Madden, Melissa

From: Shane Fischer <SFischer@SCSEngineers.com>
Sent: Thursday, April 23, 2020 5:55 AM
To: SWD_Waste
Subject: File Transfer: Lena Road Landfill Remaining Disposal Capacity and Site Life 2020 - Manatee Co, 2020 Annual Compliance, FL

A transfer (File Transfer) has arrived on the SCS Engineers Info Exchange Site.
Download all associated files

Additional links:

Reply to All

Project Name: Manatee Co, 2020 Annual Compliance, FL
Project Number: 09217088.15
From: Shane Fischer (SCS Engineers)
To: robert.shankle@mymanatee.org; Bryan White (Manatee County, Florida); SWD_Waste@dep.state.fl.us; steven.tafuni@dep.state.fl.us; Steve Morgan (FDEP); Anthony Detweiler (Manatee County, Florida); bob.bennett@mymanatee.org; James.Jarmolowski@dep.state.fl.us
CC: Carlo Lebron (SCS Engineers); Shane Fischer (SCS Engineers); Dan Cooper (SCS Engineers)
Subject: Lena Road Landfill Remaining Disposal Capacity and Site Life 2020
Sent via: Info Exchange
Expiration Date: 5/23/2020
Remarks:

Dear Jim,
In accordance with Permit No. 39884-021-SO-01, please find below a link to download the Manatee County Lena Road Landfill Remaining Disposal Capacity and Site Life calculations for Reporting Year 2020.
Please let us know if you have any comments.
Thanks
Shane

Transferred Files

NAME	TYPE	DATE	TIME	SIZE
Lena Road Landfill Annual Site Life.pdf	PDF File	4/23/2020	5:35 AM	18,123 KB

April 23, 2020
File No. 09217088.15

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 2020
Lena Road Landfill - Manatee County
Permit No.: 39884-021-S0-01

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 January 28, 2020 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 10,622,986 CY of remaining capacity in Stage II which relates to approximately 21.8 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.
Sr. Project Manager
SCS Engineers

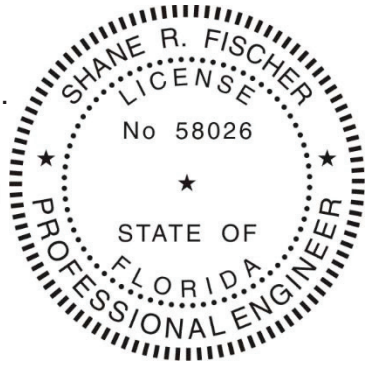
Shane R. Fischer, P.E.
Vice President/Office Manager
SCS Engineers

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.



ATTACHMENT A

PICKETT AERIAL TOPOGRAPHIC SURVEY
FLOWN JANUARY 28, 2020 AND SURVEY REPORT

SURVEYOR'S REPORT

Lena Road Landfill

Prepared for:

SCS ENGINEERS
Environmental Consultants and Contractors

Prepared by:

PICKETT
SURVEYING • ENGINEERING

PICKETT AND ASSOCIATES PROJECT NO.: 18600-3
TITLE/TYPE OF SURVEY: TOPOGRAPHIC SURVEY
DATE OF SURVEY: 1/28/20

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.

Control Points Used for mapping:

Pt#	Northing	Easting	Elevation
109	509165.88	1141545.95	33.96
168	512336.06	1144330.79	39.12
156	513482.19	1144103.65	38.23
158	513483.92	1144105.82	38.57
167	512336.15	1144330.49	38.84
170	512336.63	1144328.05	38.93
171	512335.05	1144328.94	39.17
135	513590.75	1138562.79	40.93
122	511092.73	1138428.3	38.9
229	508386.36	1135605.88	33.94
142	513540.46	1138575.17	43.63

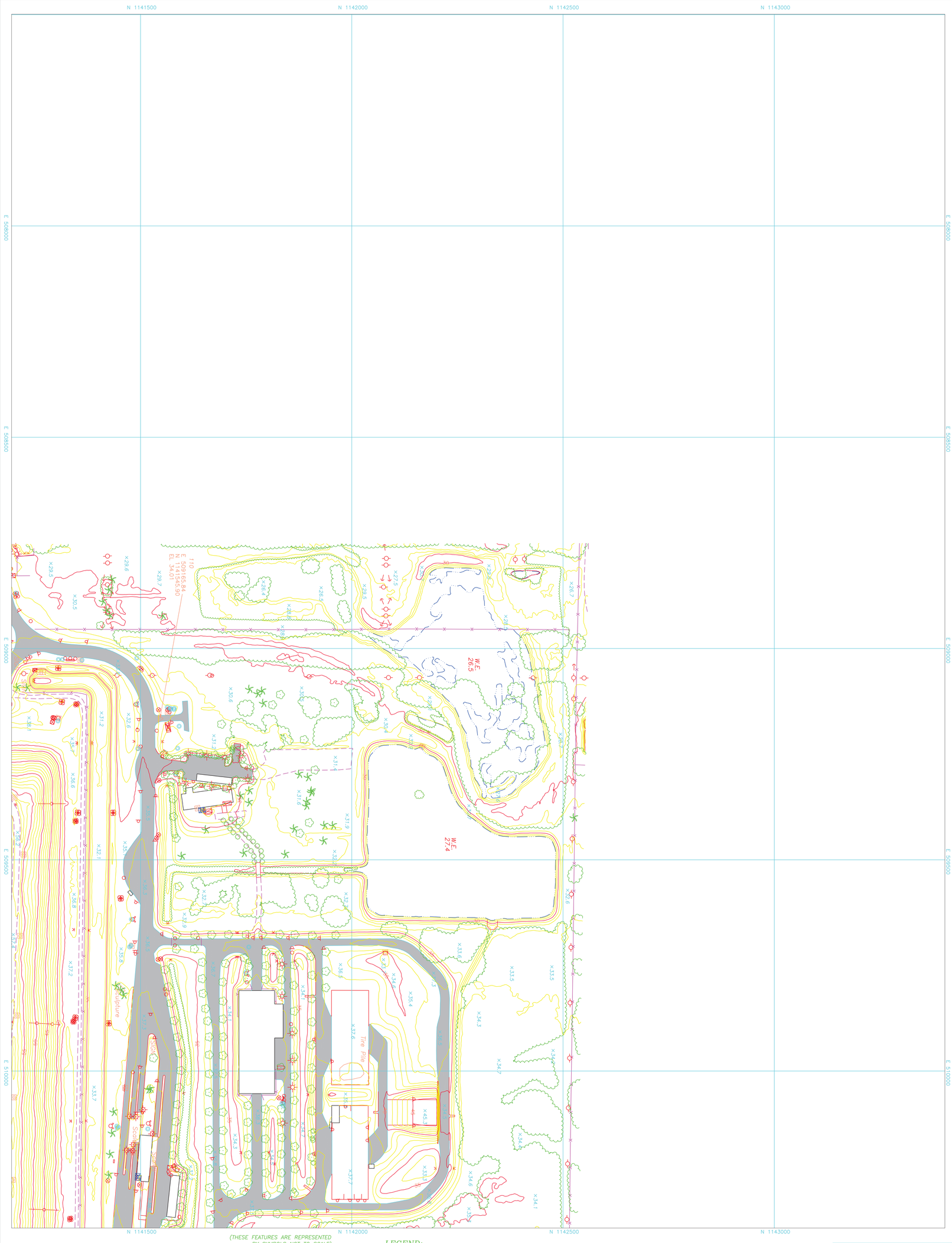
Measurement Methods:
Color digital imagery was acquired at an average altitude of 3390' using a metric precision digital camera whose focal length is 70.3mm. The planimetrics shown are limited to those features visible on aerial imagery. Mapping was performed using LiDAR and softcopy photogrammetric techniques. The LiDAR data has an estimated point sample distance of 0.68 foot and a density of 2.19 points per square foot (±23.6 points per square meter). For a vertical accuracy check, the LiDAR data was compared to the eleven (11) points set as targets for aerial imagery. The Root Mean Square Error of the Elevations (RMSEZ) is 0.122 foot, being the equivalent of 0.24' 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.

