Smith, George

From: Shane Fischer <SFischer@SCSEngineers.com>
Sent: Wednesday, April 28, 2021 11:33 AM
To: SWD_Waste
Subject: File Transfer: Lena Road Landfill Remaining Disposal Capacity and Site Life 2021 - Manatee Co, 20-21 Env Mon, Lena RD LF

Project: 09217088.21 **Manatee Co, 20-21 Env Mon, Lena RD LF**

Notification about File Transfer **Lena Road Landfill Remaining Disposal Capacity and Site Life 2021**
A transfer (File Transfer) has arrived on the SCS Engineers Info Exchange Site.

Remarks

In accordance with Permit No. 39884-021-SO-01, please find a link below to download the Manatee County Lena Road Landfill Remaining Disposal Capacity and Site Life calculations for Reporting Year 2021.
Please let us know if you have any comments.
Thanks
Shane

Download all files

File Transfer Info

To: **SWD_Waste@dep.state.fl.us; James.Jarmolowski@dep.state.fl.us; steven.tafuni@dep.state.fl.us; Kaitlyn.Newsome@FloridaDEP.gov**
CC: **Bryan White (Manatee County, Florida); Anthony Detweiler (Manatee County, Florida); Robert Shankle (Manatee County, Florida); bob.bennett@mymanatee.org; Carlo Lebron (SCS Engineers); Laila Al-Khalaf (SCS Engineers); Shane Fischer (SCS Engineers)**
Expiration Date: **5/28/2021**

Transferred Files

Lena Road Landfill Annual Site Life Reporting Year 2021.pdf	4/28/2021	11:13 AM	14,933 KB

Additional Links

Reply to All

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April 28, 2021
File No. 09217088.21

Mr. James Jarmolowski, P.G.
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 2021
Lena Road Landfill - Manatee County
Permit No.: 39884-021-SO-01

Dear Mr. Jarmolowski:

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 Section 2 - Specific Condition Part C.15.b of the facility's solid waste operation permit. As required by the Specific Condition an aerial topographic survey of the landfill was conducted on February 3, 2021 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 and Survey Report.

Based on the attached calculations, there is roughly 10,109,872 CY of remaining capacity in Stage II which relates to approximately 20.8 years as of the survey date. The anticipated closure year is late 2041. 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) 804-6714.

Sincerely,

Robert Curtis, P.E.
Project Director
SCS Engineers

Shane R. Fischer, P.E.
Vice President/Office Manager
SCS Engineers

SRF/RBC:srf

cc: Robert Shankle, Solid Waste Division Manager
Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor
Bob Bennett, Manatee County Landfill Operations Supervisor

This item has been digitally signed and sealed by Shane R. Fischer, PE on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

SHANE R. FISCHER
LICENSE
No 58026
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Shane Fischer

Digitally signed by Shane Fischer
Date: 2021.04.28 11:10:53 -04'00'

ATTACHMENT A

PICKETT AERIAL TOPOGRAPHIC SURVEY
FLOWN FEBRUARY 3, 2021 AND SURVEY REPORT

SURVEYOR'S REPORT

Lena Road Landfill

Prepared for:

SCS ENGINEERS
Environmental Consultants and Contractors

Prepared by:

PICKETT®

PICKETT AND ASSOCIATES PROJECT NO.: 18600-4
TITLE/TYPE OF SURVEY: TOPOGRAPHIC SURVEY
DATE OF SURVEY: 2/03/21

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.

Pickett and Associates, Inc. • 475 South First Avenue • Bartow, FL 33830 • (863) 533-9095

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.

Targeted and Photo-identifiable Control Points used for photogrammetric mapping:

Pt#	Northing	Easting	Elevation
109	1141545.95	509165.88	33.96
122	1138428.30	511092.73	38.90
125	1138440.56	511130.99	38.96
128	1138440.59	511153.29	38.94
130	1138440.40	511175.76	38.97
131	1138440.40	511175.75	38.96
133	1138440.48	511197.91	38.91
156	1144103.65	513482.19	38.23
158	1144105.82	513483.92	38.57
167	1144330.49	512336.15	38.84
170	1144328.05	512336.63	38.93
171	1144328.94	512335.05	39.17
194	1146038.75	508797.91	22.80
205	1145790.59	514071.03	30.64
219	1136246.43	514518.68	48.03
229	1135605.88	508386.36	33.94

Measurement Methods:
Color digital imagery was acquired at an average altitude of 3550' using a metric precision digital camera whose focal length is 70.3mm. The planimetrics shown are limited to those features visible on aerial imagery. Mapping was performed using LiDAR and softcopy photogrammetric techniques. The LiDAR data has an estimated point sample distance of 0.56 foot and a density of 3.22 points per square foot (±34.66 points per square meter). For a vertical accuracy check, the LiDAR data was compared to eleven (11) of the points used as targets for aerial imagery and forty-five (45) ground surveyed points. The Root Mean Square Error of the Elevations (RMSEZ) is 0.118 foot, being the equivalent of 0.232' FGDC/NSSDA Vertical Accuracy. All measurements are in U.S. Survey Feet.

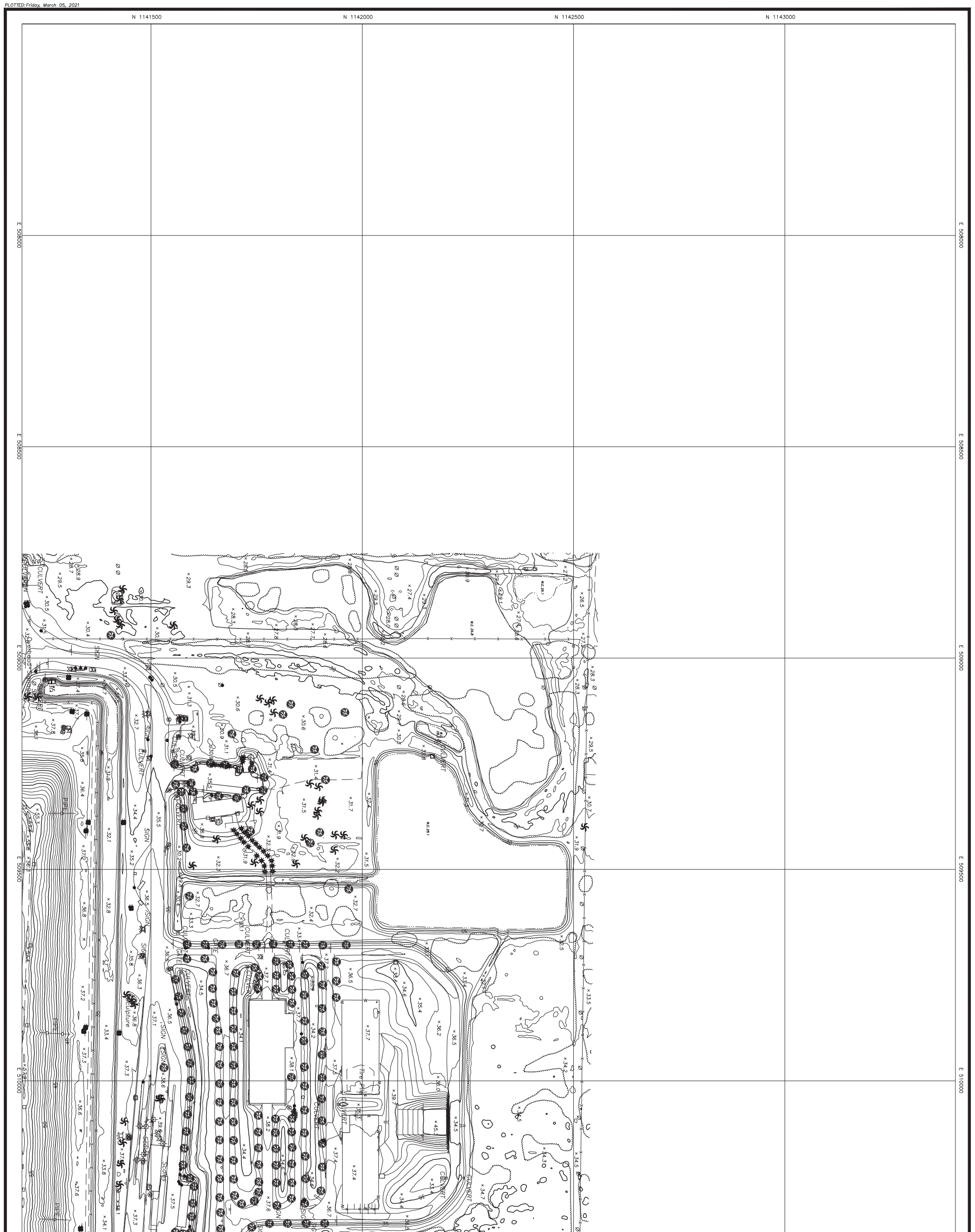
Limitations: This mapping should be used for preliminary design work only and should not replace an actual field survey where the required accuracy is greater than the accuracy stated in this report. No responsibility is assumed for areas outside the contracted scope.

