMOVE EXISTING GUARDRAIL	③
	REMOVE EXISTING TREE	④
	REMOVE EXISTING ASPHALT CURB	⑤
	LIMIT OF DISTURBANCE AREA	
	DEMO NOTE	

NOTE:
SEE DWG C-202 TRAIL SITE LAYOUT AND PROFILE 2 OF 2.



Engineers, Architects
Development Consultants
SHELADIA
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RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Transportation Engineering	Date
Designed by: _____	Drawn by: _____
Checked by: _____	

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TREE CLEARING AND STRIPPING
DEMOLITION PLAN 2 OF 2

SCALE : AS SHOWN

C102

Project No.: 006937

05 of 29



WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
EXISTING CONDITION AND
STRIPPING PLAN PICEA - LONG

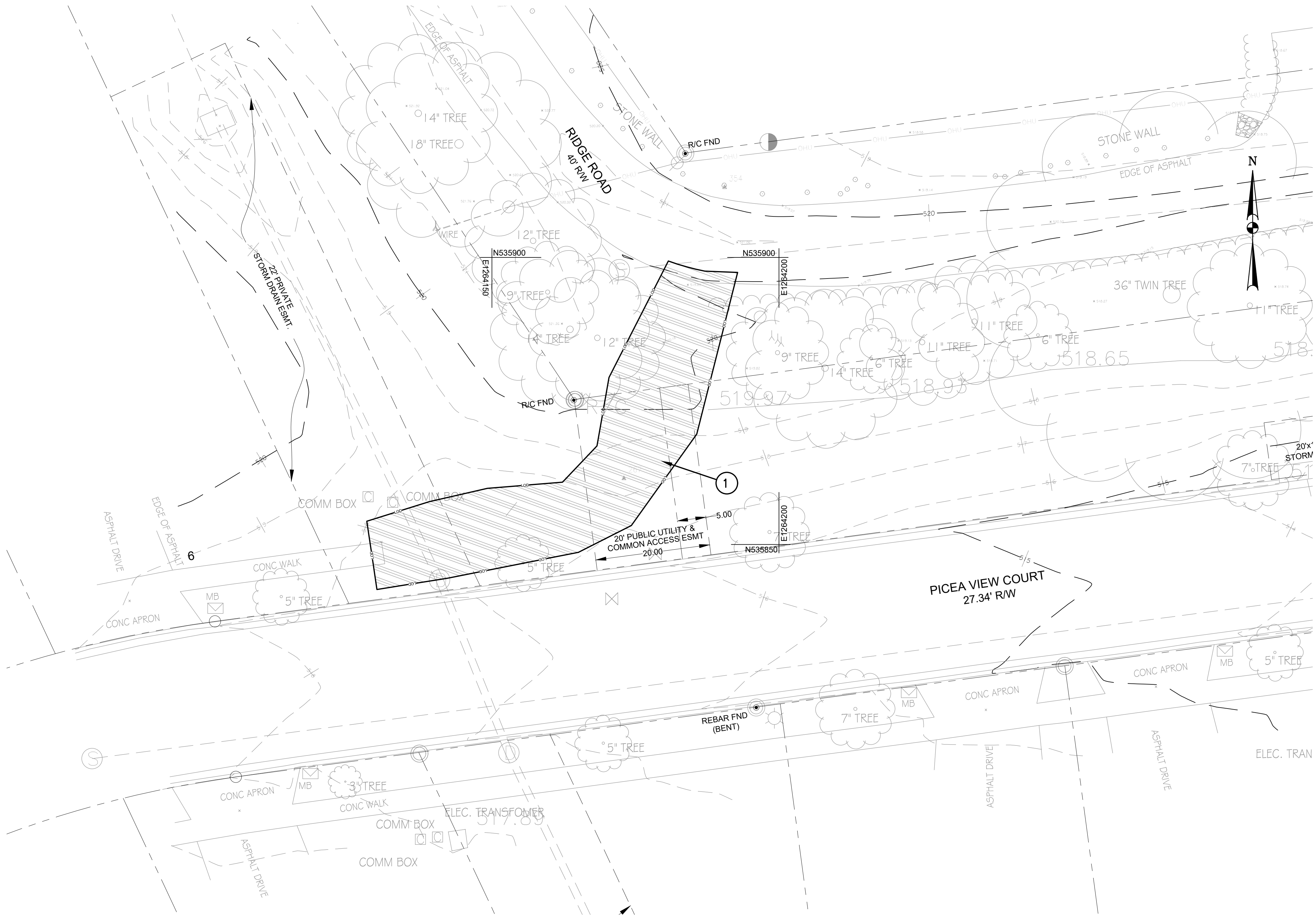
SCALE : AS SHOWN

C103

Project No. : 509337

6 of 23

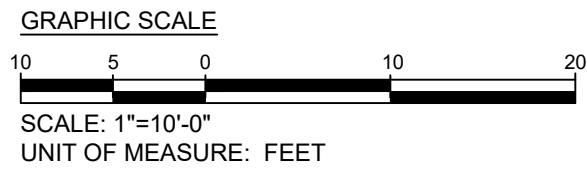
SHEET NO.	TOTAL SHEETS
7	29



DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	STORM MH
	LIGHT POLE

DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	STRIPPING AREA	①
	LIMIT OF DISTURBANCE	
	DEMO NOTE	





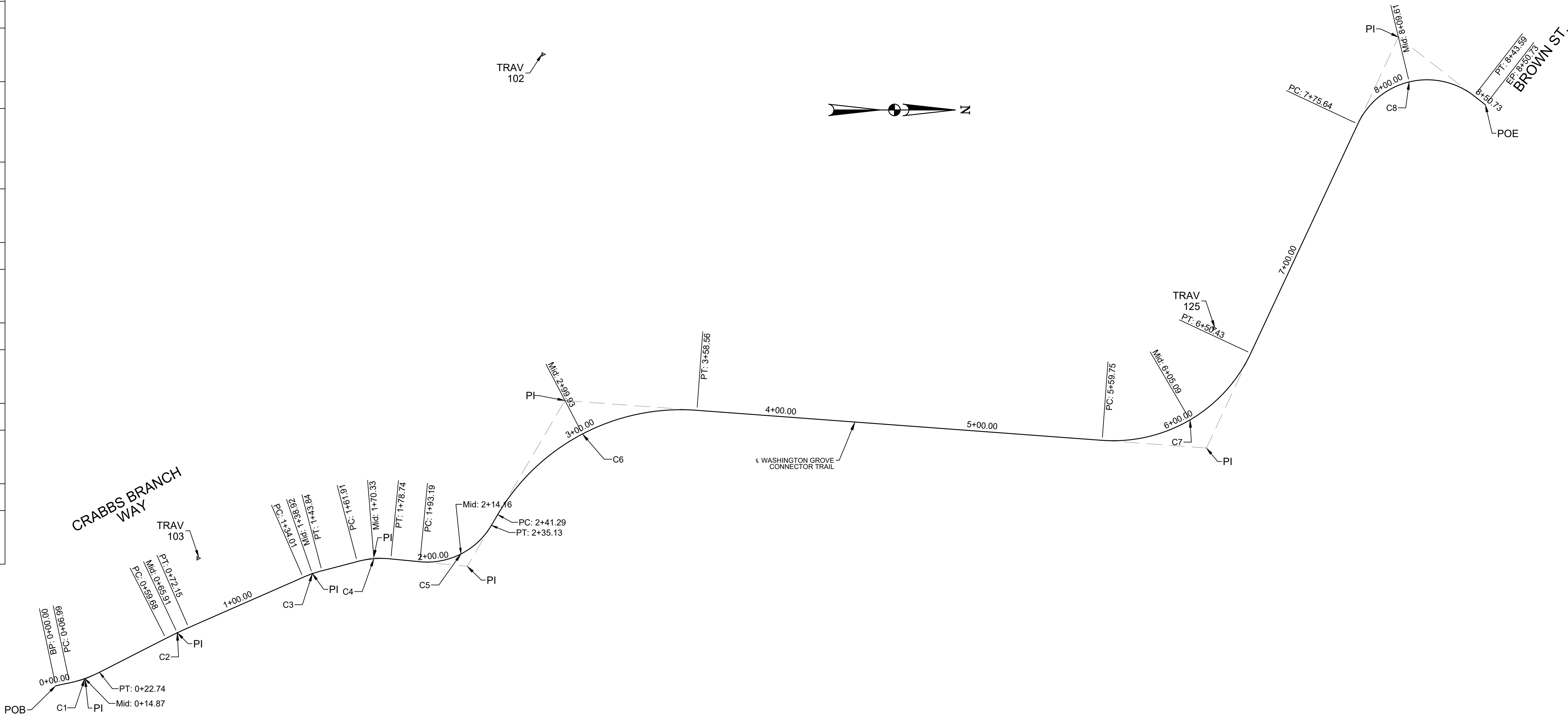
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15% BRIDGING DOCUMENTS		11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK EXISTING CONDITION AND STRIPPING PLAN PICEA - SHORT	
35% BRIDGING DOCUMENTS		7/24/2024					
				RECOMMENDED FOR APPROVAL			
				Chief, Design Section		Date	
				APPROVED			
				Chief, Division of Transportation Engineering		Date	
				Designed by: _____		Checked by: _____	
				Drawn by: _____			
NO.	REVISION	DATE	BY			Project No. : 000331	7 of 29

SHEET NO.	TOTAL SHEETS
08	29

CENTER ALIGNMENT

CURVE NO.	DESCRIPTION	STATION	COORDINATES		BEARING
			NORTHING	EASTING	
	POB	0+00.00	533972.6859	1263755.6373	N11° 57' 57"W
C1	PC	0+06.99	533979.5258	1263754.1877	
	PI	0+14.87	533987.2736	1263752.5457	
	PT	0+22.74	533994.3304	1263748.9506	N26° 59' 48"W
C2	PC	0+59.68	534027.2413	1263732.1840	
	PI	0+65.91	534032.8011	1263729.3516	
	PT	0+72.15	534038.5151	1263726.8449	N23° 41' 10"W
C3	PC	1+34.01	534095.1587	1263701.9966	
	PI	1+38.92	534099.6685	1263700.0183	
	PT	1+43.84	534104.4328	1263698.7718	N14° 39' 43"W
C4	PC	1+61.91	534121.9208	1263694.1963	
	PI	1+70.33	534130.1474	1263692.0439	
	PT	1+78.74	534138.6112	1263692.8651	N5° 32' 29"E
C5	PC	1+93.19	534152.9920	1263694.2603	
	PI	2+14.16	534176.4342	1263696.5346	
	PT	2+35.13	534188.3978	1263676.2471	N59° 28' 20"W
C6	PC	2+41.29	534191.5296	1263670.9363	
	PI	2+99.93	534224.8152	1263614.4913	
	PT	3+58.56	534290.1648	1263619.3283	N4° 13' 60"E
C7	PC	5+59.75	534490.7984	1263634.1789	
	PI	6+05.09	534542.4479	1263638.0019	
	PT	6+50.43	534564.3768	1263591.0826	N64° 56' 59"W
C8	PC	7+75.64	534617.3925	1263477.6493	
	PI	8+09.61	534637.4831	1263434.6630	
	PT	8+43.59	534674.9409	1263463.7899	N37° 52' 06"E
	POE	8+50.73	534680.5765	1263468.1721	

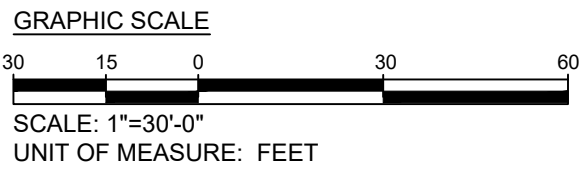


HORIZONTAL CURVE DATA

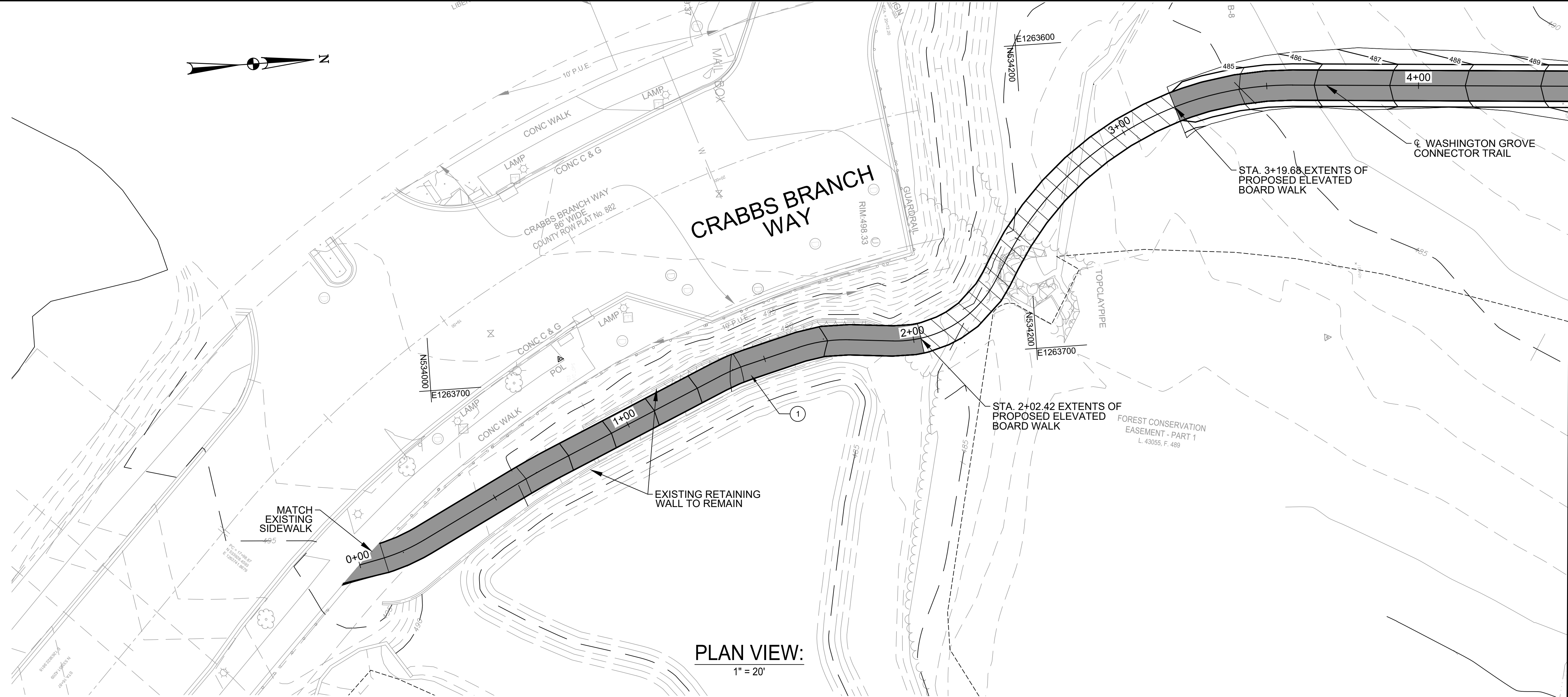
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH
C1	15°01'51"	60.03	15.75	7.92	15.70
C2	03°18'39"	215.91	12.48	6.24	12.47
C3	09°01'27"	62.41	9.83	4.92	9.82
C4	20°12'12"	47.73	16.83	8.50	16.74
C5	65°00'49"	36.96	41.94	23.55	39.72
C6	63°42'19"	105.47	117.27	65.53	111.32
C7	69°10'59"	75.10	90.68	51.79	85.27
C8	102°49'05"	37.87	67.95	47.45	59.19

CONTROL TRAVERSE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
102	534213.8385	1264680.9190	489.00	REBAR & CAP
103	534043.0170	1263692.5510	497.34	REBAR & CAP
125	534546.0770	1263578.8589	501.95	REBAR & CAP

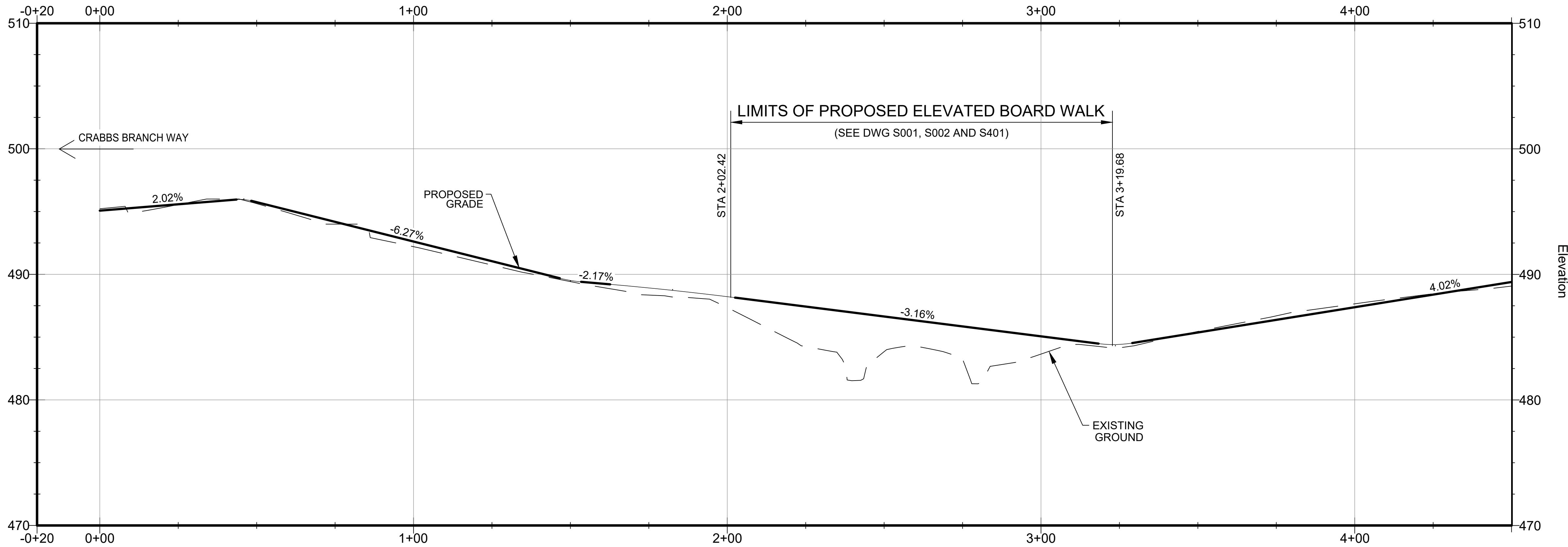


	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK TRAIL GEOMETRIC LAYOUT	
	35% BRIDGING DOCUMENTS	7/24/2024					
				RECOMMENDED FOR APPROVAL			
				Chief, Design Section	Date		
				APPROVED			
				Chief, Division of Transportation Engineering	Date		
				Designed by: _____	Drawn by: _____	Checked by: _____	
NO.	REVISION	DATE	BY			Project No. : 000000	C200



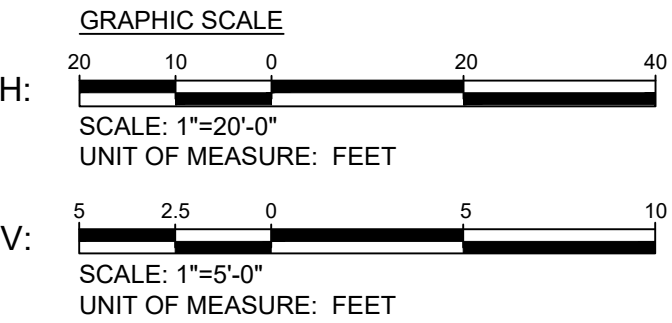
TRAIL SITE PLAN LEGEND		
	DESCRIPTION	NOTES
	HOT MIX ASPHALT	①

- NOTES:
- THE EXISTING RETAINING WALL IS TIE-IN DOWN TO THE PATH EXISTING GRADE BETWEEN STATION 1+87 TO STATION 1+93. THE DESIGN ENGINEER WILL PROVIDE A FILL ON TOP OF THAT SECTION OF THE RETAINING WALL FOR THE TRAIL PATH ALIGNMENT.



PROFILE VIEW:

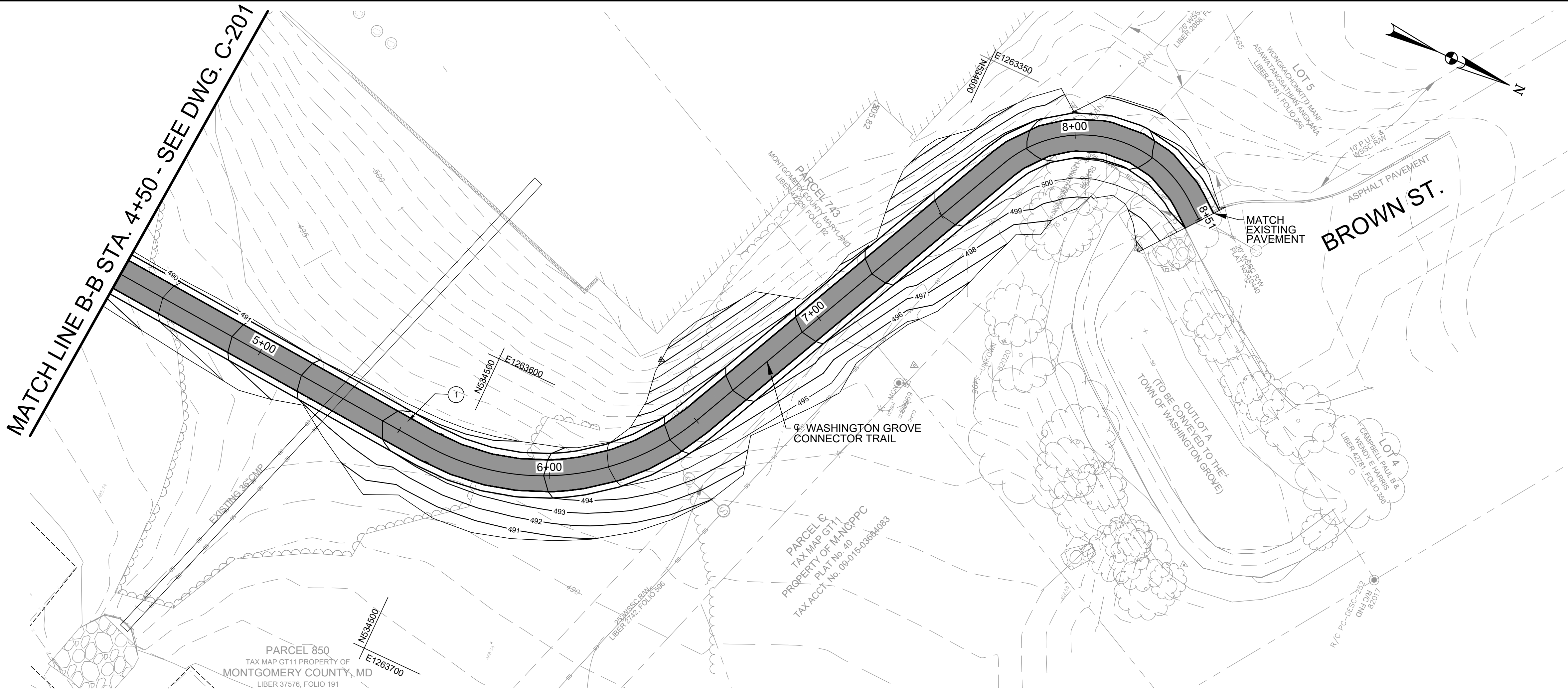
H: 1" = 20'
V: 1" = 5'



15% BRIDGING DOCUMENTS	11/3/2023		
35% BRIDGING DOCUMENTS	7/24/2024		
NO.	REVISION	DATE	BY

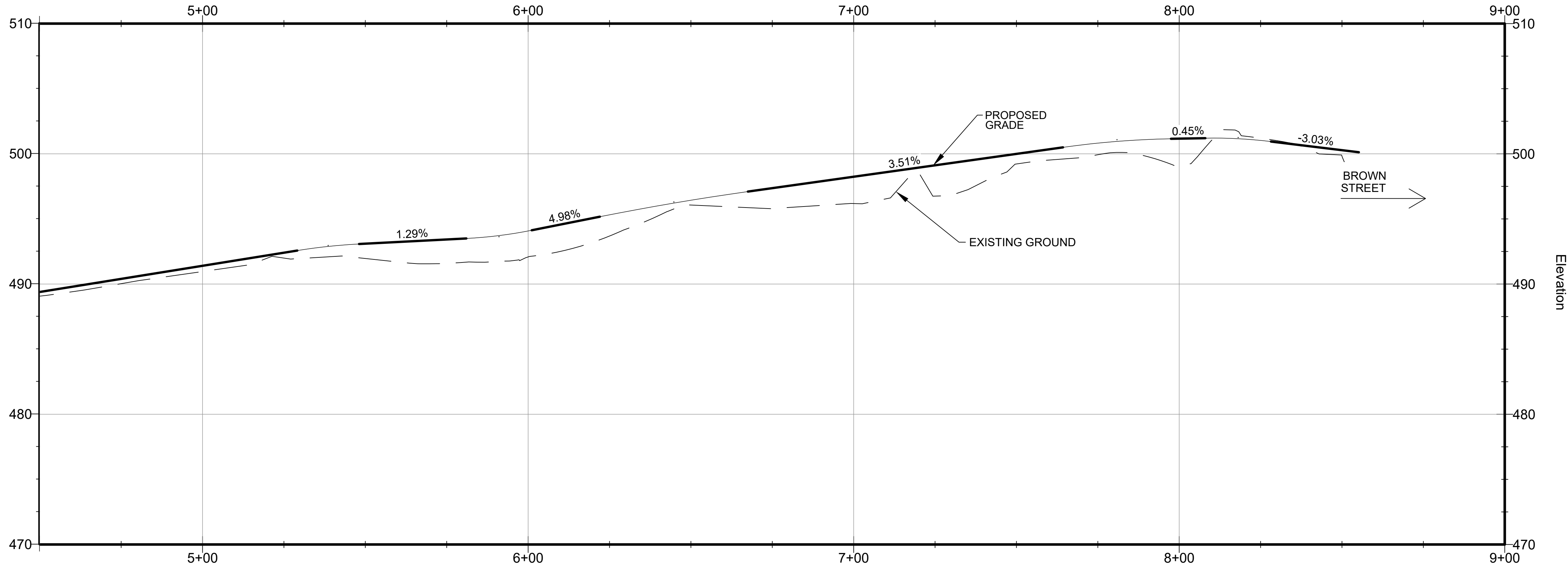
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Transportation Engineering	Date
Designed by: _____	Drawn by: _____
Checked by: _____	

WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK TRAIL SITE LAYOUT AND PROFILE 1 OF 2	
SCALE : AS SHOWN	C201
Project No. : 509337	09 of 29

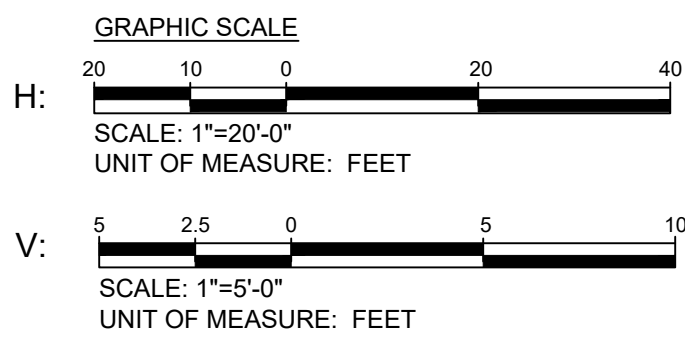


TRAIL SITE PLAN LEGEND		
	DESCRIPTION	NOTES
<div></div>	HOT MIX ASPHALT	①

PLAN VIEW:
1" = 20'



PROFILE VIEW:
H: 1" = 20'
V: 1" = 5'



15% BRIDGING DOCUMENTS	11/3/2023		
35% BRIDGING DOCUMENTS	7/24/2024		
NO.	REVISION	DATE	BY

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

WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK	
TRAIL SITE LAYOUT AND PROFILE	
2 OF 2	
SCALE : AS SHOWN	C202
Project No. : 509337	10 of 29

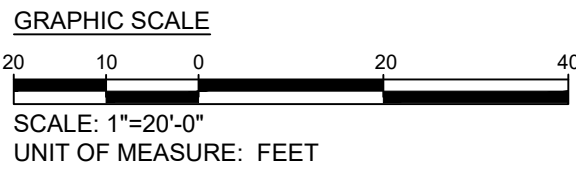
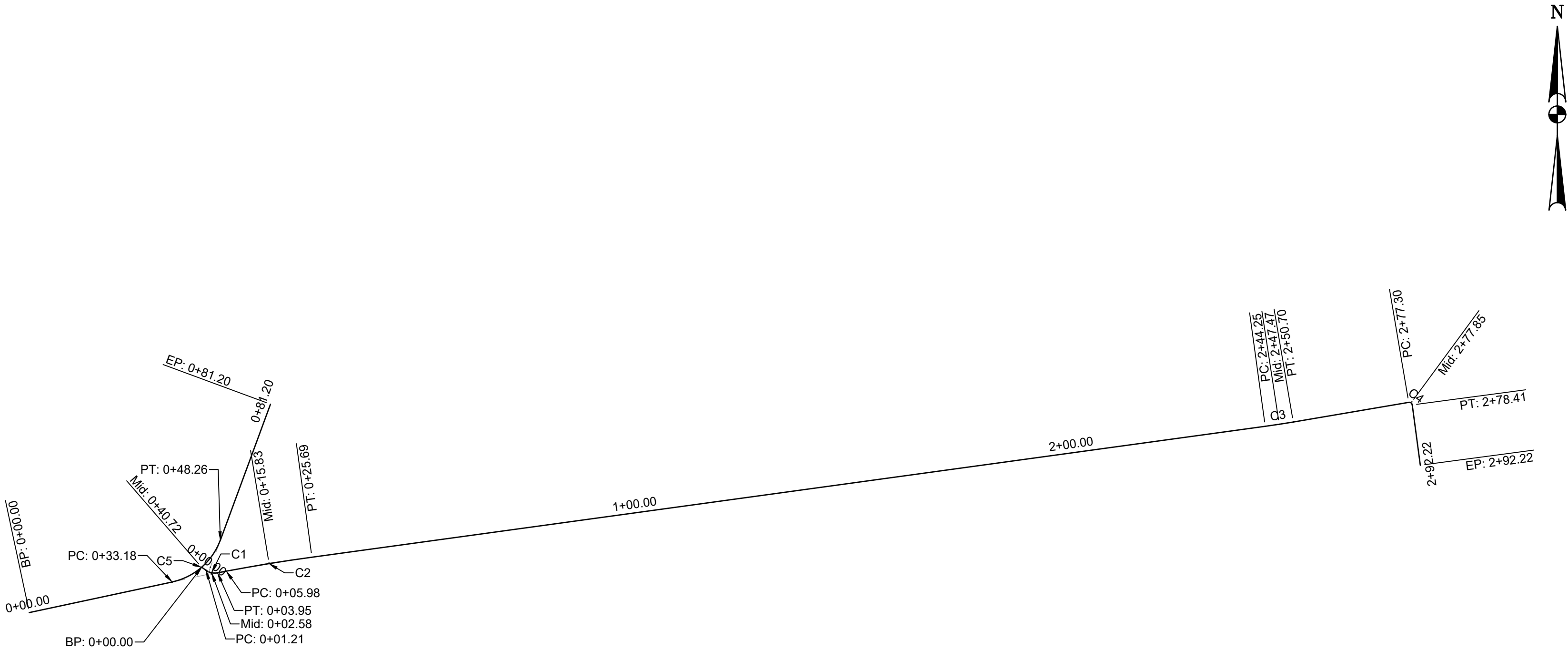
SHEET NO.	TOTAL SHEETS
11	29

CENTER ALIGNMENT

CURVE NO.	DESCRIPTION	STATION	COORDINATES		BEARING
			NORTHING	EASTING	
	POB	0+00.00	535858.8070	1264170.1995	S54° 27' 49"E
C1	PC	0+01.21	535858.1053	1264171.1819	
	PI	0+02.58	535857.2628	1264172.3615	
	PT	0+03.95	535857.5330	1264173.7856	N79° 15' 16"E
C2	PC	0+05.98	535857.9115	1264175.7798	
	PI	0+15.83	535859.7497	1264185.4661	
	PT	0+25.69	535861.0899	1264195.2338	N82° 11' 14"E
C3	PC	2+44.25	535890.7992	1264411.7613	
	PI	2+47.47	535891.2377	1264414.9570	
	PT	2+50.70	535891.7790	1264418.1369	N80° 20' 21"E
C4	PC	2+77.30	535896.2433	1264444.3626	
	PI	2+77.85	535896.3634	1264445.0676	
	PT	2+78.41	535895.6545	1264445.1623	S7° 36' 35"E
	POE	2+92.22	535881.9617	1264446.9917	
	POB	0+00.00	535848.5228	1264131.0482	N77° 56' 07"E
C5	PC	0+33.18	535855.4585	1264163.4988	
	PI	0+40.72	535857.1821	1264171.5633	
	PT	0+48.26	535864.9195	1264174.4162	N20° 14' 24"E
	POE	0+81.20	535895.8260	1264185.8123	

HORIZONTAL CURVE DATA

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH
C1	46°16'54"	3.39	2.74	1.45	2.67
C2	02°55'58"	385.14	19.71	9.86	19.71
C3	01°50'53"	200.00	6.45	3.23	6.45
C4	92°03'03"	0.69	1.11	0.72	0.99
C5	57°41'43"	14.97	15.08	8.25	14.45





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	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK SIDEWALK GEOMETRIC LAYOUT PICEA - LONG	
	35% BRIDGING DOCUMENTS	7/24/2024					
				RECOMMENDED FOR APPROVAL		SCALE : AS SHOWN	C203
				Chief, Design Section	Date		
				APPROVED			
				Chief, Division of Transportation Engineering	Date		
NO.	REVISION	DATE	BY	Designed by: _____	Drawn by: _____	Checked by: _____	Project No.: <u>508937</u>

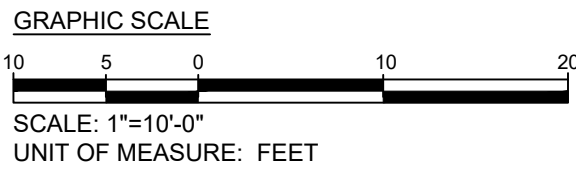
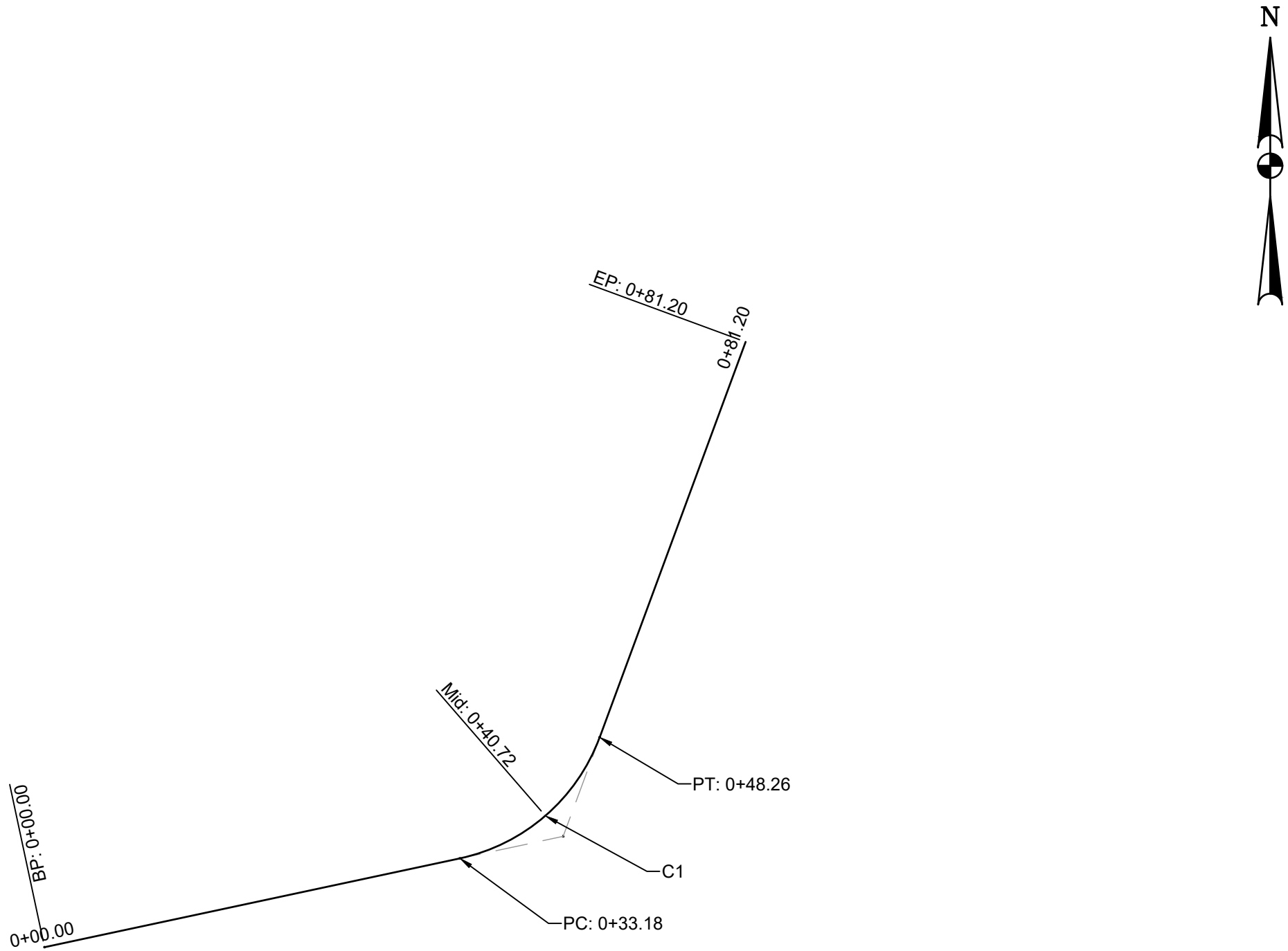
SHEET NO.	TOTAL SHEETS
12	29