1/28/20

DOUGLAS A. TIMOTHY, PSM
FLORIDA REGISTRATION NO. 6855
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.

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)

- CONTROL
- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG
- MAIL BOX
- GUYWIRE
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- MANHOLE
- HYDRANT
- TREE
- PALM
- SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
- CONCRETE SURFACE
- UNPAVED ROAD
- FENCE
- GUARDRAIL
- WALL
- RAILROAD
- STRUCTURE
- TREE LINE
- SHRUB LINE
- PIPELINE
- RECREATION
- EDGE OF GROVE
- EDGE OF WATER

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- ×120.1 SPOT ELEVATION
- MISC MISCELLANEOUS

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 ft.

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

VERTICAL: Contours have been 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'

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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.

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1/28/20
DOUGLAS A. TIMOTHY — SURVEY DATE
FLORIDA REGISTRATION NO. 6855
PICKETT AND ASSOCIATES, INC.

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

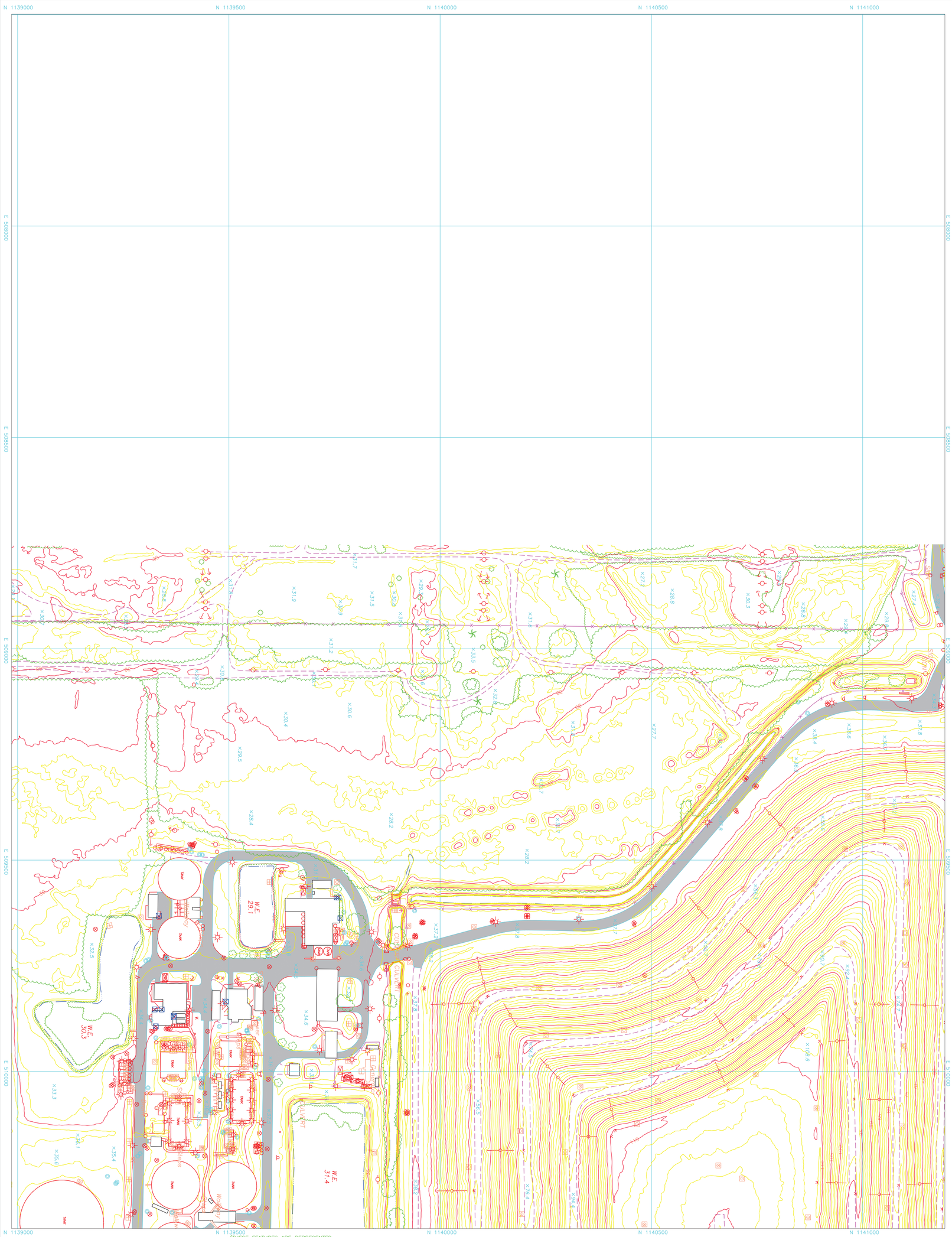
PICKETT
SURVEYING • ENGINEERING

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: DT	Compiled by: PL, DT	Flight Date: 1/28/20
Contour Interval: 1'	Checked by: CE		Drawing Name: 18600-3.DWG

No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	1
No. OF	13
LD-6760	



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- FLAG
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- GUYWIRE
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- VALVE
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- SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
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- TREE LINE
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4	3	2	1	
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SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PICKETT
SURVEYING • ENGINEERING

PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE
BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
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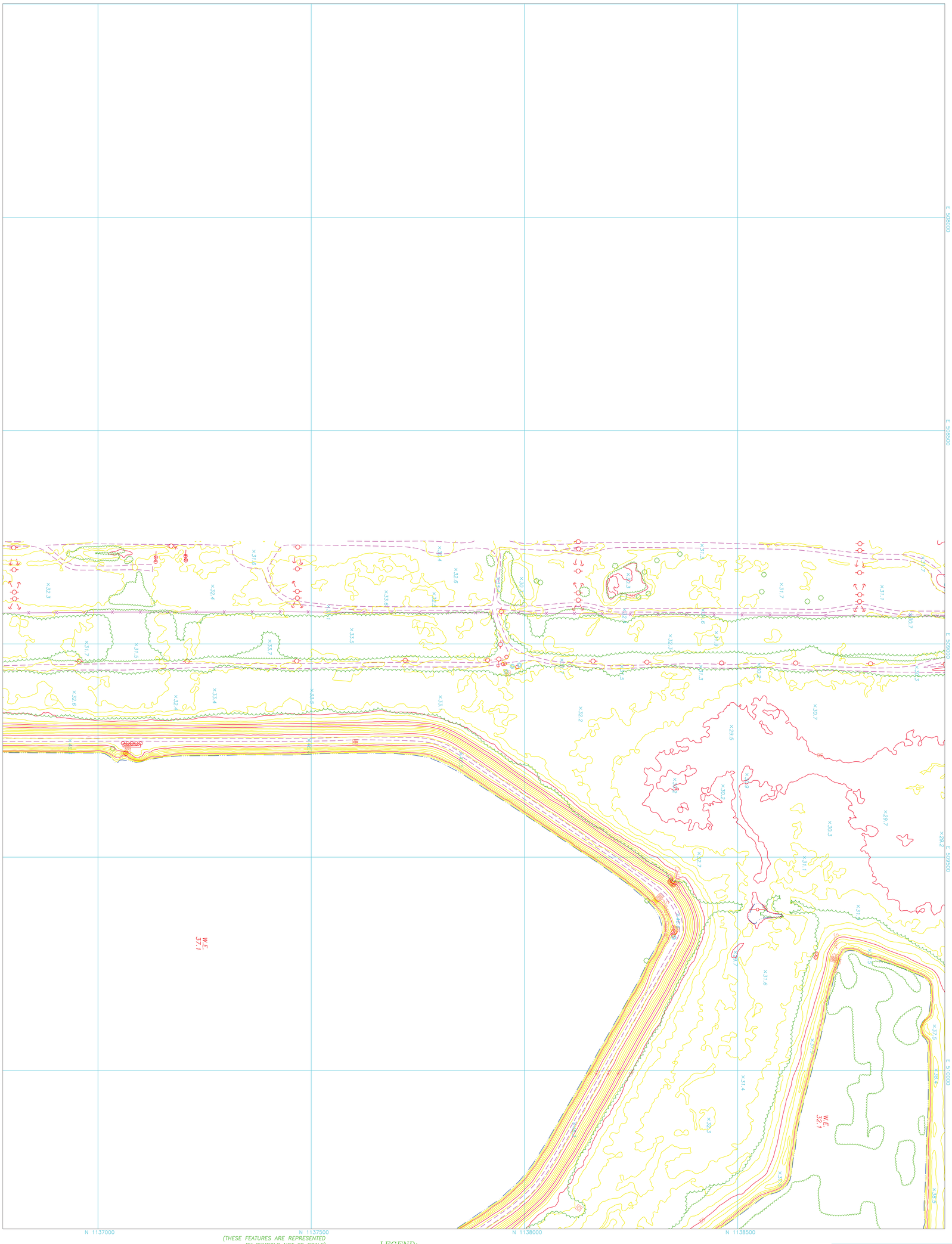
Horiz. Scale: 1" = 100'	Edited by: DT	Compiled by: PL, DT	Flight Date: 1/28/20
Contour Interval: 1'	Checked by: CE		Drawing Name: 18600-3.DWG

No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	2
OF	13
No.	LD-6760



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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

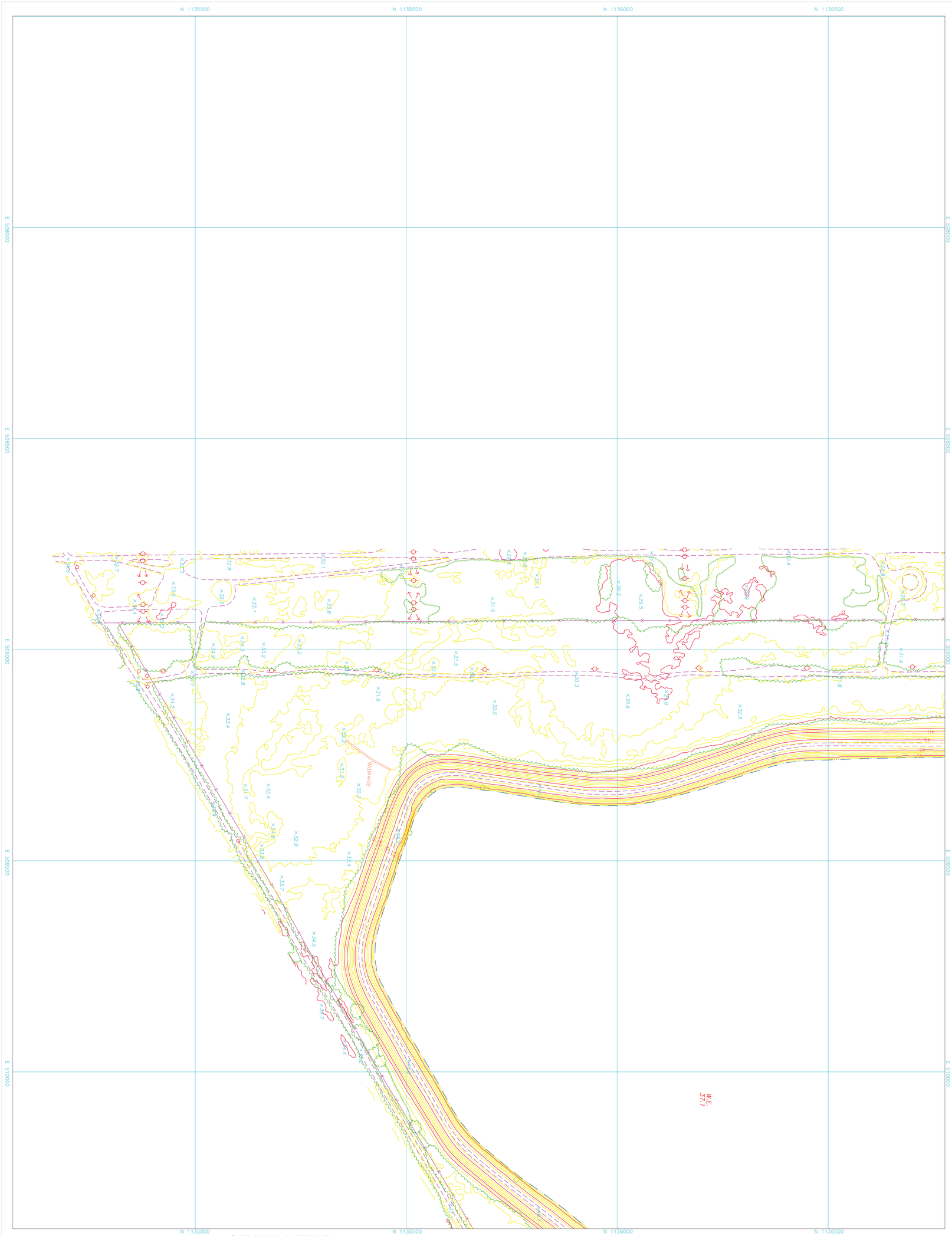
PREPARED FOR: SCS ENGINEERS

PROJECT No. 18600-3
DRAWING No. 3
OF 13
No. LD-6760

PICKETT
SURVEYING • ENGINEERING
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: DT
Checked by: CE
Compiled by: PL, DT
Flight Date: 1/28/20
Drawing Name: 18600-3.DWG

