



Dept. of Environmental  
Protection

SEP 01 2010

Southwest District

September 1, 2010

Susan J. Pelz, P.E.  
Florida Department of Environmental Protection  
Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Subject: Remaining Disposal Capacity and Site Life – Reporting Year 2010  
Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9)  
Southeast County Landfill - Hillsborough County, Florida  
Permit No. 35435-014-SO/01

Dear Ms. Pelz:

On behalf of the Hillsborough County Public Utilities Department, Solid Waste Management Division (SWMD), Jones Edmunds has prepared the remaining disposal capacity and site life estimates for Phases I-VI and the Capacity Expansion Area (CEA) (Permit No. 35435-014-SO/01-SO), Southeast County Landfill (SCLF), Hillsborough County, Florida in accordance with Rule 62-701.500(13)(c).

The aerial topographic survey was performed by Pickett and Associates, Inc. (Pickett) on July 7, 2010 (see Attachment A). Phases I-VI and the CEA Sections 7, 8, and 9 have been filled in general accordance with the permitted sequence plans. Using AutoCAD software, the gross remaining airspace volumes were calculated using the permitted final build-out contours for the Phases I-VI and CEA Sections 7, 8, and 9, and the July 7, 2010 topographic survey. The estimated gross remaining airspace for the Phases I-VI and the CEA Sections 7, 8, and 9 is 9,267,947 cubic yards (CY) based on the airspace calculations.

At the time of the last annual survey, the waste disposal rate was already declining, as were rates throughout Florida. In addition, the Hillsborough County waste-to-energy facility has been expanded so a higher percentage of the waste stream is now ash; as much as 75%. These shifts have resulted in a denser waste and longer estimated life for Phases I-VI and the CEA.

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Assumptions used in calculating the remaining site life are discussed in the notes provided in Table 1. Based on the information provided by the SWMD, approximately 272,691 tons of municipal solid waste (MSW) was disposed at the SCLF between July 1, 2009 and June 30, 2010. Out of the 272,691 tons, 84,317 tons were disposed in Phases I-VI, and 188,374 tons in CEA Sections 7, 8, and 9. Assuming an apparent waste density of 1,900 pounds per cubic yards (PCY), the estimated annual airspace consumed during the same period was 287,043 CY. Out of the 287,043 CY, 88,755 CY of airspace was consumed in Phases I-VI and 198,288 CY in CEA Sections 7, 8, and 9. The apparent waste density is defined as the actual waste tonnage disposed divided by the volume of airspace consumed by both waste and daily cover soil. The estimated apparent waste density increased significantly from 1,400 PCY last year to 1,900 PCY this year mainly due to the increase in ash in the disposed waste as discussed above. The estimated annual waste tonnage and airspace consumed from July 2009 to June 2010 formed the basis of the remaining airspace calculations.

#### Remaining Disposal Capacity and Site Life for the CEA (Section 7, 8, and 9)

The estimated remaining airspace of CEA Sections 7, 8, and 9 is 1,898,550 CY which was calculated by subtracting the final cover soil volume of 176,056 cubic yards from the gross remaining air space of 2,074,606 CY (see Table 1). Assuming that the annual waste tonnage remains at 272,691 tons in the future with no escalations and 30% of the waste will be disposed in the CEA (i.e., 81,807 tons per year and 86,113 CY annual airspace consumed based on 1,900 PCY apparent waste density), the remaining site life for CEA Sections 7, 8, and 9 is approximately 22.0 years from June 30, 2010. The estimated remaining site life will fluctuate depending on the future waste composition and disposal rates.

#### Remaining Disposal Capacity and Site Life for the SCLF (Phases I-VI)

The estimated remaining airspace of Phases I-VI is 6,594,045 CY which was calculated by subtracting the final cover soil volume of 718,015 CY from the gross remaining air space of 7,312,060 CY (see Table 1). Assuming that the annual waste tonnage remains at 272,691 tons in the future with no escalations and 70% of the waste will be disposed in Phases I-VI (i.e., 190,884 tons per year and 200,930 CY annual airspace consumed based on 1,900 PCY apparent waste density) for the next 22 years and 100% of waste afterwards (when CEA closes after 22 years), the remaining site life for Phases I-VI is approximately 29.6 years from June 30, 2010. The estimated remaining site life will fluctuate depending on the future waste composition and disposal rates.

