

**Changed Pages**

**Part III, Appendix III-D.3**

**Landfill Design and Details**

**Part III**  
**Attachment III-D**  
**Appendix III-D.3**

**LANDFILL DESIGN AND DETAILS**

**Pescadito Environmental Resource Center**  
**MSW No. 2374**  
**Webb County, Texas**

**PESCADITO**  
ENVIRONMENTAL RESOURCE CENTER

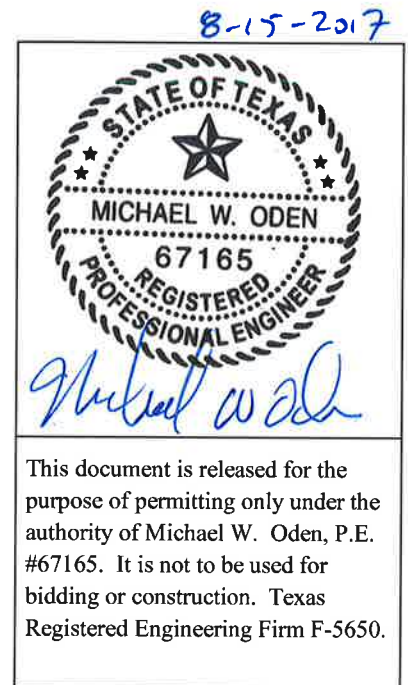
Initial Submittal March 2015  
Revised September 2015  
Technically Complete March 11, 2016  
Revised August 2016  
**Modified August 2017**

**Prepared for:**  
**Rancho Viejo Waste Management, LLC**  
**1116 Calle del Norte**  
**Laredo, TX 78041**

**Prepared by:**  
**APTIM Environmental and**  
**Infrastructure, Inc.**  
(f/k/a CB&I Environmental &  
Infrastructure, Inc.)



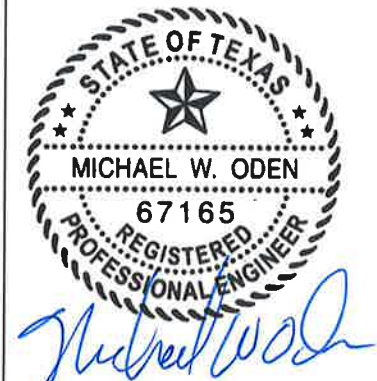
**12005 Ford Rd, Suite 600**  
**Dallas, TX 75234**



