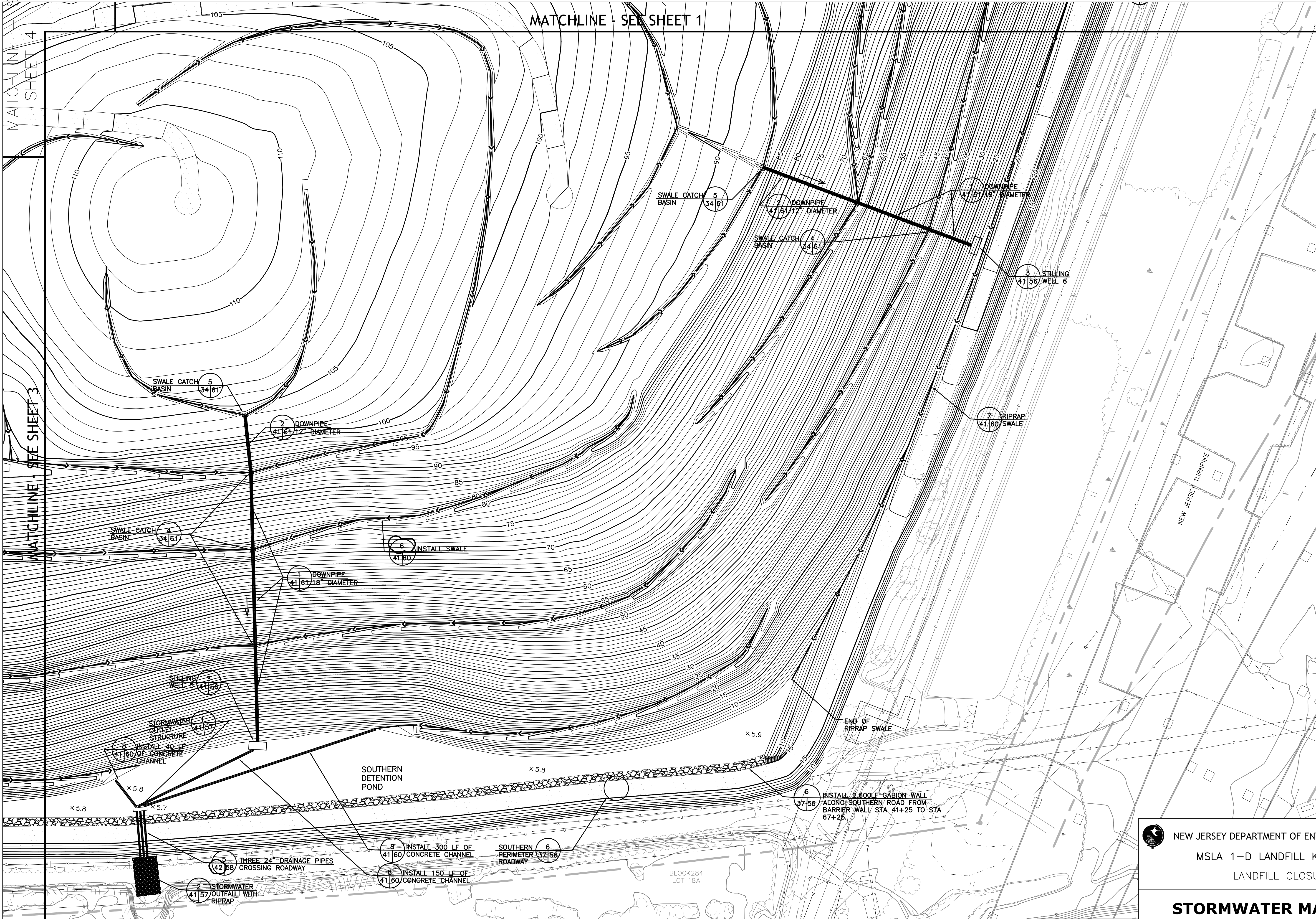


THE LOUIS BERGER GROUP, INC., MORRISTOWN, NJ CAD FILE: V:\Operations\032\Landfill Design\MSLA-1D\Construction\Phase II - Landfill Closure\Addendum\Drawings\MSLA 1D - Stormwater Management\Plan.dwg Sep 09, 2016



NOTE:
NO HEAVY EQUIPMENT WILL BE PERMITTED BEYOND THE EXISTING FENCE LINE. THE CONTRACTOR WILL NEED TO COORDINATE WITH PSE&G AND TRANSCO FOR INSTALLATION OF RIPRAP OUTFALL.

C		
B	9/09/16	REVISED FOR ADDENDUM 4
A	9/14/12	ISSUED FOR CONSTRUCTION
No.	DATE	REVISION

CHRISTOPHER E. CORLISS

N.J. PROFESSIONAL ENGINEER
LIC. NO. 24GE04822
CERTIFICATE OF AUTHORIZATION
24GA27933700



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MSLA 1-D LANDFILL KEARNY, NEW JERSEY
LANDFILL CLOSURE PROJECT

STORMWATER MANAGEMENT PLAN
SHEET 2 OF 4



THE LOUIS BERGER GROUP, INC.
412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

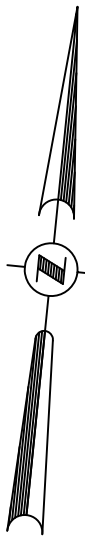
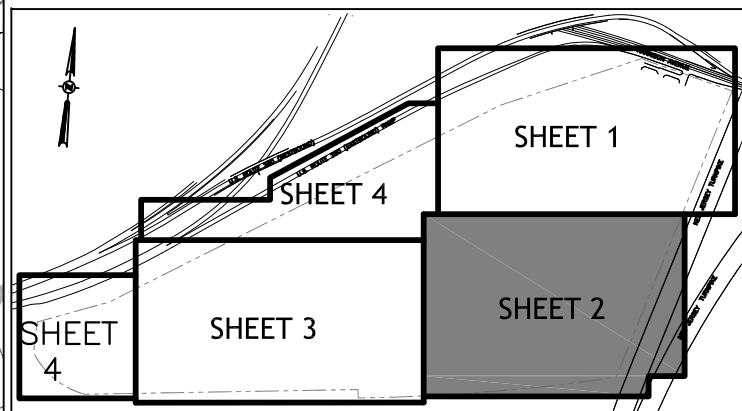
DRAWN BY: YL
CHECKED BY: CC
APPROVED BY: CC

SCALE:
AS SHOWN

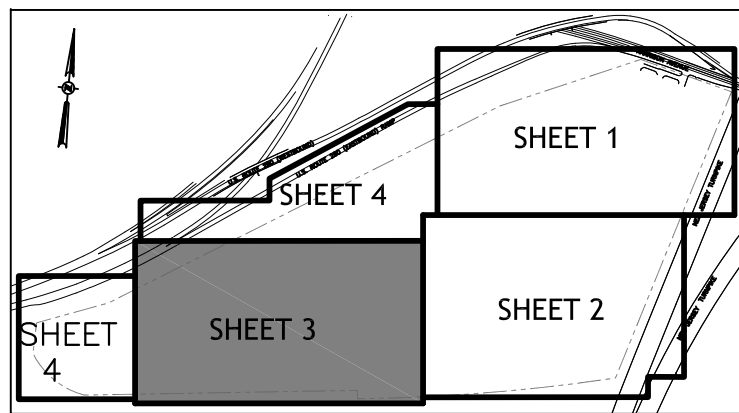
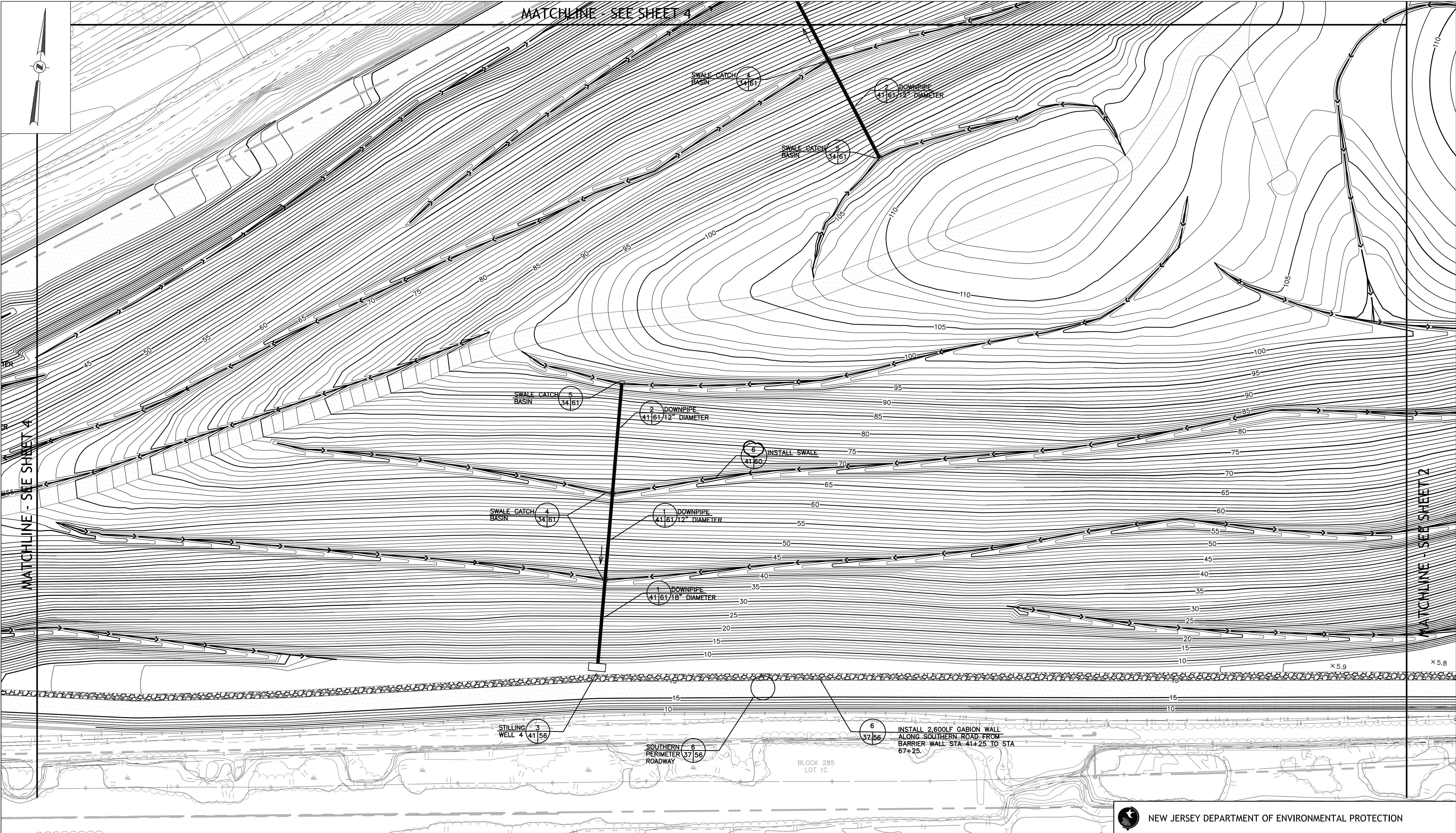
DATE:
SEPTEMBER 19, 2013

PROJECT NO.:
KT 323P0

SHEET NO.:
42 OF 78



THE LOUIS BERGER GROUP, INC., MORRISTOWN, NJ CAD FILE: \\Operations\032\Landfill Design\MSLA-1D\Construction\Phase II - Landfill Closure\Addendum Drawings\MSLA 1D - Stormwater Management Plan.dwg Sep 09, 2016



0 25 50 100 150
SCALE IN FEET 1"=50'

No.	DATE	REVISION
C		
B	9/09/16	REVISED FOR ADDENDUM 4
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CHRISTOPHER E. CORLISS

N.J. PROFESSIONAL ENGINEER
LIC. NO. 24GE044822
CERTIFICATE OF AUTHORIZATION
24GA27933700



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MSLA 1-D LANDFILL KEARNY, NEW JERSEY
LANDFILL CLOSURE PROJECT

STORMWATER MANAGEMENT PLAN SHEET 3 OF 4



THE LOUIS BERGER GROUP, INC.
412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

