



49350 North I-94 Service Drive, Belleville, MI 48111
P 800.592.5489 F 800.592.5329

July 16, 2021

Edward Nam
Director, Land, Chemicals, and Redevelopment Division
US EPA, Region 5, Mail code L-17J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Ms. Elizabeth Browne
Michigan Environment, Great Lakes and Energy,
Material Management Division
525 W Allegan Street 4th Floor, South
Lansing, Michigan 48933

RE: Wayne Disposal Inc. (WDI) - MID048090633
MC VI-F Liner Grade Revision

Dear Ms. Browne,

With this letter Wayne Disposal Inc. (WDI) is submitting a revision to liner grade of Master Cell VI Subcell F1 through F4 (MC VI-F) proposed in the Geosynthetic Clay Liner (GCL) baseliner system major modification request submitted on January 21, 2021. It should be noted the proposed revision does not have any impact on the GCL design submitted in the major modification.

MC VI-F is designed to be constructed on top of MC IV (a cell that was filled prior to the existence of waste placement recordkeeping requirements) based on historic top of waste investigations. Additional information not known at the time of the January submittal was obtained during the 2021 construction of MC VI- G3 triggering WDI to reevaluate the grade of the proposed design.

The revision modifies the liner grade allowing for smoother contours, improving the constructability of the cell and the flow of the leachate collection system. Cross sections detailing the proposed grade change are provided in Attachment A. Attachment B modifies the major modification drawings to reflect the new grade.

If you have any questions or need further information, please let me know.

Sincerely,

Sylwia Scott

Sylwia Scott

Environmental Manager

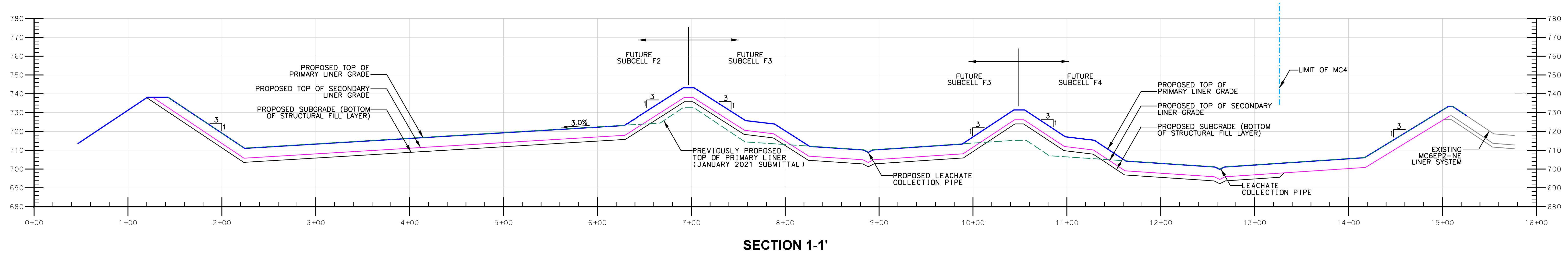
sylwia.scott@usecology.com

p: 734.699.6294

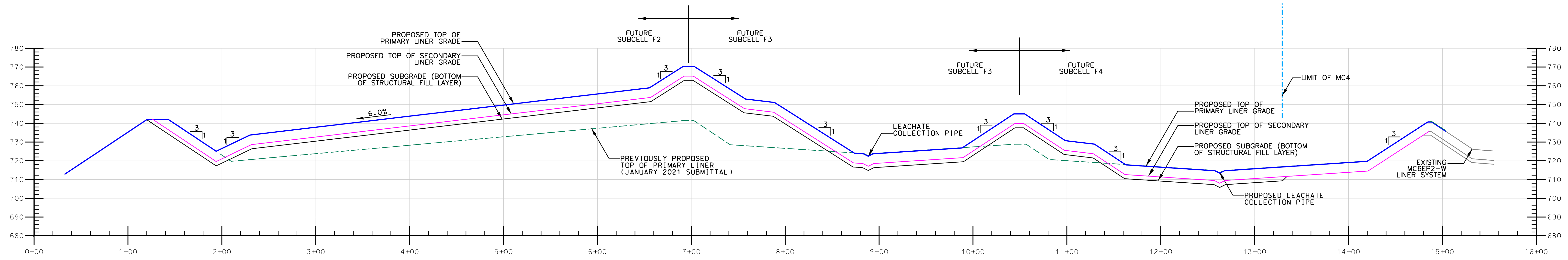
CC: Kimberly Tyson (electronic)
Christine Matlock (electronic)
Xuede Qian (electronic)
Lisa Graczyk (electronic)

Attachments

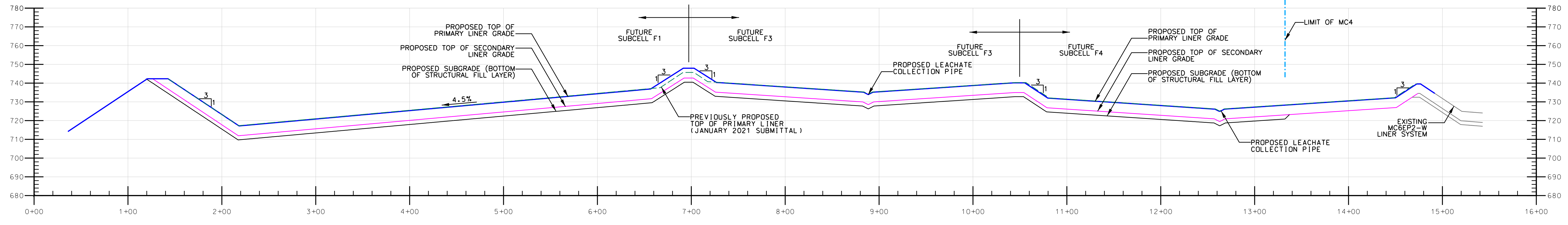
Attachment A
Master Cell VI Subcell F1 through F4 (MC VI-F) Grade Cross Section



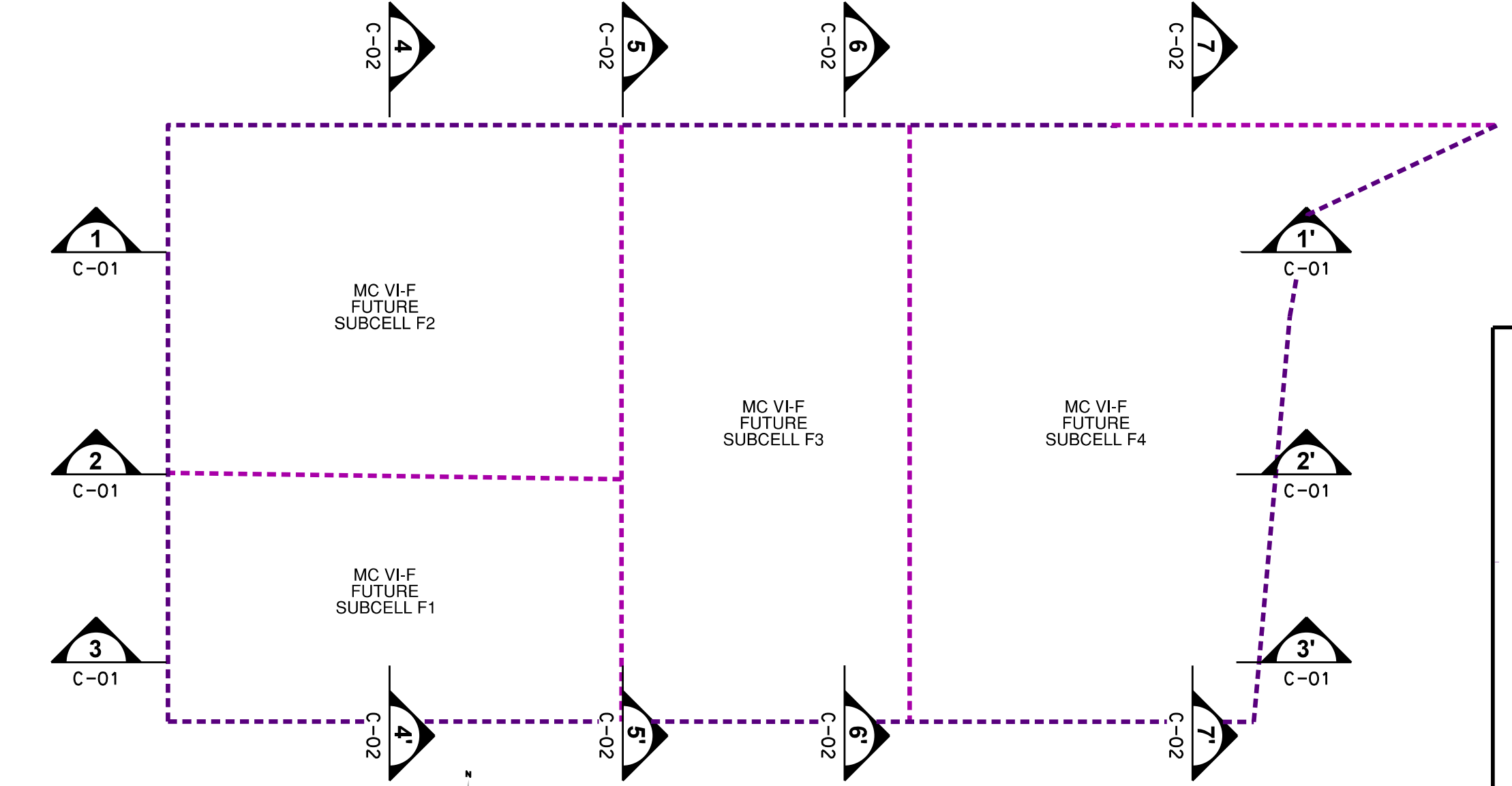
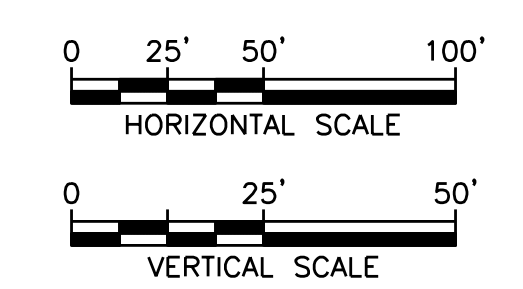
SECTION 1-1'



SECTION 2-2'



SECTION 3-3'



CROSS SECTION KEY MAP

DATE: 07-06-21
 DESIGNED BY: XZ/PAA
 DRAWN BY: XZ
 CHECKED BY: XZ
 APPROVED BY: XZ
 CTI and Associates, Inc.
 2800 Cabot Drive, Ste. 250
 Novi, Michigan 48248-4666
 www.ctiassociates.com

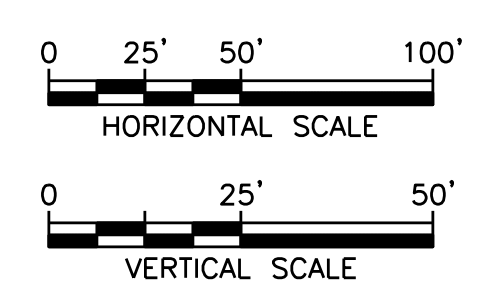
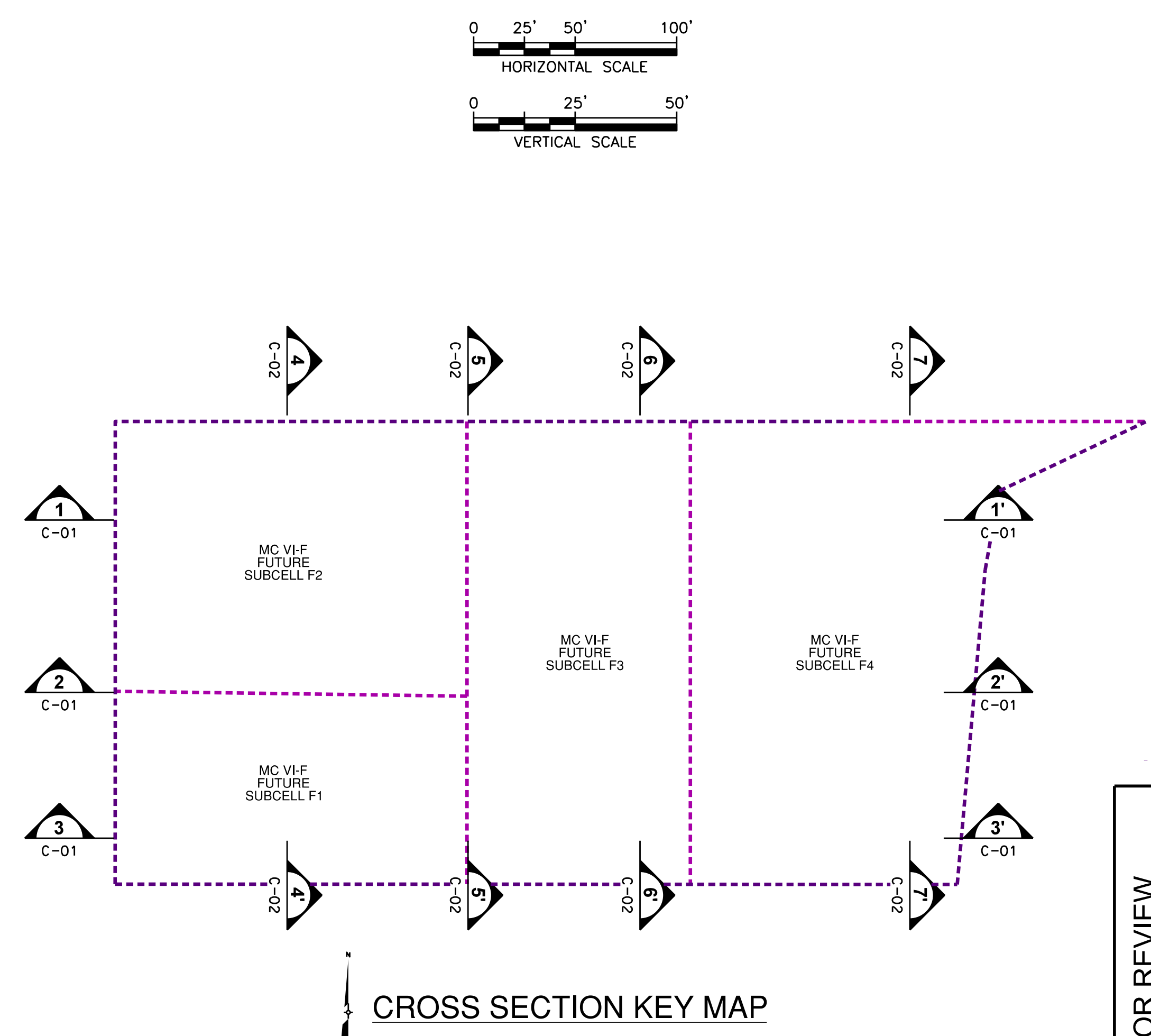
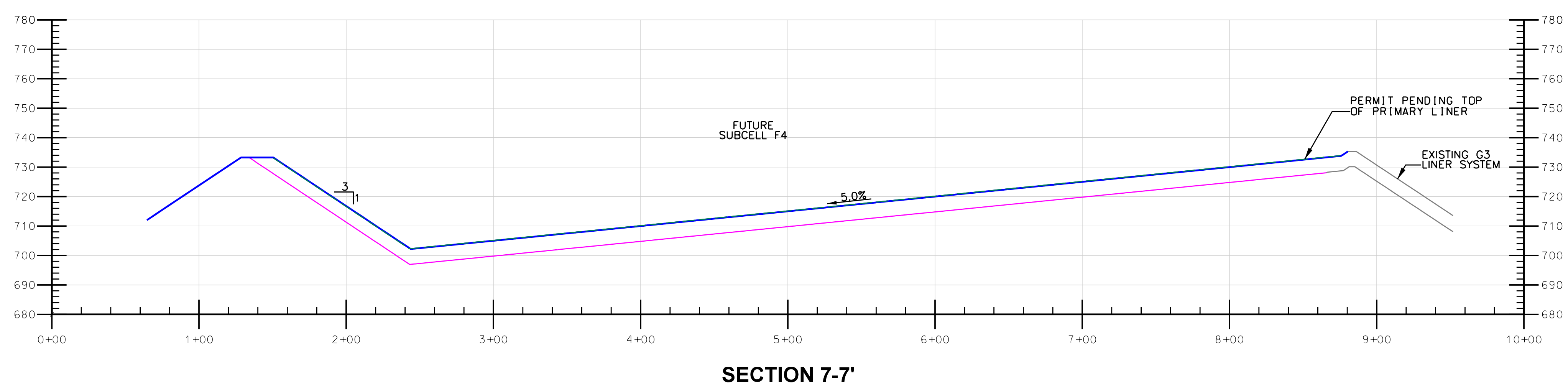
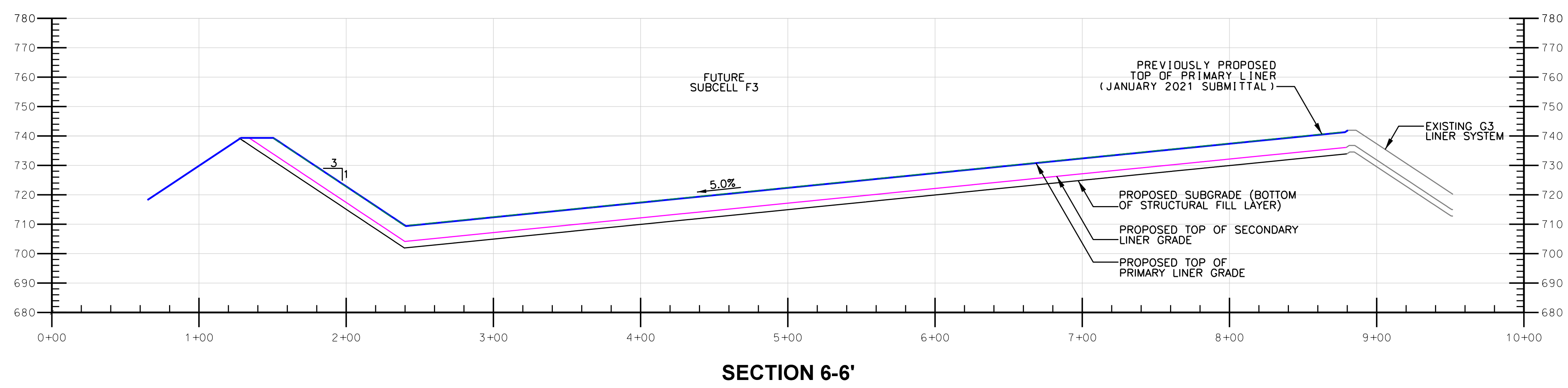
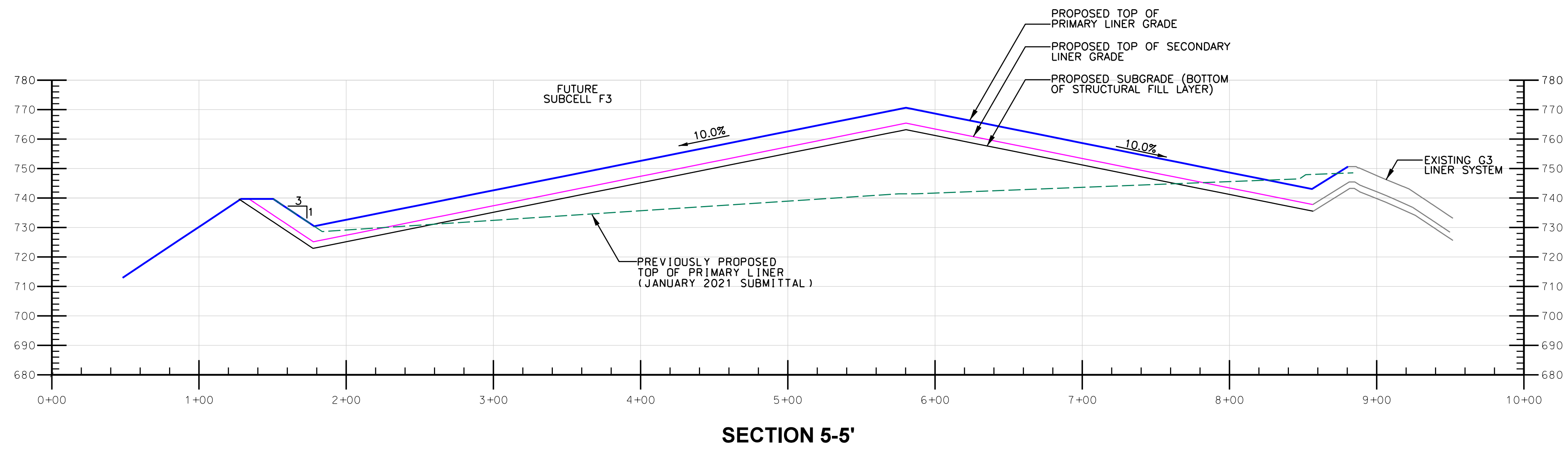
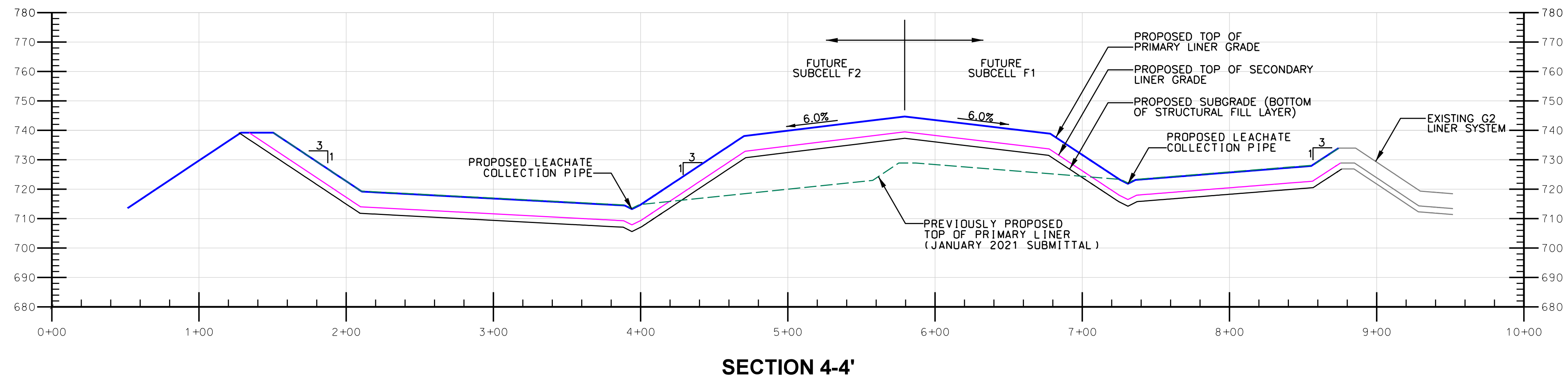
REV	DATE	ISSUED FOR REVIEW	REVISION DESCRIPTION
01	07-06-21		

WAYNE DISPOSAL, INC. SITE NO. 2
 F1-F4 DESIGN PLANS
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

PROJECT NUMBER: 1198070047
 SCALE: 1" = 30'
 DRAWING NO: C-01

ISSUED FOR REVIEW

DATE PLOTTED: 07/06/21 3:14:56 PM
 DRAWING SIZE: 30" x 42"



CTI and Associates, Inc. 2800 Cabot Drive, Ste. 250 Novi, Michigan 48248-4666 www.cticompanies.com		DATE: 07-06-21 DESIGNED BY: XZ/PAA DRAWN BY: J.L. APPROVED BY: J.L. PROJECT NO: 1198070047 DRAWING NO: C-02
THIS DRAWING WAS PREPARED BY CTI & ASSOCIATES, INC. (CTI) FOR THE PROJECT DESCRIBED HEREIN. IT IS THE PROPERTY OF CTI & ASSOCIATES, INC. AND IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CTI & ASSOCIATES, INC.		REVISIONS: 01 07-06-21 ISSUED FOR REVIEW 02 07-06-21 REVISION DESCRIPTION
WAYNE DISPOSAL, INC. SITE NO. 2 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN CROSS SECTIONS (4'-7')		
PROJECT NUMBER: 1198070047 SCALE: 1" = 30' DRAWING NO: C-02		ISSUED FOR REVIEW

DATE PLOTTED: 07/06/21
 PLOTTER: HP DesignJet T1100e
 PLOT SCALE: 1" = 30'

Attachment B
Master Cell VI Subcell F1 through F4 and MC IV G4 through G7
Geosynthetic Clay Liner (GCL) Modification Drawing Revision

WAYNE DISPOSAL, INC. SITE NO. 2 MASTER CELL VI-F&G

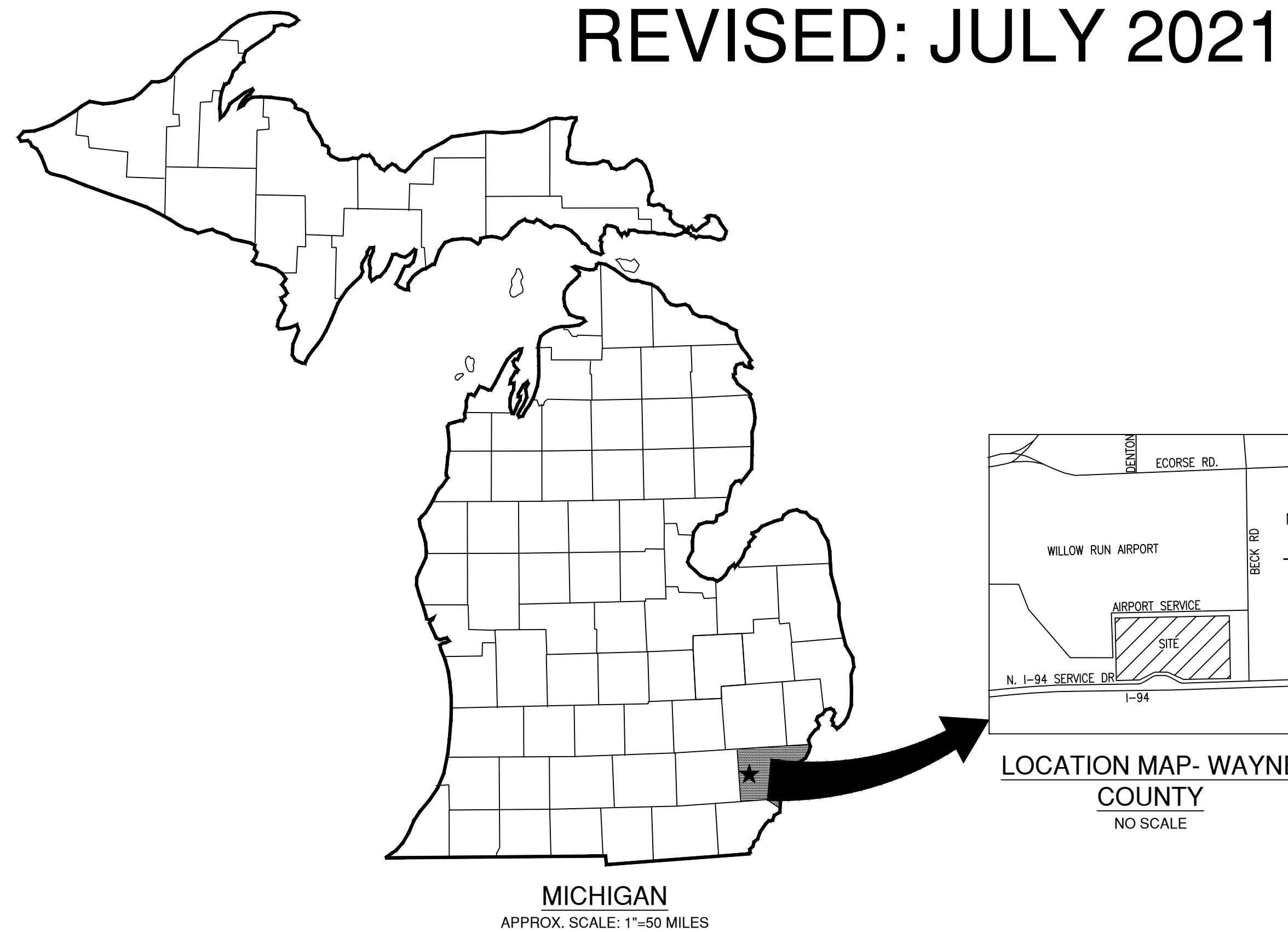
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

CTI PROJECT NO.1208070039

FEBRUARY 2011
REVISED: SEPTEMBER 2011
REVISED: MAY 2018
REVISED: MAY 2021
REVISED: JULY 2021

OWNER:
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111

ENGINEER:
CTI and Associates, Inc.
28001 Cabot Drive, Ste. 250
Novi, Michigan 48377

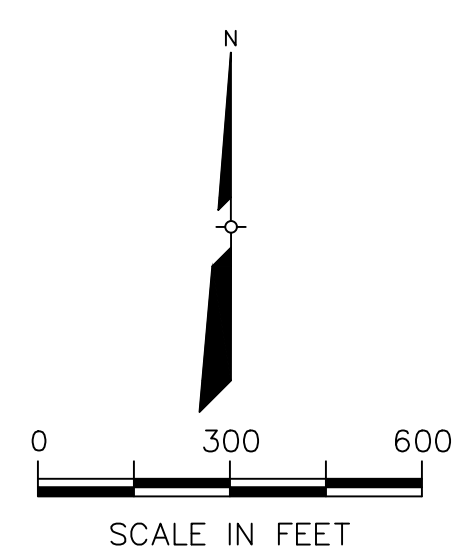


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**ADDITIONAL SHEETS 3&4 INCLUDED FROM THE 2011 NTH PERMIT TO SHOW UTILITIES IN MCI AND MCIV

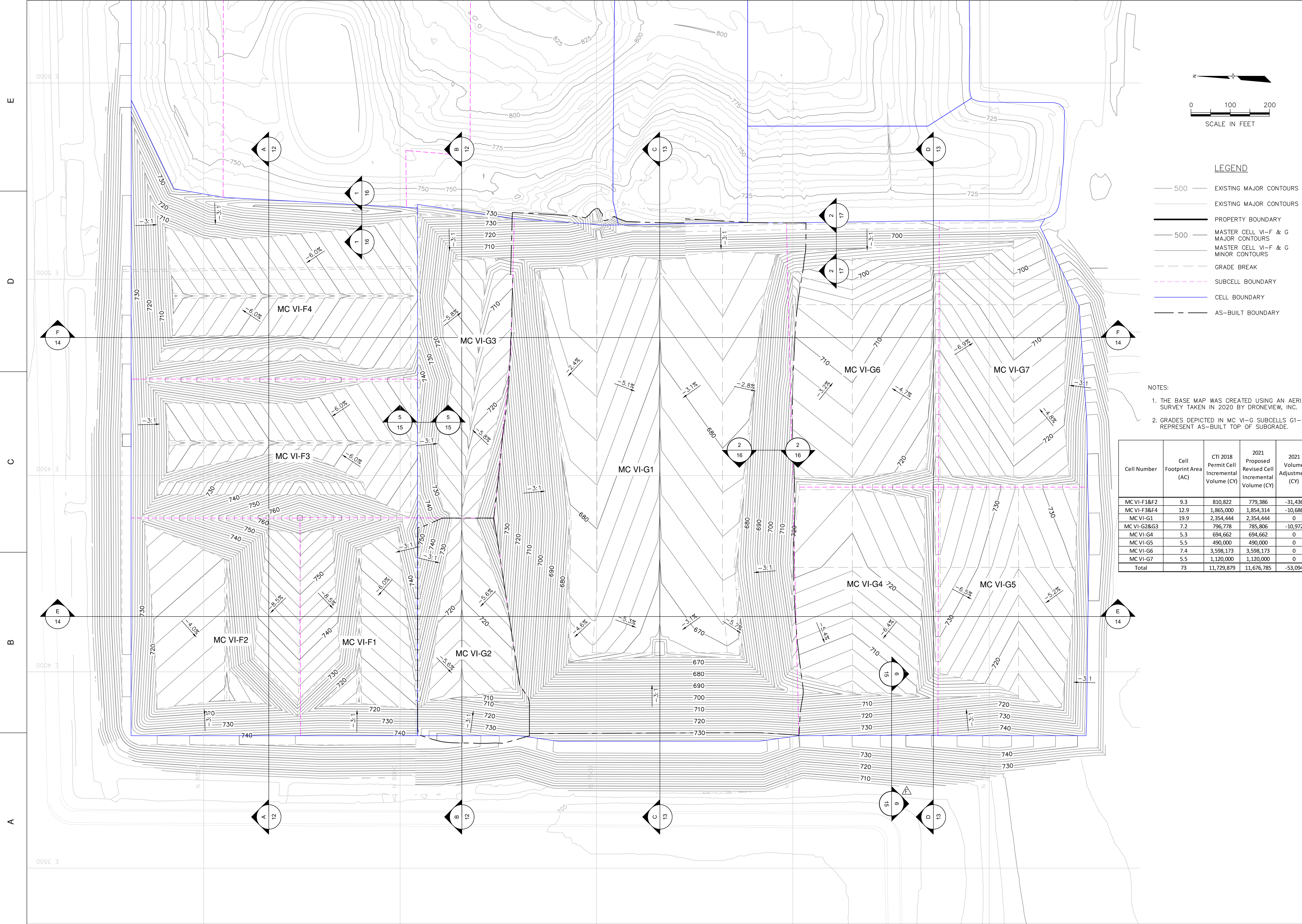
<p>CTI and Associates, Inc. 28001 Cabot Drive, Ste. 250 Novi, Michigan 48377 248.486.5100 (fax) 248.486.5050 www.cticompanies.com</p>		DATE: 7/14/21 DESIGNED BY: BA DRAWN BY: LEH CHECKED BY: CAB APPROVED BY: XZ
LEH XZ WRG XZ PAA XZ PAA XZ PAA XZ DRU DRN APP	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS ADDENDUM 1 REV. BASED ON MDEQ'S COMMENTS SUBCELLS G2 AND G3 REVISIONS PER MDEQ COMMENTS PHASING DESIGNATIONS REVISION DESCRIPTION	G 7/14/21 F 05/17/21 E 5/29/18 D 5/08/18 C 5/02/18 B 9/23/11 A 6/10/11 REV DATE
WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN		PROJECT NUMBER 1208070039 SCALE NONE DRAWING NO 01



- LEGEND**
- 500 — EXISTING MAJOR CONTOURS
 - — — EXISTING MINOR CONTOURS
 - - - - PREVIOUSLY PERMITTED HAZARDOUS WASTE BOUNDARY
 - — — PROPERTY BOUNDARY
 - - - - SUBCELL BOUNDARY
 - — — CELL BOUNDARY
 - — — CELL BOUNDARY (CLOSED)

NOTES:
 1. THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN DECEMBER, 2020 BY DRONEVIEW, INC..