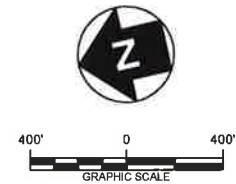
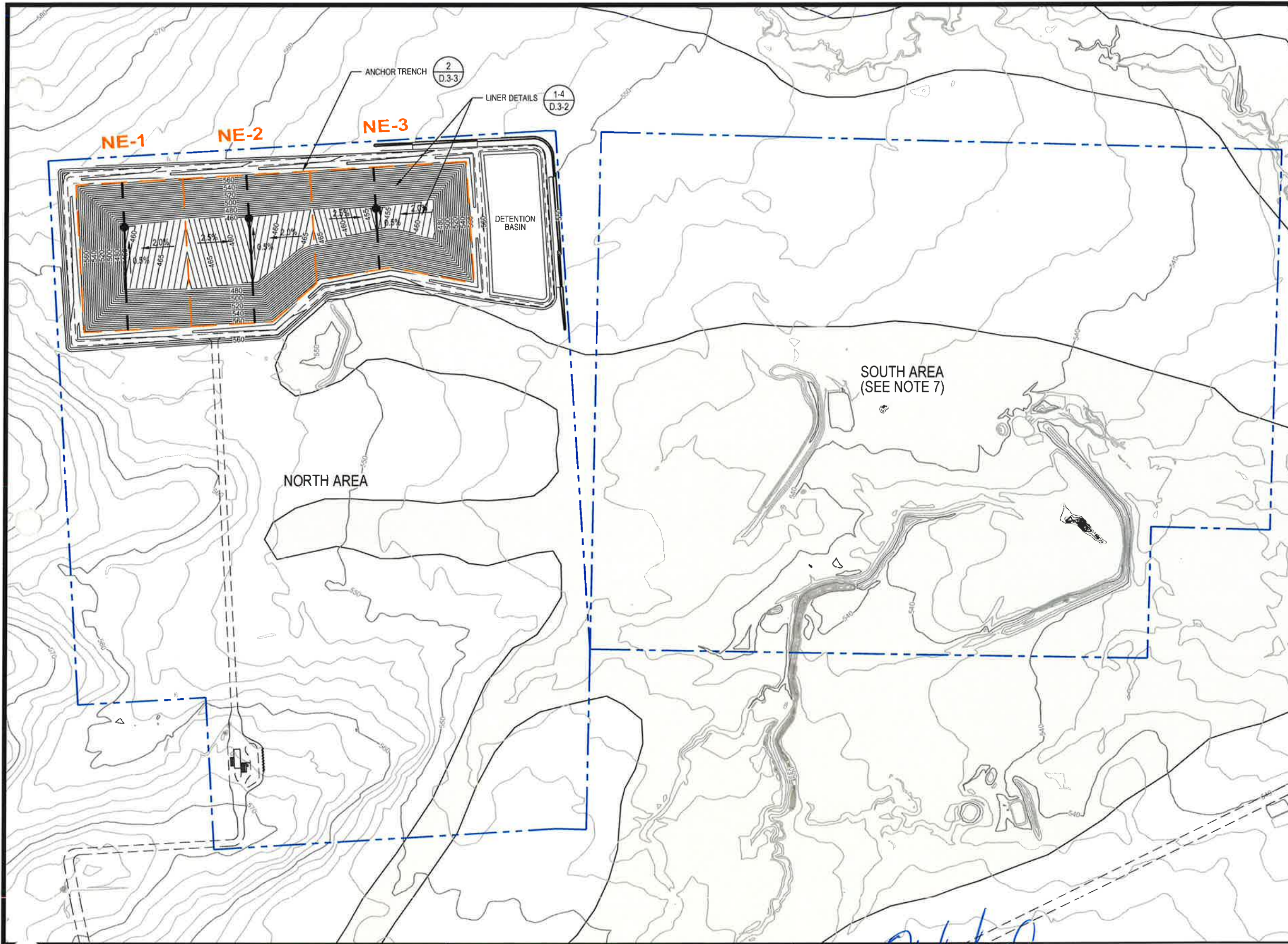
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8-15-2017



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**LEGEND**

- PERMIT BOUNDARY
- WASTE UNIT BOUNDARY
- PERIMETER ACCESS ROAD
- TOP OF LINER ELEVATION
- 100-YEAR FLOODPLAIN (PER FIRM DATED APRIL 2, 2008, SEE NOTE 6)
- LEACHATE COLLECTION PIPE
- LEACHATE SUMP LOCATION
- LEACHATE SUMP RISER PIPES

**NOTES**

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY DALLAS AERIAL SURVEYS ON FEBRUARY 15, 2010.
2. BOUNDARY AND IMPROVEMENT SURVEY DEVELOPED BY MEJIA ENGINEERING COMPANY ON AUGUST 15, 2011 AND JUNE 9, 2014.
3. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
4. THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
5. ALL CELLS ARE DESIGNATED TO POTENTIALLY RECEIVE CLASS I NON-HAZARDOUS INDUSTRIAL WASTE. ELEVATION SHOWN IS FOR TOP OF 3' THICK COMPACTED SOIL LINER. CELLS THAT WILL RECEIVE ONLY MUNICIPAL SOLID WASTE WILL HAVE 2' THICK COMPACTED SOIL LINER.
6. 100-YEAR FLOODPLAIN FROM FLOOD INSURANCE RATE MAP FOR WEBB COUNTY, TEXAS, MAP NO. 48479C1275C, DATED APRIL 2, 2008. A CLOMR THAT WOULD REMOVE A LARGE AREA OF THE 100-YEAR FLOODPLAIN WITHIN THE PERMIT BOUNDARY WAS APPROVED BY FEMA ON NOVEMBER 21, 2014; HOWEVER, THE CLOMR IMPROVEMENTS HAVE NOT BEEN CONSTRUCTED.
7. FUTURE WASTE PROCESSING OR DISPOSAL AREA SUBJECT TO PERMIT MODIFICATION OR AMENDMENT.

