



TOWNSHIP OF
HAVERFORD
DELAWARE COUNTY

1014 DARBY ROAD HAVERTOWN, PA 19083-2251

610-446-1000

WILLIAM F. WECHSLER, *President*
LARRY HOLMES, ESQ., *Vice President*
DAVID R. BURMAN, *Twp. Manager/Secretary*
JAMES J. BYRNE, JR., ESQ., *Solicitor*
PENNONI ASSOCIATES, INC., *Engineer*

MANAGER 610-446- 1000 ext. 2208

HUMAN RESOURCES 610-446-1000 ext. 2233

WARD COMMISSIONERS

1st Ward STEPHEN D'EMILIO
2nd Ward MARIO A OLIVA
3rd Ward KEVIN McCLOSKEY, ESQ.

4th Ward DANIEL SIEGEL, ESQ.
5th Ward ANDY LEWIS
6th Ward LARRY HOLMES, ESQ.
7th Ward CONOR QUINN
8th Ward GERRY HART, M.D.
9th Ward WILLIAM F. WECHSLER

PENNSY TRAIL PROPOSED PHASE II IMPROVEMENTS

A. OVERVIEW:

- Township received a \$1,163,000 grant from the Delaware Valley Regional Planning Commission's (DVRPC) Transportation Alternatives Set Aside Program for construction of the project.
- The project is administered by DVRPC and PennDOT.

B. SCOPE:

- Extension of Phase I of the Pennsy Trail which opened in 2015.
- Trail will be constructed in the former P&W railroad bed.
- Includes:
 - Construction of 70-foot long pedestrian bridge over Manoa Road to accommodate the trail.
 - Installation of a 10-foot wide paved trail from Manoa Road to the existing parking lot at the end of Vernon Road; approximately 1,600-feet.

C. TIMING:

- Design documents are anticipated to be completed by August 2020
- PennDOT is expected to bid the project in March/April of 2021
- Construction anticipated to commence in Summer of 2021
- Trail projected to open in the Spring of 2022

The following information includes plans and photos for the various components included in the project. This information is being provided to solicit input from Township residents. Should you have any questions or comments, please e-mail them to: Brian Barrett, Director of Recreation @ BBarrett@havtwp.org



PENNONI ASSOCIATES, INC.
 1900 Market Street, Suite 300
 Philadelphia, PA 19103
 T 215.222.3000 F 215.222.3588

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR
 AND OWNER MUST BE NOTIFIED OF ANY
 DISCREPANCIES BEFORE PROCEEDING WITH WORK

**PENNDOT 2018 TRANSPORTATION ALTERNATIVE
 SET-ASIDE PROGRAM
 PENNSY TRAIL - PHASE II IMPROVEMENTS
 OVERALL MAP**

HAVERFORD TOWNSHIP
 2325 DARBY ROAD
 HAVERTOWN, PA 19063

DATE	NO.	REVISIONS	CF	BY
4/1/2020	1	PUBLIC PRESENTATION		

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATE, AND OWNER SHALL INDENTIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	HAVT 30516
DATE	2017-09-20
DRAWING SCALE	N.T.S.
DRAWN BY	RKM
APPROVED BY	CF

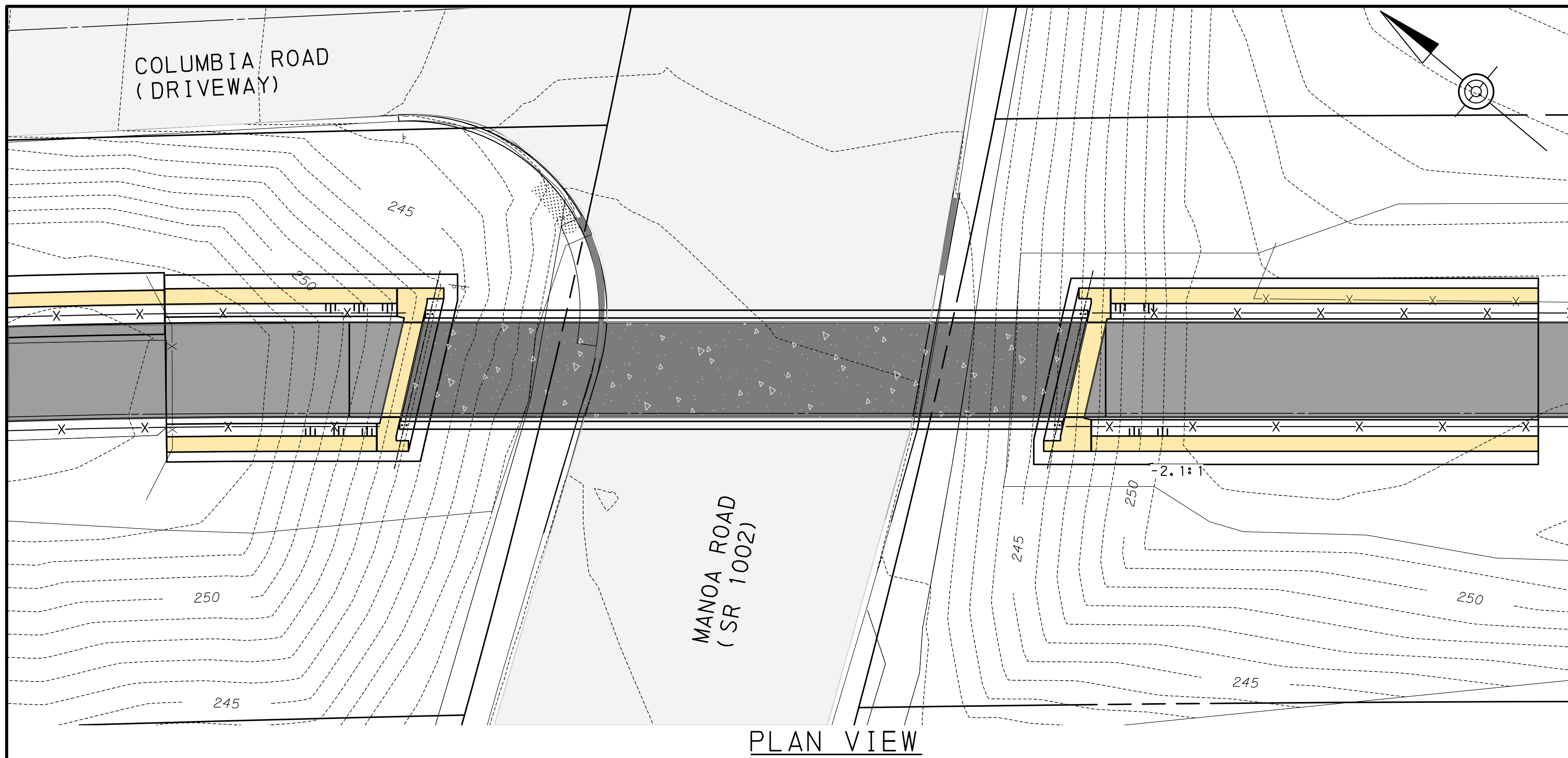
EX-1



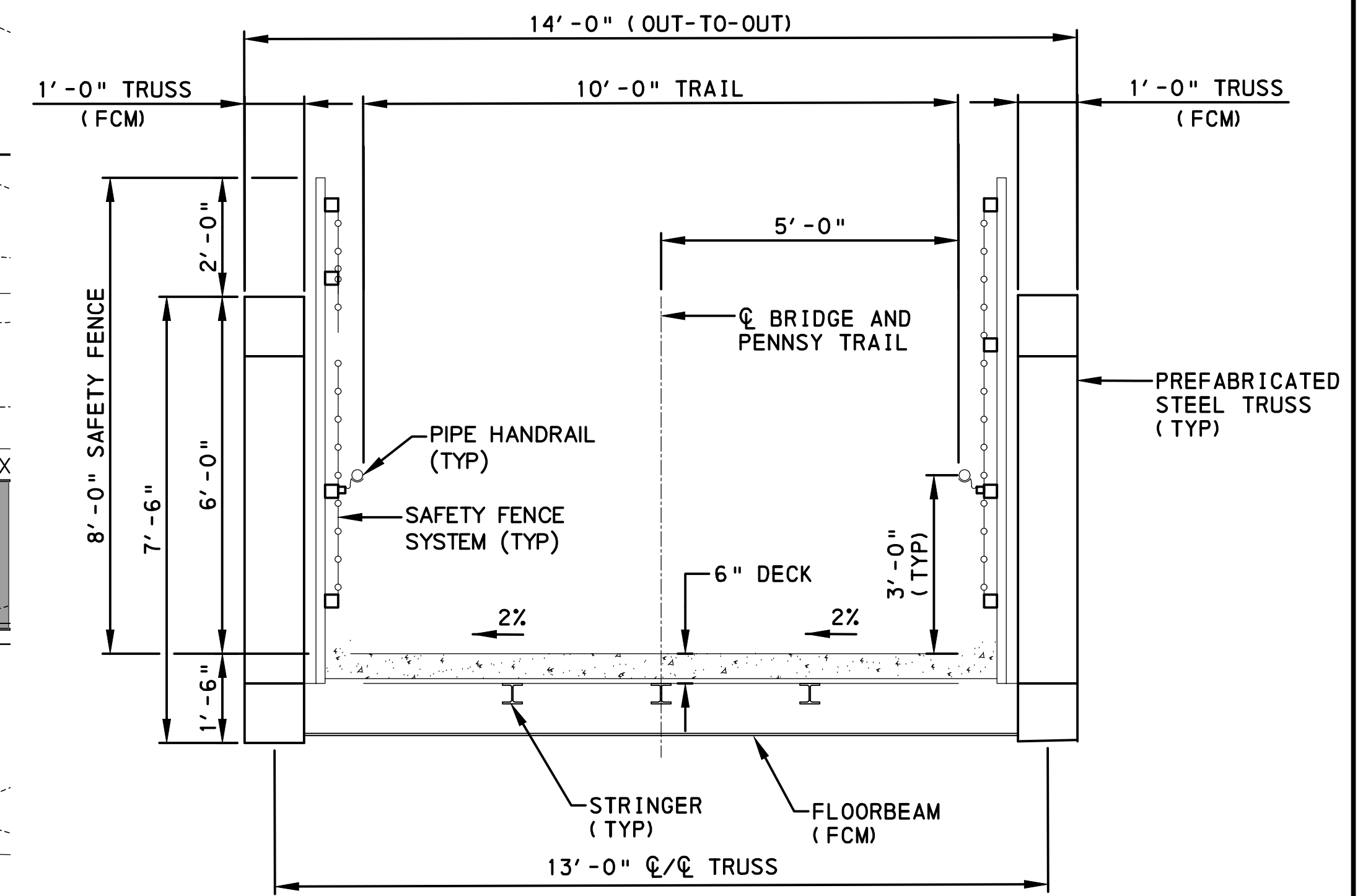
P:\Projects\HAVT\030516 - PENNSY TRAIL PHASE II IMPROVEMENTS\Map\Map_01.dwg

PLOT FILE: P:\Bases\Half Sheet\ PROJECT STATUS -

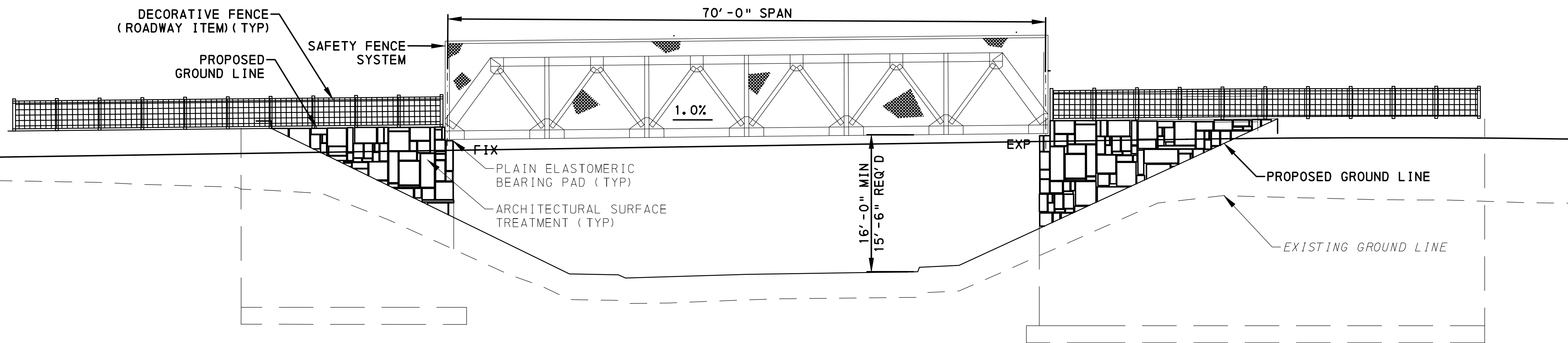
PLOT DATE: 4/8/2020 7:54 AM BY: Anthony D. Costanzo



PLAN VIEW



TYPICAL SECTION VIEW



ELEVATION VIEW

PENNONI ASSOCIATES, INC.
 USER NAME: ANTHONY D. CATALLOZZI
 PEN TABLET PENNONI INCS 518
 PLOT DRIVER: TO: PDF: PC3
 DATE PLOTTED: 07/20/2020 11:32 AM
 FILE NAME: P:\A\2020\173516 - PENNSY TRAIL PHASE II\EXHIBITS\173516 - BRIDGE - PLAN.dwg

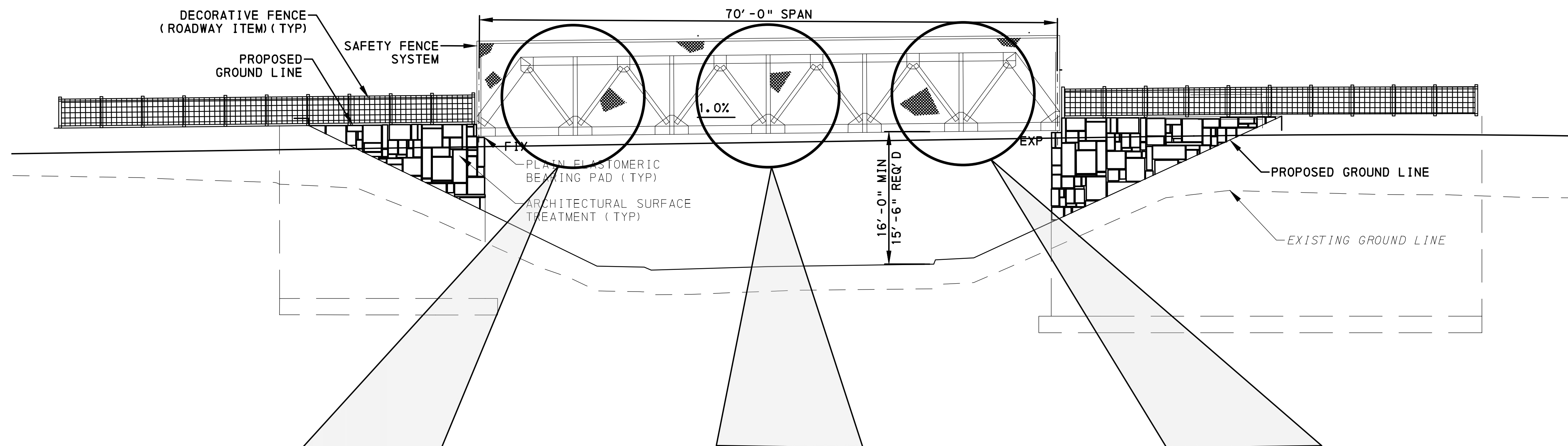
DES: JTG CKD: JLR DWG: SC CKD: JTG

PREPARED BY:
PENNONI ASSOCIATES INC.
 1900 MARKET STREET
 SUITE 300
 PHILADELPHIA, PA 19103



NOT FOR CONSTRUCTION
 TOWNSHIP OF HAVERFORD
 DELAWARE COUNTY
 PENNSY TRAIL - PHASE II
 IMPROVEMENTS
 STA 15+11.23
 OVER
 S. R. 1002
 SINGLE SPAN PREFABRICATED STEEL TRUSS BRIDGE
 GENERAL PLAN, ELEVATION & TYPICAL SECTION

RECOMMENDED _____ _____ DISTRICT BRIDGE ENGINEER	SHEET <u>1</u> OF <u>2</u> + SUPPLEMENTAL DRAWINGS L-197
--------------------------------------------------------	-----------------------------------------------------------------------