DRAWN BY: YL
CHECKED BY: CC
APPROVED BY: CC

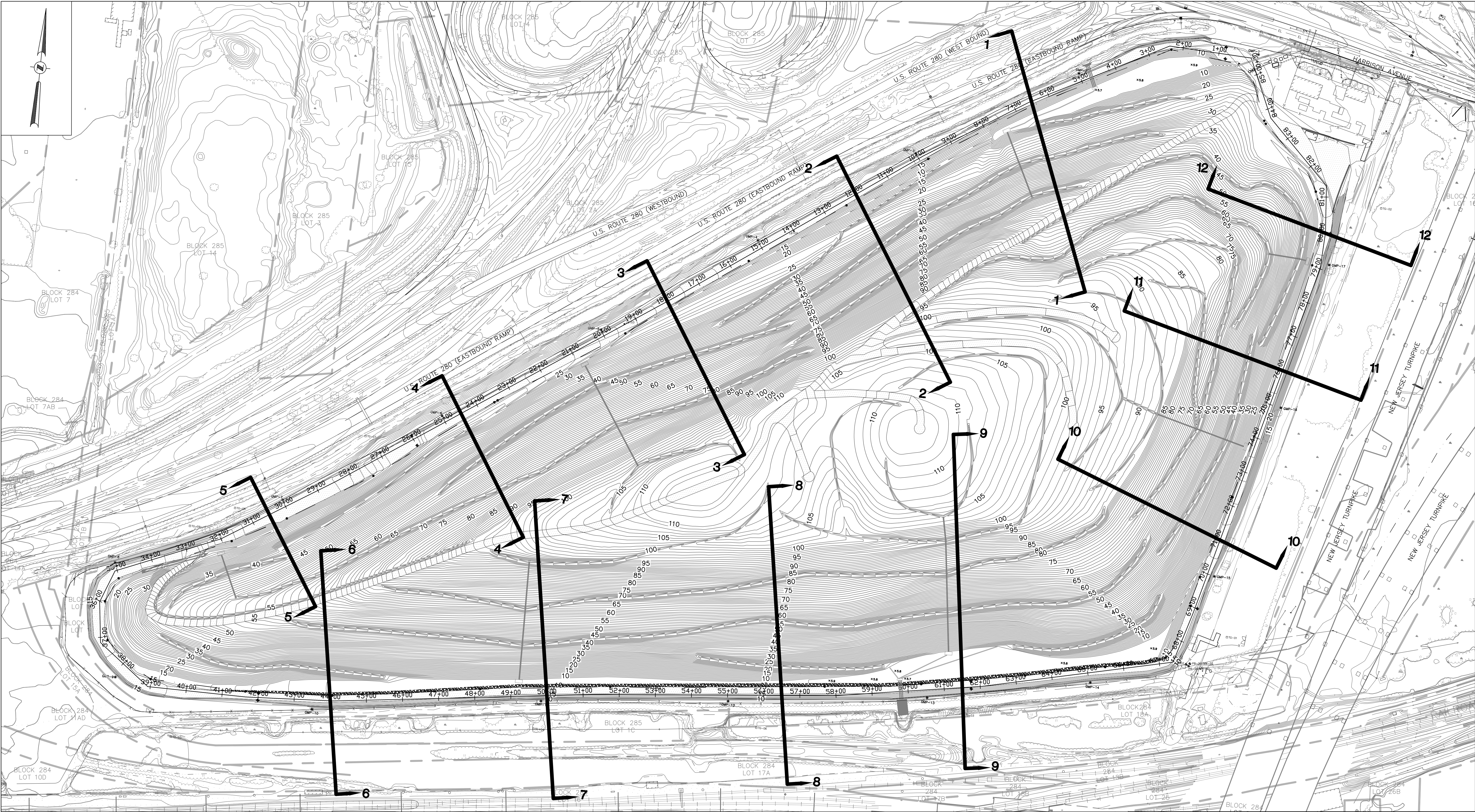
SCALE:
AS SHOWN

DATE:
SEPTEMBER 19, 2013

PROJECT NO.:
KT 323P0

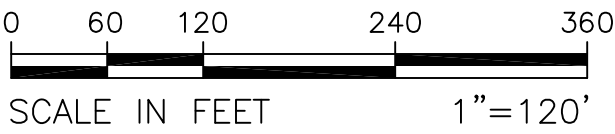
SHEET NO.:
43 OF 78

THE LOUIS BERGER GROUP, INC., MORRISTOWN, NJ CAD FILE: \\Operations\032\Landfill Design\MSLA-1D\Construction\Phase II - Landfill Closure\Addendum Drawings\MSLA 1D - CROSS SECTIONS (Addendum Rev Sept. 2016).dwg Sep 13, 2016



NOTES:

1. TOP OF CLAY SHOWN ON ALL SHEETS SHALL BE VERIFIED BY THE CONTRACTOR DURING EXCAVATION FOR BARRIER WALL. BOTTOM OF BARRIER WALL IS TO BE KEYED 3 FEET MINIMUM INTO THE CLAY LAYER. BOTTOM OF BARRIER WALL SHOWN ON ALL SHEETS IS FOR DEMONSTRATION PURPOSES ONLY.
2. GABION WALLS ARE NOT DEPICTED ON THE CROSS SECTION SHEETS FOR CLARITY PURPOSES.
3. RA TYPE B SHALL BE USED TO BUILD UP THE SOUTHERN AND EASTERN ROADS (APPROXIMATELY STATION 41+25 TO 67+00 AND 73+00 TO 80+00).



C		
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No.	DATE	REVISION

CHRISTOPHER E. CORLISS

N.J. PROFESSIONAL ENGINEER
LIC. NO. 24GE044822
CERTIFICATE OF AUTHORIZATION
24GA27933700



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

MSLA 1-D LANDFILL KEARNY, NEW JERSEY

LANDFILL CLOSURE PROJECT

CROSS-SECTIONS PLAN



THE LOUIS BERGER GROUP, INC.
412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

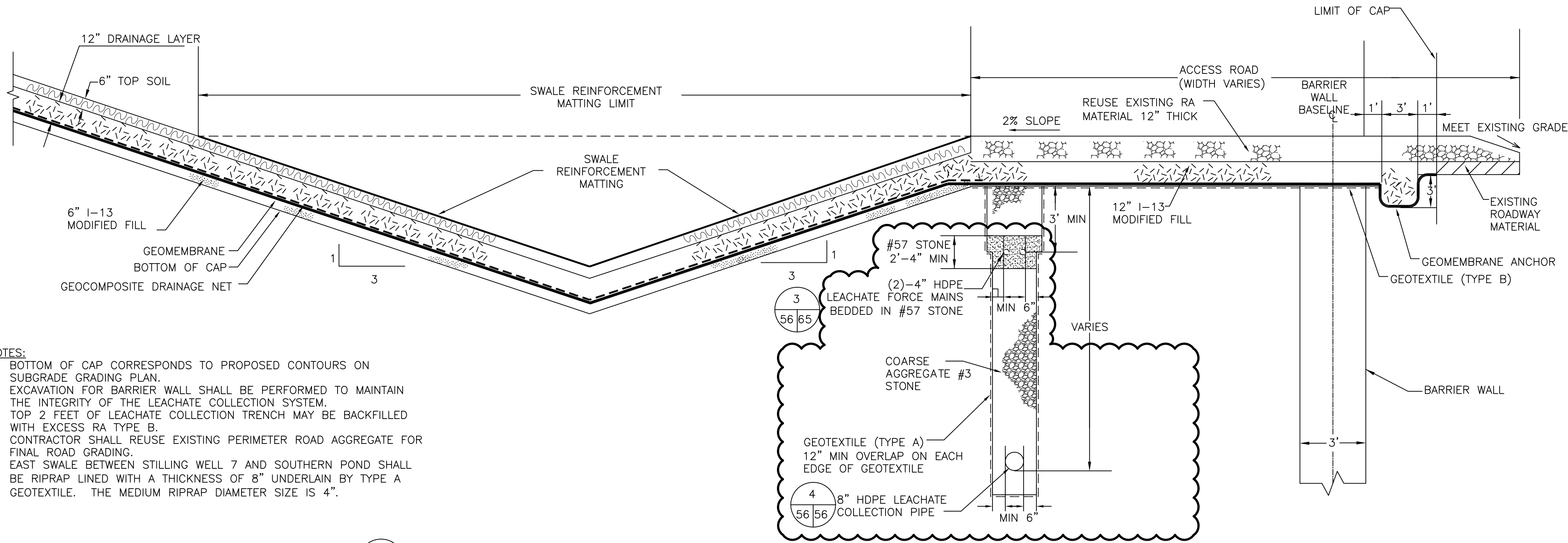
SCALE:
AS SHOWN

DATE:
SEPTEMBER 19, 2013

PROJECT NO.:
KT 323P0

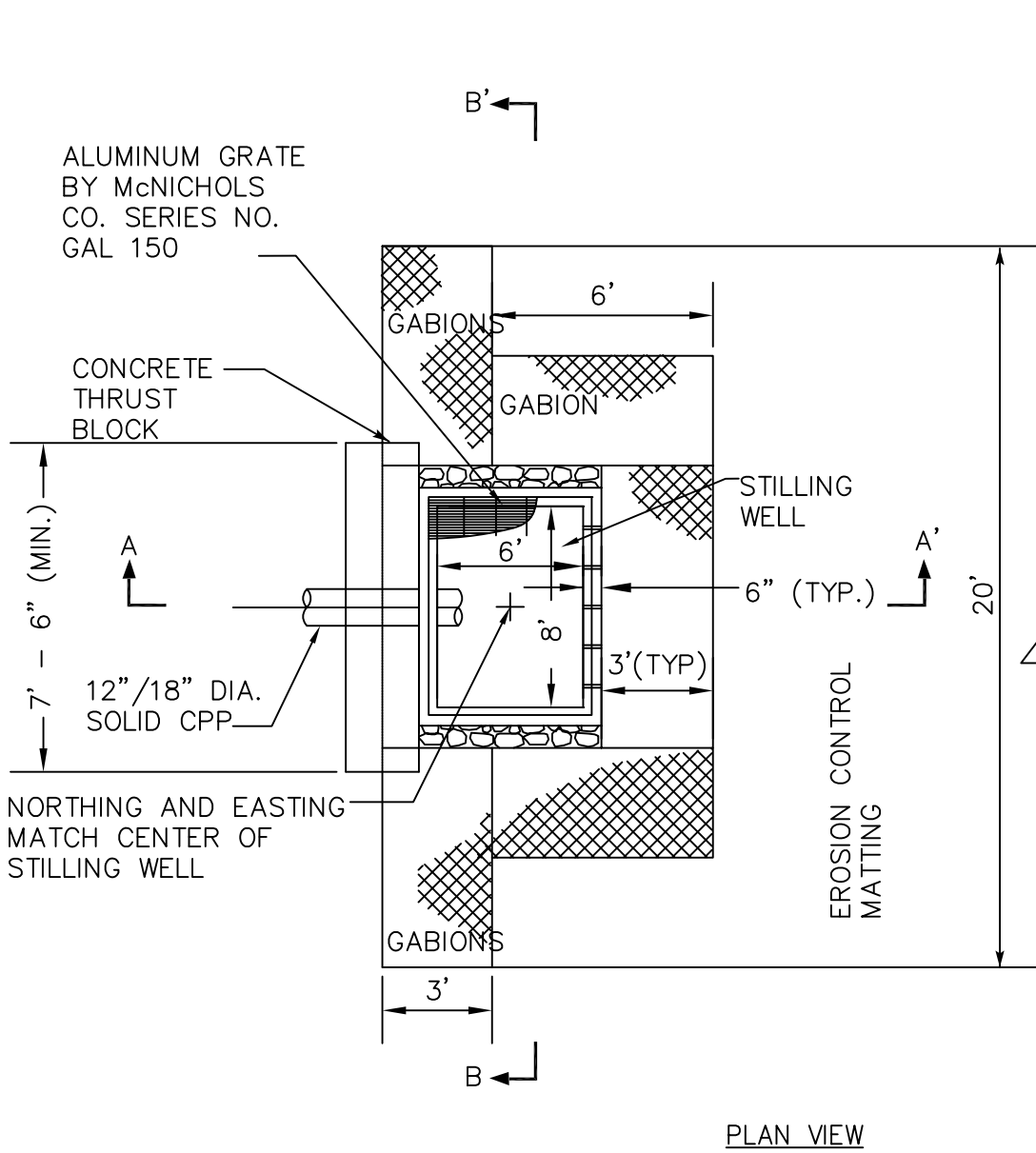
DRAWN BY: YL
CHECKED BY: CC
APPROVED BY: CC