No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE



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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S,
RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

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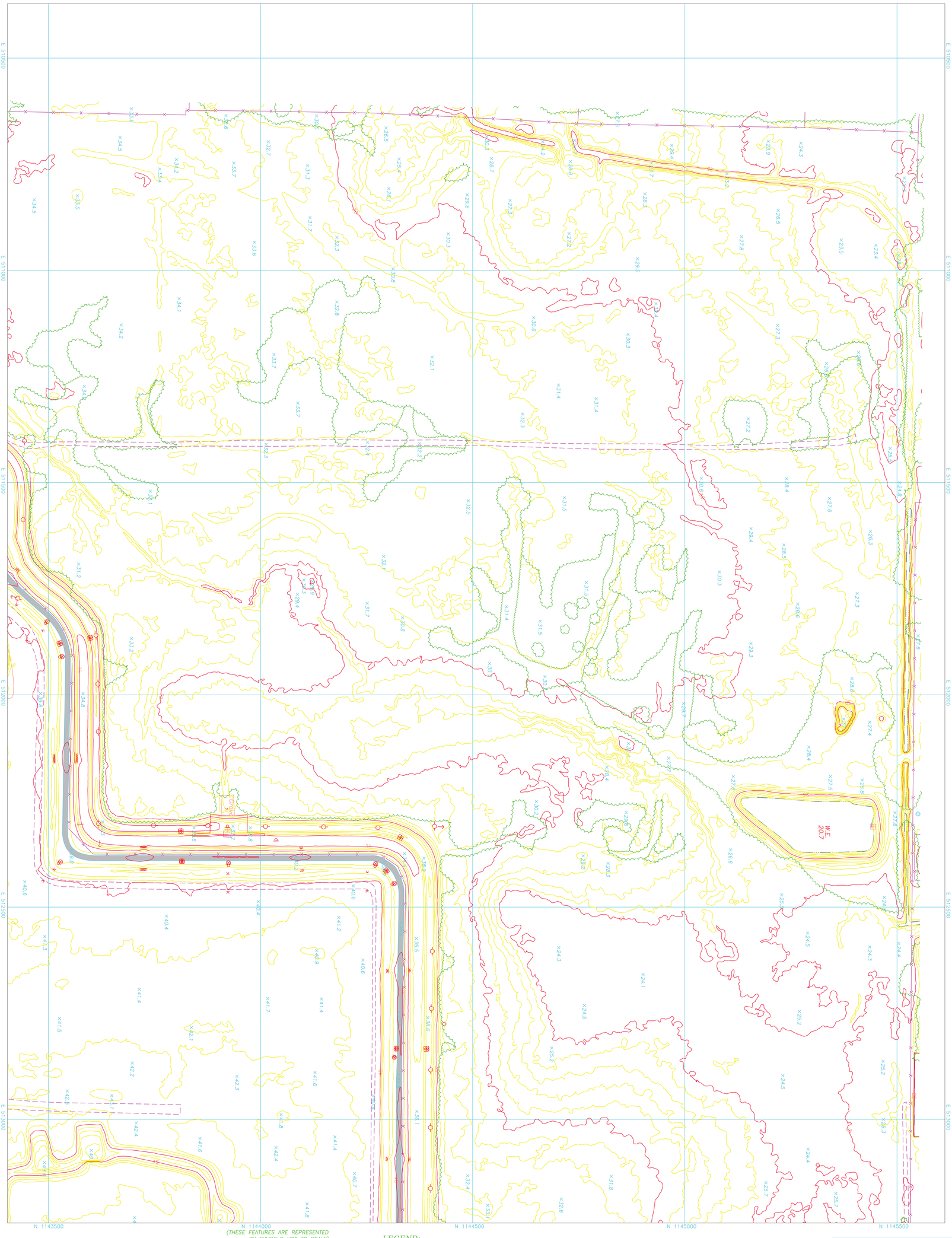
No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	4
No. OF	13
LD-6760	



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LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

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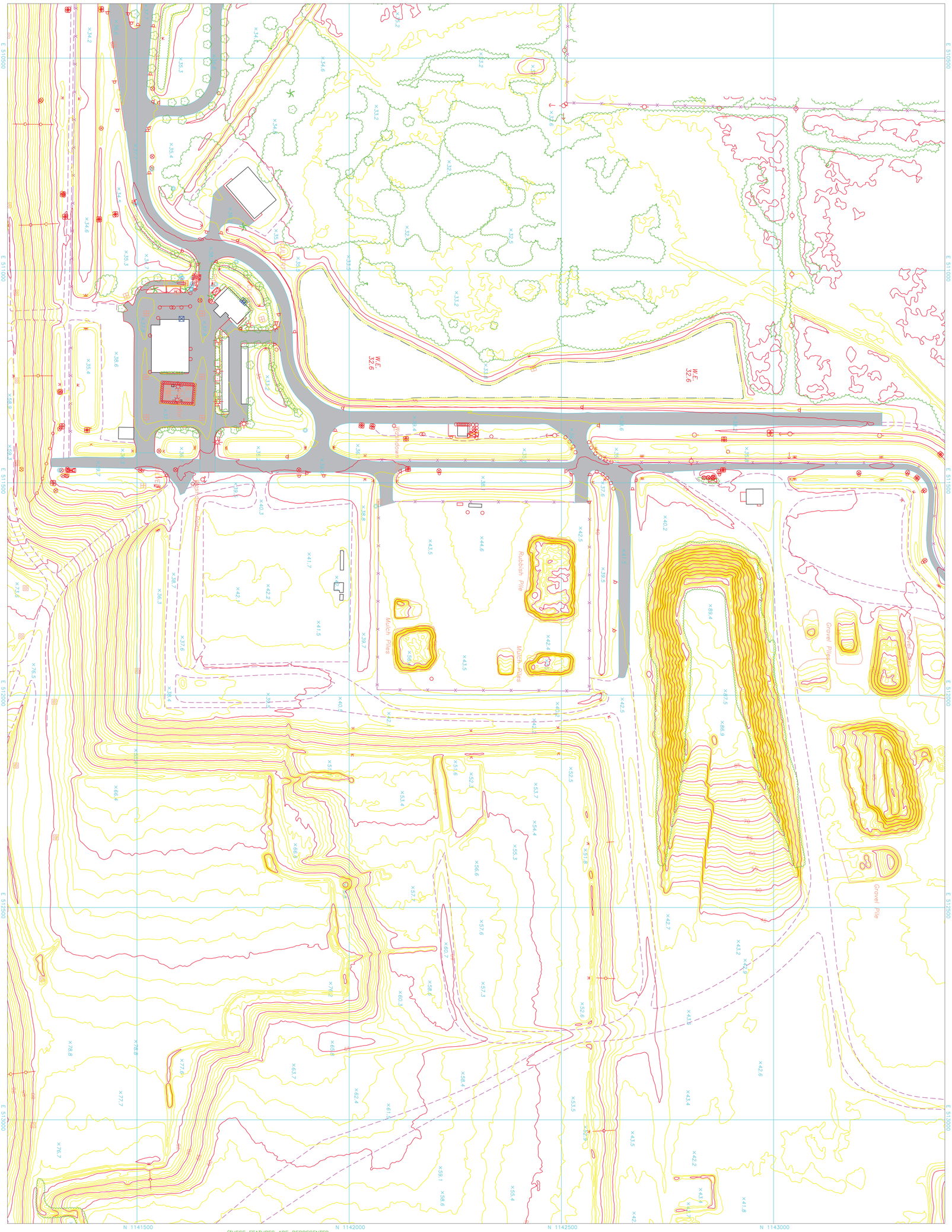
BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

