

HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS

PREPARED FOR
BOARD OF COUNTY COMMISSIONERS
HARDEE COUNTY, FLORIDA

JUNE 2010

DRAWING INDEX

DRAWING NO.	DRAWING TITLE
1	COVER
2	OVERALL AERIAL SITE PLAN (MARCH 2007)
3	EXISTING CONDITIONS AERIAL PHOTOGRAPH (06/12/2008)
4	EXISTING CONDITIONS TOPOGRAPHIC SURVEY (06/12/2008)
5	EXISTING CONDITIONS TOPOGRAPHIC SURVEY (06/12/2008)
6	PROJECT AREA EXISTING CONDITIONS SITE PLAN
7	TOP OF INTERMEDIATE COVER SITE PLAN
8	TOP OF INTERMEDIATE COVER GRADING CONTROL POINTS SITE PLAN
9	TOP OF INTERMEDIATE COVER GRADING CONTROL POINTS TABLE
10	FINAL CLOSURE SITE PLAN
11	FINAL CLOSURE SECTIONS
12	TOP OF FINAL CLOSURE GRADING CONTROL POINTS SITE PLAN
13	TOP OF FINAL CLOSURE GRADING CONTROL POINTS TABLE - 1
14	TOP OF FINAL CLOSURE GRADING CONTROL POINTS TABLE - 2
15	TOP OF PERIMETER SWALE GRADING CONTROL POINTS SITE PLAN
16	TOP OF PERIMETER SWALE GRADING CONTROL POINTS TABLE
17	LFG CONTROL SYSTEM SITE PLAN
18	DETAILS - 1
19	DETAILS - 2
20	DETAILS - 3
21	DETAILS - 4
22	DETAILS - 5
23	DETAILS - 6
24	DETAILS - 7

PEAVEY & ASSOCIATES - SURVEYING AND MAPPING, P.A.

- 188 (SHEET 1 OF 5) - PRE-TOPOGRAPHIC SURVEY
- 188 (SHEET 2 OF 5) - AS-BUILT SURVEY - EXCAVATION
- 188 (SHEET 3 OF 5) - AS-BUILT SURVEY - PIPES
- 188 (SHEET 4 OF 5) - AS-BUILT SURVEY - INTERMEDIATE
- 188 (SHEET 5 OF 5) - AS-BUILT SURVEY - PROTECTIVE COVER

RECORD DRAWING SET

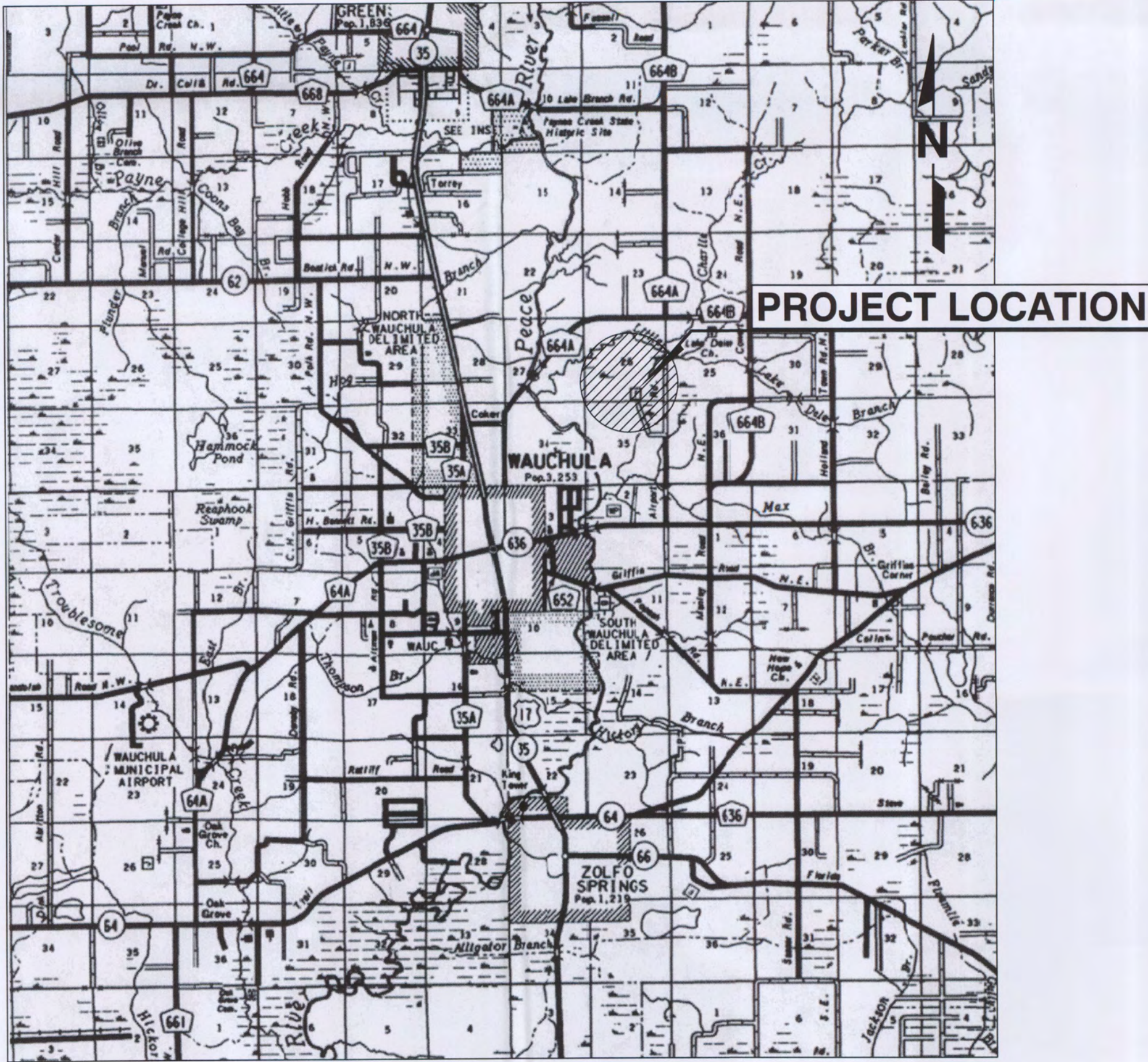
THIS RECORD DRAWING SET HAS BEEN PREPARED
BASED ON INFORMATION PROVIDED BY OTHERS.
THE ENGINEER HAS NOT VERIFIED THE ACCURACY
OF THIS INFORMATION AND SHALL NOT BE
RESPONSIBLE FOR ANY ERRORS OR OMISSIONS
WHICH MAY BE INCORPORATED HEREIN AS A
RESULT.