SHEET NO.:
45 OF 78

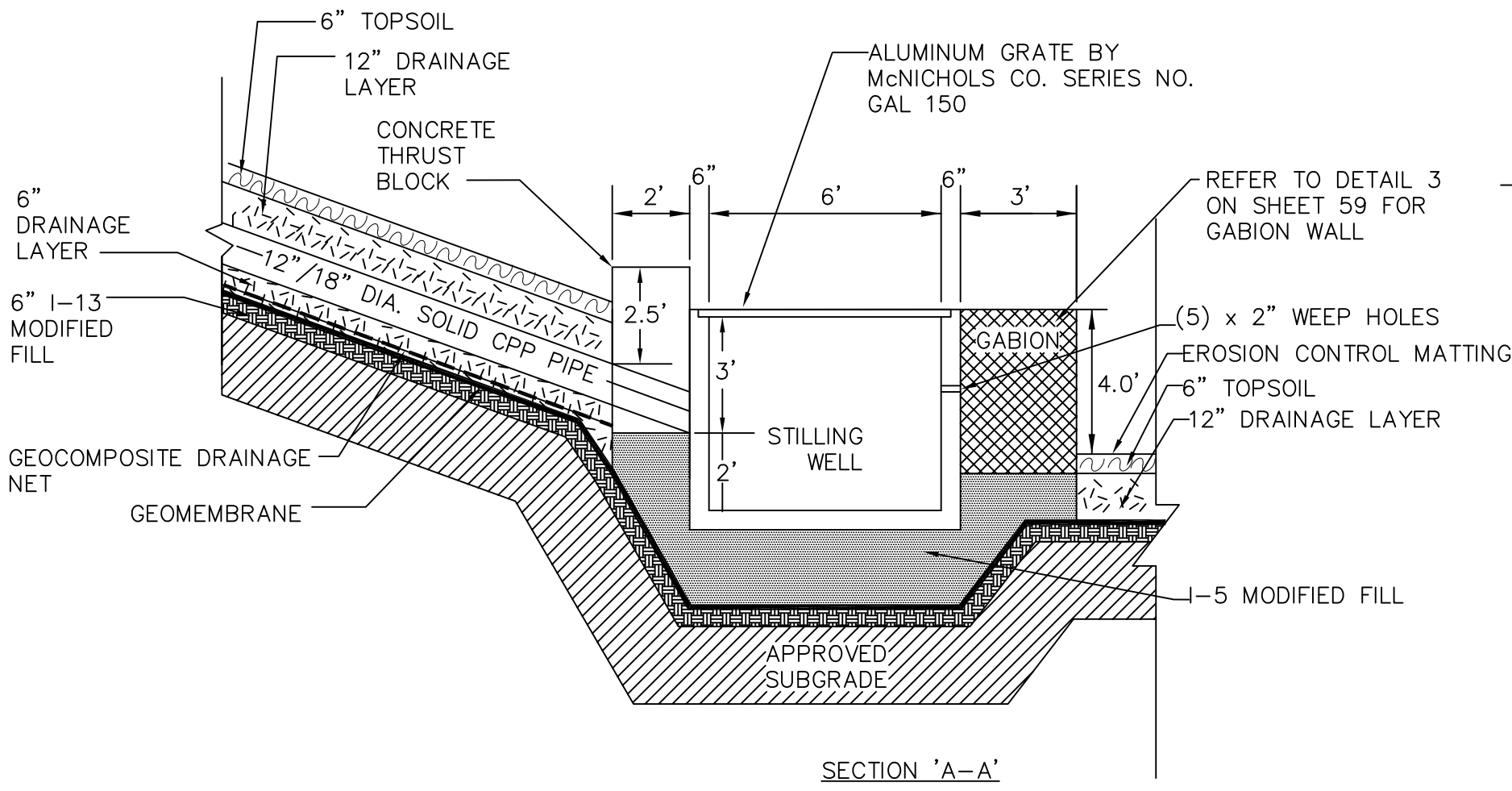


- NOTES:
1. BOTTOM OF CAP CORRESPONDS TO PROPOSED CONTOURS ON SUBGRADE GRADING PLAN.
 2. EXCAVATION FOR BARRIER WALL SHALL BE PERFORMED TO MAINTAIN THE INTEGRITY OF THE LEACHATE COLLECTION SYSTEM.
 3. TOP 2 FEET OF LEACHATE COLLECTION TRENCH MAY BE BACKFILLED WITH EXCESS RA TYPE B.
 4. CONTRACTOR SHALL REUSE EXISTING PERIMETER ROAD AGGREGATE FOR FINAL ROAD GRADING.
 5. EAST SWALE BETWEEN STILLING WELL 7 AND SOUTHERN POND SHALL BE RIPRAP LINED WITH A THICKNESS OF 8" UNDERLAIN BY TYPE A GEOTEXTILE. THE MEDIUM RIPRAP DIAMETER SIZE IS 4".

1 PERIMETER STORMWATER COLLECTION TRENCH
20/56 NOT TO SCALE

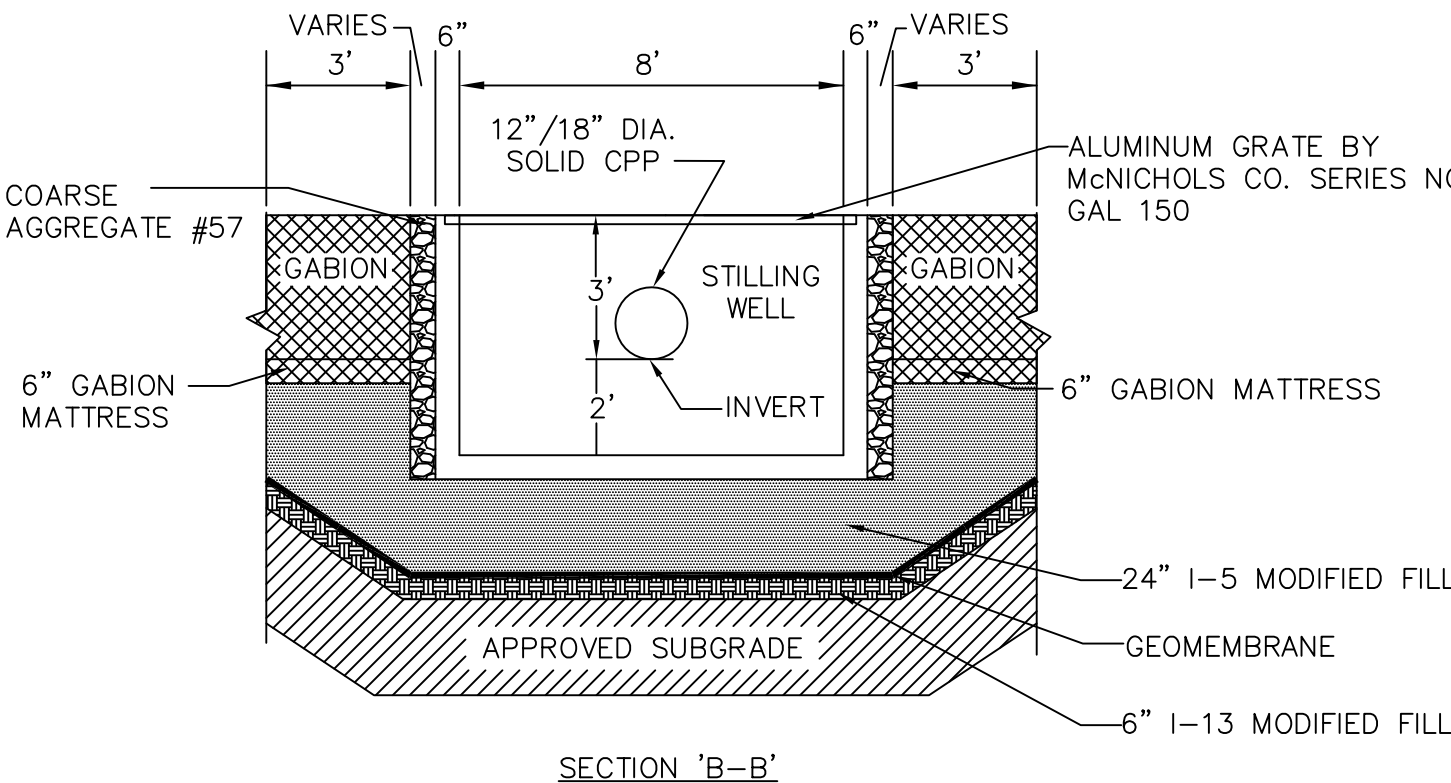


PLAN VIEW



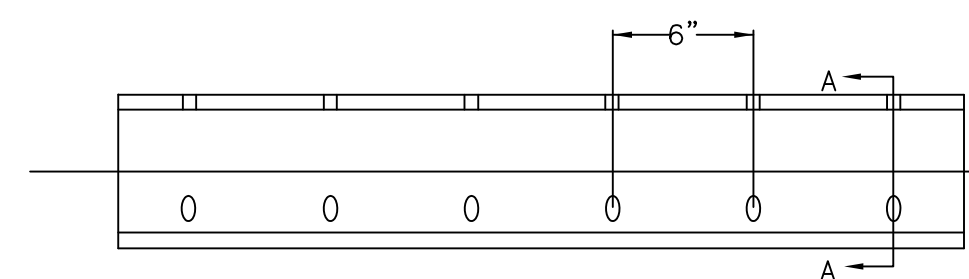
SECTION 'A-A'

- NOTE:
1. I-5 MODIFIED FILL SHALL BE USED UNDER THE STILLING WELL AND GABION MATTRESS.
 2. THE STILLING WELLS CAN BE BOOTED TO THE GEOMEMBRANE BUT A SHOP DRAWING SHALL BE REQUIRED FOR APPROVAL BY THE ENGINEER.

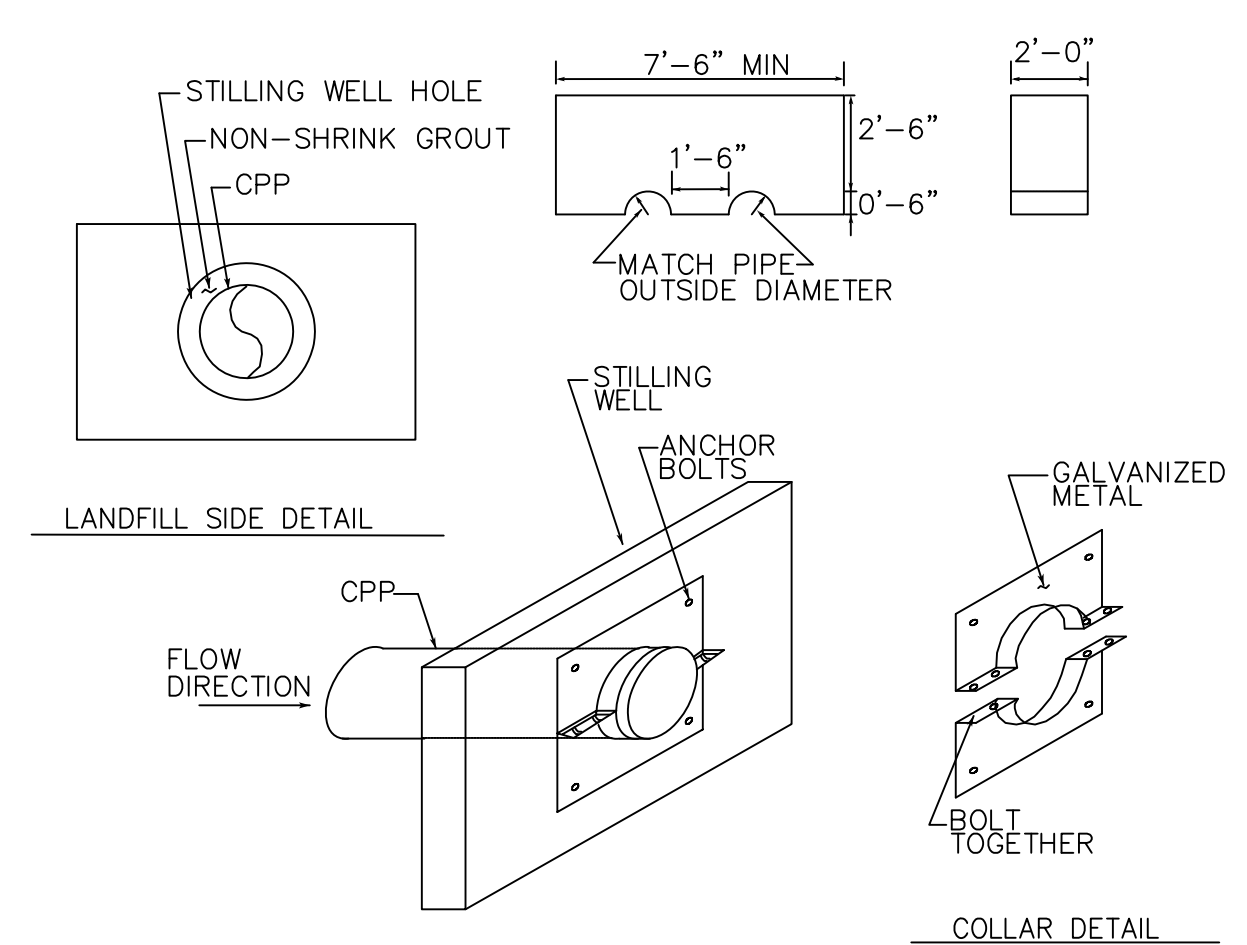


SECTION 'B-B'