CENTER ALIGNMENT

CURVE NO.	DESCRIPTION	STATION	COORDINATES		BEARING
			NORTHING	EASTING	
	POB	0+00.00	535848.5228	1264131.0482	N77° 56' 07"E
C1	PC	0+33.18	535855.4585	1264163.4988	
	PI	0+40.72	535857.1821	1264171.5633	
	PT	0+48.26	535864.9195	1264174.4162	
	PT	0+81.20	535895.8260	1264185.8123	N20° 14' 24"E

HORIZONTAL CURVE DATA

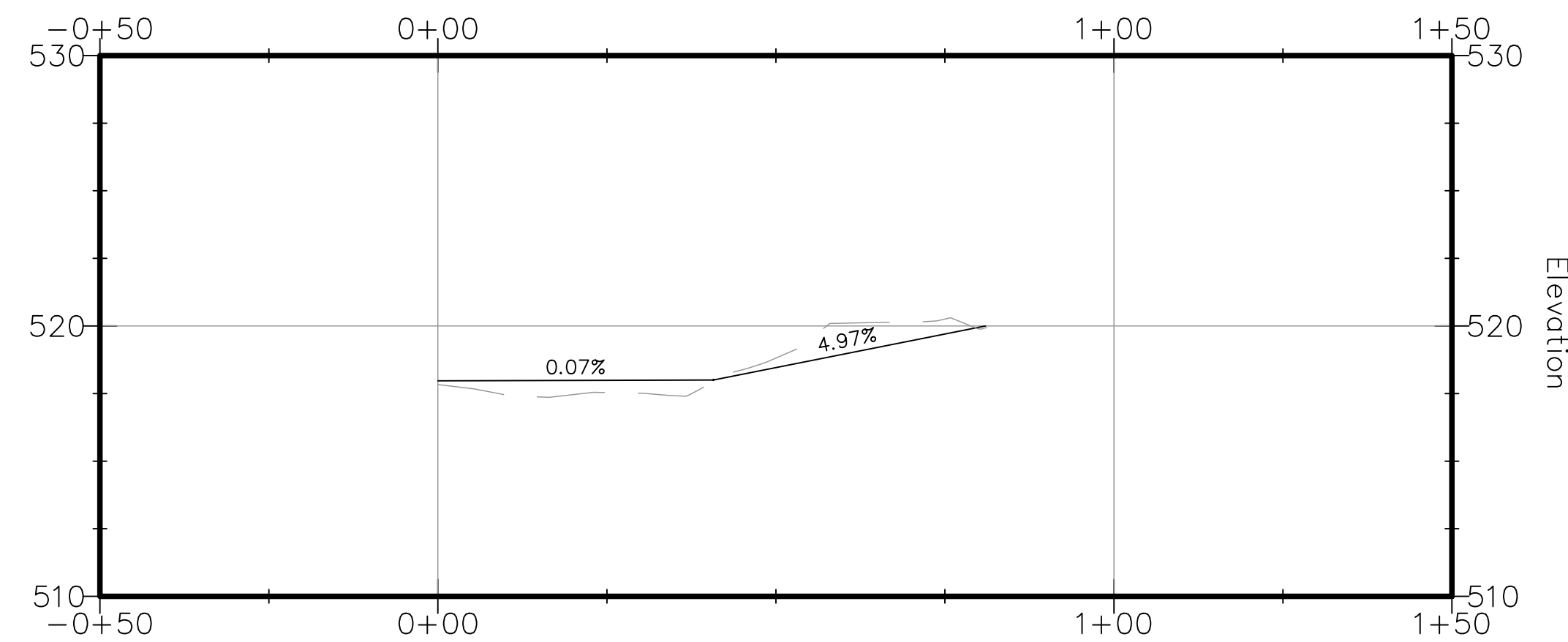
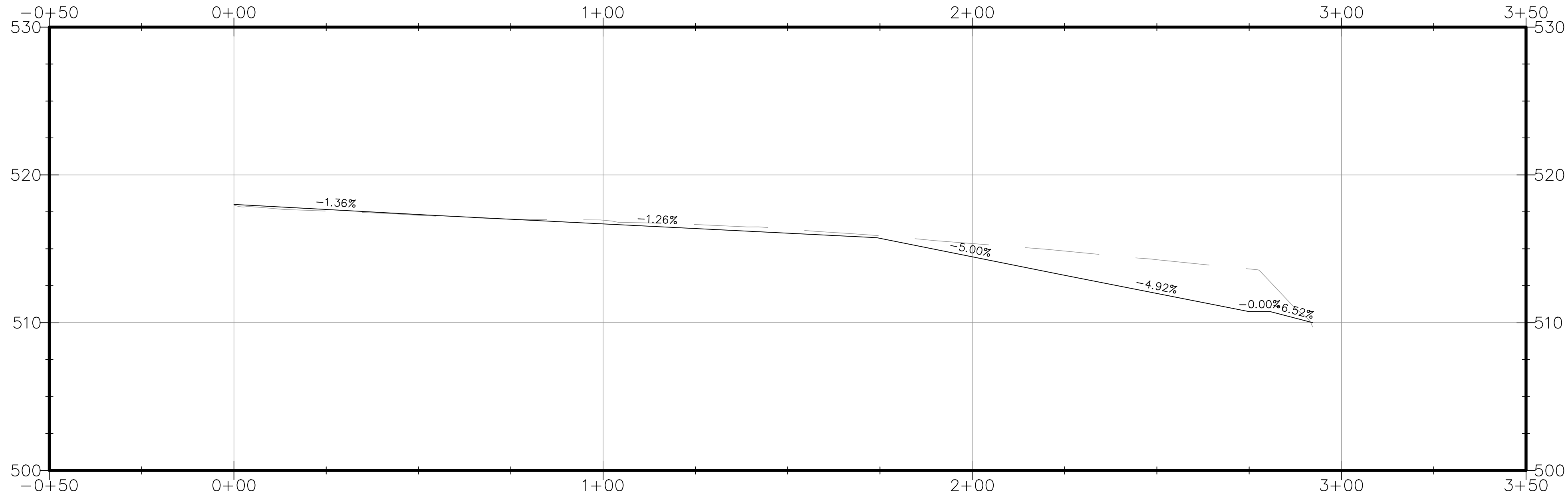
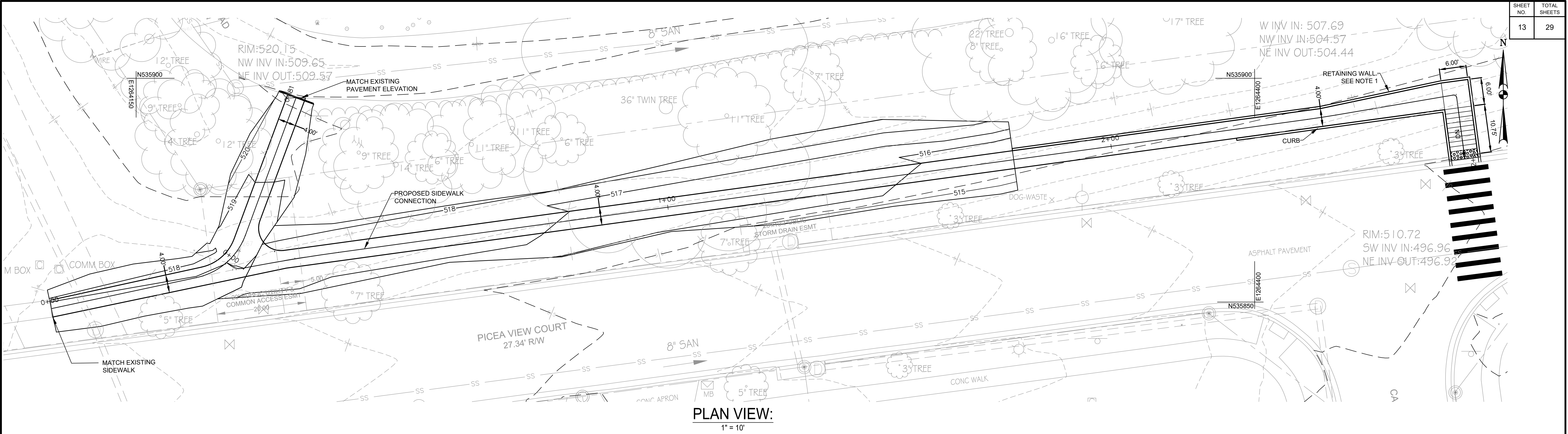
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH
C1	57°41'43"	14.97	15.08	8.25	14.45





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	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK SIDEWALK GEOMETRIC LAYOUT PICEA - SHORT		C204
	35% BRIDGING DOCUMENTS	7/24/2024						
				RECOMMENDED FOR APPROVAL				
				Chief, Design Section		Date		
				APPROVED				
				Chief, Division of Transportation Engineering		Date		
NO.	REVISION	DATE	BY	Designed by: _____		Drawn by: _____		Checked by: _____
				Project No. : 202337		12		of 29



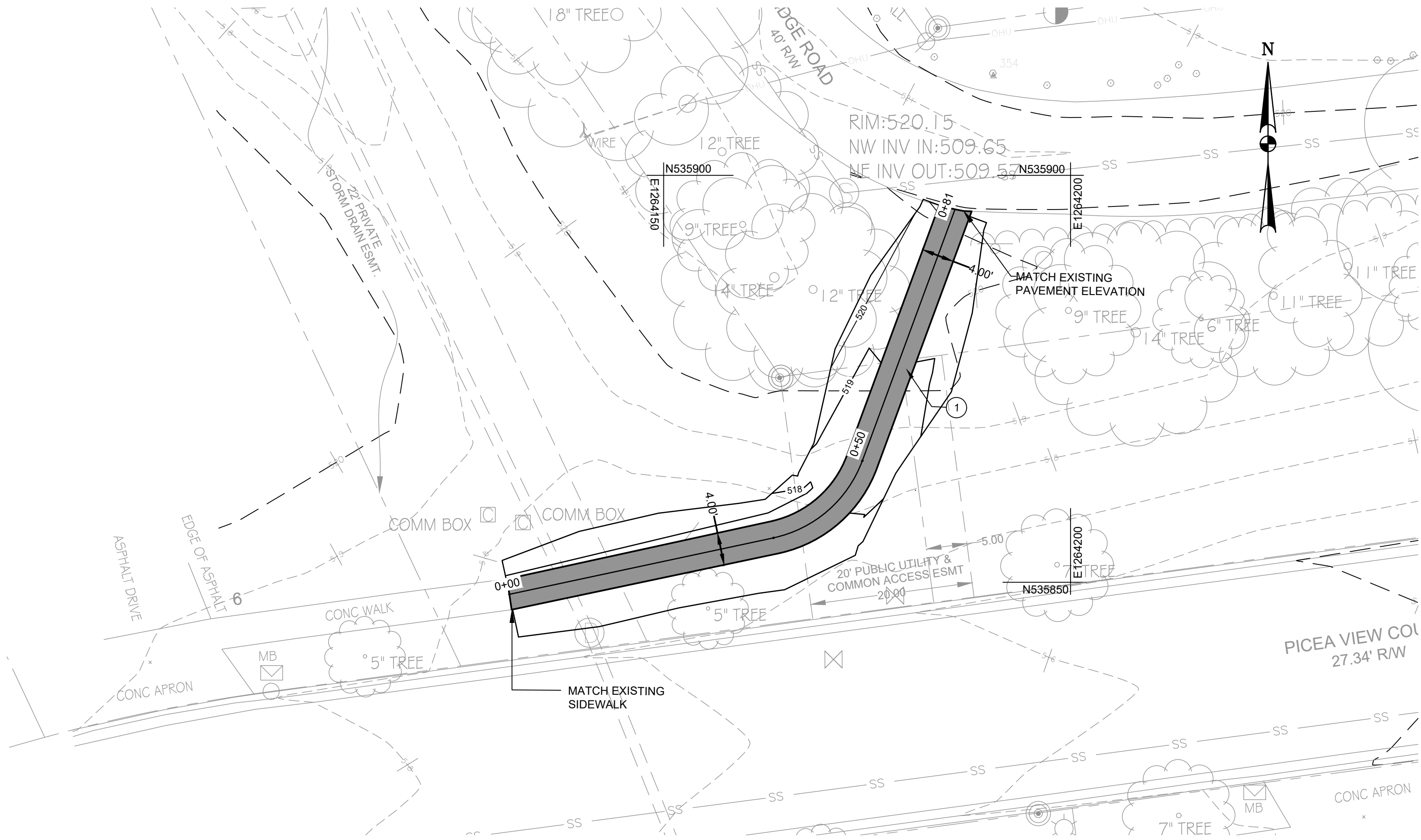
NOTE

1. SEE S401 FOR RETAINING WALL DETAILS FOR CURBS ABOVE 3FT IN HEIGHT.

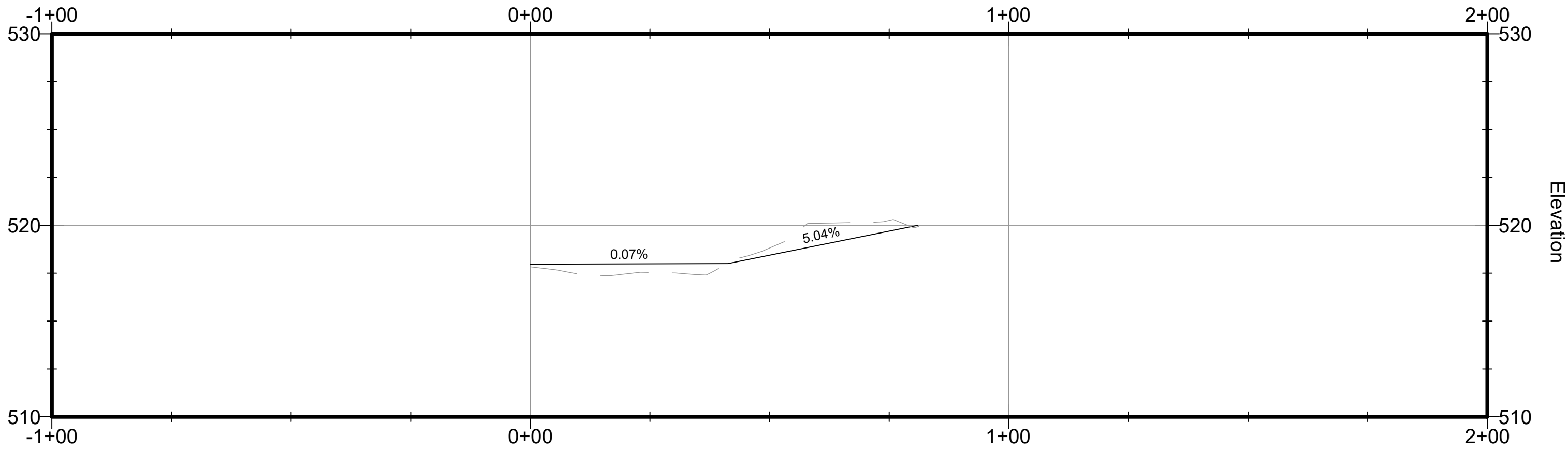
15% BRIDGING DOCUMENTS		11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		RECOMMENDED FOR APPROVAL		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK SIDEWALK LAYOUT PICEA - LONG	
35% BRIDGING DOCUMENTS		7/24/2024							
						Chief, Design Section			
						APPROVED		Date	
						Chief, Division of Transportation Engineering		Date	
						Designed by: _____		Checked by: _____	
						Drawn by: _____			
NO.	REVISION	DATE	BY					SCALE : AS SHOWN	
								C205	
								Project No.: 002937	



SHEET NO.	TOTAL SHEETS
14	29



PLAN VIEW:
1" = 10'



PROFILE VIEW:
H: 1" = 20'
V: 1" = 5'

TRAIL SITE PLAN LEGEND		
	DESCRIPTION	NOTES
	HOT MIX ASPHALT	①



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	35% BRIDGING DOCUMENTS	7/24/2024	
NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED

Date

Chief, Division of Transportation Engineering

Date

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
SIDEWALK LAYOUT PICEA - SHORT

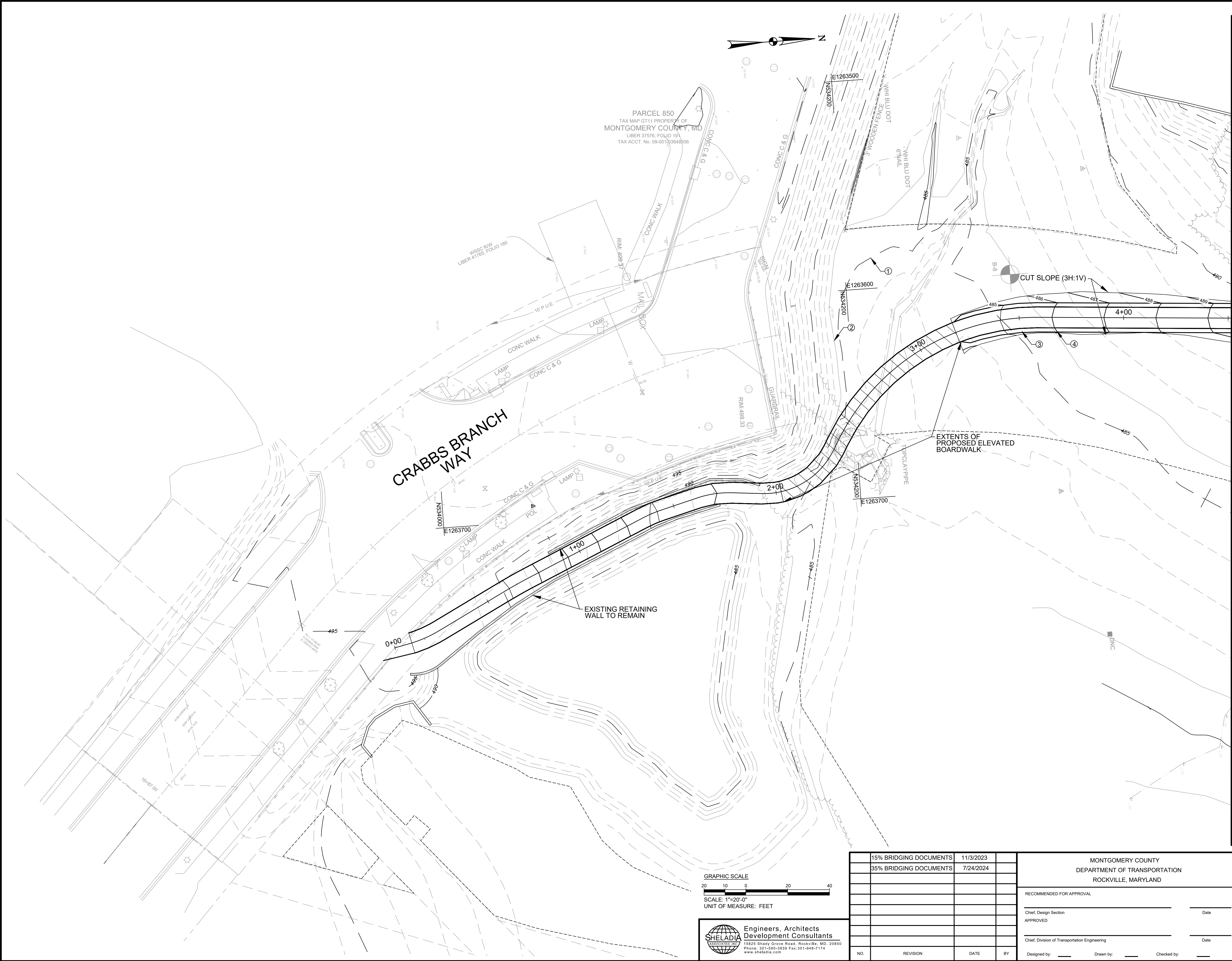
SCALE : AS SHOWN

C206

Project No.: 002937

14 of 29

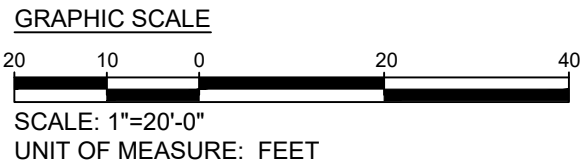
SHEET NO.	TOTAL SHEETS
15	29



MATCHLINE A-A STA. 4+50 - SEE DWG. C302

ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
---	EXISTING MAJOR CONTOUR LINE	①
- - -	EXISTING MINOR CONTOUR LINE	②
— — —	PROPOSED MAJOR CONTOUR LINE	③
- - - -	PROPOSED MINOR CONTOUR LINE	④

- NOTES:
- FOR GENERAL NOTES, SEE DRAWING G-002.
 - FOR TRAIL ALIGNMENT/PROFILE AND CULVERT PIPE INFORMATION, SEE DRAWINGS C-201 THROUGH C-202.



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35% BRIDGING DOCUMENTS	7/24/2024	
NO.	REVISION	DATE

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RECOMMENDED FOR APPROVAL	
Chief, Design Section	Date
APPROVED	
Chief, Division of Transportation Engineering	Date
Designed by: _____	Drawn by: _____
Checked by: _____	

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TRAIL ROUGH GRADING PLAN
1 OF 2

SCALE : AS SHOWN

C301

Project No.: 002937

15 of 29



NOTES:

1. FOR GENERAL NOTES, SEE DRAWING G002.
2. FOR TRAIL PROFILE, SEE DRAWINGS C201 THROUGH C202.

GRAPHIC SCALE

A horizontal scale bar with tick marks at 20, 10, 0, 20, and 40. The segment between 0 and 20 is shaded black, while the segments from 20 to 10, 10 to 20, and 20 to 40 are white.

SCALE: 1"=20'-0"

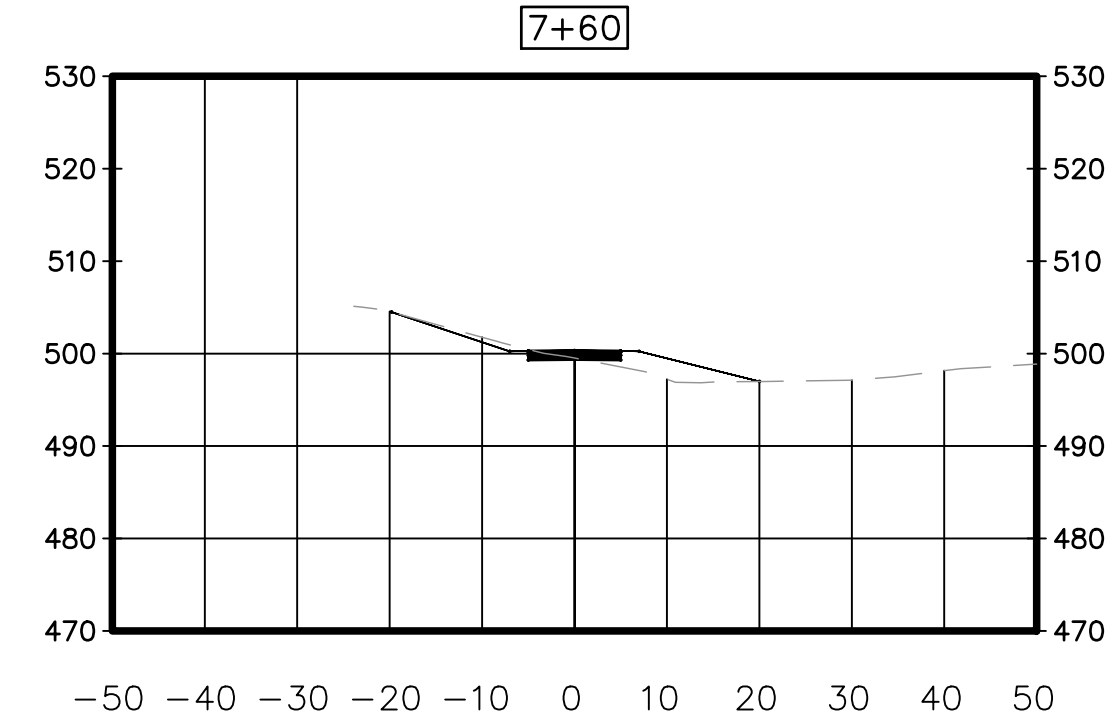
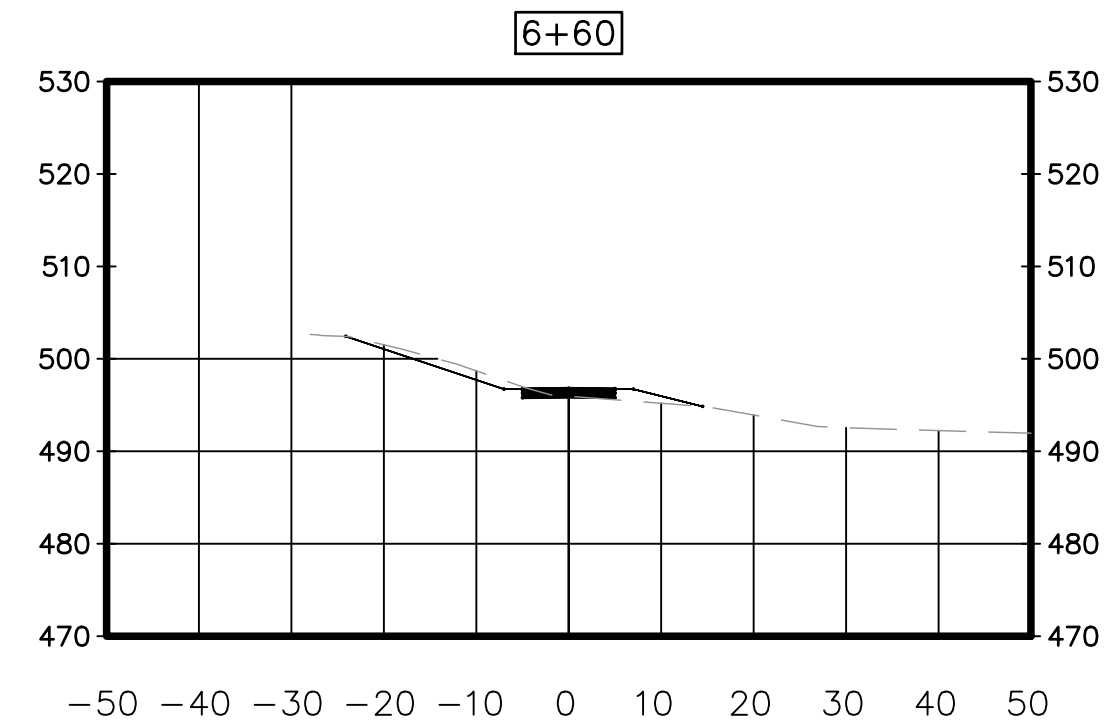
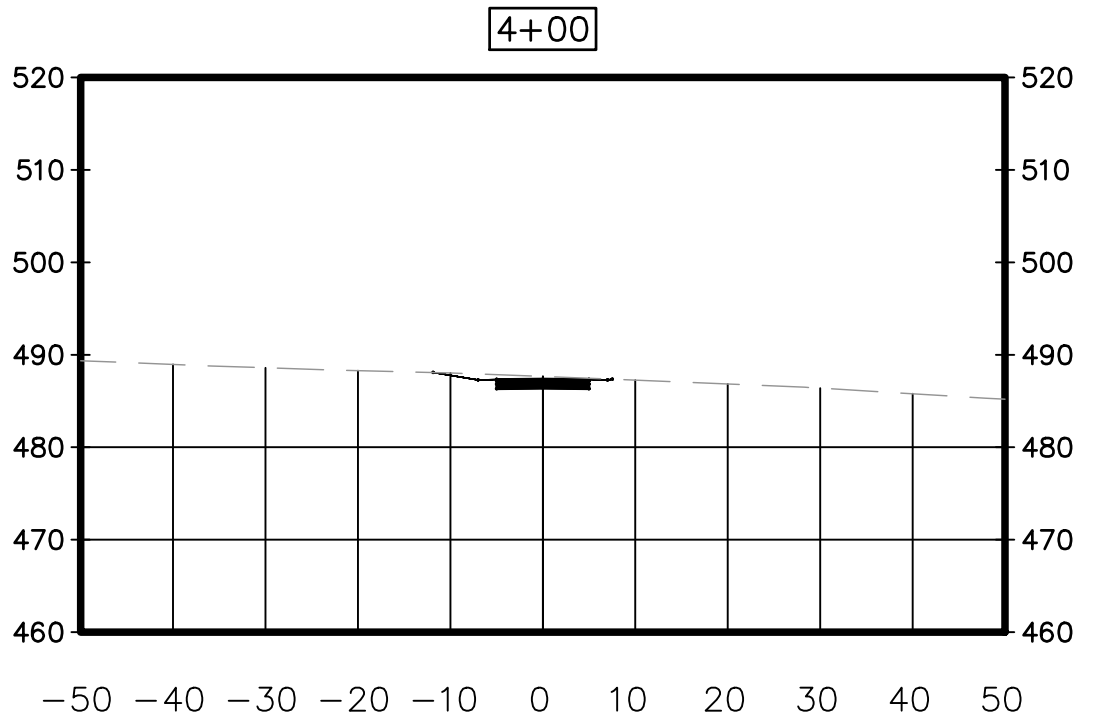
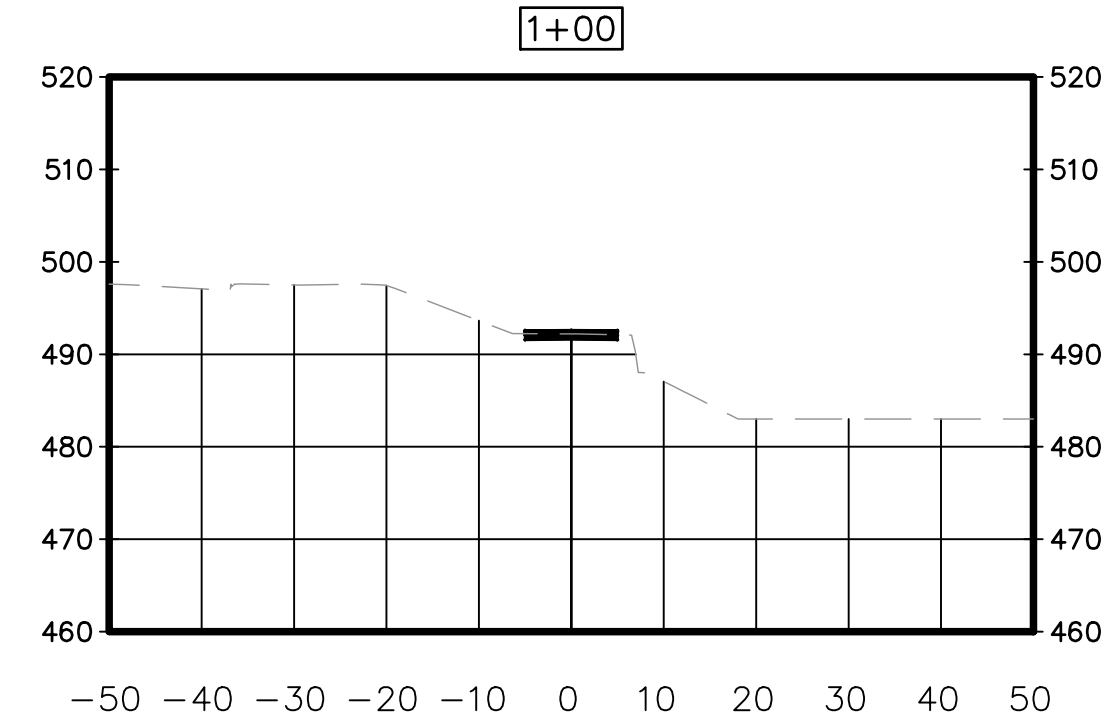
UNIT OF MEASURE: FEET



SHEET NO.	TOTAL SHEETS
17	29



PLAN VIEW:
1" = 40'

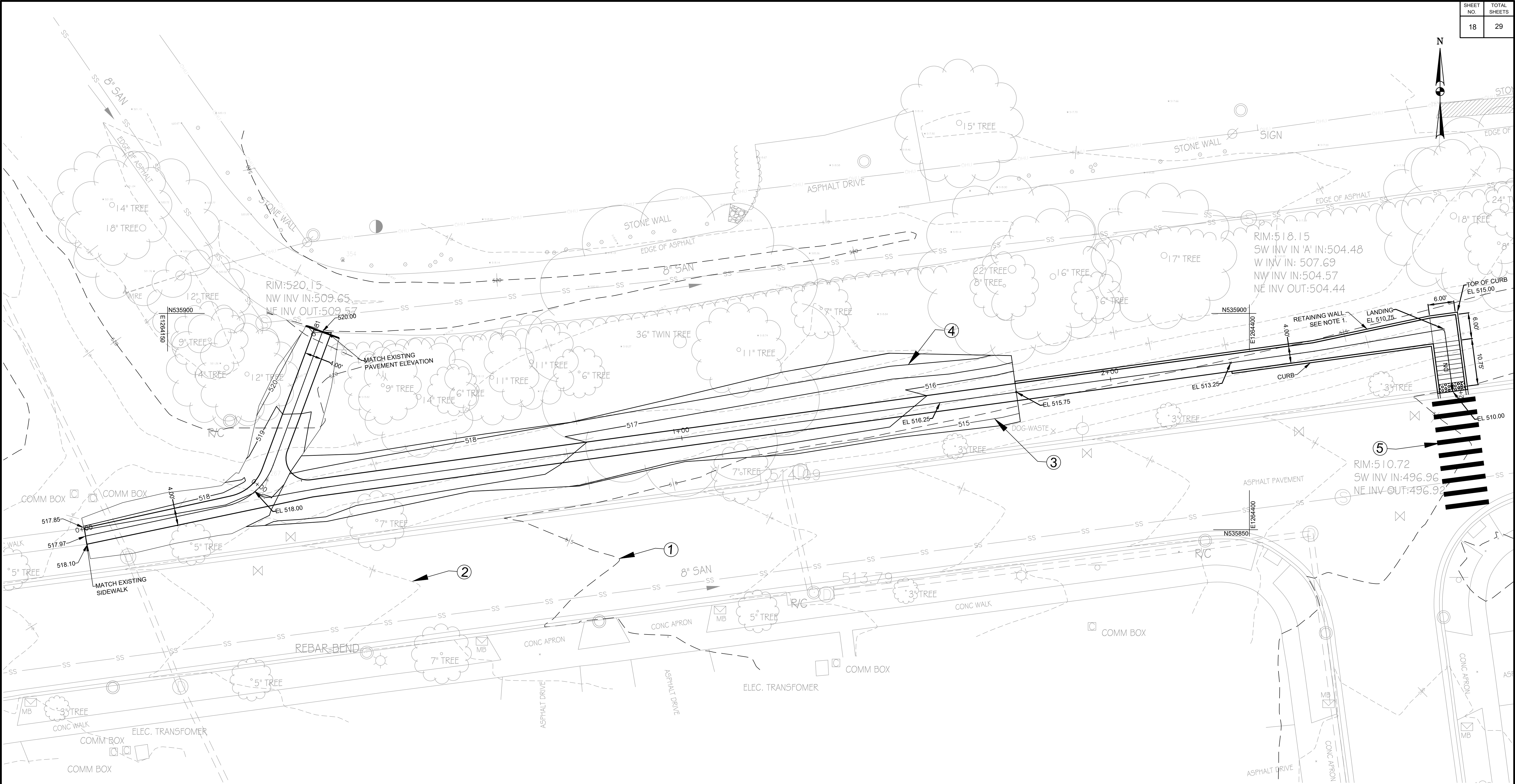


SECTION A-A
H: 1"=20'
V: 1"=5'



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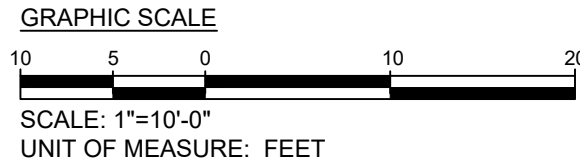
	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK TRAIL CROSS SECTIONS	
	35% BRIDGING DOCUMENTS	7/24/2024		RECOMMENDED FOR APPROVAL			
				Chief, Design Section	Date	SCALE : AS SHOWN	
				APPROVED			
				Chief, Division of Transportation Engineering	Date	C303	
NO.	REVISION	DATE	BY	Designed by: _____	Drawn by: _____	Checked by: _____	Project No.: 006937



ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
	EXISTING MAJOR CONTOUR LINE	①
	EXISTING MINOR CONTOUR LINE	②
	PROPOSED MAJOR CONTOUR LINE	③
	PROPOSED MINOR CONTOUR LINE	④
	PEDESTRIAN CROSSING STRIPE	⑤

NOTE

1. SEE S401 FOR RETAINING WALL DETAILS FOR CURBS ABOVE 3FT IN HEIGHT.



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

**WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK**

SIDEWALK ROUGH GRADING PLAN

PICEA - LONG

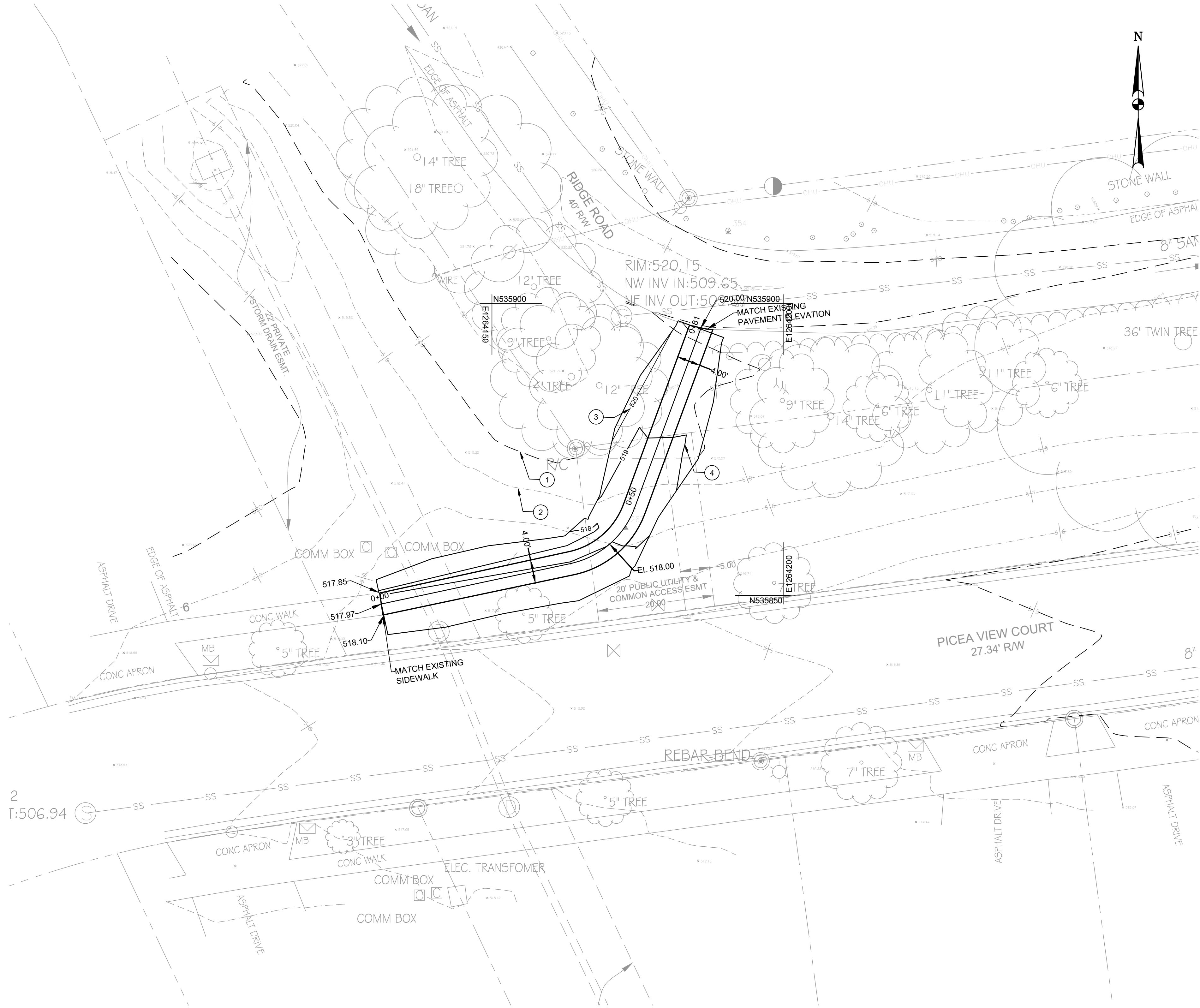
SCALE : AS SHOWN

Project No.: 002937

C304

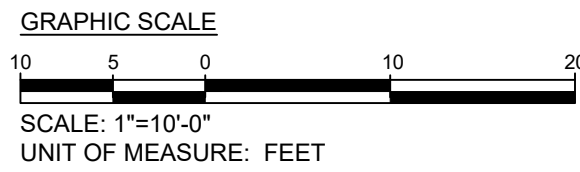
18 of 29

SHEET NO.	TOTAL SHEETS
19	29



ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
---	EXISTING MAJOR CONTOUR LINE	①
- - - -	EXISTING MINOR CONTOUR LINE	②
_____	PROPOSED MAJOR CONTOUR LINE	③
_____	PROPOSED MINOR CONTOUR LINE	④

- NOTES:
- FOR GENERAL NOTES, SEE DRAWING G002.
 - FOR TRAIL PROFILE, SEE DRAWING C206.





