MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

2014 Annual Monitoring Network Plan for Mississippi

The MDEQ Air Division is receiving comments on the 2014 Annual Monitoring Network Plan until June 24, 2013.

MDEQ did not receive any public comments about the 2014 Annual Monitoring Network Plan.

Please address comments to:
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MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

Monitoring Network Plan - 2014

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I. Background:

Federal Regulations (40 CFR 58.10) require that State and Local Agencies operating ambient air quality monitoring networks shall review their air quality monitoring networks on an annual basis. Any needed modifications to the network should be identified. A detailed monitoring network description should also be included. In addition, the plan should be available for public comment. MDEQ's plan is available on the MDEQ website at http://www.deq.state.ms.us.

The annual network review specified in *40 CFR 58.10* contains the following elements that apply to each monitoring site:

- The AQS site identification number.
- The location, including street address and geographical coordinates.
- The sampling and analysis method(s) for each measured parameter.
- The operating schedules for each monitor.
- Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.
- The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D of part 58.
- The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM_{2.5}$ and Ozone NAAQS as described in part 58.30.
- The MSA, CBSA, CSA or other area represented by the monitor.
- The annual monitoring network plans and or periodic network assessments are subject to Regional approval according to part 58.14.

II. Overview:

In the State of Mississippi the Mississippi Department of Environmental Quality is the only agency operating an ambient air quality network. There are no local agencies. In Mississippi, as in other State agencies, network monitors are operated for a variety of monitoring objectives. These objectives include determining if an area of the State meets the NAAQS, for public information such as EPA's AirNow data mapping web site, Air Quality Index reporting for public information, background data collection, spatial considerations and special projects. The AQI forecast is currently reported for the Jackson Metro area, Biloxi/Gulfport area and DeSoto County area on the MDEQ web site at http://www.deq.state.ms.us under AQI. In addition, hourly ozone, PM continuous, NO_2, SO_2, and CO data is reported to the EPA Airnow site.

All site data is suitable for NAAQS comparisons per appendices A, C, D, and E. MDEQ's Quality Management Plan is current with an approval date of 4/23/09 while the Criteria Pollutants QAPP is dated 10/1/06.

40 CFR 58 has set minimum monitoring requirements for the pollutants that are to be compared with the NAAQS. These minimum requirements are based on population, the level of monitored pollutants and MSA as defined in the latest US Census information. The tables below and the discussion on the following pages summarize this information.

Mississippi MSA	Pop 2010 Census
Memphis	1,316,100
Jackson	539,057
Hattiesburg	142,842
Gulfport – Biloxi	248,820
Pascagoula	162,246

Mississippi CSA	Pop 2010 Census
Jackson-Yazoo	567,122
Gulfport-Biloxi-Pascagoula	411,066

III. Site Discussion:

Mississippi's air quality monitoring network has been reviewed based on the historic monitoring data, air quality monitoring regulations, data representation based on spatial considerations, special data needs and changes needed based on the monitoring regulations. The items used in the evaluation were the AQS database, the 40 CFR parts 53 and 58 documents, census data and maps. All monitors operated by MDEQ are SLAMS with the exception of one NO_x analyzer and one SO_2 analyzer located in Jackson County at the Pascagoula site (28.059.0006). These monitors are a special purpose (SPM), operated for MDEQ purposes. The NO_x analyzer has been designated by EPA as a RA-40 site.

The following describes the purposes and any changes related to each site in the ambient monitoring network in the State of Mississippi based on our review of existing monitoring efforts. A summary may be seen in the Network Design Tables in pages 8-9, and note that the comments for ozone are based on the **75ppb** standard and the comments for $PM_{2.5}$ are based on the annual average standard of 12µg/m^3 and the 24 hour average standard of 35µg/m^3.

1. ***Memphis MSA:***

- **Hernando** (DeSoto Co. 28.033.0002) – A FRM $PM_{2.5}$ sampler is designated as a transport sampler and therefore is a required sampler. A collocated FRM $PM_{2.5}$ sampler, a continuous $PM_{2.5}$ sampler, and an ozone monitor are required and operated at this site. MDEQ has a monitoring agreement with Memphis, TN, and AR to meet Appendix D requirements section 2, e. A copy is attached and is on file at Region 4.

2. ***Jackson MSA:***

- **Jackson NCore** (Hinds Co. 28.049.0020) – The NCore site contains a full complement of instruments, including meteorological. The parameters currently include Ozone, Sulfur Dioxide, Carbon Monoxide, Nitric Oxides as NOy, FRM $PM_{2.5}$ manual, FEM $PM_{2.5}$ continuous, $PM_{10-2.5}$, Speciated $PM_{2.5}$, wind speed, direction, ambient temperature and relative humidity. The NCore site is the location for MDEQ's urban PM_{10} sampling, as well as urban lead sampling.

