

CORTLAND COUNTY HIGHWAY DEPARTMENT

CORTLAND COUNTY LANDFILL

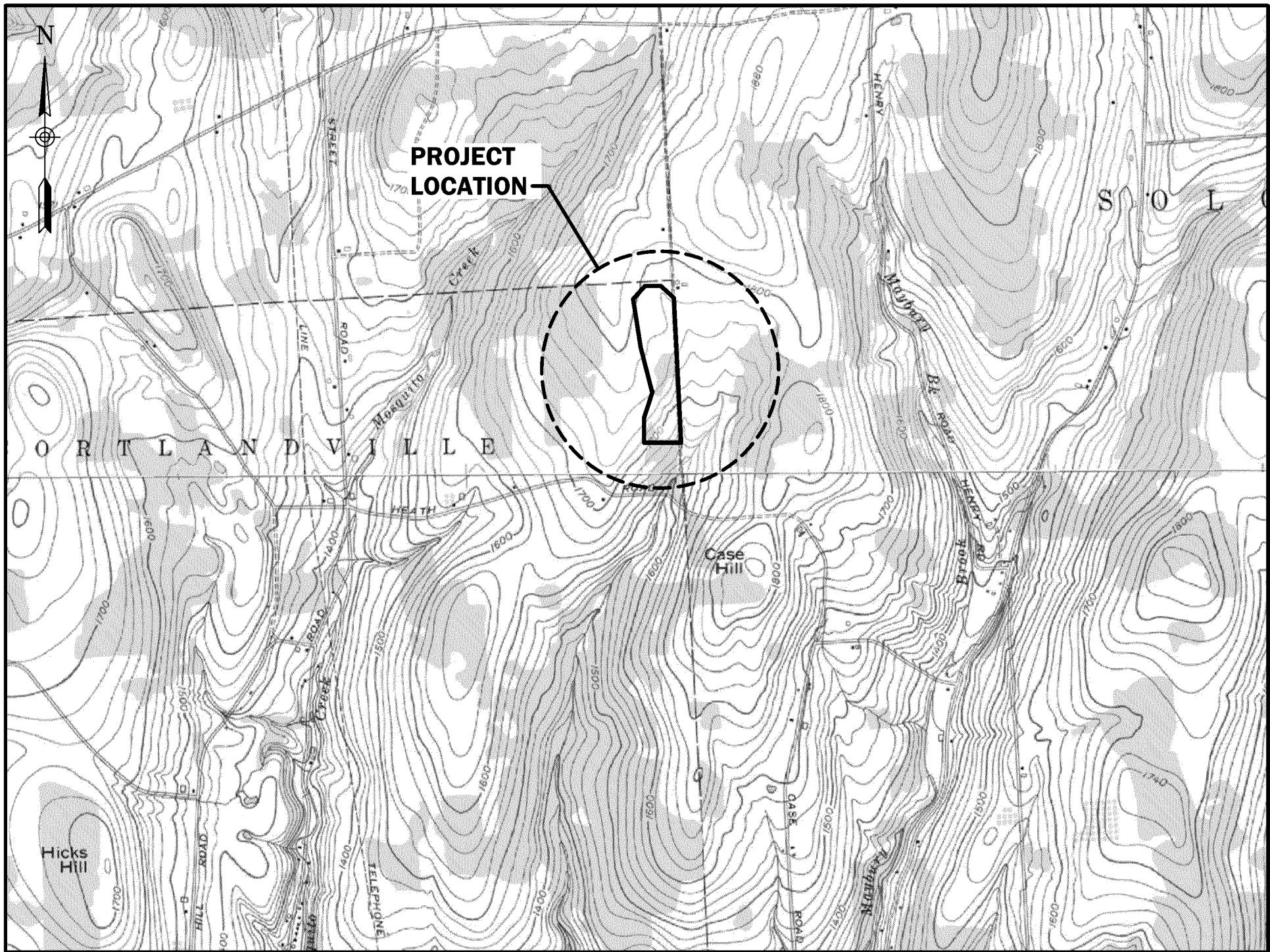
GAS COLLECTION AND CONVEYANCE SYSTEM

CONTRACT NO.1 - GENERAL CONSTRUCTION

TOWNS OF CORTLANDVILLE/SOLON/HOMER

CORTLAND COUNTY, NEW YORK

Barton  
&Loguidice



PROJECT LOCATION MAP

SCALE: 1" = 2,000'

JANUARY 2023

REVIEW DRAFT

PREPARED AND APPROVED BY	
CHAD W. HUTTON NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 082029	DATE SIGNED 01/24/23

IT IS A VIOLATION OF THE NEW YORK STATE  
EDUCATION LAW, ARTICLE 145 §7209  
SPECIAL PROVISIONS, FOR ANY PERSON,  
UNLESS THEY ARE ACTING UNDER THE  
DIRECTION OF A LICENSED PROFESSIONAL  
ENGINEER, ARCHITECT, LANDSCAPE  
ARCHITECT, OR LAND SURVEYOR, TO ALTER  
AN ITEM IN ANY WAY. IF AN ITEM BEARING  
THE STAMP OF A LICENSED PROFESSIONAL  
IS ALTERED, THE ALTERING PROFESSIONAL  
SHALL STAMP THE DOCUMENT AND  
INCLUDE THE NOTATION "ALTERED BY"  
FOLLOWED BY THEIR SIGNATURE, THE DATE  
OF SUCH ALTERATION, AND A SPECIFIC  
DESCRIPTION OF THE ALTERATION.

Sheet Number
G001
Project Number
331.157.001

INDEX OF DRAWINGS

SHEET NO.	SHEET TITLE
G001	COVER SHEET
G002	NOTES AND LEGEND
C100	OVERALL SITE PLAN
C101	EROSION AND SEDIMENT CONTROL PLAN AND DETAILS
C400	LFG SITE PLANS
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C402	LFG PERIMETER HEADERS SITE PLAN (SOUTH)
C403	EASTERN LFG PERIMETER HEADER PROFILE
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C503	LFG DETAILS (2 OF 3)
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C505	CONDENSATE CONVEYANCE DETAILS
C506	MISCELLANEOUS DETAILS
E100	ELECTRICAL SITE PLANS AND DETAILS

SURVEY NOTES:

- BASE MAP SURVEY WAS COMPILED FROM AERIAL PHOTOGRAPHY BY ERDMAN, ANTHONY ASSOCIATES WITH G. BRUCE DAVISON L.S. - APRIL, 1987; SURVEY OF CELL 1A CAP AREA BY G. BRUCE DAVIDSON, L.S. - FEBRUARY 2006, AND SURVEY OF CELL 1A/1B AND 2A BY COSTICH ENGINEERING AND LAND SURVEYING - JANUARY 25, 2022, ASBUILT TOPO SURVEY BY KLUMP LAND SURVEYING, 12/12/2008 USED FOR CELL 2B.
- TOPOGRAPHY SHOWN FOR THE EXISTING WORKING LANDFILL AREA, THE EXISTING BORROW AREA AND THE AREA INDICATED FOR EXISTING MATERIAL STOCK PILES ARE NOT CURRENT AS THESE AREAS HAVE BEEN DISTURBED SINCE THE TOPOGRAPHY WAS COMPILED.

GENERAL NOTES:

- ALL WORK SHOWN ON THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PROVISIONS SET FORTH IN THE CURRENT 6NYCRR PART 360 SERIES REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PRESERVE AND PROTECT ALL EXISTING OR NEW SURVEY CONTROL POINTS FOR THE FULL DURATION OF THE PROJECT AND SHALL BE RESPONSIBLE FOR THE SURVEY WORK REQUIRED FOR GENERAL CONSTRUCTION PURPOSES. AVAILABLE ON-SITE BENCHMARKS ARE PROVIDED ON SHEET C-100. NEW BENCHMARKS SHALL BE ESTABLISHED BY THE CONTRACTOR AS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO THE ACTIVE WASTE DISPOSAL AREA AT ALL TIMES. CONSTRUCTION ACTIVITIES SHALL NOT INTERFERE WITH LANDFILL OPERATIONS. ANY TRENCHING FOR ROAD CROSSINGS SHALL BE COORDINATED WITH THE OWNER PRIOR TO START OF WORK AND DONE OUTSIDE OF OPERATIONAL HOURS. ALL ROADWAYS MUST MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES. CONTRACTOR SHALL PROVIDE FLAG PERSON FOR TRAFFIC CONTROL DURING ACTIVE LANDFILL WORKING HOURS, AS REQUIRED.
- LANDFILL TRAFFIC SHALL HAVE RIGHT OF WAY AT ALL TIMES.
- STRICT ON-SITE SPEED LIMITS WILL BE ENFORCED FOR CONTRACTOR OPERATIONS AND STAFF.
- ROADWAY DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION.
- THE GENERAL CONTRACTOR MAY USE THE EXISTING PERIMETER ROAD AND THE HAUL ROADS SHOWN AS HAUL ROADS. ANY OTHER HAUL ROADS REQUIRED BY THE GENERAL CONTRACTOR FOR THE COMPLETION OF WORK IN THIS CONTRACT SHALL BE COMPLETED BY THE GENERAL CONTRACTOR AT THEIR OWN EXPENSE. NO SEPARATE PAYMENT FOR CONSTRUCTION ACCESS ROADS OR ADDITIONAL HAUL ROADS SHALL BE MADE. ROAD LOCATIONS MUST BE APPROVED BY THE ENGINEER.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE UPKEEP AND MAINTENANCE OF ALL ROADS USED BY THE CONTRACTOR AND ITS SUBCONTRACTORS. SUCH MAINTENANCE SHALL INCLUDE THE APPLICATION OF WATER TO ADEQUATELY CONTROL DUST AND THE USE OF A STREET SWEEPER TO CLEAN SOILED ROADS TO THE SATISFACTION OF THE ENGINEER AND/OR OWNER. THE USE OF CALCIUM CHLORIDE IS PROHIBITED. NO OFF-SITE TRACKING IS PERMITTED.
- THE LOCATION, SIZE, CONSTRUCTION MATERIALS AND ALIGNMENT OF EXISTING UTILITIES AND APPURTENANT STRUCTURES SHOWN ON THE CONTRACT DRAWINGS WERE OBTAINED FROM EXISTING RECORD DRAWINGS, OWNER INFORMATION AND FIELD MEASUREMENTS WHERE POSSIBLE AND THEREFORE, ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CAREFULLY EXAMINE EXISTING UTILITIES AND APPURTENANCES TO VERIFY LOCATIONS, SIZES, CONSTRUCTION MATERIALS, DEPTHS, AND ALIGNMENTS AND INFORM THEMSELF THOROUGHLY AS TO ALL DIFFICULTIES THAT MAY BE ENCOUNTERED IN THE COMPLETION OF THE WORK UNDER THIS CONTRACT. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- ALL SALVAGED MATERIALS (E.G. CULVERTS, PIPING, MISC. FITTINGS) SHALL REMAIN THE PROPERTY OF THE OWNER AND BE DELIVERED TO A LOCATION DESIGNATED BY THE SAME.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING MONITORING WELLS FROM DAMAGE DURING THE COURSE OF CONSTRUCTION. ANY DAMAGE WILL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR STAGING AREAS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER.
- EXISTING CONTOURS REPRESENT TOP OF INTERMEDIATE COVER OR TOP OF BARRIER LAYER (WITHIN CAP AREAS). ALL AREAS DISTURBED DURING THE CONSTRUCTION PROCESS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
- THE CONTRACTOR SHALL ENSURE THAT 12" OF INTERMEDIATE COVER IS MAINTAINED WITHIN THE LANDFILL LIMITS IN AREAS OF EXCAVATION AND LFG PIPING INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGEMENT OF ANY LEACHATE OUTBREAKS FROM EXCAVATION OR LANDFILL GAS PIPING INSTALLATION ACTIVITIES.
- ALL LFG PIPING WITHIN THE LANDFILL LIMITS SHALL HAVE A MINIMUM SLOPE OF 5%. ALL LFG AND CONDENSATE PIPING OUTSIDE THE LANDFILL WASTE LIMITS SHALL HAVE A MINIMUM SLOPE OF 0.5%.
- ALL SINGLE WALL LFG CONVEYANCE PIPING SHALL BE PNEUMATICALLY TESTED FOR LEAKS AND MUST HOLD A MINIMUM OF 5 PSI FOR A MINIMUM OF 1 HOUR PERIOD. ALL CARRIER PIPE FOR DUAL CONTAINED CONDENSATE CONVEYANCE PIPING SHALL BE HYDROSTATICALLY TESTED AT 50 PSI WITH NO DROP IN PRESSURE OVER A MINIMUM 1 HOUR PERIOD. SPACE BETWEEN CARRIER AND CONTAINMENT PIPE OF DUAL CONTAINED CONDENSATE CONVEYANCE PIPING SHALL BE PNEUMATICALLY TESTED AT A PRESSURE OF 5 PSI WITH NO DROP IN PRESSURE FOR A MINIMUM 1 HOUR PERIOD.

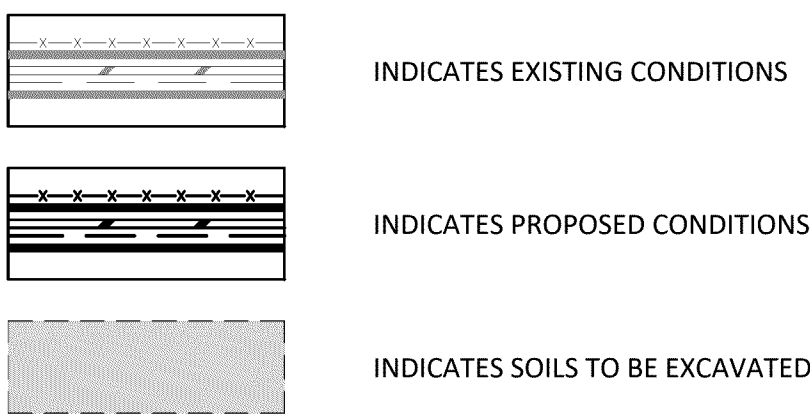
GENERAL NOTES (CONT'D):

- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD INFORMATION INCLUDING, BUT NOT LIMITED TO, THE LOCATION AND ELEVATION OF THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATIONS:
  - RECORD OF ALL PIPING ENCOUNTERED IN TRENCH EXCAVATION, INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION. INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS.
  - HORIZONTAL ORIENTATION, ELEVATION AND LOCATION OF NEW LANDFILL GAS CONVEYANCE AND CONDENSATE PIPING AND FITTINGS.
  - DENOTE BENCH MARK REFERENCE POINTS USED.
  - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DRAWINGS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ALL CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
  - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL ALL AS-BUILT INFORMATION IS DEEMED ACCEPTABLE BY THE ENGINEER.
  - PROVIDE TWO (2) SETS OF FINAL COMPLETED RECORD DRAWINGS.

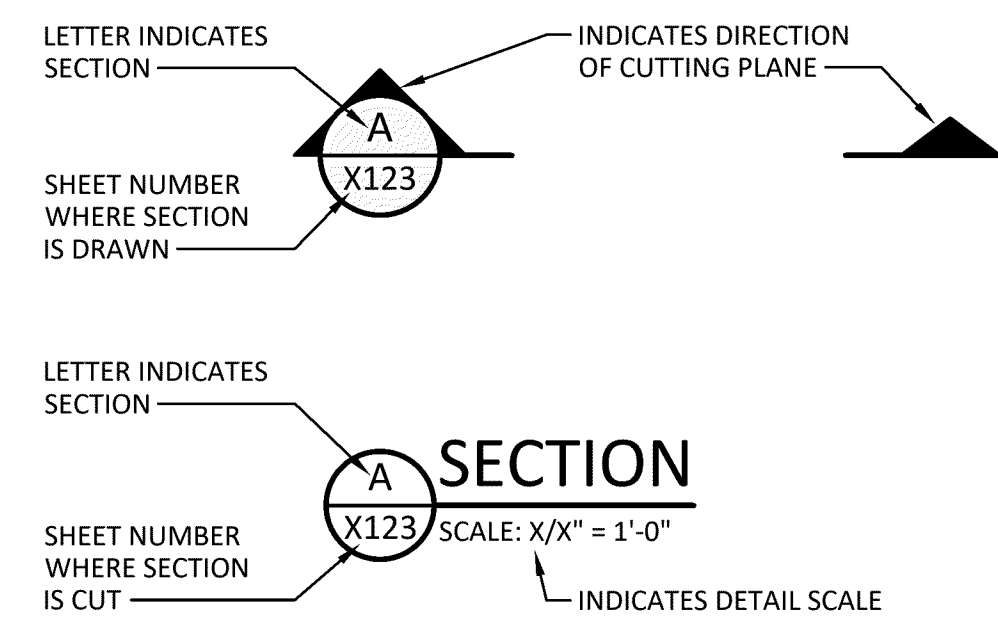
EROSION AND SEDIMENT CONTROL NOTES:

- PRIOR TO STARTING WORK ON-SITE, THE CONTRACTOR AND ALL SUB CONTRACTORS SHALL REVIEW, ADOPT, AND CERTIFY THE SITE STORMWATER POLLUTION PREVENTION PLAN. STRICT ADHERENCE TO THE PLAN WILL BE REQUIRED AT ALL TIMES. WORK REQUIRED BY THE CONTRACTOR TO COMPLY WITH THE STORMWATER PLAN SHALL BE AT NO ADDITIONAL COST TO THE OWNER. ANY ISSUES OF NON-COMPLIANCE WITH THE SWPPP OR APPLICABLE SPDES PERMITS RELATED TO WORK UNDER THIS CONTRACT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER AND ACCEPTANCE BY THE OWNER. RUNOFF FROM THE DISTURBED AREAS OF THE SITE SHALL BE DIVERTED INTO THE EXISTING STORM WATER SYSTEM AND/OR AS DIRECTED BY THE OWNER.
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF ANY STREAMS OR WATERWAYS BY SILT, SEDIMENTS, SOLVENTS, LUBRICANTS, LEACHATE OR ANY OTHER POLLUTANTS ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION ACTIVITIES.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE PLACED PRIOR TO STARTING EARTHWORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION, OR AS DIRECTED BY ENGINEER.
- SILT FENCE LOCATIONS ARE REPRESENTATIVE OF THE LENGTH OF FENCING TO BE INSTALLED AND GENERAL LOCATION. EXACT PLACEMENT SHALL BE APPROVED BY THE FIELD ENGINEER IN ACCORDANCE WITH THE SWPPP FOR THE SITE AND MAY BE SUBJECT TO CHANGE BASED ON THE CONTRACTOR'S SEQUENCE OF WORK.
- ALL SLOPES SHALL BE TRACKED PERPENDICULAR TO SLOPE PRIOR TO SEEDING AND MULCHING.
- CHECK DAMS AND OTHER CONTROLS SHALL BE INSTALLED AFTER DITCH REGRADING AND CLEANING AND SHALL REMAIN IN PLACE UNTIL NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION, OR AS DIRECTED BY ENGINEER.
- ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM DRAINAGE PATHS TO APPROPRIATE UPLAND AREAS FOR DISPOSAL.
- ALL DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT REASONABLY RE-ENTER ANY DRAINAGE PATH.
- ALL AREAS OF SOIL DISTURBANCES RESULTING FROM THIS PROJECT SHALL BE FERTILIZED AND SEEDED WITH AN APPROPRIATE GRASS SEED AND MULCHED WITHIN ONE WEEK OF GRADING. MULCH SHALL BE MAINTAINED UNTIL A SUITABLE COVER IS ESTABLISHED.
- TRACKING OF SEDIMENT ONTO THE SITE ACCESS ROADS SHALL BE MINIMIZED. AT NO TIME SHALL ANY SEDIMENT BE TRACKED OFF-SITE.
- THE CONTRACTOR SHALL MAINTAIN ADEQUATE SEED, MULCH AND EQUIPMENT ON-SITE TO TEMPORARILY STABILIZE ALL DISTURBED AREAS OUTSIDE OF THE CELL AREA THROUGHOUT CONSTRUCTION.
- ALL STORMWATER WITHIN PIPE TRENCHES SHALL BE COLLECTED AND PUMPED INTO THE EXISTING SITE COLLECTION AND CONVEYANCE SYSTEM. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY TEMPORARY PUMPS AND PIPING, WHICH SHALL REMAIN THE CONTRACTOR'S PROPERTY FOLLOWING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE DUST CONTROL ON ALL HAUL ROADS AND DISTURBED AREAS WITHIN THE LIMITS OF WORK TO PREVENT WINDBLOWN SEDIMENT MIGRATION.
- THE CONTRACTOR SHALL COMPLETELY STABILIZE ANY DISTURBED STOCKPILE AREAS WITH SEED AND MULCH.
- ALL TOPSOIL WITHIN THE TRENCH AREA SHALL BE STRIPPED AND STOCKPILED SEPARATE FROM COMMON FILL AND BARRIER PROTECTION SOILS. THE CONTRACTOR CAN RE-USE ALL TOPSOIL STRIPPED FROM WORKING AREA. ANY ADDITIONAL TOPSOIL NEEDED TO STABILIZE WORK AREAS MUST BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE CONTAINMENT FOR ALL FUEL STORAGE AND EQUIPMENT FUELING AREAS IN ACCORDANCE WITH THE SITE STORMWATER POLLUTION PREVENTION PLAN, SPILL PREVENTION CONTROL AND COUNTER MEASURES PLAN, AND APPLICABLE STATE AND FEDERAL REGULATIONS.

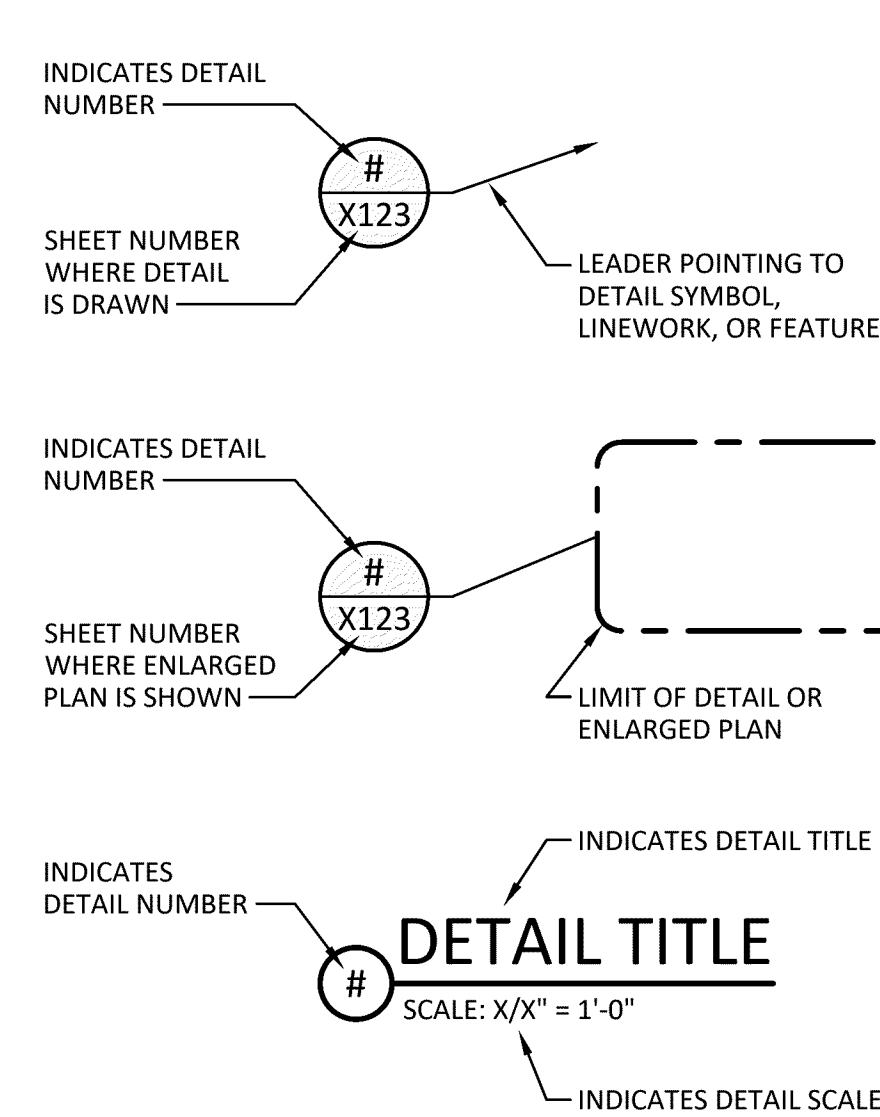
LINER DETAIL LEGEND:



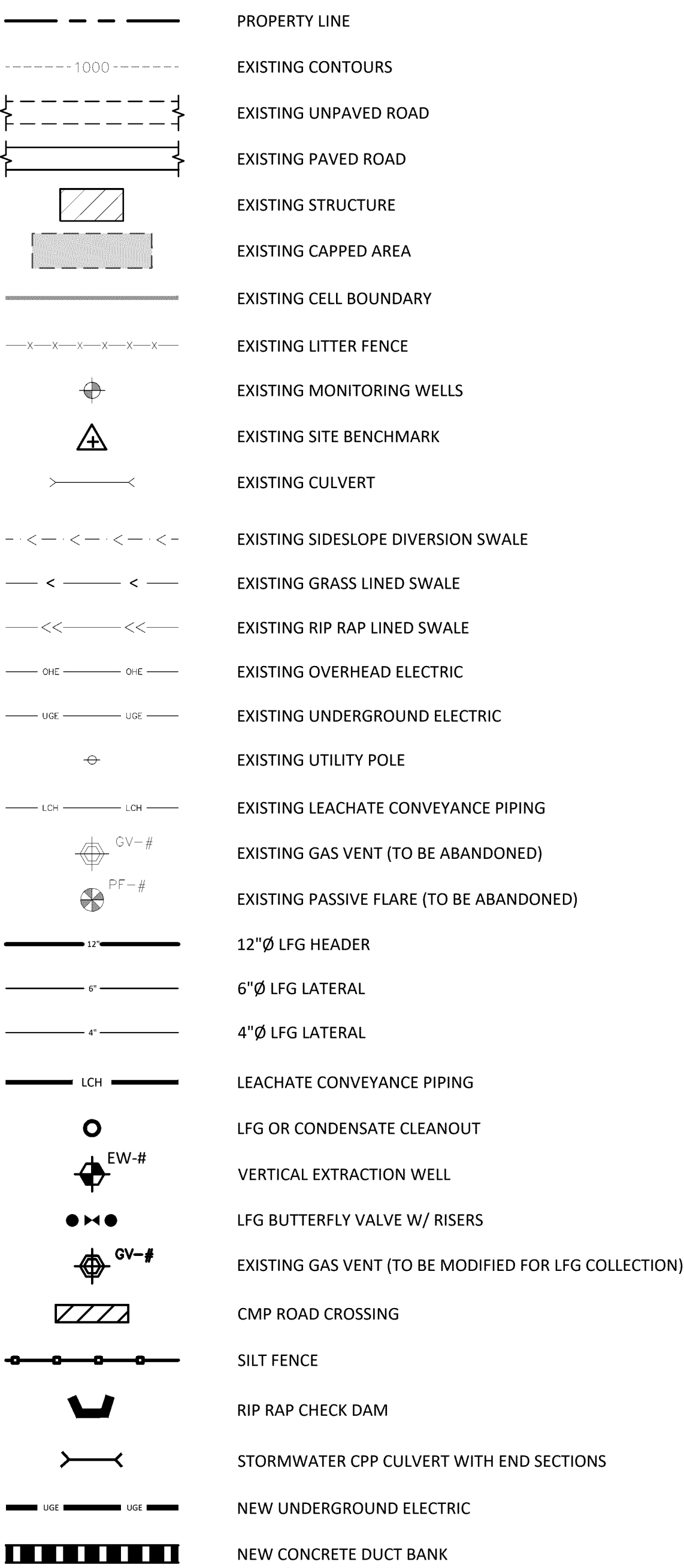
SECTION LEGEND:



