

## Johnson, Sabrina O

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**From:** Hsu, Benjamin  
**Sent:** Wednesday, May 30, 2018 7:52 AM  
**To:** SWD\_Waste  
**Subject:** FW: Site Life Lena Road  
**Attachments:** Site Life Lena Road Landfill.pdf

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**From:** Spurlock, Ian  
**Sent:** Tuesday, May 29, 2018 2:51 PM  
**To:** SWD\_Waste  
**Cc:** Morgan, Steve ; Fischer, Shane ; Bryan White  
**Subject:** Site Life Lena Road

Hello,

I have uploaded the Site Life for the Lena Road Landfill to your FTP site. I have included a link below to file location.

<ftp://ftp.dep.state.fl.us/pub/incoming/Lena%20Road%20Site%20Life/>

Please let me know if you have any questions or require additional information.

Thank you,

Ian Spurlock, P.E.  
Project Professional  
SCS Engineers/SCS Engineers PC  
3922 Coconut Palm Drive, Suite 102  
Tampa, FL 33619  
(813) 804-6732 (Office)  
(813) 724-4718 (Direct)  
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[www.scsengineers.com](http://www.scsengineers.com)

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## SCS ENGINEERS

May 29, 2018  
File No. 09217088.05

Mr. Cory Dilmore, P.E.  
Florida Department of Environmental Protection  
Solid Waste Section, MS 4565  
2600 Blair Stone Road  
Tallahassee, Florida 32399

Subject: Remaining Disposal Capacity and Site Life – Reporting Year 2018  
Lena Road Landfill - Manatee County  
Permit No.: 39884-021-SO-01

Dear Mr. Dilmore:

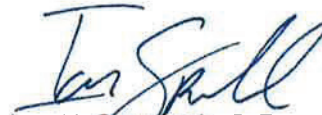
On behalf of the Manatee County, Solid Waste Division (SWD), SCS Engineers (SCS) has prepared the remaining disposal capacity and site life estimate for the Lena Road Landfill, Manatee County, Florida in accordance with Rule 62-701.500(13)(c) and Specific Condition Part C.15.b of the facility's solid waste operations permit. As required by Specific Condition No. C.15.b, an aerial topographic survey of the landfill was conducted on March 22, 2018 by Pickett Surveying & Engineering (Pickett) and was used in the preparation of the calculations. Please refer to Attachment A for a copy of the Pickett Survey Report.

Based on the attached calculations, there is roughly 12,169,278 cubic yards of remaining capacity in Stages I-III and approximately 26.3 years of disposal capacity as of the survey date. Please refer to Attachment B for the remaining life and capacity calculations. If you have any questions regarding the information contained herein, please contact the undersigned at (813) 621-0080.

Sincerely,



Shane R. Fischer, P.E.  
Project Director  
SCS ENGINEERS



Ian U. Spurlock, P.E.  
Project Professional  
SCS ENGINEERS

SRF/IUS

cc: Bryan White, SWD  
Steve Morgan, FDEP



Attachment A

Pickett Aerial Topographic Survey Flown March 22, 2018  
and Survey Report

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# SURVEYOR'S REPORT

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## Lena Road Landfill

Prepared for:

**SCS ENGINEERS**

Prepared by:



PICKETT AND ASSOCIATES PROJECT NO.: 18600  
TITLE/TYPE OF SURVEY: TOPOGRAPHIC SURVEY  
DATE OF SURVEY: 3/22/18

***NOTE: THIS REPORT AND ACCOMPANYING MAP TITLED LENA ROAD LANDFILL,  
ARE NOT FULL AND COMPLETE WITHOUT THE OTHER AND ARE NOT VALID  
WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA  
LICENSED SURVEYOR AND MAPPER.***

**ACCURACY STATEMENT:**

The following stated plus or minus tolerances encompass a minimum of 90% of the difference between photogrammetrically measured values and any ground truth of all well-identified features. Mapped features will meet or exceed the Florida Standards of Practice.