SCS ENGINEERS Date: MAY 2011

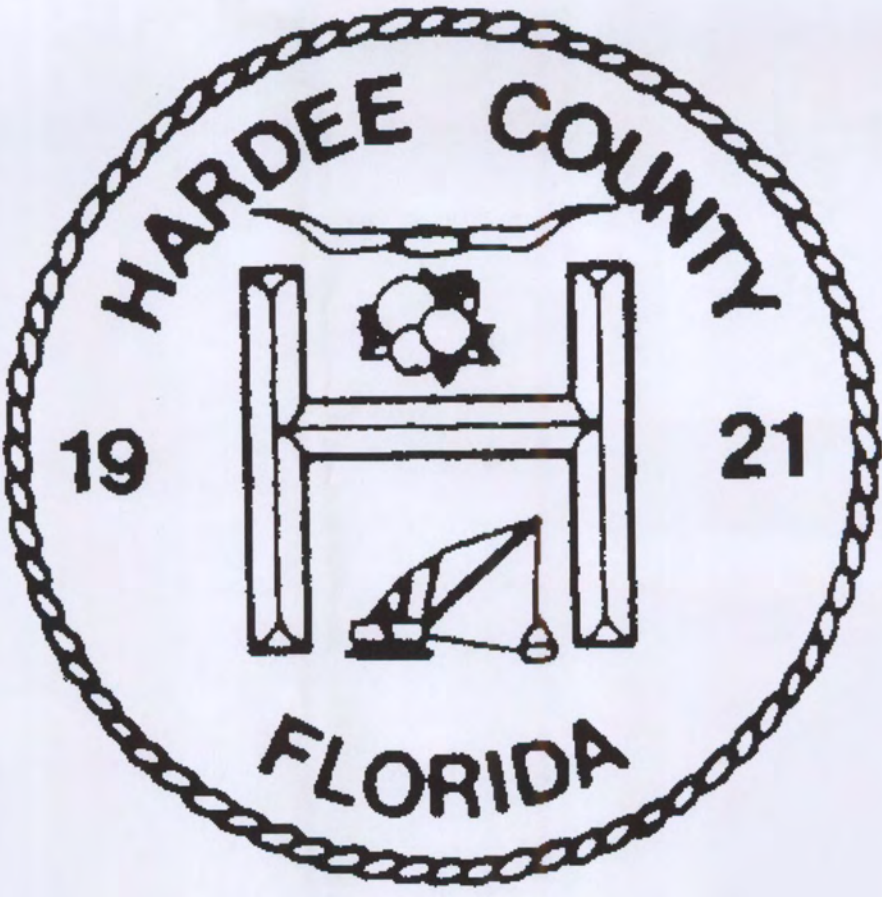
ISSUED FOR BID SET - 08/09/2010.
CONFORMED SET - 10/06/2010.