  Approval was given, by EPA, for MDEQ to relocate our NCore site to 232 E Woodrow Wilson Drive, Jackson, MS at latitude 32.329167 and longitude -90.182778. MDEQ is requesting that a new site identification number be assigned to the NCore site. MDEQ would like to change the site ID from 28-049-0019 to 28-049-0020.

MDEQ is requesting permission to operate the current FEM $PM_{2.5}$ continuous analyzer as a non-FEM. We request to remove the very sharp cut cyclone and replace it with a sharp cut cyclone. A typical wind rose pattern for the Jackson metro area is included in this document.

- **Jackson Metro** (Hinds Co. 28.049.0010) – A FRM $PM_{2.5}$ sampler, a continuous $PM_{2.5}$ sampler, and an ozone monitor are required and operated in this MSA. MDEQ requests permission to relocate this site to Hinds Community College located at latitude 32.346722 and longitude -90.225667. MDEQ is requesting to move to this new location because of safety and security, especially for our female employees. Richard Guillot and Greg Noah have visited this location and determined that it meets all siting criteria.

- **PM_{10} Sampling** – PM_{10} sampling for the Jackson metro area is based on the sampling requirements for population in Appendix D. The PM_{10} samplers, both regular and collocated FRMs, are located at the Jackson NCore site.

3. ***Hattiesburg MSA:***

- **Hattiesburg** (Forrest Co. 28.035.0004) – A FRM $PM_{2.5}$ sampler, a collocated FRM $PM_{2.5}$ sampler and a continuous $PM_{2.5}$ sampler are required and operated in this MSA. EPA approval was granted to relocate this site to 101 Ferguson Street, Hattiesburg, MS at latitude 31.323917 and longitude -89.29222.

4. ***Gulfport-Biloxi MSA:***

- **Gulfport** (Harrison Co. 28.047.0008) – A FRM $PM_{2.5}$ sampler is required based on population. A continuous $PM_{2.5}$ sampler and an ozone monitor are also operated at this site.

- **Waveland** (Hancock Co. 28.045.0003) – A FRM $PM_{2.5}$ sampler, an ozone monitor, and a met tower are operated at this site.

5. **Pascagoula MSA:**

- **Pascagoula** (Jackson Co. 28.059.0006) – An ozone monitor and a FRM $PM_{2.5}$ sampler, based on spatial considerations, are required for this MSA. The NO_x and SO_2 monitors are located at this site for MDEQ purposes. The NO_x analyzer has been designated as a RA-40 site.

6. ***Non- MSA Sites:***

- **Grenada** (Grenada Co. 28.043.0001) – A FRM $PM_{2.5}$ sampler operates at the Grenada site as a background monitor for $PM_{2.5}$ as required by regulations.

- **Meridian** (Lauderdale Co. 28.075.0003) – An ozone analyzer is operated at this site. MDEQ is requesting to shut down this ozone analyzer. An additional year of collecting data, as requested by EPA, has been completed. The 2010-2012 design value was 63 ppb, less than 85% of the NAAQS. Please reconsider our request to shut down this ozone analyzer.

- **Tupelo** (Lee Co. 28.081.0005) –The ozone monitor will continue to operate for spatial and population exposure purposes and because the 2010-2012 design value was 66 ppb, greater than 85% of the NAAQS.

- **Cleveland** (Bolivar Co. 28.011.0001) - The ozone monitor will continue to operate for spatial and population exposure purposes and because the 2010-2012 design value was 74 ppb, greater than 85% of the NAAQS.

IV. *NCore Tables*:

NCore Site Table

AQS ID	MSA	Site Name	County	City	Latitude	Longitude	Street Address	Elevation (meters)	Site start date	Location Setting
28-049-0020	Jackson	Jackson NCore	Hinds	Jackson	32.329111 (32.19.45)	-90.182722 (90.10.58)	232 E Woodrow Wilson	93	7/01/2013	Urban and city center