NOTE: PICTURES FROM CHESTER VALLEY TRAIL OVER NORTH VALLEY FORGE ROAD

NOT FOR CONSTRUCTION

TOWNSHIP OF HAVERFORD
 DELAWARE COUNTY
 PENNSY TRAIL - PHASE II
 IMPROVEMENTS
 STA 15+11.23
 OVER
 S. R. 1002
 SINGLE SPAN PREFABRICATED STEEL TRUSS BRIDGE
 GENERAL PLAN, ELEVATION & TYPICAL SECTION

PREPARED BY:
 PENNONI ASSOCIATES INC.
 1900 MARKET STREET
 SUITE 300
 PHILADELPHIA, PA 19103



RECOMMENDED _____

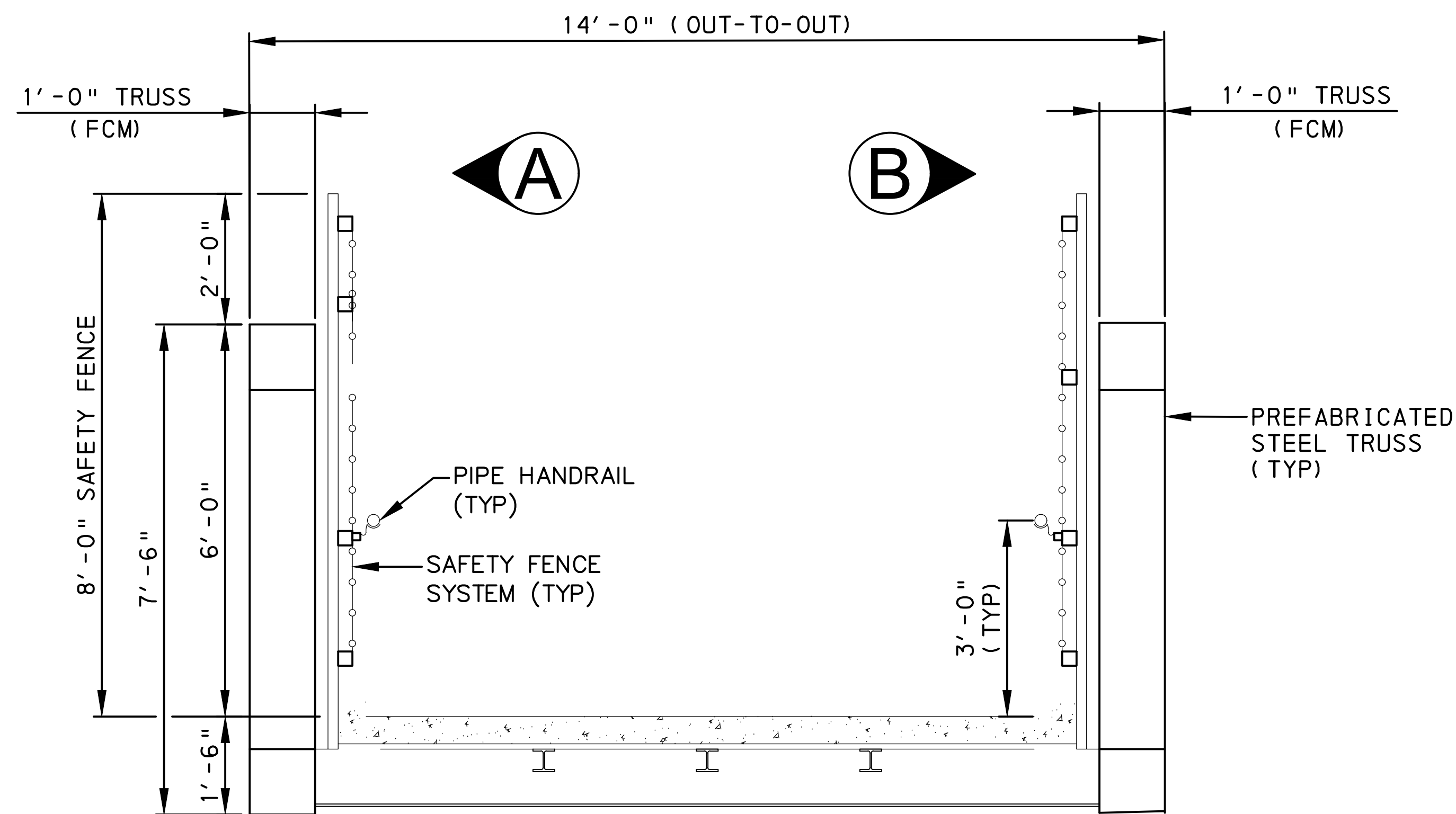
DISTRICT BRIDGE ENGINEER

SHEET 1 OF 2

+ SUPPLEMENTAL DRAWINGS

L-197

PENNONI ASSOCIATES, INC.
 USER NAME: ANTHONY D. CATALLOZZI
 PEN TABLET PENNONI INCS. 518
 PLOT DRIVER: DWG TO PDF.PC3
 DATE PLOTTED: 07/17/2020 08:35 AM
 FILE NAME: P:\A\164628\WAT11\30516 - PENNSY TRAIL PHASE II\EXHIBITS\AT2201-BRIDGE-PLAN.dwg



TYPICAL SECTION VIEW



A



B

NOTE: PICTURES FROM CHESTER VALLEY TRAIL OVER NORTH VALLEY FORGE ROAD

PREPARED BY:
PENNONI ASSOCIATES INC.
 1900 MARKET STREET
 SUITE 300
 PHILADELPHIA, PA 19103



NOT FOR CONSTRUCTION

TOWNSHIP OF HAVERFORD
 DELAWARE COUNTY
 PENNSY TRAIL - PHASE II
 IMPROVEMENTS
 STA 15+11.23
 OVER
 S. R. 1002
 SINGLE SPAN PREFABRICATED STEEL TRUSS BRIDGE
 GENERAL PLAN, ELEVATION & TYPICAL SECTION

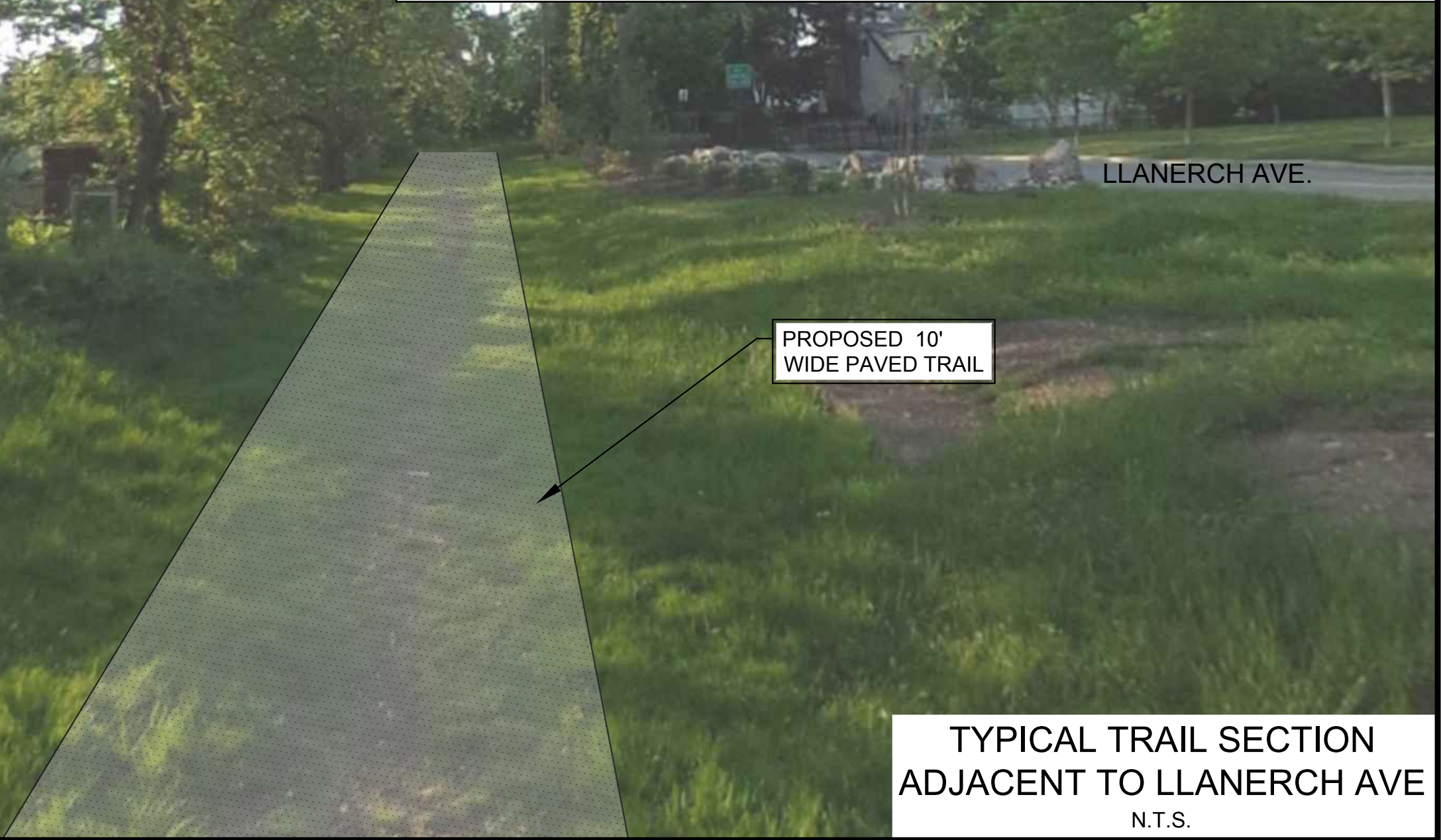
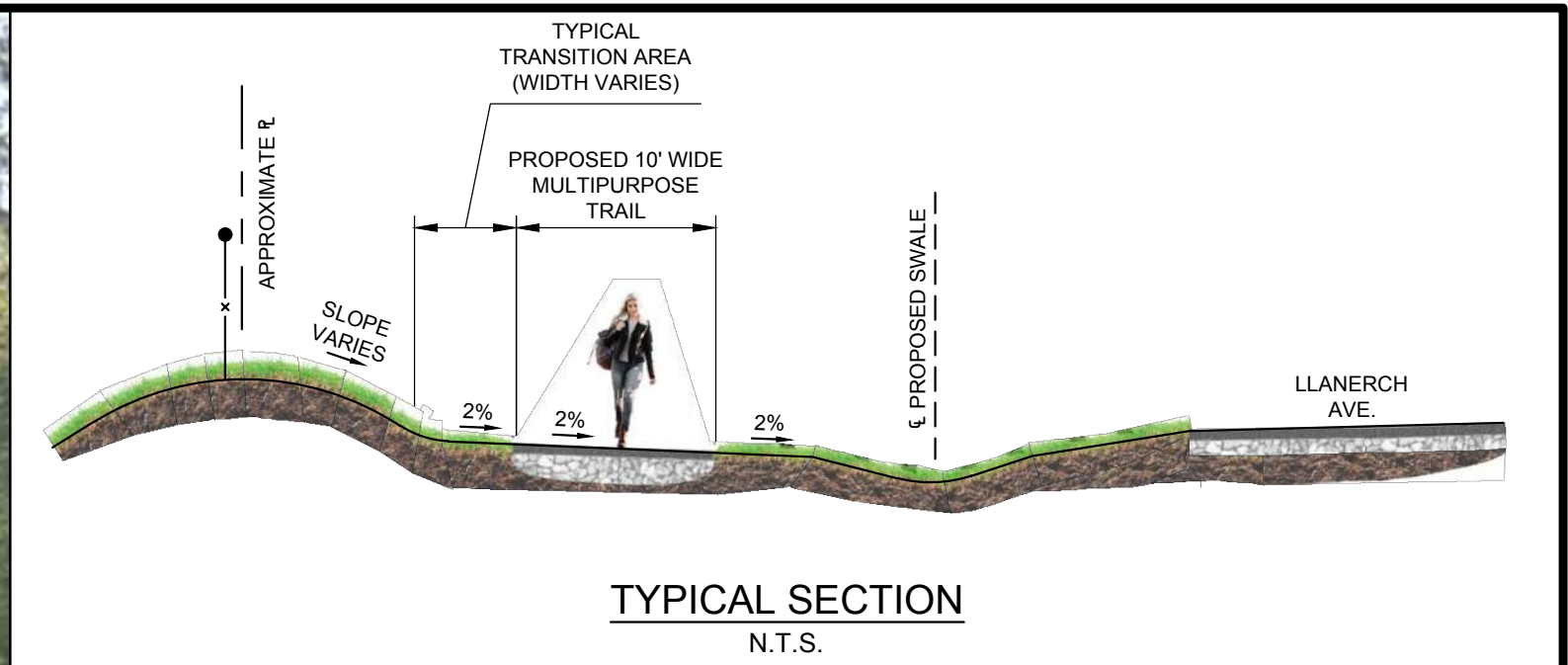
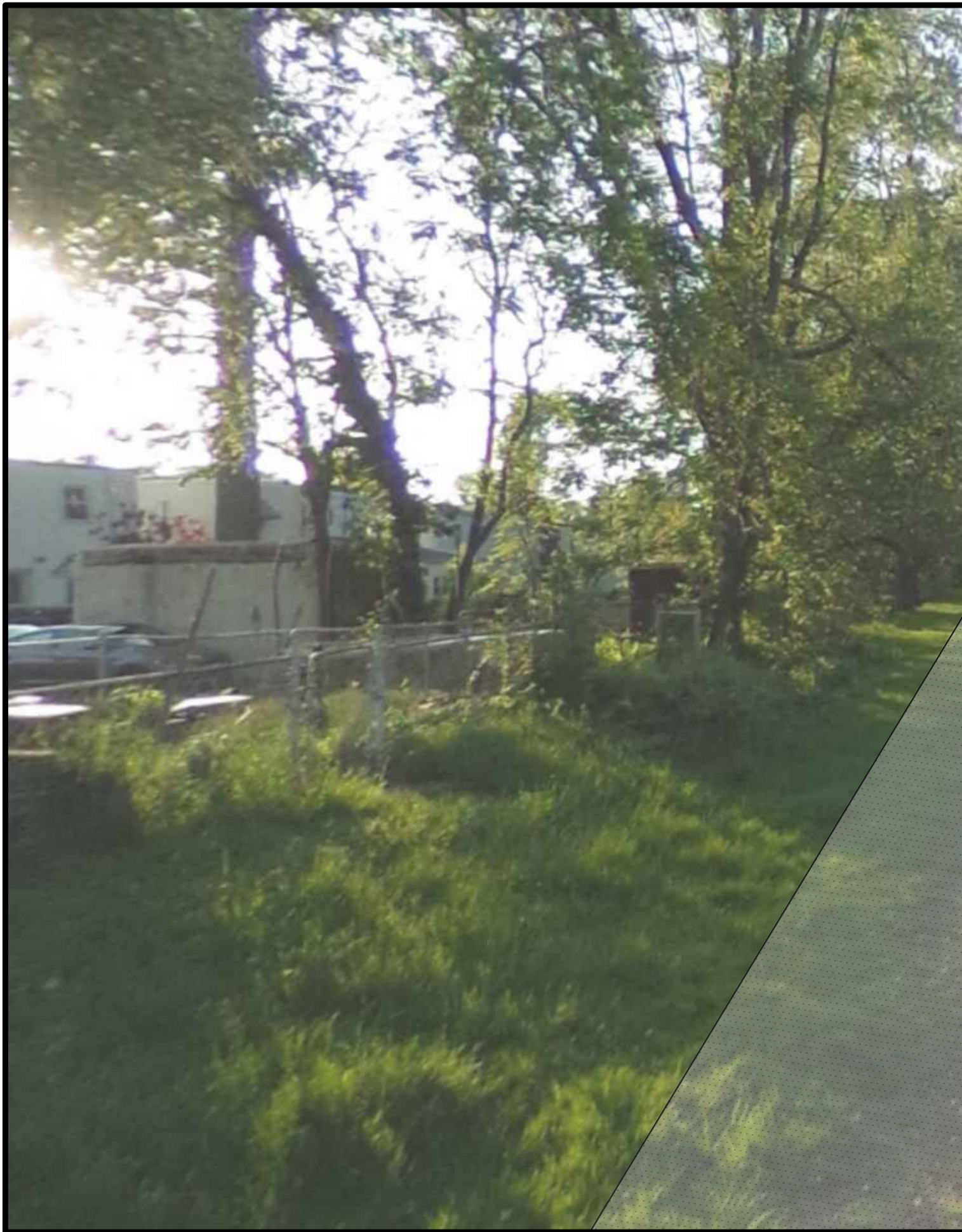
RECOMMENDED _____

