

**SKYLINE LANDFILL  
CITY OF FERRIS  
DALLAS AND ELLIS COUNTIES, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 42D**

**PERMIT AMENDMENT APPLICATION**

**PART III – FACILITY INVESTIGATION AND DESIGN  
ATTACHMENT D3  
CONSTRUCTION DESIGN DETAILS**

Prepared for

**Waste Management of Texas, Inc.**

April 2012



Prepared by

**BIGGS & MATHEWS ENVIRONMENTAL**

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
FIRM REGISTRATION No. F-256

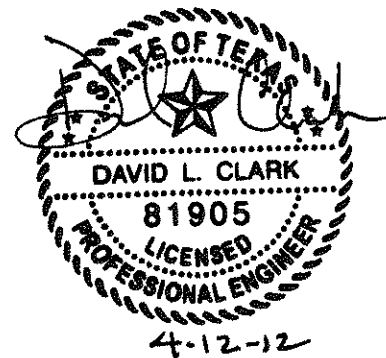
TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS  
FIRM REGISTRATION No. 50222

## CONTENTS

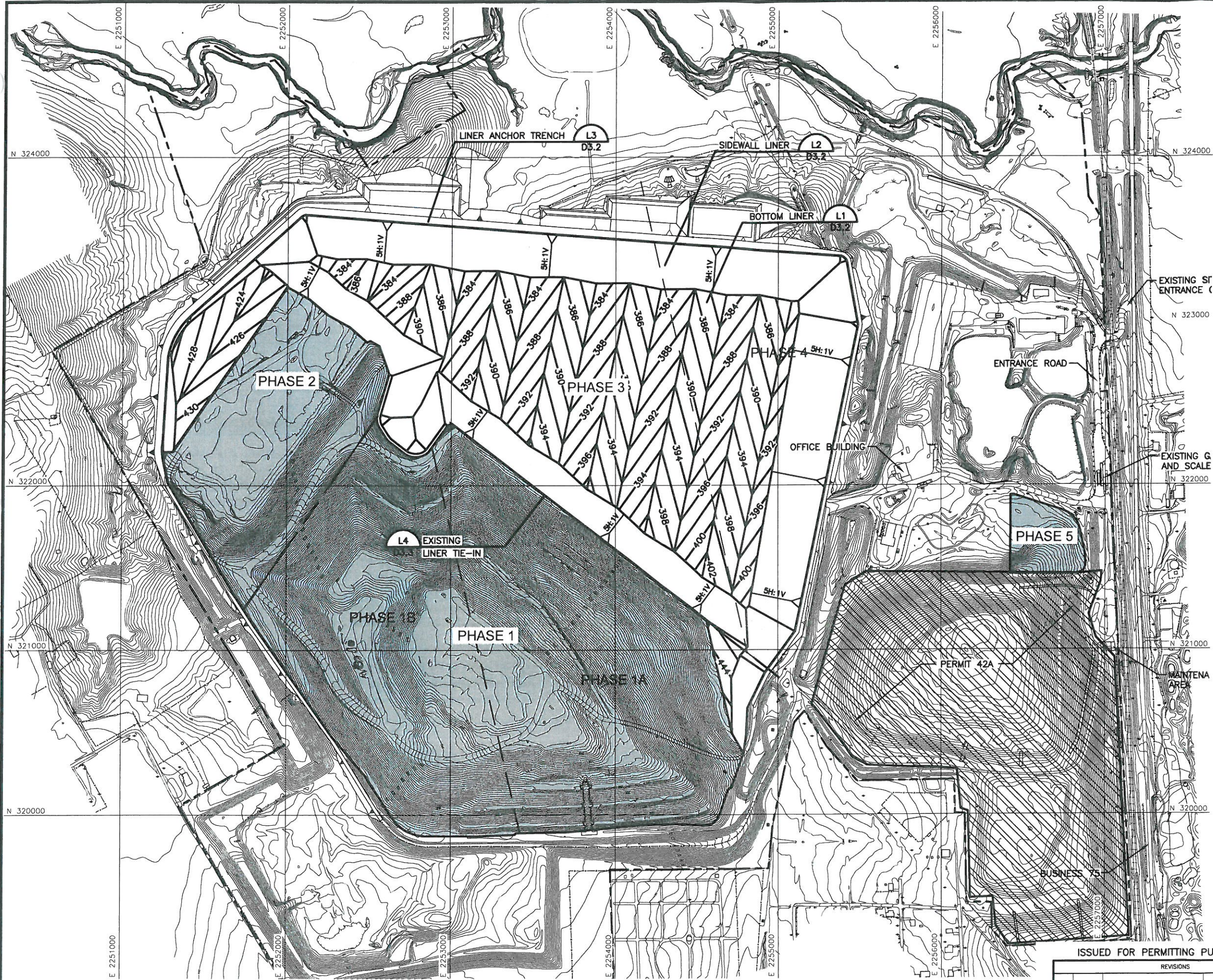
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30 TAC §330.63(d)(4)(F)

- D3.1 – Liner Plan
- D3.2 – Liner Details
- D3.3 – Liner Details
- D3.4 – Leachate Collection System Plan
- D3.5 – Leachate Collection System Details
- D3.6 – Leachate Collection System Details
- D3.7 – Temporary Dewatering Plan
- D3.8 – Underdrain Details
- D3.9 – Final Cover Plan
- D3.10 – Final Cover Details



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**LEGEND**

- PERMIT BOUNDARY
- LANDFILL FOOTPRINT
- EXISTING GROUND CONTOUR
- STATE PLANE GRID (NAD 27)
- PROPOSED TOP OF LINER CONTOUR
- PHASE BOUNDARY
- LINED AREA
- ▨ PRE-SUBTITLE D AREA WITH FINAL COVER

**NOTE:**

1. EXISTING CONTOURS COMPILED BY AEROMETRIC FROM AERIAL PHOTOGRAPHY, FLOWN MARCH 6, 2011. COORDINATE SYSTEM IS BASED ON TEXAS STATE PLANE NAD 27, TEXAS NORTH CENTRAL ZONE, US FEET.
2. PROPOSED CONTOURS DEPICT TOP OF LINER GRADES.
3. ELEVATION OF DEEPEST EXCAVATION AT BOTTOM OF LEACHATE COLLECTION SUMPS IN CELLS 11-18: 377 FT-MSL.



