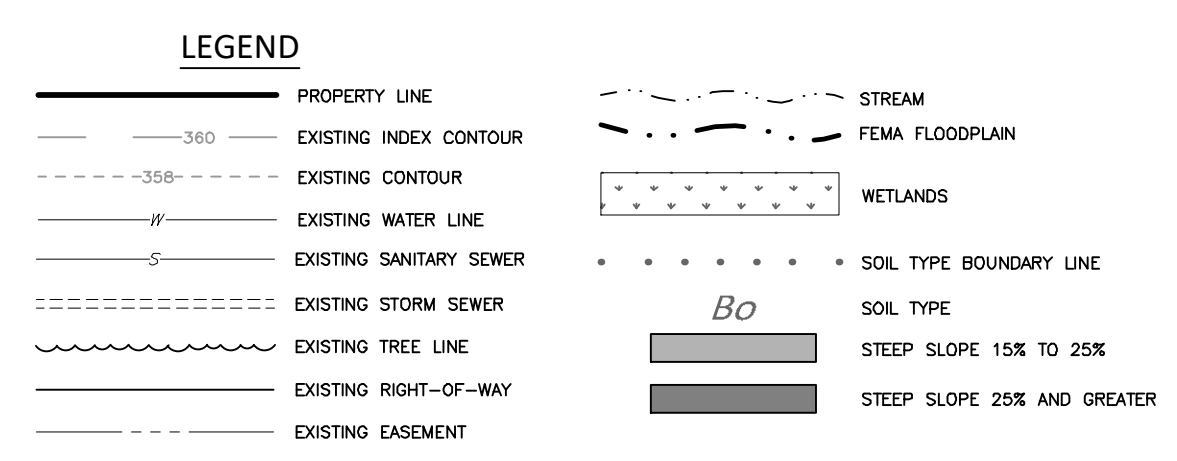
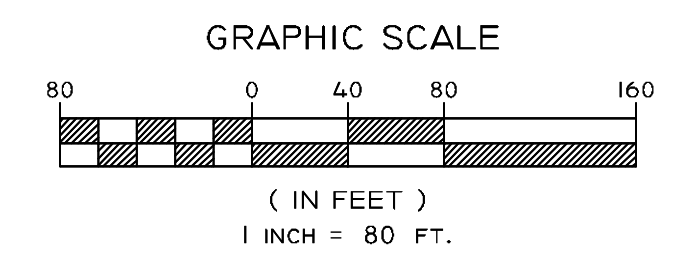


CONSERVATION EASEMENT - LINE TABLE											
LINE	LENGTH	DIRECTION	LINE	LENGTH	DIRECTION	LINE	LENGTH	DIRECTION	LINE	LENGTH	DIRECTION
L1	147.27	S27° 10' 09"E	L26	171.44	N72° 46' 02"E	L51	53.51	N20° 03' 10"W	L77	65.95	N30° 26' 23"W
L2	63.60	S39° 36' 21"W	L27	61.90	N87° 22' 09"E	L52	47.84	N40° 12' 23"E	L78	71.16	S75° 54' 04"W
L3	54.31	S55° 50' 21"W	L28	26.37	S32° 35' 03"E	L53	40.28	N64° 37' 20"E	L79	25.03	N59° 58' 09"W
L4	51.82	S68° 26' 50"W	L29	50.77	S11° 01' 03"W	L54	41.21	N71° 04' 28"E	L80	19.60	N80° 13' 20"W
L5	30.37	S58° 31' 48"W	L30	21.07	S43° 48' 56"W	L55	50.24	S31° 52' 00"E	L81	46.86	N37° 07' 47"W
L6	49.68	N80° 16' 04"W	L31	13.23	S09° 08' 59"E	L56	21.11	N56° 33' 50"E	L82	42.02	N51° 18' 27"W
L7	15.18	N69° 40' 25"W	L32	26.44	S26° 58' 16"E	L57	56.14	S40° 07' 48"E	L83	23.45	N68° 17' 02"W
L8	15.16	S48° 11' 48"W	L33	41.47	S13° 00' 49"E	L58	41.90	S50° 48' 47"W	L84	4.88	S03° 13' 12"E
L9	35.92	S25° 37' 39"W	L34	41.68	S50° 11' 45"E	L59	40.45	S46° 17' 43"W	L85	50.96	S12° 39' 57"E
L10	86.89	N71° 53' 44"W	L35	41.00	S60° 44' 13"E	L60	29.39	S31° 27' 35"W	L86	39.66	S04° 24' 08"W
L11	85.48	S77° 24' 53"W	L36	41.60	S52° 40' 48"E	L61	22.55	S46° 32' 46"E	L87	30.62	S48° 08' 47"W
L12	147.97	S47° 04' 55"W	L37	37.43	S34° 58' 51"E	L62	35.41	S60° 48' 33"E	L88	39.50	S40° 44' 34"W
L13	39.94	S87° 06' 07"W	L38	11.14	S52° 26' 29"E	L63	55.98	S04° 32' 17"E	L89	22.95	N86° 48' 28"W
L14	74.10	S31° 08' 38"W	L39	12.57	N08° 09' 22"E	L64	41.15	S42° 38' 42"W	L90	43.64	N47° 02' 32"W
L15	205.46	S54° 07' 11"W	L40	29.33	N34° 54' 44"E	L65	27.37	S67° 40' 27"W	L91	52.81	N02° 14' 11"W
L16	55.88	N58° 39' 58"W	L41	19.43	N64° 07' 41"E	L66	41.17	S08° 54' 07"W	L92	54.79	N29° 52' 11"W
L17	70.43	S55° 02' 53"W	L42	5.12	N46° 33' 33"E	L67	32.62	S72° 57' 52"W	L93	43.39	N21° 38' 42"W
L18	85.32	S06° 43' 35"E	L43	4.57	N20° 56' 59"E	L68	31.17	N42° 58' 22"W	L94	37.87	N61° 38' 08"W
L19	60.93	S01° 04' 33"E	L44	24.78	N14° 03' 59"E	L69	55.14	N29° 14' 07"W	L95	44.33	N48° 21' 11"W
L20	111.50	S62° 32' 11"E	L45	36.12	N34° 28' 03"E	L70	36.85	N76° 21' 06"W	L96	56.40	N38° 20' 59"W
L21	64.65	S12° 56' 02"E	L46	29.67	S78° 23' 38"E	L71	15.22	S07° 32' 04"W	L97	48.36	N52° 02' 35"W
L22	35.06	S48° 54' 49"E	L47	27.69	S48° 28' 09"E	L72	58.19	S36° 37' 26"E	L98	58.39	N18° 35' 13"W
L23	129.71	S31° 44' 58"E	L48	27.21	N32° 41' 13"E	L73	39.94	S25° 17' 23"E	L99	30.60	N66° 53' 42"W
L24	47.53	S07° 40' 37"E	L49	36.73	S54° 20' 06"E	L74	57.20	S84° 42' 05"E	L100	99.06	N62° 00' 50"W
L25	25.01	S66° 53' 42"E	L50	29.39	N00° 08' 31"W	L75	72.46	N54° 42' 05"W	L101	52.15	N19° 17' 42"W

CONSERVATION EASEMENT - CURVE TABLE				
CURVE No.	RADIUS	LENGTH	DELTA	CHORD DIRECTION CHORD
C75	335.00'	60.23'	010°18'02"	S39°16'16"W 60.14'



SOILS INFORMATION
 SOILS TYPES IN THE PROJECT AREA SHOWN AS PER THE LANCASTER COUNTY SOIL SURVEY ARE:
 Bo - BOWMANSVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
 LaB - LANSDALE LOAM, 3 TO 15 PERCENT SLOPES
 RaB - READINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES
 UaB - UNGERS LOAM, 3 TO 8 PERCENT SLOPES



REV. NO.	DATE	DESCRIPTION
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 8/21/2023 AND 3/6/2024
11	12/15/2023	REV. PER DEP REVIEW LETTER DATED 11/17/2023
10	9/11/2023	REV. PER TWP. REVIEW LETTER DATED 8/25/2023 & 8/26/2023
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7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/28/23 & 4/29/2023
6	4/28/2023	REVISED PER LCOB REVIEW EMAILS DATED 4/18/2023 & 4/24/2023
5	4/7/2023	REVISED PER LCOB REVIEW LETTER DATED 2/6/2023
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/16/2022	APDES SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22

EXISTING FEATURES AND DEMOLITION PLAN

C2C DESIGN GROUP
 37 East Penn Avenue
 Wernersville, PA 19685
 610.860.6050 www.c2cdg.com

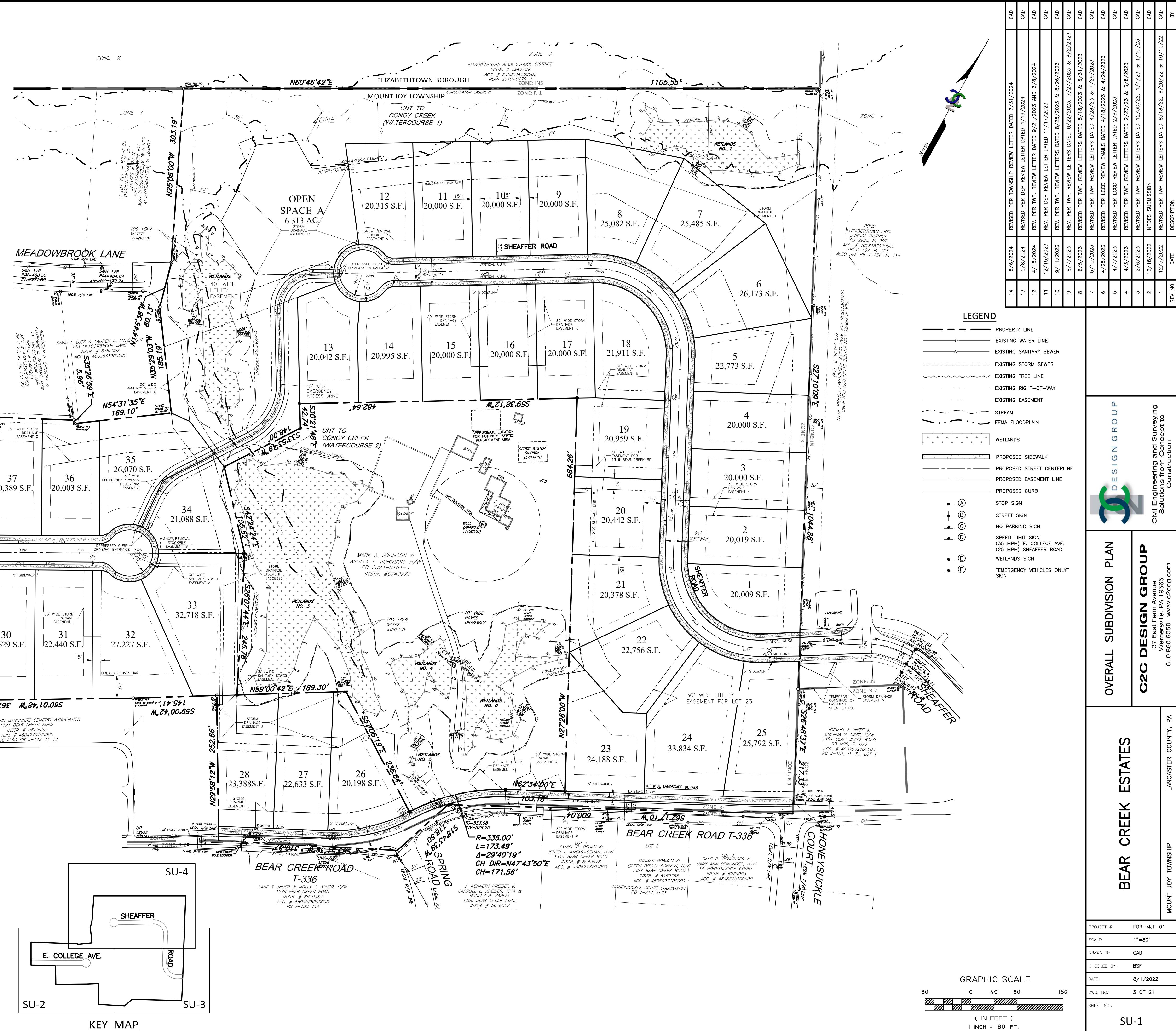
DESIGN GROUP
 Civil Engineering and Surveying Solutions from Concept to Construction

BEAR CREEK ESTATES

PROJECT #: FOR-MJT-01
 SCALE: 1"=80'
 DRAWN BY: CAD
 CHECKED BY: BSF
 DATE: 8/1/2022
 DWG. NO.: 2 OF 21
 SHEET NO.: EX-1

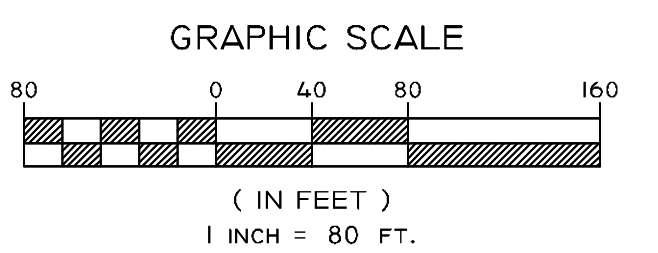
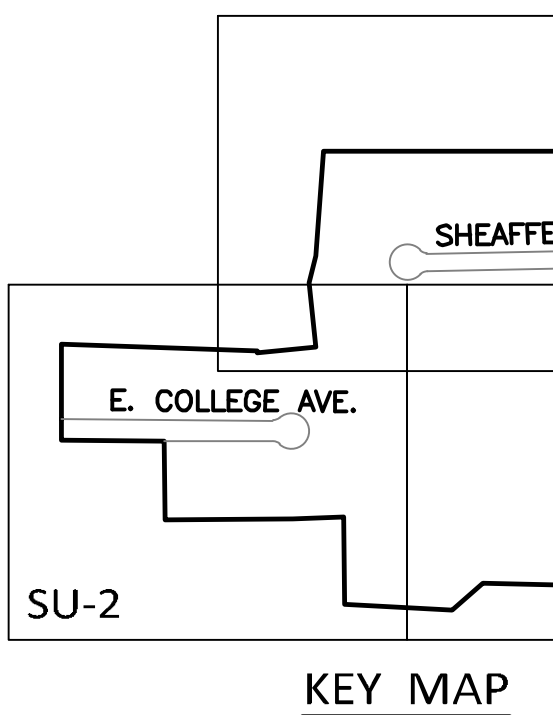
MOUNT JOY TOWNSHIP
 LANCASTER COUNTY, PA

LOT #	HOUSE #	STREET	CITY	STATE	ZIP
1	999	Sheaffer Road	Elizabethtown	PA	17022
2	989	Sheaffer Road	Elizabethtown	PA	17022
3	983	Sheaffer Road	Elizabethtown	PA	17022
4	977	Sheaffer Road	Elizabethtown	PA	17022
5	973	Sheaffer Road	Elizabethtown	PA	17022
6	969	Sheaffer Road	Elizabethtown	PA	17022
7	963	Sheaffer Road	Elizabethtown	PA	17022
8	957	Sheaffer Road	Elizabethtown	PA	17022
9	953	Sheaffer Road	Elizabethtown	PA	17022
10	949	Sheaffer Road	Elizabethtown	PA	17022
11	943	Sheaffer Road	Elizabethtown	PA	17022
12	939	Sheaffer Road	Elizabethtown	PA	17022
13	932	Sheaffer Road	Elizabethtown	PA	17022
14	936	Sheaffer Road	Elizabethtown	PA	17022
15	940	Sheaffer Road	Elizabethtown	PA	17022
16	946	Sheaffer Road	Elizabethtown	PA	17022
17	952	Sheaffer Road	Elizabethtown	PA	17022
18	966	Sheaffer Road	Elizabethtown	PA	17022
19	980	Sheaffer Road	Elizabethtown	PA	17022
20	986	Sheaffer Road	Elizabethtown	PA	17022
21	992	Sheaffer Road	Elizabethtown	PA	17022
22	994	Sheaffer Road	Elizabethtown	PA	17022
23	1321	Bear Creek Road	Elizabethtown	PA	17022
24	996	Sheaffer Road	Elizabethtown	PA	17022
25	998	Sheaffer Road	Elizabethtown	PA	17022
26	1285	Bear Creek Road	Elizabethtown	PA	17022
27	1263	Bear Creek Road	Elizabethtown	PA	17022
28	1251	Bear Creek Road	Elizabethtown	PA	17022
29	1214	East College Ave.	Elizabethtown	PA	17022
30	1220	East College Ave.	Elizabethtown	PA	17022
31	1226	East College Ave.	Elizabethtown	PA	17022
32	1230	East College Ave.	Elizabethtown	PA	17022
33	1234	East College Ave.	Elizabethtown	PA	17022
34	1231	East College Ave.	Elizabethtown	PA	17022
35	1227	East College Ave.	Elizabethtown	PA	17022
36	1223	East College Ave.	Elizabethtown	PA	17022
37	1217	East College Ave.	Elizabethtown	PA	17022
38	1211	East College Ave.	Elizabethtown	PA	17022
39	1205	East College Ave.	Elizabethtown	PA	17022



LEGEND

- PROPERTY LINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING TREE LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- STREAM
- FEMA FLOODPLAIN
- WETLANDS
- PROPOSED SIDEWALK
- PROPOSED STREET CENTERLINE
- PROPOSED EASEMENT LINE
- PROPOSED CURB
- STOP SIGN
- STREET SIGN
- NO PARKING SIGN
- SPEED LIMIT SIGN (35 MPH @ COLLEGE AVE, 25 MPH @ SHEAFFER ROAD)
- WETLANDS SIGN
- "EMERGENCY VEHICLES ONLY" SIGN



ENCROACHMENT PERMIT

THIS PERMIT is issued as of the 14th day of March, 2023 by AT&T Corp., successor in interest to American Telephone and Telegraph Company (AT&T) to Forno Co., L.P., with a place of business at 550 Mountain Home Road Sinking Spring, Pennsylvania 19608 ("Permittee").

4. **Permittee's Duties**

By accepting this Permit, Permittee agrees, without qualification or limitation:

- to make no modifications or additions to its facilities at the Encroachment Location(s) without first obtaining AT&T's prior written consent;
- to notify AT&T by telephone at 1-800-252-1133 forty-eight (48) hours prior to performing any construction, demolition or repairs at the Encroachment Location(s);
- to not use at the encroachment location(s) any tool, equipment, or machinery capable of being operated at five (5) feet or cable lines;
- to perform construction, demolition, repair, modifications, additions and any other activities in compliance with all applicable laws and regulations and in a manner that does not interfere with the operations of AT&T;
- to assume all risks of and relieve AT&T of any and all liability for loss of damage to property or facilities installed by it and any other financial loss sustained by it;
- to indemnify, defend and hold harmless AT&T from and against any and all claims, demands, actions, losses, damages, assessments, charges, judgments, liabilities, settlement liabilities, costs and expenses (including, without limitation, interest, penalties, and reasonable attorneys' fees and disbursements) that may from time to time be suffered or incurred by or asserted against AT&T because of any personal injury, including death, to any person or loss of, physical damage to or loss of use of real or tangible personal property, or for any financial loss of whatever nature, in any way arising out of or in connection with this Permit or activities undertaken pursuant to this Permit, whether caused by the acts, negligence or willful misconduct of Permittee, its agents, employees, representatives, contractors, permitted assigns, or those under Permittee's control or by failure to perform the covenants or conditions of this Permit. For purposes of clarification, Permittee's indemnification obligations described above shall not apply to the extent such claims arise from the sole negligence or willful misconduct of AT&T, its agents, employees, representatives, contractors, permitted assigns, or those under AT&T's control.

NOT INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF REPLACEMENT SERVICES, OR CLAIMS OF CUSTOMERS OR OF ANY OTHER THIRD PARTIES, OCCASIONED BY ANY CAUSE WHATSOEVER, INCLUDING, WITHOUT LIMITATION, BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

(g) to neither cause nor permit use of the rights herein granted by any other person except Permittee's lawful successors, and if Permittee is a utility company, any transfers of the utility system (or operating component of which the Permittee's facilities at the Encroachment Location(s) are a part;

(h) that AT&T retains all of its rights with respect to its property, right-of-way or easement. Specifically, AT&T retains the right to access its telecommunications cable to repair, maintain or augment its telecommunications network. AT&T, where practical, shall give Permittee 24 hours' notice of its need to access or repair its telecommunications equipment. Any damage to Permittee's facilities as a result of AT&T's exercise of its rights with respect to its property, right-of-way or easement shall be the sole responsibility of Permittee, provided the damage is not caused by the sole negligence or willful misconduct of AT&T, its agents, employees, representatives, contractors, permitted assigns, or those under AT&T's control.

(i) except in accordance with applicable law and as needed for Permittee's normal business use, to not use, have present nor transport on or about the Encroachment Location(s) any hazardous or toxic materials, wastes or substances or any pollutants or contaminants ("Hazardous Substances"), without the prior express written consent of AT&T. If at any time during the term of this Permit, Permittee knows or has reason to believe that any Hazardous Substances have come, or will come, to be located upon, about, or underneath the Encroachment Location(s) in violation of this Permit, then Permittee shall, as soon as reasonably possible, give verbal and written notice of that condition to AT&T. Permittee covenants to investigate, clean-up and otherwise remediate any release of such Hazardous Substances by Permittee, its agents, employees, representatives, contractors, permitted assigns, or those under Permittee's control at Permittee's cost and expense. Permittee shall notify AT&T prior to commencing any clean-up or remediation, and shall not apply to the extent such claims arise from the sole negligence or willful misconduct of AT&T, its agents, employees, representatives, contractors, permitted assigns, or those under AT&T's control.

NOTWITHSTANDING ANY PROVISION OF THIS PERMIT TO THE CONTRARY, EXCEPT AS SET FORTH IN PARAGRAPH 4(i), IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY FOR ANY SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, RELIANCE OR CONSEQUENTIAL DAMAGES, WHETHER FORESEEABLE OR NOT.

REV. NO.	DATE	DESCRIPTION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22
2	12/16/2022	APRCS SUBMISSION
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
5	4/7/2023	REVISED PER LCOB REVIEW LETTERS DATED 2/6/2023
6	4/28/2023	REVISED PER LCOB REVIEW EMAILS DATED 4/18/2023 & 4/24/2023
7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/28/23 & 4/29/2023
8	6/25/2023	REVISED PER TWP. REVIEW LETTERS DATED 5/18/2023 & 5/31/2023
9	8/7/2023	REVISED PER TWP. REVIEW LETTERS DATED 6/22/2023, 7/17/2023, & 8/2/2023
10	9/11/2023	REV. PER TWP. REVIEW LETTERS DATED 8/25/2023 & 8/26/2023
11	12/19/2023	REV. PER DEP. REVIEW LETTER DATED 11/17/2023
12	4/18/2024	REV. PER TWP. REVIEW LETTERS DATED 9/21/2023 AND 9/26/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024

DESIGN GROUP

Civil Engineering and Surveying Solutions from Concept to Construction

OVERALL SUBDIVISION PLAN

C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES

LANCASTER COUNTY, PA

PROJECT #: FOR-MJT-01

SCALE: 1"=80'

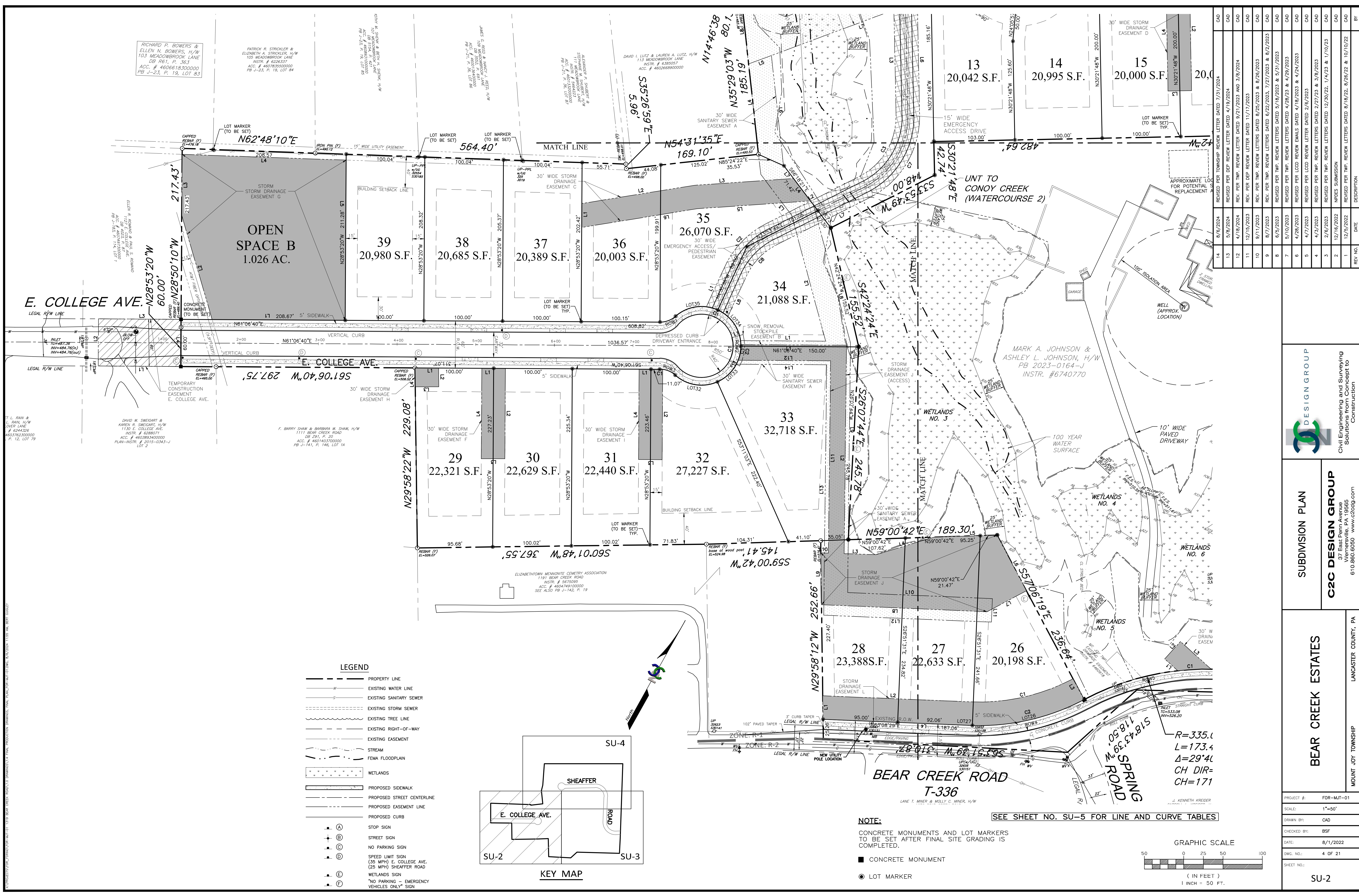
DRAWN BY: CAD

CHECKED BY: BSF

DATE: 8/1/2022

DWG. NO.: 3 OF 21

SHEET NO.: SU-1



REV. NO.	DATE	DESCRIPTION
1	12/9/2022	APPROXIMATE LOCATION FOR POTENTIAL REPLACEMENT
2	12/9/2022	APPROXIMATE LOCATION FOR POTENTIAL REPLACEMENT
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
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13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024

DESIGN GROUP

Civil Engineering and Surveying Solutions from Concept to Construction

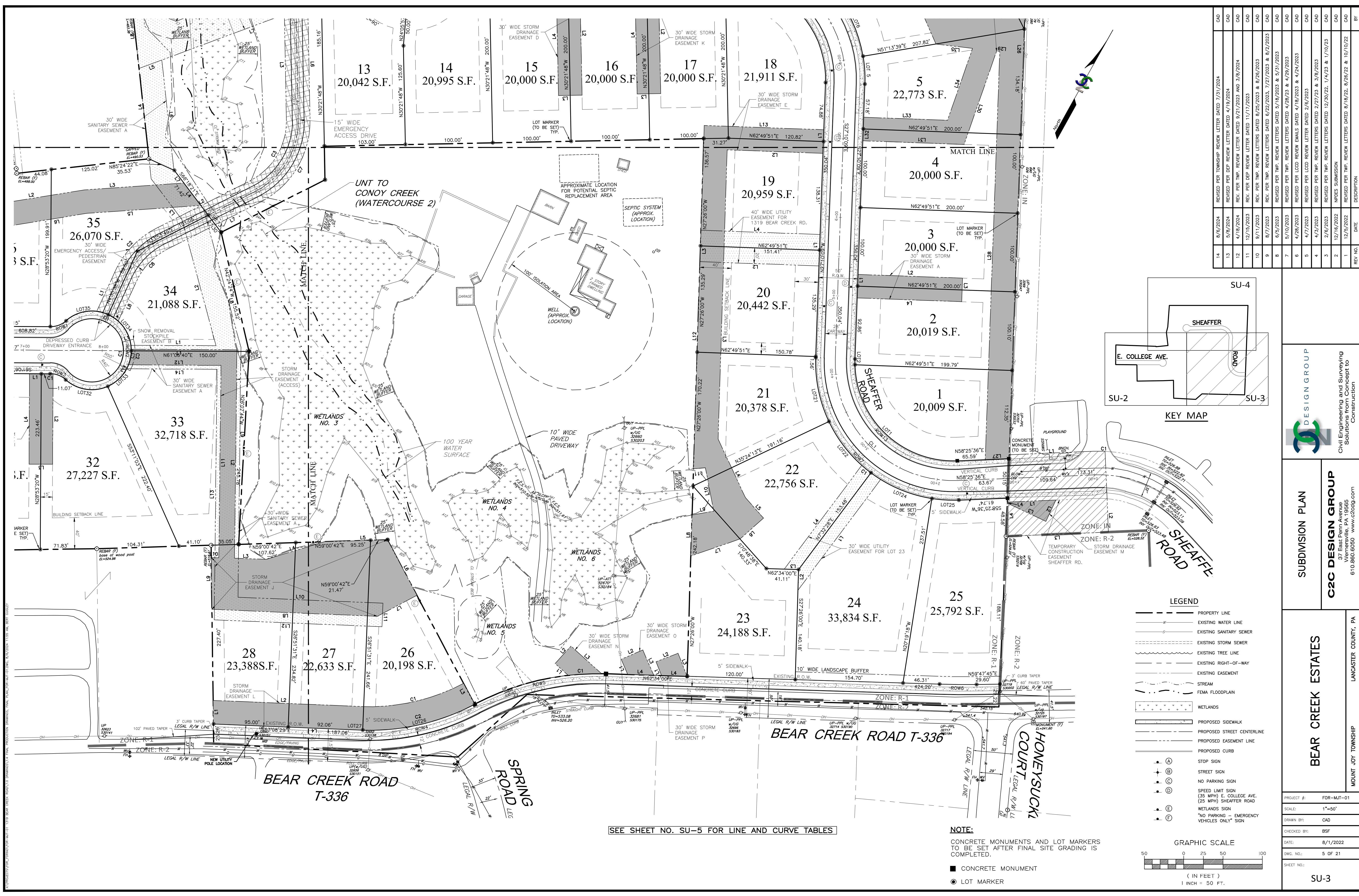
SUBDIVISION PLAN

C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

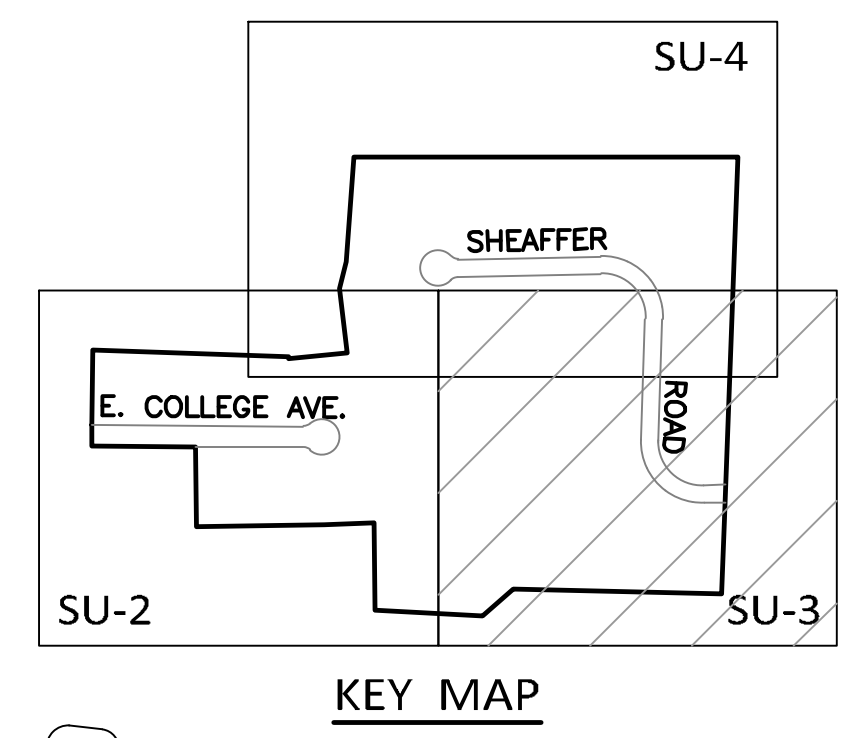
BEAR CREEK ESTATES

PROJECT #: FOR-MJT-01
SCALE: 1"=50'
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 4 OF 21
SHEET NO.: SU-2

MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

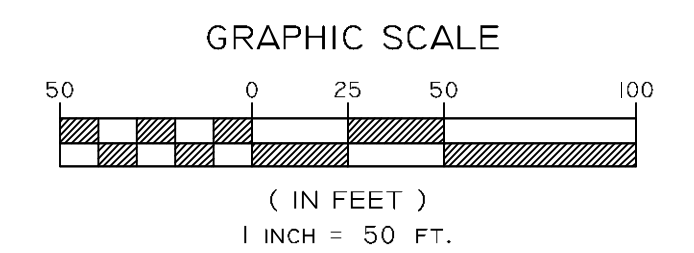


REV. NO.	DATE	DESCRIPTION
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
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3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/16/2022	APDES SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22



LEGEND

	PROPERTY LINE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING TREE LINE
	EXISTING RIGHT-OF-WAY
	EXISTING EASEMENT
	STREAM
	FEMA FLOODPLAIN
	WETLANDS
	PROPOSED SIDEWALK
	PROPOSED STREET CENTERLINE
	PROPOSED EASEMENT LINE
	PROPOSED CURB
	STOP SIGN
	STREET SIGN
	NO PARKING SIGN
	SPEED LIMIT SIGN (35 MPH) E. COLLEGE AVE. (25 MPH) SHEAFFER ROAD
	WETLANDS SIGN
	"NO PARKING - EMERGENCY VEHICLES ONLY" SIGN



SEE SHEET NO. SU-5 FOR LINE AND CURVE TABLES

NOTE:
 CONCRETE MONUMENTS AND LOT MARKERS TO BE SET AFTER FINAL SITE GRADING IS COMPLETED.
 ■ CONCRETE MONUMENT
 ● LOT MARKER

DESIGN GROUP
 Civil Engineering and Surveying Solutions from Concept to Construction

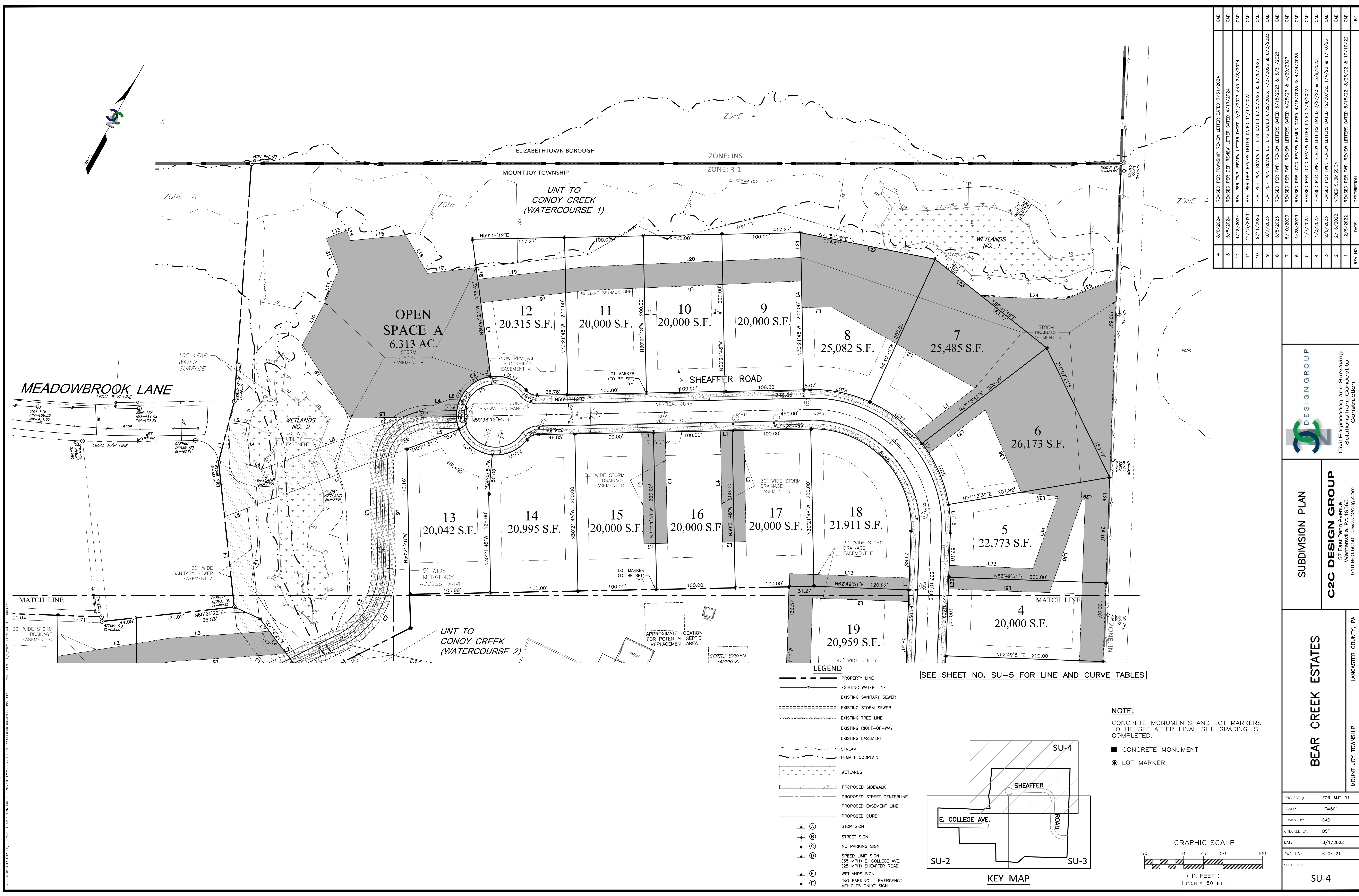
C2C DESIGN GROUP
 37 East Penn Avenue
 Wernersville, PA 19685
 610.860.6050 www.c2cdg.com

SUBDIVISION PLAN

BEAR CREEK ESTATES

PROJECT #: FOR-MJT-01
 SCALE: 1"=50'
 DRAWN BY: CAD
 CHECKED BY: BSF
 DATE: 8/1/2022
 DWG. NO.: 5 OF 21
 SHEET NO.: SU-3

LANCASTER COUNTY, PA
 MOUNT JOY TOWNSHIP



MEADOWBROOK LANE

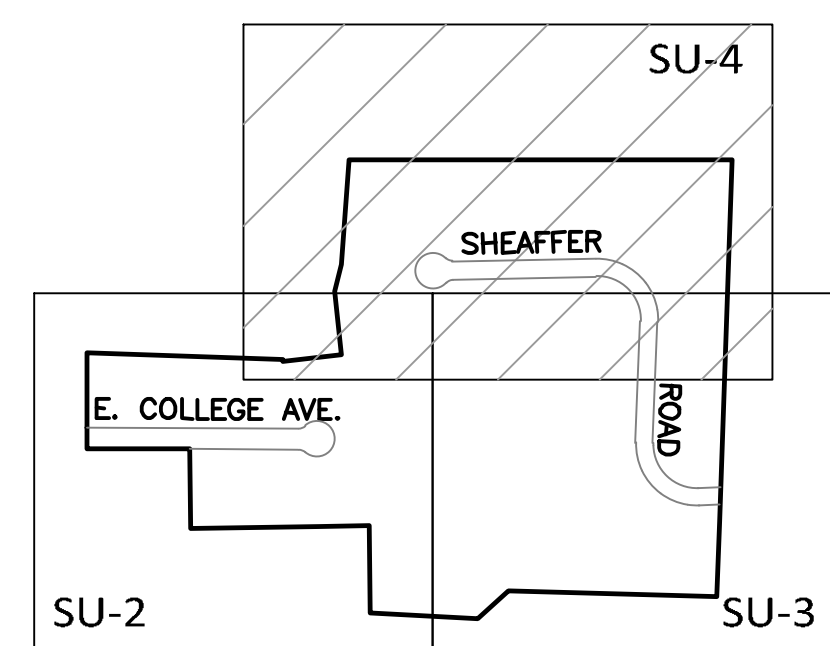
MATCH LINE

MATCH LINE

LEGEND

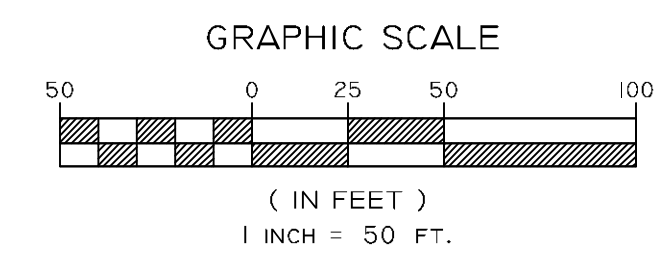
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	EXISTING WATER LINE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING TREE LINE
	EXISTING RIGHT-OF-WAY
	EXISTING EASEMENT
	STREAM
	FEMA FLOODPLAIN
	WETLANDS
	PROPOSED SIDEWALK
	PROPOSED STREET CENTERLINE
	PROPOSED EASEMENT LINE
	PROPOSED CURB
	STOP SIGN
	STREET SIGN
	NO PARKING SIGN
	SPEED LIMIT SIGN (35 MPH) E. COLLEGE AVE. (25 MPH) SHEAFFER ROAD
	WETLANDS SIGN
	"NO PARKING - EMERGENCY VEHICLES ONLY" SIGN

SEE SHEET NO. SU-5 FOR LINE AND CURVE TABLES



NOTE:
CONCRETE MONUMENTS AND LOT MARKERS TO BE SET AFTER FINAL SITE GRADING IS COMPLETED.