DETAIL & ENLARGED VIEW LEGEND:



LEGEND

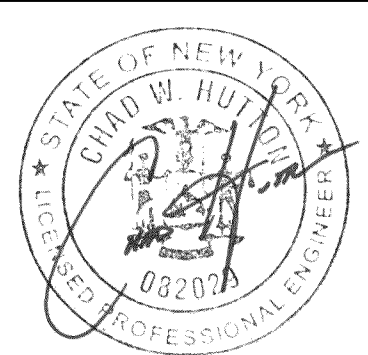


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REVISIONS

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
**NOTES AND LEGEND**

443 Electronics Parkway  
Liverpool, NY  
13088  
**B&L**  
**Barton & Loguidice, D.P.C.**



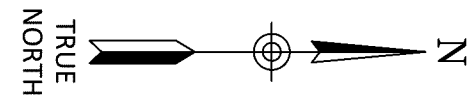
Date	JANUARY 2023
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Sheet Number	G002
Project Number	331.157.001




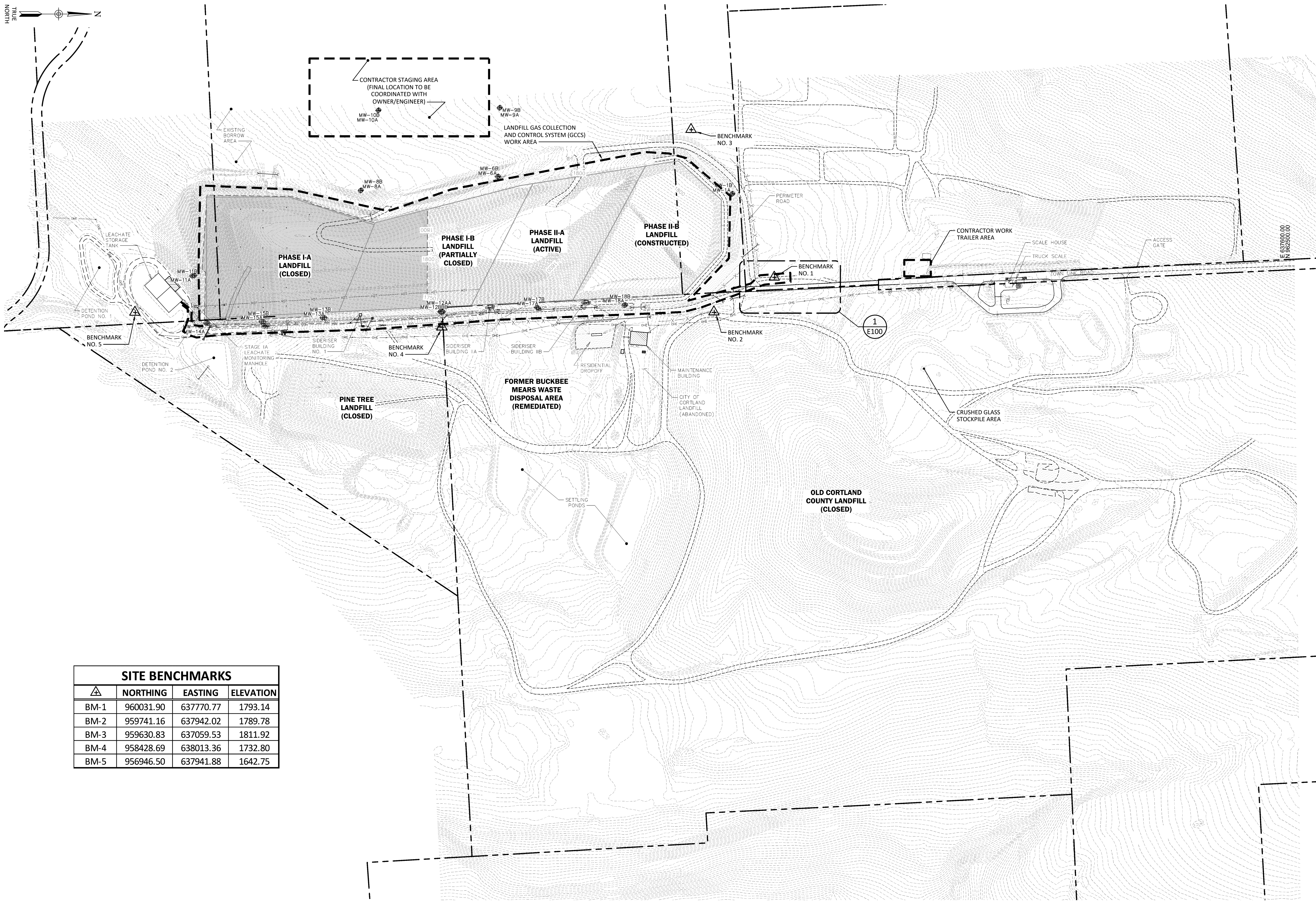
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Z:\BL-Vault\ID2\18217AD2-1C71-4823-8827-99D5C4054147\0\2687000-2687999\2687848\1\331157\_C100\_Overall Site Plan (ID 2687848).dwg

Checked by CxH Drawn by WBG Designed by GSD In charge of CWH

1"=200'



SITE BENCHMARKS			
	NORTHING	EASTING	ELEVATION
BM-1	960031.90	637770.77	1793.14
BM-2	959741.16	637942.02	1789.78
BM-3	959630.83	637059.53	1811.92
BM-4	958428.69	638013.36	1732.80
BM-5	956946.50	637941.88	1642.75



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REVISIONS	

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
OVERALL SITE PLAN

TOWN OF CORTLANDVILLE/SOLON/HOMER  
CORTLAND COUNTY, NEW YORK

443 Electronics Parkway  
Liverpool, NY  
13088

**Barton & Loguidice, D.P.C.**



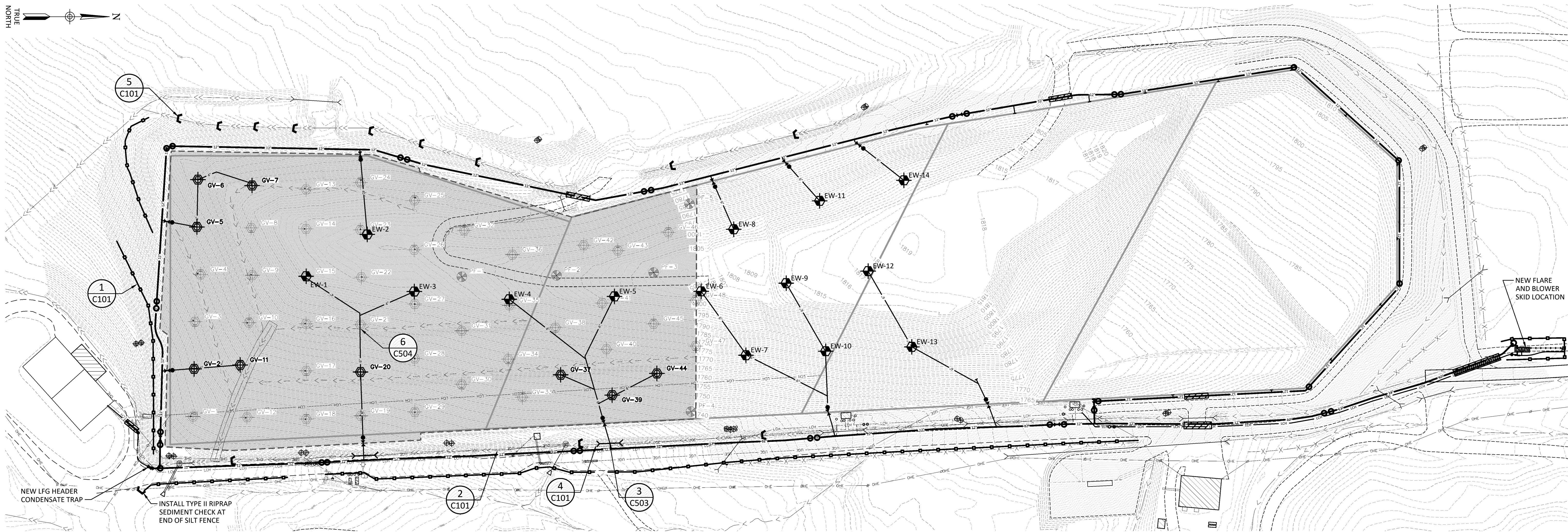
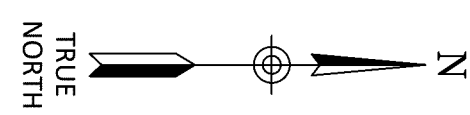
Date  
JANUARY 2023

Scale  
1" = 200'

Sheet Number  
**C100**

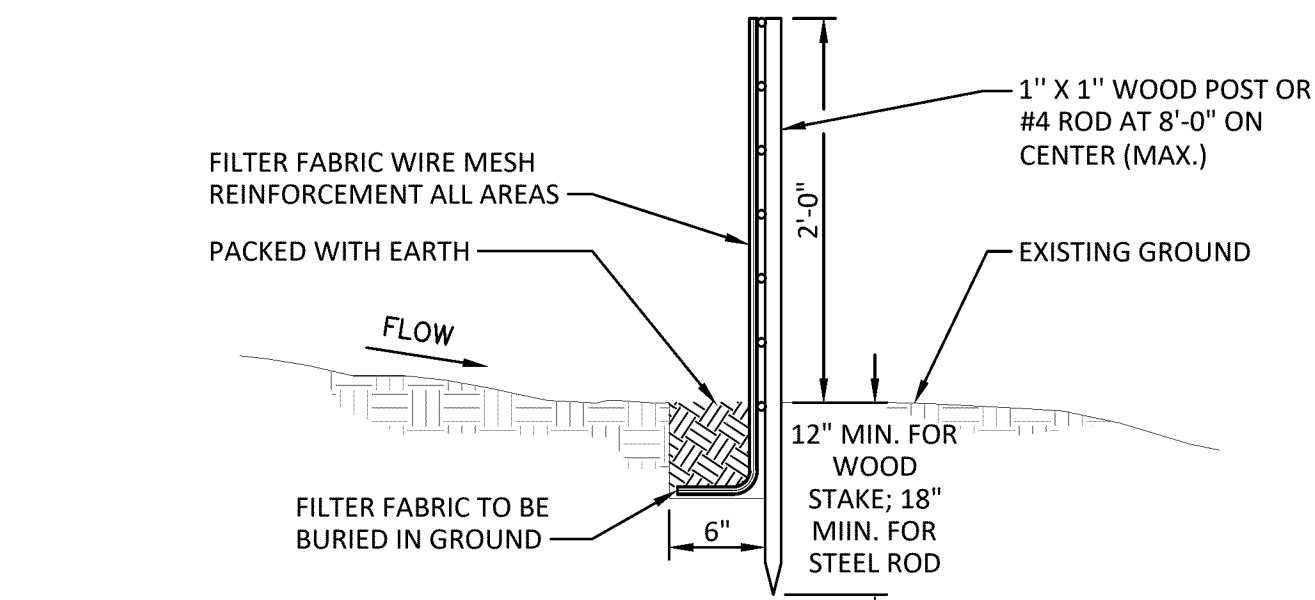
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## EROSION AND SEDIMENT CONTROL SITE PLAN

SCALE: 1" = 100'

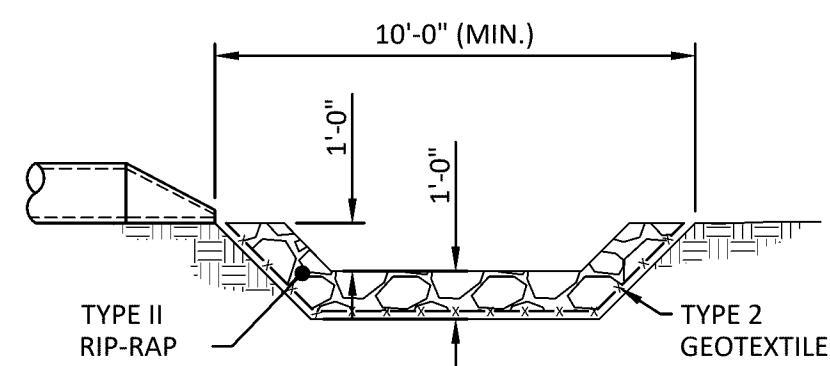


### NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER- LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE MIRAFI 100X OR APPROVED EQUIVALENT.
4. MAINTENANCE SHALL BE PERFORMED DAILY AND MATERIAL REMOVED WHEN REQUIRED.

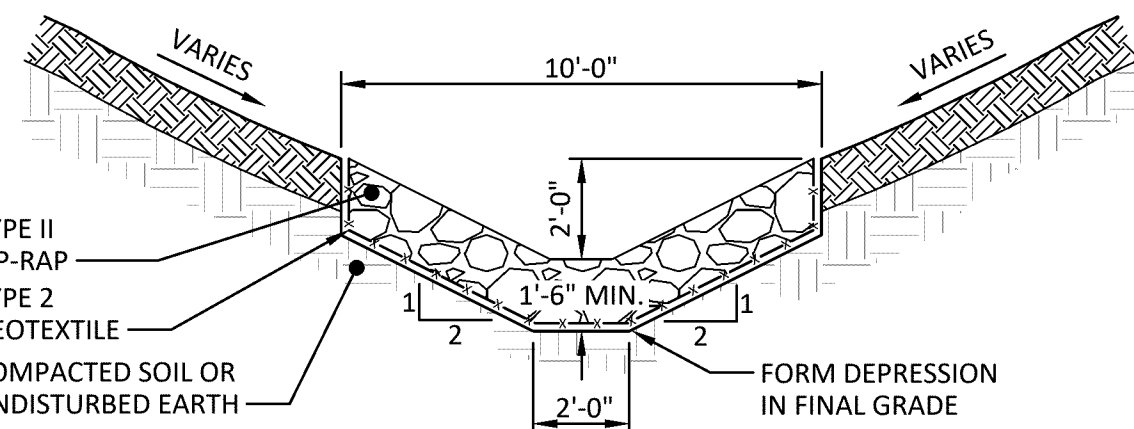
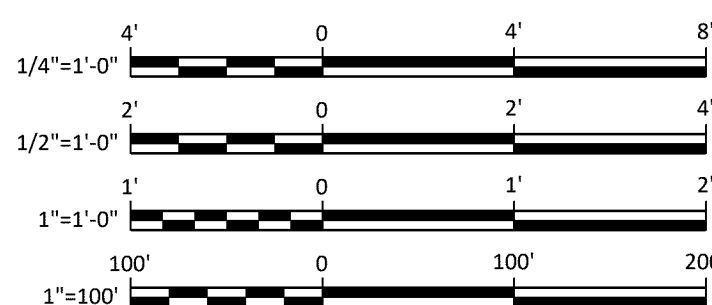
## 1 SILT FENCE FOR TEMPORARY EROSION CONTROL

SCALE: 1" = 1'-0"



### A SECTION

C101 SCALE: 1/4" = 1'-0"

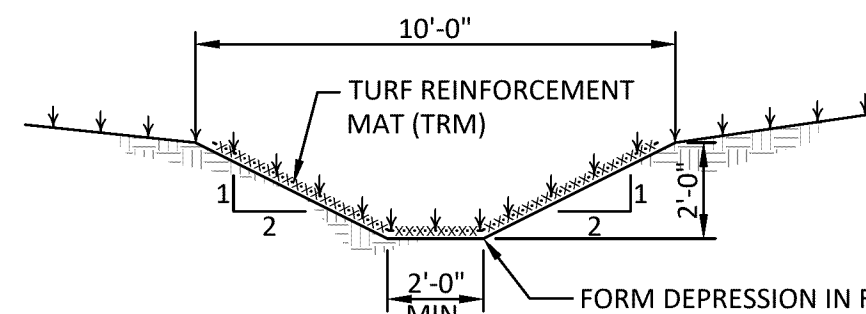


### NOTE:

DETAIL TO BE UTILIZED WHERE SWALE RECONSTRUCTION IS REQUIRED. NO NEW SWALES PROPOSED FOR THIS PROJECT.

## 2 RIP-RAP SWALE

SCALE: 1/4" = 1'-0"

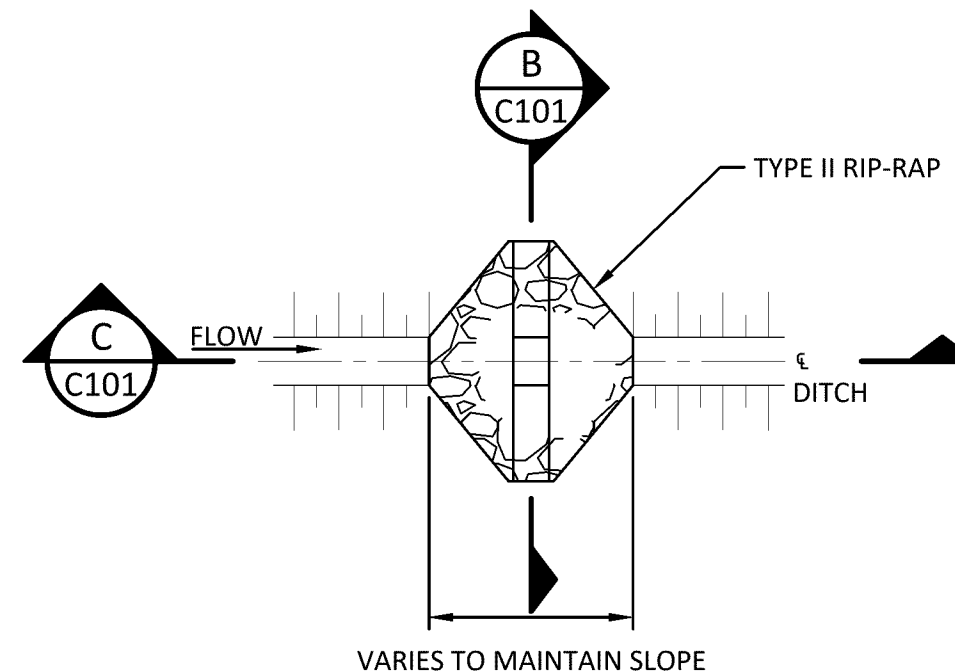


### NOTE:

DETAIL TO BE UTILIZED WHERE SWALE RECONSTRUCTION IS REQUIRED. NO NEW SWALES PROPOSED FOR THIS PROJECT.

## 3 TRM/VEGETATED SWALE

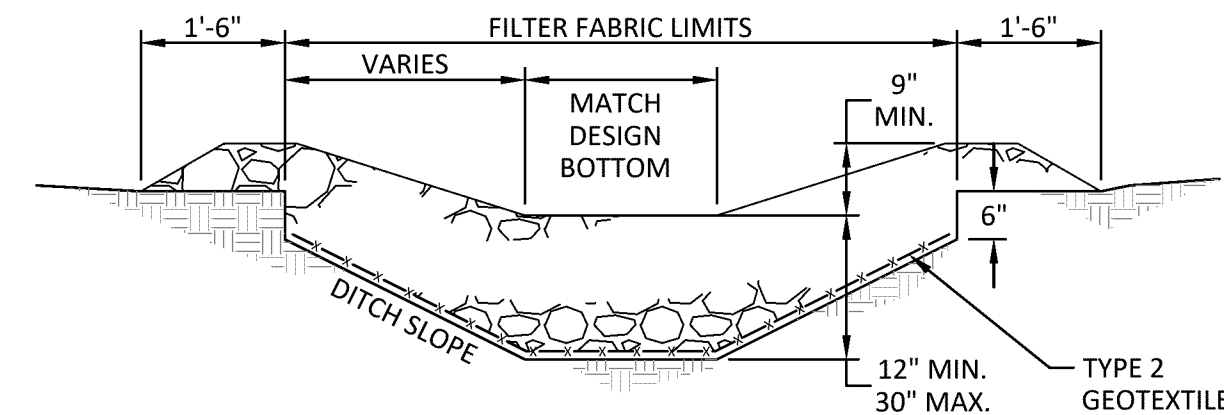
SCALE: 1/4" = 1'-0"



### PLAN

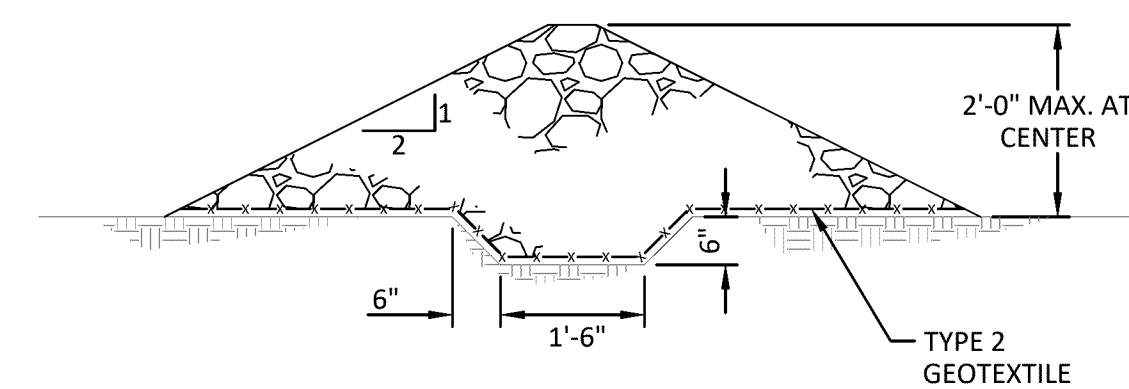
## 5 STONE CHECK DAMS FOR DITCHES

NOT TO SCALE



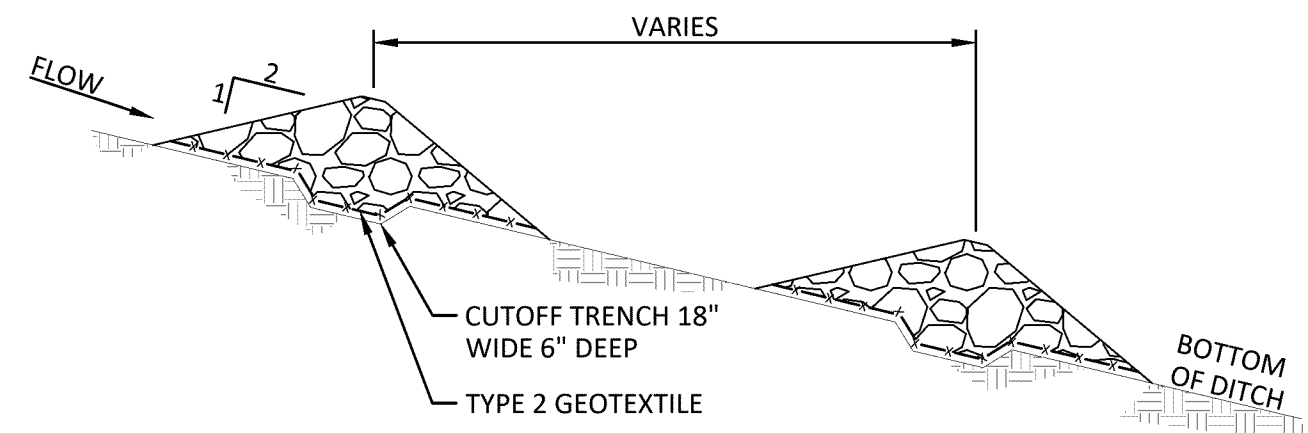
### B SECTION

C101 SCALE: 1/2" = 1'-0"



### C SECTION

C101 SCALE: 1/2" = 1'-0"