**LINER PLAN**  
**WASTE MANAGEMENT OF TEXAS, INC.**  
**SKYLINE LANDFILL**  
**MAJOR PERMIT AMENDMENT**

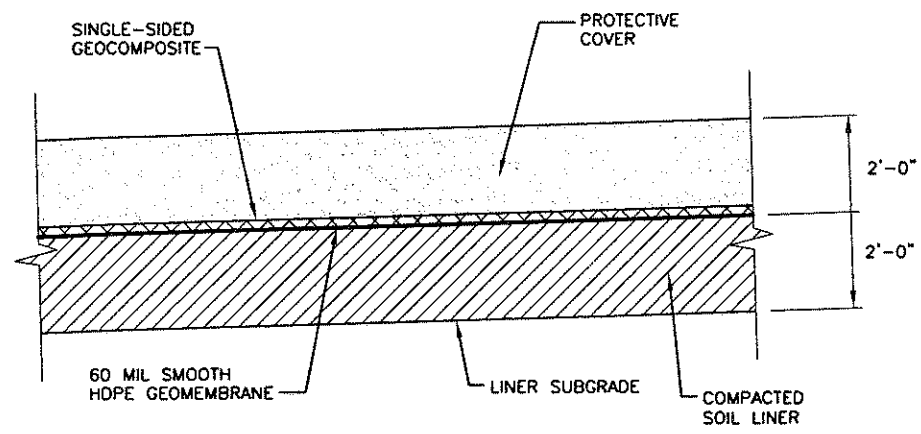


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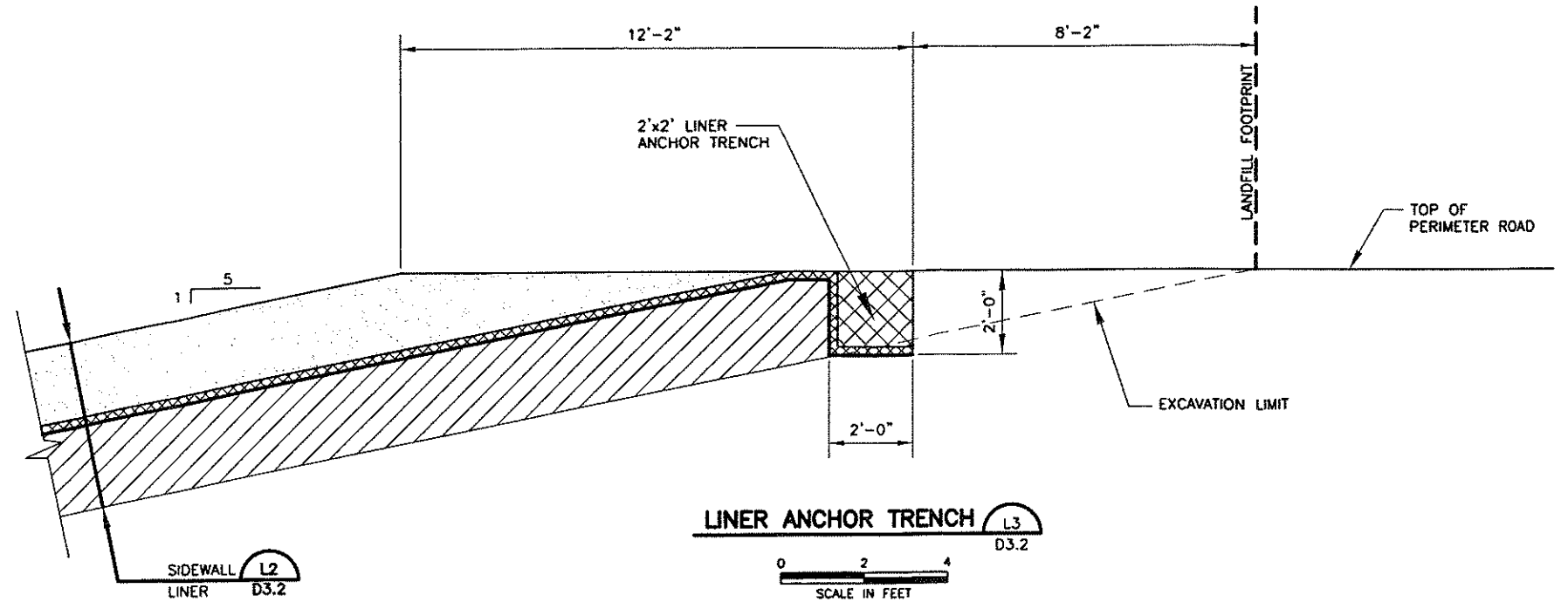
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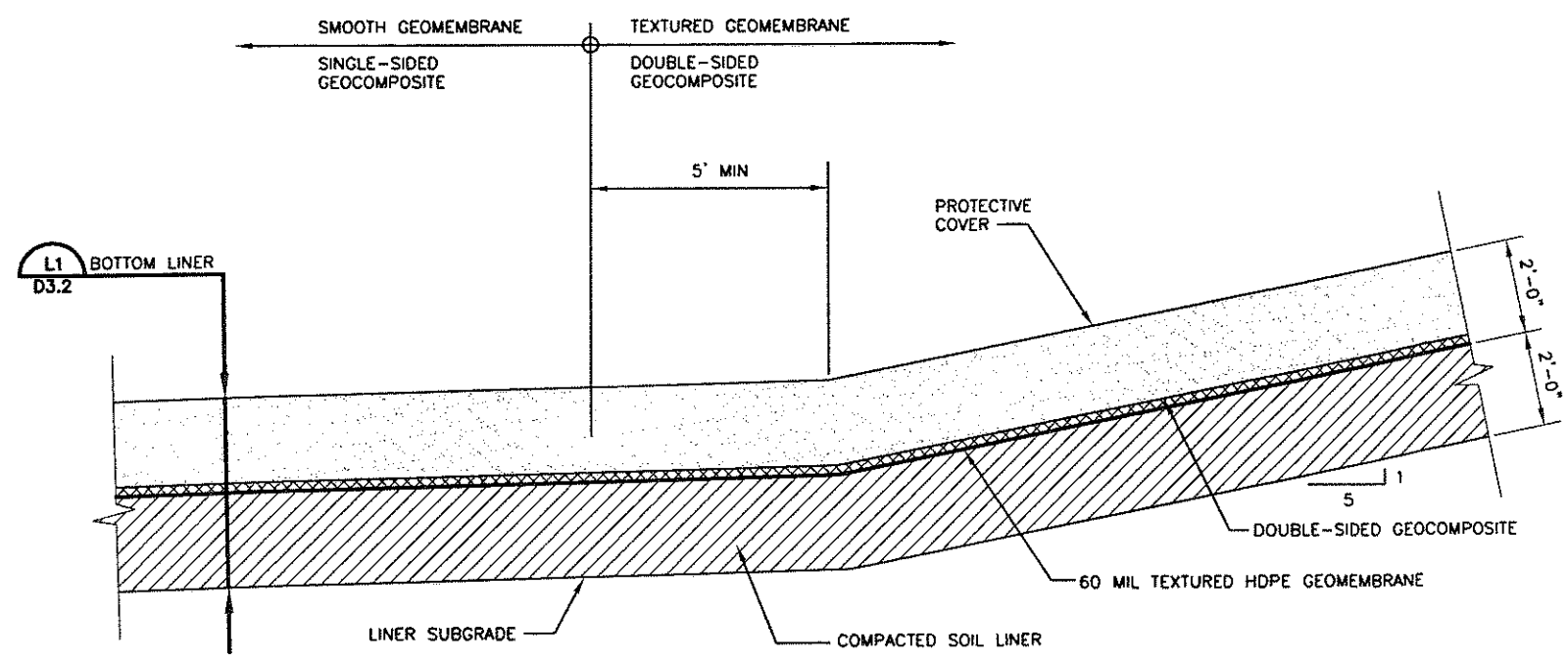
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**BOTTOM LINER** L1  
D3.2  
SCALE IN FEET