Ms. Susan Pelz, P.E.  
September 1, 2010  
Page 3

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

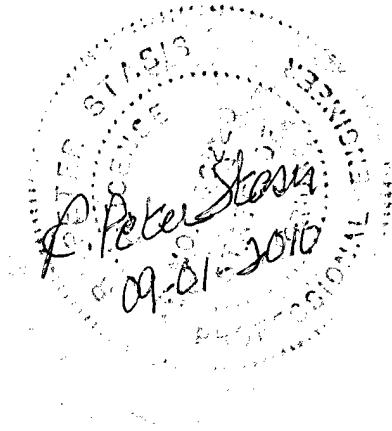
Sincerely,



Peter Stasis, P.E.  
Project Manager  
Florida PE 46220  
Jones Edmunds Certificate of Authorization #1841

Encl: Attachment A – Topography Survey Report and CD ROM

cc: Patricia Berry, SWMD  
Larry Ruiz, SWMD  
Ron Cope, EPC



**TABLE 1**

**Remaining Disposal Capacity and Site Life – Reporting Year 2010  
Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9)  
Southeast County Landfill - Hillsborough County, Florida  
Permit No. 35435-014-SO/01**

**Surface Notes**

Notes:

1. 20107007Pickett – Surface created from contours supplied by Pickett & Assoc. dated 07-07-2010, boundary applied to be limits of Phases1-6.
2. Phase1-6 buildout – Final buildout surface taken from previously designed buildout in 08449-030-02-1110 on Tampa server and was used for the previous remaining airspace capacity analysis
3. Surfaces for individual phases were created by Copying Phase1-6 buildout surface and applying a boundary to each as defined by the appropriate phase boundary.

**Drawing Used**

Volume Calculation drawing: \\jeacad\drafting\08449 Hillsborough County\Capacity Analysis\030 04 SELF Remaining Capacity\20100831\

**Volumes**

Index	Base Surface	Comparison Surface	Net Fill
1	20100707Pickett	<b>Phase1-6 buildout</b>	<b>7312059.73 Cu. Yd.</b>
2	20100707Pickett	Phase 1	1346509.30 Cu. Yd.
3	20100707Pickett	Phase 2	1137248.66 Cu. Yd.
4	20100707Pickett	Phase 3	1265780.93 Cu. Yd.
5	20100707Pickett	Phase 4	910731.54 Cu. Yd.
6	20100707Pickett	Phase 5	466696.61 Cu. Yd.
7	20100707Pickett	Phase 6	2185092.68 Cu. Yd.

**TABLE 1 (Continued)**

Notes:

4. 20100707Pickett – Surface created from contours supplied by Pickett & Assoc. dated 07-07-2010, boundary applied to be limits of Sections 7-9.
5. Sec7-9FC – Final buildout surface taken from previously designed buildout in 08449-030-02-1120 on Tampa server and was used for the previous remaining airspace capacity analysis
6. Surfaces for individual phases were created by Copying Sec7-9FC surface and applying a boundary to each as defined by the appropriate Section boundary.

Index	Base Surface	Comparison Surface	Net Fill
1	20100707Pickett	<b>Sec7-9FC</b>	<b>2074605.88 Cu. Yd.</b>
2	20100707Pickett	Section 7	627801.89 Cu. Yd.
3	20100707Pickett	Section 8	311127.72 Cu. Yd.
4	20100707Pickett	Section 9	1135675.67 Cu. Yd.

**ATTACHMENT A**

**TOPOGRAPHIC SURVEY REPORT**



NOTE: THIS REPORT AND ACCOMPANYING MAP & DISK TITLED SOUTHEAST 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 & ASSOCIATES PROJECT NO.: 11994-9B**

**TITLE/TYPE OF SURVEY: Topographic & Special Purpose Survey**

**DATE OF SURVEY: This Map is based on aerial photography flown 7/07/10**

**DATE OF THIS REPORT: 7/20/10**

**SUBJECT: S.E. Landfill**

**CLIENT: Waste Management, Inc**

**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 Minimum Technical Standards.

**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', as per Florida Minimum Technical Standards. 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, NAD 83/90 adjustment. Referenced to Hillsborough County Horizontal Control Monuments LW-E and LW-D.

**VERTICAL:** Elevations are to National Geodetic Vertical Datum of 1929, and are referenced to Hillsborough County Horizontal Control Monuments LW-E and LW-D.