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	35% BRIDGING DOCUMENTS	7/24/2024	
NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED

Date _____

Chief, Division of Transportation Engineering

Date _____

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
SIDEWALK ROUGH GRADING PLAN
PICEA - SHORT

SCALE : AS SHOWN




C305

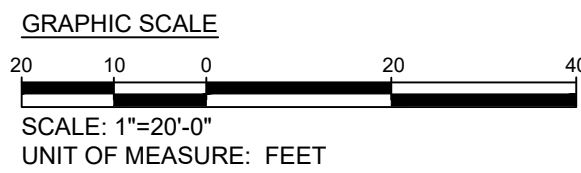
Project No.: 002937

19 of 29





<div style="text-align: center;"> <u>EROSION AND SEDIMENT CONTROL</u> <u>LEGEND</u> </div>	
CSA BOUNDARY / LIMITS OF DISTURBANCE	_____ LOD _____
SUPER SILT FENCE	 _____ SSF _____ SSF _____
SILT FENCE	 _____ SF _____ SF _____ SF _____
DIVERSION FENCE	 _____ DF _____

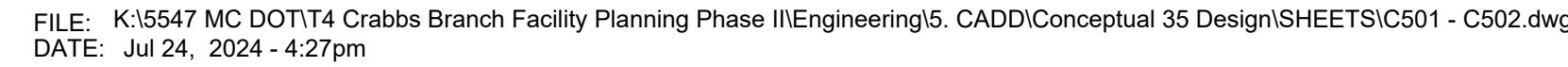
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MONTGOMERY COUNTY		
DEPARTMENT OF TRANSPORTATION		
ROCKVILLE, MARYLAND		
RECOMMENDED FOR APPROVAL		
Chief, Design Section		Date
APPROVED		
Chief, Division of Transportation Engineering		Date
Designed by: _____	Drawn by: _____	Checked by: _____

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
EROSION AND SEDIMENT
CONTROL SHEET 1 OF 2

SCALE : AS SHOWN C501

Project No. : 509337 21 of 29



SHEET NO.	TOTAL SHEETS
23	29

GENERAL NOTES:

CODES AND STANDARDS

1. ALL DESIGN AND CONSTRUCTION IS BASED ON AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES.

2018 IBC - 2018 INTERNATIONAL BUILDING CODE W/ AMENDMENTS
ACI - AMERICAN CONCRETE INSTITUTE
ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AF&PA - AMERICAN FOREST & PAPER ASSOCIATION
AF&PA-2012
SDPWS-2008
APA - APA - ENGINEERED WOOD ASSOCIATION
ASCE - AMERICAN SOCIETY OF CIVIL ENGINEERS
ASCE/SEI 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
AWPA - AMERICAN WOOD PROTECTION ASSOCIATION

2. ALL REFERENCED STANDARDS SHALL BE OF THE EFFECTIVE DATE NOTED IN THE CONTROLLING BUILDING CODE.
3. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONSTRUCTION DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONSTRUCTION DOCUMENTS NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONSTRUCTION DOCUMENTS.

LOADS

DESIGN LOADS (ALL LOADS ARE SERVICE LOADS UNLESS NOTED):

1. DEAD LOADS DECK LOAD	50 PSF
2. LIVE LOADS PEDESTRIAN LOAD	90 PSF
3. SNOW LOADS GROUND SNOW LOAD (PG)	30 PSF
4. WIND DESIGN CRITERIA ULTIMATE WIND SPEED (3-SECOND GUST)	115 MPH
WIND DIRECTIONAL FACTOR (KD)	0.85
EXPOSURE CATEGORY	C
TOPOGRAPHIC FACTOR (KZT)	1.16
GUST EFFECT FACTOR (G)	0.85

GENERAL CONDITIONS

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING MUNICIPAL CODES & SPECIFICATIONS FOR THIS PROJECT.
2. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
3. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM THE DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
4. WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES, SHALL BE REPEATED.
5. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
6. CONTRACTOR TO SUPPORT, BRACE AND SECURE ALL STRUCTURE AS REQUIRED DURING ERECTION/CONSTRUCTION. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE BUILDING DURING CONSTRUCTION. BUILDING IS NOT FULLY BRACED UNTIL ALL SHEAR WALLS, SHEATHING, FASTENERS AND OTHER LATERAL BRACING COMPONENTS HAVE BEEN COMPLETELY INSTALLED.
7. THESE NOTES APPLY TO ALL STRUCTURAL DRAWINGS. NOTES SHALL APPLY UNLESS OTHERWISE INDICATED BY STRUCTURAL DRAWINGS OR SPECIFICATIONS.
8. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION OR PLAN NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL SIMILAR OR LIKE CONDITIONS UNLESS NOTED OTHERWISE.
9. CONSTRUCTION DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND CALCULATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE GENERAL CONTRACTOR.

10. CONSTRUCTION DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONSTRUCTION DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.
11. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL DRAWINGS.
12. DO NOT SCALE FOR DIMENSIONS NOT SHOWN ON DRAWINGS. SEND WRITTEN RFI (REQUEST FOR INFORMATION) TO THE ARCHITECT/ENGINEER FOR DIMENSIONS NOT PROVIDED.
13. ELEVATIONS SHOWN ARE TO TOP OF FOUNDATIONS, SLABS OR STEEL BEAMS UNLESS NOTED OTHERWISE.
14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ORDER TO COMPLY WITH THE CONSTRUCTION DOCUMENTS.
15. THE GENERAL CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE OSHA REGULATIONS.
16. ALL TESTING SHALL BE PAID FOR BY THE OWNER (CONTRACTOR SHALL COORDINATE WITH OWNER TO ENSURE THAT COST OF TESTING IS ACCURATE AND PRESENTED TO OWNER WITH CONSTRUCTION COSTS).

CAST-IN-PLACE CONCRETE


1. ALL CONCRETE SHALL BE READY-MIX, HAVE A MINIMUM OF 500 LBS. OF CEMENT PER CUBIC YARD AND HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
- CONCRETE FOR SLABS ON GRADE, RETAINING WALLS AND RETAINING WALL FOOTINGS - 3,500 PSI.
2. ALL CONCRETE SHALL HAVE A SLUMP OF 4" PLUS OR MINUS 1".
3. CONCRETE EXPOSED TO FREEZE THAW SHALL HAVE 4 TO 8% AIR ENTRAINMENT, AND A MAXIMUM WATER/CEMENT RATIO OF 0.50.
4. CONCRETE NOT EXPOSED TO FREEZE THAW SHALL HAVE 2 TO 4% AIR ENTRAINMENT, AND A MAXIMUM WATER/CEMENT RATIO OF 0.56.
5. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH THE REFERRED EDITION OF ACI 301 CHAPTER 3, METHOD 1 OR METHOD 2.
6. SUBMIT BACKUP DATA AS REQUIRED BY CHAPTER 5 SECTION 5.3. OF THE REFERRED EDITION OF ACI 318.
7. SLAB ON GRADE SHALL BE 5" MINIMUM WITH 6x6 - W1.4 x W1.4 W.W.F. EXCEPT AS NOTED ON THE DRAWINGS.
8. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL BE LAPPED AT LEAST 8" AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 8".
10. POURING OF CONCRETE SHALL NOT START UNTIL THE REINFORCING HAS BEEN PLACED AND APPROVED BY THE OWNER'S INSPECTING AGENCY.
11. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" REFERRED EDITION OF ACI 318 , AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," ACI 301.
12. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315 (REFERRED IN CODES AND REFERENCES), UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
13. CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, NECESSARY TO SUPPORT REINFORCING STEEL. SUPPORT ITEMS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL.
14. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
- 3" - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED EARTH.
 - 2" - CONCRETE EXPOSED TO EARTH OR WEATHER, #6 THROUGH #18 BARS.
 - 1 1/2" - CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BAR SMALLER.
 - 1 1/2" - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH FOR THE PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS IN BEAMS AND COLUMNS
 - 3/4" - CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH EARTH FOR SLABS AND WALLS, #11 BAR AND SMALLER.
18. HORIZONTAL WALL AND FOOTING BARS SHALL BE BENT 1'-0" AROUND CORNERS OR CORNER BARS WITH 2'-6" LAP SHALL BE PROVIDED.
19. HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS SHALL BE PROVIDED IN WALL FOOTINGS WITH A DEPTH OF 1-1/2" AND HEIGHT EQUAL TO 1/3 OF THE FOOTING DEPTH. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
20. CONTRACTOR SHALL KEEP A COPY OF "FIELD REFERENCE MANUAL" (ACI PUBLICATION SP-15, REFERRED EDITION) AT THE PROJECT FIELD OFFICE.

21. LAP SPLICES, DEVELOPMENT LENGTHS AND DETAILS FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THOSE LISTED IN THE AMERICAN CONCRETE INSTITUTE SPECIFICATIONS. MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 48 BAR DIAMETERS TYPICAL, EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS. FOR STAIR AND ELEVATOR TOWER SHEAR WALLS, LAP ALL VERTICAL BARS 60 BAR DIAMETERS.
22. TESTING LABORATORY SHALL SUBMIT ONE COPY OF ALL CONCRETE TEST REPORTS DIRECTLY TO THE ENGINEER.

WOOD CONSTRUCTION

1. WOOD CONSTRUCTION SHALL CONFORM TO THE AFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", REFERRED EDITION., NATIONAL FOREST PRODUCTS ASSOCIATION "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AMERICAN PLYWOOD ASSOCIATION "PLYWOOD DESIGN SPECIFICATION", NATIONAL LUMBER MANUFACTURERS ASSOCIATION "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" AND AMERICAN WOOD-PRESERVERS ASSOCIATION STANDARDS.
2. ALL STRUCTURAL FRAMING MEMBERS SHALL BE HEM-FIR, GRADE 2, STRESS GRADE LUMBER OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. THE MINIMUM ALLOWABLE PROPERTIES ARE AS FOLLOWS:
- Fb = 850 PSI
 - Fv = 150 PSI
 - E = 1,300,000 PSI ALL
3. STRUCTURAL TIMBER TO BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S "CONSTRUCTION MANUAL".
4. ALL STUDS SHALL BE S-P-F, STUD GRADE, UNLESS NOTED OTHERWISE. ALL STUDS OVER 10'-0" LONG SHALL BE S-P-F, GRADE 2.
5. ALL NAILS SHALL BE COMMON NAILS, UNLESS NOTED OTHERWISE. THE FOLLOWING SIZE NAILS MUST BE USED, WHEN SPECIFIED:
- 16d COMMON NAILS = 0.162 DIA. x 3 1/2" LONG
 - 16d SINKER NAILS = 0.148 DIA. x 3 1/4" LONG
 - 10d COMMON NAILS = 0.148 DIA. x 3" LONG
 - 8d COMMON NAILS = 0.131 DIA. x 2 1/2" LONG
12. ALL TIMBER CONNECTIONS SHALL BE MADE USING PREFABRICATED CONNECTORS. TOE-NAILING IS NOT PERMITTED, UNLESS SHOWN ON THE DRAWINGS. SUBMIT MANUFACTURER'S DATA FOR REVIEW. FASTENERS SHALL BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL. ALL FASTENERS THAT ARE EXPOSED TO THE WEATHER AND/OR ARE IN CONTACT WITH ANY PRESSURE TREATED LUMBER SHALL BE ZMAX (G185) GALVANIZED MINIMUM.
13. ALL CONNECTIONS TO PRESERVATIVE TREATED WOOD, MUST BE MADE USING ONLY GALVANIZED CONNECTORS AND FASTENERS. GALVANIZED CONNECTORS MUST BE A MINIMUM OF (CLASS G-185) 1.85 oz. OF ZINC PER SQUARE FOOT OF SURFACE AREA (HOT-DIP GALVANIZED PER ASTM A653, ALL SURFACES/SIDES) AND HAVE A BARRIER MEMBRANE BETWEEN THE TREATED WOOD AND CONNECTOR. GALVANIZED FASTENERS MUST BE HOT-DIP GALVANIZED PER ASTM A153. ANY HEAVY DUTY CONNECTORS THAT ARE 14 GAUGE OR THICKER REQUIRES A MINIMUM ZINC COATING WEIGHT OF 2.0 oz. PER SQUARE FOOT (PER ASTM 123, ALL SURFACES/SIDES). WHERE BARRIERS ARE REQUIRED, PROVIDE GRACE VYCOR DECK PROTECTOR OR EQUAL. BARRIERS ARE TYPICALLY REQUIRED AT EXTERIOR (OUTDOOR) CONDITIONS (i.e. DECKS, ETC.) AND/OR WHERE GALVANIZED CONNECTORS ARE ATTACHED TO ANY TREATED LUMBER INDOORS, OTHER THAN SBX/DOT OR ZINC BORATE TREATED LUMBER.
14. PROVIDE PRESSURE TREATED LUMBER WHERE LUMBER IS EXPOSED TO THE WEATHER.

	15% BRIDGING DOCUMENTS	11/3/2023		<div>MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND</div> <div>RECOMMENDED FOR APPROVAL</div> <div>Chief, Design Section APPROVED</div> <div>Chief, Division of Transportation Engineering</div> <div>Designed by: _____ Drawn by: _____ Checked by: _____</div>
	35% BRIDGING DOCUMENTS	7/24/2024		
NO.	REVISION	DATE	BY	Project No.: <u>000937</u> <u>23</u> of <u>29</u>



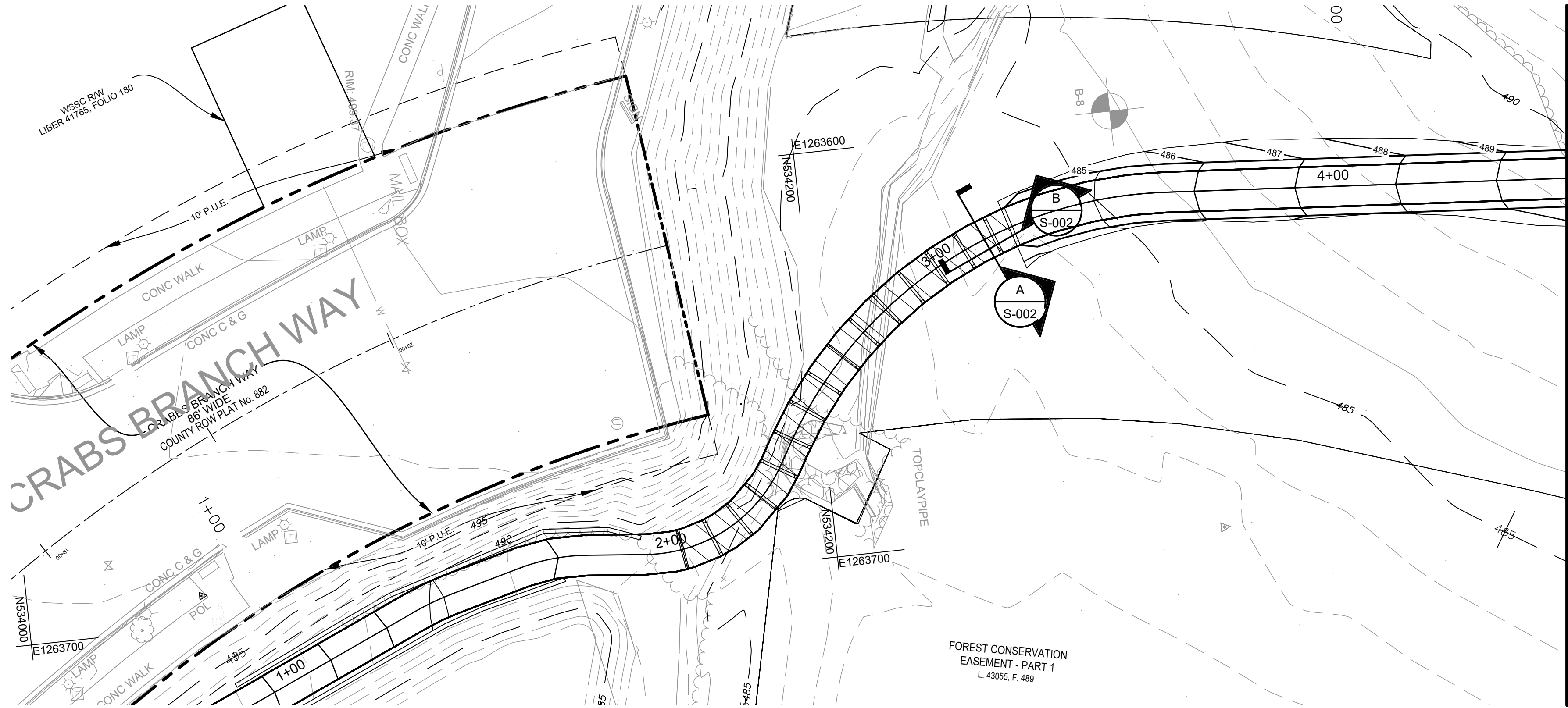
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD, 20855
Phone: 301-580-3839 Fax: 301-948-7174
www.shealadia.com

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
STRUCTURAL NOTES

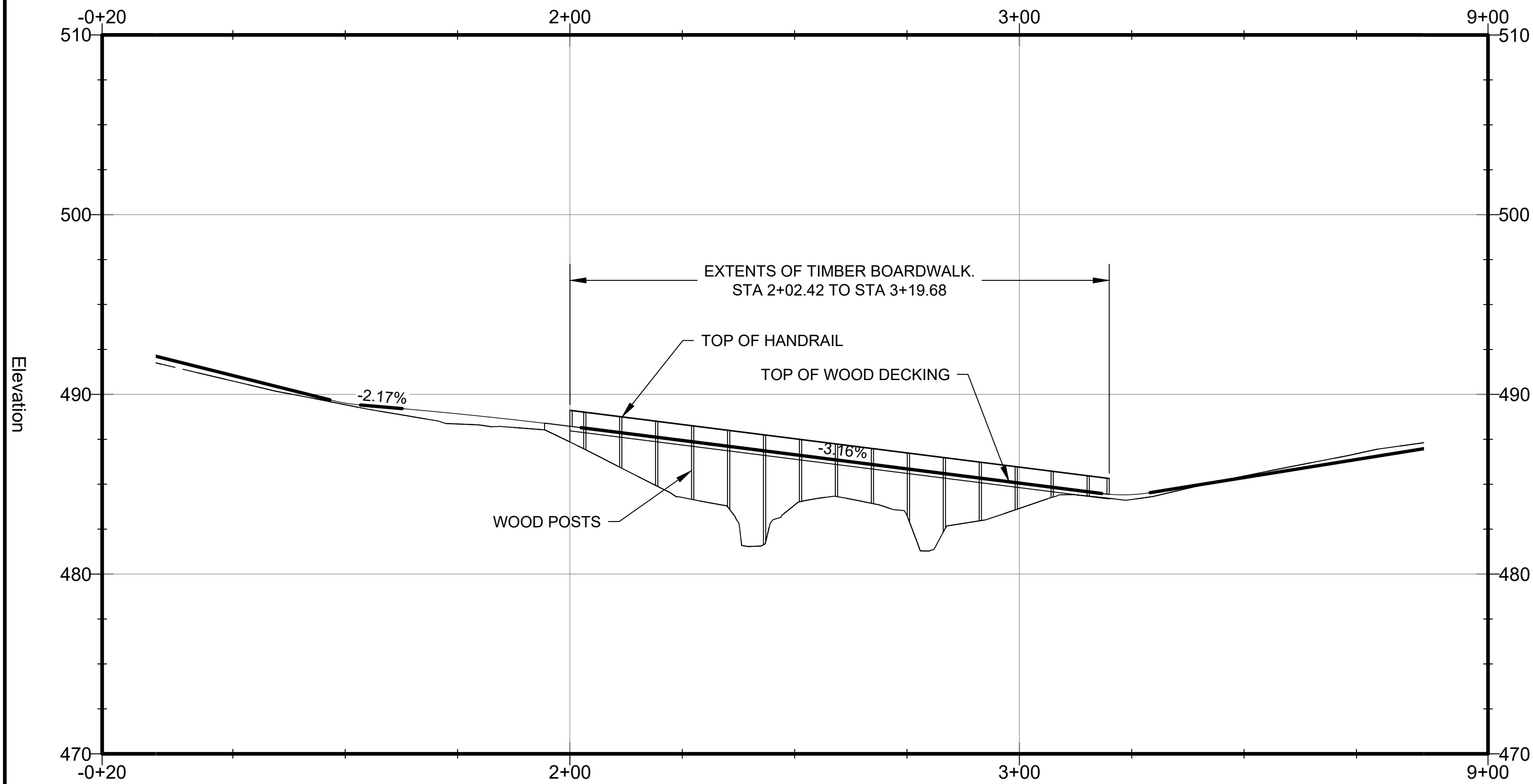
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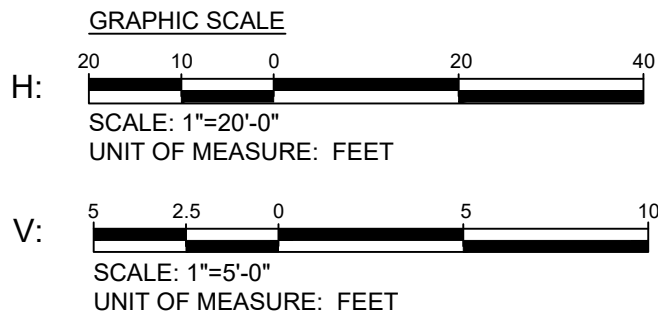
SHEET NO.	TOTAL SHEETS
24	29



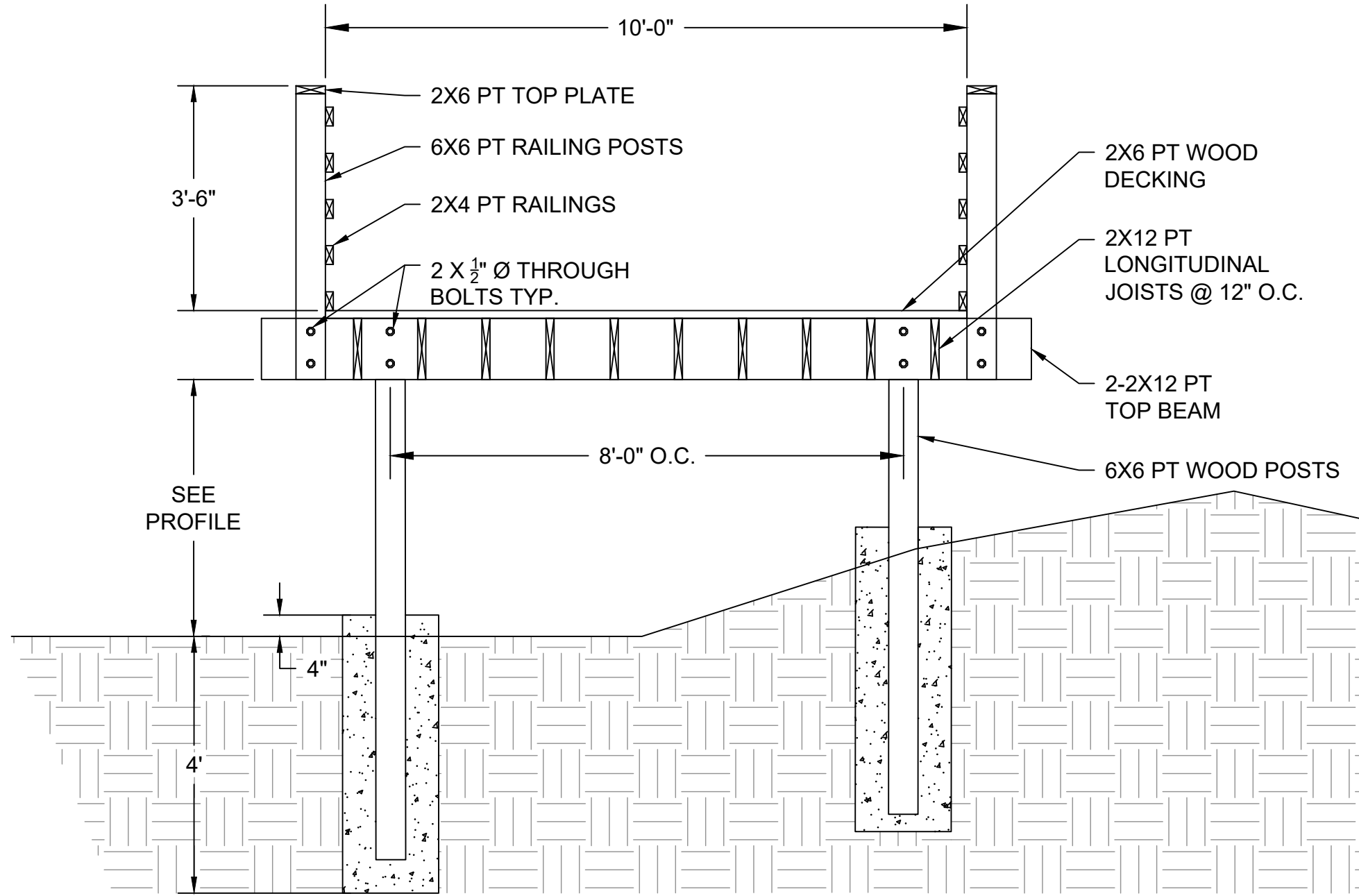
PLAN VIEW:
1" = 20'



PROFILE VIEW:
H: 1" = 20'
V: 1" = 5'

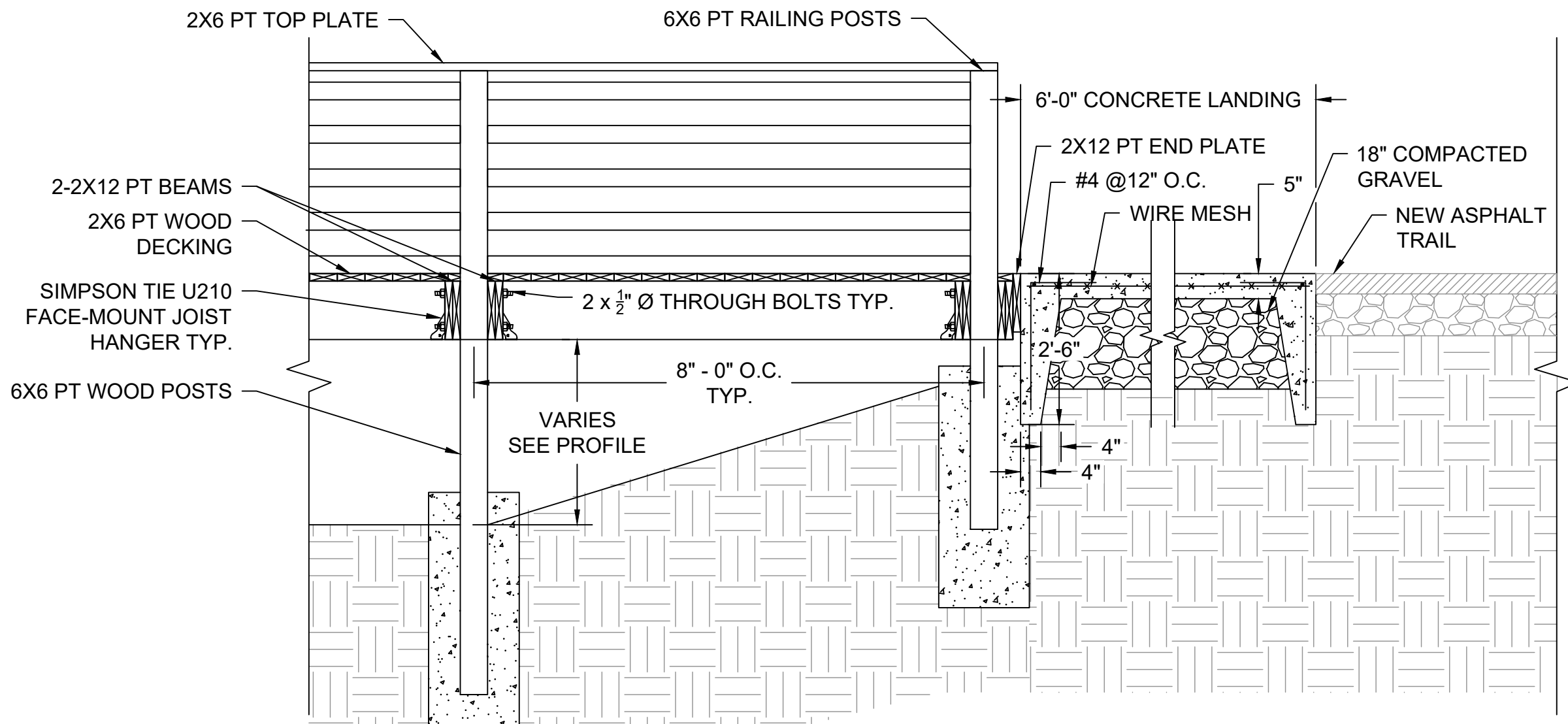


Engineers, Architects
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A TYPICAL SECTION

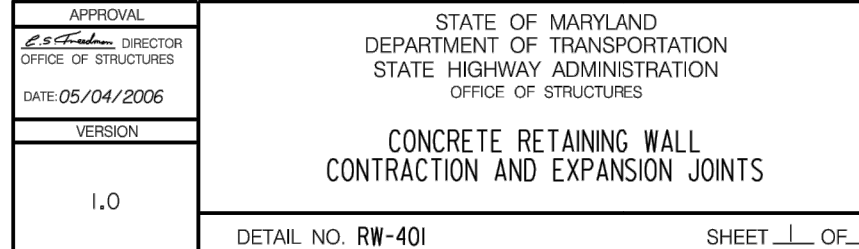
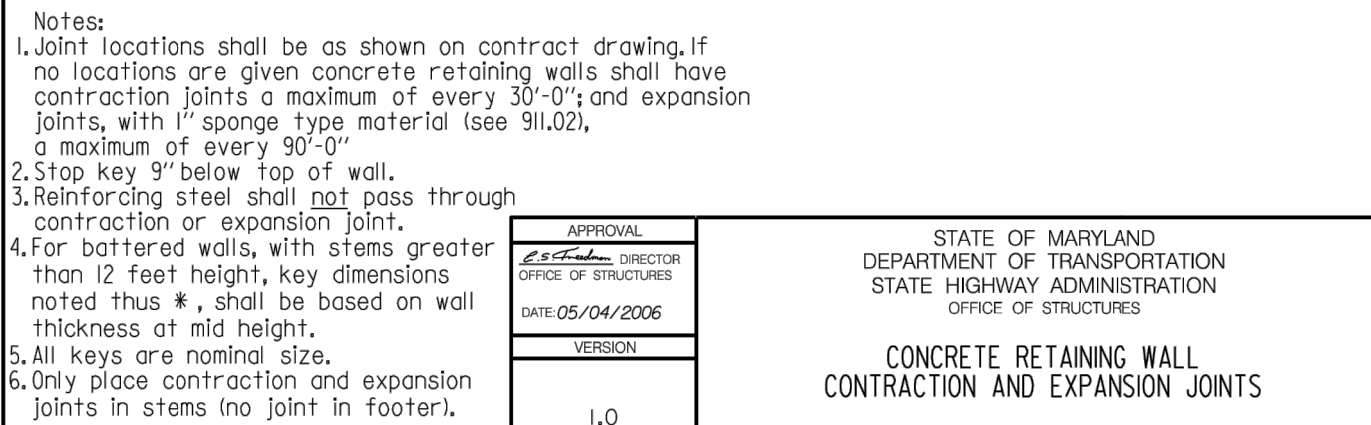
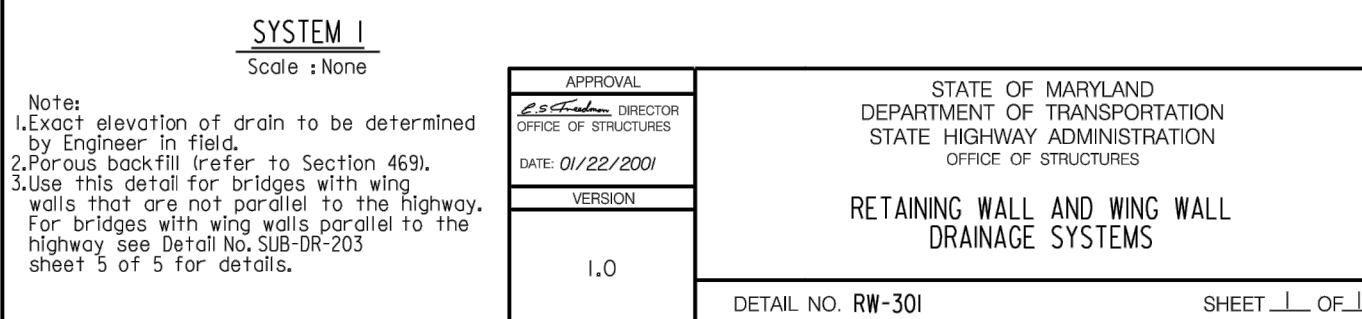
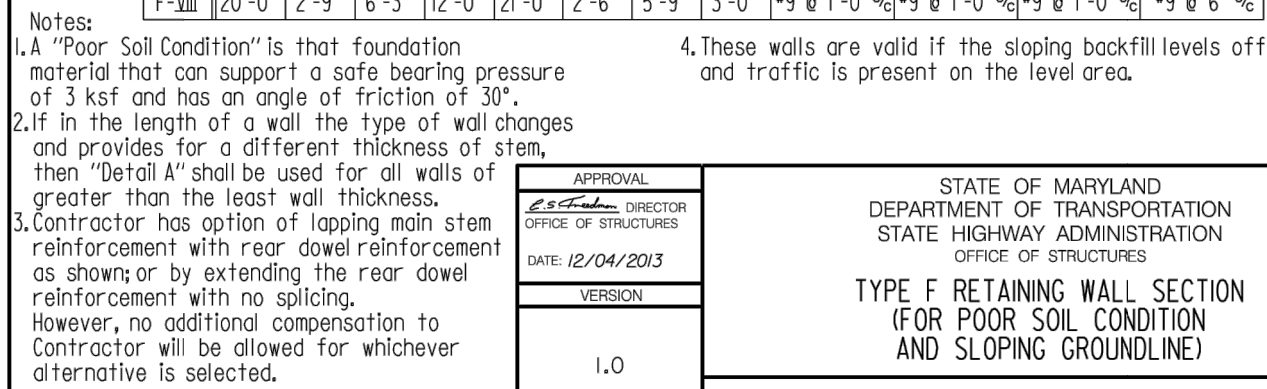
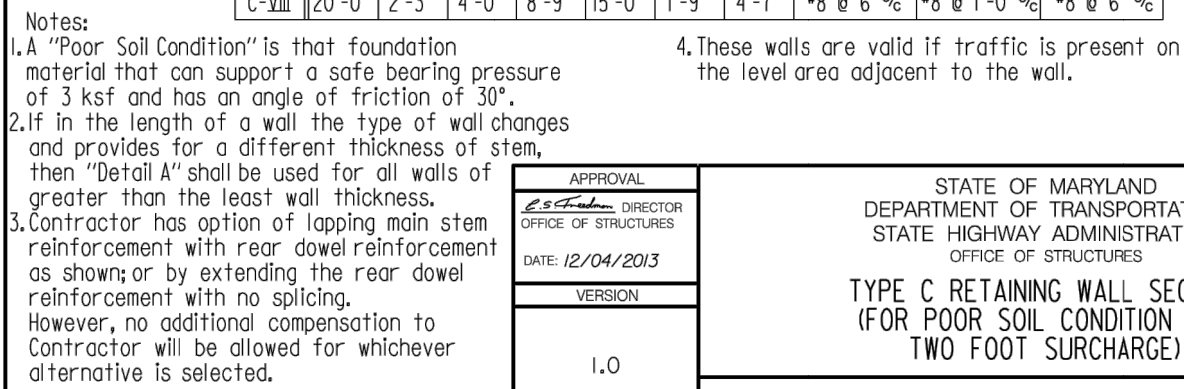
NTS
NOTE:
WOOD PILE FOOTINGS: 1'-6" DIAMETER & 4'-0" DEEP MIN.