**LINER ANCHOR TRENCH** L3  
D3.2  
SCALE IN FEET



**SIDEWALL LINER** L2  
D3.2  
SCALE IN FEET



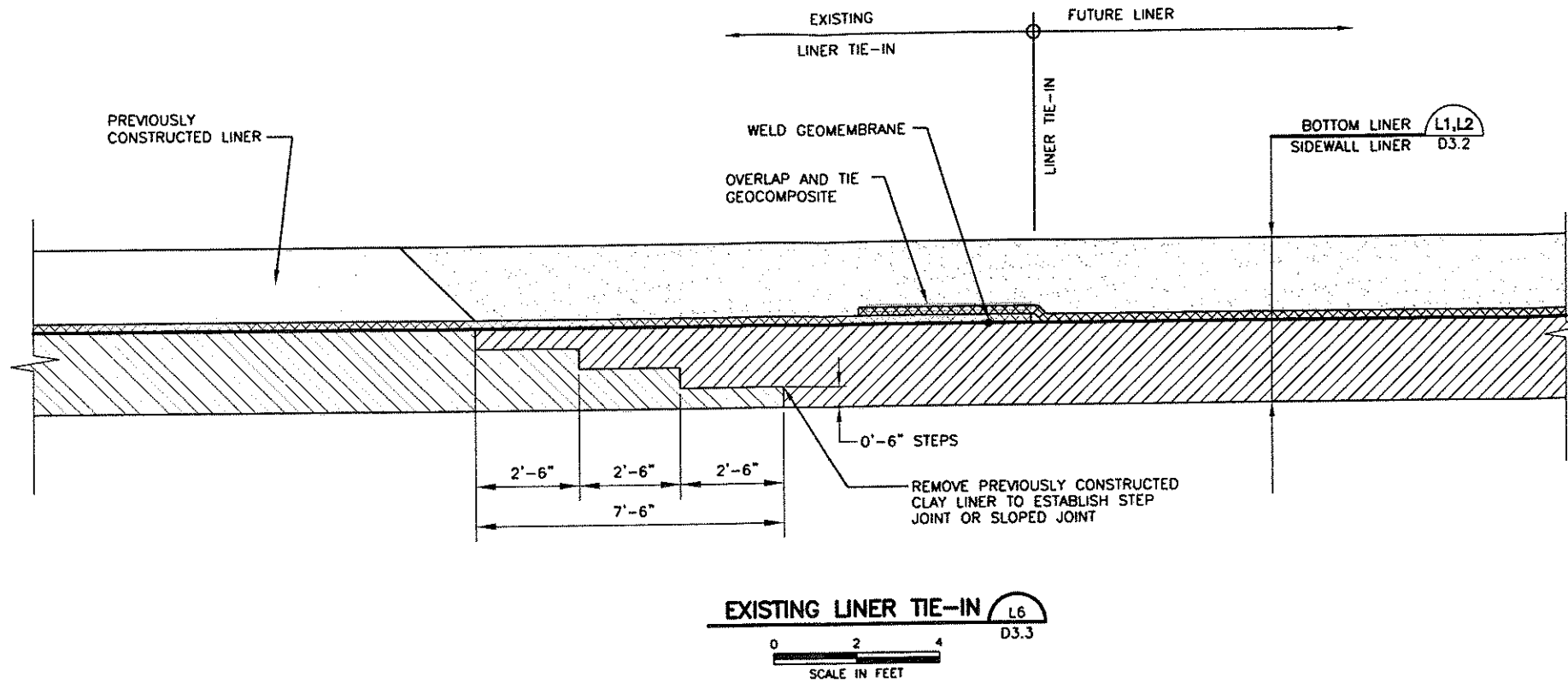
**NOTES:**  
1. REFER TO ATTACHMENT D7 FOR LINER INSTALLATION AND MATERIAL REQUIREMENTS.

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<b>LINER DETAILS</b>		
<b>WASTE MANAGEMENT OF TEXAS, INC.</b> <b>SKYLINE LANDFILL</b> <b>MAJOR PERMIT AMENDMENT</b>		
	BIGGS & MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS MANSFIELD • WICHITA FALLS 817-563-1144	
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CHK. DLC	DWG : D3.2-3-LinerDetails.dwg	