REV. NO.	DATE	DESCRIPTION
1	08/2017	REVISED WASTE UNIT BOUNDARY

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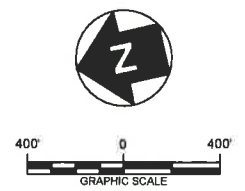
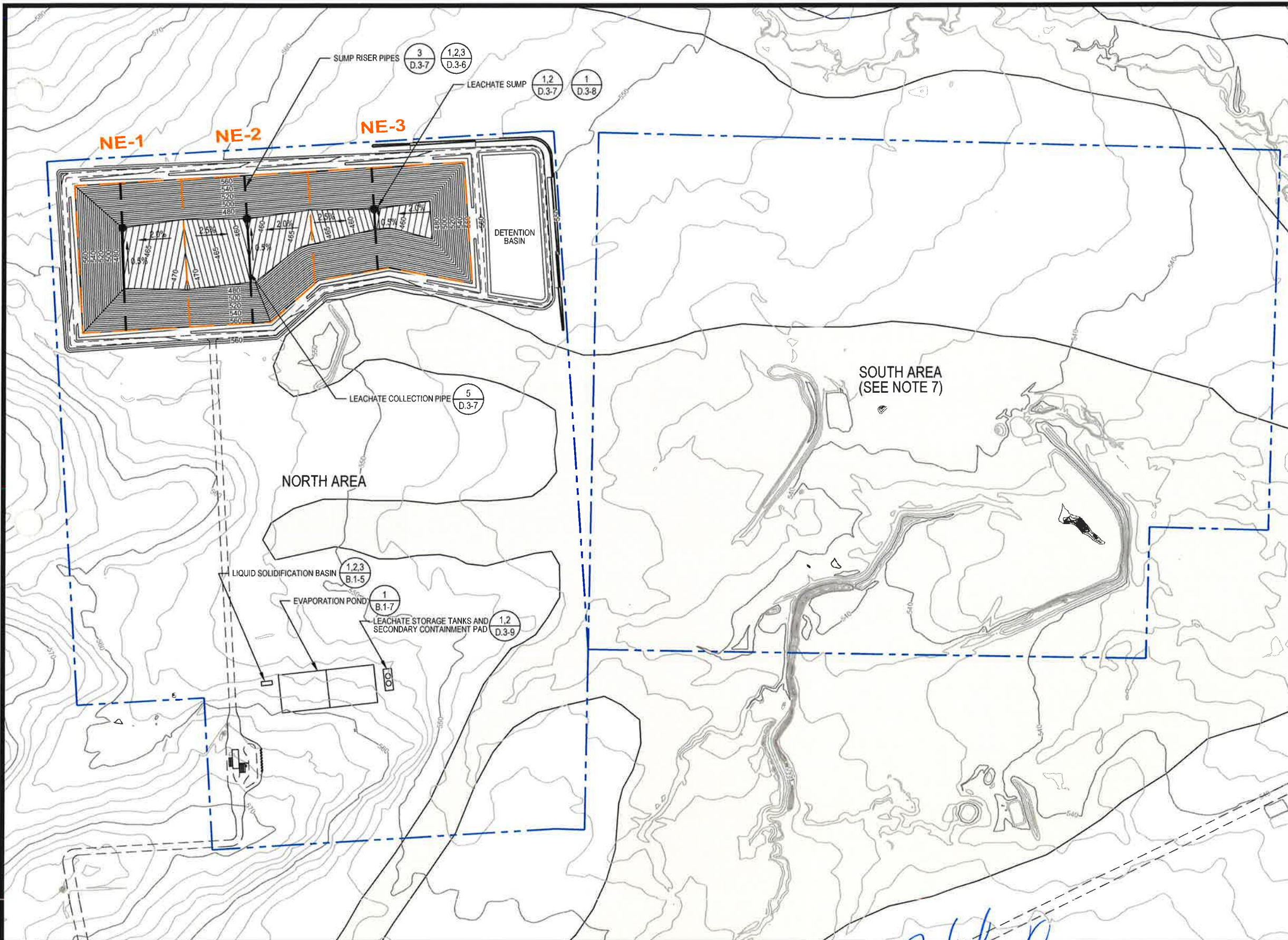
STATE OF TEXAS  
 MICHAEL W. ODEN  
 67165  
 REGISTERED PROFESSIONAL ENGINEER