 DISTRICT BRIDGE ENGINEER

SHEET 1 OF 2
 + SUPPLEMENTAL DRAWINGS
 L-197

PENNONI ASSOCIATES, INC.
 USER NAME: ANTHONY D. CATALLOZZI
 PEN TABLET PENNONI INCS 518
 PLOT DRIVER: JTG TO PDF PC3
 DATE PLOTTED: 07/20/20 01:03 AM
 FILE NAME: P:\A\04628\WAT11\30516 - PENNSY TRAIL PHASE II\EXHIBITS\T2201-BRIDGE-PLAN.dwg

P:\PROJECTS\HVT\130516 - PENNSY TRAIL PHASE II\EXHIBITS\TRAIL-IMAGE-EXHIBIT.DWG
PLOTTED: 4/7/2020 8:06:26 AM, BY: ANTHONY D. CATALLOZZI PLOTSTYLE: PENNONI.NCS,STB, PROJECT STATUS:---



DISTRICT	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
6-0	DELAWARE	HAVERFORD			PSY	11

MPMS NO. 110777

HAVERFORD TOWNSHIP

DRAWINGS FOR CONSTRUCTION OF

PENNSY TRAIL – SECTION PSY

IN DELAWARE COUNTY

FROM STA 12+75 TO STA 34+00 LENGTH 2125 FT 0.403 MI

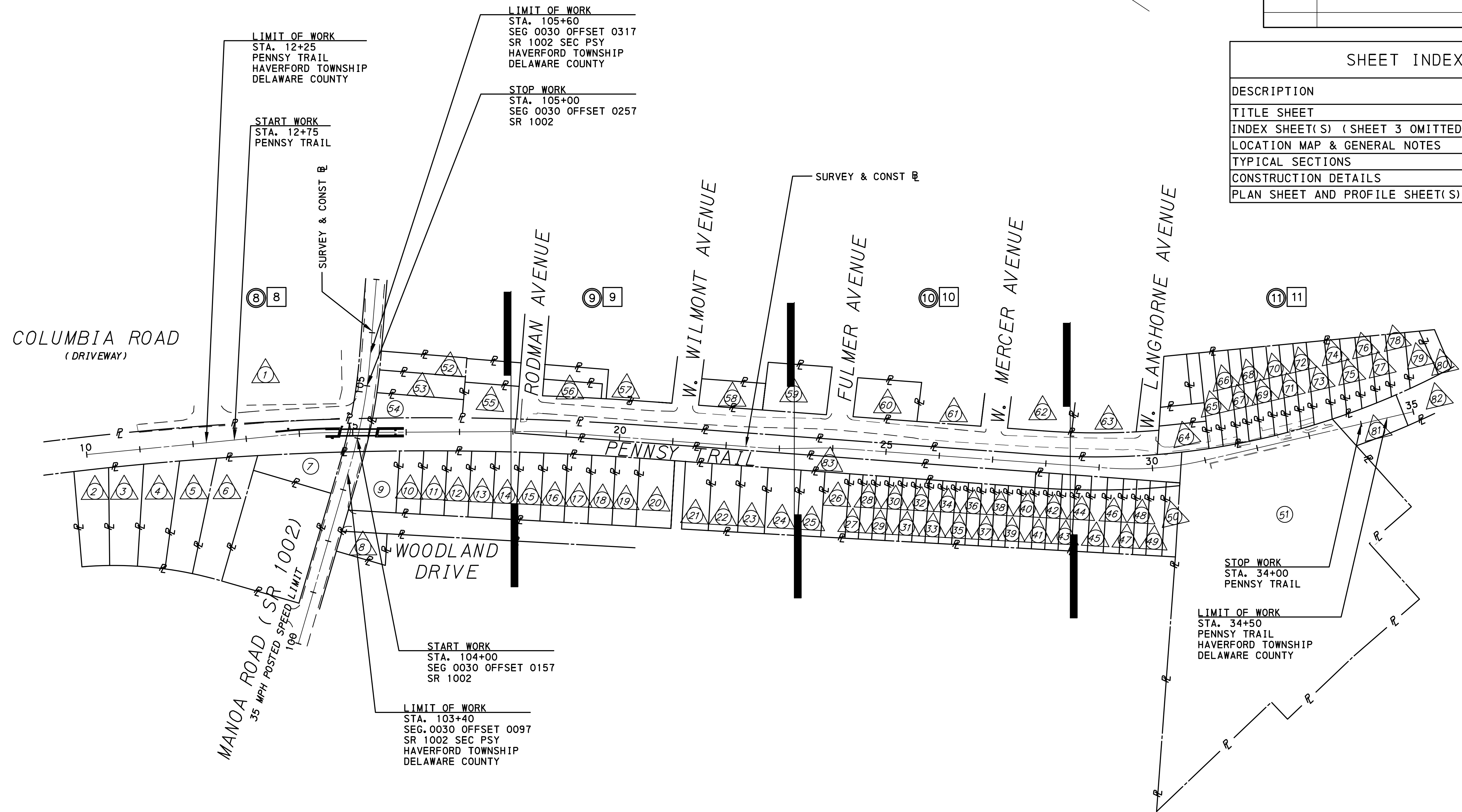


PENNONI ASSOCIATES, INC.
 USER NAME: PRAHLAD_SINGH
 PEN_TABLET: PENNONI_INCS_51B
 PLOT_DRIVER: PDV_P03
 DATE PLOTTED: 11/13/2013 10:10:10 AM
 FILE NAME: P:\301\30101\30101.dwg



PREPARED BY: PENNONI ASSOCIATES INC 1900 MARKET ST., STE 300 PHILADELPHIA, PA 19103	PENNSYLVANIA DEPT OF TRANSPORTATION RECOMMENDED DATE: _____ _____ DISTRICT EXECUTIVE
ENGINEER DATE: _____	<div style="border: 2px solid red; padding: 5px; text-align: center; color: red; font-weight: bold;"> FOR PUBLIC COMMENT PURPOSES ONLY NOT FOR CONSTRUCTION </div>

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	DELAWARE		PSY	2 OF 11
HAVERFORD				
REVISION NUMBER	REVISIONS	DATE	BY	

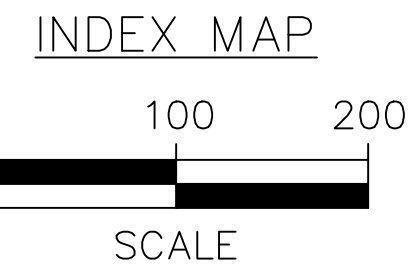
SHEET INDEX	
DESCRIPTION	SHEET NO.
TITLE SHEET	1
INDEX SHEET(S) (SHEET 3 OMITTED)	2-3
LOCATION MAP & GENERAL NOTES	4
TYPICAL SECTIONS	5
CONSTRUCTION DETAILS	6
PLAN SHEET AND PROFILE SHEET(S)	7-11



LEGEND

-  PLAN
-  PROFILE

 SHEET LIMITS



FOR PUBLIC COMMENT
PURPOSES ONLY
NOT FOR CONSTRUCTION

PENNONT ASSOCIATES, INC.
 USER: NAME: PRAHLAD, SINGH
 PEN TABLET PENNONT, INC., 5/18
 PLOT DRIVER: AUTOCAD, PDF (GENERAL DOCUMENTATION), PC3
 DATE: PLOTTED: 07/27/2020 09:53 AM
 FILE: NAME: P:\2020\6283\WATTS\30516 - PENNSY TRAIL PHASE I\DESIGN\PLAN\PLAN_SHEET_0201.dwg

LIST OF PUBLIC UTILITIES

COMCAST CABLE COMMUNICATIONS —CTU— AQUA PENNSYLVANIA —W—
 75 EAST LANCASTER AVENUE 762 LANCASTER AVENUE
 ARDMORE, PA 19003 BRYN MAWR, PA 19010
 ATTN: MATTHEW MURRAY ATTN: JOSEPH STEINHEISER
 (717) 509-7873 EXT. 1002 (610) 645-4210
 EMAIL: MATTM@AMERICOMM-LLC.COM EMAIL: JSTEINHEISER@AQUAAMERICA.COM

PECO ENERGY —UE— VERIZON PENNSYLVANIA, INC. —TU—
 BERWYN SERVICE BUILDING, 1050 W. SWEDSFORD RD 180 SHEREE BLVD, STE 2100
 BRYN MAWR, PA 19312 EXTON, PA 19341
 ATTN: BILL HENSIL ATTN: DAVID STINSON
 (610) 725-7160 (215) 789-7728
 EMAIL: BHENSIL@PECO-ENERGY.COM EMAIL: DAVID.F.STINSON@VERIZON.COM

HAVERFORD TOWNSHIP
 1014 DARBY ROAD
 HAVERTOWN, PA 19083
 ATTN: DAVID R. BURMAN
 (610) 446-1000 EXT. 2208
 EMAIL: DBURMAN@HVTWP.ORG

PA ONE CALL SERIAL NUMBER: 20191162504

TABULATION OF OVERALL LENGTH

PENNSY TRAIL - STA 12+25 TO STA 34+50 = 2225.00 FT
 SR 1002 - STA 103+40 TO STA 105+60 = 0220.00 FT
 TOTAL = 2445.00 FT
 = 00.463 MILES

TABULATION OF CONSTRUCTION LENGTH

PENNSY TRAIL - STA 12+75 TO STA 34+00 = 2125.00 FT
 SR 1002 - STA 104+00 TO STA 105+00 = 0100.00 FT
 TOTAL = 2225.00 FT
 = 00.421 MILES

SUMMARY OF PROJECT COORDINATES

BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83 SOUTH ZONE)

ROUTE	STATION	POINT	COORDINATES		BEARING
			NORTH	EAST	
PENNSY TRAIL	12+25.00	BEGIN	243495.8665	2653401.9190	S 40°49'00" E
	13+70.15	PC	243386.0165	2653496.7947	
	14+62.80	PT	243313.1970	2653554.0207	
	19+29.64	PC	242933.1754	2653825.1706	S 35°30'30" E
	20+08.59	PT	242867.1613	2653868.4455	
	29+16.08	PC	242089.1618	2654335.6292	S 30°59'04" E
	30+97.20	PT	241950.2159	2654450.7344	
34+50.00	END	241715.4937	2654714.1190		
SR 1002	103+40.00	BEGIN	243248.8172	2653515.3705	N 71°02'59" E
	103+49.46	PC	243251.8888	2653524.3163	N 59°26'40" E
	105+52.01	PT	243336.5535	2653707.9438	
	105+60.00	END	243340.6153	2653714.8240	

NOTE: FOUR (4) DECIMAL PLACES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY PRECISION BEYOND TWO (2) DECIMAL PLACES.

SEGMENT EQUALITIES

SEG 0030 OFF 0097 = STA. 103+40
 SEG 0030 OFF 0317 = STA. 105+60

SUMMARY OF TRANSVERSE CONTROL POINT COORDINATES

BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83 SOUTH ZONE)

CONTROL POINT	COORDINATES		DESCRIPTION
	NORTH	EAST	
599	243596.4247	2653345.7754	IRS
601	243459.2142	2653495.1908	PKS
602	243142.6492	2653270.6573	PKS
603	243229.2657	2653613.3237	IRS
604	243118.3395	2653691.7571	STK
605	242906.9226	2653832.9551	STK
606	242615.1786	2654016.1329	STK
607	242444.9559	2654179.5145	PKS
608	242188.5722	2654329.6405	PKS
609	242028.5108	2654376.9459	STK
610	241896.6737	2654557.1175	PKS
611	241761.2171	2654620.2607	STK
612	241897.6417	2654432.1752	PKS
613	241685.5921	2654767.2554	PKS
614	242788.1815	2653947.1714	PAINT DOT

NOTE: FOUR (4) DECIMAL PLACES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY PRECISION BEYOND TWO (2) DECIMAL PLACES.

EARTHWORK SUMMARY ENTIRE PROJECT

THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE. DO NOT USE AS A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS.

CLASS 1	CUBIC YARDS OF EXCAVATION					CUBIC YARDS OF COMPLETED EMBANKMENT *	CUBIC YARDS OF BORROW EXCAVATION	CUBIC YARDS OF WASTE
	CLASS 1A	CLASS 1B	CLASS 2	CLASS 3	CLASS 4			
TBD		TBD		TBD		TBD	TBD	TBD

* INCLUDES ALL BORROW ITEMS

RECORD OF EXISTING ROAD TYPES

STATE ROUTE	LIMITS OF CONSTRUCTION		PROPOSED CONSTRUCTION	EXISTING PAVEMENT
	CONSTR. STA.	SEGMENT/OFFSET		
1002	103+60 TO 105+40	0030		HEAVY DUTY BIT. WEARING COURSE 1D-2 (1.5 IN) BIT. WEARING COURSE 1D-2 (3.5 IN) CRUSHED AGGREGATE BASE COURSE (8" IN)

NOTE: THE DEPTHS OF MATERIAL SHOWN ARE FOR DESING PUPOSES ONLY. ANY RISK OF UNANTICIPATED COSTS ASSOCIATED WITH DIFFERENCES BETWEEN THE LISTED DEPTHS AND THE ACTUAL DEPTHS SHALL BE ACCEPTED BY THE CONTRACTOR.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
6-0	DELAWARE		PSY	4 OF 11	
HAVERFORD					
REVISION NUMBER	REVISIONS			DATE	BY

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON MANOA ROAD IS 50 FEET WIDE BASED UPON THE DEEDS OF RECORD AT THE TIME OF SURVEY

CONSTRUCT PROJECT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 SPECIFICATION, DATED 2020.

DETAILS, OTHER THAN THOSE INDICATED ARE ON THE FOLLOWING STANDARD DRAWINGS:

- | | |
|-----------------------|----------------------|
| RC-10M, JUNE 1, 2010 | RC-61M, JUNE 1, 2010 |
| RC-11M, JUNE 1, 2010 | RC-64M, JUNE 1, 2010 |
| RC-12M, FEB 8, 2019 | RC-67M, DEC 17, 2019 |
| RC-13M, JUNE 1, 2010 | RC-70M, FEB 8, 2019 |
| RC-27M, JUNE 1, 2010 | RC-72M, FEB 8, 2019 |
| RC-30M, DEC 19, 2019 | RC-73M, FEB 8, 2019 |
| RC-39M, SEPT 15, 2016 | RC-77M, DEC 17, 2019 |
| RC-45M, SEPT 15, 2016 | RC-91M, DEC 17, 2019 |
| RC-46M, SEPT 15, 2016 | RC-92M, JUNE 1, 2010 |
| RC-60M, JUNE 1, 2010 | |

TRAFFIC SIGNAL STANDARDS, TC-8800 SERIES

DO NOT INTERFERE WITH THE OPERATION OF ANY FIRE HYDRANT, FIRE CALL BOX OR POLICE CALL BOX.