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**NOTES:**

1. REFER TO ATTACHMENT D7 FOR LINER INSTALLATION AND MATERIAL REQUIREMENTS.

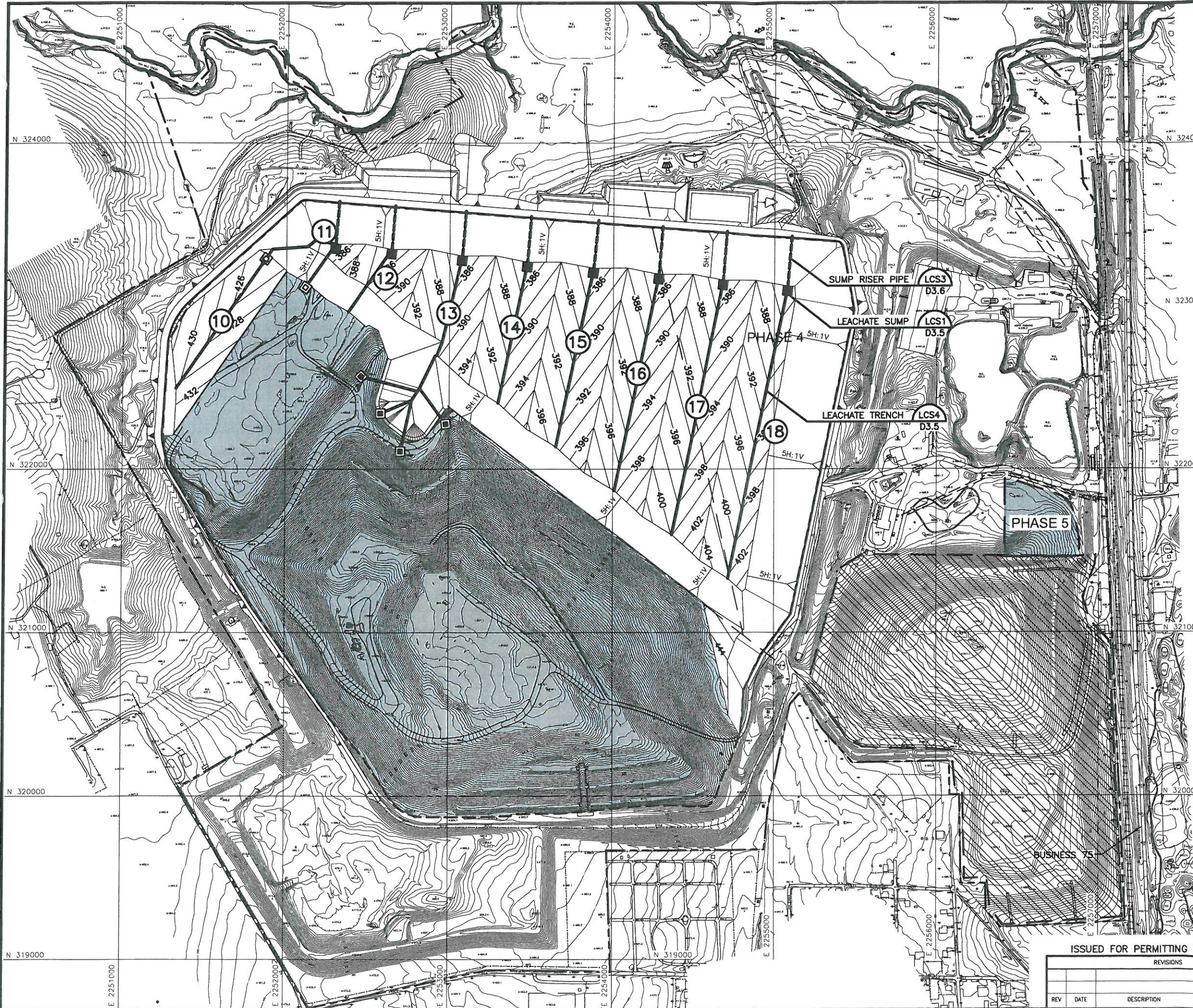


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<b>WASTE MANAGEMENT OF TEXAS, INC. SKYLINE LANDFILL MAJOR PERMIT AMENDMENT</b>			
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CHK. DLC	DWG : D3.2-3-LinerDetails.dwg		

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**LEGEND**

- PERMIT BOUNDARY
- LANDFILL FOOTPRINT
- 550 --- EXISTING GROUND CONTOUR
- 430 --- TOP OF LINER CONTOUR
- LEACHATE COLLECTION TRENCH
- SUMP RISER PIPE
- LEACHATE COLLECTION SUMP
- TEMPORARY LEACHATE COLLECTION SUMP TO BE REMOVED
- EXISTING LEACHATE COLLECTION SUMP TO BE REMOVED
- ⑩ CELL DESIGNATION
- LINED AREA
- ▨ PRE-SUBTITLE D AREA WITH FINAL COVER

**NOTES:**

1. EXISTING CONTOURS COMPILED BY AEROMETRIC FROM AERIAL PHOTOGRAPHY, FLOWN MARCH 6, 2011. COORDINATE SYSTEM IS BASED ON TEXAS STATE PLANE NAD 27, TEXAS NORTH CENTRAL ZONE, US FEET.
2. PROPOSED CONTOURS DEPICT TOP OF PROTECTIVE COVER.



**LEACHATE COLLECTION SYSTEM PLAN**  
**WASTE MANAGEMENT OF TEXAS, INC.**  
**SKYLINE LANDFILL**  
**MAJOR PERMIT AMENDMENT**



