

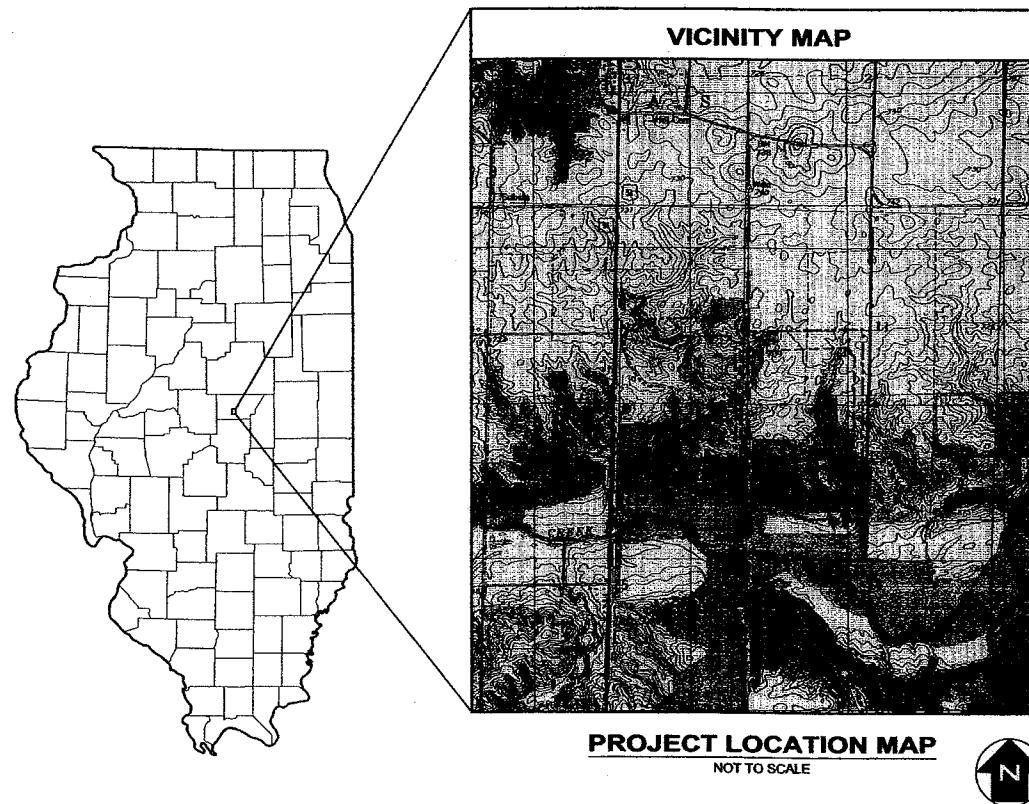
US EPA ARCHIVE DOCUMENT

CLINTON LANDFILL NO. 3

PERMIT APPLICATION FOR A CHEMICAL WASTE UNIT

LEGEND	
SYMBOL	DESCRIPTION
-----	APPROXIMATE CLINTON LANDFILL NO.3 FACILITY BOUNDARY
-----	APPROXIMATE CLINTON LANDFILL NO.3 WASTE BOUNDARY

GENERAL NOTES	
1.	EXISTING TOPOGRAPHY BASED ON AERIAL PHOTOGRAMMETRY BY WALKER AND ASSOCIATES, ST. LOUIS, MISSOURI (MARCH 30, 1999 PHOTOGRAPHY DATE)
2.	VERTICAL AND HORIZONTAL CONTROL BASED ON "CUJ NORTHWEST MONUMENT" AND "CUJ NORTHEAST MONUMENT." THESE MONUMENTS CONSIST OF IRON PINS SET IN CONCRETE.
3.	FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
4.	DRAWINGS ARE FOR PERMITTING USE ONLY AND ARE NOT FOR CONSTRUCTION.



DRAWING INDEX	
SHEET NUMBER	SHEET TITLE
D1	TITLE SHEET
D2	REGIONAL SITE LOCATION
D3	EXISTING SITE TOPOGRAPHY
D4	PROPOSED MASS EXCAVATION GRADES
D5	PROPOSED MASS LINER GRADES
D6	PROPOSED LEACHATE COLLECTION GRADES
D7	LINER AND LEACHATE COLLECTION SYSTEM DETAILS - 1
D8	LINER AND LEACHATE COLLECTION SYSTEM DETAILS - 2
D9	CHEMICAL WASTE UNIT / MSW SEPARATION BERM
D10	LEACHATE STORAGE / LOAD OUT FACILITY PLAN
D11	TOP OF WASTE - CHEMICAL WASTE UNIT
D12	TOP OF WASTE GRADES - CHEMICAL WASTE AND MSW UNITS
D13	PROPOSED FINAL LANDFORM - CHEMICAL WASTE AND MSW UNITS
D14	COVER/MONITORING DETAILS
D15	STORMWATER MANAGEMENT SYSTEM - INTERIM CONDITIONS
D16	STORMWATER MANAGEMENT SYSTEM - CLOSED CONDITIONS
D17	TYPICAL STORMWATER MANAGEMENT SECTIONS AND DETAILS - 1
D18	TYPICAL STORMWATER MANAGEMENT SECTIONS AND DETAILS - 2
D19	TYPICAL EROSION CONTROL DETAILS
D20	CROSS SECTION A-A' (SOUTH - NORTH)
D21	CROSS SECTION B-B' (WEST - EAST)
D22	CHEMICAL WASTE UNIT - INITIAL DEVELOPMENT



Clinton Landfill, Inc.



Shaw® Shaw Environmental, Inc.
STATE OF ILLINOIS LICENSED DESIGN FIRM
#184004093



Devin A. Moose, P.E., DEE
LICENSE NUMBER 062-044472

10/5/07
DATE

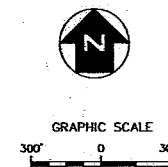
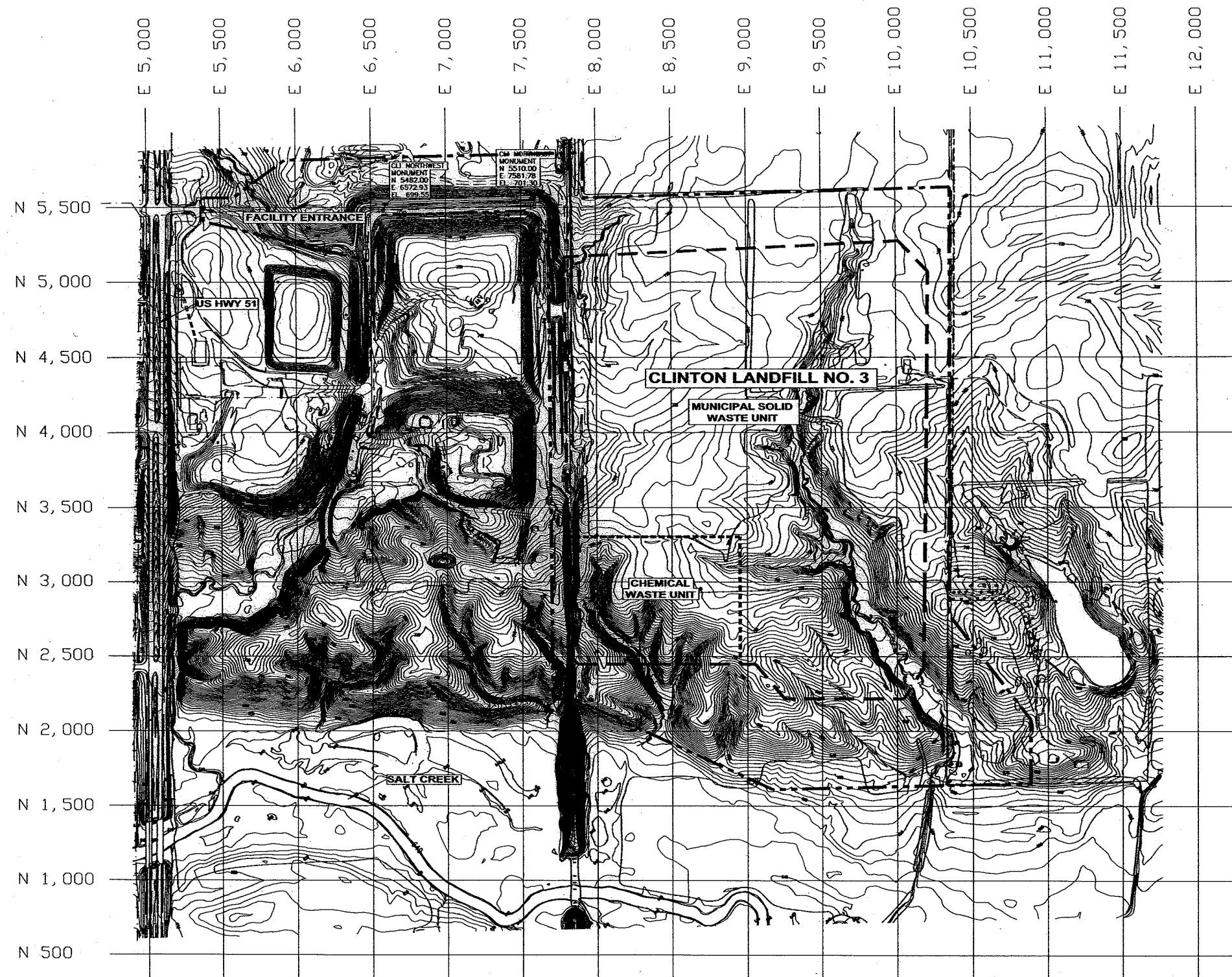
DATE: OCTOBER 2007

PROJ. NO.: 128017

DRAWING NO.

D1

1 OF 22 SHEETS



LEGEND

- APPROXIMATE CLINTON LANDFILL NO.3 FACILITY BOUNDARY
- APPROXIMATE EXISTING PERMITTED CLINTON LANDFILL NO.3 WASTE BOUNDARY
- APPROXIMATE CHEMICAL WASTE UNIT BOUNDARY
- SURVEY MONUMENTS

NOTES

1. EXISTING TOPOGRAPHY BASED ON AERIAL PHOTOGRAMMETRY BY WALKER AND ASSOCIATES, ST. LOUIS, MISSOURI (MARCH 30, 1999 PHOTOGRAPHY DATE)
2. VERTICAL AND HORIZONTAL CONTROL BASED ON "CLI NORTHWEST MONUMENT" AND "CLI NORTHEAST MONUMENT" SHOWN ON THIS DRAWING. THESE MONUMENTS CONSIST OF IRON PINS SET IN CONCRETE.
3. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
4. CURRENT TOPOGRAPHY MAY DIFFER FROM THAT SHOWN.
5. THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
6. THE ACREAGE OF THE WASTE FOOTPRINT FOR CLINTON LANDFILL NO. 3 IS APPROXIMATELY 157.45 ACRES. THE ACREAGE FOR THE CHEMICAL WASTE UNIT IS APPROXIMATELY 22.495 ACRES.

T:\KutCAD\Projects\128017.dwg\USEPA\Design\Topo\03.dwg 10/2/2007 6:05:46 PM CDT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.

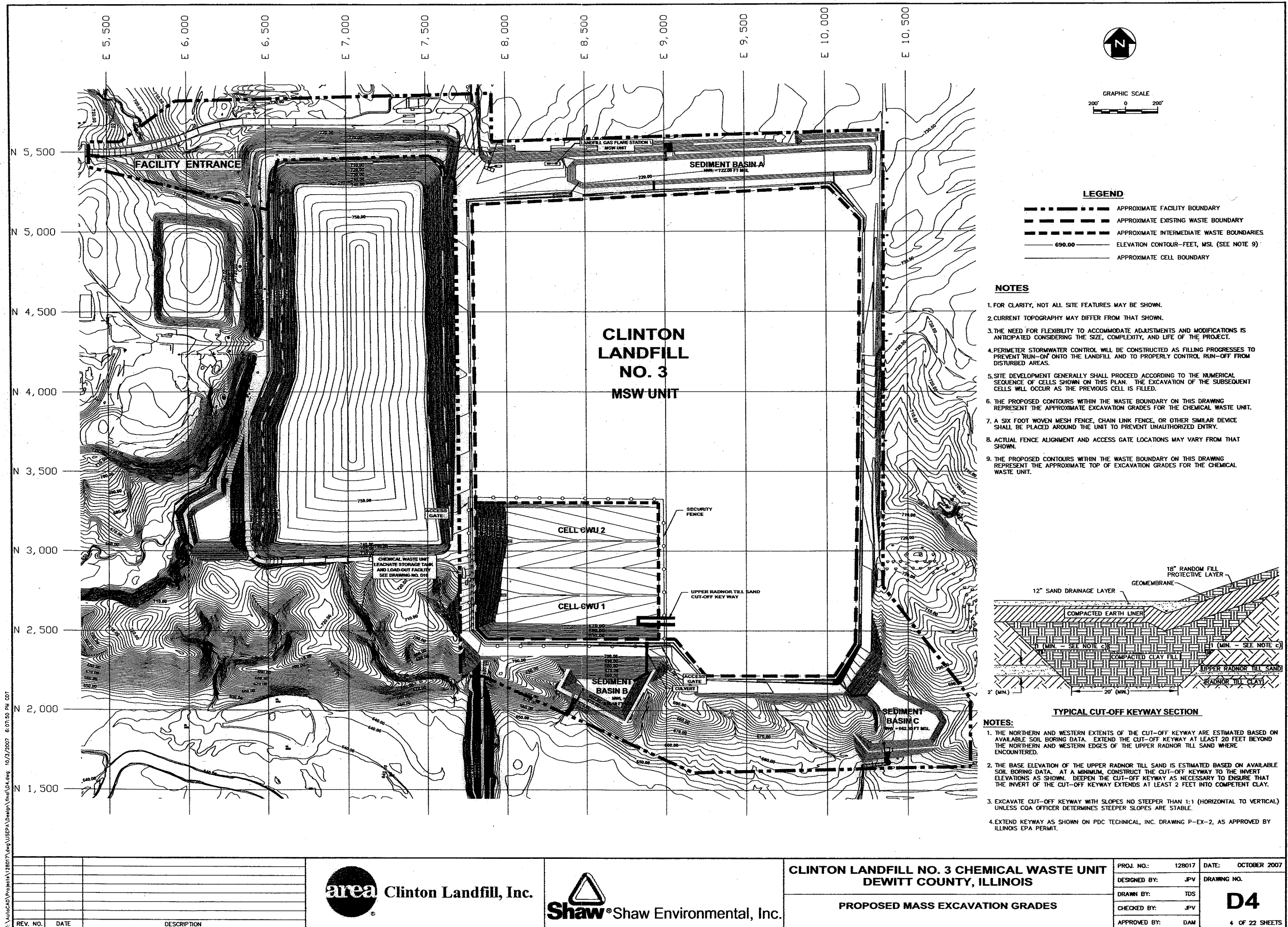


Shaw Environmental, Inc.

**CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS**

EXISTING SITE TOPOGRAPHY

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	EJD	DRAWING NO.	D3
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		
			3 OF 22 SHEETS



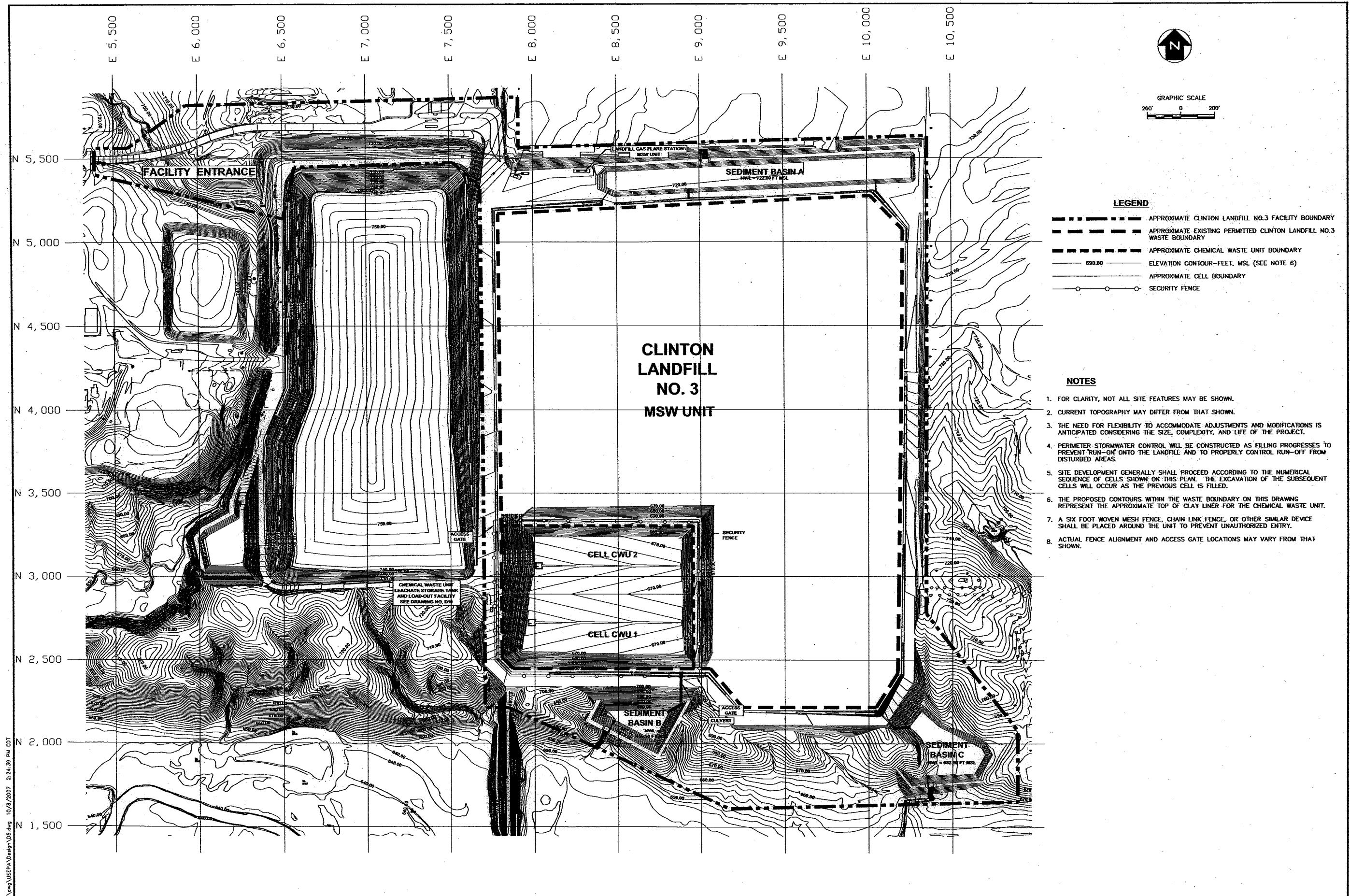
T:\Utilities\Projects\128017\dwg\USEPA\Design\Final\04.dwg 10/3/2007 6:07:50 PM GJT

REV. NO.	DATE	DESCRIPTION



CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT DEWITT COUNTY, ILLINOIS
PROPOSED MASS EXCAVATION GRADES

PROJ. NO.: 128017	DATE: OCTOBER 2007
DESIGNED BY: JPV	DRAWING NO.
DRAWN BY: TDS	D4
CHECKED BY: JPV	4 OF 22 SHEETS
APPROVED BY: DAM	



T:\AutoCAD\Projects\178017.dwg\USEPA Design\05.dwg 10/8/2007 2:24:39 PM GBT

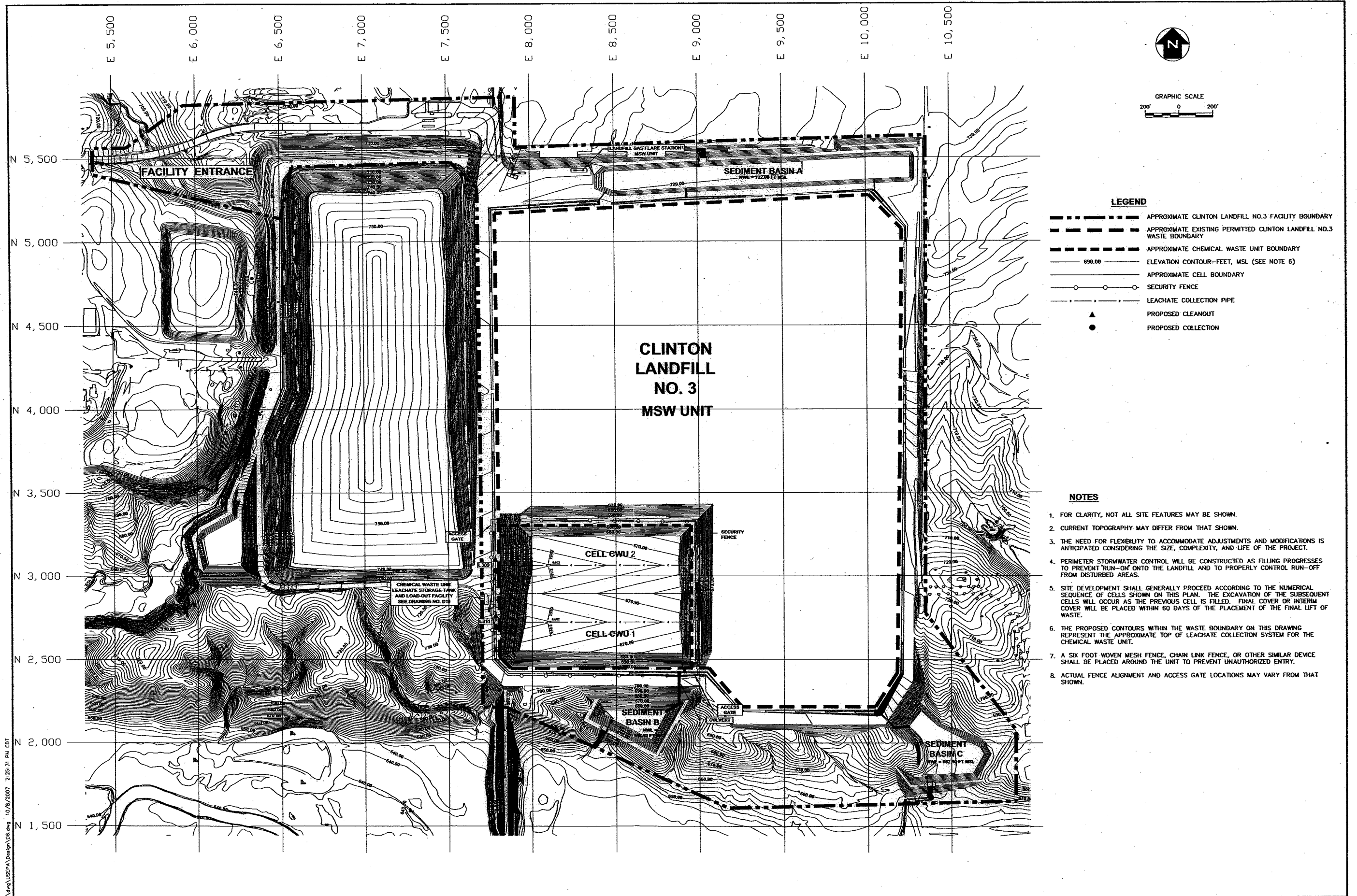
REV. NO.	DATE	DESCRIPTION



**CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS**

PROPOSED MASS LINER GRADES

PROJ. NO.: 128017	DATE: OCTOBER 2007
DESIGNED BY: JPV	DRAWING NO.
DRAWN BY: TDS	D5
CHECKED BY: JPV	5 OF 22 SHEETS
APPROVED BY: DAM	



T:\AutoCAD\Projects\128017\dwg\USEPA\Design\06.dwg 10/9/2007 2:25:31 PM D1

REV. NO.	DATE	DESCRIPTION



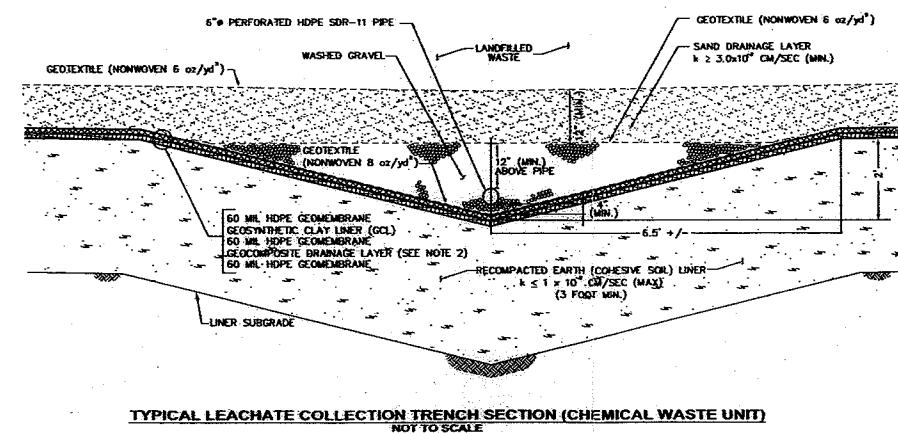
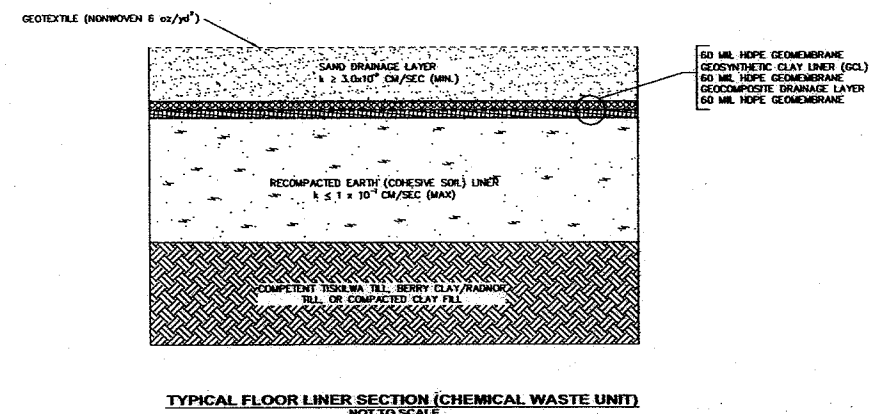
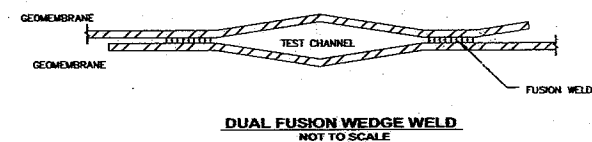
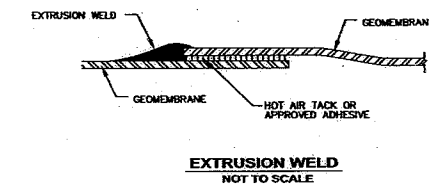
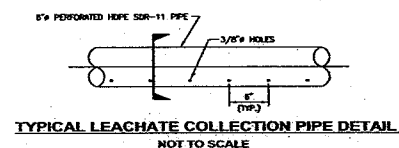
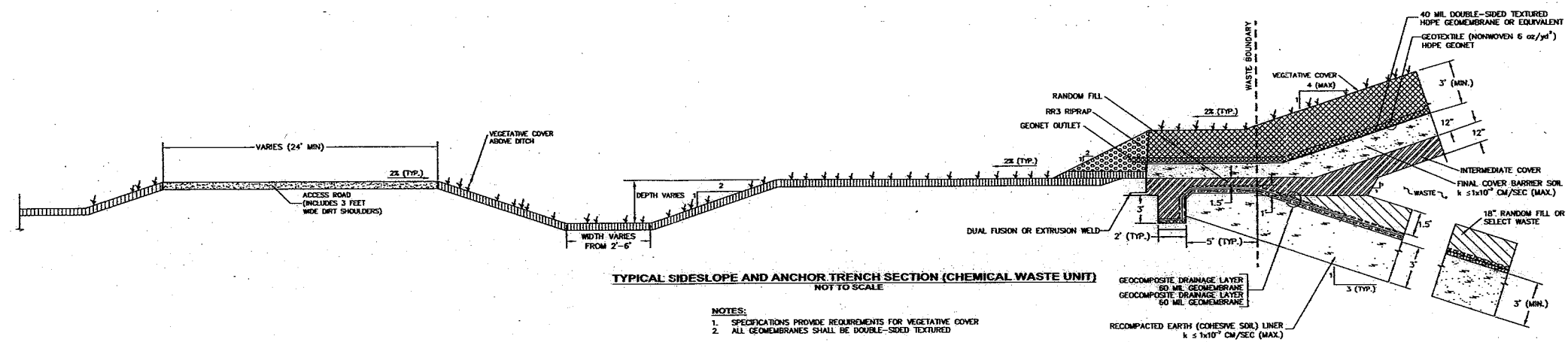
Clinton Landfill, Inc.



Shaw Environmental, Inc.

CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS
PROPOSED LEACHATE COLLECTION GRADES

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.	D6
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

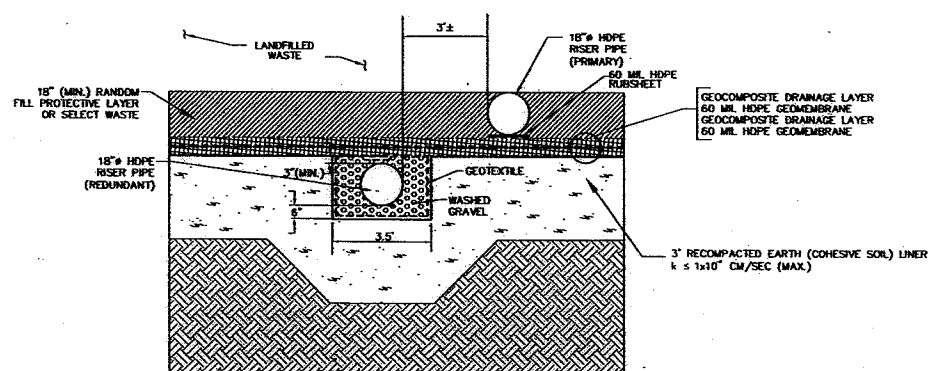
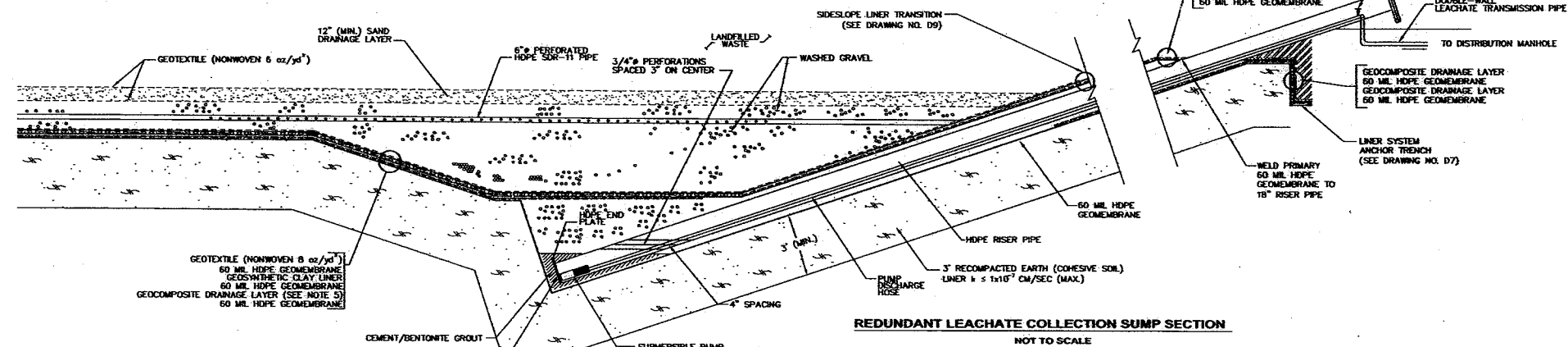
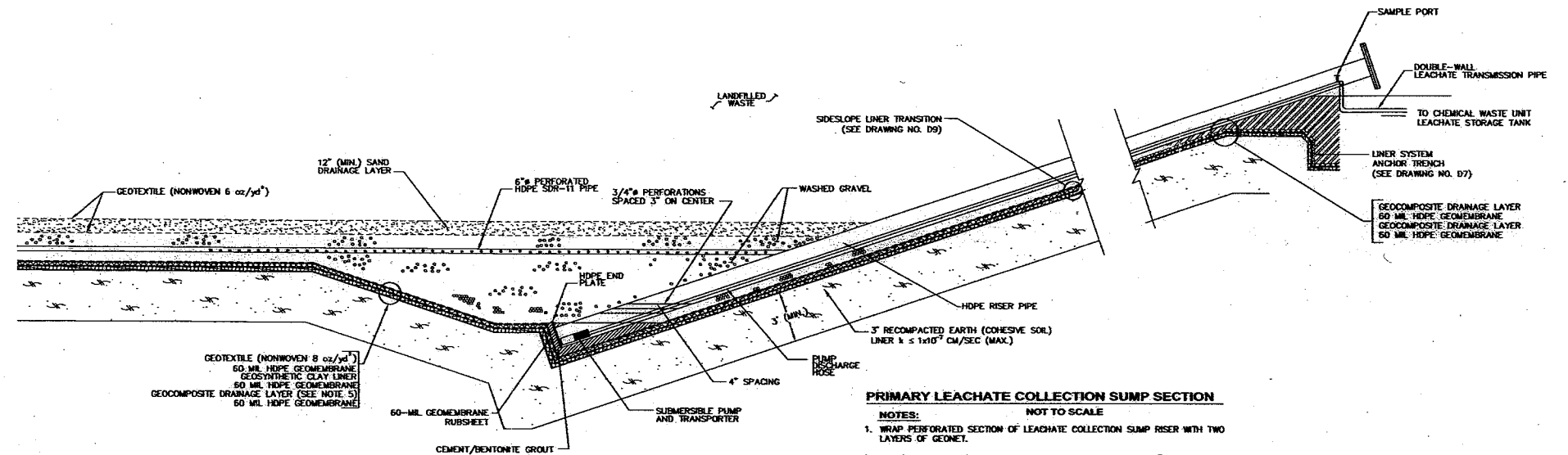
[illegible]**Clinton Landfill, Inc.**

Shaw® Shaw Environmental, Inc.

**CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS**

LINER AND LEACHATE COLLECTION SYSTEM DETAILS - 1

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	TDS	DRAWING NO.	<div style="font-size: 2em; font-weight: bold; text-align: center;">D7</div> <div style="text-align: center;">7 OF 22 SHEETS</div>
DRAWN BY:	PEL		
CHECKED BY:	JPV		
APPROVED BY:	DAM		



I:\AutoCAD\Projects\128017\128017.dwg 10/8/2007 2:27:00 PM CDT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.



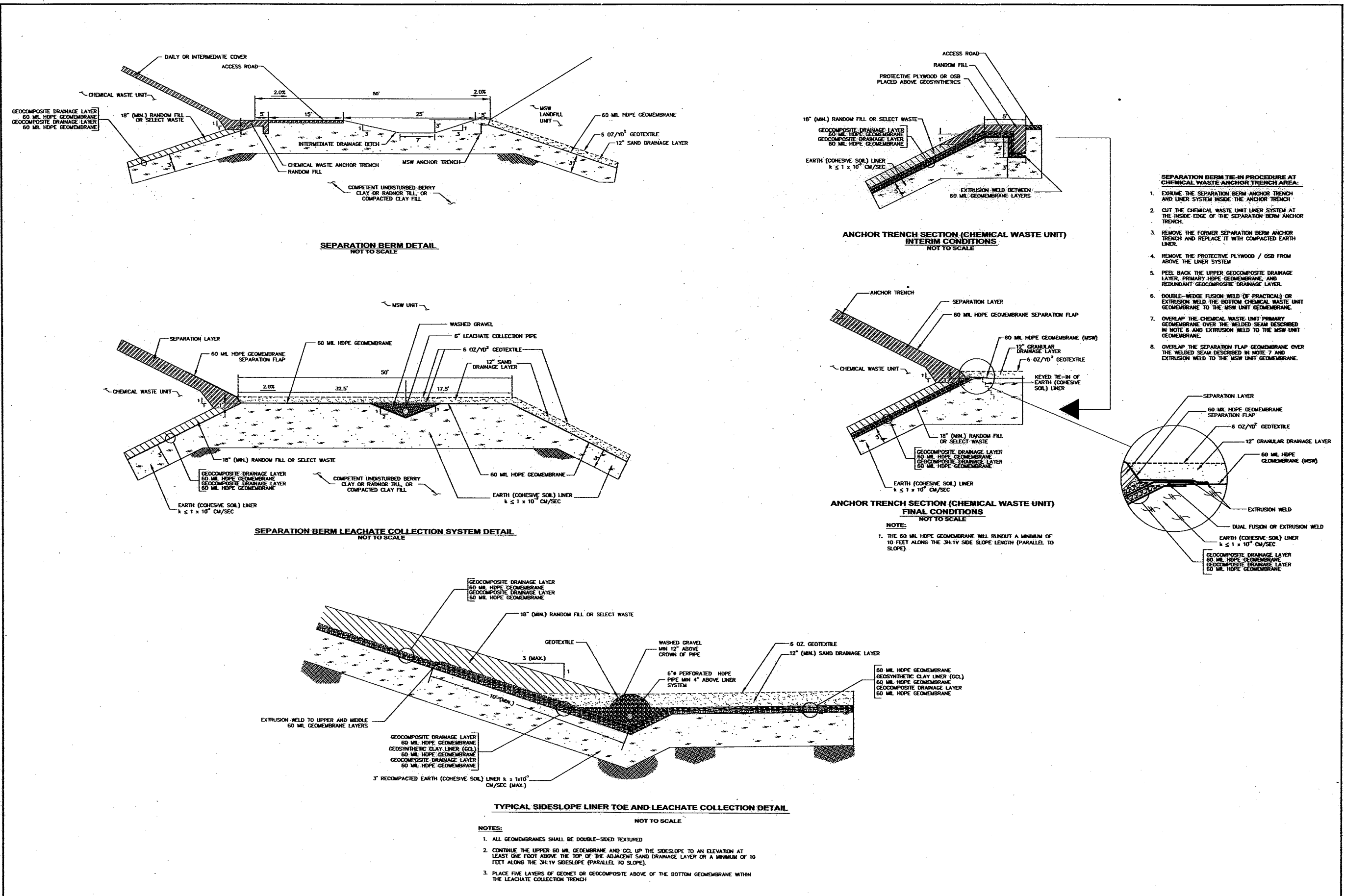
Shaw Environmental, Inc.

**CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS**

LINER/ LEACHATE COLLECTION SYSTEM DETAILS - 2

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.:	D8
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

8 OF 22 SHEETS



- SEPARATION BERM TIE-IN PROCEDURE AT CHEMICAL WASTE ANCHOR TRENCH AREA:**
1. EXHUME THE SEPARATION BERM ANCHOR TRENCH AND LINER SYSTEM INSIDE THE ANCHOR TRENCH
 2. CUT THE CHEMICAL WASTE UNIT LINER SYSTEM AT THE INSIDE EDGE OF THE SEPARATION BERM ANCHOR TRENCH
 3. REMOVE THE FORMER SEPARATION BERM ANCHOR TRENCH AND REPLACE IT WITH COMPACTED EARTH LINER
 4. REMOVE THE PROTECTIVE PLYWOOD / OSB FROM ABOVE THE LINER SYSTEM
 5. PEEL BACK THE UPPER GEOCOMPOSITE DRAINAGE LAYER, PRIMARY HDPE GEOMEMBRANE, AND REDUNDANT GEOCOMPOSITE DRAINAGE LAYER
 6. DOUBLE-WEDGE FUSION WELD (IF PRACTICAL) OR EXTRUSION WELD THE BOTTOM CHEMICAL WASTE UNIT GEOMEMBRANE TO THE MSW UNIT GEOMEMBRANE
 7. OVERLAP THE CHEMICAL WASTE UNIT PRIMARY GEOMEMBRANE OVER THE WELDED SEAM DESCRIBED IN NOTE 6 AND EXTRUSION WELD TO THE MSW UNIT GEOMEMBRANE
 8. OVERLAP THE SEPARATION FLAP GEOMEMBRANE OVER THE WELDED SEAM DESCRIBED IN NOTE 7 AND EXTRUSION WELD TO THE MSW UNIT GEOMEMBRANE

T:\Missouri\Projects\128017\DWG\USEPA Design\08.dwg 10/6/2007 2:28:00 PM CDT

REV. NO.	DATE	DESCRIPTION



area

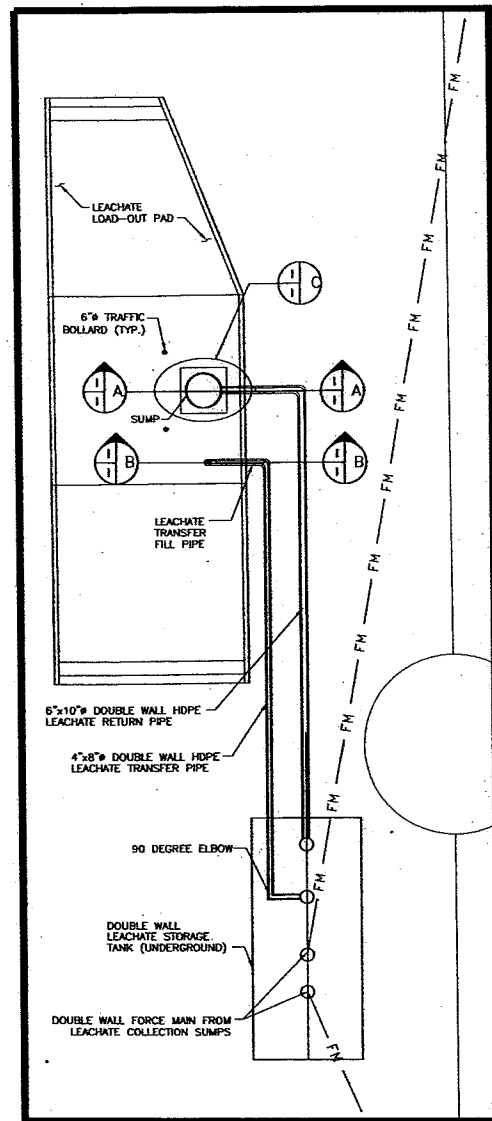
Clinton Landfill, Inc.



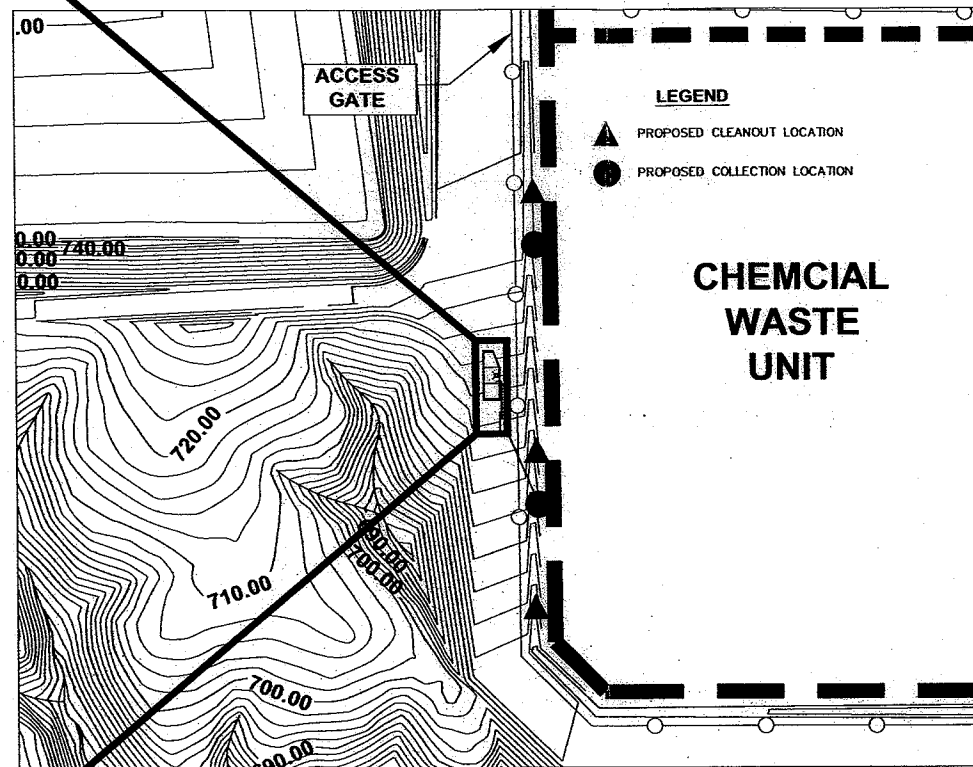
Shaw

Shaw Environmental, Inc.

CLINTON LANDFILL NO. 3 \ CHEMICAL WASTE UNIT		PROJ. NO.: 128017	DATE: OCTOBER 2007
DEWITT COUNTY, ILLINOIS		DESIGNED BY: TDS	DRAWING NO.
CHEMICAL WASTE UNIT / MSW SEPARATION BERM		DRAWN BY: PEL	D9
		CHECKED BY: JPV	9 OF 22 SHEETS
		APPROVED BY: DAM	

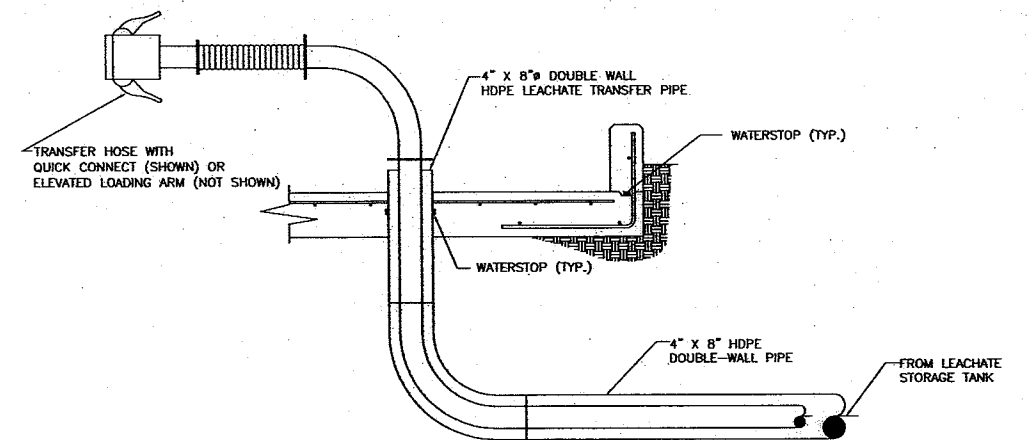


PLAN VIEW - CLOSE UP
NOT TO SCALE

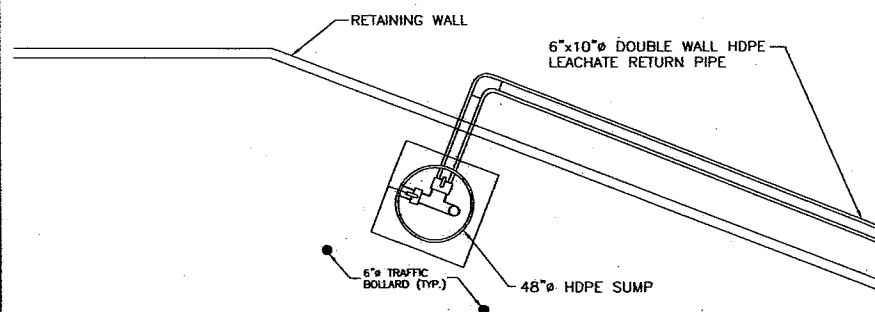


PLAN VIEW
NOT TO SCALE

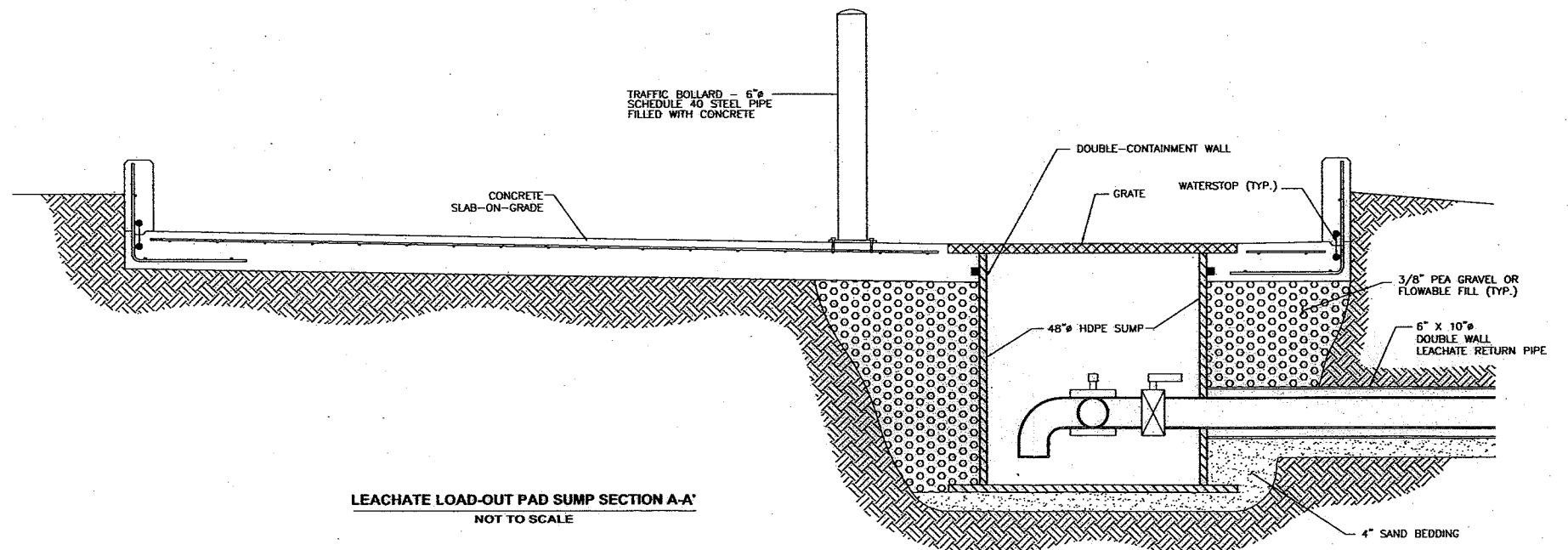
- NOTES
1. DETAILS SHOWN ON THIS DRAWING ARE PRELIMINARY AND ARE SUBJECT TO REVISION.
 2. LEACHATE LOAD OUT PAD WILL BE CONSTRUCTED ON A LEVEL GRADE.



