

# RICHLAND TOWNSHIP TOWNSHIP ROAD 219, EBBERT SOUTH ROAD SLIP REPAIR

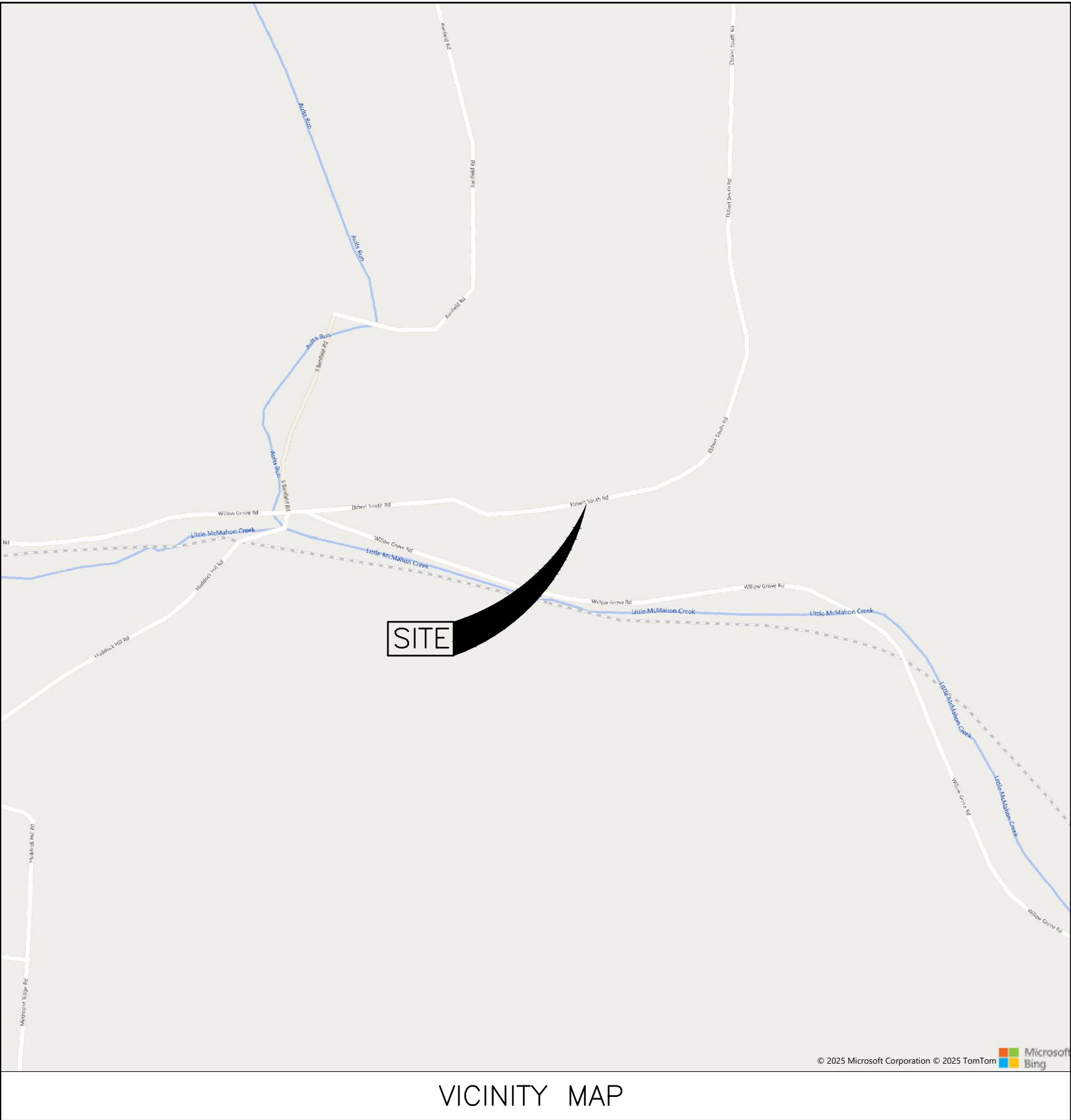
RICHLAND TOWNSHIP, BELMONT COUNTY, OHIO

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE INSTALLATION OF A SOLDIER PILE RETAINING WALL WITH PLUG PILES ALONG A PORTION OF TOWNSHIP ROAD 219 (EBBERTS SOUTH ROAD) WHERE SLOPE FAILURE HAS OCCURRED.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.



SHEET TITLE

TITLE SHEET  
GENERAL NOTES & SUMMARY  
OVERALL SITE PLAN  
PLAN & PROFILE  
RETAINING WALL DETAILS  
PILE TABLE

SHEET NO.

1  
2  
3  
4  
5  
6

THE STANDARD DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS
ODOT STANDARD CONSTRUCTION DRAWINGS		
MT-101.60	1/20/17	
MT-105.10	7/19/13	
MGS-2.1	1/9/18	
MGS-4.1	1/20/17	

PLANS PREPARED BY:



Verdantas, LLC. Phone: (740) 217-7685  
156 Woodrow Avenue, St. 3 Fax: (614) 793-9070  
St. Clairsville, OH 43950 www.verdantas.com



156 WOODROW AVENUE  
ST. CLAIRSVILLE, OH 43950-1187  
TEL 740.217.7685  
FAX 614.360.0023

ALLEN J. SMITH JR.