**Control Points Used:**

<b>Pt#</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation</b>
1	594444.64	1249416.46	127.42
4	596658.59	1249409.50	126.59
5	598710.90	1249383.77	126.01
6	598999.12	1250855.31	137.37

# PICKETT & ASSOCIATES, INC.

7e	597291.71	1253607.39	126.60
9	599697.57	1251577.37	134.55
10	600531.06	1252289.80	148.43
11	595105.45	1254273.93	96.12
15	601089.81	1254397.27	122.83
20	594961.50	1250711.96	129.22

## Feature List:

LEGEND:			
(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)			
△ Control	☼ Hydrant	— Curb	☁ Tree Line
○ Utility Pole	☒ Catch Basin	▬ Paved Road	☁ Shrub Line
★ Light Pole	⊙ Valve	▬ Concrete Surface	W.E. Water Elevation
⊙ Traffic Light	⊗ Electrical	▬ Unpaved Road	× 120.1 Elevation Display Obscured Spot
△ Sign	⊗ AC	— Fence	× 120.1 Elevation Display Spot (Typical)
○ Post	⊗ Misc Symbol	— Guardrail	— Index Contour
⚑ Flag	⊗ Culvert	— Wall	— Index Depression Contour
☐ Mail Box	☐ Swamp/Marsh	— Pipeline	— Index Obscured "Interpolated" Contour
⊗ Guywire	☐ Tree	— Recreation	— Index Obscured Depression "Interpolated" Contour
⊗ Manhole	☐ Palm	— Edge of grove	— Intermediate Contour
	☐ Shrub	— Edge of water	— Intermediate Depression Contour
		— Swampline	— Intermediate Obscured "Interpolated" Contour
		— Railroad	— Intermediate Obscured Depression "Interpolated" Contour
		— Structure	— Grid Line - State Plane Coordinate System

**Measurement Methods:** In areas where vegetation makes the ground difficult to determine contours are shown dashed and do not meet the above stated accuracy. This map is limited to those features visible on aerial photography. Color aerial photography was acquired at a negative scale of 1:3960, scanned at a 15-micron resolution and mapped using softcopy photogrammetric techniques.

**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

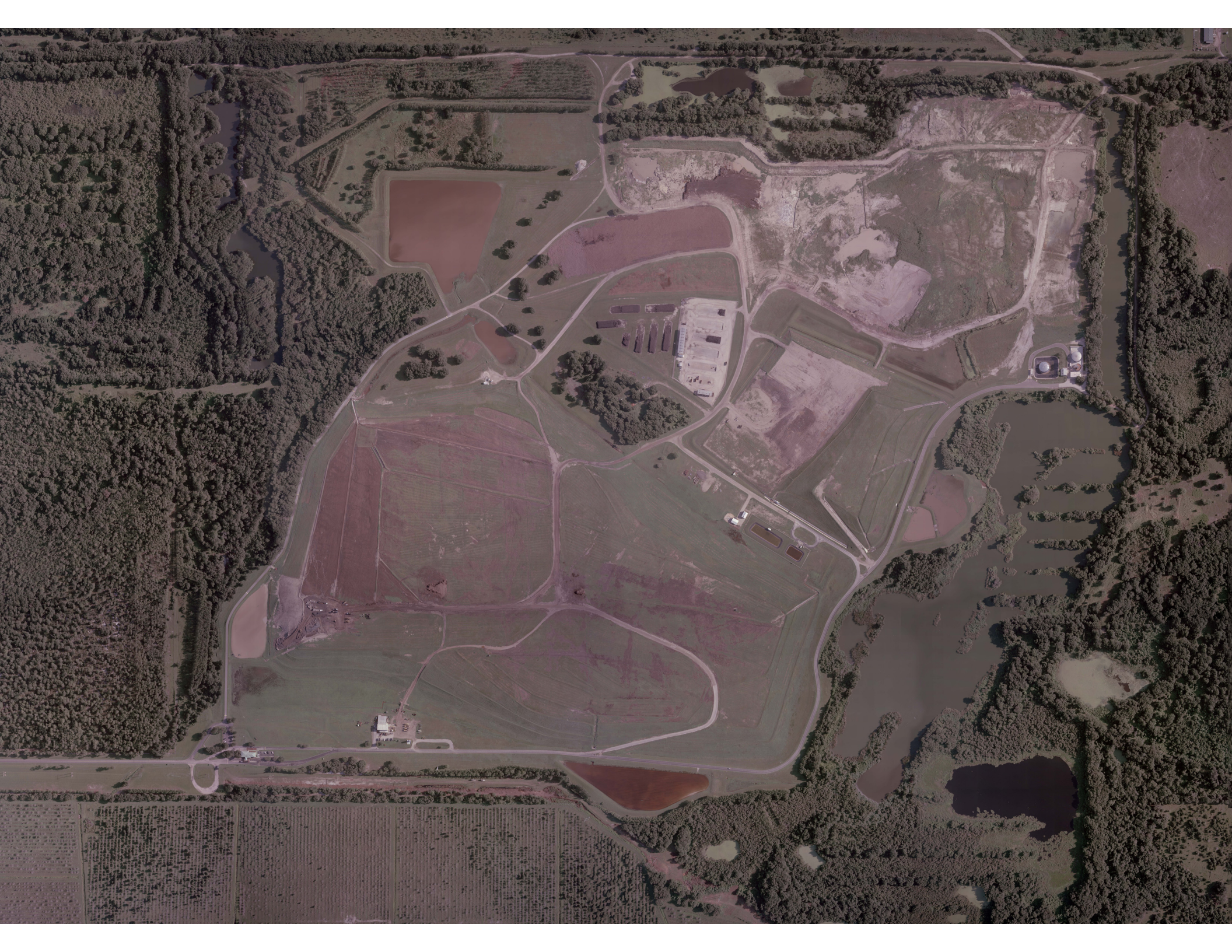
T. JEFFREY YOUNG, PSM, CP  
FLORIDA REGISTRATION NO. 5440  
PICKETT AND ASSOCIATES, INC.  
FLORIDA REGISTRATION NO. 364