PROJECT NUMBER 1208070039		DATE 05/17/21	
SCALE 1" = 300'		DESIGNED BY BA	
DRAWING NO 02		DRAWN BY WRG	
WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN		CHECKED BY CAB	
GENERAL SITE PLAN		APPROVED BY XZ	
C.T.I. and Associates, Inc. 2500 Chubbuck Road, Ste. 230 Novi, Michigan 48377 248.486.5100 (fax) 248.486.5050 www.cticompanies.com		This drawing was prepared by C.T.I. & Associates, Inc. (C.T.I.). C.T.I. will not be held liable for any modification to this drawing by anyone other than C.T.I. personnel. Original data furnished to C.T.I. is the property of the client. C.T.I. and Associates, Inc. will not be held liable for any modification to this drawing by anyone other than C.T.I. personnel. Original data furnished to C.T.I. is the property of the client.	
REV	DATE	DESCRIPTION	APP
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS	WRG XZ



LEGEND

- 500 — EXISTING MAJOR CONTOURS
- 500 — EXISTING MAJOR CONTOURS
- 500 — MASTER CELL VI-F & G MAJOR CONTOURS
- 500 — MASTER CELL VI-F & G MINOR CONTOURS
- - - GRADE BREAK
- - - SUBCELL BOUNDARY
- CELL BOUNDARY
- - - AS-BUILT BOUNDARY

NOTES:

1. THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.
2. GRADES DEPICTED IN MC VI-G SUBCELLS G1-G2 REPRESENT AS-BUILT TOP OF SUBGRADE.

Cell Number	Cell Footprint Area (AC)	CTI 2018 Permit Cell Incremental Volume (CY)	2021 Proposed Revised Cell Incremental Volume (CY)	2021 Volume Adjustment (CY)
MC VI-F1&F2	9.3	810,822	779,386	-31,436
MC VI-F3&F4	12.9	1,865,000	1,854,314	-10,686
MC VI-G1	19.9	2,354,444	2,354,444	0
MC VI-G2&G3	7.2	796,778	785,806	-10,972
MC VI-G4	5.3	694,662	694,662	0
MC VI-G5	5.5	490,000	490,000	0
MC VI-G6	7.4	3,598,173	3,598,173	0
MC VI-G7	5.5	1,120,000	1,120,000	0
Total	73	11,729,879	11,676,785	-53,094

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

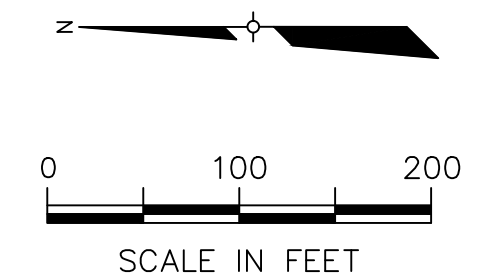
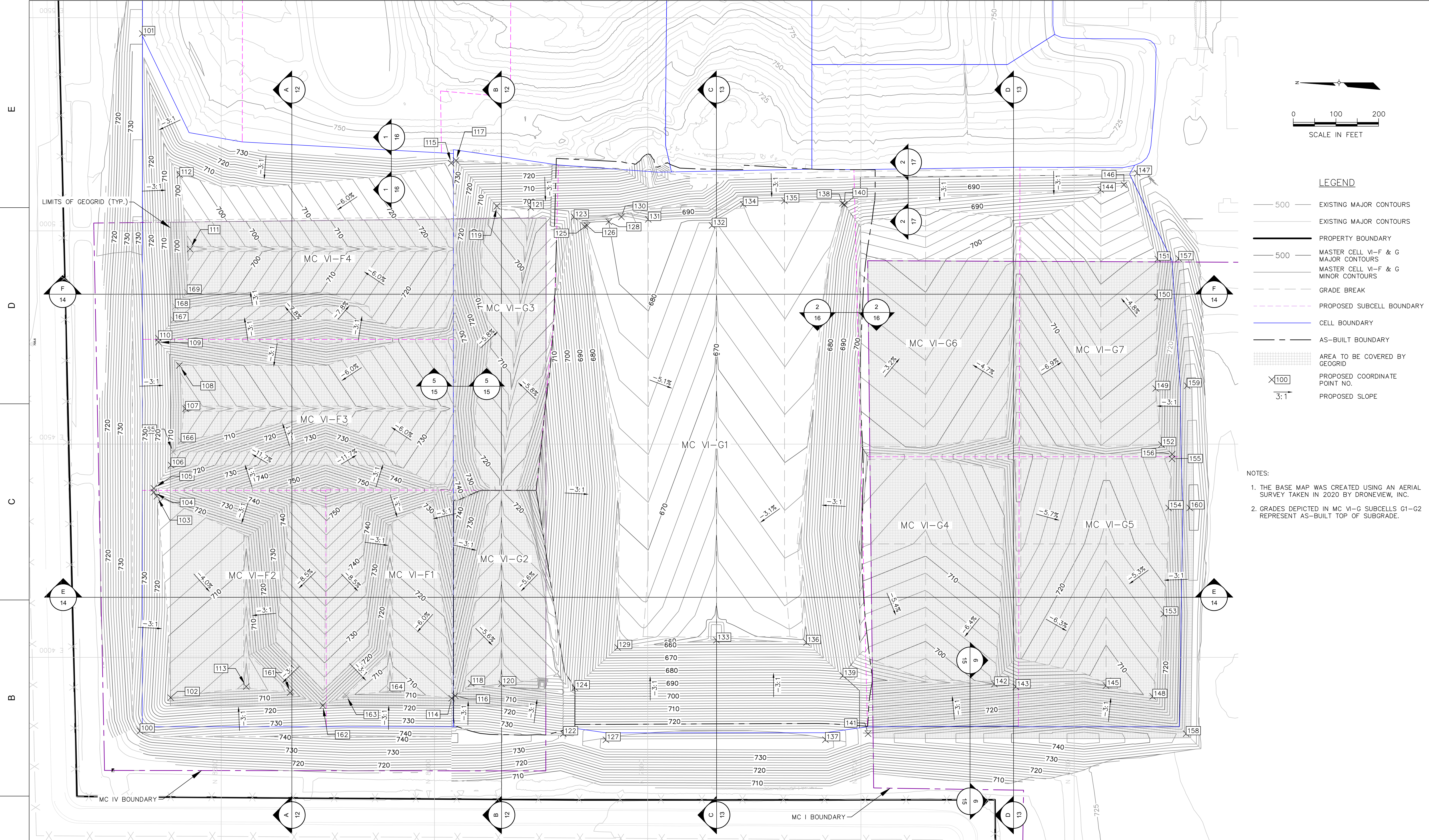
CONSTRUCTION PHASING

PROJECT NUMBER: 1208070039
 SCALE: 1" = 100'
 DRAWING NO: 03

CTI and Associates, Inc.
 2800 Locust Drive, Ste. 250
 Farmington Hills, MI 48334
 248.486.5100 (fax) 248.486.5050
 www.cticompanies.com

DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ

7/14/21
 G REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
 F REVISED LINER GRADES IN F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
 C 05/17/21 F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
 C 5/02/18 SUBCELLS G2 AND G3 REVISIONS
 C 9/23/11 PER MDCO COMMENTS
 A 6/10/11 PHASING DESIGNATIONS
 REV DATE REVISION DESCRIPTION



- LEGEND**
- 500 — EXISTING MAJOR CONTOURS
 - 500 — EXISTING MAJOR CONTOURS
 - 500 — MASTER CELL VI-F & G MAJOR CONTOURS
 - 500 — MASTER CELL VI-F & G MINOR CONTOURS
 - — GRADE BREAK
 - - - - - PROPOSED SUBCELL BOUNDARY
 - — CELL BOUNDARY
 - - - - - AS-BUILT BOUNDARY
 - ▨ AREA TO BE COVERED BY GEOGRID
 - X100 PROPOSED COORDINATE POINT NO.
 - 3:1 PROPOSED SLOPE

- NOTES:**
- THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.
 - GRADES DEPICTED IN MC VI-G SUBCELLS G1-G2 REPRESENT AS-BUILT TOP OF SUBGRADE.

SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES				SUBGRADE PERIMETER DIKE COORDINATES							
Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)	Point #	Northing	Easting	Elevation (ft)
100	8690.50	3827.42	734.59	109	8647.15	4739.42	718.12	118	7913.92	3939.16	700.65	127	7597.89	3806.80	735.60	136	7127.70	4034.87	660.23	145	6425.37	3933.71	704.74	154	6278.55	4350.36	723.66	163	8206.84	3910.54	710.69				
101	8685.01	5462.64	720.71	110	8647.41	4748.52	718.10	119	7853.52	5057.82	0.00	128	7591.06	5021.51	682.01	137	7083.24	3807.01	736.24	146	6383.17	5108.23	687.81	155	6270.50	4465.41	725.70	164	8104.44	3924.15	705.92				
102	8618.55	3905.51	705.52	111	8573.16	4957.47	690.00	120	7842.73	3938.19	697.92	129	7570.41	4023.20	663.24	138	7043.49	5064.48	678.89	147	6352.10	5135.27	696.41	156	6270.26	4476.27	725.42	165	8613.32	4481.85	708.19				
103	8651.01	4377.72	720.55	112	8597.34	5131.53	698.08	121	7774.33	5054.99	702.31	130	7561.67	5032.75	683.13	139	7042.16	3957.20	684.60	148	6316.02	3908.50	709.72	157	6254.80	4935.00	717.24	166	8593.98	4508.02	701.81				
104	8658.02	4387.32	722.90	113	8441.35	3931.51	700.30	122	7697.89	3821.03	730.74	131	7498.71	5027.05	685.09	140	7039.03	5062.00	677.47	149	6308.86	4630.41	711.90	158	6237.41	3821.03	736.23	167	8611.51	4791.69	705.67				
105	8657.98	4396.41	722.90	114	7959.71	3904.14	712.08	123	7672.54	5032.68	686.26	132	7349.00	5012.85	678.14	141	6983.25	3821.03	729.35	150	6304.89	4844.00	704.12	159	6235.06	4636.89	736.17	168	8607.56	4822.67	704.01				
106	8617.74	4450.87	709.61	115	7960.81	5158.83	731.11	124	7670.81	3928.84	694.50	133	7338.74	4040.41	658.10	142	6687.01	3937.42	698.98	151	6304.21	4934.01	700.81	160	6228.94	4350.65	739.90	169	8579.88	4856.23	694.33				
107	8583.70	4583.16	698.51	116	7951.05	3909.68	709.54	125	7647.66	5010.45	678.68	134	7276.06	5062.38	679.69	143	6636.63	3931.13	702.62	152	6295.30	4498.77	717.18	161	8338.55	3917.48	706.54								
108	8598.25	4684.50	702.46	117	7949.45	5164.97	0.00	126	7641.99	5012.71	680.19	135	7179.18	5070.45	681.75	144	6437.61	5096.19	685.31	153	6290.14	4101.64	716.79	162	8261.82	3887.03	717.74								

DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ

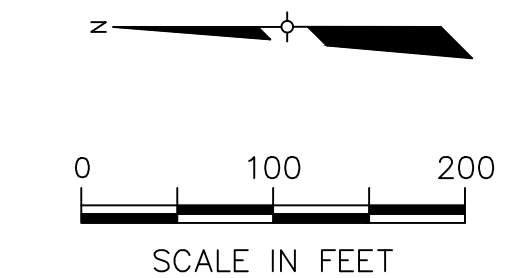
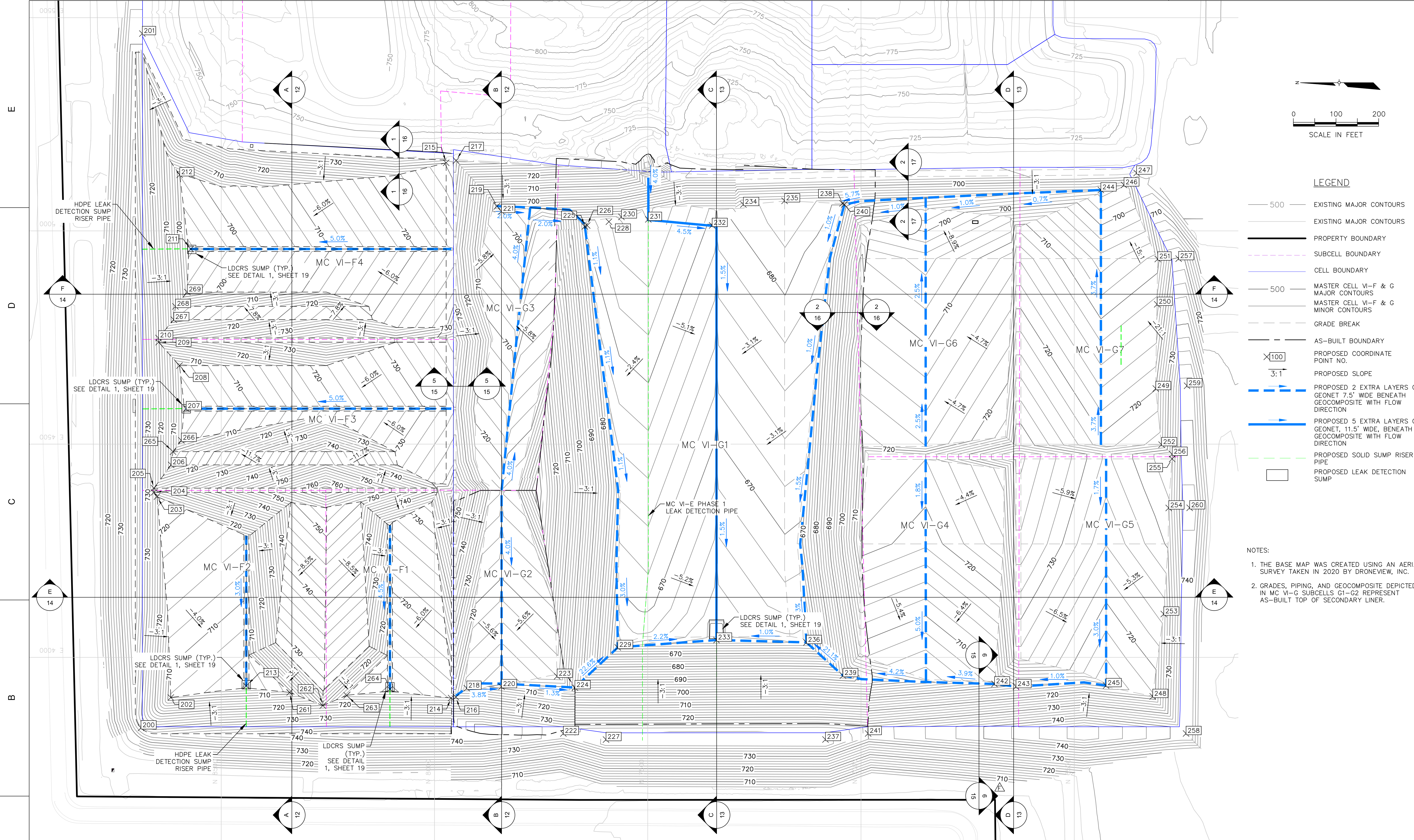
CTE and Associates, Inc.
 2800 Locust Drive, Ste. 250
 Farmington Hills, MI 48334
 248.486.5100 (fax) 248.486.5050
 www.ctecompanies.com

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REV	DATE	REVISION DESCRIPTION	DRAWN	CHECKED	APPROVED
1	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS	LEH	XZ	
2	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS	WFG	XZ	
3	9/23/11	PER MDCO COMMENTS	DRL		
4	6/10/11	PHASING DESIGNATIONS	DRL		

PROJECT NUMBER: 1208070039
 SCALE: 1" = 100'
 DRAWING NO: **04**

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN
TOP OF SUBGRADE GRADING PLAN



- LEGEND**
- 500 — EXISTING MAJOR CONTOURS
 - 500 — EXISTING MAJOR CONTOURS
 - — PROPERTY BOUNDARY
 - - - - SUBCELL BOUNDARY
 - — CELL BOUNDARY
 - 500 — MASTER CELL VI-F & G MAJOR CONTOURS
 - — MASTER CELL VI-F & G MINOR CONTOURS
 - - - - GRADE BREAK
 - - - - AS-BUILT BOUNDARY
 - ⊗100 PROPOSED COORDINATE POINT NO.
 - 3:1 PROPOSED SLOPE
 - — PROPOSED 2 EXTRA LAYERS OF GEONET 7.5' WIDE BENEATH GEOCOMPOSITE WITH FLOW DIRECTION
 - — PROPOSED 5 EXTRA LAYERS OF GEONET, 11.5' WIDE, BENEATH GEOCOMPOSITE WITH FLOW DIRECTION
 - — PROPOSED SOLID SUMP RISER PIPE
 - PROPOSED LEAK DETECTION SUMP

- NOTES:**
- THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.
 - GRADES, PIPING, AND GEOCOMPOSITE DEPICTED IN MC VI-G SUBCELLS G1-G2 REPRESENT AS-BUILT TOP OF SECONDARY LINER.

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
200	8688.12	3834.75	734.54
201	8685.01	5462.64	722.82
202	8618.20	3905.87	707.73
203	8650.61	4377.11	722.72
204	8657.79	4386.96	725.14
205	8657.75	4396.77	725.14
206	8617.41	4451.36	711.82
207	8582.14	4583.16	700.86
208	8597.91	4684.10	704.67

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
209	8646.85	4739.06	720.34
210	8647.14	4748.88	720.32
211	8571.60	4957.47	692.34
212	8597.34	5131.53	698.08
213	8441.35	3933.09	702.62
214	7961.13	3904.60	714.25
215	7972.65	5159.77	730.25
216	7949.91	3907.03	713.51
217	7949.45	5164.97	732.77

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
218	7924.24	3927.69	706.53
219	7853.52	5057.82	696.85
220	7842.87	3931.37	703.56
221	7842.87	5045.71	695.60
222	7697.85	3821.52	733.74
223	7712.50	3955.68	716.00
224	7670.78	3929.03	697.65
225	7647.54	5010.47	681.80
226	7641.99	5012.71	683.24

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
227	7597.85	3807.29	738.60
228	7591.06	5021.51	685.01
229	7570.29	4023.33	666.36
230	7561.67	5032.75	686.20
231	7498.71	5027.05	688.09
232	7349.00	5012.85	681.14
233	7338.74	4040.54	661.22
234	7275.80	5061.92	682.69
235	7179.18	5070.45	684.75

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
236	7127.83	4034.99	663.35
237	7083.28	3807.50	739.24
238	7043.49	5064.48	681.99
239	7042.34	3957.36	687.71
240	7039.01	5061.89	680.59
241	6983.28	3821.52	732.35
242	6686.99	3937.74	702.15
243	6636.62	3931.46	705.79
244	6437.59	5096.06	688.43

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
245	6425.35	3933.83	707.86
246	6383.34	5107.71	690.84
247	6353.82	5135.70	699.60
248	6316.02	3908.50	712.72
249	6308.86	4630.41	714.90
250	6305.63	4827.81	707.70
251	6304.21	4934.01	703.81
252	6295.30	4498.77	720.18
253	6290.14	4101.64	719.79

SECONDARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
254	6278.55	4350.36	726.66
255	6270.50	4465.41	728.70
256	6270.26	4476.27	728.59
257	6255.28	4934.88	720.24
258	6237.90	3821.52	739.23
259	6235.55	4636.87	739.17
260	6229.43	4350.65	742.90
261	8339.62	3917.89	708.70
262	8261.82	3887.03	720.06

SECONDARY DIKE COORDINATE POINTS

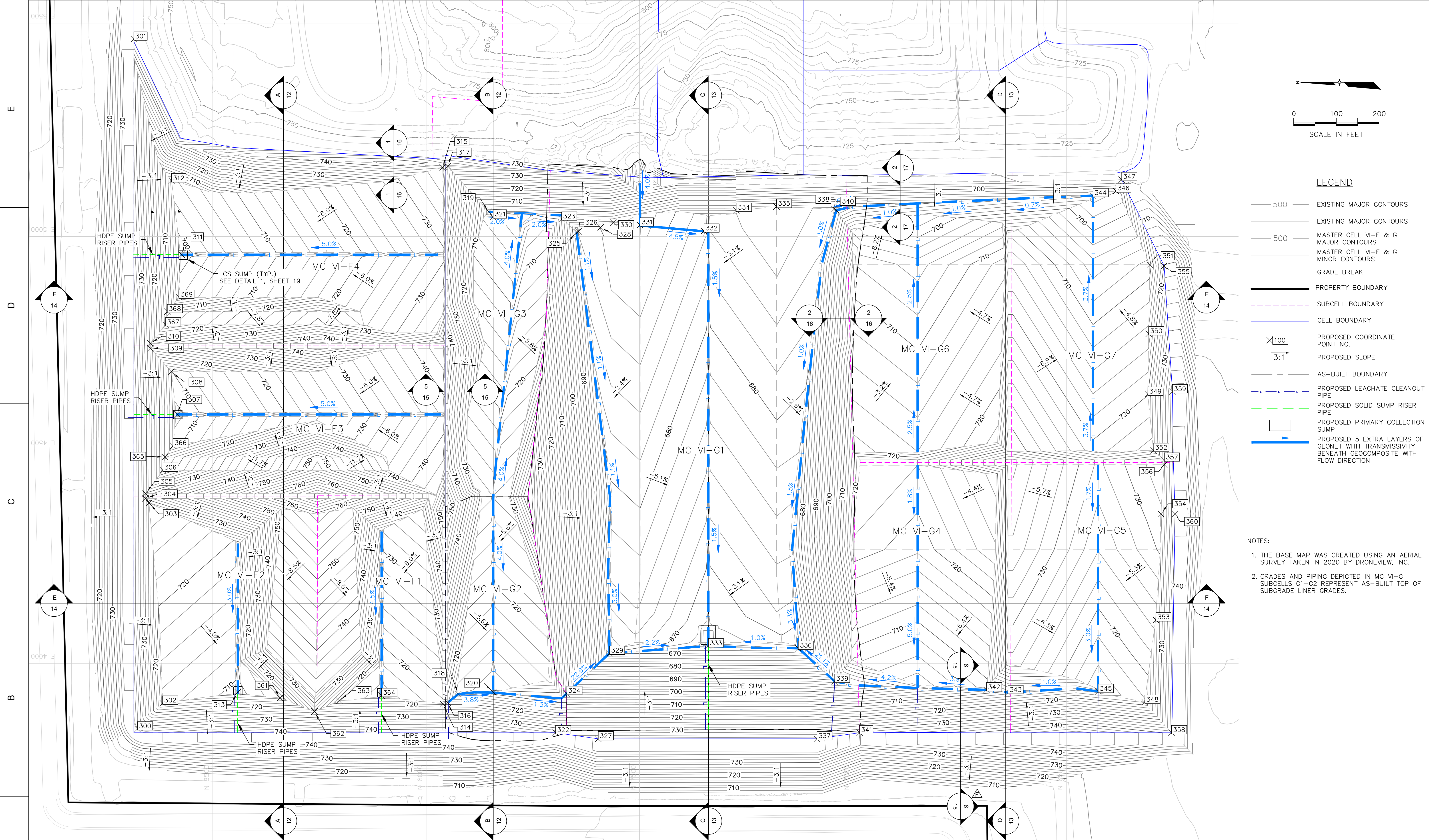
Point #	Northing	Easting	Elevation
263	8205.80	3910.98	712.87
264	8104.44	3925.52	708.25
265	8612.99	4482.34	710.40
266	8593.61	4508.90	704.00
267	8611.29	4791.97	707.91
268	8607.34	4822.95	706.25
269	8579.58	4856.63	696.54

CTI and Associates, Inc.
 2800 Cabot Drive, Ste. 250
 Farmington Hills, MI 48334
 248.466.5100 (fax) 248.466.5050
 www.cticompanies.com

DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ

7/14/21
 G 7/14/21 REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
 F 05/17/21 F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
 C 5/02/18 SUBCELLS G2 AND G3 REVISIONS
 B 9/23/11 PER MDCO COMMENTS
 A 6/10/11 PHASING DESIGNATIONS

REV DATE REVISION DESCRIPTION



- LEGEND**
- 500 — EXISTING MAJOR CONTOURS
 - 500 — EXISTING MAJOR CONTOURS
 - 500 — MASTER CELL VI-F & G MAJOR CONTOURS
 - 500 — MASTER CELL VI-F & G MINOR CONTOURS
 - - - GRADE BREAK
 - — PROPERTY BOUNDARY
 - - - SUBCELL BOUNDARY
 - — CELL BOUNDARY
 - X100 PROPOSED COORDINATE POINT NO.
 - 3:1 PROPOSED SLOPE
 - - - AS-BUILT BOUNDARY
 - - - PROPOSED LEACHATE CLEANOUT PIPE
 - - - PROPOSED SOLID SUMP RISER PIPE
 - PROPOSED PRIMARY COLLECTION SUMP
 - PROPOSED 5 EXTRA LAYERS OF GEONET WITH TRANSMISSIVITY BENEATH GEOCOMPOSITE WITH FLOW DIRECTION

- NOTES:**
- THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.
 - GRADES AND PIPING DEPICTED IN MC VI-G SUBCELLS G1-G2 REPRESENT AS-BUILT TOP OF SUBGRADE LINER GRADES.

DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ
 CTT and Associates, Inc.
 28001 Cabot Drive, Ste. 250
 248.466.5100 (fax) 248.466.5050
 www.cttcompanies.com

REV	DATE	DESCRIPTION
1	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
2	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
3	5/29/18	ADDENDUM 1
4	5/02/18	SUBCELLS G2 AND G3 REVISIONS
5	9/23/11	PER MFCO COMMENTS
6	6/10/11	PHASING DESIGNATIONS
7		REVISION DESCRIPTION

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
300	8676.40	3846.28	734.54
301	8685.01	5462.64	728.25
302	8617.38	3906.71	712.94
303	8649.60	4375.66	727.86
304	8657.24	4386.11	730.42
305	8657.19	4397.62	730.43
306	8616.71	4452.40	717.06
307	8583.27	4583.16	706.16
308	8597.12	4683.16	709.89

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
309	8646.14	4738.22	725.58
310	8646.48	4749.72	725.56
311	8572.76	4957.47	697.64
312	8596.51	5130.39	703.29
313	8441.35	3932.29	707.95
314	7960.91	3905.27	719.50
315	7961.26	5161.96	736.10
316	7949.75	3907.70	718.61
317	7949.45	5164.97	738.31

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
318	7924.50	3928.02	711.75
319	7853.52	5057.82	702.31
320	7842.87	3931.97	708.82
321	7842.87	5045.77	700.84
322	7696.73	3837.32	733.74
323	7682.58	5040.91	697.50
324	7670.57	3929.29	702.88
325	7647.35	5010.49	687.00
326	7642.85	5012.25	688.18

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
327	7596.74	3823.09	738.60
328	7591.06	5021.51	690.24
329	7570.10	4023.55	671.56
330	7561.67	5032.75	691.59
331	7498.71	5027.05	693.52
332	7349.00	5012.85	686.42
333	7338.74	4040.74	666.42
334	7273.49	5061.28	687.73
335	7179.18	5070.45	689.94

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
336	7128.04	4035.19	668.55
337	7084.38	3823.30	739.24
338	7043.49	5064.48	687.10
339	7042.63	3957.62	692.90
340	7038.96	5061.69	685.79
341	6984.38	3837.32	732.35
342	6686.99	3937.74	0.00
343	6636.62	3931.46	0.00
344	6437.60	5095.87	693.63

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
345	6425.32	3934.02	713.06
346	6383.71	5106.68	695.89
347	6370.28	5133.49	704.60
348	6316.02	3908.50	717.88
349	6308.86	4630.41	720.03
350	6307.07	4772.00	714.72
351	6304.21	4934.01	709.18
352	6295.30	4498.77	725.35
353	6290.14	4101.68	724.99

PRIMARY DIKE COORDINATE POINTS

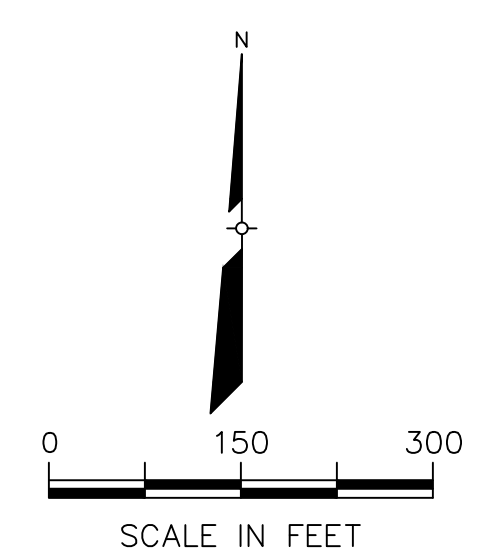
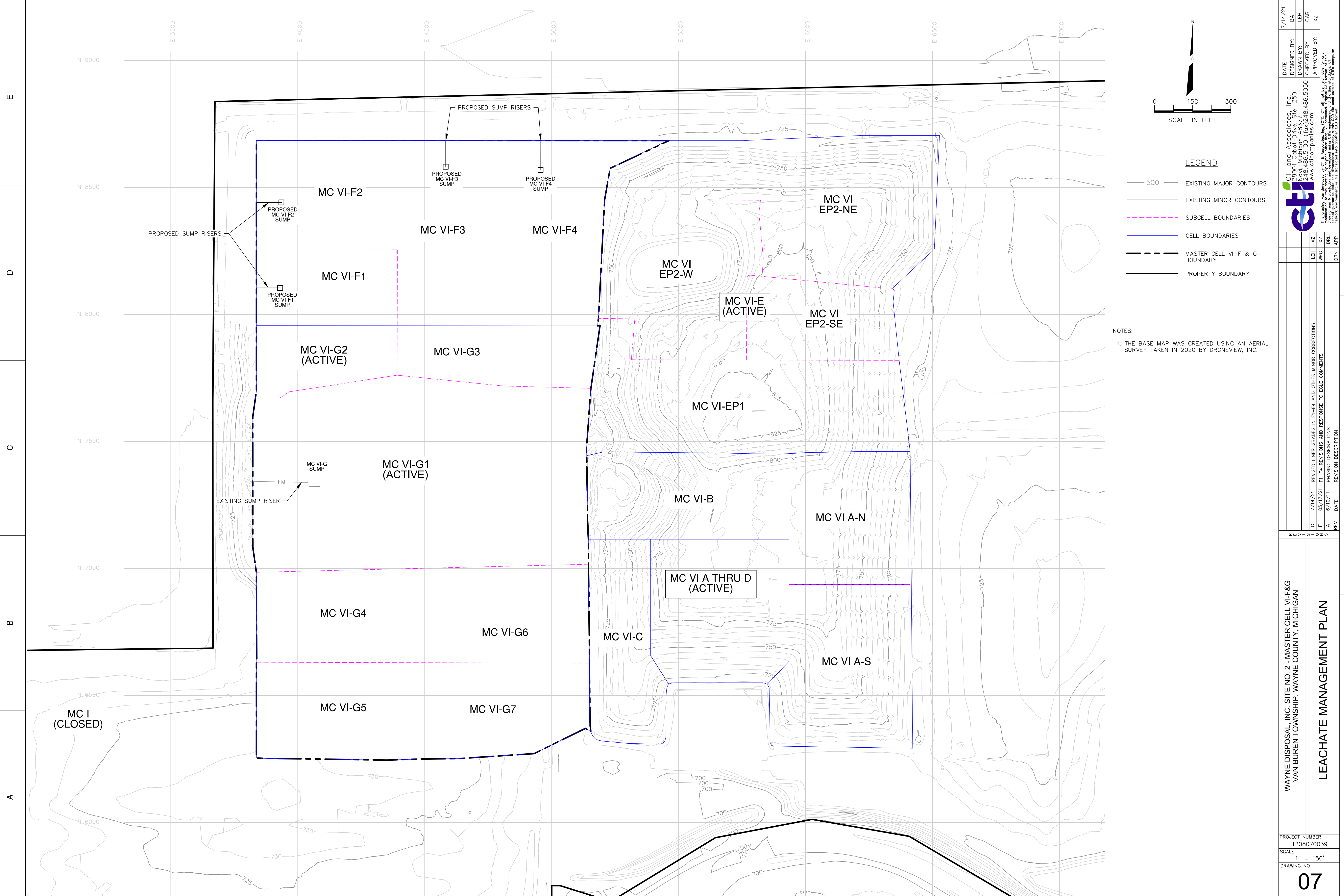
Point #	Northing	Easting	Elevation
354	6278.55	4350.36	731.79
355	6270.86	4931.07	720.24
356	6270.50	4465.41	733.79
357	6270.26	4476.27	733.80
358	6253.54	3837.32	739.23
359	6251.34	4636.24	739.17
360	6245.23	4350.52	742.90
361	8342.16	3918.88	713.80
362	8261.82	3887.00	725.54

PRIMARY DIKE COORDINATE POINTS

Point #	Northing	Easting	Elevation
363	8203.29	3912.03	718.03
364	8104.44	3924.55	713.57
365	8612.28	4483.38	715.64
366	8592.85	4509.67	709.22
367	8610.47	4793.01	713.10
368	8606.52	4823.99	711.44
369	8578.86	4857.57	701.75

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN
TOP OF PRIMARY LINER GRADING PLAN

PROJECT NUMBER: 1208070039
 SCALE: 1" = 100'
 DRAWING NO: **06**



LEGEND

- 500 — EXISTING MAJOR CONTOURS
- — EXISTING MINOR CONTOURS
- - - - - SUBCELL BOUNDARIES
- — — — — CELL BOUNDARIES
- - - - - MASTER CELL VI-F & G BOUNDARY
- — — — — PROPERTY BOUNDARY

NOTES:
 1. THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.

DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ

CTI and Associates, Inc.
 2800 Cabot Drive, Ste. 250
 248, 486-5100 (fax) 248, 486-5050
 www.cticompanies.com

REV	DATE	REVISION DESCRIPTION
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
A	6/10/21	PHASING DESIGNATIONS

LEH	XZ	DR	APP

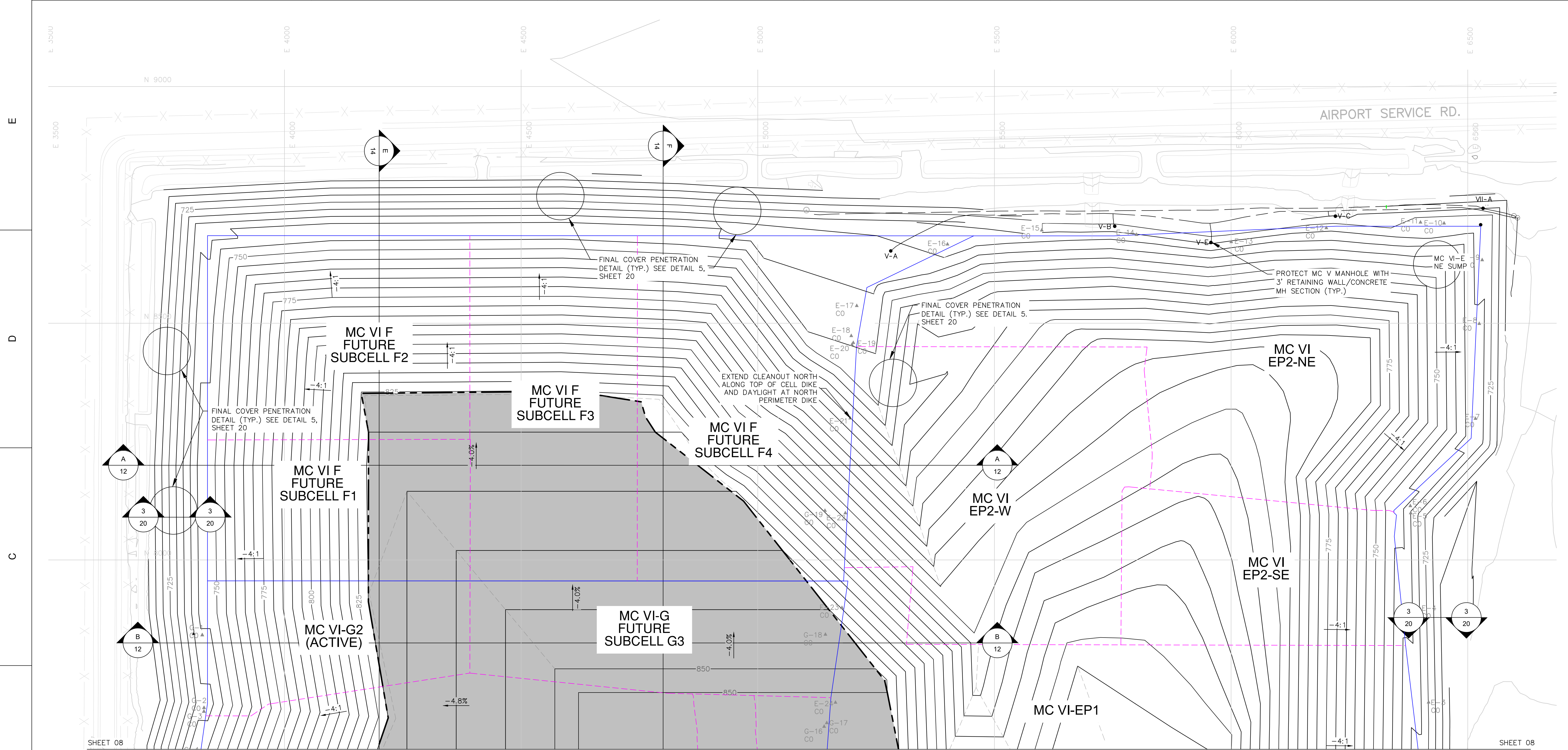
PROJECT NUMBER
1208070039

SCALE
1" = 150'

DRAWING NO
07

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

LEACHATE MANAGEMENT PLAN



LEGEND

- 500 — EXISTING MAJOR CONTOURS
- — — EXISTING MINOR CONTOURS
- 500 — PERMITTED TOP OF FINAL COVER MAJOR CONTOURS
- — — PERMITTED TOP OF FINAL COVER MINOR CONTOURS
- - - - - EXISTING GRADE BREAKLINES
- - - - - EXISTING LEACHATE FORCEMAIN
- - - - - SUBCELL BOUNDARY
- — — CELL BOUNDARY
- — — PROPOSED GEOCOMPOSITE (TRANSMISSIVITY 5.0 X 10⁻⁴ M²/S)
- G-6 CO-4 LEACHATE COLLECTION SYSTEM CLEANOUTS
- V-A EXISTING MANHOLES
- PROPOSED SUMP LOCATION AND COVER PENETRATION

NOTES:

1. THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.
2. INSTALL GAS MANAGEMENT SYSTEM IN ACCORDANCE WITH THE APPROVED CLOSURE PLAN.

DATE: 7/14/21
DESIGNED BY: BA
DRAWN BY: LEH
CHECKED BY: CAB
APPROVED BY: XZ

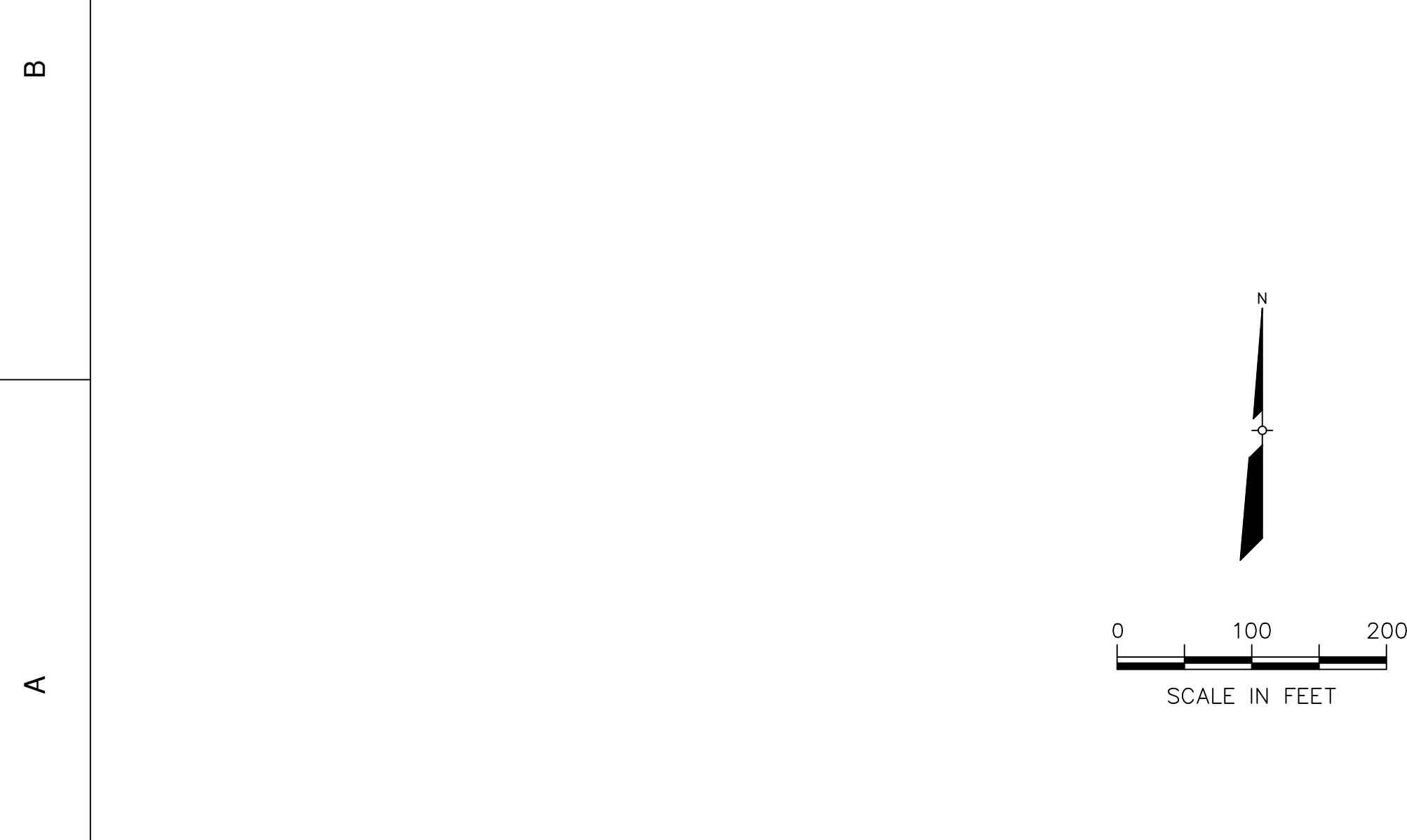
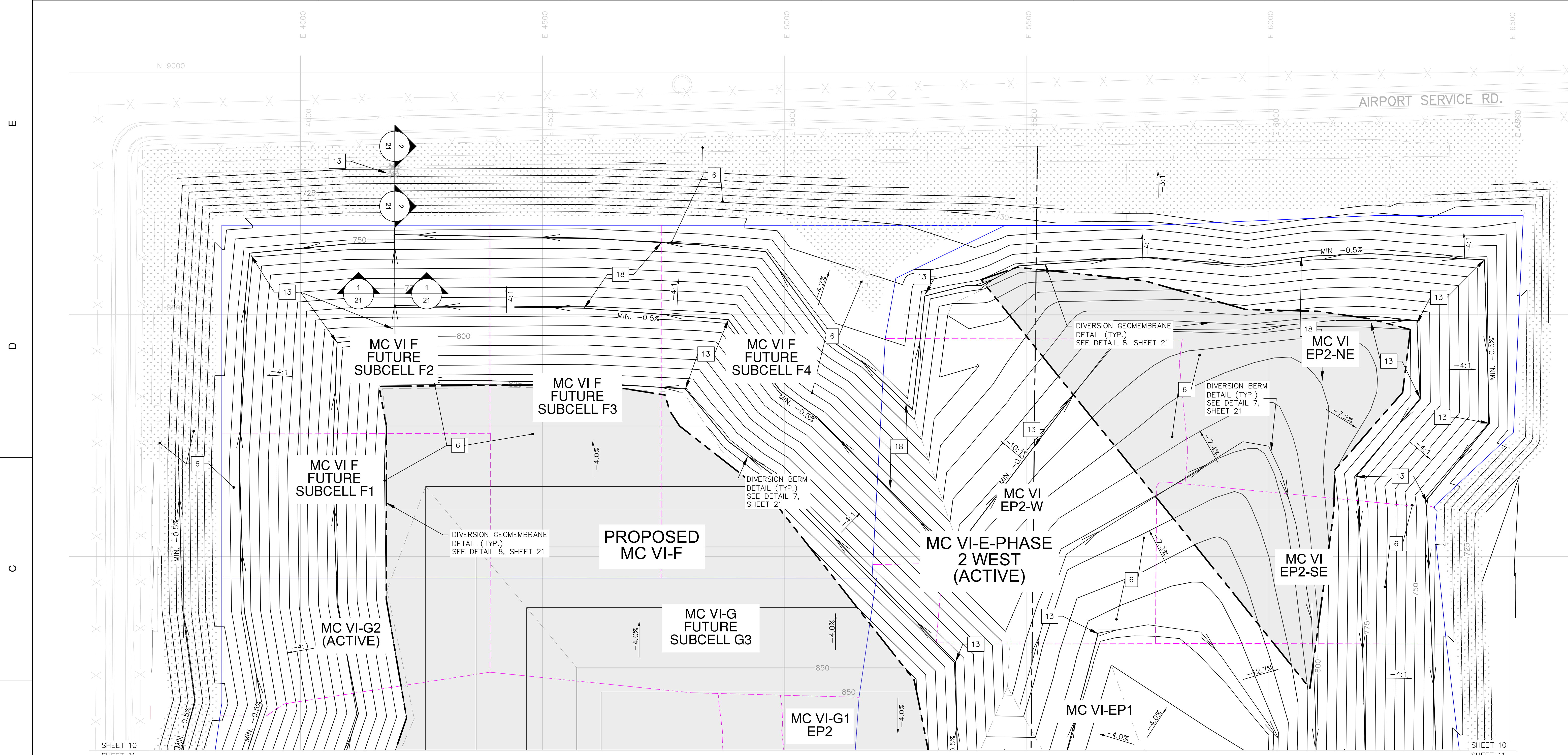
CTI and Associates, Inc.
28001 Cabot Drive, Ste. 250
Livonia, MI 48150
248.466.5100 (fax) 248.466.5050
www.cticompanies.com

PROJECT NUMBER: 1208070039
SCALE: 1" = 100'
DRAWING NO: 08

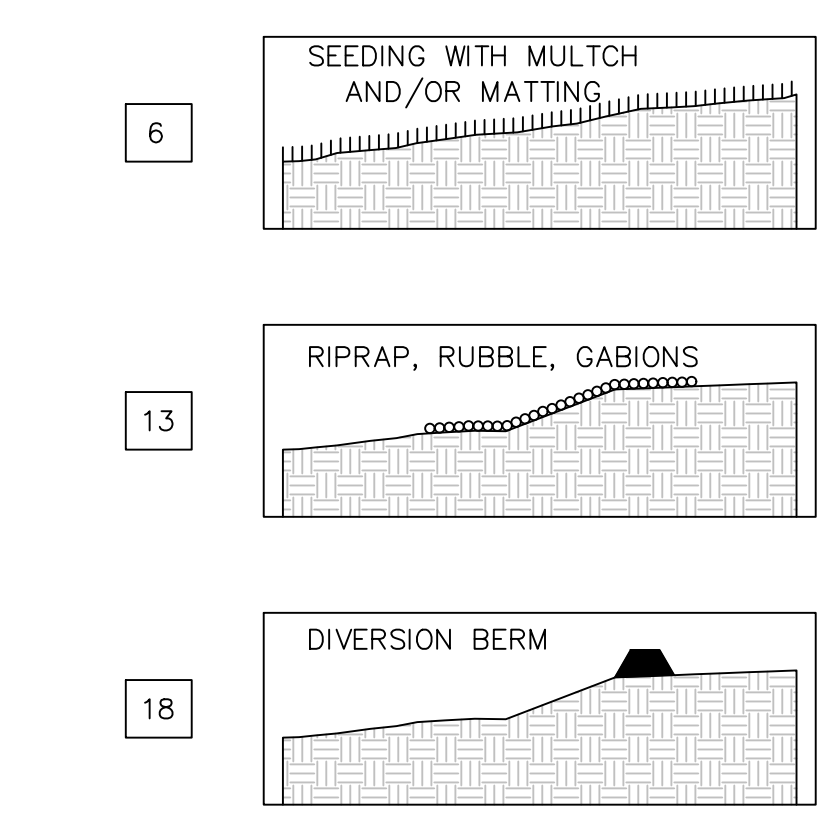
WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

FINAL COVER GRADING PLAN (1 OF 2)

REV	DATE	REVISION DESCRIPTION
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
C	05/02/18	SUBCELLS G2 AND G3 REVISIONS



- LEGEND**
- 500 — EXISTING MAJOR CONTOURS
 - — — EXISTING MINOR CONTOURS
 - 500 — PERMITTED TOP OF FINAL COVER MAJOR CONTOURS
 - — — PERMITTED TOP OF FINAL COVER MINOR CONTOURS
 - ~~~~~ EXISTING VEGETATION
 - - - - - PROPOSED GRADE BREAK
 - - - - - EXISTING GRADE BREAK
 - — — PROPOSED OUTLET SWALE
 - - - - - PROPOSED DIVERSION GEOMEMBRANE
 - - - - - SUBCELL BOUNDARY
 - — — CELL BOUNDARY
 - [Hatched Box] PROPOSED GEOCOMPOSITE (TRANSMISSIVITY 5.0 x 10⁻⁴ M²/S)
 - [Dotted Box] PROPOSED PERMANENT SEEDING—AT TIME OF DIKE CONSTRUCTION
 - [Arrow] PROPOSED DIVERSION BERM



NOTES:
 1. THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

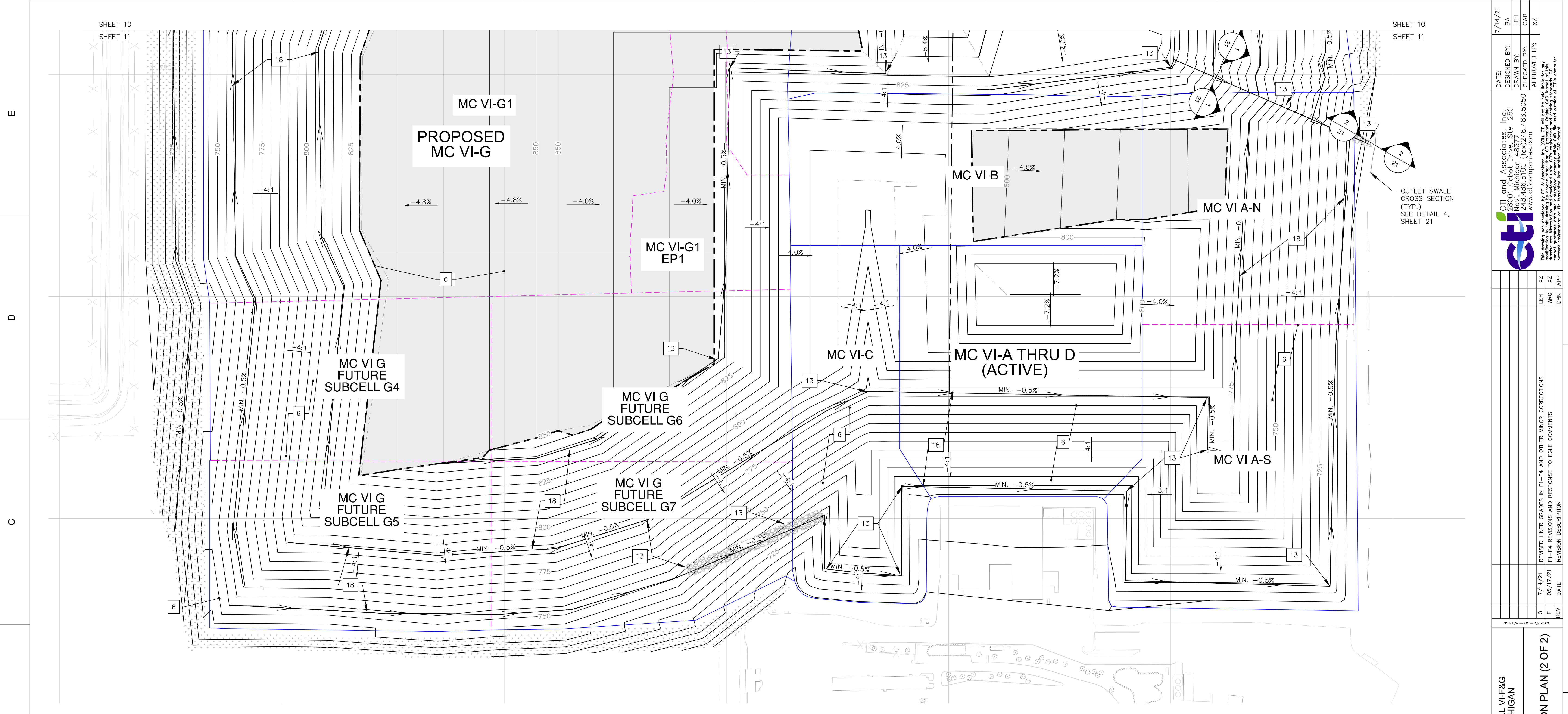
STORMWATER MANAGEMENT AND SEDIMENTATION PLAN (1 OF 2)

DATE:	7/14/21	DESIGNED BY:	BA	DRAWN BY:	LEH
CHECKED BY:	CAB	APPROVED BY:	XZ		

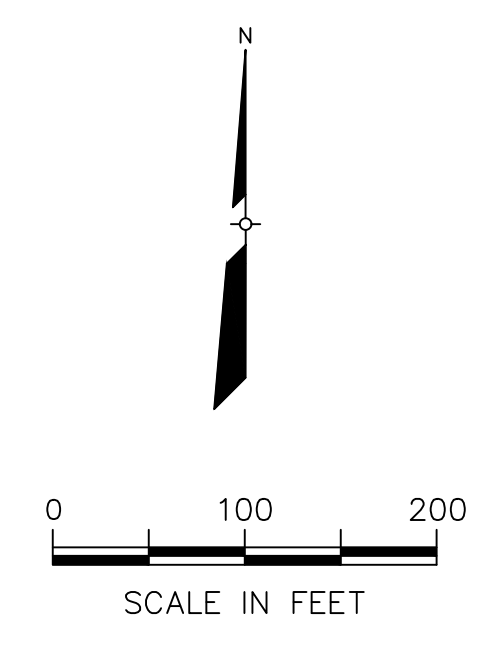
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REV	DATE	REVISION DESCRIPTION
G	7/14/21	REVISED LINDER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS

PROJECT NUMBER: 1208070039
 SCALE: 1" = 100'
 DRAWING NO: **10**

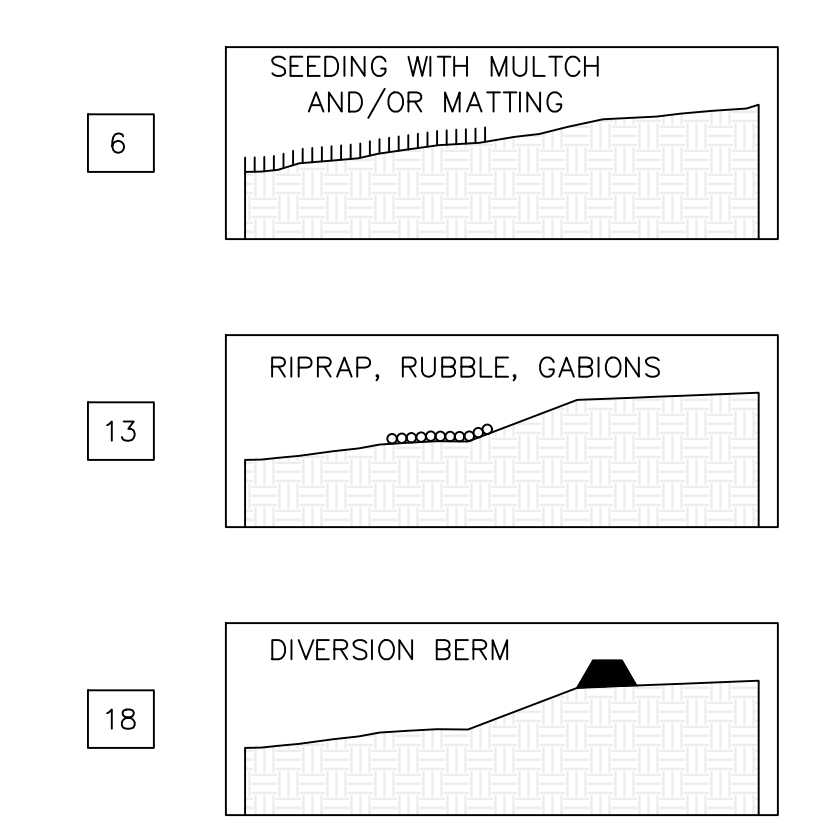


OUTLET SWALE
CROSS SECTION
(TYP.)
SEE DETAIL 4,
SHEET 21



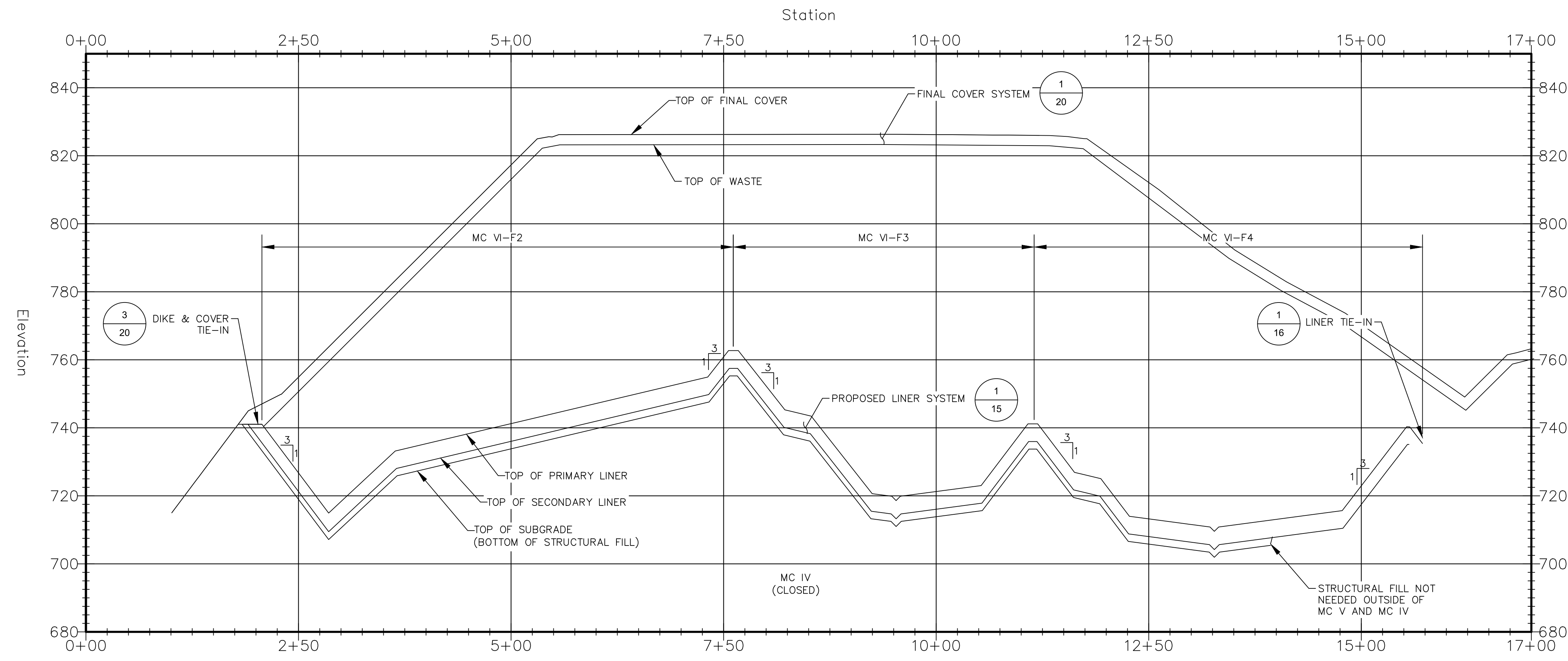
LEGEND

- 500 — EXISTING MAJOR CONTOURS
- — — EXISTING MINOR CONTOURS
- 500 — PERMITTED TOP OF FINAL COVER MAJOR CONTOURS
- — — PERMITTED TOP OF FINAL COVER MINOR CONTOURS
- ~~~~~ EXISTING VEGETATION
- - - - - PROPOSED GRADE BREAK
- - - - - EXISTING GRADE BREAK
- - - - - PROPOSED OUTLET SWALE
- - - - - PROPOSED DIVERSION GEOMEMBRANE
- - - - - SUBCELL BOUNDARY
- — — CELL BOUNDARY
- PROPOSED GEOCOMPOSITE (TRANSMISSIVITY 5.0 X 10⁻⁴ M²/S)
- PROPOSED RIP-RAP
- PROPOSED PERMANENT SEEDING-AT TIME OF DIKE CONSTRUCTION
- ➔ PROPOSED DIVERSION BERM