P.E. 71835  
STATE: OHIO

DESIGNED BY:  
C/G

DRAWN BY:  
C/G/LAF

CHECKED BY:  
AJS

PROJECT NO.:  
30038

CHK'D BY:  
DATE

REVISION

No.

RICHLAND TOWNSHIP ~ BELMONT COUNTY ~OHIO  
SLIP REPAIR PLANS FOR  
EBBERT SOUTH ROAD  
TITLE SHEET

APPLICATION NO.

DATE:  
2025-06-20

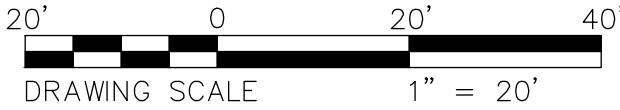
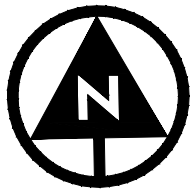
SCALE:  
AS NOTED

SHEET:  
1









SURVEYOR NOTES:

THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.

DATES OF FIELD WORK: 2/27/2025

EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON.

SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREIN ARE BASED ON OHIO STATE PLANE COORDINATE SYSTEM. SOUTH SYSTEM, NAD83, GEOID12A.

BENCHMARKS:

AS PER THE TOPOGRAPHIC SURVEY PREPARED BY VERDANTAS THE CONTRACTOR AND/OR HIS SURVEYOR SHALL BE RESPONSIBLE TO CROSS CHECK ALL CONTROL FOR DISTURBANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

BENCHMARK #1 - VDT CONTROL POINT PINS #2

ELEVATION = 902.69

BENCHMARK #2 - VDT CONTROL POINT PINS #3

ELEVATION = 947.02

CONTROL POINTS

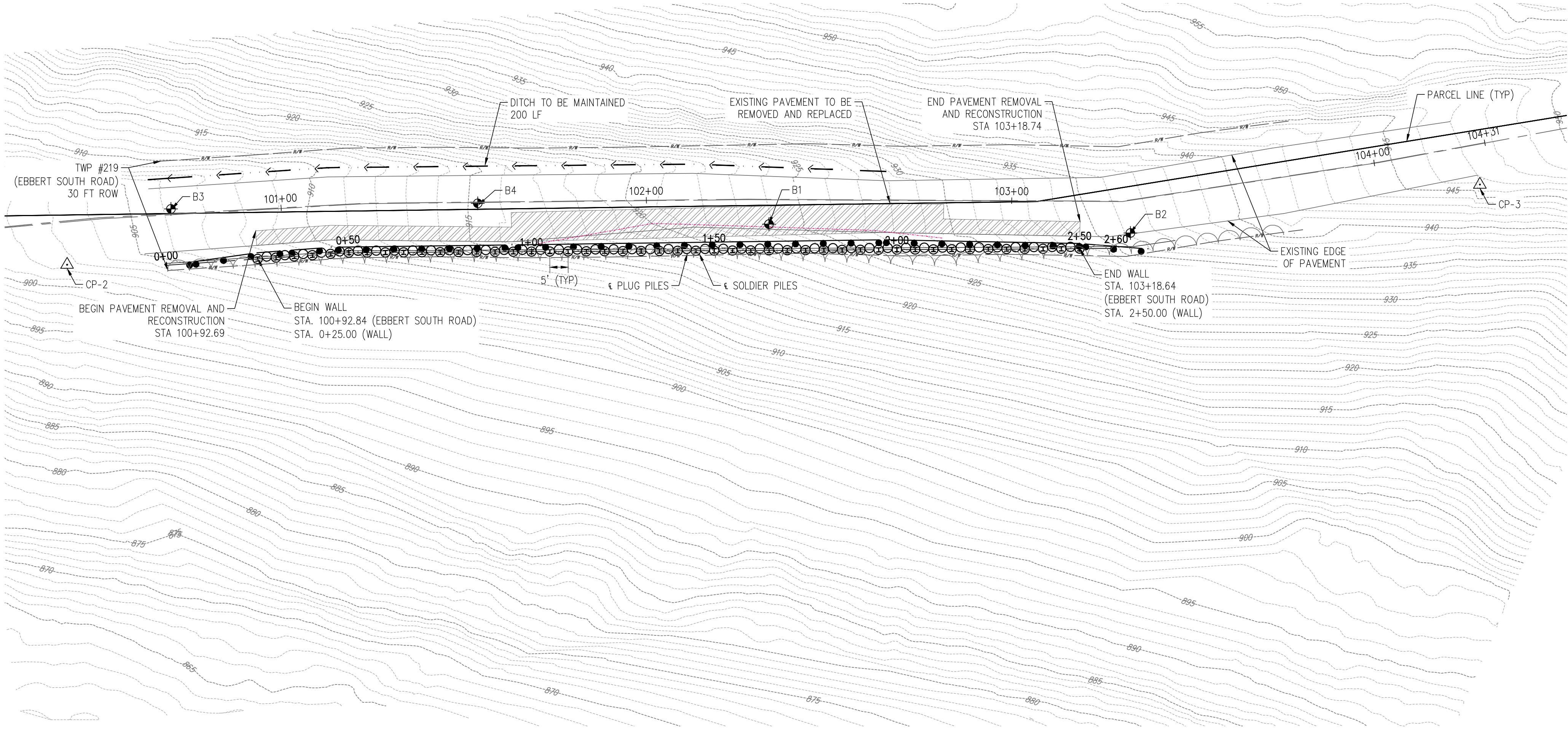
BASIS OF BEARING: TRUE NORTH, BASED ON OBSERVATIONS, GPS DATA COLLECTED WITH TRIMBLE 8 UNIT VRS CORRECTION ON OHIO STATE PLANE SOUTH ZONE COORDINATE SYSTEM, NAD 1983, NAVD 1988, GEOID 12A.