B TYPICAL ELEVATION VIEW AND CONCRETE LANDING

NTS
NOTE:
10' X 6' CONCRETE LANDING TO BE CONSTRUCTED AT EACH END OF BOARDWALK TRAIL. CONTRACTOR SHALL MATCH SLOPE AS NEEDED.

APPROVAL <i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES DATE: 03/21/2014		STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
VERSION I.O		RETAINING WALL GENERAL NOTES
DETAIL NO. RW-101		SHEET <u>1</u> OF <u>1</u>

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section

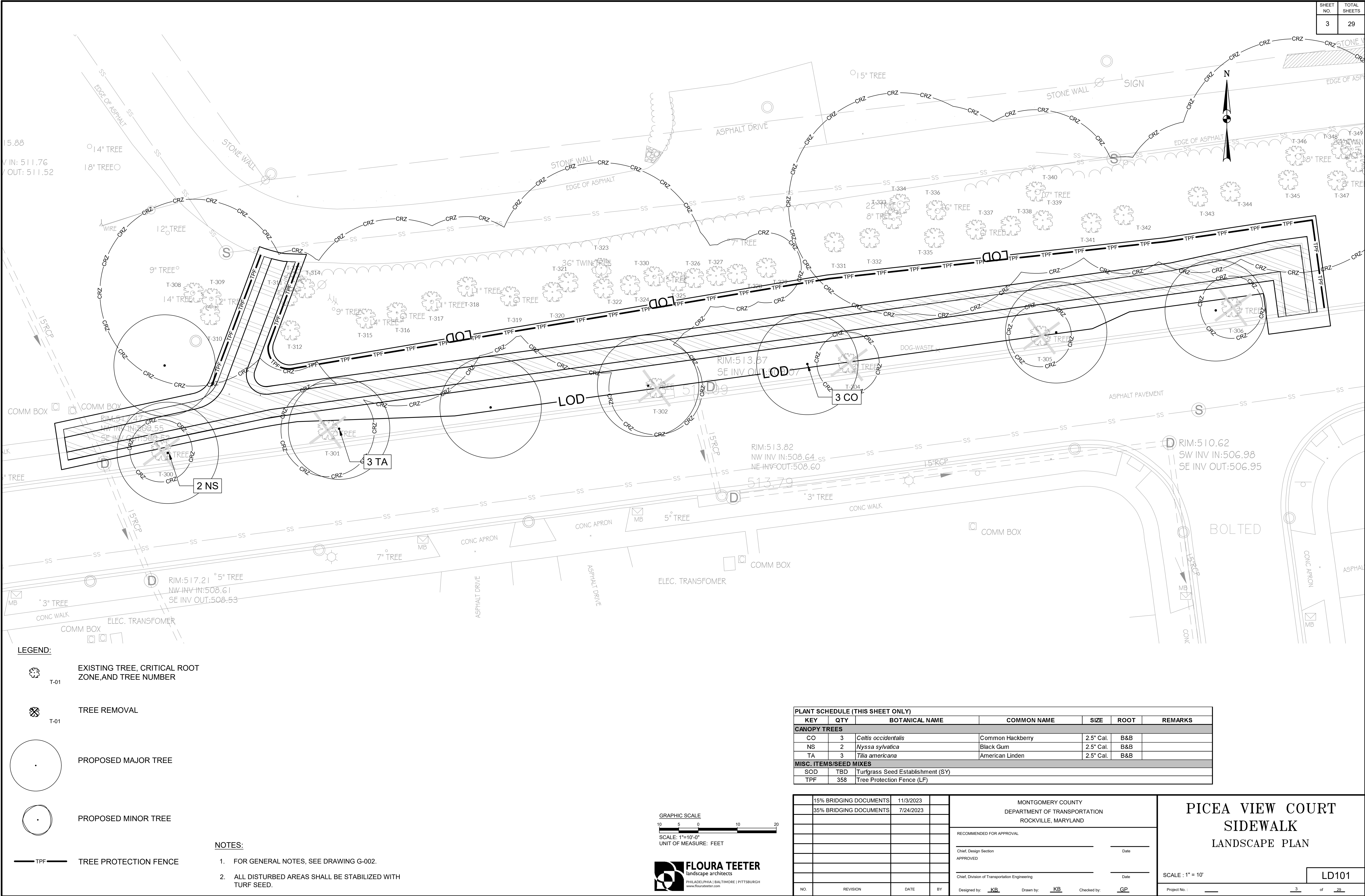
APPROVED

Chief, Division of Transportation Engineering

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



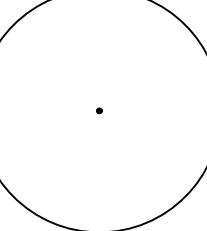
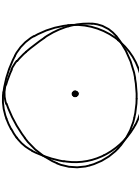

SCALE : AS SHOWN

Project No. : 509337 25 of 29



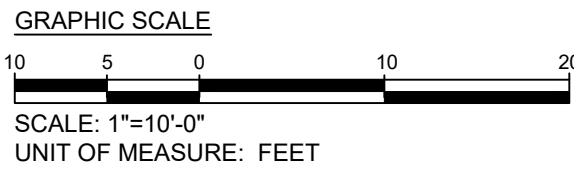
SHEET NO.	TOTAL SHEETS
3	29

LEGEND:

-  EXISTING TREE, CRITICAL ROOT ZONE, AND TREE NUMBER
-  TREE REMOVAL
-  PROPOSED MAJOR TREE
-  PROPOSED MINOR TREE
-  TREE PROTECTION FENCE

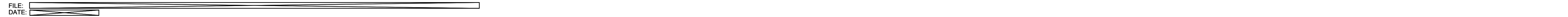
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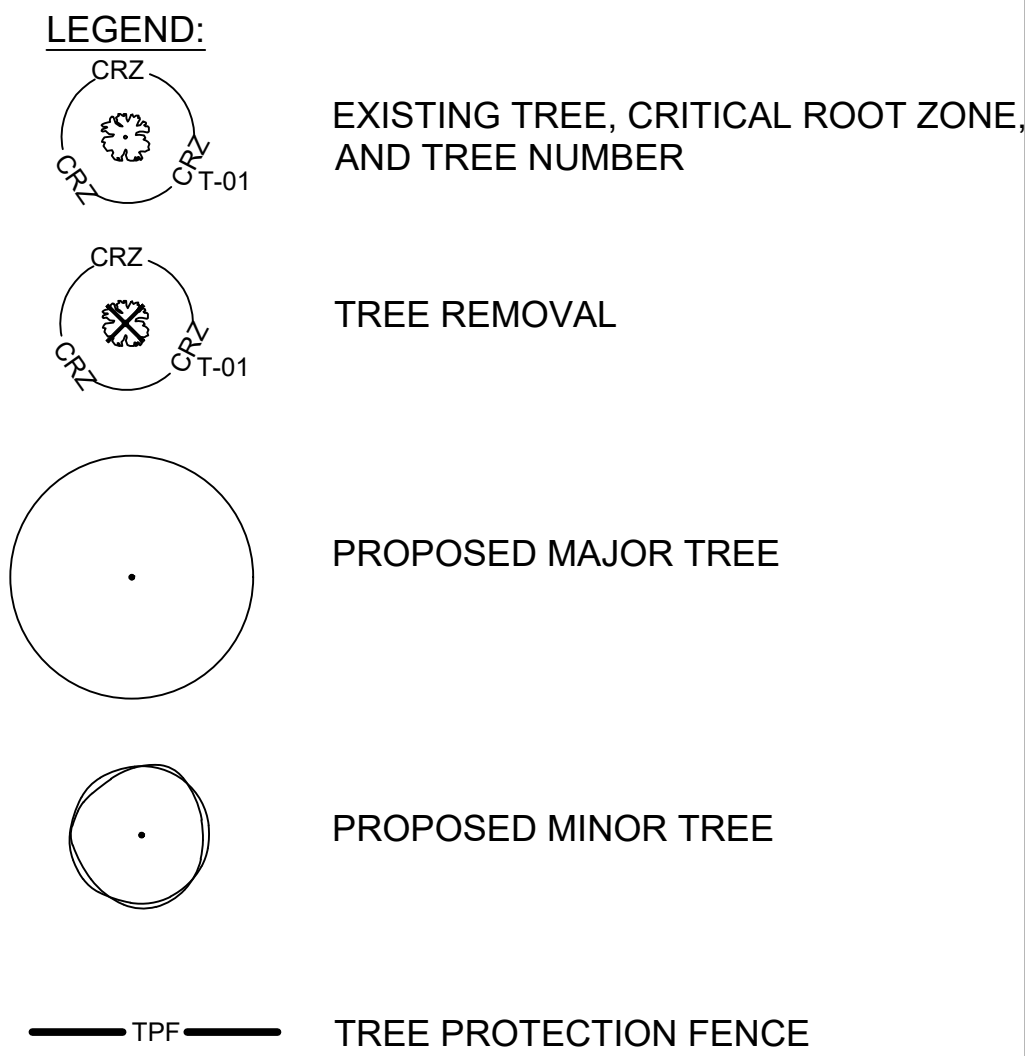
- FOR GENERAL NOTES, SEE DRAWING G-002.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITH TURF SEED.



PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
CANOPY TREES						
CO	3	<i>Celtis occidentalis</i>	Common Hackberry	2.5" Cal.	B&B	
NS	2	<i>Nyssa sylvatica</i>	Black Gum	2.5" Cal.	B&B	
TA	3	<i>Tilia americana</i>	American Linden	2.5" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	TBD	Turfgrass Seed Establishment (SY)				
TPF	358	Tree Protection Fence (LF)				

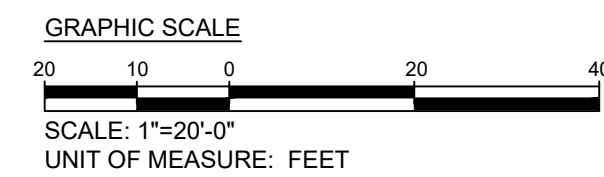
15% BRIDGING DOCUMENTS		11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		PICEA VIEW COURT SIDEWALK LANDSCAPE PLAN			
35% BRIDGING DOCUMENTS		7/24/2023							
				RECOMMENDED FOR APPROVAL					
				Chief, Design Section	Date				
				APPROVED					
				Chief, Division of Transportation Engineering	Date				
NO.	REVISION	DATE	BY	Designed by: <u>KB</u>	Drawn by: <u>KB</u>	Checked by: <u>GP</u>			
SCALE: 1" = 10'							LD101		
Project No. : _____							3 of 29		





- NOTES:**
1. FOR GENERAL NOTES, SEE DRAWING G-002.
 2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH TURF SEED.

PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
CANOPY TREES						
AR	3	<i>Acer rubrum</i>	Red Maple	2.5" Cal.	B&B	
CO	4	<i>Celtis occidentalis</i>	Common Hackberry	2.5" Cal.	B&B	
GT	4	<i>Gleditsia triacanthos var. inermis</i>	Thornless Black Locust	2.5" Cal.	B&B	
QA	3	<i>Quercus alba</i>	White Oak	2.5" Cal.	B&B	
TA	4	<i>Tilia americana</i>	American Linden	2.5" Cal.	B&B	
TD	1	<i>Taxodium distichum</i>	Bald Cypress	2.5" Cal.	B&B	
UNDERSTORY TREES						
CCA	1	<i>Cercis canadensis</i>	Eastern Redbud	2" Cal.	B&B	
CF	5	<i>Cornus florida</i>	Flowering Dogwood	2" Cal.	B&B	
CRWVK	3	<i>Crataegus viridis 'Winter King'</i>	Winter King Hawthorne	2" Cal.	B&B	
MS	4	<i>Magnolia soulangea</i>	Saucer Magnolia	2" Cal.	B&B	
PIO	4	<i>Prunus x incamp 'Okame'</i>	Okame Hybrid Cherry	2" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	TBD	Turfgrass Seed Establishment (SY)				
TPF	113	Tree Protection Fence (LF)				

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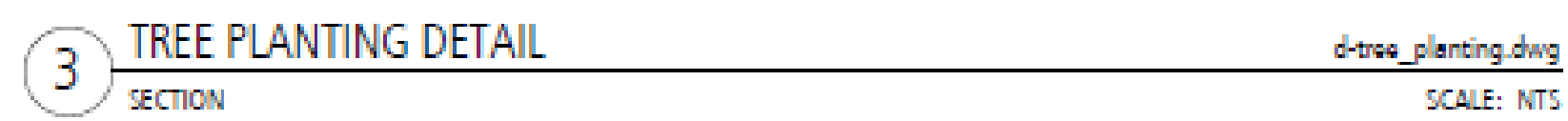
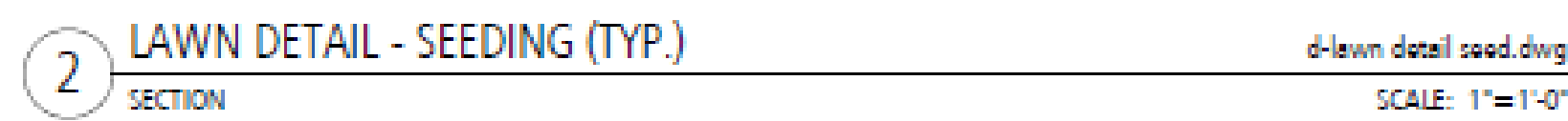
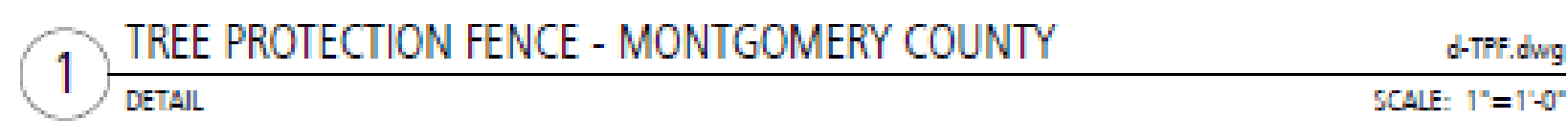
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<p>RECOMMENDED FOR APPROVAL</p>		
<p>Chief, Design Section</p> <p>APPROVED</p>	<p>_____</p>	<p>_____</p> <p>Date</p>
<p>Chief, Division of Transportation Engineering</p>	<p>_____</p>	<p>_____</p> <p>Date</p>
<p>Designed by: <u>KB</u></p>	<p>Drawn by: <u>KB</u></p>	<p>Checked by: <u>GP</u></p>

CRABBS BRANCH
WAY EXTENSION
LANDSCAPE PLAN

1" = 20'

LD302

509037 of 29



FLOURA TEETER
landscape architects
1001 North Charles St. Ste. 500
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

	15% BRIDGING DOCUMENTS	11/3/2023		<div> <div> MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND </div> <div> RECOMMENDED FOR APPROVAL <div> <div>_____</div> <div>_____</div> <div>Chief, Design Section APPROVED</div> </div> <div> <div>_____</div> <div>_____</div> <div>Chief, Division of Transportation Engineering</div> </div> </div> <div> Designed by: <u>KB</u> Drawn by: <u>KB</u> Checked by: <u>GP</u> </div> </div>	<div> <div>CRABBS BRANCH WAY EXTENSION</div> <div>LANDSCAPE NOTES AND DETAILS</div> <div> SCALE : N/A <div>LD303</div> </div> </div> <div> Project No. : <u>509337</u> _____ of <u>29</u> </div>
	35% BRIDGING DOCUMENTS	7/24/2023			
NO.	REVISION	DATE	BY		



NOTE:
LIGHTS ALONG BRIDGE SHALL BE:
• RESIDENTIAL, STRUCTURE MOUNTED FIBERGLASS POLE ROUND, TAPERED, POST-TOP.

CALCULATION ZONE	
AVERAGE	0.9 FC
MAX	1.6 FC
MIN	0.5 FC
MAX/MIN	3.2:1
AVERAGE/MIN	1.8:1

P10				
Symbol	Label	Quantity	Manufacturer	Catalog Number
	B	15	Holophane	AWDE3 P10 30K XXXX AL3
Description				
Acrylic Washington Gen3, P10 performance package, 3000K CCT 70CRI, Refractive Acrylic Optic with Type 3 distribution				

AMTLLC
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ASSOCIATES, INC.
Engineers, Architects
Development Consultants
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED _____ Date _____

Chief, Division of Transportation Engineering
APPROVED _____ Date _____

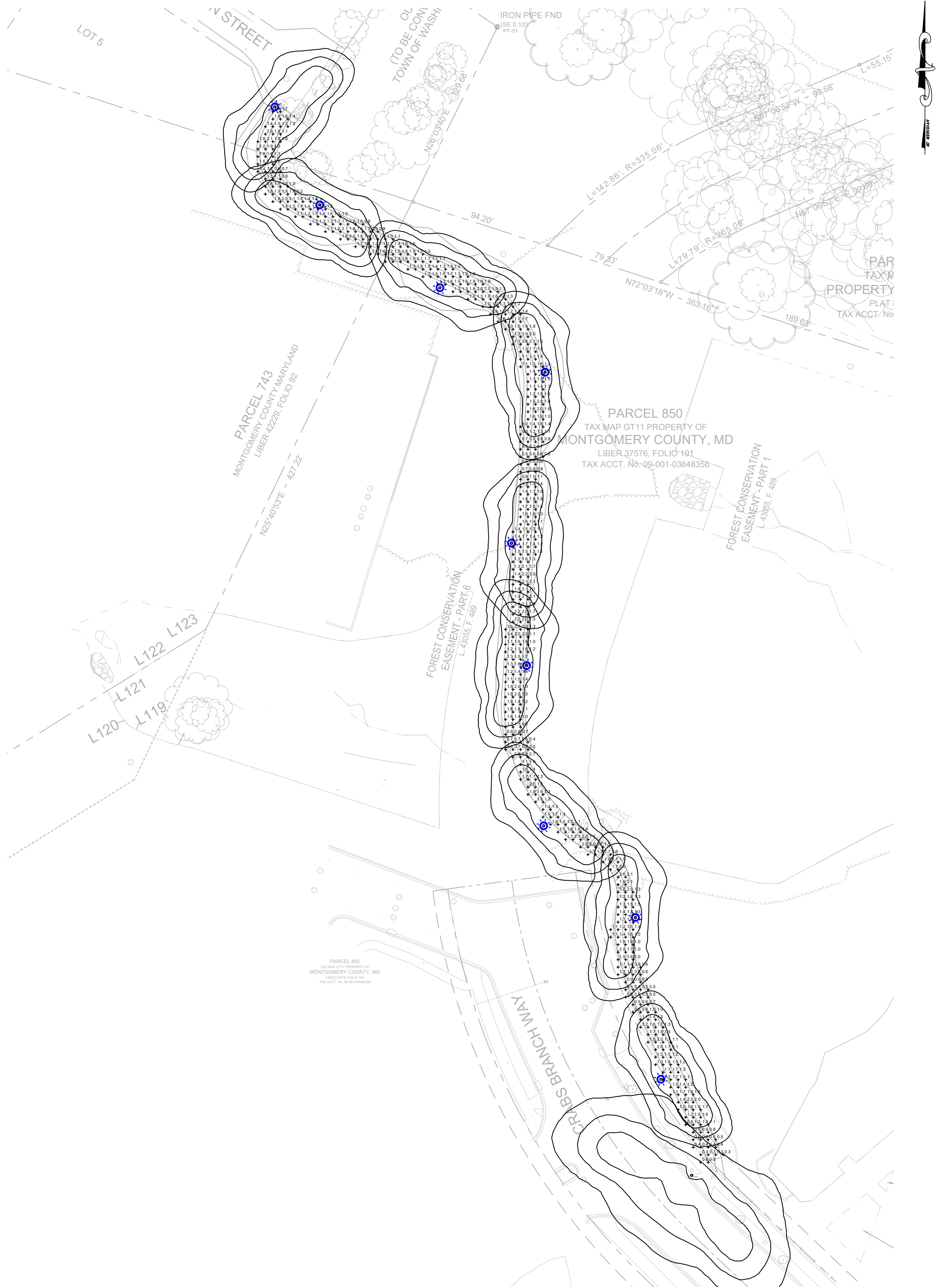
Designed by: AMT Drawn by: AL Checked by: TJW

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
PHOTOMETRIC DESIGN P10

SCALE : 1" = 40'

CIV220

Project No. : 509337 of 29



NOTE:
LUMINAIRES ALONG BRIDGE SHALL BE:
• RESIDENTIAL, STRUCTURE MOUNTED FIBERGLASS POLE ROUND, TAPERED, POST-TOP.

CALCULATION ZONE	
AVERAGE	1.4 FC
MAX	2.2 FC
MIN	0.3 FC
MAX/MIN	7.3:1
AVERAGE/MIN	4.7:1

P30					
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description
	A	9	Holophane	AWDE3 P30 30K XXXX AL3	Acrylic Washington Gen3, P30 performance package, 3000K CCT 70CRI, Refractive Acrylic Optic with Type 3 distribution

AMTLLC

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

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Chief, Design Section
APPROVED

Date

Chief, Division of Transportation Engineering

Date

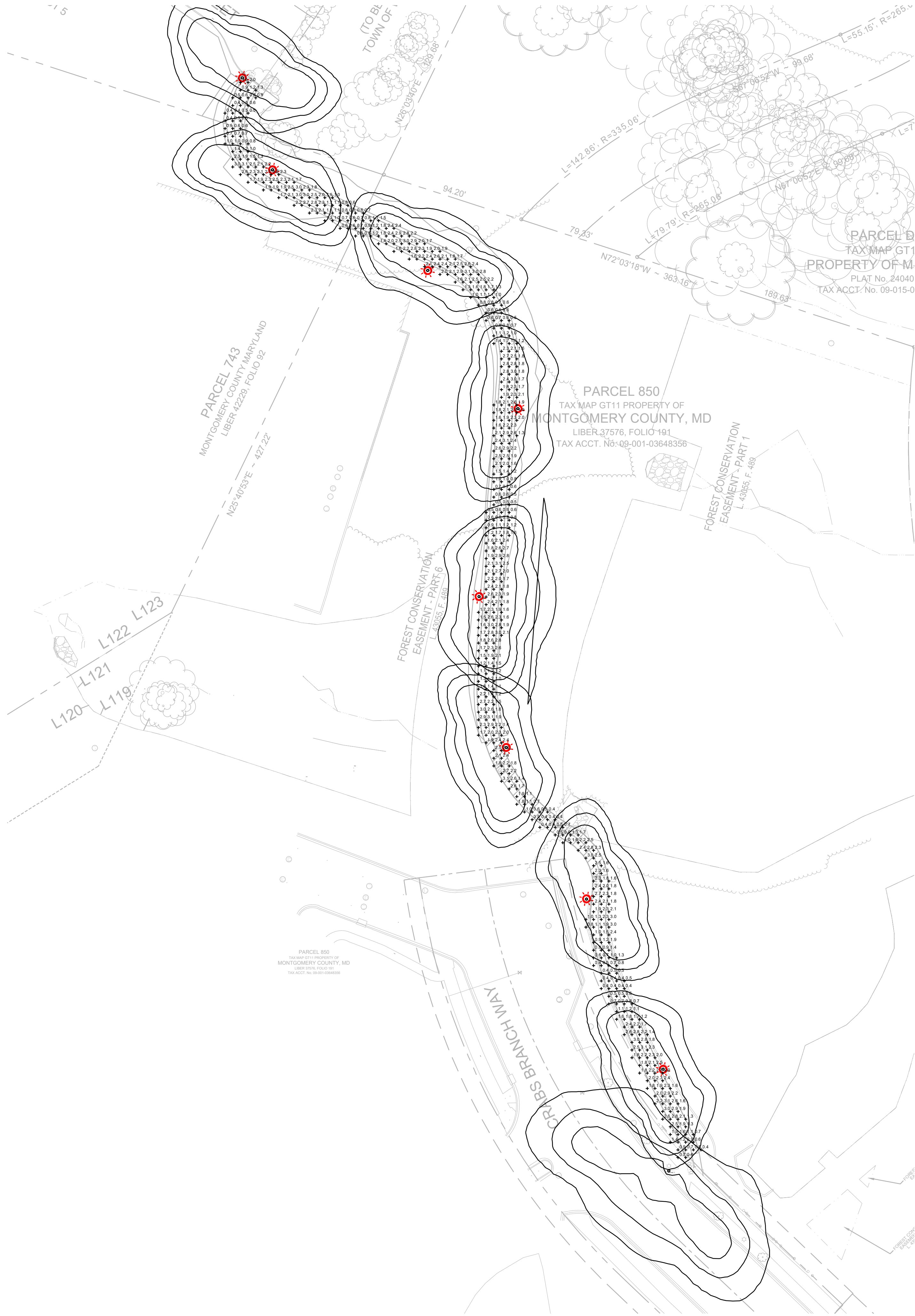
Designed by: AMT Drawn by: AL Checked by: TJW

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
PHOTOMETRIC DESIGN P30

SCALE : 1" = 40'

CIV222

Project No. : 509337 of 29



NOTE:
LIGHTS ALONG BRIDGE SHALL BE:
• RESIDENTIAL, STRUCTURE MOUNTED FIBERGLASS POLE ROUND, TAPERED, POST-TOP.

CALCULATION ZONE	
AVERAGE	1.7 FC
MAX	3.1 FC
MIN	0.4 FC
MAX/MIN	7.8:1
AVERAGE/MIN	4.3:1

P50					
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description
	C	8	Holophane	AWDE3 P50 30K XXXX AL3	Acrylic Washington Gen3, P50 performance package, 3000K CCT 70CRI, Refractive Acrylic Optic with Type 3 distribution

AMT LLC
PROFESSIONAL ENGINEERS & LAND SURVEYORS

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35% BRIDGING DOCUMENTS	7/24/2024		
NO.	REVISION	DATE	BY

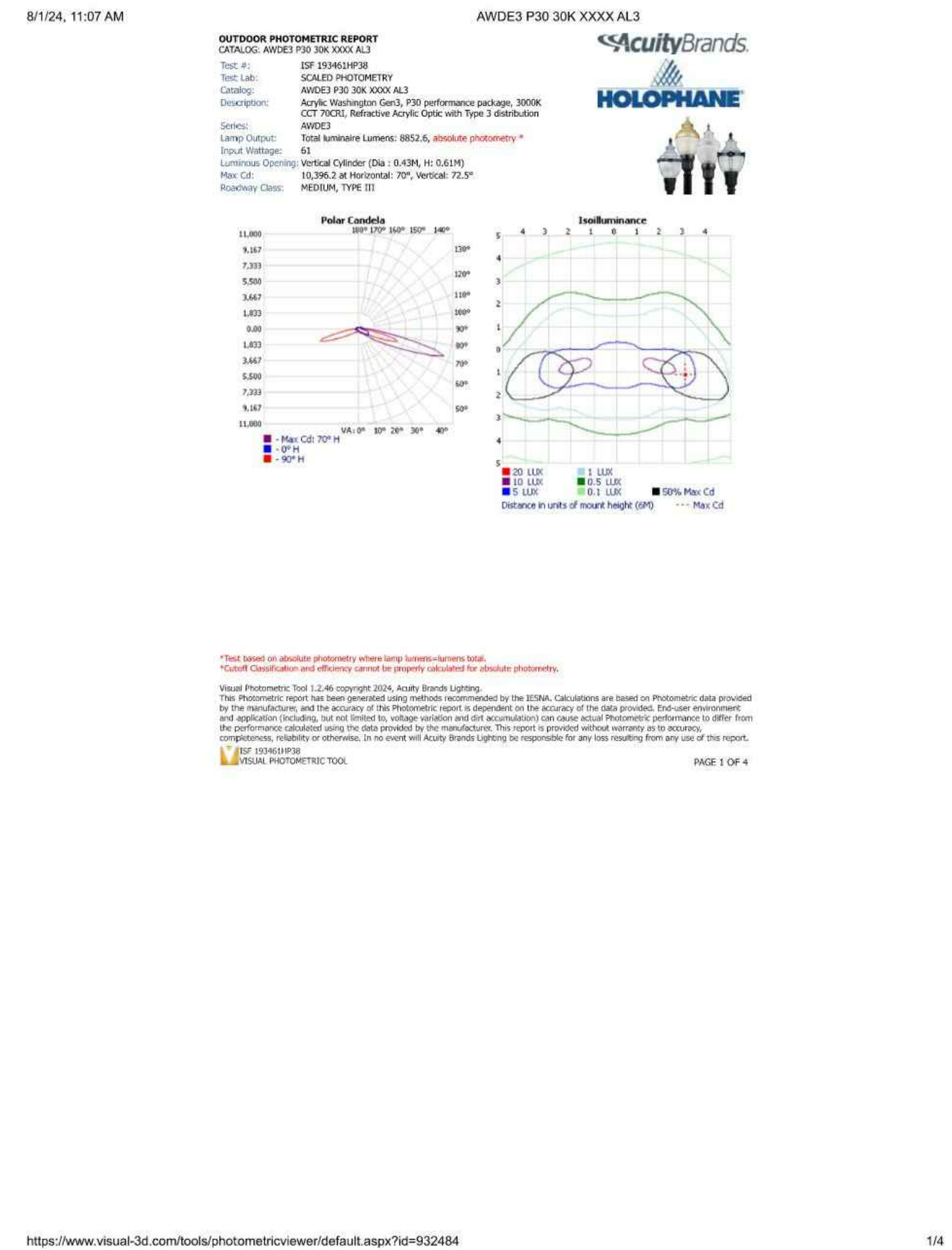
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Design Section APPROVED	Date
Chief, Division of Transportation Engineering	Date
Designed by: <u>AMT</u>	Drawn by: <u>AL</u> Checked by: <u>TJW</u>

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
PHOTOMETRIC DESIGN P50

SCALE : 1" = 40'

CIV224

Project No. : 509337 of 29



	15% BRIDGING DOCUMENTS	11/3/2023		<div style="text-align: center;"> MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND </div>	<div style="text-align: center;"> WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK PHOTOMETRIC DETAILS </div>
	35% BRIDGING DOCUMENTS	7/24/2024			
				RECOMMENDED FOR APPROVAL	
				Chief, Design Section APPROVED	Date
				Chief, Division of Transportation Engineering	Date
NO.	REVISION	DATE	BY	Designed by: <u>AMT</u> Drawn by: <u>AL</u> Checked by: <u>TJW</u>	Project No. : <u>506337</u> of <u>29</u>
				SCALE :	AS SHOWN
				CIV230	

WASHINGTON GROVE CONNECTOR – CRABBS BRANCH WAY TO BROWN STREET

MANDATORY REFERRAL NARRATIVE

Mandatory Referral Application No: MR20XXXXX

November 1, 2024

Project Description

The Montgomery County Department of Transportation (MCDOT) is proposing a shared use path/trail connection from the existing terminus of Crabbs Branch Way to the terminus of Brown Street in Washington Grove in Derwood, MD. This connection was identified in the Shady Grove Sector Plan of 2006 and the Shady Grove Sector Plan Minor Amendment of 2021 as part of the recommendation to extend Crabbs Branch Way to Amity Drive. MCDOT performed a planning study for this connection as well as the associated side paths and trail to Brown Street. The findings of this study were presented to the Montgomery County Planning Board in April 2021 and July 2023. In their July 2023 letter, the Planning Board wrote, “Montgomery County Department of Transportation (MCDOT) should prioritize construction of the Brown Street Connector portion of the Washington Grove Connector Project, as this segment of the overall project has substantial public support, including from the Town of Washington Grove, is far along in the design process, and has relatively low cost.”

The proposed paved trail is 10 feet wide with 2-foot grassed shoulders and 3:1 side slopes tying to existing ground on each side. The trail will be lighted for its entire length. This typical section is in conformance with the Montgomery County Department of Planning’s Bicycle Facility Design Toolkit. The horizontal and vertical alignments were designed to minimize impacts to environmentally sensitive areas, trees and parkland; as well as to be constructed on county property to the extent possible. A portion of the trail will be on a raised boardwalk to reduce impacts to environmental resources as well as to avoid a significant grade change for users.

Hours of Operation

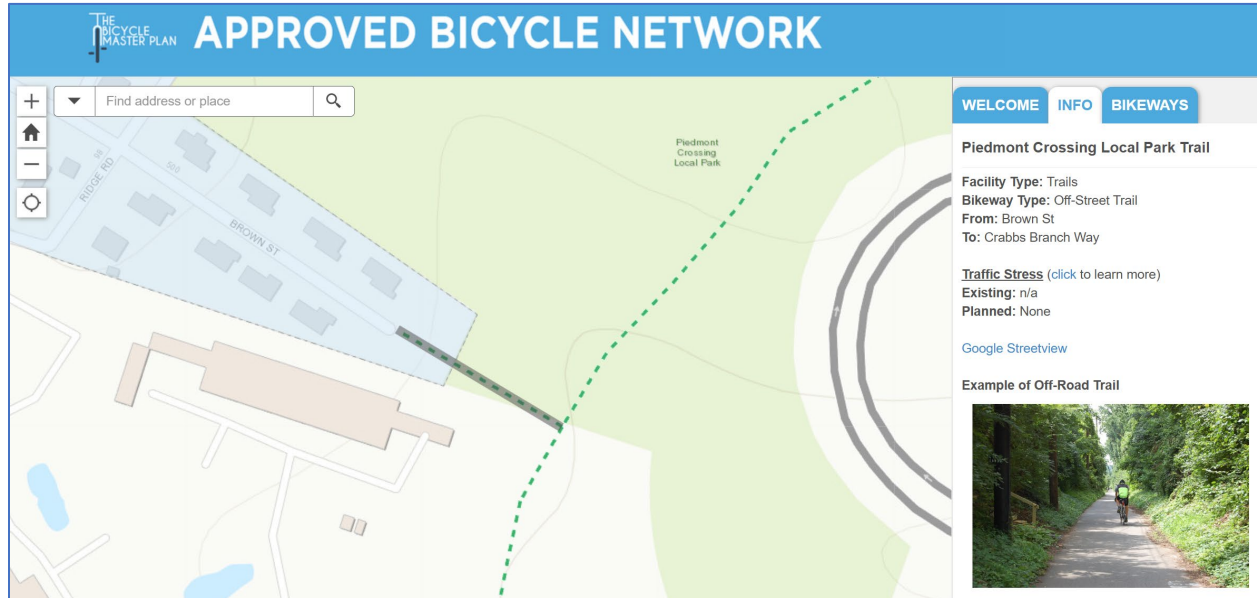
The trail will be available to the public 24 hours a day, 7 days a week, 365 days a year to allow access for bicyclists and pedestrians to travel from Washington Grove to the Shady Grove Metro Station and to future connections in Gaithersburg and beyond. It is expected that this trail will be used for both commuting and recreation.

Master Plan Conformance

As described above, this trail connection was identified in the Shady Grove Sector Plan of 2006 and the Shady Grove Sector Plan Minor Amendment of 2021 as part of the recommendation to extend Crabbs Branch Way to Amity Drive. The findings of MCDOT’s planning study were presented to the Montgomery County Planning Board who recommended, “Montgomery County Department of Transportation (MCDOT) should prioritize construction of the Brown Street Connector portion of the Washington Grove Connector Project, as this segment of the overall project has substantial public support, including from the Town of Washington Grove, is far along in the design process, and has

relatively low cost.” This scope was presented to the Transportation and Environment Committee of the County Council in February 2024 where it was received positively and recommended for funding.

This trail connection appears on the Montgomery County Bicycle Map as shown below:



Pedestrian and Bicycle Safety Impact Statement

The purpose and intent of this project is to provide a safe, paved trail for users that is fully separated from traffic. This project will have only positive impacts on bicycle and pedestrian safety.

Applicable County Standards

The proposed paved trail is 10 feet wide with 2-foot grassed shoulders and 3:1 side slopes tying to existing ground on each side and will be lighted for its length. This typical section is in conformance with the Montgomery County Department of Planning's Bicycle Facility Design Toolkit. The horizontal and vertical alignments were designed to minimize impacts to environmentally sensitive areas, trees and parkland; as well as to be constructed on county property to the extent possible. A portion of the trail will be on a raised boardwalk to reduce impacts to environmental resources as well as to avoid a drastic grade change for users.

Historic Properties/Archaeological Resources

A preliminary archaeological review was conducted in 2020 that covered the area of multiple possible trail alignments connecting Crabbs Branch Way to Brown Street and Amity Drive as described in the Shady Grove Master Plan. The proposed alignment from Crabbs Branch Way to Brown Street falls outside of the high prehistorical potential zone found on the Piedmont Crossing Local Park. This project is not expected to have an impact on any historic properties; therefore, a Historic Area Work Permit will not be required.

WASHINGTON GROVE CONNECTOR

CRABBS BRANCH WAY TO BROWN STREET

Mandatory Referral Project Narrative, November 2024

Project Phasing

The project will be constructed in one phase.

Land Not in Public Ownership

The northern end of the trail will terminate at Brown Street on land owned by the Town of Washington Grove. The county is working with the town to secure a perpetual easement to construct and maintain this portion of the trail. The rest of the project is located on County owned property. The entire project is in publicly held land.

Project Funding

Project design and construction are funded under the Montgomery County Capital Improvement Program, Bikeway Program Minor Projects. This program is county funded and intended to fund design and construction of bikeway network specified by Master Plans.

Potential Impacts to Public Parkland

The proposed trail is adjacent to Piedmont Crossing Local Park and Washington Grove Meadow Conservation Park. This project has no direct physical impact on these parks and proposes no disturbance on either of these properties. Lighting for the trail has been designed in consultation with Parks staff to ensure it is designed to minimize impacts in the park. This coordination will continue through to the final design phase as well.