■ CONCRETE MONUMENT
● LOT MARKER



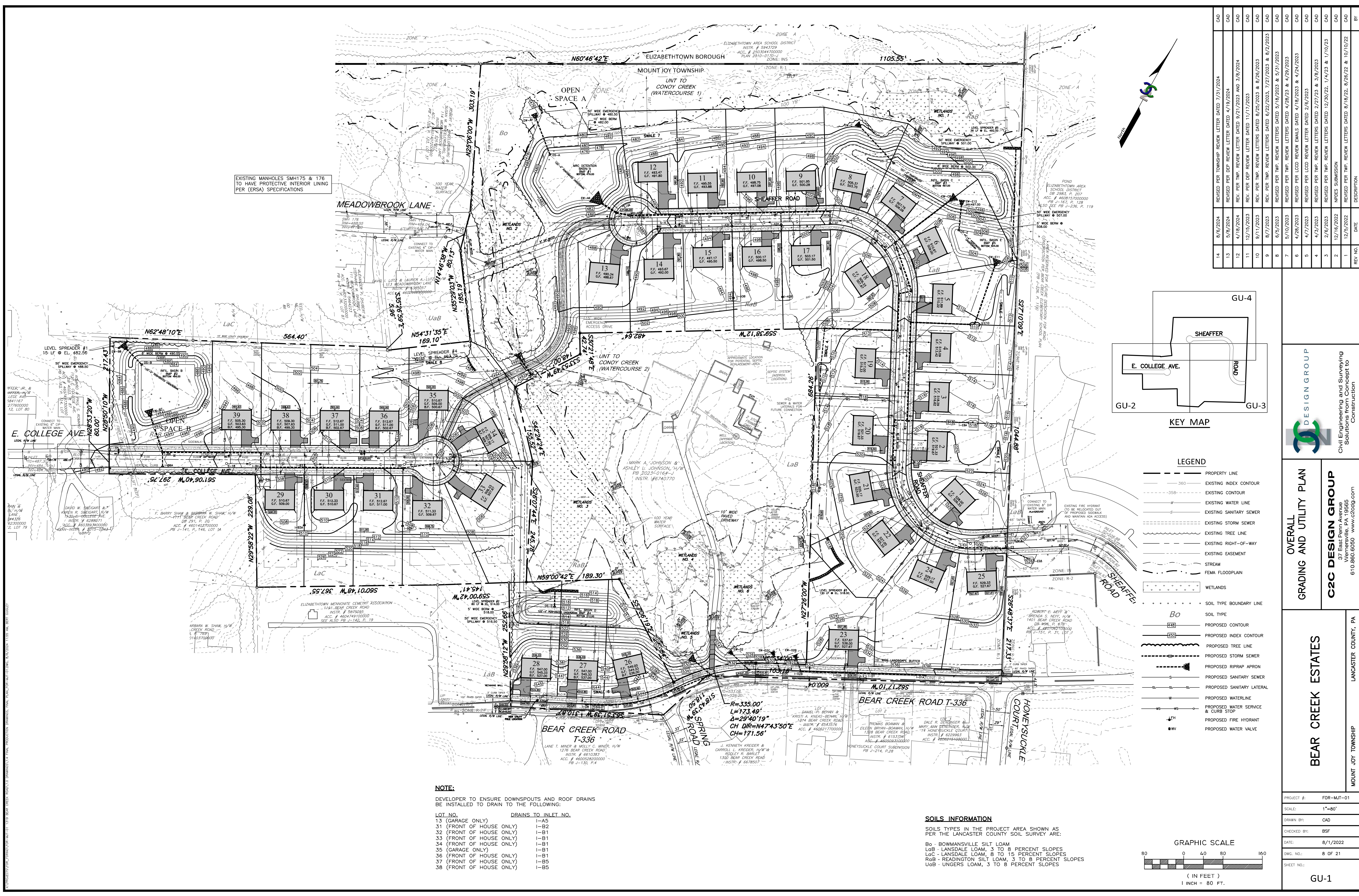
REV. NO.	DATE	DESCRIPTION
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 3/8/2024
11	12/15/2023	REV. PER DEP REVIEW LETTER DATED 11/17/2023
10	9/11/2023	REV. PER TWP. REVIEW LETTER DATED 8/25/2023 & 8/26/2023
9	8/7/2023	REV. PER TWP. REVIEW LETTERS DATED 6/22/2023, 7/21/2023 & 8/2/2023
8	6/25/2023	REVISED PER TWP. REVIEW LETTERS DATED 5/18/2023 & 5/31/2023
7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/18/2023 & 4/24/2023
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5	4/7/2023	REVISED PER TWP. REVIEW LETTER DATED 2/27/23 & 3/8/2023
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/19/2022	APRCS SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22

DESIGN GROUP
Civil Engineering and Surveying Solutions from Concept to Construction

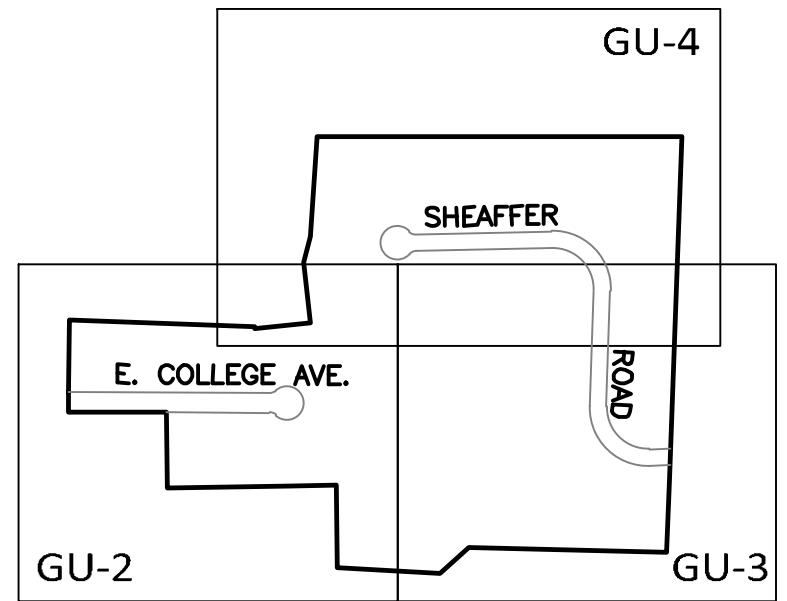
SUBDIVISION PLAN
C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES
MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

PROJECT #: FOR-MJT-01
SCALE: 1"=50'
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 6 OF 21
SHEET NO.: SU-4

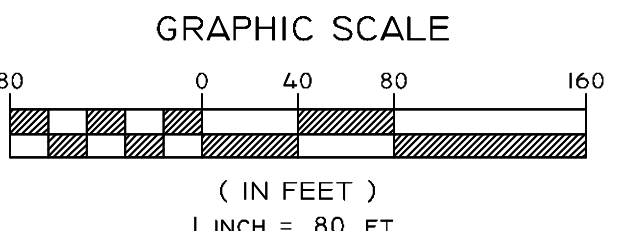


EXISTING MANHOLES SMH175 & 176 TO HAVE PROTECTIVE INTERIOR LINING PER (ERSA) SPECIFICATIONS



LEGEND

	PROPERTY LINE
	EXISTING INDEX CONTOUR
	EXISTING CONTOUR
	EXISTING WATER LINE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING TREE LINE
	EXISTING RIGHT-OF-WAY
	EXISTING EASEMENT
	STREAM
	FEMA FLOODPLAIN
	WETLANDS
	SOIL TYPE BOUNDARY LINE
	SOIL TYPE
	PROPOSED CONTOUR
	PROPOSED INDEX CONTOUR
	PROPOSED TREE LINE
	PROPOSED STORM SEWER
	PROPOSED RIPRAP APRON
	PROPOSED SANITARY SEWER
	PROPOSED SANITARY LATERAL
	PROPOSED WATERLINE
	PROPOSED WATER SERVICE & CURB STOP
	PROPOSED FIRE HYDRANT
	PROPOSED WATER VALVE



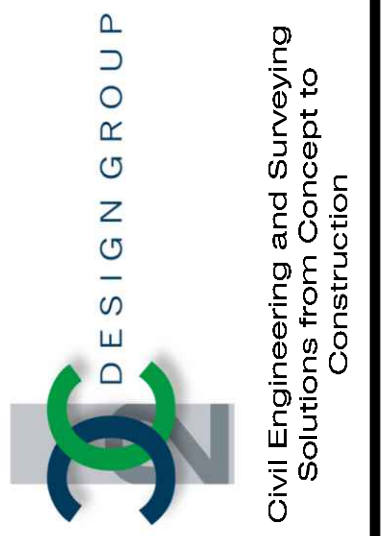
NOTE:
DEVELOPER TO ENSURE DOWNSPOUTS AND ROOF DRAINS BE INSTALLED TO DRAIN TO THE FOLLOWING:

LOT NO.	DRAINS TO INLET NO.
13 (GARAGE ONLY)	I-A5
31 (FRONT OF HOUSE ONLY)	I-B2
32 (FRONT OF HOUSE ONLY)	I-B1
33 (FRONT OF HOUSE ONLY)	I-B1
34 (FRONT OF HOUSE ONLY)	I-B1
35 (GARAGE ONLY)	I-B1
36 (FRONT OF HOUSE ONLY)	I-B1
37 (FRONT OF HOUSE ONLY)	I-B5
38 (FRONT OF HOUSE ONLY)	I-B5

SOILS INFORMATION
SOILS TYPES IN THE PROJECT AREA SHOWN AS PER THE LANCASTER COUNTY SOIL SURVEY ARE:

- Bo - BOWMANVILLE SILT LOAM
- LoB - LANSDALE LOAM, 3 TO 8 PERCENT SLOPES
- LoC - LANSDALE LOAM, 8 TO 15 PERCENT SLOPES
- RoB - READINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES
- UoB - UNGERS LOAM, 3 TO 8 PERCENT SLOPES

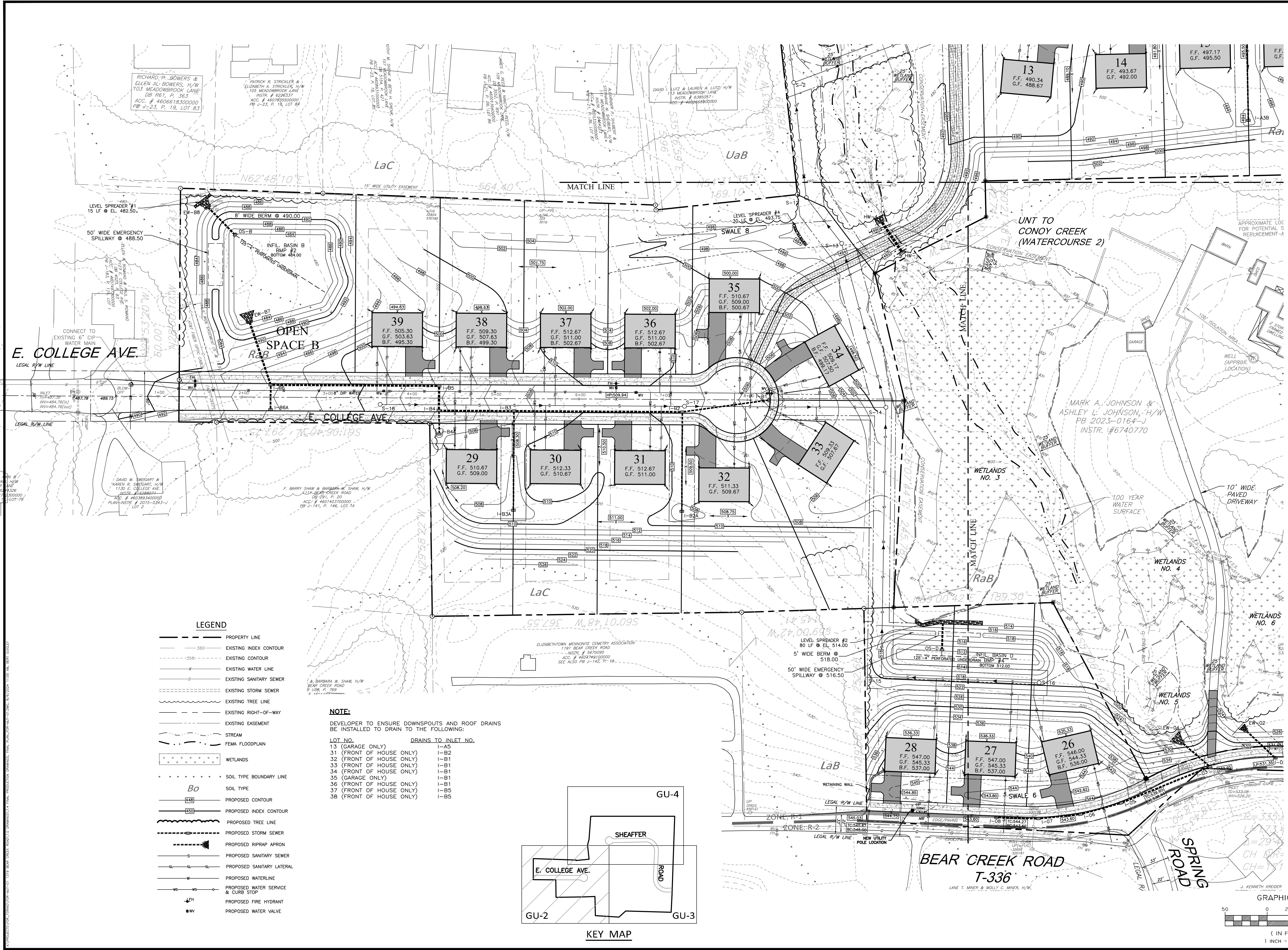
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14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 8/21/2023 AND 3/8/2024
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10	9/11/2023	REV. PER TWP. REVIEW LETTER DATED 8/25/2023 & 8/26/2023
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7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/28/23 & 4/29/2023
6	4/28/2023	REVISED PER LCOB REVIEW EMAILS DATED 4/18/2023 & 4/24/2023
5	4/7/2023	REVISED PER LCOB REVIEW LETTER DATED 2/6/2023
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/16/2022	APPROX. SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22



OVERALL GRADING AND UTILITY PLAN
C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES
MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

PROJECT #:	FOR-MJT-01
SCALE:	1"=80'
DRAWN BY:	CAD
CHECKED BY:	BSF
DATE:	8/1/2022
DWG. NO.:	8 OF 21
SHEET NO.:	GU-1

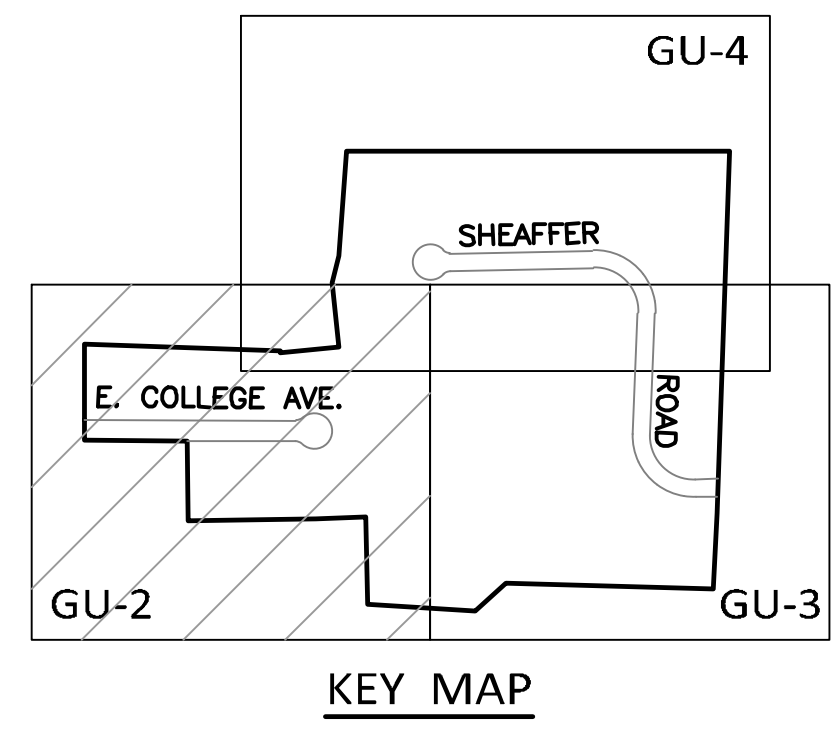


LEGEND

---	PROPERTY LINE
---	EXISTING INDEX CONTOUR
---	EXISTING CONTOUR
---	EXISTING WATER LINE
---	EXISTING SANITARY SEWER
---	EXISTING STORM SEWER
---	EXISTING TREE LINE
---	EXISTING RIGHT-OF-WAY
---	EXISTING EASEMENT
---	STREAM
---	FEMA FLOODPLAIN
---	WETLANDS
---	SOIL TYPE BOUNDARY LINE
---	SOIL TYPE
---	PROPOSED CONTOUR
---	PROPOSED INDEX CONTOUR
---	PROPOSED TREE LINE
---	PROPOSED STORM SEWER
---	PROPOSED RIPRAP APRON
---	PROPOSED SANITARY SEWER
---	PROPOSED SANITARY LATERAL
---	PROPOSED WATERLINE
---	PROPOSED WATER SERVICE & CURB STOP
---	PROPOSED FIRE HYDRANT
---	PROPOSED WATER VALVE

NOTE:
DEVELOPER TO ENSURE DOWNSPOUTS AND ROOF DRAINS BE INSTALLED TO DRAIN TO THE FOLLOWING:

LOT NO.	DRAINS TO INLET NO.
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31 (FRONT OF HOUSE ONLY)	I-B2
32 (FRONT OF HOUSE ONLY)	I-B1
33 (FRONT OF HOUSE ONLY)	I-B1
34 (FRONT OF HOUSE ONLY)	I-B1
35 (GARAGE ONLY)	I-B1
36 (FRONT OF HOUSE ONLY)	I-B1
37 (FRONT OF HOUSE ONLY)	I-B5
38 (FRONT OF HOUSE ONLY)	I-B5



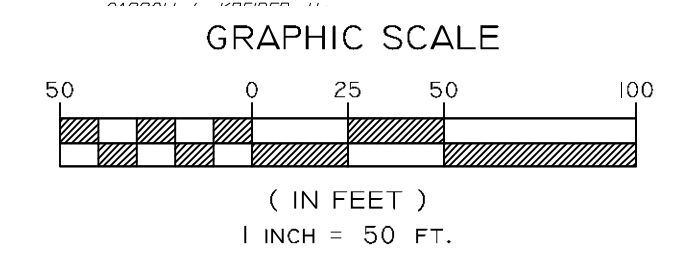
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1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22

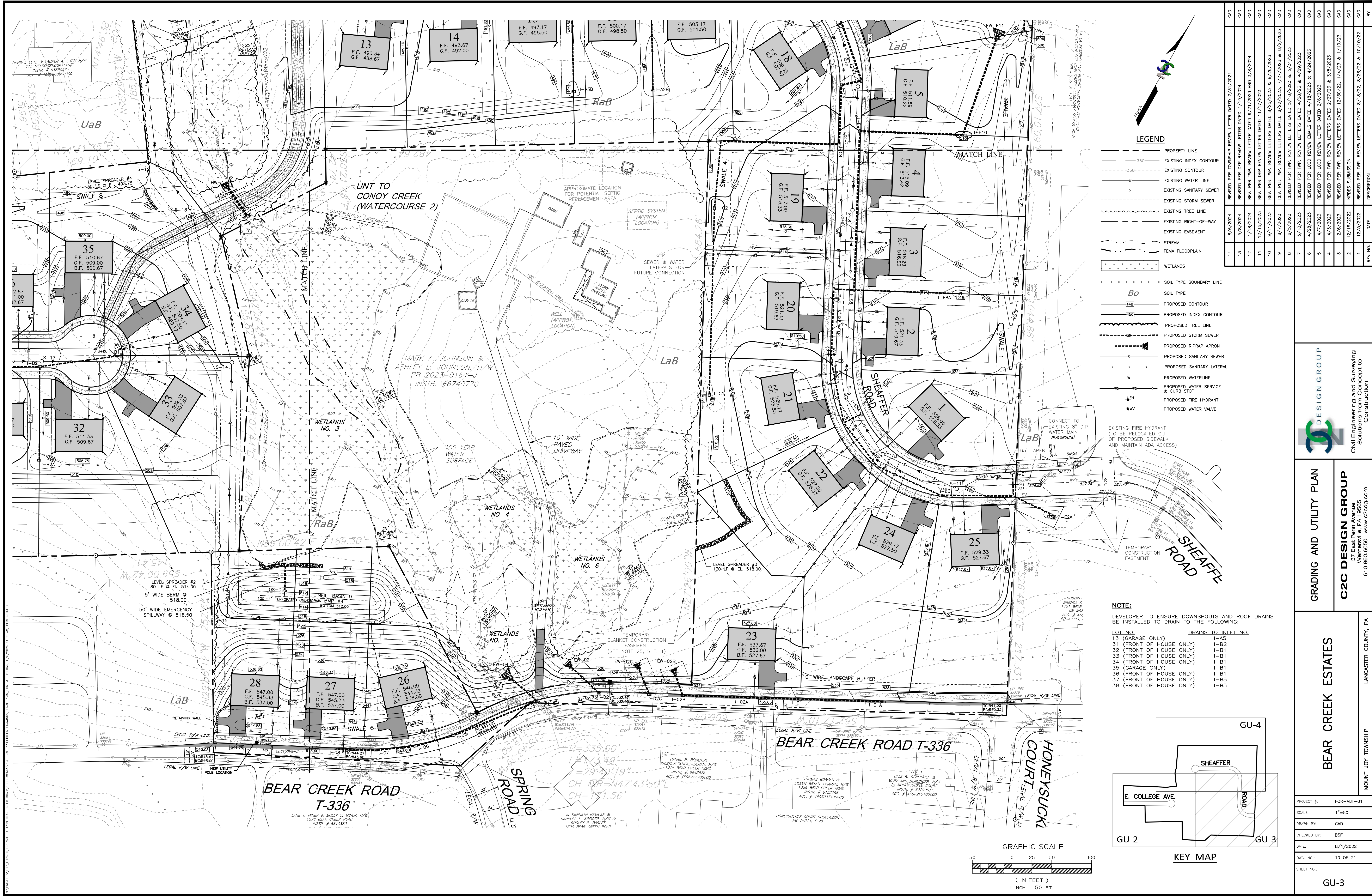
DESIGN GROUP
Civil Engineering and Surveying Solutions from Concept to Construction

GRADING AND UTILITY PLAN
C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES
MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

PROJECT #: FOR-MJT-01
SCALE: 1"=50'
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 9 OF 21
SHEET NO.: GU-2





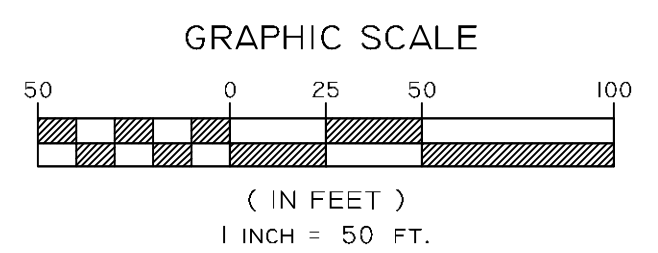
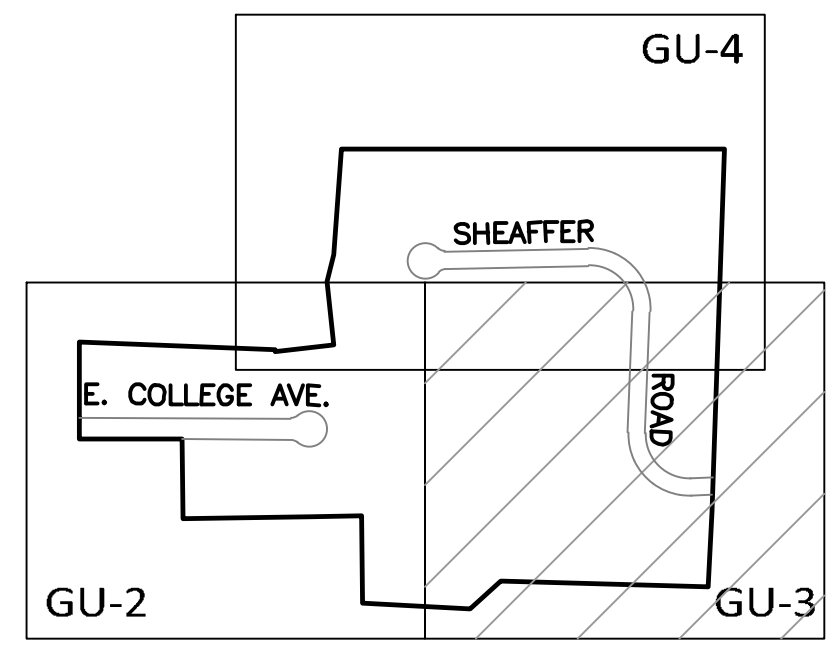
LEGEND

- 360 --- PROPERTY LINE
- - - - - EXISTING INDEX CONTOUR
- - - - - EXISTING CONTOUR
- - - - - EXISTING WATER LINE
- - - - - EXISTING SANITARY SEWER
- - - - - EXISTING STORM SEWER
- - - - - EXISTING TREE LINE
- - - - - EXISTING RIGHT-OF-WAY
- - - - - EXISTING EASEMENT
- - - - - STREAM
- - - - - FEMA FLOODPLAIN
- - - - - WETLANDS
- SOIL TYPE BOUNDARY LINE
- Bo SOIL TYPE
- 448 --- PROPOSED CONTOUR
- 450 --- PROPOSED INDEX CONTOUR
- - - - - PROPOSED TREE LINE
- - - - - PROPOSED STORM SEWER
- - - - - PROPOSED RIPRAP APRON
- - - - - PROPOSED SANITARY SEWER
- - - - - PROPOSED SANITARY LATERAL
- - - - - PROPOSED WATERLINE
- - - - - PROPOSED WATER SERVICE & CURB STOP
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- EXISTING FIRE HYDRANT (TO BE RELOCATED OUT OF PROPOSED SIDEWALK AND MAINTAIN ADA ACCESS)

NOTE:

DEVELOPER TO ENSURE DOWNSPOUTS AND ROOF DRAINS BE INSTALLED TO DRAIN TO THE FOLLOWING:

LOT NO.	DRAINS TO INLET NO.
13 (GARAGE ONLY)	I-A5
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32 (FRONT OF HOUSE ONLY)	I-B1
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34 (FRONT OF HOUSE ONLY)	I-B1
35 (GARAGE ONLY)	I-B1
36 (FRONT OF HOUSE ONLY)	I-B1
37 (FRONT OF HOUSE ONLY)	I-B5
38 (FRONT OF HOUSE ONLY)	I-B5



REV. NO.	DATE	DESCRIPTION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22
2	2/6/2023	APPROX. SUBMISSION
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
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12	4/18/2024	REV. PER DEP. REVIEW LETTERS DATED 8/21/2023 AND 9/8/2024
13	5/8/2024	REVISED PER DEP. REVIEW LETTER DATED 4/19/2024
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024

DESIGN GROUP

C2C DESIGN GROUP
 Civil Engineering and Surveying
 Solutions from Concept to Construction
 37 East Penn Avenue
 Wernersville, PA 19685
 610.860.6050 www.c2cdg.com

GRADING AND UTILITY PLAN
C2C DESIGN GROUP
 37 East Penn Avenue
 Wernersville, PA 19685
 610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES
 MOUNT JOY TOWNSHIP
 LANCASTER COUNTY, PA
 PROJECT #: FOR-MJT-01
 SCALE: 1"=50'
 DRAWN BY: CAD
 CHECKED BY: BSF
 DATE: 8/1/2022
 DWG. NO.: 10 OF 21
 SHEET NO.: GU-3

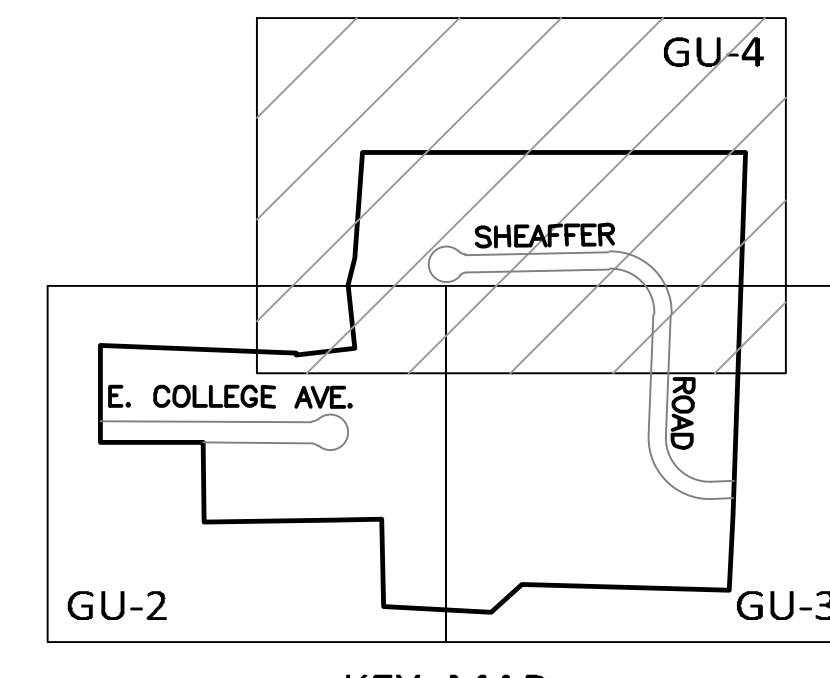
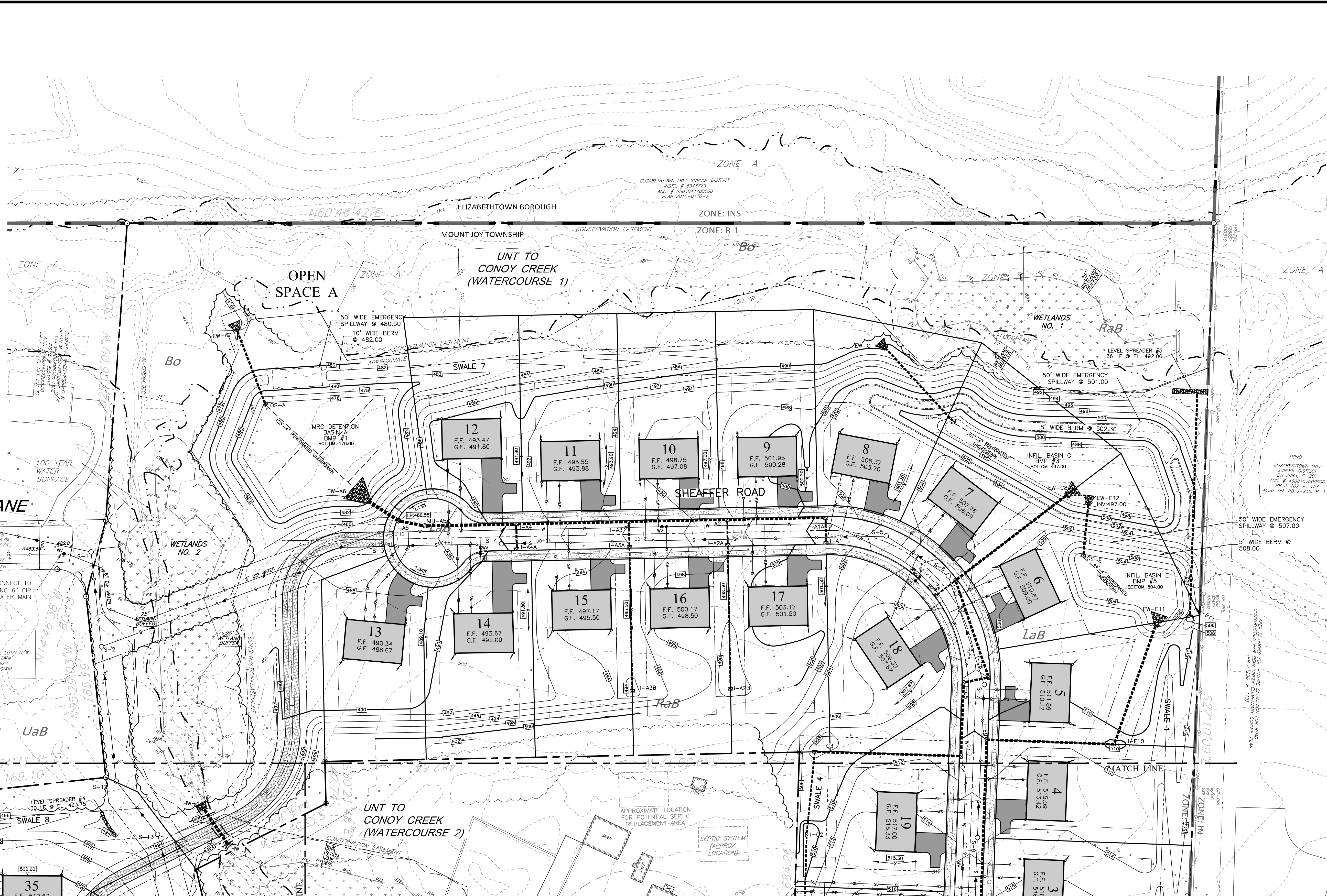
LEGEND

- PROPERTY LINE
- 360 --- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING TREE LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- STREAM
- FEMA FLOODPLAIN
- WETLANDS
- SOIL TYPE BOUNDARY LINE
- Bo SOIL TYPE
- 448 --- PROPOSED CONTOUR
- 450 --- PROPOSED INDEX CONTOUR
- PROPOSED TREE LINE
- PROPOSED STORM SEWER
- PROPOSED RIPRAP APRON
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY LATERAL
- PROPOSED WATERLINE
- PROPOSED WATER SERVICE & CURB STOP
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE

EXISTING MANHOLES SMH175 & 176 TO HAVE PROTECTIVE INTERIOR LINING PER (ERSA) SPECIFICATIONS

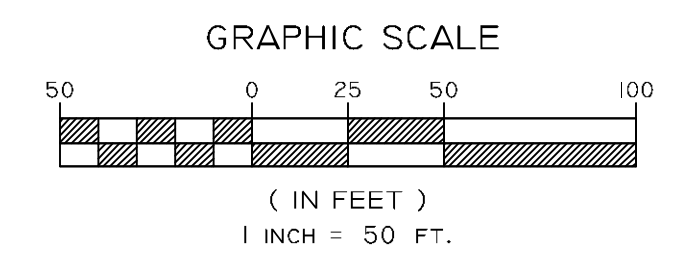
MEADOWBROOK LANE

MATCH LINE



NOTE:
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35 (GARAGE ONLY)	I-B1
36 (FRONT OF HOUSE ONLY)	I-B1
37 (FRONT OF HOUSE ONLY)	I-B5
38 (FRONT OF HOUSE ONLY)	I-B5



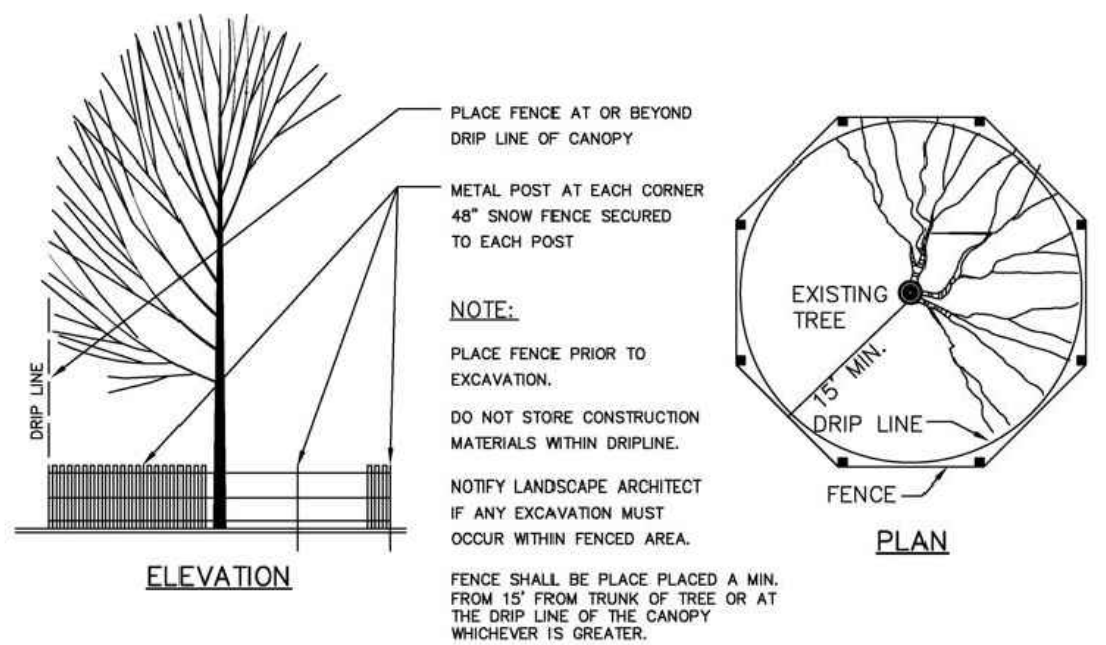
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BEAR CREEK ESTATES
 MOUNT JOY TOWNSHIP
 LANCASTER COUNTY, PA

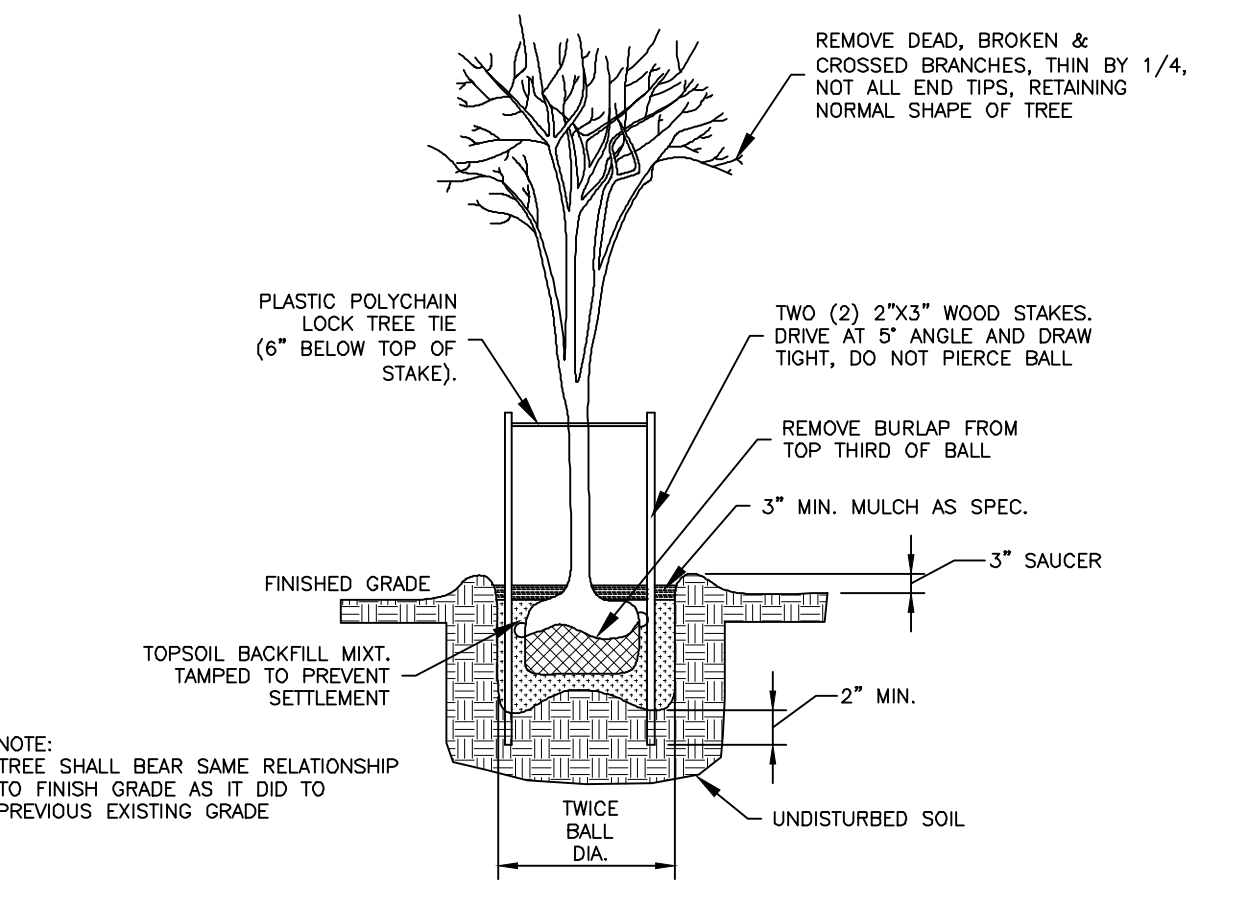
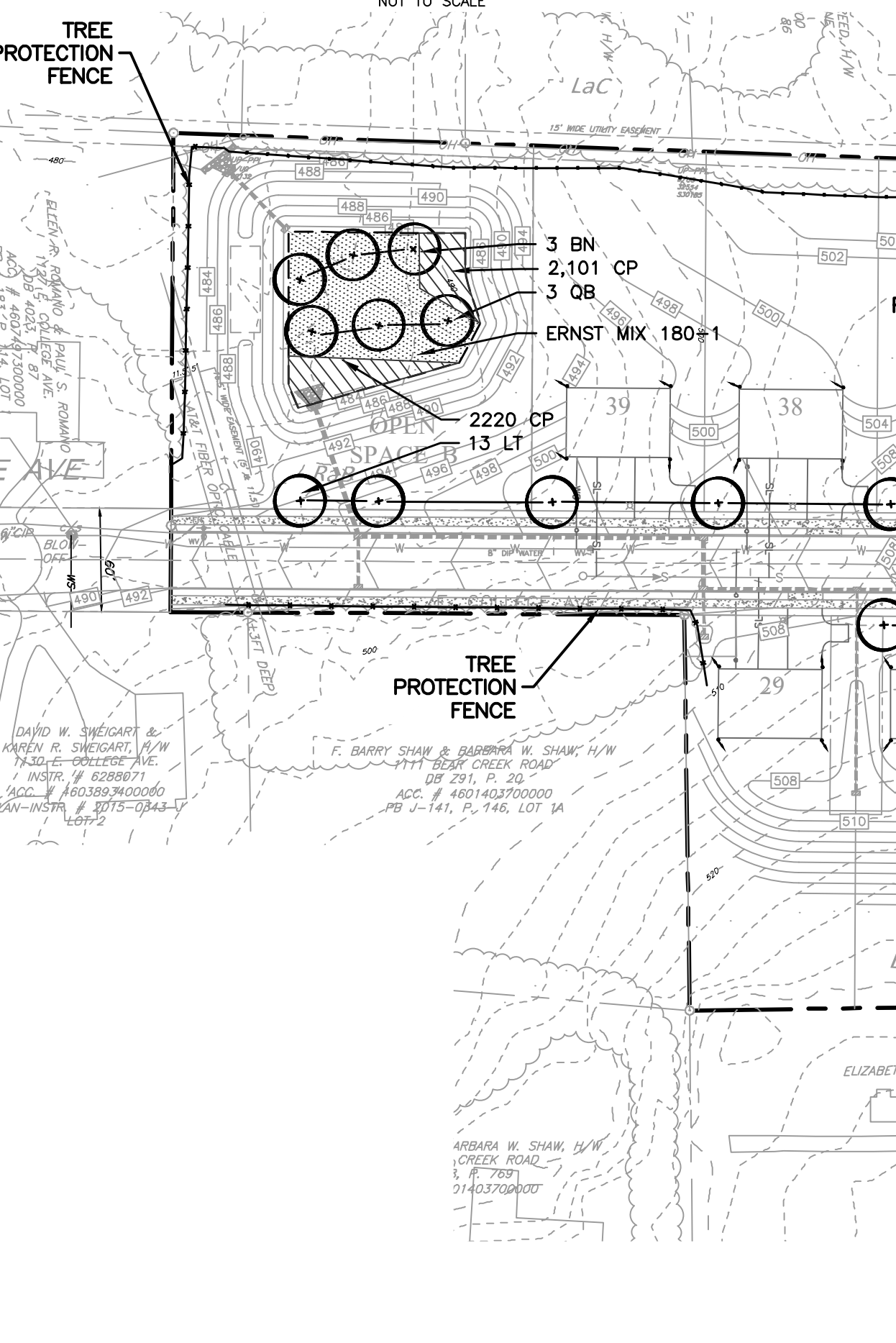
PROJECT #: FOR-MJT-01
 SCALE: 1"=50'
 DRAWN BY: CAD
 CHECKED BY: BSF
 DATE: 8/1/2022
 DWG. NO.: 11 OF 21
 SHEET NO.: GU-4



TREE PROTECTION

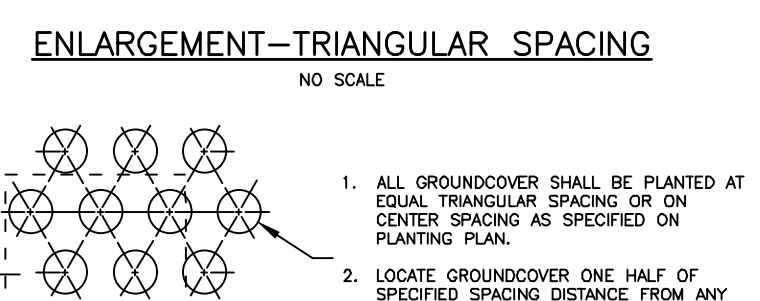
3. PROTECTION STANDARDS
A. GRADE CHANGES AND EXCAVATIONS SHALL NOT ENCRUMB UPON THE TREE PROTECTION AREA.
B. NO TOXIC MATERIALS SHALL BE STORED WITHIN 100 FEET OF A TREE PROTECTION ZONE, INCLUDING PETROLEUM BASED AND/OR DERIVED PRODUCTS.
C. THE TREE PROTECTION AREA SHALL NOT BE BUILT UPON, NOR SHALL ANY MATERIALS BE STORED THERE EITHER TEMPORARILY OR PERMANENTLY. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED IN THE TREE PROTECTION AREA.
D. WHEN TREE STUMPS ARE LOCATED WITHIN 10 FEET OF THE TREE PROTECTION AREA, THE STUMPS SHALL BE REMOVED BY MEANS OF A STUMP GRINDER TO MINIMIZE THE LATERAL MOVEMENT OF THE ROOTS DURING EXCAVATION.
E. TREE ROOTS WHICH MUST BE SEVERED SHALL BE CUT BY A BACK HOE OR SIMILAR EQUIPMENT ALIGNED RADIIALLY TO THE TREE. THIS METHOD REDUCES THE LATERAL MOVEMENT OF THE ROOTS DURING EXCAVATION, WHICH IF DONE BY OTHER METHODS COULD DAMAGE THE INTERWINDENED ROOTS OF ADJACENT TREES.
F. WITHIN FOUR HOURS OF ANY SEVERANCE OF ROOTS, ALL TREE ROOTS THAT HAVE BEEN EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY AND COVERED TEMPORARILY WITH MOIST PEAT MOSS, MOIST BURLAP OR OTHER MOST BIODEGRADABLE MATERIAL TO KEEP THEM FROM DRYING OUT UNTIL PERMANENT COVER CAN BE INSTALLED.
G. SEDIMENT, RETENTION AND DETENTION BASINS SHALL NOT DISCHARGE INTO THE TREE PROTECTION AREA.
H. SEDIMENT, RETENTION AND DETENTION BASINS SHALL NOT BE LOCATED WITHIN THE TREE PROTECTION AREA.
I. PRIOR TO CONSTRUCTION, ALL TREES SCHEDULED TO REMAIN SHALL BE MARKED WHERE GROUPOUS OF TREES EXIST. ONLY THE TREES ON THE EDGE NEED TO BE MARKED.
J. A FORTY-EIGHT-INCH HIGH WOODEN SNOW FENCE MOUNTED ON STEEL POSTS, LOCATED EIGHT FEET ON CENTER, SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION AREA.
K. WHEN THE WOODEN SNOW FENCE HAS BEEN INSTALLED, IT SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCING CLEARING AND FURTHER CONSTRUCTION, THE FENCING ALONG THE TREE PROTECTION AREA SHALL BE MAINTAINED UNTIL ALL WORK/CONSTRUCTION HAS BEEN COMPLETED. ANY DAMAGE TO THE PROTECTIVE FENCING SHALL BE REPLACED AND REPAIRED BEFORE FURTHER CONSTRUCTION SHALL BEGIN.
L. TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED OR PULLED INTO A TREE PROTECTION AREA OR INTO TREES THAT ARE TO BE RETAINED.