**VERTICAL:**

Contours may be measured to an estimated vertical positional accuracy of 0.5'. Spot elevations and well-identified features have been measured to an estimated vertical positional accuracy of 0.25'.

**HORIZONTAL:**

Well-identified features have been measured to an estimated horizontal positional accuracy of 1.66'. All measurements are in U.S. Survey Feet.

**MAP PLOTTING:**

This map is intended to be displayed at a scale of 1" = 50' (1:600) or smaller.

**DATUM:****HORIZONTAL:**

Coordinates are referenced to the West Zone of the Florida State Plane Coordinate System, North American Datum of 1983 (NAD'83) 1990 adjustment.

**VERTICAL:**

Elevations are to National Geodetic Vertical Datum of 1929.

**Control Points Used for mapping:**

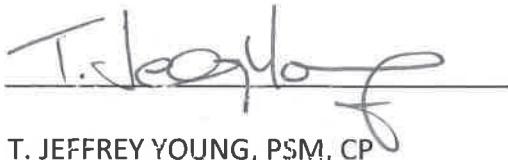
<b><u>Pt#</u></b>	<b><u>Northing</u></b>	<b><u>Easting</u></b>	<b><u>Elevation</u></b>
109	1141545.95	509165.88	33.96
122	1138428.30	511092.73	38.90
135	1138562.79	513590.75	40.93
168	1144330.79	512336.06	39.12
194	1146038.75	508797.91	22.80
205	1145790.59	514071.03	30.64

**Measurement Methods:**

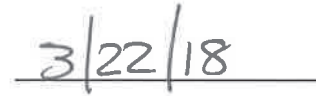
The planimetrics shown are limited to those features visible on aerial imagery. Color digital imagery was acquired at an average altitude of 3300' using a metric precision digital camera whose focal length is 70.3mm. Mapping was performed using LiDAR and softcopy photogrammetric techniques. The LiDAR data has an estimated point sample distance of 0.698 foot and a density of 2.05 points per square foot ( $\pm 22.066$  points per

square meter). For a vertical accuracy check, the LiDAR data was compared to 6 (six) points used as targets for aerial imagery and 54 ground surveyed points. The Root Mean Square Error of the Elevations (RMSEZ) is 0.121 foot, being the equivalent of 0.236' FGDC/NSSDA Vertical Accuracy. All measurements are in U.S. Survey Feet.

**Limitations:** This mapping should be used for preliminary design work only and should not replace an actual field survey where the required accuracy is greater than the accuracy stated in this report. No responsibility is assumed for areas outside the contracted scope.