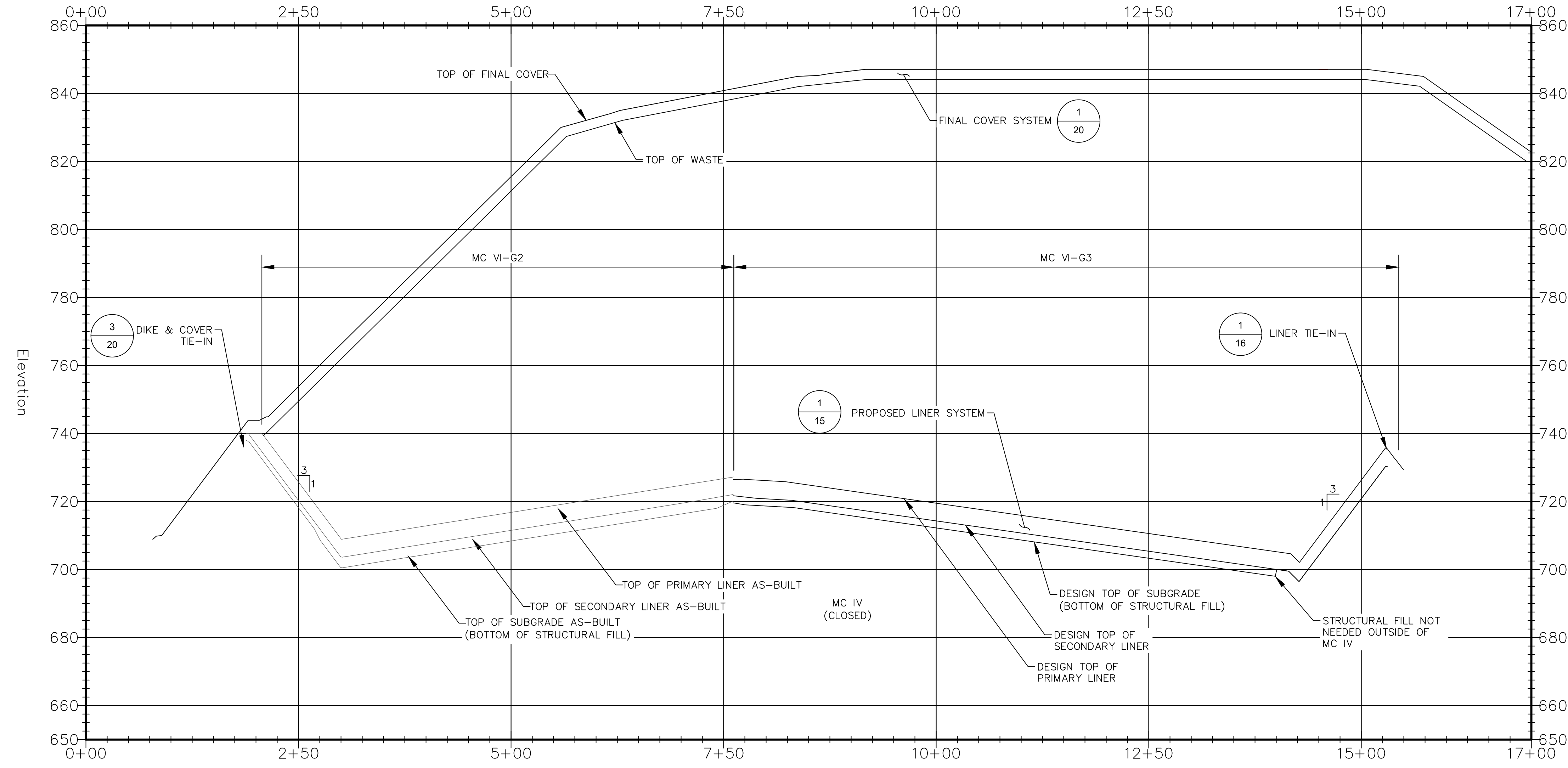


NOTES:
1. THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.

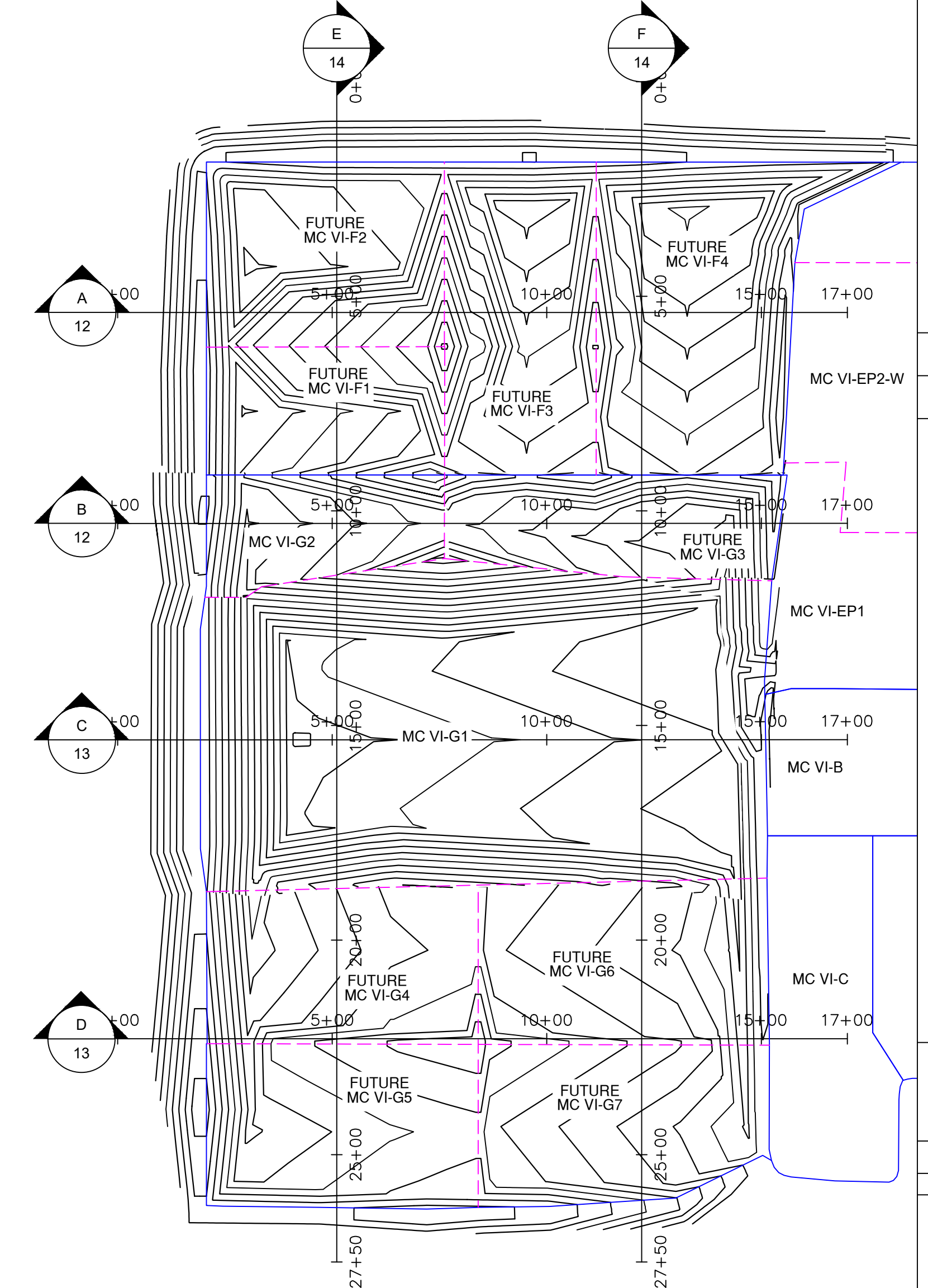
<p>CTI and Associates, Inc. 2800 Cabot Drive, Ste. 250 Livonia, MI 48150 248.486.5100 (Fax) 248.486.5050 www.cticompanies.com</p>	<p>DATE: 7/14/21 DESIGNED BY: BA DRAWN BY: LEH CHECKED BY: CAB APPROVED BY: XZ</p>									
<p>This project was prepared by CTI and Associates, Inc. (CTI) and its employees. The user of this drawing is responsible for providing the CTI personnel with all necessary information to complete the project. The user of this drawing is responsible for providing the CTI personnel with all necessary information to complete the project. The user of this drawing is responsible for providing the CTI personnel with all necessary information to complete the project.</p>										
<p>REVISION DESCRIPTION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>G</td> <td>7/14/21</td> <td>REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS</td> </tr> <tr> <td>F</td> <td>05/17/21</td> <td>F1-F4 REVISIONS AND RESPONSE TO EGE COMMENTS</td> </tr> </tbody> </table>	REV	DATE	DESCRIPTION	G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS	F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGE COMMENTS	<p>PROJECT NUMBER 1208070039</p> <p>SCALE 1" = 100'</p> <p>DRAWING NO 11</p>
REV	DATE	DESCRIPTION								
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS								
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGE COMMENTS								
<p>WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN</p> <p>STORMWATER MANAGEMENT AND SEDIMENTATION PLAN (2 OF 2)</p>										



A SECTION THROUGH MC VI-F
 SCALE: 1"=80' (HORIZONTAL), 1"=10' (VERTICAL)



B SECTION THROUGH MC VI-G
 SCALE: 1"=80' (HORIZONTAL), 1"=10' (VERTICAL)



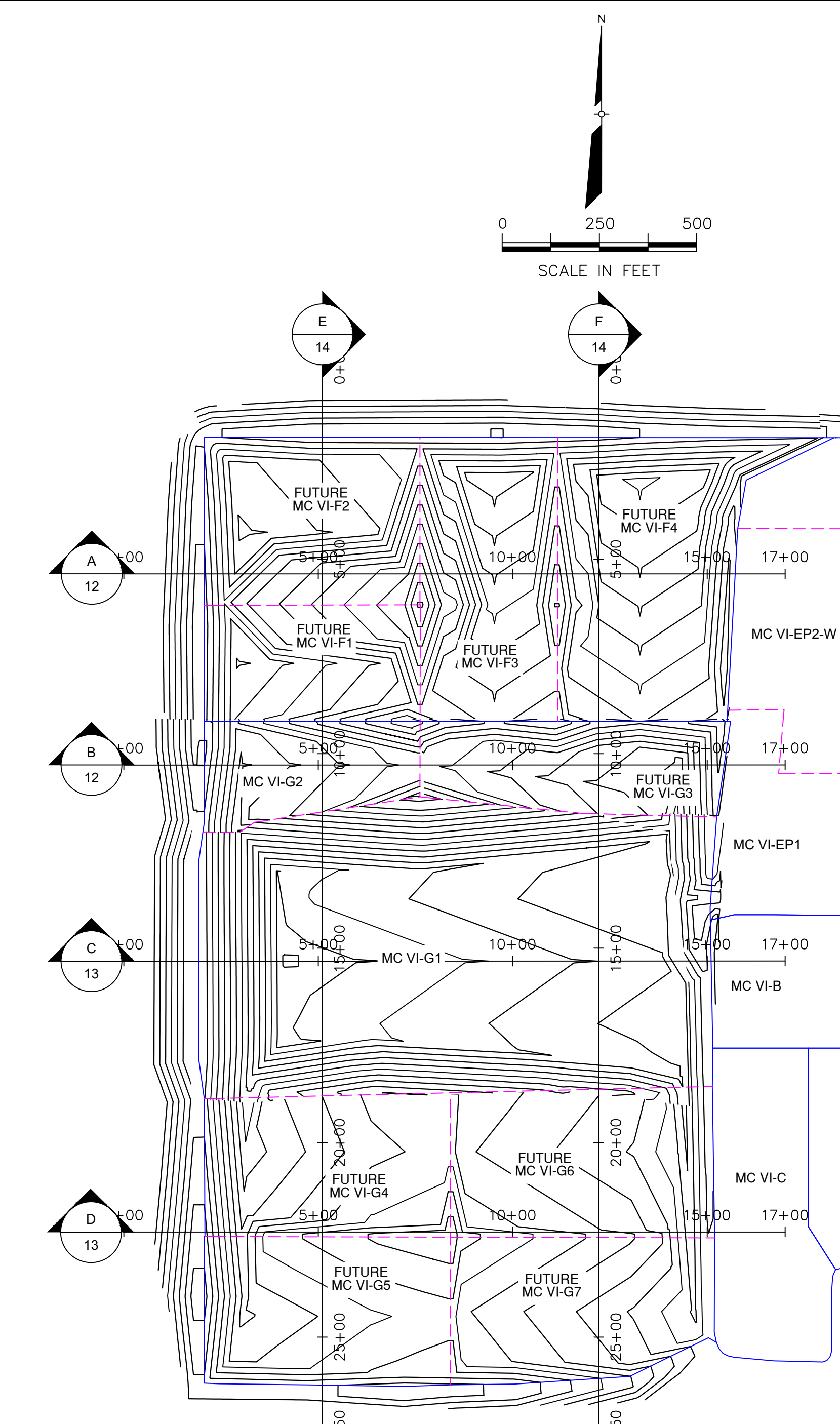
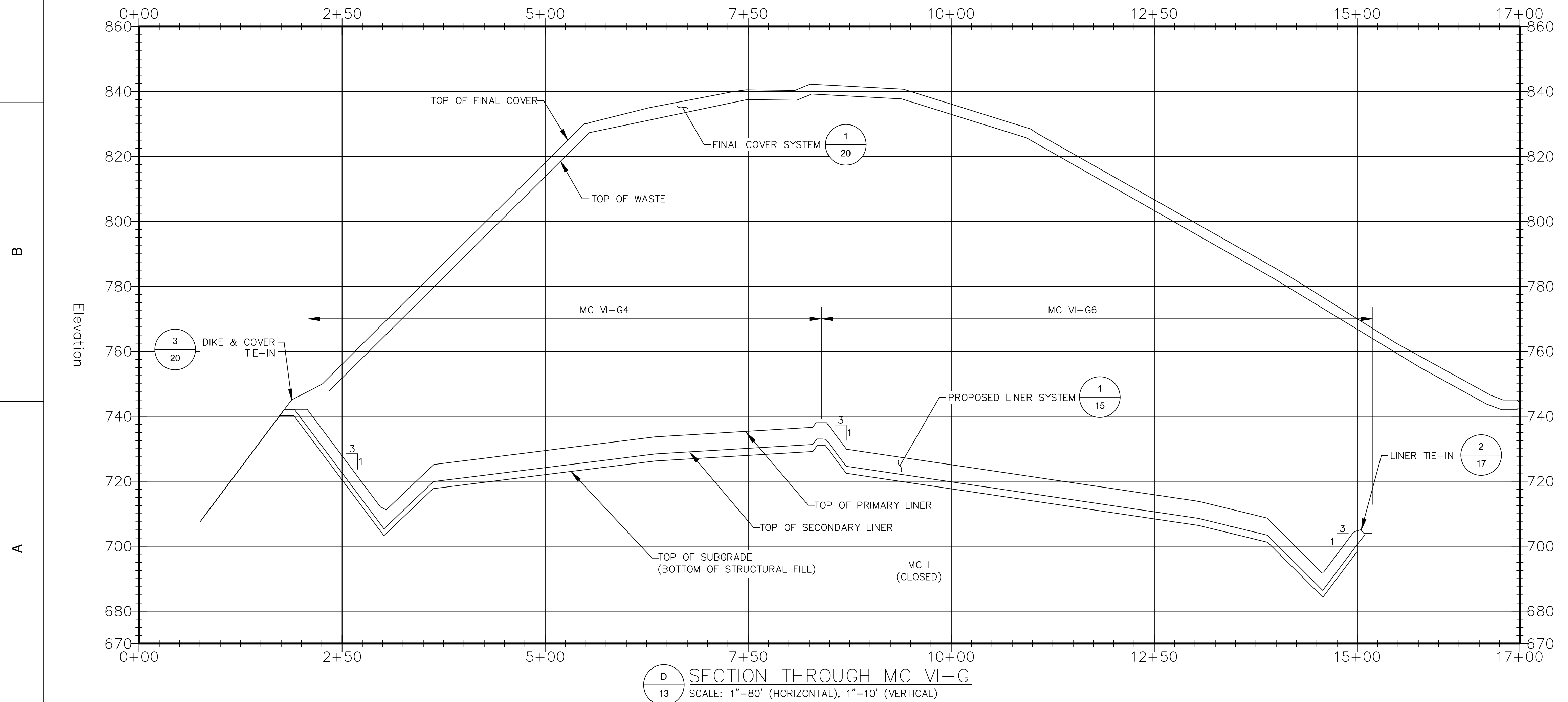
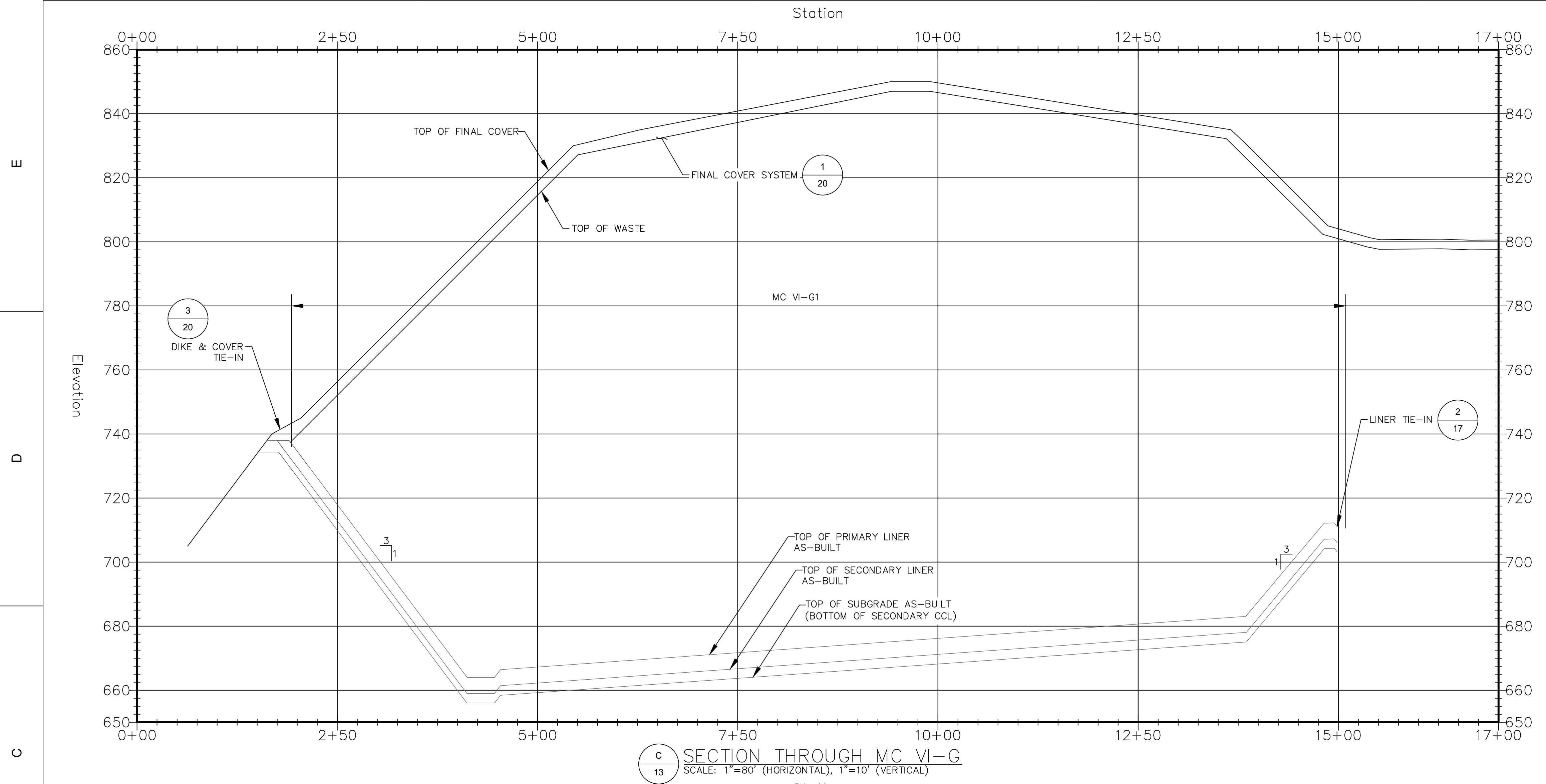
DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ
 www.cti.com

REV	DATE	DESCRIPTION
F	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
G	5/02/18	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
C	5/02/18	SUBCELLS G2 AND G3 REVISIONS
B	9/23/11	PER MICRO COMMENTS
A	6/10/11	PHASING DESIGNATIONS

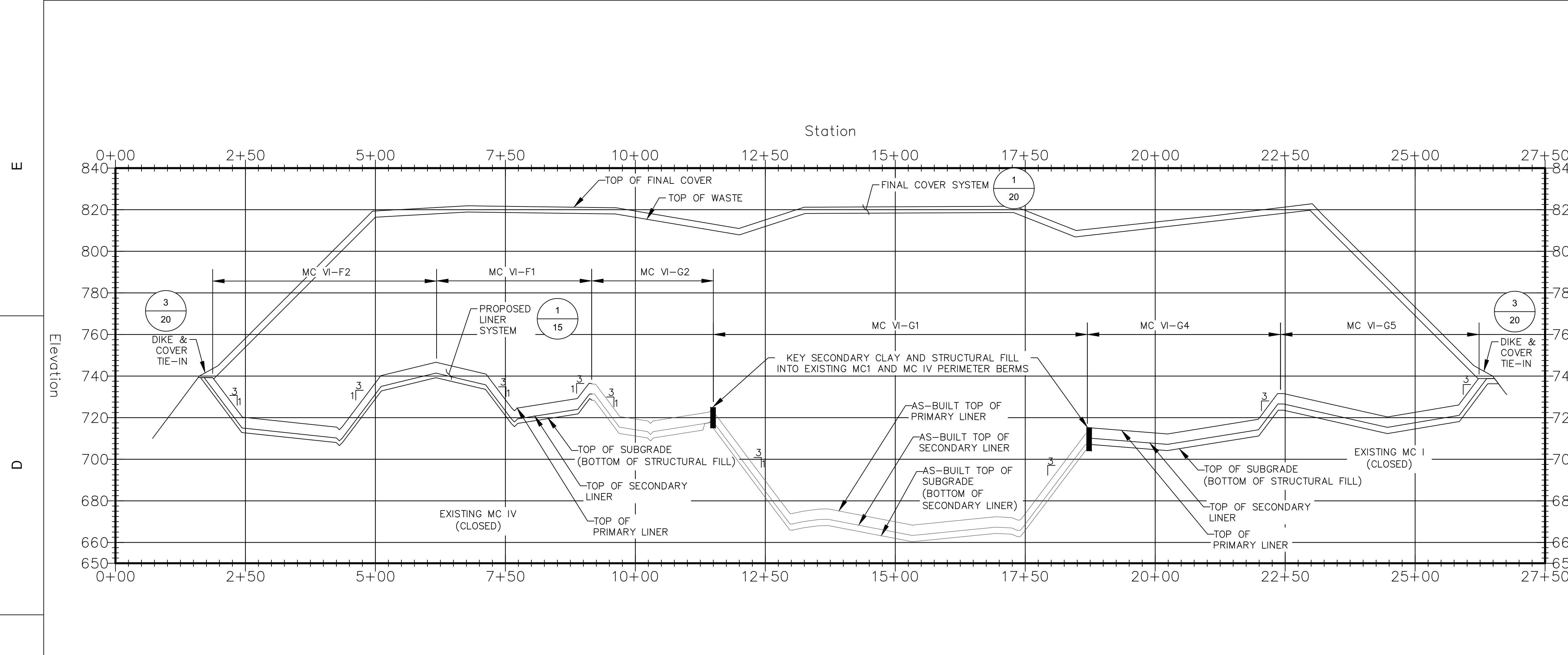
WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

PROJECT NUMBER: 1208070039
 SCALE: AS SHOWN
 DRAWING NO: 12

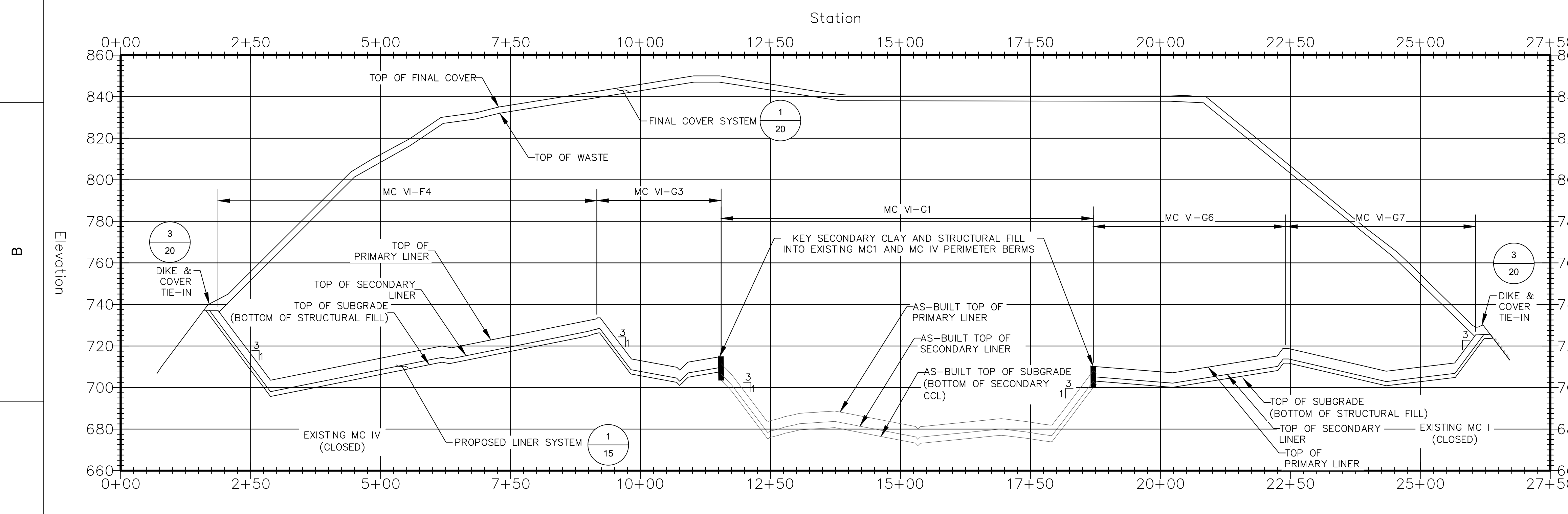
CROSS SECTIONS (1 OF 3)



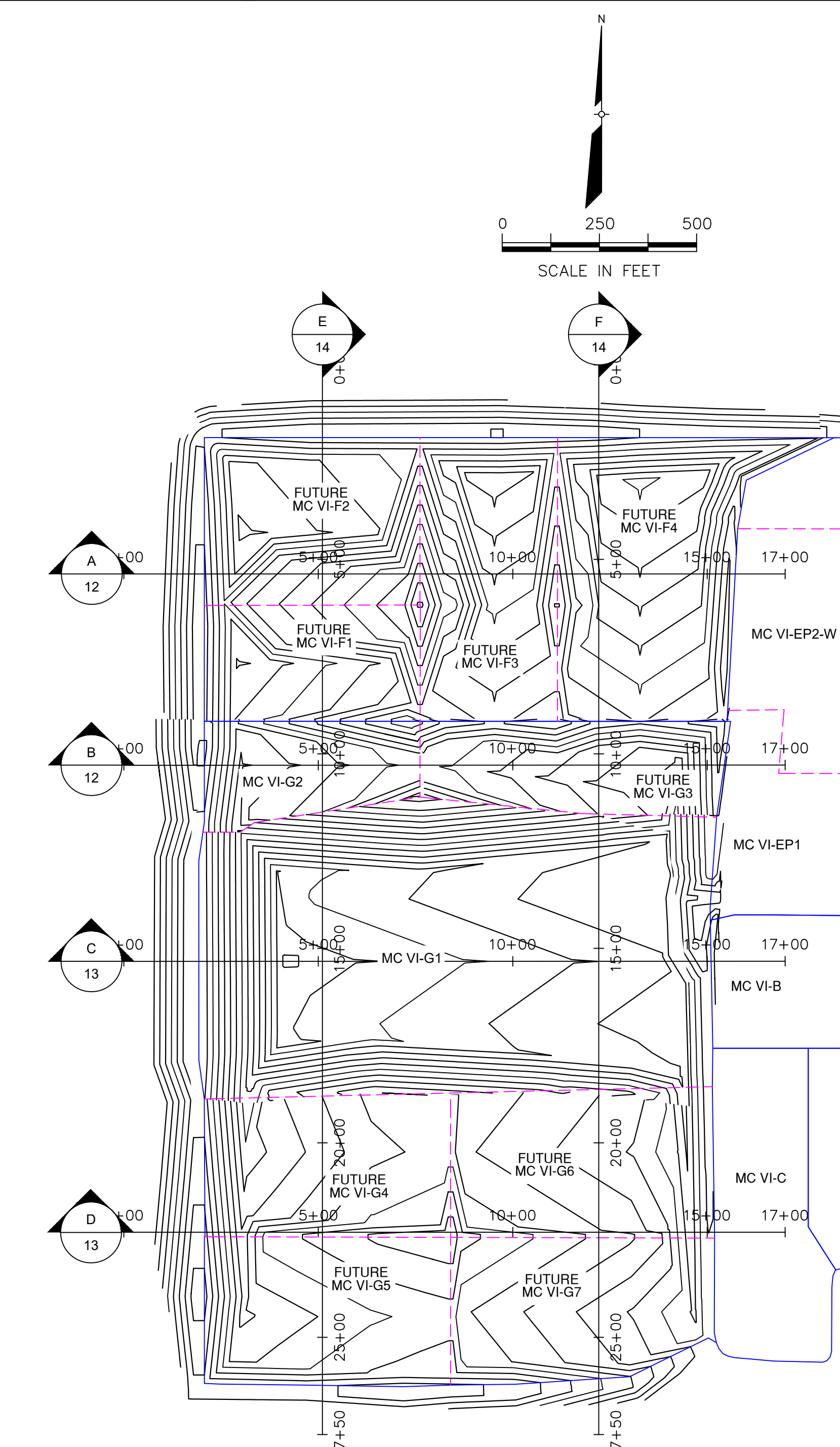
DATE: 7/14/21 DESIGNED BY: BA DRAWN BY: LEH CHECKED BY: CAB APPROVED BY: XZ		 CTI and Associates, Inc. 2800 Cabot Drive, Ste. 250 Farmington Hills, MI 48334 (248) 486-5100 (fax) 248-486-5050 www.cticompanies.com	PROJECT NUMBER 1208070039 SCALE AS SHOWN DRAWING NO 13
REVISIONS: G 7/14/21 REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS F 05/17/21 F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS C 5/02/18 SUBCELLS G2 AND G3 REVISIONS			
REVISION DESCRIPTION LEH XZ WRG XZ PAA XZ DDN APP		WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN CROSS SECTIONS (2 OF 3)	