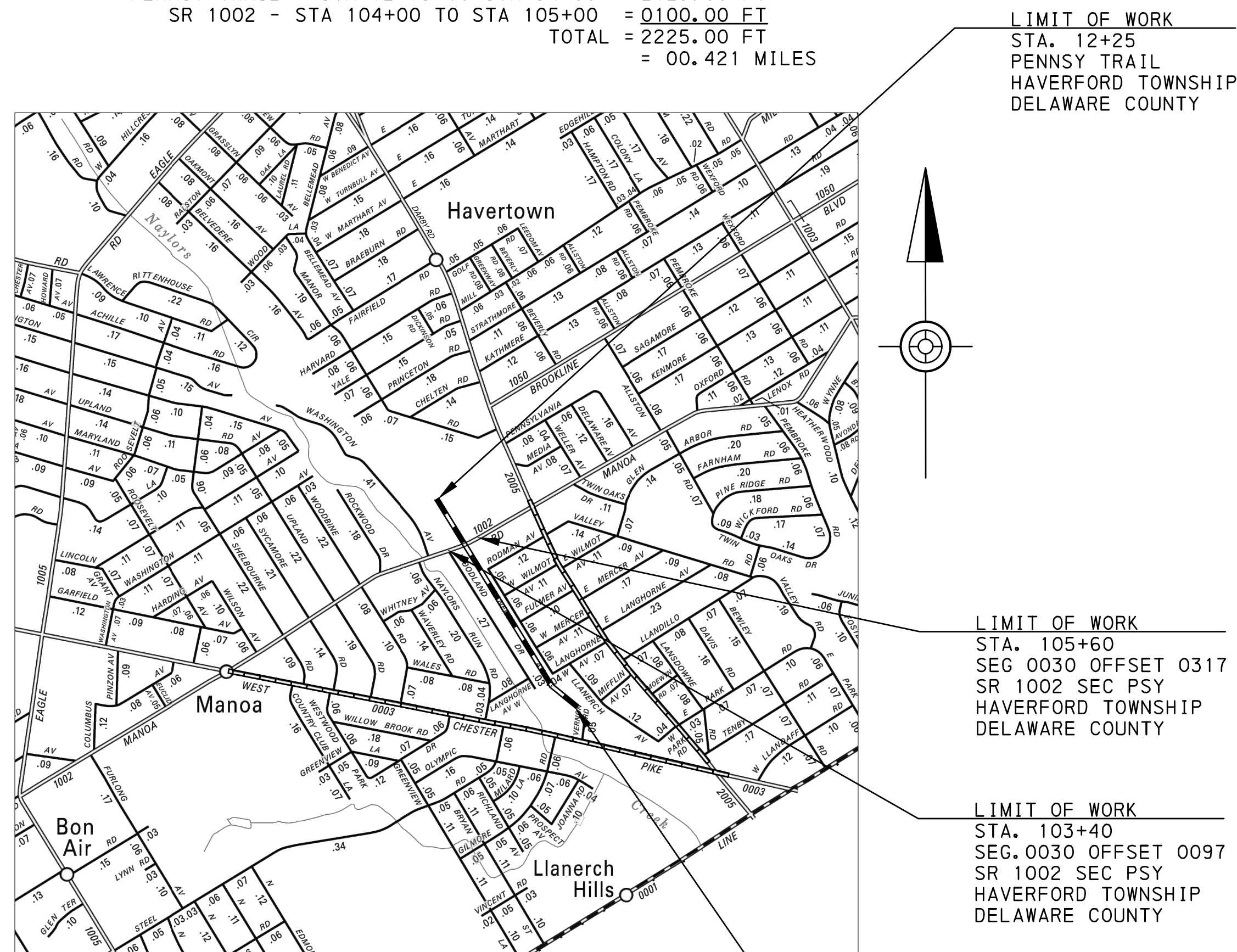
THREE WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO. 20191162504 FOR TOWNSHIP OF HAVERFORD.

THE HORIZONTAL CONTROL FOR THIS PROJECT IS BASED ON PA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) N.A.D. 1983.

THE VERTICAL DATUM FOR THIS PROJECT IS N.A.V.D. 1988 AS ESTABLISHED.

INSTALL TOPSOIL AND SEEDING AND SOIL SUPPLEMENTS - FORMULA B ON LAWN AREAS AND ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE NOTED.

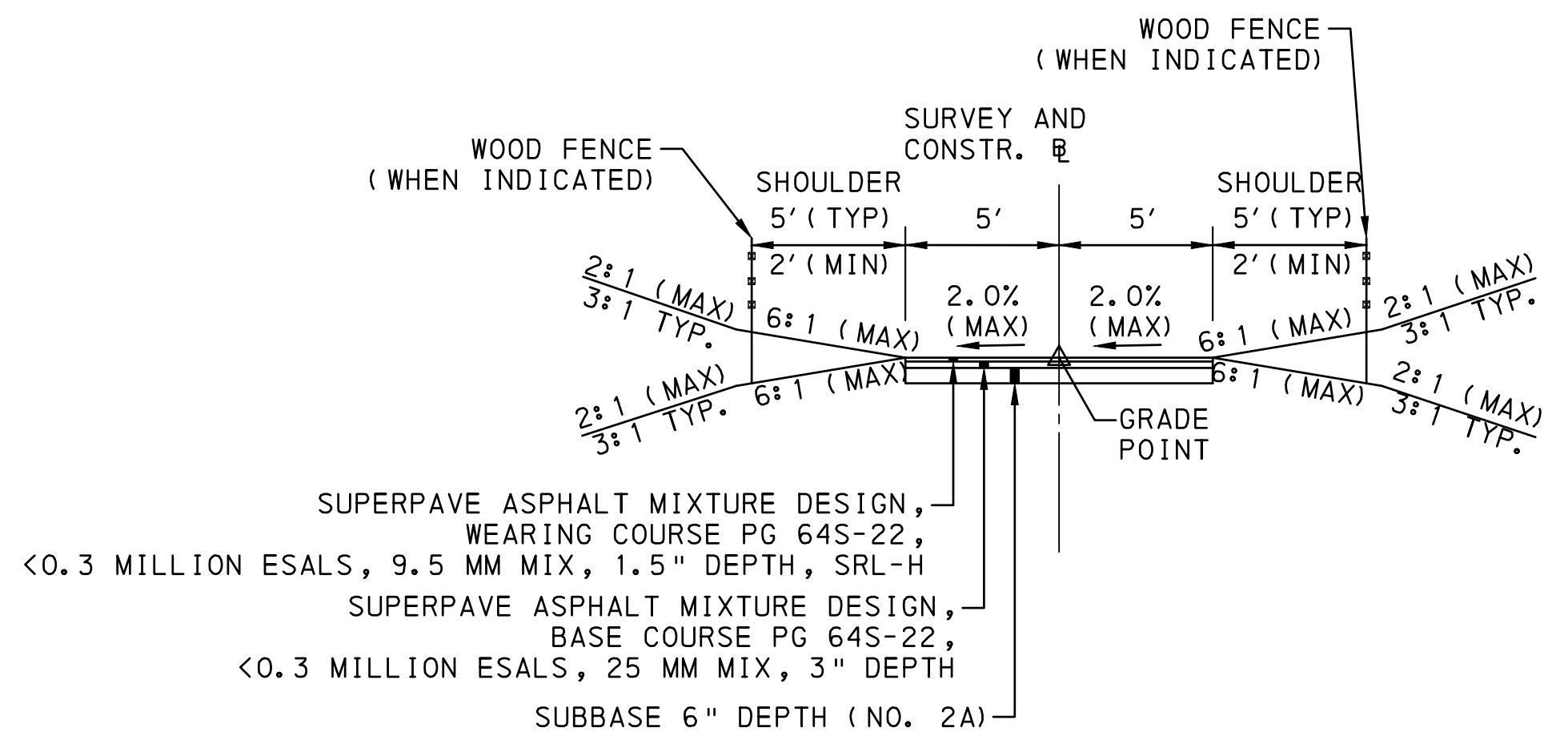
THIS IS A FEDERAL-AID PROJECT AND AS SUCH IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE FEDERAL HIGHWAY ADMINISTRATION, THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION AND THE TOWNSHIP OF HAVERFORD.



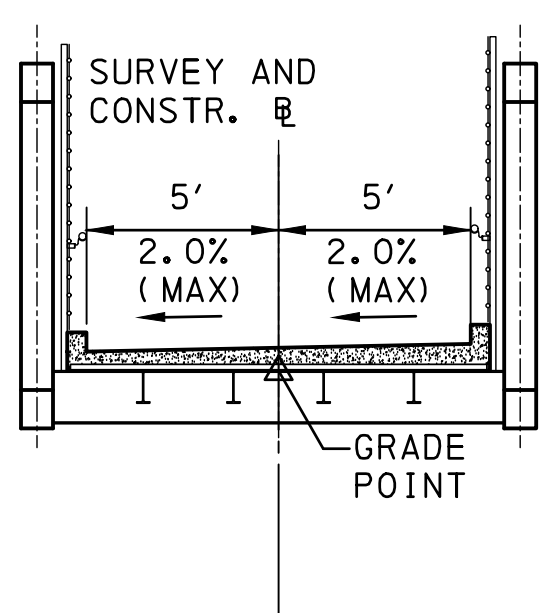
**FOR PUBLIC COMMENT
 PURPOSES ONLY
 NOT FOR CONSTRUCTION**

PENNONT ASSOCIATES, INC.
 USER: NAMEPRAHLAD.SINGH
 PEN TABLET PENNONT NCS.S5TB
 PLOT DRIVER: AUTOCAD.PDF (GENERAL DOCUMENTATION).PC3
 DATE: 10/27/2020 9:53 AM
 FILE: NAMEPRAHLAD.SINGH\PROJECTS\10016 - PENNSY TRAIL PHASE I\INDEX\GN.DWG

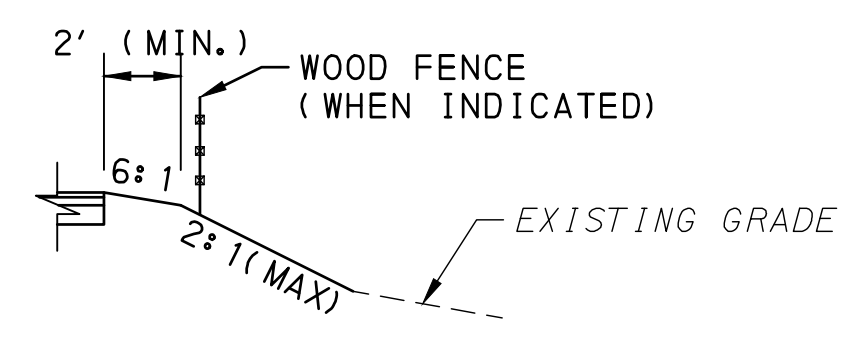
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
6-0	DELAWARE		PSY	5 OF 11	
HAVERFORD					
REVISION NUMBER	REVISIONS			DATE	BY



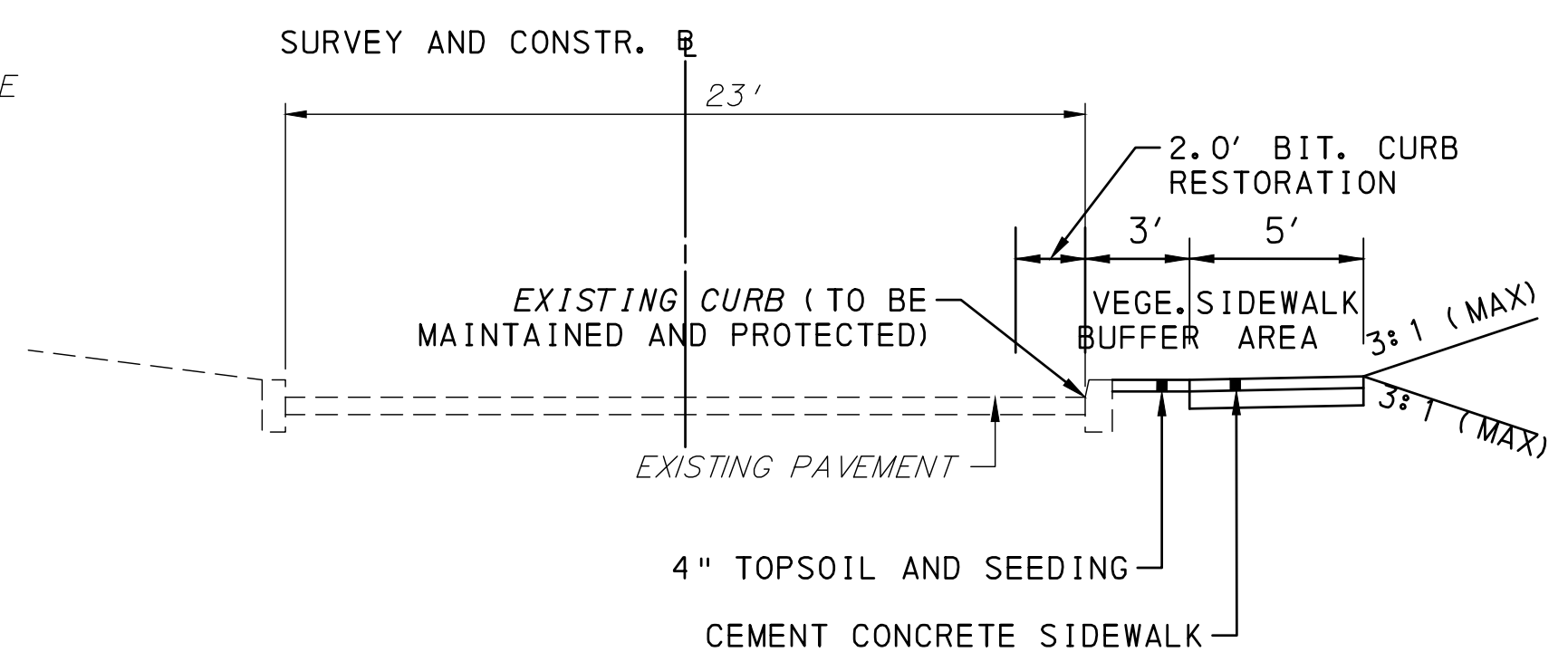
**TYPICAL SECTION
PENNSY TRAIL**
STA. 12+75 TO STA. 14+69
STA. 15+49 TO STA. 29+75



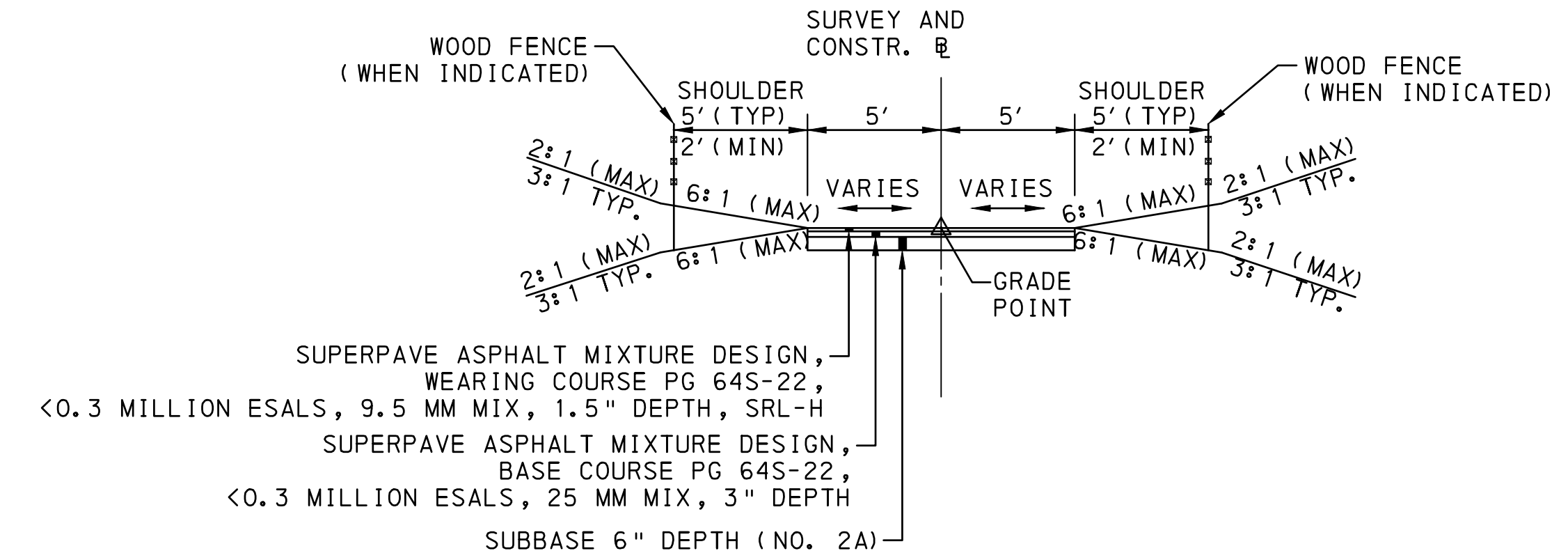
**TYPICAL BRIDGE SECTION
PENNSY TRAIL**
STA. 14+69 TO STA. 15+49