T. Jeffrey Young

2/3/21

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

SURVEY DATE



SURVEYOR's NOTES:

1.) North, the grid, and the coordinates shown hereon are referenced to the West Zone of the Florida State Plane Coordinate System, NAD 83, 1990 adjustment

2.) Elevations are to National Geodetic Vertical Datum of 1929.

3.) This topographic survey was prepared using photogrammetric and LiDAR methods. See the attached report for map accuracy and surveyor's signature and seal.

4.) Flight Date: 2/3/21

SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

- Δ PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- Ø UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
- ELECTRIC RISER
- MISCELLANEOUS
- K CULVERT
- SWAMP/MARSH
- MANHOLE
- FIRE HYDRANT
- TREE
- PALM TREE
- BUSH
- × 120.1 SPOT ELEVATION
- CATCH BASIN

GOLF FEATURES

- T TEE
- G GREEN
- S SAND TRAP
- F FAIRWAY
- D DRIVING RANGE
- PG PRACTICE GREEN

LEGEND:

THESE FEATURES ARE TO SCALE

- BACK OF CURB LINE
- ASPHALT
- CONCRETE
- DIRT DRIVE/ROAD
- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
- VEGETATION LINE (0.5 LTSCALE)
- HEDGE/BRUSHLINE (LTSCALE .3)
- ABOVE GROUND PIPE
- RAILROAD RAIL
- SHORELINE
- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

4	3	2	1
9	8	7	6	5
	13	12	11	10

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 feet.

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HORIZONTAL: Well-identified features have been measured to an estimated horizontal positional accuracy of 1.66'.

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

MEASUREMENT METHODS: This map is limited to those features visible on aerial imagery.

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.

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PICKETT

PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

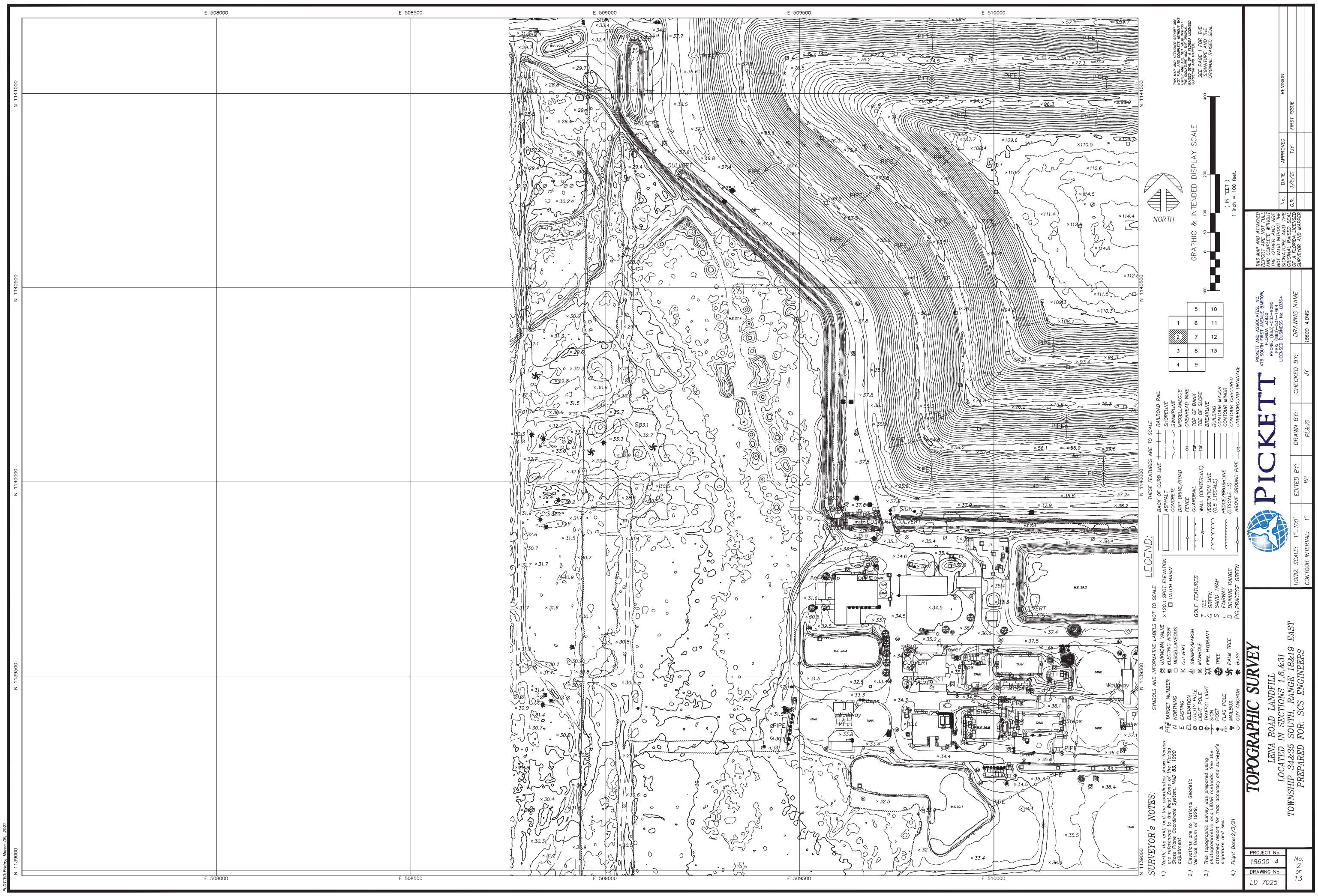
THIS MAP AND ATTACHED REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER AND ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