TREE PROTECTION FENCING
NOT TO SCALE

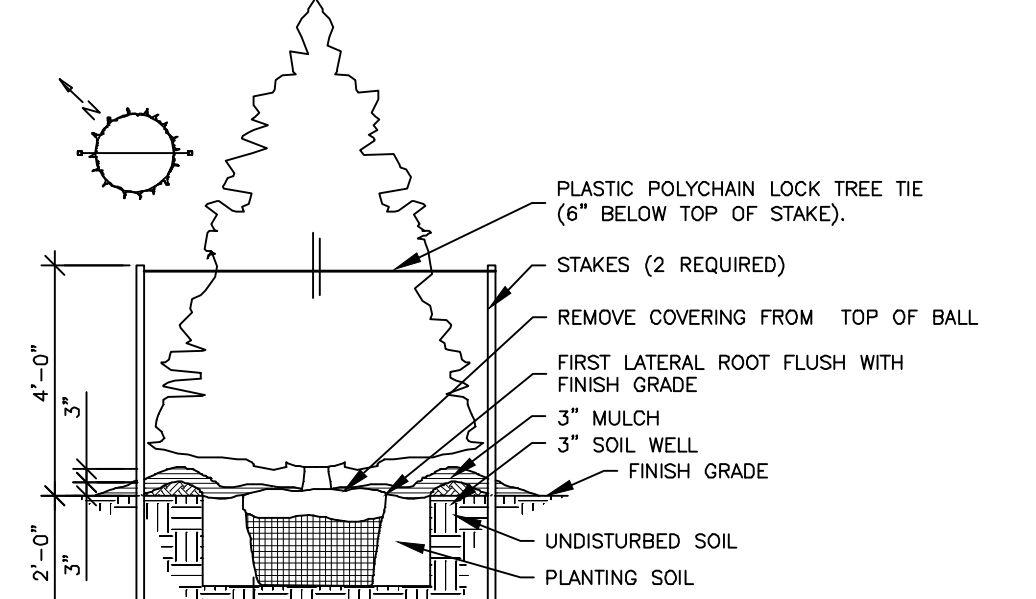


DECIDUOUS TREE PLANTING DETAIL
NO SCALE

NOTES:
1. ALL PLANTING MATERIAL MUST BE TO "AMERICAN STANDARDS FOR NURSERY STOCK" AND FREE OF PESTS.
2. ALL VARIETIES ARE TO BE USED AS SPECIFIED, OR APPROVED EQUAL.
3. WATER THOROUGHLY SUBSEQUENT TO INSTALLATION.



GROUNDCOVER PLANTING DETAIL
NO SCALE



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

LANDSCAPING REQUIREMENTS

S112-552
G. STREET TREES
REQUIRED: 2 TREES/ 100 LF MEASURED AT ROAD CENTERLINE
2,138 LINEAR FT. ROAD CENTERLINE= 43 TREES
PROPOSED: 43 STREET TREES

NOTE: AN ADDITIONAL 18 TREES ARE BEING USED WITHIN THE SWM BMP'S AND ARE NOT PART OF THE STREET TREE REQUIREMENT.

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
CL	19	CUPRESSOCYPARIS LEYLANDII	LEYLAND CYPRESS	4'-6" HT.	15' O.C.
FP	8	FRAXINUS PENNSYLVANICA	GREEN ASH	2-2 1/2 CAL.	AS SHOWN
LS	13	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2-2 1/2 CAL.	AS SHOWN
LT	13	LIRIODENDRON TULIPIFERA	TULIP TREE	2-2 1/2 CAL.	AS SHOWN
TA	9	TILIA AMERICANA	AMERICAN LINDEN	2-2 1/2 CAL.	AS SHOWN
IG	20	ILEX GABRA	INKBERRY	24"-36" HT.	AS SHOWN

PLANT SCHEDULE - SWM

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
BN	9	BETULA NIGRA	RIVER BIRCH	2-2 1/2 CAL.	AS SHOWN
CP	16,527	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 1/2 PLUG	10 INCHES
QB	9	QUERCUS BICOLOR	SWAMP WHITE OAK	2-2 1/2 CAL.	AS SHOWN

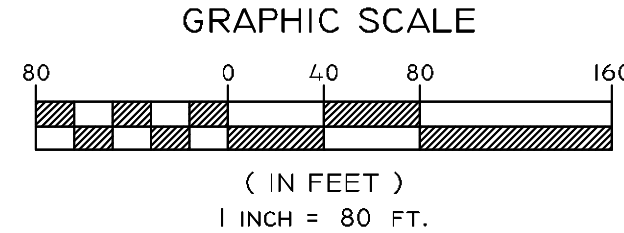
PLANTING NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADE AND ALIGNMENT. LAYOUT TO BE APPROVED BY OWNERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES; DENSELY FOLIATED; VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
3. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
4. ALL REQUIRED LANDSCAPE PLANTS SHALL BE MAINTAINED AND GUARANTEED FOR A LENGTH OF 18 MONTHS FROM THE DATE OF PLANTING. NO MORE THAN 1/3 OF THE TREE OR SHRUB SHALL BE DAMAGED OR DEAD WITHOUT REPLACEMENT. REPLACEMENT PLANTS SHALL CONFORM TO ALL REQUIREMENTS OF THIS SECTION AND SHALL BE MAINTAINED AFTER REPLANTING FOR AN ADDITIONAL 18 MONTHS.
5. INsofar AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED.
6. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL MEET THE STANDARDS OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY AMERICANHORT.
7. ALL PLANTS SHALL BE PLANTED IN AMENDED TOP SOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONS AS STATED IN PLANTING SPECIFICATIONS.
8. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
9. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICES. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MOIST OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH "WET-PROF" OR EQUAL, AS PER MANUFACTURER'S INSTRUCTIONS.
10. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SHEDS.
11. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT THE TOP OF THE MAIN ORDER ROOT SHALL BE PLANTED NO LOWER THAN ONE OR TWO INCHES INTO THE SOIL. LOCATE PLANT IN THE CENTER OF THE PIT.
12. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
13. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
14. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5-10-5) UPON COMPLETION OF WORK. THE ENTIRE LAMP OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR TO ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL. COMPLETELY SATURATE THESE AREAS WITH WATER. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES TO REMAIN BY ERECTING A 48" HIGH TREE PROTECTION FENCE AT THE DRIP LINE. THIS WILL ENSURE NO COMPACTION OF THE ROOT MASS.
15. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
16. NEW PLANTING AREAS AND SOIL SHALL BE ADEQUATELY IRRIGATED OR WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
17. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

TYPE PLANTS	DATES
LAWN	3/15 TO 12/15 9/15 TO 12/1

THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING OR PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTING ASSOCIATED WITH ANY LOT GIVEN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.

18. ALL DISTURBED AREAS TO BE TREATED WITH 4" TOP SOIL & SEEDED IN ACCORDANCE WITH PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
19. ALL EASEMENTS SHALL REMAIN FREE AND CLEAR OF ALL IMPEDIMENTS INCLUDING, BUT NOT LIMITED TO, BUILDINGS, SHEDS, DECKS, POOLS, FENCES, TREES, AND LARGE SHRUBS. THE INDIVIDUAL LOT OWNERS SHALL PROVIDE ROUTINE MAINTENANCE, NO REGARDING WITHOUT THE MUNICIPAL AUTHORITY'S WRITTEN PERMISSION SHALL BE PERFORMED.
20. THE TREE STAKING AND WIRING SHALL BE REMOVED WITHIN ONE YEAR OF PLANTING.

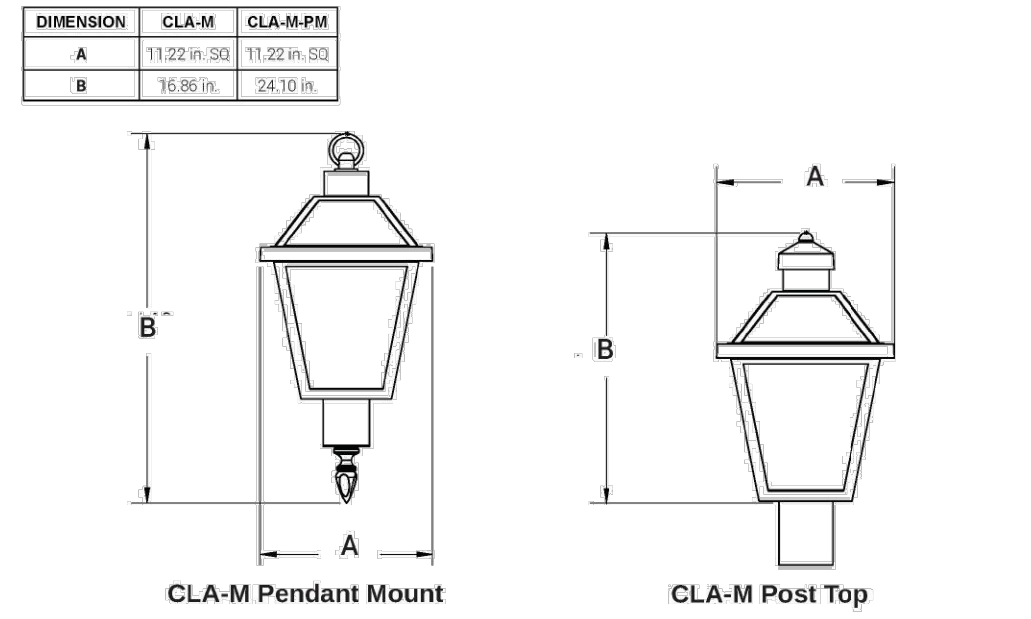


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4	4/3/2023	REVISED PER TWP. REVIEW LETTER DATED 12/30/22, 1/4/23 & 1/10/23
3	2/6/2023	APPROX. SUBMISSION
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1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22

DESIGN GROUP
C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

LANDSCAPE PLAN
BEAR CREEK ESTATES
MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

PROJECT #: FOR-MT-01
SCALE: 1"=80'
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 12 OF 21
SHEET NO.: LA-1



The Classic Mini LED Post Top Lantern blends traditional design with modern LED and optical technology. The Classic Mini is able to provide illumination at 70% energy savings compared to previous technology.

The Classic Mini is Dark Sky Friendly and features a full cutoff optical reflector system. Micro Optics—recessed within the fixture's surface and can distribute light up to five times the mounting height, creating powerful uniformity. The Classic Mini LED provides uniform illumination with up to four foot mounting heights. The optical system is completely concealed inside the fixture top eliminating glare. The Classic Mini is available in 2700K, 3000K, 3500K, 4000K and 5000K colors and is available from 18-56 watts. The Classic Mini LED Series is the perfect luminaire for traditional American neighborhoods.

The standard Classic Mini LED comes with flat glass lens in the top of the fixture with open sides. Opal Side Lens, Frosted Side Lens, and Clear Side Lens can be ordered as options.



MICRO OPTIC SYSTEM
Our new cell-encased, Micro Optic silicone modules produce high clarity and outstanding performance.

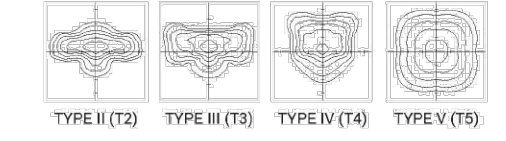
LED HIRAGE CHART	
WATTAGE	FOOT CANDLE
18W	1.5
27W	2.25
35W	2.9
56W	4.6

Project Name: **FORINO - BEAR CREEK ESTATES** Type: **30K T2 28W 3275LM**

POST LIGHT DETAIL

PRODUCT SPECIFICATIONS

- ELECTRICAL**
 - 100V/120V (L/N) or 240V/480V (L/N/G)
 - 0-10V dimming driver
 - Driver power factor at maximum load is > 0.95 THD maximum load is 10A
 - LED Drivers Ambient Temp Min is -40°C and Ambient Temp Max ranges from 20°C to 50°C in some cases even higher. Consult the factory for reevaluation by providing the fixture catalog using before quoting and specifying.
 - All internal wiring UL certified for 600 VAC and 100°C
 - CR 70.5 (0.99)
 - Color temperature: 3000K, 3500K, 4000K, 5000K
 - Surge Protection: 20KA supplied as standard.
- OPTICS**
 - Silicone optics high photo thermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life, UV and thermal stability with scratch resistance; increases exterior application suitability.
 - IES Types



- CONSTRUCTION**
 - Cast Aluminum
 - FINISH
 - 3.0 mil electrocoat powder coat
 - NAL 500's standard high quality finishes prevent corrosion protect against extreme environmental conditions
 - WARRANTY
 - Five-year limited warranty for drivers and LEDs.
 - LISTINGS
 - Compliant with UL 1598
 - UL 8750
 - CSA C22.2 No. 250.0

- OPTIONS**
 - PAINTING GRADE FINISH (BGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a stage cleaning system. Prereduced primer. Coated in rolls of 2000 Rpm Super Durable Polyester Powder. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 95 mil thickness.
 - HOUSE SIDE SHIELD (HSS) - Designed for full property line cutoff.
 - OPAL SIDE LENS - Translucent white side lens.
 - CLEAR SIDE LENS - Clear side lens.
 - FROSTED SIDE LENS - Frosted textured side lens.
 - TERMINAL BLOCK - Internal terminal block.
 - TOOLLESS ENTRY - Easy toolless entry into the fixture.

- CONTROL OPTIONS**
 - Control Options: Please contact factory for your preferred control option.
 - PHOTOCELL - Button type photocell.
 - NEKA 7 PIN PHOTOCELL (P7) - An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available for four dimming controls supports DALI LED dimming protocols or DALI addressable lighting interface (DALI), providing reliable power interconnect.
 - PHOTOCELL + RECEPTACLE (P7R) - 7 Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.
 - RECEPTACLE + SHORTING CAP (P7S) - 7 Pin Receptacle and Shorting Cap.



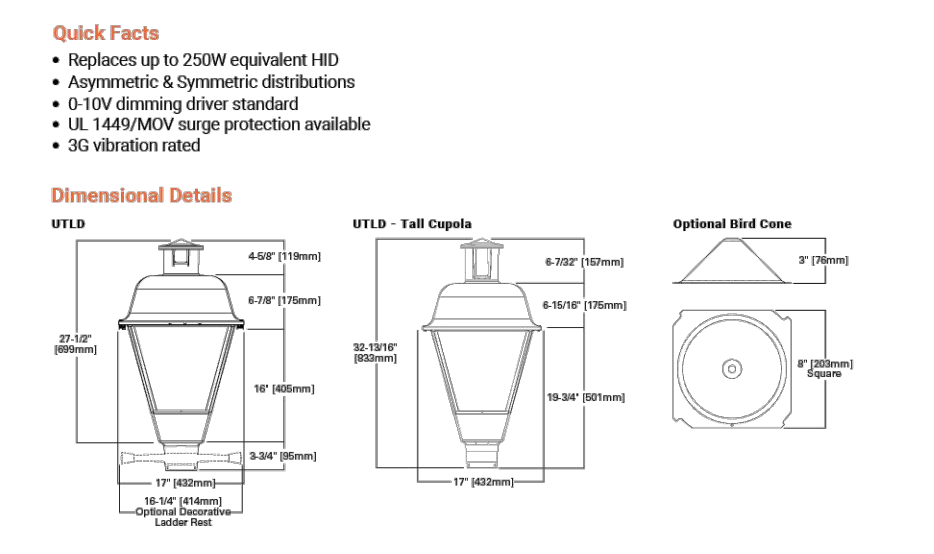
The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under standard and normal laboratory conditions.

Streetworks
UTLD Traditionaire
Decorative Post Top Luminaire

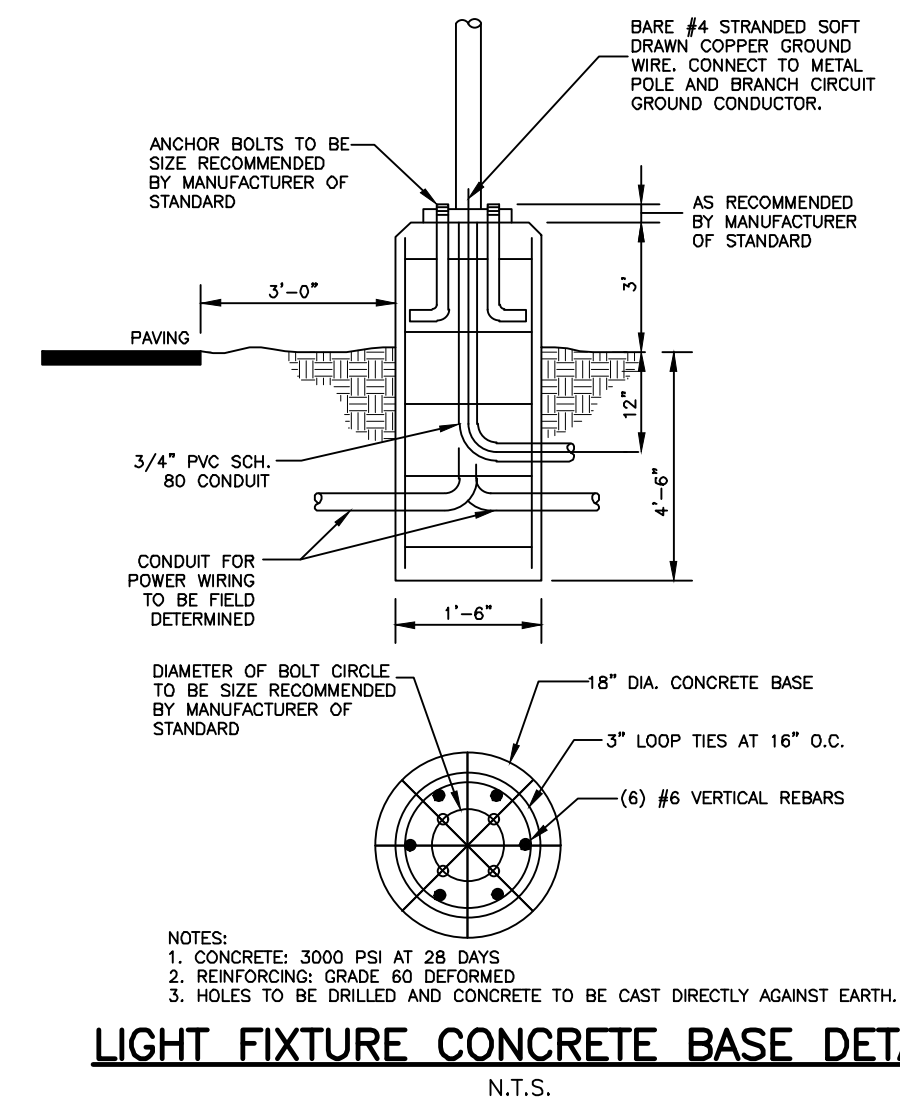
Typical Applications
Outdoor - Parking Lots - Walkways - Roadways - Building Areas

Product Certifications
UL, ENEC, IES, IESNA, IESNA, IESNA, IESNA

Product Features
UL, ENEC, IES, IESNA, IESNA, IESNA, IESNA



STREET LIGHT DETAIL



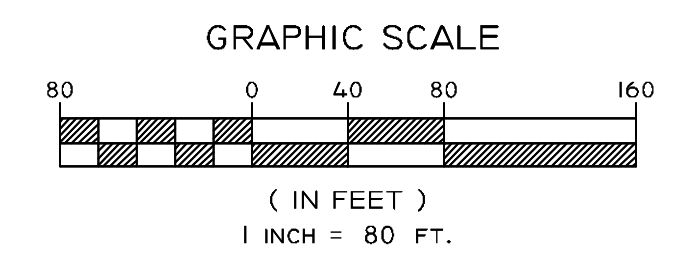
NOTES:
LAMP POSTS TO BE INSTALLED AT EVERY HOUSE DRIVEWAY. TO BE INSTALLED WITH BFT, POLE AND PHOTO CELLS FOR EACH FIXTURE. ELECTRICITY WILL BE THE RESPONSIBILITY OF EACH HOMEOWNER.
ALL LIGHTING FIXTURES SHALL BE ACTUATED BY A PHOTOELECTRIC CONTROLLED SWITCH.

LIGHT FIXTURE CONCRETE BASE DETAIL

Symbol	Qty	Label	Description	Tag	Luminaire Lumens	Luminaire Watts	Total Watts
☒	6	STREET LIGHT	UTLD-PA1-90-740-U-T2U-FP	B	8828	94	564
☒	39	POST LIGHT	CLA-M-T3-16L-53-30K8-UNV-T3R-BLK-PC-CSL	A	3192	27.58	1075.62

Label	CalcType	Units	Avg	Max	Min
BEAR CREEK ROAD	Illuminance	Fc	0.22	5.6	0.0
E COLLEGE AVE	Illuminance	Fc	0.29	6.1	0.0
SHEAFFER ROAD	Illuminance	Fc	1.00	12.1	0.0

NOTE:
STREET LIGHTS TO BE MOUNTED ON 14 FOOT POLES.
POST LIGHTS TO BE MOUNTED ON 8 FOOT POLES.



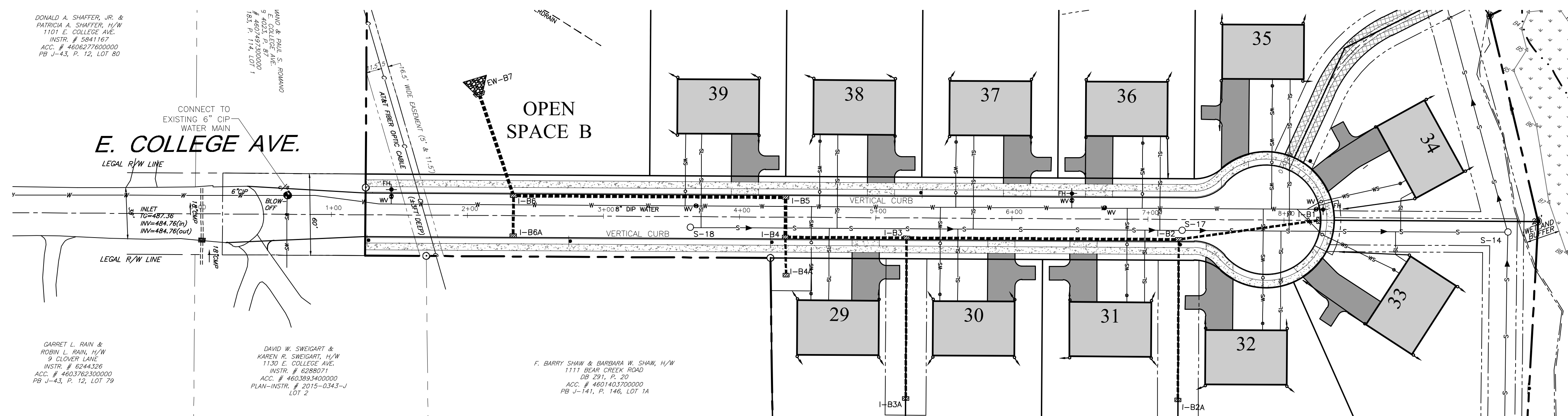
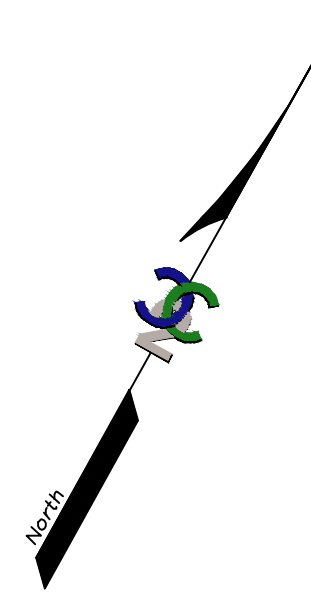
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2	12/16/2022	APRCS SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22

DESIGN GROUP
Civil Engineering and Surveying Solutions from Concept to Construction

C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES
PROJECT #: FOR-MJT-01
SCALE: 1"=80'
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 13 OF 21
SHEET NO.:

JOY TOWNSHIP
LANGASTER COUNTY, PA
LI-1



DONALD A. SHAFER, JR. & PATRICIA A. SHAFER, H/W
1101 E. COLLEGE AVE.
INSTR. # 5841167
ACC. # 46037600000
PB J-43, P. 12, LOT 80

GARRET L. RAIN & ROSE L. RAIN, H/W
9 CLOVER LAKE
INSTR. # 6244206
ACC. # 46037600000
PB J-43, P. 12, LOT 79

DAVID W. SWEIGART & KAREN E. SWEIGART, H/W
1111 BEAR CREEK ROAD
DIP 294, P. 30
ACC. # 4603851400000
PLAN-INSTR. # 2015-0343-J
LOT 2

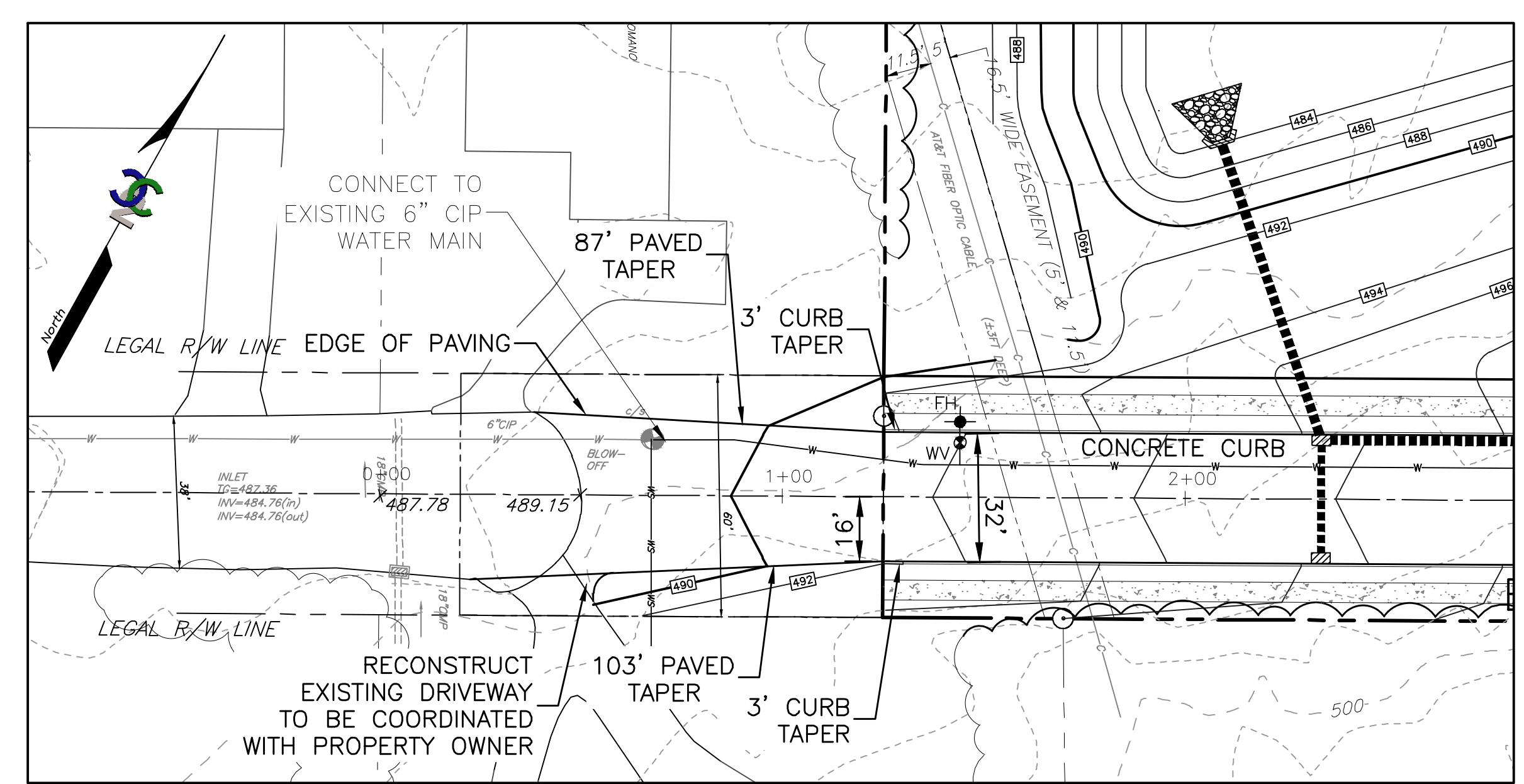
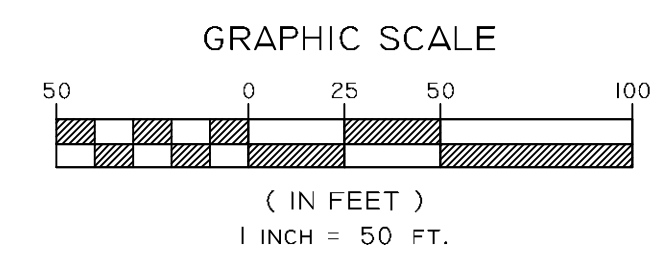
F. BARRY SHAW & BARBARA W. SHAW, H/W
1111 BEAR CREEK ROAD
DIP 294, P. 30
ACC. # 4601401700000
PB J-141, P. 146, LOT 14

NOTES:

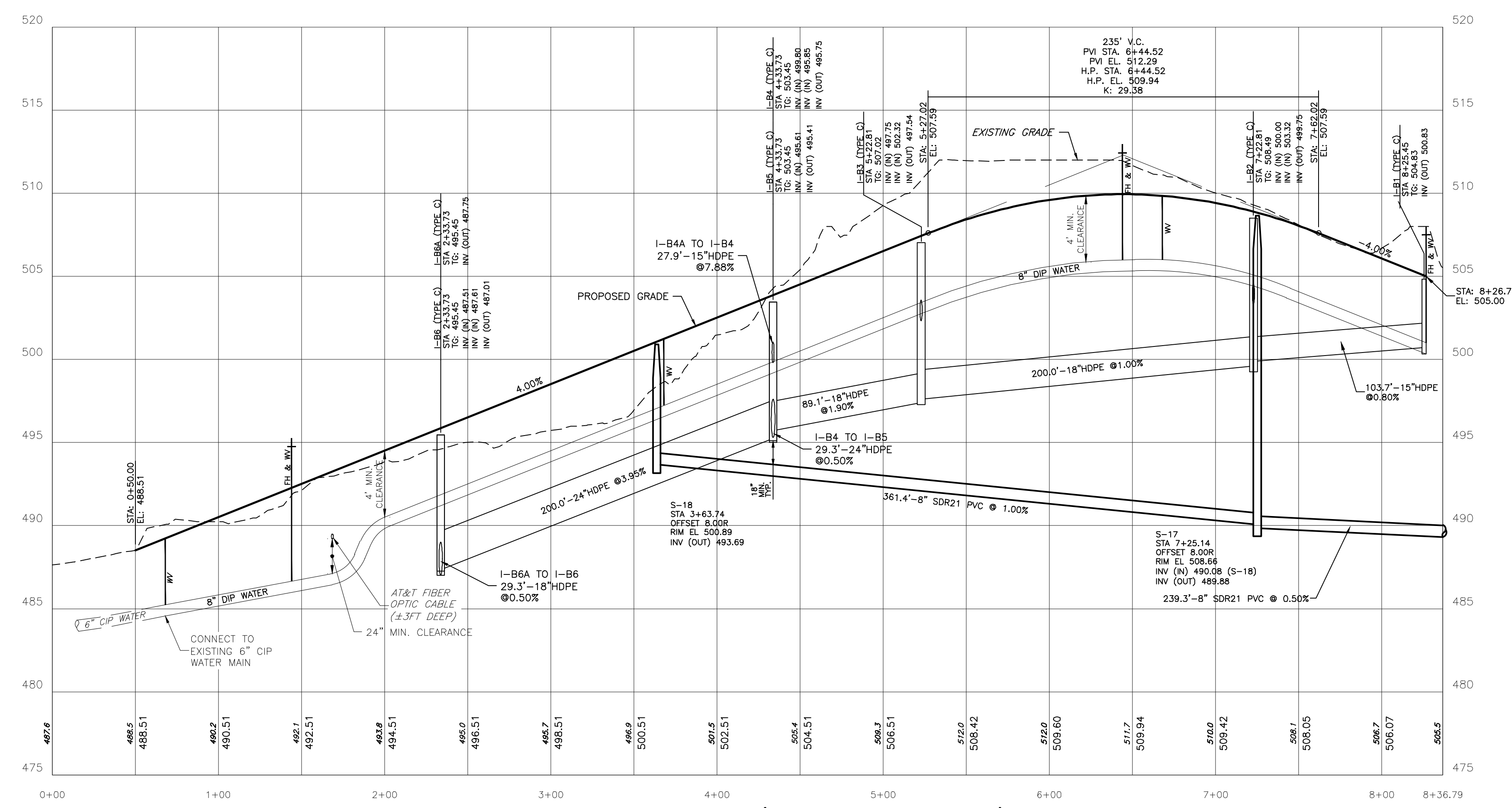
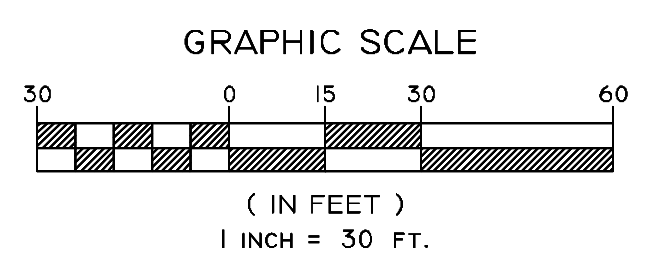
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3. INLETS AND MANHOLES GREATER THAN 5 FEET IN DEPTH SHALL HAVE LADDER RUNGS.
4. ALL ENDWALLS/HEADWALLS CONNECTED TO AN 18 INCH OR LARGER PIPE SHALL BE PROVIDED WITH A PROTECTIVE BARRIER DEVICE TO PREVENT ENTRY OF THE STORM SEWER PIPE.
5. A MINIMUM VERTICAL SEPARATION OF 18 INCHES OR HORIZONTAL SEPARATION OF 10 FEET SHALL BE PROVIDED BETWEEN THE SANITARY SEWER AND OTHER UTILITIES, WHERE THAT CLEARANCE CANNOT BE ACCOMMODATED, CONCRETE ENCASEMENT OF THE SANITARY SEWER SHOULD BE PROVIDED.

PLAN: E. COLLEGE AVENUE (COLLECTOR, 25 M.P.H.)

PLAN SCALE: 1"=50'



PLAN: E. COLLEGE AVENUE CONNECTION



PROFILE: E. COLLEGE AVENUE (COLLECTOR, 25 M.P.H.)