7/7/10

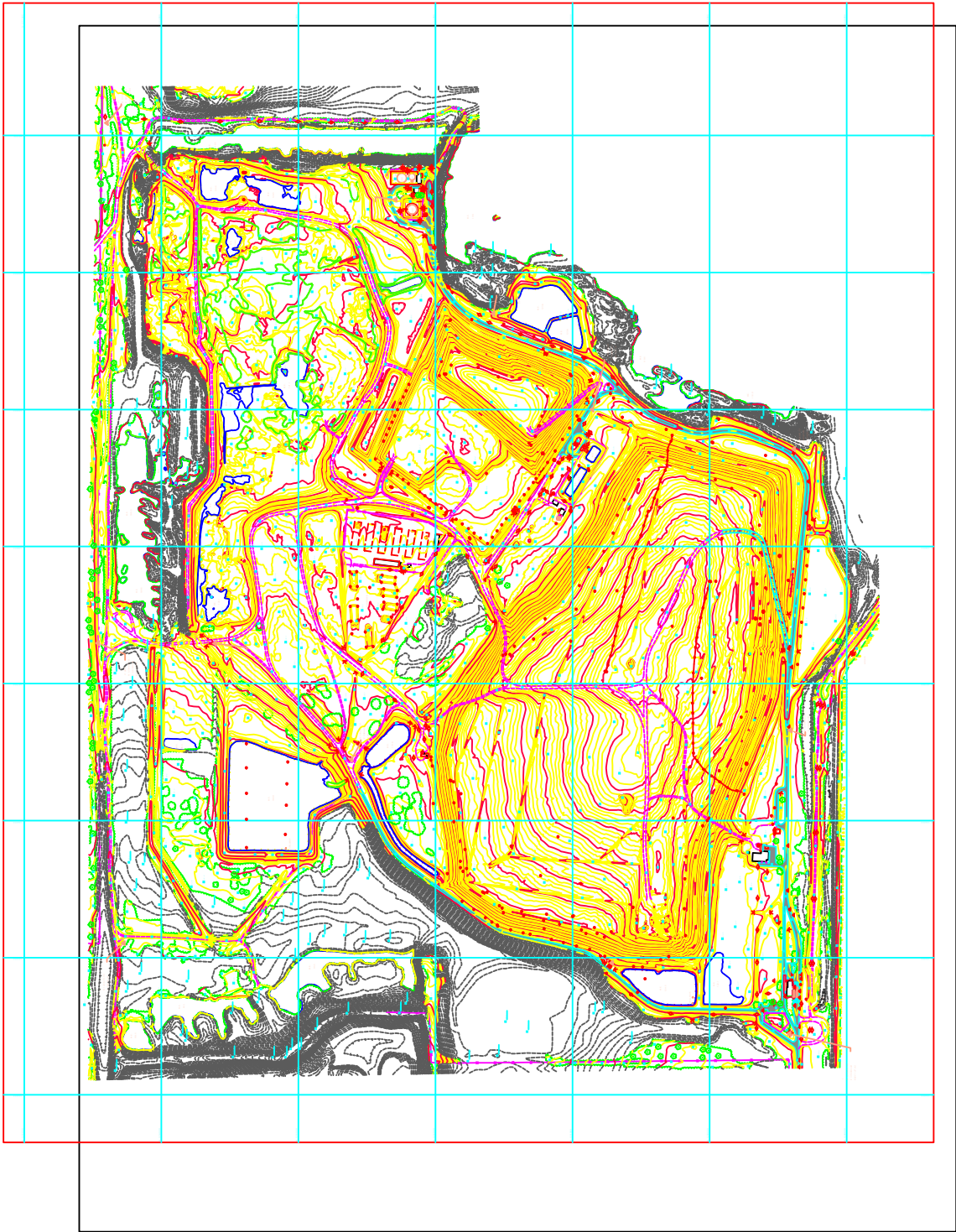
SURVEY DATE















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