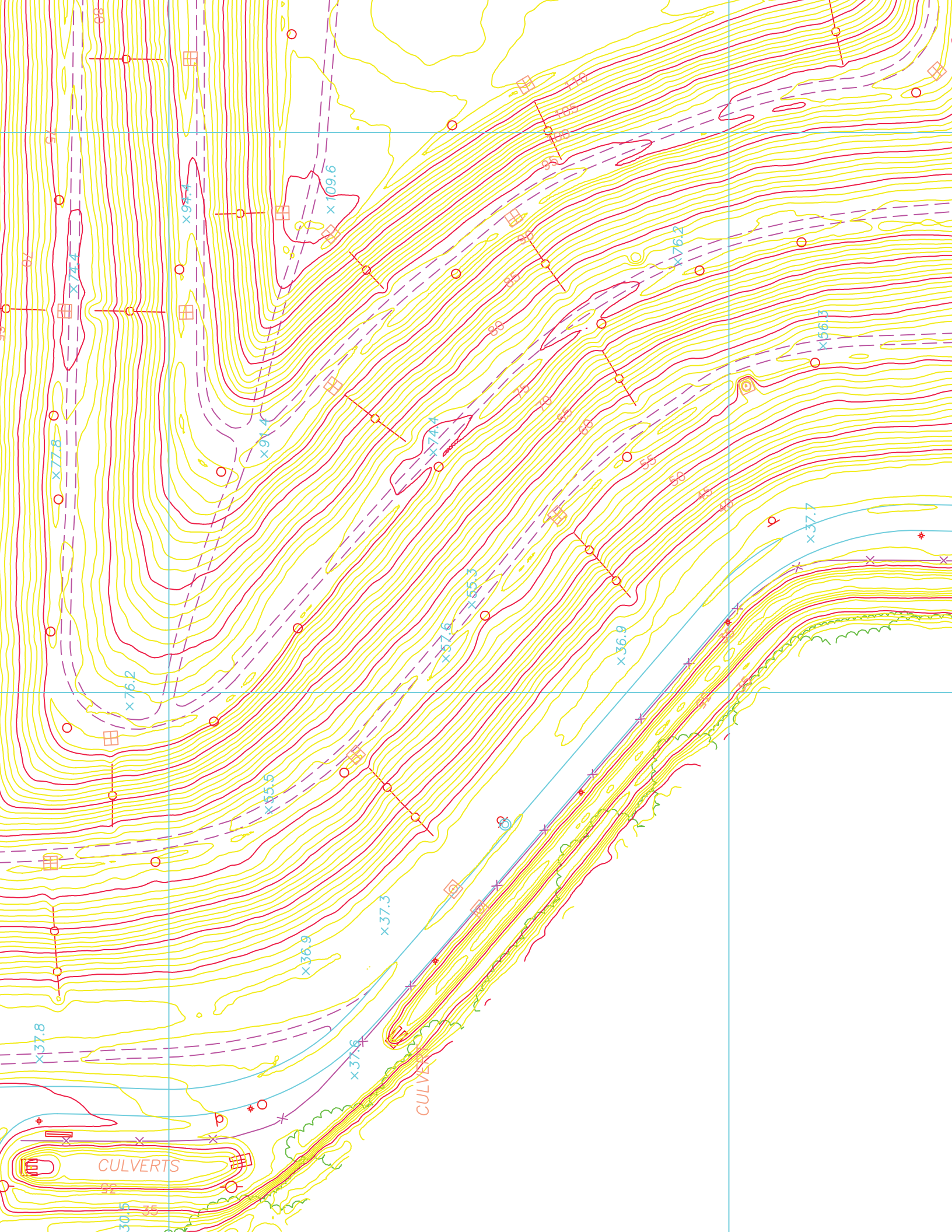


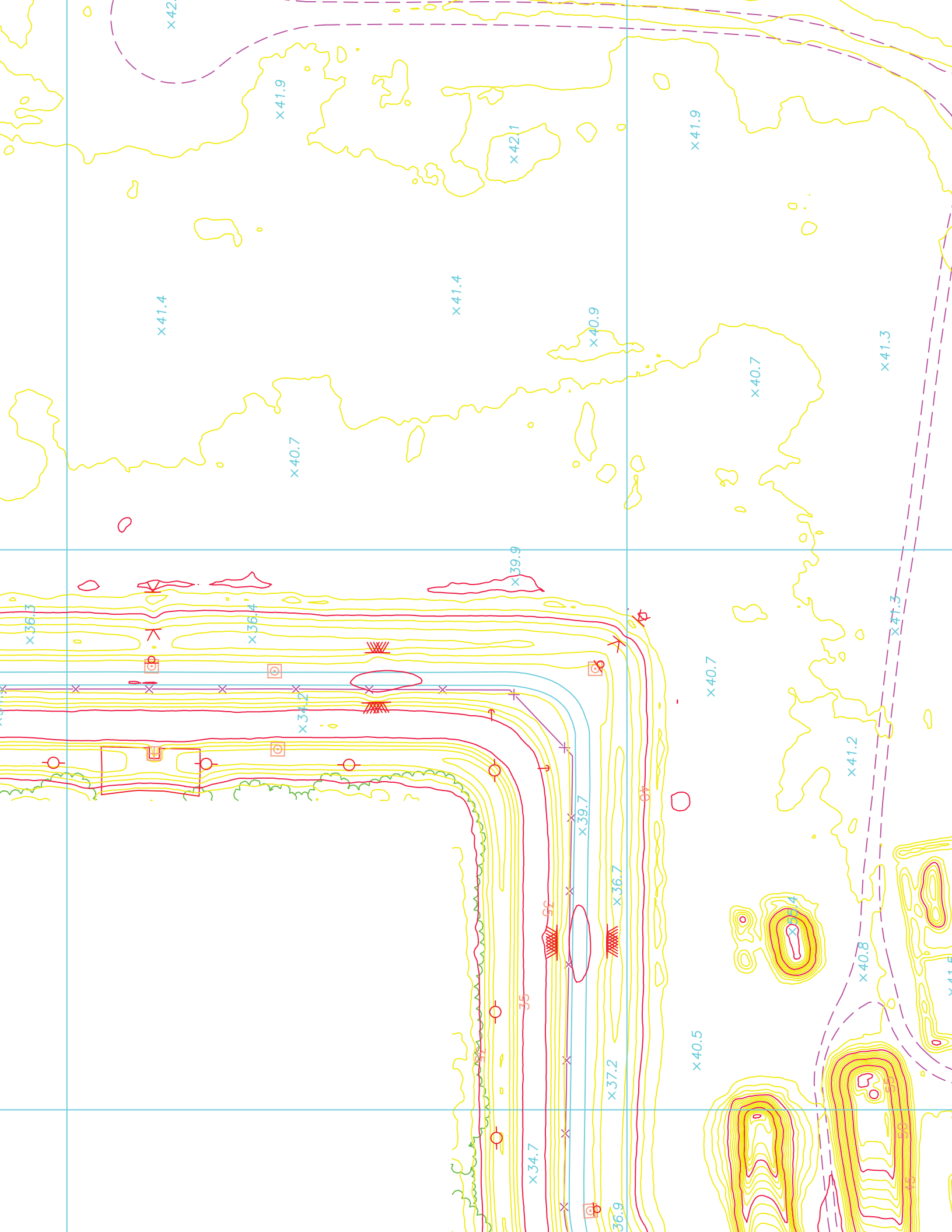
T. JEFFREY YOUNG, PSM, CP  
FLORIDA REGISTRATION NO. 5440  
PICKETT AND ASSOCIATES, INC.  
FLORIDA REGISTRATION NO. 364