Horiz. Scale: 1" = 100'	Edited by: DT	Compiled by: PL, DT	Flight Date: 1/28/20
Contour Interval: 1'	Checked by: CE		Drawing Name: 18600-3.DWG

No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	5
OF	13
No.	LD-6760



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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.

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)

- CONTROL
- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG
- MAIL BOX
- GUYWIRE
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- MANHOLE
- HYDRANT
- TREE
- PALM
- SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
- CONCRETE SURFACE
- UNPAVED ROAD
- FENCE
- GUARDRAIL
- WALL
- RAILROAD
- STRUCTURE
- TREE LINE
- SHRUB LINE
- PIPELINE
- RECREATION
- EDGE OF GROVE
- EDGE OF WATER

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- ×120.1 SPOT ELEVATION
- MISC MISCELLANEOUS

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 ft.

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SEE PAGE 1 FOR THE SIGNATURE AND THE ORIGINAL RAISED SEAL

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PICKETT
SURVEYING • ENGINEERING
PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE
BARTOW, FLORIDA 33830
PHONE: (863)-533-9095
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No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	6
OF	13
No.	LD-6760

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CONTROL
PT# TARGET NUMBER
N NORTHING
E EASTING
EL ELEVATION
UTILITY POLE
LIGHT POLE
TRAFFIC LIGHT
SIGN
POST
FLAG
MAIL BOX
GUYWIRE
CATCH BASIN
VALVE
ELECTRICAL
AIR CONDITIONER
MISCELLANEOUS SYMBOL
CULVERT
MANHOLE
HYDRANT
TREE
PALM
SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

CURB
PAVED ROAD
CONCRETE SURFACE
UNPAVED ROAD
FENCE
GUARDRAIL
WALL
RAILROAD
STRUCTURE
TREE LINE
SHRUB LINE
PIPELINE
RECREATION
EDGE OF GROVE
EDGE OF WATER

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

W.E. WATER ELEVATION
×120.1 SPOT ELEVATION
MISC MISCELLANEOUS

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

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

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O.R.	2/18/20	DT	ORIGINAL RELEASE

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

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LICENSED BUSINESS No. LB364

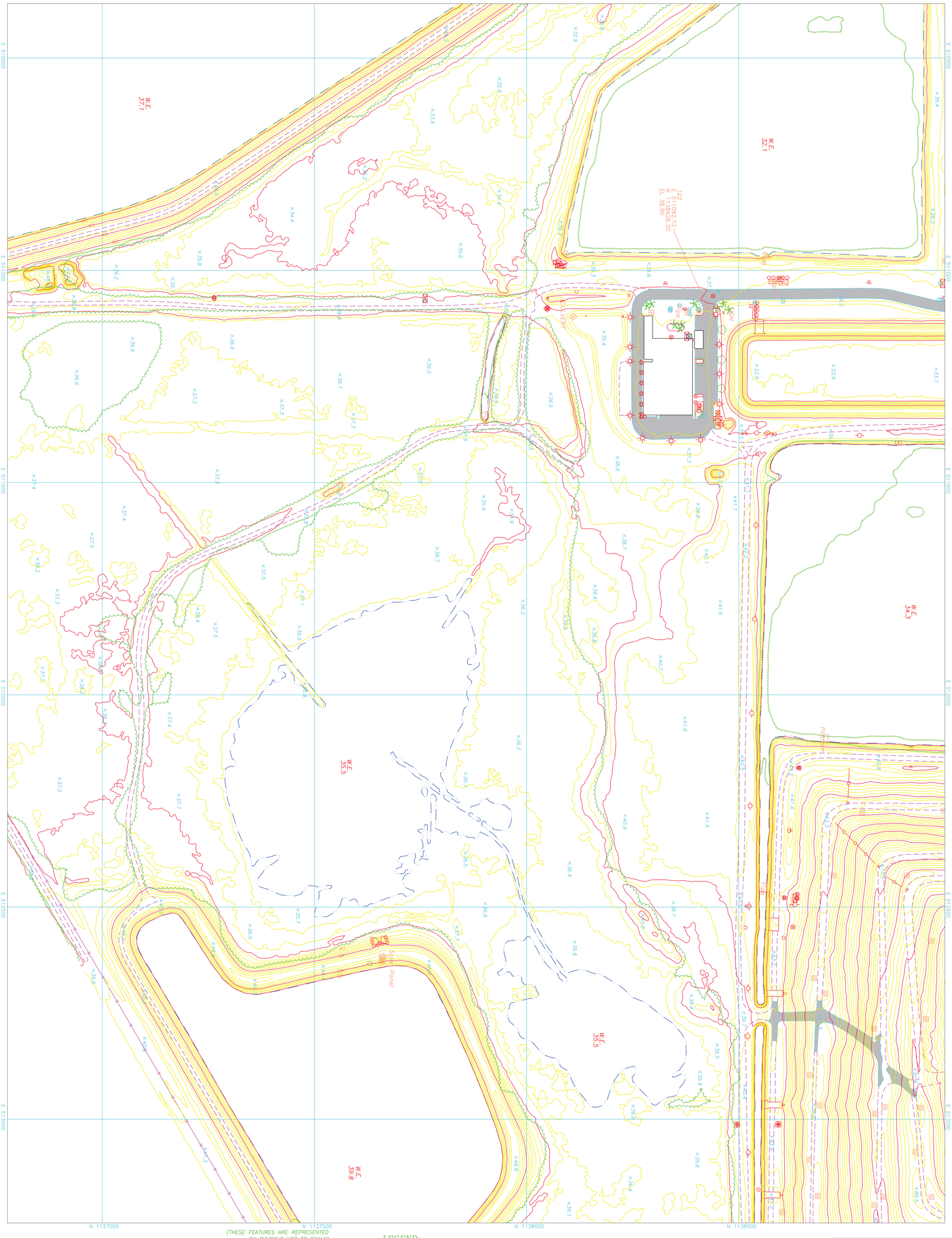
Horiz. Scale: 1" = 100' | Edited by: DT | Compiled by: PL, DT | Flight Date: 1/28/20