NCore Parameter Table

Parameter	Monitoring Objective	Measurement Scale	Designation	Type	Method	Schedule	Comment
CO	Pop. Exp.	Neighborhood	NCore	Continuous Analyzer	Non-Dispersive IR	Jan-Dec	
NOy	Pop. Exp.	Neighborhood /Urban	NCore	Continuous Analyzer	Chemiluminescence	Jan-Dec	
O3	Pop. Exp.	Neighborhood /Urban	NCore	Continuous Analyzer	UV Photometry	Jan-Dec	
SO2	Pop. Exp.	Neighborhood	NCore	Continuous Analyzer	UV fluorescence	Jan-Dec	
FRM PM 2.5	Pop. Exp	Neighborhood	NCore	Manual Reference Sampler(3 Day)	Gravimetric Analysis	Jan-Dec	
FEM PM 2.5	Pop. Exp	Neighborhood	NCore	Continuous Analyzer	Gravimetric	Jan-Dec	TEOM
PM 2.5 Speciation	Pop. Exp	Neighborhood	NCore	Manual Sampler (3 Day)	Multiple Methods	Jan-Dec	
PM coarse	Pop. Exp	Neighborhood	NCore	Manual Sampler (3 Day)	Difference by Gravimetric Analysis	Jan-Dec	
Meteorological	--	--	NCore	--	Wind speed, direction, ambient temperature, humidity	Jan-Dec	
Lead	Pop. Exp	Urban	NCore	Manual sampler (6 Day)	Manual Method via PM 10	Jan-Dec	Required for the metro area 500,000+ , non NCore
PM 10	Pop. Exp	Urban	SLAMS	Manual Reference Sampler(6 Day)	Gravimetric Analysis	Jan-Dec	Required for the metro area 500,000+, non NCore
Radiation	Pop. Exp	Urban	Rad Net	Continuous / manual		Jan-Dec	Non NCore

V. *Network Tables:*

NETWORK DESIGN TABLES MISSISSIPPI

PM 10

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Collocated	Type	Method	Schedule	Comment
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	Y	Manual (6 Day)	126	Jan-Dec	At NCore Site

PM 2.5

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Collocated	Type	Method	Schedule
Hernando	DeSoto	Memphis	28-033-0002	Transport	Urban	1	Y	Manual (3 Day) Continuous	118 SEQ 702 TEOM	Jan-Dec Jan-Dec
Hattiesburg	Forrest	Hattiesburg	28-035-0004	Pop. Exp.	Neighborhood	1	Y	Manual (3 Day) Continuous	118 SEQ 702 TEOM	Jan-Dec Jan-Dec
Grenada	Grenada	N/A	28-043-0001	Background	Neighborhood	1	N	Manual (3 Day)	118 SEQ	Jan-Dec
Waveland	Hancock	Gulf/Biloxi	28-045-0003	Pop. Exp.	Neighborhood	0	N	Manual (3 Day)	118 SEQ	Jan-Dec
Gulfport	Harrison	Gulf/Biloxi	28-047-0008	Pop. Exp.	Neighborhood	1	N	Manual (3 Day) Continuous	118 SEQ 702 TEOM	Jan-Dec Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	N	Manual (3 Day)	118 SEQ	Jan-Dec
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	N	Manual (3 Day) Continuous	118 SEQ 702 TEOM	Jan-Dec Jan-Dec
Jackson	Hinds	Jackson	28-049-0010	Pop. Exp.	Neighborhood	1	N	Manual (3 Day) Continuous	118 SEQ 702 TEOM	Jan-Dec Jan-Dec

Comments: All manual samplers are FRM and classified as SLAMS. The continuous samplers are non FEM.

SO_2

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	Continuous	600	Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	Continuous	060	Jan-Dec

NO_x/NO_y

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood /Urban	1	Continuous	599	Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	Continuous	099	Jan-Dec