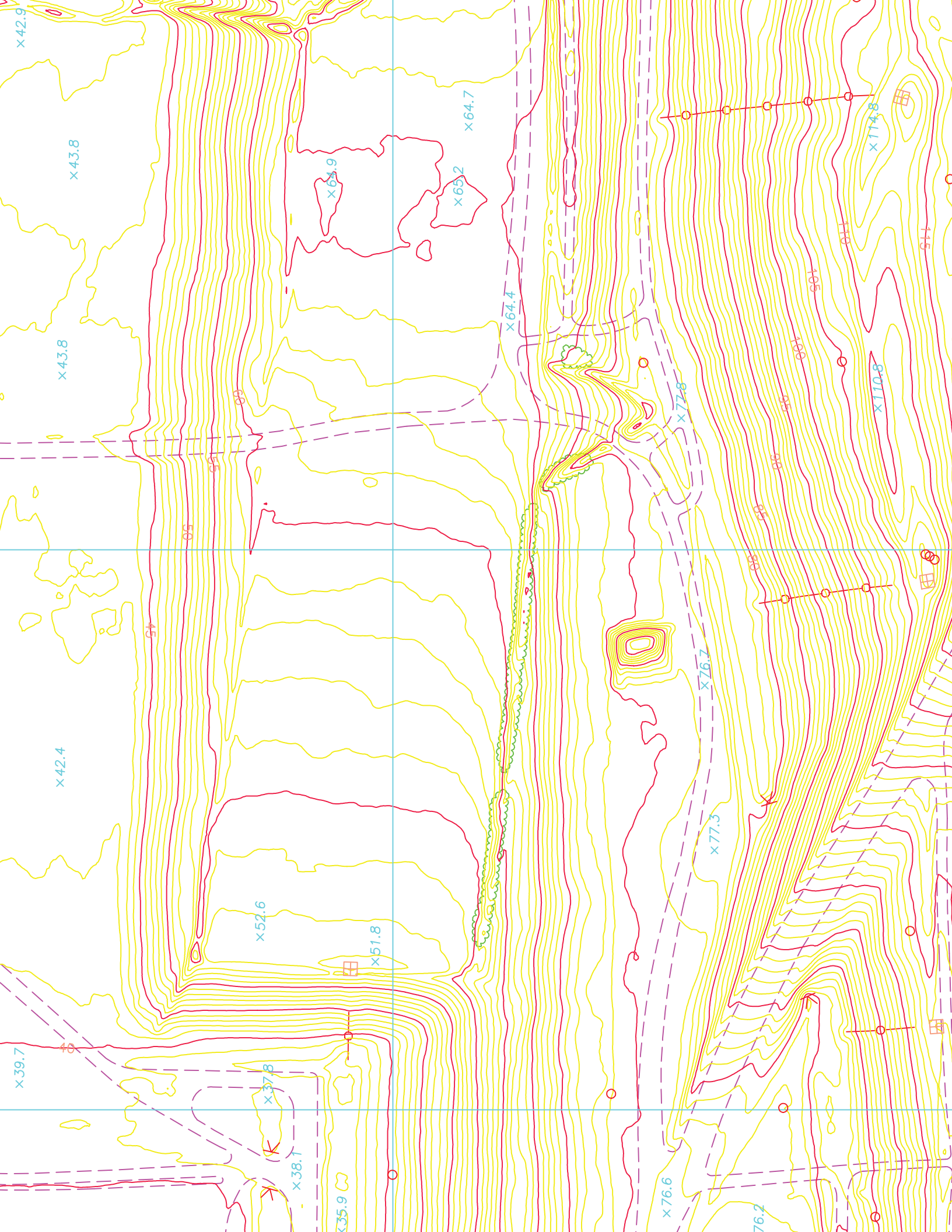
SURVEY DATE

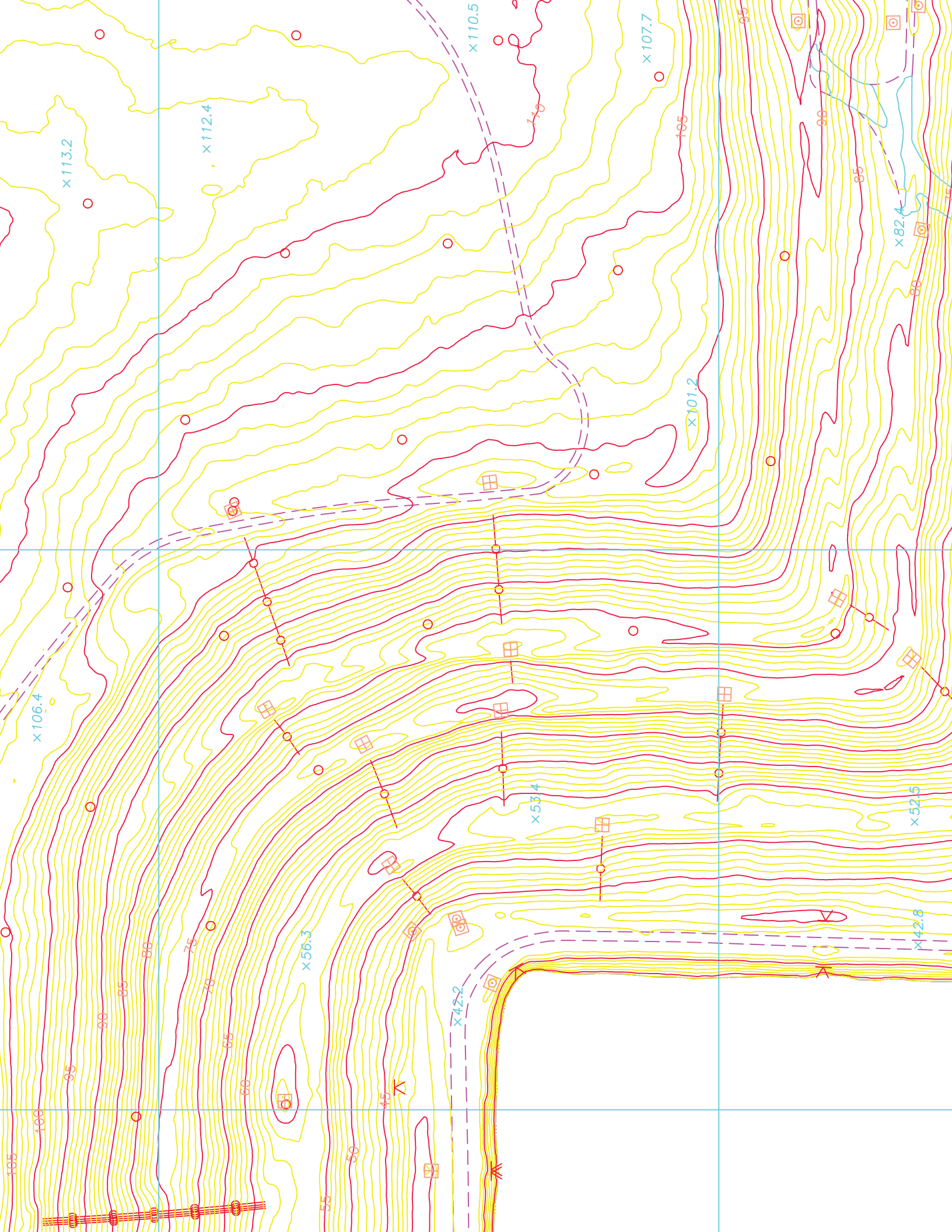












Attachment B

Remaining Life and Capacity Calculations

## CLIENT

Manatee County

## PROJECT

Lena Road Landfill Annual Site Life Calculations

## JOB NO.

09217088.05

## SUBJECT

Projected Remaining Capacity and Site Life  
Lena Road Landfill

## BY

SRF

## DATE

5/26/2018

## CHECKED

CFL

## DATE

5/26/2018

Reporting Year	Historical Tonnages (Tons) <sup>1</sup>	Volume Used (CY/Yr)	Apparent Density (lbs/CY)
1999	338,745.37	465,300	1,456.03
2000	339,357.16	589,000	1,152.32
2001	363,924.34	550,700	1,321.68
2002	340,976.45	504,700	1,351.20
2003	343,499.64	485,772	1,414.24
2004	363,386.41	417,900	1,739.11
2005	389,257.63	569,200	1,367.74
2006	376,492.88	659,200	1,142.27
2007	350,071.61	351,000	1,994.71
2008	329,054.97	531,300	1,238.68
2009	302,373.55	287,700	2,102.01
2010	274,482.91	307,700	1,784.09
2011	254,848.56	465,400	1,095.18
2012	273,770.81	390,900	1,400.72
2013	280,488.47	384,000	1,460.88
2014	296,083.99	486,700	1,216.70
2015	303,023.69	314,373	1,927.80
2016	300,067.64	516,500	1,161.93
2017	330,724.56	470,000	1,407.34
2018	335,607.40	490,000	1,369.83

Average Density =  Lbs / CYVolume ConsumedBetween 3/8/17 and 3/22/18 =  CYAverage Volume Consumed =  CY / YrRemaining Volume For Waste Placement(Final Closure Cap System Removed)Remaining Volume as of 3/22/18<sup>2</sup> =  CYRemaining Capacity as of March 22, 2018Remaining Years of Life From 3/22/18<sup>3</sup> =  YearsYear of Closure = Notes:

1 Waste received for this reporting year is the amount reported by Manatee County from scale data reports for full months, estimated by SCS for partial months.

2 Volume remaining based on calculating airspace between top of waste elevation and March 22, 2018 topographic survey using AutoCAD 3D.

3 Remaining life is calculated by dividing the average volume consumed per year into remaining volume for waste placement.