### PROFILE

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### REVISIONS

NO.	DESCRIPTION	DATE

CORTLAND COUNTY, NEW YORK

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
EROSION AND SEDIMENT CONTROL PLAN AND DETAILS

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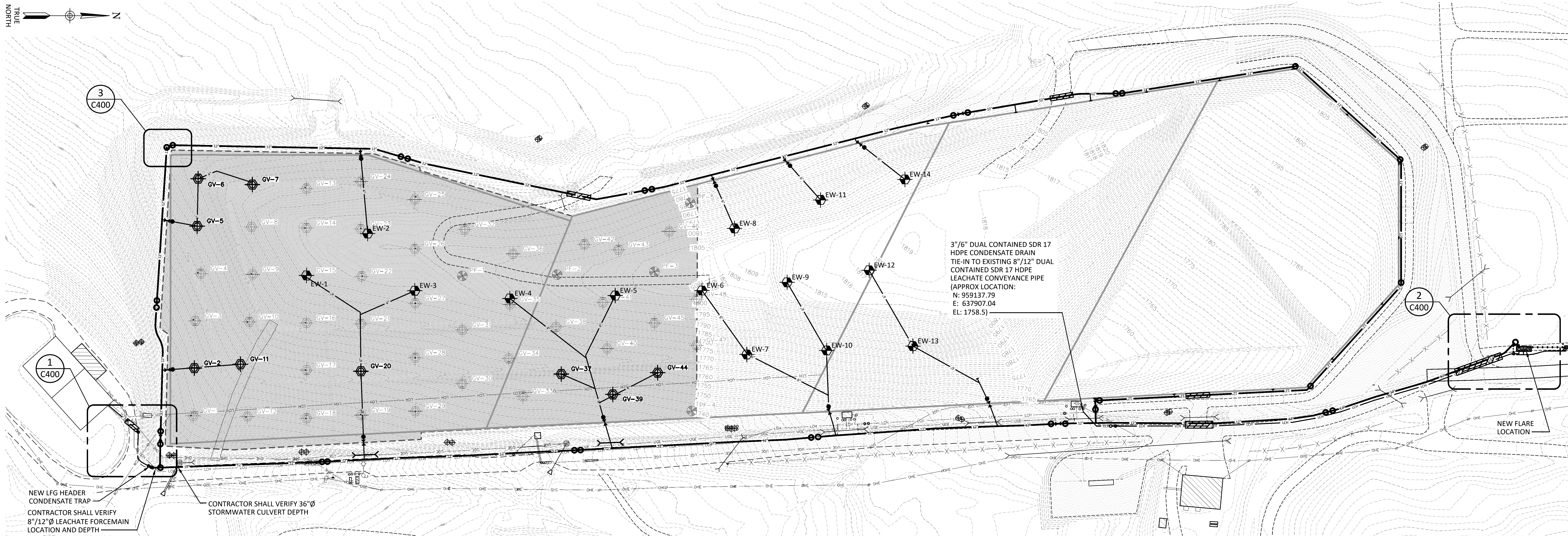
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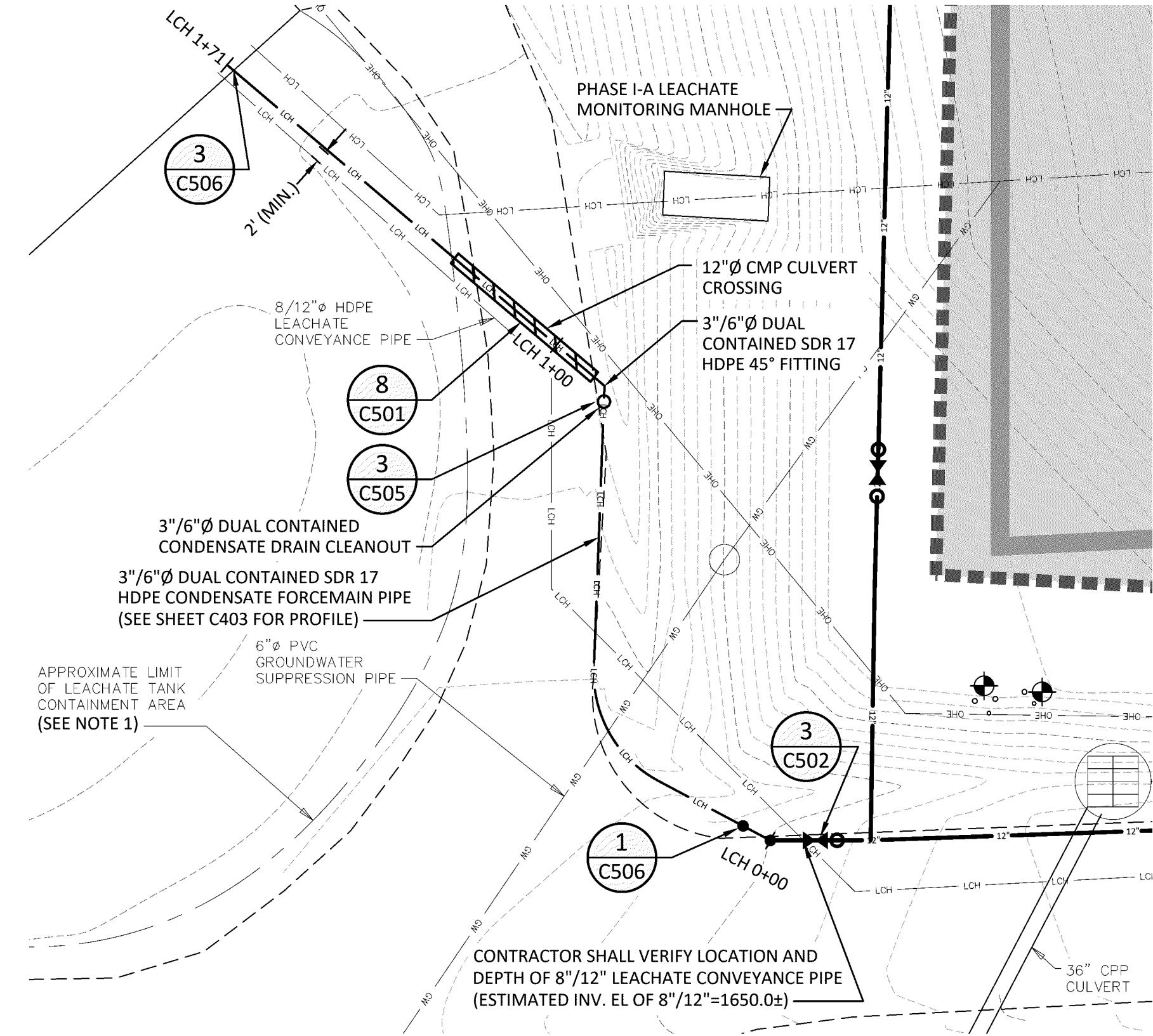
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### LFG SITE PLAN

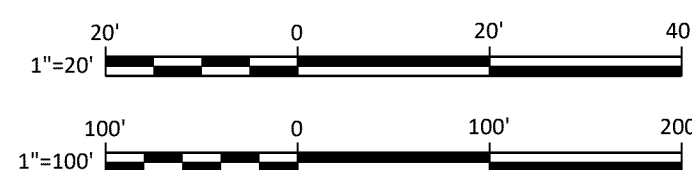
SCALE: 1" = 100'



- NOTES:**
- WHEN EXCAVATING WITHIN THE LEACHATE TANK CONTAINMENT AREA, THE CONTRACTOR SHALL REPLACE ALL LOW PERMEABILITY SOIL MATERIAL TO FULL THICKNESS OF 2'-0", IF ENCOUNTERED.

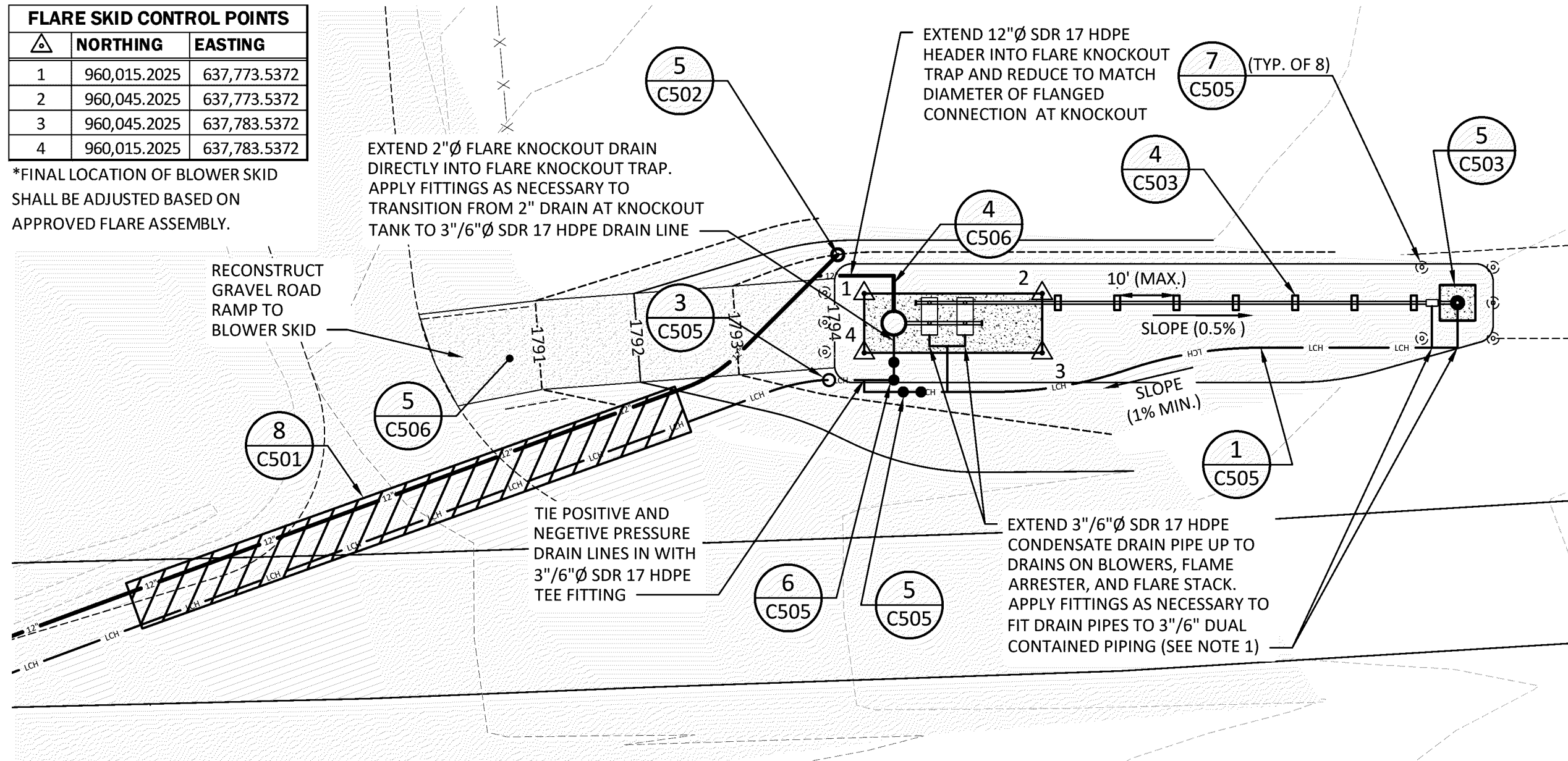
### CONDENSATE SUMP PLAN ENLARGEMENT

SCALE: 1" = 20'



FLARE SKID CONTROL POINTS		
△	NORTHING	EASTING
1	960,015.2025	637,773.5372
2	960,045.2025	637,773.5372
3	960,045.2025	637,783.5372
4	960,015.2025	637,783.5372

\*FINAL LOCATION OF BLOWER SKID SHALL BE ADJUSTED BASED ON APPROVED FLARE ASSEMBLY.



### NOTES:

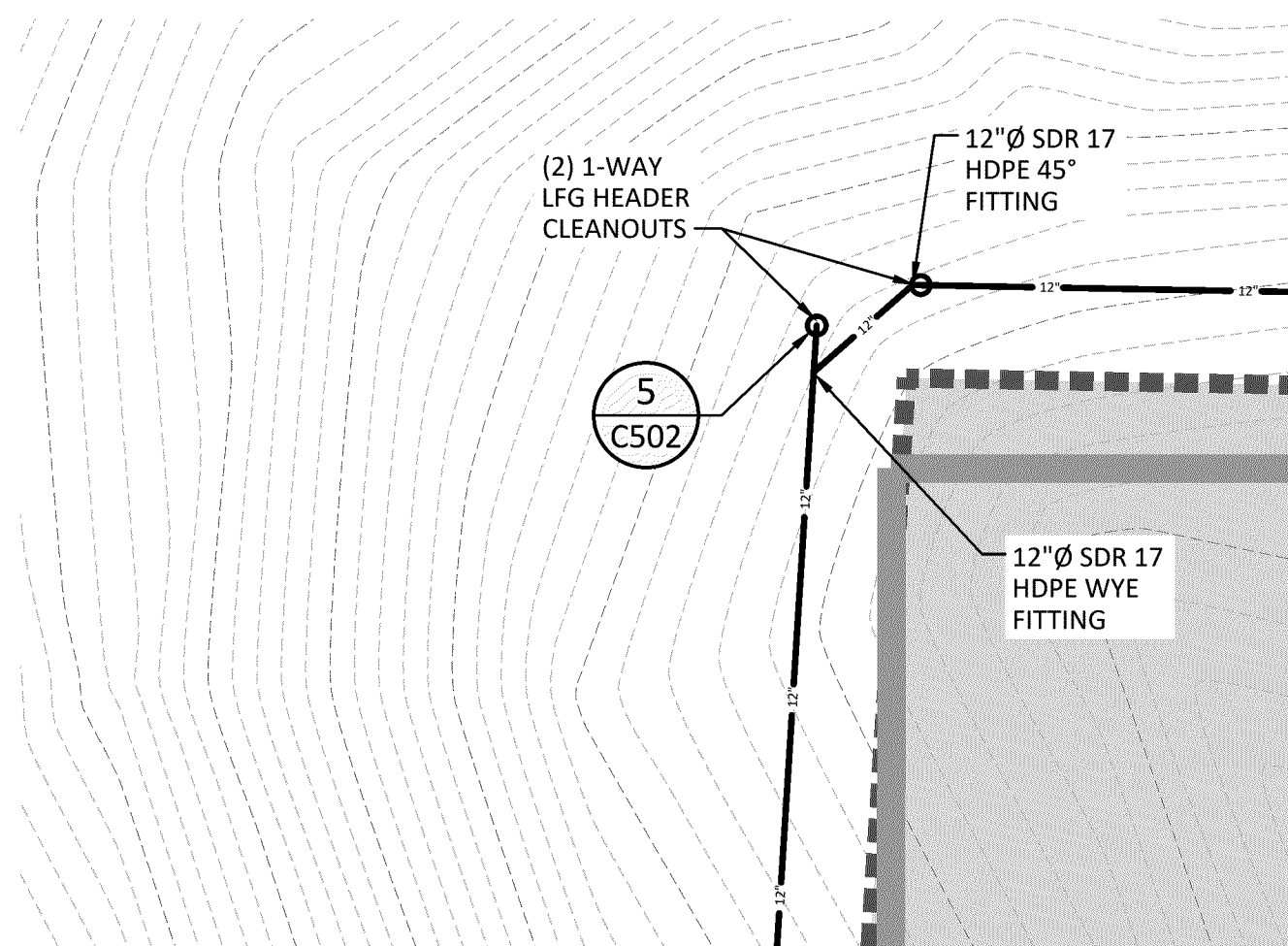
- HEAT TRACE ALL ABOVEGROUND CONDENSATE DRAIN PIPE, LFG PIPE AND FITTINGS, AND BLOWER ASSEMBLIES. HEAT TRACE SHALL EXTEND TO A DEPTH OF 2'-0" BELOW GRADE, WHERE APPLICABLE.

### FLARE PLAN ENLARGEMENT

SCALE: 1" = 20'

VERTICAL EXTRACTION WELL TABLE						
Well I.D.	Northing	Easting	Existing Waste Elev. (ft)	Top of Liner Elev. (ft)	Waste Depth (ft)	Drill Depth (ft)
EW-1	957567.11	637629.72	1776.63	1697.76	78.87	60
EW-2	957690.84	637544.90	1783.51	1719.10	64.42	48
EW-3	957786.26	637660.64	1779.30	1708.24	71.05	53
EW-4	957978.47	637676.36	1788.53	1719.14	69.39	52
EW-5	958191.67	637670.43	1801.65	1730.45	71.20	53
EW-6	958367.24	637660.21	1804.14	1739.86	64.28	48
EW-7	958458.01	637789.64	1774.64	1721.49	53.15	40
EW-8	958433.14	637534.46	1801.97	1756.04	45.94	34
EW-9	958539.43	637643.66	1813.99	1745.36	68.63	51
EW-10	958619.49	637781.54	1784.73	1732.42	52.31	39
EW-11	958607.22	637476.87	1801.85	1761.71	40.15	30
EW-12	958705.43	637619.25	1840.00	1763.20	76.80	58
EW-13	958793.96	637772.78	1793.55	1737.23	56.31	42
EW-14	958777.78	637435.24	1809.80	1774.86	34.94	26
Total						636

\*Contractor shall stake out well locations prior to commencement of drilling. Survey information shall be provided to the Engineer a minimum of 1 week prior to start of drilling to allow for correction of well depth based on settlement.



### SOUTHWEST CORNER PLAN ENLARGEMENT

SCALE: 1" = 20'

THIS IS A VOUCHER OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 § 7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

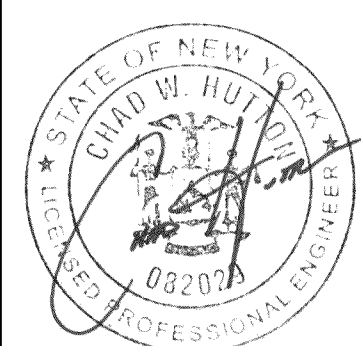
### REVISIONS

CORTLAND COUNTY, NEW YORK

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
LFG SITE PLANS

TOWN OF CORTLANDVILLE/SOLON/HOMER

443 Electronics Parkway  
Liverpool, NY  
13088  
**B&L**  
Barton & Loguidice, D.P.C.



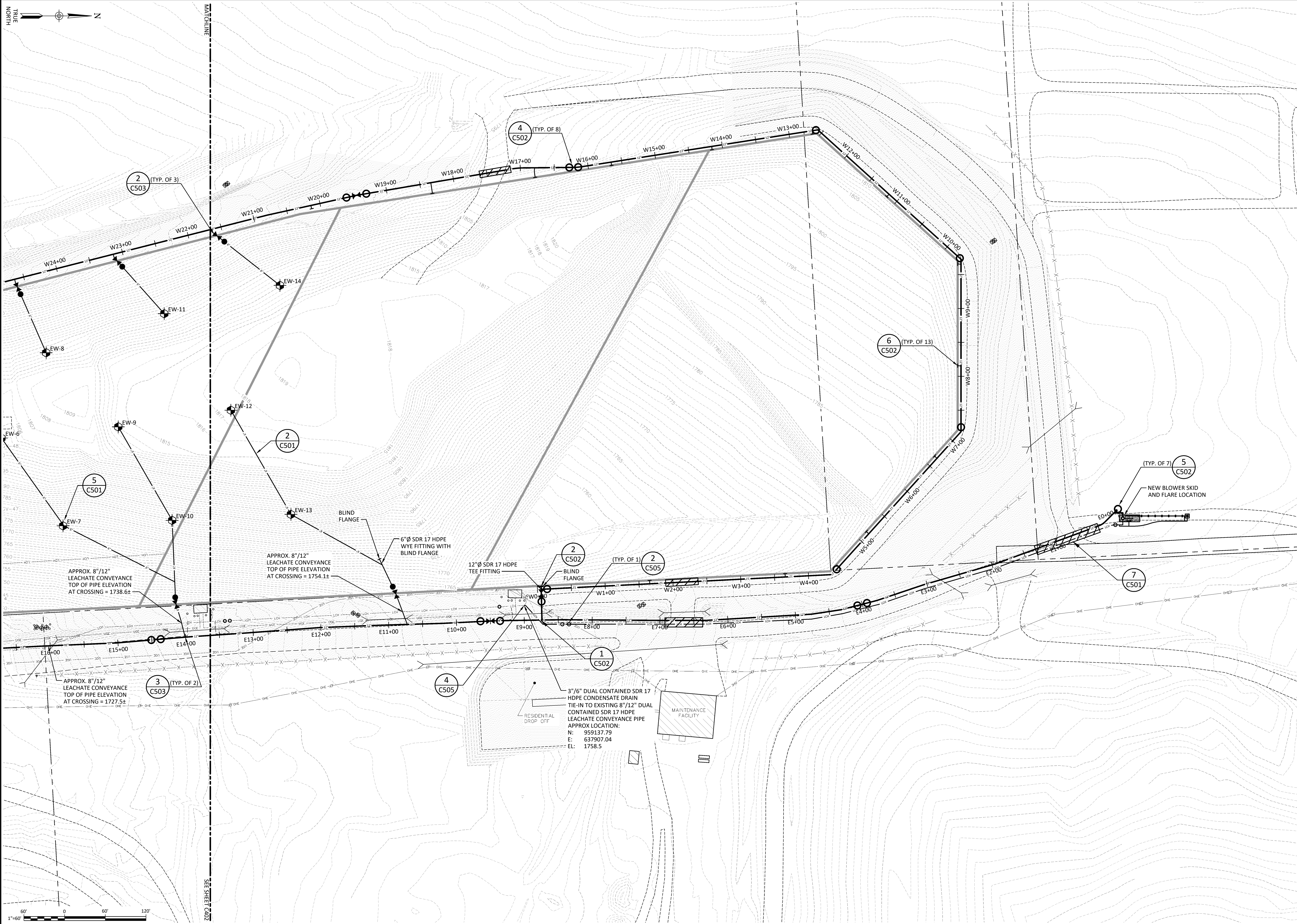
Date  
JANUARY 2023

Scale  
AS SHOWN

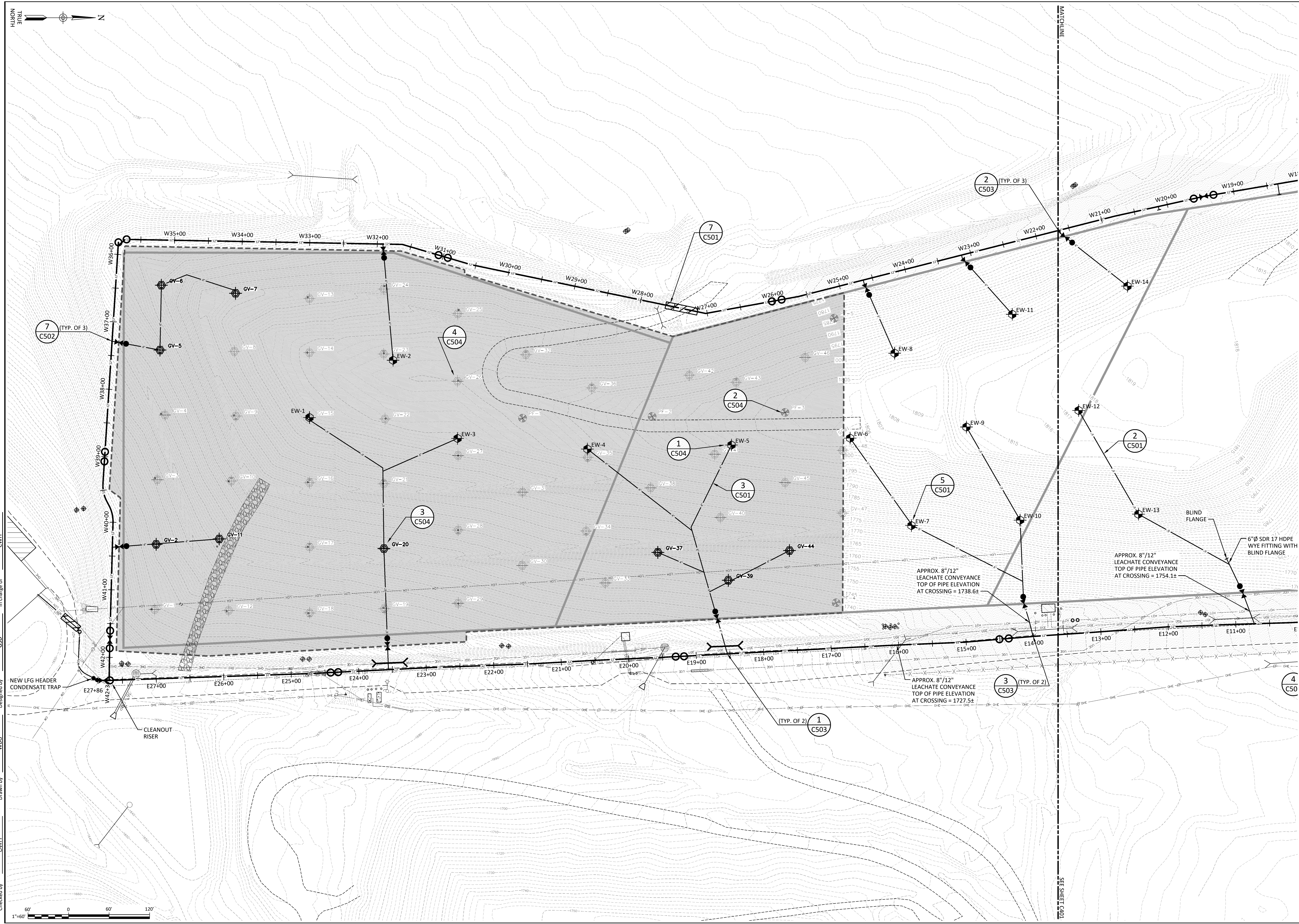
Sheet Number  
C400

Project Number  
331.157.001









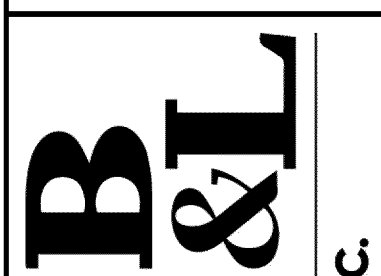
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REVISIONS	

CORTLAND COUNTY, NEW YORK

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
**LFG PERIMETER HEADERS  
SITE PLAN (SOUTH)**  
4/HOMER

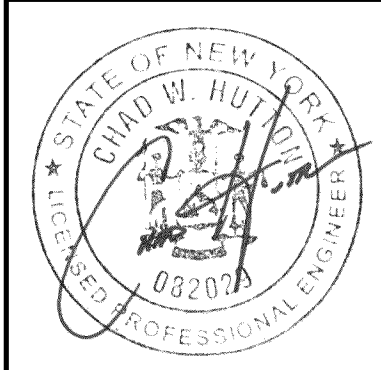
TOWN OF CORTLANDVILLE/SOLON



443 Electronics Parkway  
Liverpool, NY  
13088

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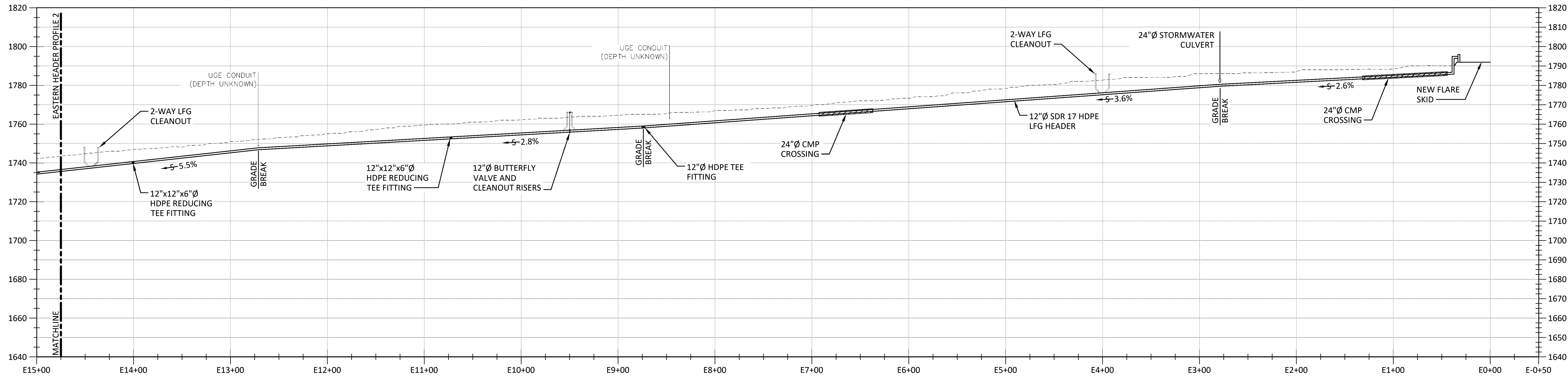
**Barton & Loguidice, D.P.**