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

2/3/21
SURVEY DATE

No.	DATE	APPROVED	REVISION
O.R.	3/5/21	TJY	FIRST ISSUE

PROJECT No.	No.
18600-4	1 OF 13
DRAWING No.	
LD 7025	


TOPOGRAPHIC SURVEY
LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS
SURVEYOR's NOTES:
1.) North, the grid, and the coordinates shown hereon are referenced to the West Zone of the Florida State Plane Coordinate System, NAD 83, 1990 adjustment
2.) Elevations are to National Geodetic Vertical Datum of 1929.
3.) This topographic survey was prepared using photogrammetric and LIDAR methods. See the attached report for map accuracy and surveyor's signature and seal.
4.) Flight Date:2/3/21
SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE
PT# TARGET NUMBER
N NORTHING
E EASTING
EL ELEVATION
UTILITY POLE
LIGHT POLE
TRAFFIC LIGHT
SIGN
POST
FLAG POLE
MAILBOX
GUY ANCHOR
UNKNOWN VALVE
ELECTRIC RISER
MISCELLANEOUS
CULVERT
SWAMP/MARSH
MANHOLE
FIRE HYDRANT
TREE
PALM TREE
BUSH
×120.1 SPOT ELEVATION
CATCH BASIN
GOLF FEATURES
T TEE
G GREEN
S SAND TRAP
F FAIRWAY
D DRIVING RANGE
PG PRACTICE GREEN
LEGEND:
THESE FEATURES ARE TO SCALE
BACK OF CURB LINE
ASPHALT
CONCRETE
DIRT DRIVE/ROAD
FENCE
GUARDRAIL
WALL (CENTERLINE)
VEGETATION LINE (0.5 LTSCALE)
HEDGE/BRUSHLINE (LTSCALE .3)
ABOVE GROUND PIPE
RAILROAD RAIL
SHORELINE
SWAMPLINE
MISCELLANEOUS
OVERHEAD WIRE
TOP OF BANK
TOE OF SLOPE
BREAKLINE
BUILDING
CONTOUR MAJOR
CONTOUR MINOR
CONTOUR OBSCURED
UNDERGROUND DRAINAGE
NORTH
GRAPHIC & INTENDED DISPLAY SCALE
(IN FEET)
1 inch = 100 feet.
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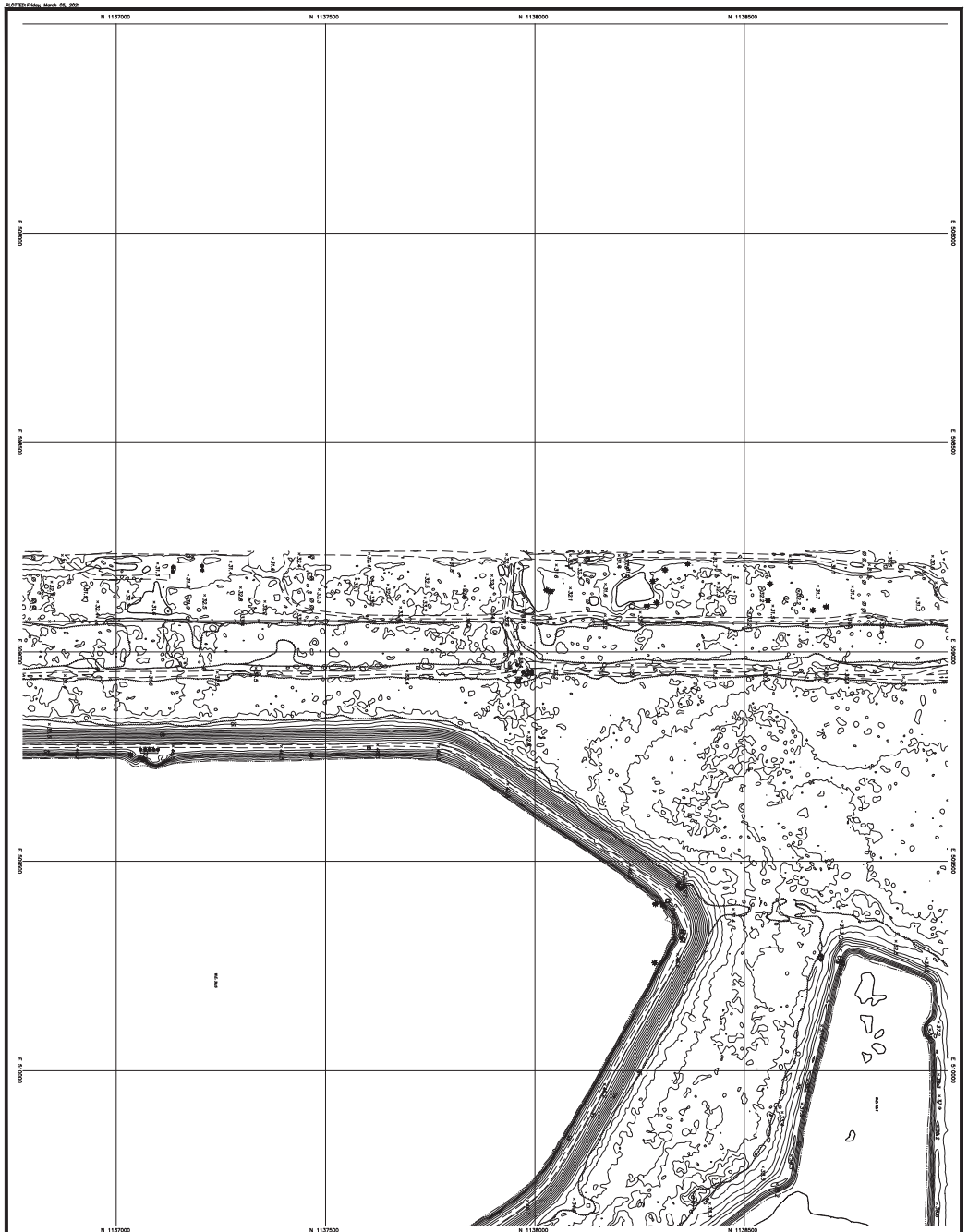
SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL
PICKETT
PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364
HORIZ. SCALE: 1"=100'
CONTOUR INTERVAL: 1'
EDITED BY: RP
DRAWN BY: PL&JG
CHECKED BY: JY
DRAWING NAME 18600-4.DWG
No. DATE APPROVED REVISION
O.R. 3/5/21 TJY FIRST ISSUE
PROJECT No. 18600-4
DRAWING No. LD 7025
No. 2 OF 13
PLOTTED: Friday, March 05, 2021

PLOTTED:Friday, March 05, 2021



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4.) Flight Date:2/3/21

LEGEND:

SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- DIRECTIONAL LIGHT
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
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GOLF FEATURES

- T TEE
- G GREEN
- S SAND TRAP
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- D DRIVING RANGE
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THESE FEATURES ARE TO SCALE

- BACK OF CURB LINE
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- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
- VEGETATION LINE (0.5 LTSCALE)
- HEDGE/BRUSHLINE (LTSCALE .3)
- ABOVE GROUND PIPE
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- SWAMPLINE
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- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

4	5	2	1	
6	9	7	8	3
	13	12	11	10

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
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LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PICKETT

PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

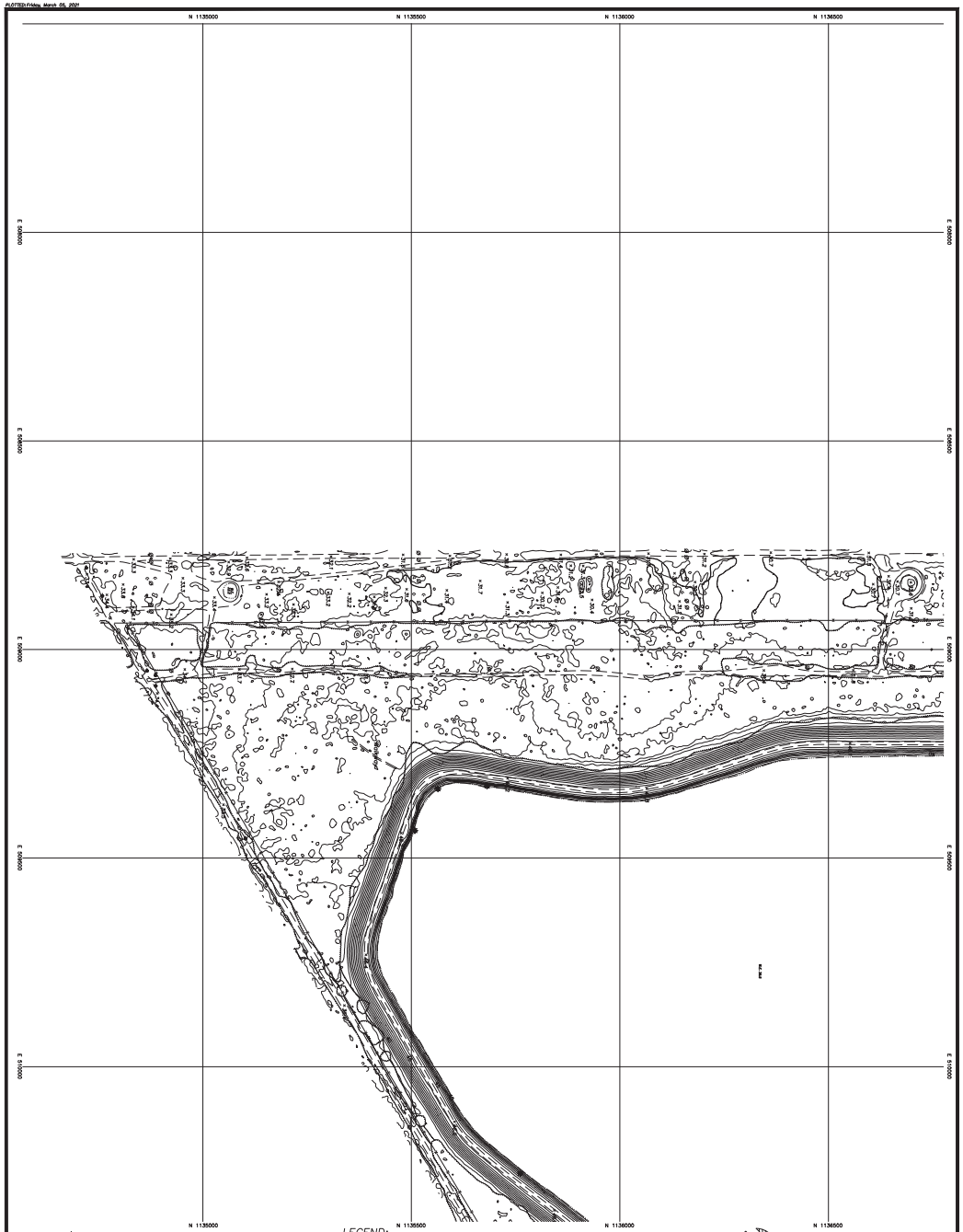
No.	DATE	APPROVED	REVISION
0,R.	3/5/21	TJY	FIRST ISSUE

LD 7025

DRAWING No. 4

PROJECT No. 18600

PLOTTED:Friday, March 05, 2021



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- EL ELEVATION
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- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

16	5	4	3	2	1
6	9	7	8	9	5
13	12	14	11	10	15

NORTH

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100 0 50 100 200 400

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LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

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FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

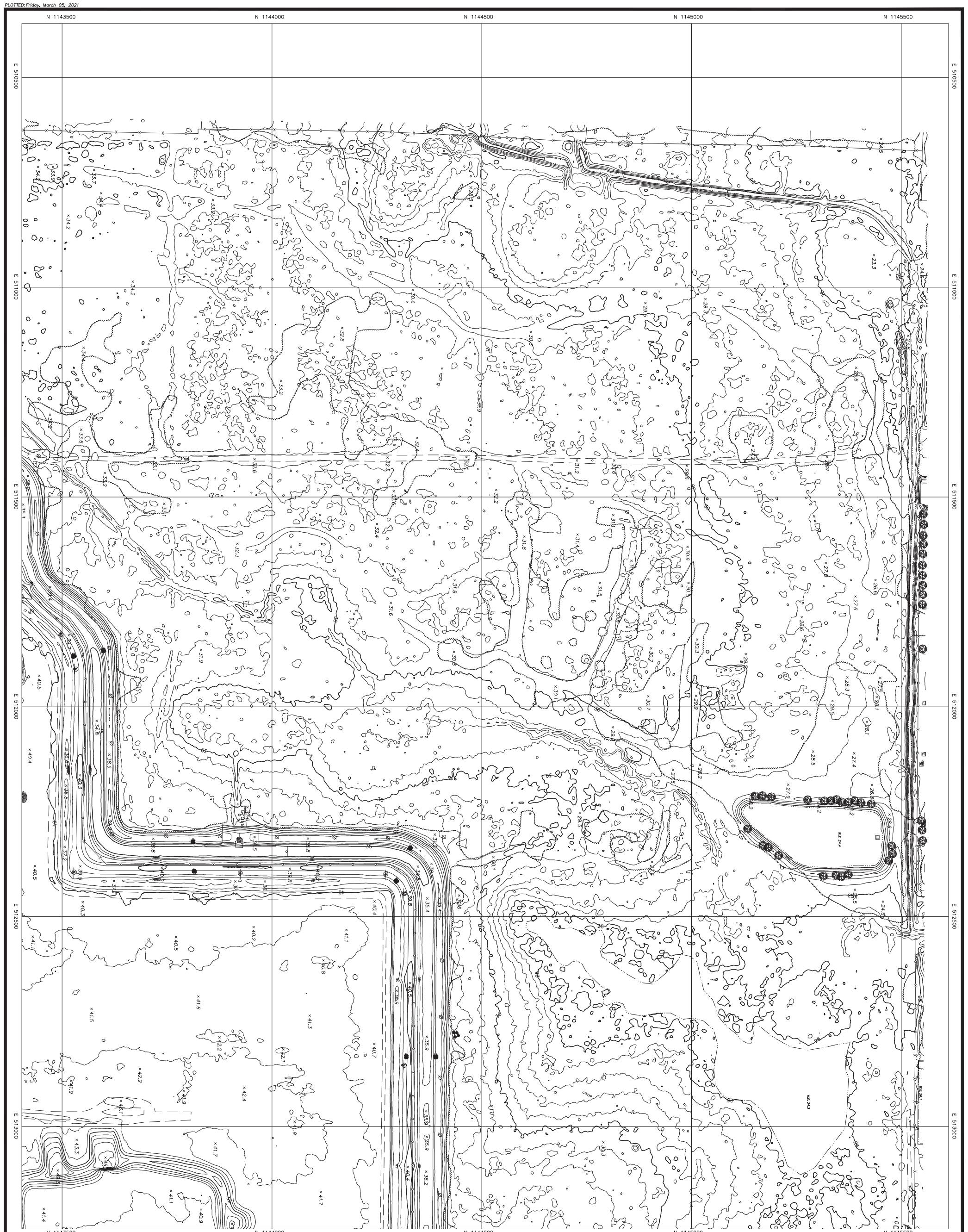
No.	DATE	APPROVED	REVISION
O.R.	3/5/21	TJY	FIRST ISSUE

LD 7025

DRAWING No. 4

PAGE No. 4 OF 13

PLOTTED:Friday, March 05, 2021



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SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