RECORD DRAWING SET

DATE: MAY 31, 2011
12/05/11 REVISED PER FDEP RAI NO. 1



LOCATION MAP
NOT TO SCALE

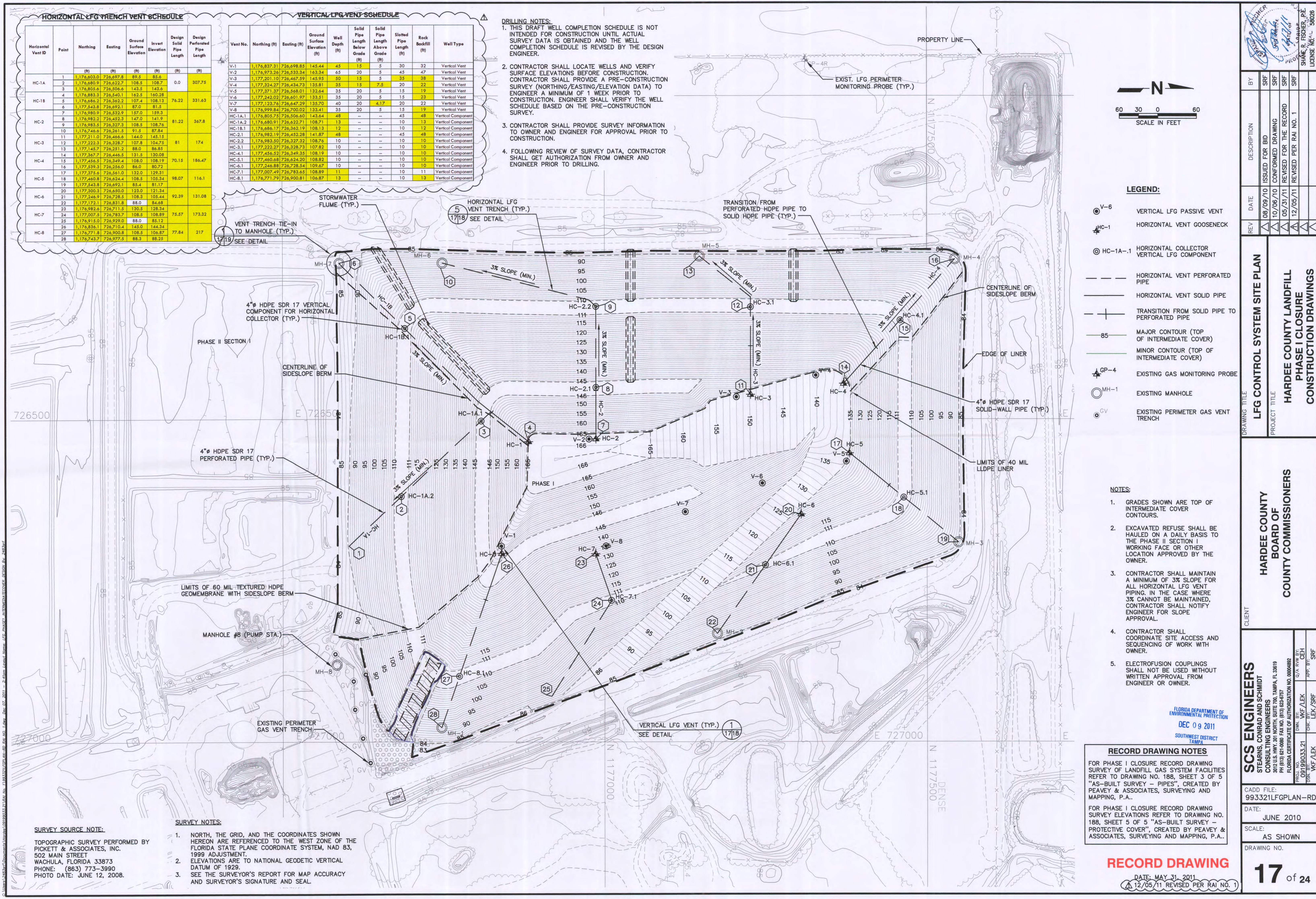


SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS

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PH (813) 621-0080 FAX NO. (813) 623-6757
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FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
SCS PROJECT NO. 09199033.21

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DEC 09 2011
SOUTHWEST DISTRICT
TAMPA