Contour Interval: 1' | Checked by: CE | Drawing Name: 18600-3.DWG

PROJECT No. 18600-3

DRAWING No. LD-6760

No. 7 OF 13



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- CONTROL
- PT# TARGET NUMBER
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- UTILITY POLE
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- SIGN
- POST
- FLAG
- MAIL BOX
- GUYWIRE
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- MANHOLE
- HYDRANT
- TREE
- PALM
- SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
- CONCRETE SURFACE
- UNPAVED ROAD
- FENCE
- GUARDRAIL
- WALL
- RAILROAD
- STRUCTURE
- TREE LINE
- SHRUB LINE
- PIPELINE
- RECREATION
- EDGE OF GROVE
- EDGE OF WATER

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- ×120.1 SPOT ELEVATION
- MISC MISCELLANEOUS

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

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

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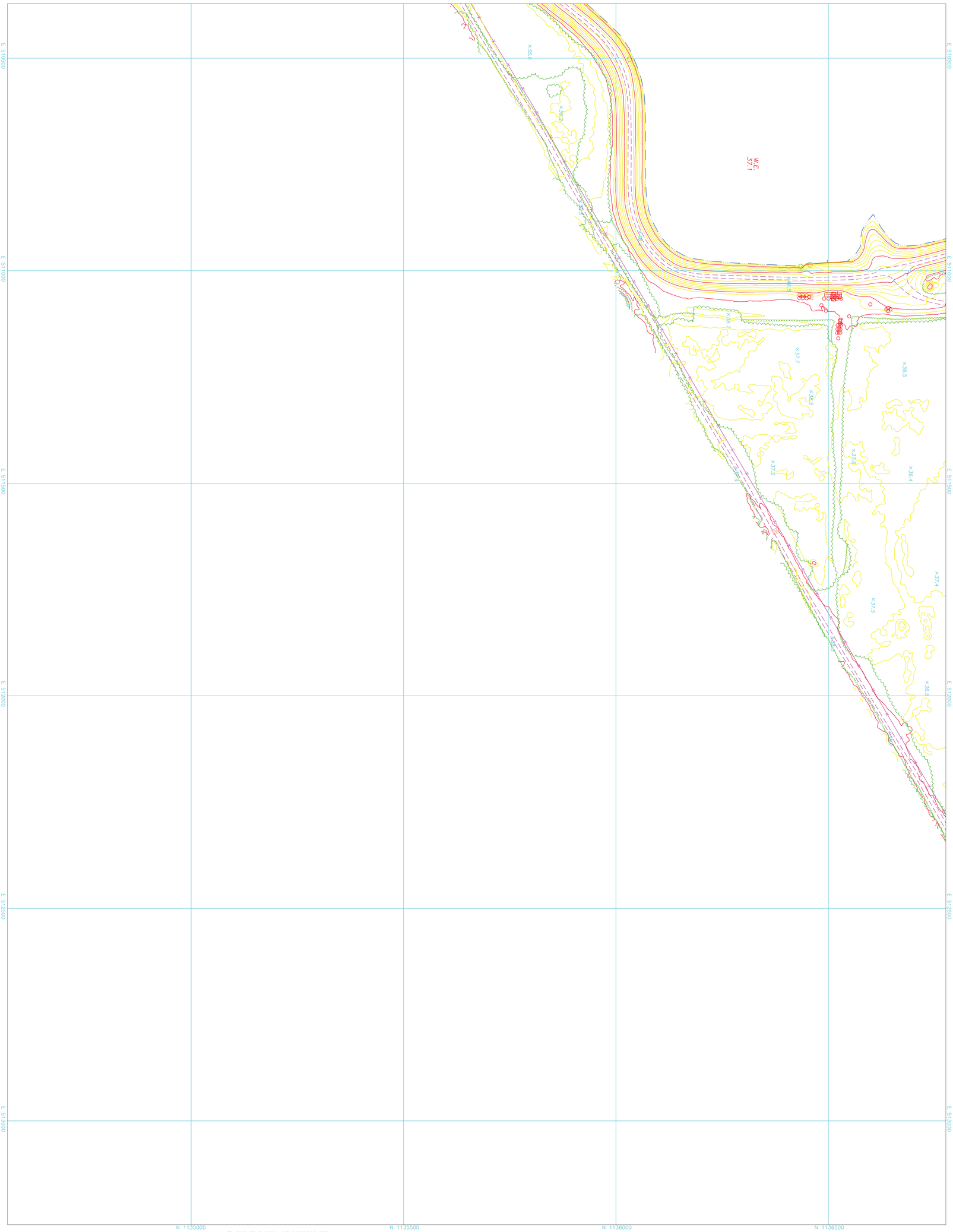
Horiz. Scale: 1" =100'	Edited by: DT	Compiled by: PL, DT	Flight Date: 1/28/20
Contour Interval: 1'	Checked by: CE		Drawing Name: 18600-3.DWG

No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	8
No.	LD-6760
OF	13



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- CONTROL
- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG
- MAIL BOX
- GUYWIRE
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- MANHOLE
- HYDRANT
- TREE
- PALM
- SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
- CONCRETE SURFACE
- UNPAVED ROAD
- FENCE
- GUARDRAIL
- WALL
- RAILROAD
- STRUCTURE
- TREE LINE
- SHRUB LINE
- PIPELINE
- RECREATION
- EDGE OF GROVE
- EDGE OF WATER

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- x120.1 SPOT ELEVATION
- MISC MISCELLANEOUS