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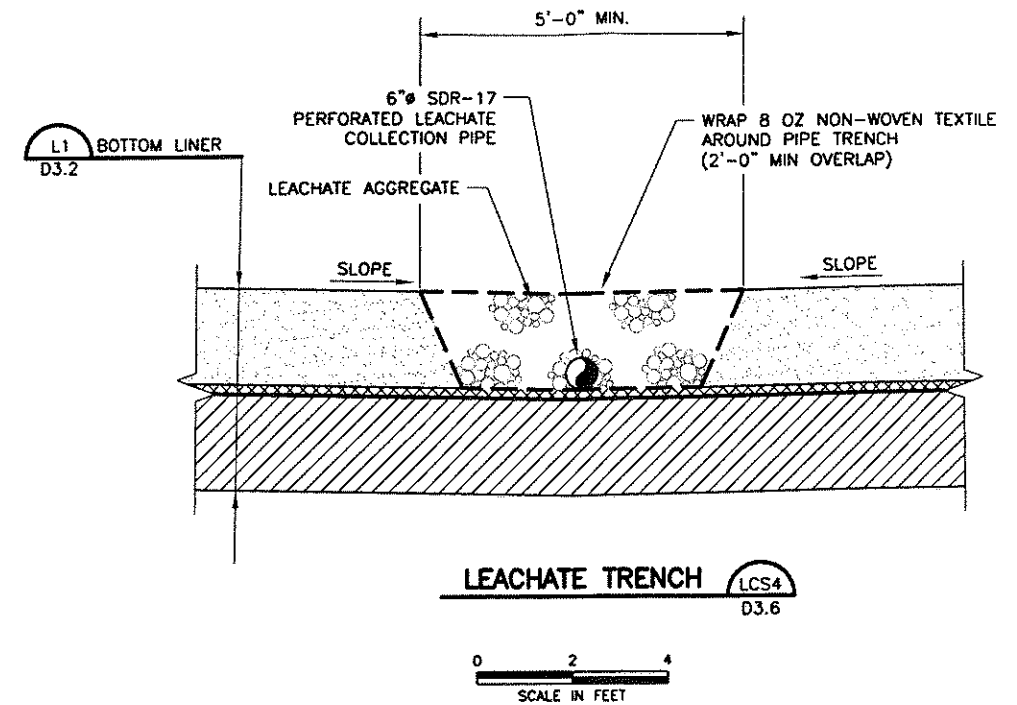
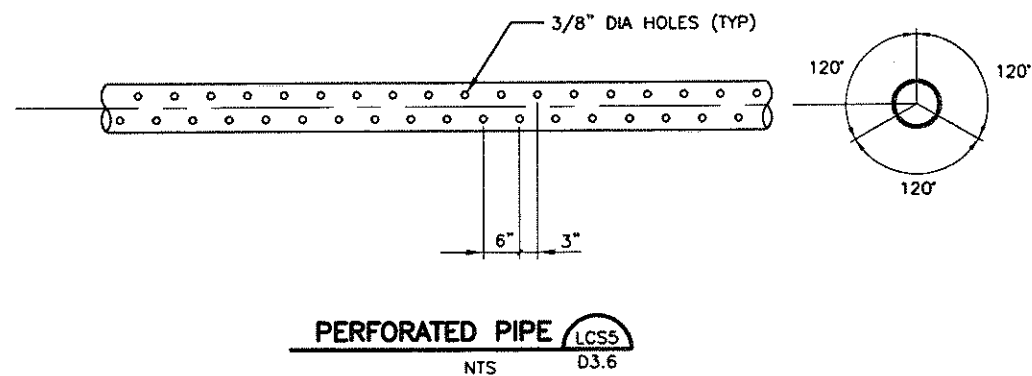
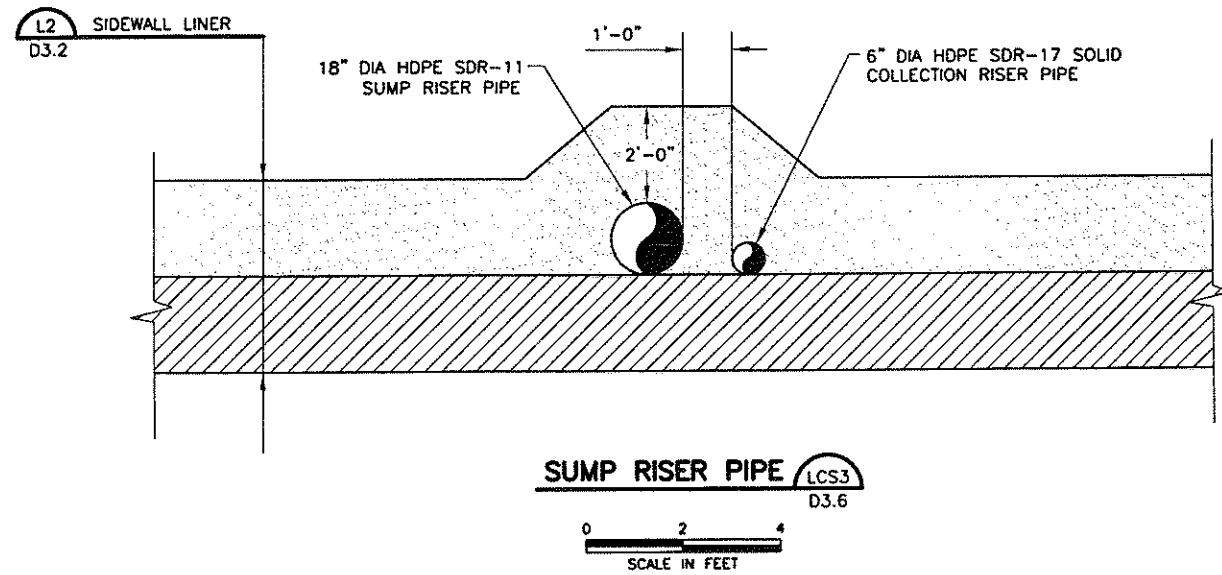
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**NOTES:**

- REFER TO ATTACHMENTS D6 AND D7 FOR INSTALLATION AND MATERIAL REQUIREMENTS.



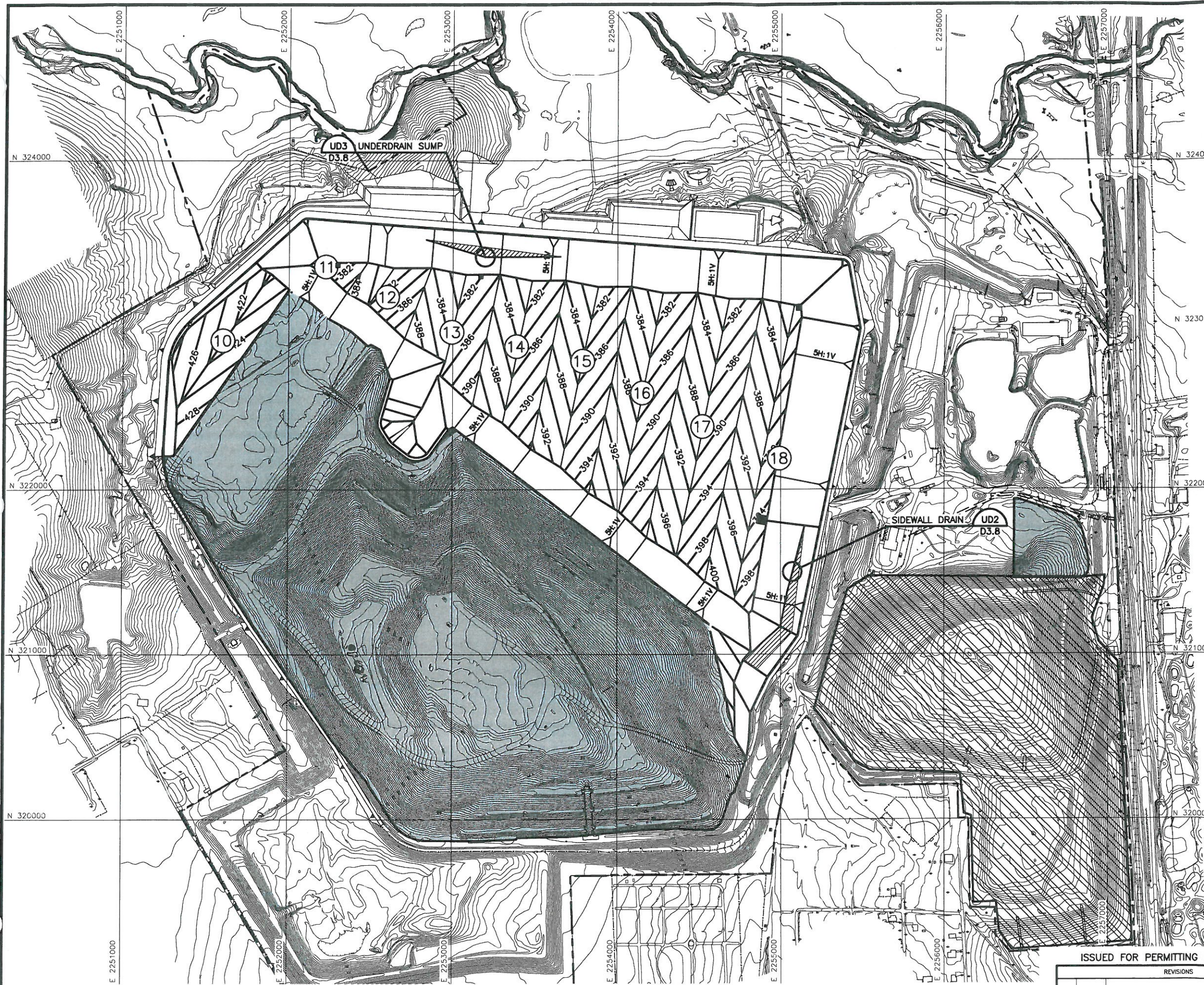
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<b>LEACHATE COLLECTION SYSTEM DETAILS</b>	
<b>WASTE MANAGEMENT OF TEXAS, INC. SKYLINE LANDFILL MAJOR PERMIT AMENDMENT</b>	
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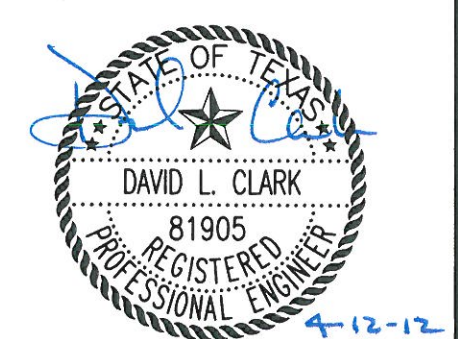