E SECTION THROUGH MC VI-F AND MC VI-G
 SCALE: 1"=125' (HORIZONTAL), 1"=10' (VERTICAL)



F SECTION THROUGH MC VI-F AND MC VI-G
 SCALE: 1"=125' (HORIZONTAL), 1"=10' (VERTICAL)



DATE: 7/14/21
 DESIGNED BY: BA
 DRAWN BY: LEH
 CHECKED BY: CAB
 APPROVED BY: XZ

CTI
 CTI and Associates, Inc.
 2800 Cabot Drive, Ste. 250
 Farmington Hills, MI 48334
 (248) 486-5100 (fax) 248.486.5050
 www.cticompanies.com

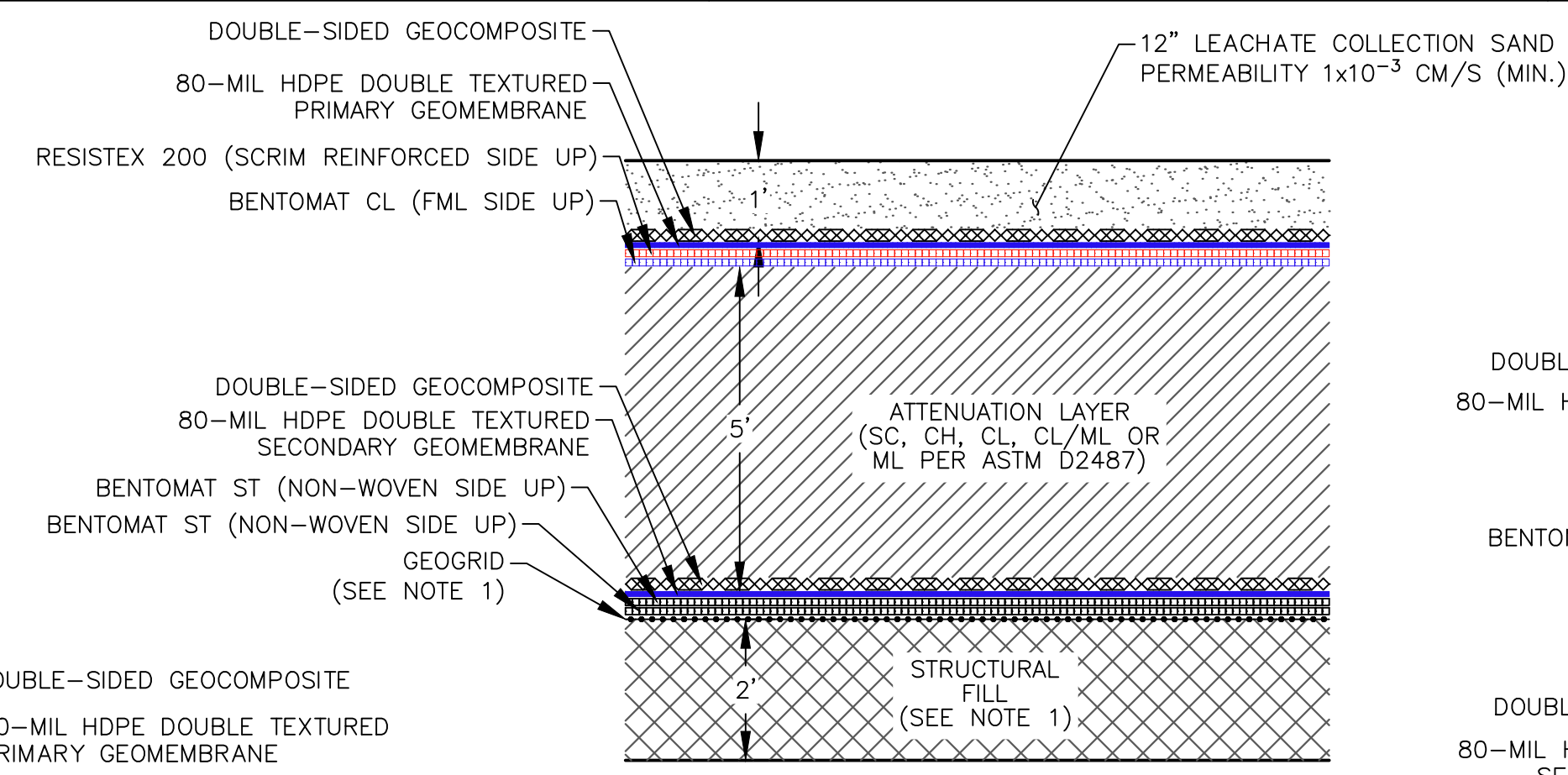
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REV	DATE	REVISION DESCRIPTION
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
C	5/02/18	SUBCELLS G2 AND G3 REVISIONS
0		

PROJECT NUMBER: 1208070039
 SCALE: AS SHOWN
 DRAWING NO: 14

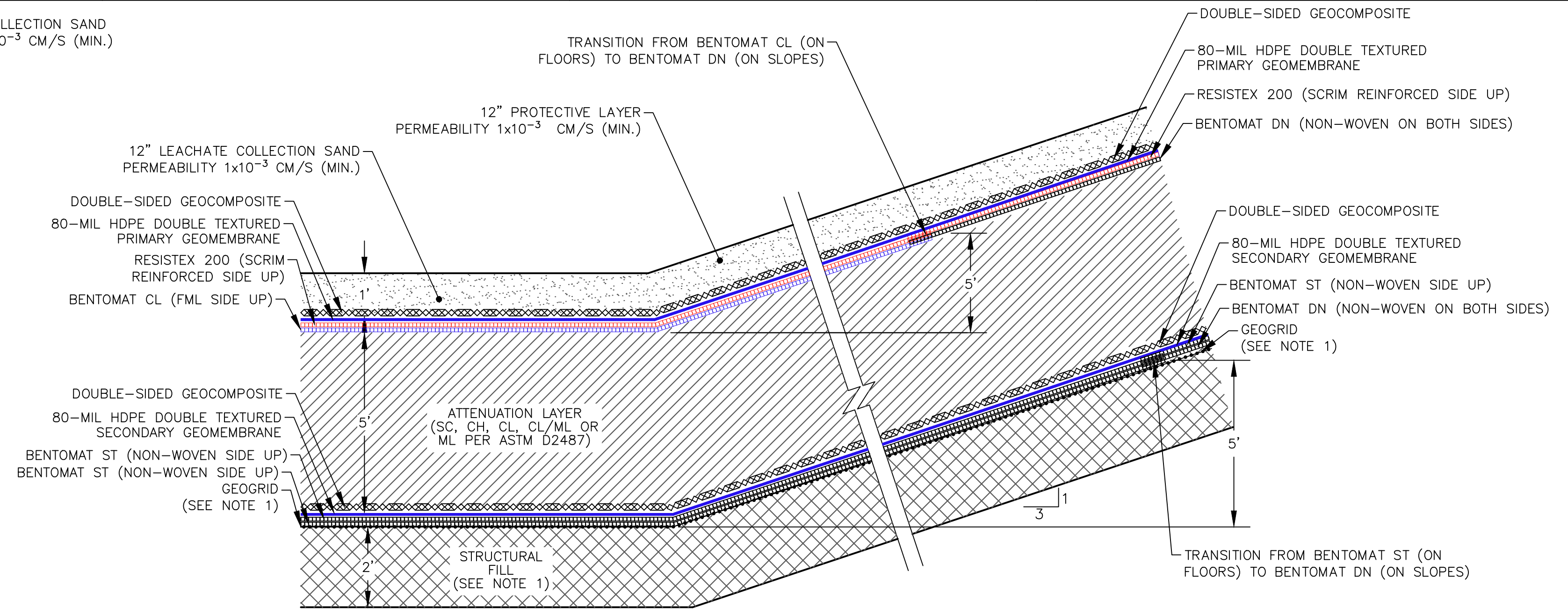
WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
 VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN
CROSS SECTIONS (3 OF 3)

E
D
C
B
A



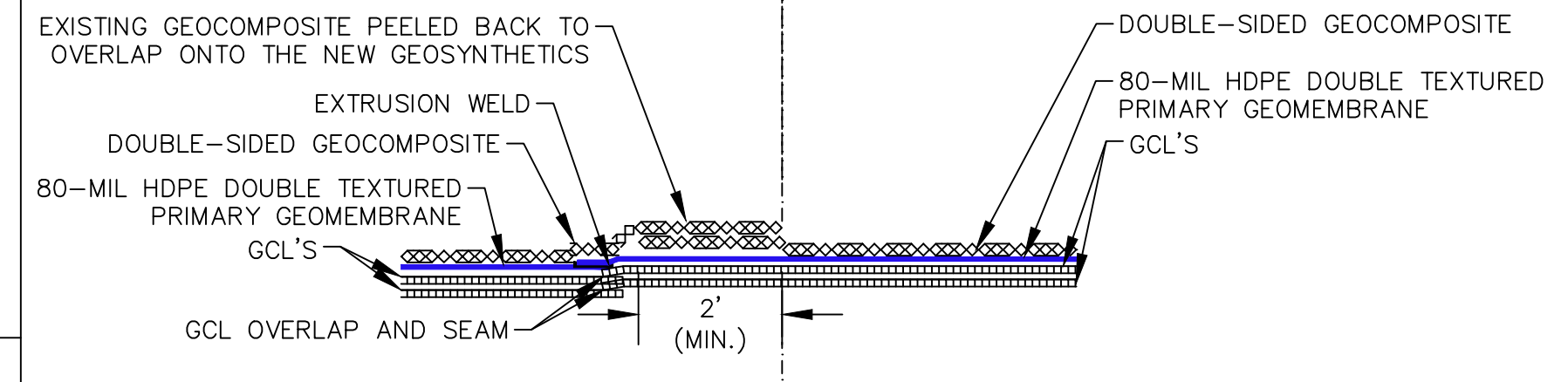
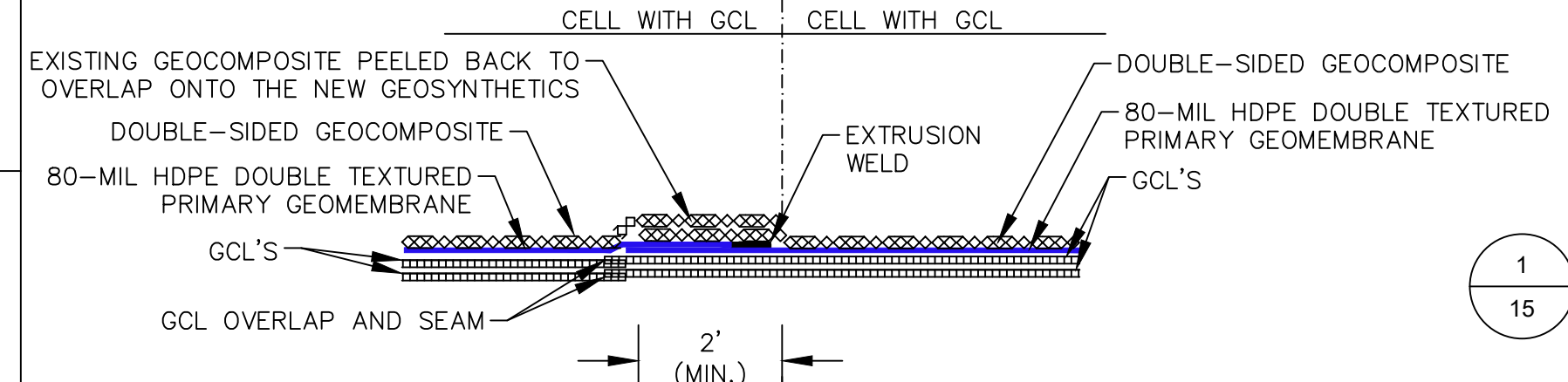
1
15
PROPOSED FLOOR LINER SYSTEM USING GCL
NOT TO SCALE

- NOTE:
- STRUCTURAL FILL AND GEOGRID NOT REQUIRED OUTSIDE OF MC I AND MC IV. SEE LIMITS ON SHEET 04
 - SEE DETAIL 4 SHEET 17 FOR GCL OVERLAP REQUIREMENT



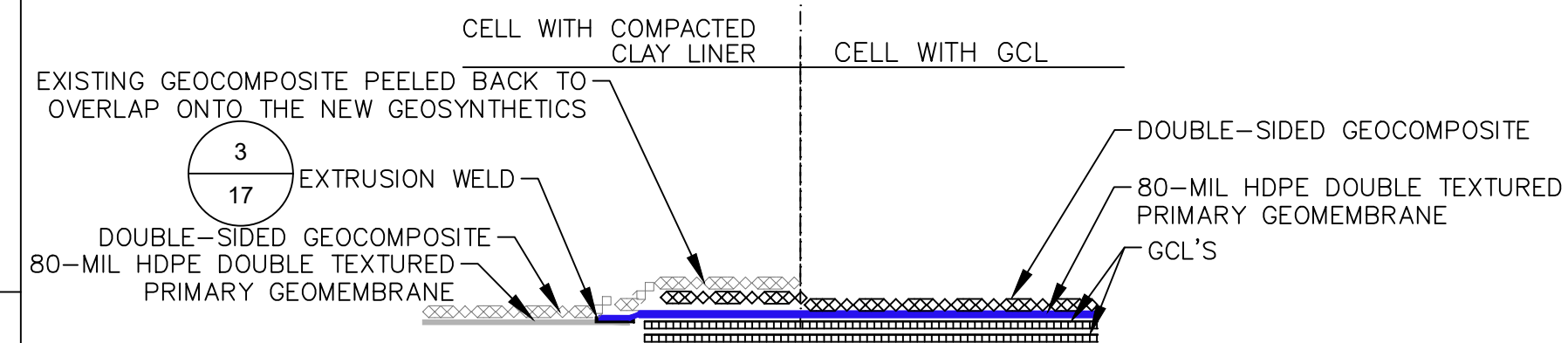
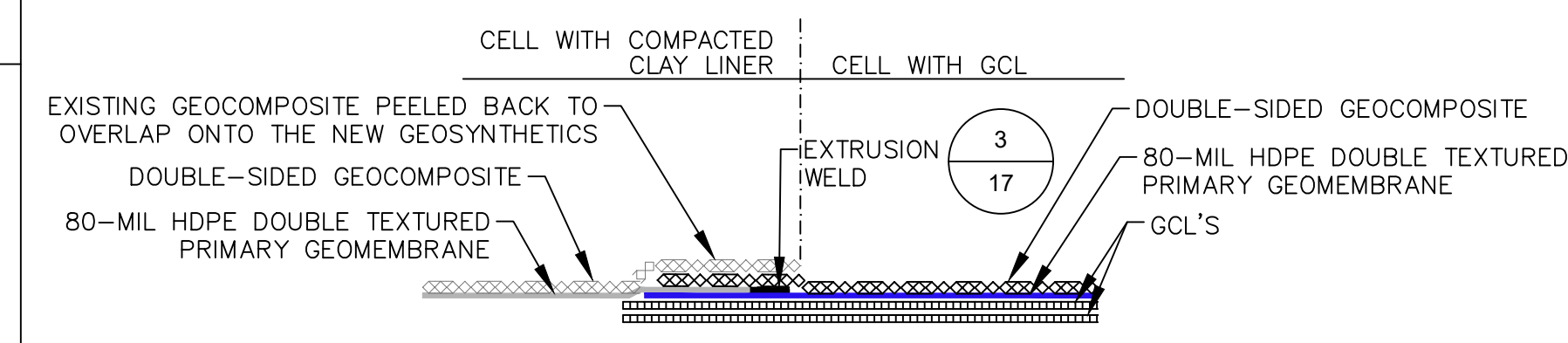
2
15
PROPOSED SIDESLOPE LINER SYSTEM USING GCL
NOT TO SCALE

- NOTE:
- STRUCTURAL FILL AND GEOGRID NOT REQUIRED OUTSIDE OF MC I AND MC IV. SEE LIMITS ON SHEET 04
 - SEE DETAIL 4 SHEET 17 FOR GCL OVERLAP REQUIREMENT



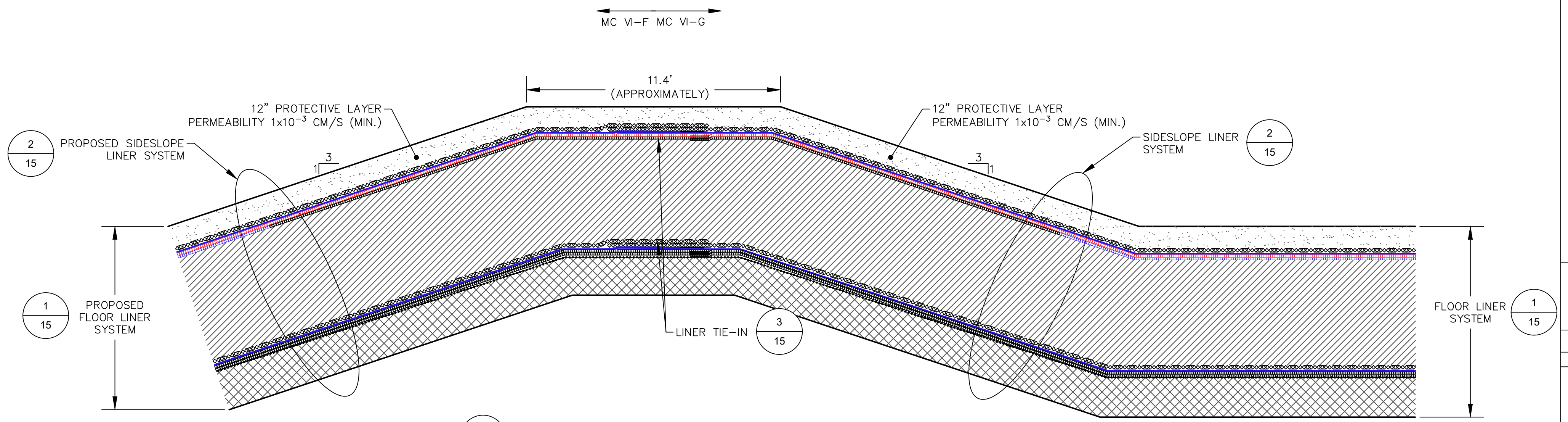
- NOTES:
- NEW AND EXISTING GEOCOMPOSITE LAYERS SHALL BE CONNECTED AS FOLLOWS:
- GEONET CORES SHALL BE JOINED BY PLASTIC FASTENERS.
- TOP GEOTEXTILE SHALL BE SEWN TOGETHER OR COVERED WITH EXTRA NON-WOVEN GEOTEXTILE (MINIMUM 24" WIDE) HEAT BONDED TO THE EXISTING GEOTEXTILE.
 - AT GCL SEAMS, DRY BENTONITE POWDER SHALL BE APPLIED PER MANUFACTURER'S INSTALLATION GUIDELINES.
 - SEAMS SHOULD BE CONSTRUCTED SUCH THAT THEY ARE SHINGLED IN THE DIRECTION OF THE GRADE TO PREVENT FLOW FROM ENTERING THE OVERLAP ZONE.

3
15
LINER TIE-IN DETAIL I
NOT TO SCALE

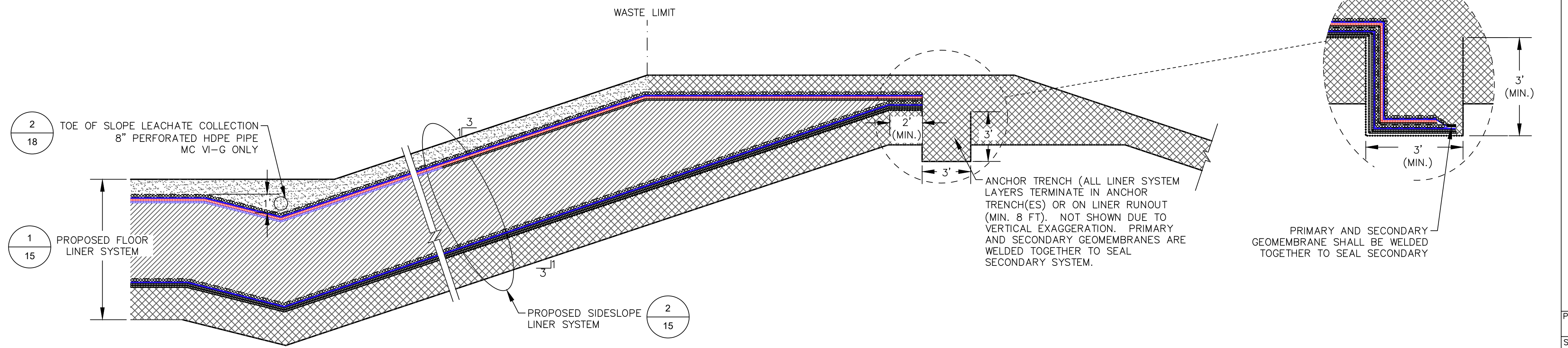


- NOTES:
- NEW AND EXISTING GEOCOMPOSITE LAYERS SHALL BE CONNECTED AS:
A. GEONET CORES SHALL BE JOINED BY PLASTIC FASTENERS.
B. TOP GEOTEXTILE SHALL BE SEWN TOGETHER OR COVERED WITH EXTRA NON-WOVEN GEOTEXTILE (MINIMUM 24" WIDE) HEAT BONDED TO THE EXISTING GEOTEXTILE.

4
15
LINER TIE-IN DETAIL II
NOT TO SCALE



5
15
MC VI-F & G TIE-IN DETAIL
NOT TO SCALE



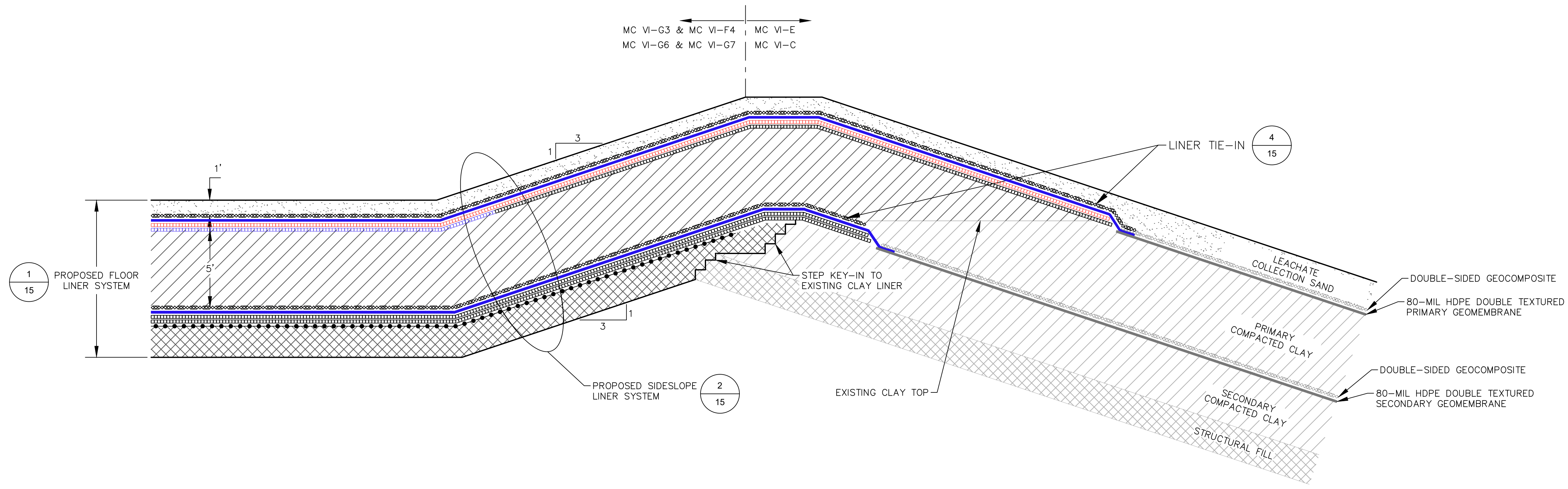
6
15
G CELLS WEST PERIMETER DIKE
NOT TO SCALE

DATE: 7/14/21		DESIGNED BY: BA		DRAWN BY: LEH		CHECKED BY: CAB		APPROVED BY: XZ	
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REV	DATE	DESCRIPTION	DRW	APP	DN	WG	XZ	LEH	XZ
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS							
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS							
B	9/23/11	PER MICRO COMMENTS							
A	6/10/11	PHASING DESIGNATIONS							

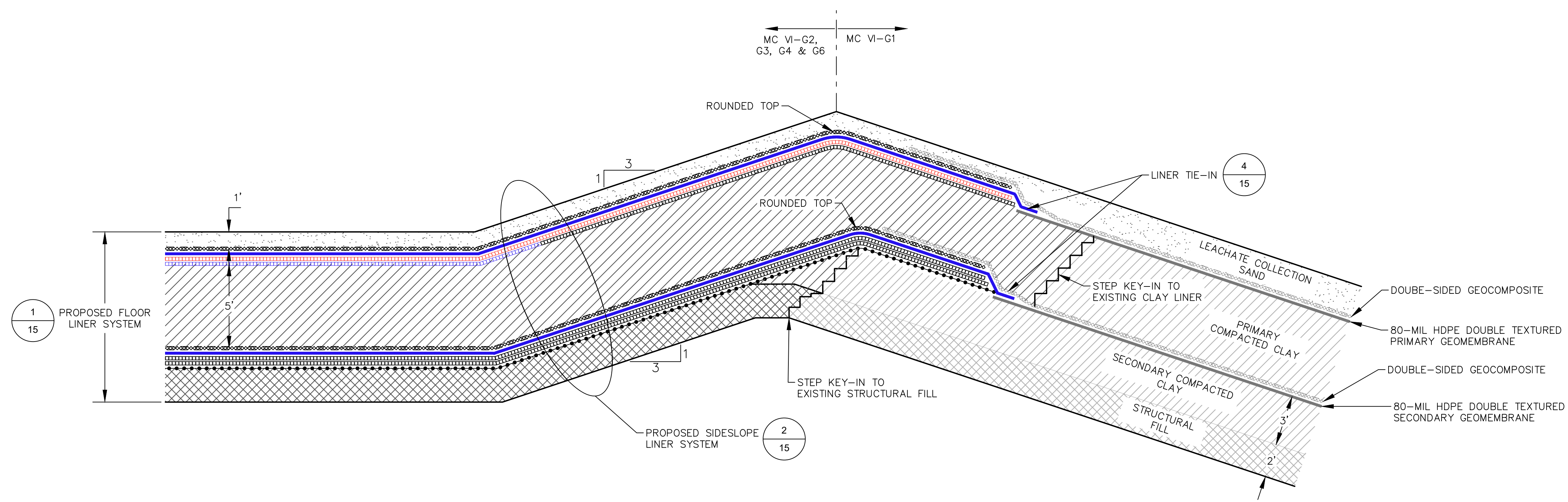
PROJECT NUMBER: 1208070039
SCALE: AS SHOWN
DRAWING NO: 15

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

LINER SYSTEM DETAILS (1 OF 3)



1/16 MC VI-E WEST EDGE TIE-IN DETAIL
NOT TO SCALE



2/16 MC VI-G1, MC VI-G2, G3, G4, & G6 TIE-IN DETAIL
NOT TO SCALE

**WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN**

LINER SYSTEM DETAILS (2 OF 3)

REV	DATE	REVISION DESCRIPTION
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS
E	5/29/18	ADDENDUM 1
D	5/08/18	REVISIONS BASED ON MDEQ'S COMMENTS
C	5/02/18	SUBCELLS G2 AND G3 REVISIONS
REV	DATE	REVISION DESCRIPTION