PT# TARGET NUMBER
N NORTHING
E EASTING
EL ELEVATION
UTILITY POLE
LIGHT POLE
TRAFFIC LIGHT
SIGN
POST
FLAG POLE
MAILBOX
GUY ANCHOR
UNKNOWN VALVE
ELECTRIC RISER
MISCELLANEOUS
CULVERT
SWAMP/MARSH
MANHOLE
FIRE HYDRANT
TREE
PALM TREE
BUSH
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T TEE
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BACK OF CURB LINE
ASPHALT
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CONTOUR MINOR
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UNDERGROUND DRAINAGE

4	3	2	1	
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	13	12	11	10

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
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SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL

PROJECT No. 18600-4
DRAWING No. LD 7025
No. 5 OF 13

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PICKETT

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475 SOUTH FIRST AVENUE BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

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PT# TARGET NUMBER
N NORTHING
E EASTING
EL ELEVATION
UTILITY POLE
LIGHT POLE
TRAFFIC LIGHT
SIGN
POST
FLAG POLE
MAILBOX
GUY ANCHOR
UNKNOWN VALVE
ELECTRIC RISER
MISCELLANEOUS
CULVERT
SWAMP/MARSH
MANHOLE
FIRE HYDRANT
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BUSH
× 120.1 SPOT ELEVATION
CATCH BASIN

GOLF FEATURES
T TEE
G GREEN
S SAND TRAP
F FAIRWAY
D DRIVING RANGE
PG PRACTICE GREEN

THESE FEATURES ARE TO SCALE

BACK OF CURB LINE
ASPHALT
CONCRETE
DIRT DRIVE/ROAD
FENCE
GUARDRAIL
WALL (CENTERLINE)
VEGETATION LINE (0.5 LTSCALE)
HEDGE/BRUSHLINE (LTSCALE .3)
ABOVE GROUND PIPE
RAILROAD RAIL
SHORELINE
SWAMPLINE
MISCELLANEOUS
OVERHEAD WIRE
TOP OF BANK
TOE OF SLOPE
BREAKLINE
BUILDING
CONTOUR MAJOR
CONTOUR MINOR
CONTOUR OBSCURED
UNDERGROUND DRAINAGE

4	3	2	1	
9	8	7	6	5
	13	12	11	10

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 feet.

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SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL

PROJECT No. 18600-4
DRAWING No. LD 7025
No. 6 OF 13

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PICKETT
PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

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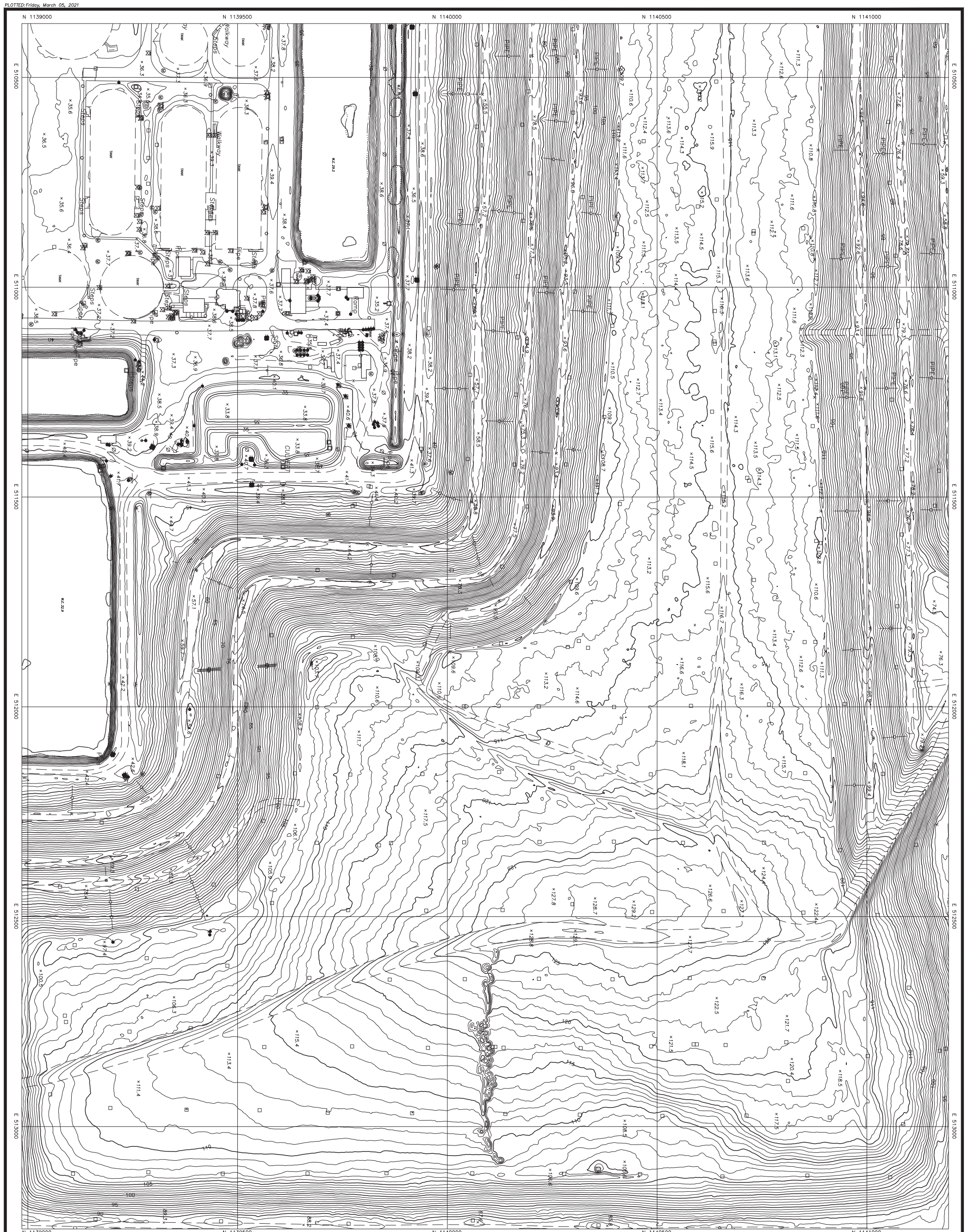
No.	DATE	APPROVED	REVISION
O.R.	3/5/21	TJY	FIRST ISSUE

PLOTTED: Friday, March 05, 2021



SURVEYOR's NOTES:

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3.) This topographic survey was prepared using photogrammetric and LIDAR methods. See the attached report for map accuracy and surveyor's signature and seal.

4.) Flight Date: 2/3/21

SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

- △ PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- Ø UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
- ELECTRIC RISER
- MISCELLANEOUS
- K CULVERT
- SWAMP/MARSH
- MANHOLE
- FIRE HYDRANT
- TREE
- PALM TREE
- BUSH
- ×120.1 SPOT ELEVATION
- CATCH BASIN

GOLF FEATURES
- T TEE
- G GREEN
- S SAND TRAP
- F FAIRWAY
- D DRIVING RANGE
- PG PRACTICE GREEN

LEGEND:

THESE FEATURES ARE TO SCALE

- BACK OF CURB LINE
- ASPHALT
- CONCRETE
- DIRT DRIVE/ROAD
- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
- VEGETATION LINE (0.5 LTSCALE)
- HEDGE/BRUSHLINE (LTSCALE .3)
- ABOVE GROUND PIPE
- RAILROAD RAIL
- SHORELINE
- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

	5	10
1	6	11
2	7	12
3	8	13
4	9	

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

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(IN FEET)
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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PROJECT No.	No.
18600-4	7 OF 13
DRAWING No.	
LD 7025	

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- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
- ELECTRIC RISER
- MISCELLANEOUS
- CULVERT
- SWAMP/MARSH
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- TREE
- PALM TREE
- BUSH
- × 120.1 SPOT ELEVATION
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GOLF FEATURES