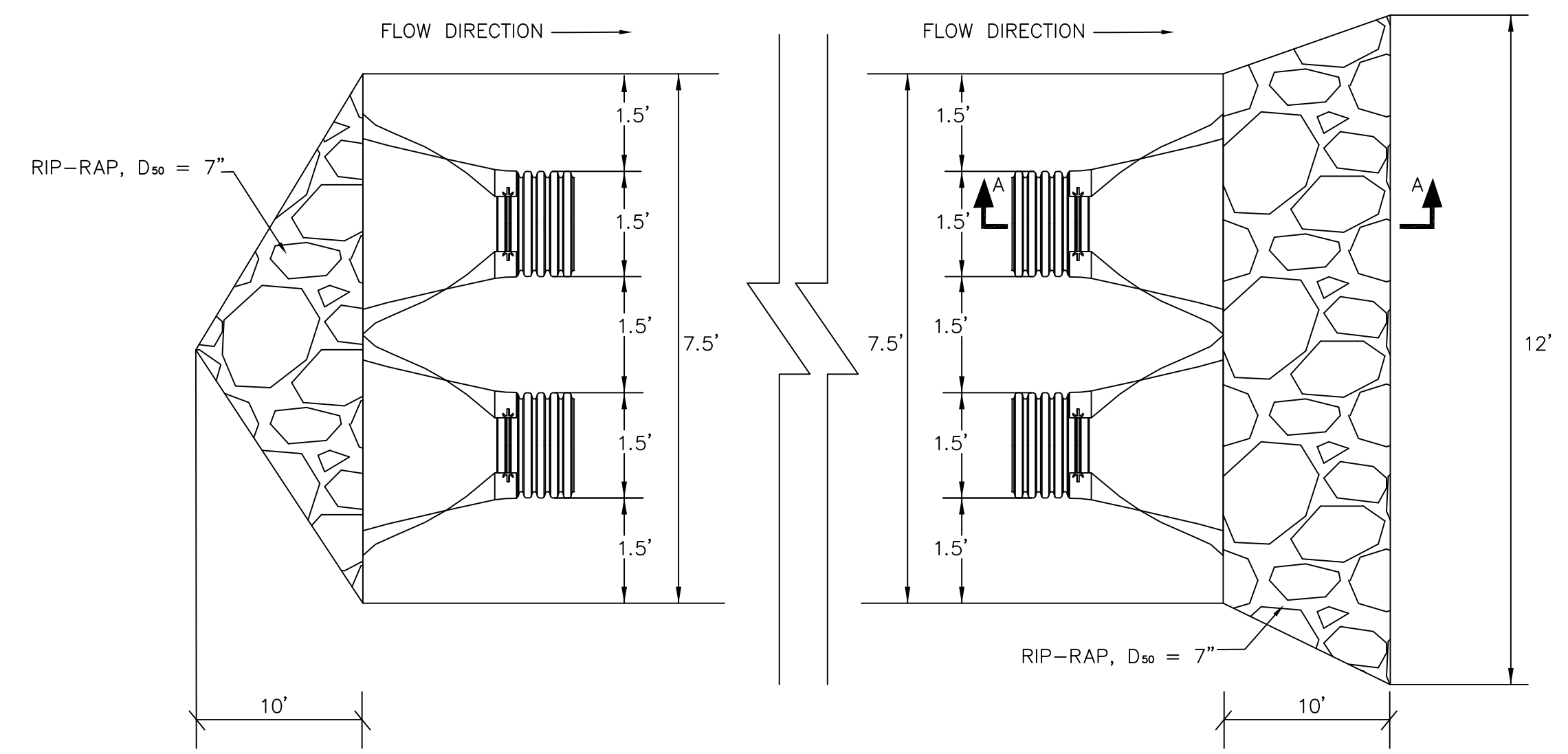
3 STILLING WELL AND DOWNPIPE
41/56 NOT TO SCALE



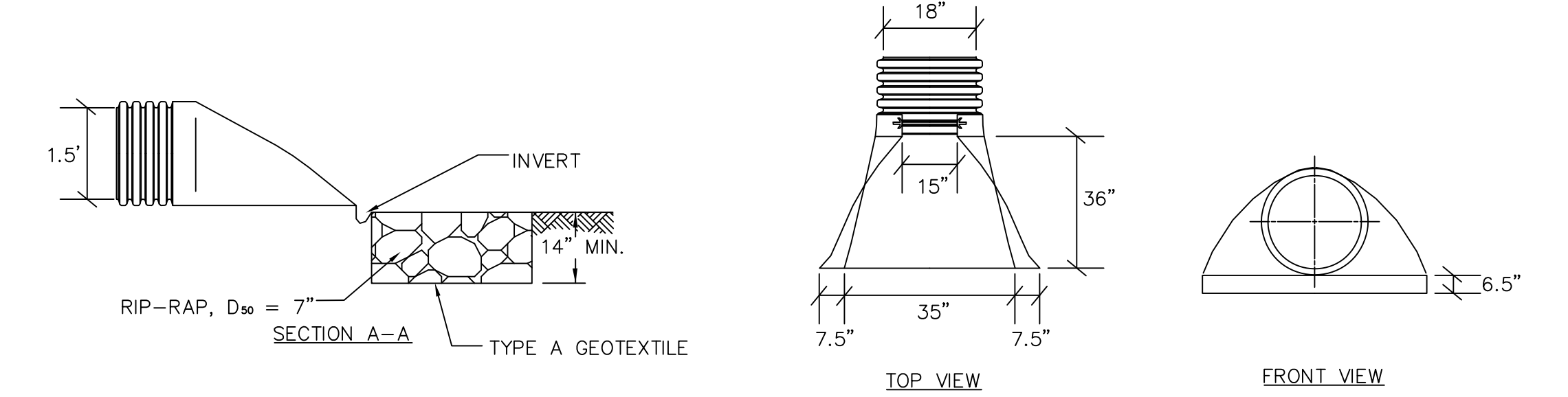
4 HDPE PERFORATED PIPE TYPE DR17
56/56 NOT TO SCALE



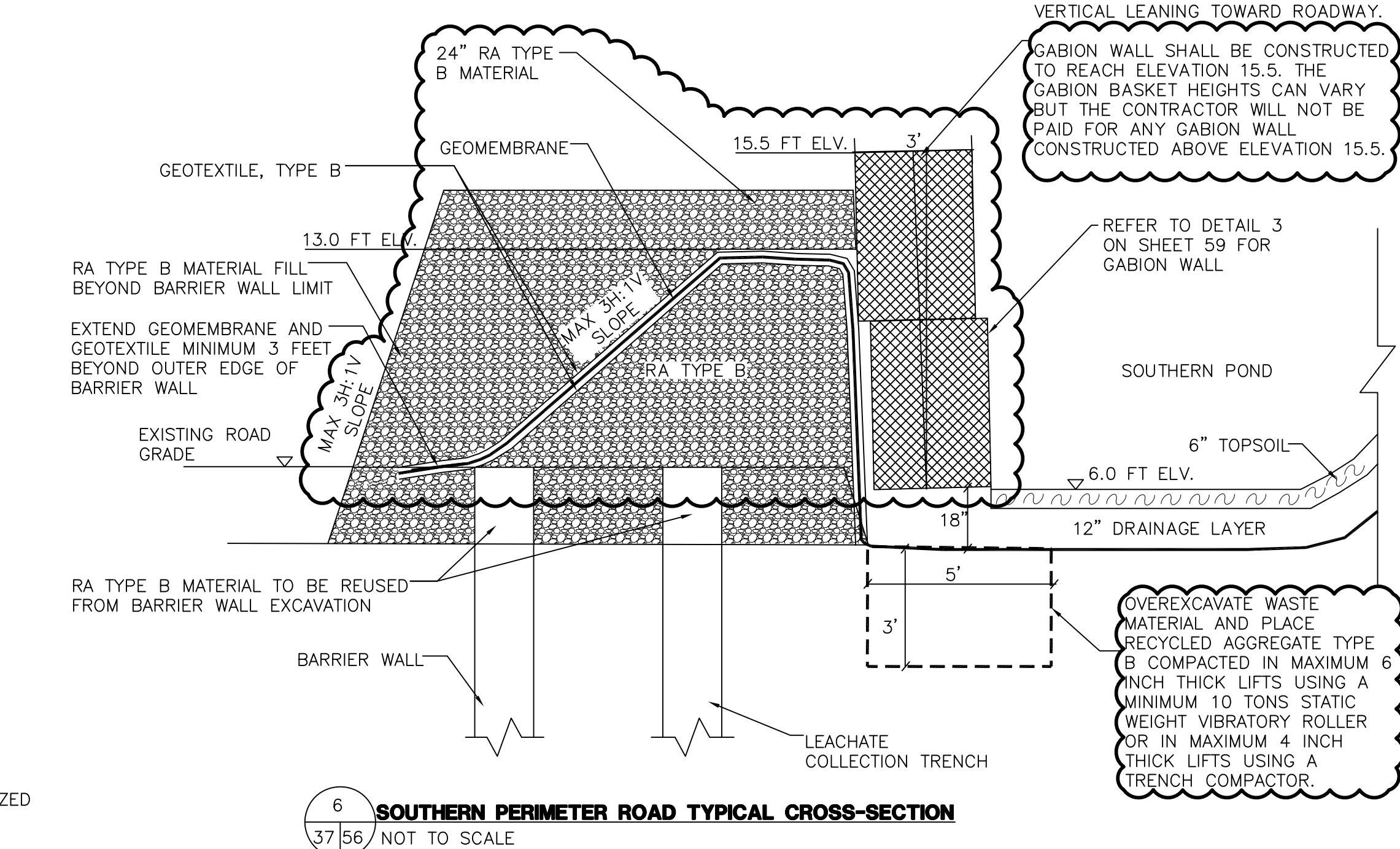
5 CONCRETE THRUST BLOCK
56/56 NOT TO SCALE



PLAN VIEW



2 HDPE FLARED END SECTION AT EACH CULVERT END
44/56 NOT TO SCALE



6 SOUTHERN PERIMETER ROAD TYPICAL CROSS-SECTION
37/56 NOT TO SCALE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MSLA 1-D LANDFILL KEARNY, NEW JERSEY
LANDFILL CLOSURE PROJECT

CIVIL DETAILS SHEET 2 OF 7

THE LOUIS BERGER GROUP, INC.
412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

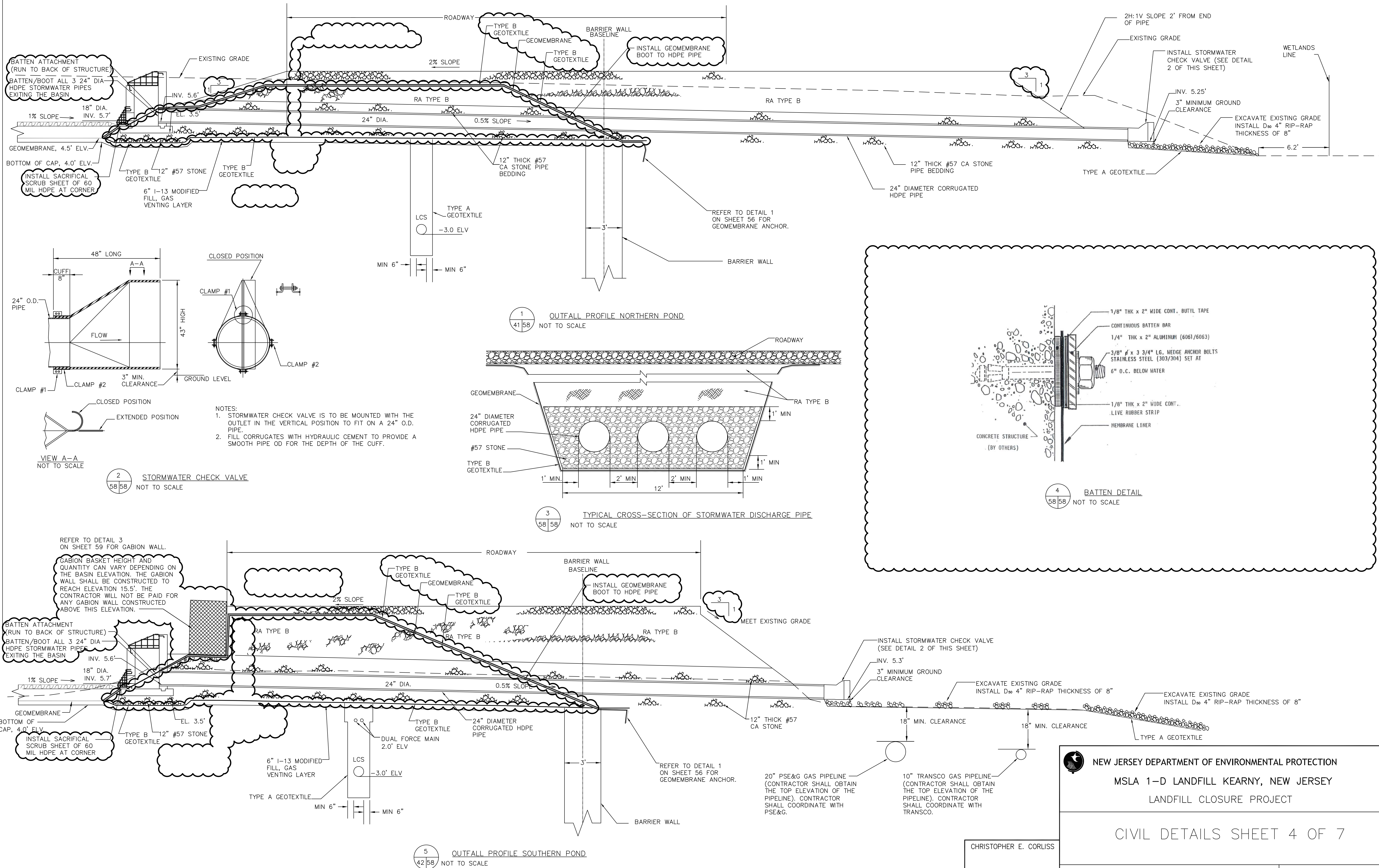
CHRISTOPHER E. CORLISS
N.J. PROFESSIONAL ENGINEER
LIC. NO. 24GE044822
CERTIFICATE OF AUTHORIZATION
24GA27933700