CO

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	Continuous	055	Jan-Dec

OZONE

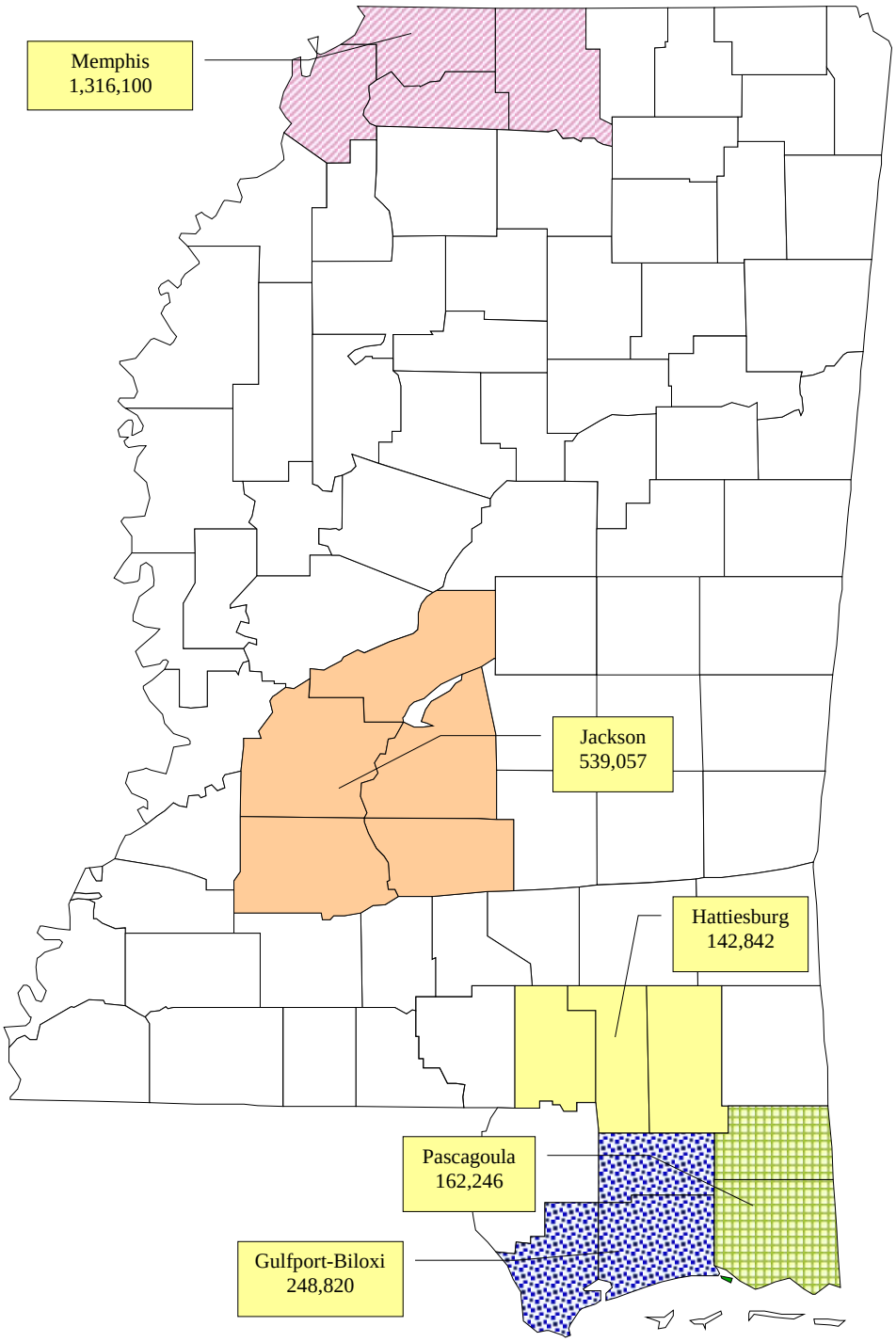
Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Cleveland	Bolivar	N/A	28-011-0001	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Gulfport	Harrison	Gulf/Biloxi	28-047-0008	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Waveland	Hancock	Gulf/Biloxi	28-045-0003	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Hernando	DeSoto	Memphis	28-033-0002	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Jackson	Hinds	Jackson	28-049-0010	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Urban	1	Continuous	UV Absorp	Jan - Dec
Meridian	Lauderdale	N/A	28-075-0003	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Tupelo	Lee	N/A	28-081-0005	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct

Comments: All monitors are classified as SLAMS

Site Location Coordinates

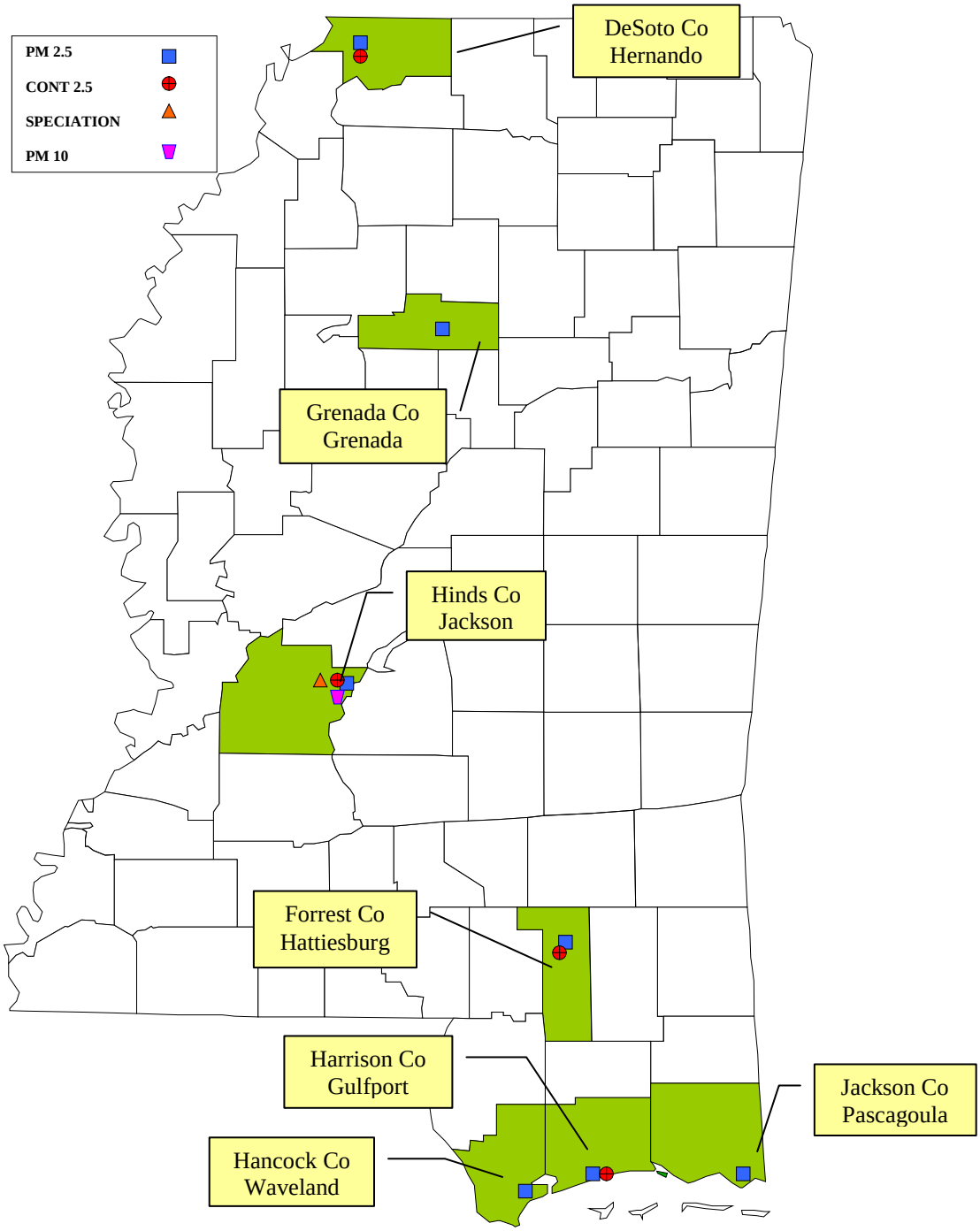
#	SITE ID	LAT			LONG			NAME	COUNTY	ADDRESS
1	28-011-0001	33	44	45	90	43	23	CLEVELAND	BOLIVAR	213 North Bayou Ave.
2	28-033-0002	34	49	14	89	59	16	HERNANDO	DESOTO	5 East South St.
3	28-035-0004	31	19	26	89	17	32	HATTIESBURG	FORREST	101 Ferguson St.
4	28-043-0001	33	50	4	89	47	34	GRENADA	GRENADA	Hwy 332 at Grenada Airport
5	28-045-0003	30	18	4	89	23	45	WAVELAND	HANCOCK	400 Baltic St.
6	28-047-0008	30	23	24	89	2	59	GULFPORT YC	HARRISON	47 Maples Dr.
7	28-049-0010	32	23	8	90	8	28	JACKSON FS19	HINDS	5810 Ridgewood Rd.
8	28-049-0020	32	19	45	90	10	58	JACKSON NCORE	HINDS	232 E Woodrow Wilson
9	28-059-0006	30	22	41	88	32	2	PASCAGOULA	JACKSON	Hospital Rd. and Vega St.
10	28-075-0003	32	21	52	88	43	53	MERIDIAN	LAUDERDALE	Hwy 19 and 53rd Ave.
11	28-081-0005	34	15	54	88	45	58	TUPELO	LEE	West Jackson at Tupelo Airport

MSA MAP:

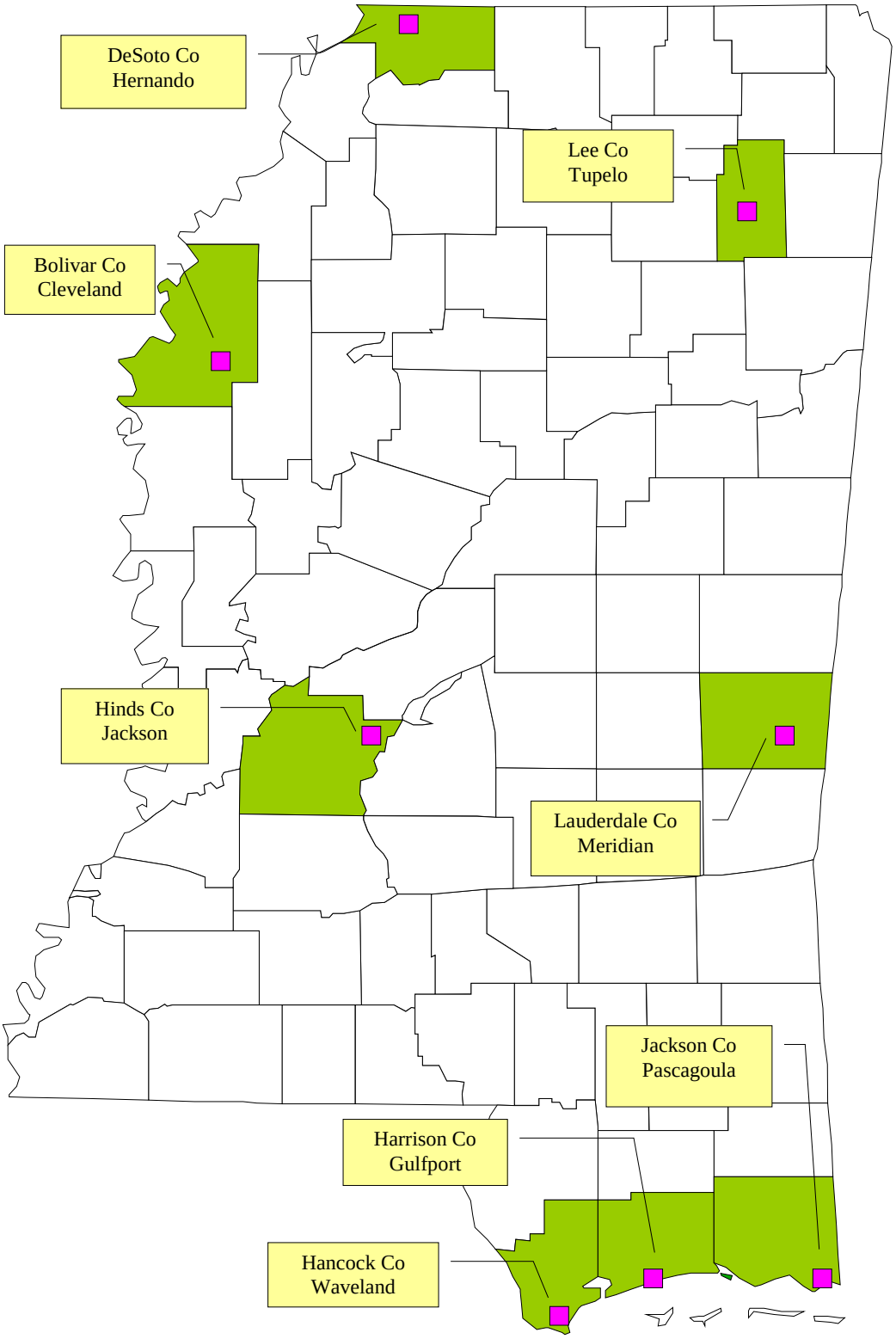


MISSISSIPPI MSA AREAS

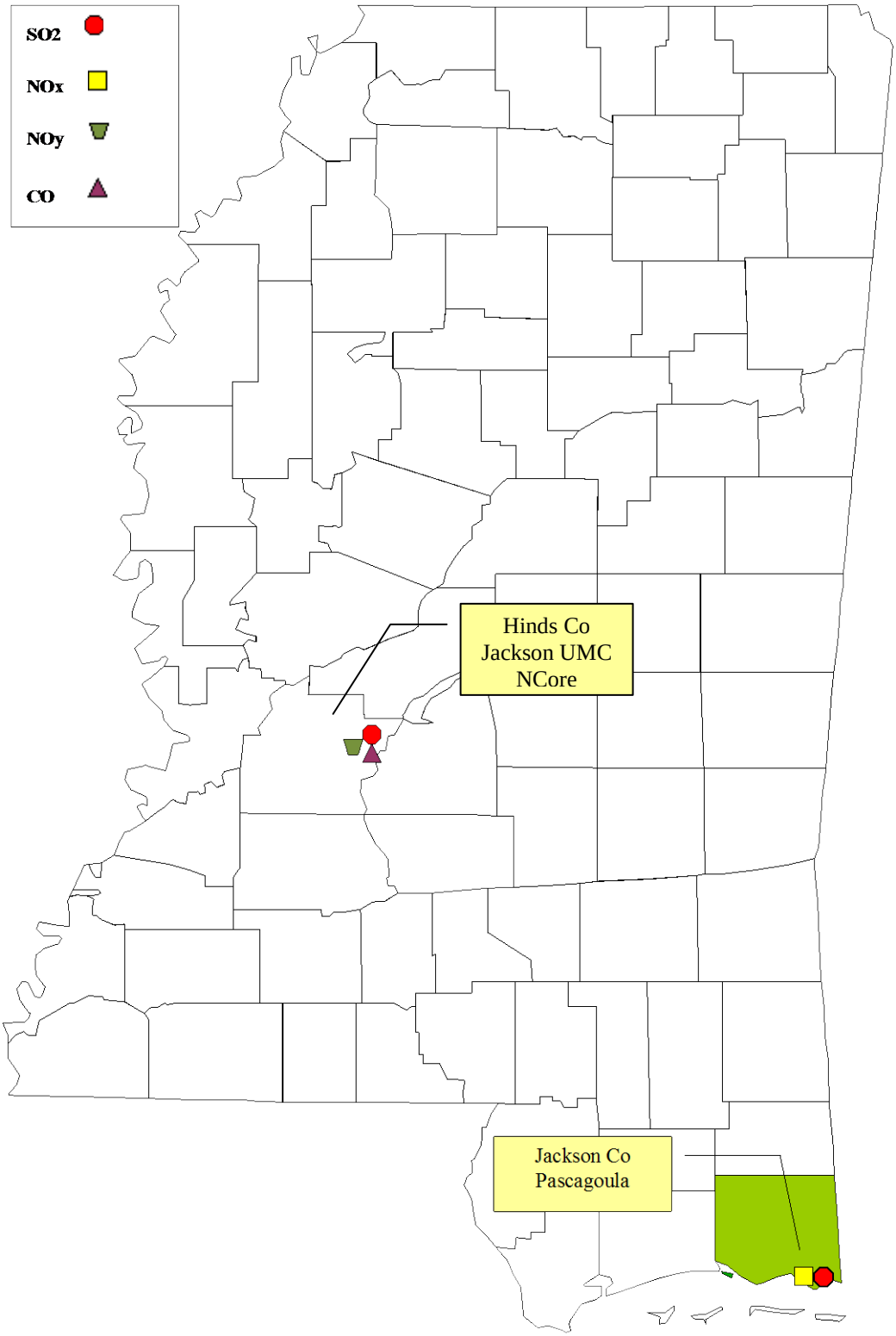
MEMPHIS – DeSoto, Tunica, Marshall, Tate
JACKSON – Hinds, Rankin, Copiah, Simpson, Madison
HATTIESBURG – Lamar, Forrest, Perry
GULFPORT-BILOXI – Hancock, Harrison, Stone
PASCAGOULA – Jackson, George