- T TEE
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- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
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- HEDGE/BRUSHLINE (LTSCALE .3)
- ABOVE GROUND PIPE
- RAILROAD RAIL
- SHORELINE
- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

4	3	2	1	
9	8	7	6	5
	13	12	11	10

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PROJECT No. 18600-4
DRAWING No. LD 7025
No. 8 OF 13

PICKETT

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LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

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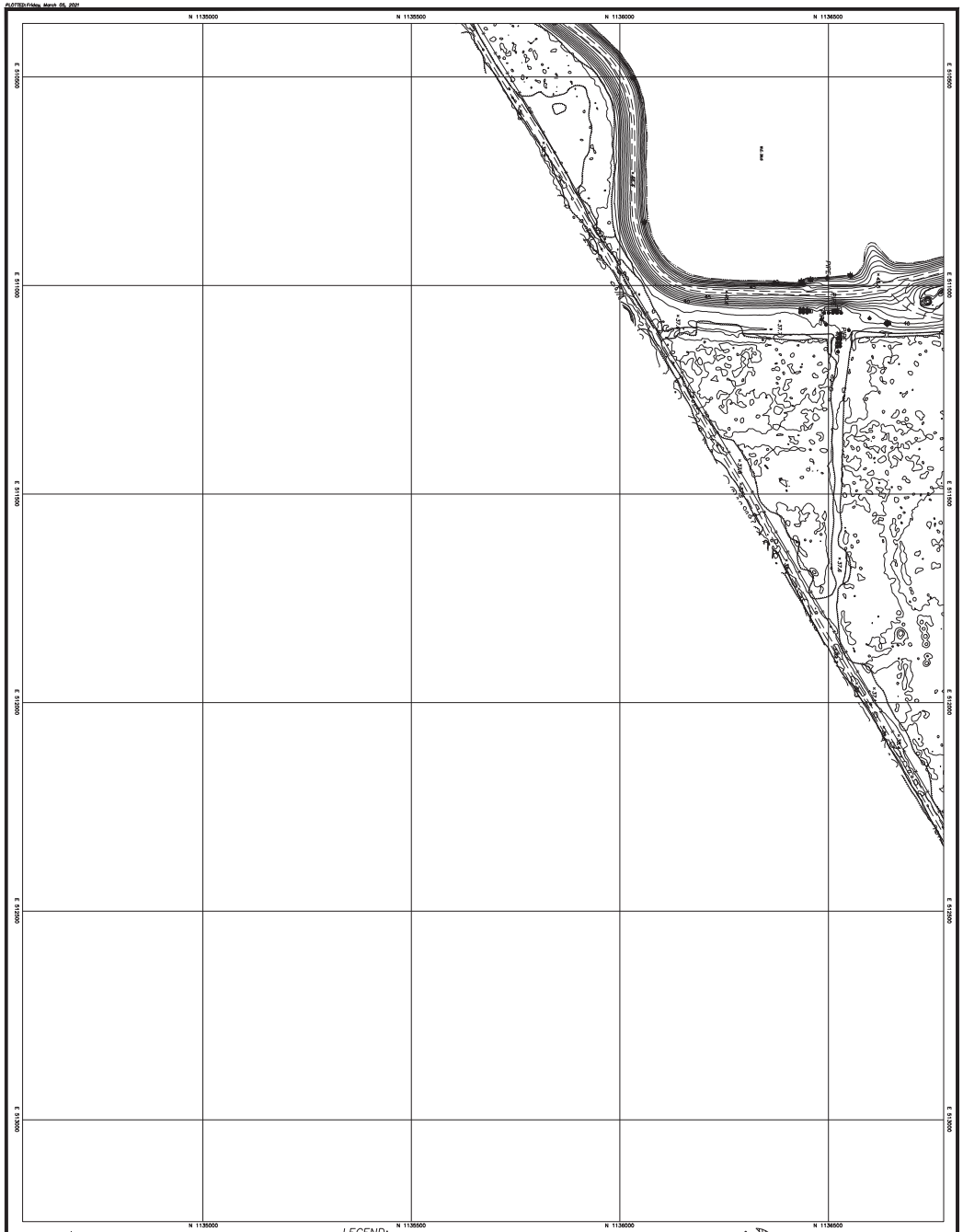

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4.) Flight Date:2/3/21

LEGEND:

SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

- A — ANTENNA
- PT# — TARGET NUMBER
- N — NORTHING
- E — EASTING
- EL — ELEVATION
- UTILITY POLE
- LIGHT POLE
- DIRECTIONAL LIGHT
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
- ELECTRIC RISER
- MISCELLANEOUS
- CULVERT
- SWAMP/MARSH
- MANHOLE
- FIRE HYDRANT
- TREE
- PALM TREE
- BUSH
- ×120.1 SPOT ELEVATION
- CATCH BASIN

GOLF FEATURES

- T — TEE
- G — GREEN
- S — SAND TRAP
- F — FAIRWAY
- D — DRIVING RANGE
- PG — PRACTICE GREEN

THESE FEATURES ARE TO SCALE

- BACK OF CURB LINE
- ASPHALT
- CONCRETE
- DIRT DRIVE/ROAD
- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
- VEGETATION LINE (O.S.U.TSCALE)
- HEDGE/BRUSHLINE (LTSCALE_3)
- ABOVE GROUND PIPE
- RAILROAD RAIL
- SHORELINE
- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

4	3	2	1
10	9	8	5
15	14	13	12

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 feet.

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SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL.

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

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CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

No.	DATE	APPROVED	REVISION
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DATE: 03/05/21
DRAWN BY: PL&JG
JOB No. 18600-4
FIELD BOOK No. 73

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SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
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	5	10
1	6	11
2	7	12
3	8	13
4	9	

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LEGEND:

SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
- ELECTRIC RISER
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- MANHOLE
- FIRE HYDRANT
- TREE
- PALM TREE
- BUSH
- × 120.1 SPOT ELEVATION
- CATCH BASIN

GOLF FEATURES
- T TEE
- G GREEN
- S SAND TRAP
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- D DRIVING RANGE
- PG PRACTICE GREEN

THESE FEATURES ARE TO SCALE

- BACK OF CURB LINE
- ASPHALT
- CONCRETE
- DIRT DRIVE/ROAD
- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
- VEGETATION LINE (0.5 LTSCALE)
- HEDGE/BRUSHLINE (LTSCALE .3)
- ABOVE GROUND PIPE
- RAILROAD RAIL
- SHORELINE
- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PICKETT
PICKETT AND ASSOCIATES, INC.
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O.R.	3/5/21	TJY	FIRST ISSUE