LEACHATE TRANSFER PIPE STUB SECTION B-B
NOT TO SCALE



LEACHATE LOAD-OUT DETAIL C
NOT TO SCALE



LEACHATE LOAD-OUT PAD SUMP SECTION A-A
NOT TO SCALE

T:\AutoCAD\Projects\128017.dwg\128017.dwg 10/26/2007 2:28:46 PM CDT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.



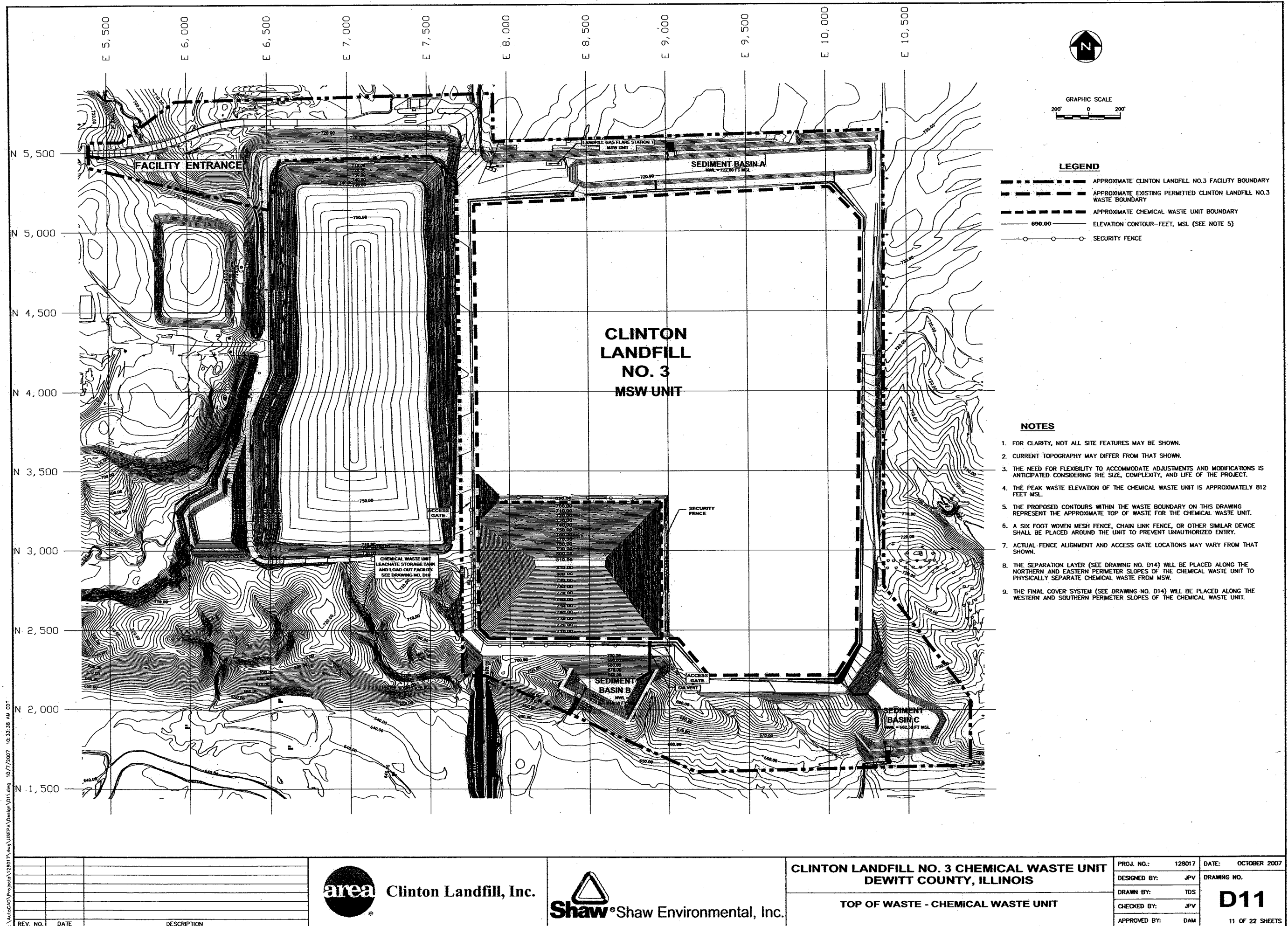
Shaw® Shaw Environmental, Inc.

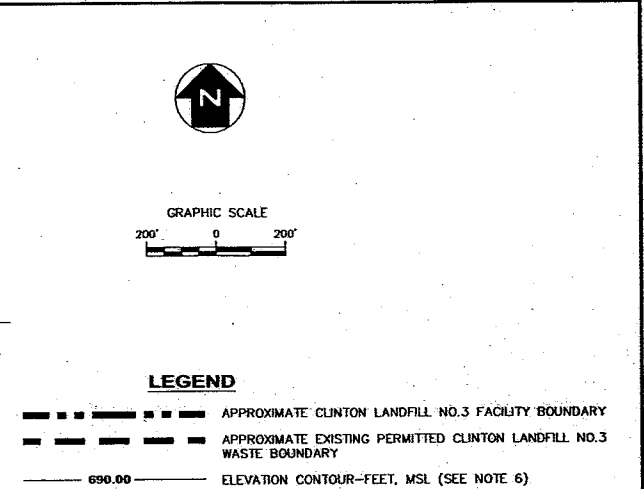
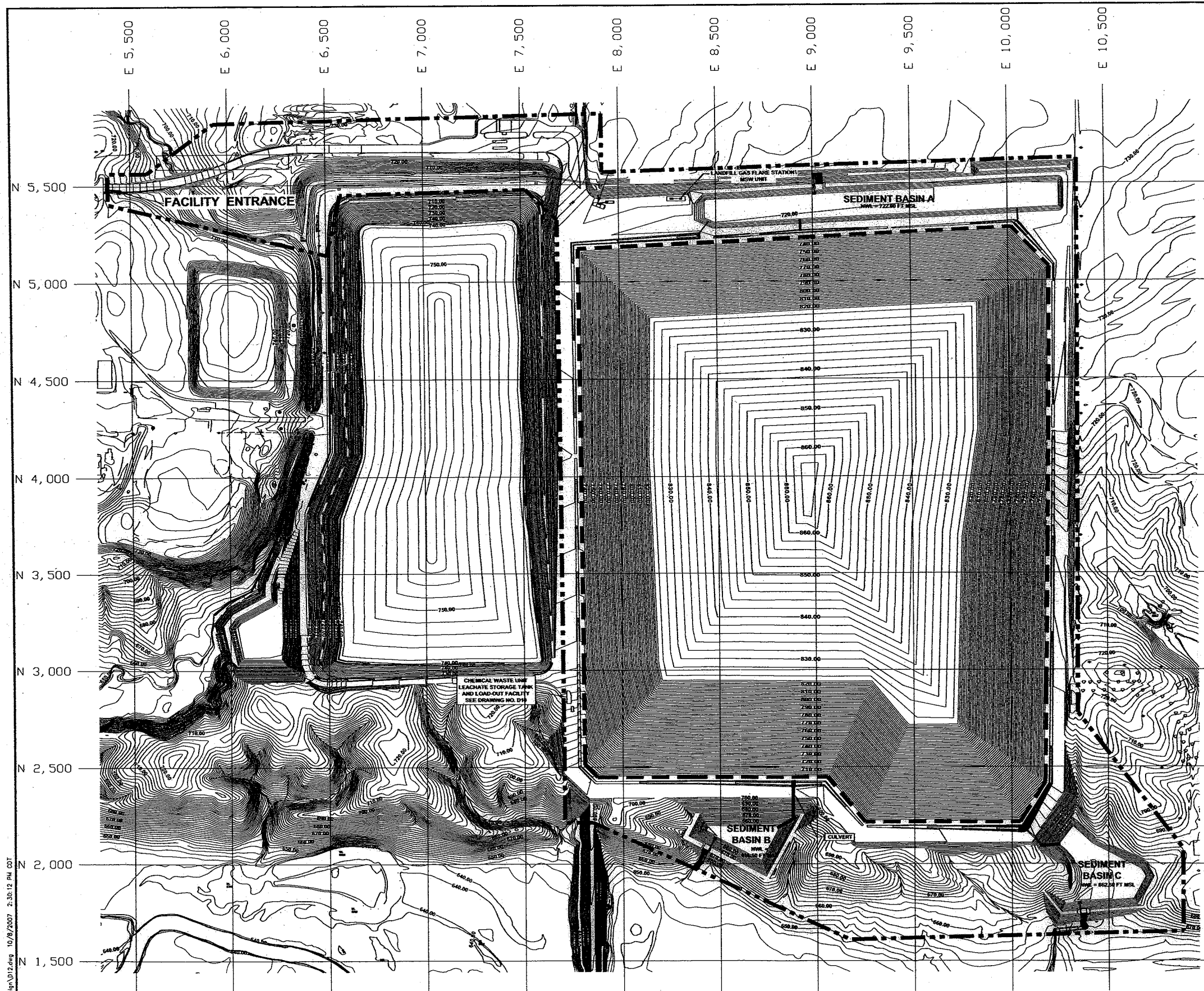
CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

LEACHATE LOAD-OUT PAD

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.	D10
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

10 OF 22 SHEETS





- NOTES**
- WASTE GRADES DEVELOPED FROM DRAWING NO. P-FG4, DATED 6/7/06, FROM IEPA SIGNIFICANT MODIFICATION PERMIT APPLICATION LOG NO. 2005-070.
 - FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
 - CURRENT TOPOGRAPHY MAY DIFFER FROM THAT SHOWN.
 - THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
 - THE PEAK ELEVATION OF THE TOP OF WASTE IS APPROXIMATELY 865 FEET MSL.
 - THE PROPOSED CONTOURS WITHIN THE WASTE BOUNDARY ON THIS DRAWING REPRESENT THE APPROXIMATE TOP OF WASTE GRADES FOR THE CHEMICAL WASTE AND MUNICIPAL SOLID WASTE UNITS.

T:\AutoCAD\Projects\128017\128017.dwg 10/9/2007 2:30:12 PM CDT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.

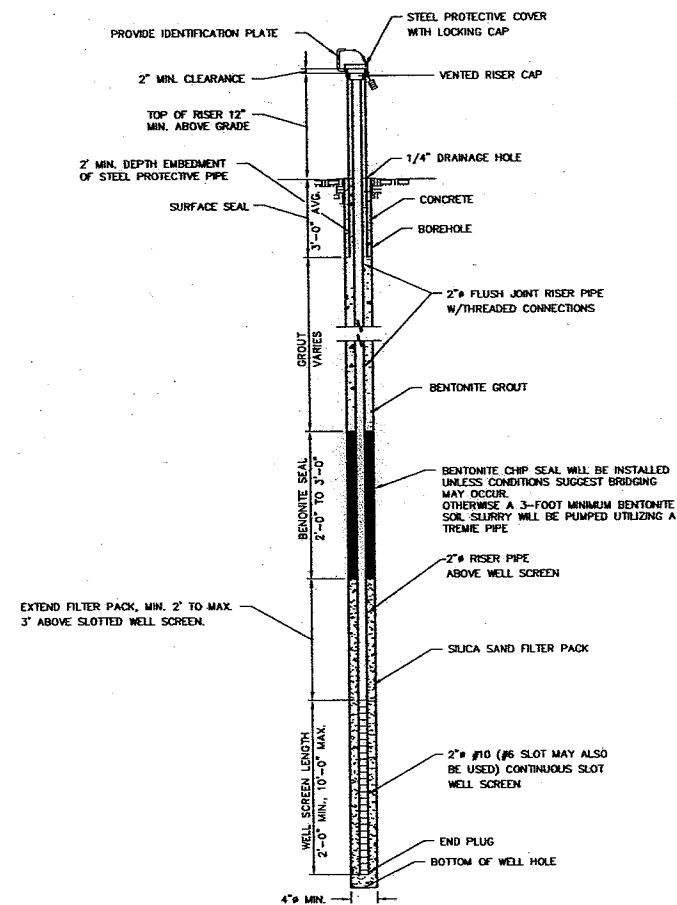


Shaw Environmental, Inc.

**CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS**

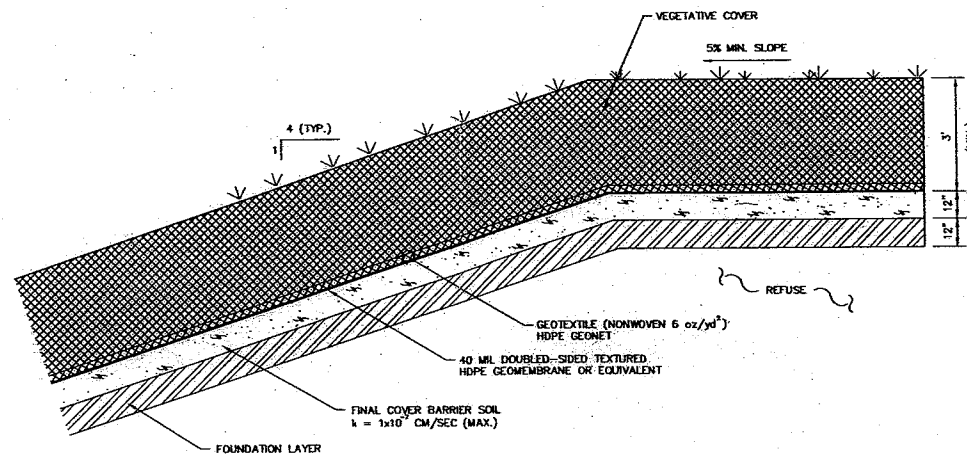
TOP OF WASTE GRADES - CHEMICAL WASTE AND MSW UNITS

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.:	D12
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		
			12 OF 22 SHEETS



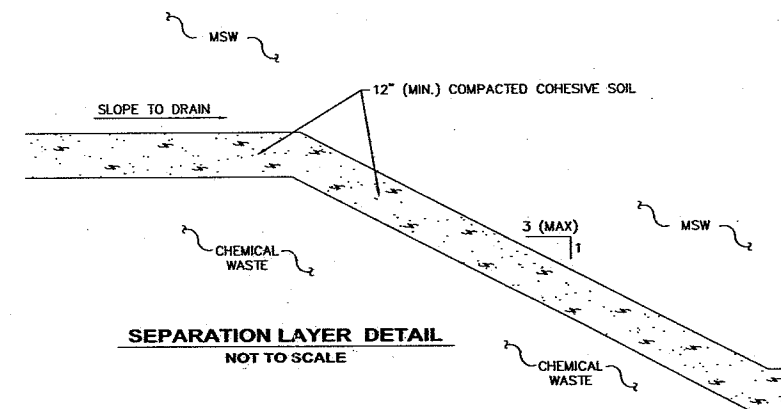
TYPICAL MONITORING WELL
NOT TO SCALE

- NOTE:**
1. WELL CONSTRUCTION MAY CHANGE DEPENDING ON TECHNOLOGY CHANGES AND MODIFICATIONS IN REGULATIONS.



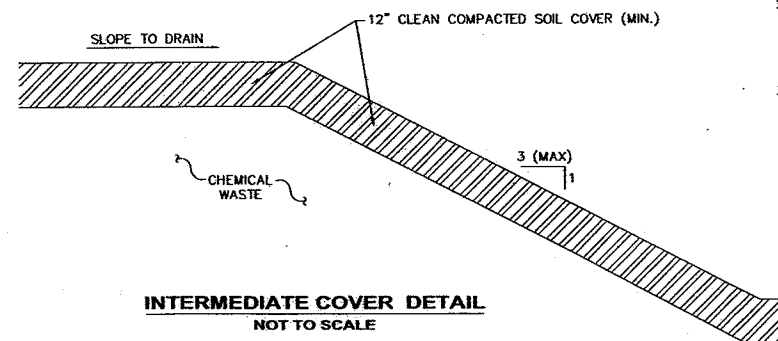
FINAL COVER DETAIL
NOT TO SCALE

- NOTES:**
1. GEONET DRAINAGE LAYER WILL DRAIN TO STORMWATER MANAGEMENT SYSTEM AS SHOWN ON DRAWING NO. D7.
 2. MINIMUM 3" VEGETATIVE COVER THICKNESS MAY BE INCREASED AS A RESULT OF LANDSCAPING AND CONTOURING OF THE FINAL LANDFORM.
 3. THE UPPER 6 INCHES OF SOIL SHALL BE SUITABLE FOR GROWTH OF VEGETATION.