*Michael W. Oden*  
 8-15-2017

**PESCADITO ENVIRONMENTAL RESOURCE CENTER**  
**WEBB COUNTY, TEXAS**  
**MSW 2374**

LINER PLAN

PROJ. NO.:	148866	DATE:	AUGUST 2017
DESIGNED BY:	--	DRAWING NO.:	III
DRAWN BY:	MTE		D.3-1
CHECKED BY:	RDS		
APPROVED BY:	MWO		1 OF 11 SHEETS



**LEGEND**

- PERMIT BOUNDARY
- WASTE UNIT BOUNDARY
- PERIMETER ACCESS ROAD
- 500 TOP OF LINER ELEVATION
- 100-YEAR FLOODPLAIN (PER FIRM DATED APRIL 2, 2008, SEE NOTE 6)
- LEACHATE COLLECTION PIPE
- LEACHATE SUMP LOCATION
- - - LEACHATE SUMP RISER PIPES

**NOTES**

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY DALLAS AERIAL SURVEYS ON FEBRUARY 15, 2010.
2. BOUNDARY AND IMPROVEMENT SURVEY DEVELOPED BY MEJIA ENGINEERING COMPANY ON AUGUST 15, 2011 AND JUNE 9, 2014.
3. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
4. THE NEED FOR FLEXIBILITY TO ACCOMMODATE ADJUSTMENTS AND MODIFICATIONS IS ANTICIPATED CONSIDERING THE SIZE, COMPLEXITY, AND LIFE OF THE PROJECT.
5. NOT ALL FACILITIES WILL BE CONSTRUCTED AT THE SAME TIME.
6. 100-YEAR FLOODPLAIN FROM FLOOD INSURANCE RATE MAP FOR WEBB COUNTY, TEXAS, MAP NO. 48479C1275C, DATED APRIL 2, 2008. A CLOMR THAT WOULD REMOVE A LARGE AREA OF THE 100-YEAR FLOODPLAIN WITHIN THE PERMIT BOUNDARY WAS APPROVED BY FEMA ON NOVEMBER 21, 2014; HOWEVER, THE CLOMR IMPROVEMENTS HAVE NOT BEEN CONSTRUCTED.
7. FUTURE WASTE PROCESSING OR DISPOSAL AREA SUBJECT TO PERMIT MODIFICATION OR AMENDMENT.