POINT #	NORTHING	EASTING	STATION AND OFFSET	DESCRIPTION
CP-2	749789.5424	2428942.7471	STA. 100+40.15, 11.94' RT.	CONTROL POINT PIN
CP-3	749811.4754	2429329.4183	STA. 104+27.38, 11.02' RT.	CONTROL POINT PIN

ALIGNMENT DETAILS

BASIS OF BEARING: TRUE NORTH, BASED ON OBSERVATIONS, GPS DATA COLLECTED WITH TRIMBLE 8 UNIT VRS CORRECTION ON OHIO STATE PLANE SOUTH ZONE COORDINATE SYSTEM, NAD 1983, NAVD 1988, GEOID 12A.

STATION	NORTHING	EASTING	ALIGNMENT
100+92.69	749804.6929	2428993.9078	TWP 219 (EBBERT SOUTH ROAD)
103+18.74	749806.9762	2429220.1078	TWP 219 (EBBERT SOUTH ROAD)
100+92.84	749791.1141	2428994.9215	ϕ DRILLED SHAFTS
103+18.64	749793.9302	2429219.8588	ϕ DRILLED SHAFTS



verdantas

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TEL 740.217.7685  
FAX 614.360.0023

ALLEN J. SMITH JR.



DESIGNED BY  
C/G

CHK'D BY  
DATE

REVISION

No.

RICHLAND TOWNSHIP ~ BELMONT COUNTY ~OHIO  
SLIP REPAIR PLANS FOR  
EBBERT SOUTH ROAD  
OVERALL SITE PLAN

APPLICATION NO.