PROFILE SCALE: HORIZ. 1"=50'
VERT. 1"=5'

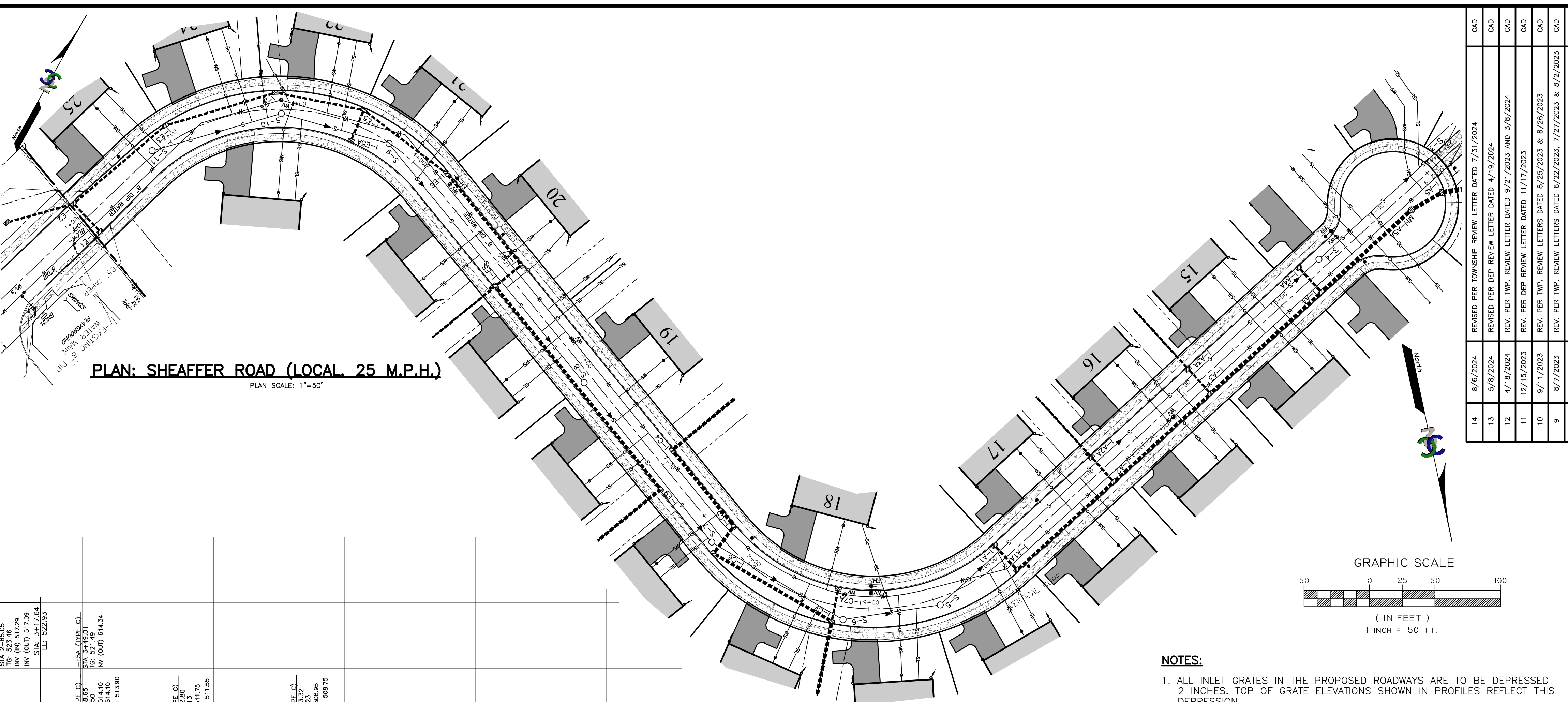
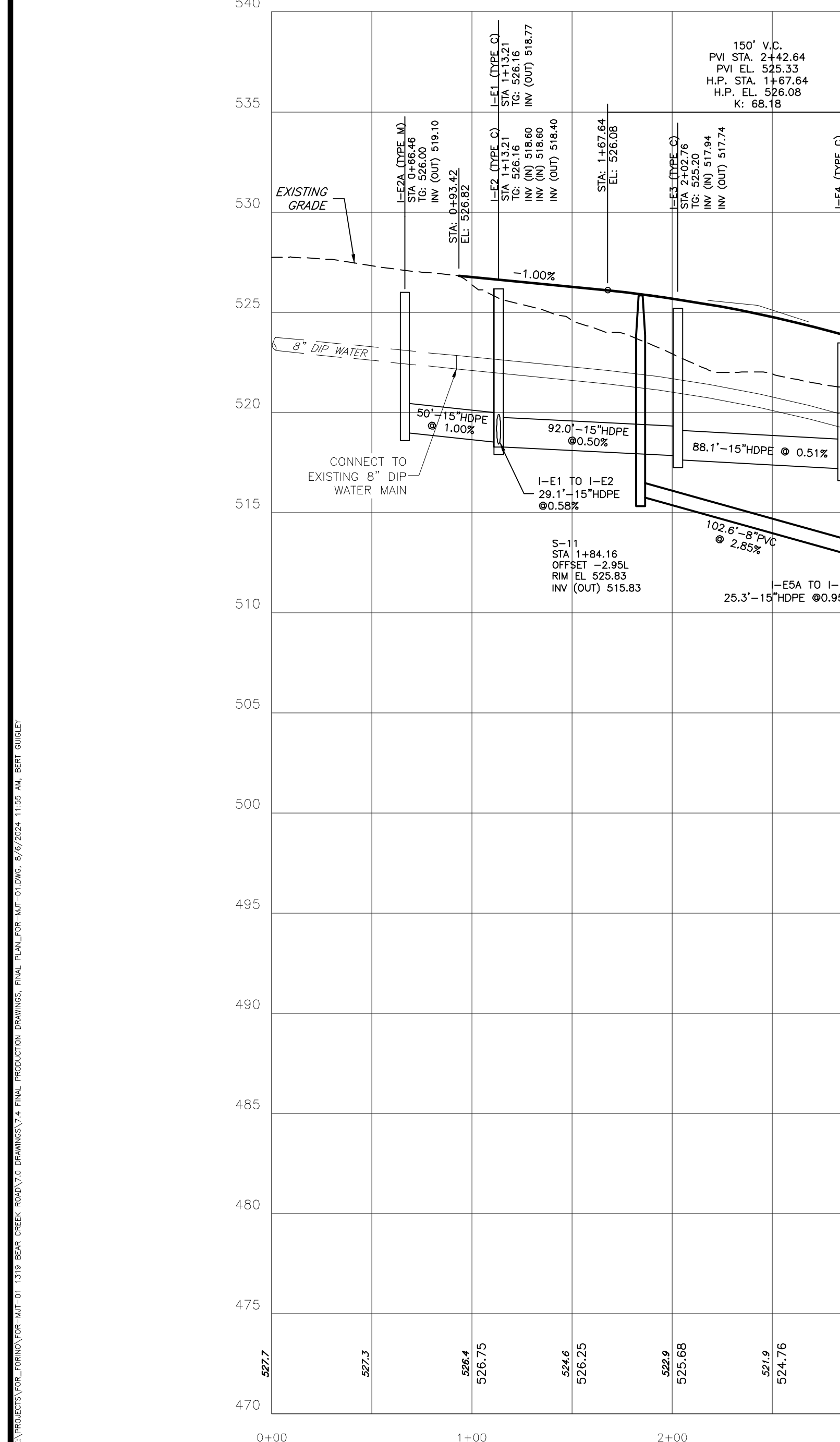
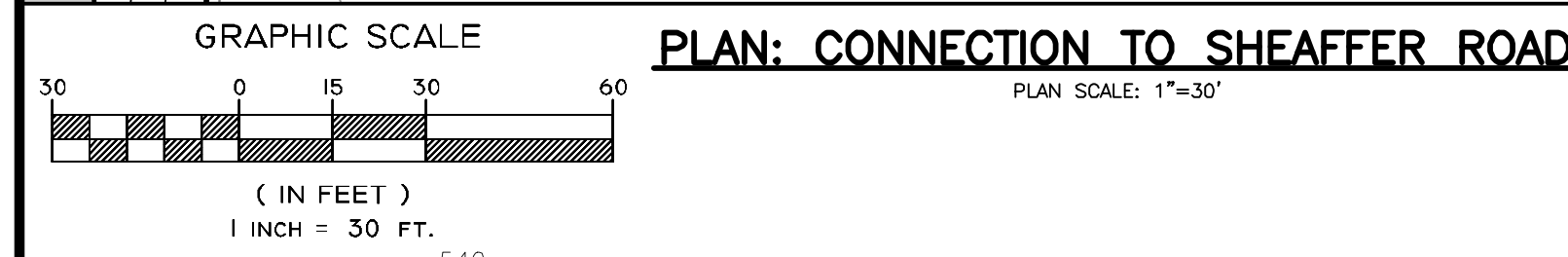
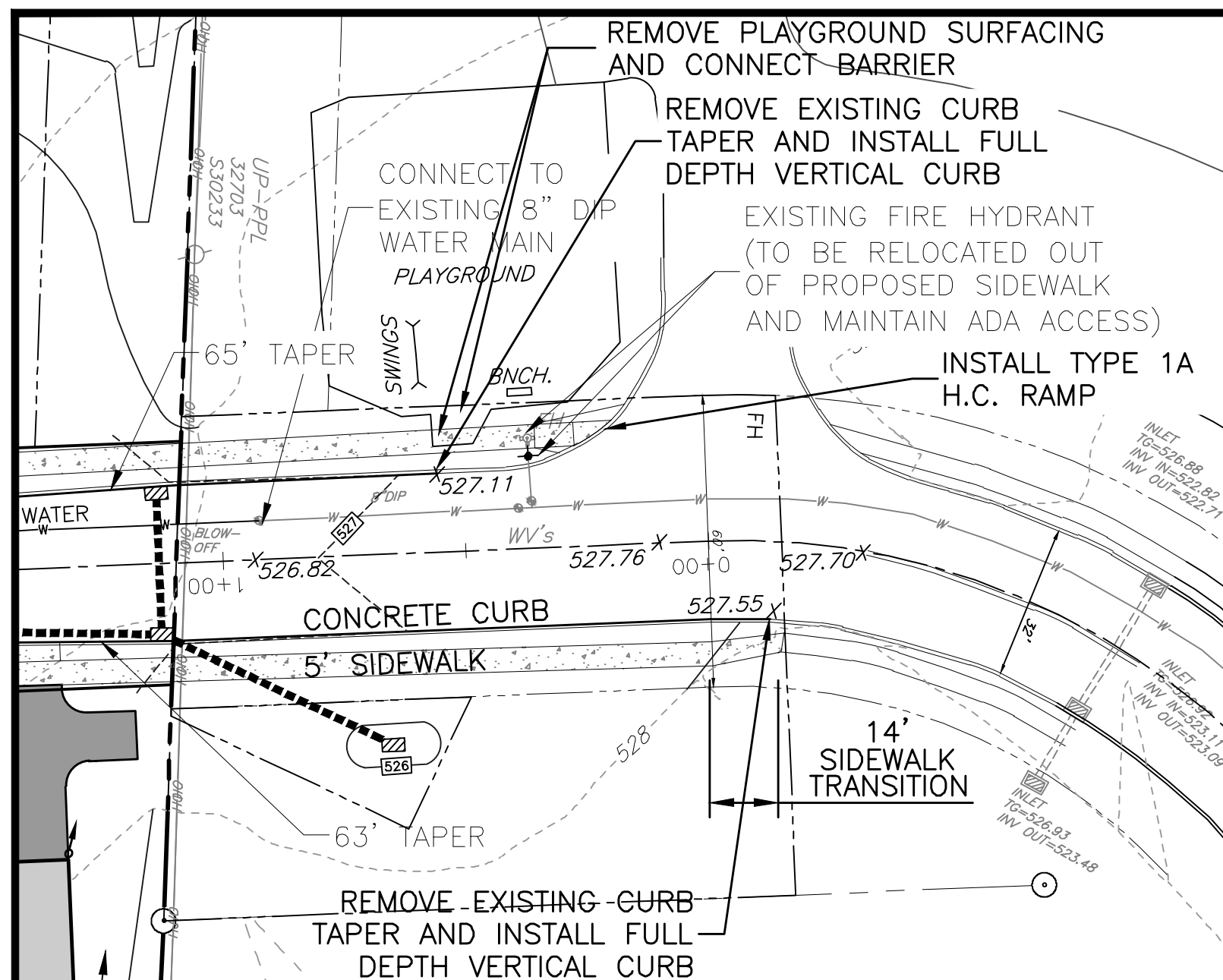
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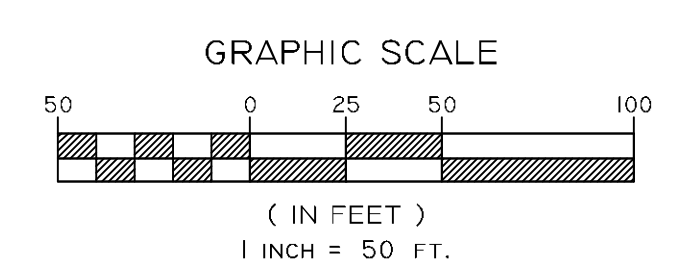
DESIGN GROUP
C2C DESIGN GROUP
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PLAN AND PROFILE:
E. COLLEGE AVENUE
BEAR CREEK ESTATES
MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

PROJECT #: FOR-MJ-01
SCALE: AS NOTED
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- NOTES:**
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12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 9/21/2023 AND 3/8/2024
11	12/15/2023	REV. PER DEP REVIEW LETTER DATED 11/17/2023
10	9/11/2023	REV. PER TWP. REVIEW LETTER DATED 8/25/2023 & 8/26/2023
9	8/7/2023	REV. PER TWP. REVIEW LETTER DATED 6/22/2023, 7/27/2023 & 8/2/2023
8	6/25/2023	REVISED PER TWP. REVIEW LETTERS DATED 5/18/2023 & 5/31/2023
7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/28/23 & 4/29/2023
6	4/28/2023	REVISED PER LCD REVIEW EMAIL DATED 4/18/2023 & 4/24/2023
5	4/7/2023	REVISED PER LCD REVIEW LETTER DATED 2/6/2023
4	4/3/2023	REVISED PER TWP. REVIEW LETTER DATED 2/27/23 & 3/8/2023
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/16/2022	INDEX SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22

DESIGN GROUP

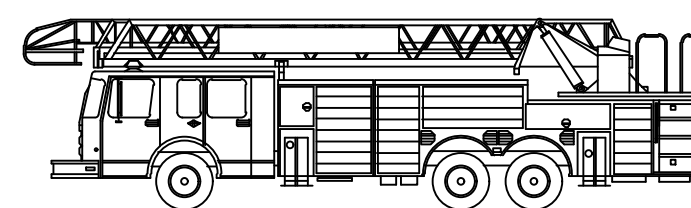
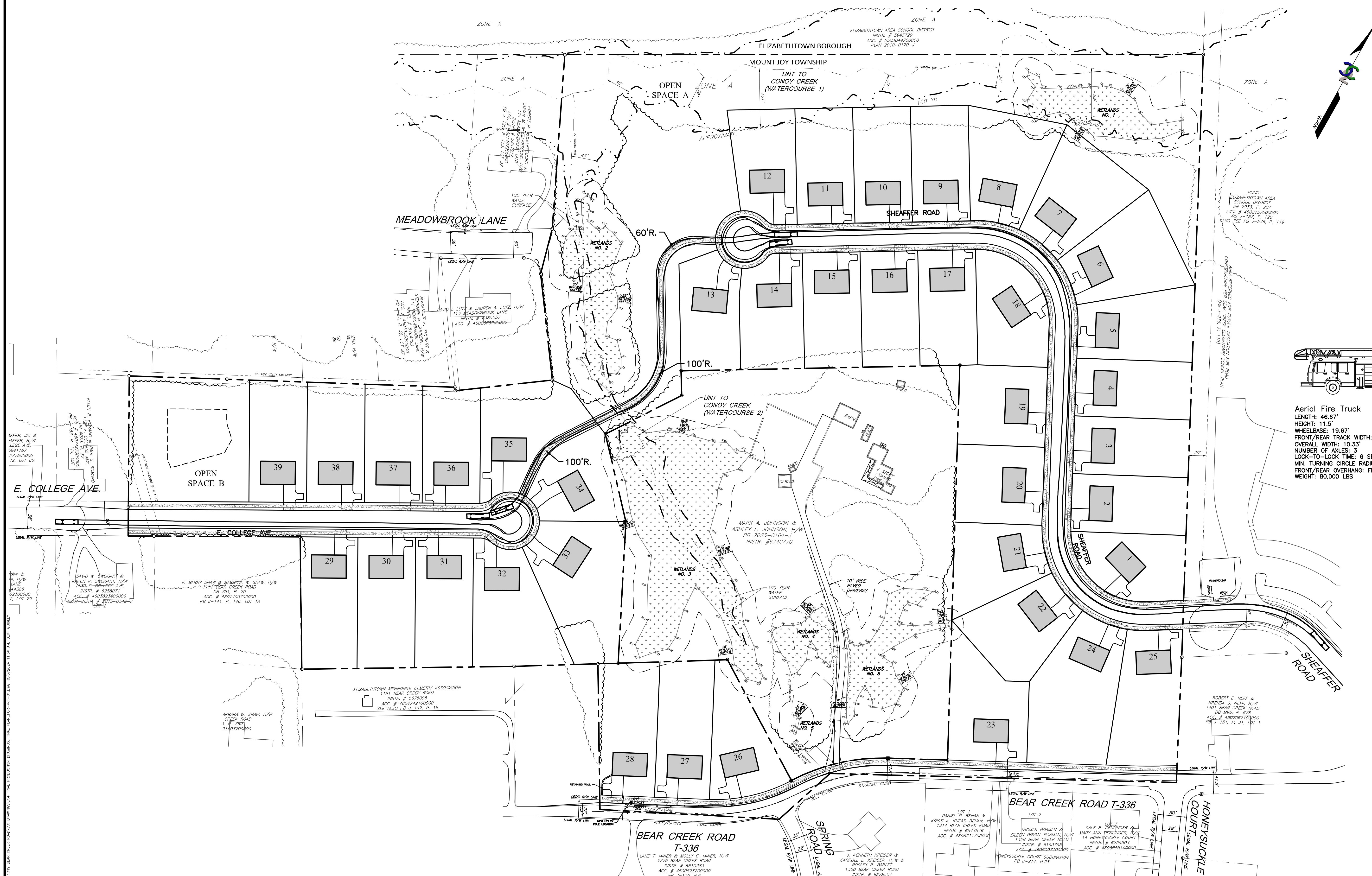
C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

ROAD PROFILE: SHEAFFER ROAD

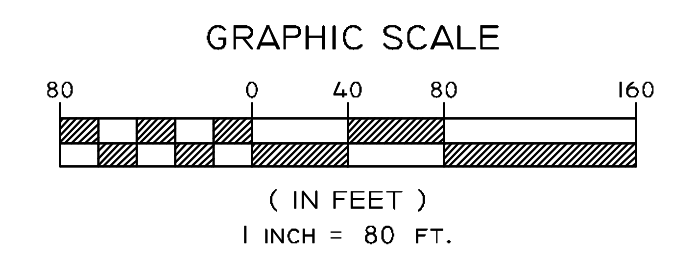
BEAR CREEK ESTATES

PROJECT #: FOR-MJT-01
SCALE: AS NOTED
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 15 OF 21
SHEET NO.: RP-2

MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA



Aerial Fire Truck
 LENGTH: 46.67'
 HEIGHT: 11.5'
 WHEELBASE: 19.67'
 FRONT/REAR TRACK WIDTH: 8.44'
 OVERALL WIDTH: 10.33'
 NUMBER OF AXLES: 3
 LOCK-TO-LOCK TIME: 6 SECONDS
 MIN. TURNING CIRCLE RADIUS: 60' INSIDE RADIUS/90" OUTSIDE RADIUS
 FRONT/REAR OVERHANG: FRONT OVERHANG 5'/REAR OVERHANG 12.5'
 WEIGHT: 80,000 LBS



REV. NO.	DATE	DESCRIPTION
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 9/21/2023 AND 3/8/2024
11	12/15/2023	REV. PER DEP REVIEW LETTER DATED 11/17/2023
10	9/11/2023	REV. PER TWP. REVIEW LETTERS DATED 8/25/2023 & 8/26/2023
9	8/7/2023	REV. PER TWP. REVIEW LETTERS DATED 6/22/2023, 7/27/2023 & 8/2/2023
8	6/25/2023	REVISED PER TWP. REVIEW LETTERS DATED 5/18/2023 & 5/31/2023
7	4/28/2023	REVISED PER DEP REVIEW LETTER DATED 4/28/23 & 4/29/2023
6	4/28/2023	REVISED PER LCDR REVIEW EMAILS DATED 4/28/23 & 4/29/2023
5	4/7/2023	REVISED PER LCDR REVIEW LETTER DATED 2/6/2023
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/16/2022	INDEX SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22



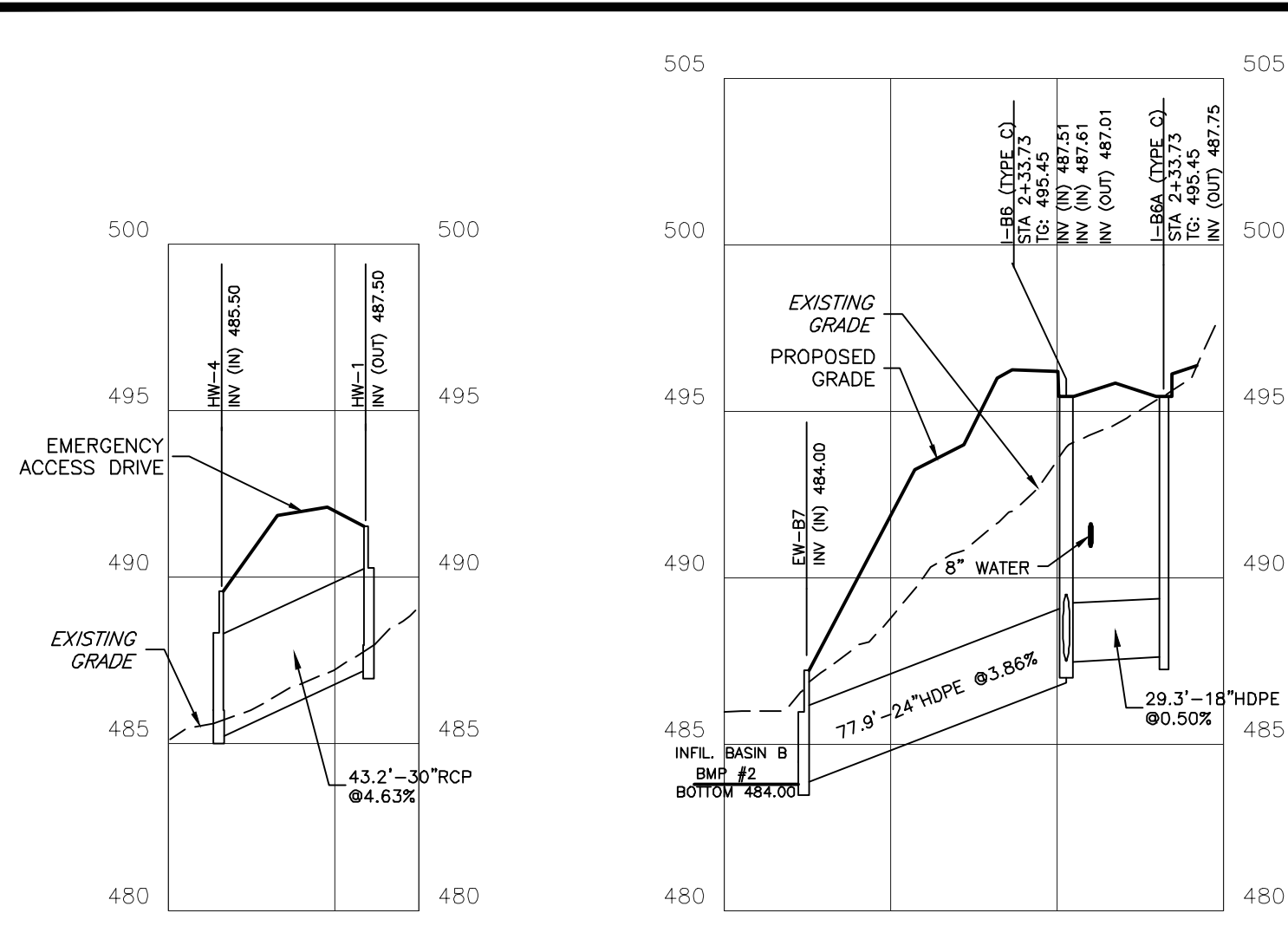
EMERGENCY VEHICLE TURNING PLAN

C2C DESIGN GROUP
 37 East Penn Avenue
 Wernersville, PA 19565
 610.860.6050 www.c2cdg.com

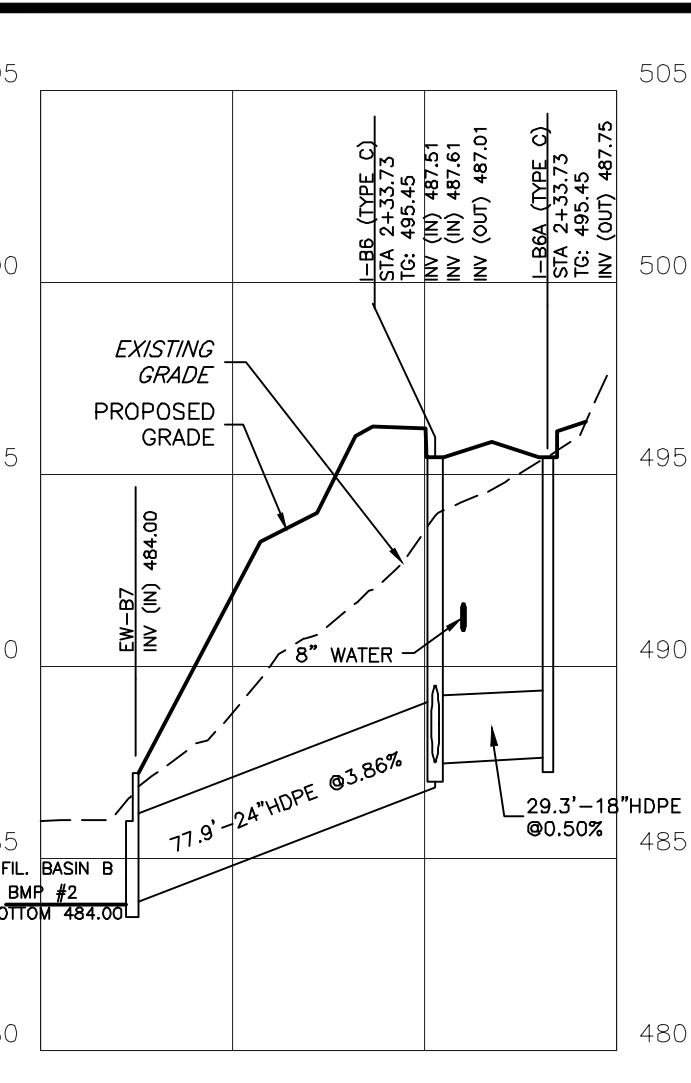
BEAR CREEK ESTATES

MOUNT JOY TOWNSHIP
 LANCASTER COUNTY, PA

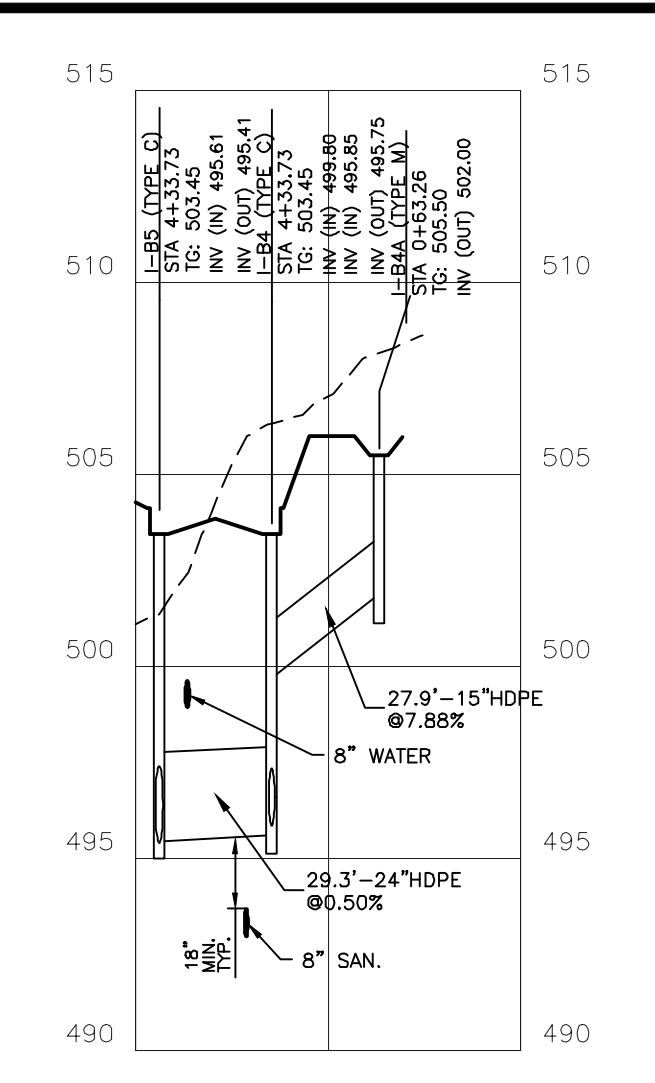
PROJECT #:	FOR-MJT-01
SCALE:	1"=80'
DRAWN BY:	CAD
CHECKED BY:	BSF
DATE:	8/1/2022
DWG. NO.:	16 OF 21
SHEET NO.:	RP-3



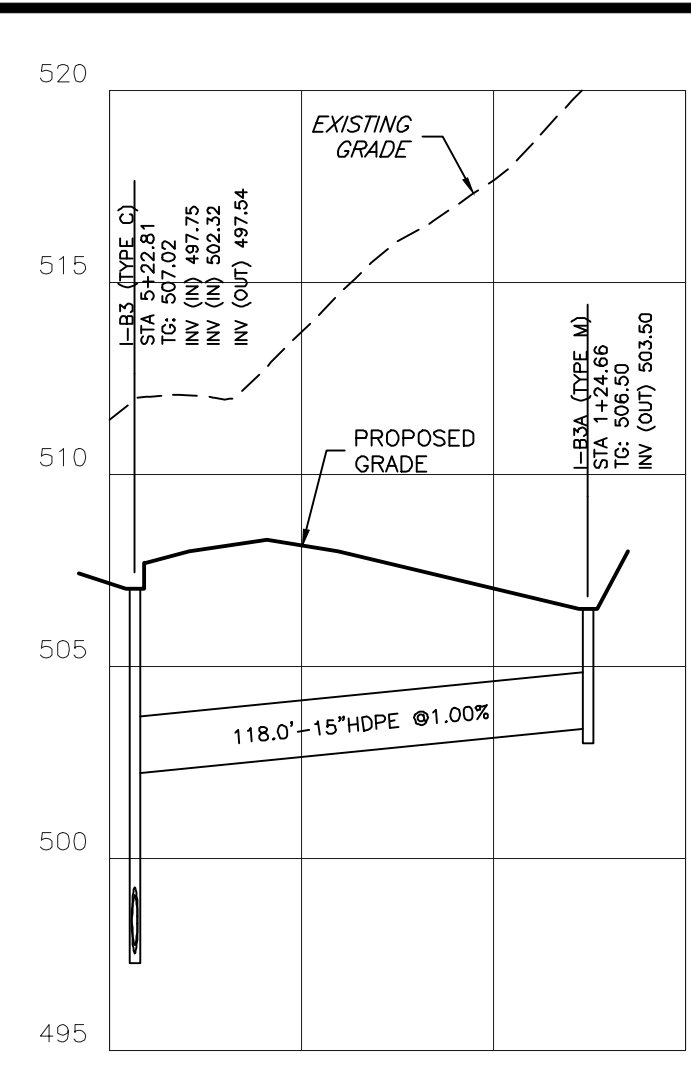
PROFILE: HW-1 TO HW-4
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



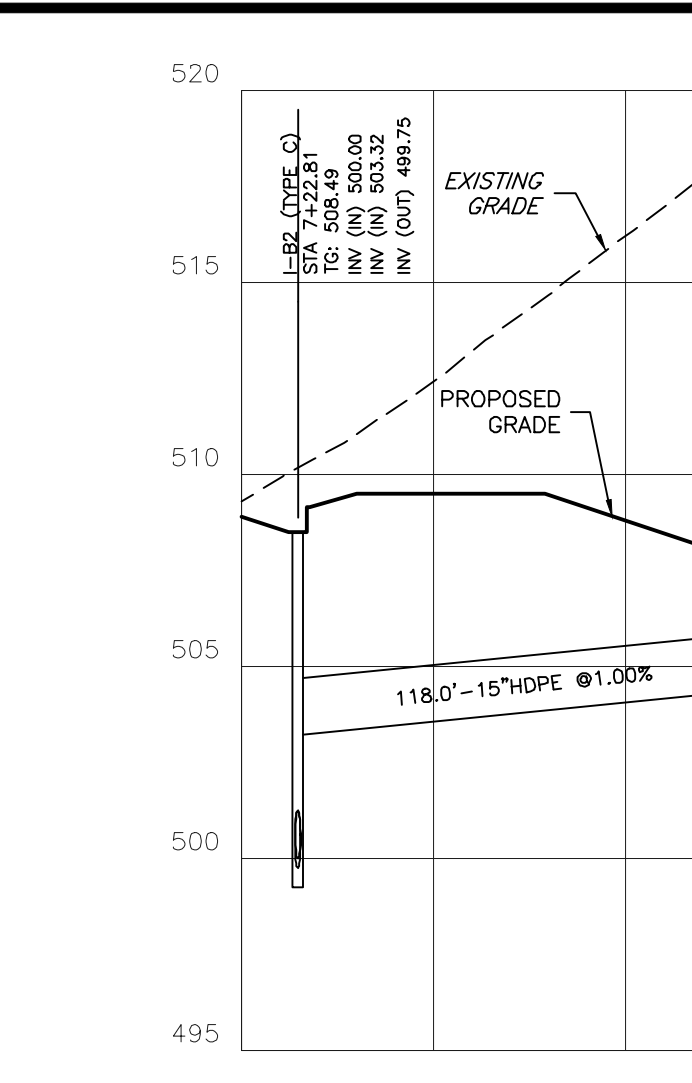
PROFILE: I-B6A TO EW-B7
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



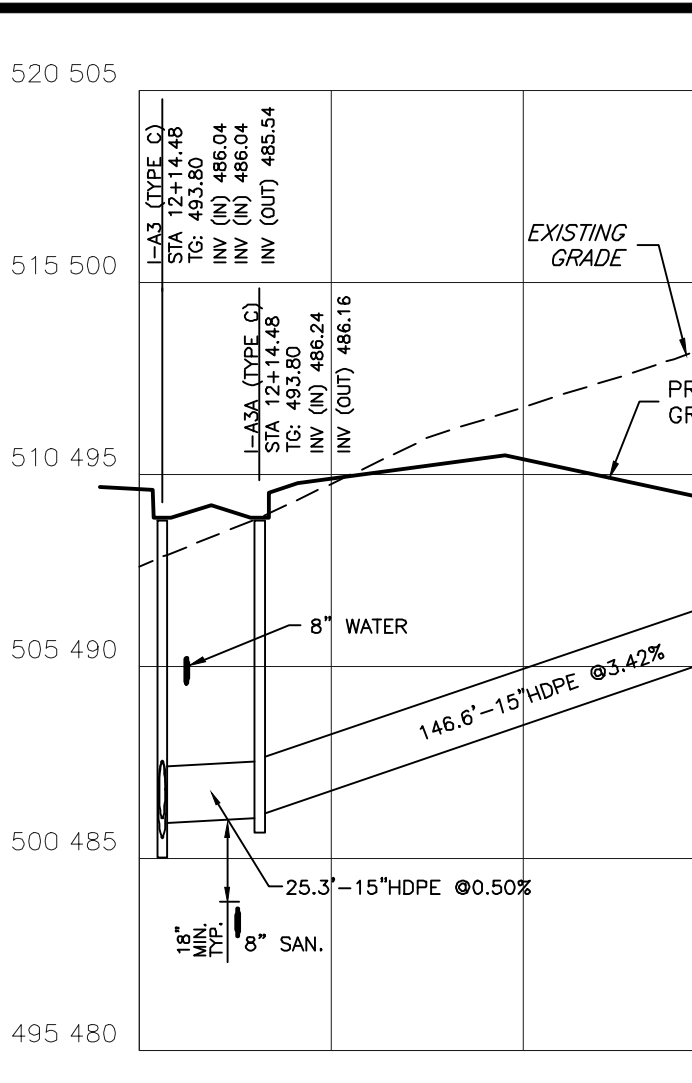
PROFILE: I-B4A TO I-B5
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



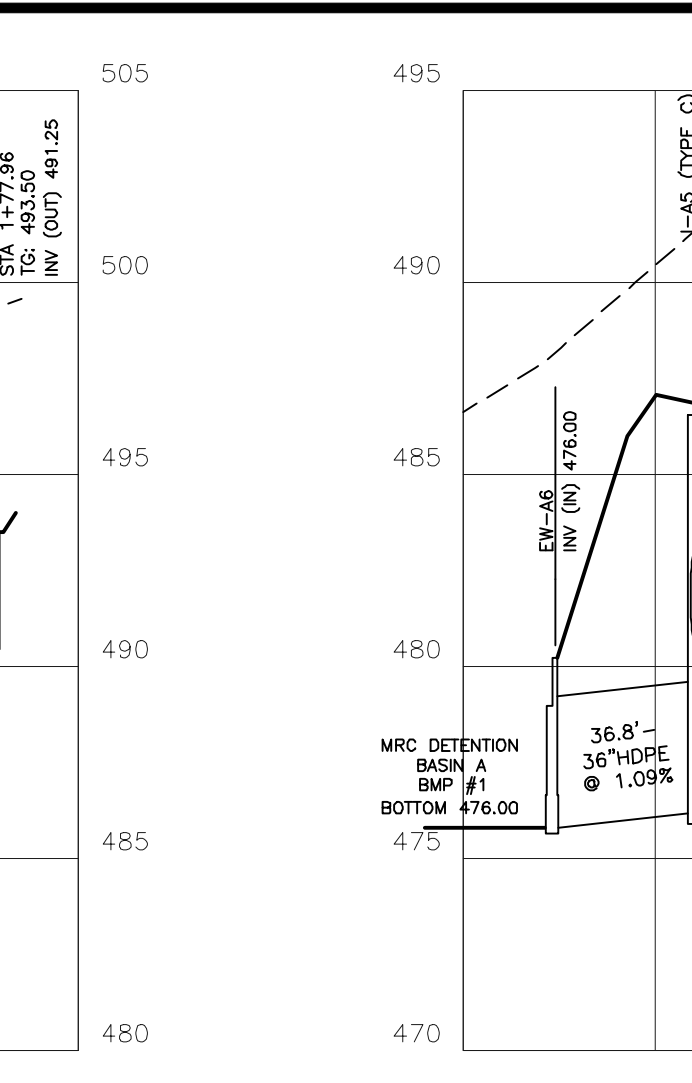
PROFILE: I-B3A TO I-B3
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



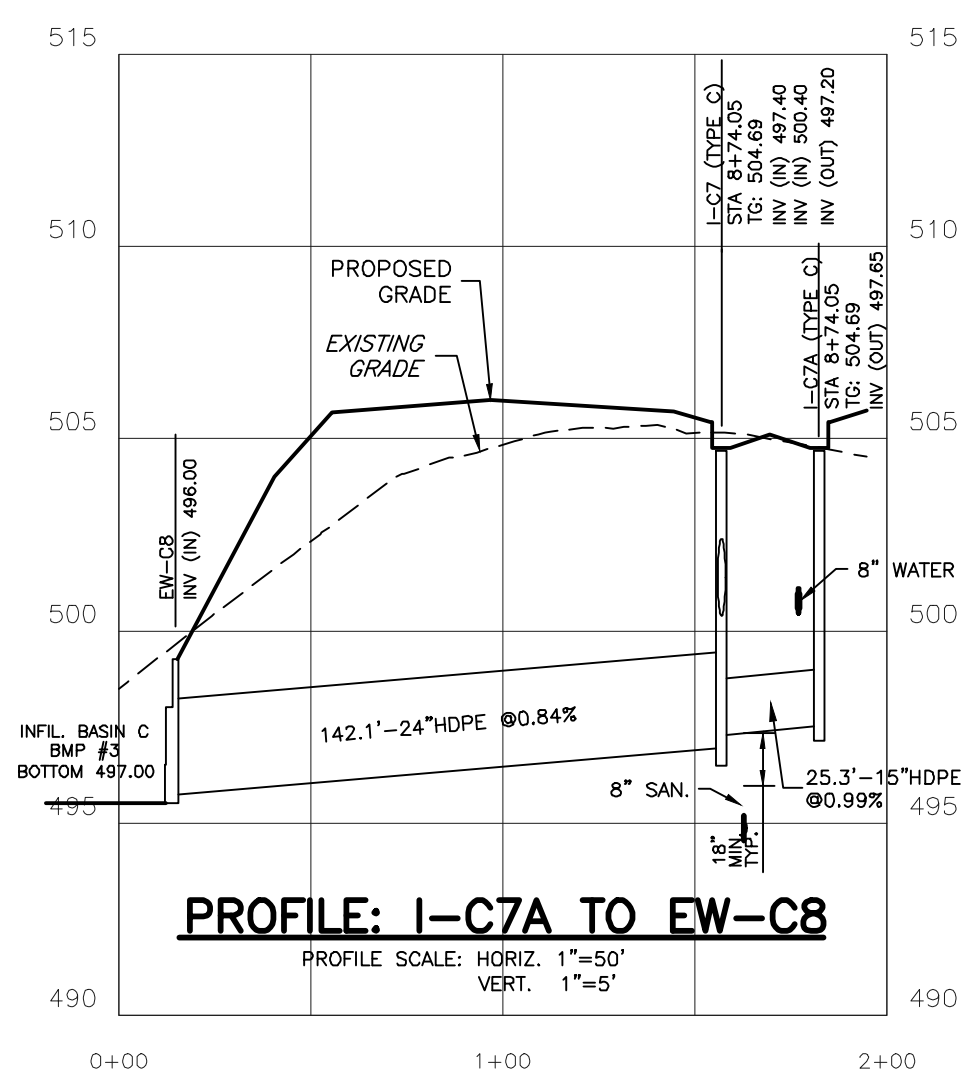
PROFILE: I-B2A TO I-B2
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



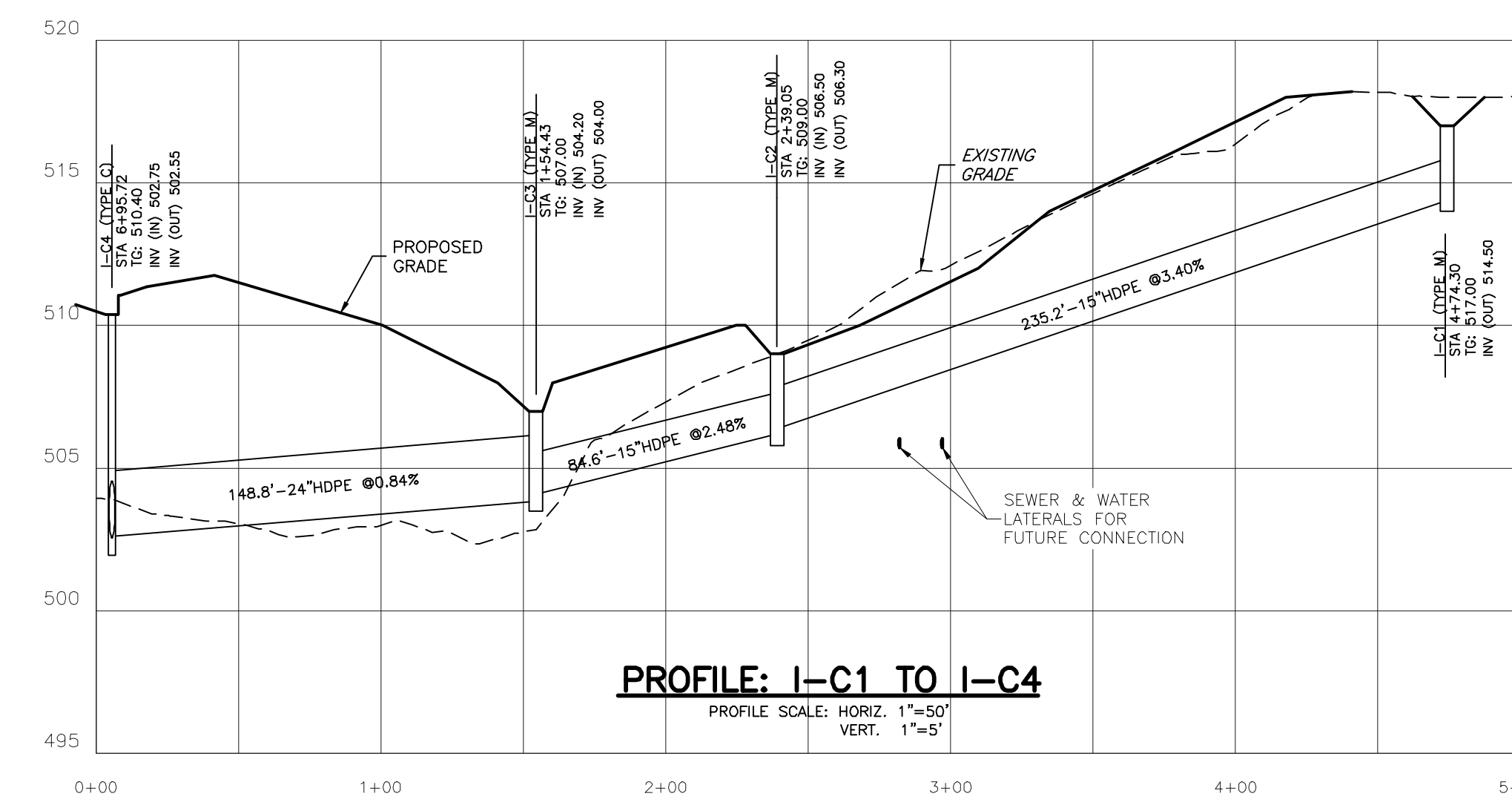
PROFILE: I-A3B TO I-A3
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



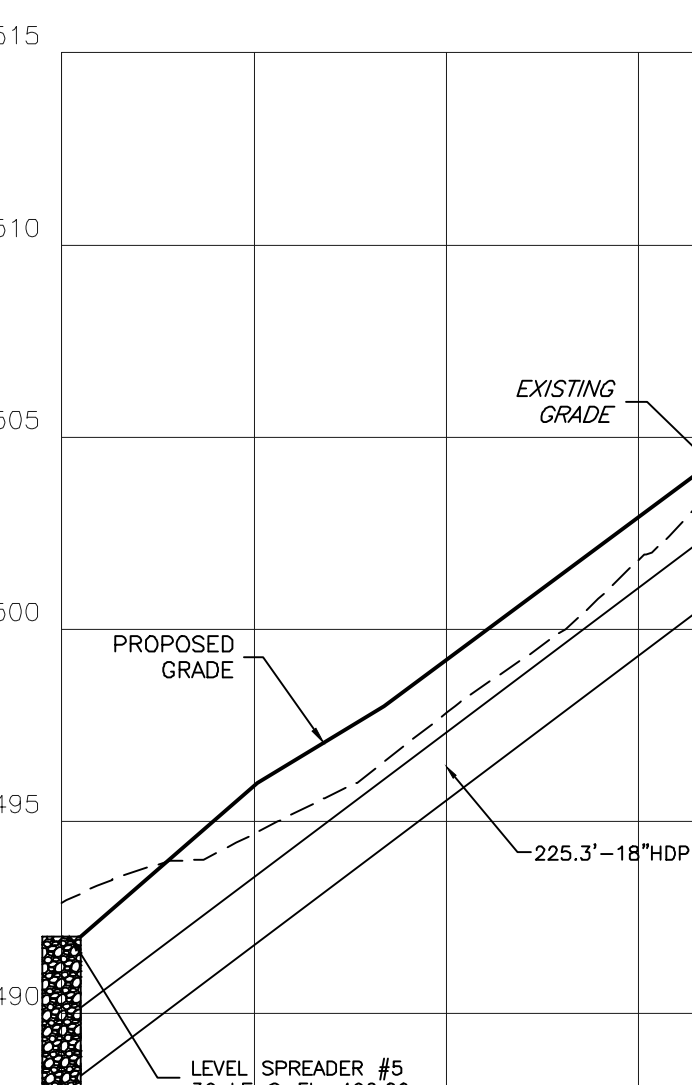
PROFILE: I-A5 TO EW-A6
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