Date	JANUARY 2023
Scale	1" = 60'
Sheet Number	C402
Project Number	331.157.001

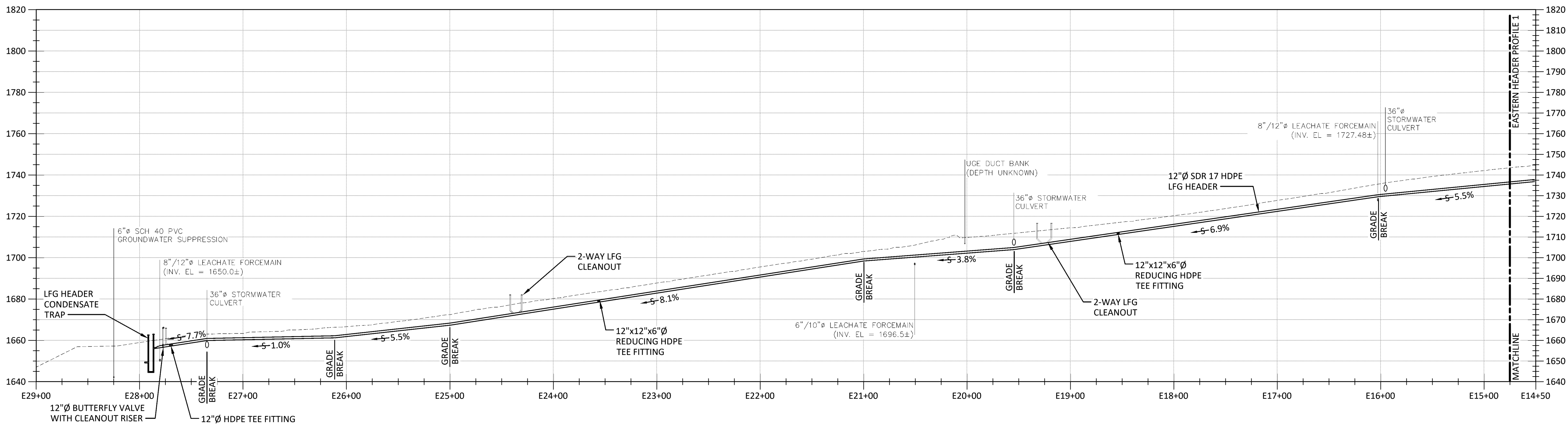


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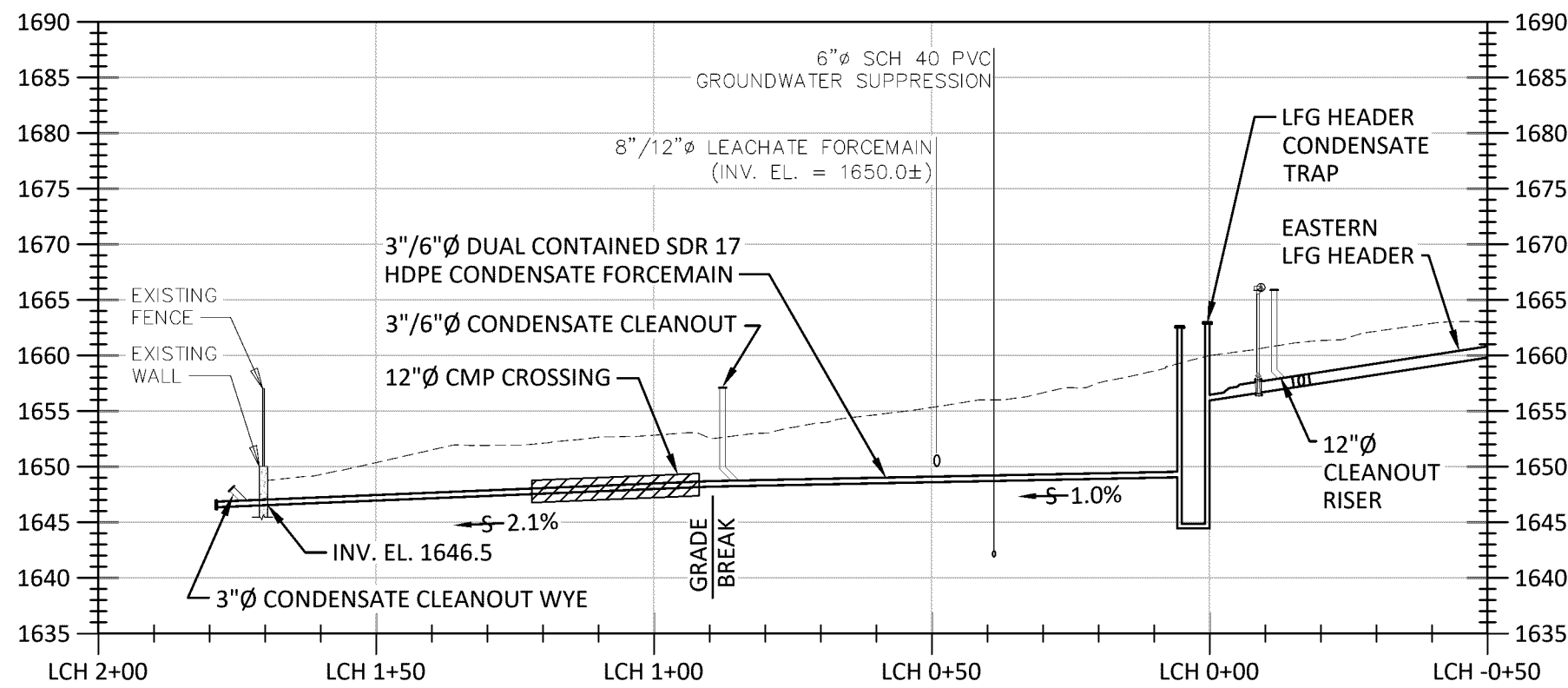
**EASTERN HEADER PROFILE 1**

HORIZONTAL SCALE: 1" = 60'  
VERTICAL SCALE: 1" = 30'



**EASTERN HEADER PROFILE 2**

HORIZONTAL SCALE: 1" = 60'  
VERTICAL SCALE: 1" = 30'



**NOTE:**

1. CONTRACTOR TO VERIFY EXISTING ELEVATIONS PRIOR TO CONSTRUCTION.

**CONDENSATE DRAIN PROFILE**

HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 15'



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**REVISIONS**

NO.	DESCRIPTION	DATE

CORTLAND COUNTY HIGHWAY DEPARTMENT

CORTLAND COUNTY LANDFILL

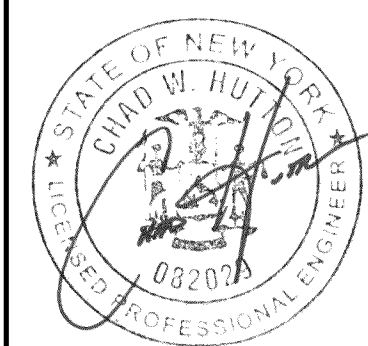
LANDFILL GAS COLLECTION AND CONTROL SYSTEM

**EASTERN LFG PERIMETER HEADER PROFILE**

TOWN OF CORTLANDVILLE/SOLON/HOMER

CORTLAND COUNTY, NEW YORK

443 Electronics Parkway  
Liverpool, NY  
13088  
**Barton & Loguidice, D.P.C.**



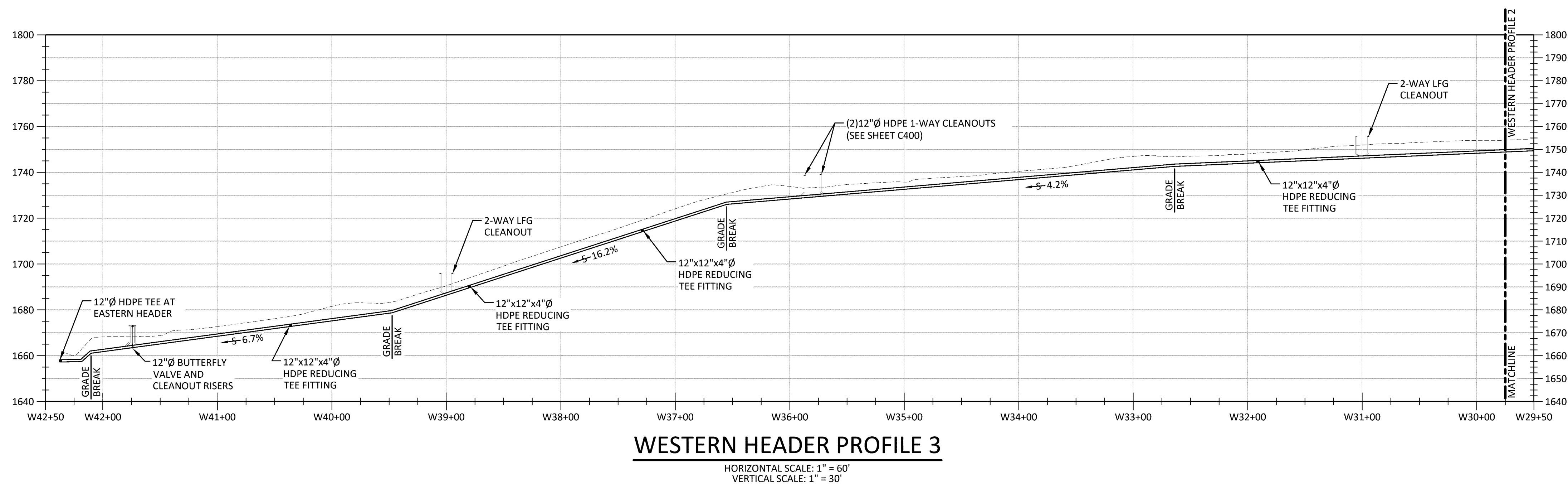
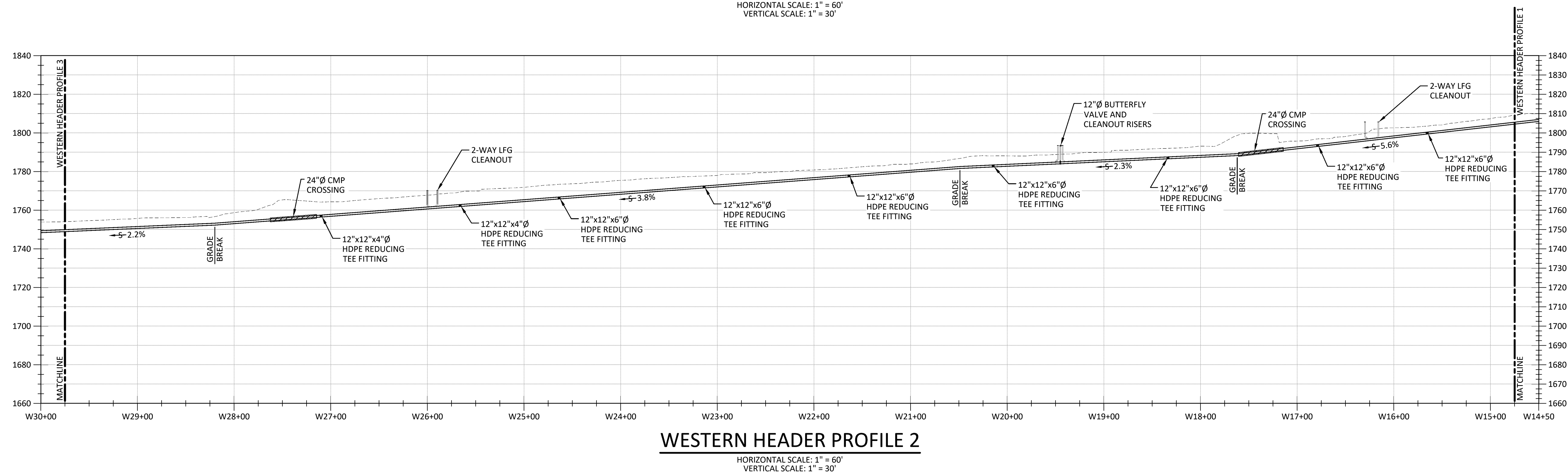
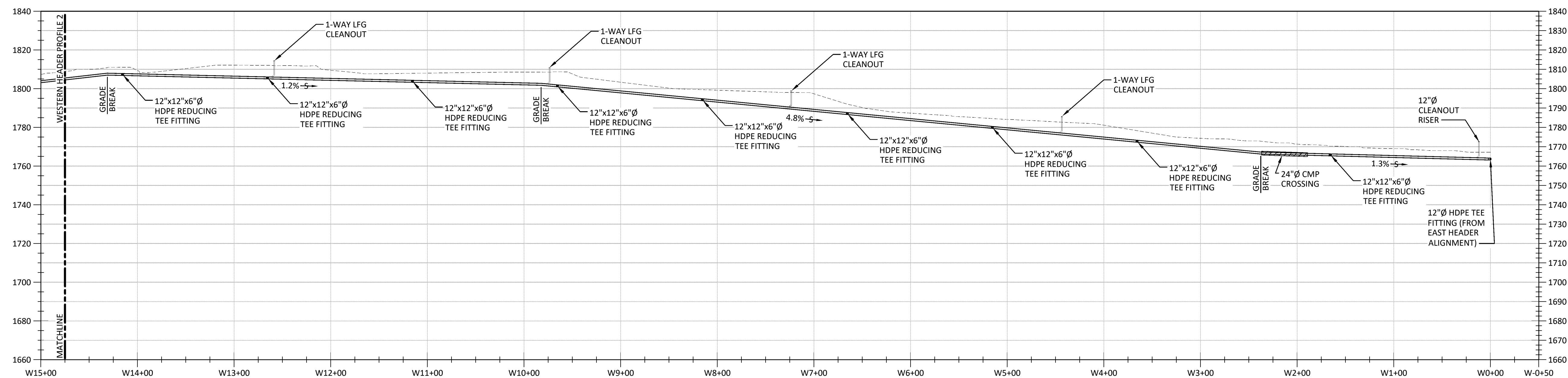
Date  
**JANUARY 2023**

Scale  
**1" = 100'**

Sheet Number  
**C403**

Project Number  
**331.157.001**





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 CWH \_\_\_\_\_ GSD \_\_\_\_\_ CWH \_\_\_\_\_

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

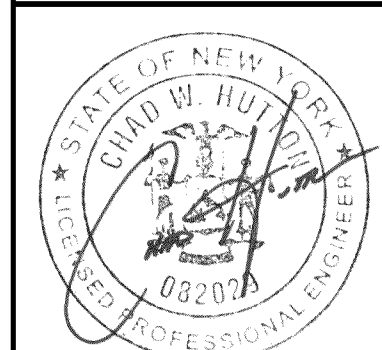
REVISIONS	

OFFICE  
CORTLAND COUNTY, NEW YORK

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
WESTERN LFG PERIMETER HEADER PIPE  
HOMER

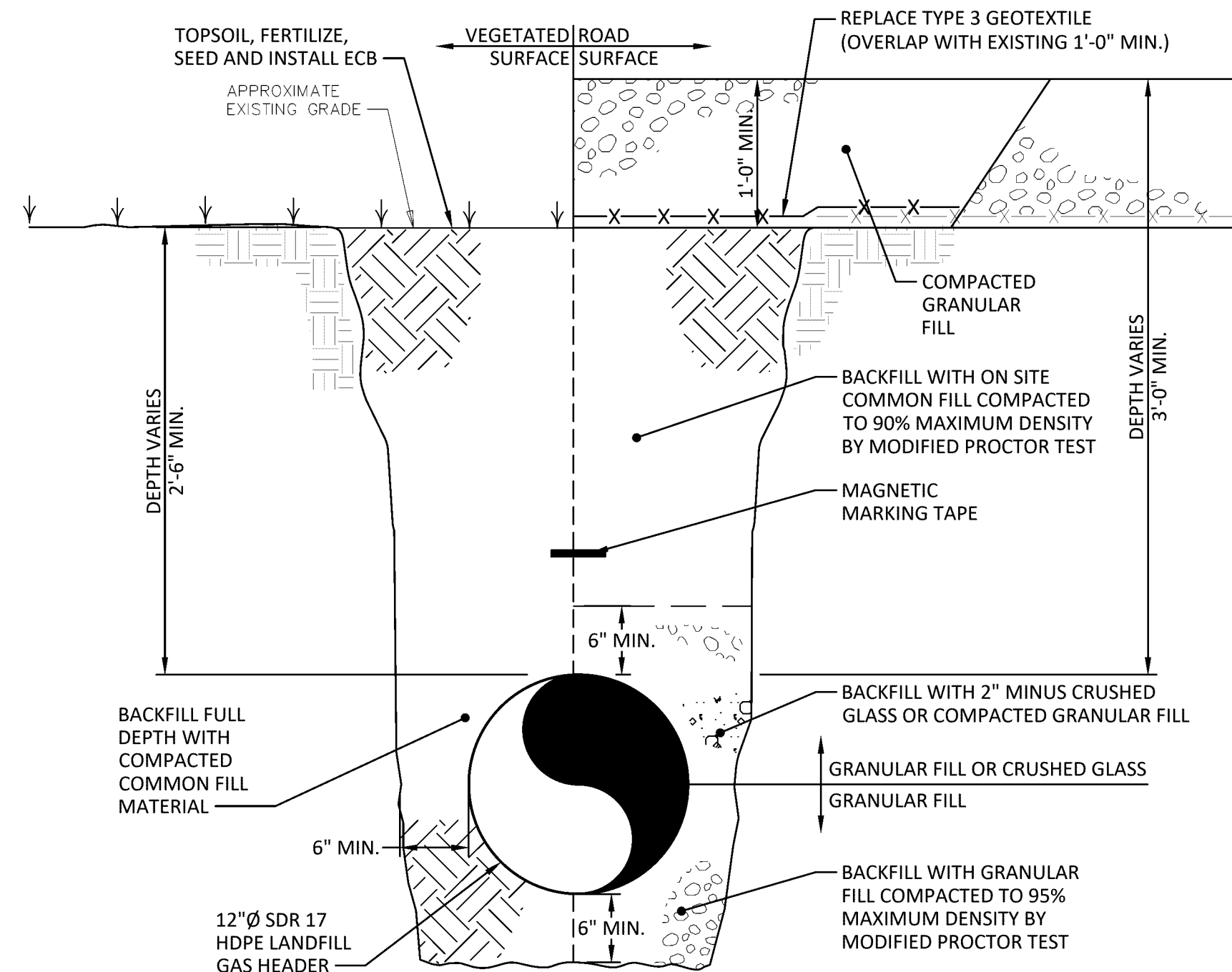
TOWN OF CORTLANDVILLE/SOLON/HOMER

**B&L**  
4443 Electronics Parkway  
Liverpool, NY  
13088  
**Barton & Loguidice, D.P.C.**



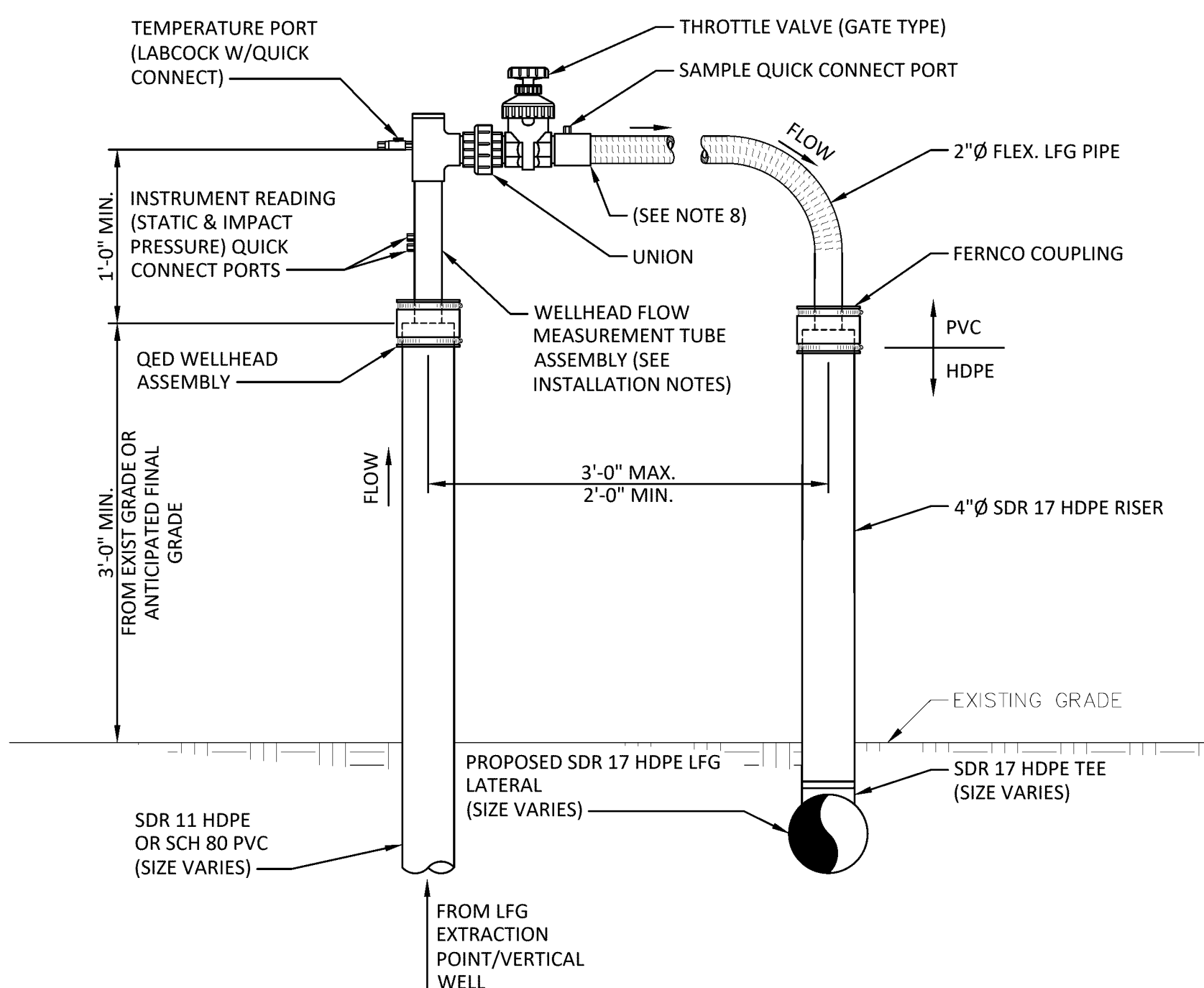
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Sheet Number	C404
Project Number	331.157.001





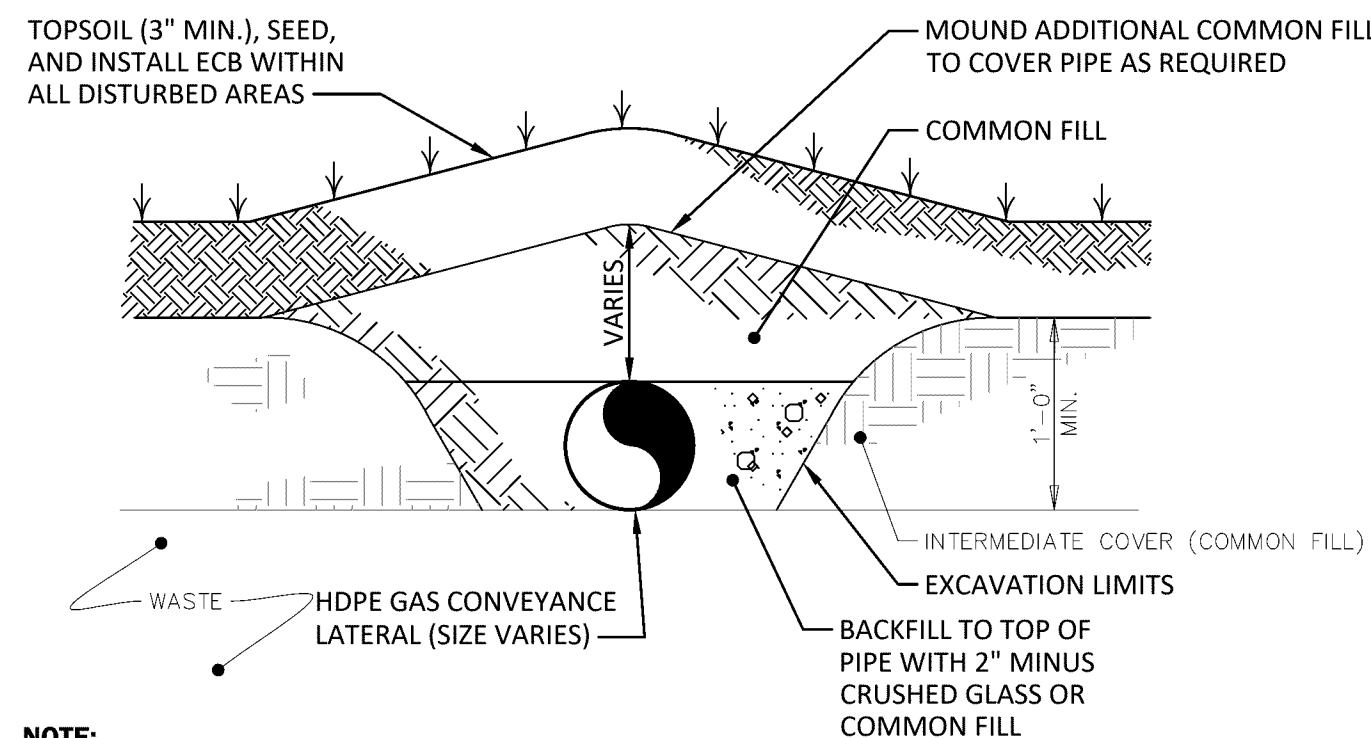
**NOTE:**

1. CRUSHED GLASS MAY BE UTILIZED WITHIN PIPE TRENCH AS SHOWN AT THE CONTRACTOR'S DISCRETION
2. CRUSHED GLASS MUST MEET GRADATION OF 2" MINUS FOR USE IN PIPE TRENCH BACKFILL



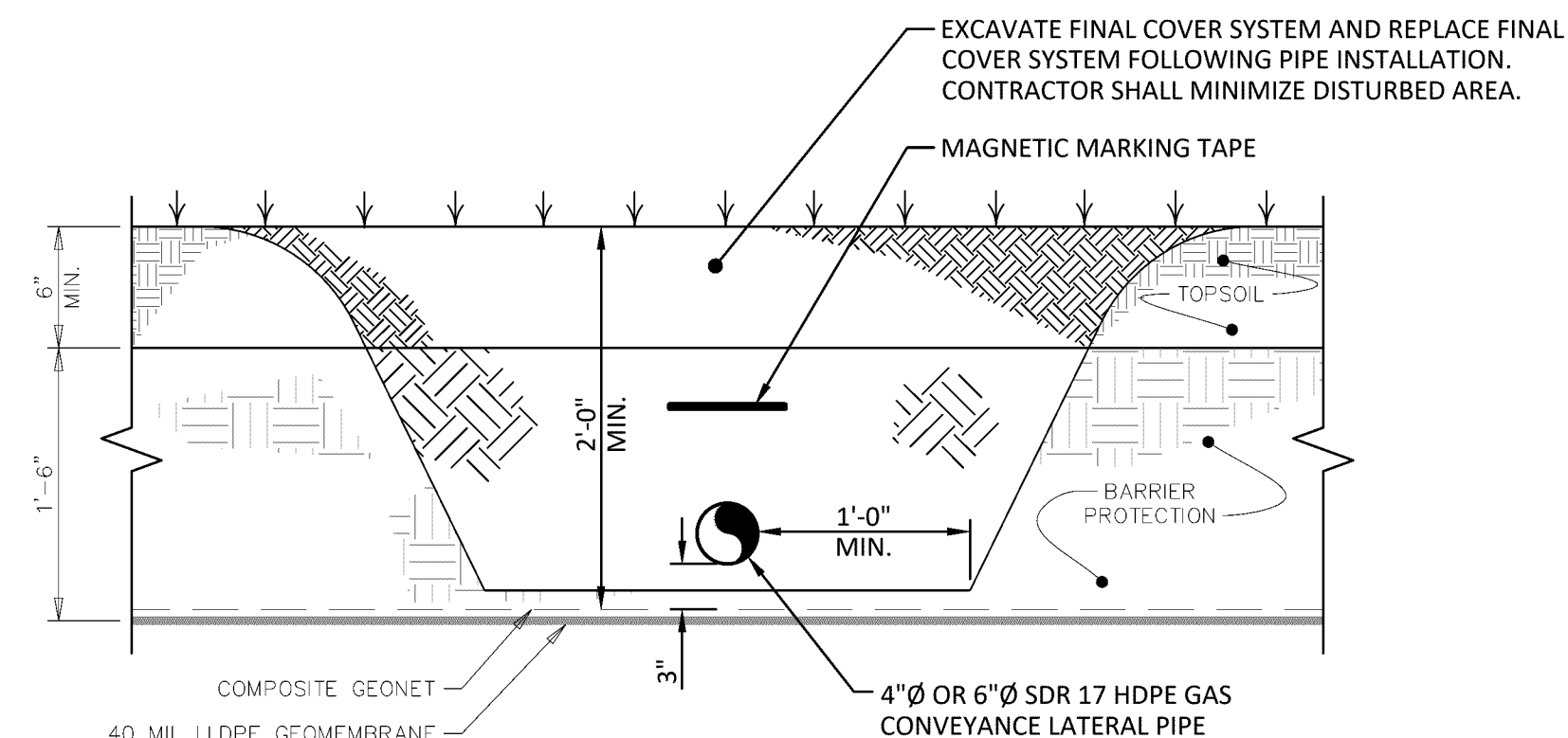
### **INSTALLATION NOTES:**

1. REFER TO THE WELLHEAD INSTALLATION AND OPERATION MANUAL AND PROJECT BID SPECIFICATIONS. READ INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING ASSEMBLY AND INSTALLATION OF WELLHEAD ON WELL CASING.
2. WELLHEAD CASING PENETRATION TO BE DETERMINED BASED ON FIELD CONDITIONS AND THE ENGINEER'S DIRECTION.
3. WELLHEAD AND FLOW MEASUREMENT TUBE ASSEMBLY SHALL BE COMPATIBLE WITH ELKINS ENVISION GAS ANALYZER SYSTEM.
4. 2"Ø WELLHEAD SHALL BE RATED FOR A FLOW RANGE OF 1-150 SCFM.
5. DRAWING SHOWS TYPICAL CONNECTION TO 90° ELBOW. ACTUAL CONNECTION MAY BE TO A TEE OR COUPLING.
6. **WARNING:** DO NOT CUT THE FLOW MEASUREMENT TUBE ASSEMBLY. FAILURE TO HEED THIS WARNING WILL RESULT IN A DAMAGED OR INOPERATIVE WELLHEAD AND VOID THE WARRANTY.
7. ALLOW SUFFICIENT SLACK IN FLEX. HOSE FOR PIPING EXPANSION AND CONTRACTION.
8. DIAL THERMOMETER SHALL BE PROVIDED WITH EACH WELLHEAD.