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

PROJECT No. 18600-4
DRAWING No. LD 7025
No. 10 OF 13

PLOTTED: Friday, March 05, 2021

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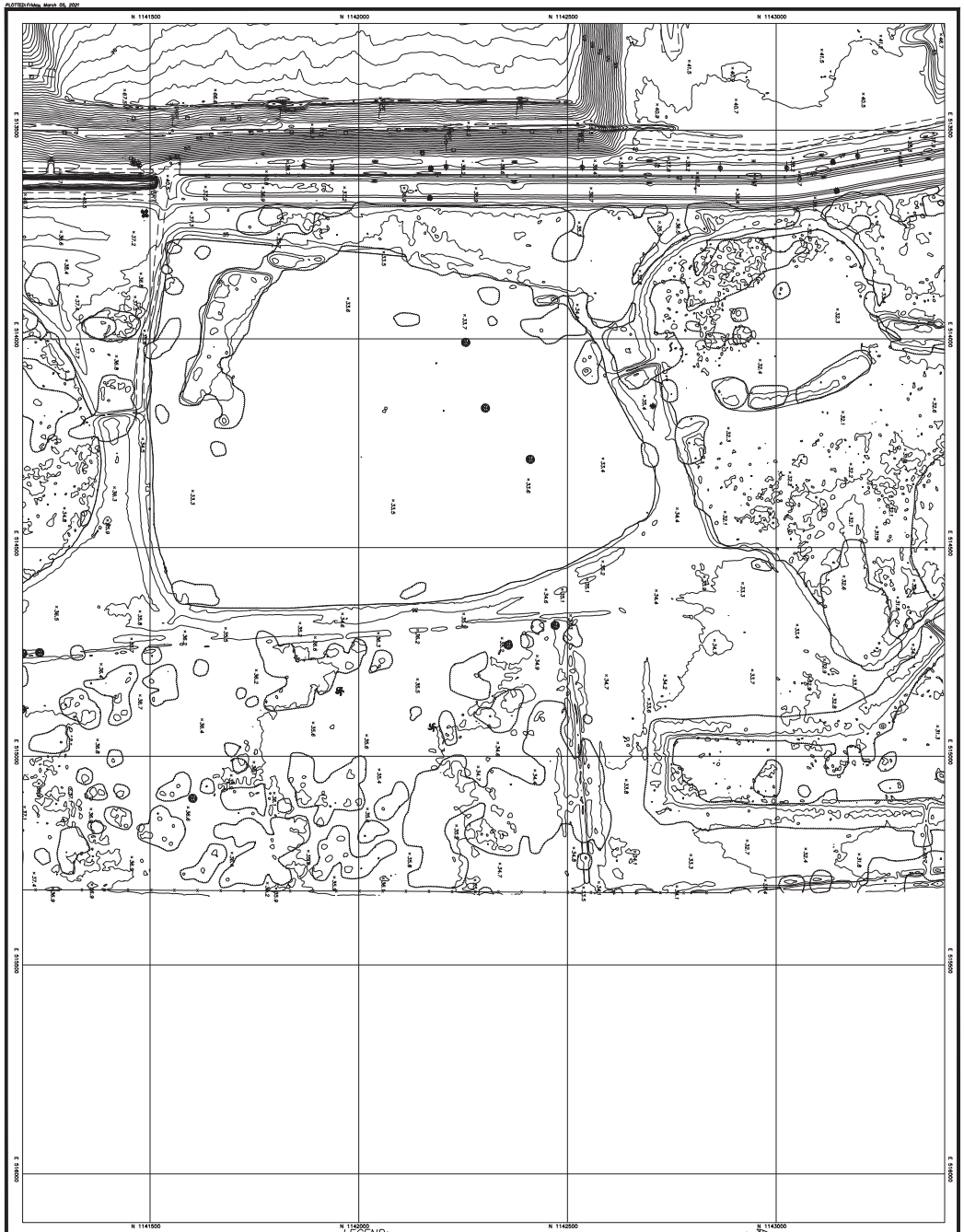

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LEGEND:

SYMBOLS AND INFORMATIVE LABELS NOT TO SCALE

- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- POST
- FLAG POLE
- MAILBOX
- GUY ANCHOR
- UNKNOWN VALVE
- ELECTRIC RISER
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- CULVERT
- SWAMP/MARSH
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- TREE
- PALM TREE
- BUSH
- x 120.1 SPOT ELEVATION
- CATCH BASIN

GOLF FEATURES

- T TEE
- G GREEN
- S SAND TRAP
- F FAIRWAY
- D DRIVING RANGE
- PG PRACTICE GREEN

THESE FEATURES ARE TO SCALE

- BACK OF CURB LINE
- ASPHALT
- CONCRETE
- DIRT DRIVE/ROAD
- FENCE
- GUARDRAIL
- WALL (CENTERLINE)
- VEGETATION LINE (0.5 x TSCALE)
- HEDGE/BRUSHLINE (1.TSCALE ..5)
- ABOVE GROUND PIPE
- RAILROAD RAIL
- SHORELINE
- SWAMPLINE
- MISCELLANEOUS
- OVERHEAD WIRE
- TOP OF BANK
- TOE OF SLOPE
- BREAKLINE
- BUILDING
- CONTOUR MAJOR
- CONTOUR MINOR
- CONTOUR OBSCURED
- UNDERGROUND DRAINAGE

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
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CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

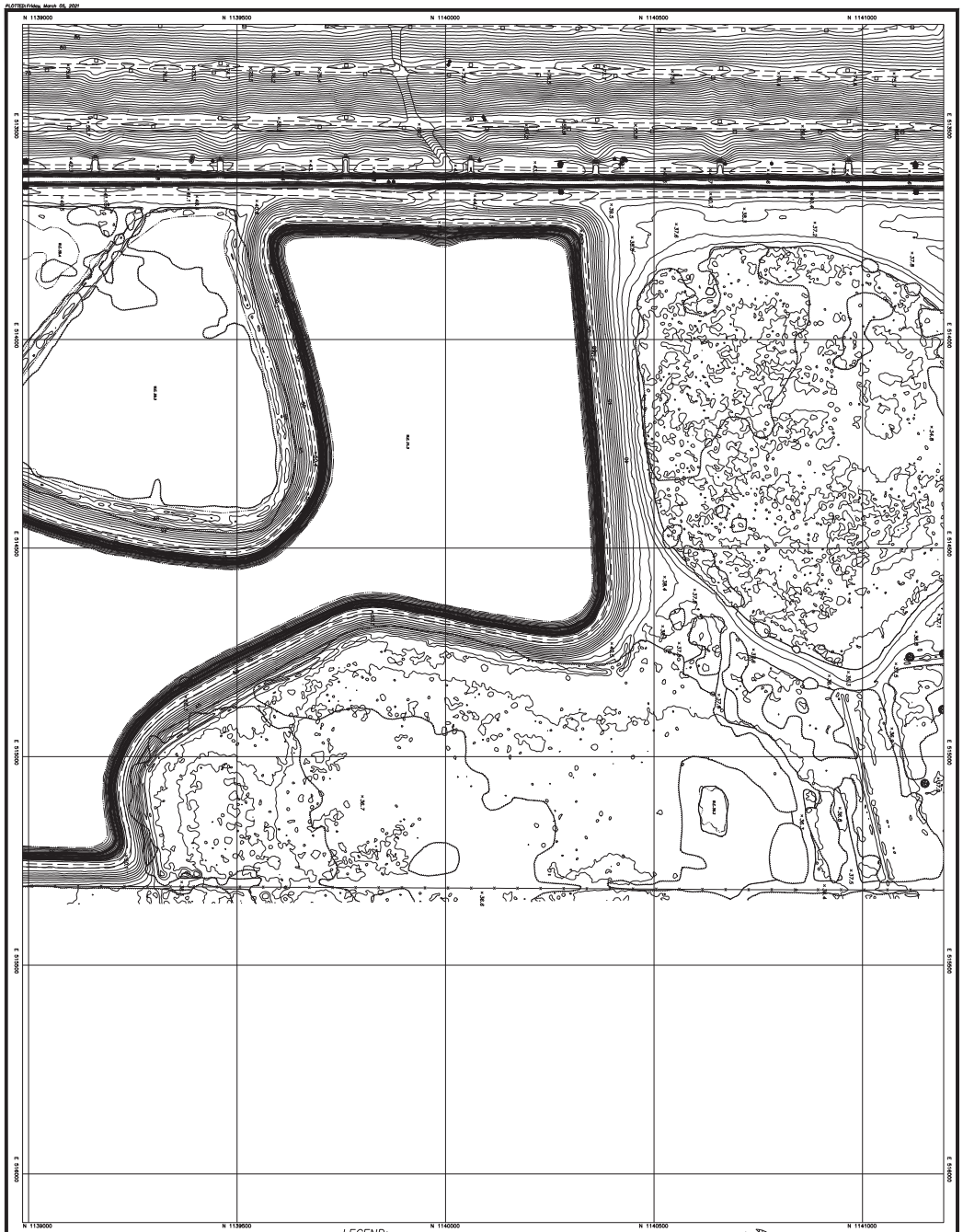
No.	DATE	APPROVED	REVISION
0.R.	3/5/21	TJY	FIRST ISSUE