C		
B	9/09/16	REVISED FOR ADDENDUM 4
A	9/14/12	ISSUED FOR CONSTRUCTION
No.	DATE	REVISION

SCALE: AS SHOWN	DATE: SEPTEMBER 19, 2013	PROJECT NO.: KT 323P0	SHEET NO.: 56 OF 78
DRAWN BY: JK		CHECKED BY: DM	
APPROVED BY: CC			

C		
B	9/09/16	REVISED FOR ADDENDUM 4
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No.	DATE	REVISION

THE LOUIS BERGER GROUP, INC., MORRISTOWN, NJ CAD FILE: \\Operations\032\Landfill Design\MSLA-1D\Construction\Phase II - Landfill Closure\Addendum\Drawings\MSLA 1D - Details (Addendum Rev Sept 2016).dwg Sep 09, 2016



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N.J. PROFESSIONAL ENGINEER
LIC. NO. 24GE044822
CERTIFICATE OF AUTHORIZATION
24GA27933700

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**
MSLA 1-D LANDFILL KEARNY, NEW JERSEY
LANDFILL CLOSURE PROJECT

CIVIL DETAILS SHEET 4 OF 7

**THE LOUIS BERGER GROUP, INC.**
412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

DRAWN BY: JK
CHECKED BY: DM
APPROVED BY: CC

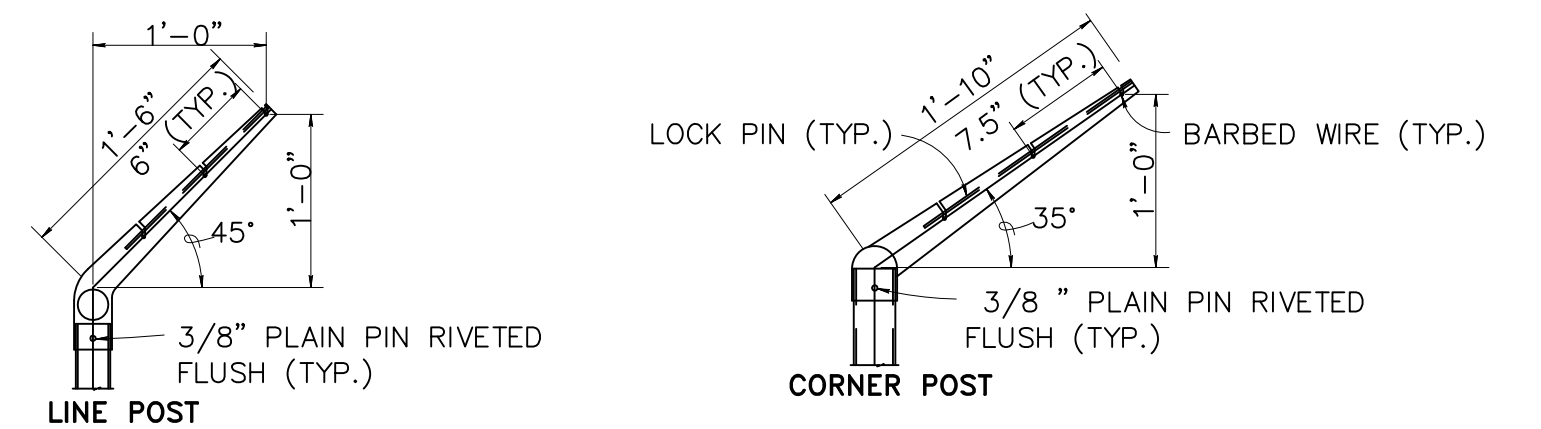
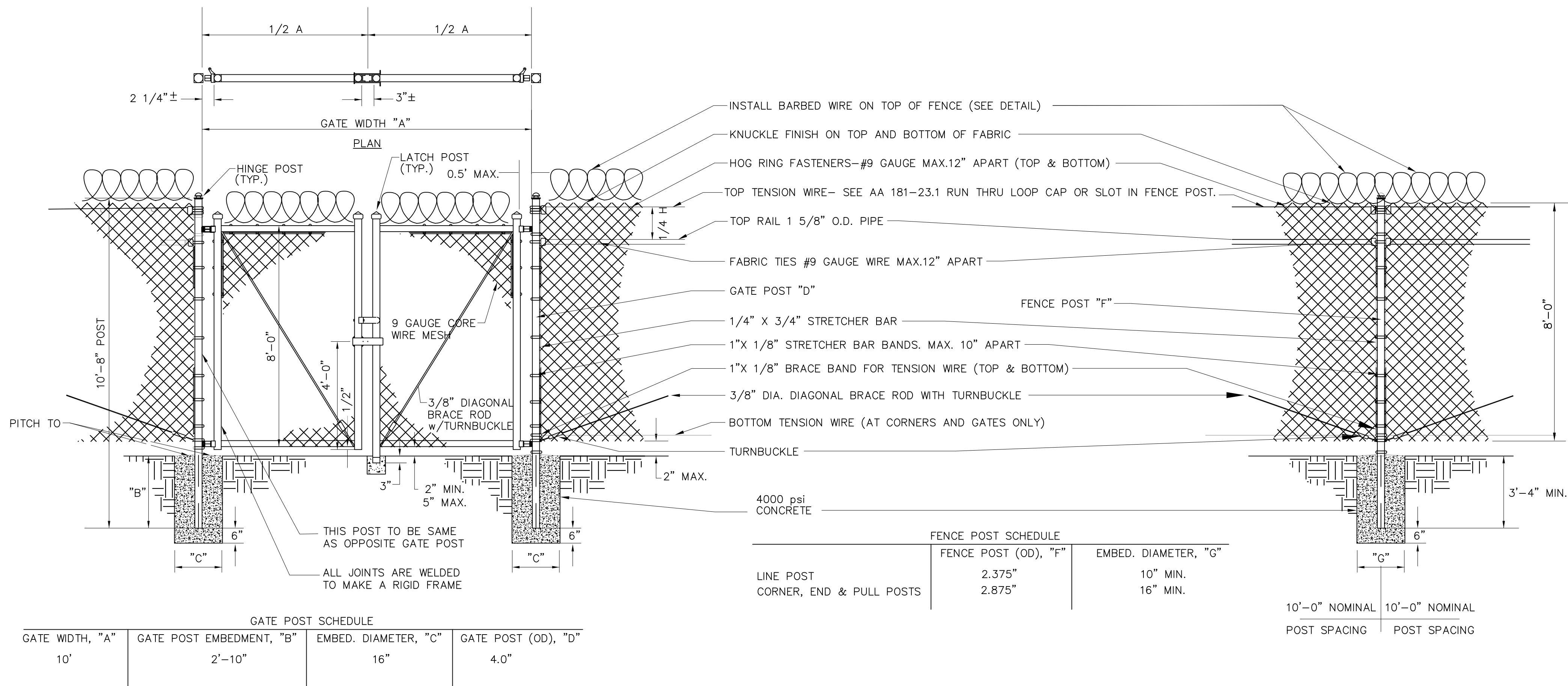
SCALE:
AS SHOWN

DATE:
SEPTEMBER 19, 2013

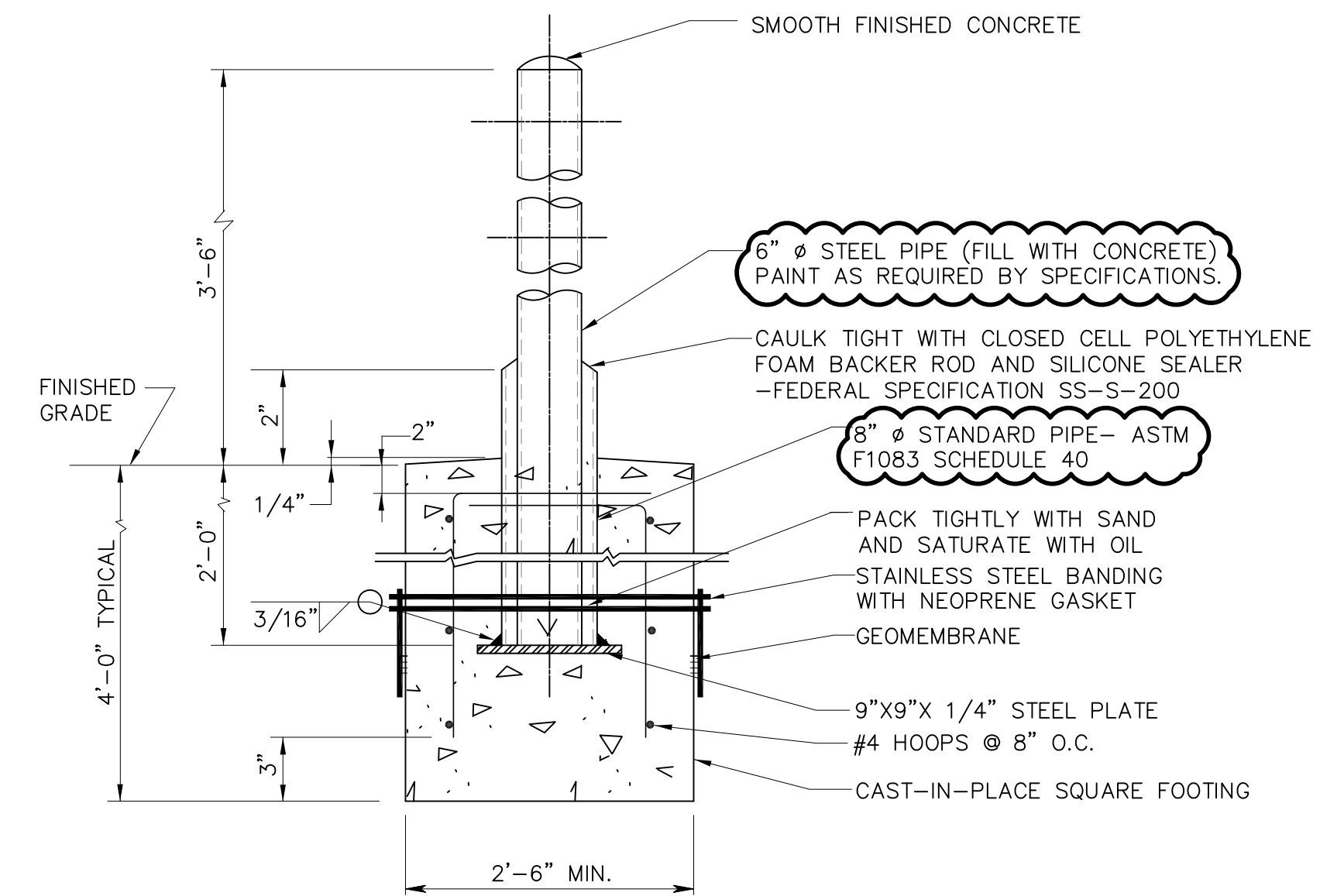
PROJECT NO.:
KT 323PO

SHEET NO.:
58 OF 78

THE LOUIS BERGER GROUP, INC., MORRISTOWN, NJ CAD FILE: \\Operations\032\Landfill Design\MSLA-1D\Construction\Phase II - Landfill Closure\Addendum\Drawings\MSLA 1D - Details (Addendum Rev Sept 2016).dwg Sep 09, 2016