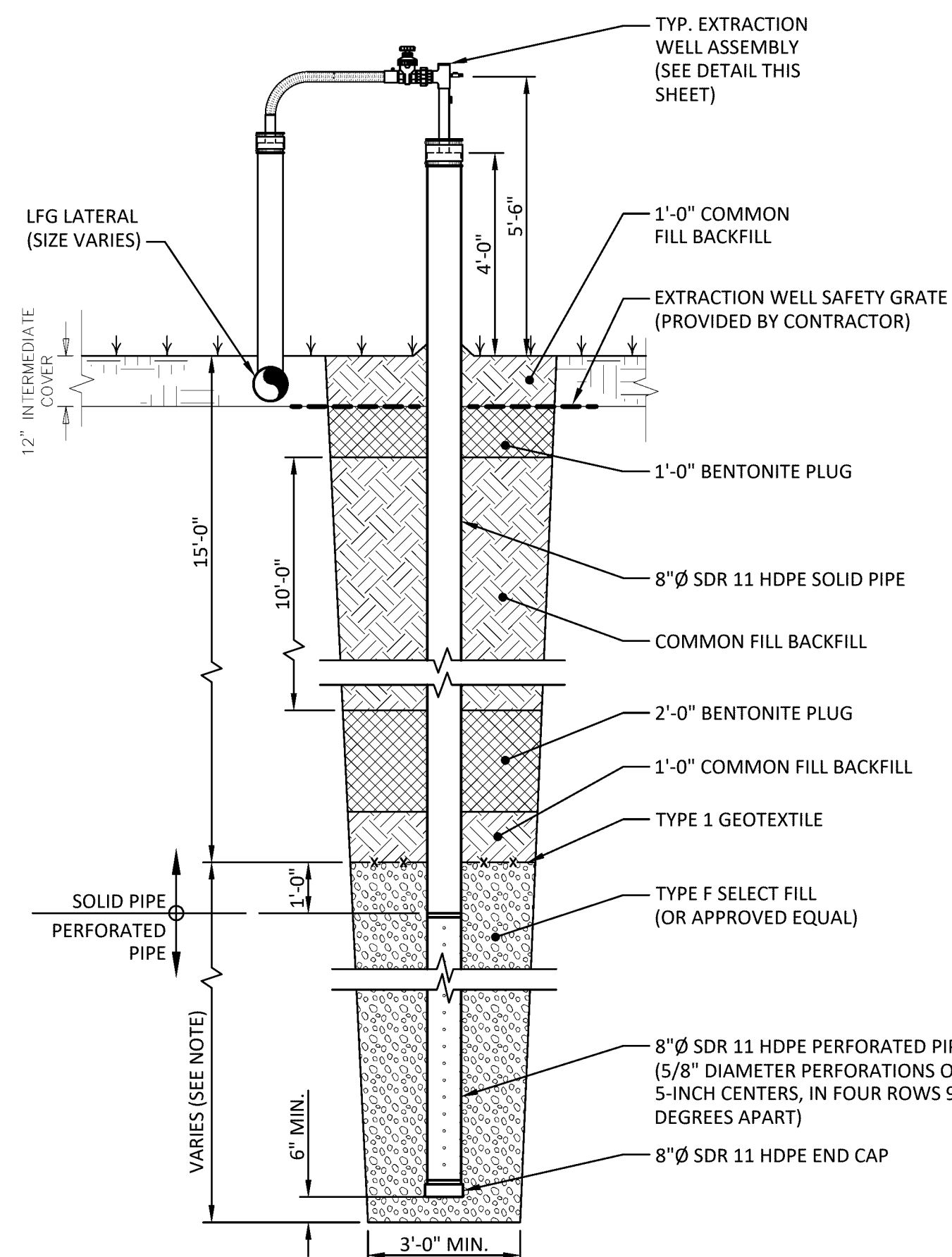
**NOTE:**

1. MINIMUM DEPTH OF COVER ATOP GAS LATERALS SHALL BE ONE FOOT.
2. CRUSHED GLASS MAY BE UTILIZED WITHIN PIPE TRENCH AS SHOWN AT THE CONTRACTORS DISCRETION
3. CRUSHED GLASS MUST MEET GRADATION OF 2" MINUS FOR USE IN PIPE TRENCH BACKFILL.



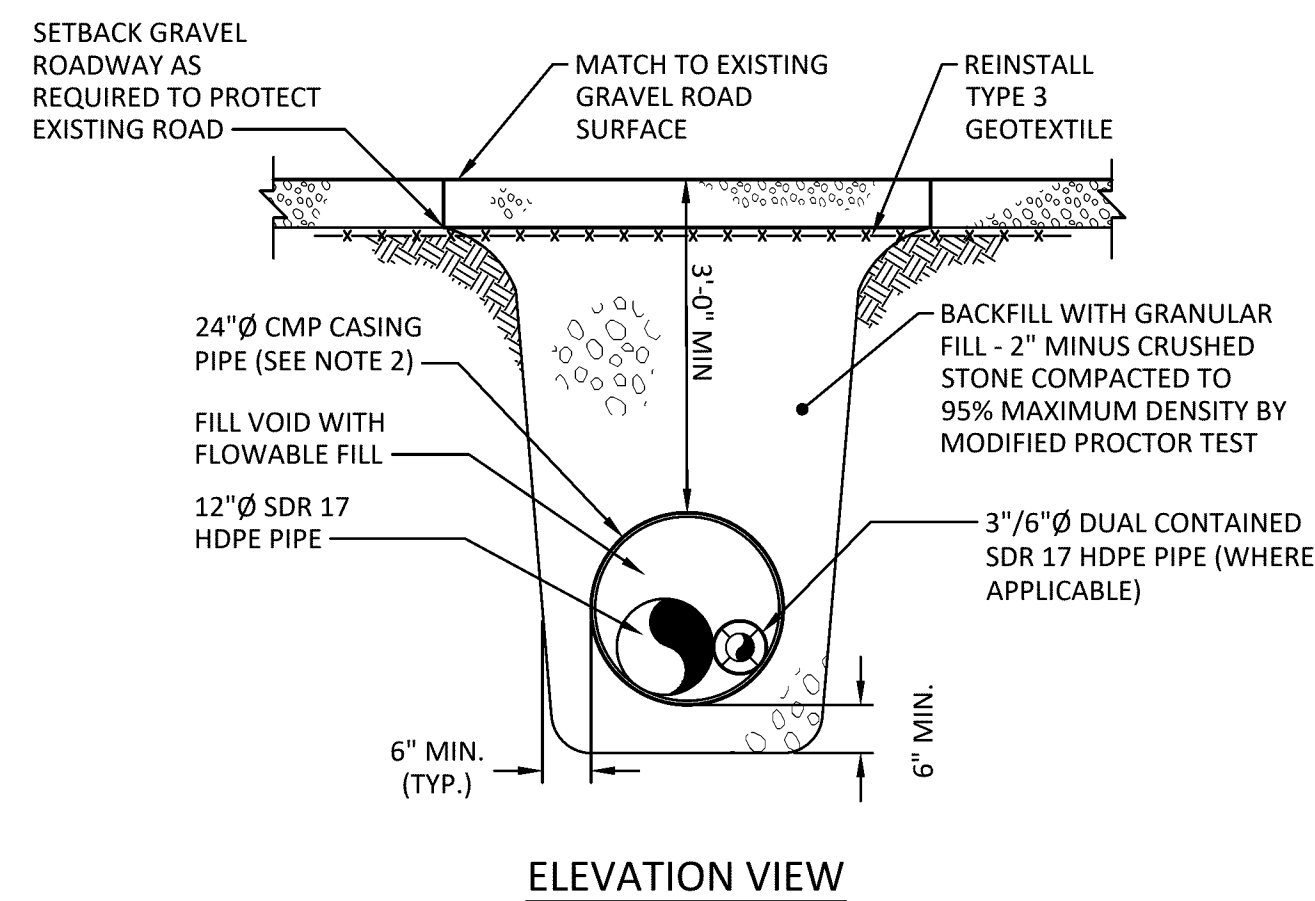
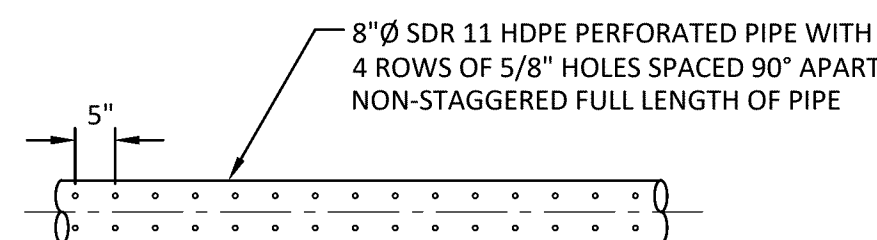
**NOTES:**

1. ALL CAPPING SYSTEM GEOSYNTHETICS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. ANY REPAIRS MADE TO THE GEOMEMBRANE CAP SHALL BE RECORD SHOT AND NON-DESTRUCTIVELY TESTED PRIOR TO TRENCH BACKFILL.



**NOTE:**

1. SEE SHEET C400 FOR WELL DEPTH SCHEDULE.
2. SEE SHEET C504 FOR WELL DETAIL FOR CAPPED AREA



**NOTES:**

1. CULVERT AND PIPE SIZE ENLARGED COMPARED TO ACCESS ROAD FOR CLARITY.
2. ALL CULVERT PIPES SHALL BE 24" UNLESS OTHERWISE NOTED. SEE ENLARGEMENT 1, C400 FOR DIFFERING CMP SIZE.

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REVISIONS	

CORTLAND COUNTY, NEW YORK

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
LFG DETAILS (1 OF 3)

TOWN OF CORTLANDVILLE/SOLO

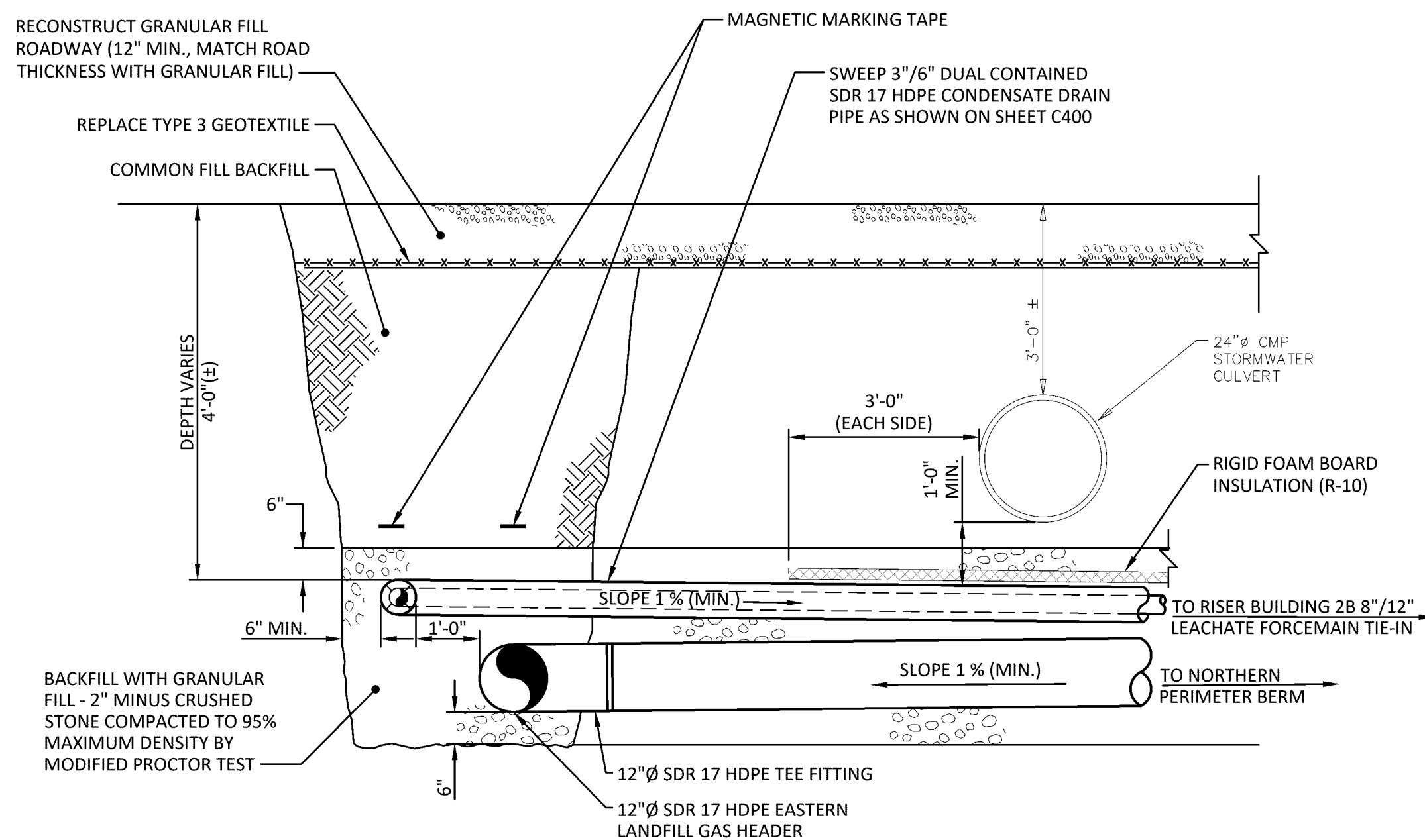
**B&L**  
443 Electronics Parkway  
Liverpool, NY  
13088

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**Barton & Loguidice, D.P.C.**

Date	JANUARY 2023
Scale	AS SHOWN
Sheet Number	C501
Project Number	331.157.001



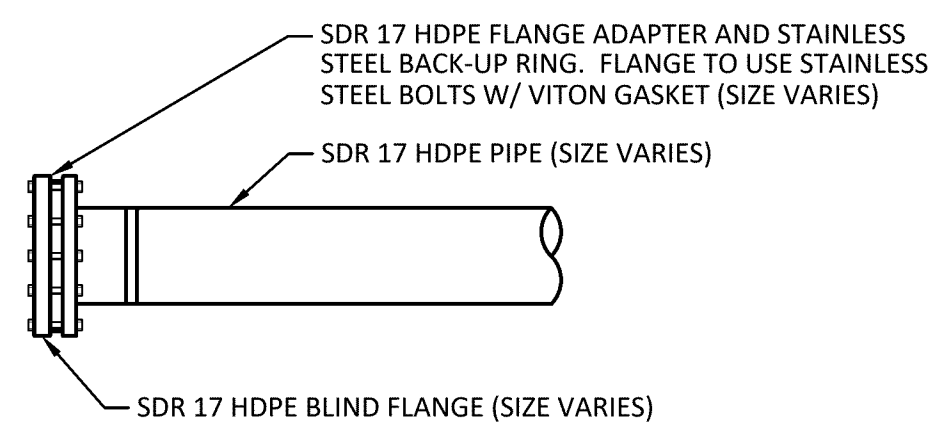


**NOTES:**

1. DAMAGE TO EXISTING INFRASTRUCTURE INCURRED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL EXCAVATE TEST PIT AT PROPOSED 8" /12" LEACHATE FORECRAIN TIE-IN POINT TO VERIFY LOCATION AND ELEVATION. SLOPE OF CONDENSATE DRAIN SHALL BE ADJUSTED ACCORDINGLY TO PROVIDE MIN. 0.5% SLOPE TOWARDS THE 8" /12" LEACHATE FORECRAIN TIE-IN POINT.

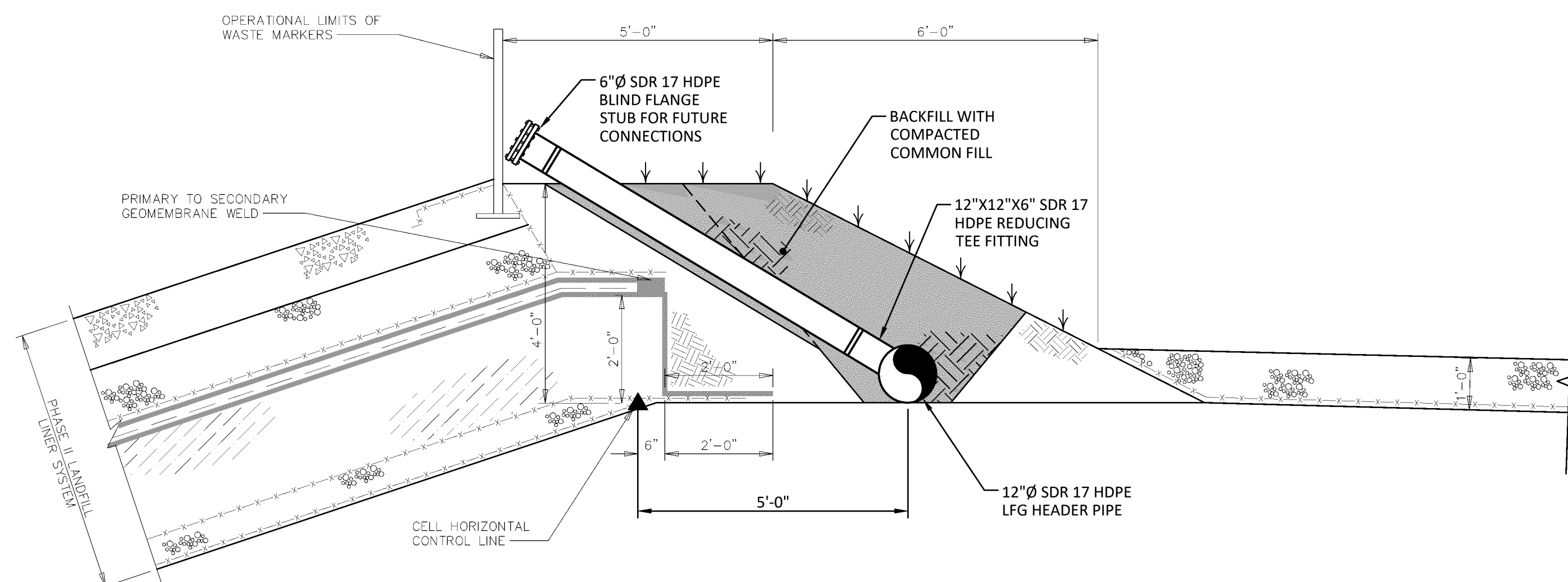
① CONDENSATE DRAIN AND LFG HEADER CULVERT CROSSING DETAIL

NOT TO SCALE



### ③ TYPICAL PIPE BURIED BLIND FLANGE DETAIL

SCALE: 1" = 1'-0"

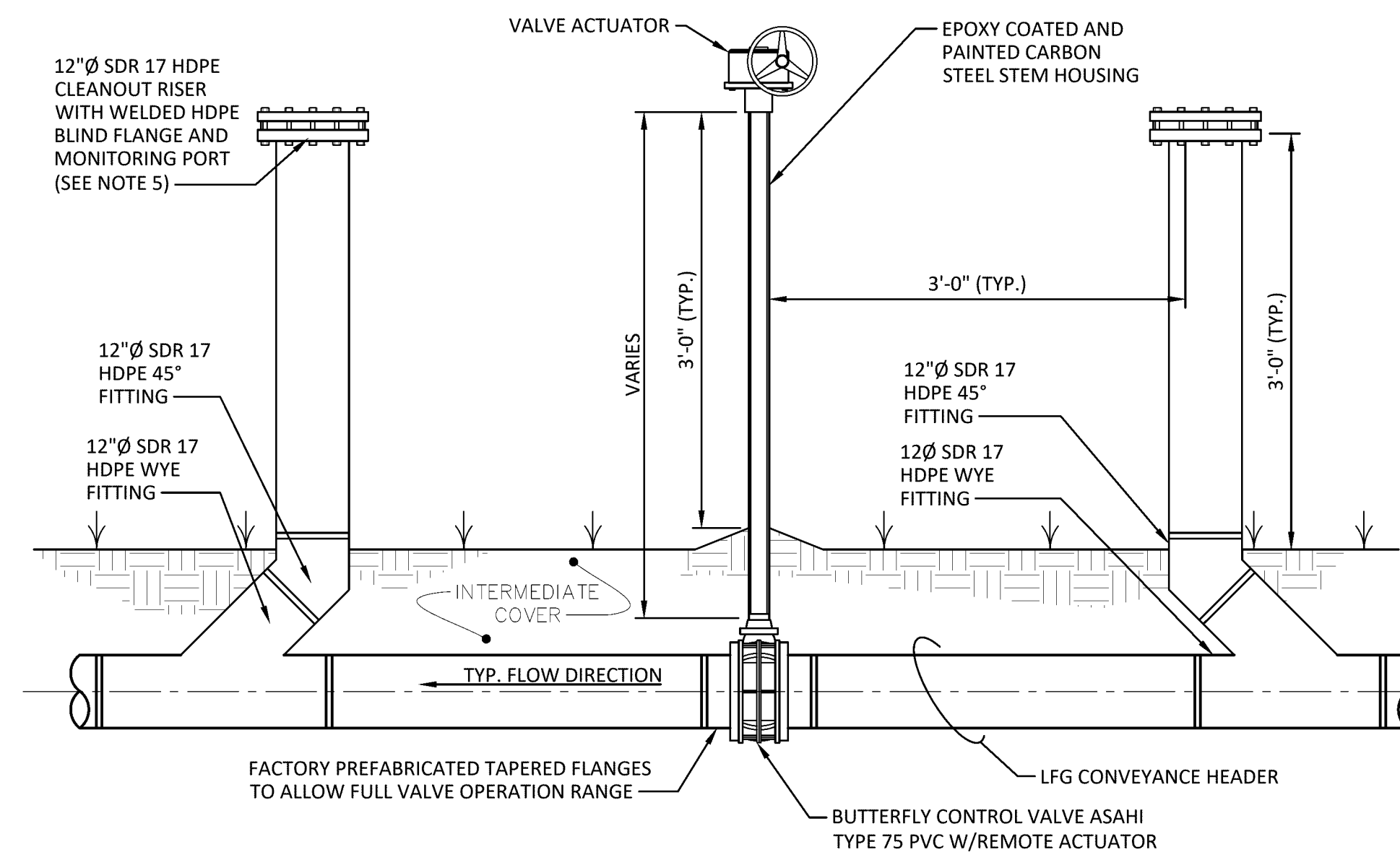


**NOTES:**

1. ALL DAMAGE TO EXISTING LINER SYSTEM GEOSYNTHETICS AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL PLACE TOPSOIL, FERTILIZE, SEED, AND INSTALL EROSION CONTROL BLANKET ALONG ALL DISTURBANCE AREAS UPON COMPLETION OF CONSTRUCTION.
3. 6"Ø SDR 17 HDPE STUBS FOR FUTURE CONNECTION SHALL BE INSTALLED EVERY 150 LF ALONG THE PHASE II-B LANDFILL CELL.
4. ALL AREAS OF DISTURBANCE SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION UPON COMPLETION OF WORK. ALL ROADWAYS DAMAGED DURING CONSTRUCTION SHALL BE RECONSTRUCTED AT NO ADDITIONAL COST TO THE OWNER.