JT 2020

PROJECT No. 18600-4

No. 1 of 1

PLOTTED Friday, March 05, 2021



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LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
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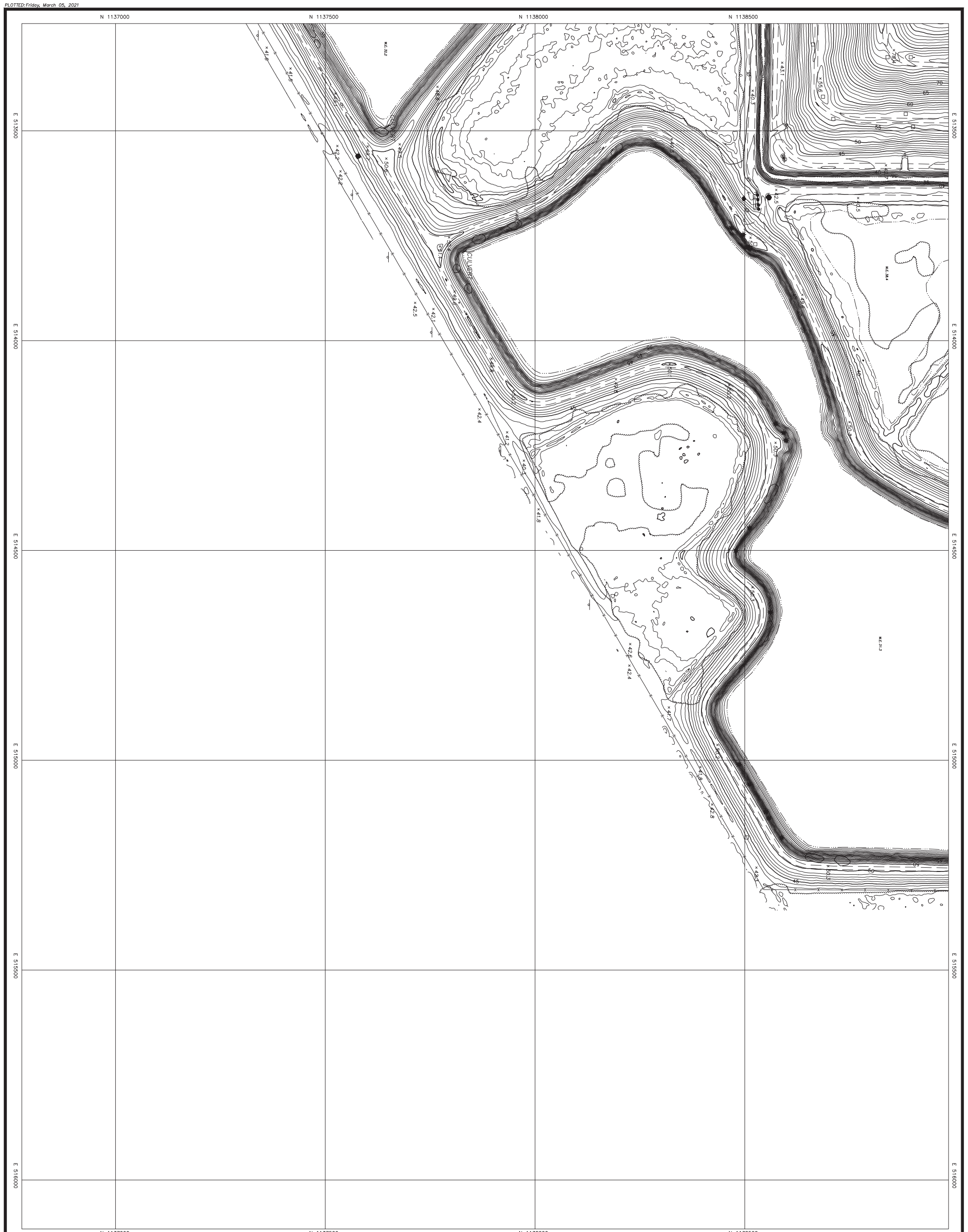
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

No.	DATE	APPROVED	REVISION
0.R	3/5/21	TJY	FIRST ISSUE

DATE 2/3/21
DRAWN BY: PL&JG
CHECKED BY: JY
SCALE: 1"=100'
No 122 13

PLOTTED:Friday, March 05, 2021



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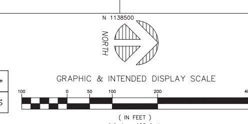
- UNDERGROUND DRAINAGE

4	3	2	1	
9	8	7	6	5
	13	12	11	10



THIS MAP AND ATTACHED REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER AND ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECTIONS 1,6,&31
TOWNSHIP 34&35 SOUTH, RANGE 18&19 EAST
PREPARED FOR: SCS ENGINEERS

PROJECT No.	DRAWING No.	No.
18600-4	LD 7025	13 OF 13

PICKETT

PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

HORIZ. SCALE: 1"=100'	EDITED BY:	DRAWN BY:	CHECKED BY:	DRAWING NAME
CONTOUR INTERVAL: 1'	RP	PL&JG	JY	18600-4.DWG

THIS MAP AND ATTACHED REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER AND ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

No.	DATE	APPROVED	REVISION
O.R.	3/5/21	TJY	FIRST ISSUE

ATTACHMENT B

REMAINING LIFE AND CAPACITY CALCULATIONS

SCS ENGINEERS

SHEET 1 OF 1

CLIENT	PROJECT	JOB NO.
Manatee County	Lena Road Landfill Site Life Calculations	09217088.21

SUBJECT	BY	DATE
Projected Remaining Capacity and Site Life - 5 Year Average	AFV	4/12/2021
Lena Road Landfill	CHECKED	DATE
	SRF	4/28/2021

Reporting Year	Historical Tonnages (Tons)[1]	Volume Used (CY)	Apparent Density (lbs/CY)
2017	330,724.56	470,000	1,407.34
2018	335,607.40	490,000	1,369.83
2019	292,722.41	480,380	1,218.71
2020	330,794.09	477,956	1,384.20
2021	300,284.89	510,892	1,175.53
	5-Year Average =	485,845	1,311.12

5-Year Average Density = 1,311.12 Lbs / CY

Volume Consumed

Between 1/28/20 and 2/3/21 = 513,114 CY

Average Volume Consumed (5-Year Average) = 485,845 CY

Remaining Volume For Waste Placement
(Final Closure Cap System Removed)

Remaining Volume as of 1/28/20 = 10,622,986 CY

Remaining Volume as of 2/3/21[2] = 10,622,986 CY - 513,114 CY = 10,109,872 CY

Remaining Capacity as of February 3, 2021

Remaining Years of Life From 2/3/21[3] = 10,109,872 / 486,290 = **20.8** **Years**

Year of Closure = 2041.8

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 February 3, 2021 topographic survey using AutoCAD 3D.
3 Remaining life is calculated by dividing the average volume consumed per year into remaining volume for waste placement.