**LEGEND**

- PERMIT BOUNDARY
- LANDFILL FOOTPRINT
- 550--- EXISTING GROUND CONTOUR
- N 323000 STATE PLANE GRID (NAD 27)
- 420--- PROPOSED EXCAVATION CONTOUR
- CELL BOUNDARY
- ⑩ CELL DESIGNATION
- LINED AREA
- ▨ TEMPORARY DEWATERING ZONE
- ▨ PRE-SUBTITLE D AREA WITH FINAL COVER

**NOTE:**

1. EXISTING CONTOURS COMPILED BY AEROMETRIC FROM AERIAL PHOTOGRAPHY. FLOWN MARCH 6, 2011. COORDINATE SYSTEM IS BASED ON TEXAS STATE PLANE NAD 27, TEXAS NORTH CENTRAL ZONE, US FEET.
2. PROPOSED CONTOURS DEPICT LINER SUBGRADE (EXCAVATION) GRADES.
3. SIDEWALL DRAIN LOCATIONS ARE APPROXIMATE. ACTUAL LOCATION TO BE DETERMINED BASED ON STRATUM II MATERIALS AS IDENTIFIED IN THE FIELD.



**TEMPORARY DEWATERING PLAN**  
**WASTE MANAGEMENT OF TEXAS, INC.**  
**SKYLINE LANDFILL**  
**MAJOR PERMIT AMENDMENT**

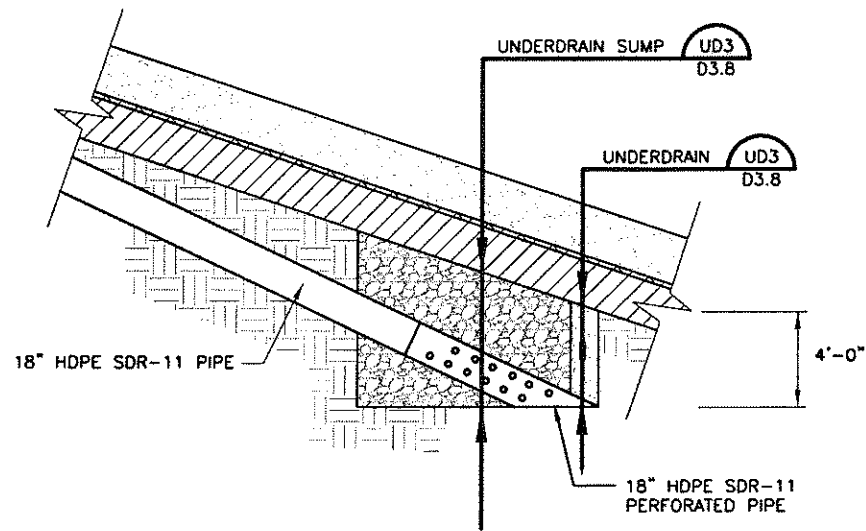


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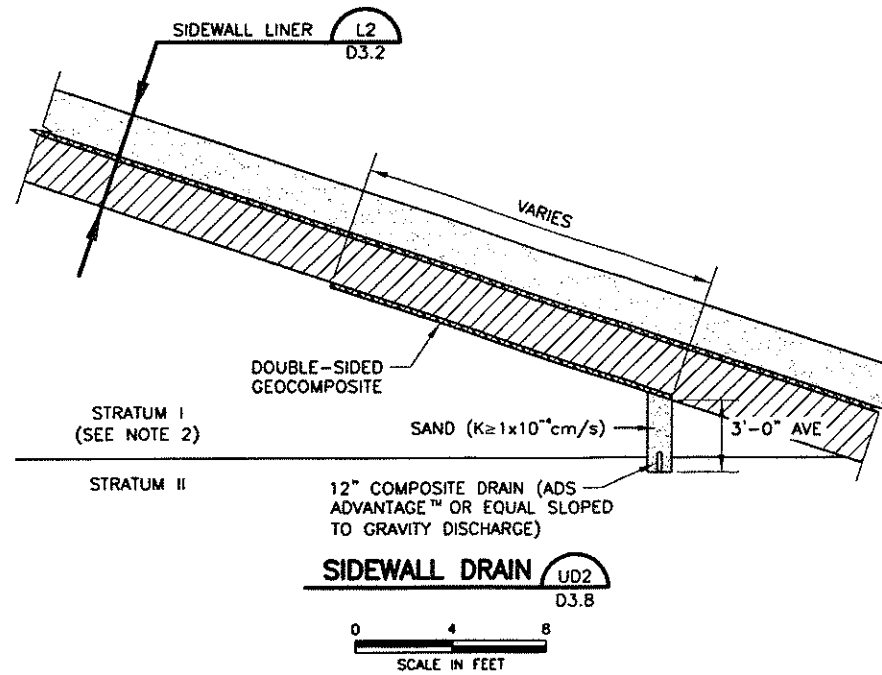
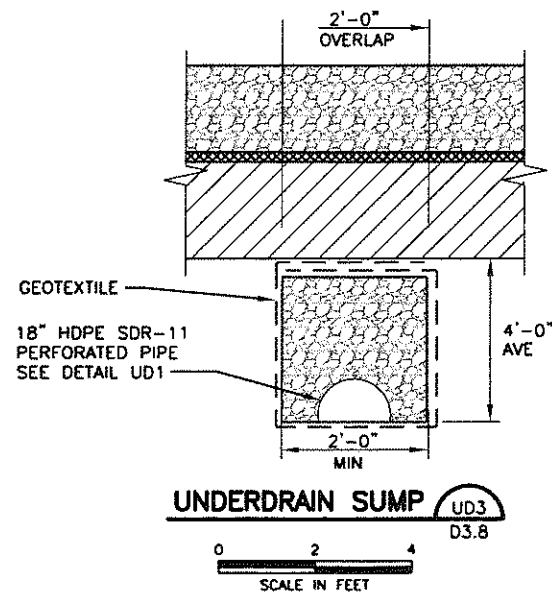
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**UNDERDRAIN SUMP AND RISER** (UD1)  
 (SEE NOTE 3) D3.8  
 SCALE IN FEET