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

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

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No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S,
RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PICKETT
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PICKETT AND ASSOCIATES, INC.
475 SOUTH FIRST AVENUE
BARTOW, FLORIDA 33830
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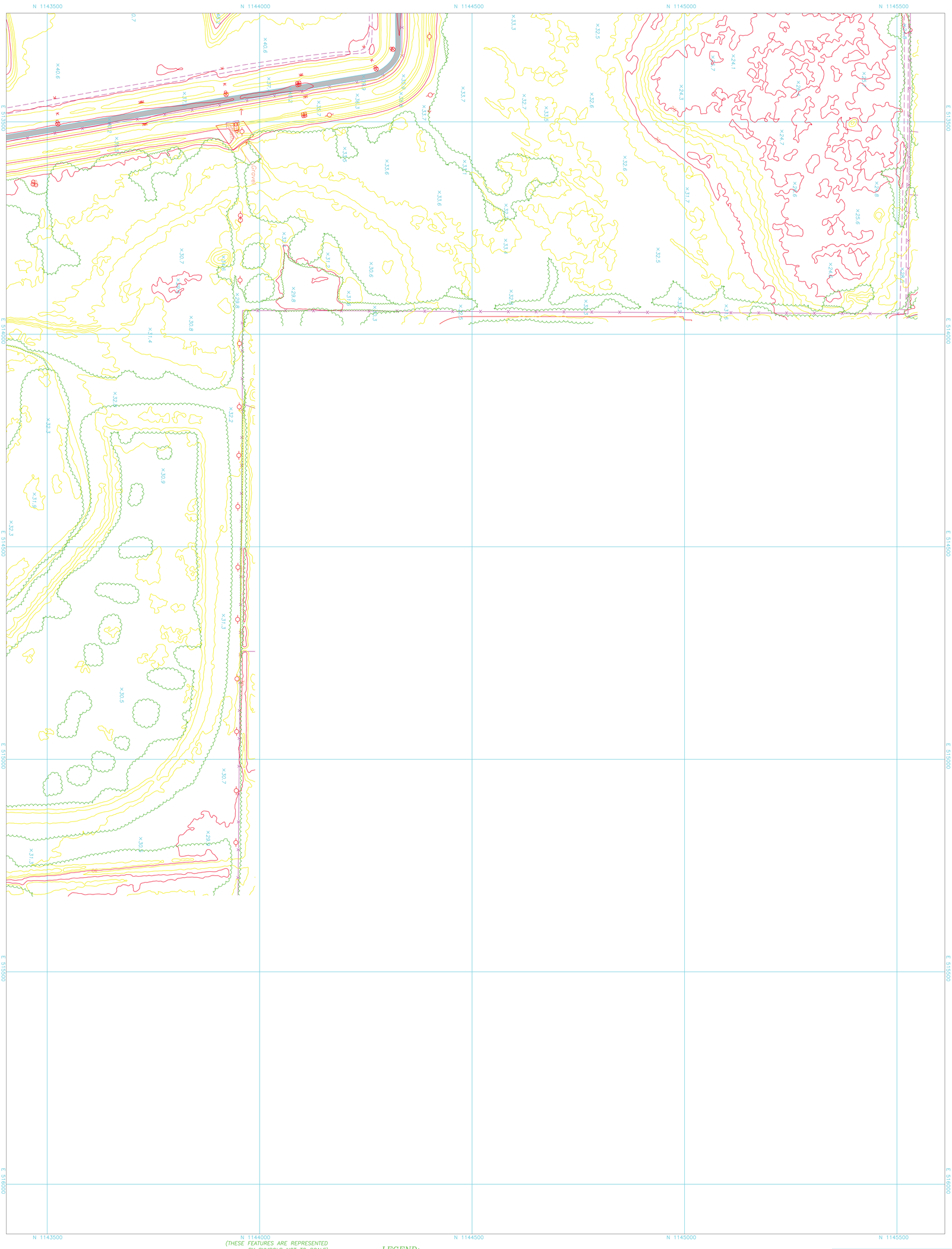
Horiz. Scale: 1" =100'	Edited by: DT	Compiled by: PL, DT	Flight Date: 1/28/20
Contour Interval: 1'	Checked by: CE		Drawing Name: 18600-3.DWG

PROJECT No.	18600-3
DRAWING No.	9
OF	13
No.	LD-6760



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- CONTROL
- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
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- SIGN
- POST
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- MAIL BOX
- GUYWIRE
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- MANHOLE
- HYDRANT
- TREE
- PALM
- SHRUB

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
- CONCRETE SURFACE
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- W.E. WATER ELEVATION
- ×120.1 SPOT ELEVATION
- MISC MISCELLANEOUS

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

NORTH

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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PROJECT No. 18600-3
DRAWING No. LD-6760
No. 10
OF 13

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Flight Date: 1/28/20
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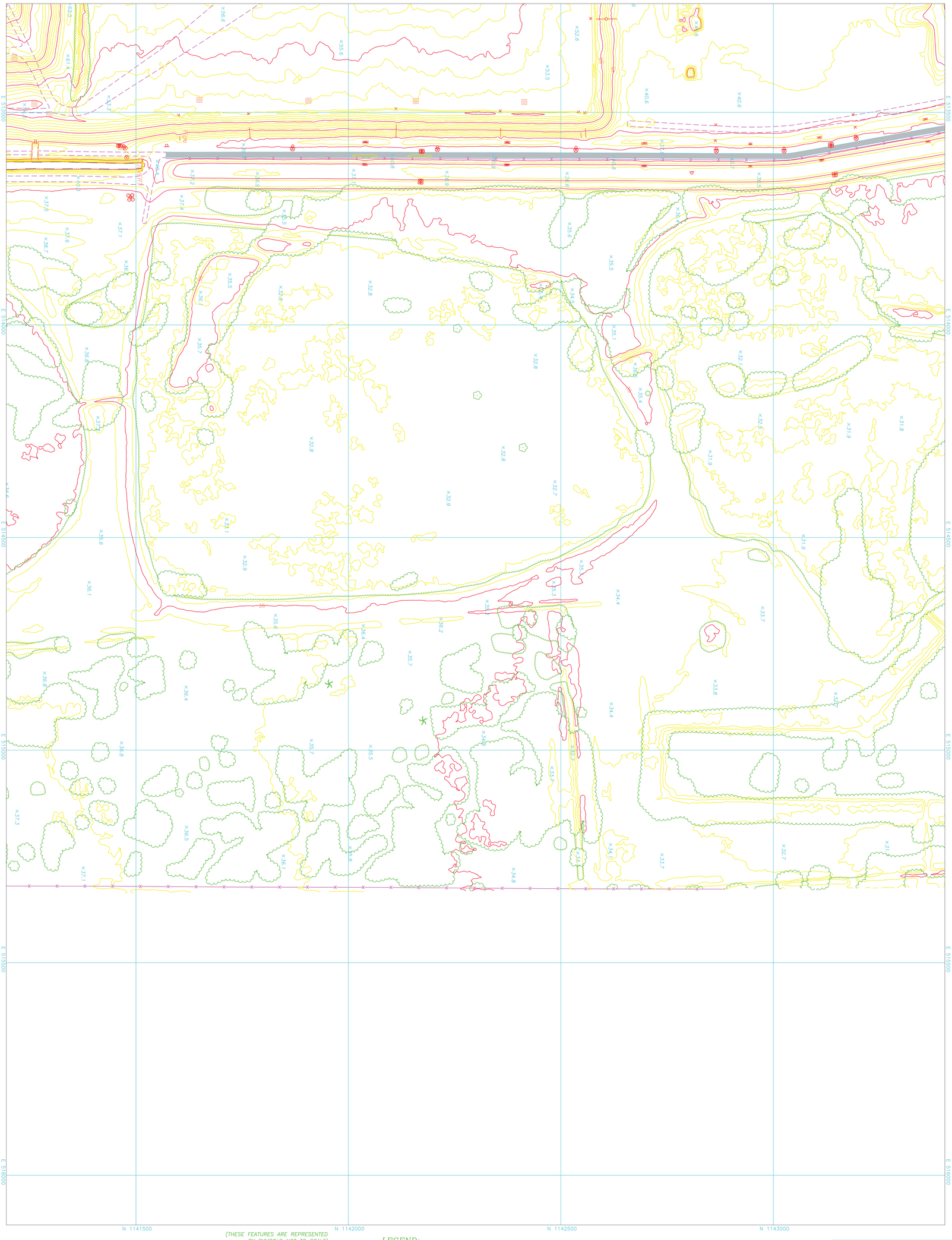