PROJECT NUMBER
1208070039

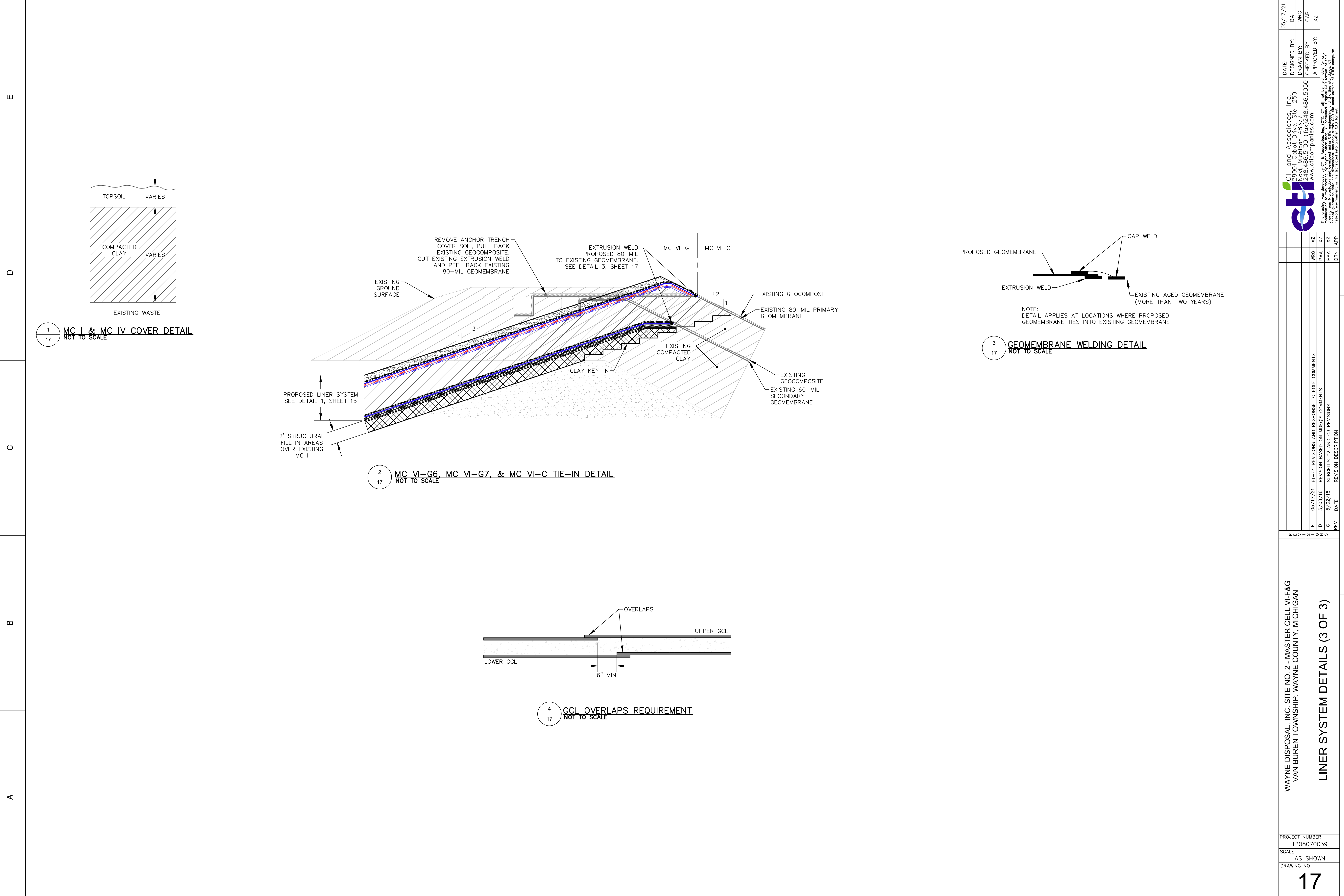
SCALE
AS SHOWN

DRAWING NO
16

DATE: 7/14/21
DESIGNED BY: BA
DRAWN BY: LEH
CHECKED BY: CAB
APPROVED BY: XZ

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2800 Cabot Drive, Ste. 250
Livonia, MI 48150
248.486.5100 (fax) 248.486.5050
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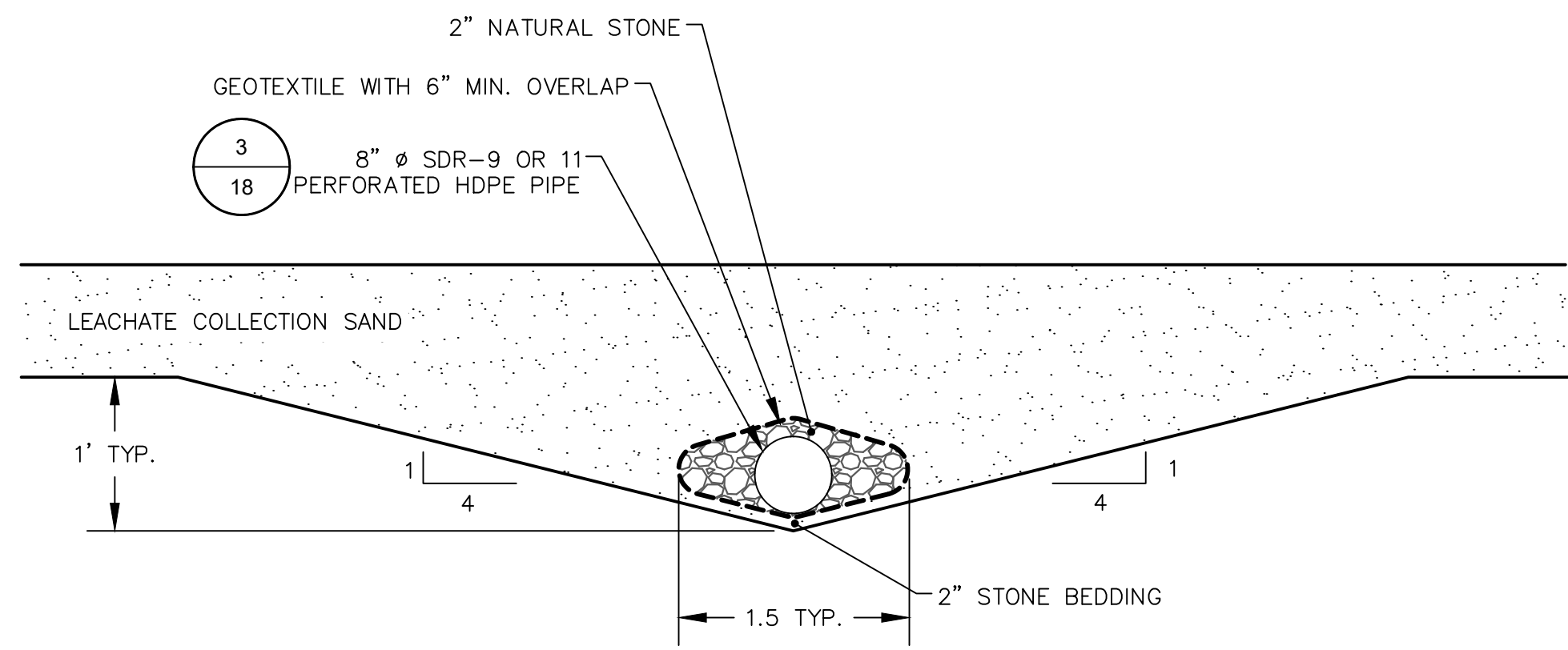
1
17
MC I & MC IV COVER DETAIL
NOT TO SCALE

2
17
MC VI-G6, MC VI-G7, & MC VI-C TIE-IN DETAIL
NOT TO SCALE

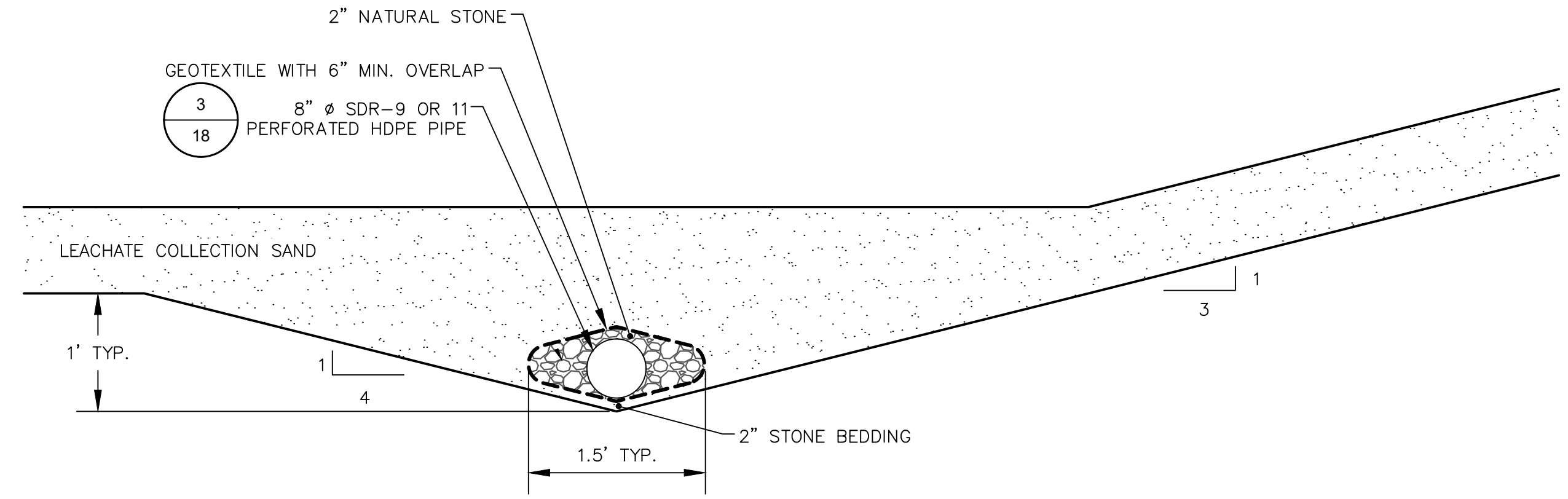
3
17
GEOMEMBRANE WELDING DETAIL
NOT TO SCALE

4
17
GCL OVERLAPS REQUIREMENT
NOT TO SCALE

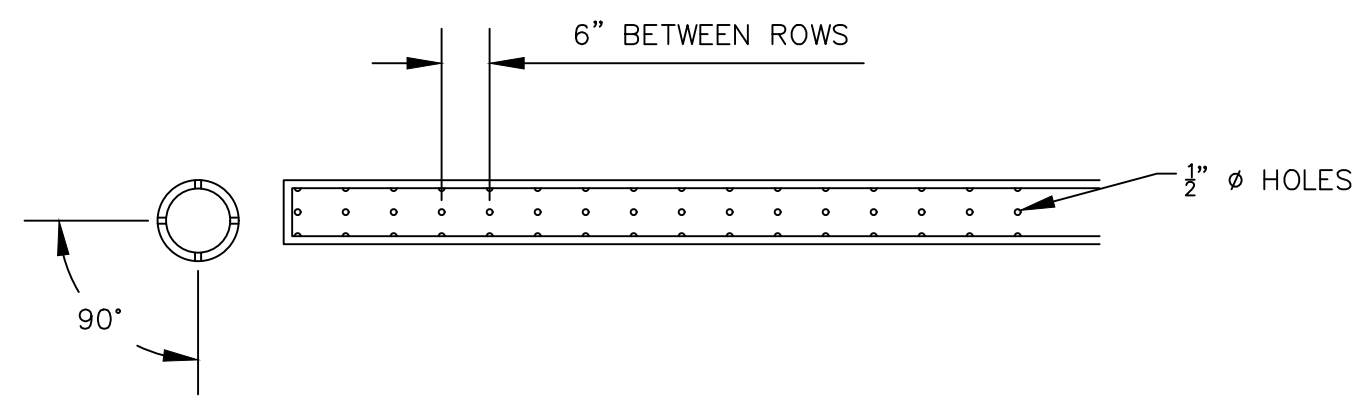
<p>WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN</p>		<p>DATE: 05/17/21 DESIGNED BY: BA DRAWN BY: WRG CHECKED BY: CAB APPROVED BY: XZ</p>												
<p>PROJECT NUMBER 1208070039</p>		<p>CTI and Associates, Inc. 28001 Cabot Drive, Ste. 250 Livonia, MI 48150 248.486.5100 (tel) 248.486.5050 (fax) www.cticompanies.com</p>												
<p>SCALE AS SHOWN</p>		<p>CTI and Associates, Inc. (CSI) is not a manufacturer of any of the products shown on this drawing. The manufacturer's name and product information is provided for reference only. The manufacturer's name and product information is provided for reference only. The manufacturer's name and product information is provided for reference only.</p>												
<p>DRAWING NO 17</p>		<p>REVISION DESCRIPTION</p> <table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>F</td> <td>05/17/21</td> <td>F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS</td> </tr> <tr> <td>D</td> <td>5/08/18</td> <td>REVISION BASED ON MFCO'S COMMENTS</td> </tr> <tr> <td>C</td> <td>5/02/18</td> <td>SUBCELLS C2 AND C3 REVISIONS</td> </tr> </tbody> </table>	REV	DATE	DESCRIPTION	F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS	D	5/08/18	REVISION BASED ON MFCO'S COMMENTS	C	5/02/18	SUBCELLS C2 AND C3 REVISIONS
REV	DATE	DESCRIPTION												
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D	5/08/18	REVISION BASED ON MFCO'S COMMENTS												
C	5/02/18	SUBCELLS C2 AND C3 REVISIONS												



1
18 CELL FLOOR LEACHATE COLLECTION PIPE (TYP.)
NOT TO SCALE



2
18 TOE OF SLOPE LEACHATE COLLECTION PIPE (TYP.)
NOT TO SCALE



3
18 8" LEACHATE COLLECTION PIPE PERFORATION SPACING DETAIL
NOT TO SCALE

DATE: 7/14/21
DESIGNED BY: BA
DRAWN BY: LEH
CHECKED BY: CAB
APPROVED BY: XZ

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28001 Cabot Drive, Ste. 250
Livonia, MI 48150
248.486.5100 (fax) 248.486.5050
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REV	DATE	REVISION DESCRIPTION
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C		
B		
A		

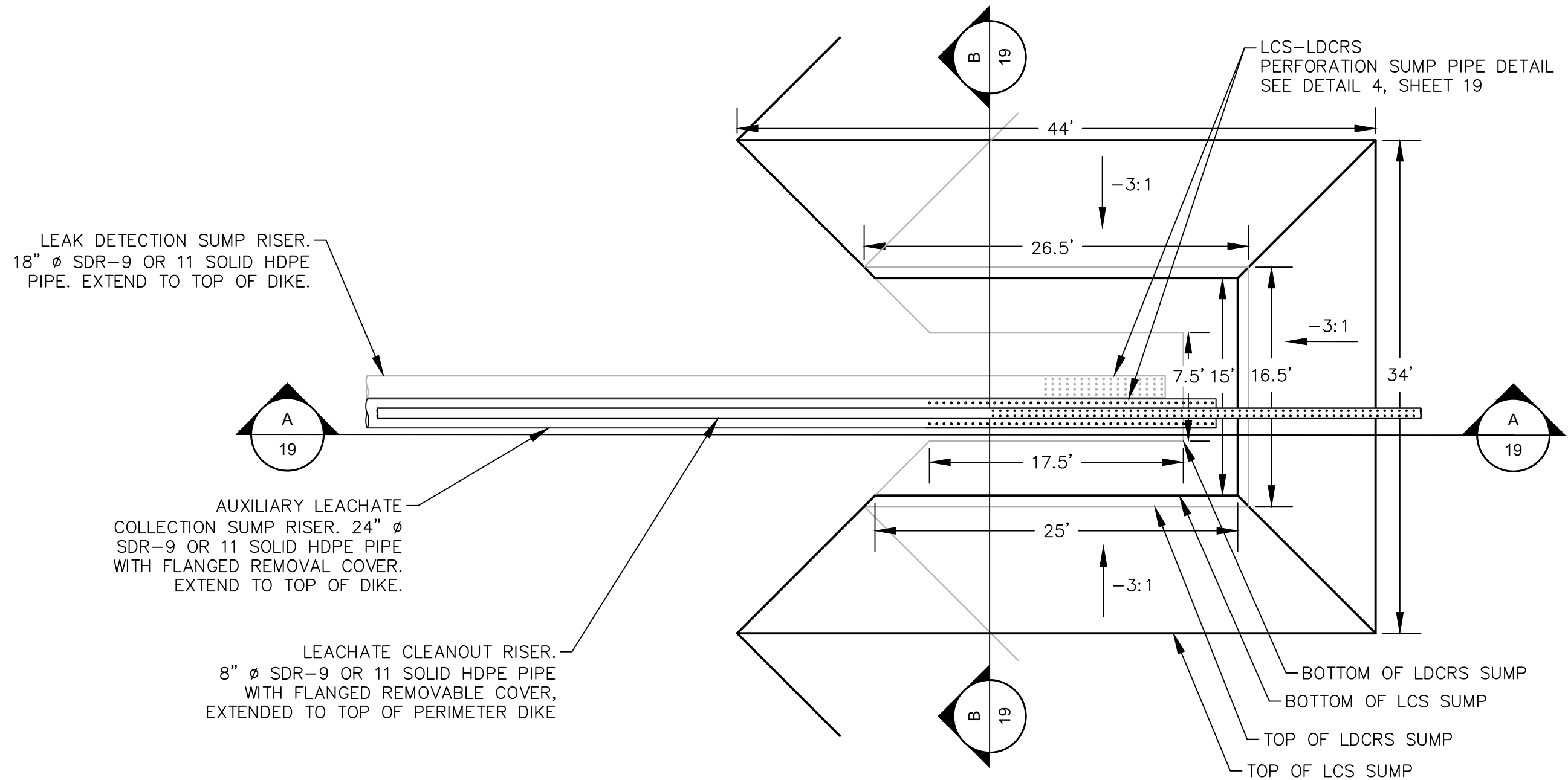
WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

LEACHATE COLLECTION SYSTEM DETAILS (1 OF 2)

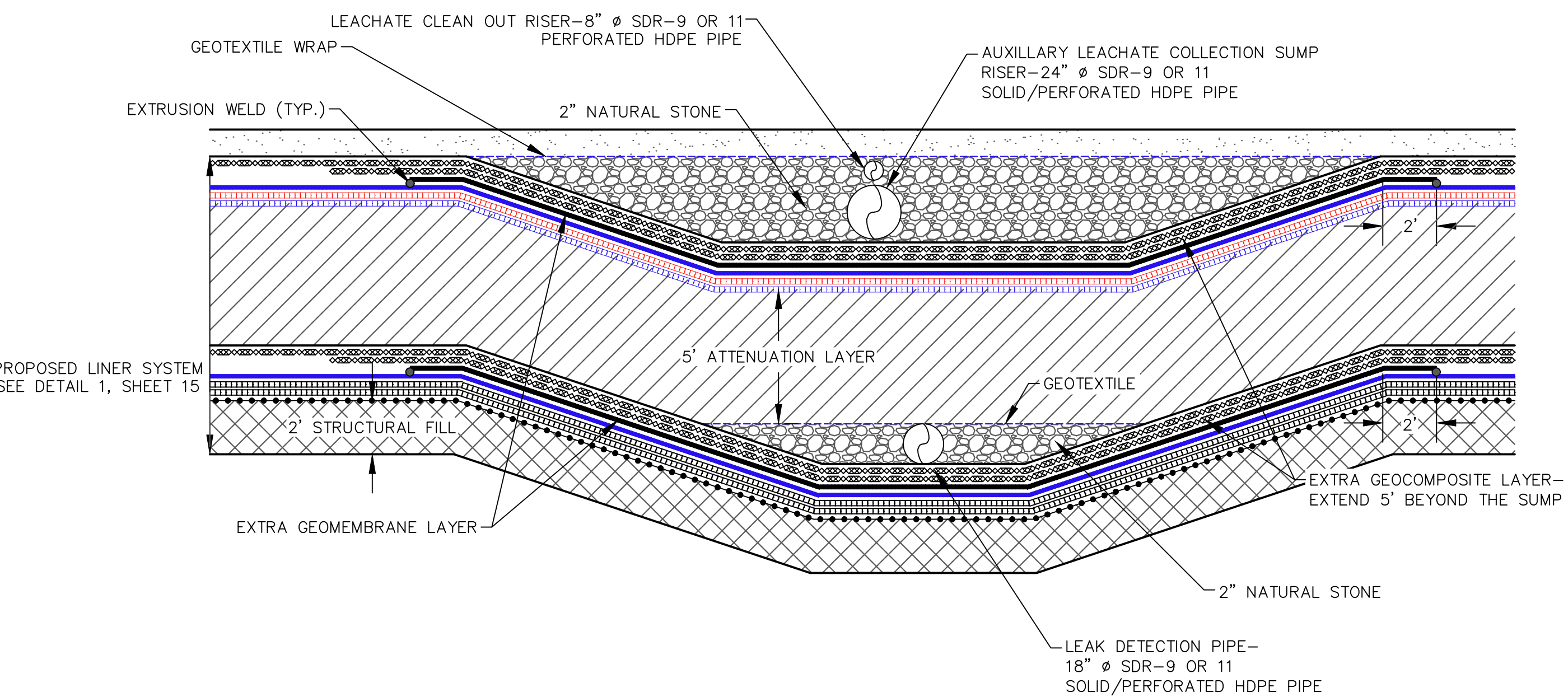
PROJECT NUMBER
1208070039

SCALE
AS SHOWN

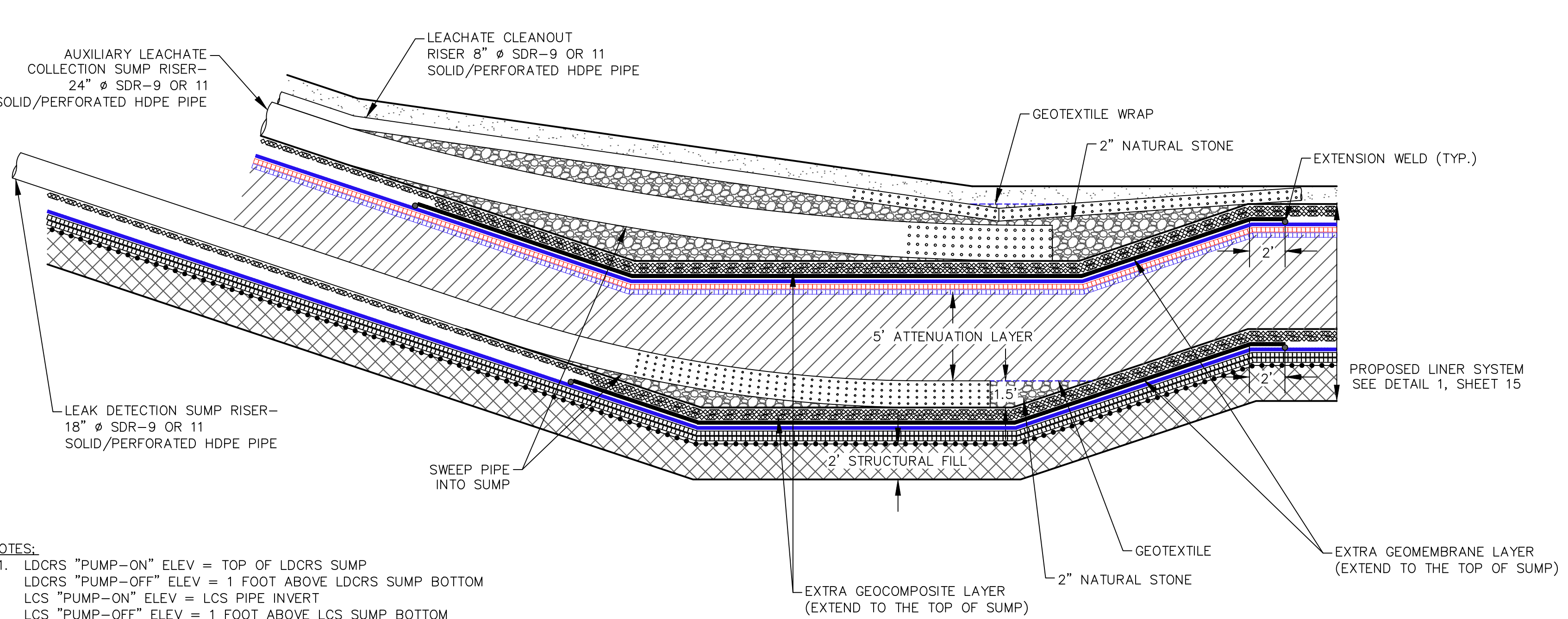
DRAWING NO
18



1
19
LCS-LDCRS SUMP (TYP.)
NOT TO SCALE

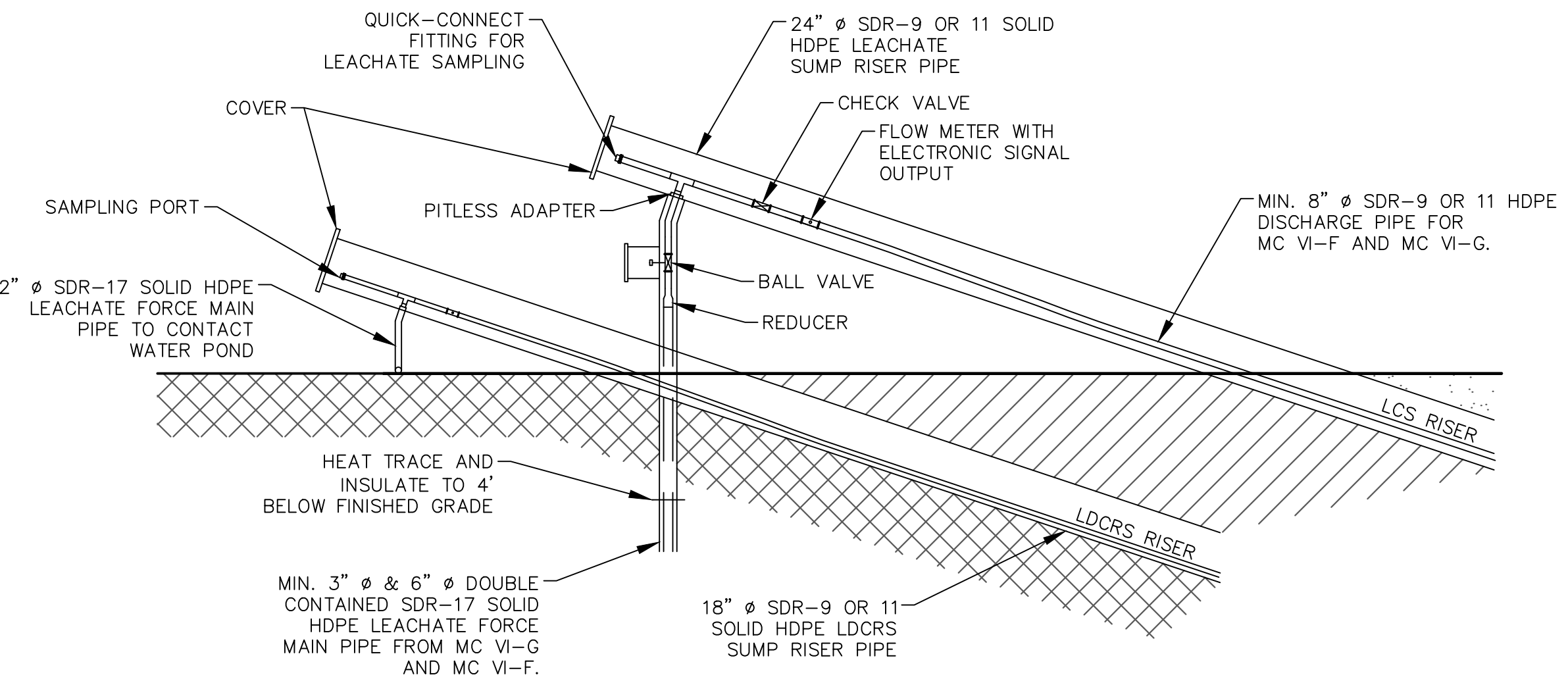


2
19
SUMP CROSS-SECTION B
NOT TO SCALE

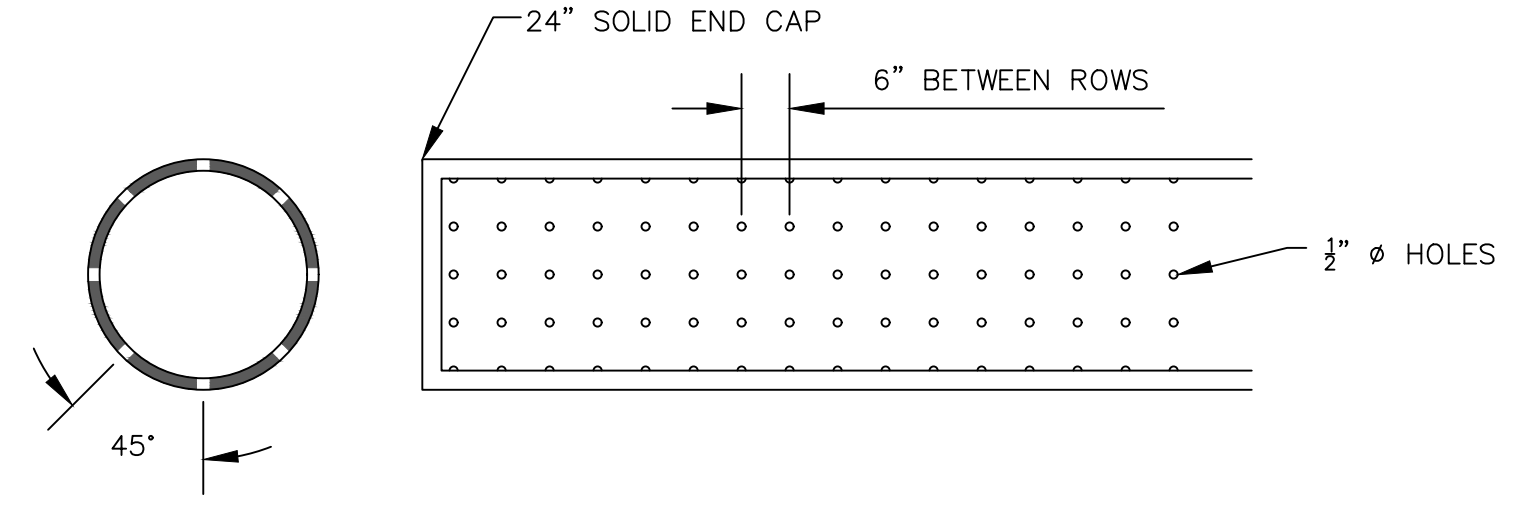


3
19
SUMP CROSS-SECTION A
NOT TO SCALE

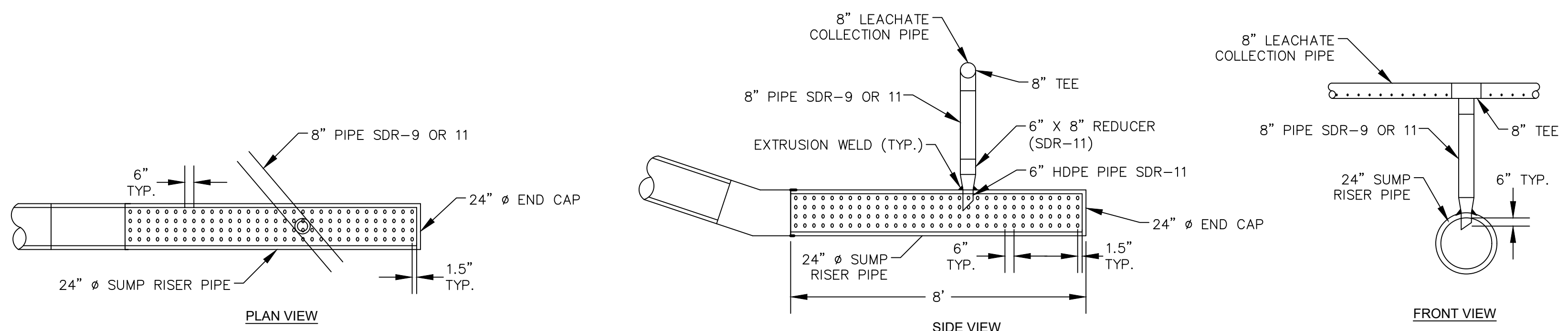
- NOTES:
- LDCRS "PUMP-ON" ELEV = TOP OF LDCRS SUMP
LDCRS "PUMP-OFF" ELEV = 1 FOOT ABOVE LDCRS SUMP BOTTOM
LCS "PUMP-ON" ELEV = LCS PIPE INVERT
LCS "PUMP-OFF" ELEV = 1 FOOT ABOVE LCS SUMP BOTTOM
 - OTHER "PUMP-ON"/"PUMP-OFF" CONTROLS MAY BE USED PROVIDED LESS THAN 1 FOOT OF LEACHATE HEAD ON THE LINER IS MAINTAINED
 - THE AUXILIARY LEACHATE COLLECTION SUMP RISER IS REQUIRED FOR THE MC VI-G1 SUMP ONLY.