SHANE R. FISCHER
FLORIDA PROFESSIONAL ENGINEER
NO. 120024
EXPIRATION DATE 12/31/14



HORIZONTAL LFG VENT SCHEDULE						
Horizontal Vent ID	Point	North	East	Ground Surface Elevation	Invert Elevation	Design Solid Pipe Length
HC-1A	1	1,176,603.0	726,697.8	89.5	85.6	
	2	1,176,680.9	726,622.7	108.5	108.7	0.0
	3	1,176,805.6	726,506.6	143.5	143.6	
HC-1B	4	1,176,883.3	726,540.1	163.5	160.28	
	5	1,176,882.2	726,542.2	107.4	108.13	76.22
	6	1,177,543.8	726,692.1	87.0	81.5	331.63
HC-2	7	1,176,980.9	726,532.9	157.0	159.3	
	8	1,176,982.2	726,552.3	147.0	141.9	
	9	1,176,983.5	726,527.3	108.5	108.76	81.22
HC-3	10	1,176,746.6	726,561.3	91.5	87.84	
	11	1,177,211.0	726,466.6	144.0	145.15	
	12	1,177,222.3	726,528.7	107.8	104.75	81
HC-4	13	1,177,145.7	726,521.2	88.0	86.85	
	14	1,177,367.7	726,446.5	131.5	130.08	
	15	1,177,456.5	726,349.4	108.0	108.19	70.15
HC-5	16	1,177,539.3	726,256.0	86.0	80.72	
	17	1,177,735.6	726,561.0	132.0	129.31	
	18	1,177,460.8	726,624.4	108.5	105.34	98.07
HC-6	19	1,177,543.8	726,692.1	85.4	81.17	
	20	1,177,300.3	726,650.0	123.0	121.34	
	21	1,177,246.9	726,728.5	108.3	105.44	92.39
HC-7	22	1,177,172.1	726,831.8	86.0	84.88	
	23	1,176,982.6	726,711.5	130.5	128.34	
	24	1,177,007.5	726,783.7	108.5	108.89	75.57
HC-8	25	1,176,915.0	726,529.0	88.0	85.12	
	26	1,176,836.1	726,710.4	145.0	144.34	
	27	1,176,771.8	726,900.8	108.5	106.87	77.84
	28	1,176,743.7	726,977.5	88.3	88.25	

VERTICAL LFG VENT SCHEDULE									
Vent No.	North	East	Ground Surface Elevation	Well Depth	Solid Pipe Length Below Grade	Solid Pipe Length Above Grade	Slot Pipe Length	Rock Backfill	Well Type
V-1	1,176,837.31	726,698.85	145.44	45	15	5	30	32	Vertical Vent
V-2	1,176,973.26	726,533.34	163.34	65	20	5	15	47	Vertical Vent
V-3	1,177,201.97	726,467.59	145.95	60	15	5	25	38	Vertical Vent
V-4	1,177,324.27	726,434.73	135.81	35	15	7.5	20	22	Vertical Vent
V-5	1,177,371.37	726,568.01	132.64	35	20	5	15	19	Vertical Vent
V-6	1,177,242.02	726,601.97	133.51	35	20	5	15	23	Vertical Vent
V-7	1,177,123.76	726,647.29	135.70	40	20	4.17	20	22	Vertical Vent
V-8	1,176,999.84	726,700.02	133.41	35	20	5	15	19	Vertical Vent
HC-1A.1	1,176,803.73	726,506.60	143.64	48	--	--	45	48	Vertical Component
HC-1A.2	1,176,880.91	726,522.71	108.71	13	--	--	10	13	Vertical Component
HC-1B.1	1,176,886.17	726,562.19	108.13	12	--	--	10	12	Vertical Component
HC-2.1	1,176,982.19	726,452.28	141.87	48	--	--	45	48	Vertical Component
HC-2.2	1,176,983.50	726,527.32	108.76	10	--	--	10	10	Vertical Component
HC-3.1	1,177,222.27	726,528.73	107.82	10	--	--	10	10	Vertical Component
HC-4.1	1,177,456.52	726,349.35	108.19	10	--	--	10	10	Vertical Component
HC-5.1	1,177,460.68	726,624.20	108.82	10	--	--	10	10	Vertical Component
HC-6.1	1,177,246.88	726,728.54	109.27	10	--	--	10	10	Vertical Component
HC-7.1	1,177,007.49	726,783.65	108.89	11	--	--	10	11	Vertical Component
HC-8.1	1,176,771.79	726,900.81	106.87	13	--	--	10	13	Vertical Component

- DRILLING NOTES:
- THIS DRAFT WELL COMPLETION SCHEDULE IS NOT INTENDED FOR CONSTRUCTION UNTIL ACTUAL SURVEY DATA IS OBTAINED AND THE WELL COMPLETION SCHEDULE IS REVISED BY THE DESIGN ENGINEER.
 - CONTRACTOR SHALL LOCATE WELLS AND VERIFY SURFACE ELEVATIONS BEFORE CONSTRUCTION. CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION SURVEY (NORTHING/EASTING/ELEVATION DATA) TO ENGINEER A MINIMUM OF 1 WEEK PRIOR TO CONSTRUCTION. ENGINEER SHALL VERIFY THE WELL SCHEDULE BASED ON THE PRE-CONSTRUCTION SURVEY.
 - CONTRACTOR SHALL PROVIDE SURVEY INFORMATION TO OWNER AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
 - FOLLOWING REVIEW OF SURVEY DATA, CONTRACTOR SHALL GET AUTHORIZATION FROM OWNER AND ENGINEER PRIOR TO DRILLING.