REV. NO.	DATE	DESCRIPTION
1	08/2017	REVISED WASTE UNIT BOUNDARY

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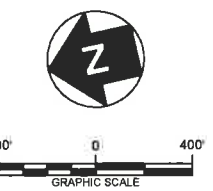
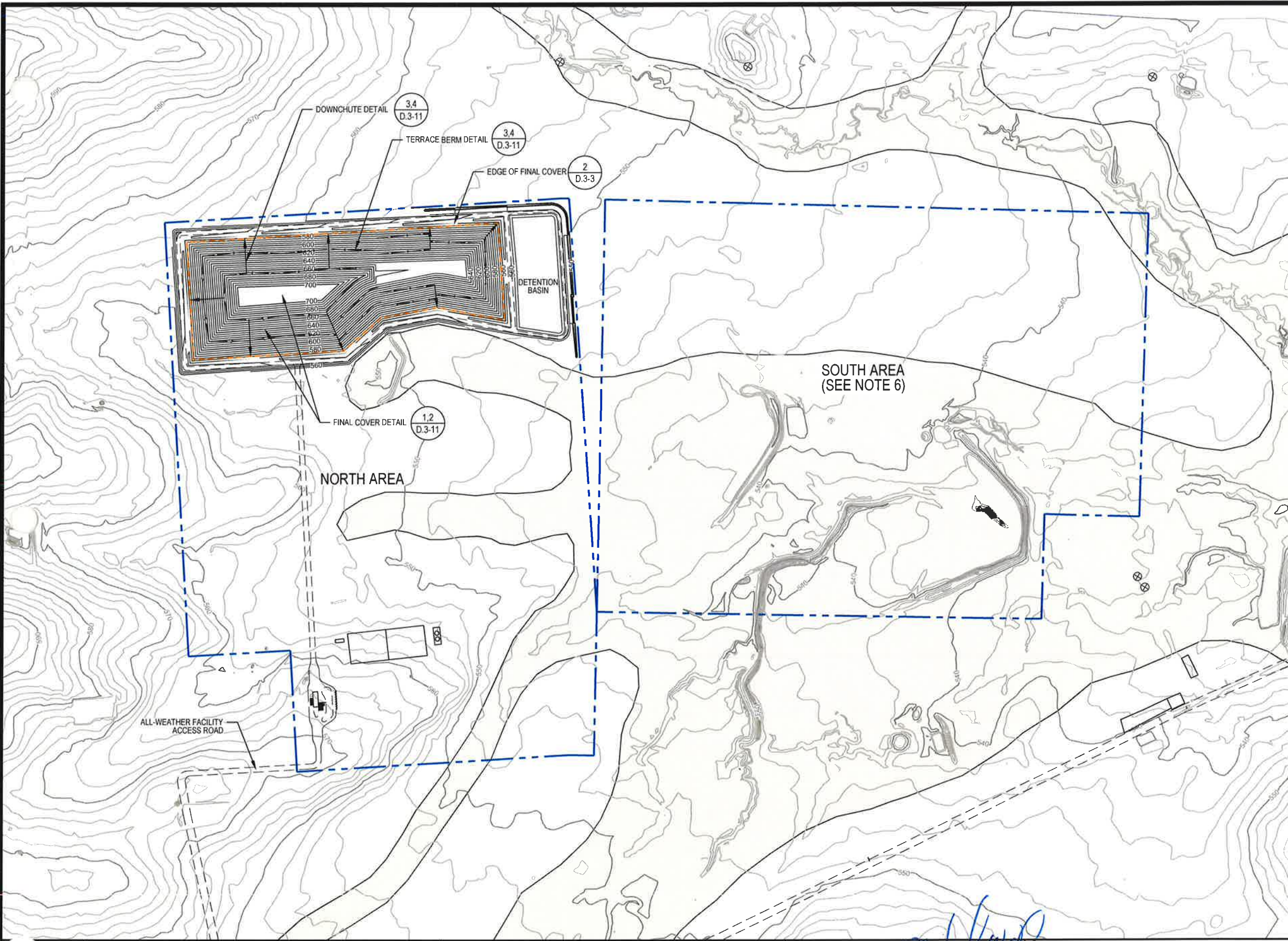


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 8-15-2017

**PESCADITO ENVIRONMENTAL RESOURCE CENTER  
 WEBB COUNTY, TEXAS  
 MSW 2374**

**LEACHATE COLLECTION SYSTEM PLAN**

PROJ. NO.:	148868	DATE:	AUGUST 2017
DESIGNED BY:	-	DRAWING NO.:	III
DRAWN BY:	MTE		<b>D.3-5</b>
CHECKED BY:	RDS		
APPROVED BY:	MWO		5 OF 11 SHEETS