4
19
LCS AND LDCRS RISER DETAIL
NOT TO SCALE



5
19
SUMP PERFORATION SPACING DETAIL
NOT TO SCALE



6
19
LEACHATE COLLECTION PIPE AND SUMP RISER CONNECTION DETAIL
NOT TO SCALE

Geosynthetic Materials

Material	Location	Description	Product	Additional Requirements
80-mil Geomembrane	Primary and secondary liners	80-mil HDPE, textured both sides	GSE HD textured, or equivalent	Interface friction requirements in CQA Plan
40-mil Geomembrane	Final cover	40-mil HDPE, textured both sides	GSE HD textured, or equivalent	Interface friction requirements in CQA Plan
Geosynthetic Clay Liner	Final cover and secondary liner	Sodium bentonite encapsulated between two geotextiles that are needle-punched or stitch-bonded together	CETCO Bentomat ST, or equivalent	Internal shear strength requirements in CQA Plan
Geosynthetic Clay Liner	Primary and secondary liners	Sodium bentonite encapsulated between two geotextiles that are needle-punched together	CETCO Bentomat DN, or equivalent	Internal shear strength requirements in CQA Plan
Geosynthetic Clay Liner	Primary liner	Sodium bentonite encapsulated between two geotextiles that are needle-punched and laminated to a geofilm	CETCO Bentomat CL, or equivalent	Internal shear strength requirements in CQA Plan
Geosynthetic Clay Liner	Primary Liner	Polymer-modified bentonite	CETCO Resistex 200 FLW9, or equivalent	Internal shear strength requirements in CQA Plan
Geocomposite	LCS and LDCRS	200-mil HDPE, bonded top and bottom to geotextile meeting requirements below	GSE FABRINET, or equivalent	Transmissivity and interface friction requirements in CQA Plan
Cover Geocomposite	Final cover	200-mil HDPE, bonded top and bottom to geotextile meeting requirements below	GSE FABRINET, or equivalent	Transmissivity and interface friction requirements in CQA Plan
Geonet	LCS and LDCRS sumps, and LDCRS collectors	200-mil HDPE	GSE HYPERNET, or equivalent	Transmissivity requirements in CQA Plan
Geotextile	All geocomposites, gravel/geotextile envelopes for LCS, and final cover perimeter drain	Nominal 8 oz/yd ² , needle-punched, non-woven polypropylene	Amoco 4508, Synthetic Industries Geotex 801, or equivalent	AASHTO M288-96 requirements for Drainage Geotextile (Class 2)
Geogrid	Above structural fill	Biaxial Polymeric Grid	Huesker Fortrac 80-80, or equivalent	None

LCS denotes leachate collection system
LDCRS denotes leak detection, collection, and removal system

7/14/21
DATE: 7/14/21
DESIGNED BY: BA
DRAWN BY: LEH
CHECKED BY: CAB
APPROVED BY: XZ
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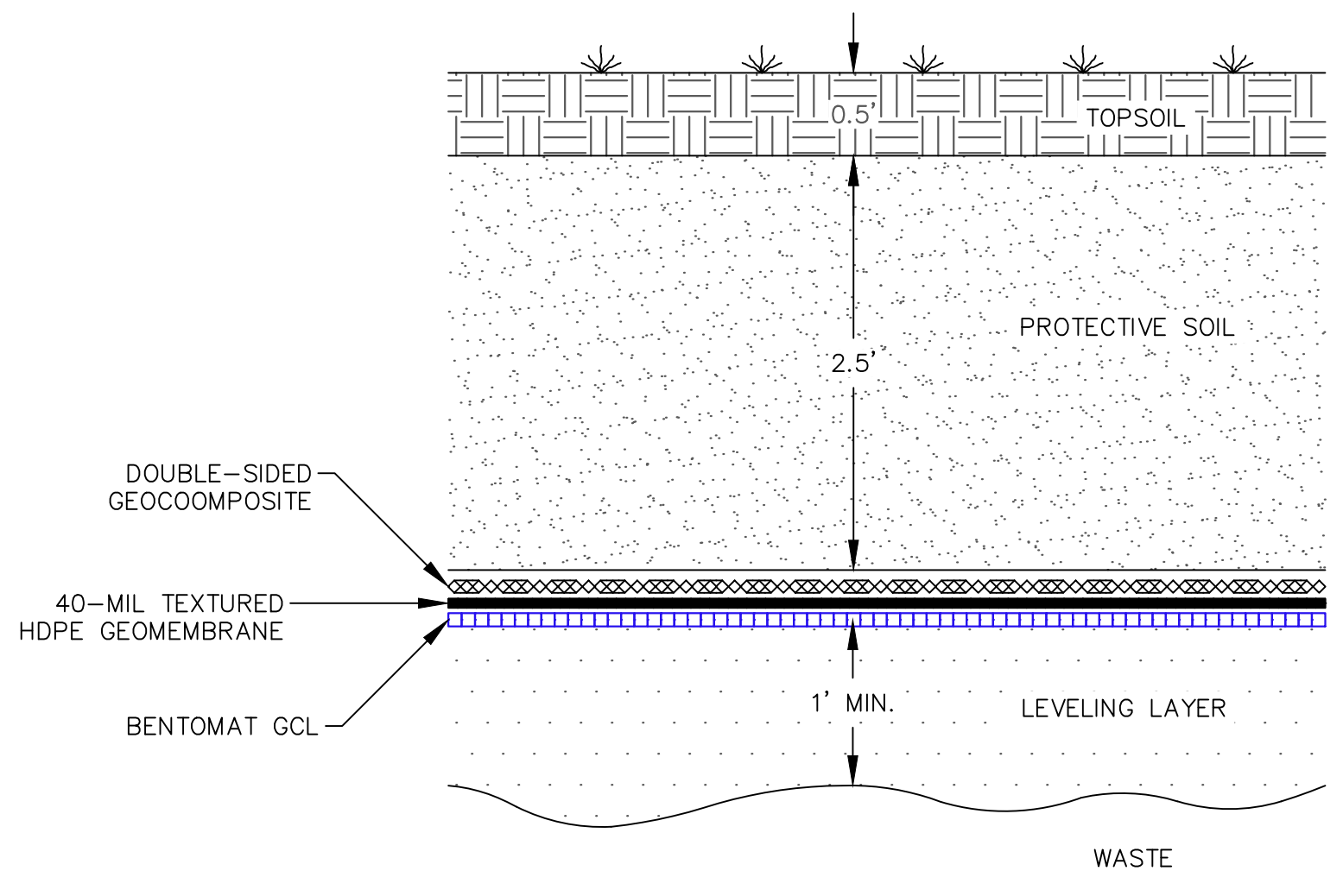
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Wayne Disposal, Inc. Site No. 2 - Master Cell VI-F&G
Van Buren Township, Wayne County, Michigan

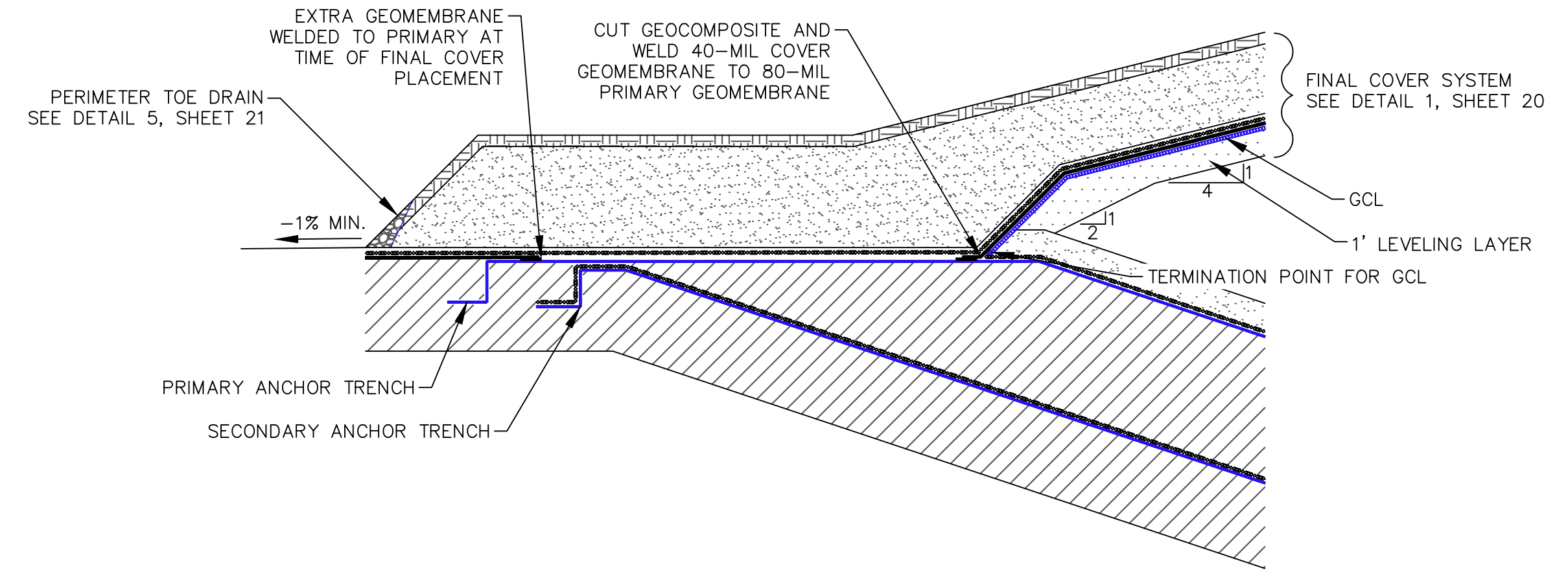
LEACHATE COLLECTION SYSTEM DETAILS (2 OF 2)

REV	DATE	REVISION DESCRIPTION
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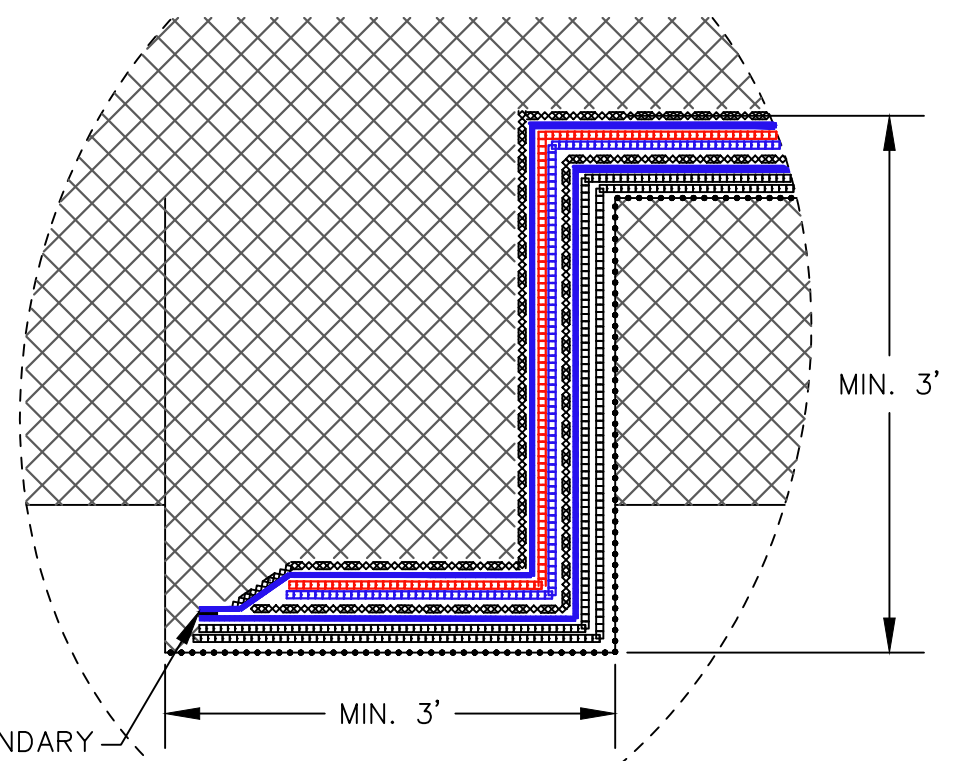
PROJECT NUMBER: 1208070039
SCALE: AS SHOWN
DRAWING NO: 19



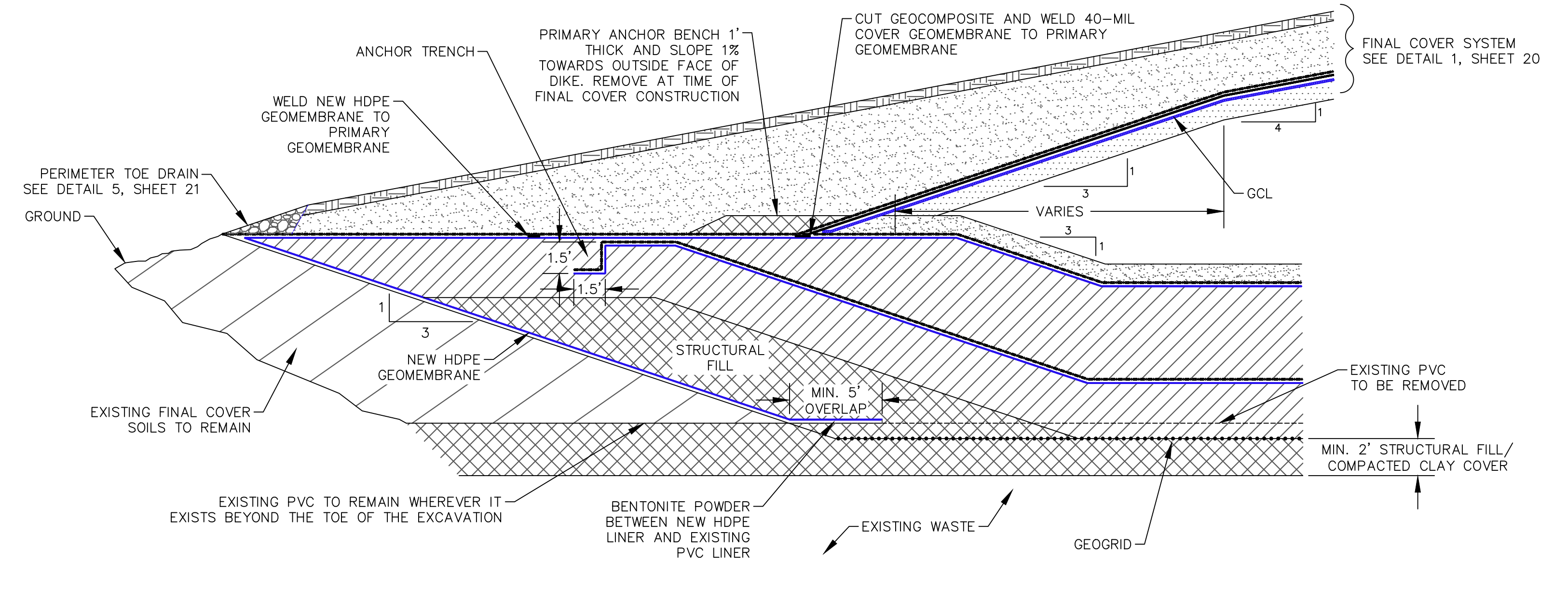
1
20
FINAL COVER SYSTEM
1"=2'



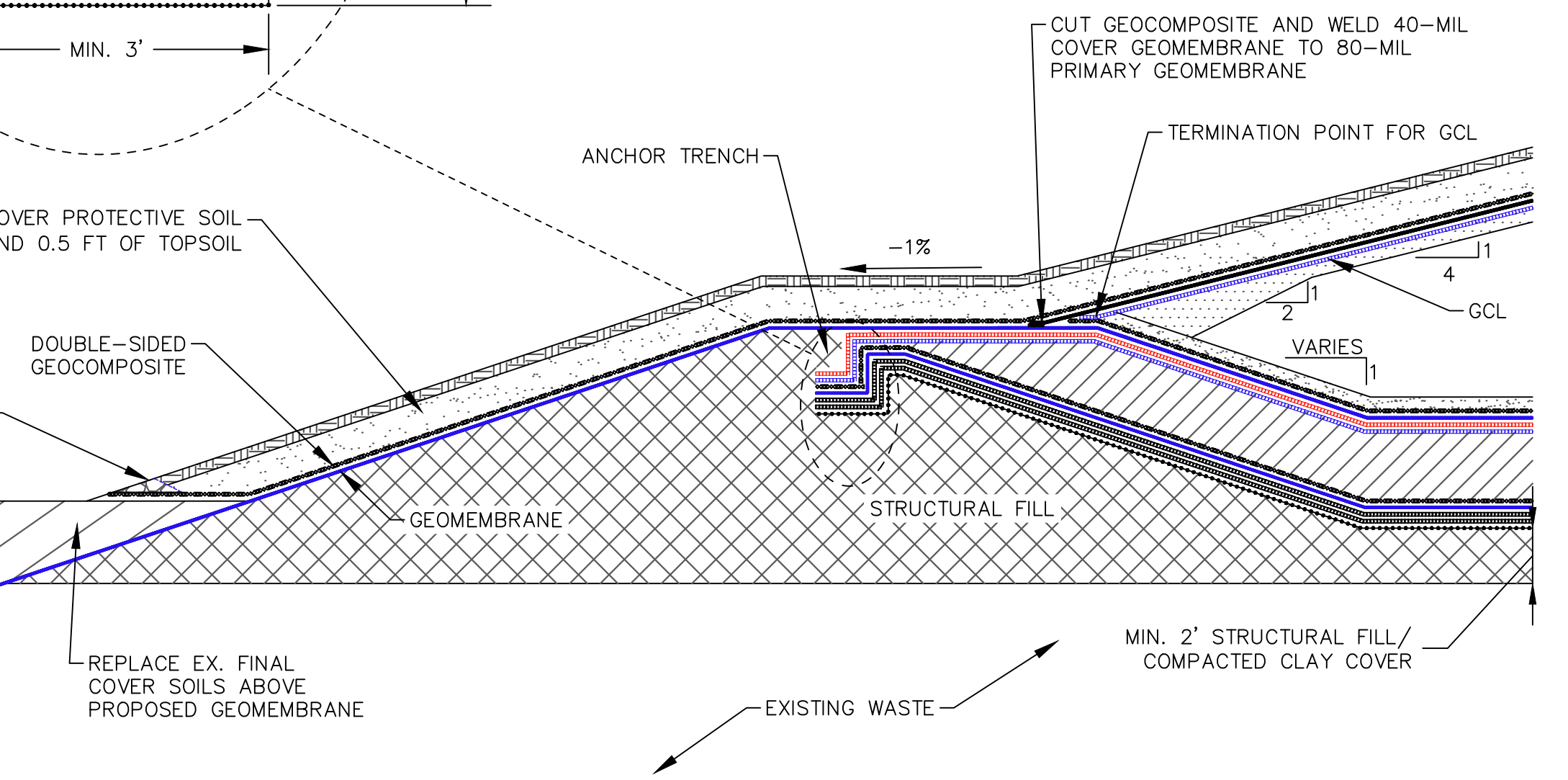
2
20
FINAL COVER TIE-IN DETAIL
MC VI-AN, AS, C & D
NOT TO SCALE



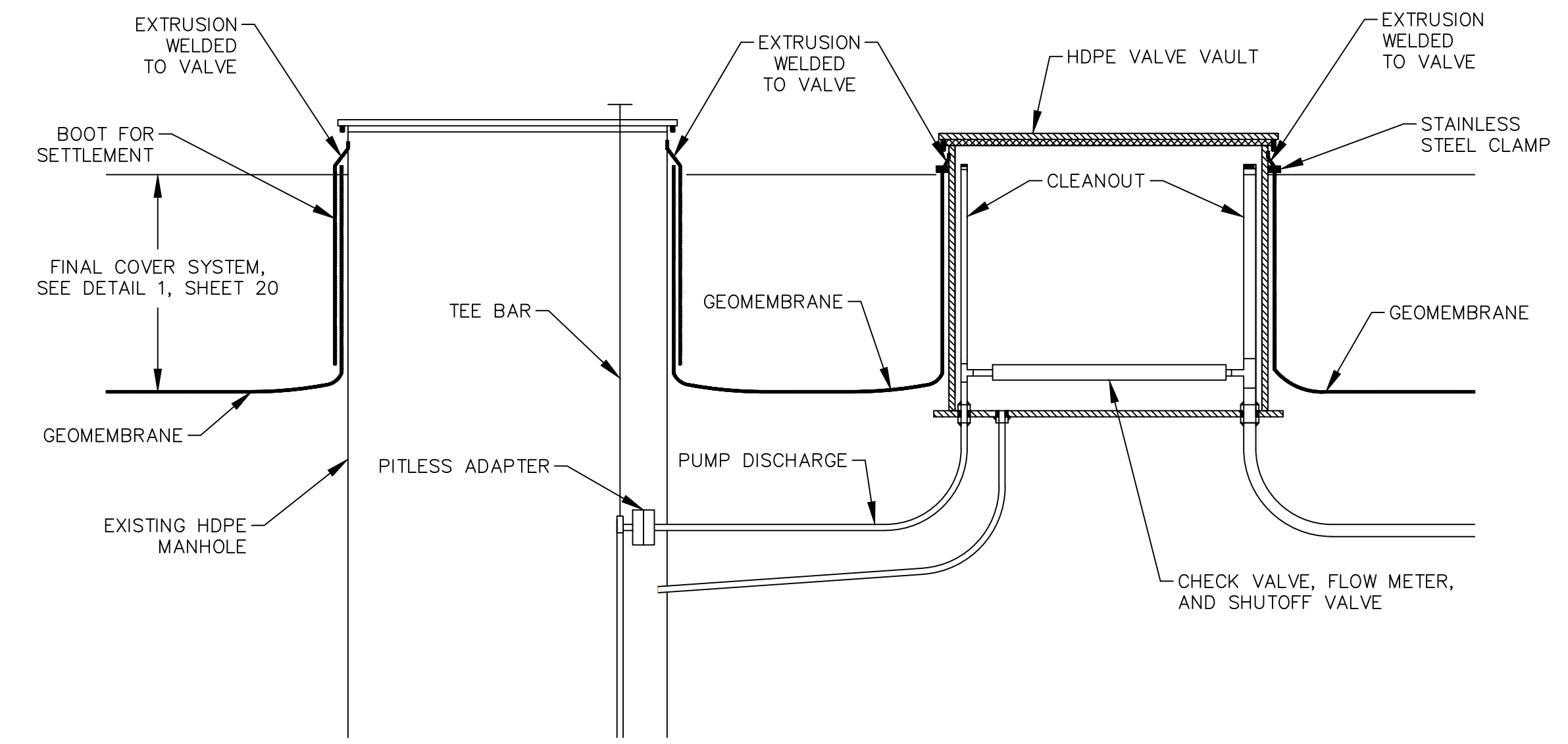
3
20
DIKE AND COVER TIE-IN DETAIL (TYP.)
MC VI-F, MC VI-G, & EAST SIDE OF MC VI-E
NOT TO SCALE



4
20
DIKE AND COVER TIE-IN DETAIL
NORTH SIDE OF MC VI-E
NOT TO SCALE

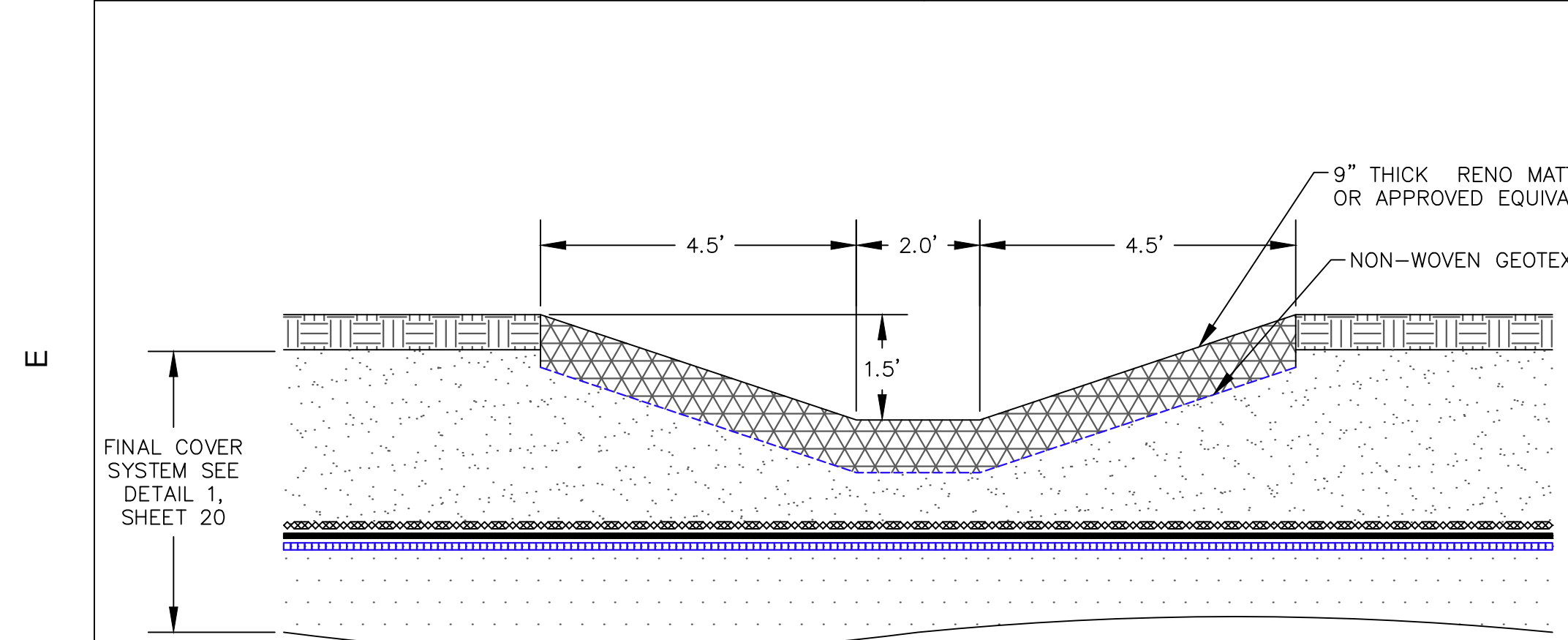


5
20
FINAL COVER PENETRATION DETAIL (TYP.)
NOT TO SCALE

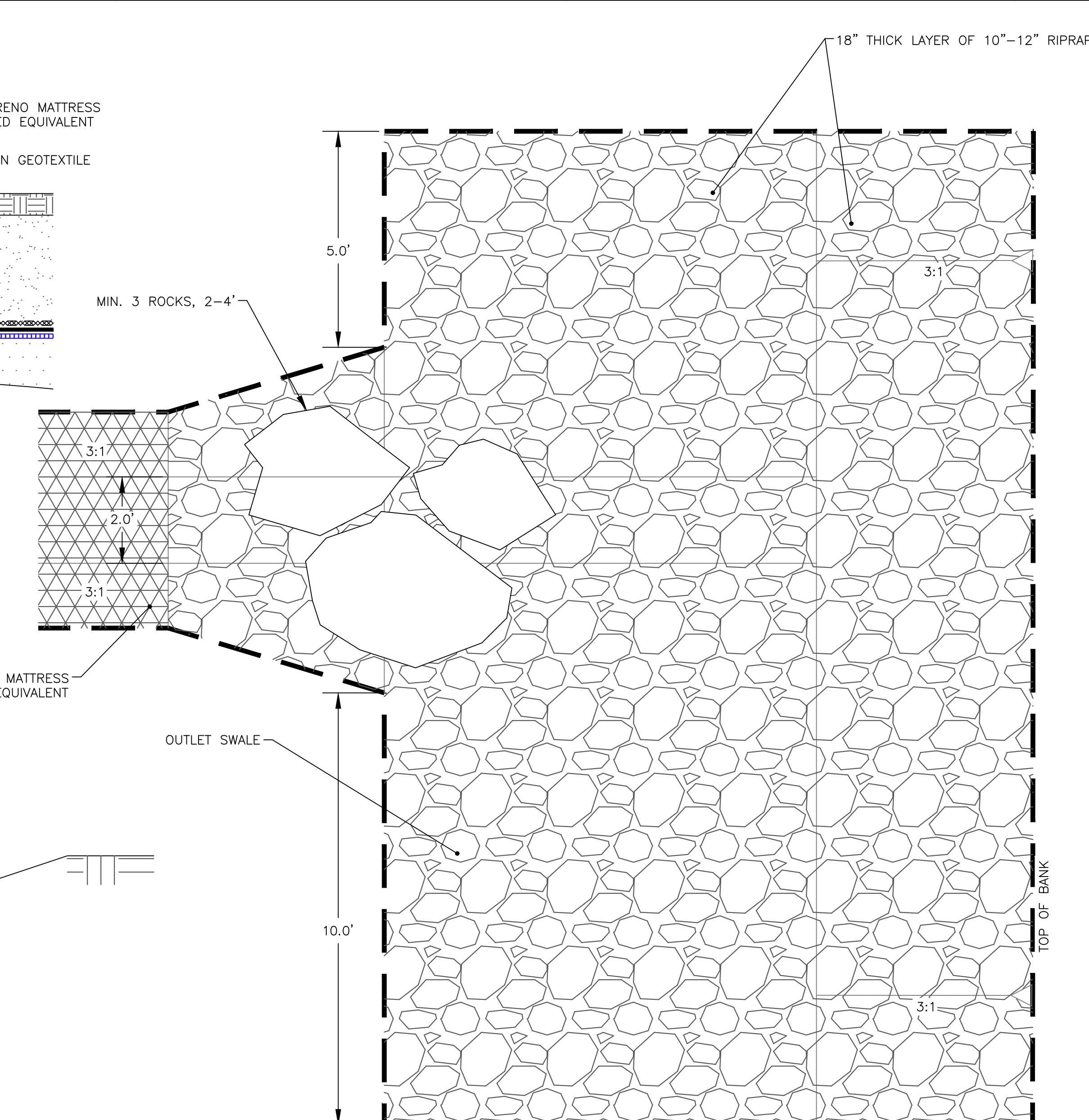


6
20
LEACHATE SUMP RISER PIPING DETAIL
(MC VI-AN, AS, B, C, & D RISERS)
NOT TO SCALE

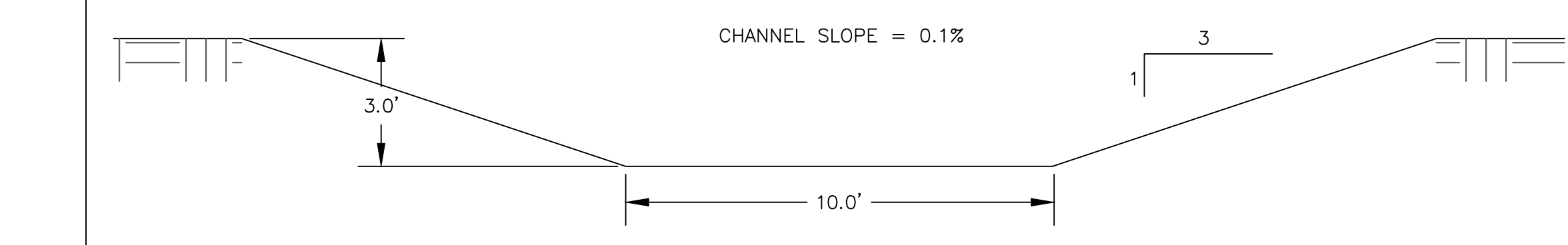
DATE:	7/14/21	DESIGNED BY:	BA
DRAWN BY:	LEH	CHECKED BY:	CAB
APPROVED BY:	XZ		
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REV	DATE	DESCRIPTION	
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<p>WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN</p> <p>PROJECT NUMBER: 1208070039 SCALE: AS SHOWN DRAWING NO: 20</p>			