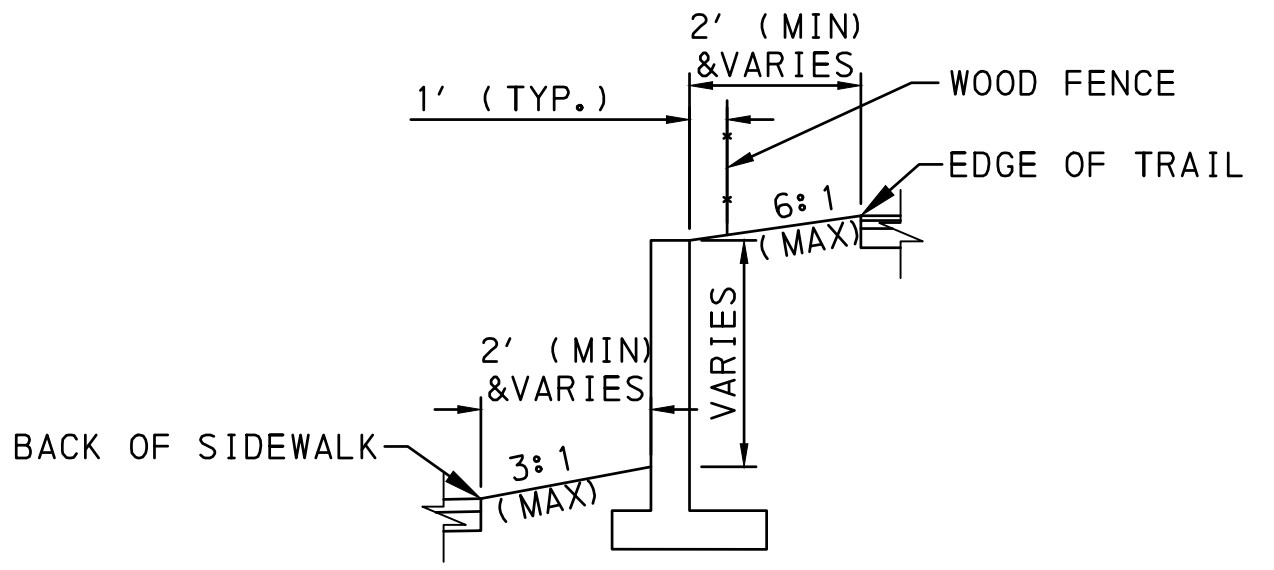
**ALTERNATE
EDGE TREATMENT
(FILL SECTION)**



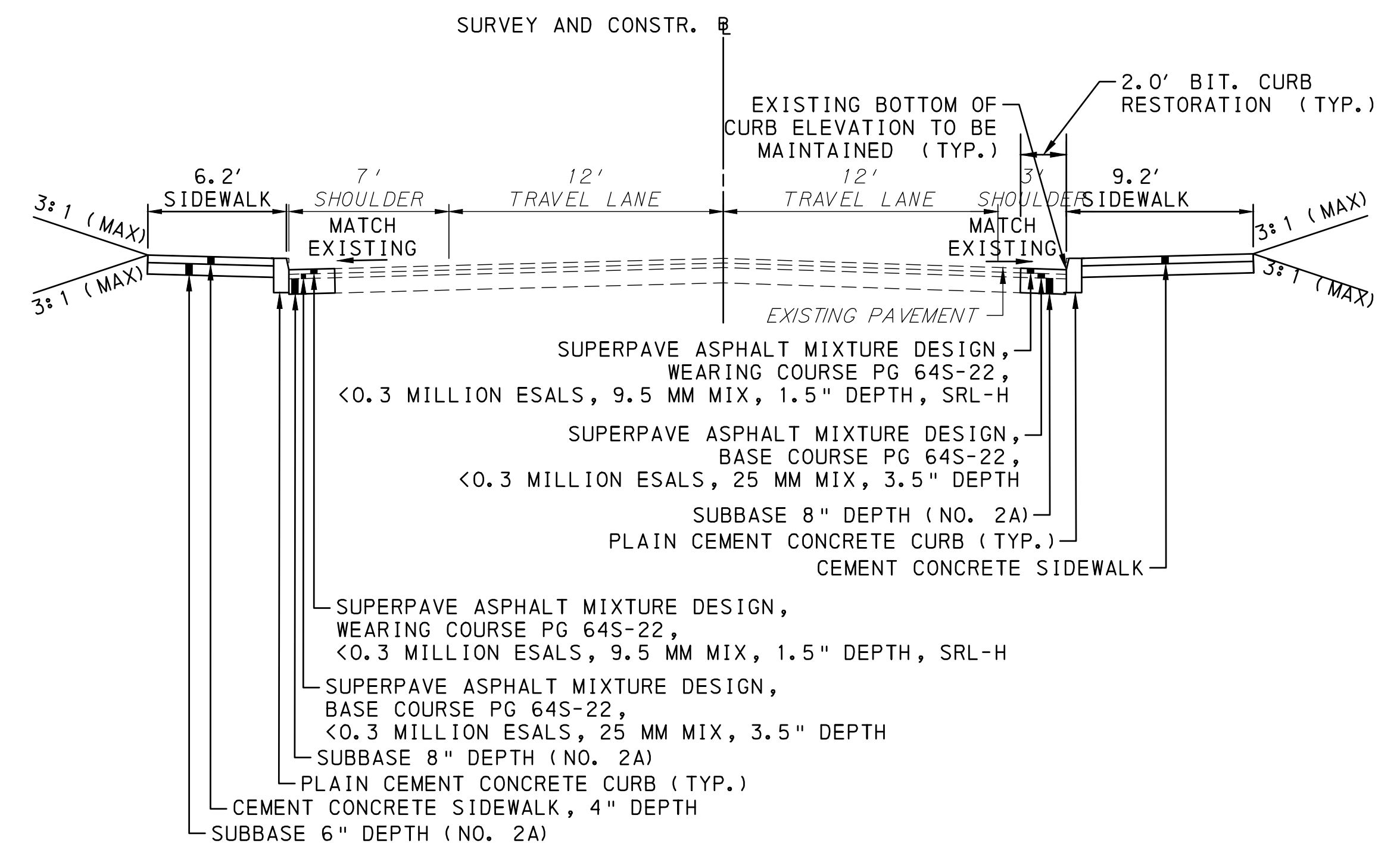
**TYPICAL SECTION
COLUMBIA ROAD**
STA. 297+77 TO STA. 299+55



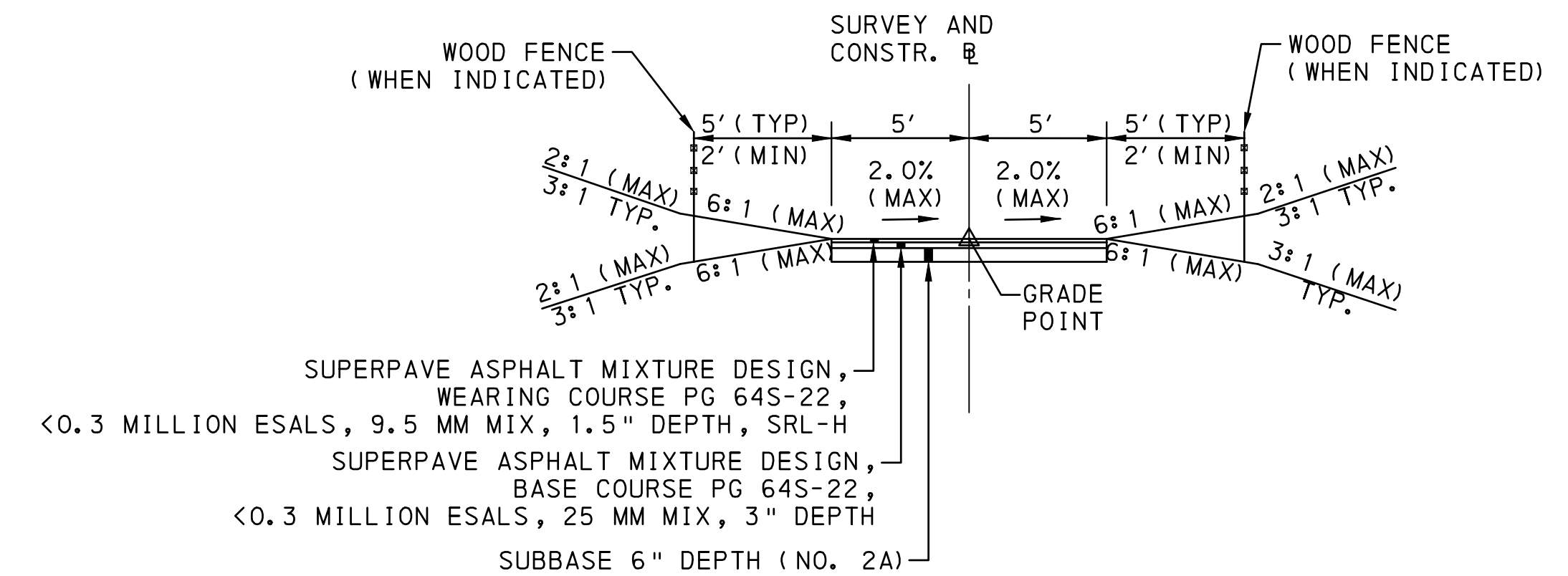
**TYPICAL SECTION
PENNSY TRAIL**
STA. 29+75 TO STA. 30+25



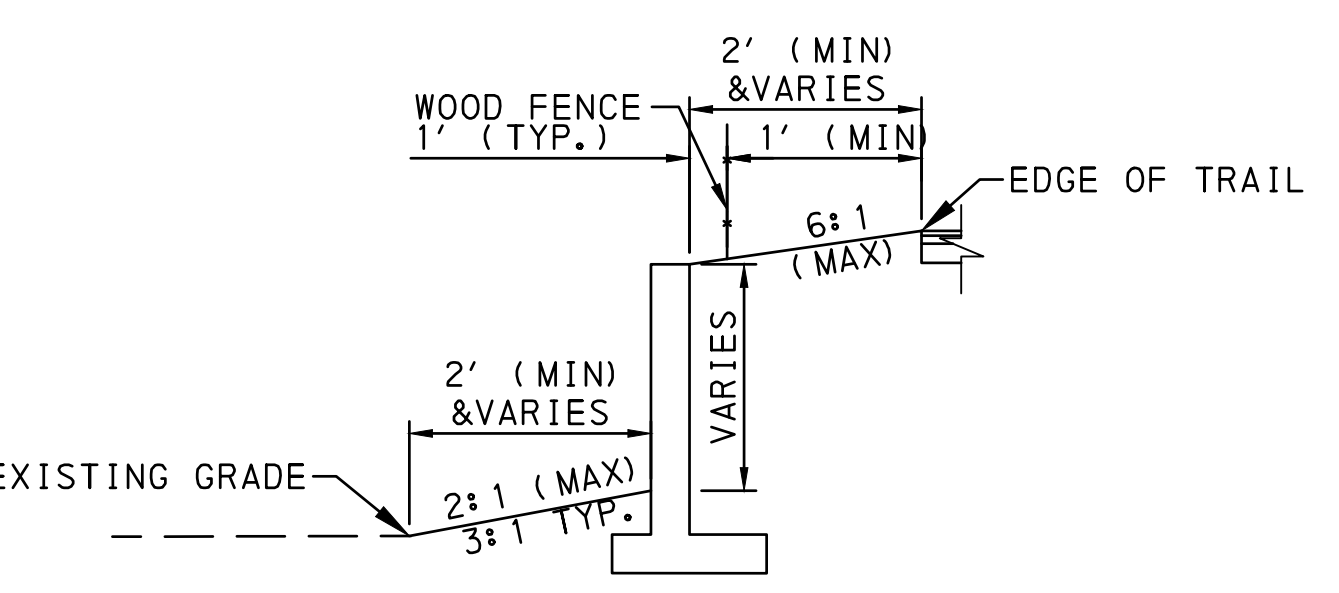
**TYPICAL RETAINING WALL
WITH SIDEWALK SECTION
PENNSY TRAIL**
STA. 13+55 LT TO STA. 14+76 LT
NOT TO SCALE



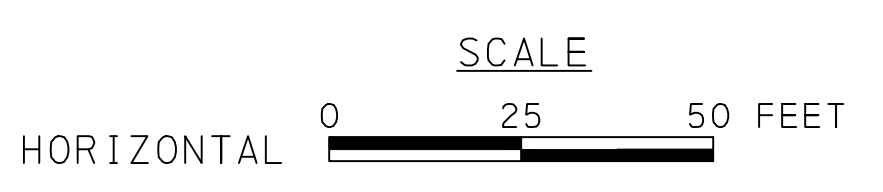
**TYPICAL SECTION
SR 1002 (MANOA ROAD)**
STA. 103+89 LT TO STA. 104+30 LT
STA. 103+99 RT TO STA. 104+34 RT



**TYPICAL SECTION
PENNSY TRAIL**
STA. 30+25 TO STA. 34+00



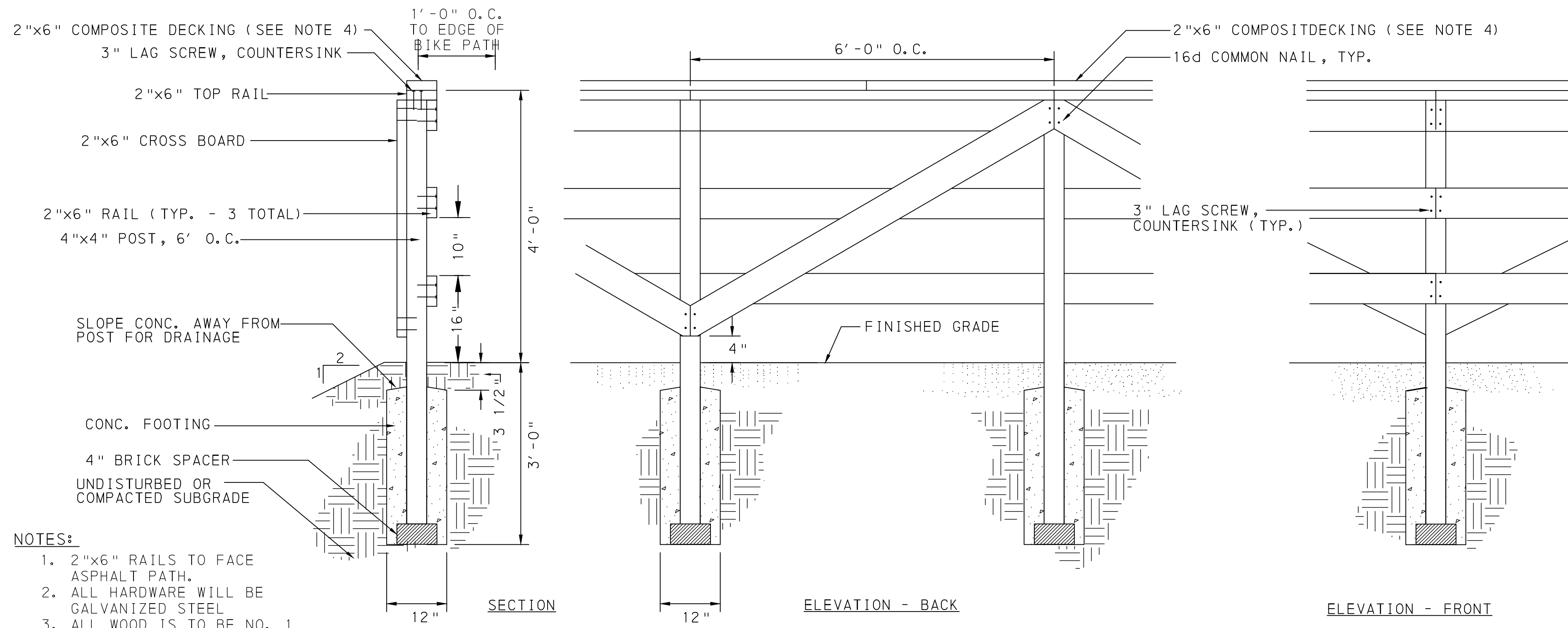
**TYPICAL RETAINING WALL
WITHOUT SIDEWALK SECTION
PENNSY TRAIL**
STA. 15+49 TO STA. 15+95
STA. 14+49 RT TO STA. 14+76 RT
STA. 31+07 RT TO STA. 32+48 RT
NOT TO SCALE



**FOR PUBLIC COMMENT
PURPOSES ONLY
NOT FOR CONSTRUCTION**

PENNONT ASSOCIATES, INC.
 USER NAME: PRAHLAD.SINGH
 PEN TABLET PENNONT, INCS, 51B
 PLOT DRIVER: AUTOCAD, PDF (GENERAL DOCUMENTATION).PC3
 DATE PLOTTED: 07/27/2020 09:53 AM
 PLOT NUMBER: 202007271130516 -- PENNSY TRAIL PHASE I (DESIGN) - PUBLISHED 07/01/2020