TYPE "A" LFG LATERAL TIE-IN DETAIL

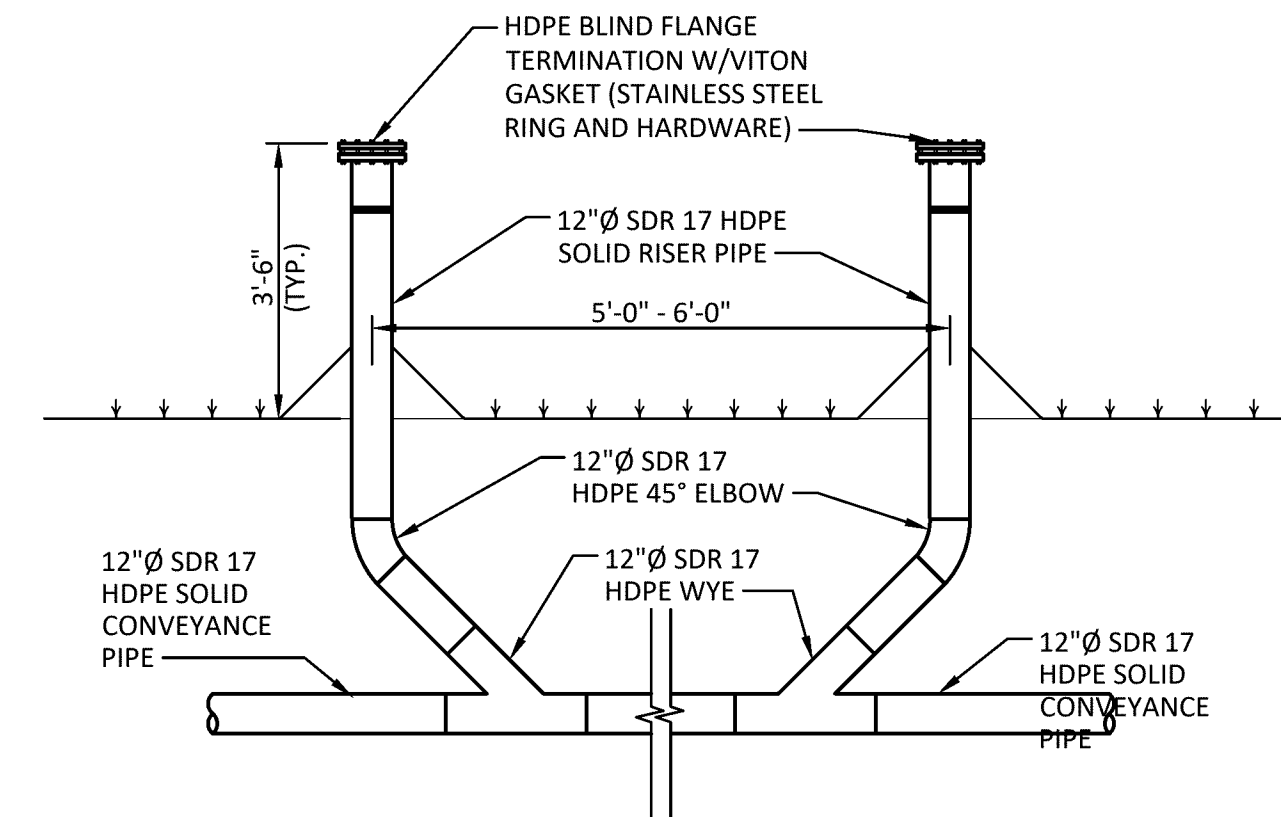
SCALE: 1/2" = 1'-0"



### 3 TYPICAL BUTTERFLY VALVE CONNECTION DETAIL

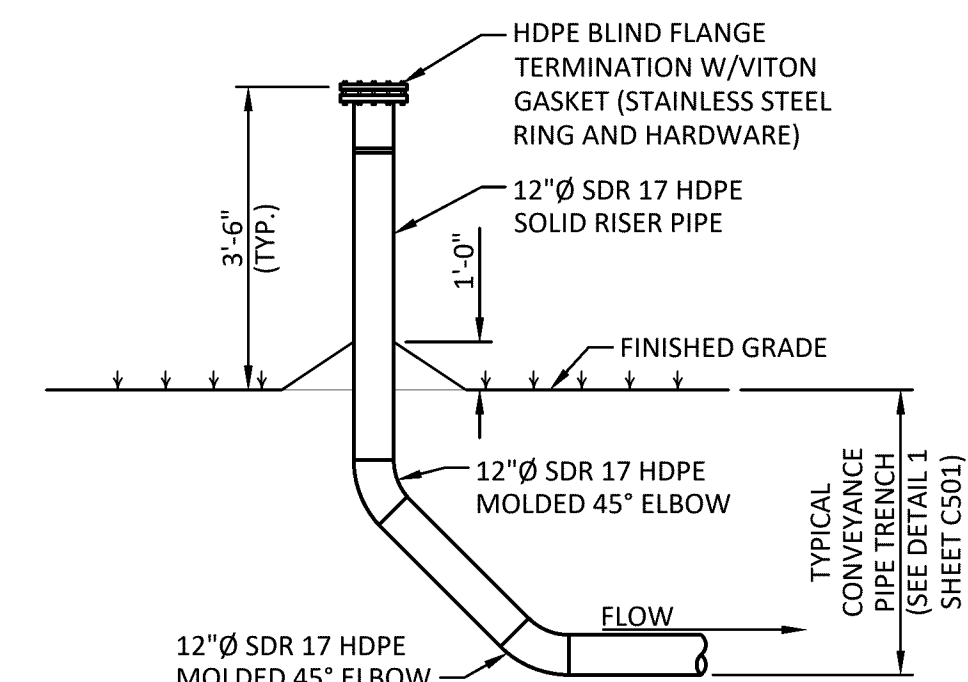
NOT TO SCALE

- NOTES:**
1. ADD SPACERS TO FLANGES FOR VALVE OPERATION IN ADDITION TO TAPERED FLANGES.
  2. VALVE SPACERS SHALL BE HDPE SDR 11, FIELD VERIFY THICKNESS PRIOR TO VALVE INSTALLATION
  3. ALL VALVES SHALL HAVE VALVE POSITION INDICATORS.
  4. FINAL LOCATION OF BUTTERFLY VALVES SHALL BE DETERMINED BY OWNER/ENGINEER.
  5. ALL LFG HEADERS (12"Ø) SHALL HAVE CLEANOUT RISERS ON EACH SIDE UNLESS OTHERWISE SHOWN. LFG LATERALS (PIPES LESS THAN 12") SHALL HAVE RISERS ON UPSLOPE SIDE ONLY.



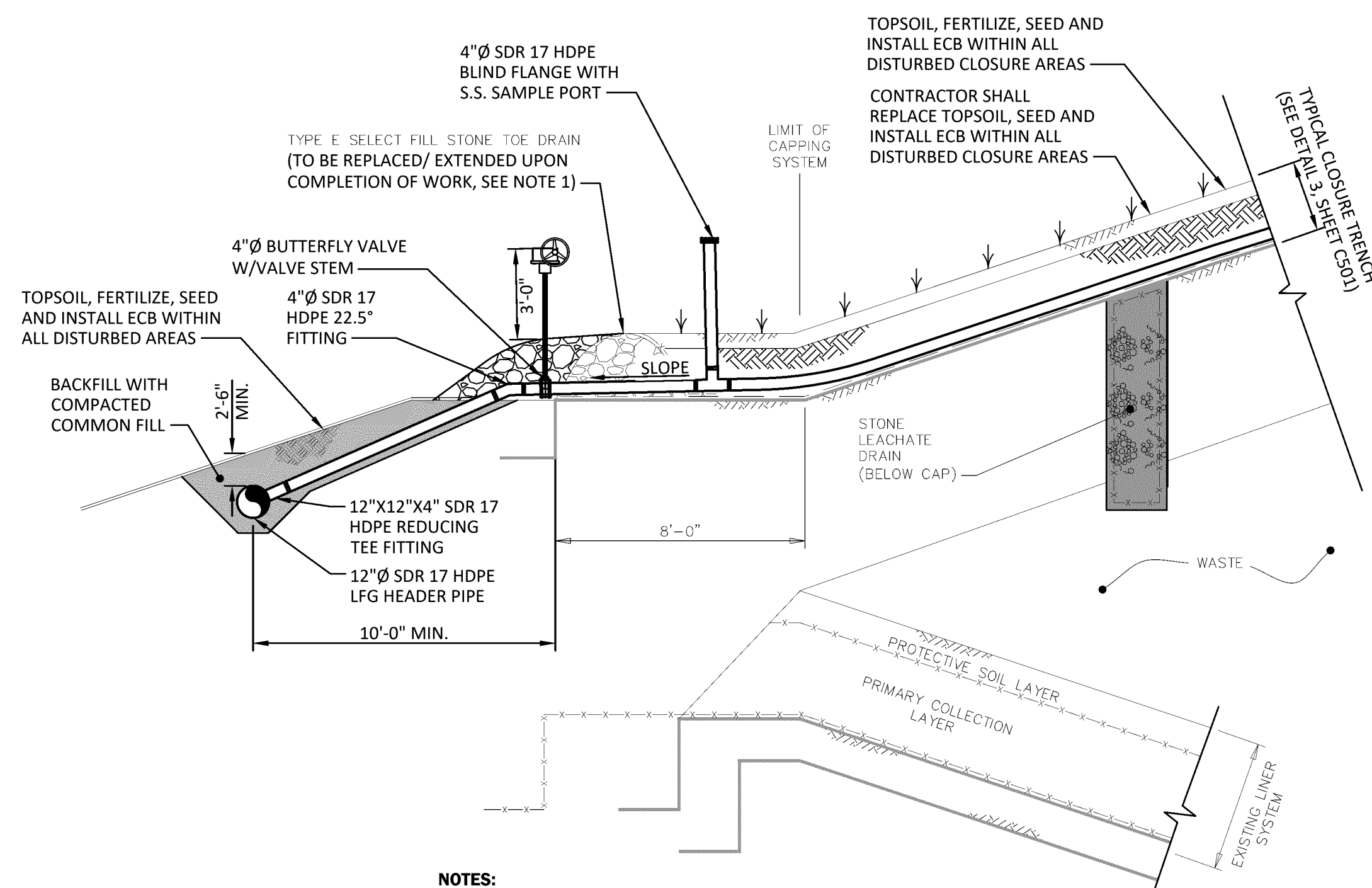
## 2-WAY LFG CLEANOUT DETAIL

4 NOT TO SCALE



1-WAY LFG CLEANOUT DETAIL

5 NOT TO SCALE



TYPE "B" LFG LATERAL TIE-IN DETAIL

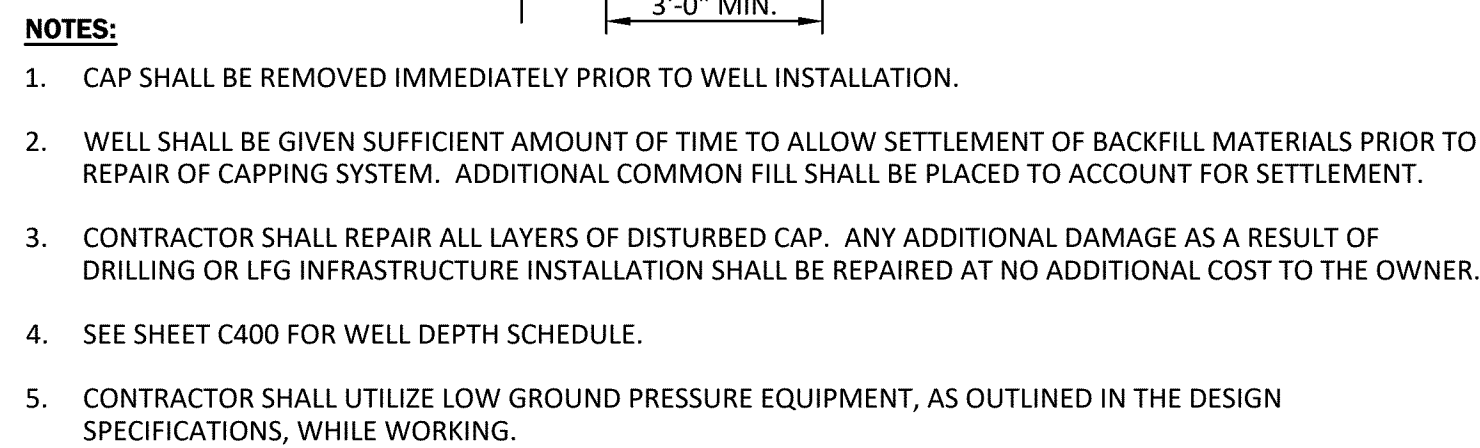
NOT TO SCALE

- NOTES:**
1. TOE DRAIN STONE SHALL BE EXTENDED TO COVER ALL LFG PIPING ABOVE GRADE





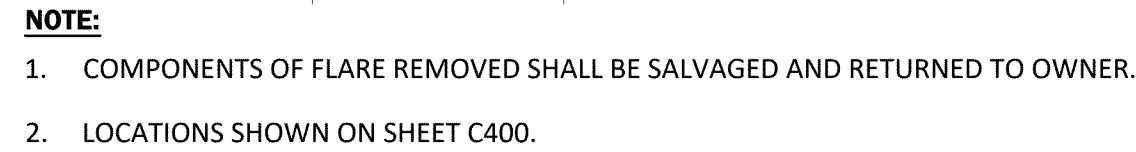




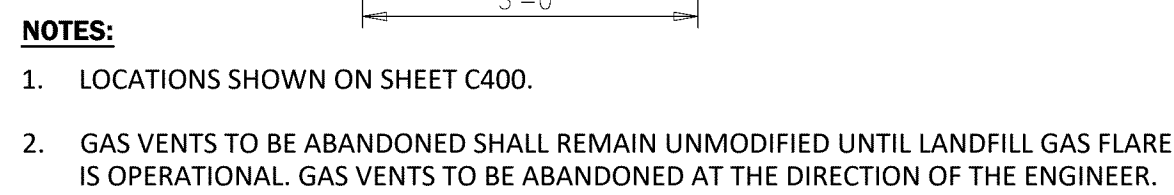
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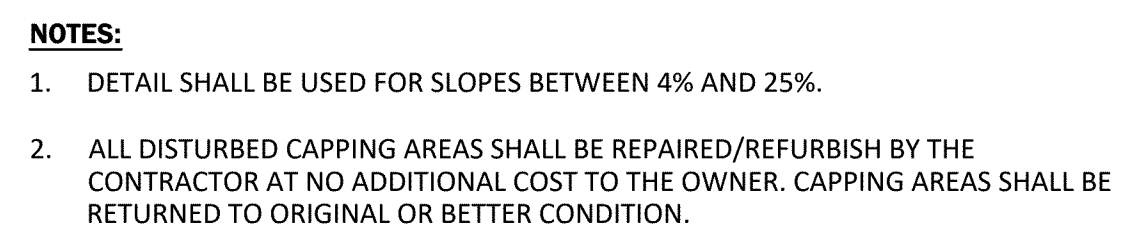
3 NOT TO SCALE



2 TYPICAL  
NOT TO SCALE



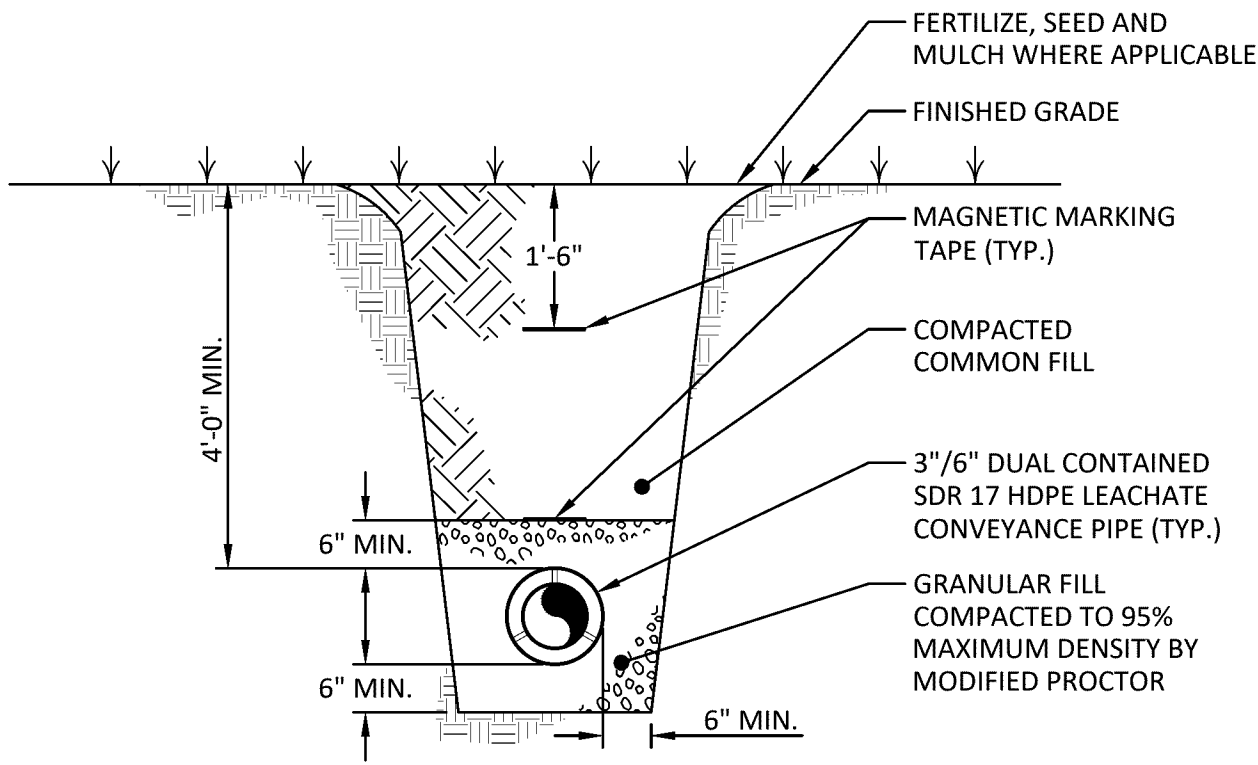
4 NOT TO SCALE



8 NOT TO SCALE

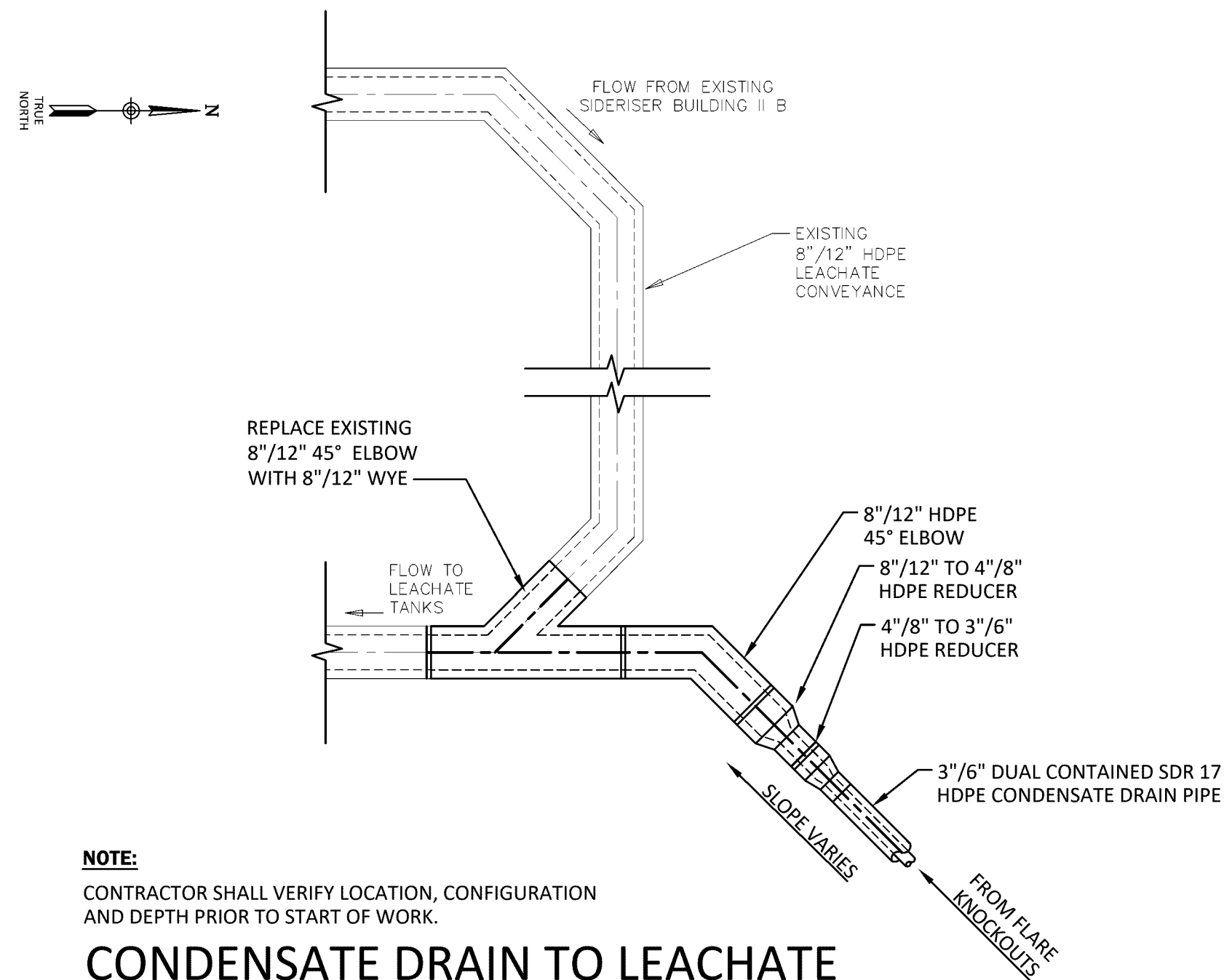
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roject Number	331.157.001





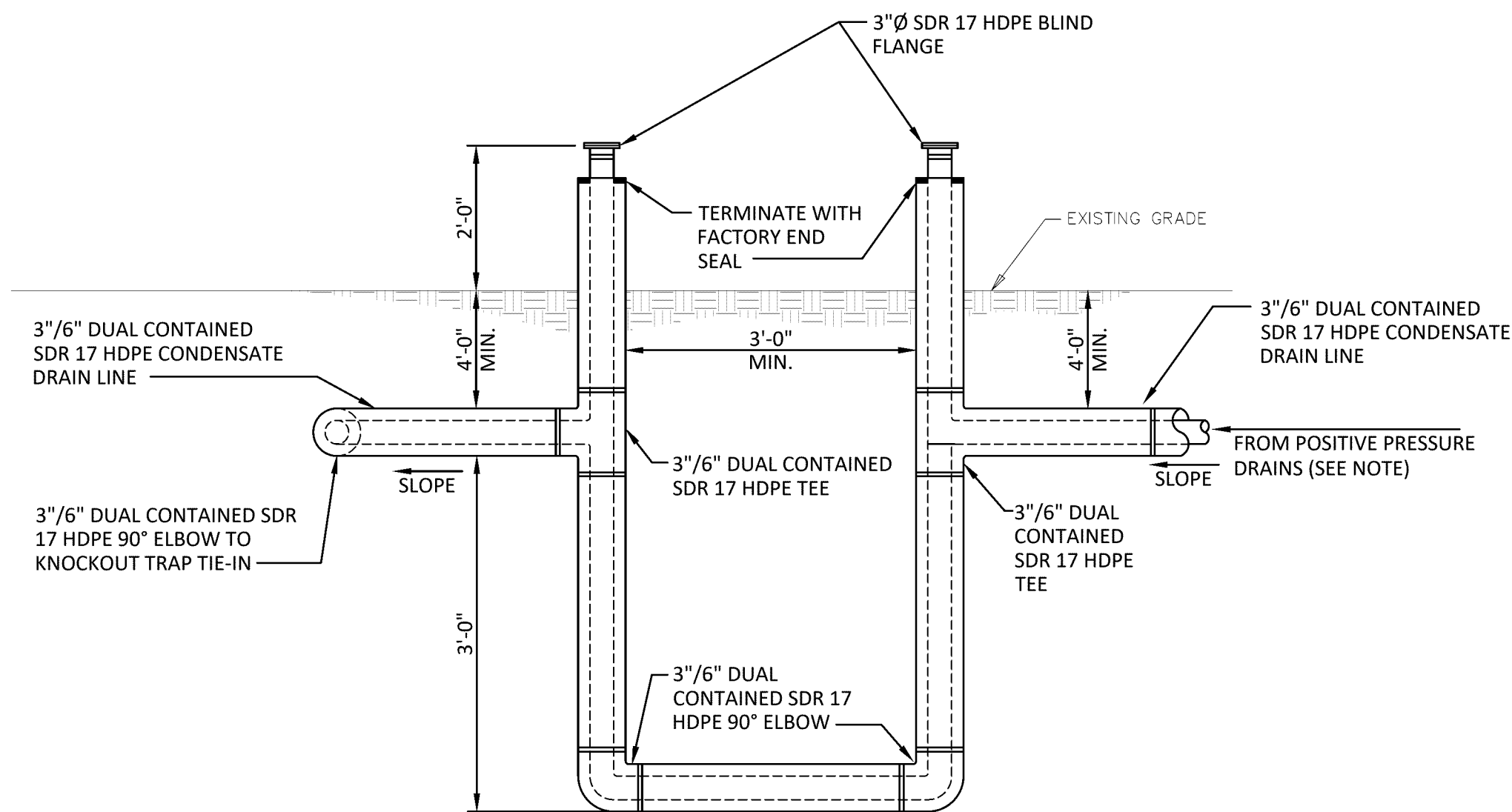
**1** TYPICAL CONDENSATE CONVEYANCE PIPE TRENCHING DETAIL

SCALE: 1/2" = 1'-0"