DATE:  
2025-06-20

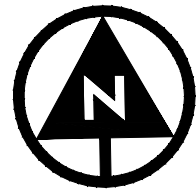
SCALE:  
AS NOTED

SHEET:  
3

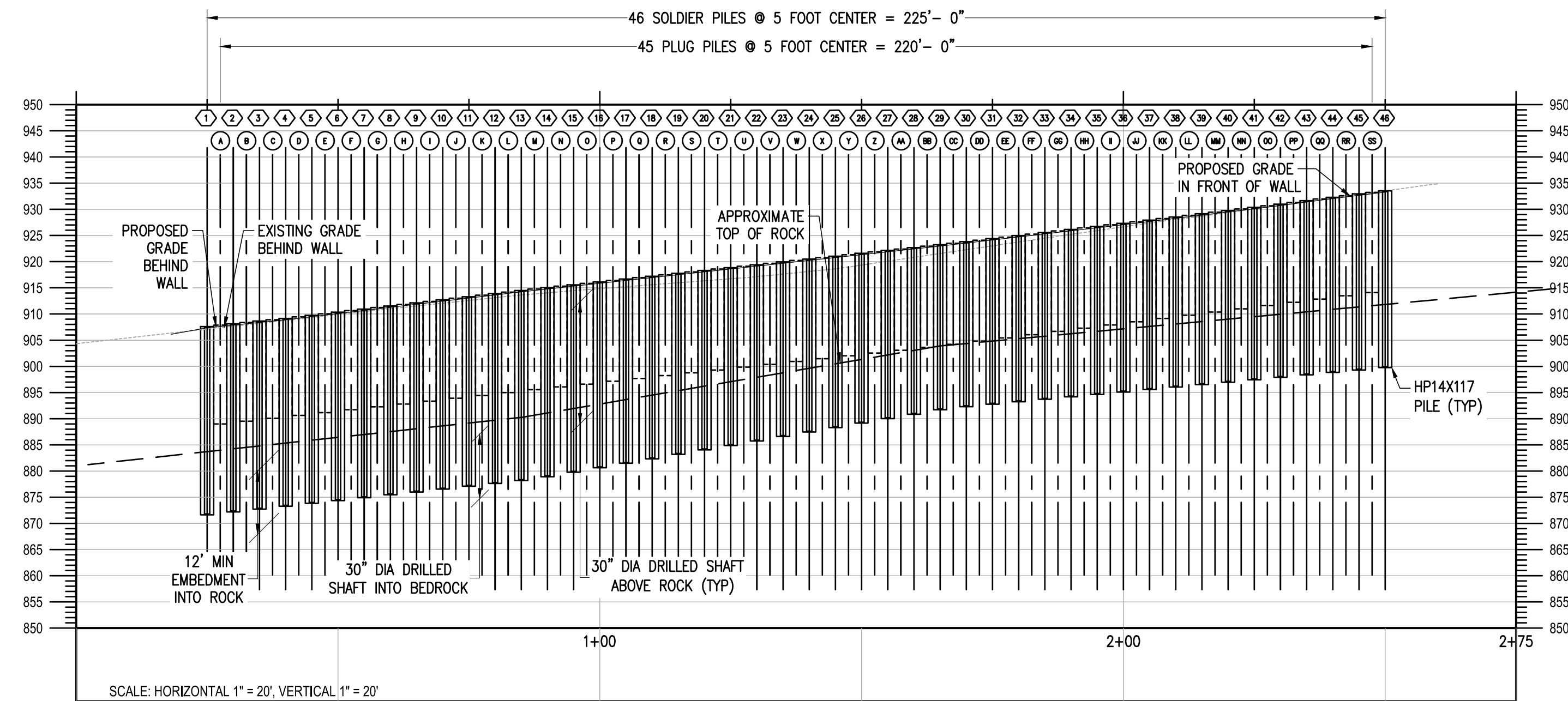
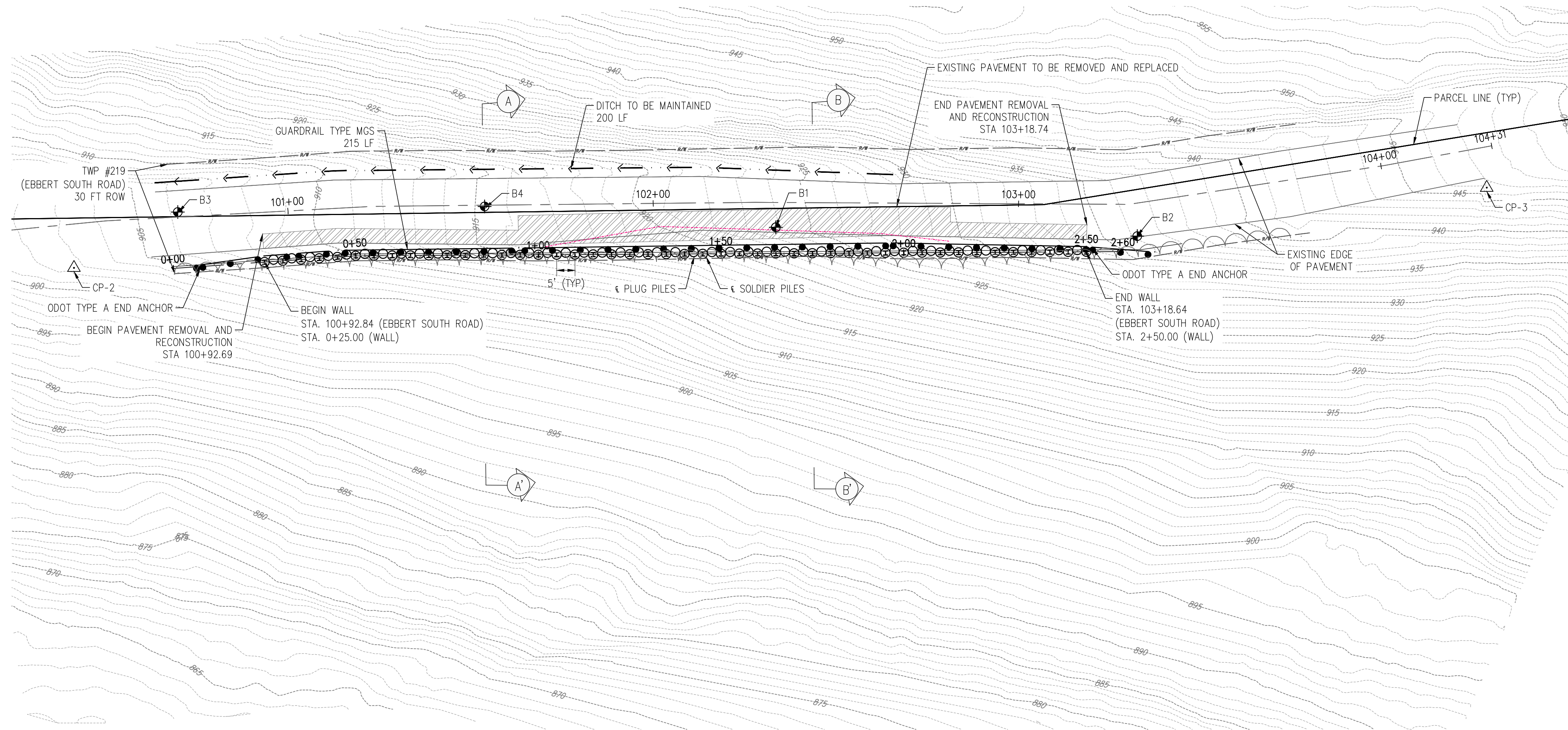




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20' 0 20' 40'  
DRAWING SCALE 1" = 20'



**verdantas**

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ALLEN J. SMITH JR.



STATE: OHIO P.E. 71835

DESIGNED BY  
C/G

DRAWN BY:  
C/G/LAF

CHECKED BY:  
AJS

PROJECT NO.  
30038

CHK'D BY  
DATE

REVISION

No.