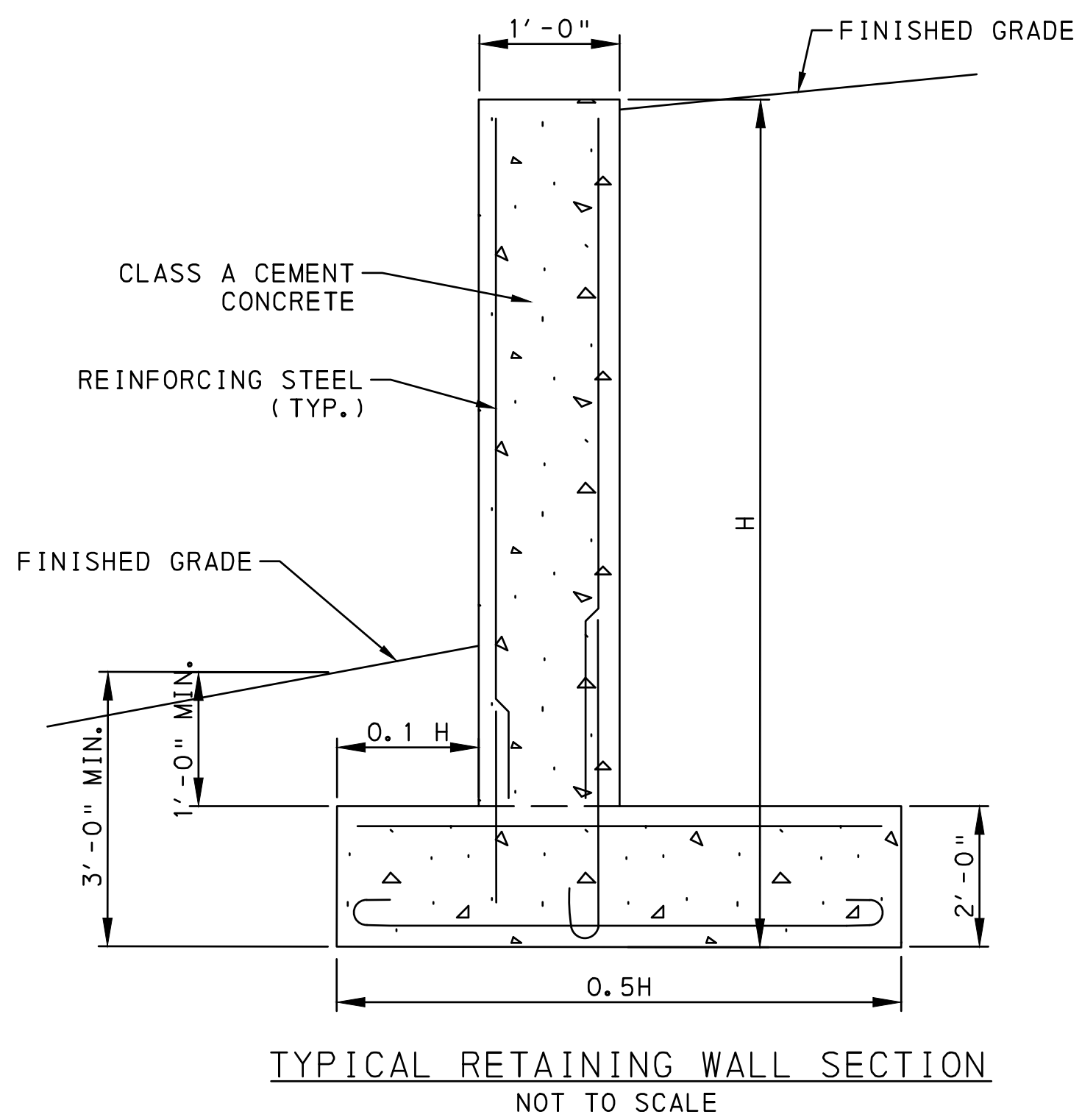
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	DELAWARE		PSY	6 OF 11
HAVERFORD				
REVISION NUMBER	REVISIONS			DATE BY



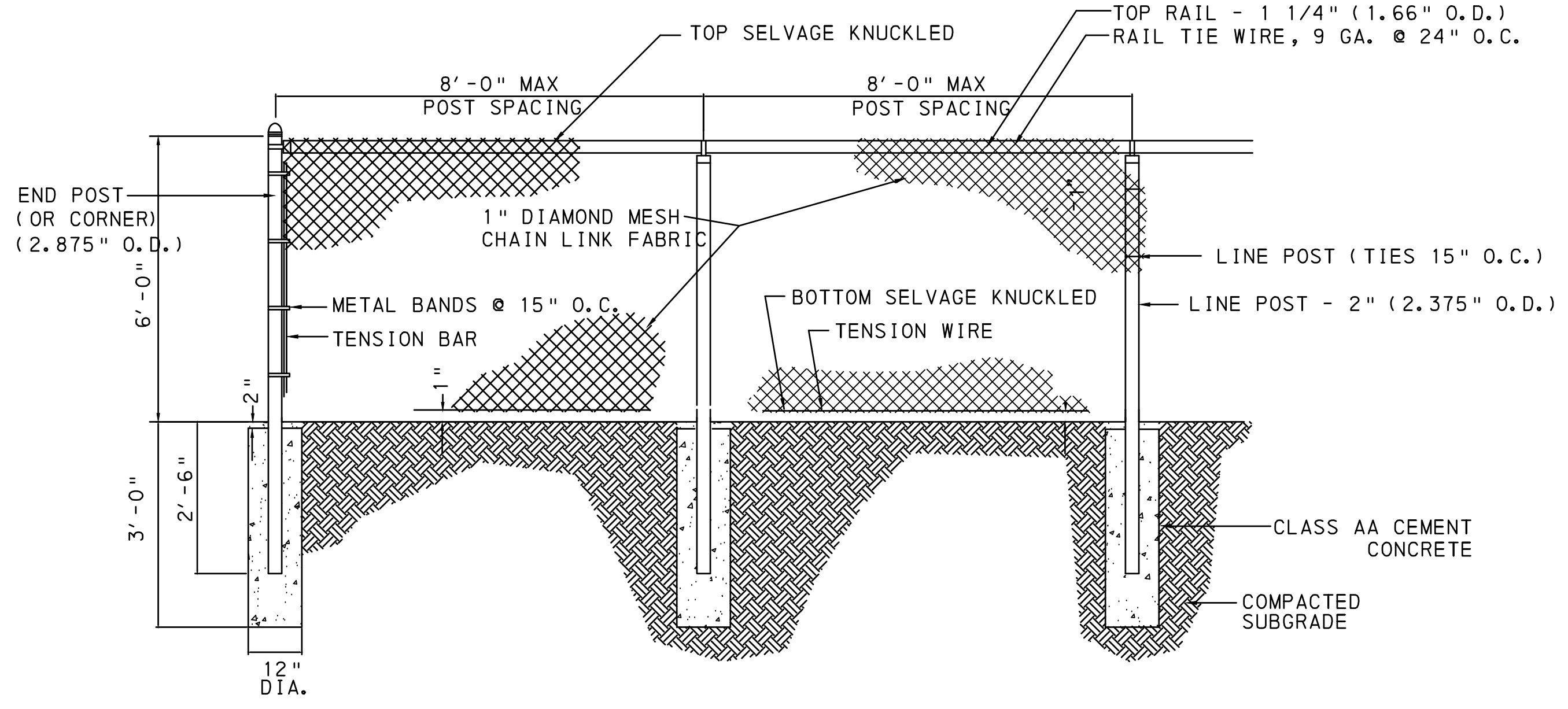
- NOTES:**
1. 2"x6" RAILS TO FACE ASPHALT PATH.
 2. ALL HARDWARE WILL BE GALVANIZED STEEL
 3. ALL WOOD IS TO BE NO. 1 COMMON S. Y. P.; PRESSURE TREATED-40 C. C. A.
 4. FASTEN USING MANUFACTURER APPROVED FASTENERS

WOOD FENCE
(ITEM NO. 9000-0001)
N. T. S.

- CHAIN LINK FENCE NOTES:**
1. CHAIN LINK FABRIC TO BE 9 GAUGE, CLASS 2B PVC COATED, 1" DIAMOND MESH (BLACK).
 2. ALL NEW FRAMING MEMBERS (INCLUDING POSTS) AND HARDWARE TO BE PVC COATED (BLACK) PER SPECIFICATIONS.
 3. FASTEN FENCE FABRIC TO TRAIL SIDE OF POSTS.
 4. TOP AND BOTTOM SELVAGE TO BE KNUCKLED.
 5. PROVIDE COMPLETE SHOP DRAWINGS FOR FENCE AND HARDWARE.
 6. ALL WELDS TO BE GROUND SMOOTH.
 6. ALL POSTS ARE TO BE GROUNDED.



TYPICAL RETAINING WALL SECTION
NOT TO SCALE

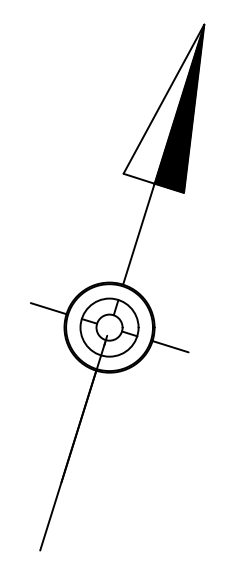


CHAIN LINK FENCE
(ITEM NO. 9624-0001)
N. T. S.

PENNONT ASSOCIATES, INC.
 USER NAME: PRAHLAD_SINGH
 PEN TABLE: PENNONT_NCS_51B
 PLOT DRIVER: AUTOCAD_PDF (GENERAL DOCUMENTATION).PC3
 DATE: PLOTTED: 07/20/20 09:34 AM
 PLOT FILE: C:\Users\prahlad_singh\AppData\Local\Temp\1\139516 - PENNSY TRAIL PHASE 1 (DESIGN).DWG

FOR PUBLIC COMMENT
 PURPOSES ONLY
 NOT FOR CONSTRUCTION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	DELAWARE		PSY	7 OF 11
HAVERFORD				
REVISION NUMBER	REVISIONS			DATE



MANOA ROAD (SR 1002)
35 MPH POSTED SPEED LIMIT

LIMIT OF WORK
STA. 103+40
SEG 0030 OFFSET 0097
SR 1002 SEC N/A
HAVERFORD TOWNSHIP
DELAWARE COUNTY

START WORK
STA. 104+00
SEG 0030 OFFSET
0157
SR 1002

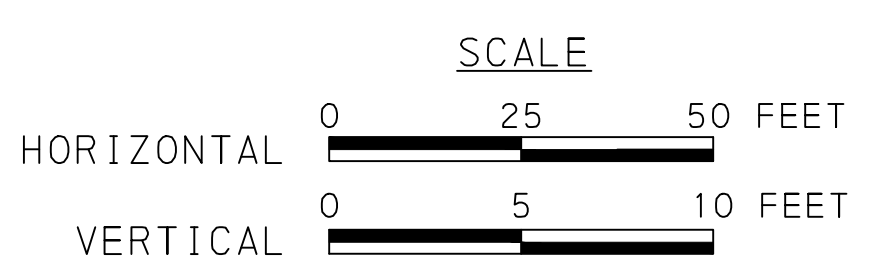
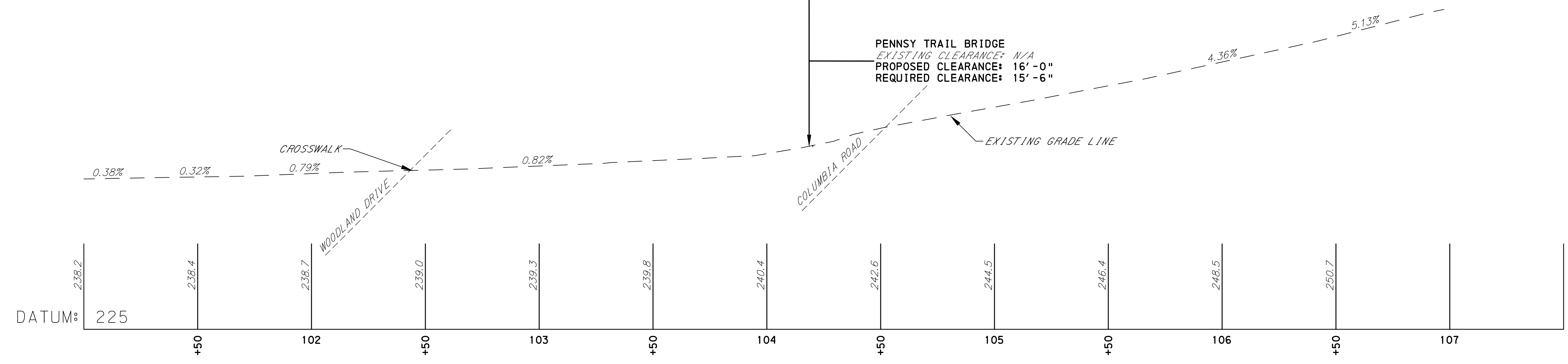
LIMIT OF WORK
STA. 105+60
SEG 0030 OFFSET 0317
SR 1002 SEC N/A
HAVERFORD TOWNSHIP
DELAWARE COUNTY

STOP WORK
STA. 105+00
SEG 0030 OFFSET 0257
SR 1002

WASHINGTON AVE
STA 200+00
MANOA ROAD (SR 1002)
STA 100+47
SEG 0020 OFF 2243

WOODLAND DRIVE
STA 200+00
MANOA ROAD (SR 1002)
STA 102+43
SEG 0030 OFF 0000

PENNSY TRAIL BRIDGE
EXISTING CLEARANCE: N/A
PROPOSED CLEARANCE: 16'-0"
REQUIRED CLEARANCE: 15'-6"



**FOR PUBLIC COMMENT
PURPOSES ONLY
NOT FOR CONSTRUCTION**

PENNONI ASSOCIATES, INC.
 USER: NAME=PRAHLAD_SINGH
 PEN TABLET PENNONI_INCS_51B
 PLOT DRIVER: AUTOCAD_PDF_GENERAL_DOCUMENTATION_PC3
 DATE: PLOTTED: 07/27/2020 09:34 AM
 FILE: NAME=C:\p\04638\WATTS\30516 - PENNSY TRAIL PHASE I\DESIGN\BIBL\SHANTOG01.dwg

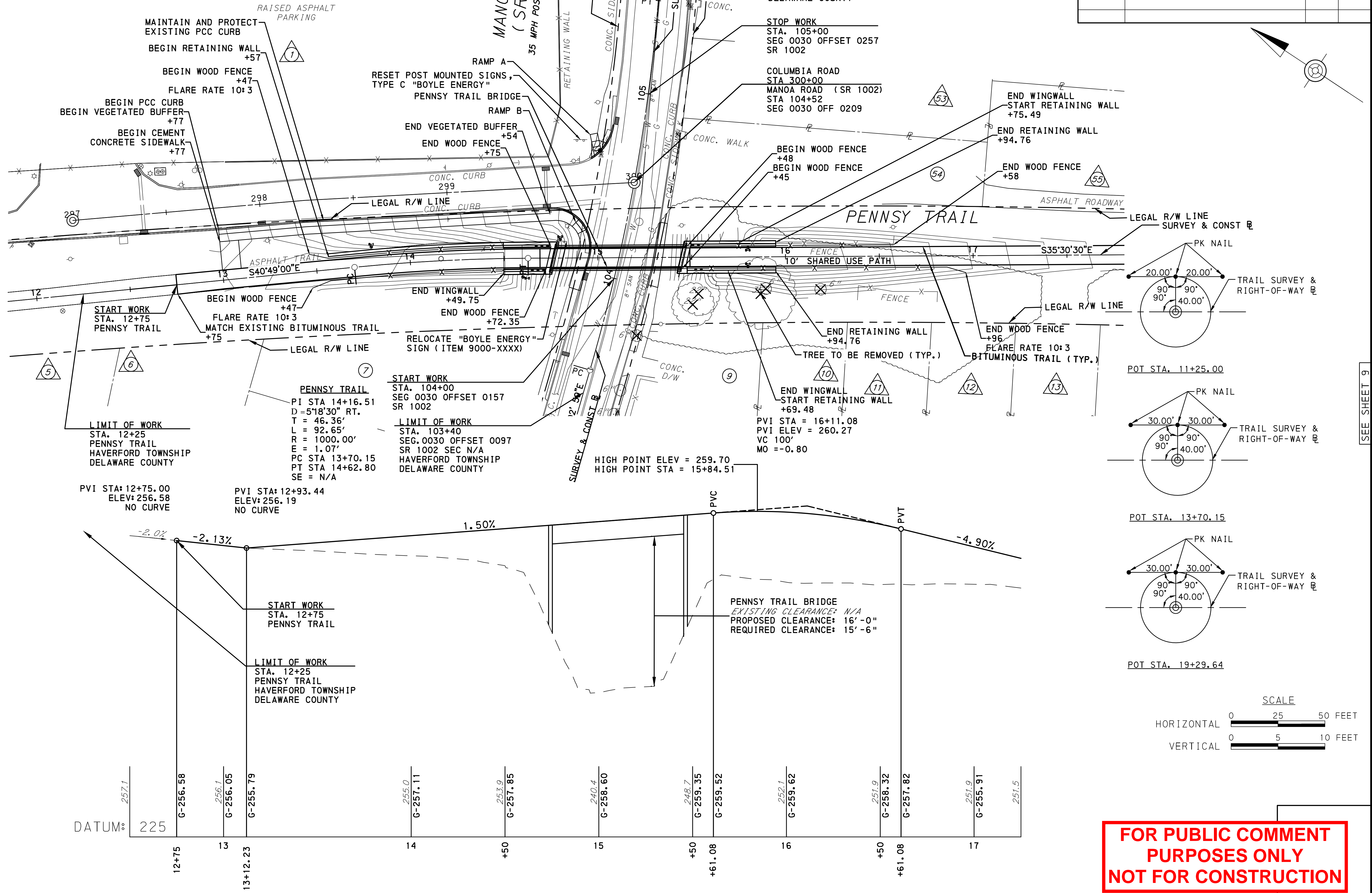
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
6-0	DELAWARE		PSY	8 OF 11	
HAVERFORD					
REVISION NUMBER	REVISIONS			DATE	BY