**LEGEND**

- PERMIT BOUNDARY
- WASTE UNIT BOUNDARY
- PERIMETER ACCESS ROAD
- 100-YEAR FLOODPLAIN (PER FIRM DATED APRIL 2, 2008, SEE NOTE 5)

**NOTES**

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY DALLAS AERIAL SURVEYS ON FEBRUARY 15, 2010.
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6. FUTURE WASTE PROCESSING OR DISPOSAL AREA SUBJECT TO PERMIT MODIFICATION OR AMENDMENT.

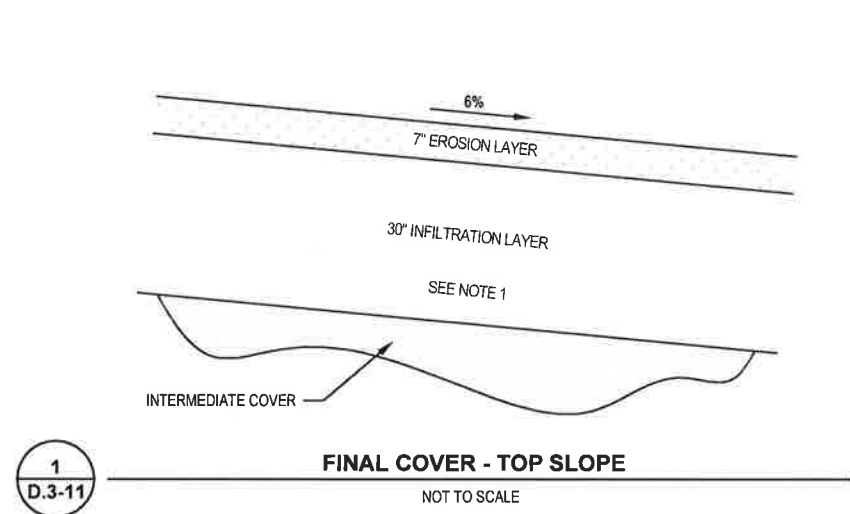
REV. NO.	DATE	DESCRIPTION
1	08/2017	REVISED WASTE UNIT BOUNDARY

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**PESCADITO ENVIRONMENTAL RESOURCE CENTER**  
**WEBB COUNTY, TEXAS**  
**MSW 2374**  
  
**FINAL COVER PLAN**

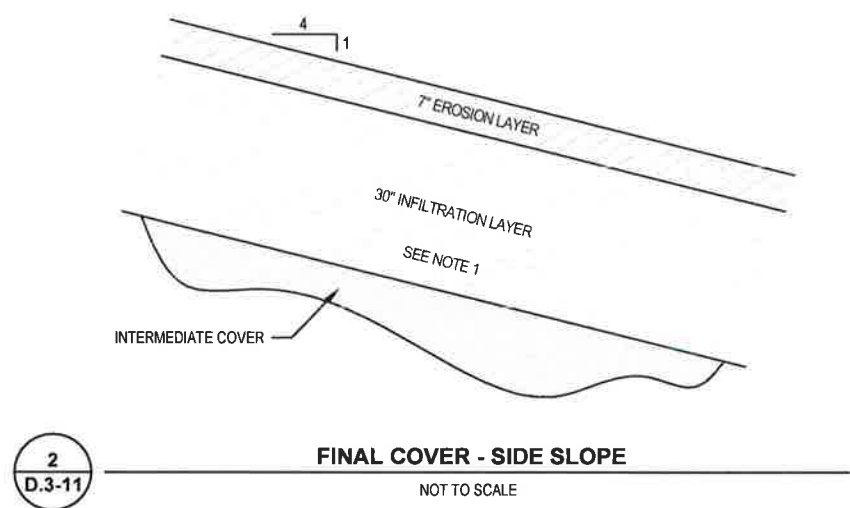
PROJ. NO.:	148866	DATE:	AUGUST 2017
DESIGNED BY:	-	DRAWING NO.:	<b>III</b>
DRAWN BY:	MTE		<b>D.3-10</b>
CHECKED BY:	RDS		
APPROVED BY:	MWO		4 OF 6 SHEETS