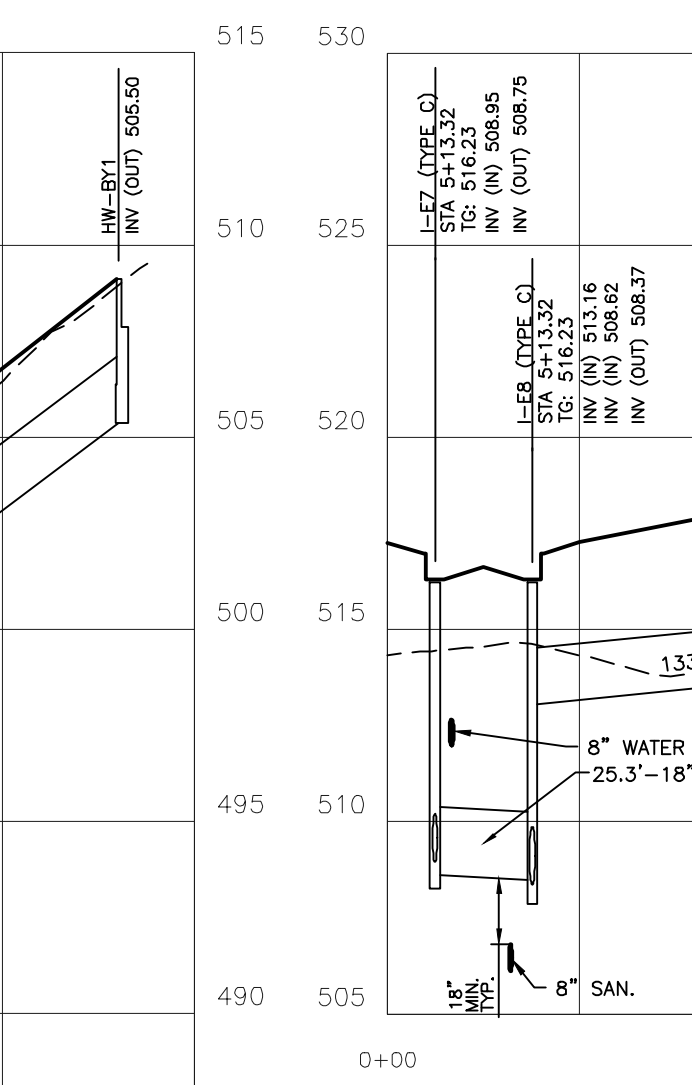
PROFILE: I-C7A TO EW-C8
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



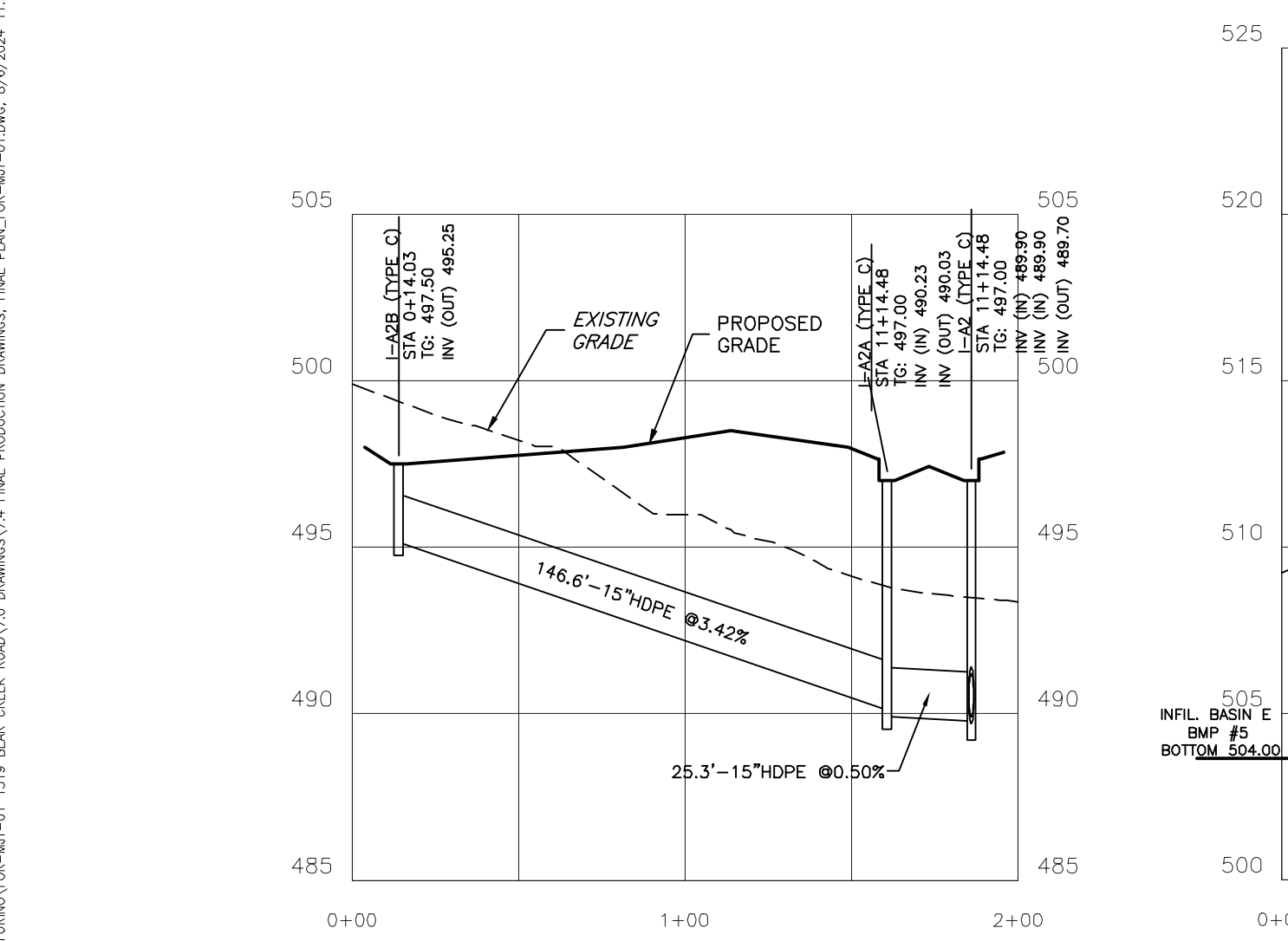
PROFILE: I-C1 TO I-C4
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



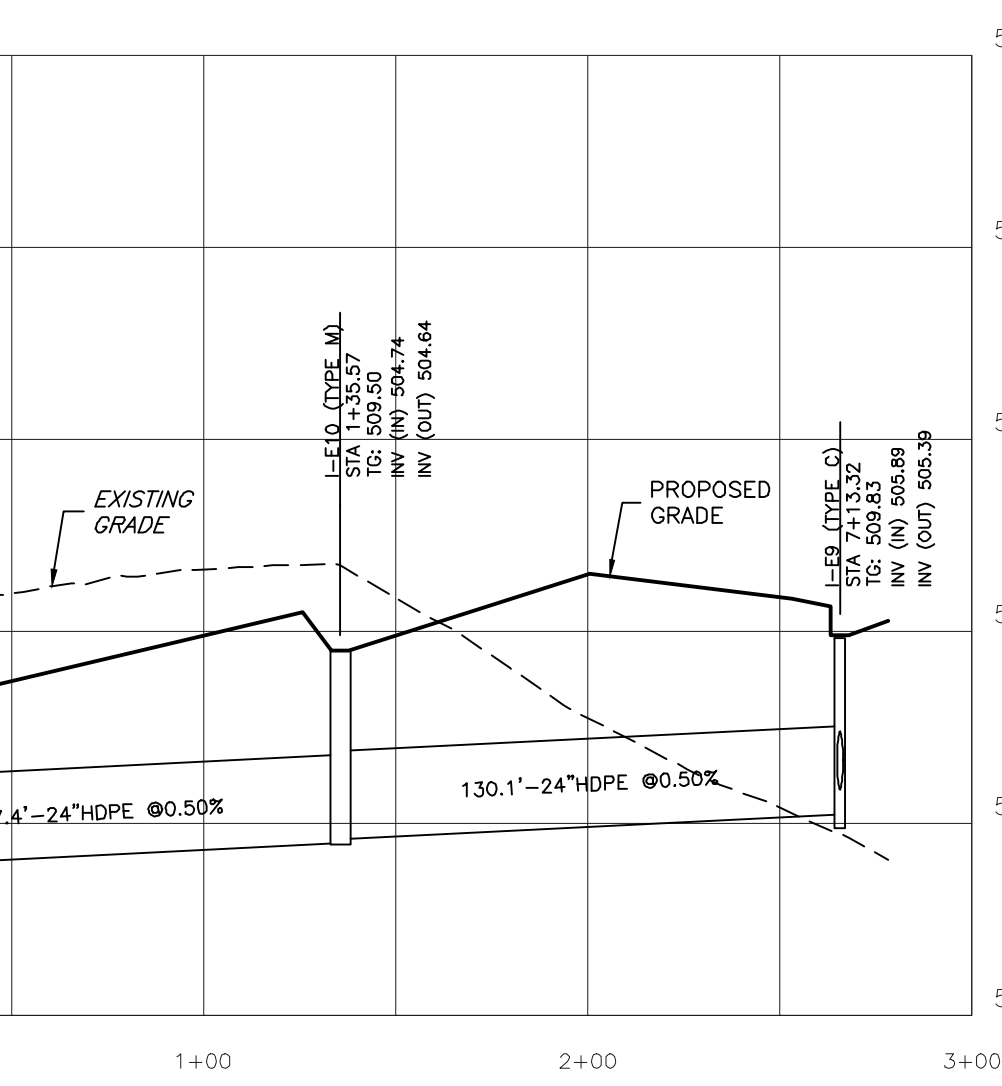
PROFILE: HW-BY1 TO EW-BY3
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



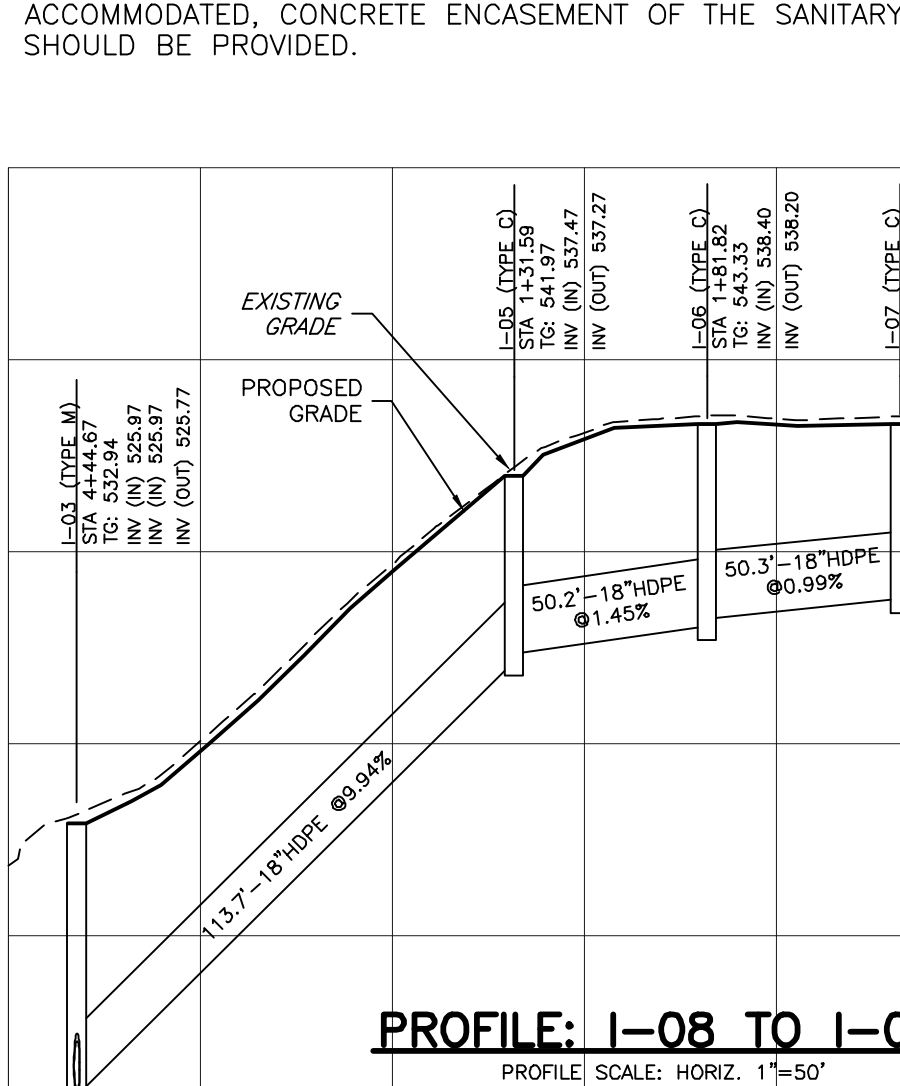
PROFILE: I-E8A TO I-E7
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



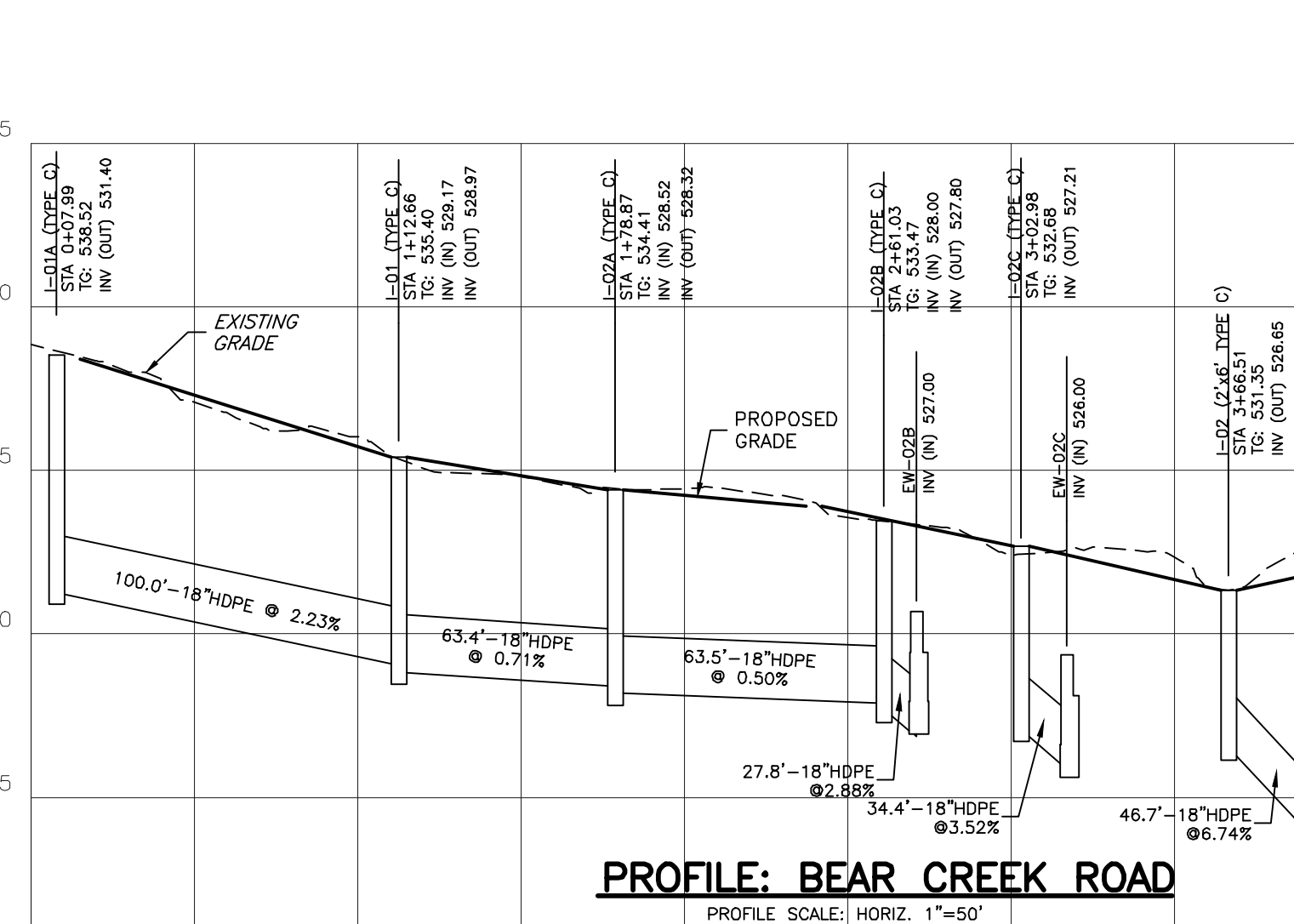
PROFILE: I-A2B TO I-A2
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



PROFILE: I-E9 TO EW-E11
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



PROFILE: I-08 TO I-03
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



PROFILE: BEAR CREEK ROAD
 PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

NOTES:

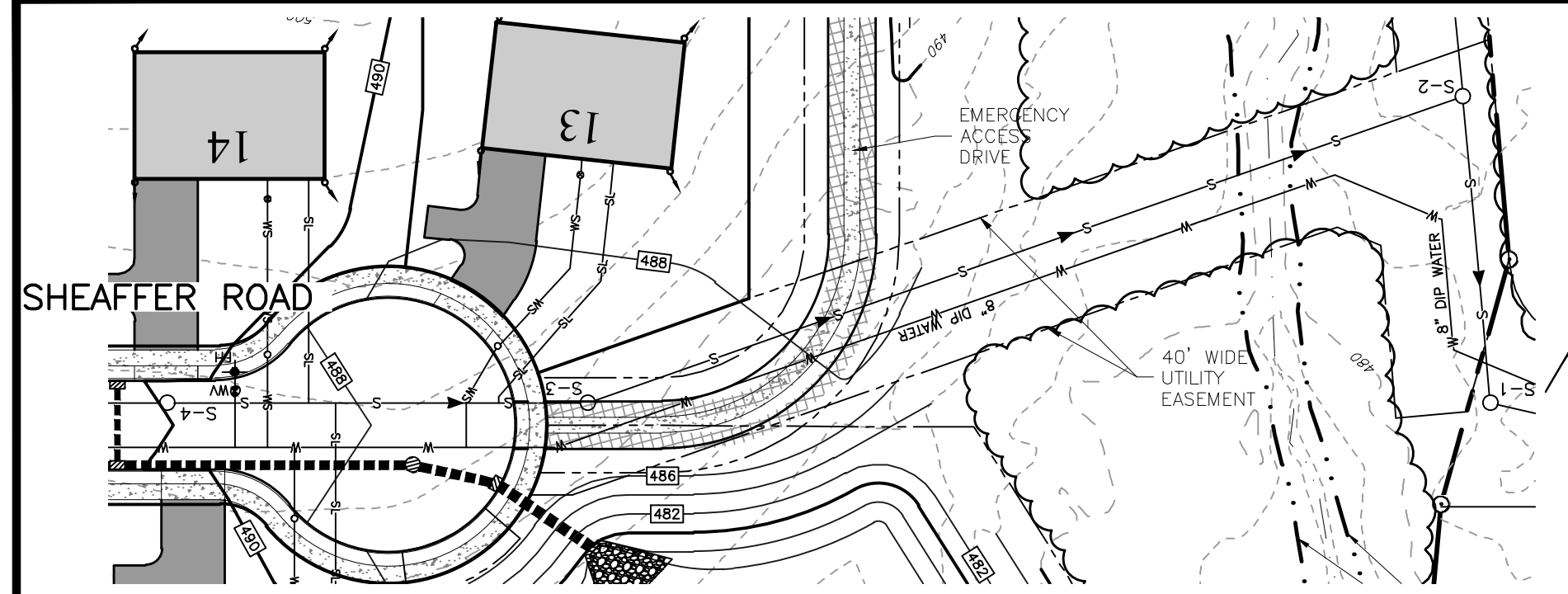
1. ALL INLET GRATES IN THE PROPOSED ROADWAYS ARE TO BE DERESSED 2 INCHES. TOP OF GRATE ELEVATIONS SHOWN IN PROFILES REFLECT THIS DEPRESSION.
2. WATERTIGHT JOINTS SHALL BE PROVIDED WHERE PIPE SECTIONS ARE JOINED.
3. INLETS AND MANHOLES GREATER THAN 5 FEET IN DEPTH SHALL HAVE LADDER RUNGS.
4. ALL ENDWALLS/HEADWALLS CONNECTED TO AN 18 INCH OR LARGER PIPE SHALL BE PROVIDED WITH A PROTECTIVE BARRIER DEVICE TO PREVENT ENTRY OF THE STORM SEWER PIPE.
5. A MINIMUM VERTICAL SEPARATION OF 18 INCHES OR HORIZONTAL SEPARATION OF 10 FEET SHALL BE PROVIDED BETWEEN THE SANITARY SEWER AND OTHER UTILITIES, WHERE THAT CLEARANCE CANNOT BE ACCOMMODATED, CONCRETE ENCASEMENT OF THE SANITARY SEWER SHOULD BE PROVIDED.

REV. NO.	DATE	DESCRIPTION
1	12/19/2022	INPDS SUBMISSION
2	1/27/2023	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
5	4/7/2023	REVISED PER LCD REVIEW LETTER DATED 2/6/2023
6	4/28/2023	REVISED PER LCD REVIEW LETTERS DATED 4/28/23 & 4/29/2023
7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 5/18/2023 & 5/31/2023
8	6/25/2023	REVISED PER TWP. REVIEW LETTERS DATED 6/22/2023, 7/21/2023 & 8/2/2023
9	9/11/2023	REV. PER DEP. REVIEW LETTERS DATED 8/25/2023 & 8/26/2023
10	9/11/2023	REV. PER DEP. REVIEW LETTERS DATED 8/25/2023 & 8/26/2023
11	12/15/2023	REV. PER DEP. REVIEW LETTER DATED 11/17/2023
12	4/18/2024	REV. PER TWP. REVIEW LETTERS DATED 8/21/2023 AND 9/8/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024

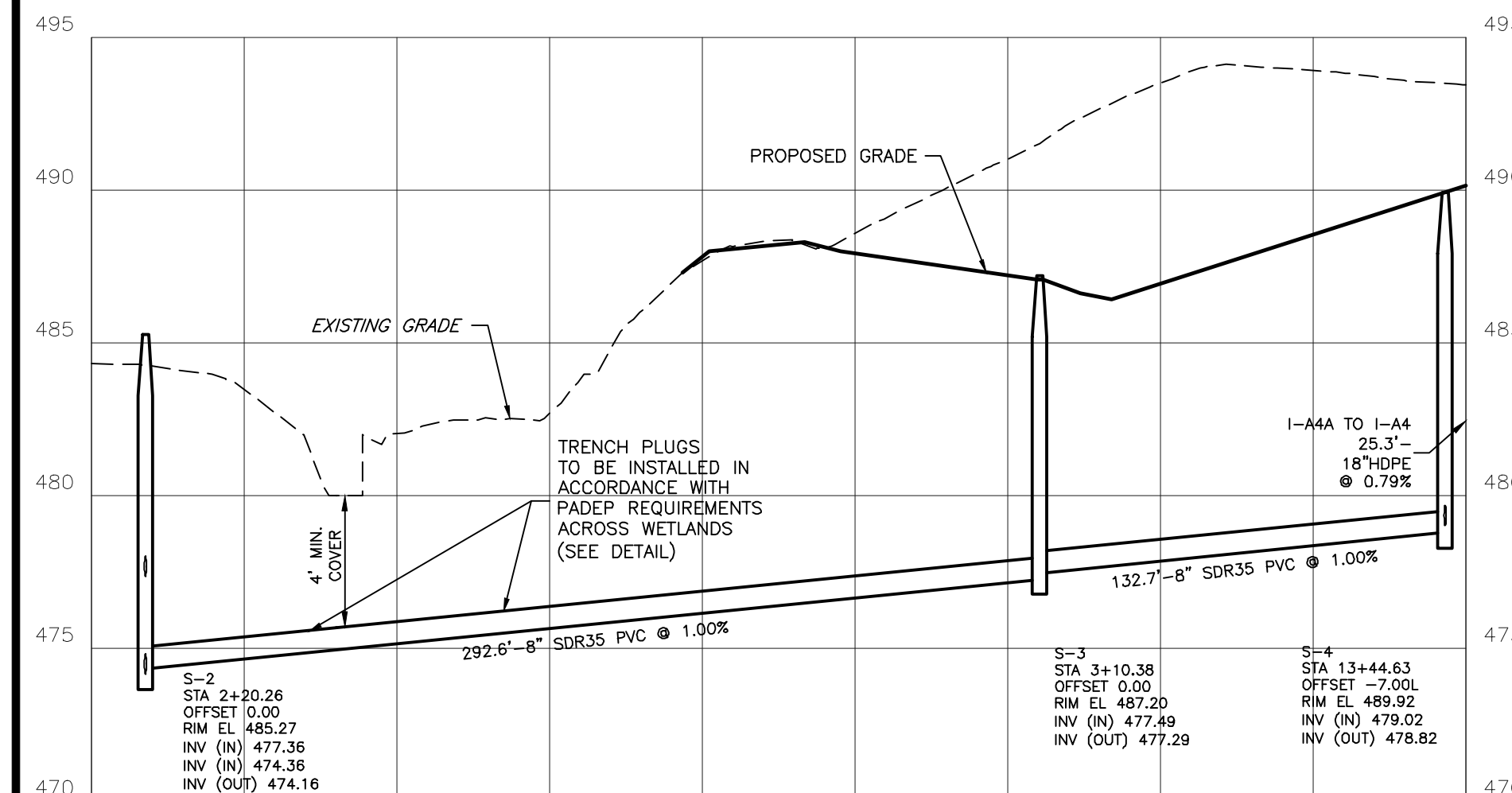


STORM SEWER PROFILES
C2C DESIGN GROUP
 37 East Penn Avenue
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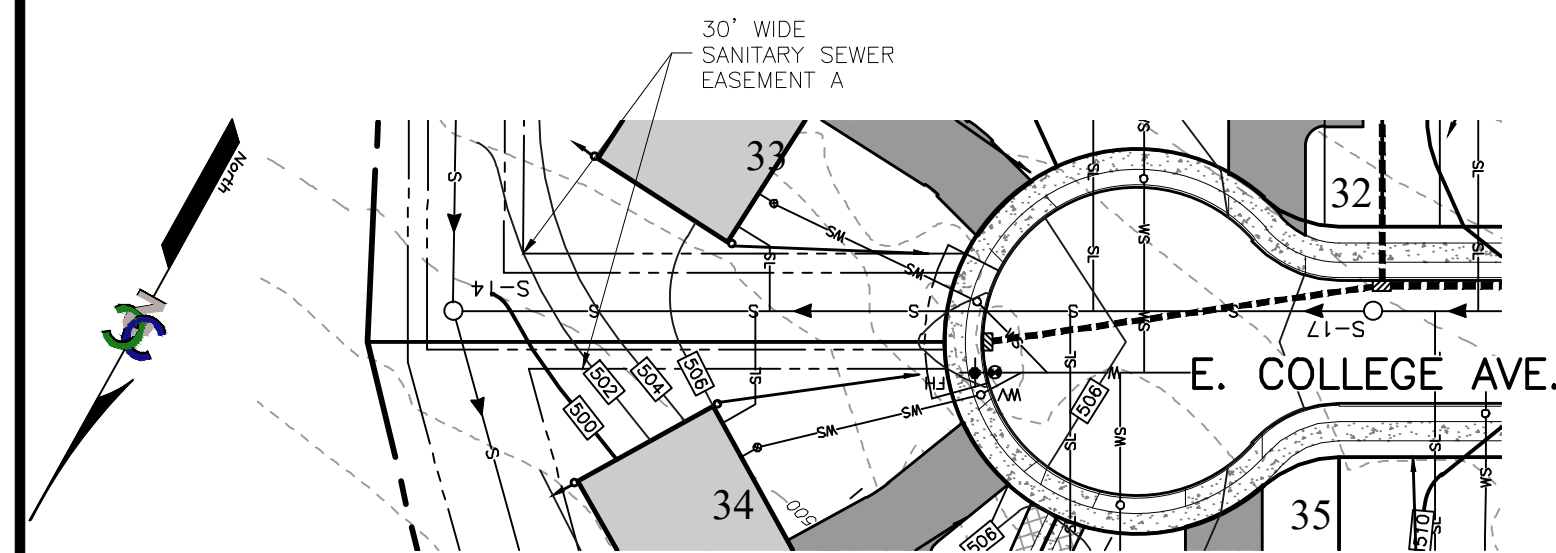
BEAR CREEK ESTATES
 PROJECT #: FOR-MJT-01
 SCALE: AS NOTED
 DRAWN BY: CAD
 CHECKED BY: BDF
 DATE: 8/1/2022
 DWG. NO.: 17 OF 21
 SHEET NO.: RP-4
 MOUNT JOY TOWNSHIP
 LANCASTER COUNTY, PA



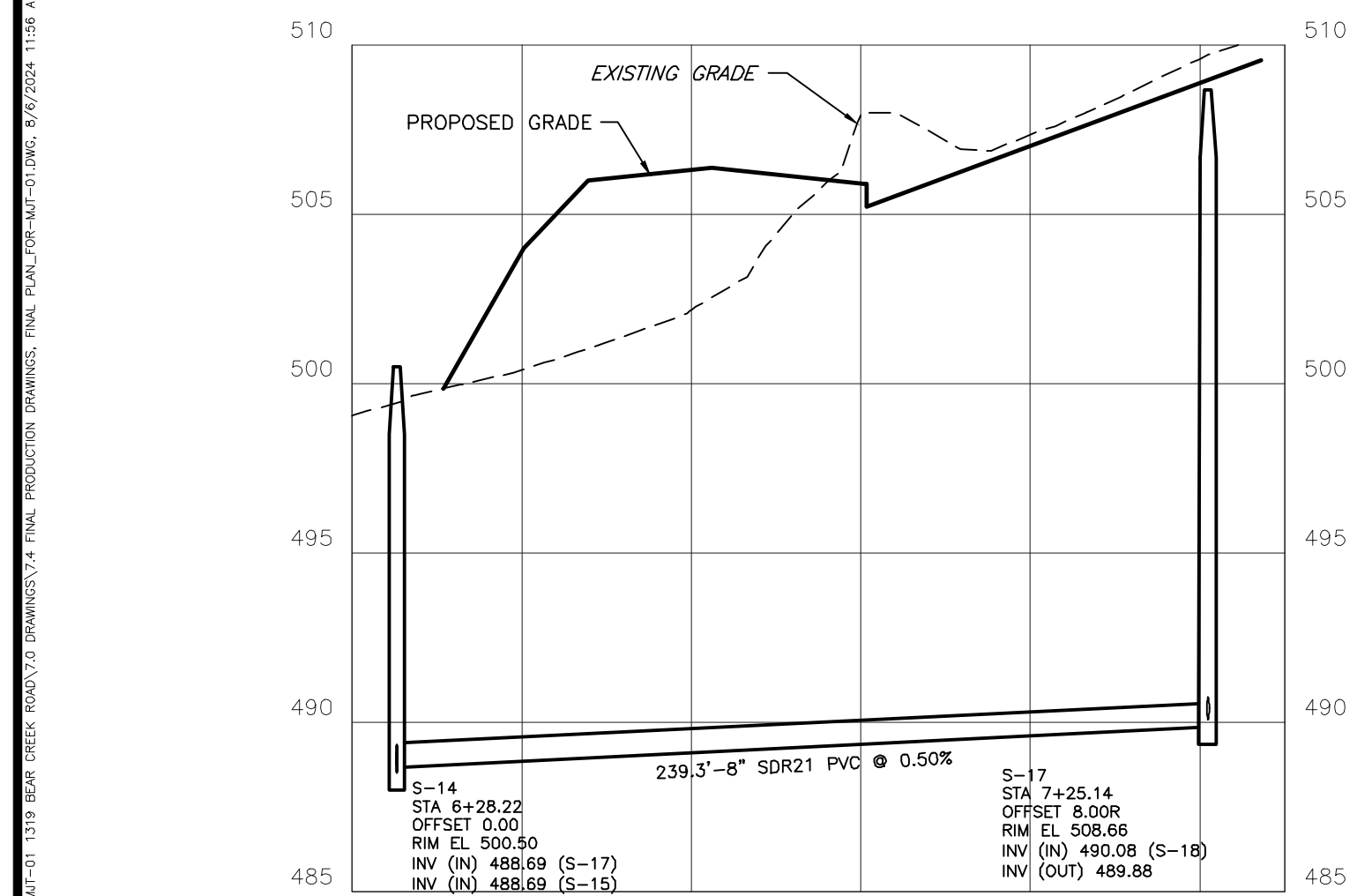
PLAN: SAN. MH S-4 TO S-2
PROFILE SCALE: 1"=50'



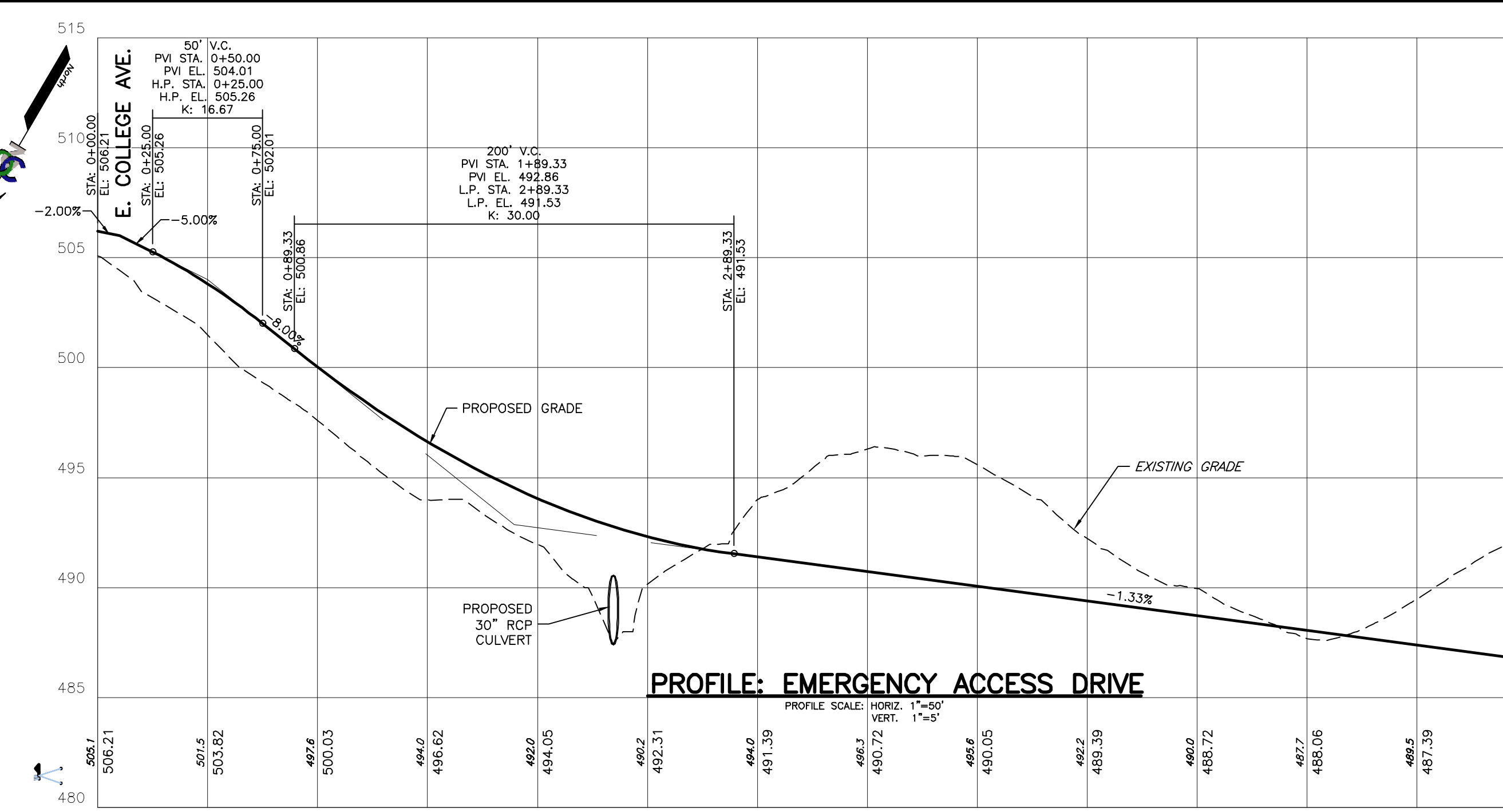
PROFILE: SANITARY MH. S-4 TO S-2
PROFILE SCALE: HORIZ. 1"=50'
VERT. 1"=5'



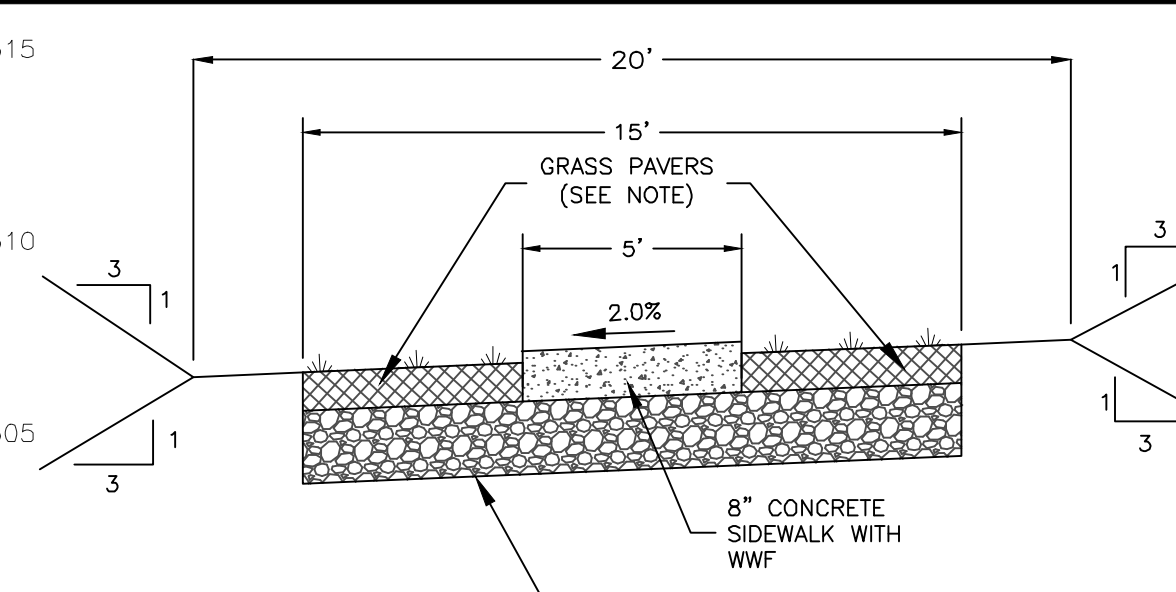
PLAN: SAN. MH S-17 TO S-14
PROFILE SCALE: 1"=50'



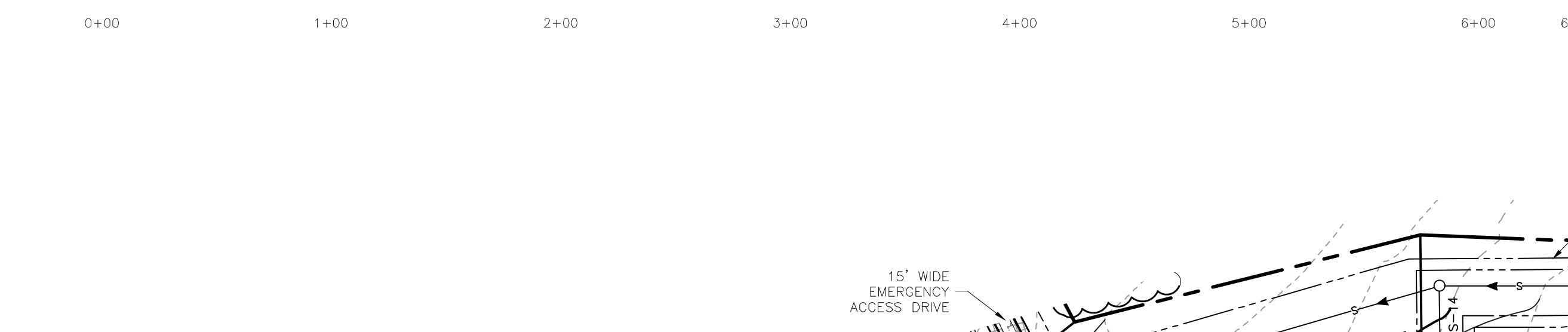
PROFILE: SAN. MH S-17 TO S-14
PROFILE SCALE: HORIZ. 1"=50'
VERT. 1"=5'



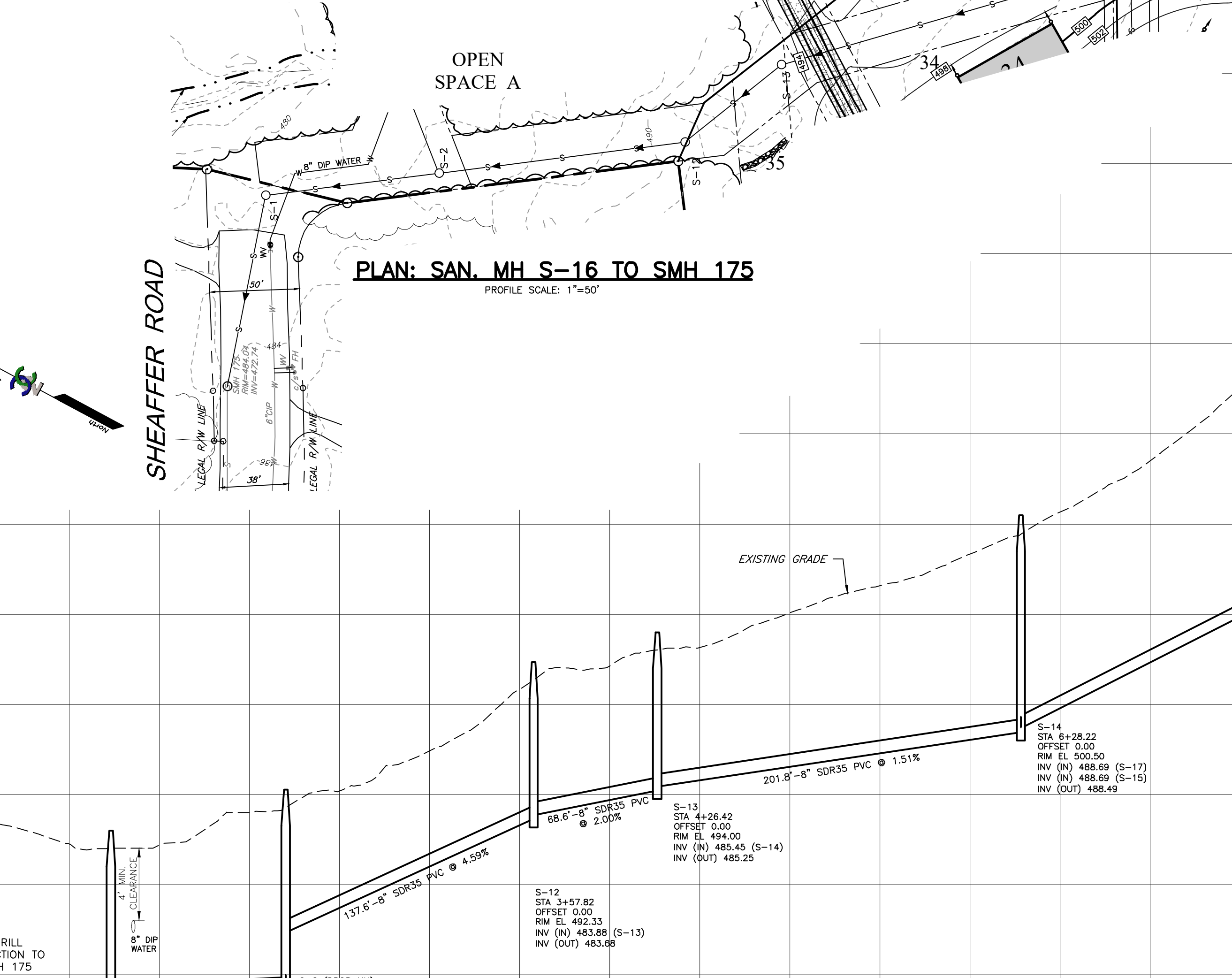
PROFILE: EMERGENCY ACCESS DRIVE
PROFILE SCALE: HORIZ. 1"=50'
VERT. 1"=5'