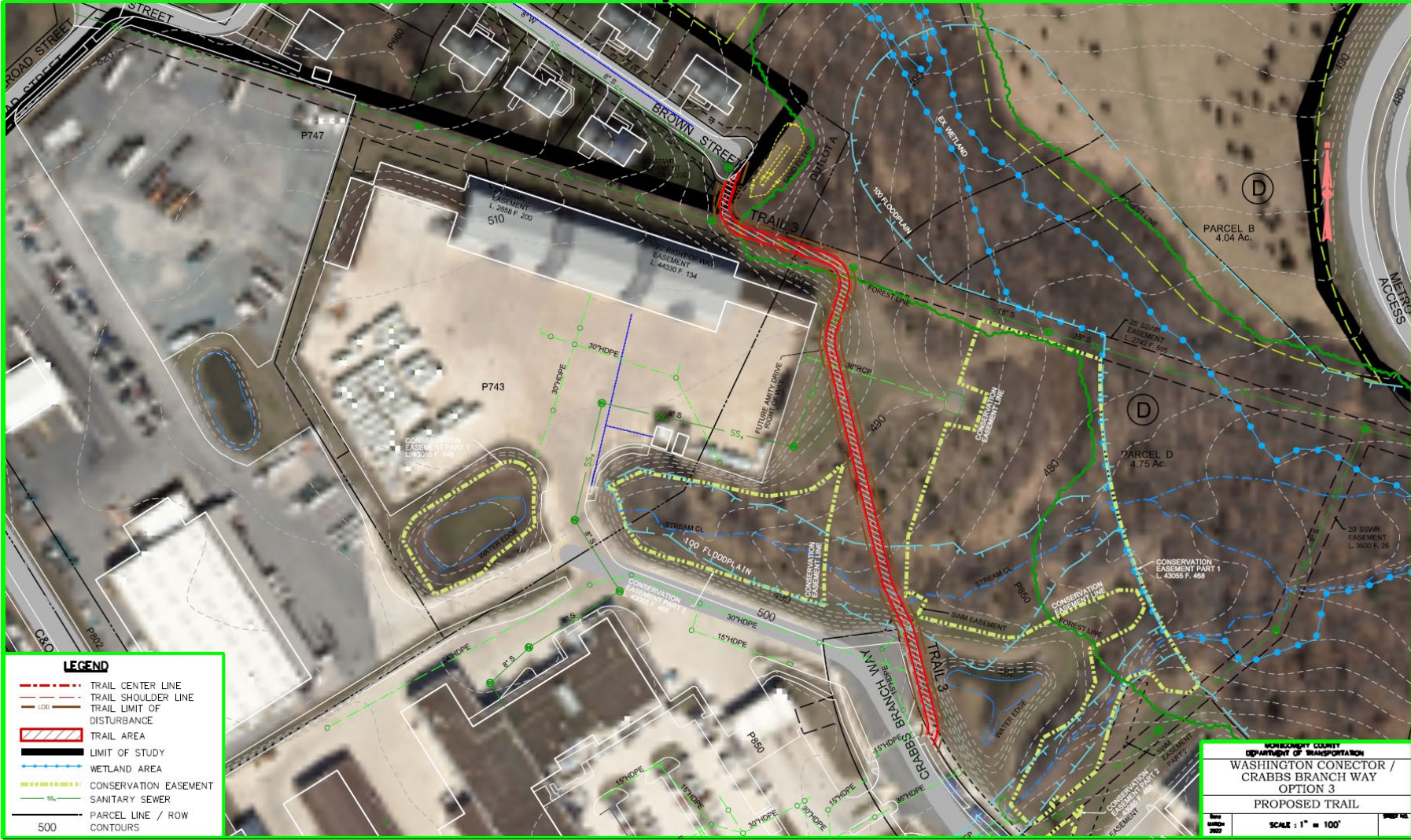
Environmental Resources

As indicated on the Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) approved October 2024, the project will impact stream and stream buffer. The Department of Natural Resources has confirmed that there are not rare, threatened or endangered species in the project area.

Public Outreach

MCDOT has conducted multiple outreach events for this project. A Public Workshop was held February 13, 2020, a Public Virtual Meeting was held February 17, 2021, and a Hybrid Public Meeting held was April 13, 2023. There has been on going, consistent coordination with the Town of Washington Grove; and future public meetings and a public hearing will be conducted as the design progresses.

Washington Grove Connector Crabbs Branch Way to Brown Street Trail



SHEET NO.	TOTAL SHEETS
02	29

ABBREVIATIONS

AASHTO — American Association of State Highway Transportation Officials	HDWL. — Headwall	RW or R/W — Right of Way
ADT — Average Daily Traffic	HERCP — Horizontal Elliptical Reinforced Concrete Pipe	RCP — Reinforced Concrete Pipe
AHD — Ahead	HP — High point	RCP — Reinforced Concrete Pressure
APPROX. — Approximate	IN — Inch	R.Q.D. — Rock Quality Designation
B or B/L — Baseline	I.S.T. — Inlet Sediment Trap	R.M. — Rootman
BK — Back/ Book	INV. — Invert	S — South
BIT. — Bituminous	J.V. — Junction Box	SAN. — Sanitary Sewer
B.C. — Bituminous Concrete	K — K Inlet	SB or S/B — Southbound
B.M. — Bench Mark	L — Length	S.D. — Storm Drain
BOT. — Bottom	LF — Linear Feet	S.D.D. — Surface Drain
C.C. — Center of Curve	L.L. — Liquid Limit	S/E — Super Elevation
CAP — Corrugated Aluminum Pipe	LP — Low Point	SF — Silt Fence
CAPA — Corrugated Aluminum Pipe Arch	L.P. — Light Pole	SF — Square Feet
CATV — Cable Television	LT. — Left	SHT. — Sheet
C.B.R. — California Bearing Ratio	MAC — Macadam	SPP — Structural Steel Plate Pipe
CL or C/L — Centerline	M.C. — Moisture Content	SPPA — Structural Steel Plate Pipe Arch
CL. — Class	MAX. — Maximum	S.P.T. — Standard Penetration Testing
CLF — Chainlink Fence	M.D.D. — Maximum Dry Content	SRP — Steel Spiral Rib Pipe –
CMP — Corrugated Metal Pipe	MOD. — Modified	Aluminized Type 2
C.O. — Cleanout	MIN. — Minimum	SRPA — Steel Spiral Rib Pipe Arch –
COMB. — Combination	N — North	Aluminized Type 2
COC. — Concrete	NB — Northbound	SSD — Stopping Sight Distance
CONSTR. — Construction	NE — Northeast	SSF — Super Silt Fence
COR. — Corner	N.P. — Non-Plastic	STD. — Standard
CORR. — Correction	O.C. — On Center	STA. — Station
CPP-S — Corrugated Polyethylene Pipe – Type ‘S’	OHE — Overhead Electric	SO. — Single Opening.
CSP — Corrugated Steel Pipe – Aluminized Type 2	O.M. — Optimum Moisture	SY — Square Yards
CSPA — Corrugated Steel Pipe Arch –	PAV'T. — Pavement	SWM — Stormwater Management
Aluminized Type 2	P.C. — Point of Curvature	T — Tangent
C — Cut	P.C.C. — Point of Compound Curvature	T — Telephone
DC — Degree of Curve	P/C — Point of Crown	T.C. — Top of Cover
D.H.V. — Design Hourly Volume	P/GE — Profile Grade Elevation	T.G. — Top of Grate
D.I. — Drop Inlet	P.G.E. — Profile Ground Elevation	T OR TL — Traverse Line
DIA. — Diameter	P.G.L. — Profile Grade Line	T.M. — Top of Manhole
D.O. — Double Opening	P/GL — Profile Ground Line	TRAV. — Traverse
E — East	P/R — Point of Rotation	TS — Temporary Swale
E — Electric	P.I. — Plasticity Index	T.S. — Top of Slab
E — External Distance	PI — Point of Intersection	T.S. — Topsoil
EA — Each	POC — Point On Curve	TYP. — Typical
EB — Eastbound	POT — Point of Tangent	U.D. — Underdrain
ELEV — Elevation	PPWP — Polyvinyl Chloride Profile Wall Pipe	U.G. — Underground
ES — End Section	PROP — Proposed	U.P. — Utility Pole
EX or EXIST — Existing	PRC — Point of Reverse Curve	USDA — United States Department of Agriculture
FT — Feet	PT — Point	VCL — Vertical Clearance
F — Fill	P.T. — Point of Tangency	V.C.L. — Vertical Curve Lenght
FL — Flowline	P.V.C. — Point of Vertical Curve	W — Water
F.B.D. — Flat bottom Ditch	PVC — Polyvinyl Chloride	W — West
F.H. — Fire Hydrant	P.V.I. — Point of Vertical Intersection	WB — Westbound
FWD. — Forward	P.V.R.C. — Point of Vertical Reverse Curve	WB — Wetland Buffer
G. — Gas	P.V.T. — Point of Vertical Tangency	W.M. — Water Meter
G.V. — Gas Valve	R — Radius	W.S. — Wrapped Steel
H.B. — Handbox	R.F. — Rock Fragments	WUS — Water of the United States
HDPE — High Density Polyethylene	RT — Right	W.V. — Water Valve

SYMBOLS

EXISTING FEATURES

PROPERTY LINE–RIGHT OF WAY LINE(ROW)	
EDGE OF ROADWAY PAVING	
CURB OR CURB AND GUTTER	
EXISTING GROUND CONTOURS (5’)	55
EXISTING GROUND CONTOURS (1’)	54
WOOD FENCE	
WIRE FENCE	
GUARDRAIL	
FIRE HYDRANT	
EDGE OF WOODED AREAS	
TREE (FREE STANDING)	
SIGN	
MAILBOX	
UTILITY POLE	
STORM DRAIN	SD SD
SANITARY	SS SS

PROPOSED FEATURES

CONSTRUCTION	4+00 5+00
CURB & GUTTER	
TRAVERSE POINT	
LIMIT OF DISTURBANCE	LOD LOD

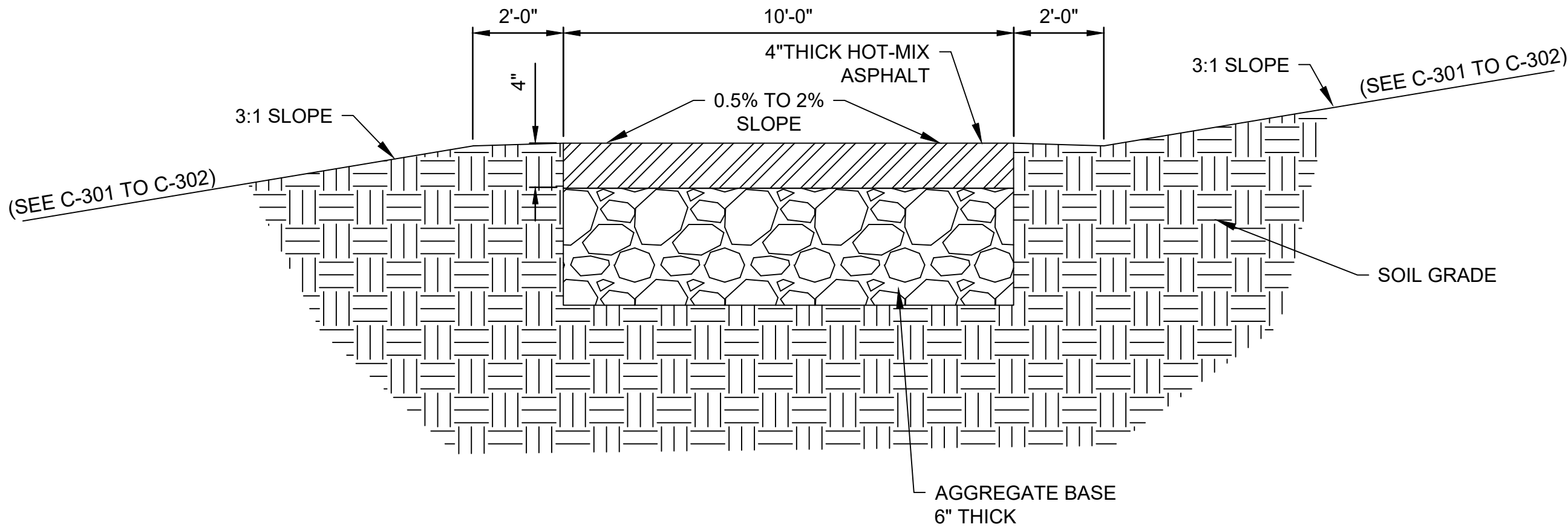
DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	TREE CLEARING AND STRIPPING AREA	①
	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	②
	REMOVE EXISTING ASPHALT CURB	③
	REMOVE EXISTING FENCE	④
	REMOVE EXISTING GUARDRAIL	⑤
	RELOCATE EXISTING SIGN	⑥
	REMOVE EXISTING TREE	⑦
	DEMO NOTE	
	LIMIT OF DISTURBANCE AREA	

ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
	EXISTING MAJOR CONTOUR LINE	①
	EXISTING MINOR CONTOUR LINE	②
	PROPOSED MAJOR CONTOUR LINE	③
	PROPOSED MINOR CONTOUR LINE	④



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	35% BRIDGING DOCUMENTS	7/24/2024					
				RECOMMENDED FOR APPROVAL		SCALE : NONE	
				Chief, Design Section	Date		
				APPROVED			
				Chief, Division of Transportation Engineering	Date		
NO.	REVISION	DATE	BY	Designed by: _____	Drawn by: _____	Checked by: _____	G002

SHEET NO.	TOTAL SHEETS
03	29



1 TYPICAL TRAIL CROSS SECTION
NOT TO SCALE

REGULAR HOT-MIX-ASPHALT



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Chief, Design Section APPROVED	Date
Chief, Division of Transportation Engineering	Date
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WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TYPICAL TRAIL CROSS SECTION

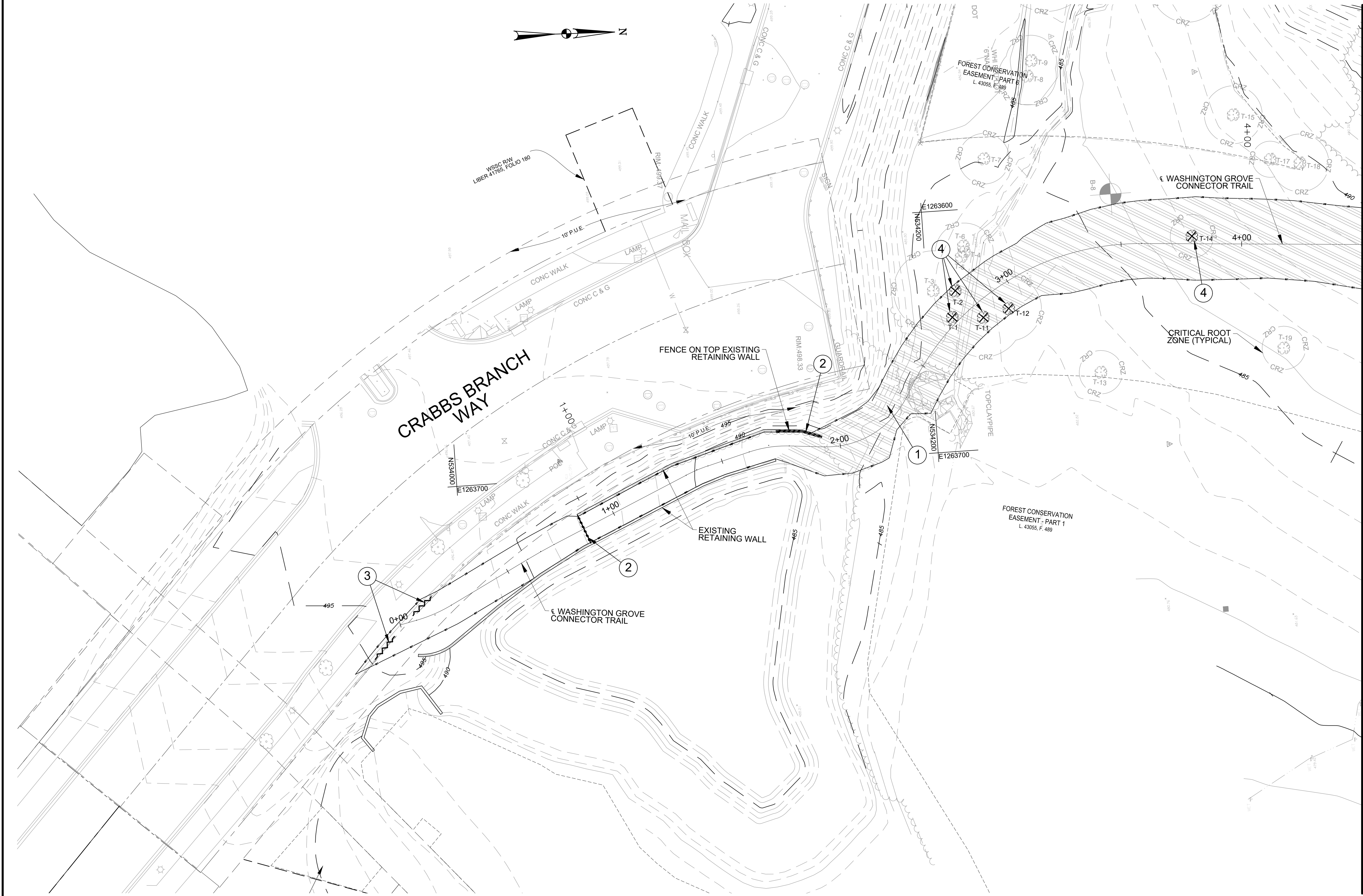
SCALE : NONE

G003

Project No. : 000331

03 of 29

SHEET NO.	TOTAL SHEETS
04	29



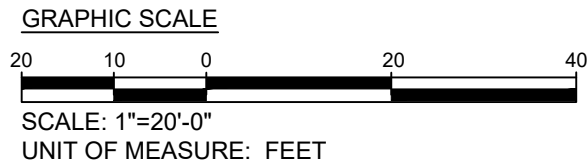
MATCHLINE A-A STA. 4+50 - SEE DWG. C-102

DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	LIGHT POLE
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

TREE REMOVAL TABLE		
TREE NO.	DIAMETER	TYPE
T1	7"	RED MAPLE
T2	11"	RED MAPLE
T11	11"	BLACK WALNUT
T12	11"	WHITE MULBERRY
T14	6"	EASTERN RED CEDAR

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	TREE CLEARING AND STRIPPING AREA	①
	REMOVE EXISTING FENCE	②
	REMOVE EXISTING GUARDRAIL	③
	REMOVE EXISTING TREE	④
	LIMIT OF DISTURBANCE AREA	
	DEMO NOTE	

NOTE:
SEE DWG C-201 TRAIL SITE LAYOUT AND PROFILE 1 OF 2.



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

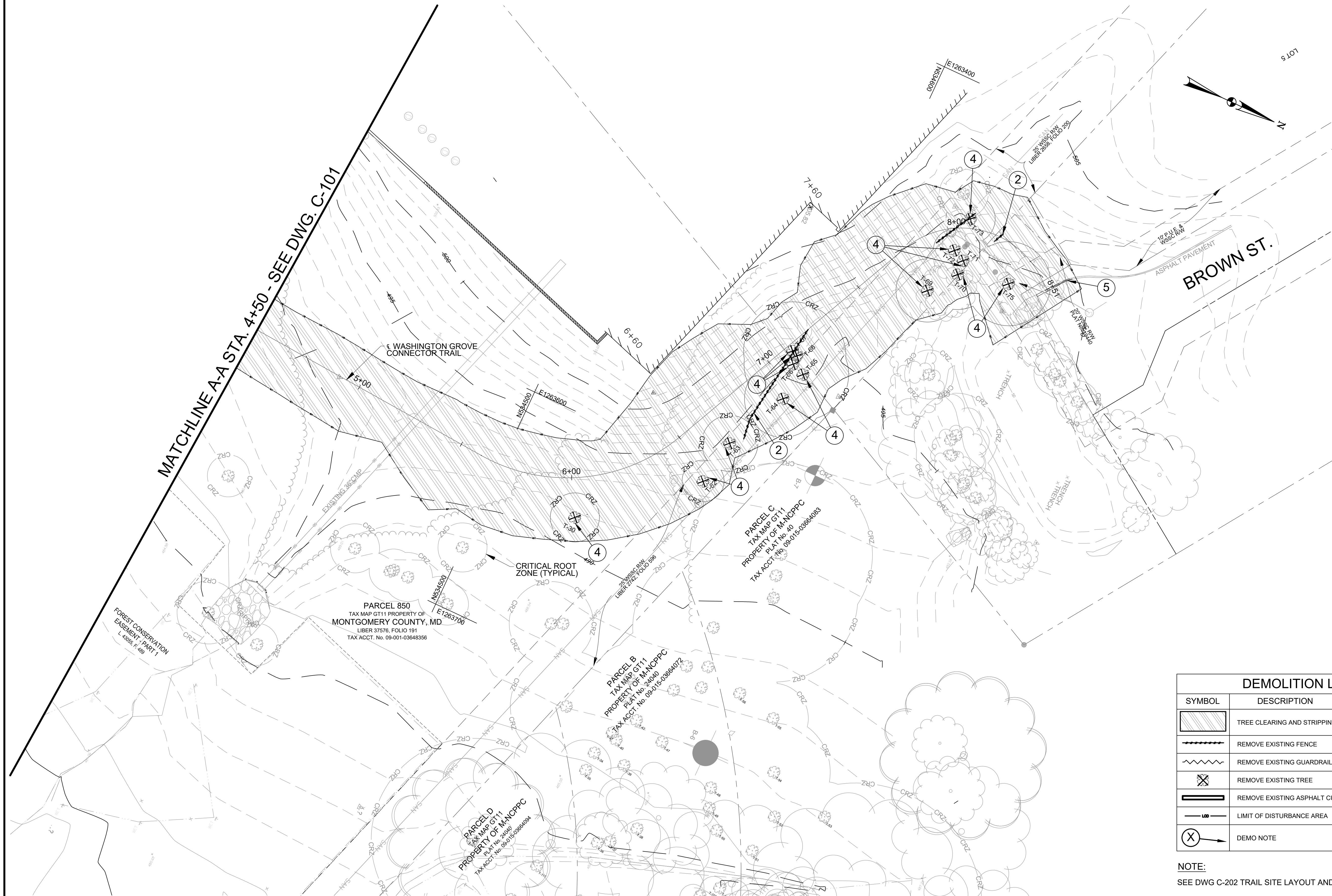
WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TREE CLEARING AND STRIPPING
DEMOLITION PLAN 1 OF 2

SCALE : AS SHOWN

C101

Project No.: 006937





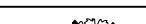

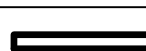
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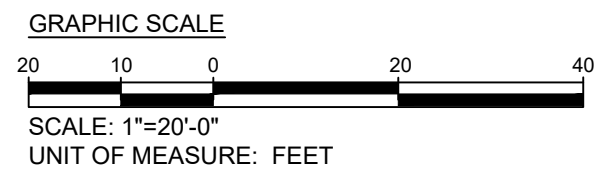
DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	STORM MH
	LIGHT POLE
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

TREE REMOVAL TABLE

TREE NO.	DIAMETER	TYPE
T30	7"	BLACK WALNUT
T62	6"	BLACK LOCUST
T63	8"	WHITE MULBERRY
T64	11"	BLACK LOCUST
T65	13"	BLACK CHERRY
T66	14"	BLACK LOCUST
T67	14"	BLACK LOCUST
T68	14"	BLACK LOCUST
T69	9"	BLACK WALNUT
T70	10"	BLACK WALNUT
T71	8"	BLACK WALNUT
T72	6"	BOX ELDER MAPLE
T73	7"	BLACK CHERRY
T75	12"	SLIPPER ELM

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	TREE CLEARING AND STRIPPING AREA	①
	REMOVE EXISTING FENCE	②
	REMOVE EXISTING GUARDRAIL	③
	REMOVE EXISTING TREE	④
	REMOVE EXISTING ASPHALT CURB	⑤
	LIMIT OF DISTURBANCE AREA	
	DEMO NOTE	

NOTE:
SEE DWG C-202 TRAIL SITE LAYOUT AND PROFILE 2 OF 2.

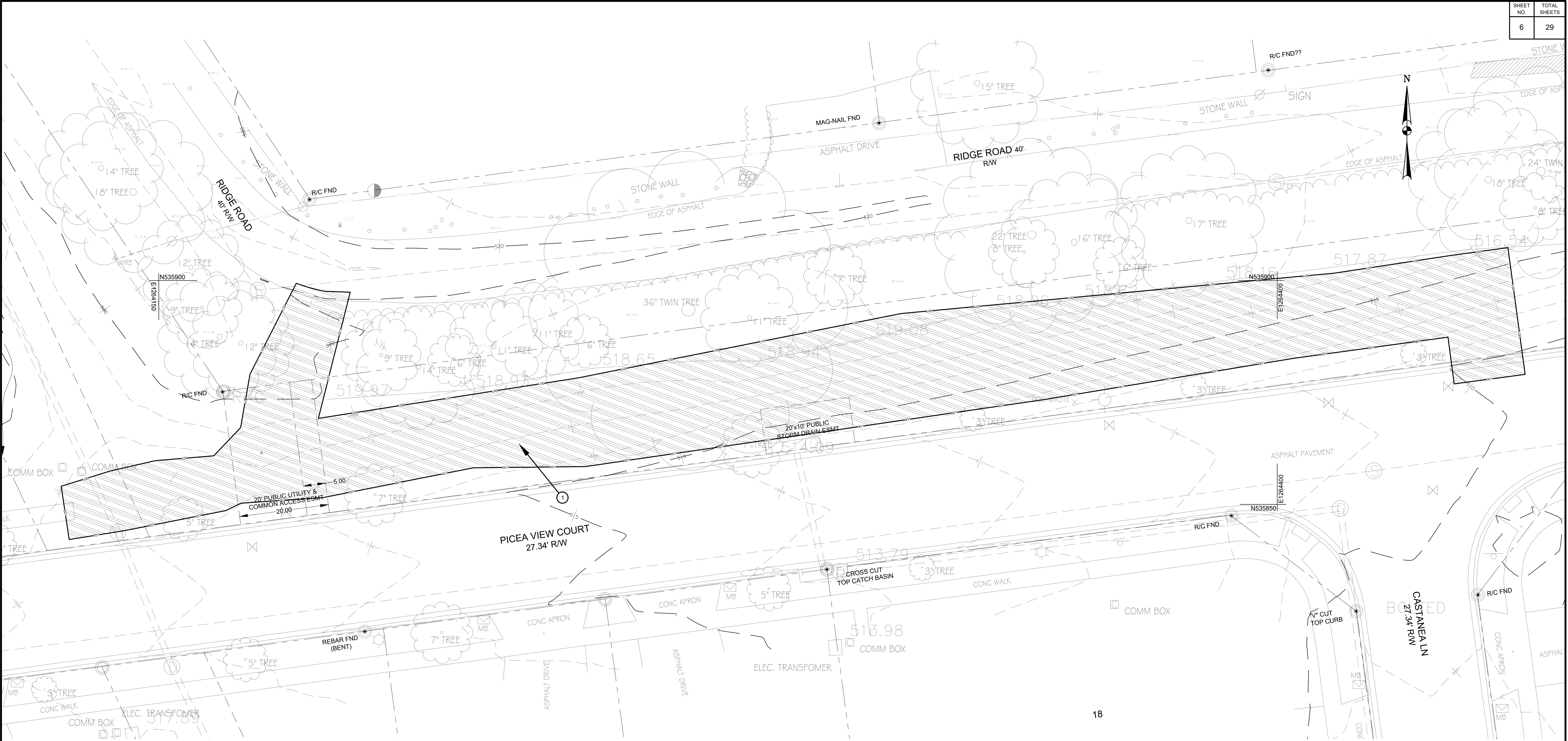
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<p>MONTGOMERY COUNTY</p> <p>DEPARTMENT OF TRANSPORTATION</p> <p>ROCKVILLE, MARYLAND</p>	
<p>RECOMMENDED FOR APPROVAL</p>	
<p>_____ Chief, Design Section APPROVED</p>	<p>_____ Date</p>
<p>_____ Chief, Division of Transportation Engineering</p>	<p>_____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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TREE CLEARING AND STRIPPING
DEMOLITION PLAN 2 OF 2

SCALE : AS SHOWN

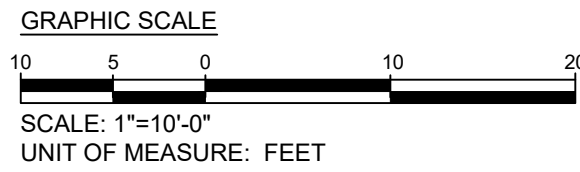
Project No. : 509337 05 of 29



DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	STORM MH
	LIGHT POLE

DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	STRIPPING AREA	①
	LIMIT OF DISTURBANCE	
	DEMO NOTE	



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

**WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
EXISTING CONDITION AND
STRIPPING PLAN PICEA - LONG**

SCALE : AS SHOWN

C103

Project No.: 006937

6 of 29

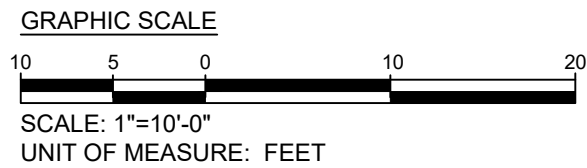
SHEET NO.	TOTAL SHEETS
7	29



DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	ELECTRIC BOX
	SIGN
	ELECTRIC MANHOLE
	MAIL BOX
	GROUND SHOT
	POWER POLE
	GUY POLE
	TRAVERSE
	MONUMENT
	BOLLARD
	SANITARY MH
	STORM MH
	LIGHT POLE

DRAWING LEGEND	
EXISTING CONDITIONS LEGEND	
SYMBOL	DESCRIPTION
	GUY WIRE
	POWER POLE
	PROPERTY CNR FOUND
	TREE
	CURB
	EDGE OF CONC.
	STORM PIPE
	SEWER PIPE
	EDGE OF ASPHALT
	RIPRAP
	WOODLINE
	PROPERTY LINE
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR

DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	NOTES
	STRIPPING AREA	①
	LIMIT OF DISTURBANCE	
	DEMO NOTE	





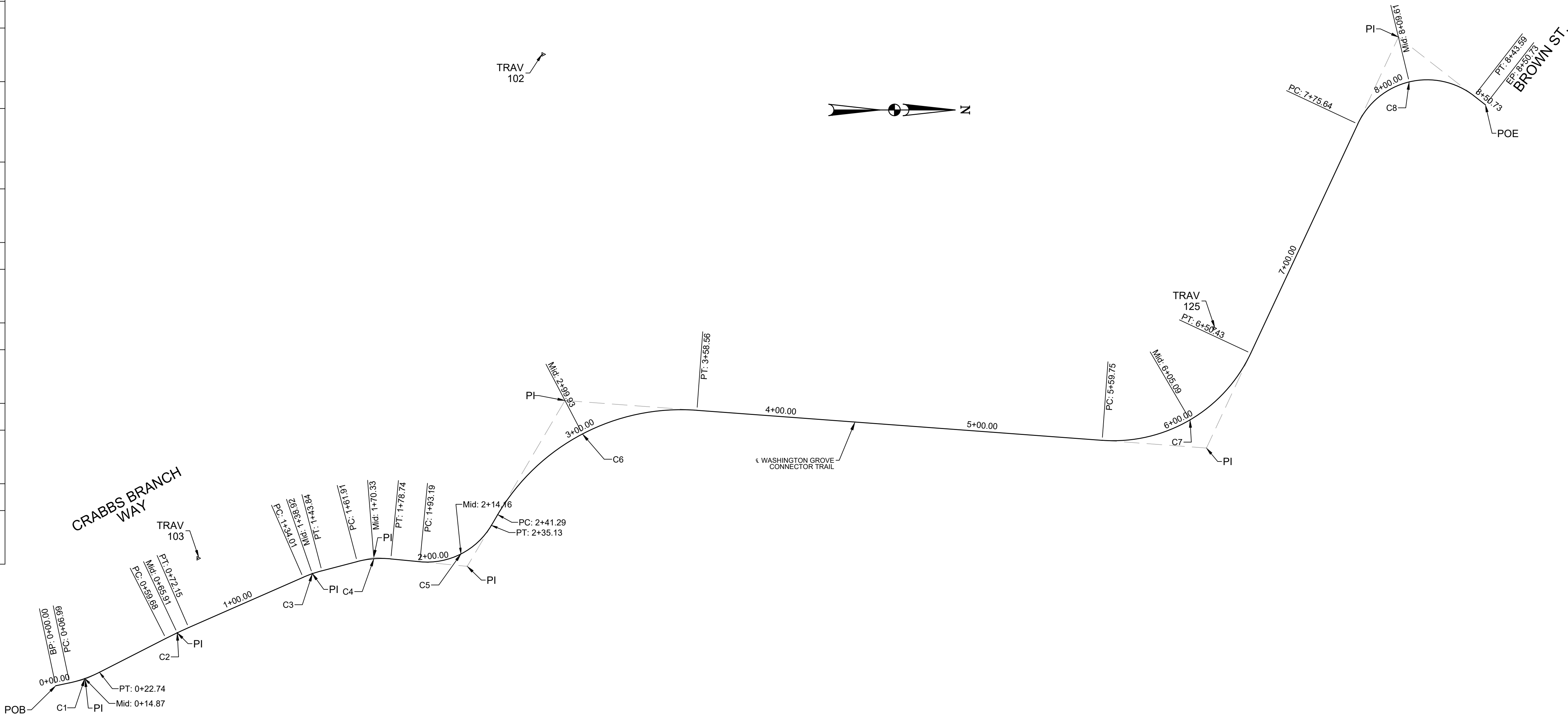
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35% BRIDGING DOCUMENTS		7/24/2024					
				RECOMMENDED FOR APPROVAL			
				Chief, Design Section		Date	
				APPROVED			
				Chief, Division of Transportation Engineering		Date	
				Designed by:		Drawn by:	Checked by:
NO.	REVISION	DATE	BY				
				Project No. : 000331		7	of 29

SHEET NO.	TOTAL SHEETS
08	29

CENTER ALIGNMENT

CURVE NO.	DESCRIPTION	STATION	COORDINATES		BEARING
			NORTHING	EASTING	
	POB	0+00.00	533972.6859	1263755.6373	N11° 57' 57"W
C1	PC	0+06.99	533979.5258	1263754.1877	
	PI	0+14.87	533987.2736	1263752.5457	
	PT	0+22.74	533994.3304	1263748.9506	N26° 59' 48"W
C2	PC	0+59.68	534027.2413	1263732.1840	
	PI	0+65.91	534032.8011	1263729.3516	
	PT	0+72.15	534038.5151	1263726.8449	N23° 41' 10"W
C3	PC	1+34.01	534095.1587	1263701.9966	
	PI	1+38.92	534099.6685	1263700.0183	
	PT	1+43.84	534104.4328	1263698.7718	N14° 39' 43"W
C4	PC	1+61.91	534121.9208	1263694.1963	
	PI	1+70.33	534130.1474	1263692.0439	
	PT	1+78.74	534138.6112	1263692.8651	N5° 32' 29"E
C5	PC	1+93.19	534152.9920	1263694.2603	
	PI	2+14.16	534176.4342	1263696.5346	
	PT	2+35.13	534188.3978	1263676.2471	N59° 28' 20"W
C6	PC	2+41.29	534191.5296	1263670.9363	
	PI	2+99.93	534224.8152	1263614.4913	
	PT	3+58.56	534290.1648	1263619.3283	N4° 13' 60"E
C7	PC	5+59.75	534490.7984	1263634.1789	
	PI	6+05.09	534542.4479	1263638.0019	
	PT	6+50.43	534564.3768	1263591.0826	N64° 56' 59"W
C8	PC	7+75.64	534617.3925	1263477.6493	
	PI	8+09.61	534637.4831	1263434.6630	
	PT	8+43.59	534674.9409	1263463.7899	N37° 52' 06"E
	POE	8+50.73	534680.5765	1263468.1721	

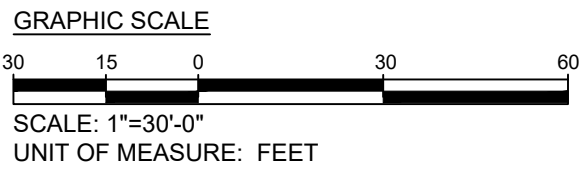


HORIZONTAL CURVE DATA

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH
C1	15°01'51"	60.03	15.75	7.92	15.70
C2	03°18'39"	215.91	12.48	6.24	12.47
C3	09°01'27"	62.41	9.83	4.92	9.82
C4	20°12'12"	47.73	16.83	8.50	16.74
C5	65°00'49"	36.96	41.94	23.55	39.72
C6	63°42'19"	105.47	117.27	65.53	111.32
C7	69°10'59"	75.10	90.68	51.79	85.27
C8	102°49'05"	37.87	67.95	47.45	59.19

CONTROL TRAVERSE

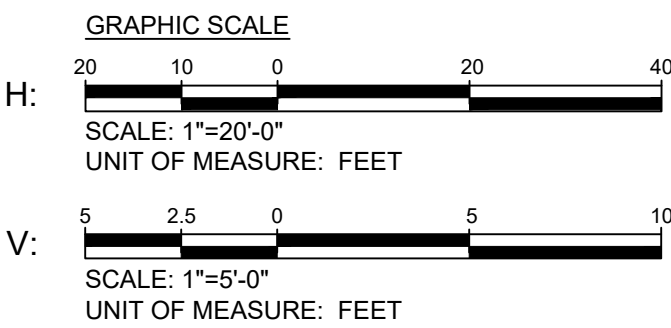
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
102	534213.8385	1264680.9190	489.00	REBAR & CAP
103	534043.0170	1263692.5510	497.34	REBAR & CAP
125	534546.0770	1263578.8589	501.95	REBAR & CAP



	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK TRAIL GEOMETRIC LAYOUT	
	35% BRIDGING DOCUMENTS	7/24/2024					
				RECOMMENDED FOR APPROVAL			
				Chief, Design Section	Date		
				APPROVED			
				Chief, Division of Transportation Engineering	Date		
				Designed by: _____	Drawn by: _____	Checked by: _____	
NO.	REVISION	DATE	BY			Project No. : 000337	C200



1. THE EXISTING RETAINING WALL IS TIE-IN DOWN TO THE PATH EXISTING GRADE BETWEEN STATION 1+87 TO STATION 1+93. THE DESIGN ENGINEER WILL PROVIDE A FILL ON TOP OF THAT SECTION OF THE RETAINING WALL FOR THE TRAIL PATH ALIGNMENT.