RICHLAND TOWNSHIP ~ BELMONT COUNTY ~OHIO

SLIP REPAIR PLANS FOR

EBBERT SOUTH ROAD

PLAN & PROFILE

APPLICATION NO.

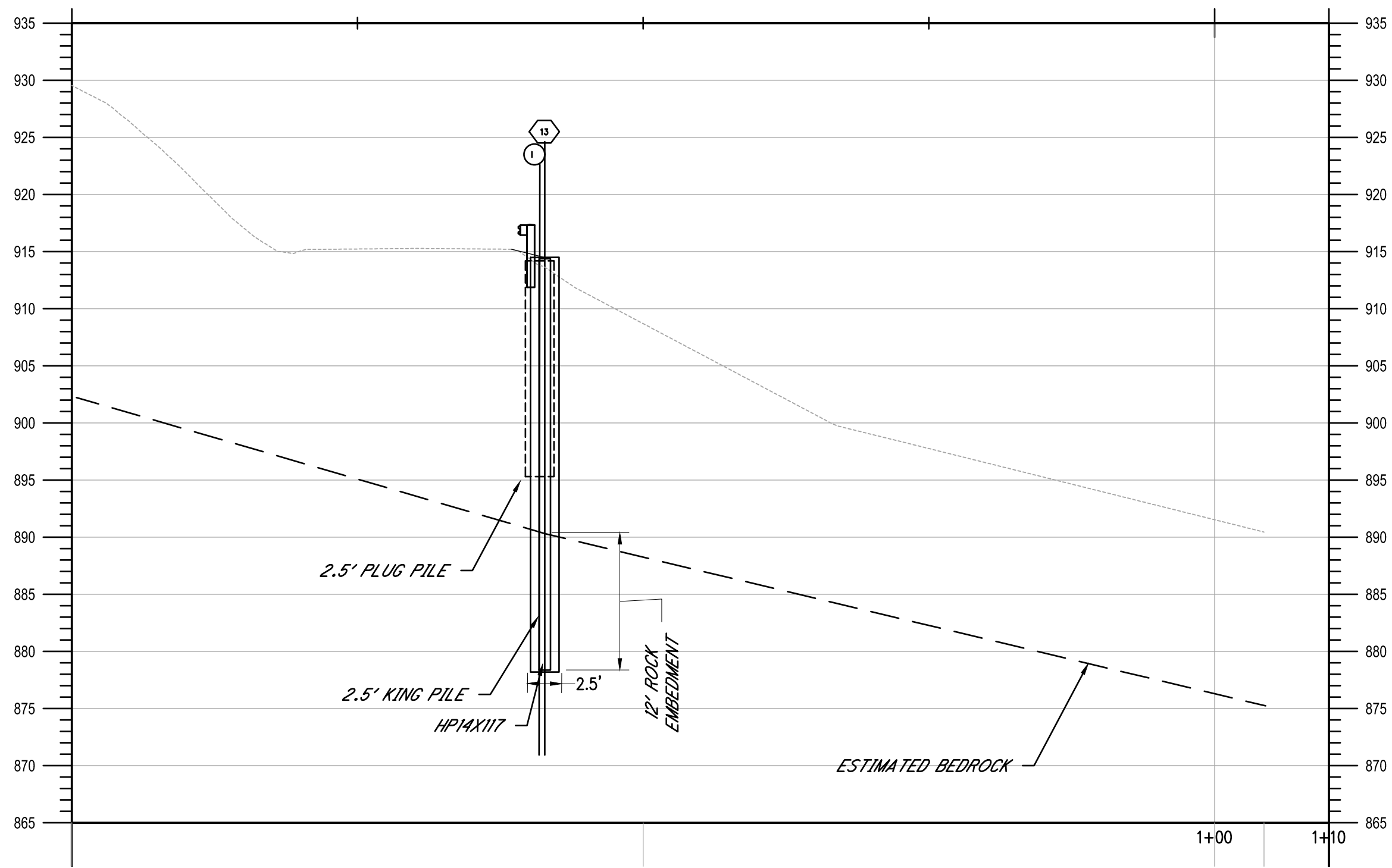
DATE:  
2025-06-20

SCALE:  
AS NOTED

SHEET:  
4

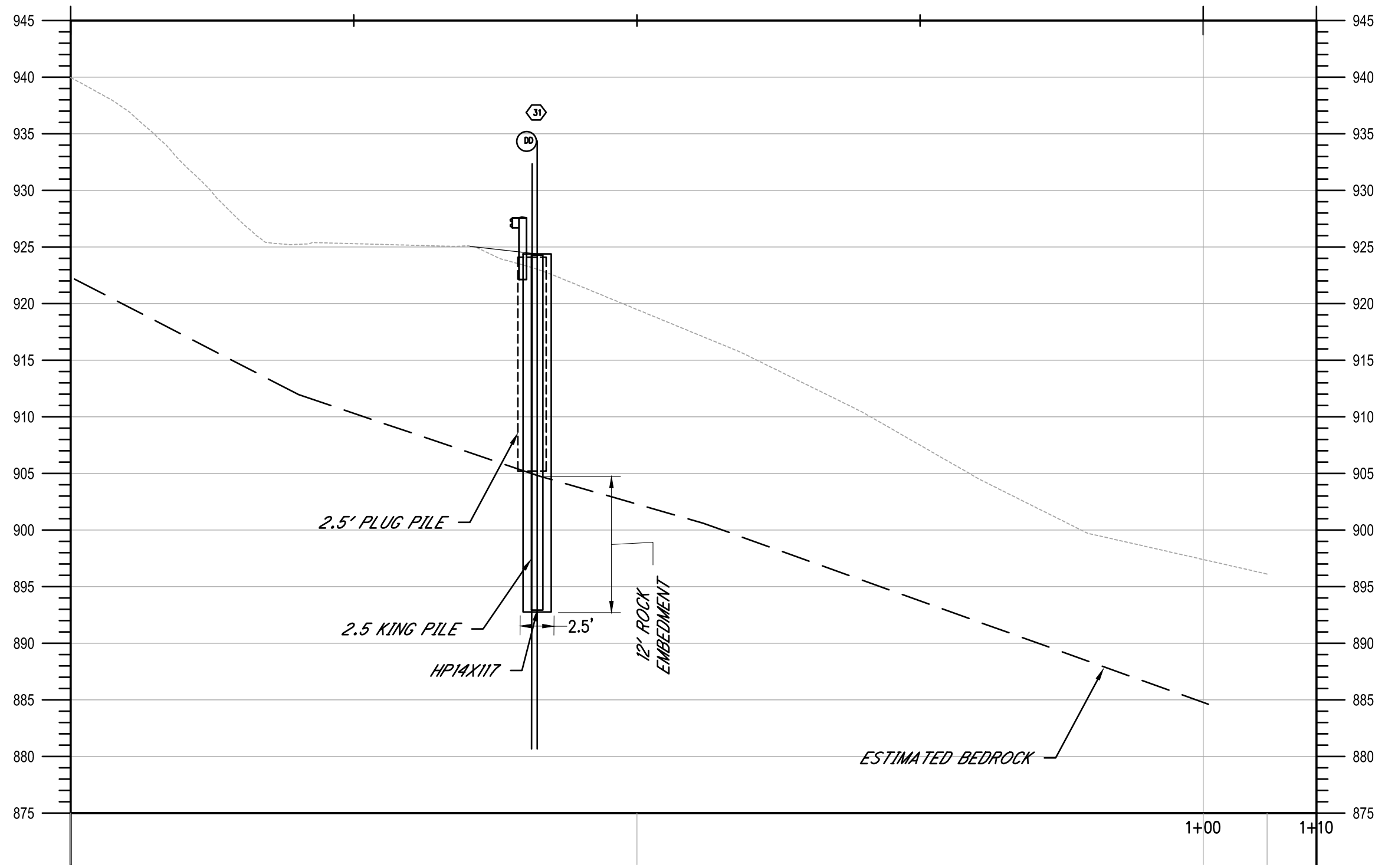


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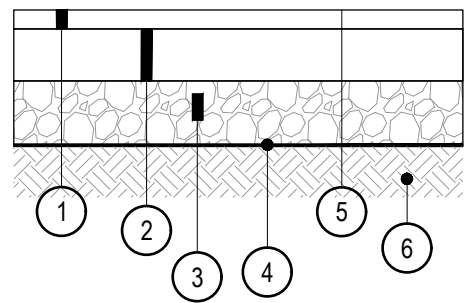
TYPICAL REPAIR SECTION A-A'

HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 10'



TYPICAL REPAIR SECTION B-B'

HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 10'



- 1 ITEM 441 - 2" ASPHALT SURFACE COURSE, TYPE 1 PG64-22
- 2 ITEM 301 - 3" BITUMINOUS AGGREGATE BASE COURSE
- 3 ITEM 304 - 6" AGGREGATE BASE
- 4 ODOT TYPE D WOVEN GEOTEXTILE
- 5 ITEM 407 - TACK COAT
- 6 ITEM 204 - SUBGRADE COMPACTION

## 1 ASPHALT CONCRETE PAVEMENT SECTION

Not to Scale

### NOTES:

- ALL PAVEMENT MATERIALS SHALL CONFORM TO THE CURRENT ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.
- THE CONTRACTOR SHALL SAW THE PROPOSED REPAIR JOINTS PER ITEM 203.04E WITH ALL JOINTS TO BE SEALED PER ITEM 423