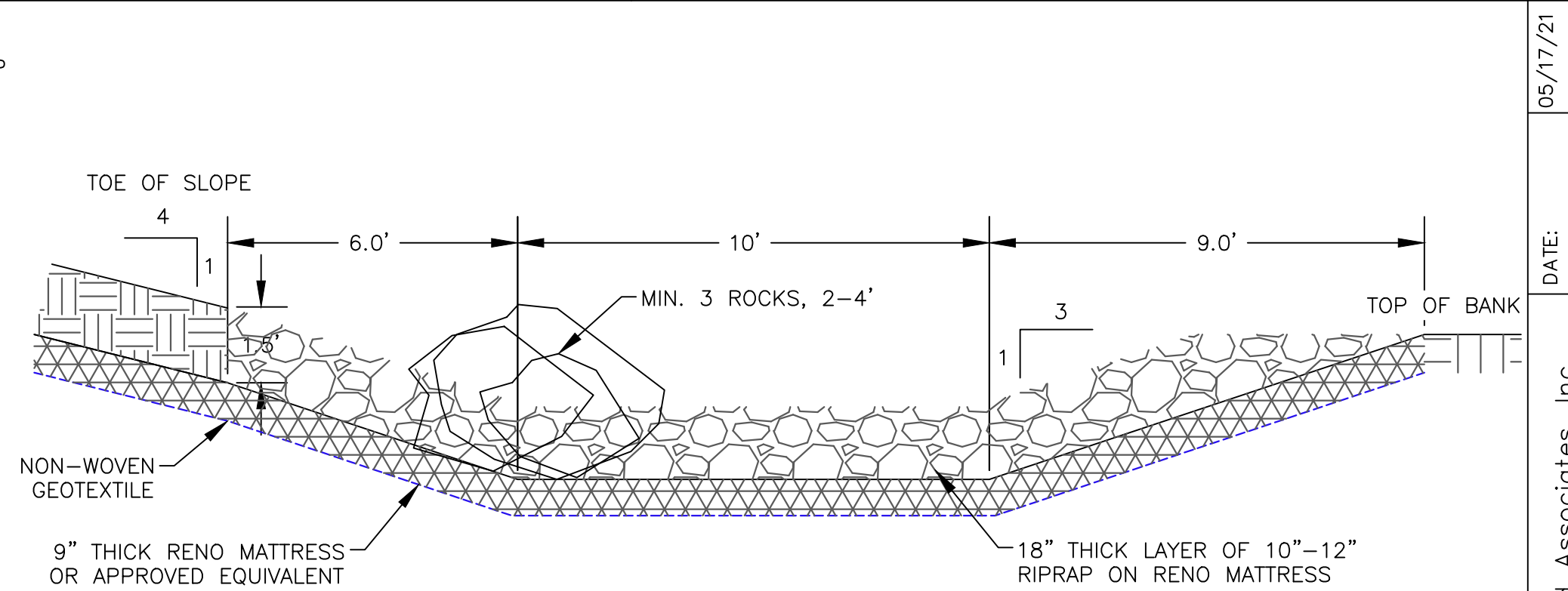
1 TYPICAL DOWNSLOPE SPILLWAY DETAIL
SCALE: 1"=2'



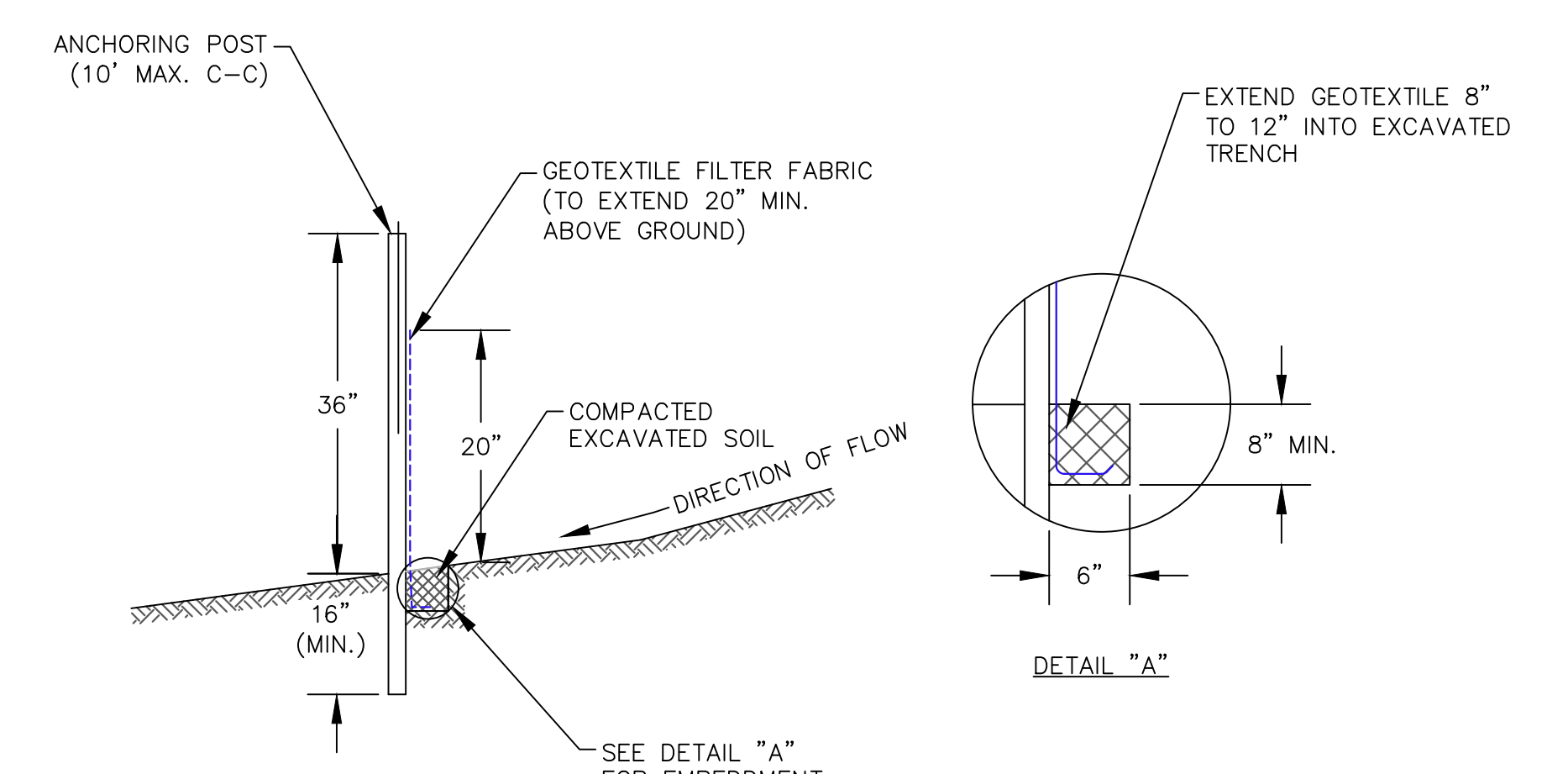
2 TOE OF SPILLWAY DOWNSLOPE CHANNEL - PLAN
SCALE: 1"=2'



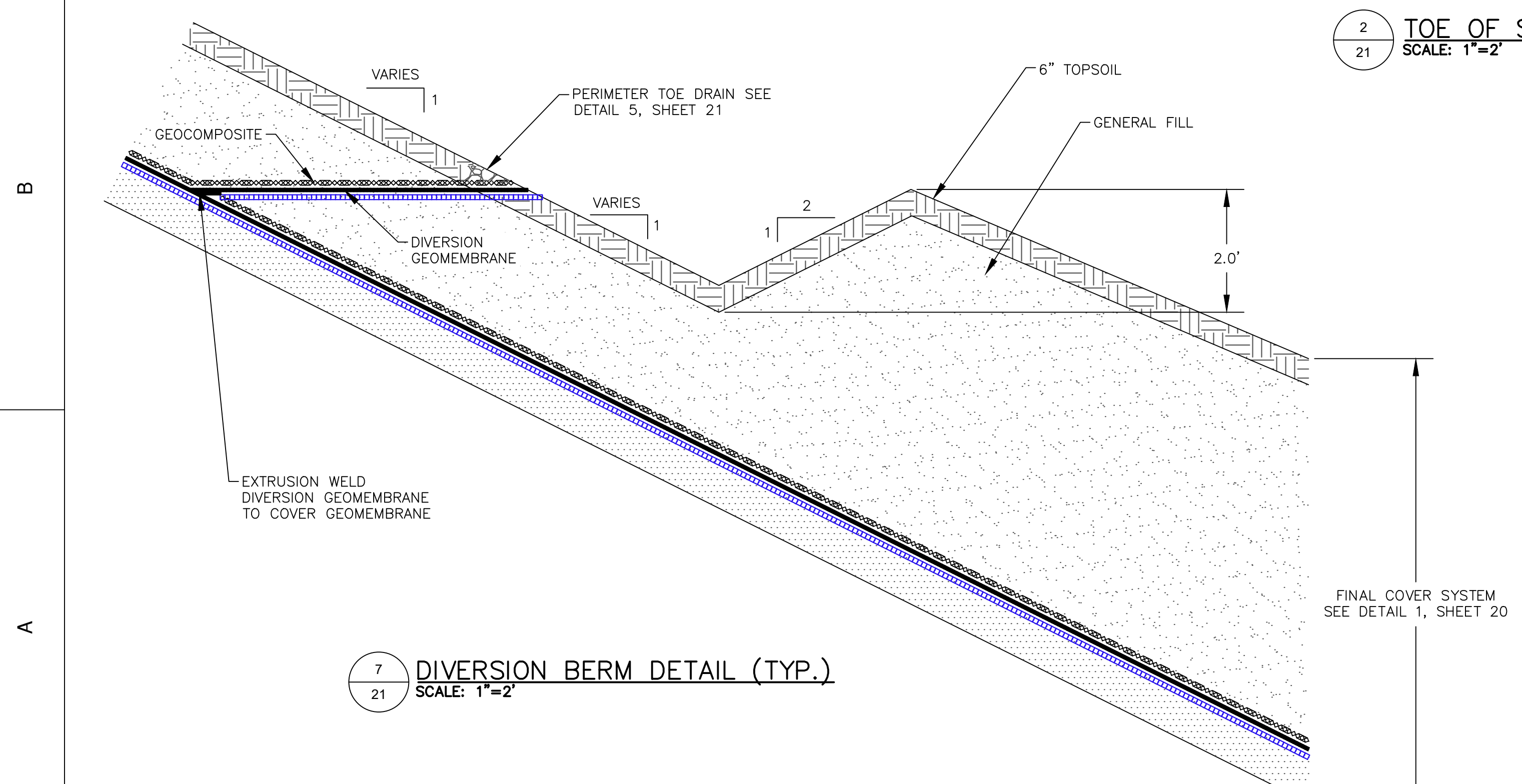
4 OUTLET SWALE CROSS SECTION (TYP.)
SCALE: 1"=3'



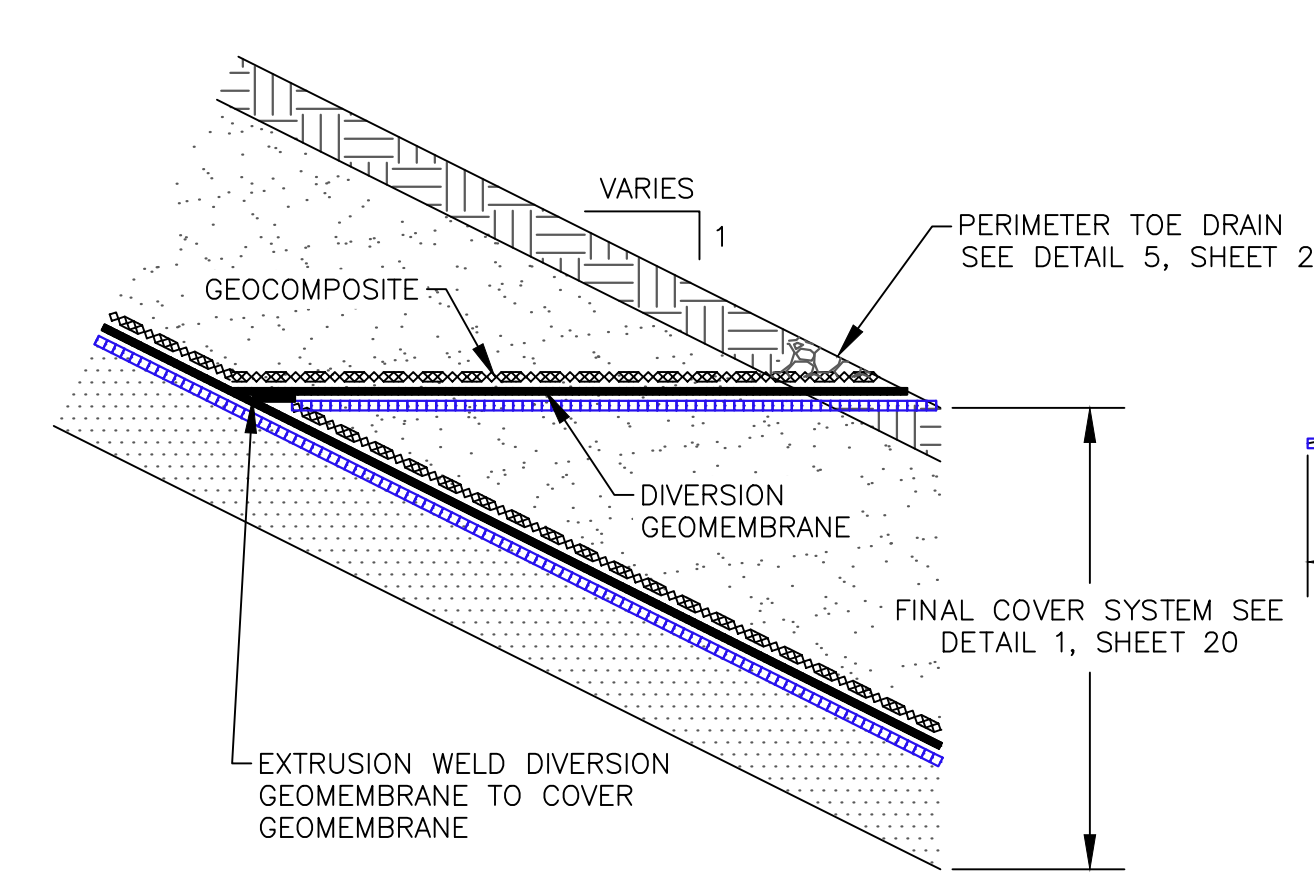
3 TOE OF SPILLWAY PROFILE
SCALE: 1"=3'



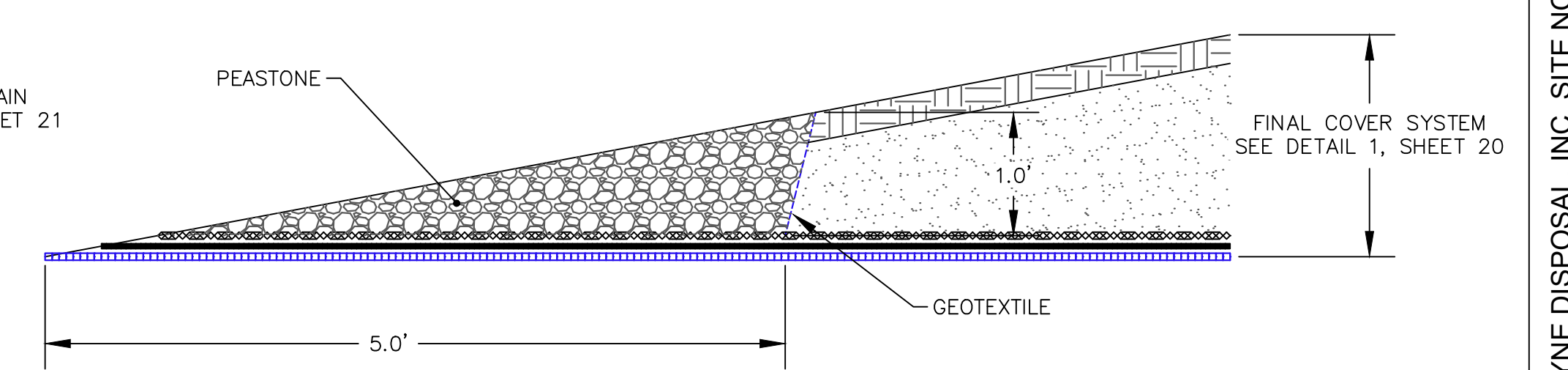
6 SILT FENCE DETAIL (TYP.)
SCALE: 1"=1'



7 DIVERSION BERM DETAIL (TYP.)
SCALE: 1"=2'

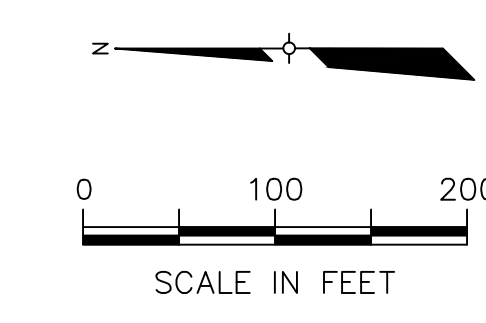
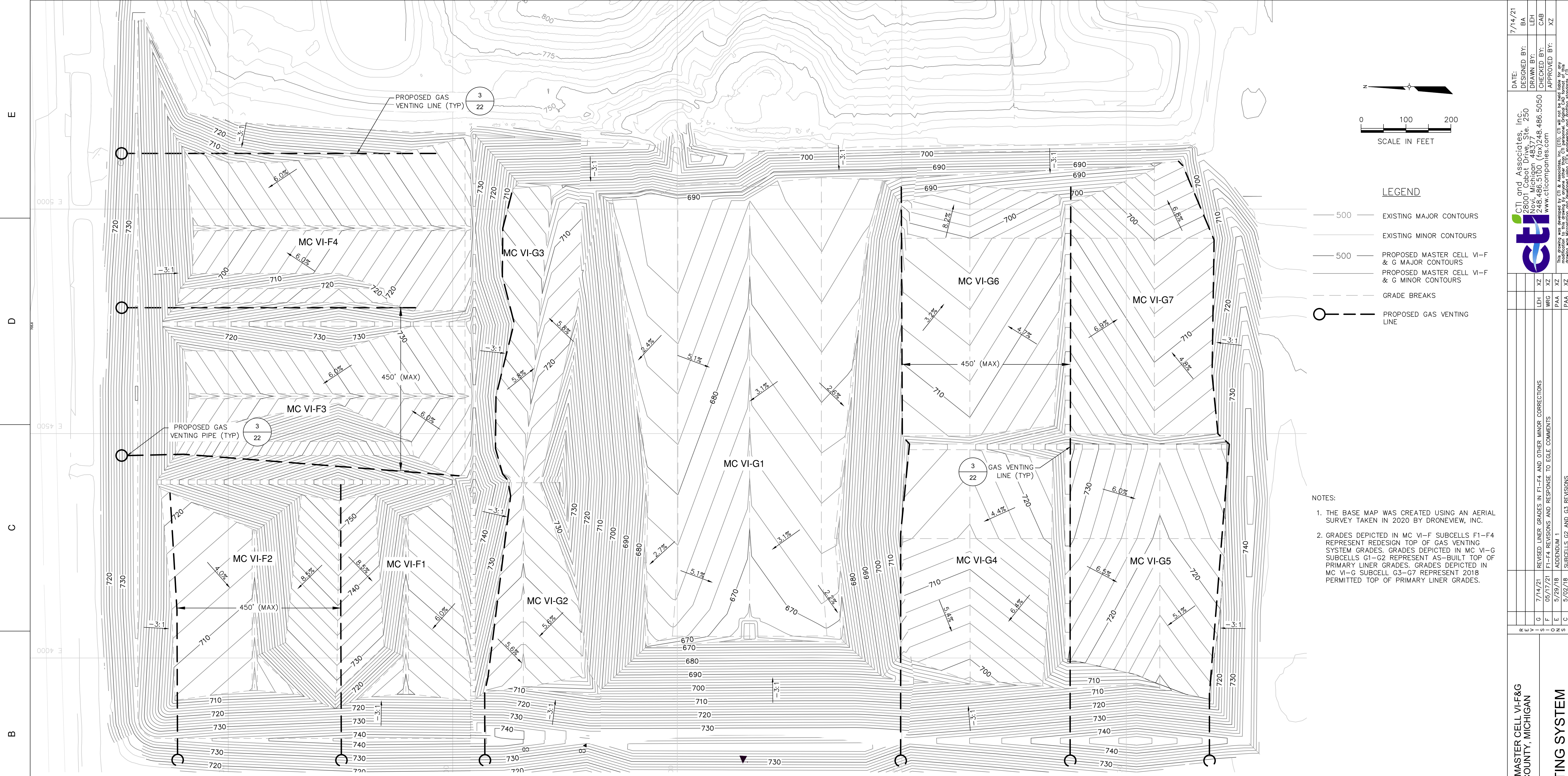


8 DIVERSION GEOMEMBRANE DETAIL (TYP.)
SCALE: 1"=2'



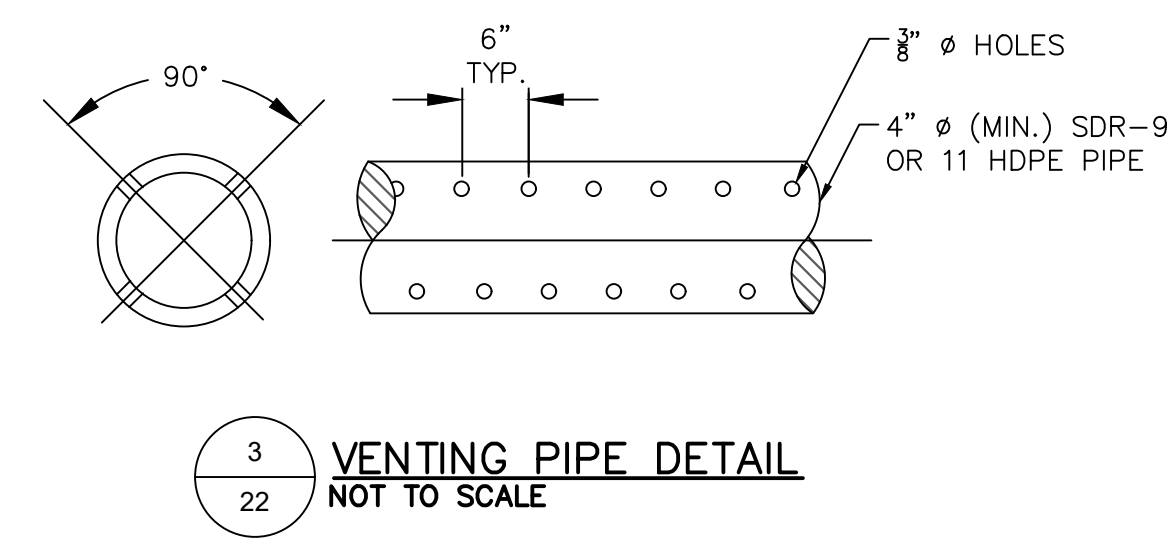
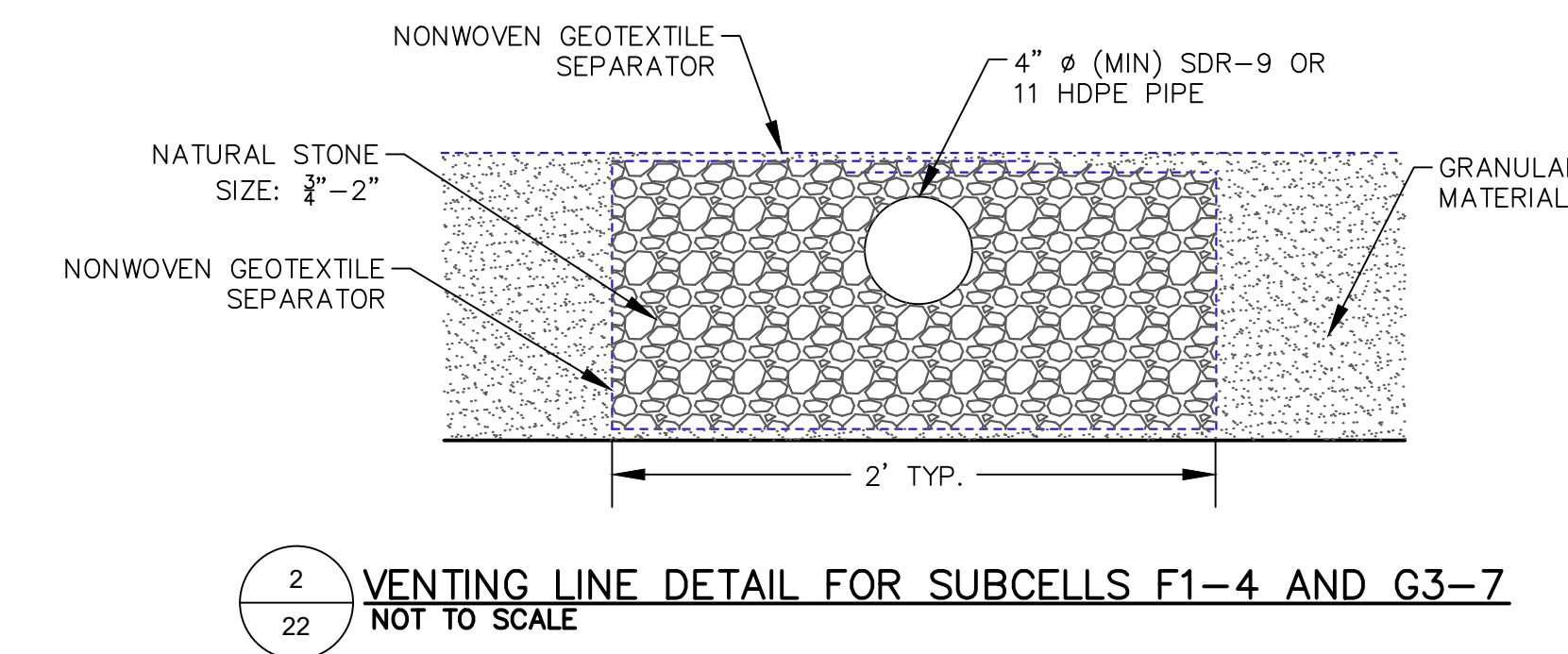
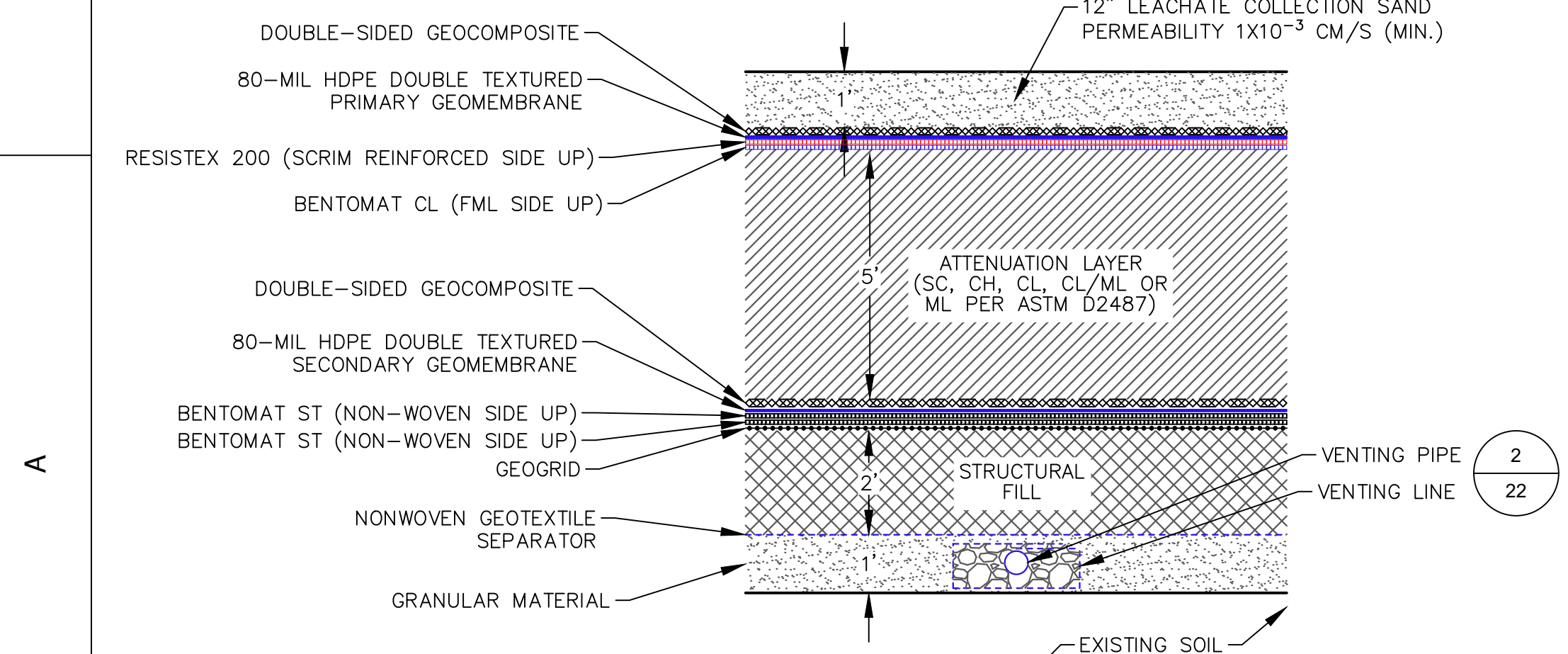
5 PERIMETER TOE DRAIN
SCALE: 1"=1'

DATE:	05/17/21	DESIGNED BY:	BA	WRC	XZ
DRAWN BY:	WRC	CHECKED BY:	CAB	APPROVED BY:	XZ
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REV	DATE	DESCRIPTION	WRC	XZ	DN
F	05/17/21	E1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS			
<p>WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN</p> <p>STORMWATER MANAGEMENT SYSTEM DETAILS</p>					
<p>PROJECT NUMBER: 1208070039 SCALE: AS SHOWN DRAWING NO: 21</p>					



- LEGEND**
- 500 — EXISTING MAJOR CONTOURS
 - — EXISTING MINOR CONTOURS
 - 500 — PROPOSED MASTER CELL VI-F & G MAJOR CONTOURS
 - — PROPOSED MASTER CELL VI-F & G MINOR CONTOURS
 - — GRADE BREAKS
 - — PROPOSED GAS VENTING LINE

- NOTES:**
- THE BASE MAP WAS CREATED USING AN AERIAL SURVEY TAKEN IN 2020 BY DRONEVIEW, INC.
 - GRADES DEPICTED IN MC VI-F SUBCELLS F1-F4 REPRESENT REDESIGN TOP OF GAS VENTING SYSTEM GRADES. GRADES DEPICTED IN MC VI-G SUBCELLS G1-G2 REPRESENT AS-BUILT TOP OF PRIMARY LINER GRADES. GRADES DEPICTED IN MC VI-G SUBCELL G3-G7 REPRESENT 2018 PERMITTED TOP OF PRIMARY LINER GRADES.



DATE: 7/14/21		DESIGNED BY: BA	7/14/21
DRAWN BY: LEH		CHECKED BY: CAB	
APPROVED BY: XZ			
PROJECT NUMBER: 1208070039		SCALE: AS SHOWN	
DRAWING NO: 22		REVISION DESCRIPTION	
REV	DATE	REVISION DESCRIPTION	
G	7/14/21	REVISED LINER GRADES IN F1-F4 AND OTHER MINOR CORRECTIONS	
F	05/17/21	F1-F4 REVISIONS AND RESPONSE TO EGLE COMMENTS	
E	5/29/18	ADENDUM 1	
C	5/02/18	SUBCELLS G3 AND G3 REVISIONS	

WAYNE DISPOSAL, INC. SITE NO. 2 - MASTER CELL VI-F&G
VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

CONCEPTUAL GAS VENTING SYSTEM