- LEGEND:
- V-6 VERTICAL LFG PASSIVE VENT
 - HC-1 HORIZONTAL VENT GOOSENECK
 - HC-1A-1 HORIZONTAL COLLECTOR VERTICAL LFG COMPONENT
 - HORIZONTAL VENT PERFORATED PIPE
 - HORIZONTAL VENT SOLID PIPE
 - TRANSITION FROM SOLID PIPE TO PERFORATED PIPE
 - 85 MAJOR CONTOUR (TOP OF INTERMEDIATE COVER)
 - MINOR CONTOUR (TOP OF INTERMEDIATE COVER)
 - GP-4 EXISTING GAS MONITORING PROBE
 - MH-1 EXISTING MANHOLE
 - GV EXISTING PERIMETER GAS VENT TRENCH

- NOTES:
- GRADES SHOWN ARE TOP OF INTERMEDIATE COVER CONTOURS.
 - EXCAVATED REFUSE SHALL BE HAULED ON A DAILY BASIS TO THE PHASE II SECTION I WORKING FACE OR OTHER LOCATION APPROVED BY THE OWNER.
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3% SLOPE FOR ALL HORIZONTAL LFG VENT PIPING. IN THE CASE WHERE 3% CANNOT BE MAINTAINED, CONTRACTOR SHALL NOTIFY ENGINEER FOR SLOPE APPROVAL.
 - CONTRACTOR SHALL COORDINATE SITE ACCESS AND SEQUENCING OF WORK WITH OWNER.
 - ELECTROFUSION COUPLINGS SHALL NOT BE USED WITHOUT WRITTEN APPROVAL FROM ENGINEER OR OWNER.

RECORD DRAWING NOTES

FOR PHASE I CLOSURE RECORD DRAWING SURVEY OF LANDFILL GAS SYSTEM FACILITIES REFER TO DRAWING NO. 188, SHEET 3 OF 5 "AS-BUILT SURVEY - PIPES", CREATED BY PEAVEY & ASSOCIATES, SURVEYING AND MAPPING, P.A..

FOR PHASE I CLOSURE RECORD DRAWING SURVEY ELEVATIONS REFER TO DRAWING NO. 188, SHEET 5 OF 5 "AS-BUILT SURVEY - PROTECTIVE COVER", CREATED BY PEAVEY & ASSOCIATES, SURVEYING AND MAPPING, P.A..

SURVEY SOURCE NOTE:

TOPOGRAPHIC SURVEY PERFORMED BY PICKETT & ASSOCIATES, INC. 502 MAIN STREET WACHULA, FLORIDA 33873 PHONE: (863) 773-3990 PHOTO DATE: JUNE 12, 2008.

SURVEY NOTES:

- NORTH, THE GRID, AND THE COORDINATES SHOWN HEREON ARE REFERENCED TO THE WEST ZONE OF THE FLORIDA STATE PLANE COORDINATE SYSTEM, NAD 83, 1999 ADJUSTMENT.
- ELEVATIONS ARE TO NATIONAL GEODETIC VERTICAL DATUM OF 1929.
- SEE THE SURVEYOR'S REPORT FOR MAP ACCURACY AND SURVEYOR'S SIGNATURE AND SEAL.

BY

DESCRIPTION

DATE

REV

ISSUED FOR BID

CONFORMED DRAWING

REVISED FOR THE RECORD

REVISED PER RAI NO. 1

08/09/10

10/06/10

05/31/11

12/05/11

SRF

SRF

SRF

SRF

DRAWING TITLE

PROJECT TITLE

CLIENT

LFG CONTROL SYSTEM SITE PLAN

HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS

HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS

SCS ENGINEERS

STEAPINS, CONRAD AND SCHMIDT CONSULTING ENGINEERS

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FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004882

PROJ. NO. 09199033.21

DATE: MAY 31, 2011

12/05/11 REVISED PER RAI NO. 1

CADD FILE:

DATE:

SCALE:

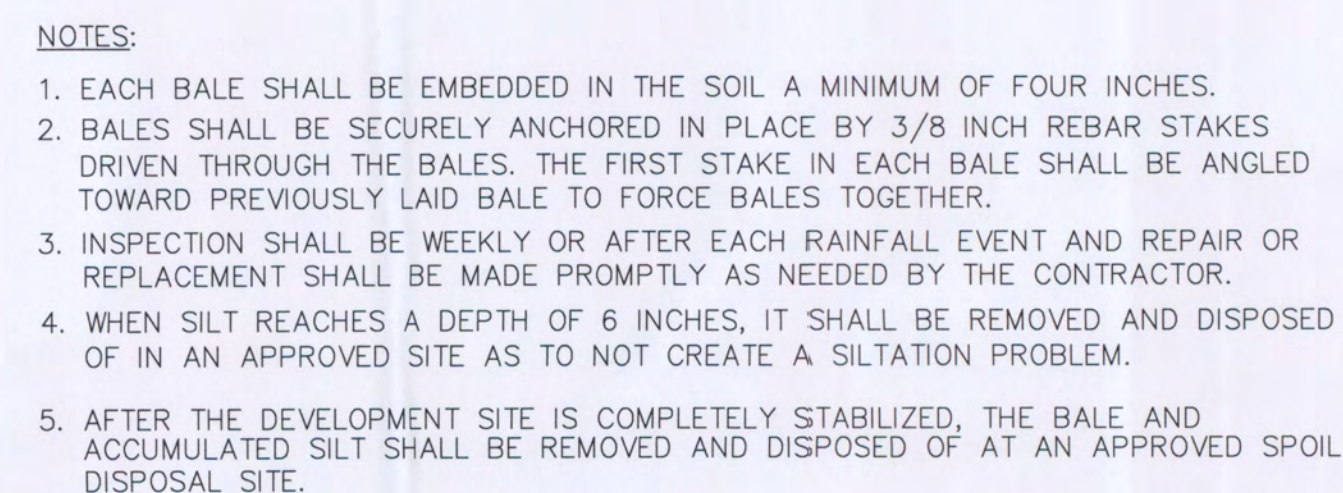
DRAWING NO.