DESIGNED BY	CUG
DRAWN BY	CUG/LAF
CHECKED BY	AJS
PROJECT NO.	30038
CHK'D BY	
DATE	
REVISION	
No.	1

RICHLAND TOWNSHIP ~ BELMONT COUNTY ~OHIO  
SLIP REPAIR PLANS FOR  
EBBERT SOUTH ROAD  
RETAINING WALL DETAILS

APPLICATION NO.
DATE: 2025-06-20
SCALE: AS NOTED
SHEET: 5



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SHAFT NO.	STATION	TOP ELEVATION OF EXISTING GROUND AT PILE	TOP ELEVATION OF PROPOSED GROUND AT PILE	TOP ELEVATION OF SHAFT	BOTTOM ELEVATION OF SHAFT	ESTIMATED TOP OF ROCK ELEVATION	507	524	524
							STEEL PILES, MISC.: HP14X117	30" DIAMETER DRILLED SHAFT ABOVE BEDROCK, AS PER PLAN	30" DIAMETER DRILLED SHAFT INTO BEDROCK, AS PER PLAN
1	0+25.00	907.12	907.91	907.61	871.64	883.64	35.97	24.27	12.00
2	0+30.00	907.67	908.42	908.13	872.18	884.18	35.95	24.24	12.00
3	0+35.00	908.22	908.94	908.64	872.73	884.73	35.91	24.21	12.00
4	0+40.00	908.77	909.45	909.16	873.27	885.27	35.89	24.18	12.00
5	0+45.00	909.31	910.05	909.73	873.82	885.82	35.91	24.23	12.00
6	0+50.00	909.96	910.67	910.34	874.37	886.37	35.97	24.30	12.00
7	0+55.00	910.48	911.27	910.94	874.91	886.91	36.03	24.36	12.00
8	0+60.00	911.01	911.87	911.53	875.46	887.46	36.07	24.41	12.00
9	0+65.00	911.54	912.46	912.12	876.01	888.01	36.11	24.45	12.00
10	0+70.00	912.06	913.06	912.71	876.55	888.55	36.16	24.51	12.00
11	0+75.00	912.59	913.65	913.30	877.10	889.10	36.20	24.55	12.00
12	0+80.00	913.11	914.25	913.89	877.64	889.64	36.25	24.61	12.00
13	0+85.00	913.64	914.84	914.49	878.19	890.19	36.30	24.65	12.00
14	0+90.00	914.05	915.44	915.26	878.92	890.92	36.34	24.52	12.00
15	0+95.00	914.46	916.03	915.67	879.77	891.77	35.90	24.26	12.00
16	1+00.00	914.84	916.54	916.13	880.63	892.63	35.50	23.91	12.00
17	1+05.00	915.22	917.08	916.67	881.48	893.48	35.19	23.60	12.00
18	1+10.00	915.60	917.61	917.22	882.33	894.33	34.89	23.28	12.00
19	1+15.00	915.97	918.10	917.76	883.19	895.19	34.57	22.91	12.00
20	1+20.00	916.35	918.60	918.31	884.04	896.04	34.27	22.56	12.00
21	1+25.00	916.73	919.10	918.86	884.89	896.89	33.97	22.21	12.00
22	1+30.00	917.14	919.60	919.40	885.74	897.74	33.66	21.86	12.00
23	1+35.00	917.64	920.10	919.95	886.60	898.60	33.35	21.50	12.00
24	1+40.00	918.14	920.60	920.50	887.45	899.45	33.05	21.15	12.00
25	1+45.00	918.63	921.11	921.04	888.30	900.30	32.74	20.81	12.00
26	1+50.00	919.36	921.64	921.59	889.16	901.16	32.43	20.48	12.00
27	1+55.00	920.09	922.17	922.14	890.01	902.01	32.13	20.16	12.00
28	1+60.00	920.82	922.70	922.68	890.86	902.86	31.82	19.84	12.00
29	1+65.00	921.56	923.23	923.23	891.72	903.72	31.51	19.51	12.00
30	1+70.00	922.29	923.79	923.81	892.30	904.30	31.51	19.49	12.00
31	1+75.00	923.03	924.38	924.39	892.77	904.77	31.62	19.61	12.00
32	1+80.00	923.76	924.98	925.00	893.24	905.24	31.76	19.74	12.00
33	1+85.00	924.50	925.57	925.57	893.71	905.71	31.86	19.86	12.00
34	1+90.00	925.22	926.17	926.14	894.17	906.17	31.97	20.00	12.00
35	1+95.00	925.94	926.76	926.74	894.64	906.64	32.10	20.12	12.00
36	2+00.00	926.66	927.38	927.33	895.11	907.11	32.22	20.27	12.00
37	2+05.00	927.38	928.03	927.94	895.57	907.57	32.37	20.46	12.00
38	2+10.00	928.09	928.68	928.54	896.04	908.04	32.50	20.64	12.00
39	2+15.00	928.70	929.33	929.15	896.51	908.51	32.64	20.82	12.00
40	2+20.00	929.39	929.98	929.76	896.97	908.97	32.79	21.01	12.00
41	2+25.00	930.08	930.63	930.37	897.44	909.44	32.93	21.19	12.00
42	2+30.00	930.77	931.29	930.98	897.91	909.91	33.07	21.38	12.00
43	2+35.00	931.46	931.95	931.64	898.37	910.37	33.27	21.58	12.00
44	2+40.00	932.15	932.60	932.30	898.84	910.84	33.46	21.76	12.00
45	2+45.00	932.84	933.26	932.95	899.31	911.31	33.64	21.95	12.00
46	2+50.00	933.53	933.91	933.53	899.77	911.77	33.76	22.14	12.00
TOTALS CARRIED TO GENERAL SUMMARY							1563.51	1021.55	552.00