SEPARATION LAYER DETAIL
NOT TO SCALE

- NOTES:**
1. THE SEPARATION LAYER SHALL BE PLACED TO PHYSICALLY SEPARATE WASTES PLACED IN THE MSW UNIT FROM WASTES PLACED IN THE CHEMICAL WASTE UNIT.
 2. THE SEPARATION LAYER SHALL CONSIST OF COHESIVE SOIL THAT IS PLACED AND COMPACTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR LEACHATE FROM MIGRATING INTO THE CHEMICAL WASTE UNIT FROM THE MUNICIPAL SOLID WASTE UNIT AND TO PREVENT LANDFILL GAS MITIGATION FROM THE MSW UNIT INTO THE CHEMICAL WASTE UNIT.
 3. THE SEPARATION LAYER MAY BE INCORPORATED INTO THE INTERMEDIATE COVER DURING THE OPERATING PERIOD OF THE CHEMICAL WASTE UNIT.



INTERMEDIATE COVER DETAIL
NOT TO SCALE

- NOTES:**
1. INTERMEDIATE COVER SHALL BE AT LEAST PARTIALLY REMOVED PRIOR TO PLACEMENT OF NEW WASTE TO FACILITATE LEACHATE DRAINAGE.
 2. A MINIMUM OF 18 INCHES OF INTERMEDIATE COVER SHALL BE PLACED ON PERIMETER SLOPES WHICH ARE STEEPER THAN 20% AND HAVE UNINTERRUPTED DRAINAGE LENGTHS GREATER THAN 200 FEET.
 3. EROSION CONTROL MEASURES, SUCH AS TEMPORARY VEGETATION, DRAINAGE TERRACES, EROSION CONTROL BLANKETS (ECB), TURF REINFORCEMENT MATS (TRM), OR OTHER APPROPRIATE METHODS SHALL BE INCORPORATED AS NECESSARY ON PERIMETER INTERMEDIATE COVER SLOPES THAT ARE SUSCEPTIBLE TO EROSION OR REMAIN IN PLACE LONGER THAN 12 MONTHS.

T:\AutoCAD\Projects\128017.dwg\USEPA\Design\1014.dwg 10/19/2007 2:32:56 PM CDT

REV. NO.	DATE	DESCRIPTION

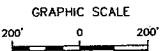
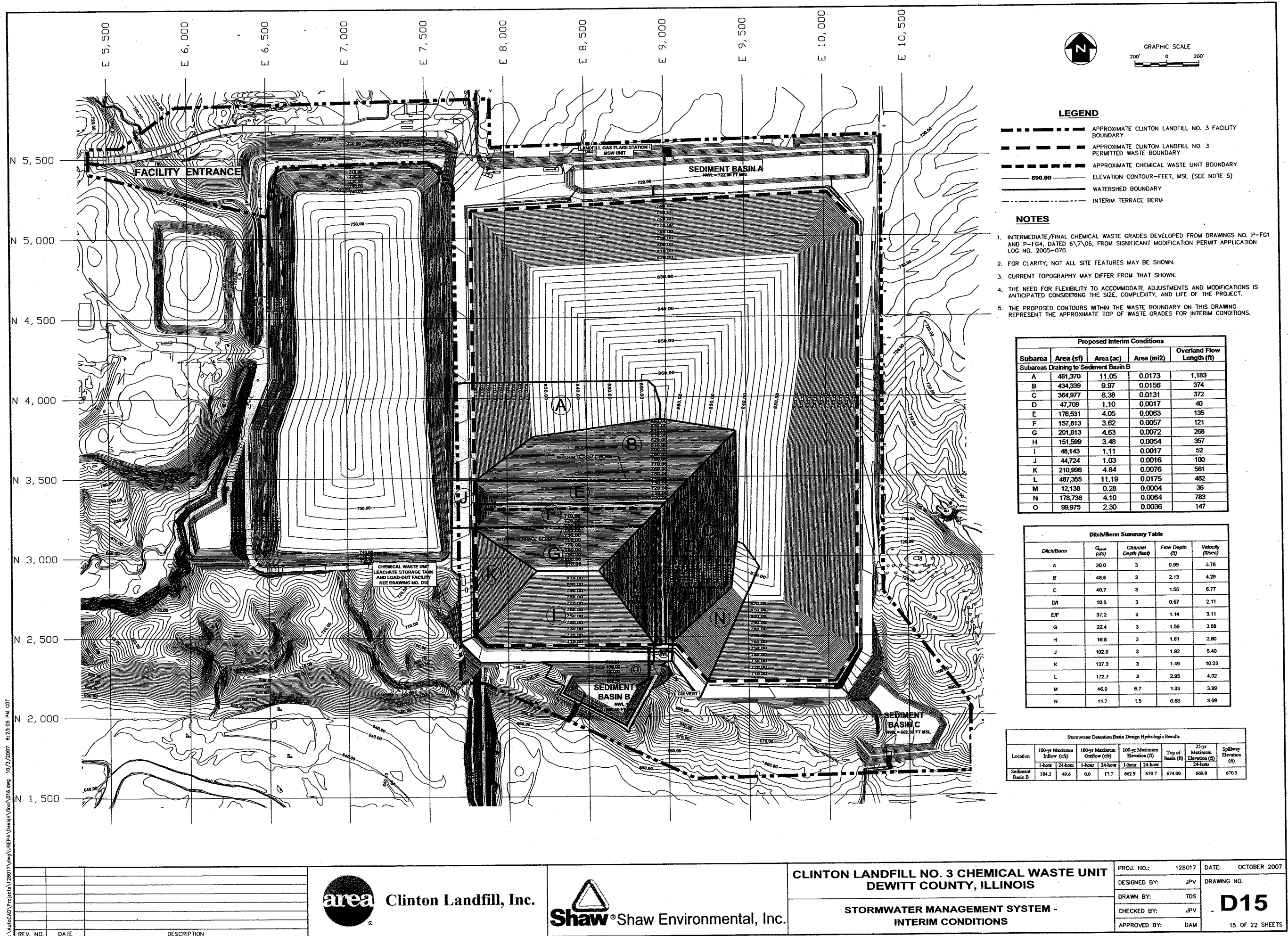


CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

COVER/MONITORING DETAILS

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	TDS	DRAWING NO.:	D14
DRAWN BY:	PEL		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

14 OF 22 SHEETS



LEGEND

- APPROXIMATE CLINTON LANDFILL NO. 3 FACILITY BOUNDARY
- APPROXIMATE CLINTON LANDFILL NO. 3 PERMITTED WASTE BOUNDARY
- APPROXIMATE CHEMICAL WASTE UNIT BOUNDARY
- 690.00 ELEVATION CONTOUR—FEET, MSL (SEE NOTE 5)
- WATERSHED BOUNDARY
- INTERIM TERRACE BERM

NOTES

- INTERMEDIATE/FINAL CHEMICAL WASTE GRADES DEVELOPED FROM DRAWINGS NO. P-FG1 AND P-FG4, DATED 6/7/06, FROM SIGNIFICANT MODIFICATION PERMIT APPLICATION LOG NO. 2005-070.
- FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
- CURRENT TOPOGRAPHY MAY DIFFER FROM THAT SHOWN.
- THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
- THE PROPOSED CONTOURS WITHIN THE WASTE BOUNDARY ON THIS DRAWING REPRESENT THE APPROXIMATE TOP OF WASTE GRADES FOR INTERIM CONDITIONS.

Proposed Interim Conditions				
Subarea	Area (sf)	Area (ac)	Area (mi ²)	Overland Flow Length (ft)
Subareas Draining to Sediment Basin B				
A	481,370	11.05	0.0173	1,183
B	434,339	9.97	0.0156	374
C	364,977	8.38	0.0131	372
D	47,709	1.10	0.0017	40
E	176,531	4.05	0.0063	135
F	157,813	3.62	0.0057	121
G	201,813	4.63	0.0072	268
H	151,589	3.48	0.0054	357
I	48,143	1.11	0.0017	52
J	44,724	1.03	0.0016	100
K	210,896	4.84	0.0076	561
L	487,365	11.19	0.0175	482
M	12,138	0.28	0.0004	36
N	178,736	4.10	0.0064	783
O	99,975	2.30	0.0036	147

Ditch/Berm Summary Table				
Ditch/Berm	Q _{max} (cfs)	Channel Depth (feet)	Flow Depth (ft)	Velocity (ft/sec)
A	30.0	3	0.99	3.78
B	48.6	3	2.13	4.29
C	40.7	3	1.55	6.77
DN	10.5	3	0.57	2.11
EF	37.2	3	1.14	3.11
G	22.4	3	1.56	3.68
H	16.8	3	1.61	2.60
J	102.0	3	1.92	5.40
K	137.3	3	1.49	10.23
L	172.7	3	2.95	4.92
M	46.0	6.7	1.33	3.99
N	11.7	1.5	0.53	3.09

Stormwater Detention Basin Design Hydrologic Results						
Location	100-yr Maximum Inflow (cfs)		100-yr Maximum Outflow (cfs)		100-yr Maximum Elevation (ft)	
	1-hour	24-hour	1-hour	24-hour	Top of Basin (ft)	25-yr Maximum Elevation (ft)
Sediment Basin B	184.5	49.6	0.0	17.7	662.9	670.7

T:\AutoCAD\Projects\28017\dwg\USEPA\Design\1016.dwg 10/2/2007 6:23:05 PM CDT

REV. NO.	DATE	DESCRIPTION



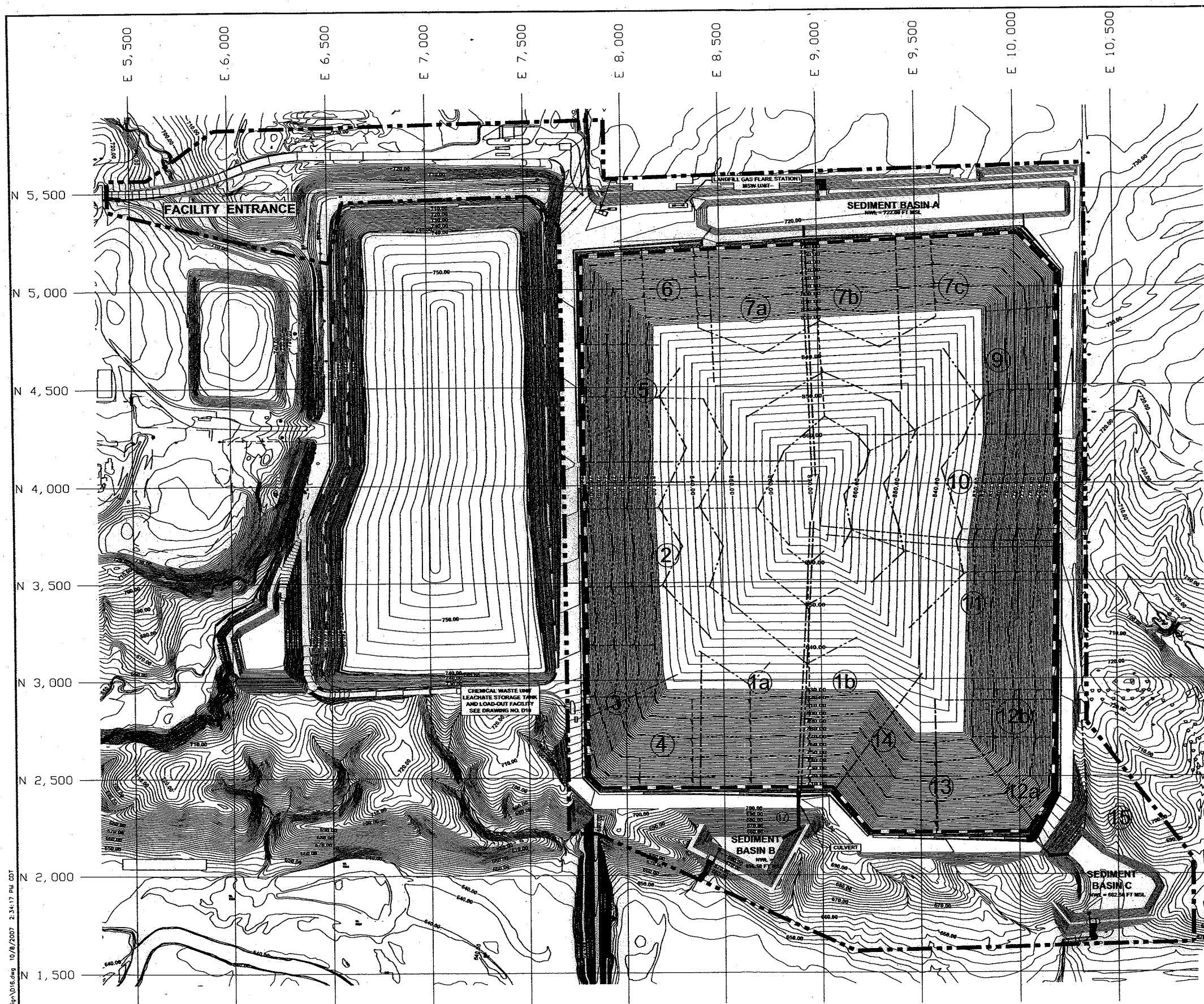
Clinton Landfill, Inc.



Shaw Environmental, Inc.

CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS
STORMWATER MANAGEMENT SYSTEM -
INTERIM CONDITIONS

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.:	D15
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		15 OF 22 SHEETS



- LEGEND**
- APPROXIMATE CLINTON LANDFILL NO. 3 FACILITY BOUNDARY
 - APPROXIMATE PERMITTED CLINTON LANDFILL NO. 3 WASTE BOUNDARY
 - 690.00 ELEVATION CONTOUR- FEET, MSL (SEE NOTE 5)
 - WATERSHED BOUNDARY
 - TERRACE BERM
 - STORMWATER LETDOWN PIPE

- NOTES**
- INTERMEDIATE/FINAL CHEMICAL WASTE GRADES DEVELOPED FROM DRAWINGS NO. P-FG1 AND P-FG4, DATED 6/7/06, FROM SIGNIFICANT MODIFICATION PERMIT APPLICATION LOG NO. 2005-070.
 - FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
 - CURRENT TOPOGRAPHY MAY DIFFER FROM THAT SHOWN.
 - THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
 - THE PROPOSED CONTOURS WITHIN THE WASTE BOUNDARY ON THIS DRAWING REPRESENT THE APPROXIMATE TOP OF THE FINAL LANDFORM.


Proposed Final Conditions				
Subarea	Area (sf)	Area (ac)	Area (mi ²)	Overland Flow Length (ft)
Subareas Draining to Sediment Basin A				
5	716,516	16.45	0.0257	1,103
6	369,674	8.49	0.0153	689
7a	614,036	11.80	0.0184	1,209
7b	469,302	10.77	0.0168	1,209
7c	330,699	7.69	0.0119	800
8	676,666	15.53	0.0243	1,045
Subareas Draining to Sediment Basin B				
1a	620,881	14.25	0.0223	1,386
1b	403,462	9.29	0.0145	1,336
2	1,121,280	25.74	0.0402	1,103
3	224,434	5.15	0.0081	500
4	221,009	5.07	0.0079	674
14	245,828	5.64	0.0088	782
17	99,975	2.30	0.0036	147
Subareas Draining to Sediment Basin C				
10	690,053	15.61	0.0244	1,179
11	782,109	17.95	0.0281	1,179
12a	93,275	2.14	0.0033	534
12b	234,896	5.39	0.0084	598
13	374,877	8.61	0.0134	701
15	379,873	8.72	0.0136	560


Perimeter Ditches Summary Table				
Ditch	Q _{max} (cfs)	Channel Depth (ft)	Flow Depth (ft)	Velocity (ft/sec)
1a	137.6	3	2.79	4.25
1b	41.7	3	1.36	3.50
2	71.5	3	1.59	4.88
3	85.0	3	1.08	8.65
4	98.8	3	2.37	3.89
5	45.7	3	1.44	3.57
6	69.4	4.4	1.68	4.42
7a	32.5	2	1.73	3.43
7b	29.7	3	1.65	3.38
7c	21.5	3.4	1.59	2.62
9	43.4	3	0.98	5.59
10	45.3	3	0.84	7.04
11	96.2	3	2.27	4.02
12a	116.2	3	1.19	11.64
12b	110.8	3	2.60	3.79
13	26.6	1.5	1.23	2.54
14	16.6	1.5	0.85	3.47

Stormwater Detention Basin Design Hydrologic Results							
Location	100-yr Maximum Inflow (cfs)	100-yr Maximum Outflow (cfs)	100-yr Maximum Elevation (ft)	Top of Basin (ft)	15-yr Maximum Elevation (ft)	Spillway Elevation (ft)	
Sediment Basin A	196.5	48.3	0.0	723.8	726.9	731.0	727.0
Sediment Basin B	184.5	49.6	0.0	17.7	662.9	670.7	669.8
Sediment Basin C	168.9	39.9	0.0	7.9	665.8	670.7	668.8