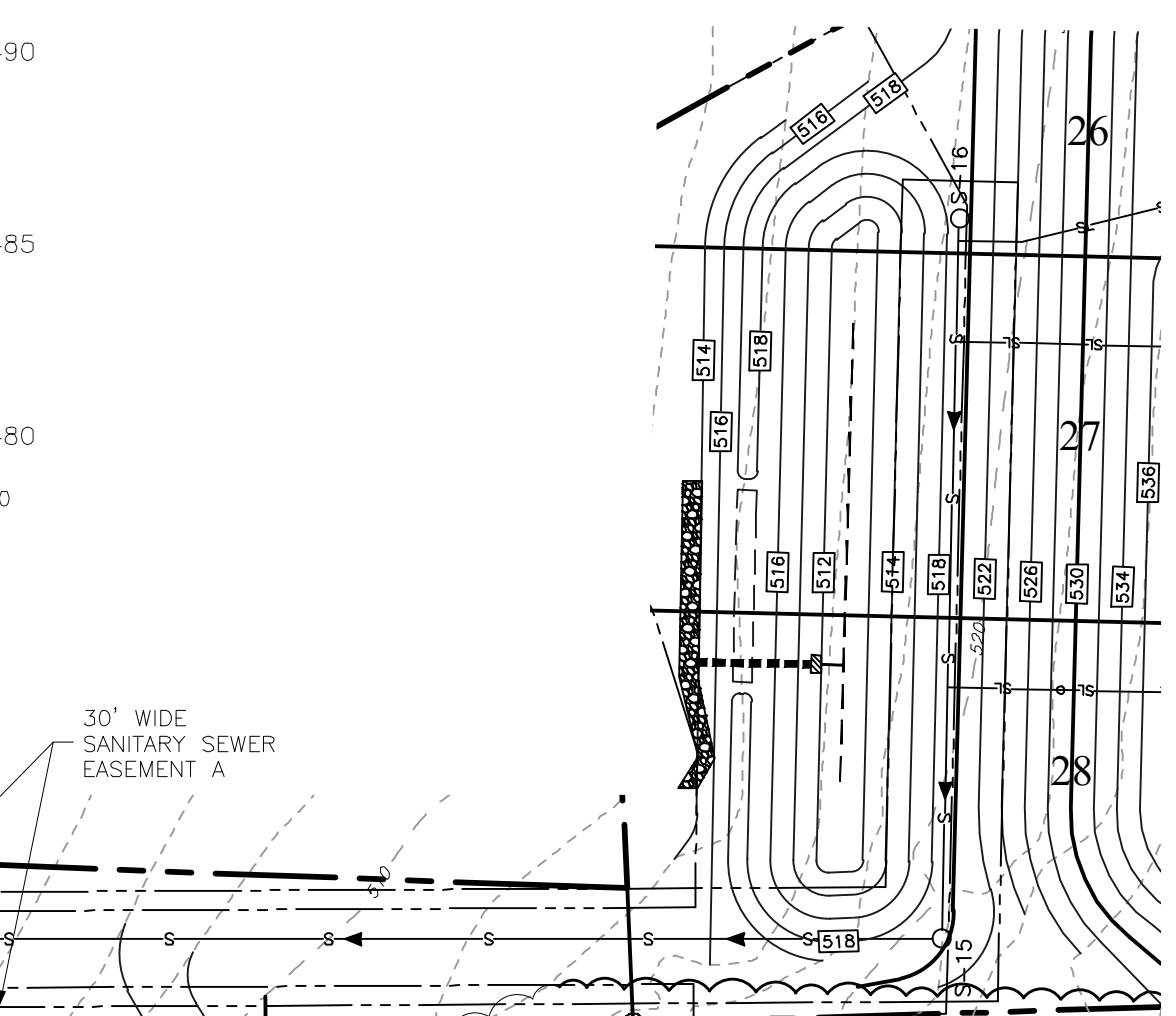
EMERGENCY ACCESS DRIVE DETAIL
NO SCALE



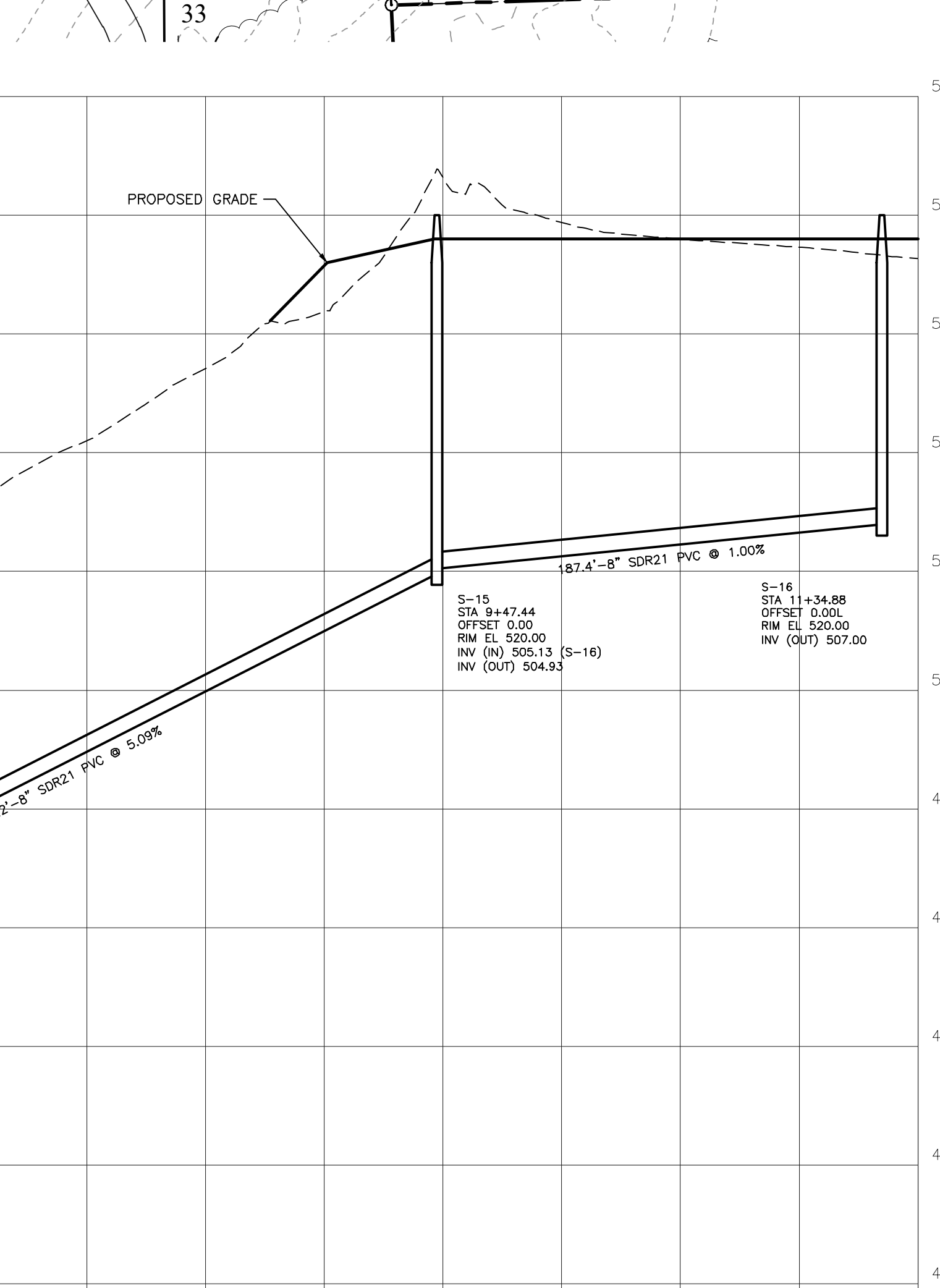
PLAN: SAN. MH S-16 TO SMH 175
PROFILE SCALE: 1"=50'



PROFILE: SAN. MH S-16 TO EXISTING SMH 175
PROFILE SCALE: HORIZ. 1"=50'
VERT. 1"=5'



PLAN: SAN. MH S-16 TO S-14
PROFILE SCALE: 1"=50'



PROFILE: SAN. MH S-16 TO S-14
PROFILE SCALE: HORIZ. 1"=50'
VERT. 1"=5'

NO.	DATE	DESCRIPTION
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVIS PER DEP REVIEW LETTER DATED 4/19/2024
12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 3/21/2023 AND 3/8/2024
11	12/15/2023	REV. PER DEP REVIEW LETTER DATED 8/21/2023
10	9/11/2023	REV. PER TWP. REVIEW LETTERS DATED 8/25/2023 & 8/26/2023
9	8/7/2023	REV. PER TWP. REVIEW LETTERS DATED 6/22/2023, 7/27/2023, & 8/2/2023
8	6/25/2023	REVISED PER TWP. REVIEW LETTERS DATED 5/18/2023 & 5/31/2023
7	5/10/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/18/2023 & 4/24/2023
6	4/28/2023	REVISED PER TWP. REVIEW LETTERS DATED 4/18/2023 & 4/24/2023
5	4/7/2023	REVISED PER TWP. REVIEW LETTER DATED 2/27/2023
4	4/3/2023	REVISED PER TWP. REVIEW LETTERS DATED 2/27/23 & 3/8/2023
3	2/6/2023	REVISED PER TWP. REVIEW LETTERS DATED 12/30/22, 1/4/23 & 1/10/23
2	12/16/2022	INPUS SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22



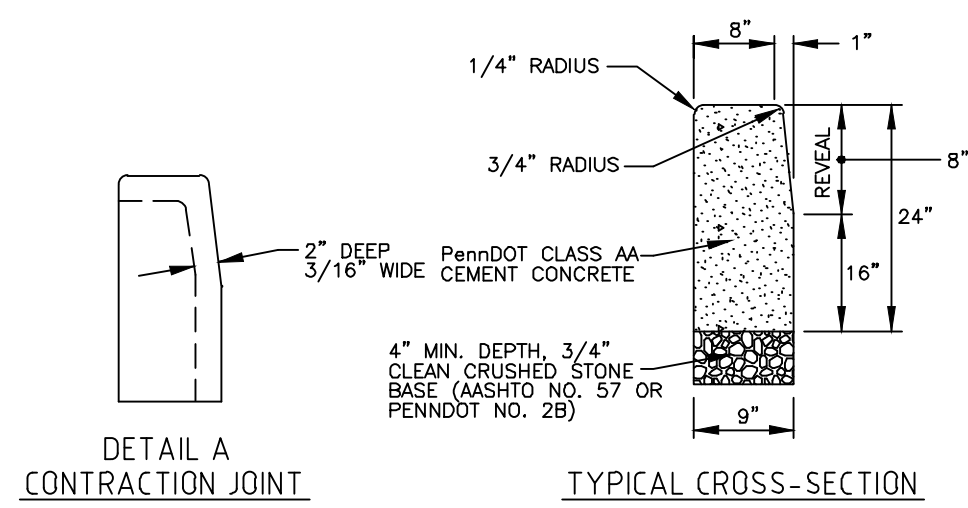
**SANITARY SEWER
PLAN & PROFILES,
EMERGENCY ACCESS DRIVE**

C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

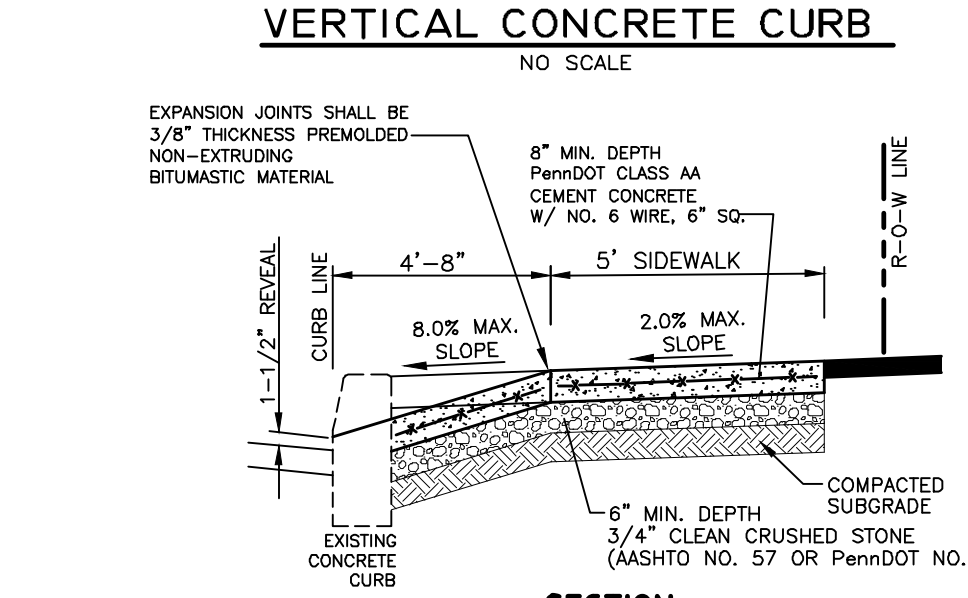
BEAR CREEK ESTATES

MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

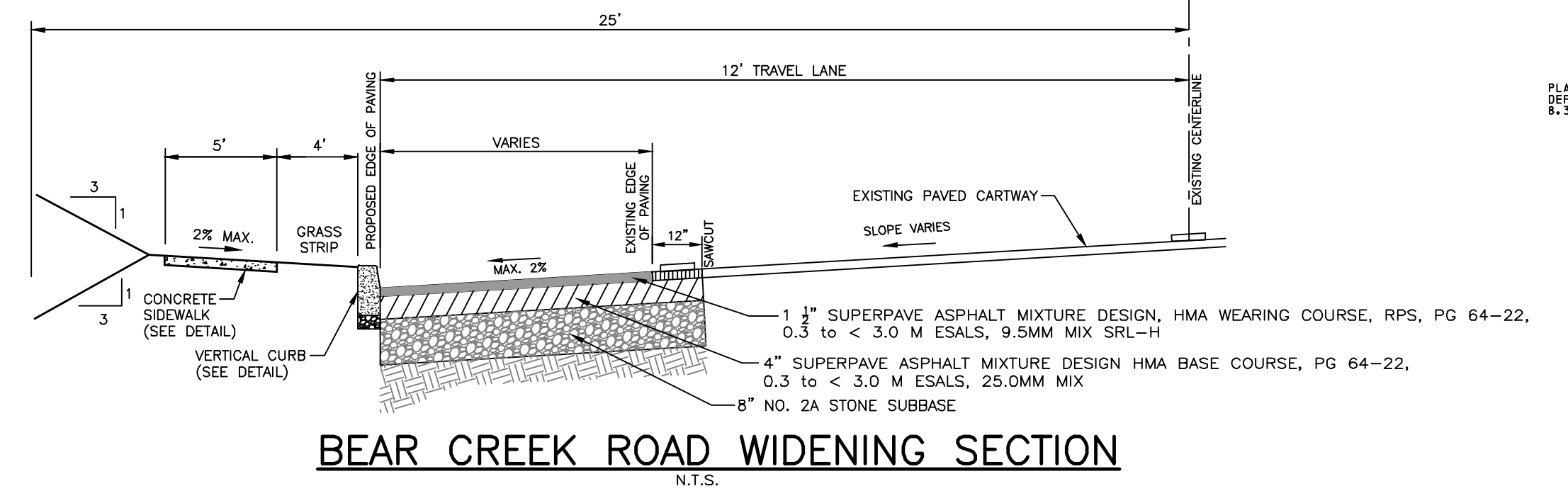
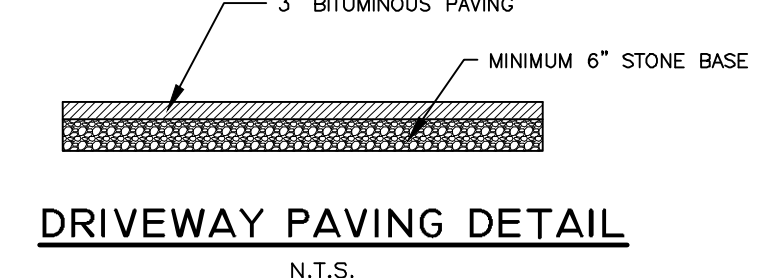
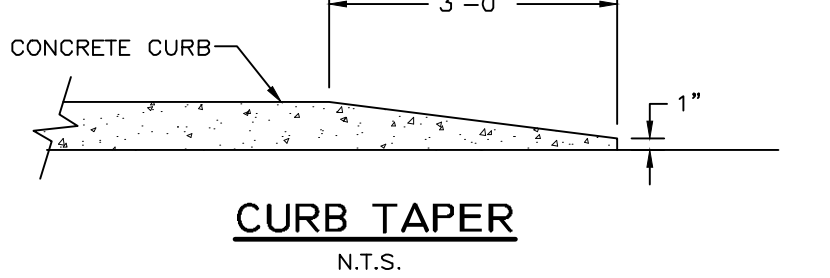
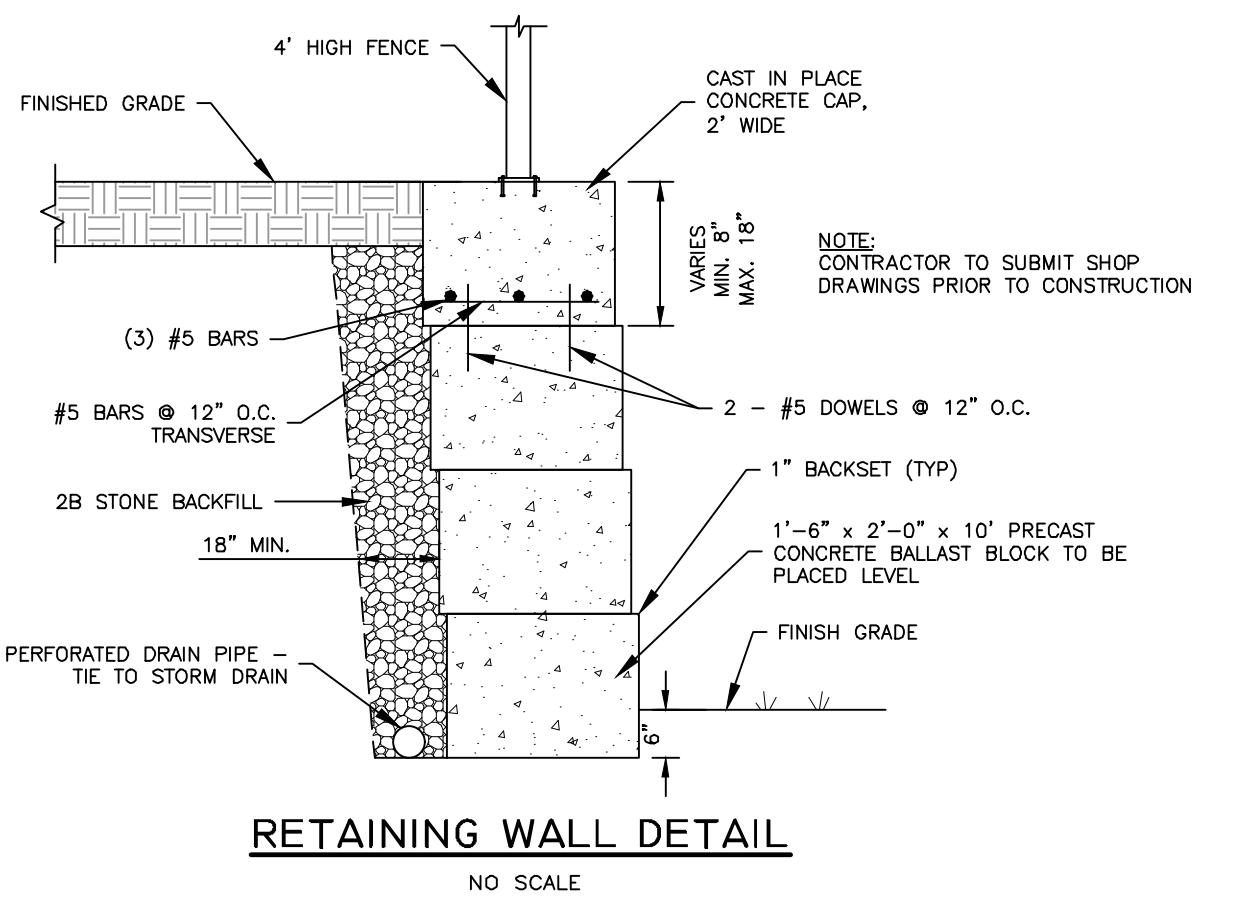
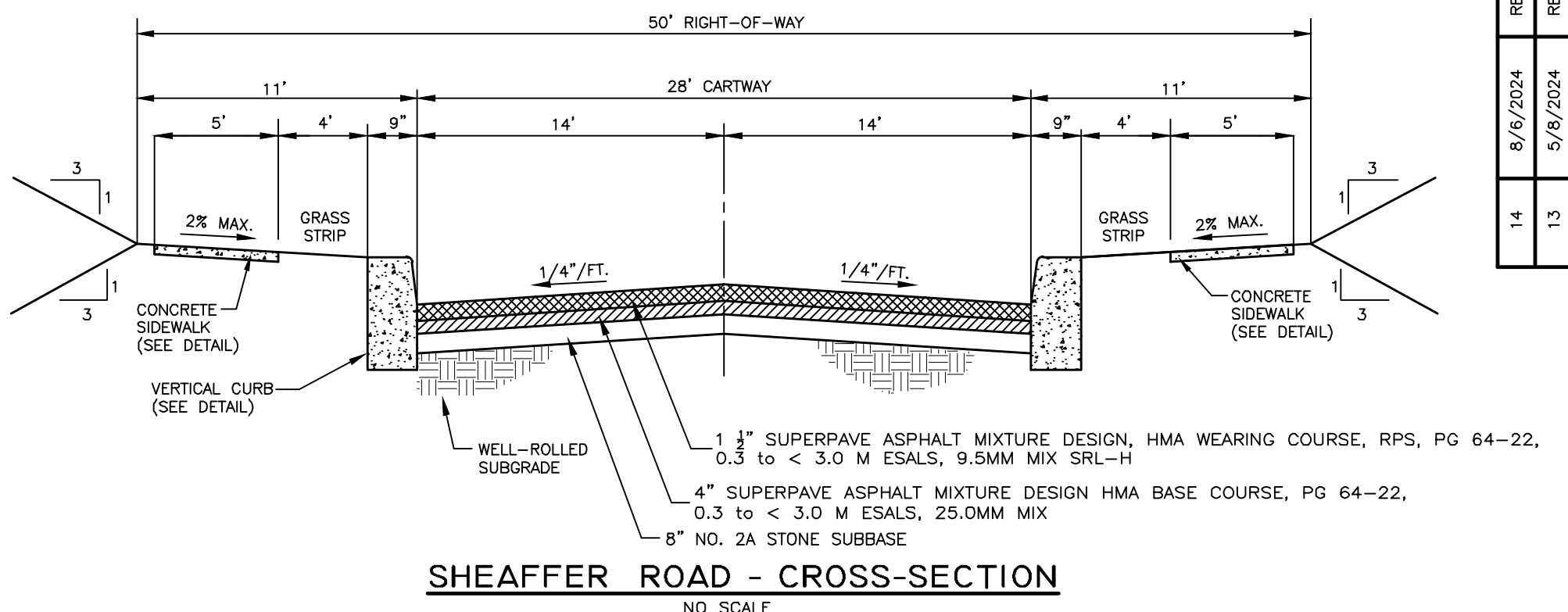
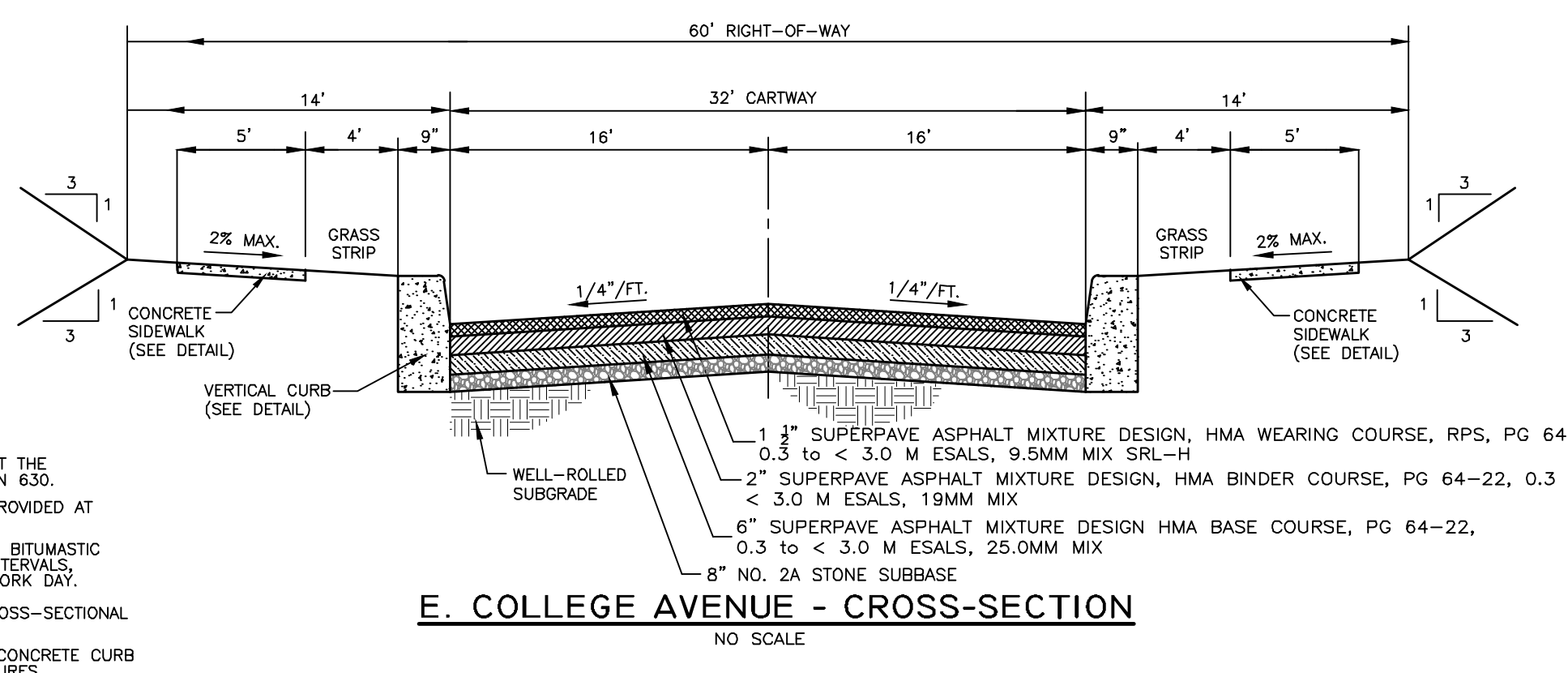
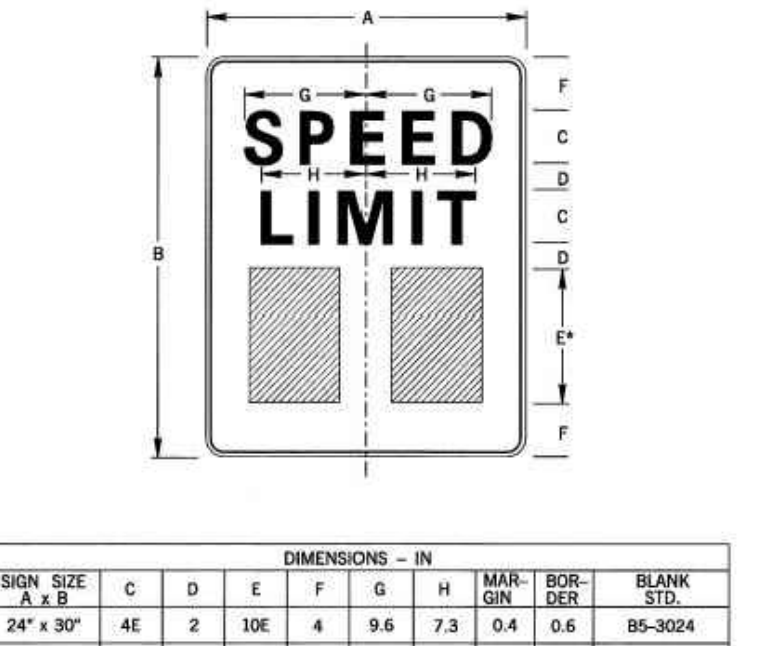
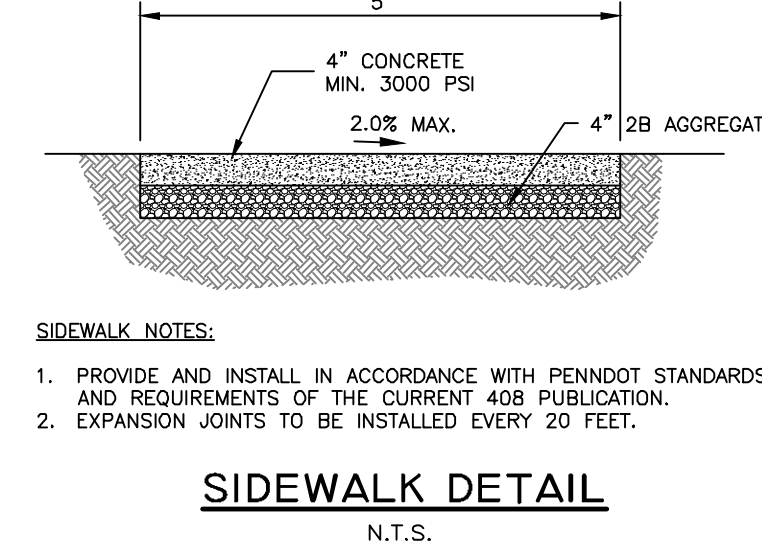
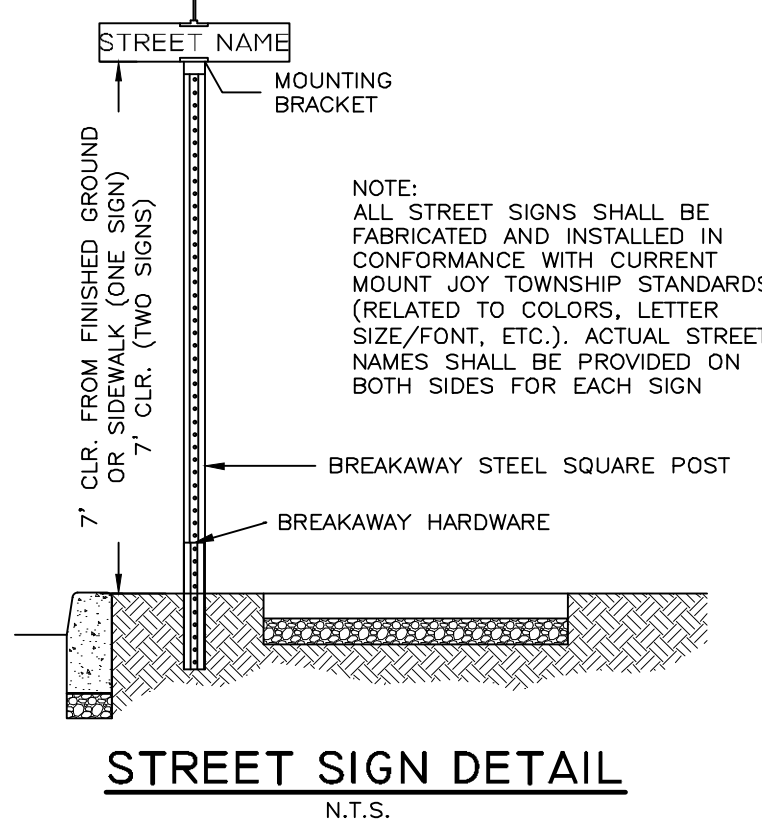
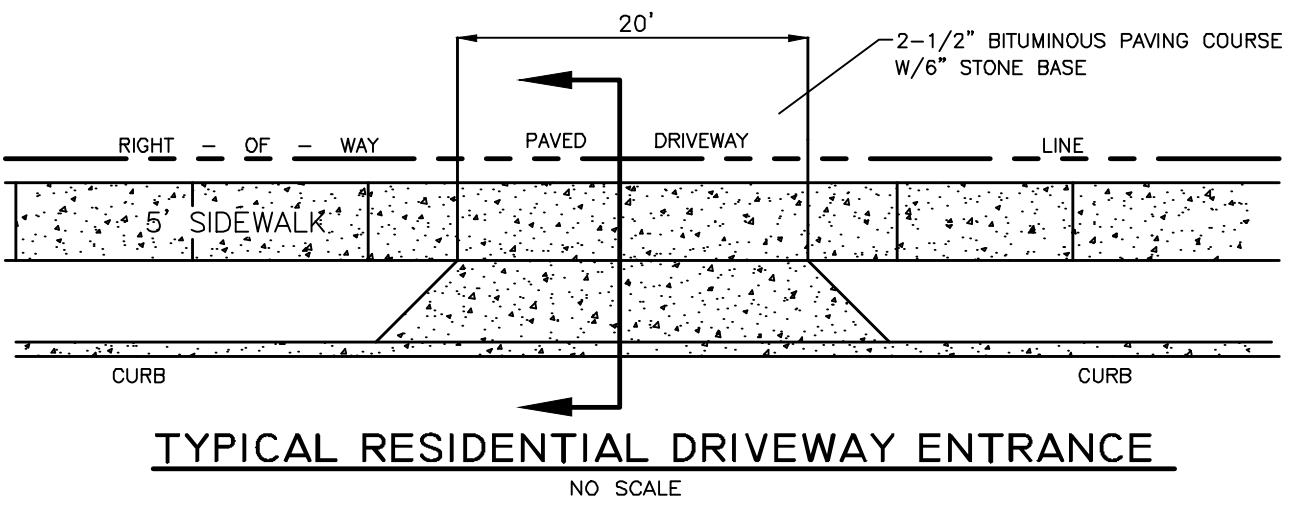
PROJECT #: FOR-MJT-01
SCALE: AS NOTED
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 18 OF 21
SHEET NO.: SP-1



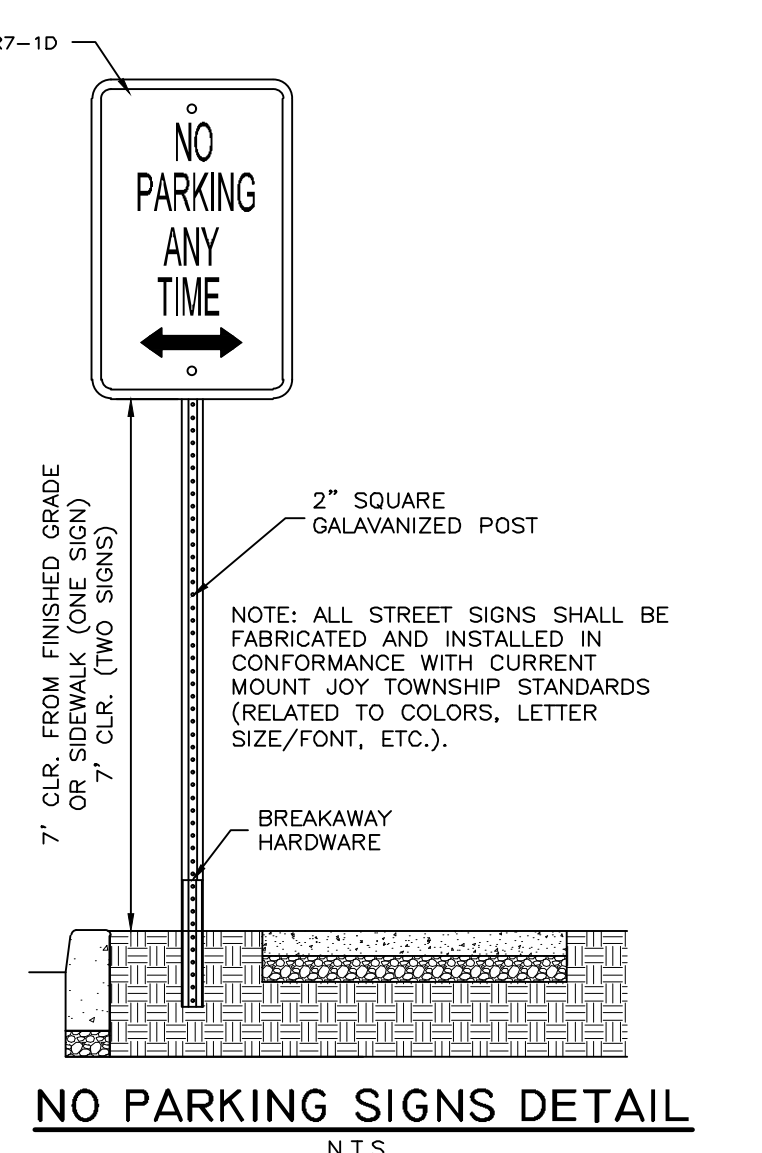
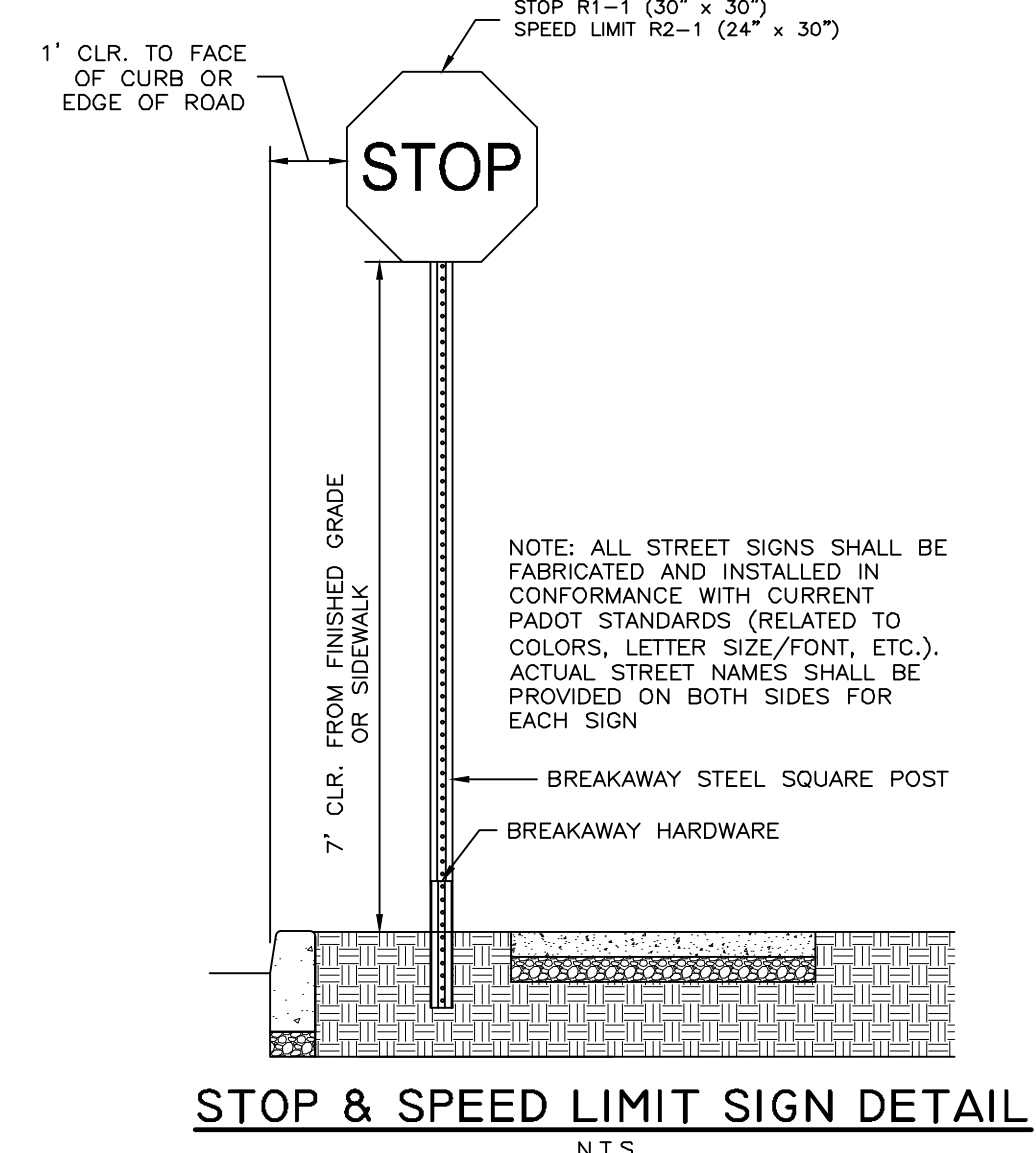
- NOTES:**
1. MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PUBLICATION 408, SECTION 630.
 2. SCORED CONTRACTION JOINTS SHALL BE PROVIDED AT 10' INTERVALS.
 3. PLACE 1/2" PREMOLDED, NON-EXTRUDING, BITUMASTIC EXPANSION JOINT FILLER MATERIAL AT 30' INTERVALS, AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS-SECTIONAL AREA OF CURB.
 4. SEE PennDOT BC-50 FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.
 5. FOR SLIP-FORMED CURB (1 1/2" SLUMP MAX.) EXPANSION JOINTS MAY BE INSTALLED AT 60' INTERVALS.