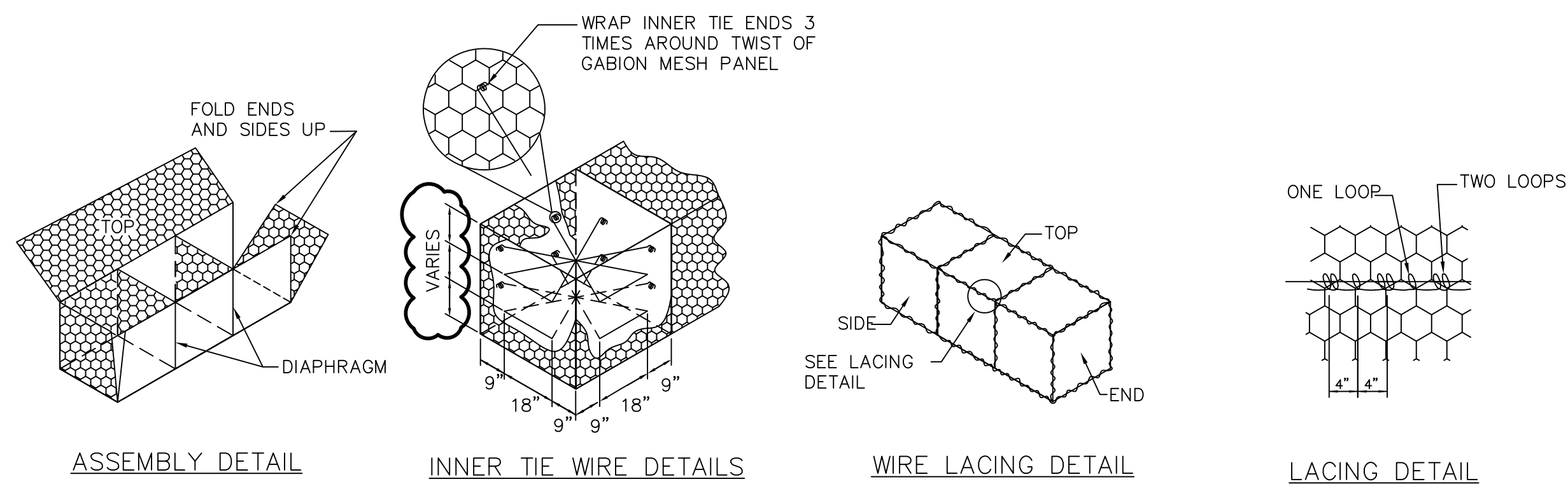


2 BARBED-TAPE MOUNTING DETAIL
6659 NOT TO SCALE



- NOTES:
- WHERE EXCAVATION IS DONE BY AUGERING, PRECAST FOOTINGS WILL NOT BE PERMITTED.
 - DIAMETER OF AUGERED HOLE SHALL NOT EXCEED DIAMETER OF FOOTING BY MORE THAN 3 INCHES.
 - COMPACT BACKFILL AROUND FOOTING.
 - CONCRETE FOOTING SHALL BE 4,000 psi, UNLESS OTHERWISE NOTED.

4 STANDARD BOLLARD DETAIL
2559 NOT TO SCALE



3 GABION WALL DETAIL
5659 NOT TO SCALE

- NOTES:
- THE ENDS OF A LACING WIRE WILL BE SECURED BY LOOPING IT THRU THE MESH AND TWISTING. PROCEED TO LACE WITH ALTERNATE TWO LOOPS AND ONE LOOP AT APPROXIMATELY 4 INCH INTERVALS.
 - OTHER LACING METHODS MAY BE USED IF RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER/INSPECTOR.
 - THE "X" SHAPED INNER TIE MAY BE TWISTED AT THE "X" TO TIGHTEN, IF PLACED TOO LOOSELY.
 - GABION WALL HEIGHT IS REQUIRED TO BE 6" ABOVE THE ADJACENT ROADWAY (ELEVATION 15.5). THE CONTRACTOR IS ALLOWED TO USE DIFFERENT GABION HEIGHT COMBINATIONS TO ACHIEVE THIS BUT WILL NOT BE PAID FOR GABION WALL IN EXCESS OF ELEVATION 15.5.

C		
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LIC. NO. 24GE044822
CERTIFICATE OF AUTHORIZATION
24GA27933700

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MSLA 1-D LANDFILL KEARNY, NEW JERSEY
LANDFILL CLOSURE PROJECT

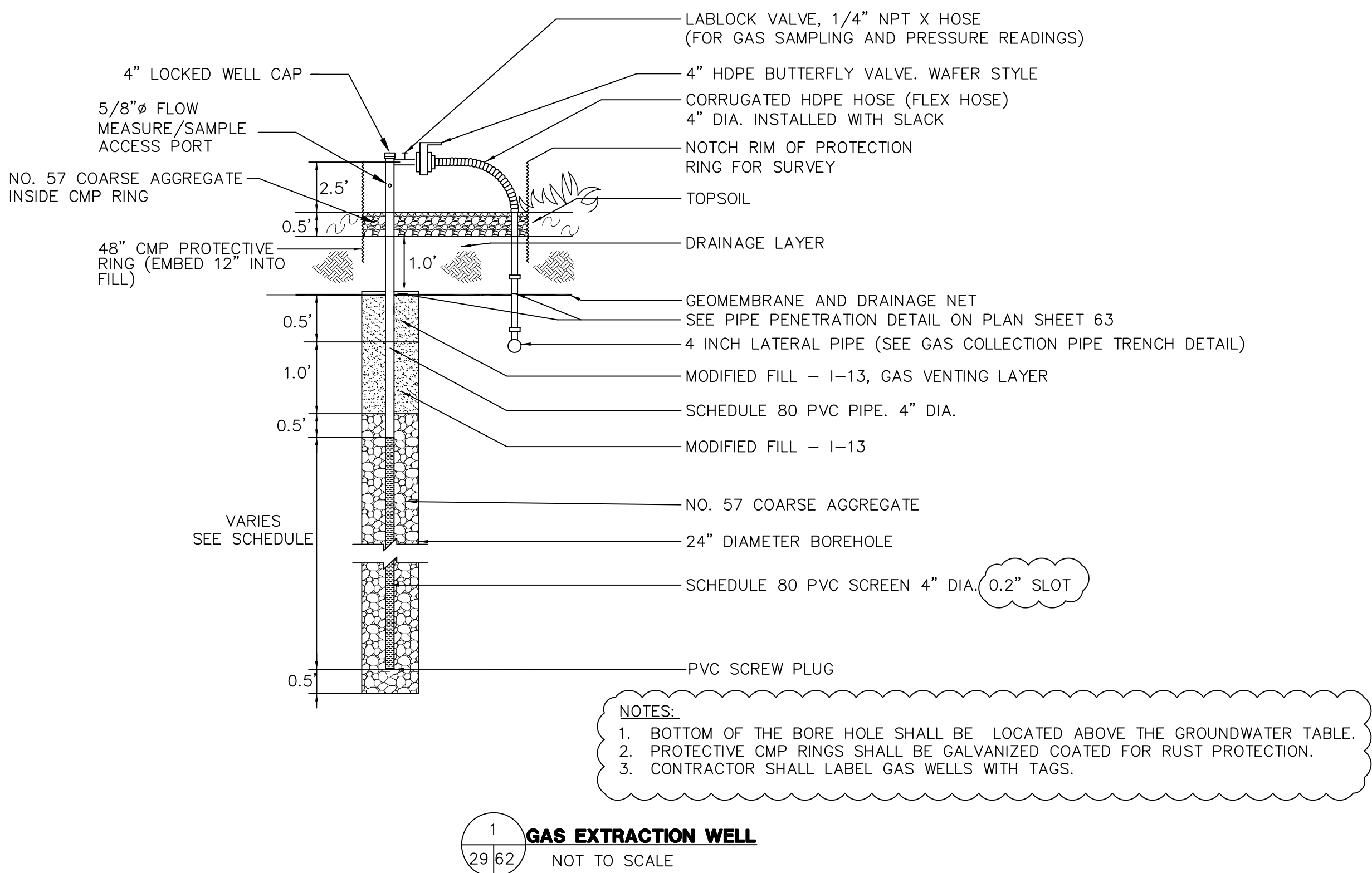
CIVIL DETAILS SHEET 5 OF 7

	THE LOUIS BERGER GROUP, INC. 412 MOUNT KEMBLE AVE. MORRISTOWN, NEW JERSEY 07962	DRAWN BY: JK	
		CHECKED BY: DM	
		APPROVED BY: CC	
SCALE: AS SHOWN	DATE: SEPTEMBER 19, 2013	PROJECT NO.: KT 323P0	SHEET NO.: 59 OF 78

GAS EXTRACTION WELL SCHEDULE				
GAS EXTRACTION WELL #	NORTHING (FT.)	EASTING (FT.)	FINAL GROUND ELEVATION* (FT.)	SLOTTED PIPE LENGTH (FT.)
1	696,434.40	593,728.66	41.1	26.0
2	696,505.90	593,972.39	53.0	26.0
3	696,614.14	594,252.18	65.9	36.0
4	696,417.08	594,167.55	43.0	26.0
5	696,528.30	594,446.04	59.9	36.0
6	696,830.62	594,811.77	101.6	36.0
7	696,633.56	594,727.13	75.6	36.0
8	696,744.78	595,005.63	100.0	36.0
9	696,442.52	594,640.06	33.4	26.0
10	696,550.74	594,919.79	55.6	26.0
11	696,464.90	595,113.64	28.1	26.0
12	697,047.09	595,371.36	111.1	36.0
13	696,852.72	595,285.54	109.9	36.0
14	696,961.25	595,565.22	103.6	36.0
15	696,667.26	595,198.16	78.4	36.0
16	696,767.18	595,479.63	93.9	36.0
17	696,573.16	595,393.50	51.8	26.0
18	696,681.37	595,673.23	68.4	26.0
19	696,490.74	595,586.18	20.0	26.0
20	696,595.54	595,867.09	25.0	26.0
21	697,263.57	595,930.95	108.9	36.0
22	697,066.43	595,846.08	110.6	36.0
23	697,177.73	596,124.80	101.9	36.0
24	696,875.48	595,759.23	102.1	36.0
25	696,983.69	596,038.96	102.8	36.0
26	696,802.12	595,945.07	77.0	36.0
27	696,906.65	596,229.43	86.2	36.0
28	696,723.32	596,137.17	52.0	26.0
29	696,634.30	596,333.32	23.7	26.0
30	696,812.01	596,426.68	52.1	26.0
31	697,480.05	596,490.53	87.9	36.0
32	697,300.71	596,399.05	90.5	36.0
33	697,091.89	596,318.66	91.1	36.0
34	697,200.10	596,598.39	52.5	26.0
35	697,006.11	596,512.68	57.2	26.0
36	697,398.63	596,663.92	48.2	26.0
37	696,722.38	594,531.98	85.7	36.0
38	696,808.16	594,337.96	44.3	36.0
39	696,913.35	594,618.89	65.9	36.0
40	696,938.86	595,091.57	110.8	36.0
41	697,024.63	594,897.55	79.4	36.0
42	697,129.83	595,178.48	92.6	36.0
43	697,218.65	594,983.33	50.7	26.0
44	697,155.33	595,651.15	109.2	36.0
45	697,241.11	595,457.14	109.9	36.0
46	697,346.31	595,738.07	107.1	36.0
47	697,326.86	595,263.06	60.3	26.0
48	697,435.12	595,542.92	77.3	36.0
49	697,520.63	595,348.80	26.8	26.0
50	697,625.26	595,630.68	44.2	26.0
51	697,371.81	596,210.74	100.0	36.0
52	697,457.59	596,016.72	101.3	36.0
53	697,562.47	596,298.20	93.4	36.0
54	697,533.05	595,828.68	94.3	36.0
55	697,651.60	596,102.50	81.1	36.0
56	697,719.78	595,907.01	63.7	26.0
57	697,853.03	596,176.90	61.0	36.0
58	697,928.00	595,987.35	22.8	26.0
59	698,039.51	596,273.74	27.1	26.0
60	697,674.06	596,576.31	82.1	36.0
61	697,759.81	596,382.23	81.9	36.0
62	697,868.05	596,662.02	48.8	26.0
63	697,953.77	596,467.85	52.9	36.0
64	698,147.72	596,553.47	27.3	26.0
65	696,633.06	594,034.40	40.0	26.0

* TOP OF WELL TO BE 2.5' ABOVE FINAL GRADE ELEVATION.

NOTE: SLOTTED PIPE LENGTH IS AN ESTIMATE. ACTUAL DEPTH MAY VARY.



C		
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CHRISTOPHER E. CORLISS

N.J. PROFESSIONAL ENGINEER
LIC. NO. 24GE044822
CERTIFICATE OF AUTHORIZATION
24GA27933700

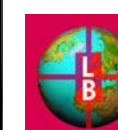


NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

MSLA 1-D LANDFILL KEARNY, NEW JERSEY

LANDFILL CLOSURE PROJECT

GAS DETAILS SHEET 1 OF 3



THE LOUIS BERGER GROUP, INC.