T:\AutoCAD\Projects\178017\DWG\USEPA\Design\178017.dwg 10/8/2007 2:34:17 PM GDT

REV. NO.	DATE	DESCRIPTION

**Clinton Landfill, Inc.**

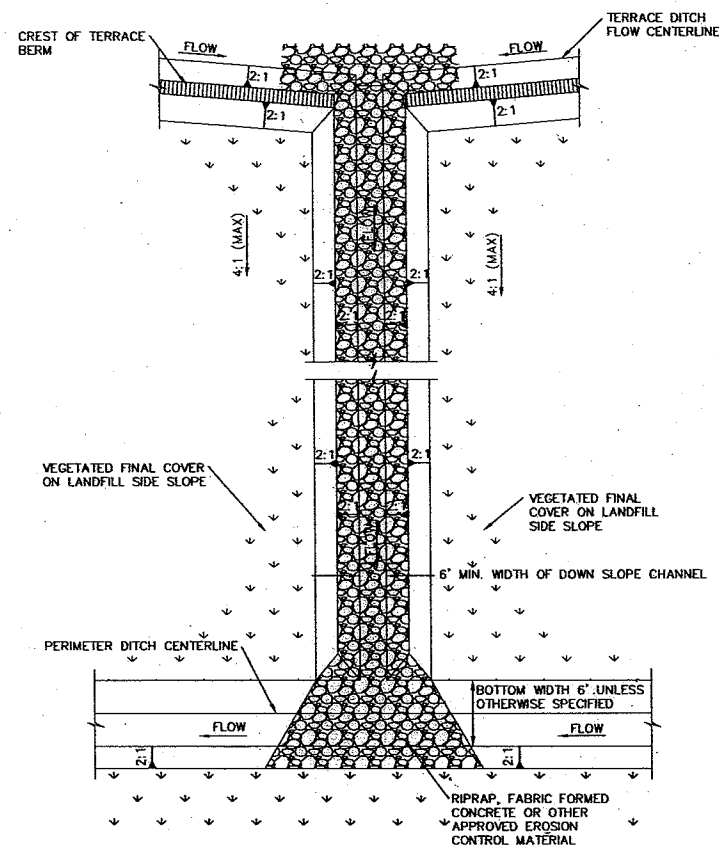
**Shaw Environmental, Inc.**

CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

STORMWATER MANAGEMENT SYSTEM -
CLOSED CONITIONS

PROJ. NO.: 128017
DESIGNED BY: JVP
DRAWN BY: TDS
CHECKED BY: JPV
APPROVED BY: DAM

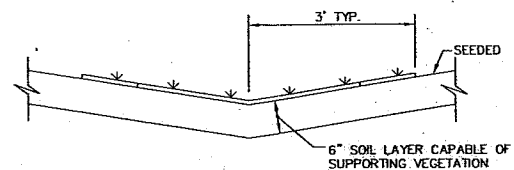
DATE: OCTOBER 2007
DRAWING NO.: **D16**
16 OF 22 SHEETS



TYPICAL DOWN SLOPE DETAIL
NOT TO SCALE

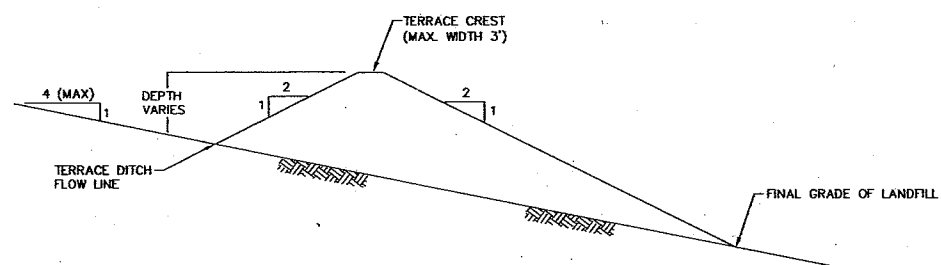
NOTES:

1. CONSTRUCT DOWN SLOPE CHANNEL USING RAISED SIDEWALLS ON TOP OF FINAL COVER SYSTEM. SIDEWALL TO BE FILLED A MINIMUM OF 1" ABOVE EXISTING FINISH GRADE.
2. ENTIRE DOWN SLOPE CHANNEL AND CHANNEL OUTLET AT PERIMETER DITCH WILL BE LINED WITH RIPRAP OR PERFORMANCE EQUIVALENT MATERIAL.

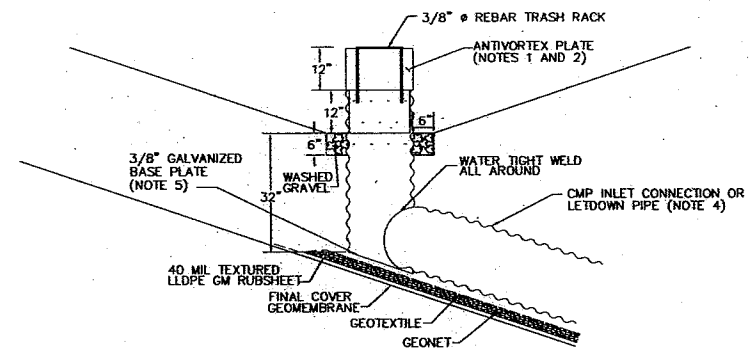


TYPICAL TERRACE DITCH DETAIL
NOT TO SCALE

1. PLACE SOD OR EROSION CONTROL MATERIALS AS NEEDED TO PREVENT EROSION PRIOR TO ESTABLISHMENT OF VEGETATION.



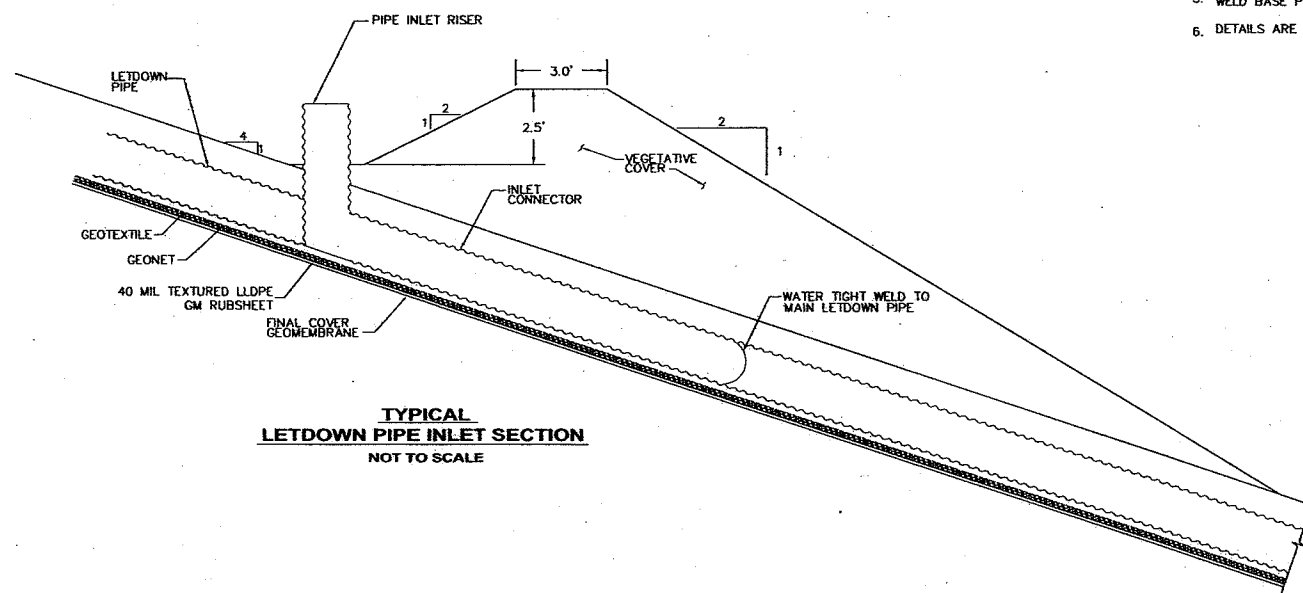
TYPICAL TERRACE BERM DETAIL
NOT TO SCALE



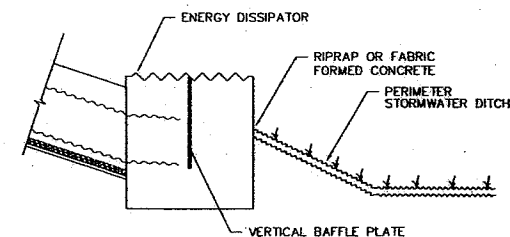
TYPICAL INLET RISER DETAIL
NOT TO SCALE

NOTES:

1. 3/8" GALVANIZED STEEL PLATE, WELDED TO CMP RISER.
2. ORIENT ANTIVORTEX PLATE PERPENDICULAR TO FLOW ENTERING THE INLET RISER.
3. PERFORATE RISER WITH 1/4" Ø HOLES; 12 HOLES PER ROW; ROWS SPACED 6".
4. CMP RISER INLET AND LETDOWN PIPE DIAMETERS VARY.
5. WELD BASE PLATE TO BOTTOM OF RISER TO FORM A WATER TIGHT SEAL.
6. DETAILS ARE PRELIMINARY AND ARE SUBJECT TO CHANGE.



TYPICAL LETDOWN PIPE INLET SECTION
NOT TO SCALE



T:\AutoCAD\Projects\1128017.dwg\USPA\Design\Final\018.dwg 10/2/2007 6:26:24 PM COT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.



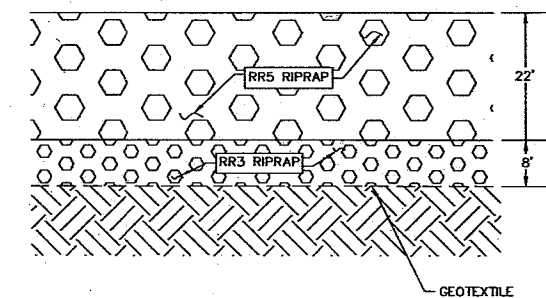
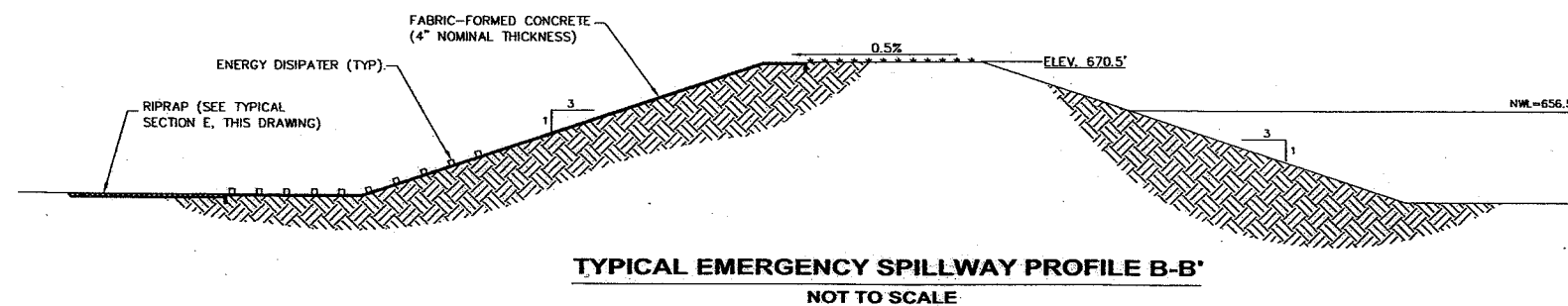
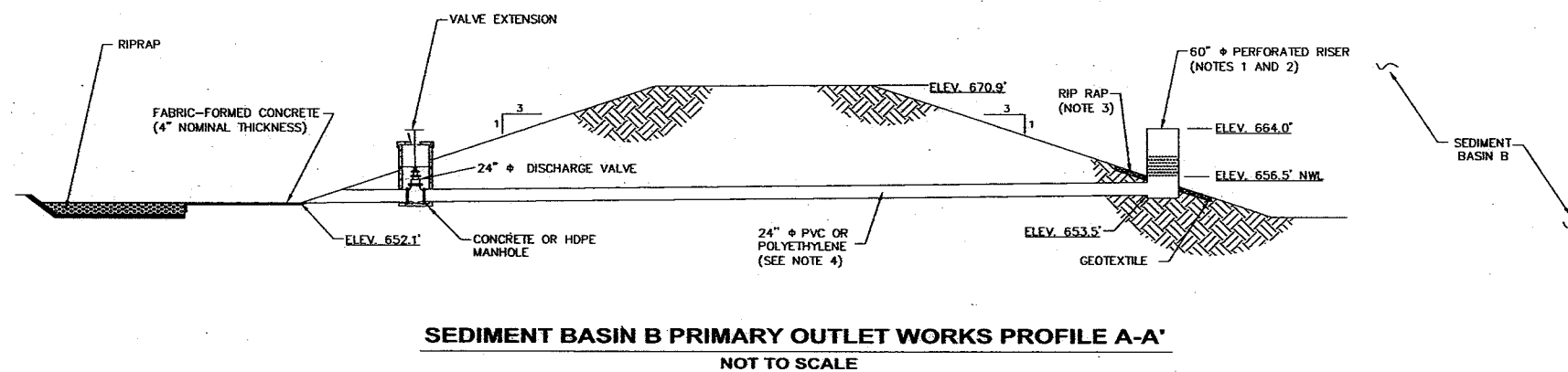
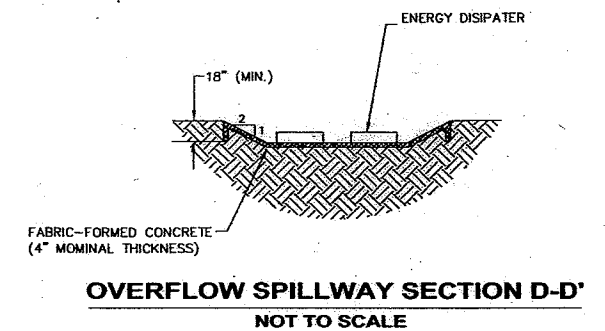
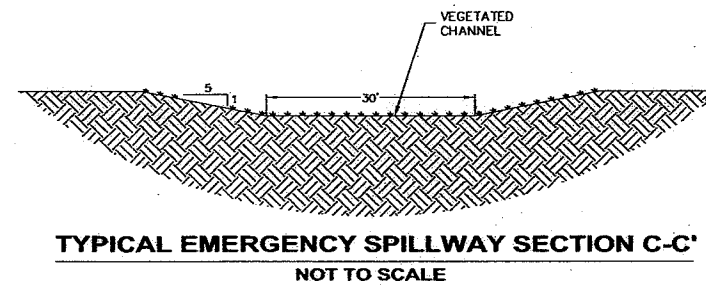
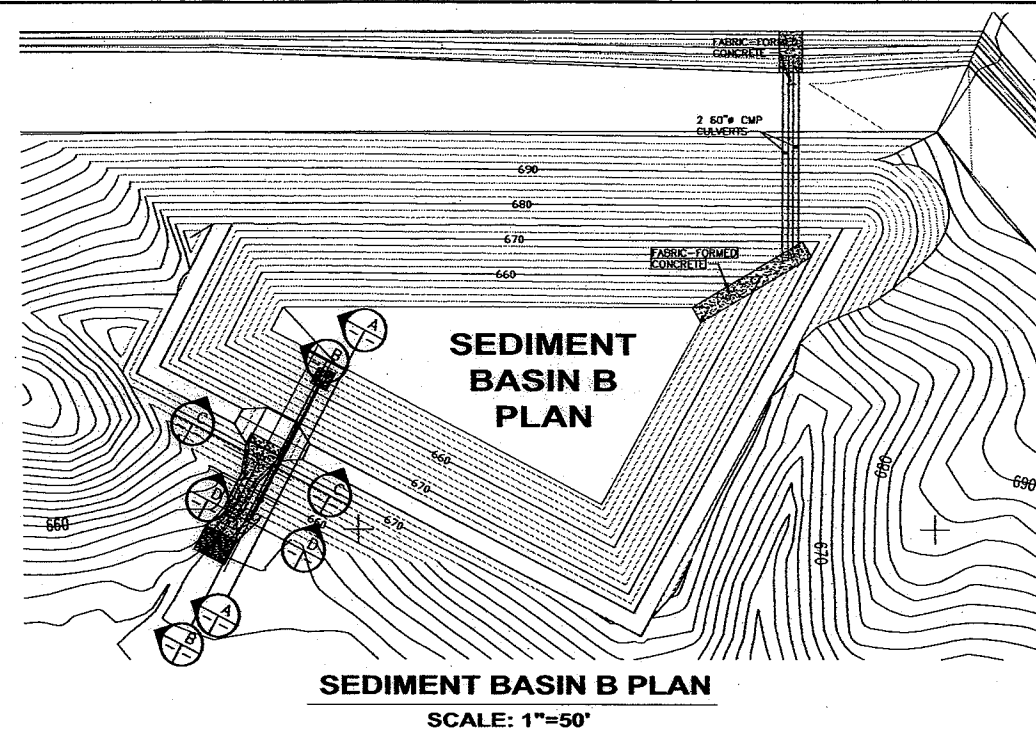
Shaw Environmental, Inc.

CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

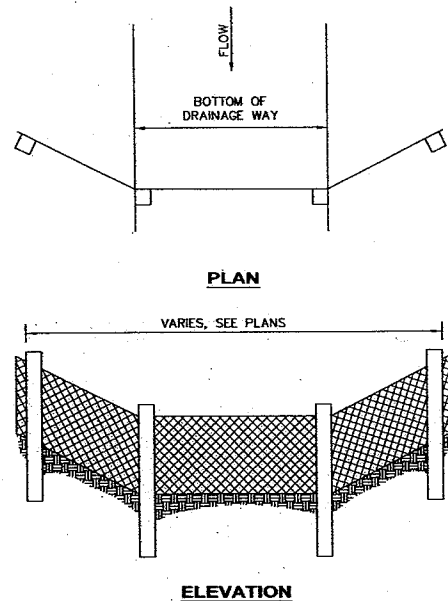
TYPICAL STORMWATER MANAGEMENT
SECTIONS AND DETAILS - 1

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.	D17
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

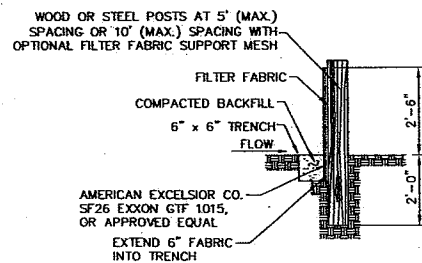
17 OF 22 SHEETS



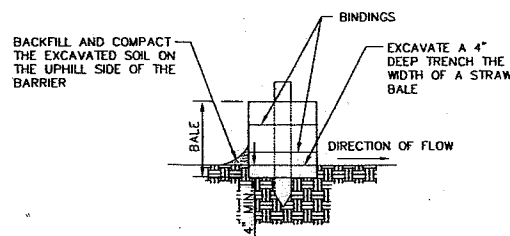
PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.	<div style="font-size: 2em; font-weight: bold; text-align: center;">D18</div>
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		



TYPICAL SILT FENCE BARRIER
NOT TO SCALE



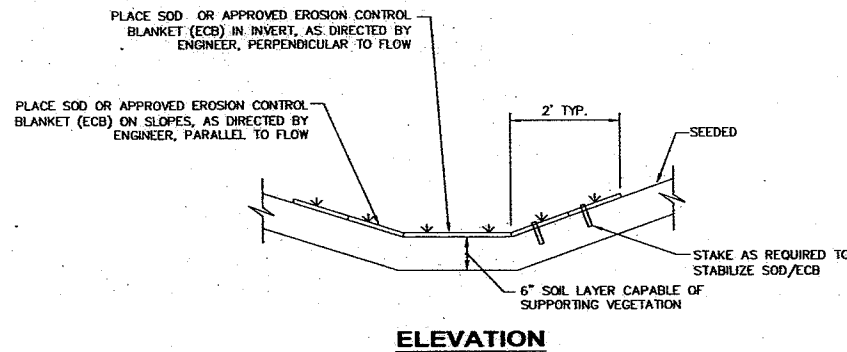
SILT FENCE SECTION
NOT TO SCALE



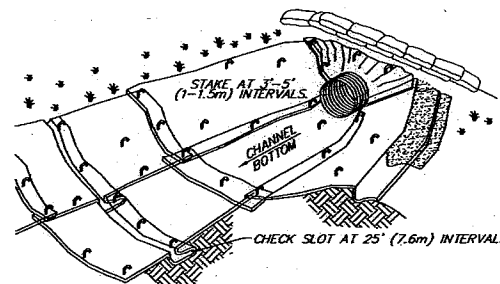
STRAW BALE BARRIER
NOT TO SCALE

NOTES:

1. STOCKPILES SHALL BE PLACED SO AS TO PREVENT SEDIMENT RUNOFF INTO WATERCOURSES OR ONTO ADJACENT ROADWAYS AND PROPERTIES, AND BE SEED AS NECESSARY, AS A MEANS OF TEMPORARY EROSION CONTROL.
2. TEMPORARY SEDIMENT CONTROLS SHALL BE INSTALLED AND MAINTAINED WHERE EARTHWORK OPERATIONS CAUSE OFF-SITE EROSION OR SEDIMENTATION PROBLEMS. SUCH CONTROLS MAY BE STRAW BALES OR A FILTER FABRIC FENCE.
3. FINAL GRADING SHALL BE DONE AS SOON AFTER CONSTRUCTION OF SITE IMPROVEMENTS AS IS REASONABLY POSSIBLE. SEEDING, SODDING OR ANY OTHER SPECIFIED SOIL STABILIZATION MEASURES SHALL BE DONE AS SOON AS PRACTICABLE AND SEASONABLE AFTER FINAL GRADE IS ESTABLISHED.
4. ALL SEDIMENT TRAPS AND CATCH BASINS SHALL BE CLEANED PERIODICALLY TO ALLOW THEM TO OPERATE EFFECTIVELY.
5. THE FACILITY'S STORM WATER POLLUTION PREVENTION PLAN WILL SPECIFY PLACEMENT DESIGN, AND FREQUENCY FOR BMPs.



ELEVATION

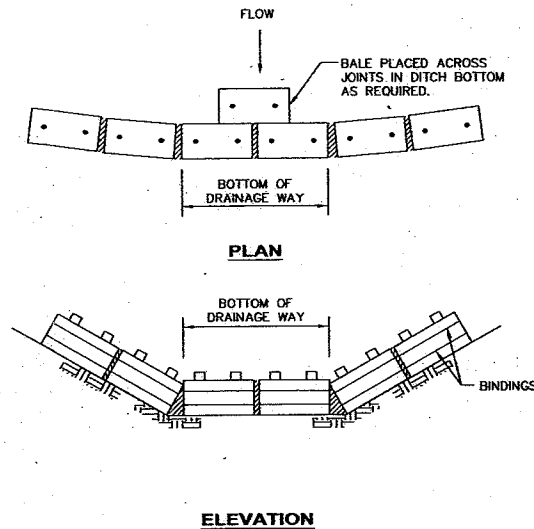


ISOMETRIC VIEW

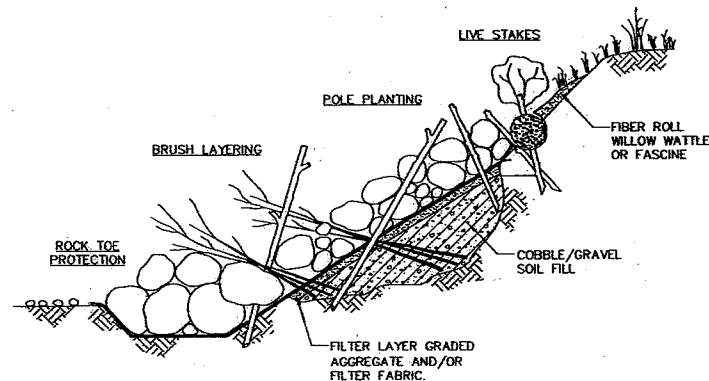
DITCH EROSION CONTROL DETAIL
NOT TO SCALE

NOTES:

1. SOD OR EQUIVALENT SEEDING EROSION CONTROL BLANKET PRODUCT TO BE USED IN PERIMETER DITCH IF VEGETATIVE GROWTH CANNOT BE ESTABLISHED THROUGH SEEDING.
2. THE FACILITY'S STORM WATER POLLUTION PREVENTION PLAN WILL SPECIFY PLACEMENT DESIGN, AND FREQUENCY FOR BMPs.



TYPICAL STRAW BALE BARRIER AT DRAINAGE DITCH
NOT TO SCALE



VEGETATED RIPRAP DETAIL
NOT TO SCALE

NOTES:

1. WILLOW POLE PLANTING AND BRUSH LAYERING SHALL BE INSTALLED DURING BANK GRADING AND RIPRAP PLACEMENT TO ENSURE GOOD CONTACT WITH "NATIVE GROUND" AND SOIL FILL.
2. WILLOW POLES AND BRUSH LAYERS SHALL EXTEND DOWN INTO EXPECTED SOIL MOISTURE ZONES (VADOSE).
3. CUT SMALL HOLES OR SLITS IN FILTER FABRIC AS NECESSARY.
4. PLACE SOIL FILL (COBBLES, GRAVEL, SOIL) AROUND CUTTINGS.
5. PLACE RIPRAP CAREFULLY, DO NOT END DUMP. SOME DAMAGE TO BRUSH LAYERS AND WILLOW POLES IS UNAVOIDABLE AND ACCEPTABLE. DEEPLY PLANTED WILLOW MATERIAL WILL REGENERATE.
6. THE FACILITY'S STORM WATER POLLUTION PREVENTION PLAN WILL SPECIFY PLACEMENT DESIGN, AND FREQUENCY FOR BMPs.

T:\AutoCAD\Projects\128017.dwg\USEPA Design\019.dwg 10/8/2007 2:38:11 PM CDT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.



Shaw Environmental, Inc.

CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

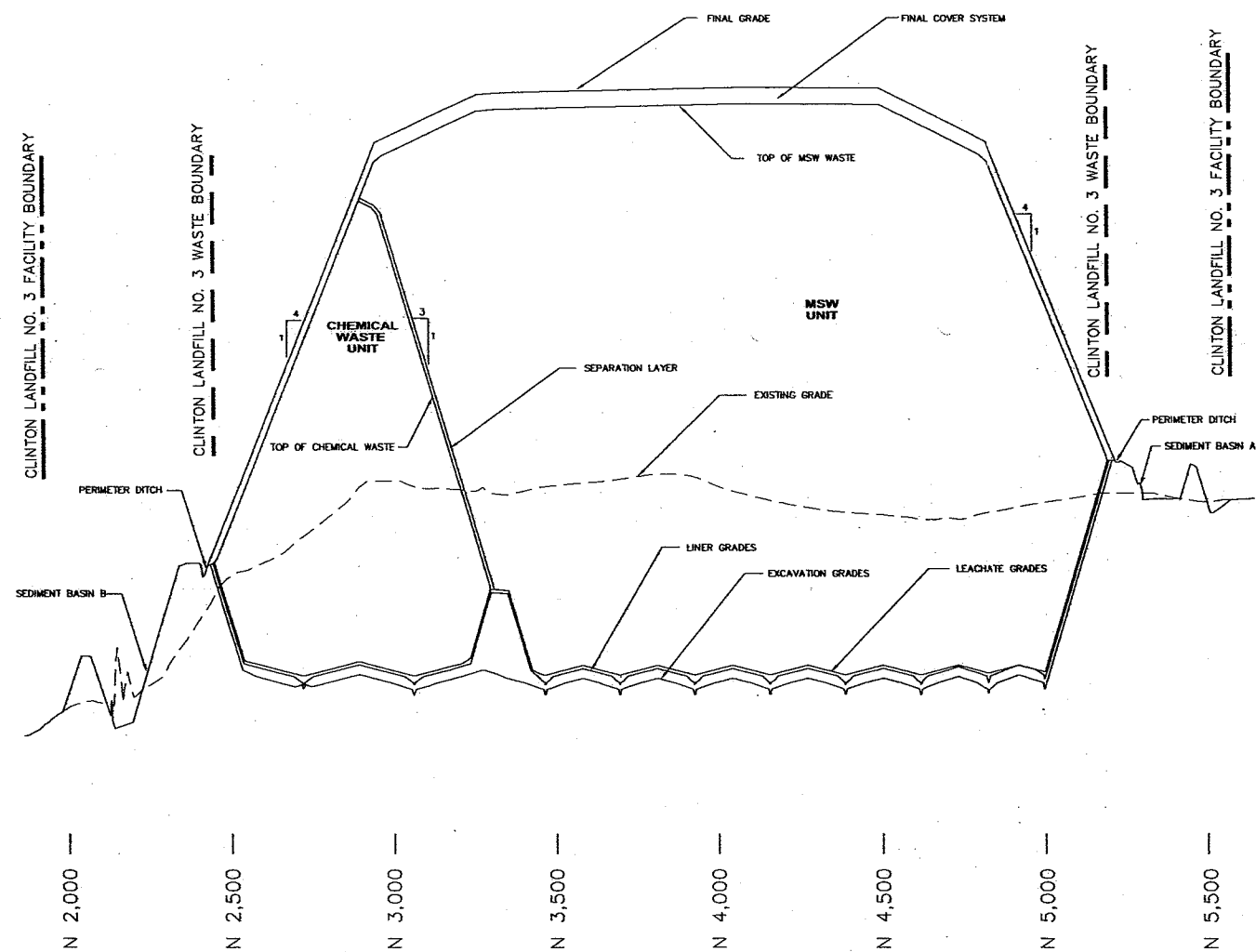
TYPICAL EROSION CONTROL DETAILS

PROJ. NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.	D19
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

19 OF 22 SHEETS

A

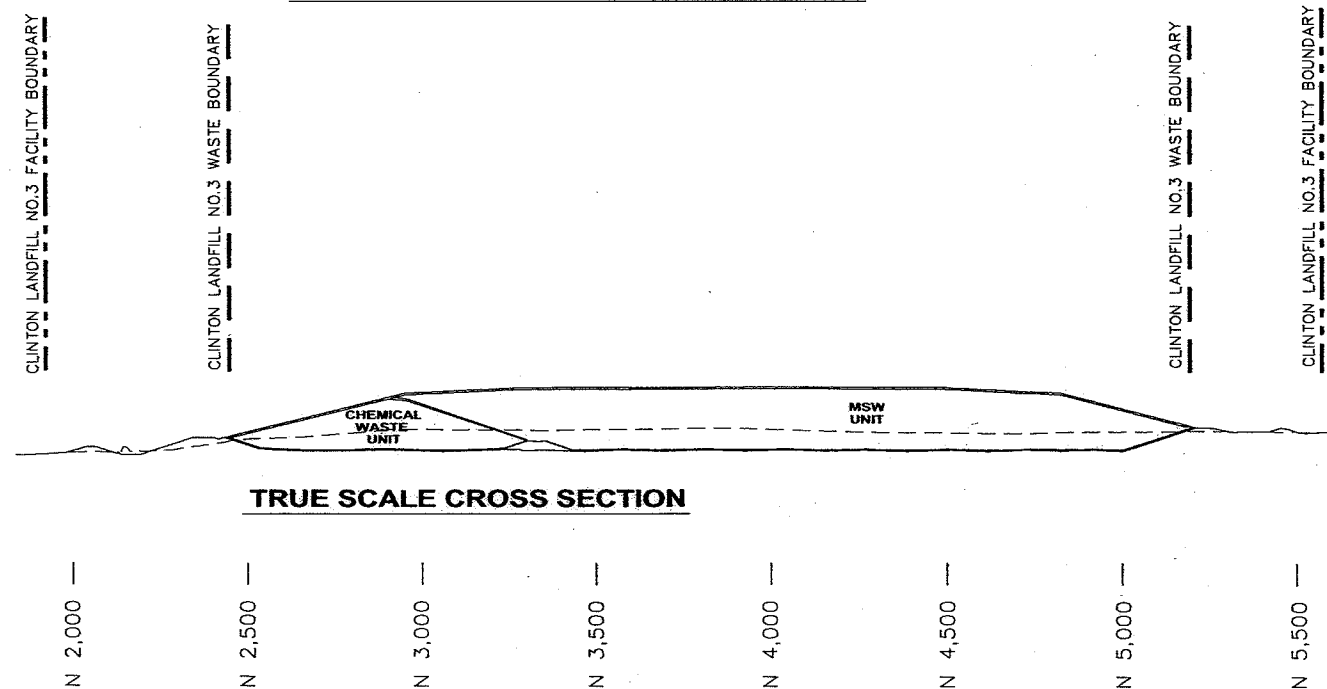
850
840
830
820
810
800
790
780
770
760
750
740
730
720
710
700
690
680
670
660
650
640
630



EXAGGERATED SCALE CROSS SECTION

A

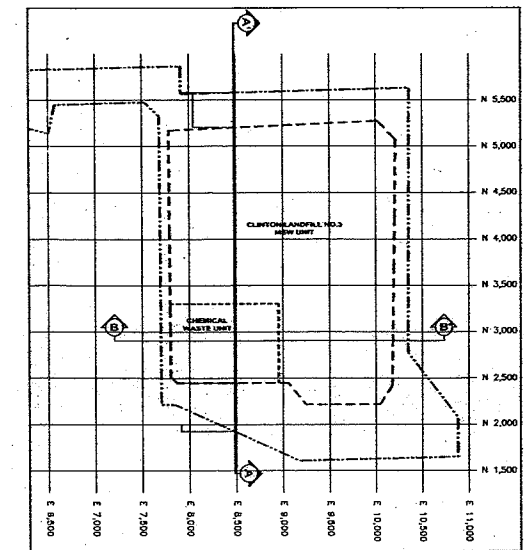
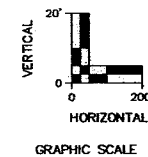
900
800
700
600



TRUE SCALE CROSS SECTION

A'

850
840
830
820
810
800
790
780
770
760
750
740
730
720
710
700
690
680
670
660
650
640
630



KEY MAP
NOT TO SCALE

LEGEND

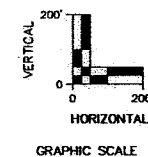
- APPROXIMATE CLINTON LANDFILL NO. 3 FACILITY BOUNDARY
- APPROXIMATE CLINTON LANDFILL NO. 3 PERMITTED WASTE BOUNDARY
- APPROXIMATE CHEMICAL WASTE UNIT BOUNDARY

NOTES

- FOR CLARITY IN DEPICTING THE FEATURES OF THE LANDFILL, THE VERTICAL SCALE HAS BEEN EXAGGERATED BY A FACTOR OF 10.
- FOR CLARITY NOT ALL OF THE COMPONENTS OF THE LANDFILL ARE SHOWN.