SECTION DRIVEWAY APRON WITH STRAIGHT CURB



1. SIDE FLARES 10.00% MAX SLOPE.
 2. IF THE TURNING SPACE IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES @ 3.33% MAX SLOPE.
 3. OPTIONAL BUILT UP CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A 1" MIN CURB CHECK WALL.
 4. @ 3.33% MAX RAMP SLOPE.
 5. CURB RAMP REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% BEFORE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
- TYPE 1A CURB RAMP**
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE IS NOT ENTIRELY ON SIDEWALK

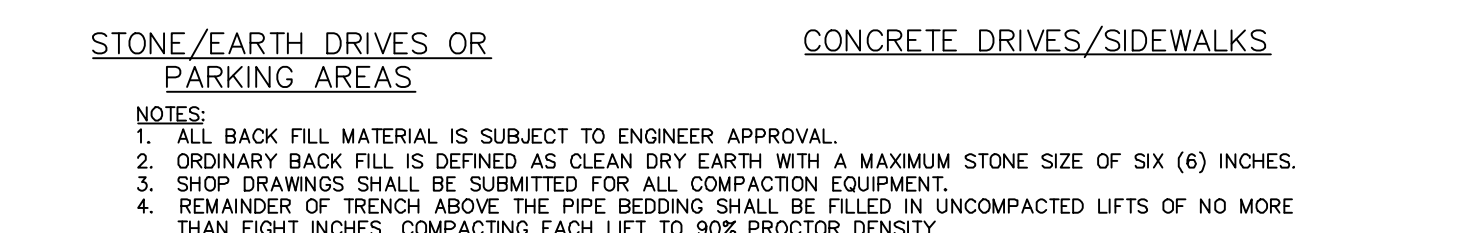
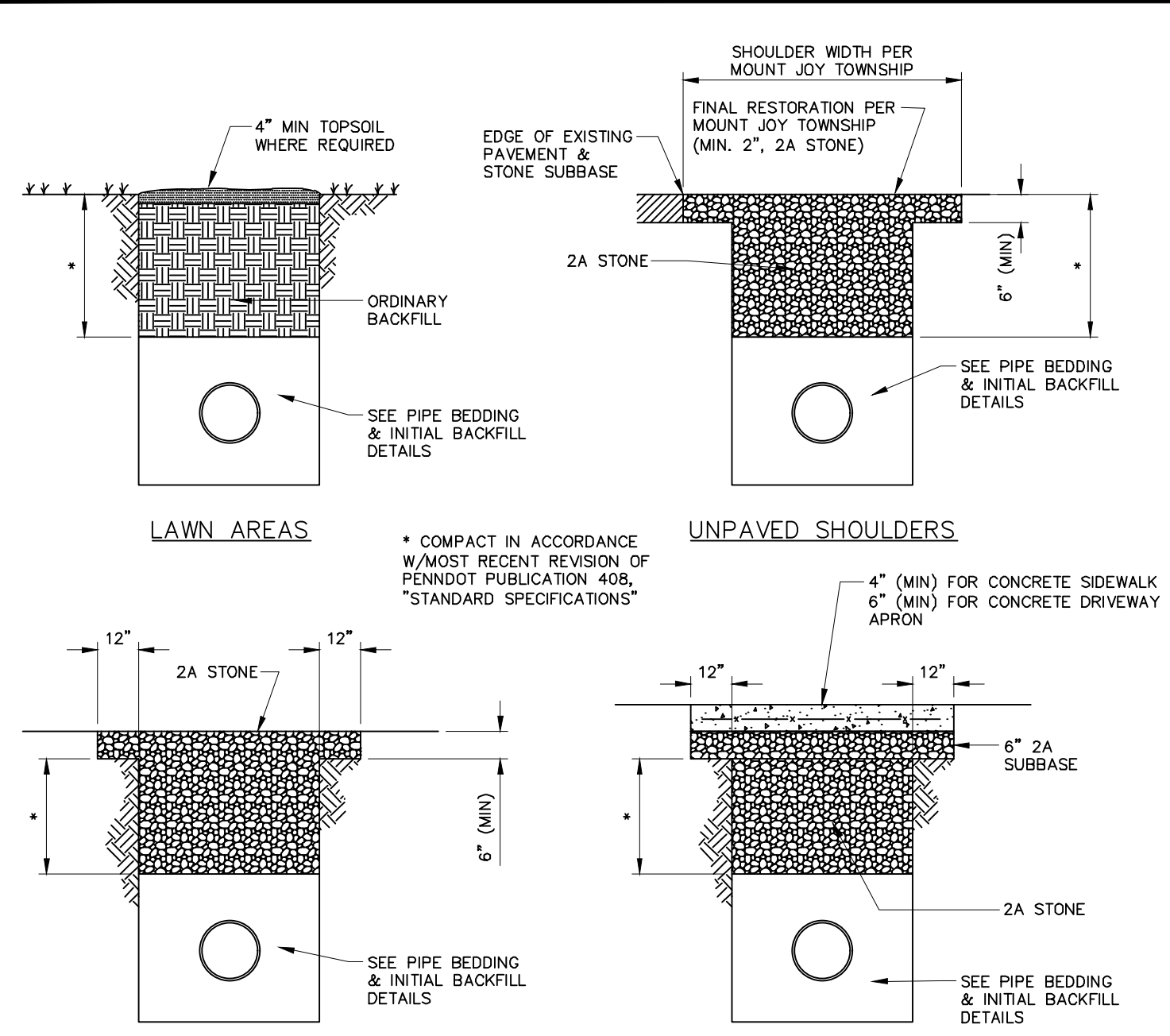


REV. NO.	DATE	DESCRIPTION
14	8/6/2024	REVISED PER TOWNSHIP REVIEW LETTER DATED 7/31/2024
13	5/8/2024	REVISED PER DEP REVIEW LETTER DATED 4/19/2024
12	4/18/2024	REV. PER TWP. REVIEW LETTER DATED 8/21/2023 AND 3/8/2024
11	12/15/2023	REV. PER DEP REVIEW LETTER DATED 11/17/2023
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2	12/16/2022	INPDS SUBMISSION
1	12/9/2022	REVISED PER TWP. REVIEW LETTERS DATED 8/18/22, 8/26/22 & 10/10/22



CONSTRUCTION DETAILS
C2C DESIGN GROUP
37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES
PROJECT #: FOR-MJT-01
SCALE: AS NOTED
DRAWN BY: CAD
CHECKED BY: BSF
DATE: 8/1/2022
DWG. NO.: 19 OF 21
SHEET NO.: DE-1

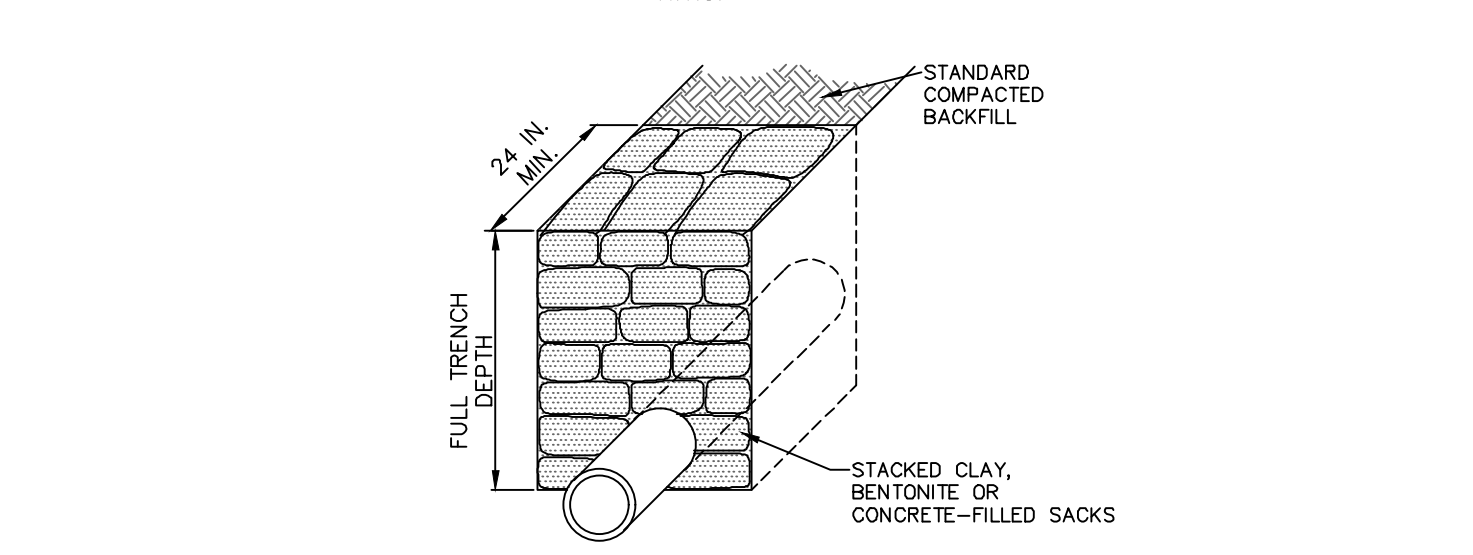


TRENCH BACKFILL AND RESTORATION NON PAVED AREAS

N.T.S.

NOTES:

1. ALL BACK FILL MATERIAL IS SUBJECT TO ENGINEER APPROVAL.
2. ORDINARY BACK FILL IS DEFINED AS CLEAN DRY EARTH WITH A MAXIMUM STONE SIZE OF SIX (6) INCHES.
3. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL COMPACTION EQUIPMENT.
4. REMAINDER OF TRENCH ABOVE THE PIPE BEDDING SHALL BE FILLED IN UNCOMPACTED LIFTS OF NO MORE THAN EIGHT INCHES, COMPACTING EACH LIFT TO 90% PROCTOR DENSITY.



PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
5 - 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 - 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 - 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 - 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	* CEMENT BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS

NOTES:

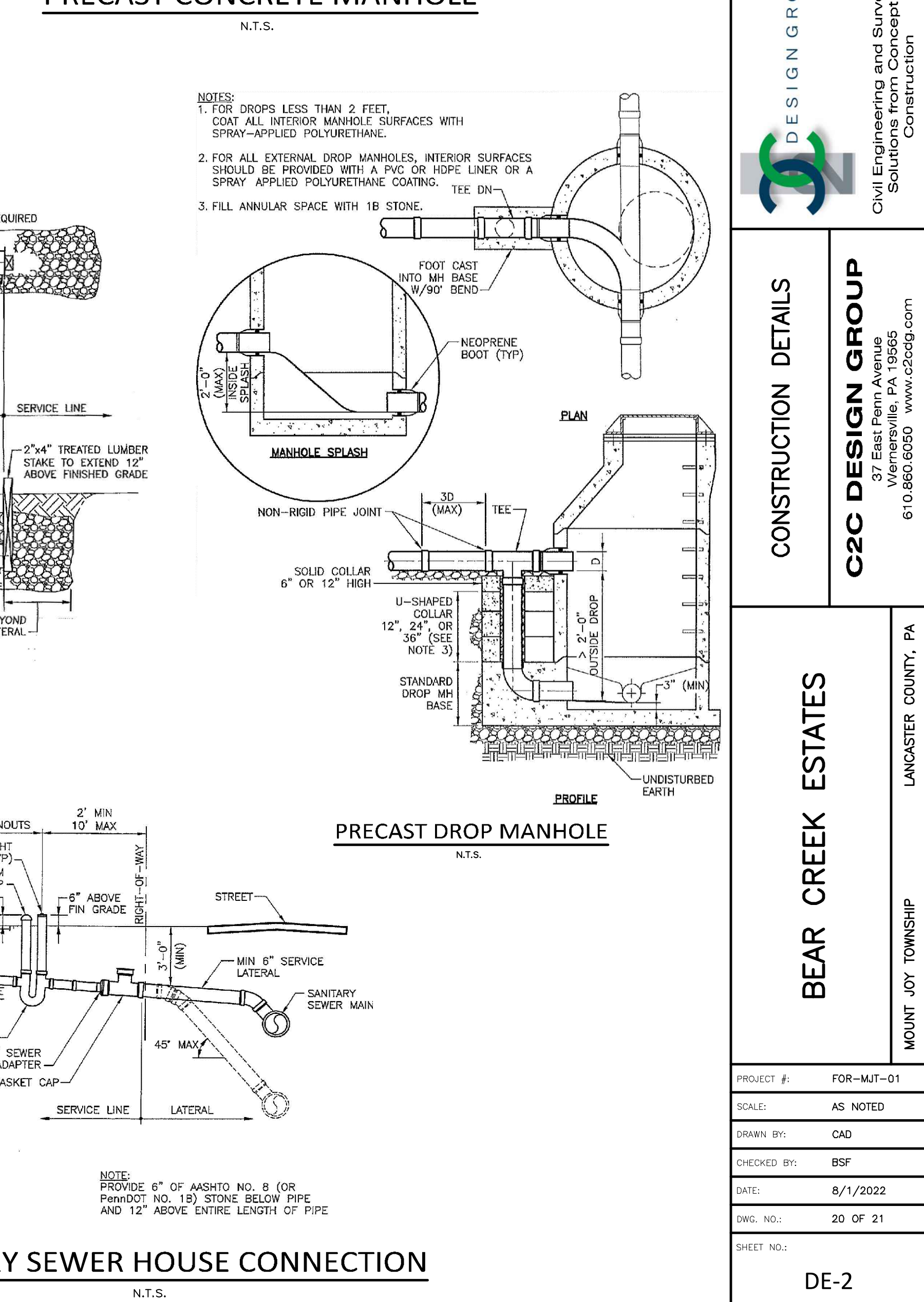
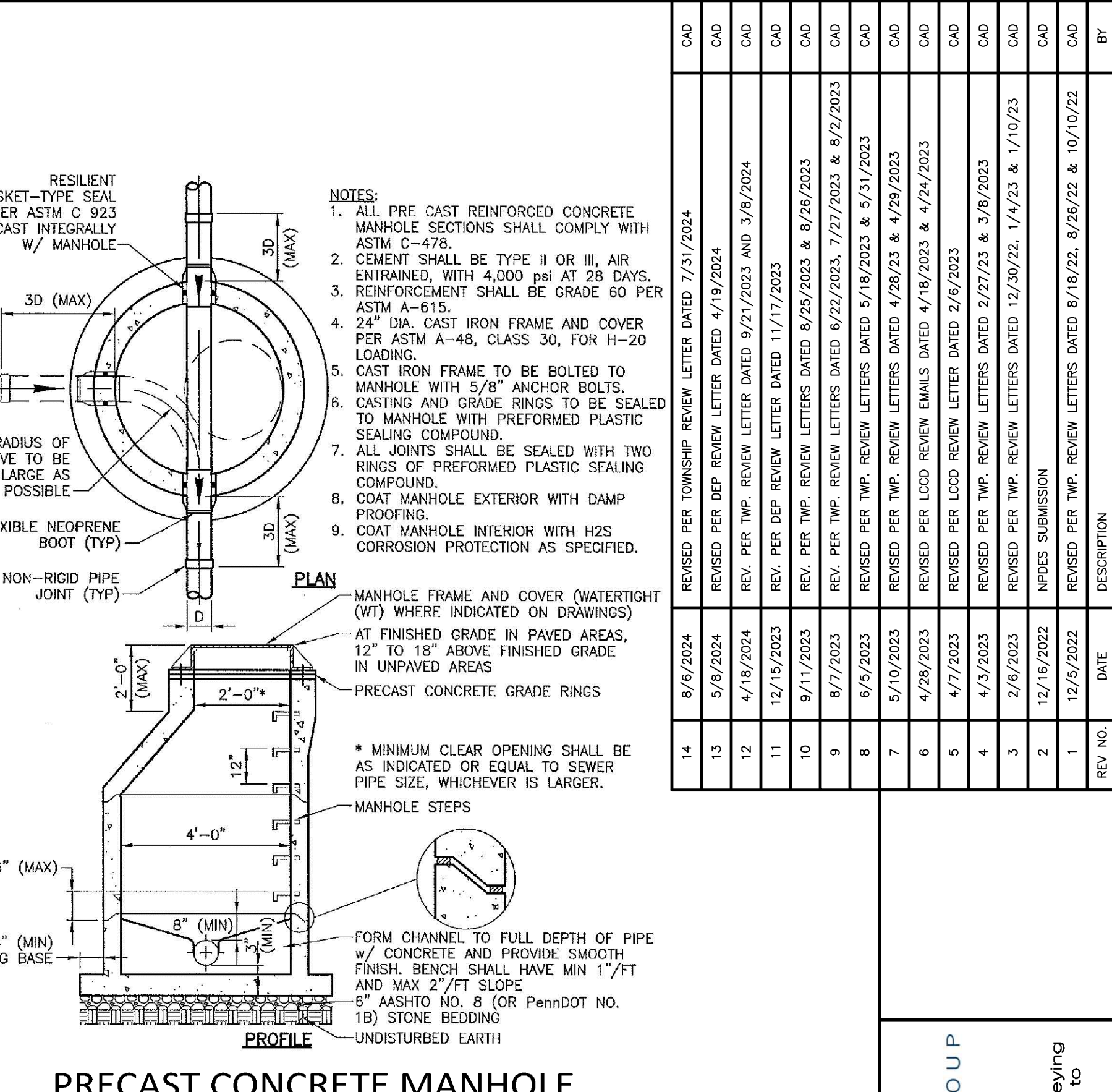
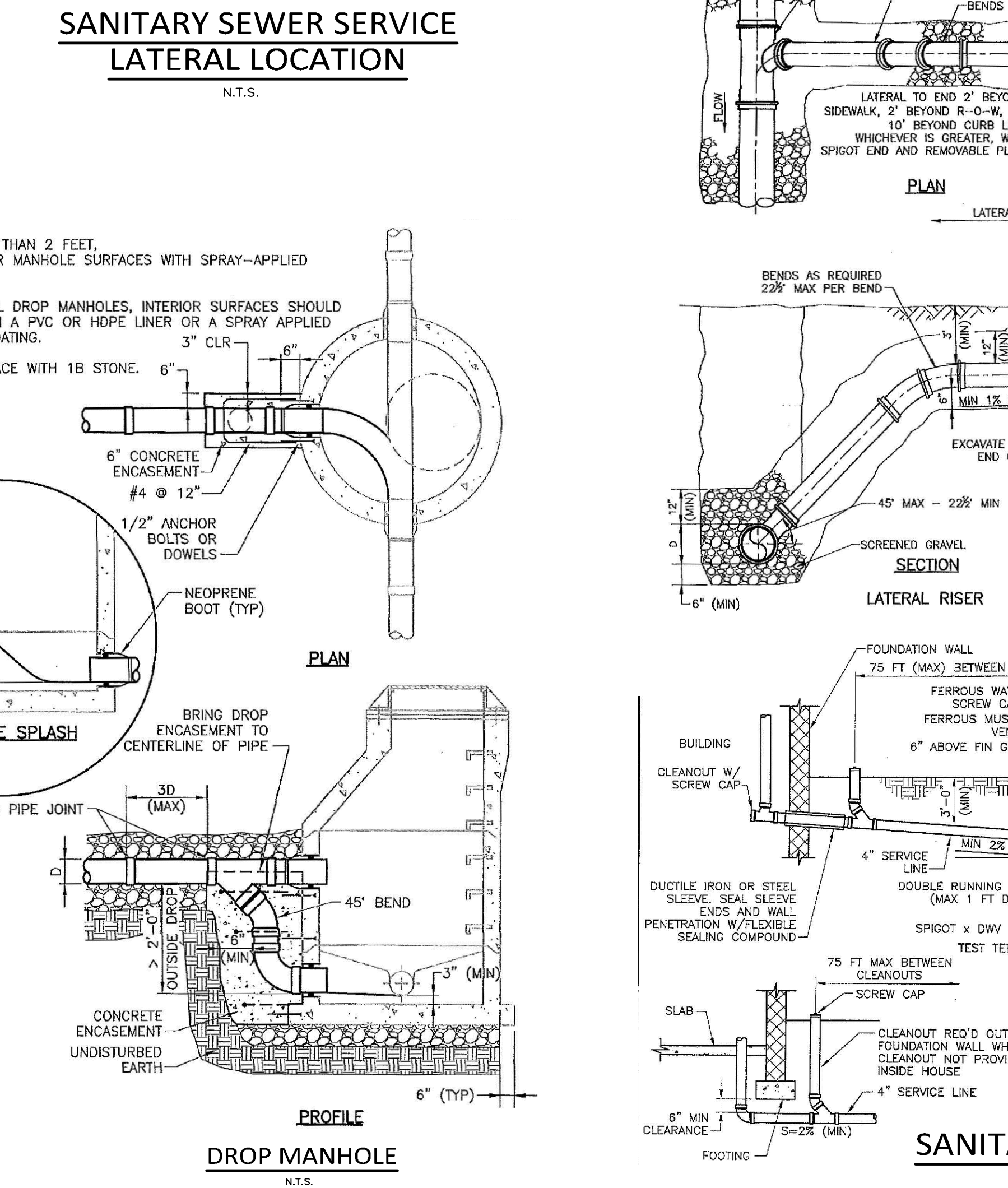
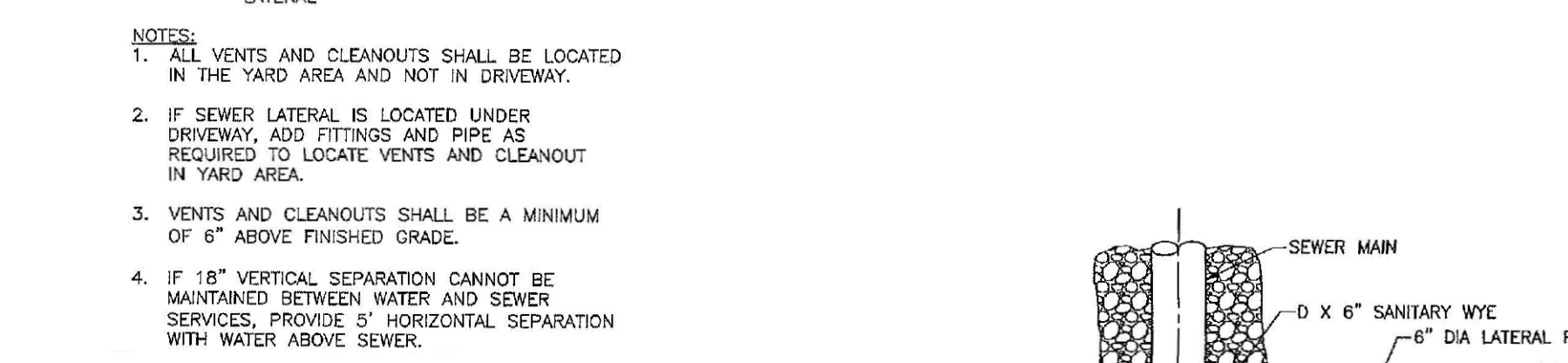
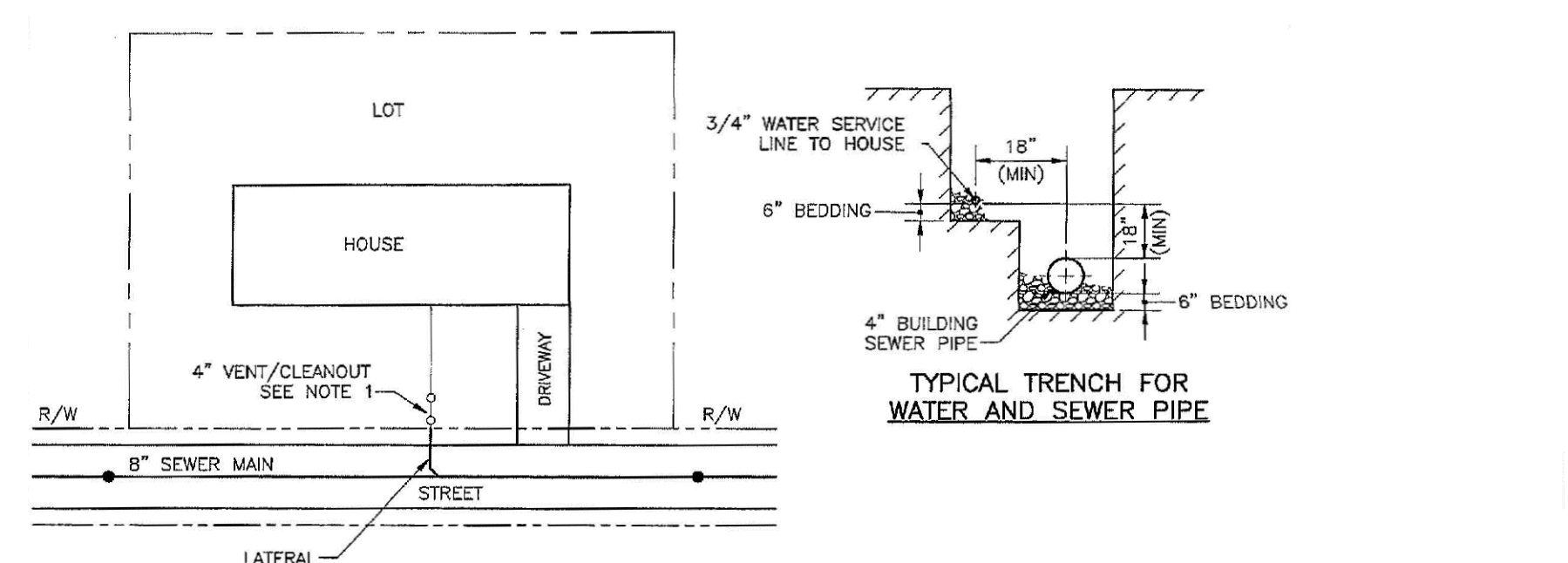
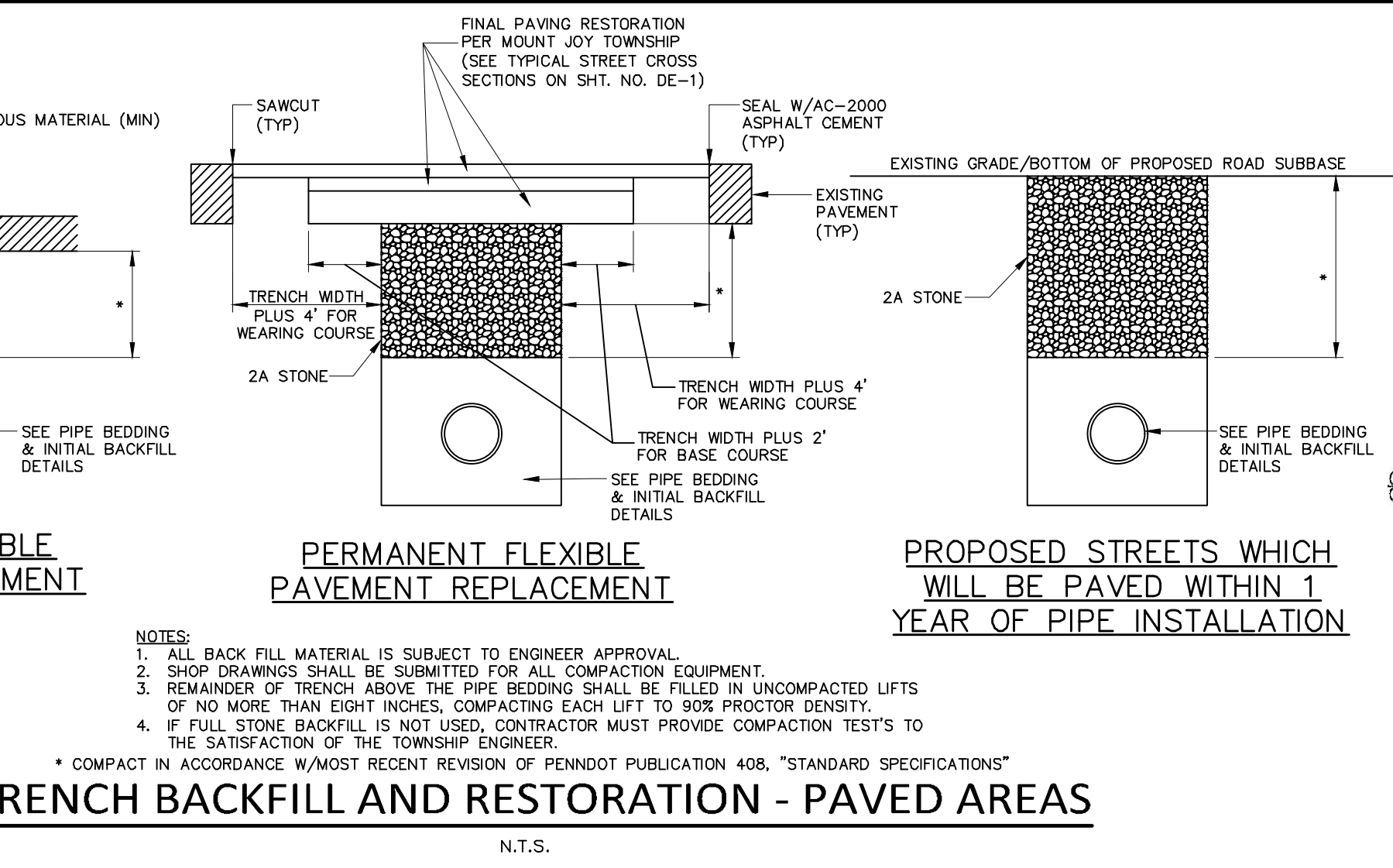
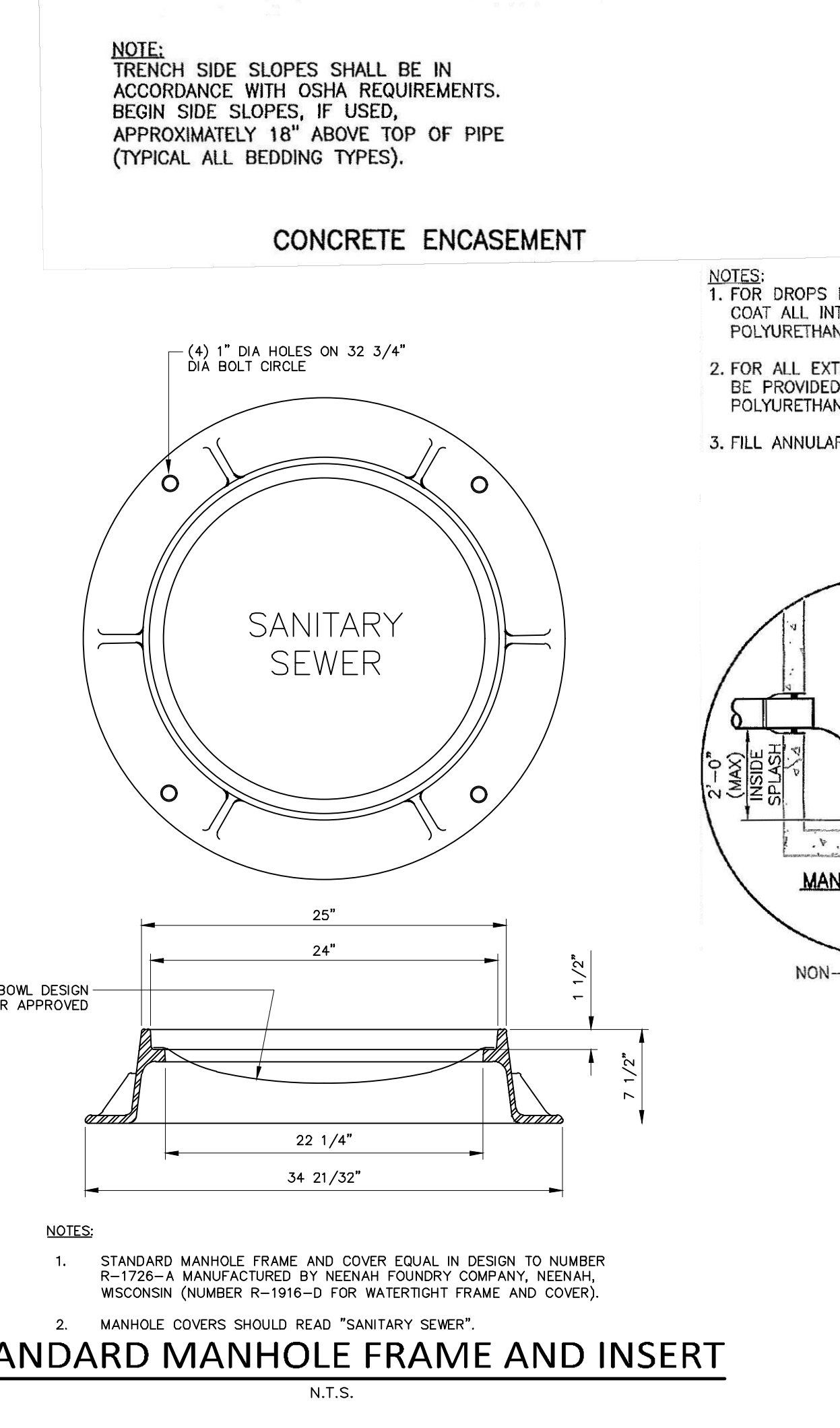
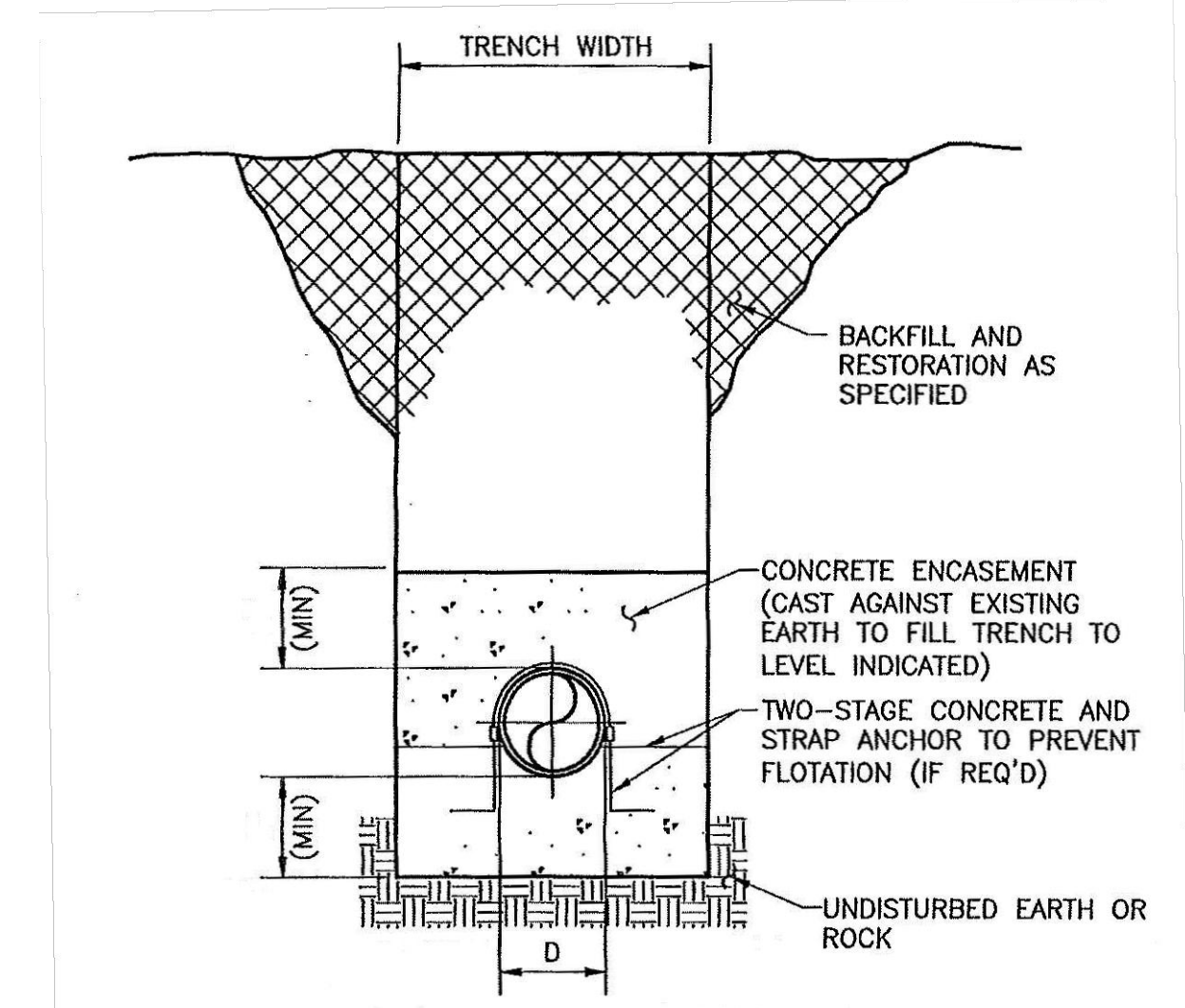
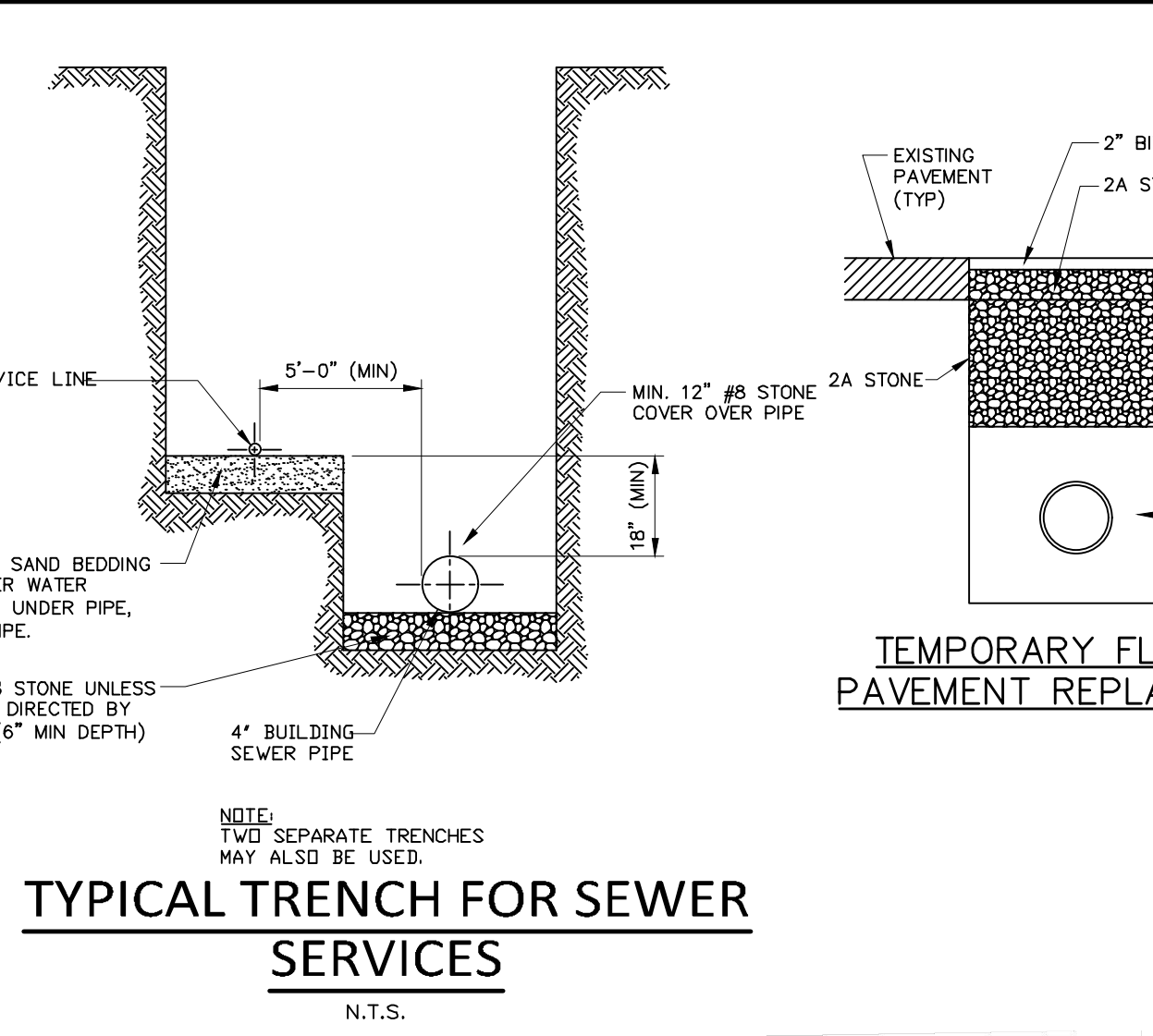
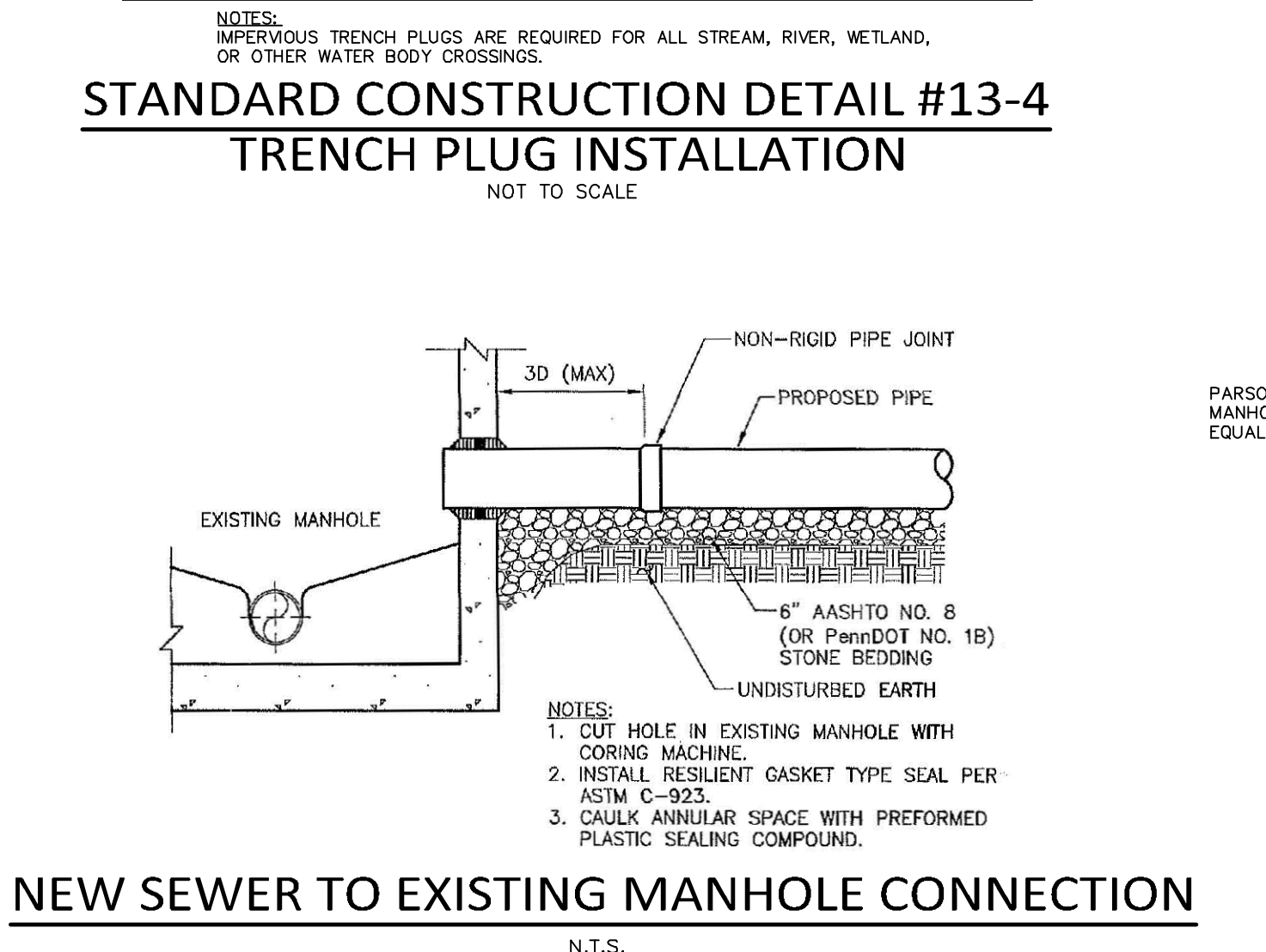
1. IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.

STANDARD CONSTRUCTION DETAIL #13-4 TRENCH PLUG INSTALLATION

NOT TO SCALE

NOTES:

1. CUT HOLE IN EXISTING MANHOLE WITH CORING MACHINE.
2. INSTALL RESILIENT GASKET TYPE SEAL PER ASTM C-923.
3. CAULK ANNUAL SPACE WITH PREFORMED PLASTIC SEALING COMPOUND.