BM #601 ELEV 255.79
46.60' LT STA 13+13.70 BL
TRAV PKS

BM #604 ELEV 251.66
01.10' RT STA 17+01.42 BL
TRAV PKS

COLUMBIA ROAD
(DRIVEWAY)

MANOA ROAD
(SR 1002)
35 MPH POSTED SPEED LIMIT



PVI STA: 12+75.00
ELEV: 256.58
NO CURVE

PVI STA: 12+93.44
ELEV: 256.19
NO CURVE

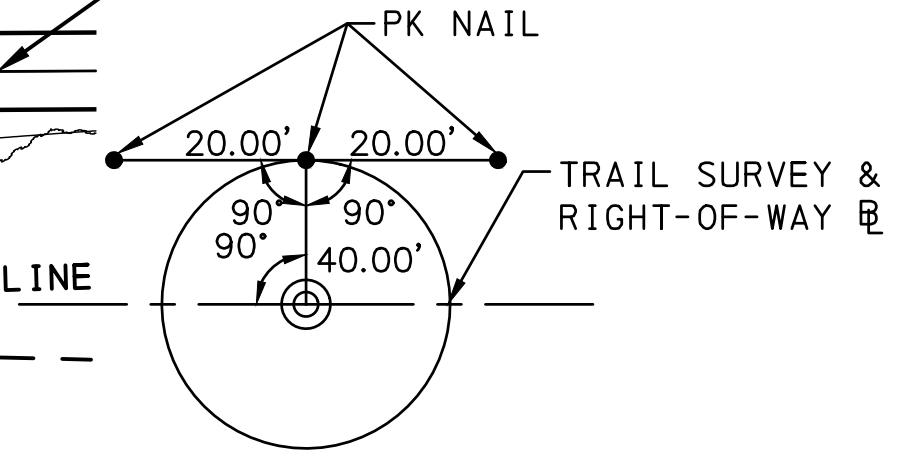
PENNSY TRAIL
PI STA 14+16.51
D = 518'30" RT.
T = 46.36'
L = 92.65'
R = 1000.00'
E = 1.07'
PC STA 13+70.15
PT STA 14+62.80
SE = N/A

LIMIT OF WORK
STA. 103+40
SEG. 0030 OFFSET 0097
SR 1002 SEC N/A
HAVERFORD TOWNSHIP
DELAWARE COUNTY

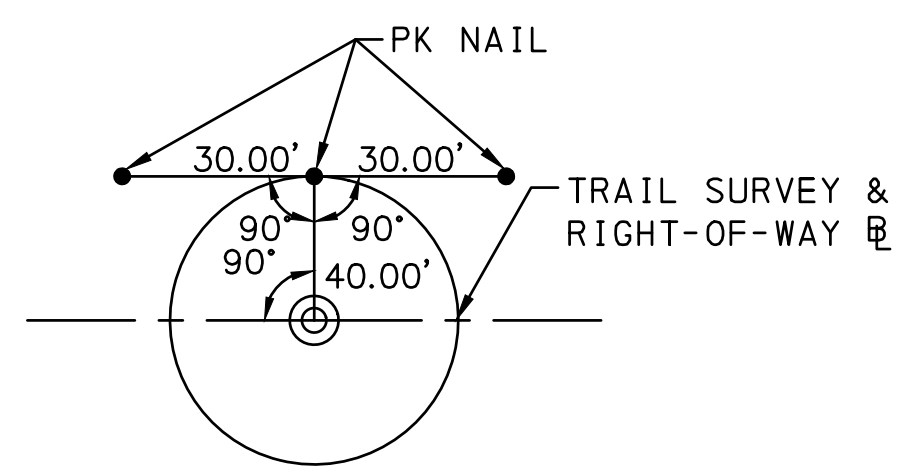
PVI STA = 16+11.08
PVI ELEV = 260.27
VC 100'
MO = -0.80

HIGH POINT ELEV = 259.70
HIGH POINT STA = 15+84.51

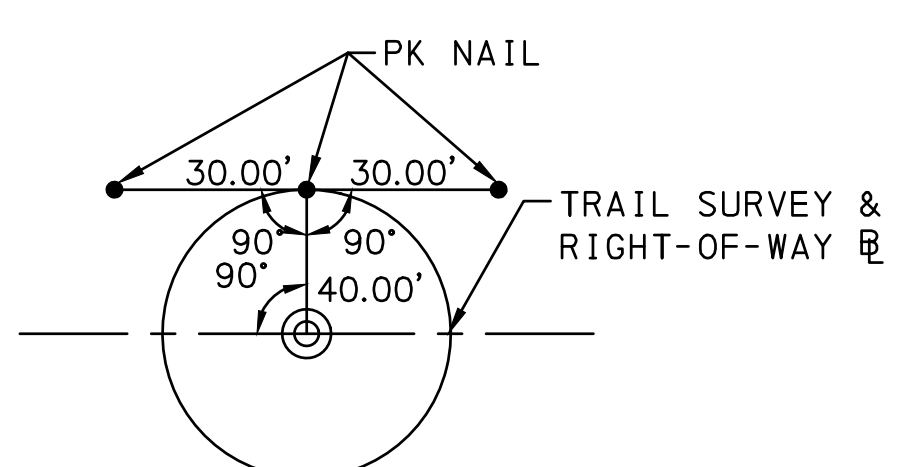
PENNSY TRAIL BRIDGE
EXISTING CLEARANCE: N/A
PROPOSED CLEARANCE: 16'-0"
REQUIRED CLEARANCE: 15'-6"



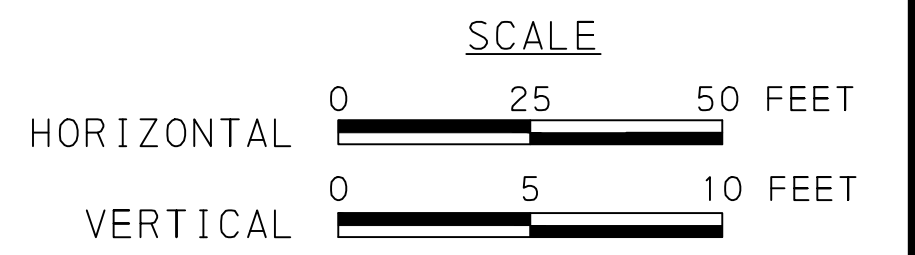
POT STA. 11+25.00



POT STA. 13+70.15



POT STA. 19+29.64

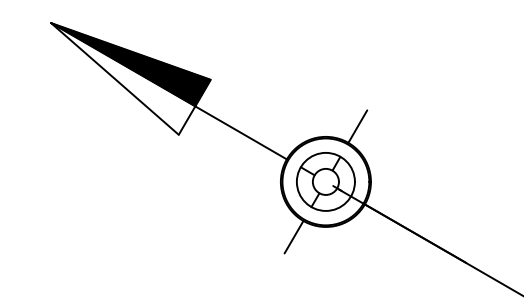
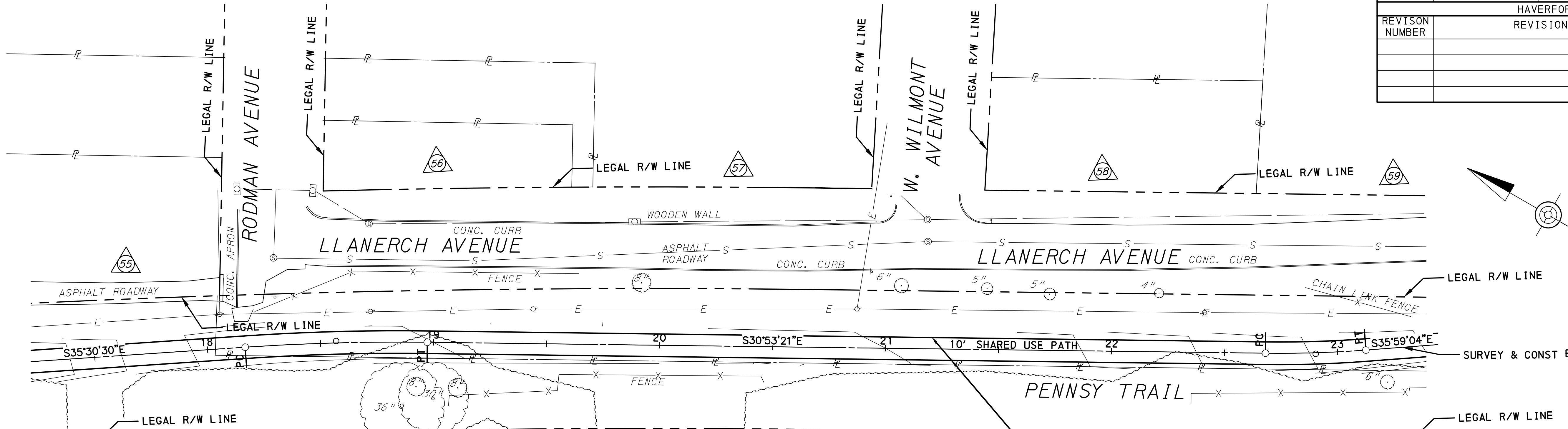


**FOR PUBLIC COMMENT
PURPOSES ONLY
NOT FOR CONSTRUCTION**

PENNONT ASSOCIATES, INC.
 USER: NAME: PRAHLAD SINGH
 PEN TABLET PENNONT INCS 51B
 PLOT DRIVER: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3
 DATE PLOTTED: 07/27/2020 09:35 AM
 FILE NAME: P:\2020\0727\130516 - PENNSY TRAIL PHASE I\DESIGN\TABL\SHK10501.dwg

SEE SHEET 9

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	DELAWARE		PSY	9 OF 11
HAVERFORD				
REVISION NUMBER	REVISIONS			DATE BY

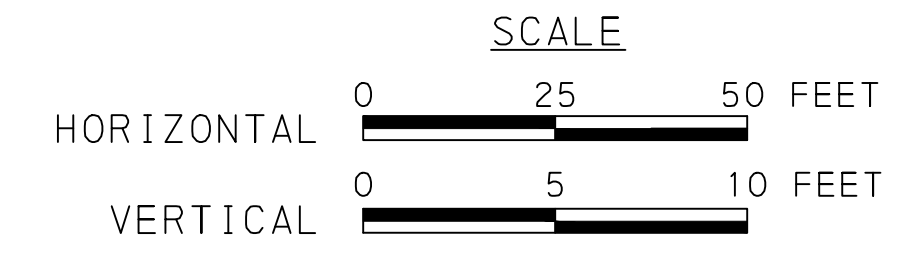
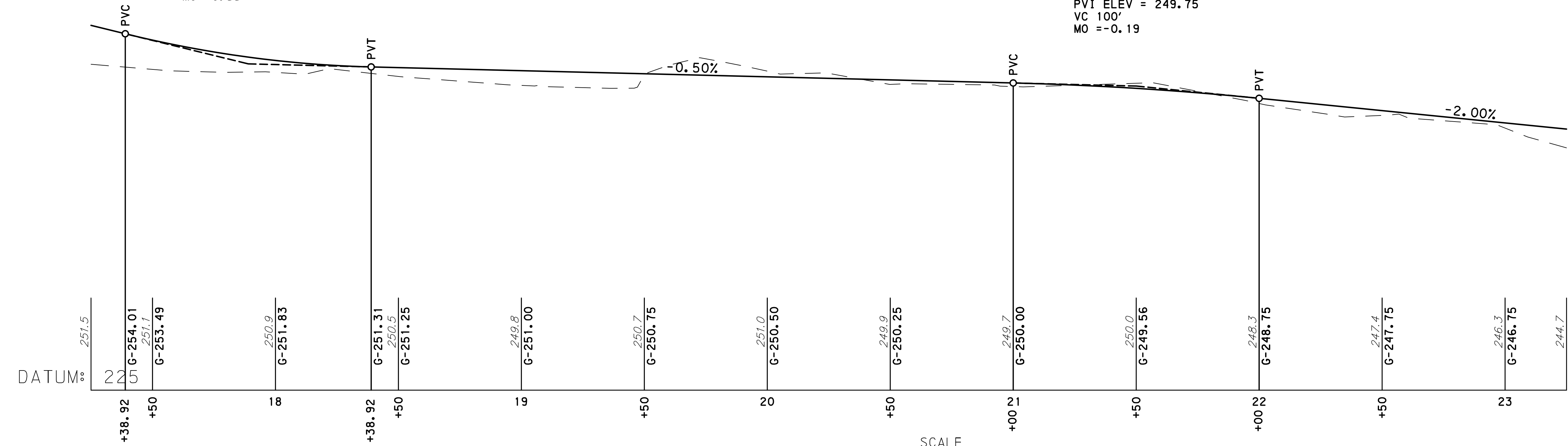


PVI STA = 17+88.92
PVI ELEV = 251.56
VC 100'
MO = 0.55

PENNSY TRAIL
PI STA 18+57.01
D = 4°37'09" RT.
T = 40.33'
L = 80.62'
R = 1000.00'
E = 0.81'
PC STA 18+16.68
PT STA 18+97.30
SE = N/A

PVI STA = 21+50
PVI ELEV = 249.75
VC 100'
MO = -0.19

PENNSY TRAIL
PI STA 22+90.31
D = 5°05'44" LT.
T = 22.25'
L = 44.47'
R = 500.00'
E = 0.49'
PC STA 22+68.06
PT STA 23+12.53
SE =



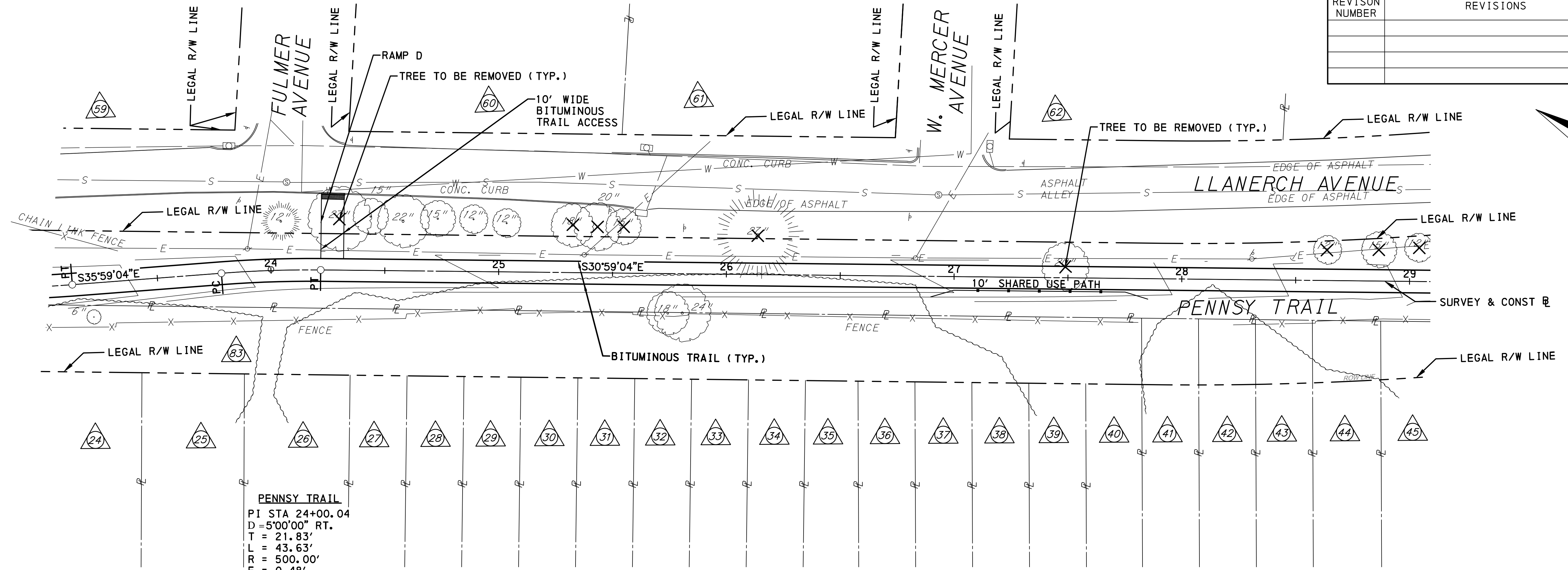
**FOR PUBLIC COMMENT
PURPOSES ONLY
NOT FOR CONSTRUCTION**