A'

900
800
700
600



T:\MISCAD\Projects\28017.dwg\USEPA\Design\020.dwg 10/8/2007 2:37:00 PM COT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.

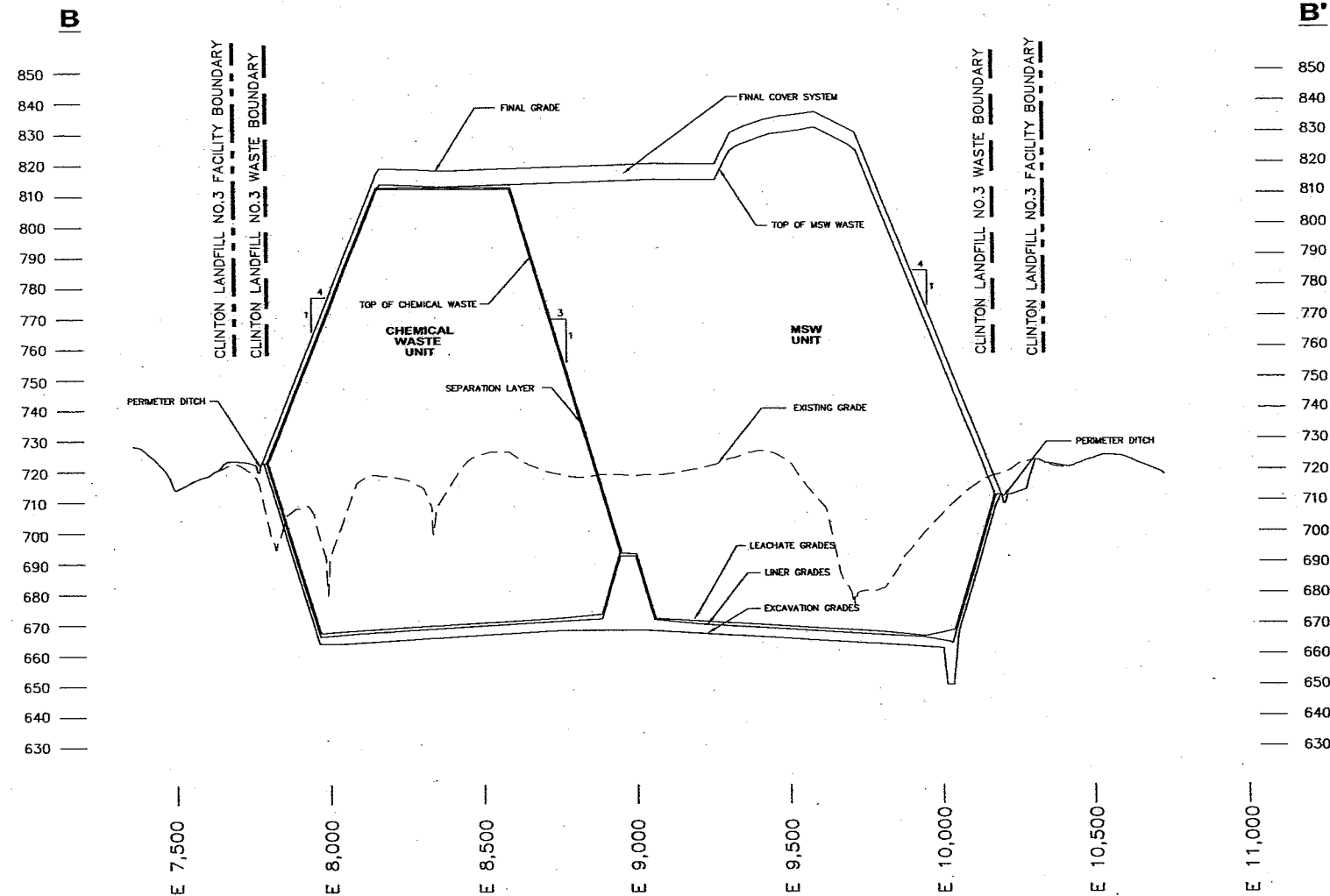


Shaw Environmental, Inc.

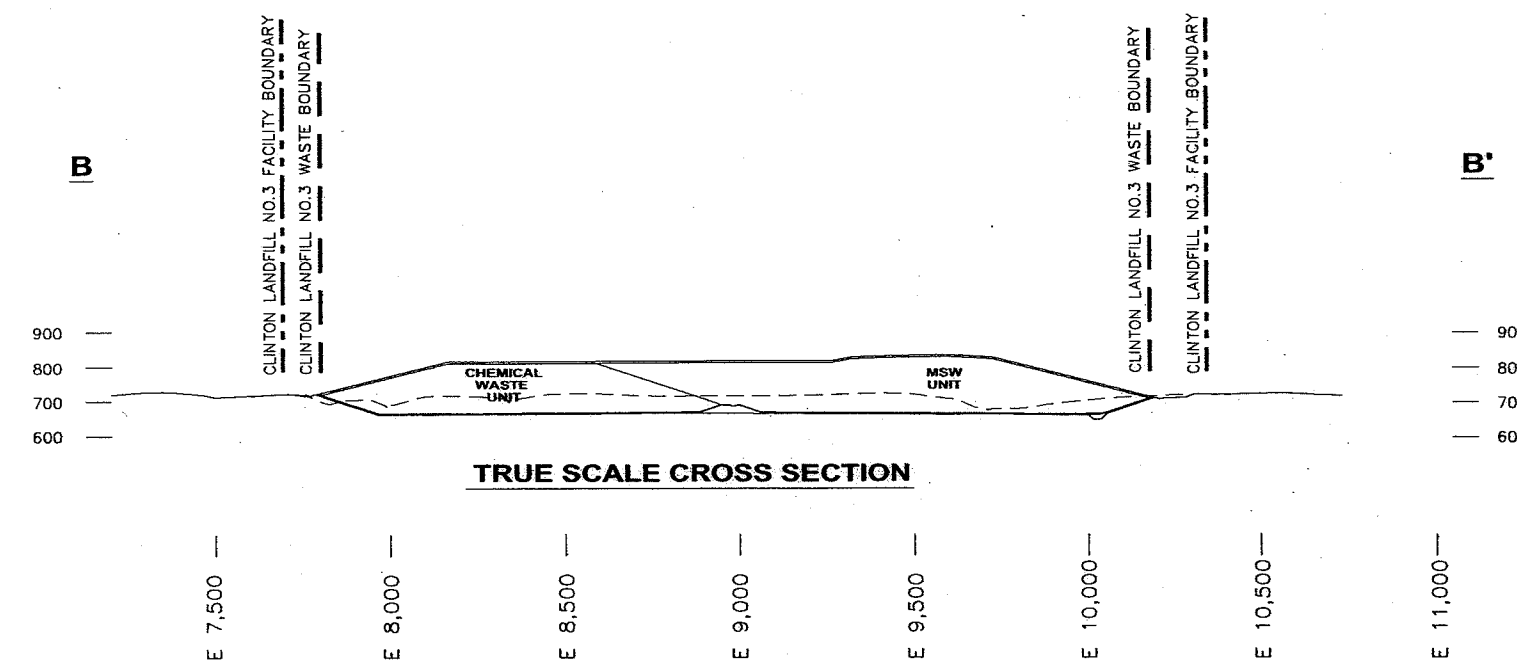
CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

CROSS SECTION A-A' (SOUTH-NORTH)

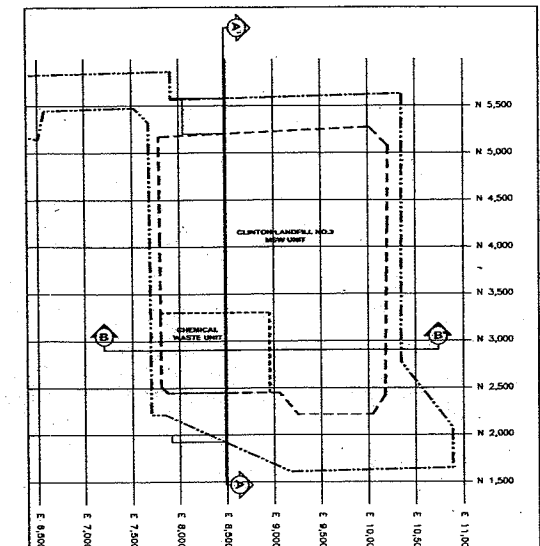
PROJ. NO.: 128017	DATE: OCTOBER 2007
DESIGNED BY: JPV	DRAWING NO.
DRAWN BY: TDS	D20
CHECKED BY: JPV	20 OF 22 SHEETS
APPROVED BY: DAM	



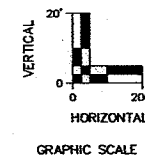
EXAGGERATED SCALE CROSS SECTION



TRUE SCALE CROSS SECTION



**KEY MAP
NOT TO SCALE**

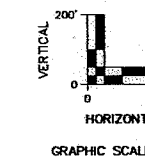


LEGEND

- APPROXIMATE CLINTON LANDFILL NO.3 FACILITY BOUNDARY
- APPROXIMATE CLINTON LANDFILL NO.3 PERMITTED WASTE BOUNDARY
- APPROXIMATE CHEMICAL WASTE UNIT BOUNDARY

NOTES

1. FOR CLARITY IN DEPICTING THE FEATURES OF THE LANDFILL, THE VERTICAL SCALE HAS BEEN EXAGGERATED BY A FACTOR OF 10.
2. FOR CLARITY NOT ALL OF THE COMPONENTS OF THE LANDFILL ARE SHOWN.



I:\AUGUST\Projects\128017\DWG\USEPA\Design\021.dwg 10/7/2007 11:01:14 AM CDT

REV. NO.	DATE	DESCRIPTION



Clinton Landfill, Inc.

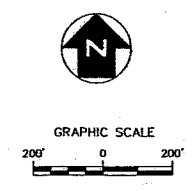
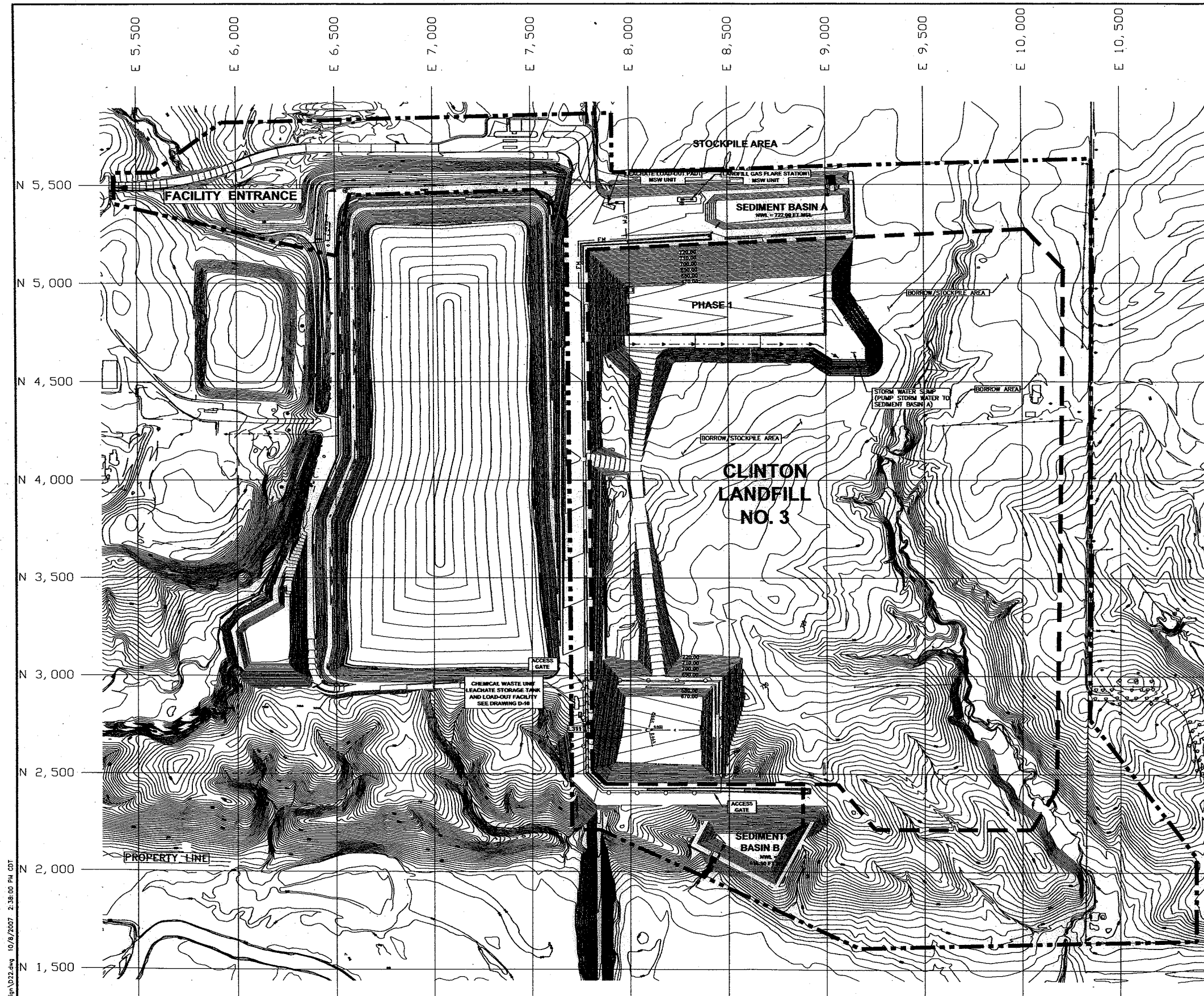


Shaw Environmental, Inc.

**CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS**

CROSS SECTION B-B' (WEST-EAST)

PROJ. NO.: 128017	DATE: OCTOBER 2007
DESIGNED BY: JPV	DRAWING NO.
DRAWN BY: TDS	D21
CHECKED BY: JPV	21 OF 22 SHEETS
APPROVED BY: DAM	



- LEGEND**
- APPROXIMATE CLINTON LANDFILL NO. 3 FACILITY BOUNDARY
 - APPROXIMATE EXISTING PERMITTED CLINTON LANDFILL NO. 3 WASTE BOUNDARY
 - APPROXIMATE CHEMICAL WASTE UNIT BOUNDARY
 - 690.00 ELEVATION CONTOUR—FEET, MSL
 - SECURITY FENCE
 - LEACHATE COLLECTION PIPE
 - ▲ PROPOSED CLEANOUT
 - PROPOSED COLLECTION

- NOTES**
1. EXISTING TOPOGRAPHY BASED ON AERIAL PHOTOGRAMMETRY BY WALKER AND ASSOCIATES, ST. LOUIS, MISSOURI (MARCH 30, 1999 PHOTOGRAPHY DATE)
 2. THIS DRAWING IS DEVELOPED FROM DRAWING P-SP1 DATED 6/7/06 FROM SIGNIFICANT MODIFICATION PERMIT APPLICATION LOG NO. 2005-070.
 3. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
 4. CURRENT TOPOGRAPHY MAY DIFFER FROM THAT SHOWN.
 5. THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
 6. A SIX FOOT WOVEN MESH FENCE, CHAIN LINK FENCE, OR OTHER SIMILAR DEVICE SHALL BE PLACED AROUND THE UNIT TO PREVENT UNAUTHORIZED ENTRY.
 7. ACTUAL FENCE ALIGNMENT AND ACCESS GATE LOCATIONS MAY VARY FROM THAT SHOWN.

T:\a\scad\Projects\128017.dwg\USEPA\Design\02.dwg 10/8/2007 2:38:00 PM CDT

REV. NO.	DATE	DESCRIPTION



CLINTON LANDFILL NO. 3 CHEMICAL WASTE UNIT
DEWITT COUNTY, ILLINOIS

CHEMICAL WASTE UNIT - INITIAL DEVELOPMENT

PRJL NO.:	128017	DATE:	OCTOBER 2007
DESIGNED BY:	JPV	DRAWING NO.	D22
DRAWN BY:	TDS		
CHECKED BY:	JPV		
APPROVED BY:	DAM		

22 OF 22 SHEETS