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DESIGN GROUP

Civil Engineering and Surveying Solutions from Concept to Construction

CONSTRUCTION DETAILS

C2C DESIGN GROUP

37 East Penn Avenue
Wernersville, PA 19565
610.860.6050 www.c2cdg.com

BEAR CREEK ESTATES

MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA

PROJECT #: FOR-MJT-01

SCALE: AS NOTED

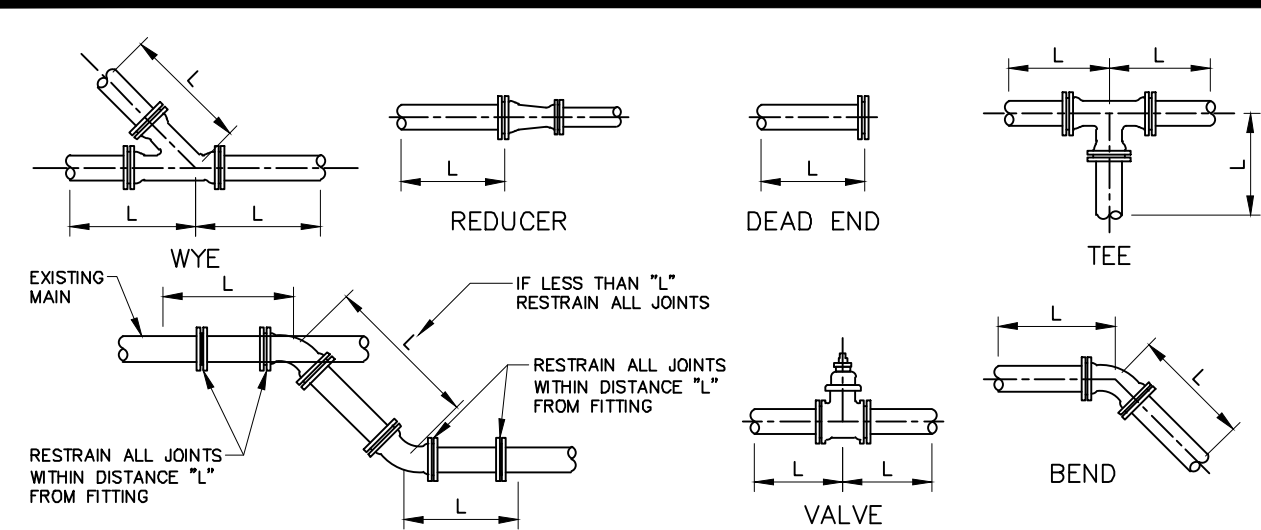
DRAWN BY: CAD

CHECKED BY: BSF

DATE: 8/1/2022

DWG. NO.: 20 OF 21

SHEET NO.: DE-2



CONNECTION TO EXISTING MAIN

PIPE SIZE	MINIMUM LENGTH OF PIPE WITH RESTRAINED JOINTS (L) IN FEET			
	HORIZONTAL BEND	VERTICAL BEND UP	VERTICAL BEND DOWN	LEAD END OR VALVE
6"	3	6	13	31
8"	4	8	17	40
10"	5	10	20	48
12"	6	11	23	57
14"	6	13	27	64
16"	8	14	30	72
18"	8	16	33	79
20"	9	17	36	87
24"	10	20	42	100

TEES/WYES

SIZE (IN)	RESTRAINED LENGTH (FT)	
	TEE	WYE
6x6x6	54	112
8x8x8	69	98
10x10x10	84	84
12x12x12	99	69
14x14x14	114	54
16x16x16	129	39
18x18x18	144	24
20x20x20	159	9
24x24x24	174	-

NOTES:
 DUCTILE IRON FITTINGS SHALL BE PROVIDED FOR ALL D.I.P. PIPES. FITTINGS SHALL HAVE A MINIMUM PRESSURE RATING OF 250 PSI, AND SHALL CONFORM TO AWWA C 110. FITTINGS SHALL BE FURNISHED WITH MECHANICAL JOINT ENDS CONFORMING TO ANSI A81.11, COMPLETE WITH EITHER GRAY IRON OR DUCTILE IRON GLANDS, BOLTS AND NUTS, AND GASKETS - MECA-LUG JOINT, OR EQUIVALENT. AT ANY BEND OR FITTING, JOINTS SHALL BE RESTRAINED BY 5 JOINTS ON EITHER SIDE. RESTRAINT SHALL BE FIELD LOG 250 GASKET ON PIPES WITH MECA-LUG RESTRAINT, OR EQUIVALENT, ON M.J. FITTINGS.

REDUCERS

SIZE (IN)	RESTRAINED LENGTH (FT)
8x6	29
10x8	29
12x10	29
14x12	29
16x14	29
18x16	29
20x18	29
24x20	29

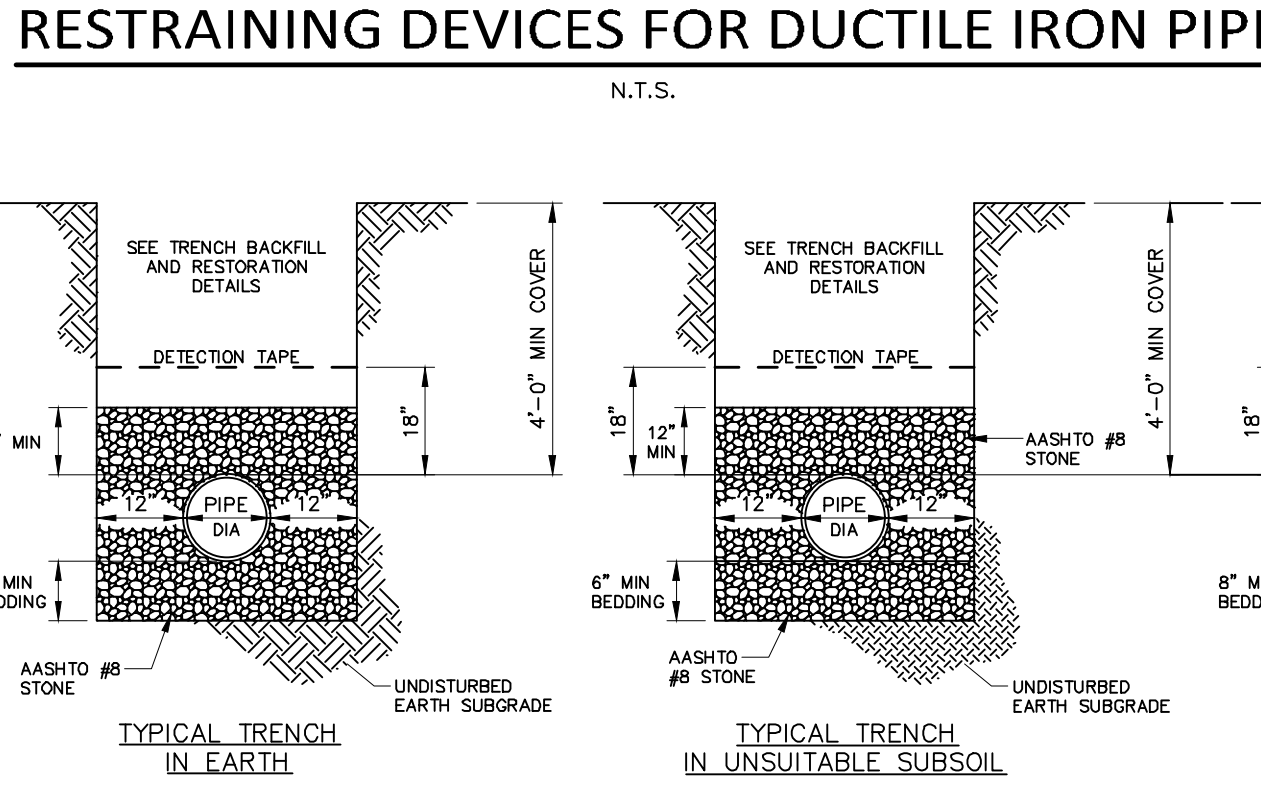
CONCRETE ANCHOR - CREST ANCHORS

PIPE DIA.	ANCHOR DIA.	BOLT SIZE
6" to 1'-0"	5/8"	3-3/4"
1'-1" to 2'-6"	5/8"	3-3/4"
2'-7" to 3'-0"	3/4"	4-1/2"
3'-1" to 3'-5"	1/2"	5-1/4"

NOTES:
 FLANGED FITTINGS, FOR EXPOSURE PIPING OR WHEN SPECIFIED ON THE DRAWINGS, SHALL CONFORM TO ANSI A81.10 OR ANSI B16.1. ALL FLANGES SHALL BE FACED AND DRILLED IN ACCORDANCE WITH ANSI B16.1. MACHINE BOLTS AND NUTS FOR FLANGED FITTINGS SHALL BE STAINLESS STEEL, CONFORMING TO ASTM DESIGNATION A307, GRADE B. DIMENSIONS OF BOLTS AND NUTS SHALL CONFORM TO ANSI B18.2. THREADS OF BOLTS AND NUTS SHALL CONFORM TO ANSI B1.1, COARSE-THREAD SERIES, CLASS 2A FIT ON BOLTS, AND CLASS 2B FIT ON NUTS. DIMENSIONS OF GASKETS SHALL CONFORM TO ANSI B16.2.

NOTES:
 ALL FITTINGS SHALL BE CEMENT-MORTAR AND BITUMINOUS COATED OUTSIDE, CONFORMING TO AWWA C 104. THE CONTRACTOR SHALL SUBMIT TO EAWA, IN TRIPLICATE, A CERTIFICATE FROM THE MANUFACTURER THAT ALL FITTINGS COMPLY WITH THE ANSI STANDARDS NOTED ABOVE.

RESTRAINING DEVICES FOR DUCTILE IRON PIPE



PIPE BEDDING AND INITIAL BACKFILL

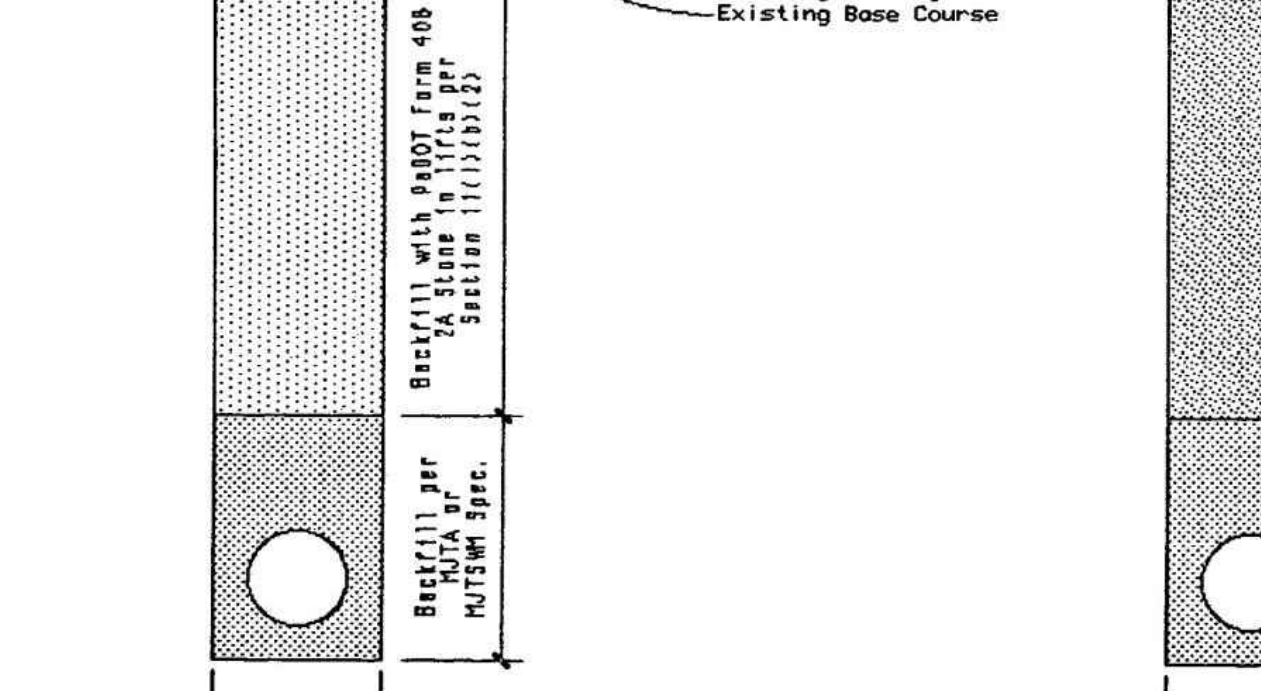


NOTES:
 TRENCHES LOCATED WITHIN BEAR CREEK ROAD SHALL BE BACKFILLED WITH PENNDOT SPECIFICATION 2A STONE PER THE REQUIREMENTS OF SECTION 119-52.R(8)(b)(2).

WATER METERS

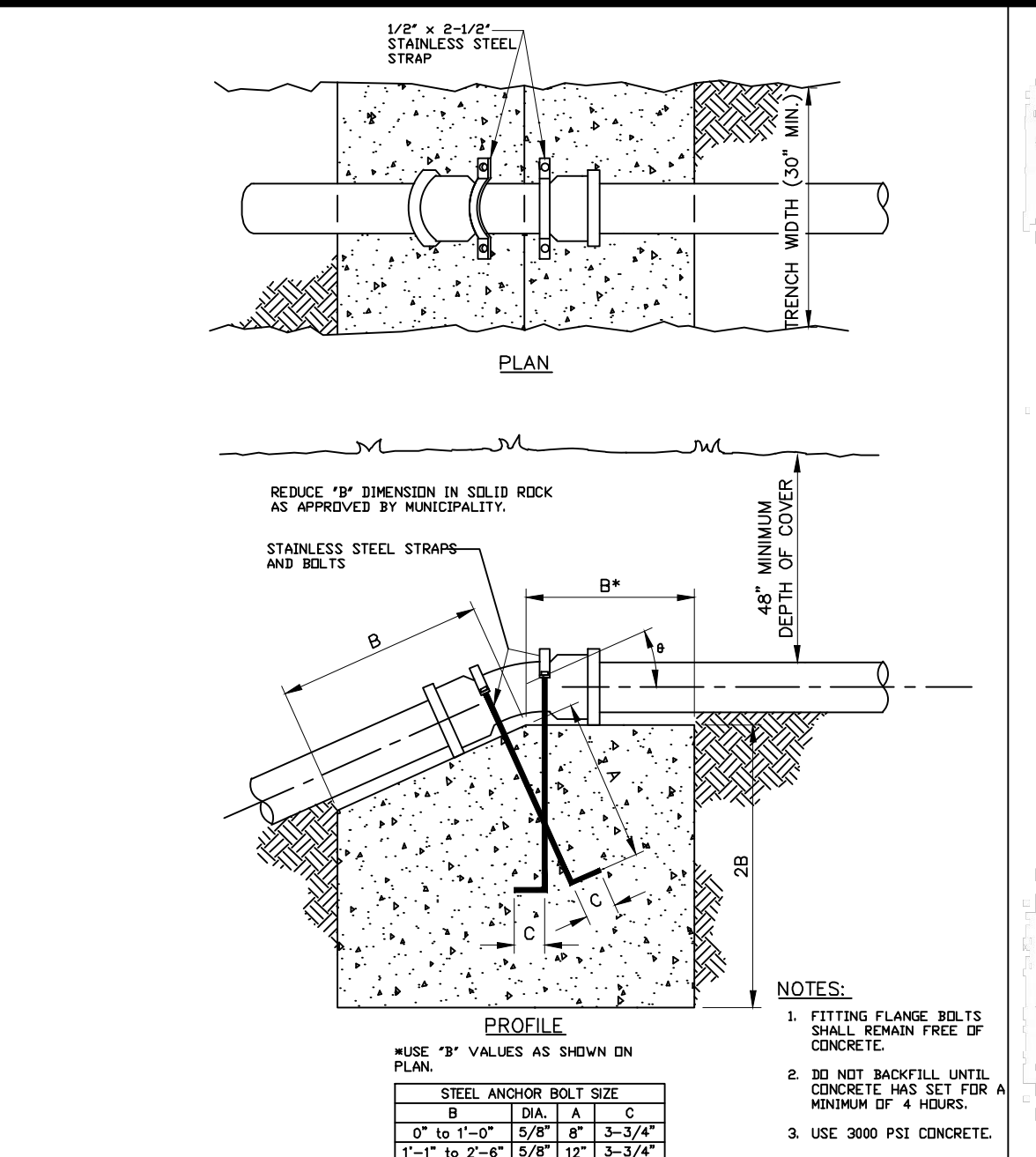
METERS WILL BE SUPPLIED BY EAWA AS PART OF THE CONNECTION PERMIT APPLICATION AND FEE. BALL VALVES SHALL BE INSTALLED ON BOTH SIDES OF THE METER. NO METER BY-PASS LINES WILL BE ACCEPTED EXCEPT IN INSTALLATIONS AT EMERGENCY INSTITUTIONS (HOSPITALS, ETC.). WATER METER SHALL BE INSTALLED BY DEVELOPER HORIZONTALLY AND SUPPORTED AS NECESSARY. A BACKFLOW PREVENTER (WATTS MODEL #7) SHALL BE INSTALLED ON THE CUSTOMER SIDE OF THE METER.

WATER SHUTOFF VALVES SHALL BE INSTALLED ON BOTH SIDES OF THE WATER METER WITH ONE OF THOSE VALVES TO BE INSTALLED ON THE HOUSE SIDE OF THE BACKFLOW PREVENTER. THERMAL EXPANSION DEVICE SHALL BE LOCATED ON THE SUPPLY LINE OF HOT WATER HEATER. INTERNAL WIRING SHALL BE PLACED WITHIN A PLASTIC CONDUIT FROM THE METER LOCATION INSIDE THE BUILDING TO THE RADIO READING LOCATION ON THE OUTSIDE OF THE BUILDING. THE PLASTIC CONDUIT SHALL BE AT LEAST 1/2 INCH IN DIAMETER. RADIO PAD SHALL BE LOCATED ON FRONT OF BUILDING WHEN AT ALL POSSIBLE OR ON EITHER SIDE, LOCATED WITHIN 3' OF FRONT OF BUILDING WITH NO WIRE SHOWING. KEEP OBSTRUCTIONS AWAY FROM PAD, PROVIDING A MINIMUM OF 3 FEET ACCESS IN FRONT.

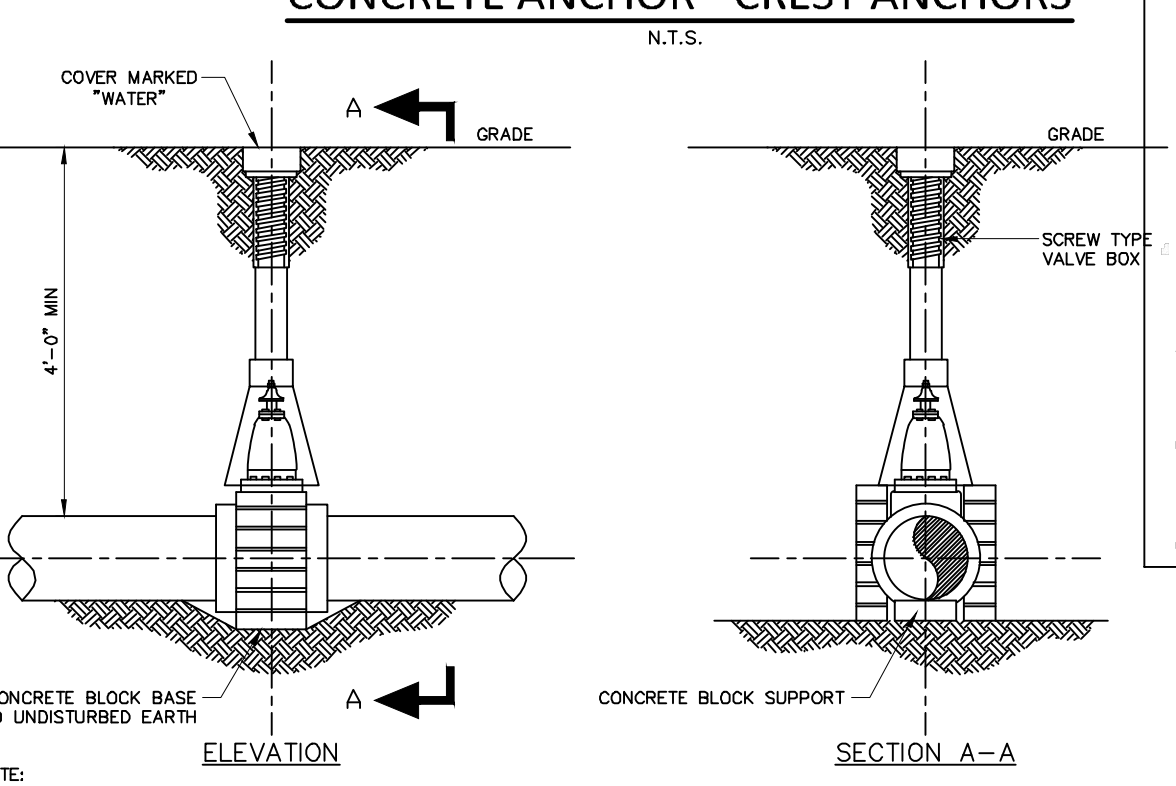


NOTES:
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PAVEMENT RESTORATION - TRENCH SECTIONS

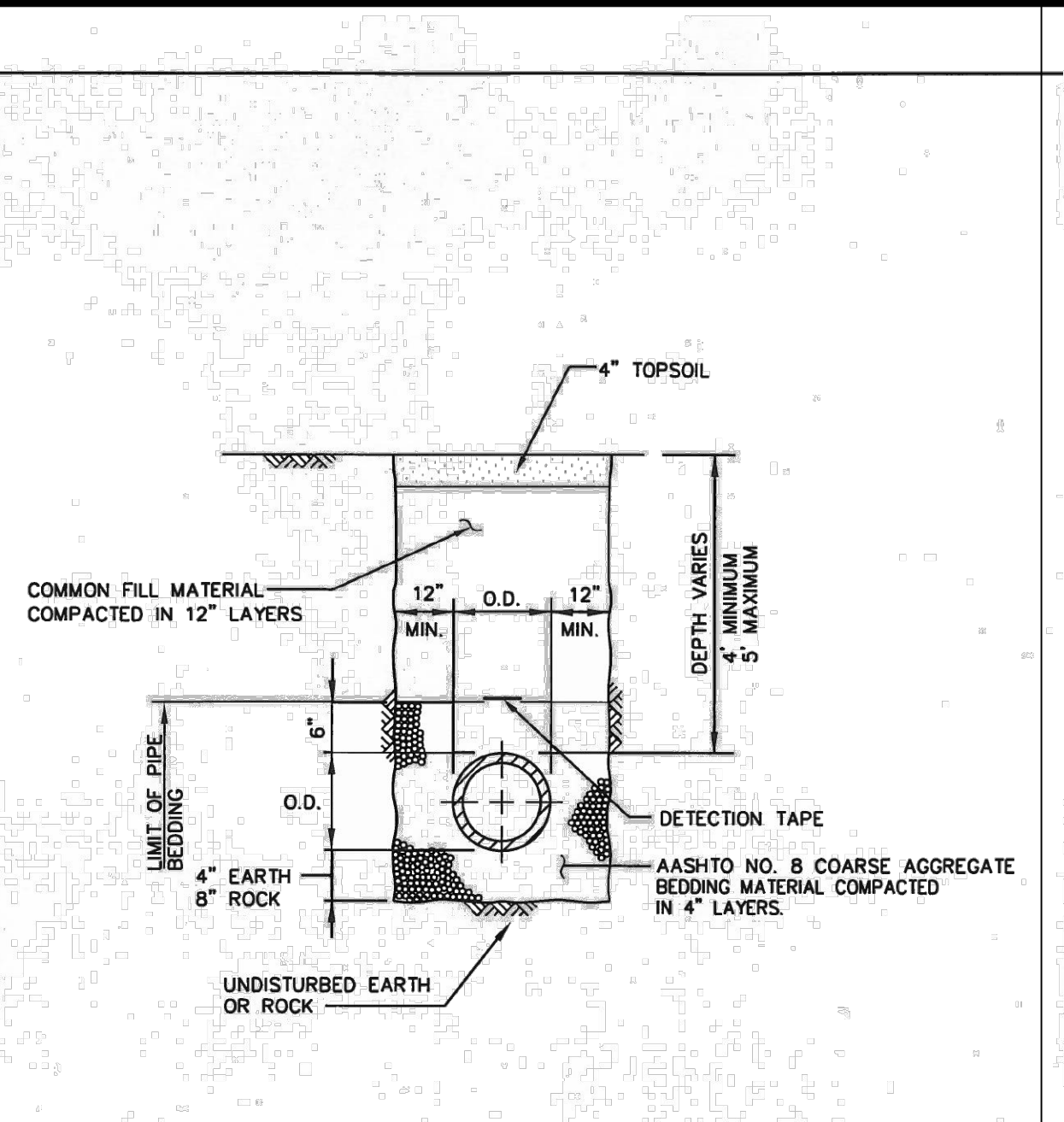


CONCRETE ANCHOR - CREST ANCHORS

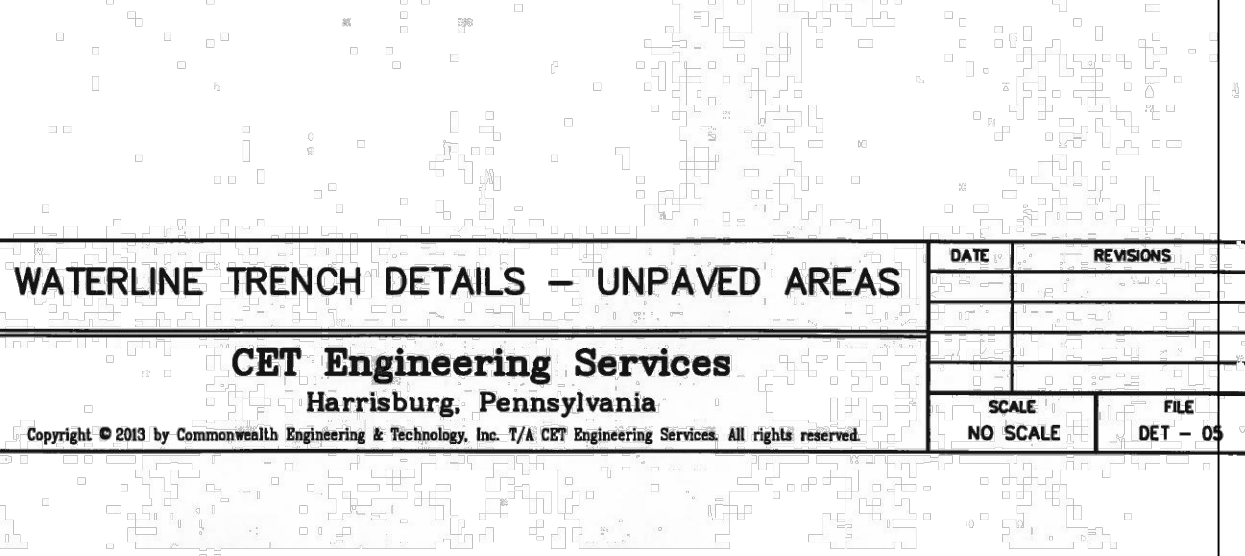


GATE VALVE INSTALLATION

NOTES:
 GATE VALVES SHALL BE 4 TO 12 INCH AND SHALL BE RESILIENT SEATED, MEETING OR EXCEEDING AWWA C509. GATE VALVES SHALL HAVE MECHANICAL OR PUSH-ON JOINT ENDS AND BE EQUIPPED WITH 2 INCH NON-RISING OPERATING NUTS AND BE SUITABLE FOR BURIED APPLICATIONS. VALVES SHALL OPEN WHEN TURNED TO THE LEFT. VALVE SHALL HAVE FUSION BOND EPOXY COATING ON THE INSIDE AND OUTSIDE OF THE VALVE. THE VALVE SHALL BE MADE BY AMERICAN FLOW CONTROL.

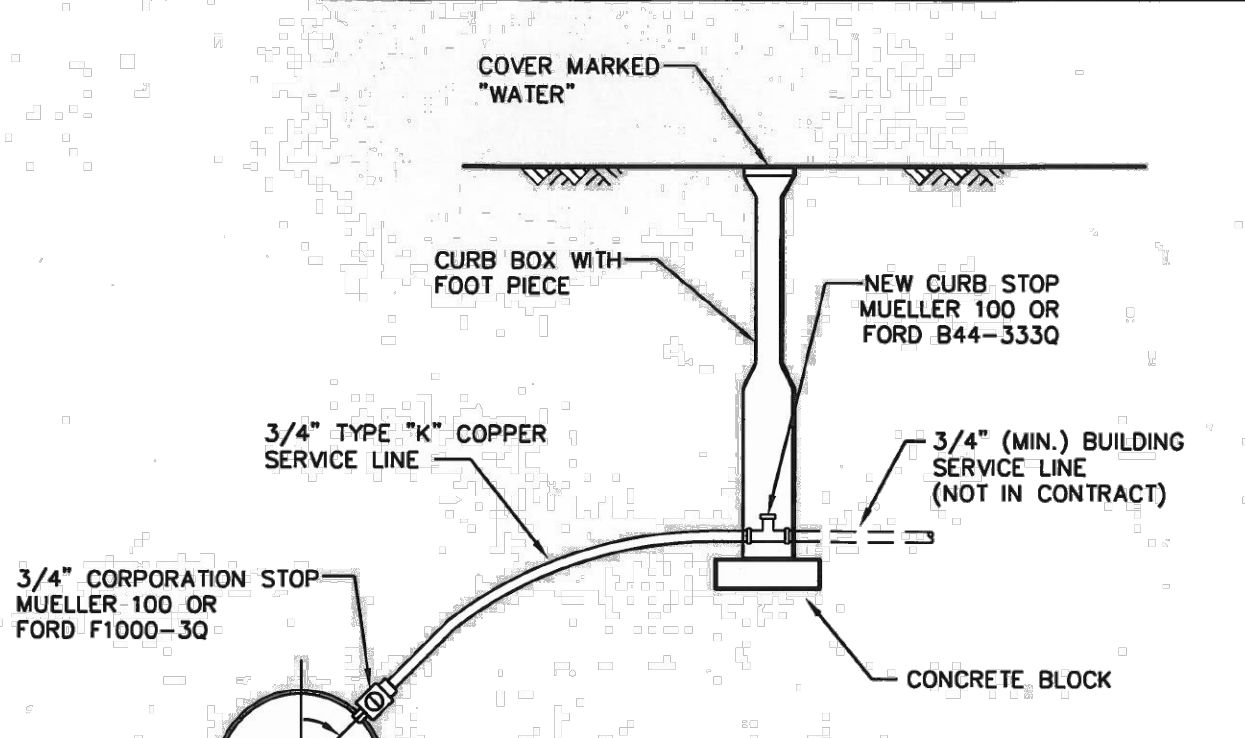


WATERLINE TRENCH DETAILS - UNPAVED AREAS

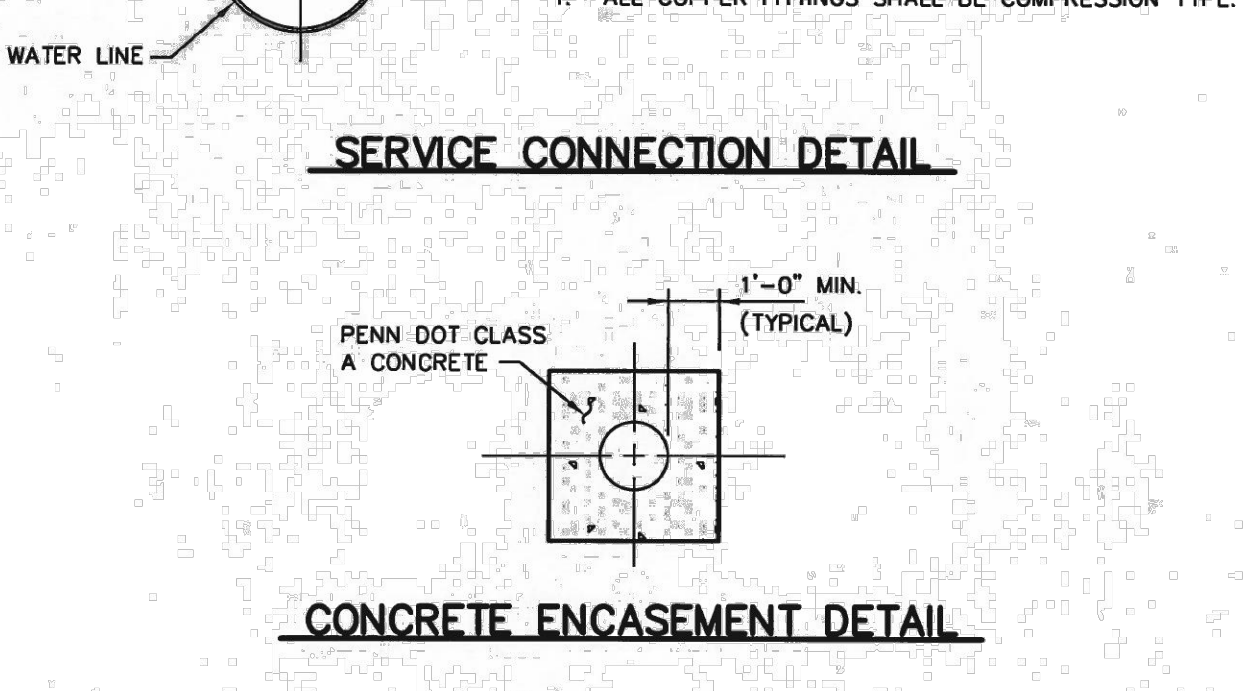


WATERLINE TRENCH DETAILS - PAVED AREAS

NOTES:
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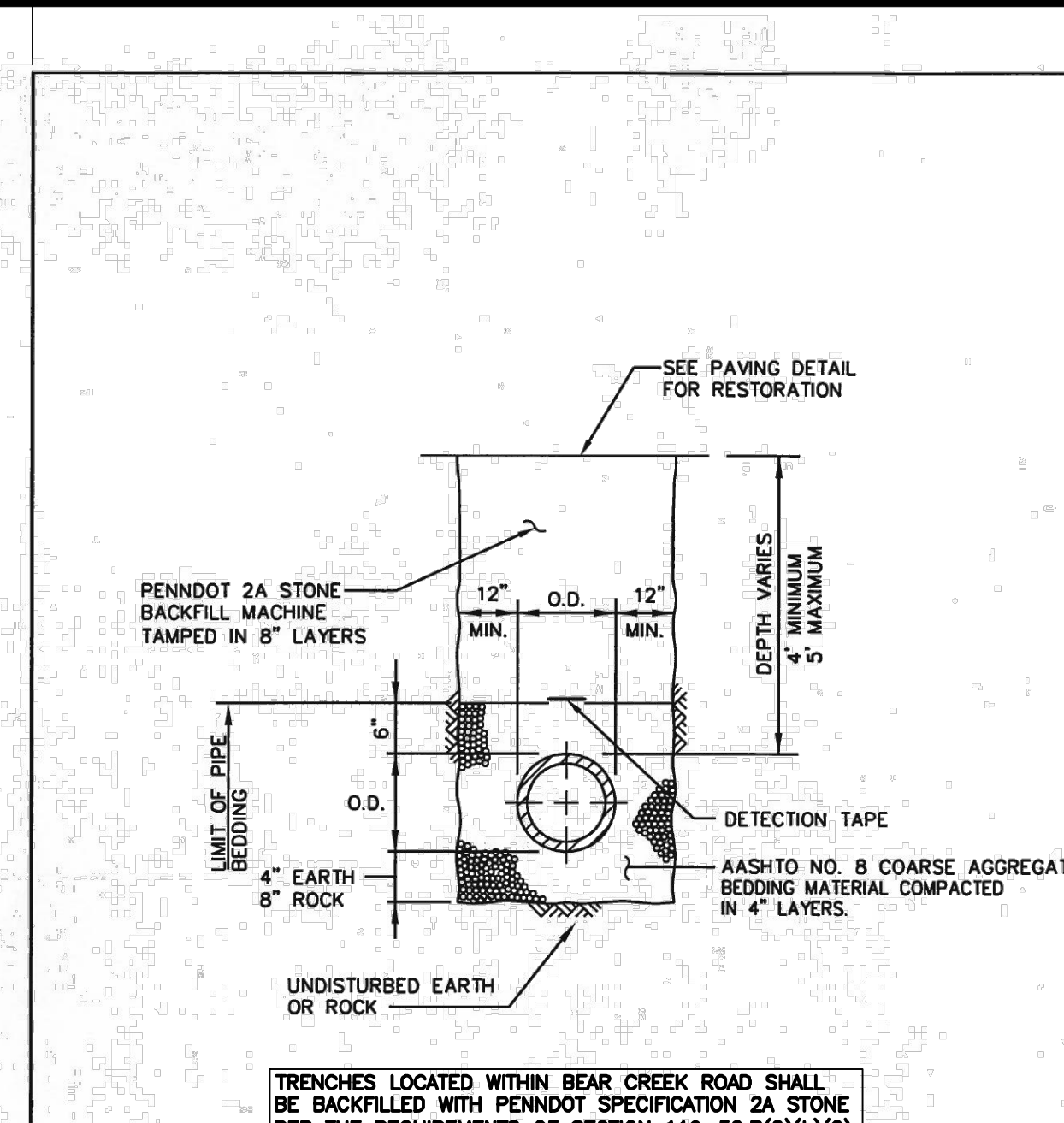


SERVICE CONNECTION AND CONCRETE ENCASEMENT DETAILS

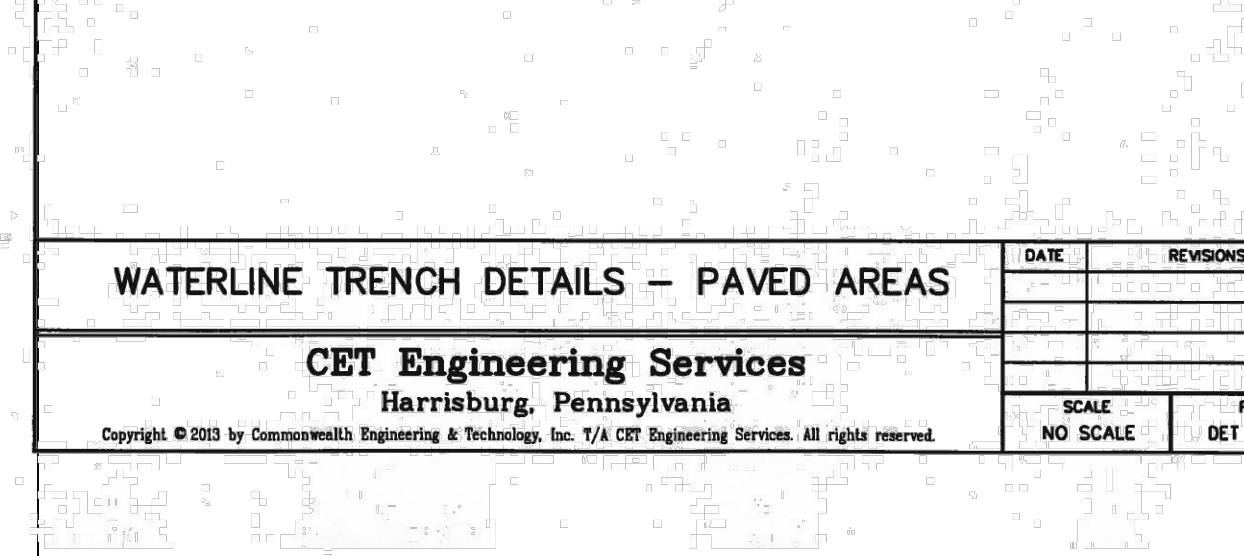


FIRE HYDRANT DETAIL

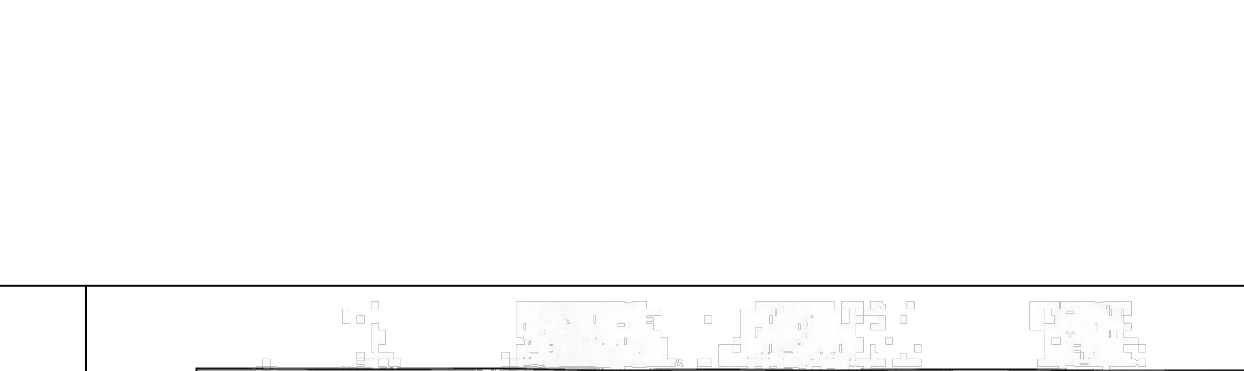
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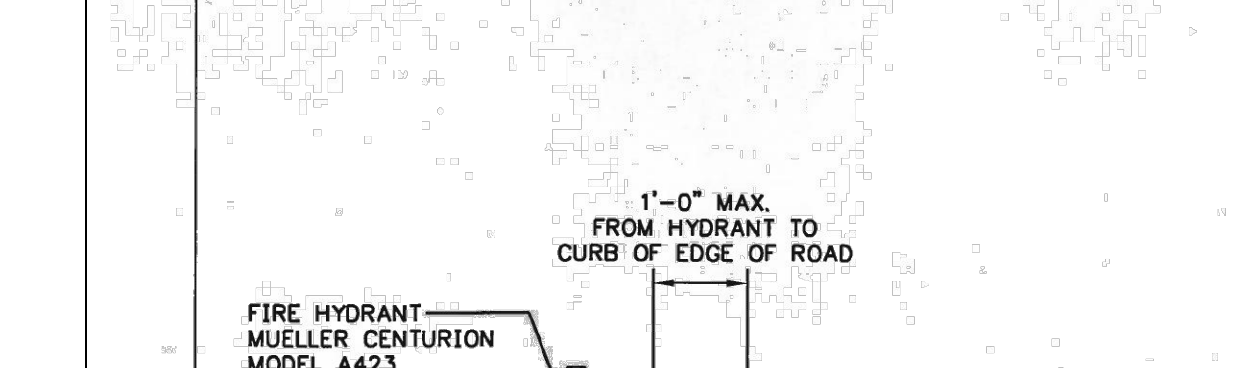
FIRE HYDRANT DETAIL



SERVICE CONNECTION AND CONCRETE ENCASEMENT DETAILS



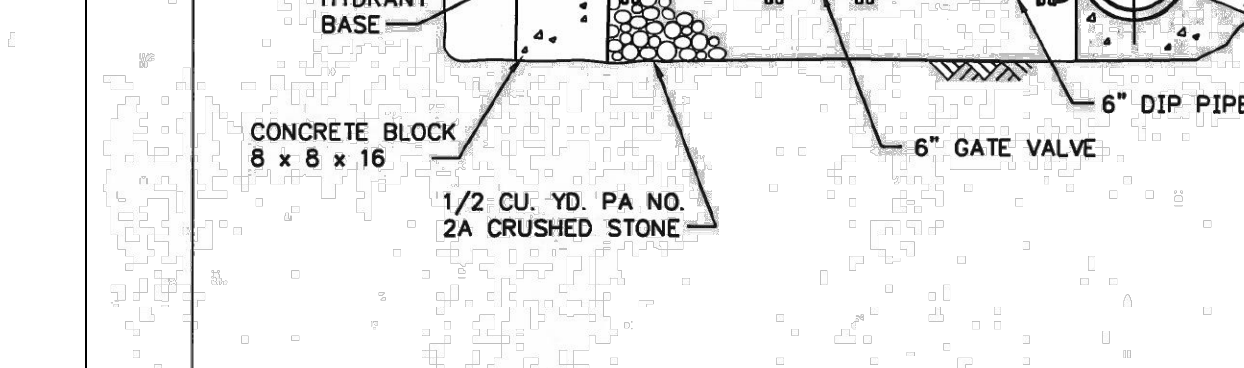
WATERLINE TRENCH DETAILS - UNPAVED AREAS



WATERLINE TRENCH DETAILS - PAVED AREAS

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CONSTRUCTION DETAILS



PAVEMENT RESTORATION - TRENCH SECTIONS

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BEAR CREEK ESTATES

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