993321LFGPLAN-RD

JUNE 2010

AS SHOWN

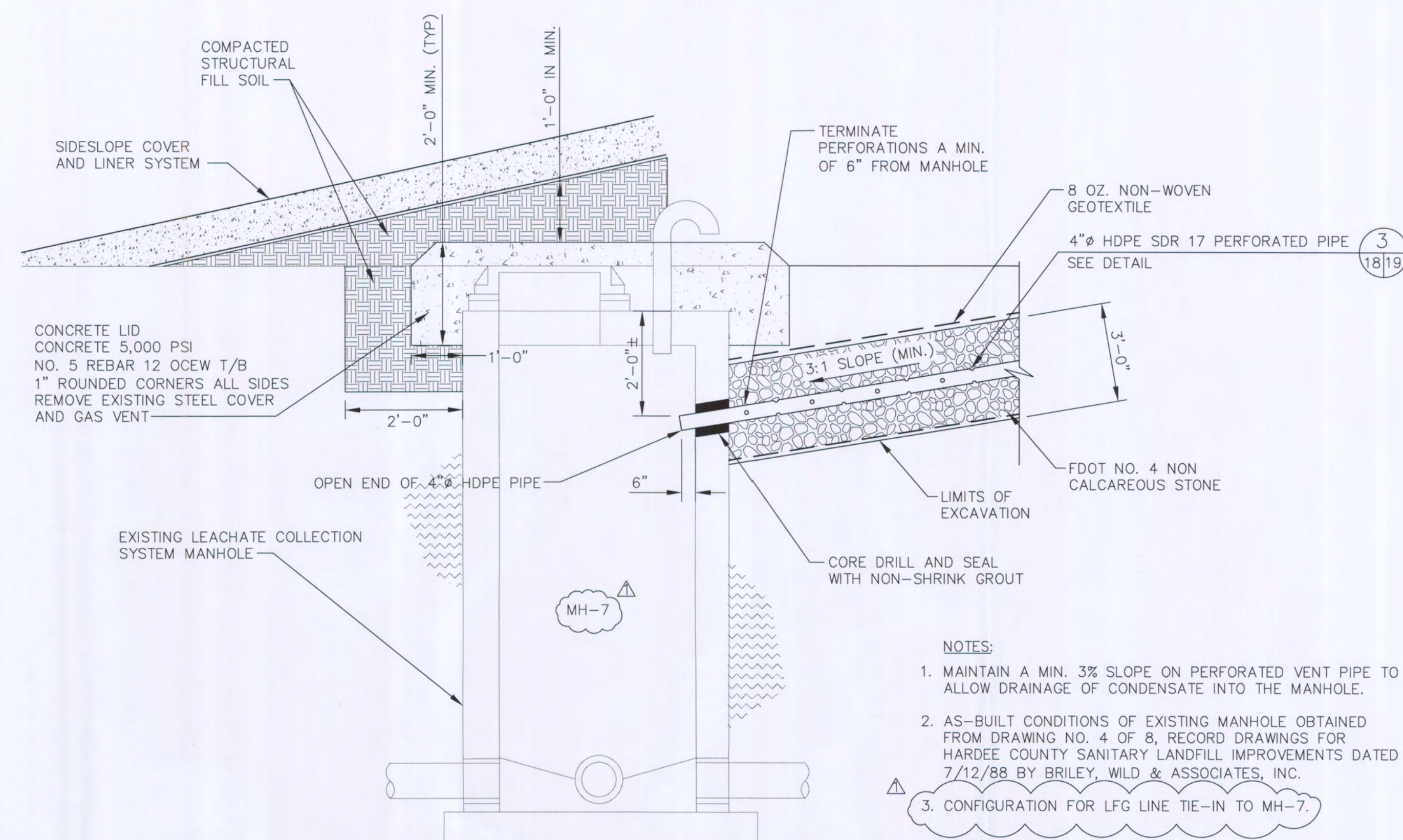
17 of 24



HAY BALE BARRIER DETAIL

NOT TO SCALE

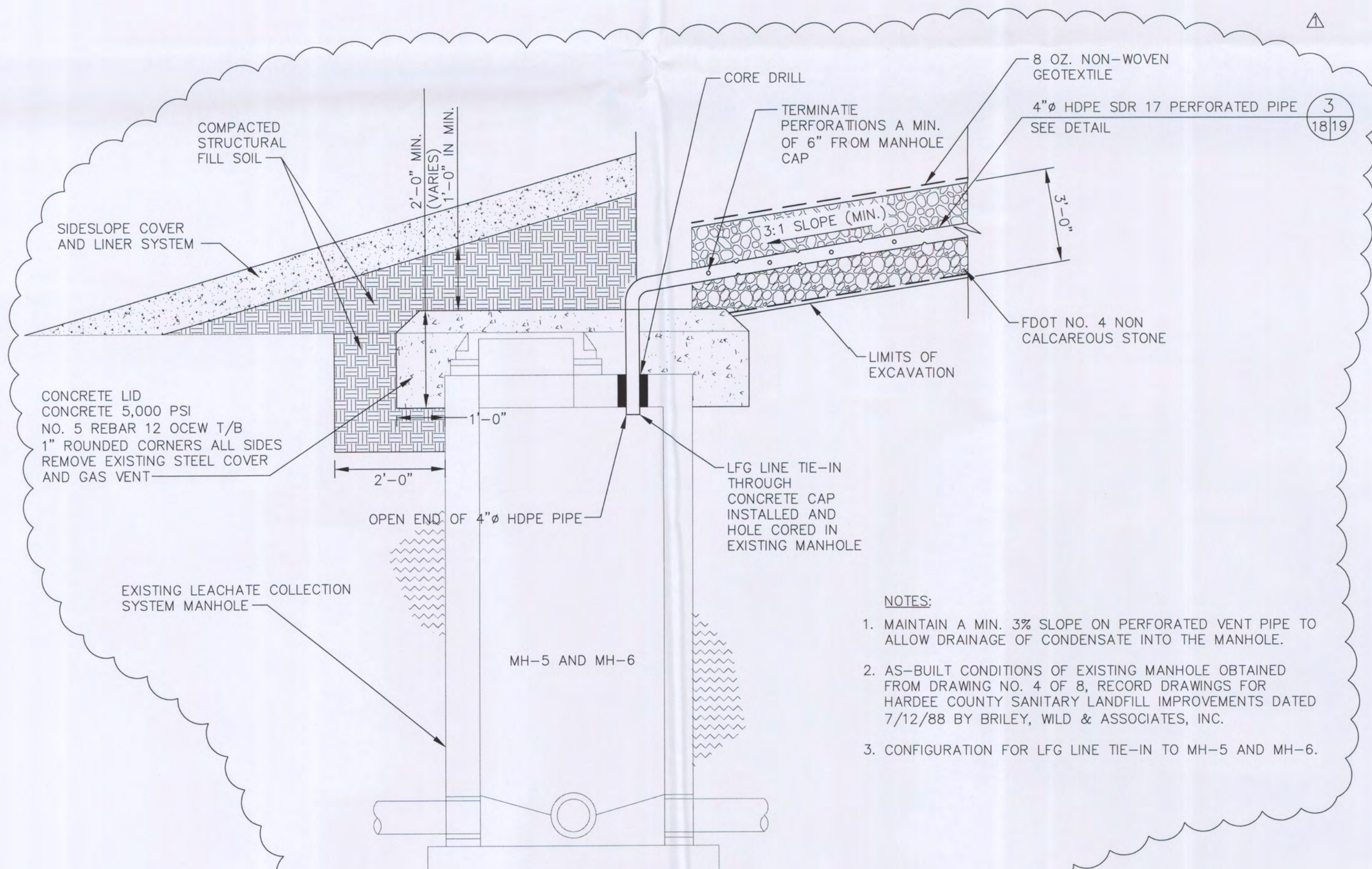
3
6 19



VENT TRENCH TIE-IN TO MANHOLE DETAIL

NOT TO SCALE

17 18 19

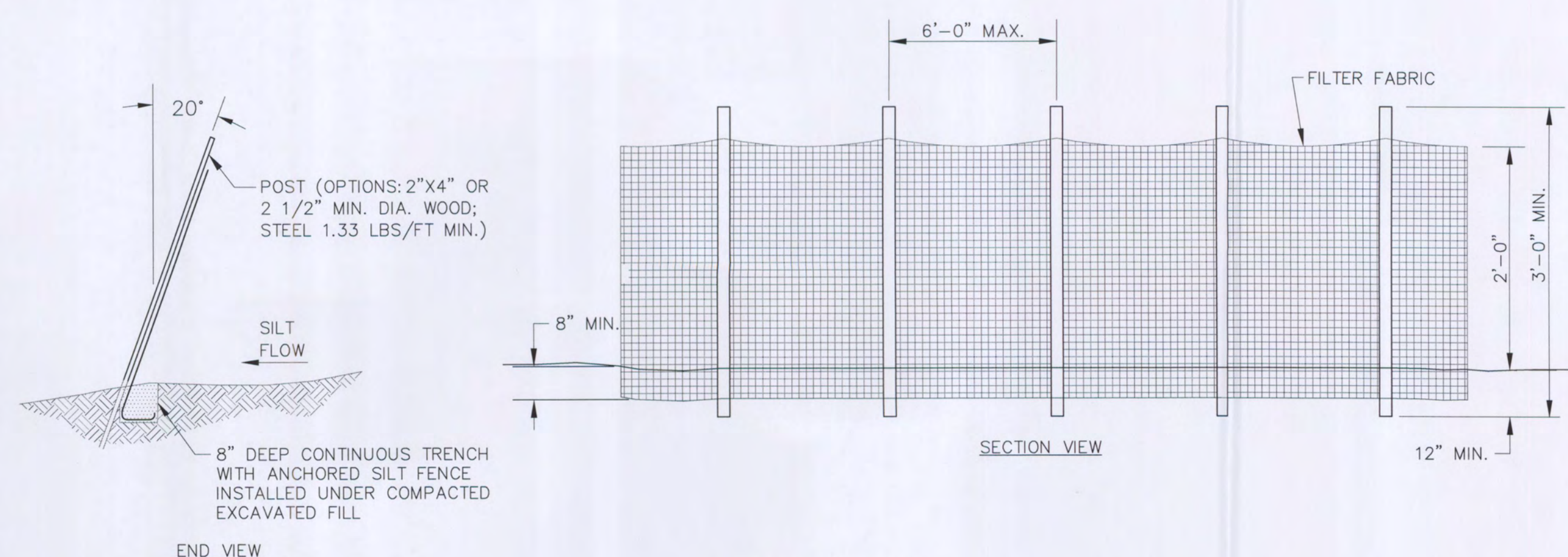


VENT TRENCH TIE-IN TO MANHOLE DETAIL

NOT TO SCALE

17 18 19

1A

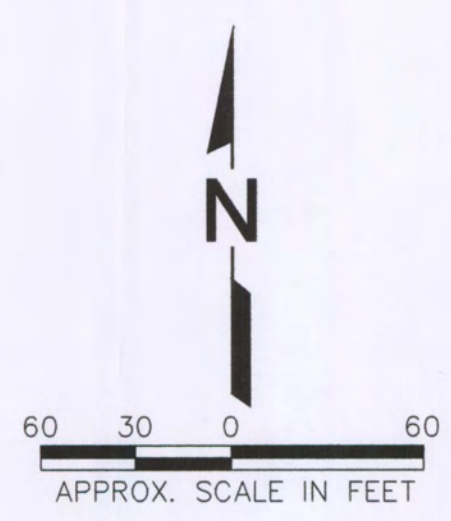


**TYPE III FDOT
SILT FENCE BARRIER DETAIL**

NOT TO SCALE

2

619



LEGEND	
60 mil Textured HDPE Geomembrane Panel	P-1 thru P-94
40 mil Textured LLDPE Panel	L-1 thru L-97
60 mil Textured HDPE Seam	
40 mil Textured LLDPE Seam	
Extrusion Weld	
Patch	○
Destructive Test	△
Boot	⊕

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DEC 09 2011
SOUTHWEST DISTRICT
TAMPA

RECORD DRAWING
DATE: MAY 31, 2011
12/05/11 REVISED PER FDEP RAI NO. 1

DRAWING TITLE 40 MIL LLDPE & 60 MIL TEXTURED HDPE ASBUILT DRAWING	REV	DATE	DESCRIPTION	BY
	△	05/31/11	RECORD DRAWING	SRF
PROJECT TITLE HARDEE COUNTY LANDFILL PHASE I CLOSURE CONSTRUCTION DRAWINGS	△	12/05/11	REVISED PER FDEP RAI NO. 1	SRF
	△			
CLIENT HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS	△			
	△			
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 4041 PARK OAKS BLVD., SUITE 100, TAMPA, FL 33610 813.631.0980 FAX 813.632.4757 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00008892	PROJ. NO. 09195033.21	DRAWN BY ERC	CHECKED BY CEH	DATE 05/31/11
	DESIGN BY SRF	CHECK BY SRF	APP. BY SRF	LICENSE NO. L 88076