PENNONI ASSOCIATES, INC.
USER NAME: PRAHLAD_SINGH
PEN TABLET PENNONI, INC., STB
PLOT DRIVER: AUTOCAD_PDF_GENERAL_DOCUMENTATION_PC3
DATE PLOTTED: 07/27/2020 09:35 AM
PLOT NUMBER: 20200727093516 - PENNSY TRAIL PHASE 1 (DESIGN) - PUBLISHED.dwg

SEE SHEET 8

SEE SHEET 10

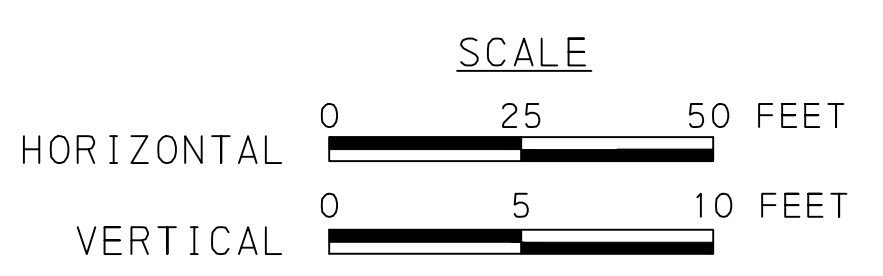
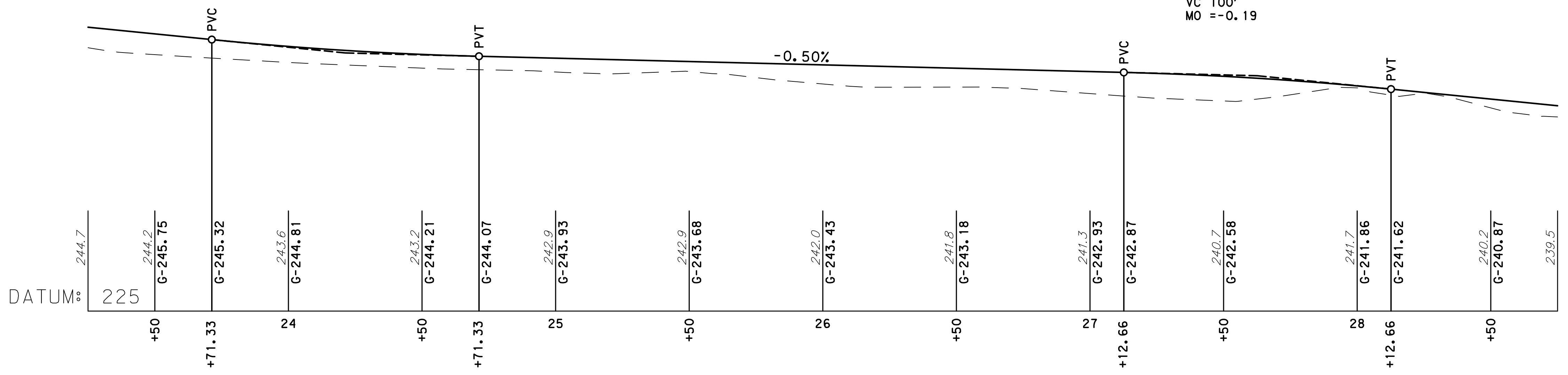
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	DELAWARE		PSY	10 OF 11
HAVERFORD				
REVISION NUMBER	REVISIONS			DATE BY



PENNSY TRAIL
 PI STA 24+00.04
 D = 5'00"00" RT.
 T = 21.83'
 L = 43.63'
 R = 500.00'
 E = 0.48'
 PC STA 23+78.21
 PT STA 24+21.84
 SE =

PVI STA = 24+21.33
 PVI ELEV = 244.32
 VC 100'
 MO = 0.19

PVI STA = 27+62.66
 PVI ELEV = 242.62
 VC 100'
 MO = -0.19



**FOR PUBLIC COMMENT
 PURPOSES ONLY
 NOT FOR CONSTRUCTION**

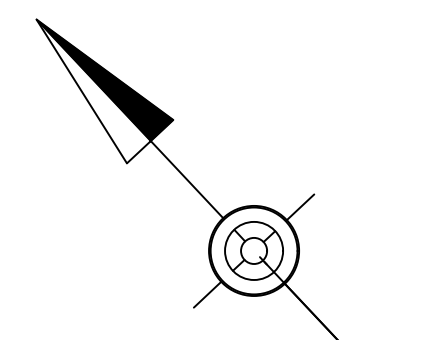
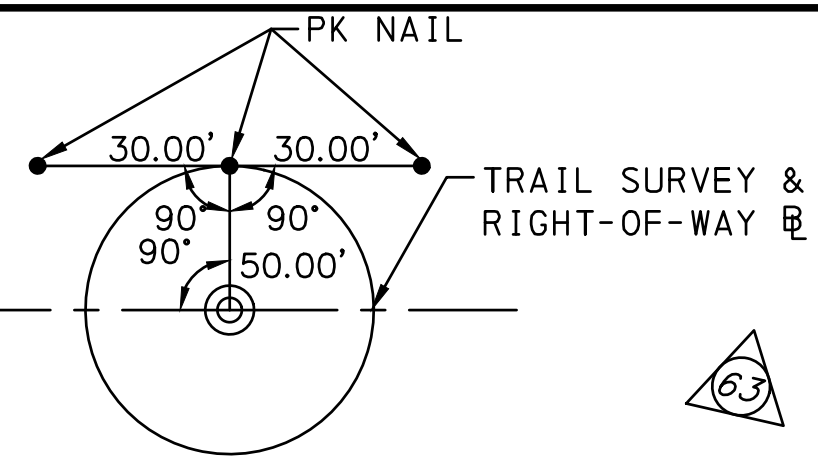
PENNONI ASSOCIATES, INC.
 USER: NAME: PRAHLAD, SINGH
 PEN TABLET PENNONI, INC., 51B
 PLOT DRIVER: AUTOCAD, PDF (GENERAL DOCUMENTATION), PC3
 DATE: PLOTTED: 07/27/2020 09:35 AM
 PLOT: NAME: P:\Projects\104638\WATTS\10463816 - PENNSY TRAIL PHASE I\DESIGN\PLAN\10463816.dwg

SEE SHEET 9

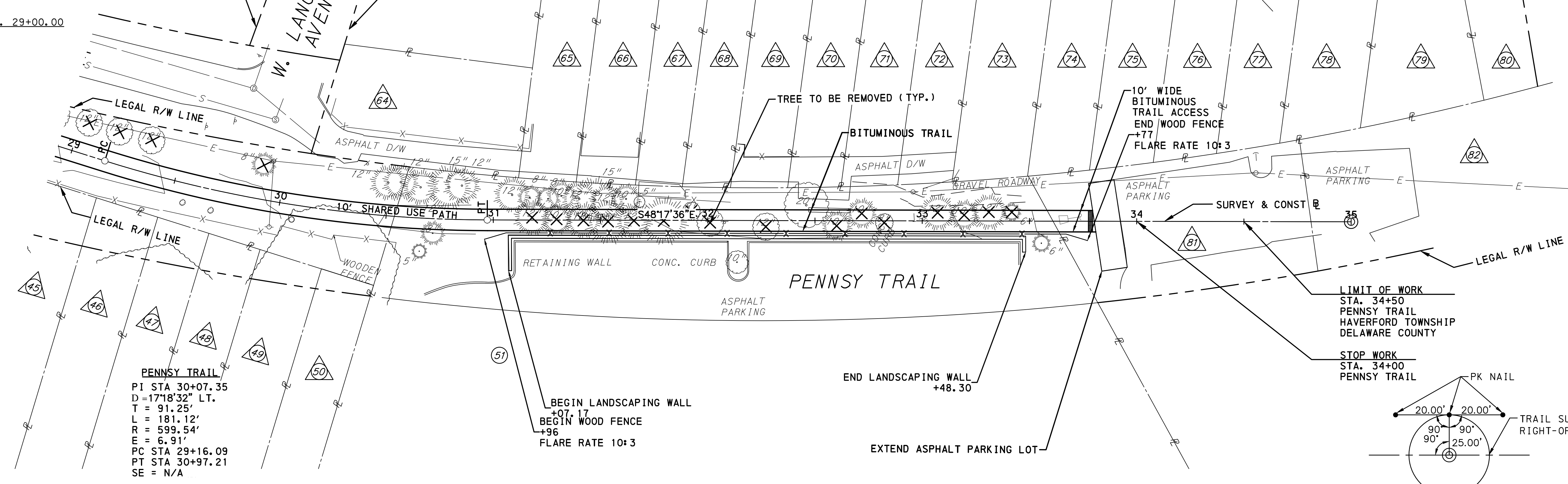
SEE SHEET 11

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	DELAWARE		PSY	11 OF 11
HAVERFORD				
REVISION NUMBER	REVISIONS	DATE	BY	

BM #612 ELEV 229.08
51.60' RT STA 31+18.33 BL
TRAV PKS



POT STA. 29+00.00

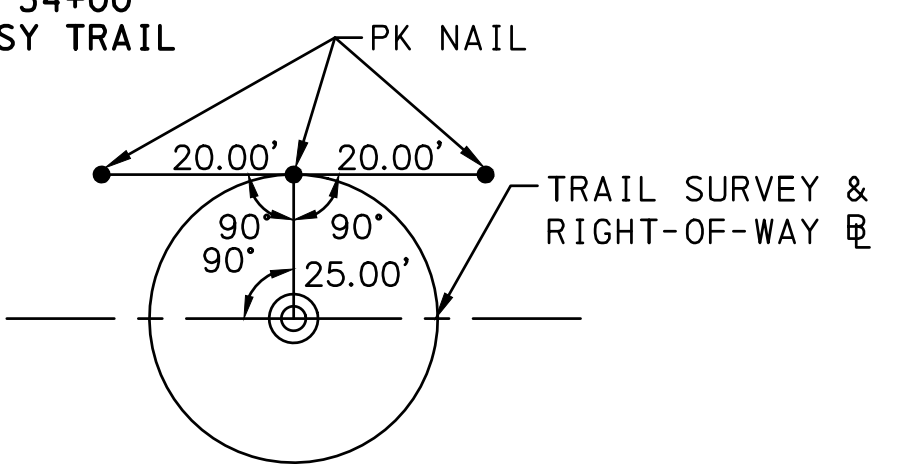


PENNSY TRAIL
PI STA 30+07.35
D=17'18"32" LT.
T = 91.25'
L = 181.12'
R = 599.54'
E = 6.91'
PC STA 29+16.09
PT STA 30+97.21
SE = N/A

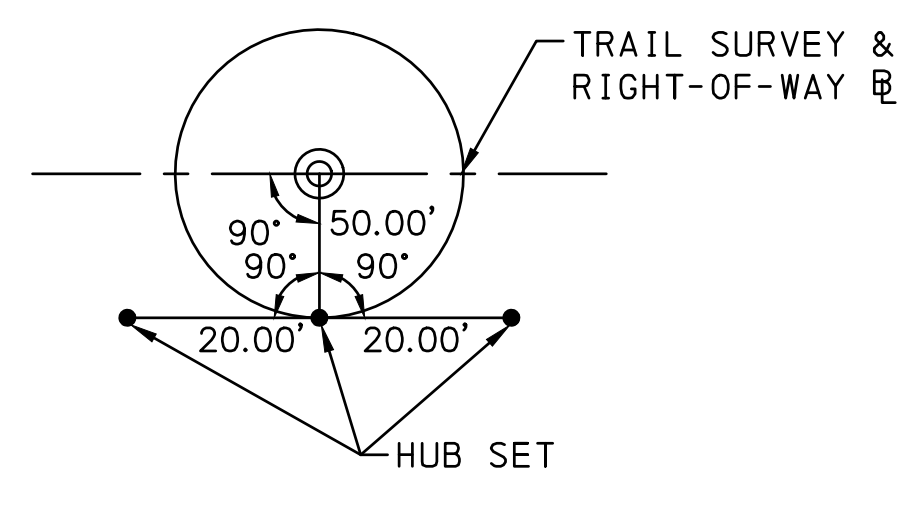
PVI STA = 30+69.86
PVI ELEV = 236.47
VC 100'
MO = 0.31

LOW POINT ELEV = 236.67
LOW POINT STA = 30+99.78

PVI STA = 33+31.76
PVI ELEV = 237.79
VC 100'
MO = 0.55

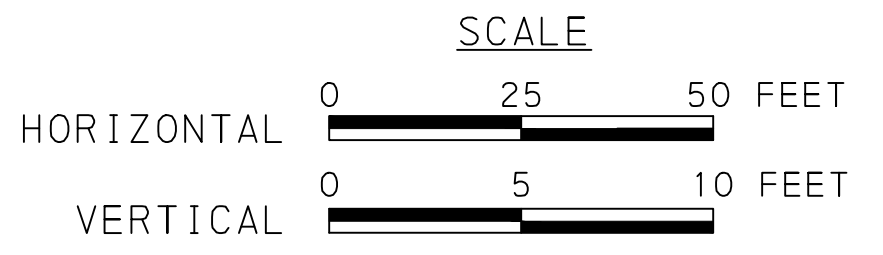
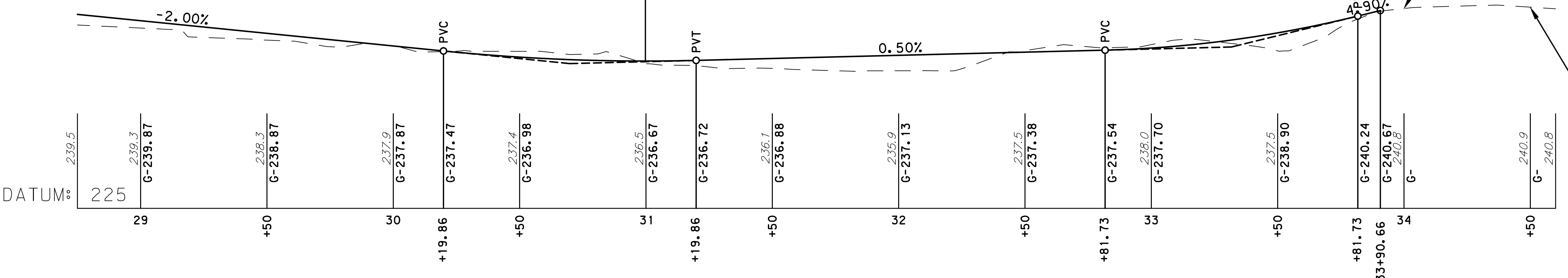


POT STA. 31+50.00



POT STA. 33+00.00

LIMIT OF WORK
STA. 34+50
PENNSY TRAIL
HAVERFORD TOWNSHIP
DELAWARE COUNTY



**FOR PUBLIC COMMENT
PURPOSES ONLY
NOT FOR CONSTRUCTION**

PENNONI ASSOCIATES, INC.
 USER: NAME: PRAHLAD, SINGH
 PEN TABLET PENNONI, INCS, 51B
 PLOT DRIVER: AUTOCAD, PDF (GENERAL DOCUMENTATION), PC3
 DATE: PLOT: 04/27/2020 09:35 AM
 FILE: NAME: P:\2020\46263\WATTS\30516 - PENNSY TRAIL PHASE I\DESIGN\PLAN\BIBL\SHANTY0501.dwg

SEE SHEET 10