**NOTES:**

1. REFER TO ATTACHMENT D7 FOR INSTALLATION AND MATERIAL REQUIREMENTS.
2. SIDEWALL DRAIN LOCATION TO BE DETERMINED IN THE FIELD BASED ON IDENTIFICATION OF STRATUM I AND II MATERIALS.
3. AN UNDERDRAIN SUMP WILL ONLY BE REQUIRED WHEN SIDEWALL DRAIN CANNOT BE GRAVITY DRAINED TO AN ADJACENT OPEN EXCAVATION.



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**UNDERDRAIN DETAILS**  
**WASTE MANAGEMENT OF TEXAS, INC.**  
**SKYLINE LANDFILL**  
**MAJOR PERMIT AMENDMENT**

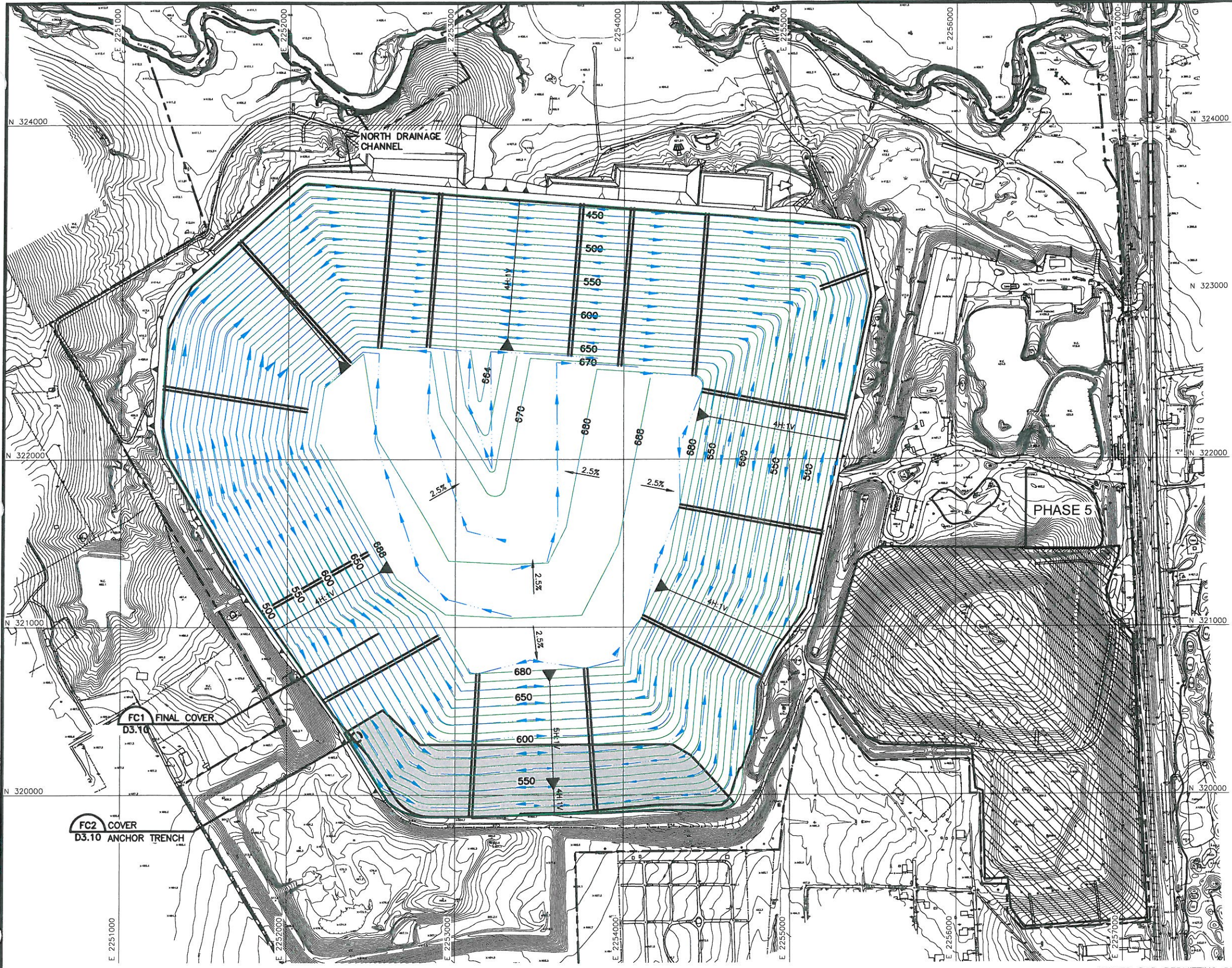


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- LEGEND**
- PERMIT BOUNDARY
  - LANDFILL FOOTPRINT
  - 500 EXISTING CONTOUR
  - N 323000 STATE PLANE GRID (NAD 27)
  - 650 PROPOSED FINAL CONTOUR
  - PROPOSED DRAINAGE SWALE
  - AREAS WITH FINAL COVER
  - ▨ PRE-SUBTITLE D AREA WITH FINAL COVER