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- PALM
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LEGEND:

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- PAVED ROAD
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4	3	1	5
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LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S,
RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PROJECT No. 18600-3
DRAWING No. 11
OF 13
No. LD-6760

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Flight Date: 1/28/20
Drawing Name: 18600-3.DWG

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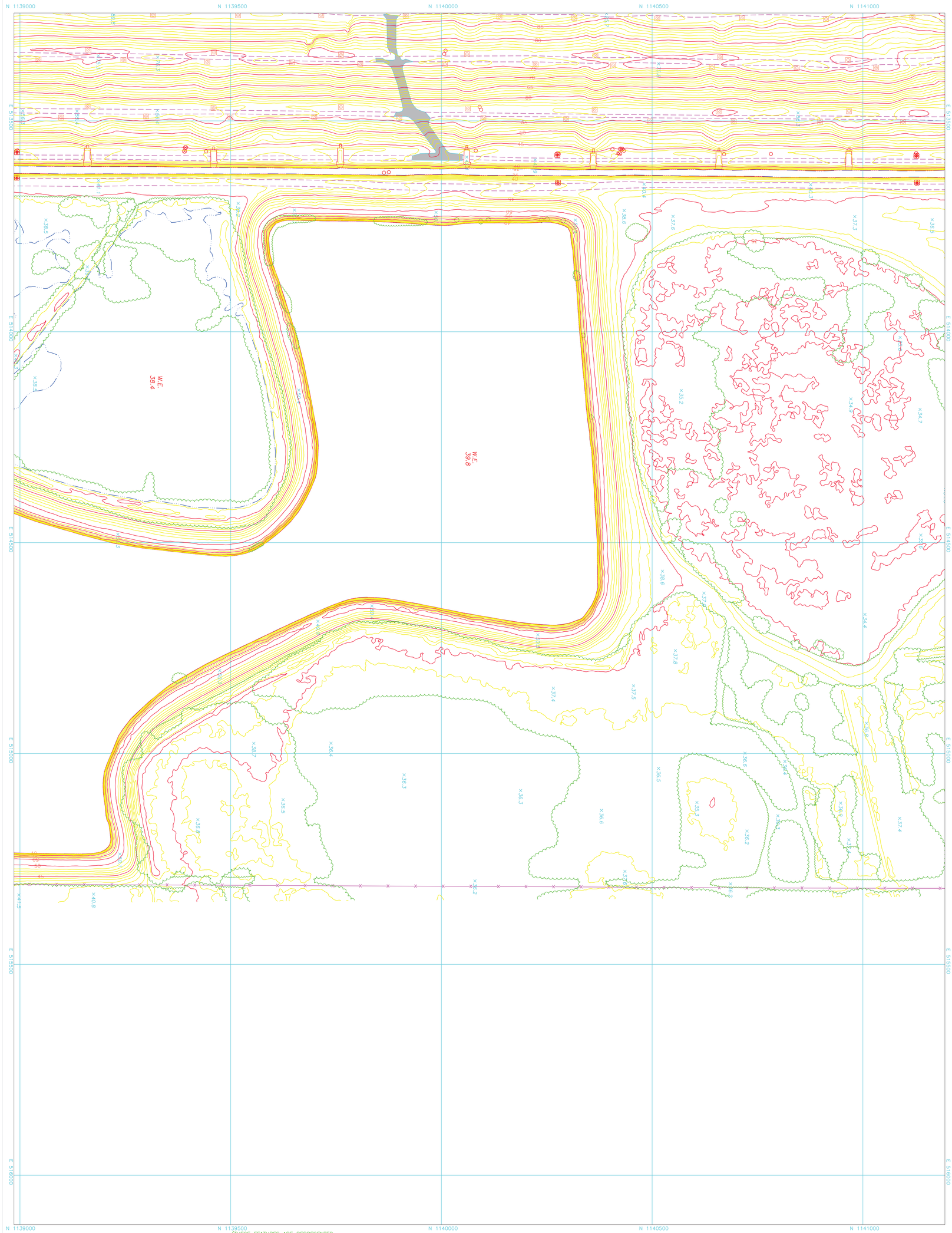

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(IN FEET)
1 inch = 100 ft.

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

VERTICAL: Contours have been 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 1.68'.

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.

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 SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PICKETT
SURVEYING • ENGINEERING
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: DT	Compiled by: PL, DT	Flight Date: 1/28/20
Contour Interval: 1'	Checked by: CE		Drawing Name: 18600-3.DWG

No.	DATE	APPROVED	REVISION
O.R.	2/18/20	DT	ORIGINAL RELEASE

PROJECT No.	18600-3
DRAWING No.	12
No. OF	13
LD-6760	

SURVEYOR's NOTES:

1.) North, the grid, and the coordinates shown hereon are referenced to the West Zone of the Florida State PL, DTone 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.

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)

- CONTROL
- PT# TARGET NUMBER
- N NORTHING
- E EASTING
- EL ELEVATION
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG
- MAIL BOX
- GUYWIRE
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- MANHOLE
- HYDRANT
- TREE
- PALM
- SHRUB

LEGEND:

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED ROAD
- CONCRETE SURFACE
- UNPAVED ROAD
- FENCE
- GUARDRAIL
- WALL
- RAILROAD
- STRUCTURE
- TREE LINE
- SHRUB LINE
- PIPELINE
- RECREATION
- EDGE OF GROVE
- EDGE OF WATER

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- ×120.1 SPOT ELEVATION
- MISC MISCELLANEOUS

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

NORTH

GRAPHIC & INTENDED DISPLAY SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

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TOPOGRAPHIC SURVEY

LENA ROAD LANDFILL
LOCATED IN SECS 1,6,&31, TWNP 34&35S, RANGE 18&19E

PREPARED FOR: SCS ENGINEERS

PROJECT No. 18600-3
DRAWING No. LD-6760
No. 13 OF 13

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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	09217088.15

SUBJECT	BY	DATE
Projected Remaining Capacity and Site Life - 5 Year Average	SRF	4/13/2020
Lena Road Landfill	CHECKED	DATE
	RBC	4/14/2020

Reporting Year	Historical Tonnages (Tons)[1]	Volume Used (CY)	Apparent Density (lbs/CY)
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
2019	292,722.41	480,380	1,218.71
2020	330,794.09	477,956	1,384.20
	5-Year Average =	486,967	1,308.40

5-Year Average Density = 1,308.40 Lbs / CY

Volume Consumed

Between 2/15/19 and 1/28/20 = 477,956 CY

Average Volume Consumed (5-Year Average) = 486,967 CY

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

Remaining Volume as of 2/14/19 = 11,100,942 CY

Remaining Volume as of 1/28/20[2] = 11,100,942 CY - 477,956 CY = 10,622,986 CY

Remaining Capacity as of January 28, 2020

Remaining Years of Life From 1/28/20[3] = 10,622,986 / 486,967 = **21.8** **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 January 28, 2020 topographic survey using AutoCAD 3D.
3 Remaining life is calculated by dividing the average volume consumed per year into remaining volume for waste placement.