1  
D.3-11

FINAL COVER - TOP SLOPE

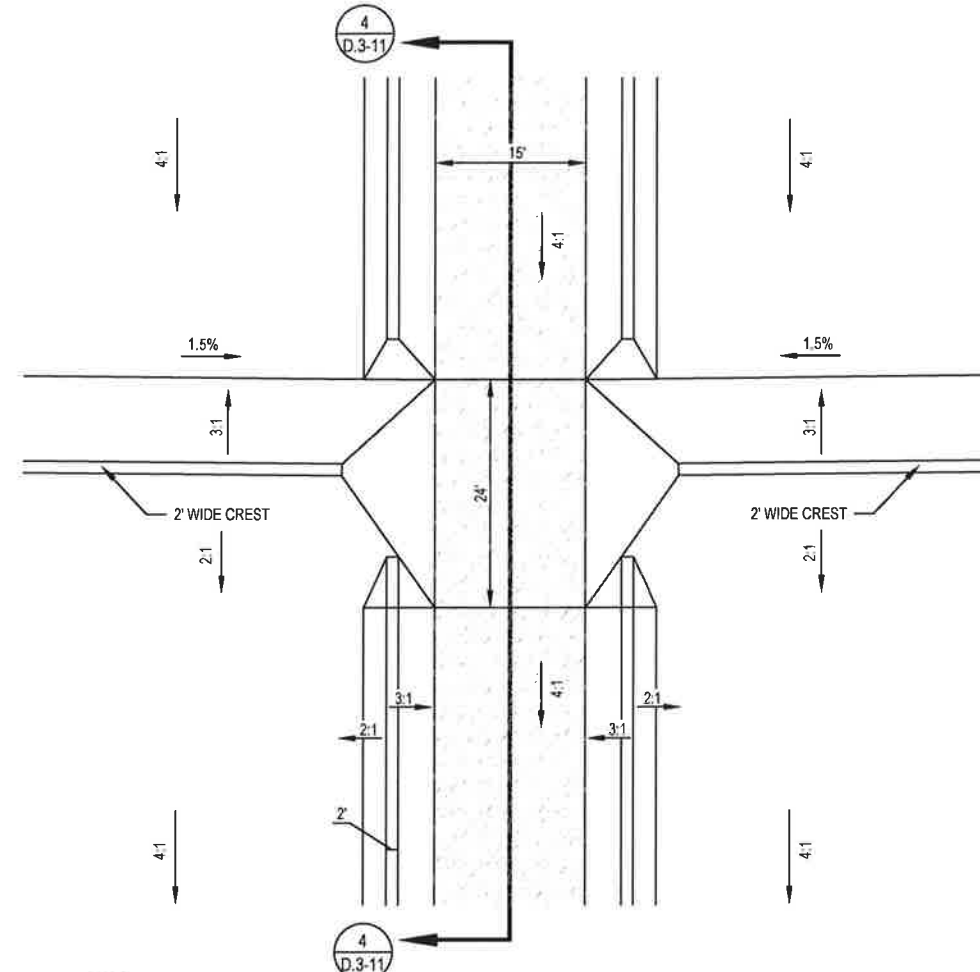
NOT TO SCALE



2  
D.3-11

FINAL COVER - SIDE SLOPE

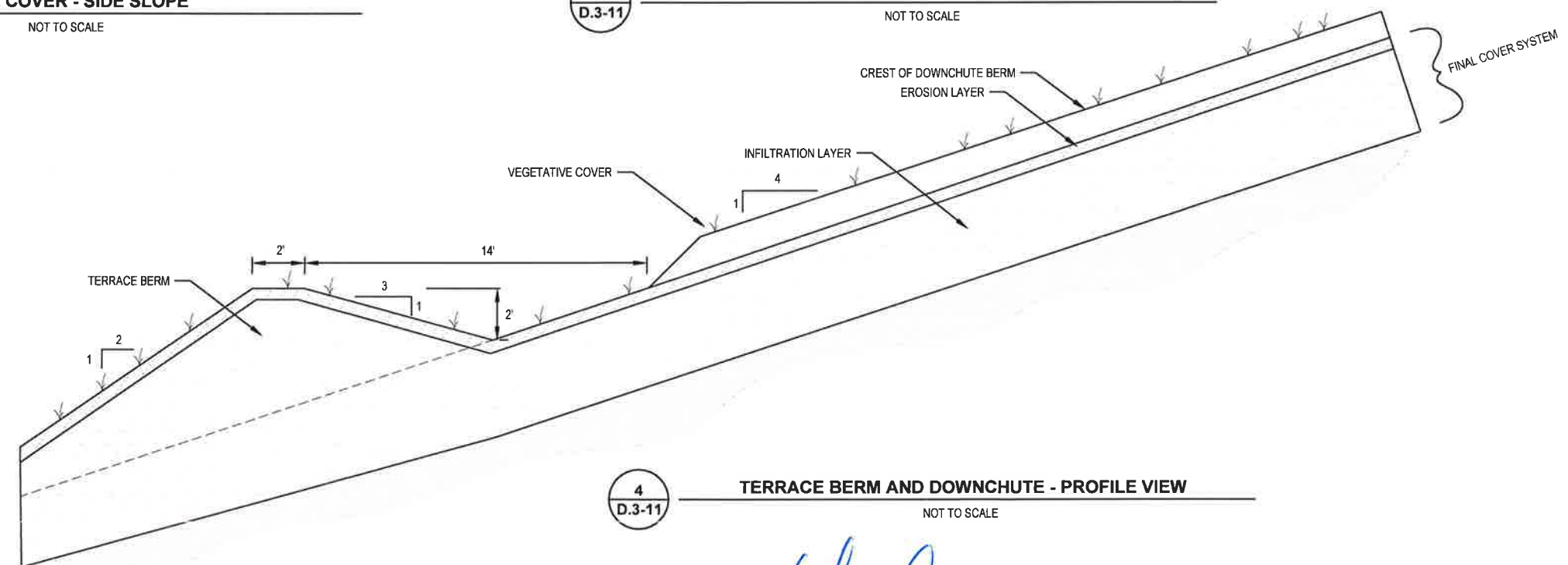
NOT TO SCALE



3  
D.3-11

TERRACE BERM AND DOWNCHUTE - SECTION VIEW

NOT TO SCALE



4  
D.3-11

TERRACE BERM AND DOWNCHUTE - PROFILE VIEW

NOT TO SCALE

NOTES:  
1. FINAL COVER SYSTEM IS DESCRIBED IN APPENDIX III-D.8. IF CLASS I INDUSTRIAL WASTE IS PLACED IN THE CELL, A FML AND DRAINAGE LAYER WILL BE INCLUDED IN THE FINAL COVER SYSTEM OVER THE CELL.

REV. NO.	DATE	DESCRIPTION
1	8/2016	REVISED CALL OUTS; ADDED NOTE 1

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STATE OF TEXAS  
 MICHAEL W. ODEN  
 67165  
 REGISTERED PROFESSIONAL ENGINEER  
 8-15-2017

**PESCADITO ENVIRONMENTAL RESOURCE CENTER**  
**WEBB COUNTY, TEXAS**  
**MSW 2374**

FINAL COVER DETAILS

PROJ. NO.:	148866	DATE:	AUGUST 2017
DESIGNED BY:	-	DRAWING NO.:	III
DRAWN BY:	MTE		<b>D.3-11</b>
CHECKED BY:	RDS		
APPROVED BY:	MWO		11 OF 11 SHEETS