	15% BRIDGING DOCUMENTS	11/3/2023	
	35% BRIDGING DOCUMENTS	7/24/2024	
NO.	REVISION	DATE	BY

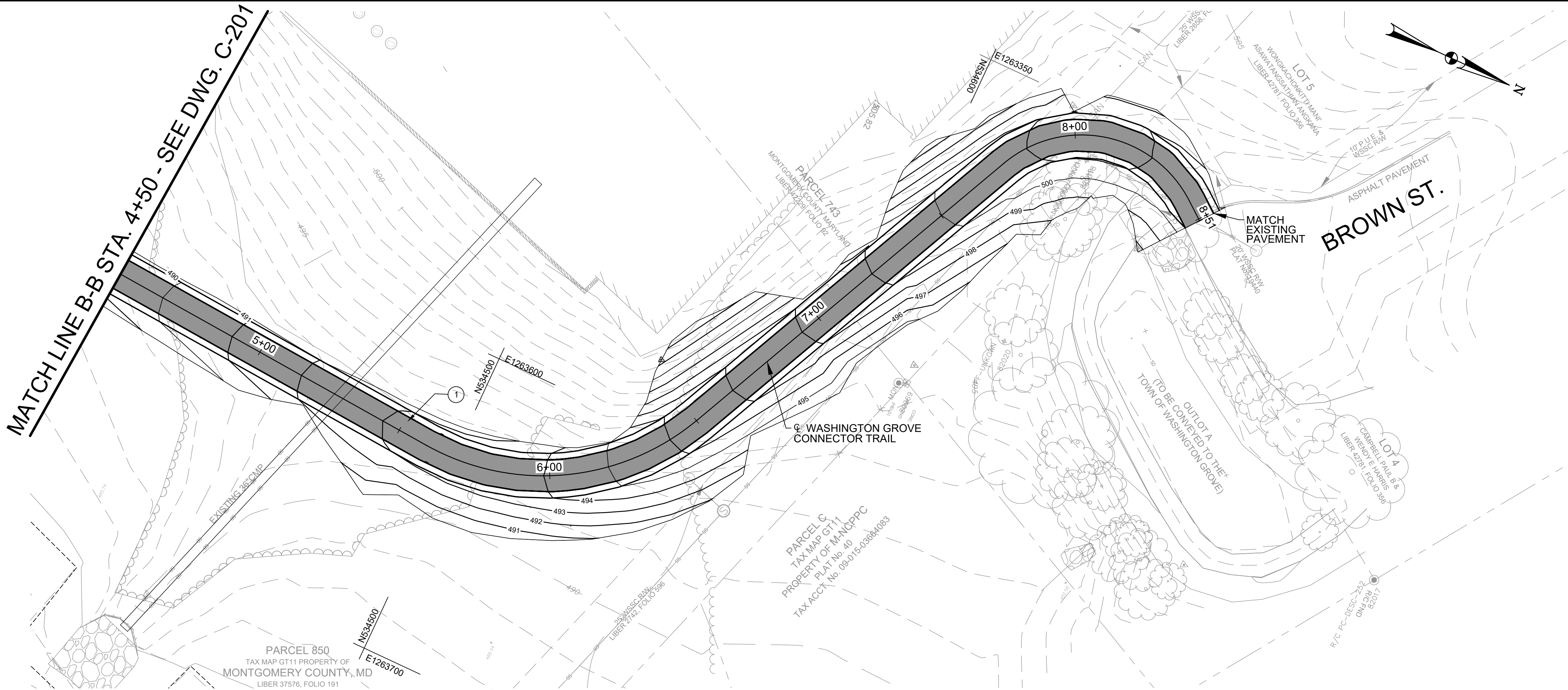
Chief, Division of Transportation Engineering

neering

Date

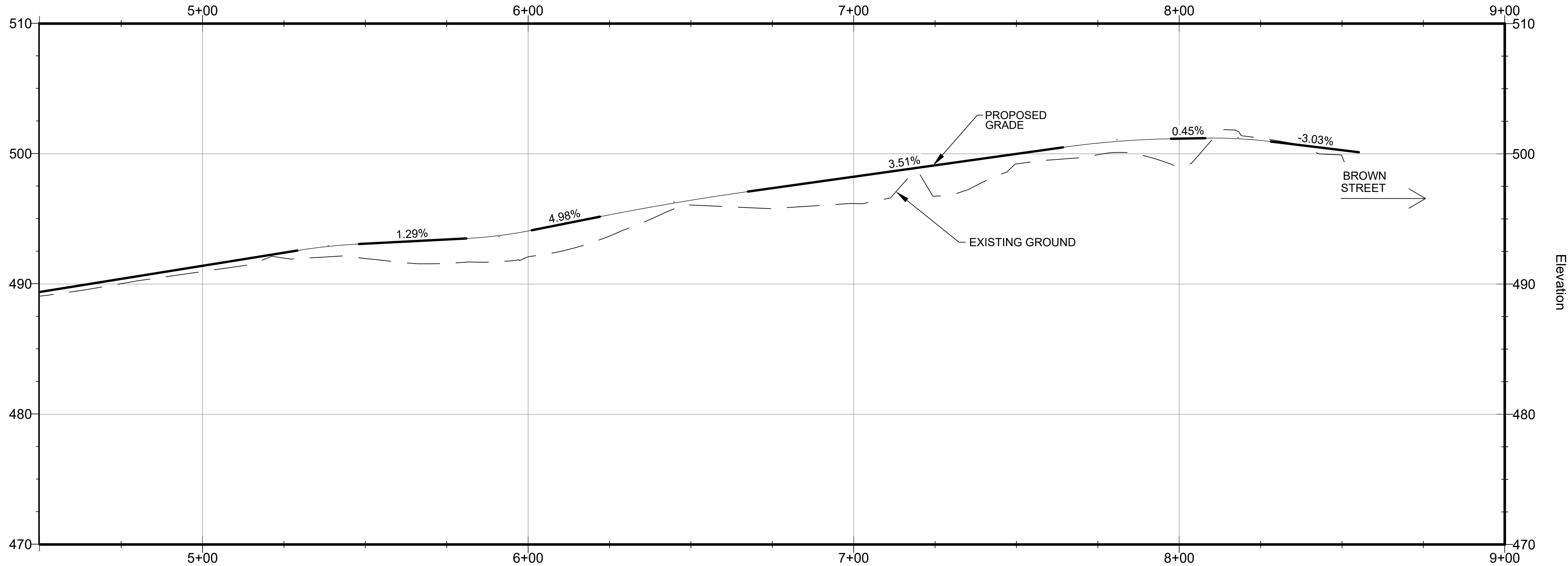
SCALE : AS SHOWN

C201

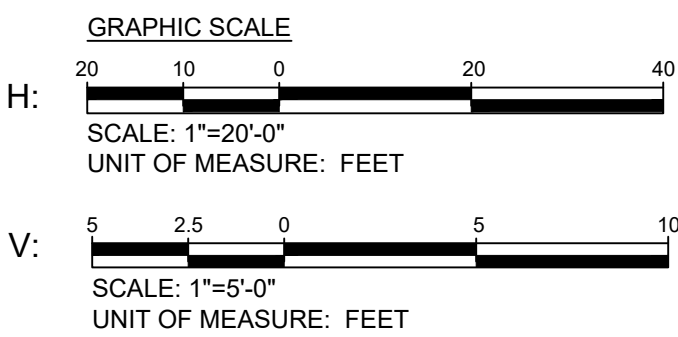


TRAIL SITE PLAN LEGEND		
	DESCRIPTION	NOTES
<div></div>	HOT MIX ASPHALT	①

PLAN VIEW:
1" = 20'



PROFILE VIEW:
H: 1" = 20'
V: 1" = 5'



15% BRIDGING DOCUMENTS	11/3/2023		
35% BRIDGING DOCUMENTS	7/24/2024		
NO.	REVISION	DATE	BY

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK

TRAIL SITE LAYOUT AND PROFILE

2 OF 2

SCALE : AS SHOWN

C202

Project No. : 509337 10 of 29

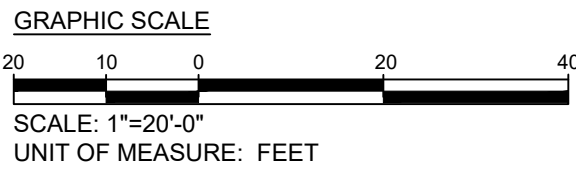
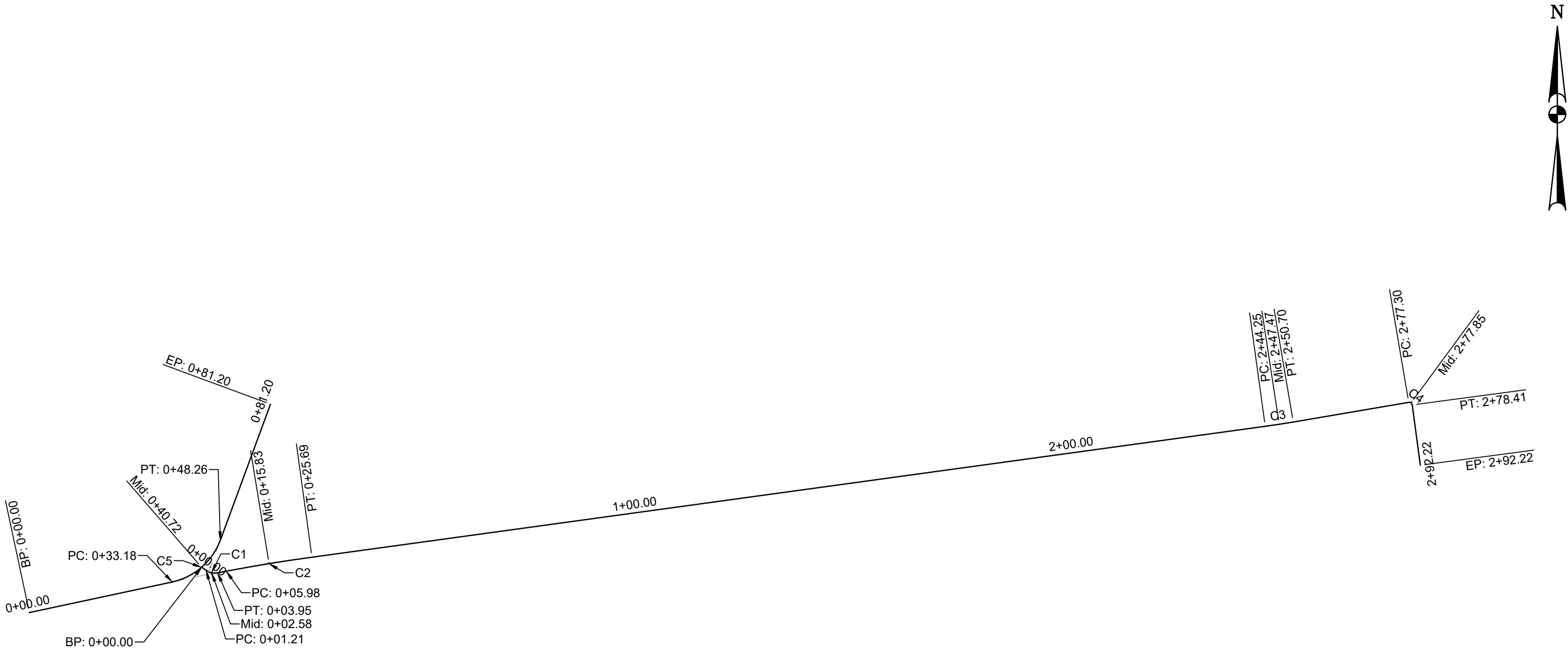
SHEET NO.	TOTAL SHEETS
11	29

CENTER ALIGNMENT

CURVE NO.	DESCRIPTION	STATION	COORDINATES		BEARING
			NORTHING	EASTING	
	POB	0+00.00	535858.8070	1264170.1995	S54° 27' 49"E
C1	PC	0+01.21	535858.1053	1264171.1819	
	PI	0+02.58	535857.2628	1264172.3615	
	PT	0+03.95	535857.5330	1264173.7856	N79° 15' 16"E
C2	PC	0+05.98	535857.9115	1264175.7798	
	PI	0+15.83	535859.7497	1264185.4661	
	PT	0+25.69	535861.0899	1264195.2338	N82° 11' 14"E
C3	PC	2+44.25	535890.7992	1264411.7613	
	PI	2+47.47	535891.2377	1264414.9570	
	PT	2+50.70	535891.7790	1264418.1369	N80° 20' 21"E
C4	PC	2+77.30	535896.2433	1264444.3626	
	PI	2+77.85	535896.3634	1264445.0676	
	PT	2+78.41	535895.6545	1264445.1623	S7° 36' 35"E
	POE	2+92.22	535881.9617	1264446.9917	
	POB	0+00.00	535848.5228	1264131.0482	N77° 56' 07"E
C5	PC	0+33.18	535855.4585	1264163.4988	
	PI	0+40.72	535857.1821	1264171.5633	
	PT	0+48.26	535864.9195	1264174.4162	N20° 14' 24"E
	POE	0+81.20	535895.8260	1264185.8123	

HORIZONTAL CURVE DATA

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH
C1	46°16'54"	3.39	2.74	1.45	2.67
C2	02°55'58"	385.14	19.71	9.86	19.71
C3	01°50'53"	200.00	6.45	3.23	6.45
C4	92°03'03"	0.69	1.11	0.72	0.99
C5	57°41'43"	14.97	15.08	8.25	14.45





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	35% BRIDGING DOCUMENTS	7/24/2024					
				RECOMMENDED FOR APPROVAL		SCALE : AS SHOWN	
				Chief, Design Section		Date	
				APPROVED			
				Chief, Division of Transportation Engineering		Date	
				Designed by: _____		Drawn by: _____	
				Checked by: _____		Project No.: 006937	
NO.	REVISION	DATE	BY			11 of 29	

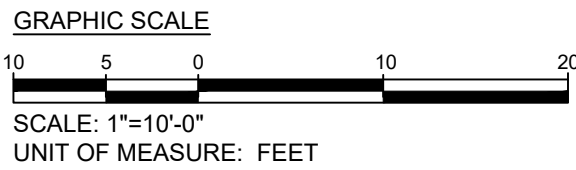
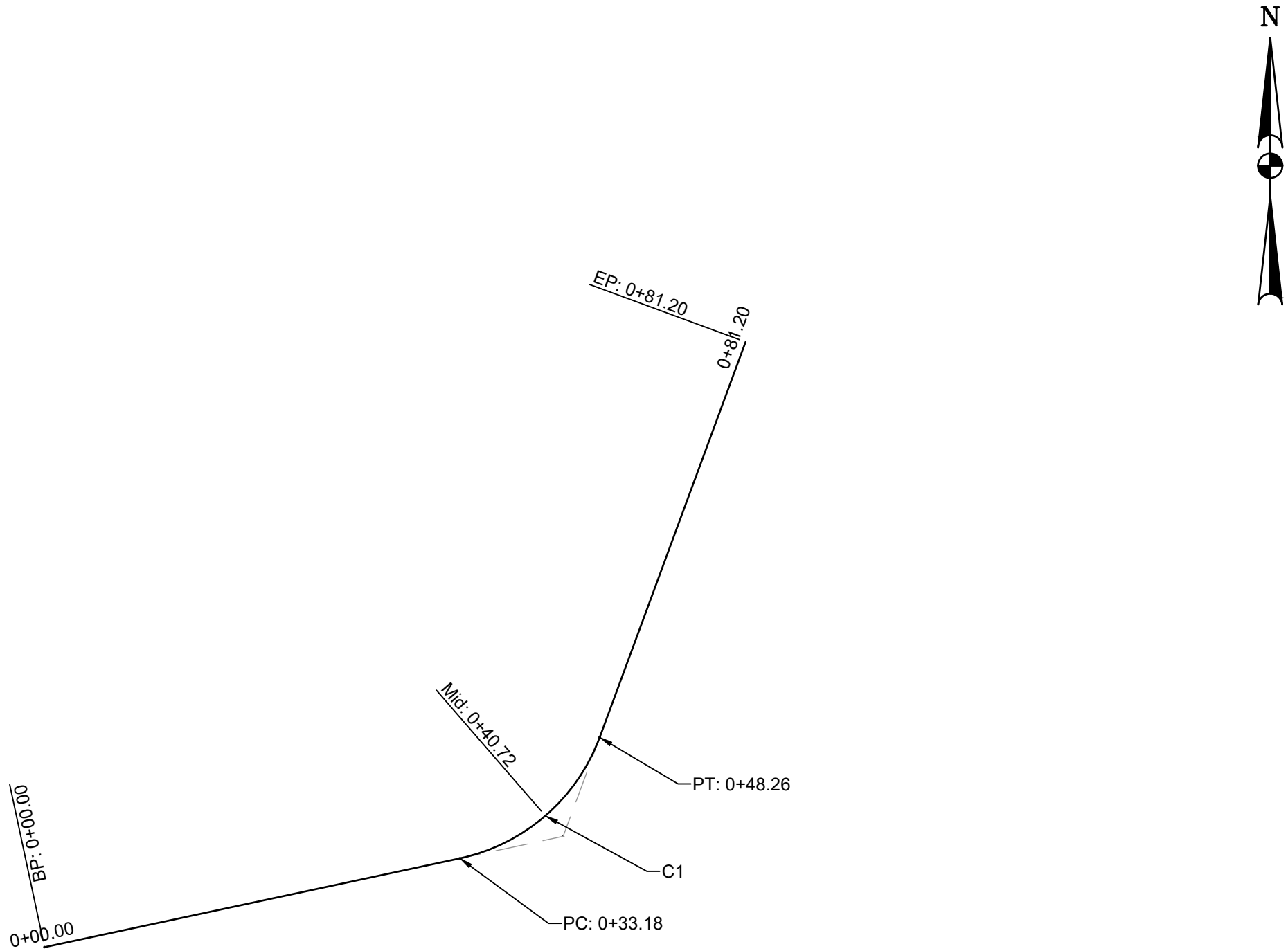
SHEET NO.	TOTAL SHEETS
12	29

CENTER ALIGNMENT

CURVE NO.	DESCRIPTION	STATION	COORDINATES		BEARING
			NORTHING	EASTING	
	POB	0+00.00	535848.5228	1264131.0482	N77° 56' 07"E
C1	PC	0+33.18	535855.4585	1264163.4988	
	PI	0+40.72	535857.1821	1264171.5633	
	PT	0+48.26	535864.9195	1264174.4162	N20° 14' 24"E
	PT	0+81.20	535895.8260	1264185.8123	

HORIZONTAL CURVE DATA

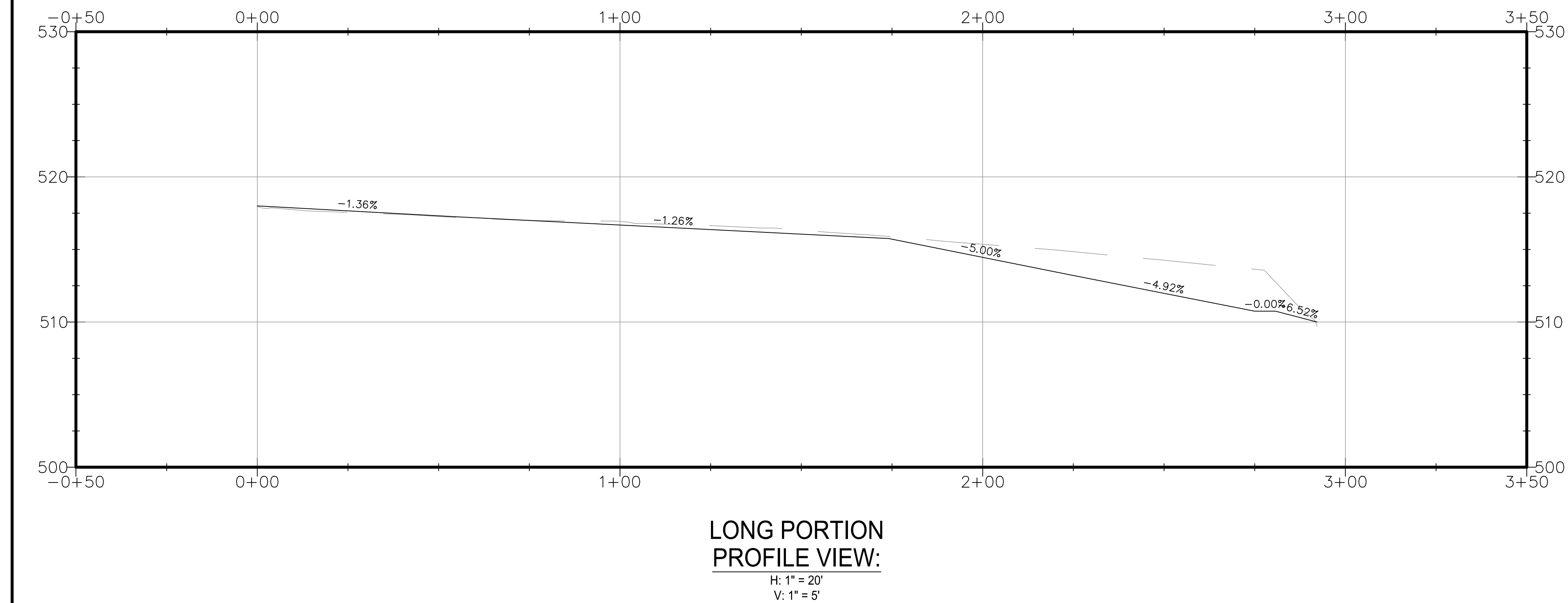
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH
C1	57°41'43"	14.97	15.08	8.25	14.45





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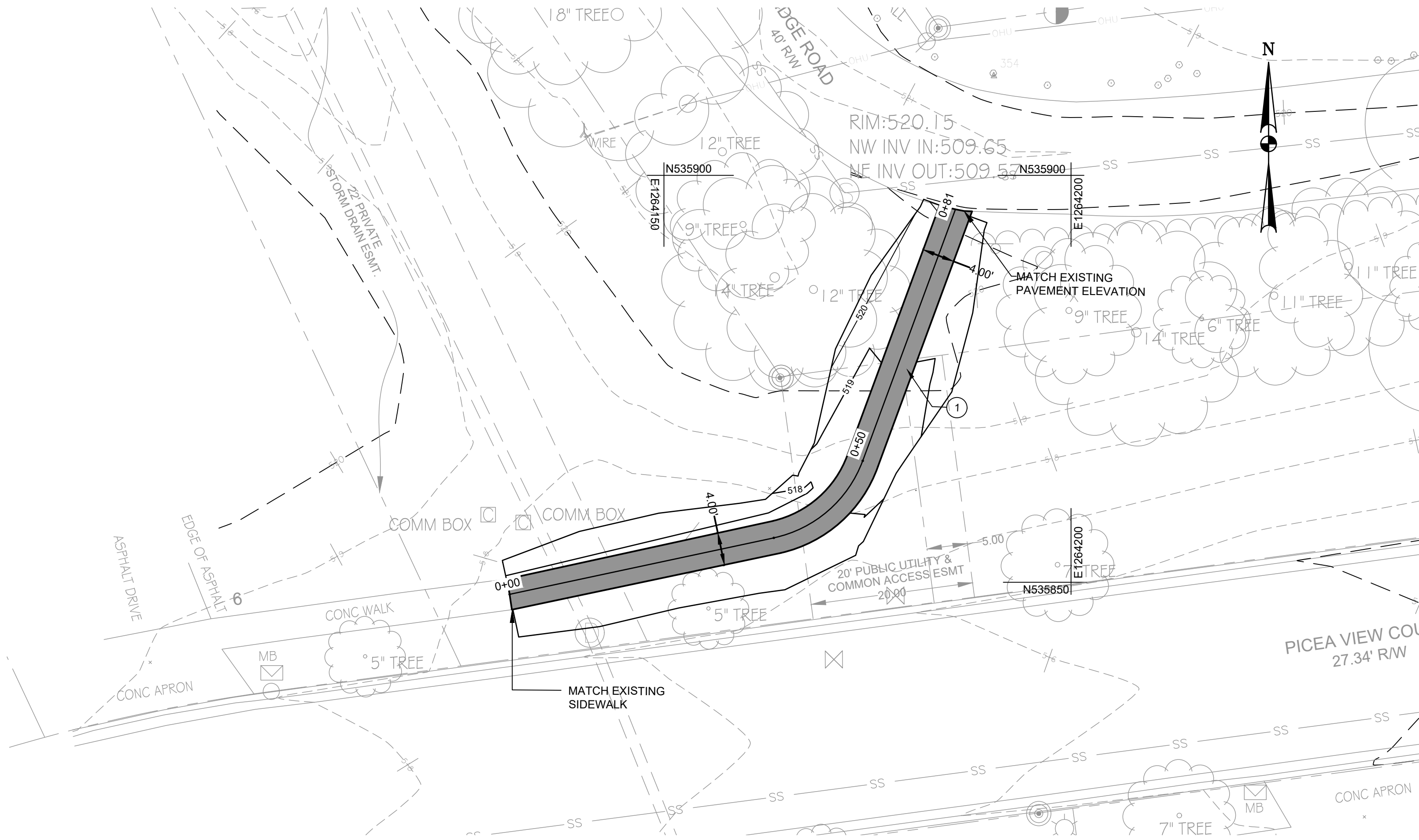
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	35% BRIDGING DOCUMENTS	7/24/2024						
				RECOMMENDED FOR APPROVAL				
				Chief, Design Section		Date		
				APPROVED				
				Chief, Division of Transportation Engineering		Date		
NO.	REVISION	DATE	BY	Designed by: _____		Drawn by: _____		Checked by: _____
				Project No. : 202337		12		of 29



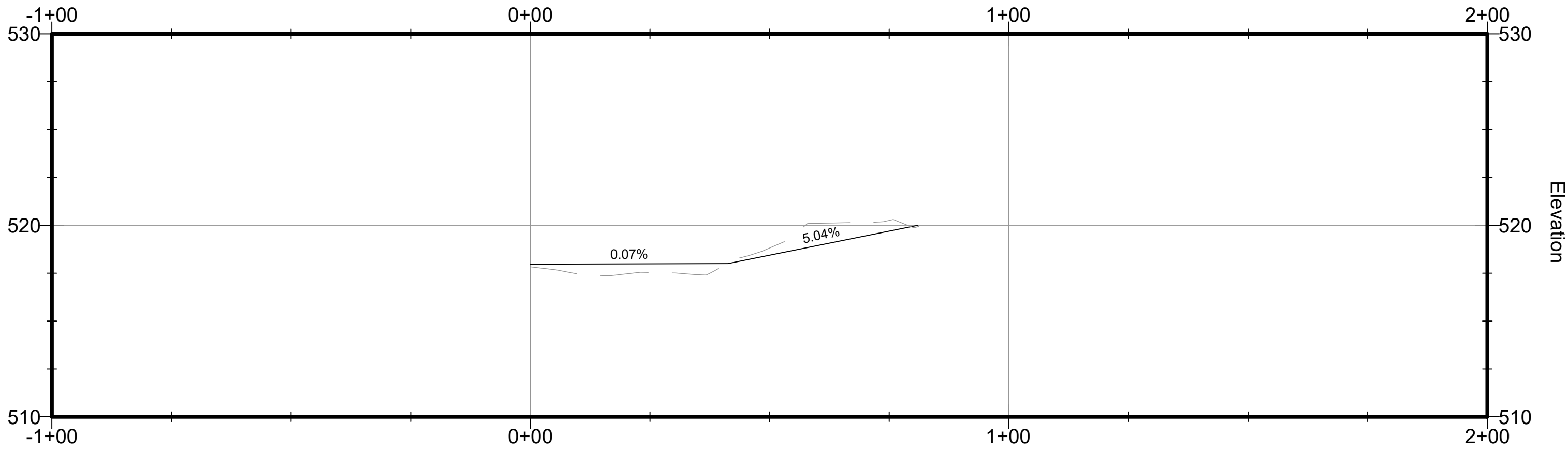
1. SEE S401 FOR RETAINING WALL DETAILS FOR CURBS ABOVE 3FT IN HEIGHT.

	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK SIDEWALK LAYOUT PICEA – LONG	SCALE : AS SHOWN	C205
	35% BRIDGING DOCUMENTS	7/24/2024					
NO.	REVISION	DATE	BY	Designed by: _____	Drawn by: _____	Checked by: _____	Project No. : 509337
							13 of 29

SHEET NO.	TOTAL SHEETS
14	29



PLAN VIEW:
1" = 10'



PROFILE VIEW:
H: 1" = 20'
V: 1" = 5'

TRAIL SITE PLAN LEGEND		
	DESCRIPTION	NOTES
	HOT MIX ASPHALT	①



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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section
APPROVED

Date

Chief, Division of Transportation Engineering

Date

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
SIDEWALK LAYOUT PICEA - SHORT

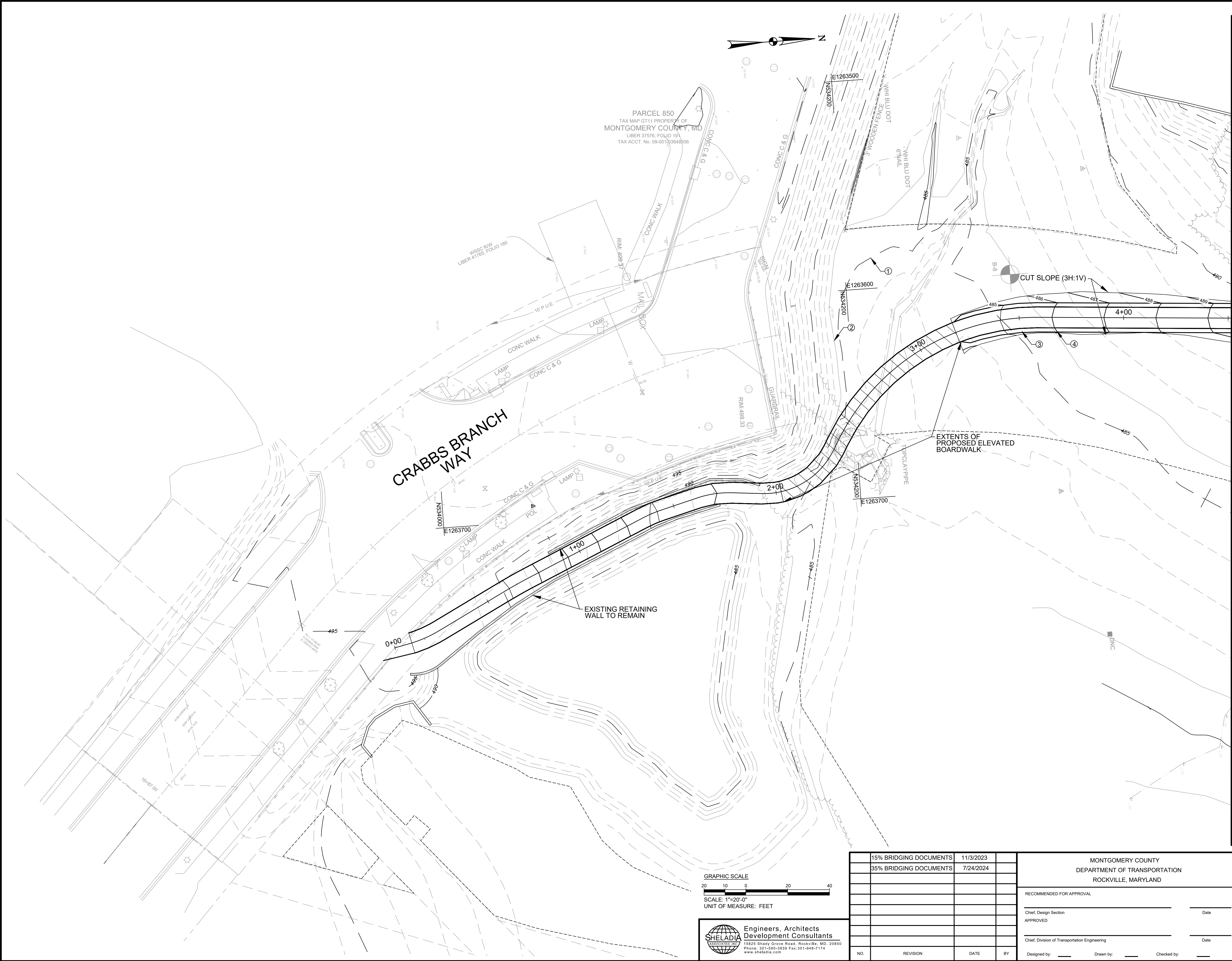
SCALE : AS SHOWN

C206

Project No.: 002937

14 of 29

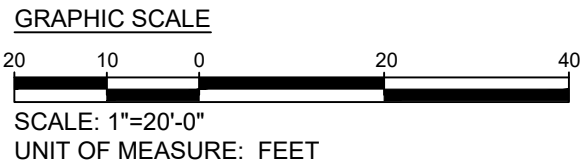
SHEET NO.	TOTAL SHEETS
15	29



MATCHLINE A-A STA. 4+50 - SEE DWG. C302

ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
---	EXISTING MAJOR CONTOUR LINE	①
- - -	EXISTING MINOR CONTOUR LINE	②
---	PROPOSED MAJOR CONTOUR LINE	③
- - -	PROPOSED MINOR CONTOUR LINE	④

- NOTES:
- FOR GENERAL NOTES, SEE DRAWING G-002.
 - FOR TRAIL ALIGNMENT/PROFILE AND CULVERT PIPE INFORMATION, SEE DRAWINGS C-201 THROUGH C-202.