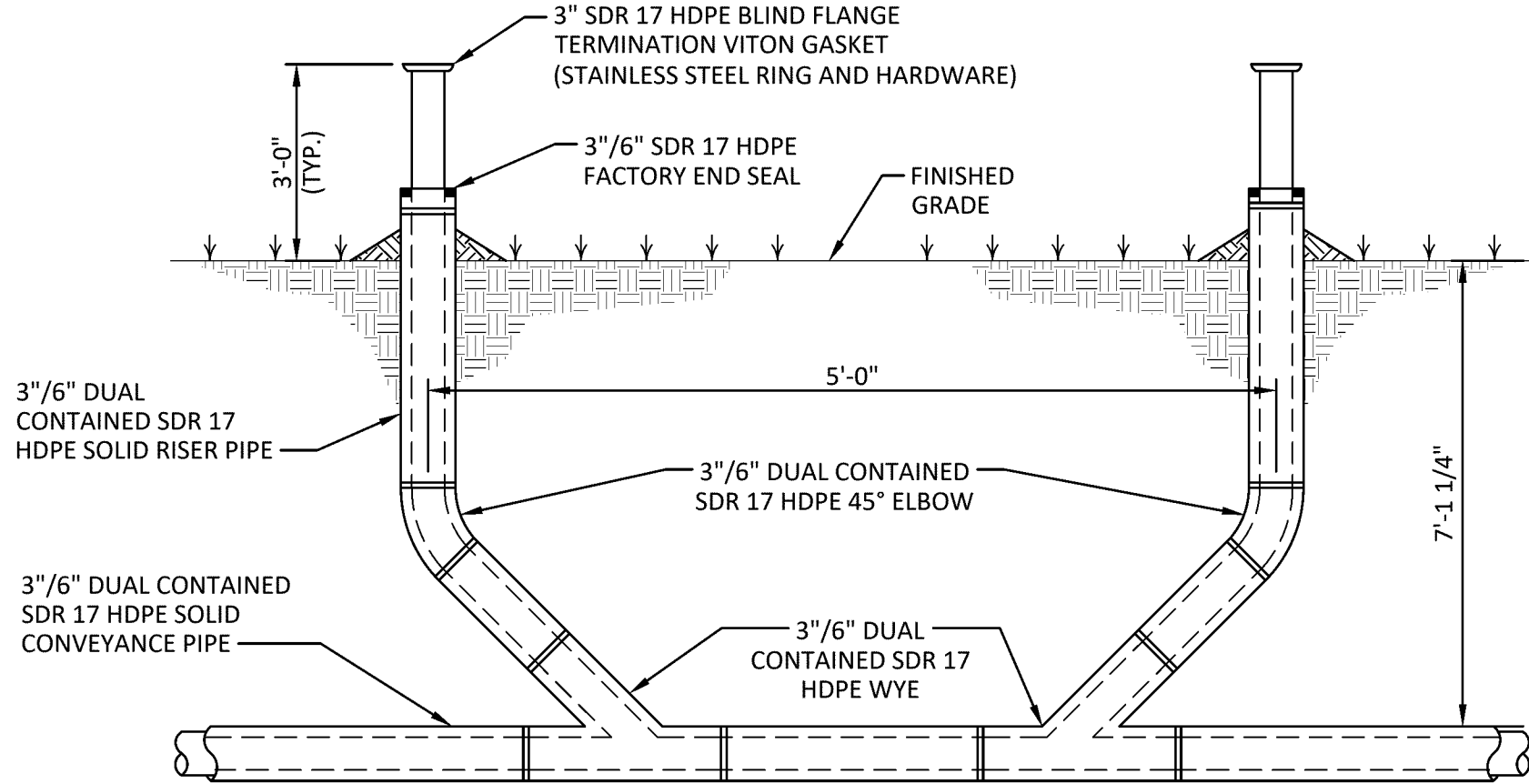
**4** CONDENSATE DRAIN TO LEACHATE CONVEYANCE TIE-IN DETAIL

NOT TO SCALE



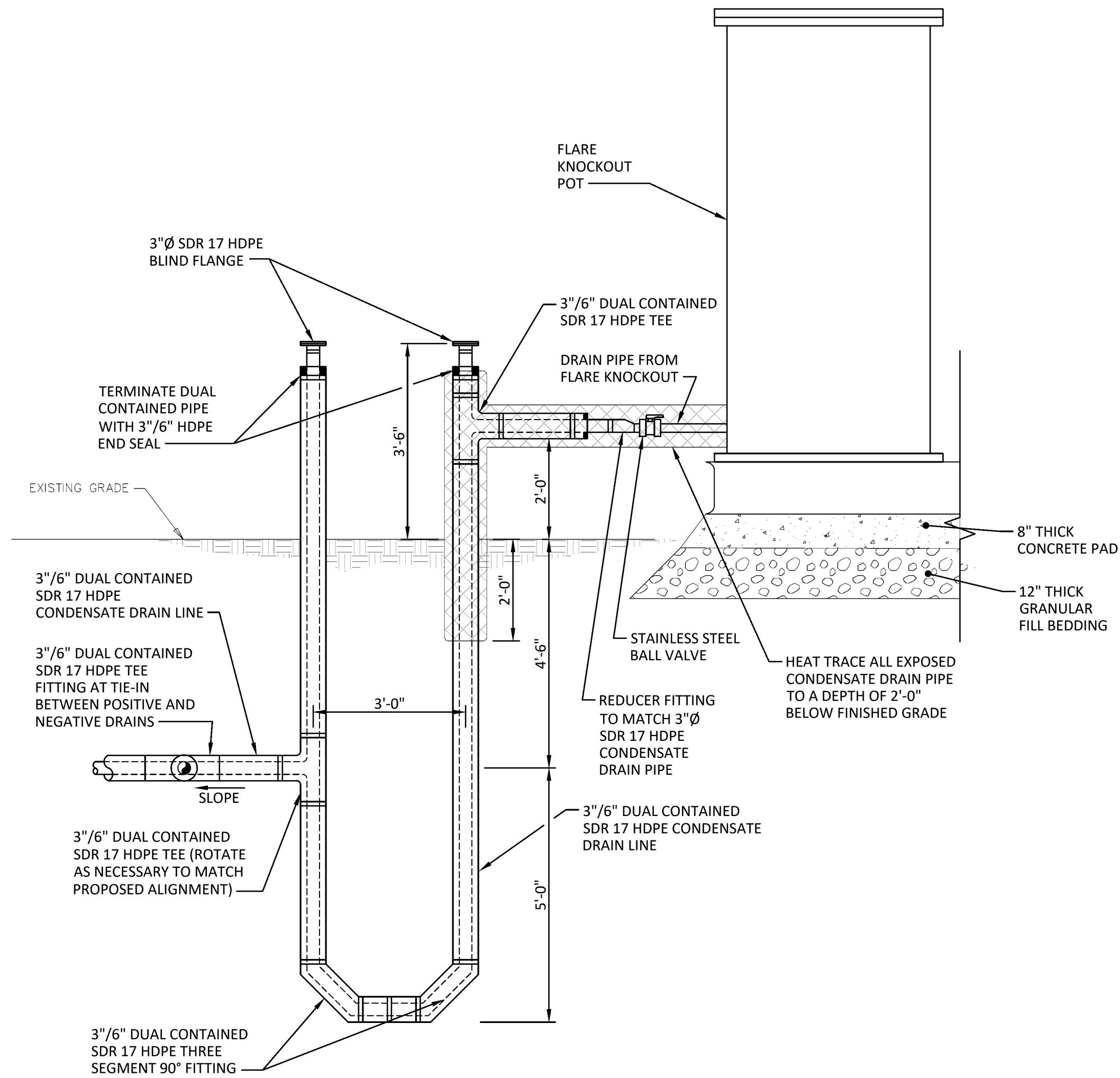
**5** TYPICAL FLARE STACK TRAP DETAIL

NOT TO SCALE



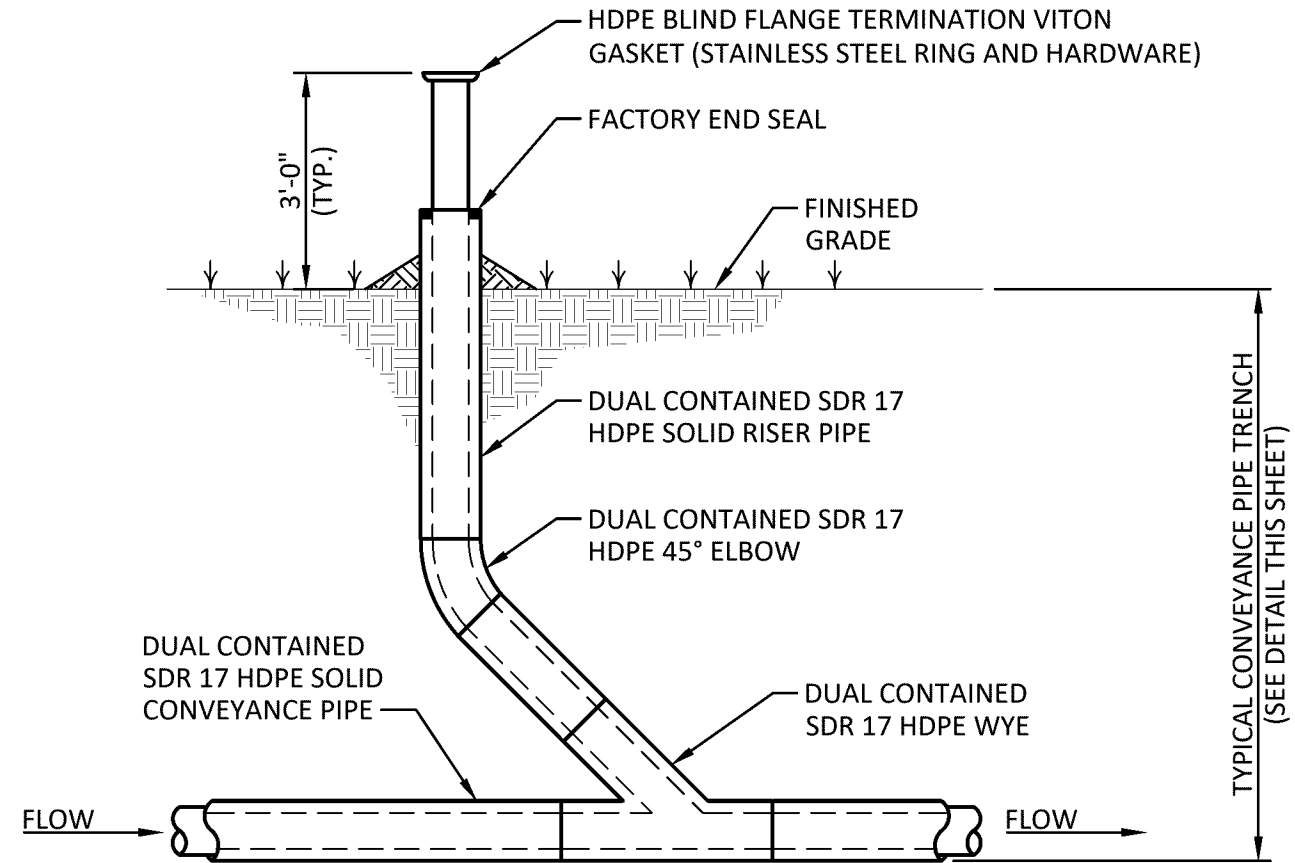
**2** CONDENSATE DRAIN DUAL CLEANOUT DETAIL

NOT TO SCALE



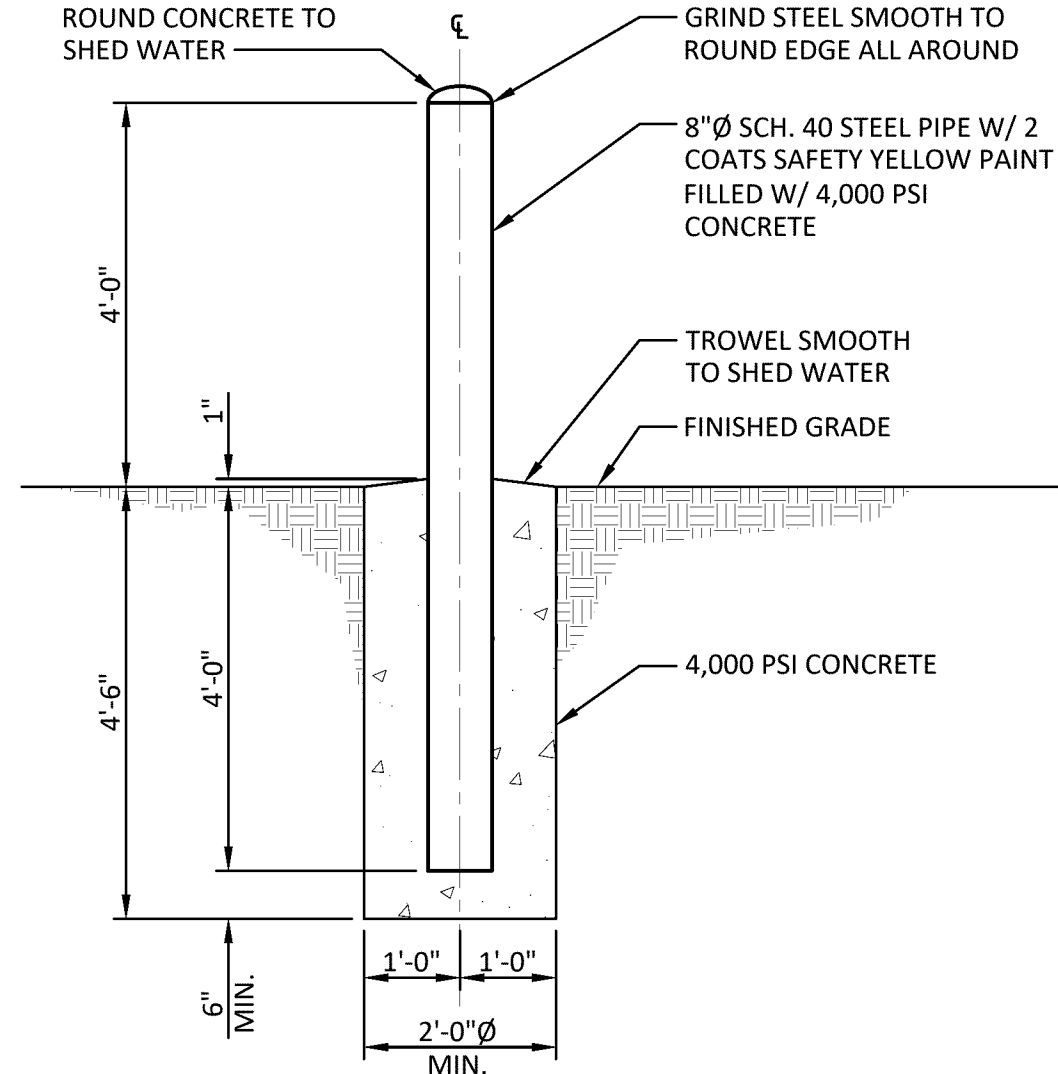
**6** PROPOSED FLARE KNOCKOUT TRAP DETAIL

NOT TO SCALE



**3** CONDENSATE DRAIN SINGLE CLEANOUT DETAIL

SCALE: 3/8" = 1'-0"



**7** BOLLARD DETAIL

SCALE: 1/2" = 1'-0"

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CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
CONDENSATE CONVEYANCE DETAILS

CORTLAND COUNTY, NEW YORK

443 Electronics Parkway  
Liverpool, NY  
13088



Date  
JANUARY 2023

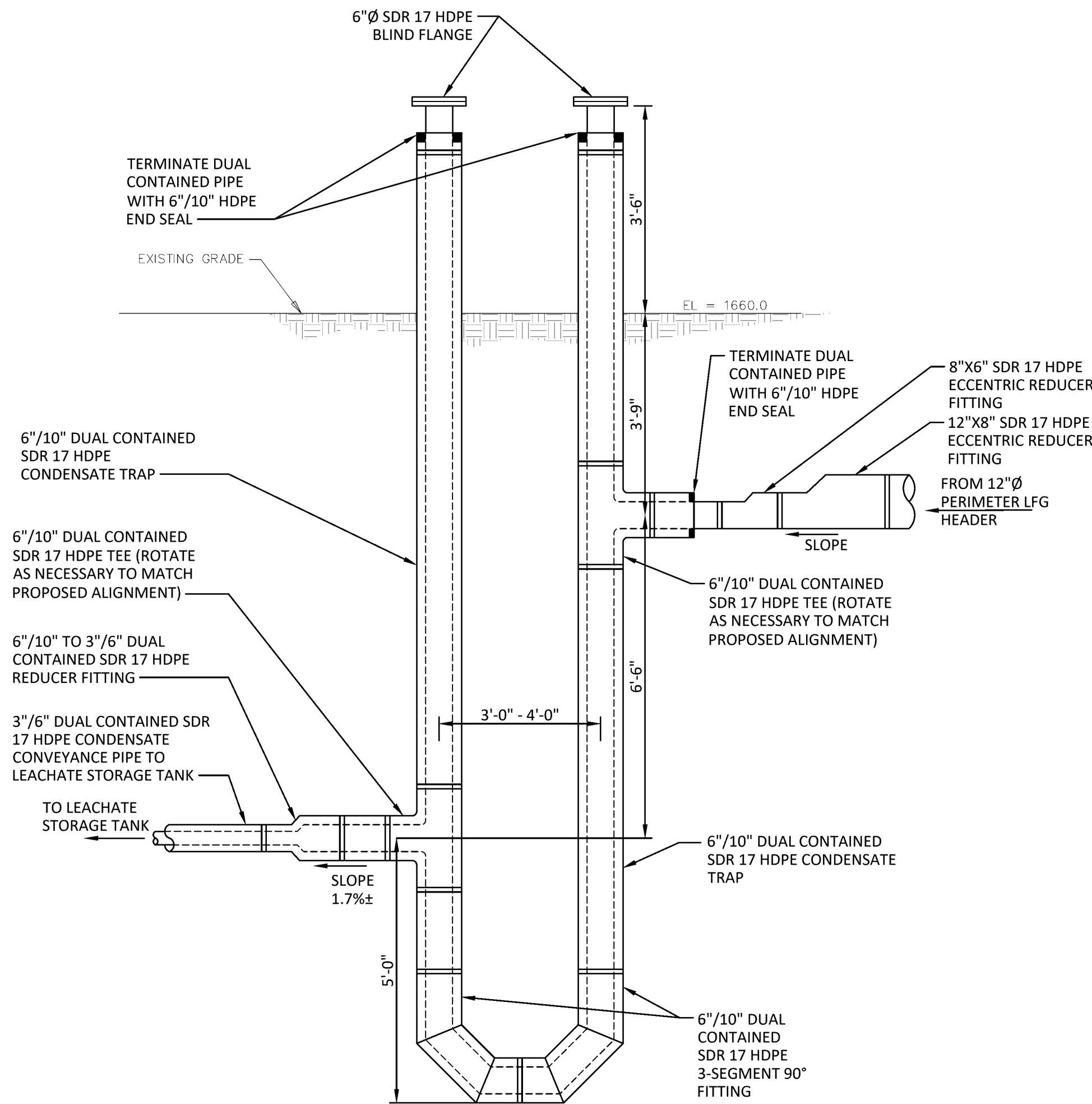
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Sheet Number  
C505

Project Number  
331.157.001



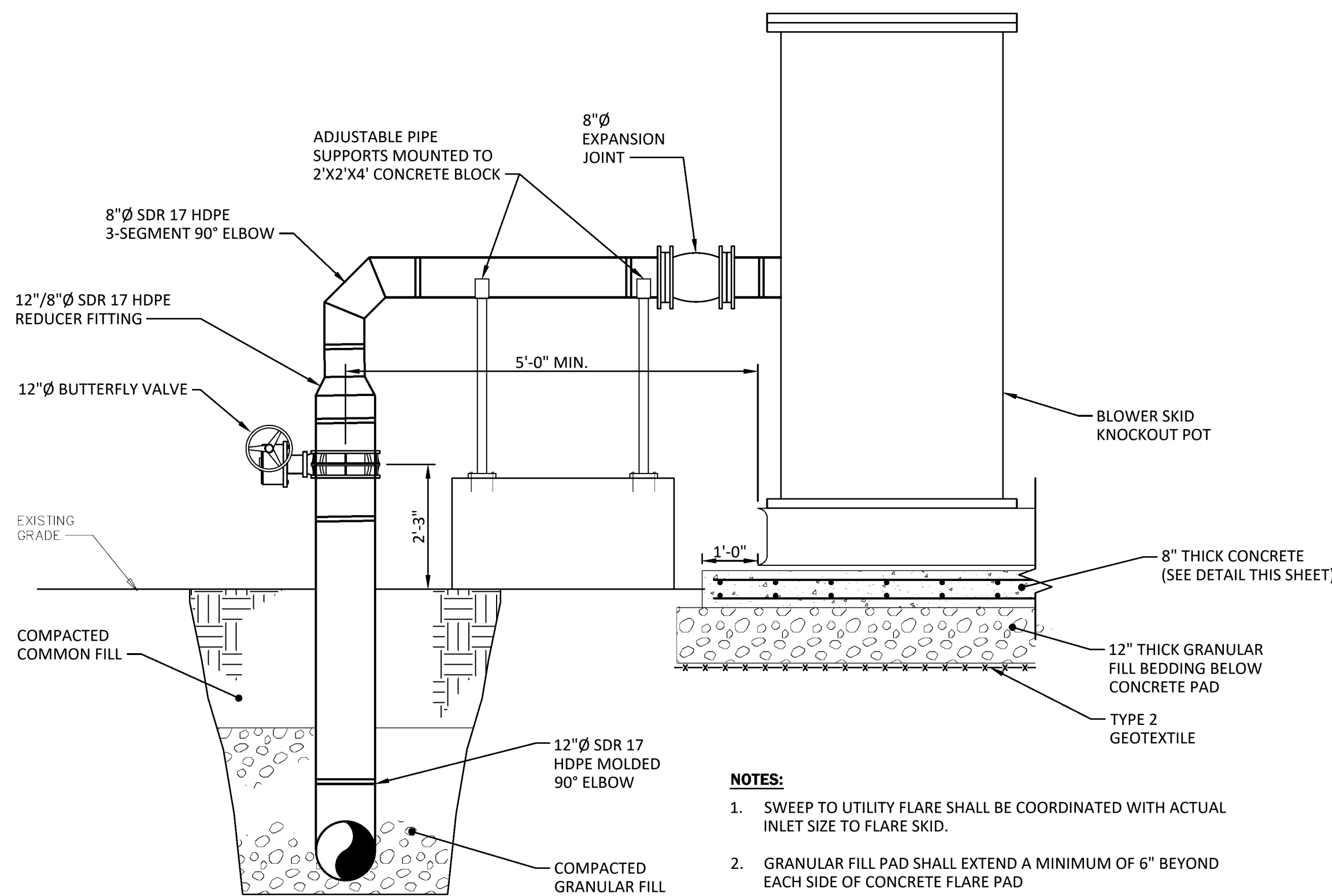
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Checked by CWH Drawn by TSC Designed by GSD In charge of CWH



**NOTE:**  
CONDENSATE KNOCKOUT TRAP SHOWN SHALL BE INSTALLED AT THE LOW END OF THE LANDFILL GAS COLLECTION AND CONTROL SYSTEM, ADJACENT TO THE EXISTING LEACHATE TANKS (SEE PLAN SHEET C400).

### 1 PROPOSED LFG HEADER TRAP DETAIL

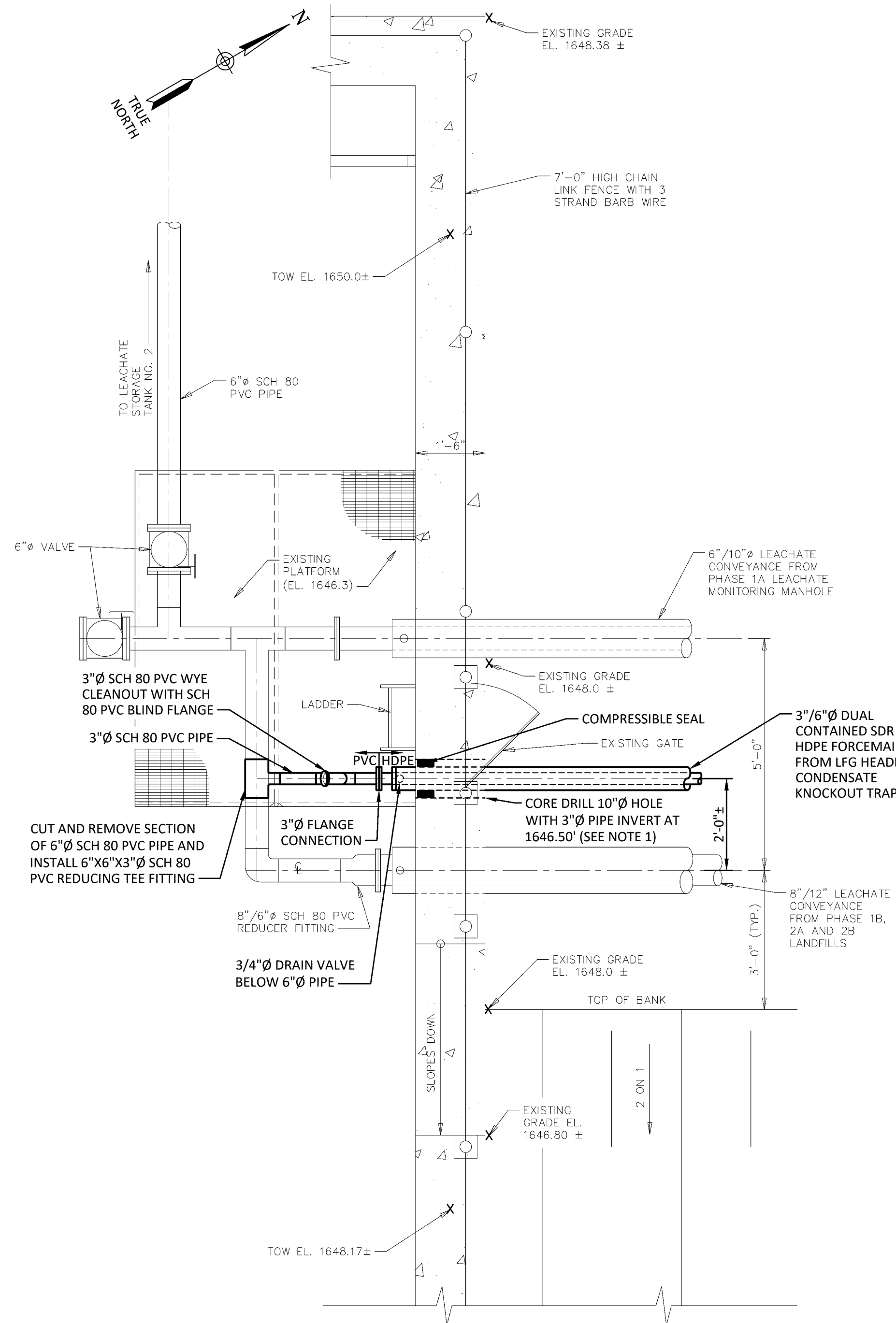
NOT TO SCALE



- NOTES:**
- SWEEP TO UTILITY FLARE SHALL BE COORDINATED WITH ACTUAL INLET SIZE TO FLARE SKID.
  - GRANULAR FILL PAD SHALL EXTEND A MINIMUM OF 6" BEYOND EACH SIDE OF CONCRETE FLARE PAD

### 2 LFG HEADER SWEEP TO FLARE CONDENSATE KNOCKOUT

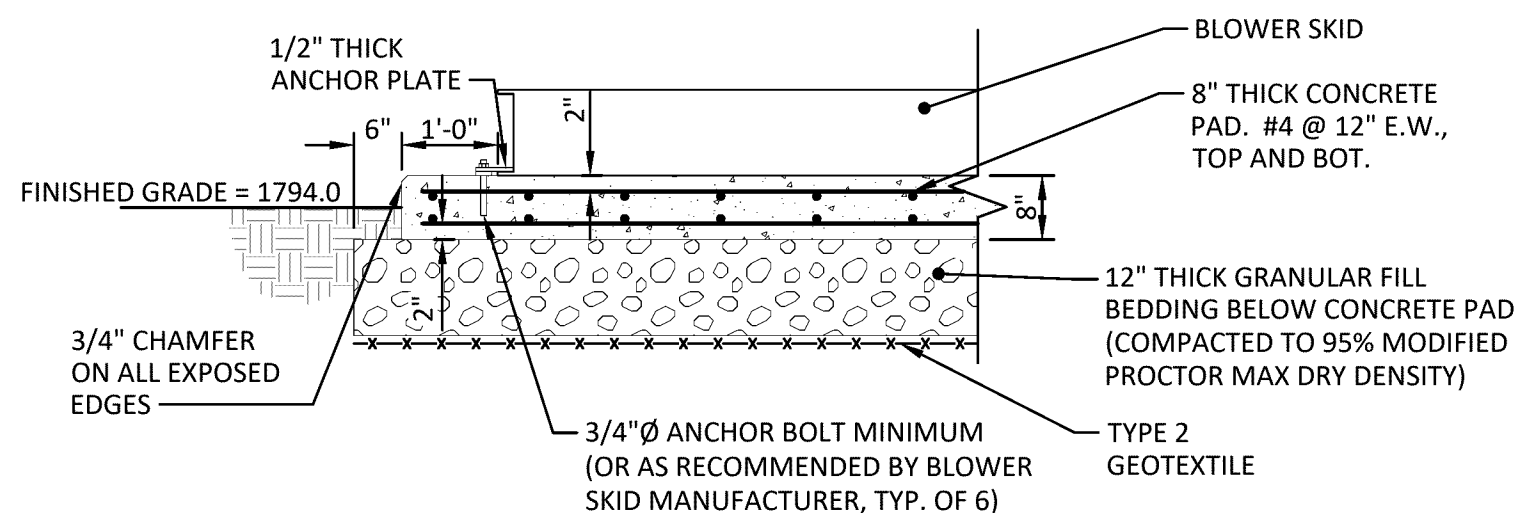
SCALE: 1/4" = 1'-0"



- NOTES:**
- COORDINATE CORE HOLE DIAMETER WITH COMPRESSIBLE SEAL DIMENSIONS AND MANUFACTURER RECOMMENDATIONS.