412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

DRAWN BY: JK

CHECKED BY: DM

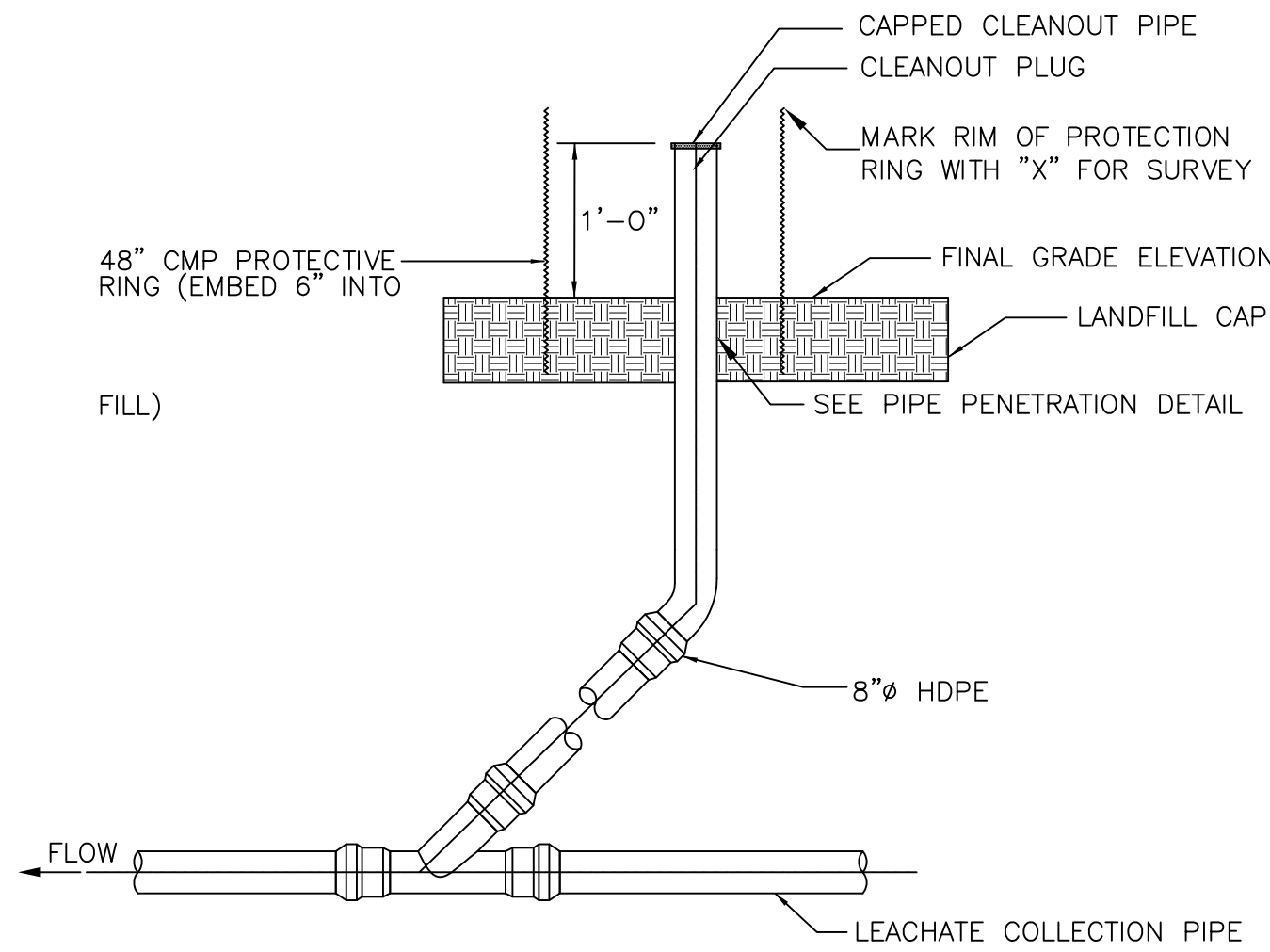
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SCALE:
AS SHOWN