- NOTES:**
1. EXISTING CONTOURS COMPILED BY AEROMETRIC FROM AERIAL SURVEY FLOWN MARCH 6, 2011. COORDINATE SYSTEM IS BASED ON TEXAS STATE PLANE NAD 27, TEXAS NORTH CENTRAL.
  2. PROPOSED CONTOURS DEPICT TOP OF FINAL COVER.
  3. MAXIMUM FINAL COVER ELEVATION: 688 FT-MSL  
MAXIMUM WASTE FILL ELEVATION: 683.5 FT-MSL



**FINAL COVER PLAN**

**WASTE MANAGEMENT OF TEXAS, INC.**  
**SKYLINE LANDFILL**  
**MAJOR PERMIT AMENDMENT**


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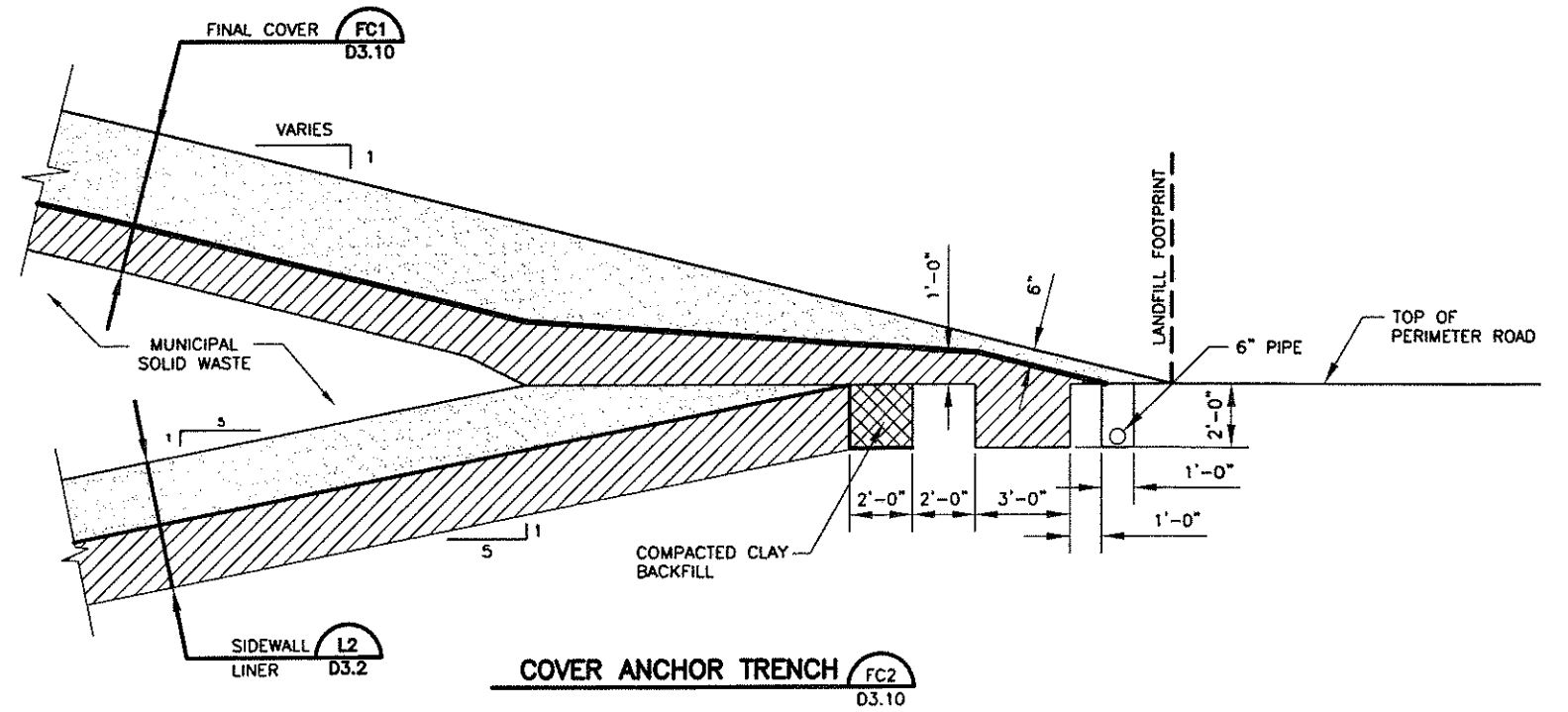
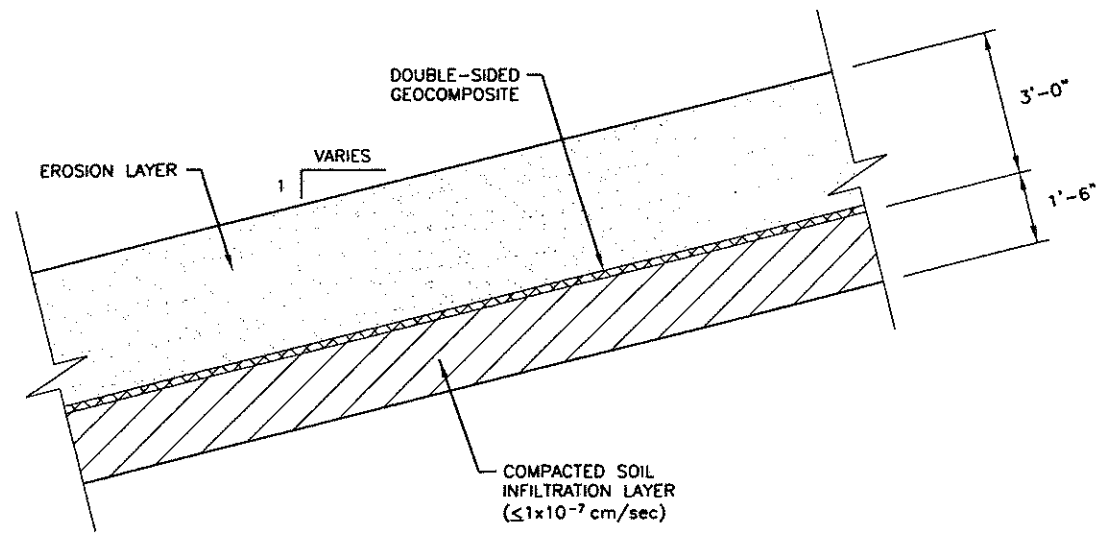
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<b>FINAL COVER DETAILS</b>	
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TBPE FIRM NO. F-256	TBPG FIRM NO. 50222
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