### PROPOSED CONDENSATE DRAIN DISCHARGE AT LEACHATE TANK NO. 1 DETAIL

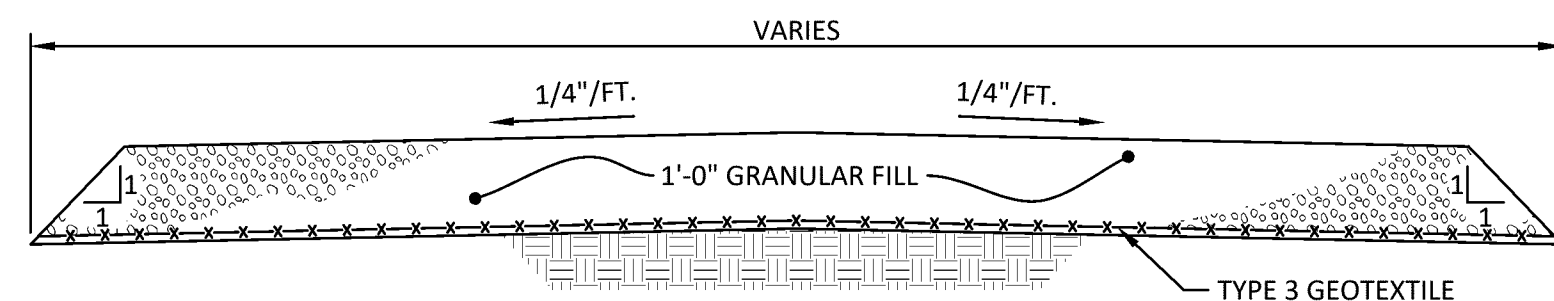
3 NOT TO SCALE



- NOTES:**
- CONCRETE SHALL BE MINIMUM 5,000 PSI WITH AIR ENTRAINMENT FOR CATEGORY 'F2' CONDITIONS PER ACI 301.
  - ALL REINFORCING STEEL BARS SHALL BE ASTM A615, GRADE 60 DEFORMED BARS.
  - ALL EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE FORMED WITH A 3/4" BY 3/4" CHAMFER.
  - CONCRETE PAD SHALL EXTEND A MINIMUM OF 1'-0" BEYOND EACH SIDE OF THE FLARE SKID.

### 4 TYPICAL BLOWER SKID CONCRETE PAD DETAIL

SCALE: 1/2" = 1'-0"



### 5 TYPICAL ACCESS ROAD

SCALE: 1/2" = 1'-0"

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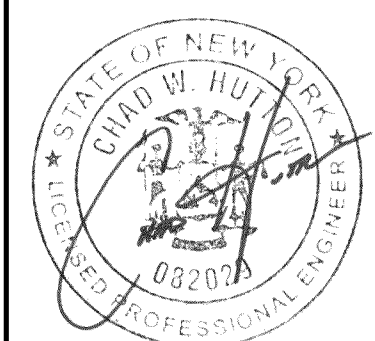
#### REVISIONS

CORTLAND COUNTY, NEW YORK

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
MISCELLANEOUS DETAILS

TOWN OF CORTLANDVILLE/SOLON/HOMER

443 Electronics Parkway  
Liverpool, NY 13088  
**B&L**  
Barton & Loguidice, D.P.C.



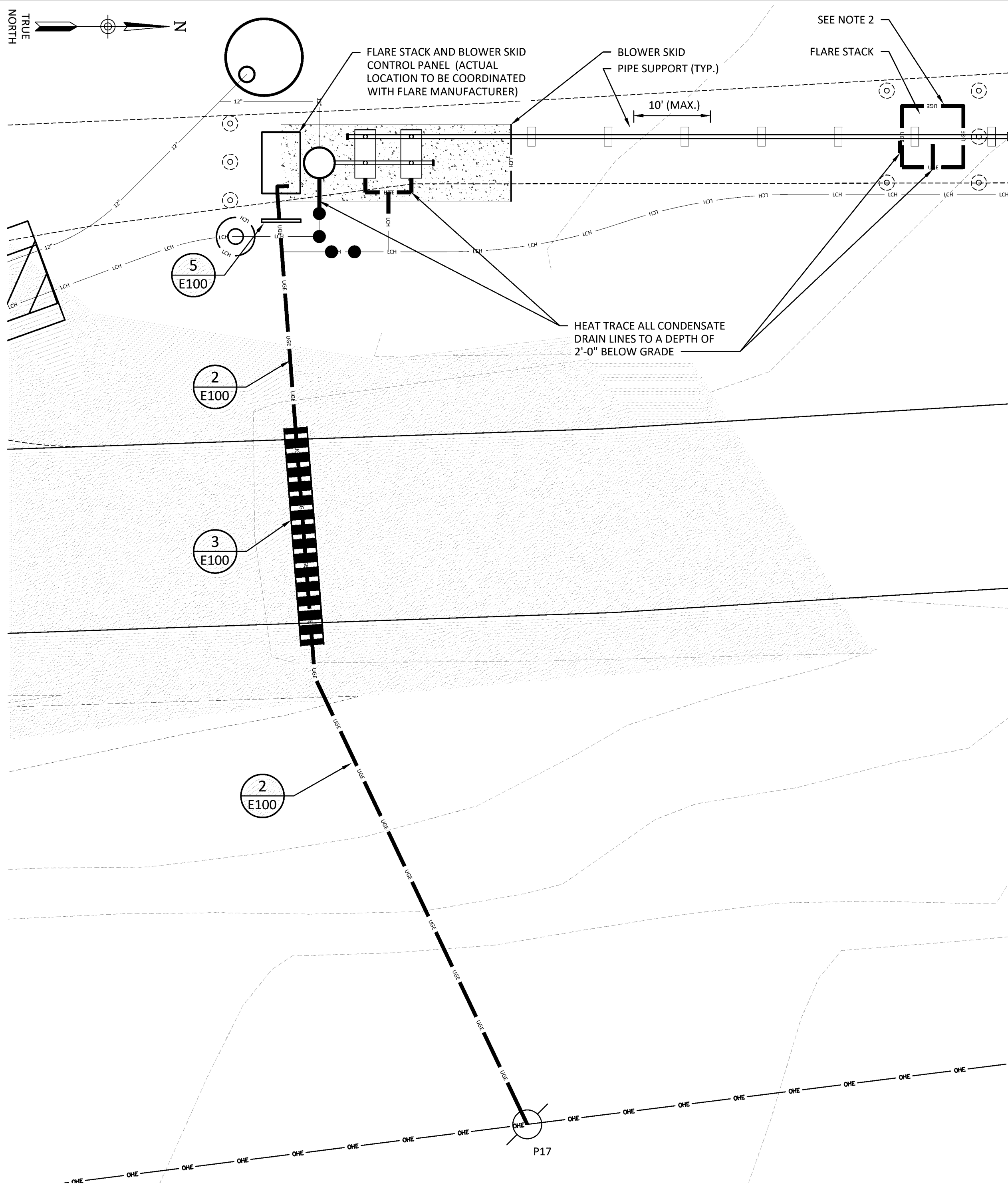
Date  
JANUARY 2023

Scale  
AS SHOWN

Sheet Number  
C506

Project Number  
331.157.001





- NOTES:**
- HEAT TRACE ALL ABOVE GROUND CONDENSATE DRAIN PIPING EXTENDING TO A DEPTH OF 2'-0" BELOW GROUND.
  - PROVIDE A #4/0 GROUND RING AT 18" BFG AROUND FLARE STACK FOUNDATION. PROVIDE (2) 3/4" X 10' COPPER GROUND RODS AT OPPOSING CORNERS. PROVIDE (2) #4/0 CU GROUND WHIPS FROM GROUND RING TO FLARE AND BOND PER MANUFACTURER'S INSTRUCTIONS.

### 1 FLARE ELECTRIC PLAN ENLARGEMENT

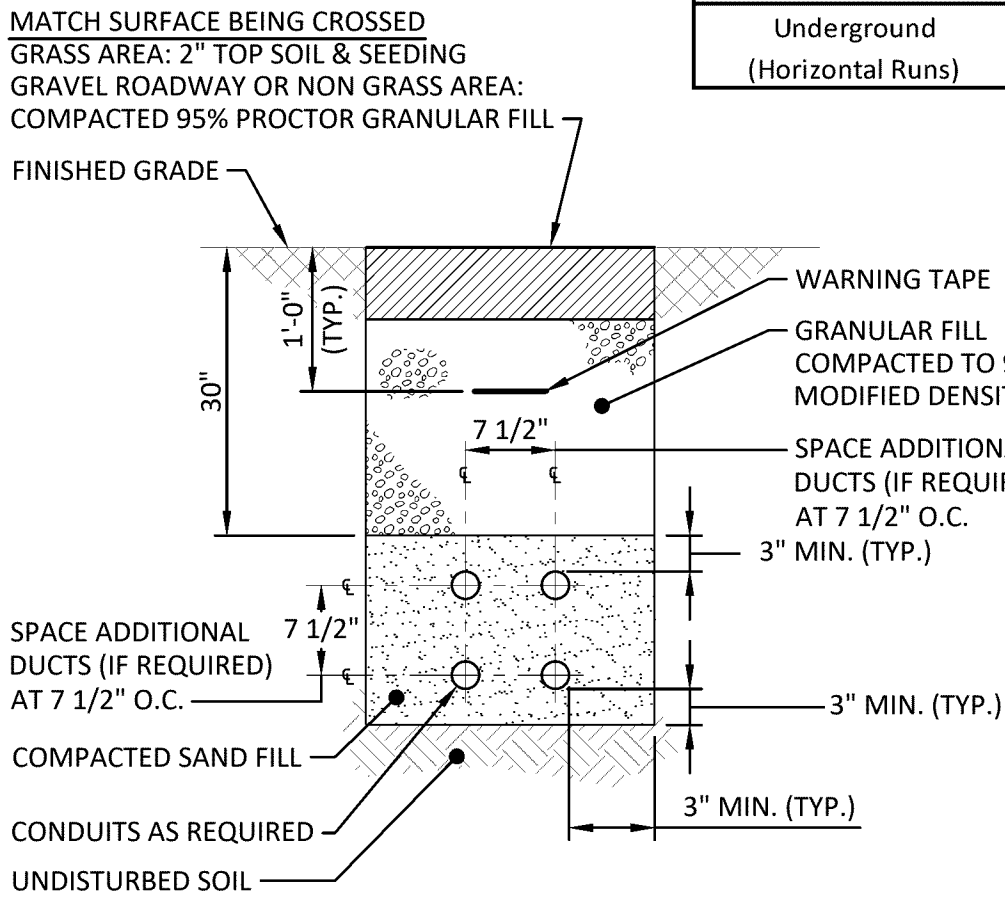
SCALE: 1" = 10'

PANEL 'RP-1'									
240/120V - 1 PHASE ELECTRICAL CHARACTERISTICS						BLOWER/FLARE BACKBOARD LOCATION			
100A MAIN BUS		60A MAIN BREAKER		18 TOTAL 1P SPACES		10 KAIC KAIC RATING		NEMA 3R ENCLOSURE	
CIRCUIT NUMBER	CIRCUIT SERVED			BREAKER		BREAKER		CIRCUIT SERVED	CIRCUIT NUMBER
				AMP	POLE	POLE	AMP		
1	RECEPTACLE CIRCUIT			20	1	1	20	HEAT TRACE - BLOWER/SKID (CLASS B GFI)	2
3	HEAT TRACE - FLARE (CLASS B GFI)			20	1	1	20	CELLULAR DIALER	4
5	SPARE BREAKER			20	1	1	20	SPARE BREAKER	6
7	SPARE BREAKER			20	1	1	20	SPARE BREAKER	8
9	SPARE BREAKER			20	1	1	20	SPARE BREAKER	10
11	BLANK							BLANK	12
13	BLANK							BLANK	14
15	BLANK							BLANK	16
17	BLANK							BLANK	18

#### GENERAL NOTES, PANEL 'PS-PP'

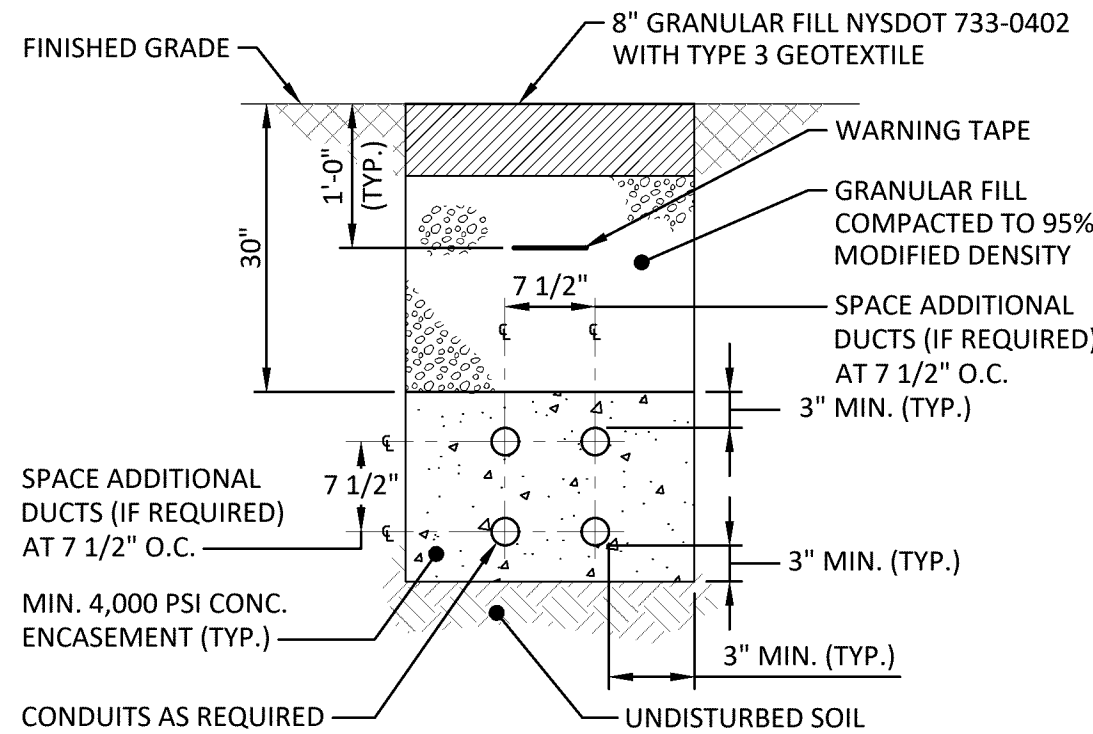
- VERIFY ALL CIRCUIT BREAKER REQUIREMENTS WITH EQUIPMENT MANUFACTURER. PROVIDE AS REQUIRED.
- PROVIDE SPARE BREAKERS AS INDICATED.
- PROVIDE TOTAL NUMBER OF 1P SPACES AS INDICATED. PROVIDE BLOCK OFF PLATES FOR ALL SPACES WHICH ARE NOT UTILIZED.
- PANEL BUS SHALL EXTEND ENTIRE PANEL LENGTH.

CONDUIT SCHEDULE		
BUILDING or AREA	AREA DESCRIPTION	CONDUIT MATERIAL
Exterior/Pad Area	Exterior exposed	RGS
	Underground Sweeps	RGS
	Risers from Underground	RGS
	Flex conduit connections	Liquid-tite
Underground (Horizontal Runs)	Direct Buried	Sched 80 PVC unless shown otherwise
	Reinforced ductbank	Type 40 PVC or EBC unless shown otherwise



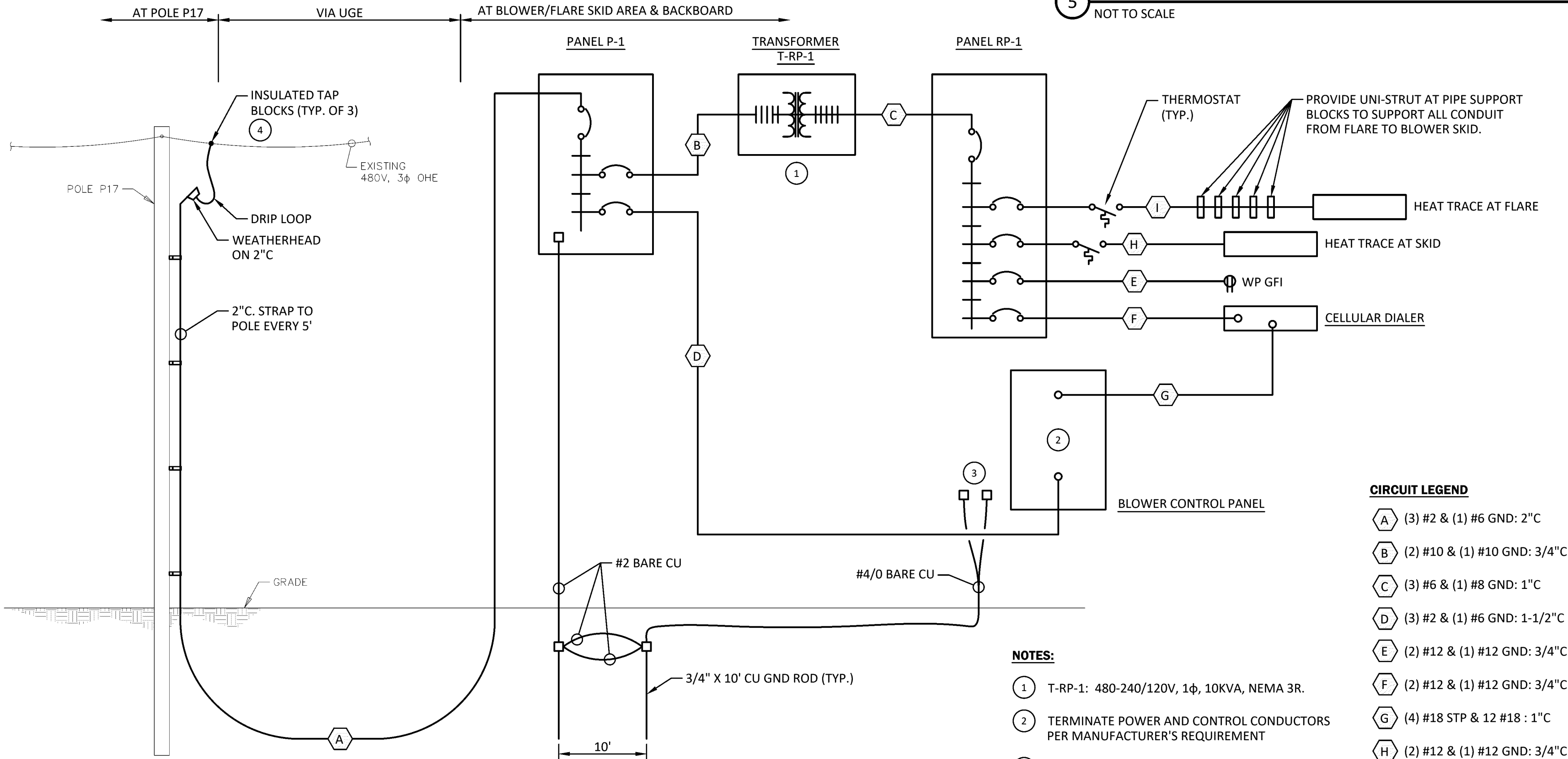
### 2 SAND FILL DUCT BANK DETAIL

NOT TO SCALE



### 3 CONCRETE DUCT BANK DETAIL

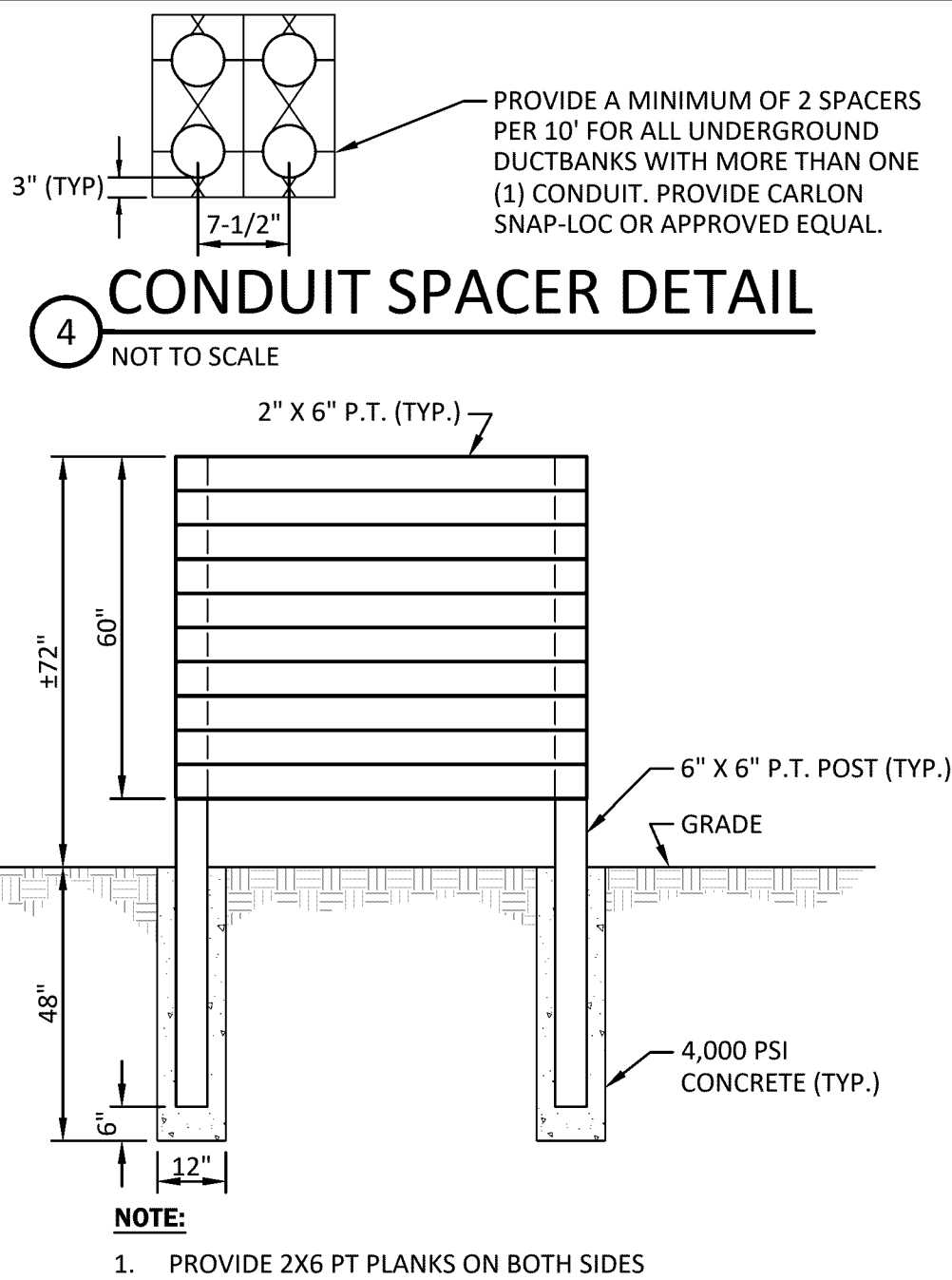
NOT TO SCALE



- NOTES:**
- T-RP-1: 480-240/120V, 1φ, 10KVA, NEMA 3R.
  - TERMINATE POWER AND CONTROL CONDUCTORS PER MANUFACTURER'S REQUIREMENT
  - BOND #4/0 BARE CU TO SKID FRAME AT TWO OPPOSING CORNERS.
  - TAP EXISTING 336 KCMIL QUAD PLEX AERIAL CABLE WITH UL LISTED WET SPLICE KITS.

#### CIRCUIT LEGEND

- (3) #2 & (1) #6 GND: 2°C
- (2) #10 & (1) #10 GND: 3/4°C
- (3) #6 & (1) #8 GND: 1°C
- (3) #2 & (1) #6 GND: 1-1/2°C
- (2) #12 & (1) #12 GND: 3/4°C
- (2) #12 & (1) #12 GND: 3/4°C
- (4) #18 STP & 12 #18: 1°C
- (2) #12 & (1) #12 GND: 3/4°C
- (2) #12 & (1) #12 GND: 3/4°C



### 5 ELECTRICAL EQUIPMENT BACKBOARD

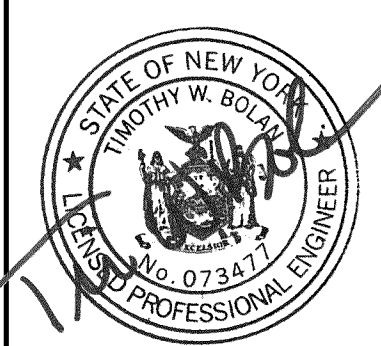
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REVISIONS

CORTLAND COUNTY HIGHWAY DEPARTMENT  
CORTLAND COUNTY LANDFILL  
LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
ELECTRICAL SITE PLAN AND DETAILS

4443 Electronics Parkway  
Liverpool, NY 13088  
Barton & Loguidice, D.P.C.



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