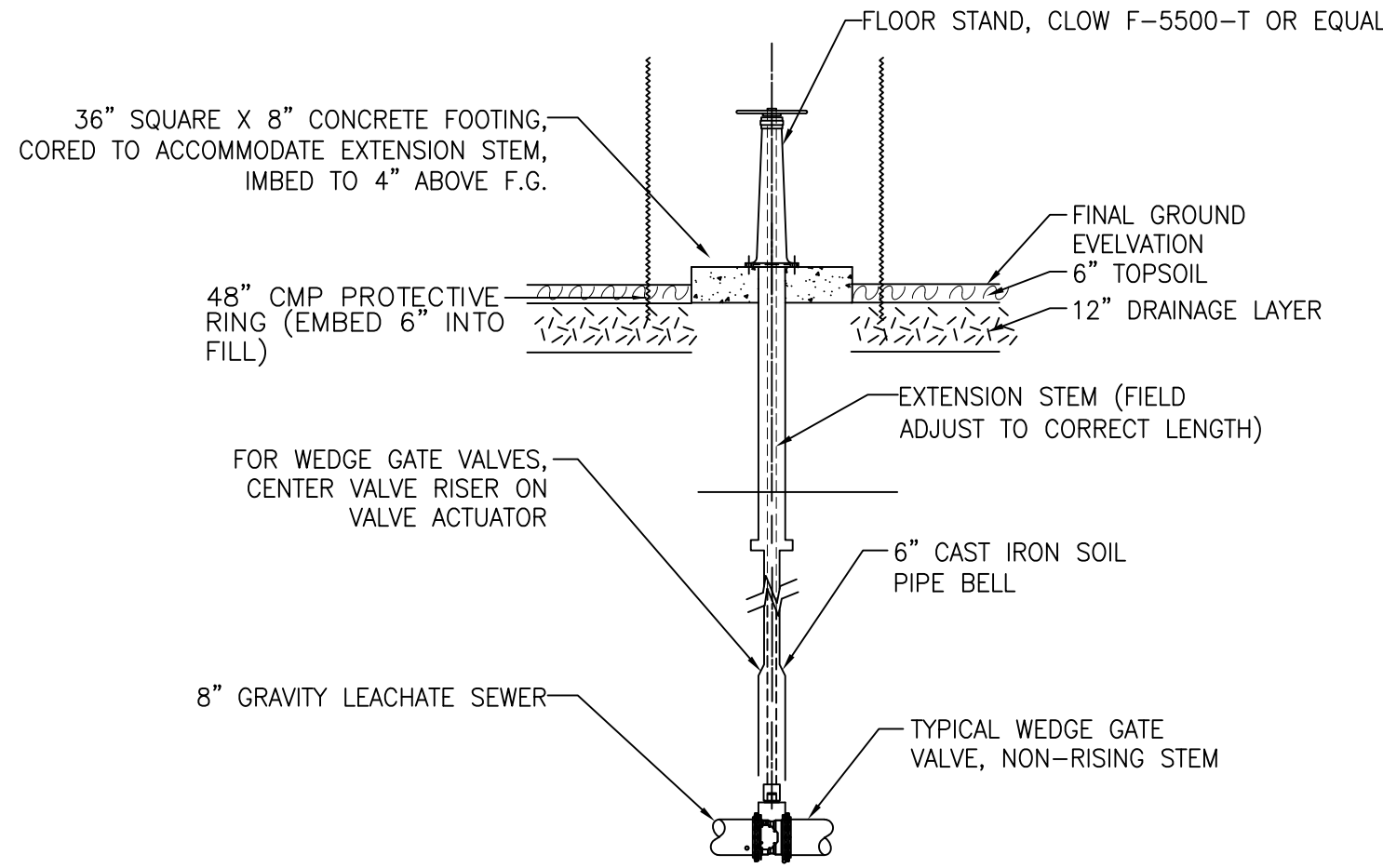
DATE:
SEPTEMBER 19, 2013

PROJECT NO.:
KT 323P0

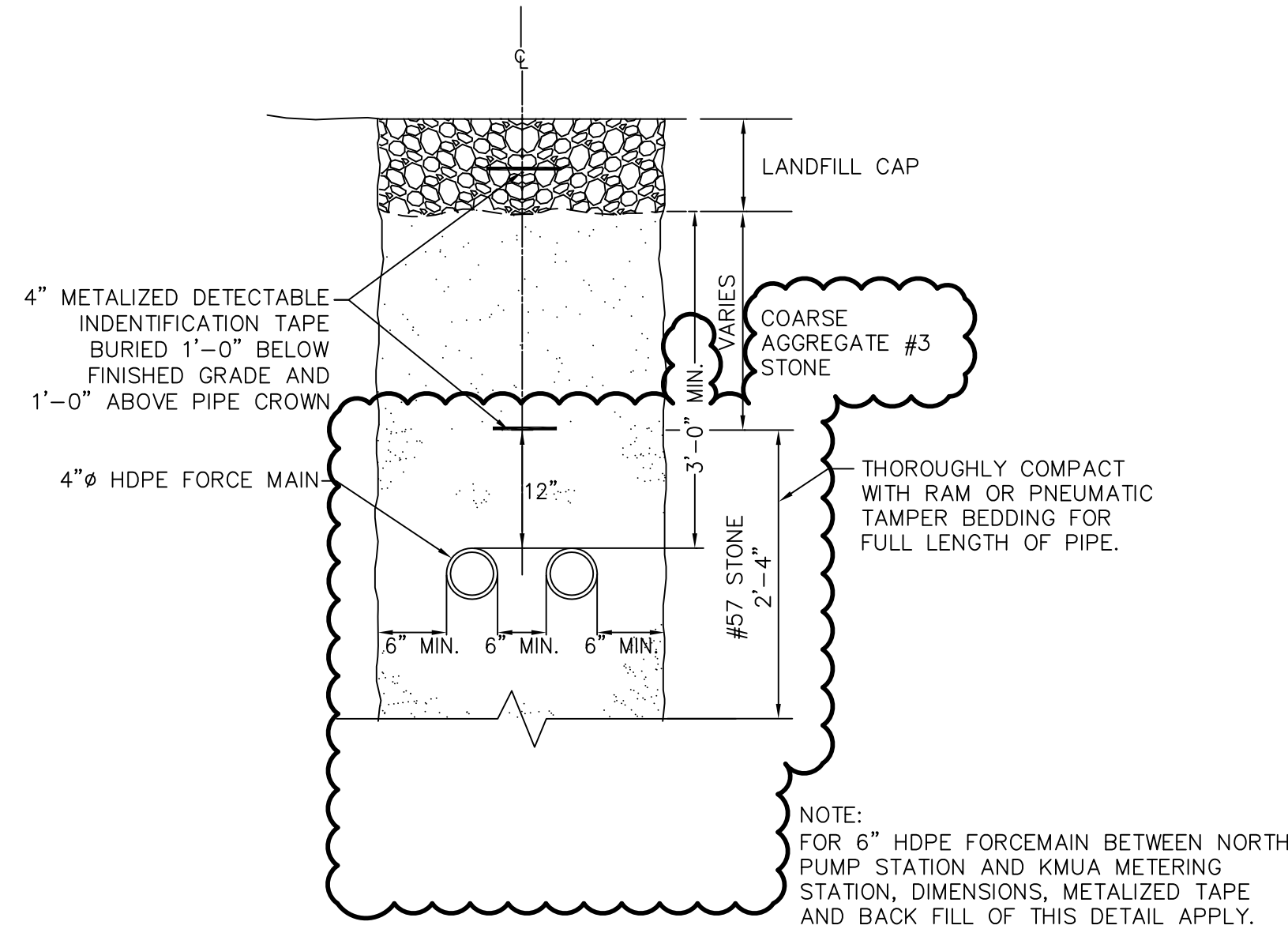
SHEET NO.:
62 OF 78



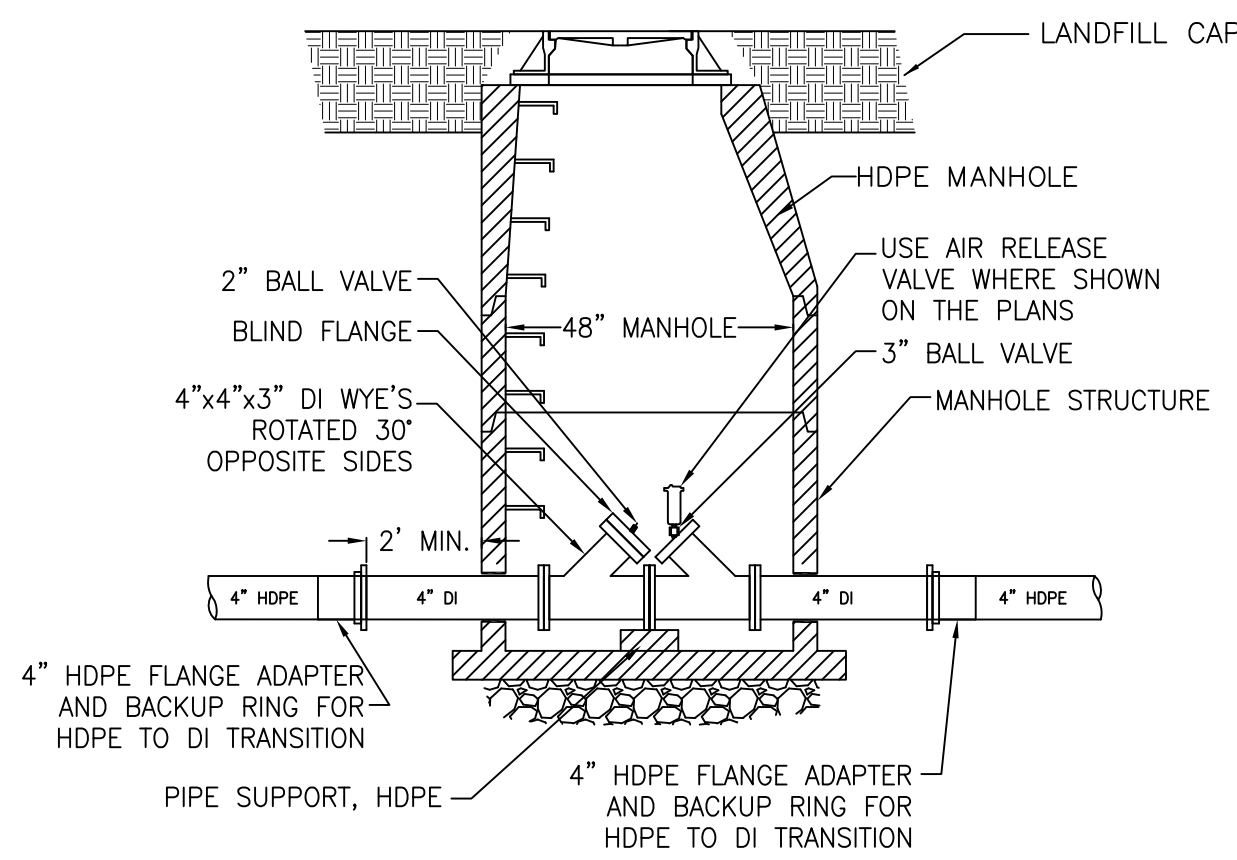
1 LEACHATE COLLECTION PIPE CLEANOUT
20 65 NOT TO SCALE



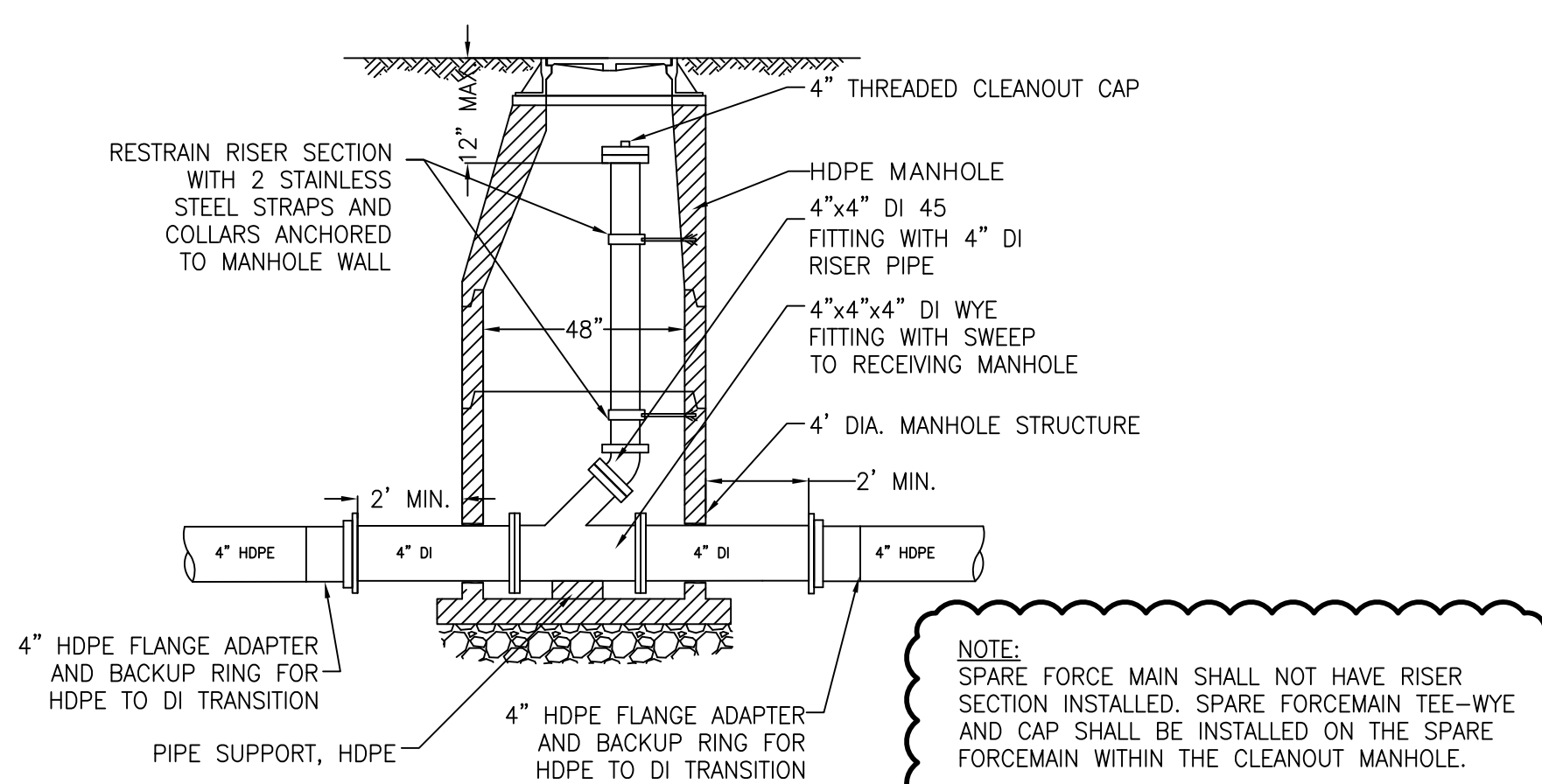
2 VALVE BOX DETAIL
52 65 NOT TO SCALE



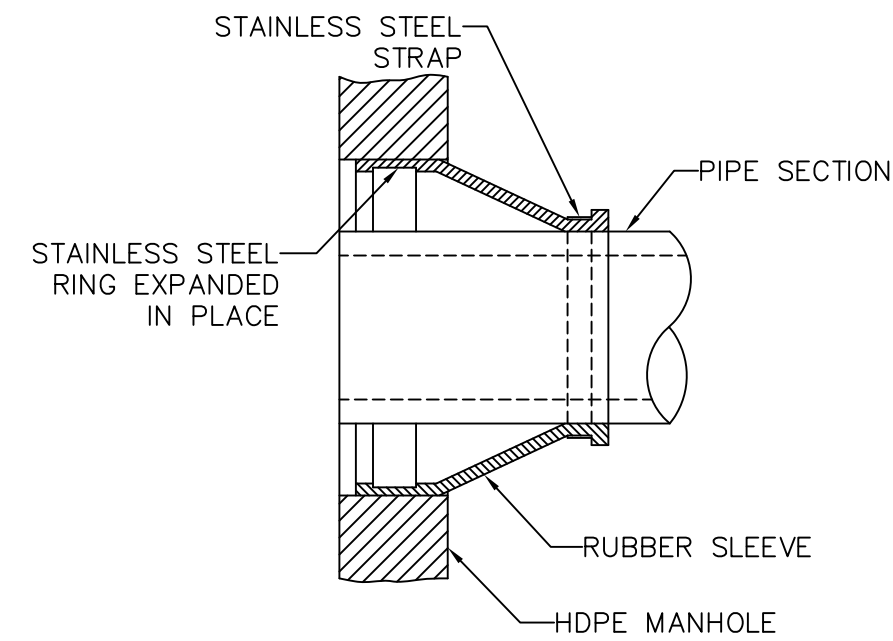
3 FORCE MAIN TRENCH DETAIL
25 65 NOT TO SCALE



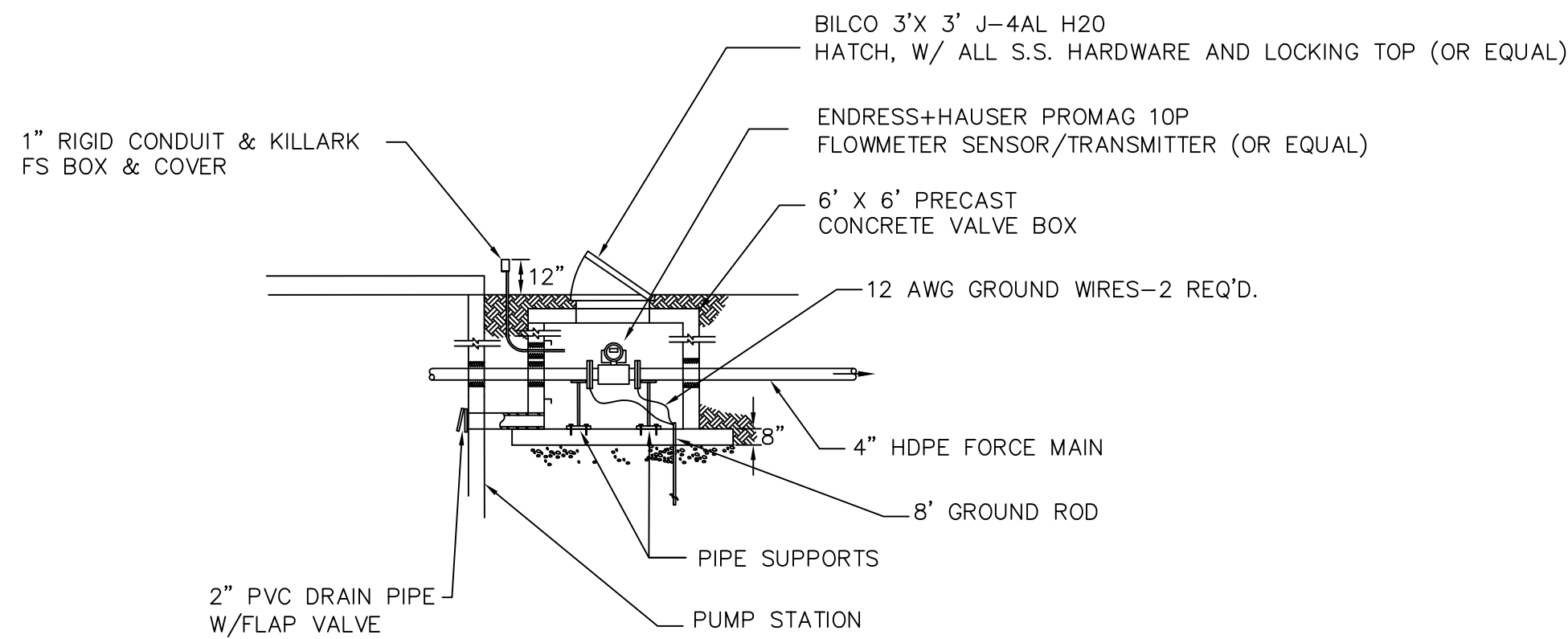
4 COMBINATION ARV AND FORCE MAIN CLEANOUT DETAIL
28 65 NOT TO SCALE



5 FORCE MAIN CLEANOUT DETAIL
26 65 NOT TO SCALE



6 MANHOLE SEAL DETAILS
65 65 NOT TO SCALE



7 PUMP STATION FLOWMETER DETAIL
52 65 NOT TO SCALE

NOTE:
WHERE THERE ARE PENETRATIONS THROUGH LANDFILL CAP AND GEOMEMBRANE LINER, CONTRACTOR
SHALL PROVIDE BOOT THROUGH GEOMEMBRANE AS SHOWN ON PIPE PENETRATION
DETAIL (DETAIL 3 ON PLAN SHEET 63).



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MSLA 1-D LANDFILL KEARNY, NEW JERSEY
LANDFILL CLOSURE PROJECT

**LEACHATE COLLECTION
SYSTEM DETAILS**



THE LOUIS BERGER GROUP, INC.
412 MOUNT KEMBLE AVE.
MORRISTOWN, NEW JERSEY 07962

DRAWN BY: JK
CHECKED BY: DM
APPROVED BY: CC

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SHEET NO.: 65 OF 78

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