SHAFT NO.	STATION	OFFSET	TOP ELEVATION OF EXISTING GROUND AT PILE	TOP ELEVATION OF PROPOSED GROUND AT PILE	TOP ELEVATION OF SHAFT	BOTTOM ELEVATION OF SHAFT	ESTIMATED TOP OF ROCK ELEVATION	524
								30" DIAMETER DRILLED SHAFT ABOVE BEDROCK, AS PER PLAN
A	0+27.50	0.5 LT	907.40	908.17	907.87	888.98	888.98	18.89
B	0+32.50	0.5 LT	907.94	908.68	908.38	889.53	889.53	18.85
C	0+37.50	0.5 LT	908.49	909.20	908.90	890.07	890.07	18.83
D	0+42.50	0.5 LT	909.04	909.73	909.45	890.62	890.62	18.83
E	0+47.50	0.5 LT	909.63	910.36	910.05	891.16	891.16	18.89
F	0+52.50	0.5 LT	910.22	910.97	910.64	891.71	891.71	18.93
G	0+57.50	0.5 LT	910.74	911.57	911.23	892.26	892.26	18.97
H	0+62.50	0.5 LT	911.27	912.16	911.82	892.80	892.80	19.02
I	0+67.50	0.5 LT	911.80	912.76	912.41	893.35	893.35	19.06
J	0+72.50	0.5 LT	912.32	913.35	913.01	893.90	893.90	19.11
K	0+77.50	0.5 LT	912.85	913.95	913.60	894.44	894.44	19.16
L	0+82.50	0.5 LT	913.38	914.54	914.19	894.99	894.99	19.20
M	0+87.50	0.5 LT	913.85	915.14	914.76	895.53	895.53	19.23
N	0+92.50	0.5 LT	914.26	915.74	915.31	896.07	896.07	19.24
O	0+97.50	0.5 LT	914.65	916.28	915.85	896.61	896.61	19.24
P	1+02.50	0.5 LT	915.03	916.81	916.40	897.15	897.15	19.25
Q	1+07.50	0.5 LT	915.41	917.35	916.95	897.69	897.69	19.26
R	1+12.50	0.5 LT	915.78	917.94	917.49	898.23	898.23	19.26
S	1+17.50	0.5 LT	916.16	918.35	918.04	898.77	898.77	19.27
T	1+22.50	0.5 LT	916.54	918.85	918.58	899.31	899.31	19.27
U	1+27.50	0.5 LT	916.92	919.35	919.13	899.85	899.85	19.28
V	1+32.50	0.5 LT	917.39	919.85	919.68	900.38	900.38	19.30
W	1+37.50	0.5 LT	917.89	920.35	920.22	900.92	900.92	19.30
X	1+42.50	0.5 LT	918.38	920.85	920.77	901.46	901.46	19.31
Y	1+47.50	0.5 LT	918.99	921.37	921.32	902.00	902.00	19.32
Z	1+52.50	0.5 LT	919.72	921.86	922.41	902.54	902.54	19.87
AA	1+57.50	0.5 LT	920.46	922.41	922.96	903.08	903.08	19.88
BB	1+62.50	0.5 LT	921.19	922.96	923.52	903.62	903.62	19.90
CC	1+67.50	0.5 LT	921.93	923.49	923.52	904.20	904.20	19.32
DD	1+72.50	0.5 LT	922.66	924.09	924.09	904.82	904.82	19.27
EE	1+77.50	0.5 LT	923.39	924.68	924.68	905.44	905.44	19.24
FF	1+82.50	0.5 LT	924.13	925.27	925.27	906.05	906.05	19.22
GG	1+87.50	0.5 LT	924.86	925.87	925.86	906.67	906.67	19.19
HH	1+92.50	0.5 LT	925.58	926.46	926.45	907.29	907.29	19.16
II	1+97.50	0.5 LT	926.30	927.06	927.03	907.91	907.91	19.12
JJ	2+02.50	0.5 LT	927.02	927.70	927.63	908.53	908.53	19.10
KK	2+07.50	0.5 LT	927.75	928.35	928.24	909.14	909.14	19.10
LL	2+12.50	0.5 LT	928.35	929.01	928.85	909.76	909.76	19.09
MM	2+17.50	0.5 LT	929.04	929.66	929.46	910.38	910.38	19.08
NN	2+22.50	0.5 LT	929.73	930.31	930.07	911.00	911.00	19.07
OO	2+27.50	0.5 LT	930.42	930.96	930.68	911.62	911.62	19.06
PP	2+32.50	0.5 LT	931.11	931.61	931.31	912.23	912.23	19.08
QQ	2+37.50	0.5 LT	931.80	932.27	931.97	912.85	912.85	19.12
RR	2+42.50	0.5 LT	932.49	932.93	932.61	913.47	913.47	19.14
SS	2+47.50	0.5 LT	933.18	933.58	933.22	914.09	914.09	19.13
TOTALS CARRIED TO GENERAL SUMMARY								672.44

RICHLAND TOWNSHIP ~ BELMONT COUNTY ~OHIO

SLIP REPAIR PLANS FOR

EBBERT SOUTH ROAD

PILE TABLE

APPLICATION NO.

DATE: 2025-06-20

SCALE: AS NOTED

SHEET: 66

DESIGNED BY: C/G

DRAWN BY: C/G/LAF

CHECKED BY: AJS

PROJECT NO: 30038

CHK'D BY: DATE:

REVISION:

No:

Allen J. Smith Jr.

Professional Engineer

State of Ohio

REGISTERED

E-71838

STATE: OHIO

P.E. 71835

verdantas

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