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NO.	REVISION	DATE

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

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
TRAIL ROUGH GRADING PLAN
1 OF 2

SCALE : AS SHOWN

C301



Project No.: 002937

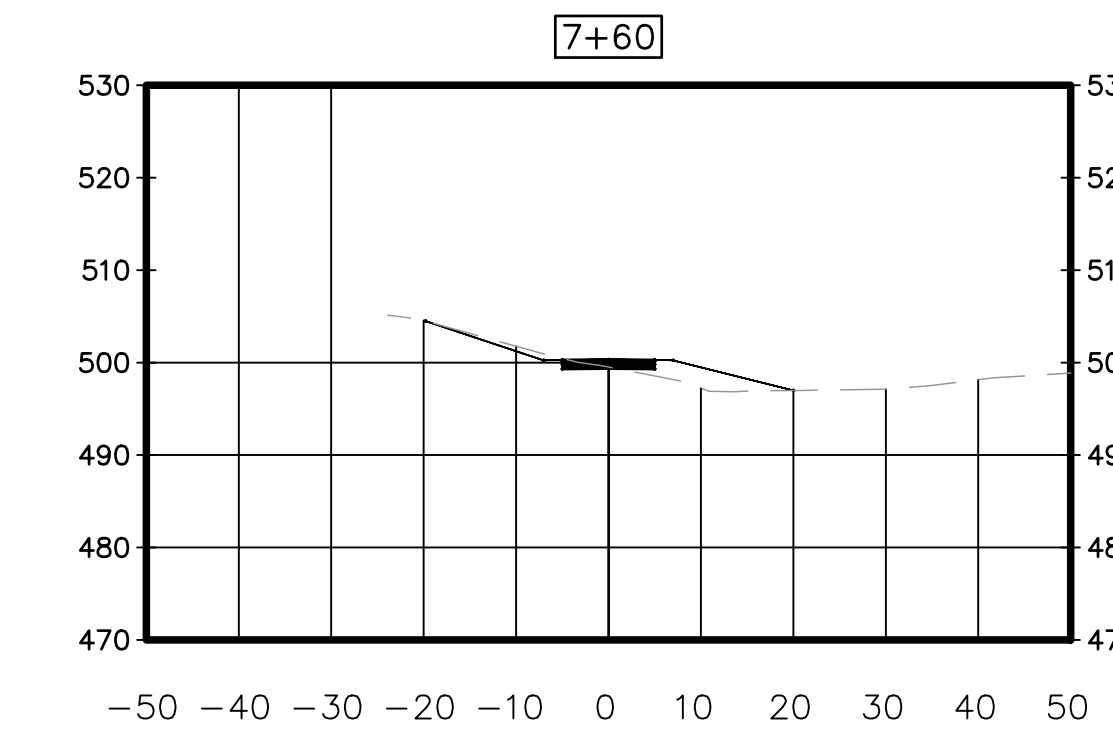
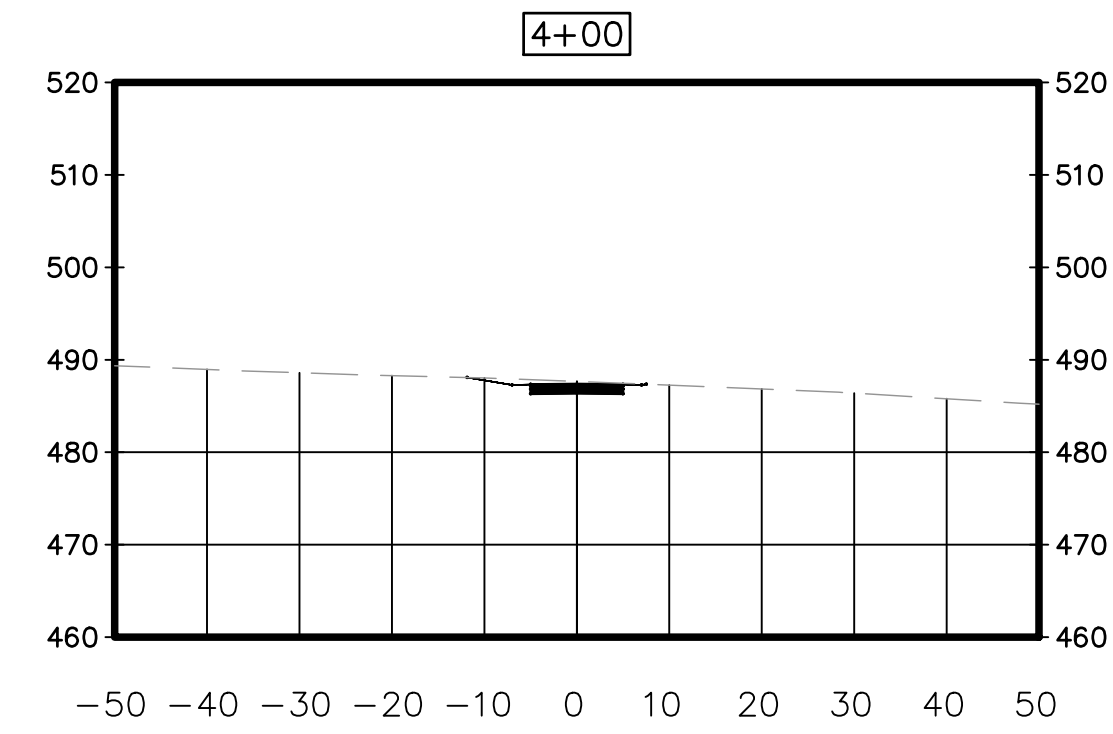
15 of 29



ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
— — —	EXISTING MAJOR CONTOUR LINE	①
- - - - -	EXISTING MINOR CONTOUR LINE	②
—————	PROPOSED MAJOR CONTOUR LINE	③
—————	PROPOSED MINOR CONTOUR LINE	④

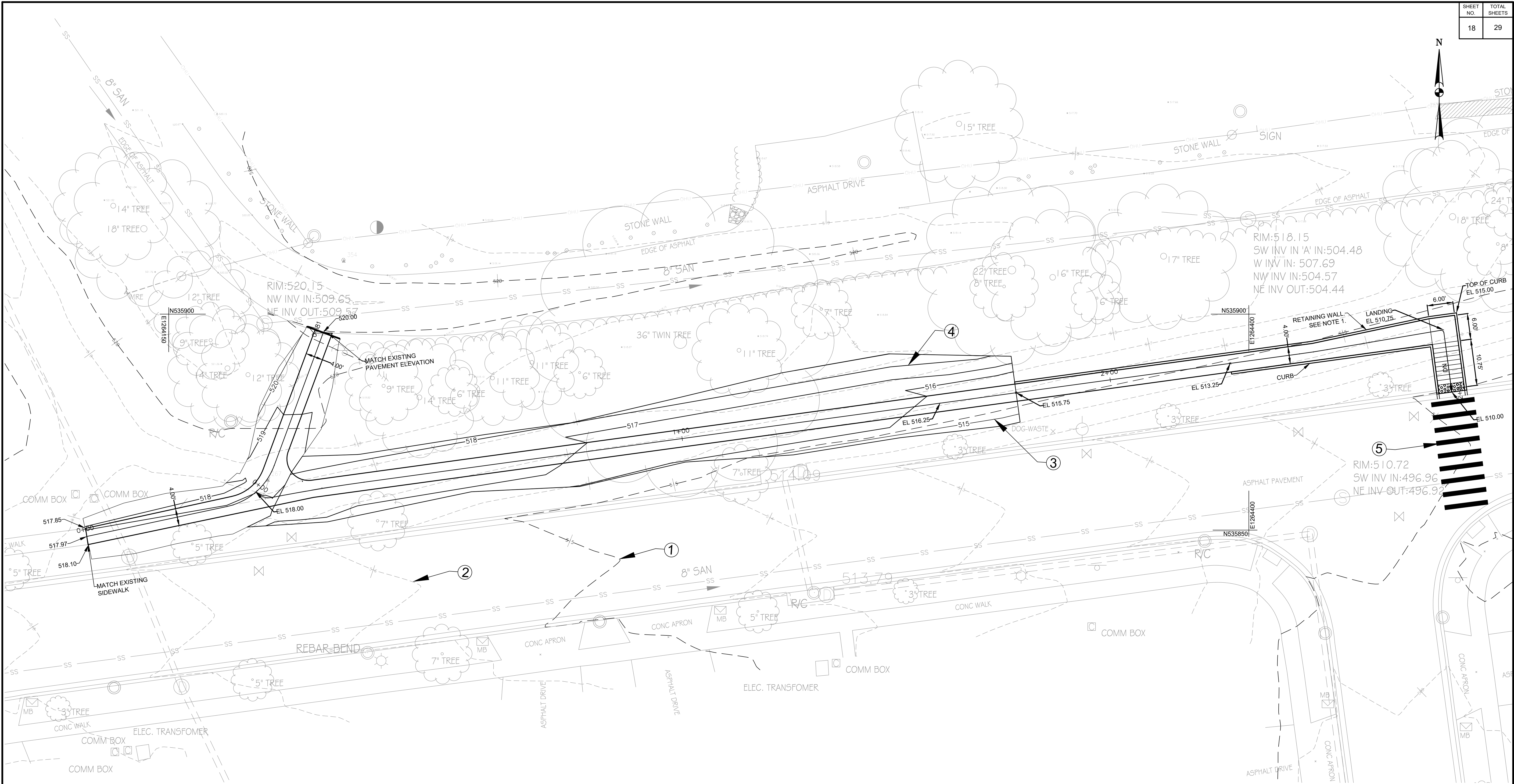
1. FOR GENERAL NOTES, SEE DRAWING G002.
2. FOR TRAIL PROFILE, SEE DRAWINGS C201 THROUGH C202.

<div>GRAPHIC SCALE</div> <div></div> <div>SCALE: 1"=20'-0"</div> <div>UNIT OF MEASURE: FEET</div>	15% BRIDGING DOCUMENTS	11/3/2023	<div>MONTGOMERY COUNTY</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>ROCKVILLE, MARYLAND</div>	<div>WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK TRAIL ROUGH GRADING PLAN 2 OF 2</div> <div>SCALE: AS SHOWN</div> <div>Project No.: <u>500637</u></div> <div>16 of 28</div> <div>C302</div>		
	35% BRIDGING DOCUMENTS	7/24/2024				
<div></div> <div>Engineers, Architects Development Consultants</div> <div>15925 Shady Grove Road, Rockville, MD, 20850</div> <div>Phone: 301-590-3839 Fax: 301-948-7174</div> <div>www.sheladia.com</div>				<div>RECOMMENDED FOR APPROVAL</div> <div>Chief, Design Section _____ Date _____</div> <div>APPROVED _____</div> <div>Chief, Division of Transportation Engineering _____ Date _____</div> <div>Designed by: _____ Drawn by: _____ Checked by: _____</div>		
	NO	REVISION	DATE	BY		



SECTION A-A
H: 1"=20'
V: 1"=5'

	15% BRIDGING DOCUMENTS	11/3/2023			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK TRAIL CROSS SECTIONS	SCALE : AS SHOWN	C303	Project No. : <u>506337</u> of <u>17</u> of <u>29</u>
	35% BRIDGING DOCUMENTS	7/24/2024							
NO.	REVISION	DATE	BY		RECOMMENDED FOR APPROVAL Chief, Design Section _____ Date _____ APPROVED Chief, Division of Transportation Engineering _____ Date _____ Designed by: _____ Drawn by: _____ Checked by: _____				



SHEET NO.	TOTAL SHEETS
18	29

ROUGH GRADING PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
---	EXISTING MAJOR CONTOUR LINE	①
- - -	EXISTING MINOR CONTOUR LINE	②
— — —	PROPOSED MAJOR CONTOUR LINE	③
— — —	PROPOSED MINOR CONTOUR LINE	④
==	PEDESTRIAN CROSSING STRIPE	⑤

NOTE
1. SEE S401 FOR RETAINING WALL DETAILS FOR CURBS ABOVE 3FT IN HEIGHT.



**Engineers, Architects
Development Consultants**
15825 Shady Grove Road, Rockville, MD 20850
Phone: 301-580-3839 Fax: 301-948-7174
www.sheladia.com

	15% BRIDGING DOCUMENTS	11/3/2023	
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NO.	REVISION	DATE	BY

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

**WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK**

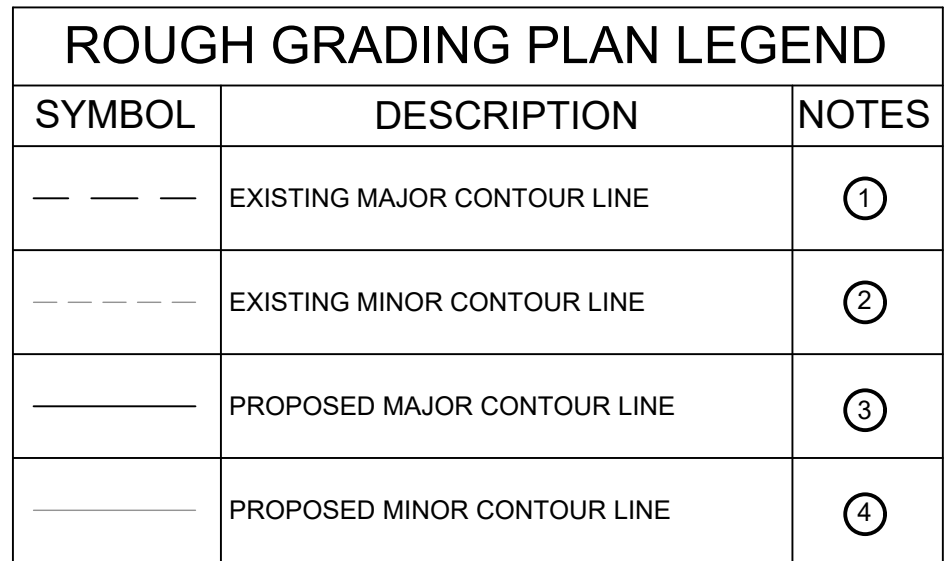
**SIDEWALK ROUGH GRADING PLAN
PICEA - LONG**

SCALE : AS SHOWN

C304

Project No.: 002937

18 of 29






1. FOR GENERAL NOTES, SEE DRAWING G002.
2. FOR TRAIL PROFILE, SEE DRAWING C206.

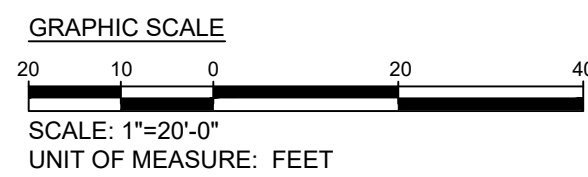


FILE: K:\5547 MC DOT\T4 Crabbs Branch Facility Planning Phase III\Engineering\5. CADD\PICEA CT\PICEA SHORT OPTION\C-301S.dwg
DATE: Jul 24, 2024 - 4:31pm





<div style="text-align: center;"> <u>EROSION AND SEDIMENT CONTROL</u> <u>LEGEND</u> </div>	
CSA BOUNDARY / LIMITS OF DISTURBANCE	_____ LOD _____
SUPER SILT FENCE	 _____ SSF _____ SSF _____
SILT FENCE	 _____ SF _____ SF _____ SF _____
DIVERSION FENCE	 _____ DF _____



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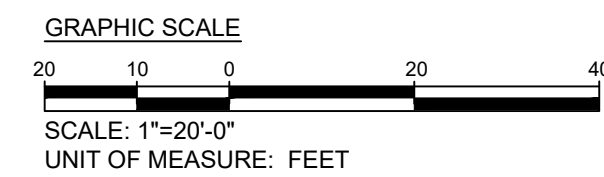
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		
RECOMMENDED FOR APPROVAL		
Chief, Design Section _____ APPROVED	_____ Date	
Chief, Division of Transportation Engineering _____	_____ Date	
Designed by: _____	Drawn by: _____	Checked by: _____

WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
EROSION AND SEDIMENT
CONTROL SHEET 1 OF 2

SCALE : AS SHOWN	C501
Project No. : <u>509337</u>	<u>21</u> of <u>29</u>



<div style="text-align: center;"><u>EROSION AND SEDIMENT CONTROL</u></div> <div style="text-align: center;"><u>LEGEND</u></div>	
CSA BOUNDARY / LIMITS OF DISTURBANCE	_____ 100' _____
SUPER SILT FENCE	 _____ SSF _____ SSF _____
DIVERSION FENCE	 _____ DF _____



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	15% BRIDGING DOCUMENTS	11/3/2023		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND			WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK EROSION AND SEDIMENT CONTROL SHEET 2 OF 2 SCALE : AS SHOWN <div>C502</div>		
	35% BRIDGING DOCUMENTS	7/24/2024							
				RECOMMENDED FOR APPROVAL					
				Chief, Design Section			Date		
				APPROVED					
				Chief, Division of Transportation Engineering			Date		
NO.	REVISION	DATE	BY	Designed by: _____			Drawn by: _____		
				Checked by: _____					

Project No. :	509337	22	of	28
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SHEET NO.	TOTAL SHEETS
23	29

GENERAL NOTES:

CODES AND STANDARDS

1. ALL DESIGN AND CONSTRUCTION IS BASED ON AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES.

2018 IBC - 2018 INTERNATIONAL BUILDING CODE W/ AMENDMENTS
ACI - AMERICAN CONCRETE INSTITUTE
ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AF&PA - AMERICAN FOREST & PAPER ASSOCIATION
AF&PA-2012
SDPWS-2008
APA - APA - ENGINEERED WOOD ASSOCIATION
ASCE - AMERICAN SOCIETY OF CIVIL ENGINEERS
ASCE/SEI 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
AWPA - AMERICAN WOOD PROTECTION ASSOCIATION

2. ALL REFERENCED STANDARDS SHALL BE OF THE EFFECTIVE DATE NOTED IN THE CONTROLLING BUILDING CODE.
3. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONSTRUCTION DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONSTRUCTION DOCUMENTS NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONSTRUCTION DOCUMENTS.

LOADS

DESIGN LOADS (ALL LOADS ARE SERVICE LOADS UNLESS NOTED):

1. DEAD LOADS DECK LOAD	50 PSF
2. LIVE LOADS PEDESTRIAN LOAD	90 PSF
3. SNOW LOADS GROUND SNOW LOAD (PG)	30 PSF
4. WIND DESIGN CRITERIA ULTIMATE WIND SPEED (3-SECOND GUST)	115 MPH
WIND DIRECTIONAL FACTOR (KD)	0.85
EXPOSURE CATEGORY	C
TOPOGRAPHIC FACTOR (KZT)	1.16
GUST EFFECT FACTOR (G)	0.85

GENERAL CONDITIONS

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING MUNICIPAL CODES & SPECIFICATIONS FOR THIS PROJECT.
2. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
3. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM THE DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
4. WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES, SHALL BE REPEATED.
5. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
6. CONTRACTOR TO SUPPORT, BRACE AND SECURE ALL STRUCTURE AS REQUIRED DURING ERECTION/CONSTRUCTION. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE BUILDING DURING CONSTRUCTION. BUILDING IS NOT FULLY BRACED UNTIL ALL SHEAR WALLS, SHEATHING, FASTENERS AND OTHER LATERAL BRACING COMPONENTS HAVE BEEN COMPLETELY INSTALLED.
7. THESE NOTES APPLY TO ALL STRUCTURAL DRAWINGS. NOTES SHALL APPLY UNLESS OTHERWISE INDICATED BY STRUCTURAL DRAWINGS OR SPECIFICATIONS.
8. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION OR PLAN NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL SIMILAR OR LIKE CONDITIONS UNLESS NOTED OTHERWISE.
9. CONSTRUCTION DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND CALCULATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE GENERAL CONTRACTOR.

10. CONSTRUCTION DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONSTRUCTION DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.
11. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL DRAWINGS.
12. DO NOT SCALE FOR DIMENSIONS NOT SHOWN ON DRAWINGS. SEND WRITTEN RFI (REQUEST FOR INFORMATION) TO THE ARCHITECT/ENGINEER FOR DIMENSIONS NOT PROVIDED.
13. ELEVATIONS SHOWN ARE TO TOP OF FOUNDATIONS, SLABS OR STEEL BEAMS UNLESS NOTED OTHERWISE.
14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ORDER TO COMPLY WITH THE CONSTRUCTION DOCUMENTS.
15. THE GENERAL CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE OSHA REGULATIONS.
16. ALL TESTING SHALL BE PAID FOR BY THE OWNER (CONTRACTOR SHALL COORDINATE WITH OWNER TO ENSURE THAT COST OF TESTING IS ACCURATE AND PRESENTED TO OWNER WITH CONSTRUCTION COSTS).

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE SHALL BE READY-MIX, HAVE A MINIMUM OF 500 LBS. OF CEMENT PER CUBIC YARD AND HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
- CONCRETE FOR SLABS ON GRADE, RETAINING WALLS AND RETAINING WALL FOOTINGS - 3,500 PSI.
2. ALL CONCRETE SHALL HAVE A SLUMP OF 4" PLUS OR MINUS 1".
3. CONCRETE EXPOSED TO FREEZE THAW SHALL HAVE 4 TO 8% AIR ENTRAINMENT, AND A MAXIMUM WATER/CEMENT RATIO OF 0.50.
4. CONCRETE NOT EXPOSED TO FREEZE THAW SHALL HAVE 2 TO 4% AIR ENTRAINMENT, AND A MAXIMUM WATER/CEMENT RATIO OF 0.56.
5. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH THE REFERRED EDITION OF ACI 301 CHAPTER 3, METHOD 1 OR METHOD 2.
6. SUBMIT BACKUP DATA AS REQUIRED BY CHAPTER 5 SECTION 5.3. OF THE REFERRED EDITION OF ACI 318.
7. SLAB ON GRADE SHALL BE 5" MINIMUM WITH 6x6 - W1.4 x W1.4 W.W.F. EXCEPT AS NOTED ON THE DRAWINGS.
8. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL BE LAPPED AT LEAST 8" AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 8".
10. POURING OF CONCRETE SHALL NOT START UNTIL THE REINFORCING HAS BEEN PLACED AND APPROVED BY THE OWNER'S INSPECTING AGENCY.
11. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" REFERRED EDITION OF ACI 318 , AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," ACI 301.
12. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315 (REFERRED IN CODES AND REFERENCES), UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
13. CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, NECESSARY TO SUPPORT REINFORCING STEEL. SUPPORT ITEMS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL.
14. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
- 3" - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED EARTH.
 - 2" - CONCRETE EXPOSED TO EARTH OR WEATHER, #6 THROUGH #18 BARS.
 - 1 1/2" - CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BAR SMALLER.
 - 1 1/2" - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH FOR THE PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS IN BEAMS AND COLUMNS
 - 3/4" - CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH EARTH FOR SLABS AND WALLS, #11 BAR AND SMALLER.
18. HORIZONTAL WALL AND FOOTING BARS SHALL BE BENT 1'-0" AROUND CORNERS OR CORNER BARS WITH 2'-6" LAP SHALL BE PROVIDED.
19. HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS SHALL BE PROVIDED IN WALL FOOTINGS WITH A DEPTH OF 1-1/2" AND HEIGHT EQUAL TO 1/3 OF THE FOOTING DEPTH. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
20. CONTRACTOR SHALL KEEP A COPY OF "FIELD REFERENCE MANUAL" (ACI PUBLICATION SP-15, REFERRED EDITION) AT THE PROJECT FIELD OFFICE.

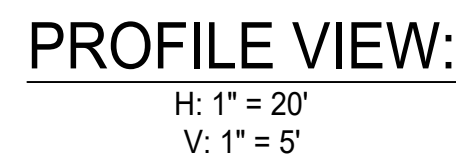
21. LAP SPLICES, DEVELOPMENT LENGTHS AND DETAILS FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THOSE LISTED IN THE AMERICAN CONCRETE INSTITUTE SPECIFICATIONS. MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 48 BAR DIAMETERS TYPICAL, EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS. FOR STAIR AND ELEVATOR TOWER SHEAR WALLS, LAP ALL VERTICAL BARS 60 BAR DIAMETERS.
22. TESTING LABORATORY SHALL SUBMIT ONE COPY OF ALL CONCRETE TEST REPORTS DIRECTLY TO THE ENGINEER.

WOOD CONSTRUCTION

1. WOOD CONSTRUCTION SHALL CONFORM TO THE AFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", REFERRED EDITION., NATIONAL FOREST PRODUCTS ASSOCIATION "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AMERICAN PLYWOOD ASSOCIATION "PLYWOOD DESIGN SPECIFICATION", NATIONAL LUMBER MANUFACTURERS ASSOCIATION "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" AND AMERICAN WOOD-PRESERVERS ASSOCIATION STANDARDS.
2. ALL STRUCTURAL FRAMING MEMBERS SHALL BE HEM-FIR, GRADE 2, STRESS GRADE LUMBER OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. THE MINIMUM ALLOWABLE PROPERTIES ARE AS FOLLOWS:
- Fb = 850 PSI
 - Fv = 150 PSI
 - E = 1,300,000 PSI ALL
3. STRUCTURAL TIMBER TO BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S "CONSTRUCTION MANUAL".
4. ALL STUDS SHALL BE S-P-F, STUD GRADE, UNLESS NOTED OTHERWISE. ALL STUDS OVER 10'-0" LONG SHALL BE S-P-F, GRADE 2.
5. ALL NAILS SHALL BE COMMON NAILS, UNLESS NOTED OTHERWISE. THE FOLLOWING SIZE NAILS MUST BE USED, WHEN SPECIFIED:
- 16d COMMON NAILS = 0.162 DIA. x 3 1/2" LONG
 - 16d SINKER NAILS = 0.148 DIA. x 3 1/4" LONG
 - 10d COMMON NAILS = 0.148 DIA. x 3" LONG
 - 8d COMMON NAILS = 0.131 DIA. x 2 1/2" LONG
12. ALL TIMBER CONNECTIONS SHALL BE MADE USING PREFABRICATED CONNECTORS. TOE-NAILING IS NOT PERMITTED, UNLESS SHOWN ON THE DRAWINGS. SUBMIT MANUFACTURER'S DATA FOR REVIEW. FASTENERS SHALL BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL. ALL FASTENERS THAT ARE EXPOSED TO THE WEATHER AND/OR ARE IN CONTACT WITH ANY PRESSURE TREATED LUMBER SHALL BE ZMAX (G185) GALVANIZED MINIMUM.
13. ALL CONNECTIONS TO PRESERVATIVE TREATED WOOD, MUST BE MADE USING ONLY GALVANIZED CONNECTORS AND FASTENERS. GALVANIZED CONNECTORS MUST BE A MINIMUM OF (CLASS G-185) 1.85 oz. OF ZINC PER SQUARE FOOT OF SURFACE AREA (HOT-DIP GALVANIZED PER ASTM A653, ALL SURFACES/SIDES) AND HAVE A BARRIER MEMBRANE BETWEEN THE TREATED WOOD AND CONNECTOR. GALVANIZED FASTENERS MUST BE HOT-DIP GALVANIZED PER ASTM A153. ANY HEAVY DUTY CONNECTORS THAT ARE 14 GAUGE OR THICKER REQUIRES A MINIMUM ZINC COATING WEIGHT OF 2.0 oz. PER SQUARE FOOT (PER ASTM 123, ALL SURFACES/SIDES). WHERE BARRIERS ARE REQUIRED, PROVIDE GRACE VYCOR DECK PROTECTOR OR EQUAL. BARRIERS ARE TYPICALLY REQUIRED AT EXTERIOR (OUTDOOR) CONDITIONS (i.e. DECKS, ETC.) AND/OR WHERE GALVANIZED CONNECTORS ARE ATTACHED TO ANY TREATED LUMBER INDOORS, OTHER THAN SBX/DOT OR ZINC BORATE TREATED LUMBER.
14. PROVIDE PRESSURE TREATED LUMBER WHERE LUMBER IS EXPOSED TO THE WEATHER.



	15% BRIDGING DOCUMENTS	11/3/2023			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		WASHINGTON GROVE CONNECTOR TRAIL AND PICEA VIEW COURT CONNECTOR SIDEWALK STRUCTURAL NOTES	
	35% BRIDGING DOCUMENTS	7/24/2024						
					RECOMMENDED FOR APPROVAL			
					Chief, Design Section		Date	
					APPROVED			
					Chief, Division of Transportation Engineering		Date	
					Designed by: _____		Drawn by: _____	
					Checked by: _____			
NO.	REVISION	DATE	BY		Project No. : <u>009337</u>		<u>23</u> of <u>29</u>	



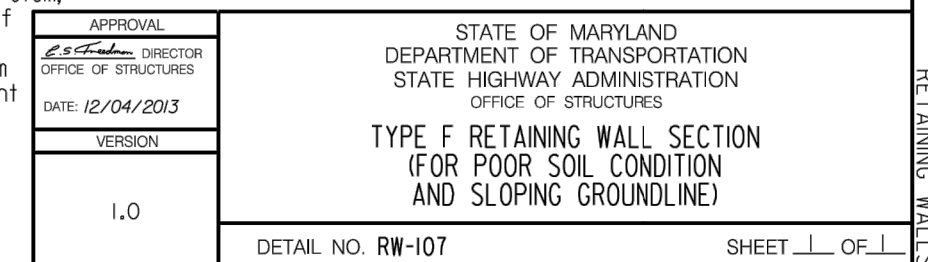
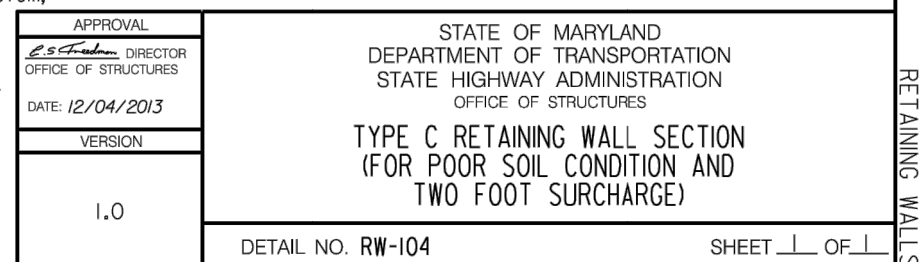
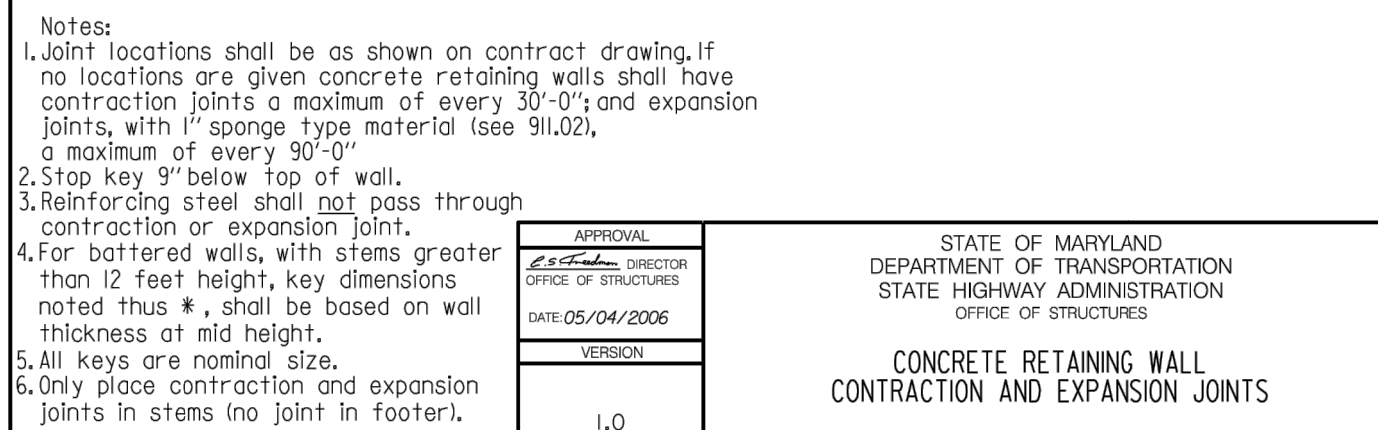
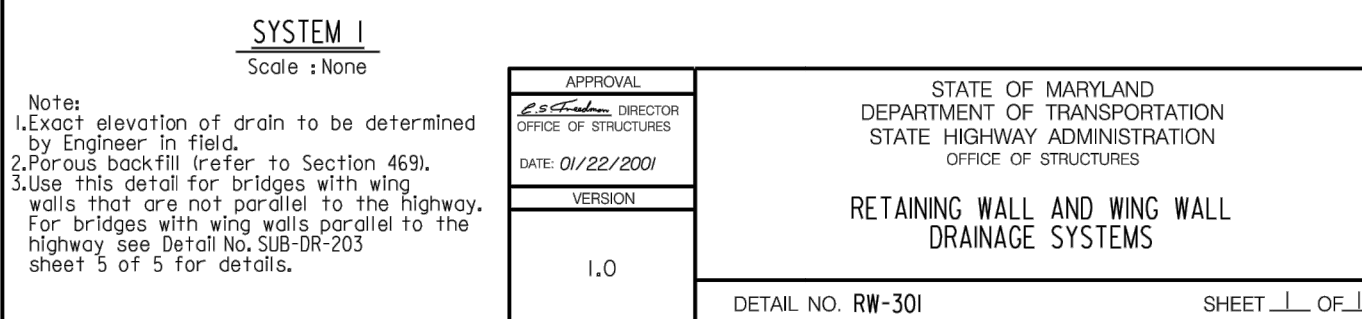
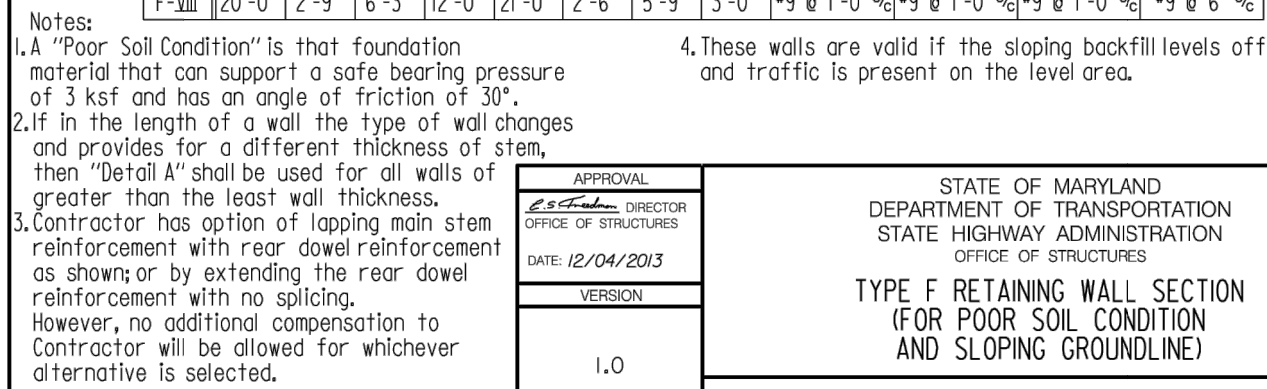
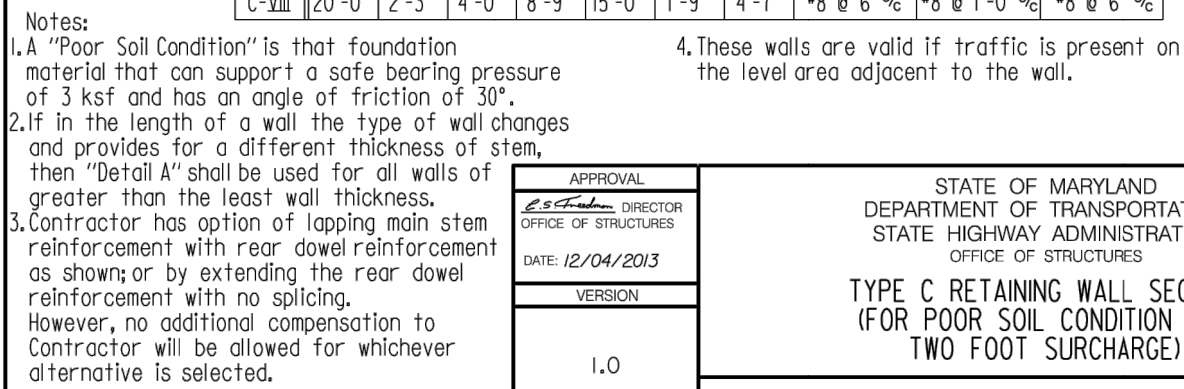
WOOD PILE FOOTINGS: 1'-6" DIAMETER & 4'-0" DEEP MIN.



10' X 6' CONCRETE LANDING TO BE CONSTRUCTED AT EACH END OF BOARDWALK TRAIL. CONTRACTOR SHALL MATCH SLOPE AS NEEDED.

FILE: K:\5547 MC DOT\T4 Crabbs Branch Facility Planning Phase II\Engineering\5. CADD\Conceptual 35 Design\SHEETS\IS-001 - 201 - 401.dwg
DATE: Jul 24, 2024 - 4:49pm

APPROVAL <i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES DATE: 03/21/2014	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
VERSION I.O	RETAINING WALL GENERAL NOTES
DETAIL NO. RW-101	SHEET 1 OF 1

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section

APPROVED

Chief, Division of Transportation Engineering

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

SCALE : AS SHOWN

Project No. : 509337 25 of 29

LEGEND:



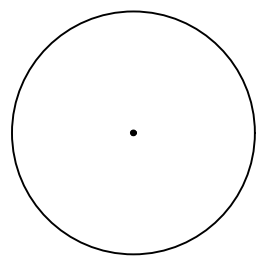
T-01

EXISTING TREE, CRITICAL ROOT
ZONE, AND TREE NUMBER

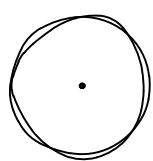


T-01

TREE REMOVAL



PROPOSED MAJOR TREE

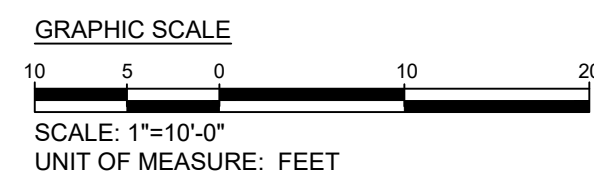


PROPOSED MINOR TREE

— TPF — TREE PROTECTION FENCE

NOTES:

1. FOR GENERAL NOTES, SEE DRAWING G-002.
2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH TURF SEED.




PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
CANOPY TREES						
CO	3	<i>Celtis occidentalis</i>	Common Hackberry	2.5" Cal.	B&B	
NS	2	<i>Nyssa sylvatica</i>	Black Gum	2.5" Cal.	B&B	
TA	3	<i>Tilia americana</i>	American Linden	2.5" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	TBD	Turfgrass Seed Establishment (SY)				
TPF	358	Tree Protection Fence (LF)				

	15% BRIDGING DOCUMENTS	11/3/2023		<div style="text-align: center;"> MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND </div>	<div style="text-align: center;"> <h1>PICEA VIEW COURT</h1> <h2>SIDEWALK</h2> <h3>LANDSCAPE PLAN</h3> </div>	<div style="text-align: right;">LD101</div>
	35% BRIDGING DOCUMENTS	7/24/2023				
NO.	REVISION	DATE	BY	<div> RECOMMENDED FOR APPROVAL <div style="display: flex; justify-content: space-between;"> <div>Chief, Design Section</div> <div>Date</div> </div> APPROVED <div style="display: flex; justify-content: space-between;"> <div>Chief, Division of Transportation Engineering</div> <div>Date</div> </div> </div>	SCALE : 1" = 10'	
				Designed by: <u>KB</u> Drawn by: <u>KB</u> Checked by: <u>GP</u>	Project No. : _____	3 of 29



GRAPHIC SCALE



SCALE: 1"=20'-0"

UNIT OF MEASURE: FEET



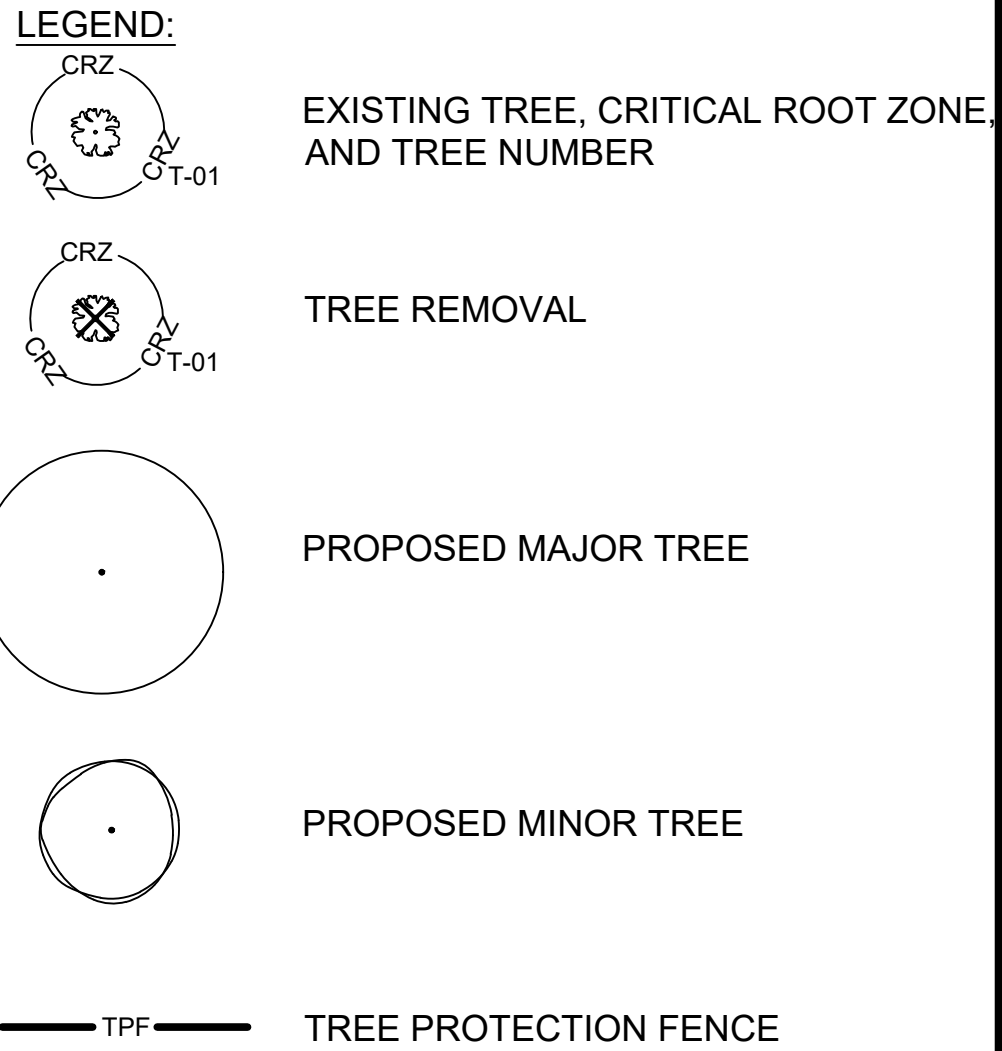
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Chief, Division of Transportation Engineering <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>	<hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> Date		
Designed by: KB	Drawn by: KB	Checked by:	GP

SCALE : 1" = 20'

LD301

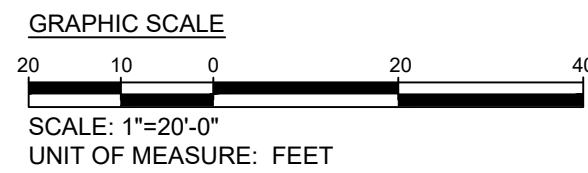
Project No. : 50933of 29

FILE: _____
DATE: _____



- NOTES:**
1. FOR GENERAL NOTES, SEE DRAWING G-002.
 2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH TURF SEED.

PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
CANOPY TREES						
AR	3	<i>Acer rubrum</i>	Red Maple	2.5" Cal.	B&B	
CO	4	<i>Celtis occidentalis</i>	Common Hackberry	2.5" Cal.	B&B	
GT	4	<i>Gleditsia triacanthos var. inermis</i>	Thornless Black Locust	2.5" Cal.	B&B	
QA	3	<i>Quercus alba</i>	White Oak	2.5" Cal.	B&B	
TA	4	<i>Tilia americana</i>	American Linden	2.5" Cal.	B&B	
TD	1	<i>Taxodium distichum</i>	Bald Cypress	2.5" Cal.	B&B	
UNDERSTORY TREES						
CCA	1	<i>Cercis canadensis</i>	Eastern Redbud	2" Cal.	B&B	
CF	5	<i>Cornus florida</i>	Flowering Dogwood	2" Cal.	B&B	
CRWVK	3	<i>Crataegus viridis 'Winter King'</i>	Winter King Hawthorne	2" Cal.	B&B	
MS	4	<i>Magnolia soulangea</i>	Saucer Magnolia	2" Cal.	B&B	
PIO	4	<i>Prunus x incamp 'Okame'</i>	Okame Hybrid Cherry	2" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	TBD	Turfgrass Seed Establishment (SY)				
TPF	113	Tree Protection Fence (LF)				



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RECOMMENDED FOR APPROVAL	
Chief, Design Section APPROVED	Date
Chief, Division of Transportation Engineering	Date
Designed by: <u>KB</u>	Drawn by: <u>KB</u>
Checked by:	<u>GP</u>

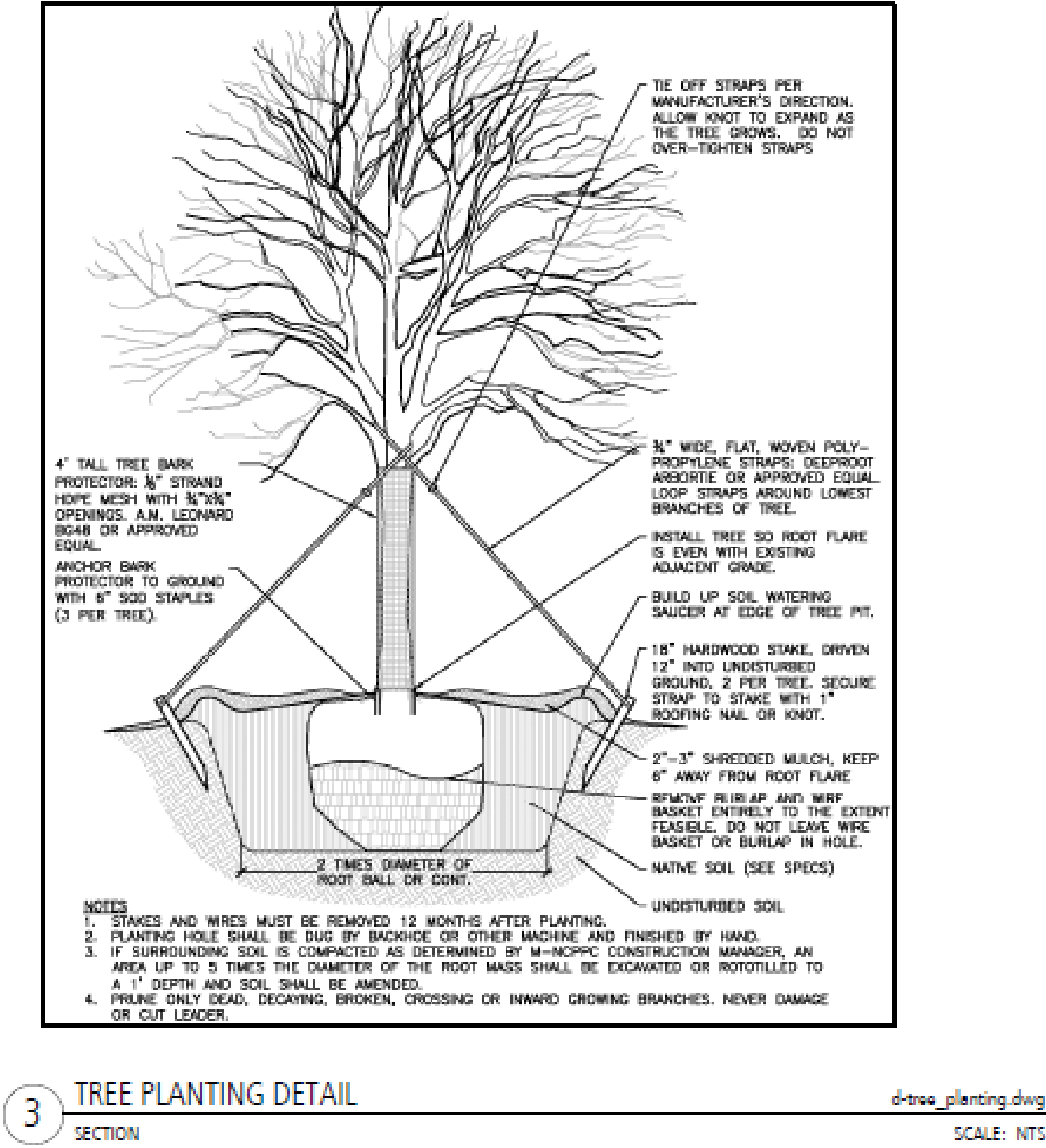
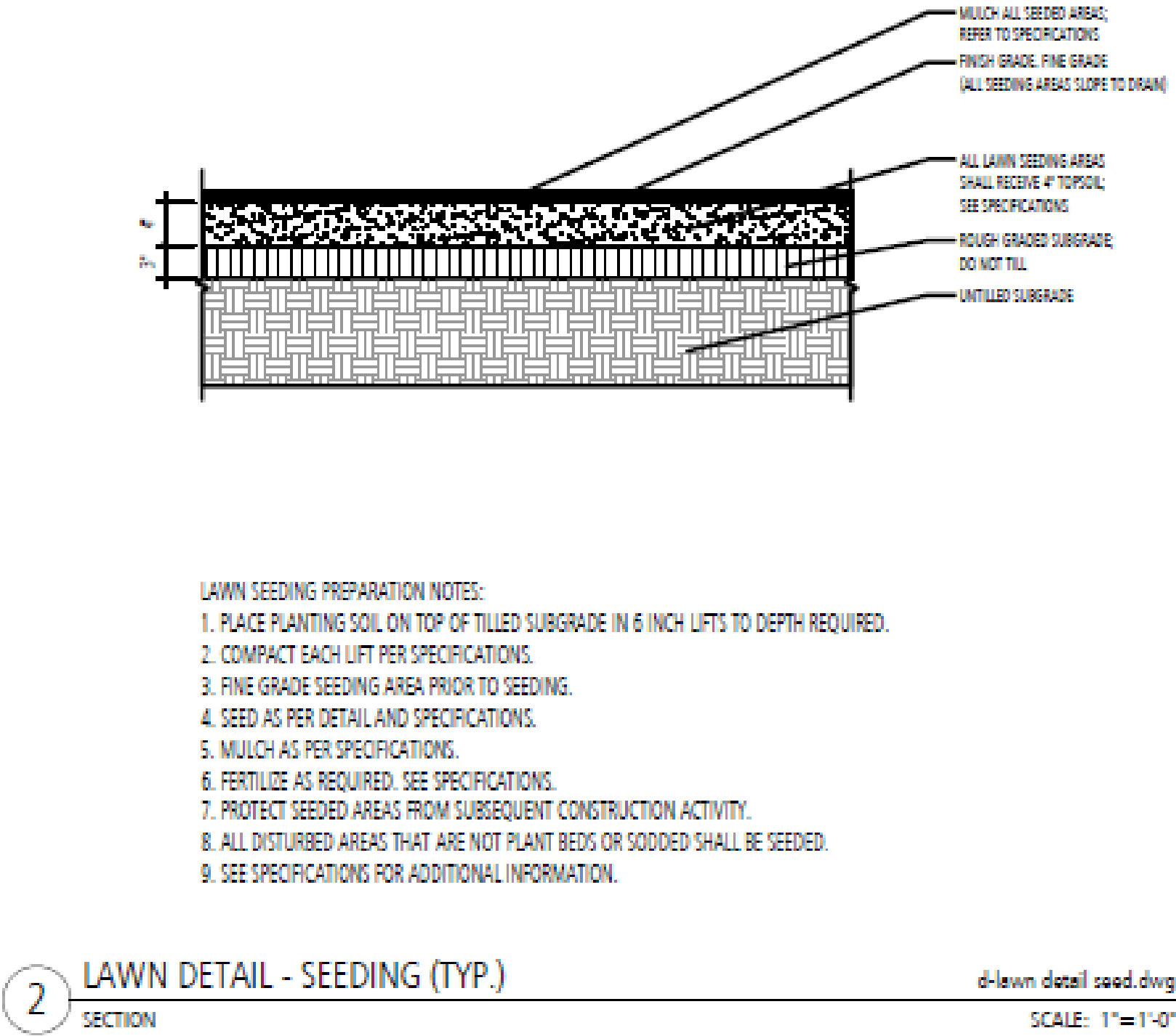
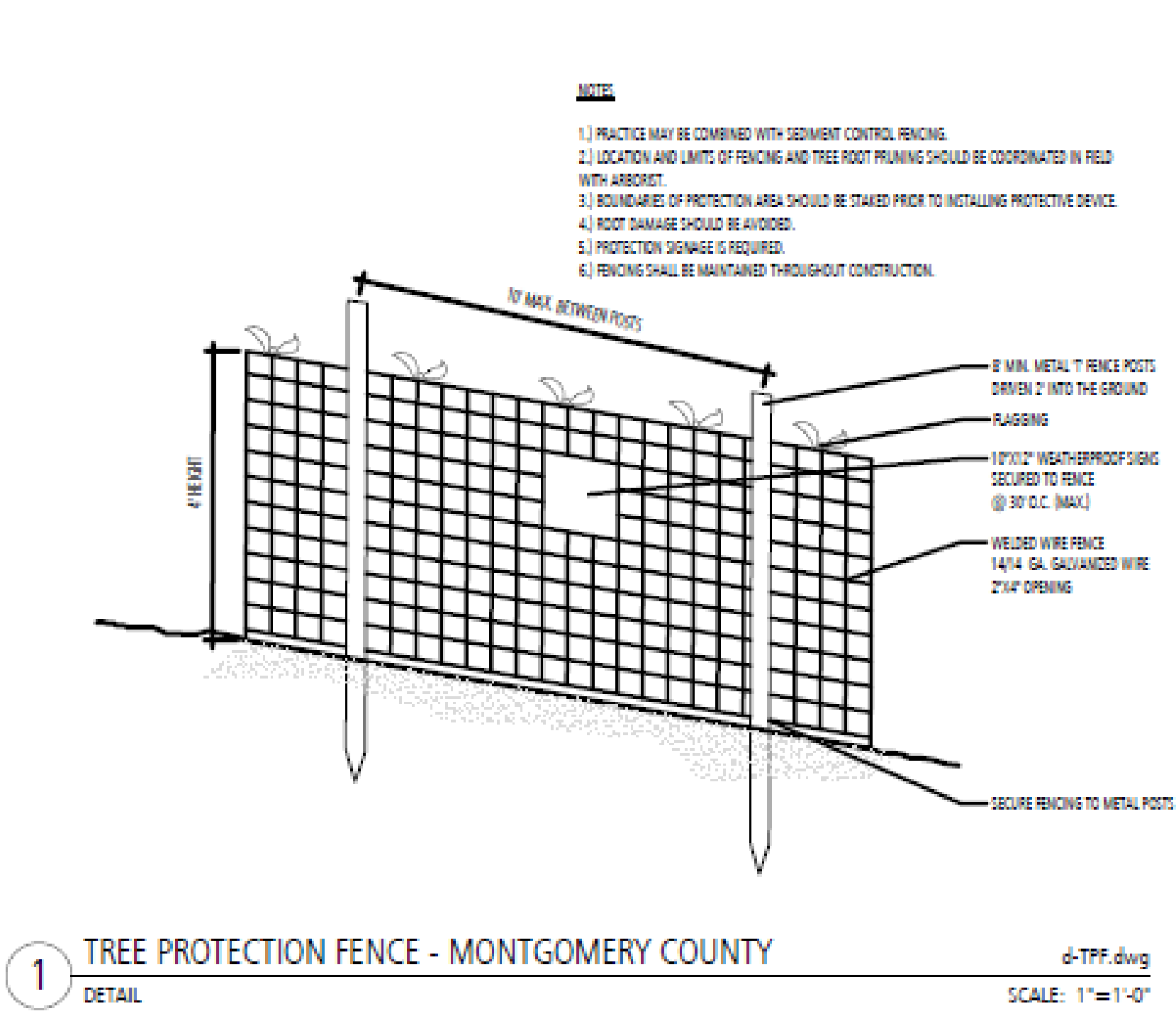
CRABBS BRANCH
WAY EXTENSION

LANDSCAPE PLAN

SCALE : 1" = 20'

LD302

FILE: _____
DATE: _____



MASTER LANDSCAPE PLANT SCHEDULE						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
CANOPY TREES						
AR	6	<i>Acer rubrum</i>	Red Maple	2.5" Cal.	B&B	
CO	9	<i>Celtis occidentalis</i>	Common Hackberry	2.5" Cal.	B&B	
GT	4	<i>Gleditsia triacanthos</i> var. <i>inermis</i>	Thornless Honey Locust	2.5" Cal.	B&B	
NS	2	<i>Nyssa sylvatica</i>	Black Gum	2.5" Cal.	B&B	
TA	9	<i>Tilia americana</i>	American Linden	2.5" Cal.	B&B	
TD	1	<i>Taxodium distum</i>	Bald Cypress	2.5" Cal.	B&B	
QC	3	<i>Quercus coccinea</i>	Scarlet Oak	2.5" Cal.	B&B	
UNDERSTORY TREES						
CRVWK	3	<i>Crataegus viridis</i> 'Winter King'	Winter King Hawthorn	2" Cal.	B&B	
CCA	6	<i>Cercis canadensis</i>	Eastern Redbud	2" Cal.	B&B	
CF	8	<i>Cornus florida</i>	Flowering Dogwood	2" Cal.	B&B	
MS	4	<i>Magnolia x soulangea</i>	Saucer magnolia	2" Cal.	B&B	3-5 stems, equal size
PIO	4	<i>Prunus x incamp</i> 'Okame'	Okame Hybrid Cherry	2" Cal.	B&B	
MISC. ITEM/SEED MIXES						
SOD	TBD	Turfgrass Seed Establishment (SY)				
TPF	514	Tree Protection Fence (LF)				

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Chief, Division of Transportation Engineering			Date
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CRABBS BRANCH
WAY EXTENSION

LANDSCAPE NOTES AND DETAILS

SCALE : N/A

LD303

Project No. : 000937 of 29



NOTE:
LIGHTS ALONG BRIDGE SHALL BE:
• RESIDENTIAL, STRUCTURE MOUNTED FIBERGLASS POLE ROUND, TAPERED, POST-TOP.

CALCULATION ZONE	
AVERAGE	0.9 FC
MAX	1.6 FC
MIN	0.5 FC
MAX/MIN	3.2:1
AVERAGE/MIN	1.8:1

P10				
Symbol	Label	Quantity	Manufacturer	Catalog Number
	B	15	Holophane	AWDE3 P10 30K XXXX AL3
Acrylic Washington Gen3, P10 performance package, 3000K CCT 70CRI, Refractive Acrylic Optic with Type 3 distribution				

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PROFESSIONAL ENGINEERS & LAND SURVEYORS

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Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD 20850
Phone: 301-590-3939 Fax: 301-948-7174
www.sheladia.com

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ROCKVILLE, MARYLAND

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Chief, Design Section
APPROVED _____ Date _____

Chief, Division of Transportation Engineering
APPROVED _____ Date _____

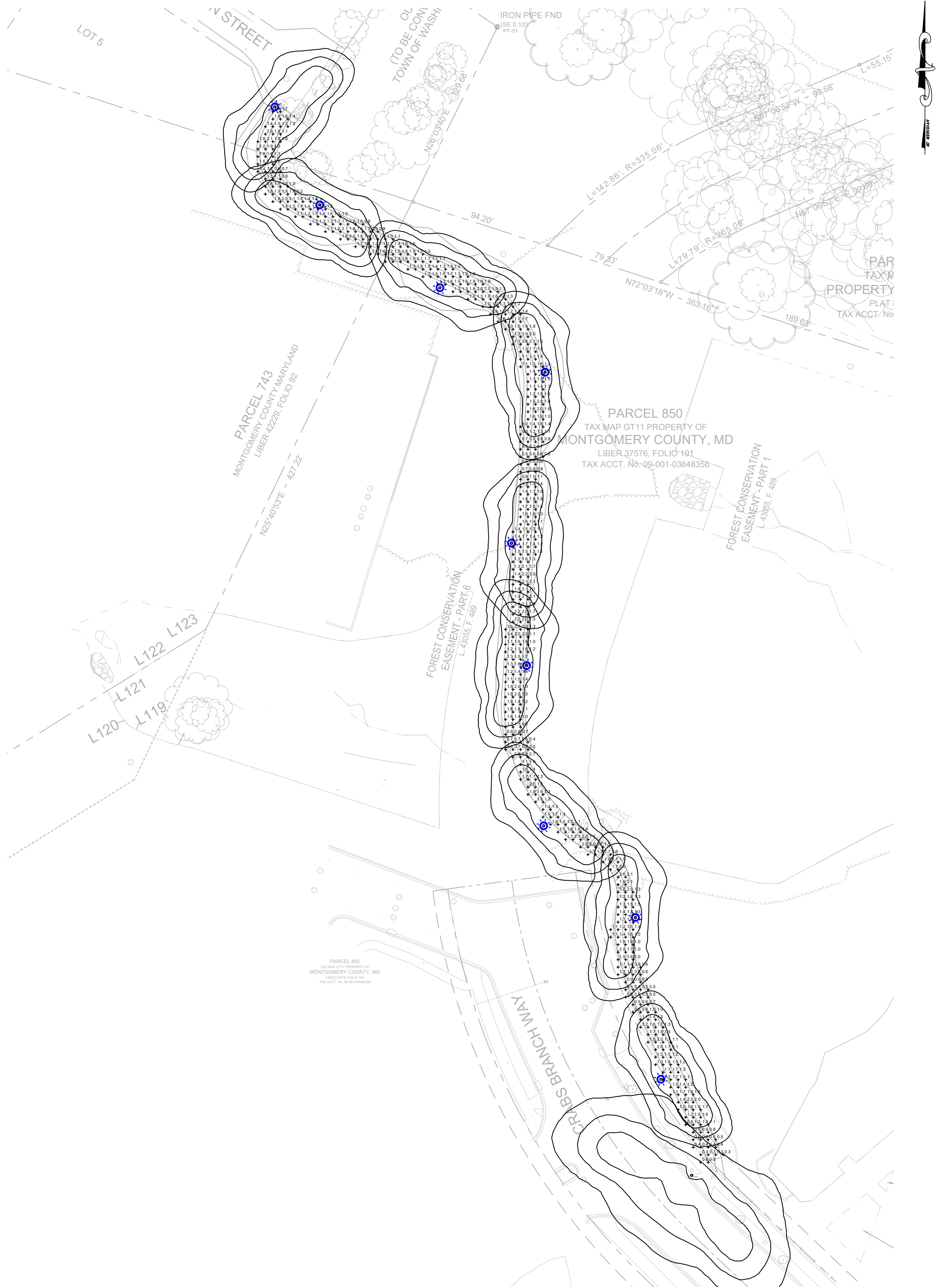
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WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
PHOTOMETRIC DESIGN P10

SCALE : 1" = 40'

CIV220

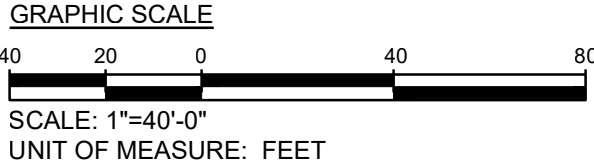
Project No. : 509337 of 29



NOTE:
LUMINAIRES ALONG BRIDGE SHALL BE:
• RESIDENTIAL, STRUCTURE MOUNTED FIBERGLASS POLE ROUND, TAPERED, POST-TOP.

CALCULATION ZONE	
AVERAGE	1.4 FC
MAX	2.2 FC
MIN	0.3 FC
MAX/MIN	7.3:1
AVERAGE/MIN	4.7:1

P30					
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description
	A	9	Holophane	AWDE3 P30 30K XXXX AL3	Acrylic Washington Gen3, P30 performance package, 3000K CCT 70CRI, Refractive Acrylic Optic with Type 3 distribution



AMT LLC
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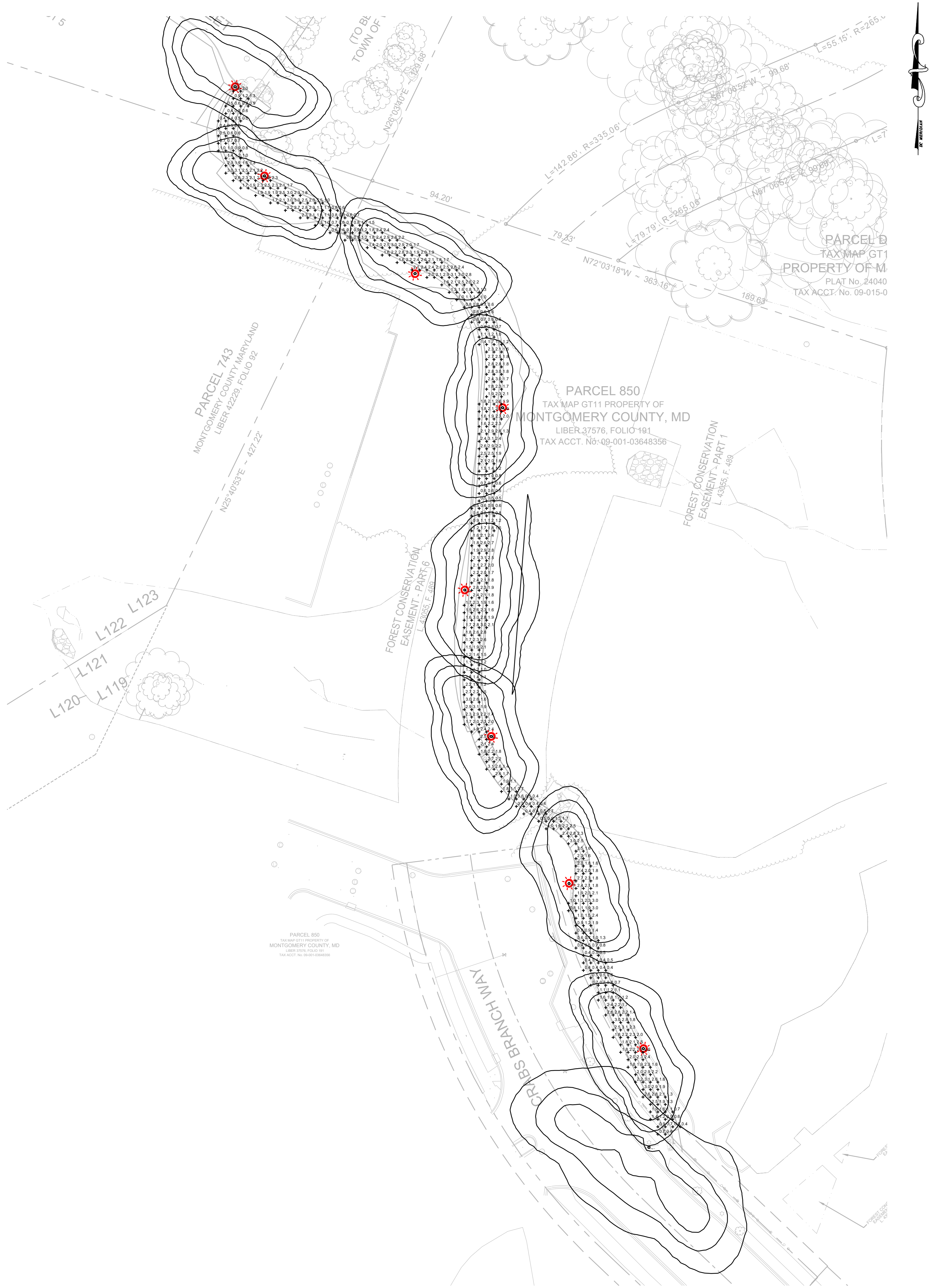
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Design Section APPROVED	Date
Chief, Division of Transportation Engineering	Date
Designed by: <u>AMT</u>	Drawn by: <u>AL</u> Checked by: <u>TJW</u>

**WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
PHOTOMETRIC DESIGN P30**

SCALE : 1" = 40'

Project No. : 509337 of 29

CIV222



NOTE:
LIGHTS ALONG BRIDGE SHALL BE:
• RESIDENTIAL, STRUCTURE MOUNTED FIBERGLASS POLE ROUND, TAPERED, POST-TOP.

CALCULATION ZONE	
AVERAGE	1.7 FC
MAX	3.1 FC
MIN	0.4 FC
MAX/MIN	7.8:1
AVERAGE/MIN	4.3:1

P50					
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description
	C	8	Holophane	AWDE3 P50 30K XXXX AL3	Acrylic Washington Gen3, P50 performance package, 3000K CCT 70CRI, Refractive Acrylic Optic with Type 3 distribution

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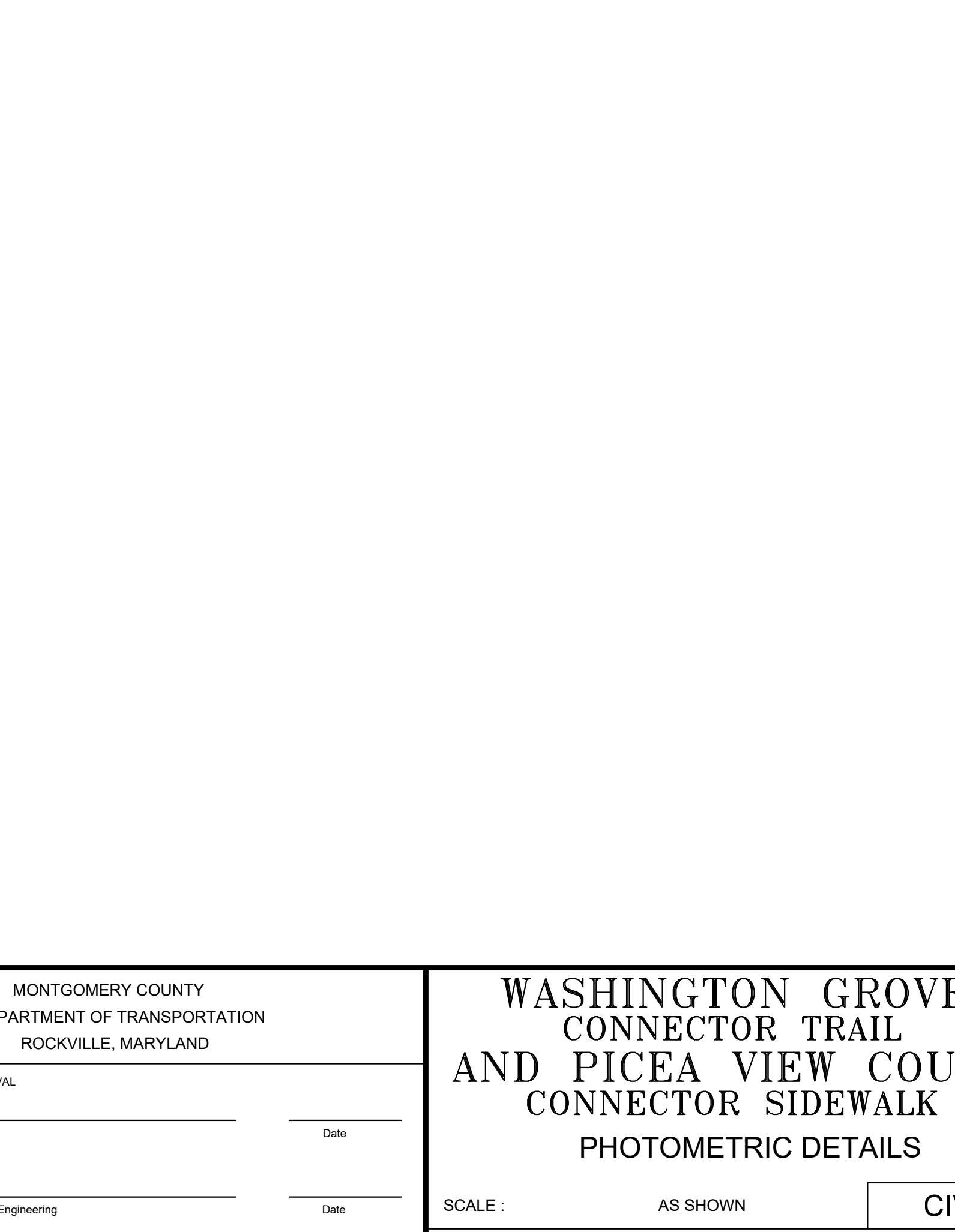
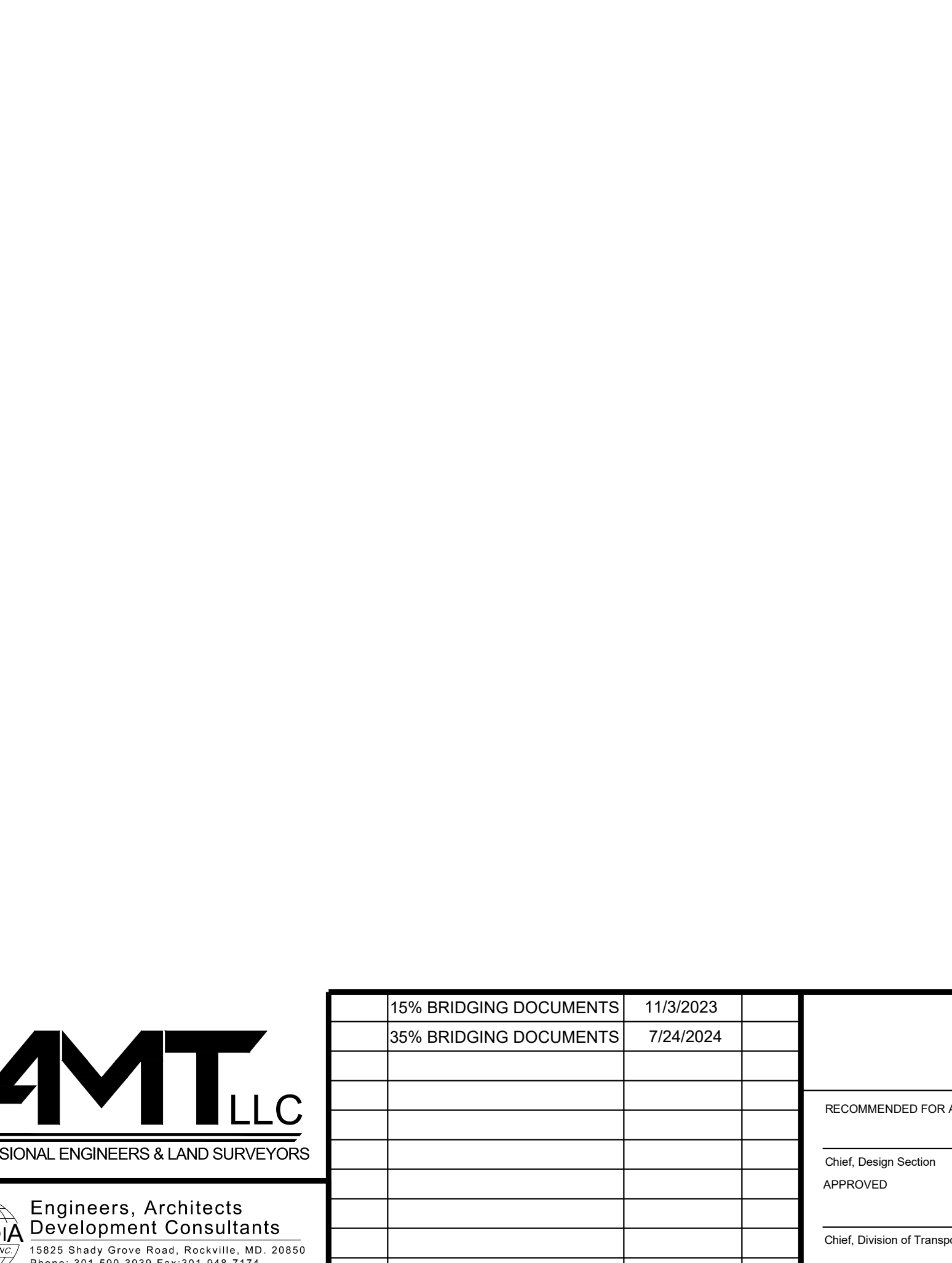
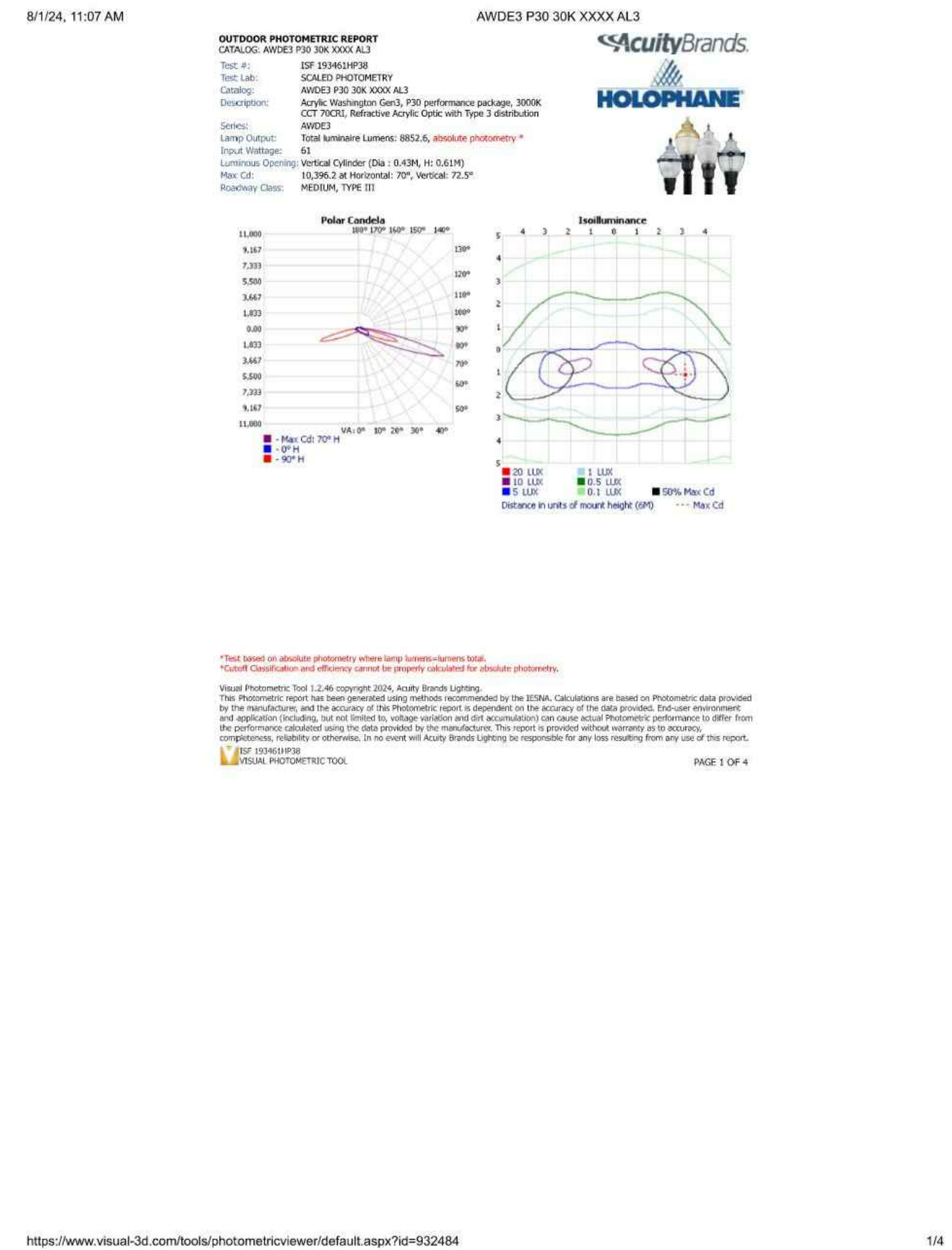
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Chief, Design Section APPROVED	Date
Chief, Division of Transportation Engineering	Date
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WASHINGTON GROVE
CONNECTOR TRAIL
AND PICEA VIEW COURT
CONNECTOR SIDEWALK
PHOTOMETRIC DESIGN P50

SCALE :	1" = 40'	CIV224
Project No. :	509337	of 29



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				Chief, Design Section APPROVED	Date
				Chief, Division of Transportation Engineering	Date
NO.	REVISION	DATE	BY	Designed by: <u>AMT</u> Drawn by: <u>AL</u> Checked by: <u>TJW</u>	Project No. : <u>506337</u> of <u>29</u>
				SCALE :	AS SHOWN
				CIV230	