MDEQ PARTICULATE SITES – 2013



MDEQ OZONE SITES - 2013



MDEQ SO2 / NOx/ NOy/ CO SITES - 2013

Appendix I

Site Maps and Photos

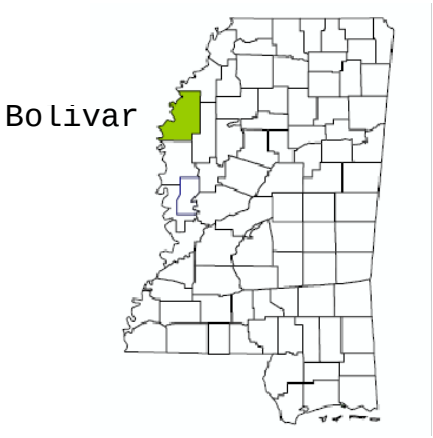
Cleveland - N

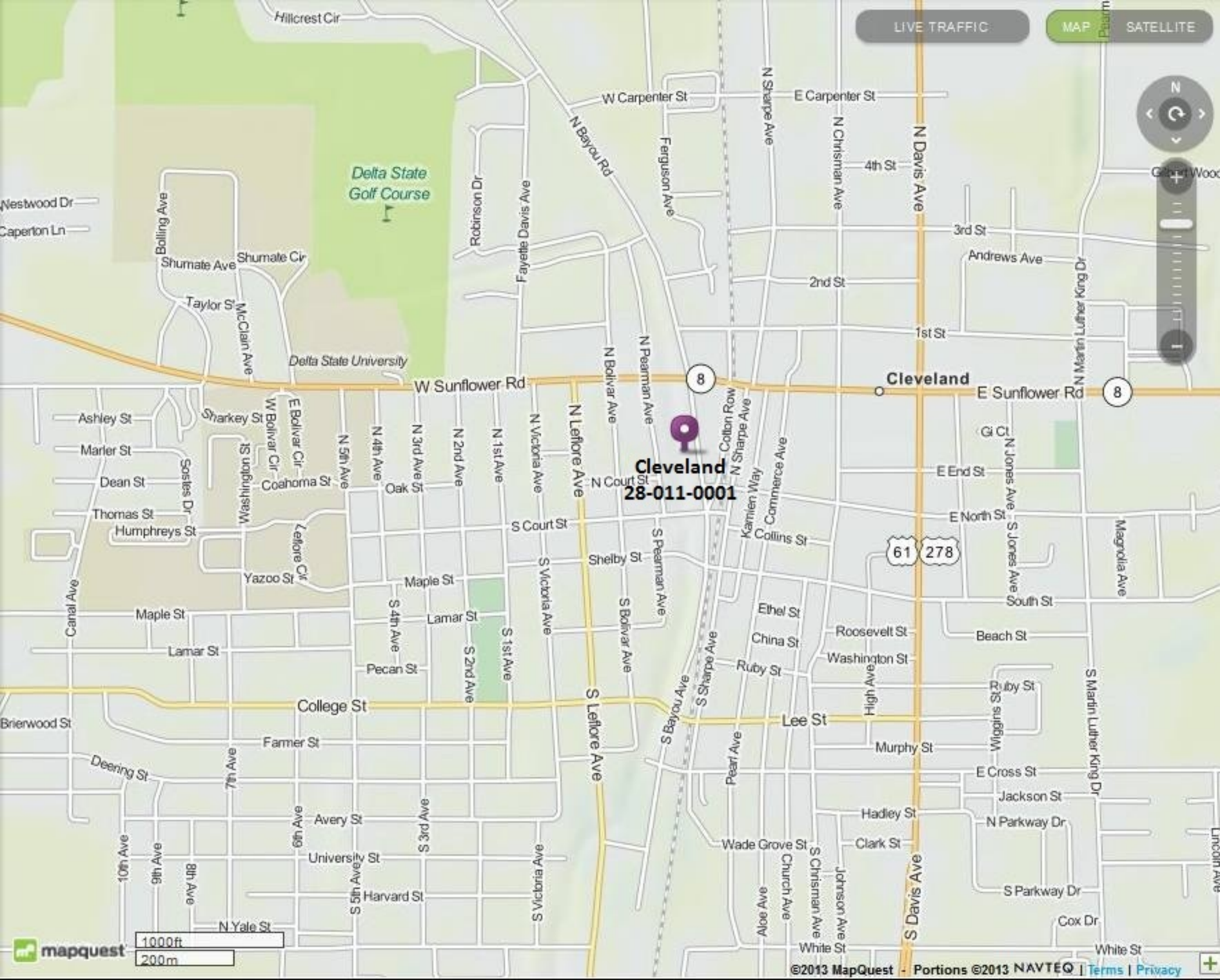
Cleveland - E

Cleveland - S

Cleveland - W

Cleveland 28-011-0001




LIVE TRAFFIC
MAP
SATELLITE
Cleveland
28-011-0001
Delta State Golf Course
Delta State University
W Sunflower Rd
E Sunflower Rd
Cleveland
College St
Lee St
N Davis Ave
S Davis Ave
N Leflore Ave
S Leflore Ave
N Bayou Rd
S Bayou Ave
N Sharpe Ave
S Sharpe Ave
N Pearman Ave
S Pearman Ave
N Victoria Ave
S Victoria Ave
N Bolivar Ave
S Bolivar Ave
N Chrisman Ave
S Chrisman Ave
N Martin Luther King Dr
S Martin Luther King Dr
N Jones Ave
S Jones Ave
Hillcrest Cir
W Carpenter St
E Carpenter St
4th St
3rd St
2nd St
1st St
Andrews Ave
Gi Ct
E End St
E North St
South St
Beach St
Ruby St
Murphy St
E Cross St
Jackson St
N Parkway Dr
S Parkway Dr
Cox Dr
White St
Clark St
Hadley St
Wade Grove St
Church Ave
Aloe Ave
Johnson Ave
Pearl Ave
High Ave
Wiggins St
Ethel St
China St
Roosevelt St
Washington St
Collins St
Kamien Way
Commerce Ave
Cotton Row
N Court St
S Court St
Shelby St
Maple St
Lamar St
Pecan St
Oak St
Coahoma St
Yazoo St
Sharkey St
Ashley St
Marler St
Dean St
Thomas St
Humphreys St
Washington St
Sostes Dr
Leflore Cir
Canal Ave
Brierwood St
Farmer St
Deering St
Avery St
University St
Harvard St
N Yale St
Bolling Ave
Shumate Ave
Shumate Cir
Taylor St
McClain Ave
Robinson Dr
Fayette Davis Ave
Ferguson Ave
Westwood Dr
Caperton Ln
Gilbert Wood
Lincoln Ave
8
61
278
1000ft
200m
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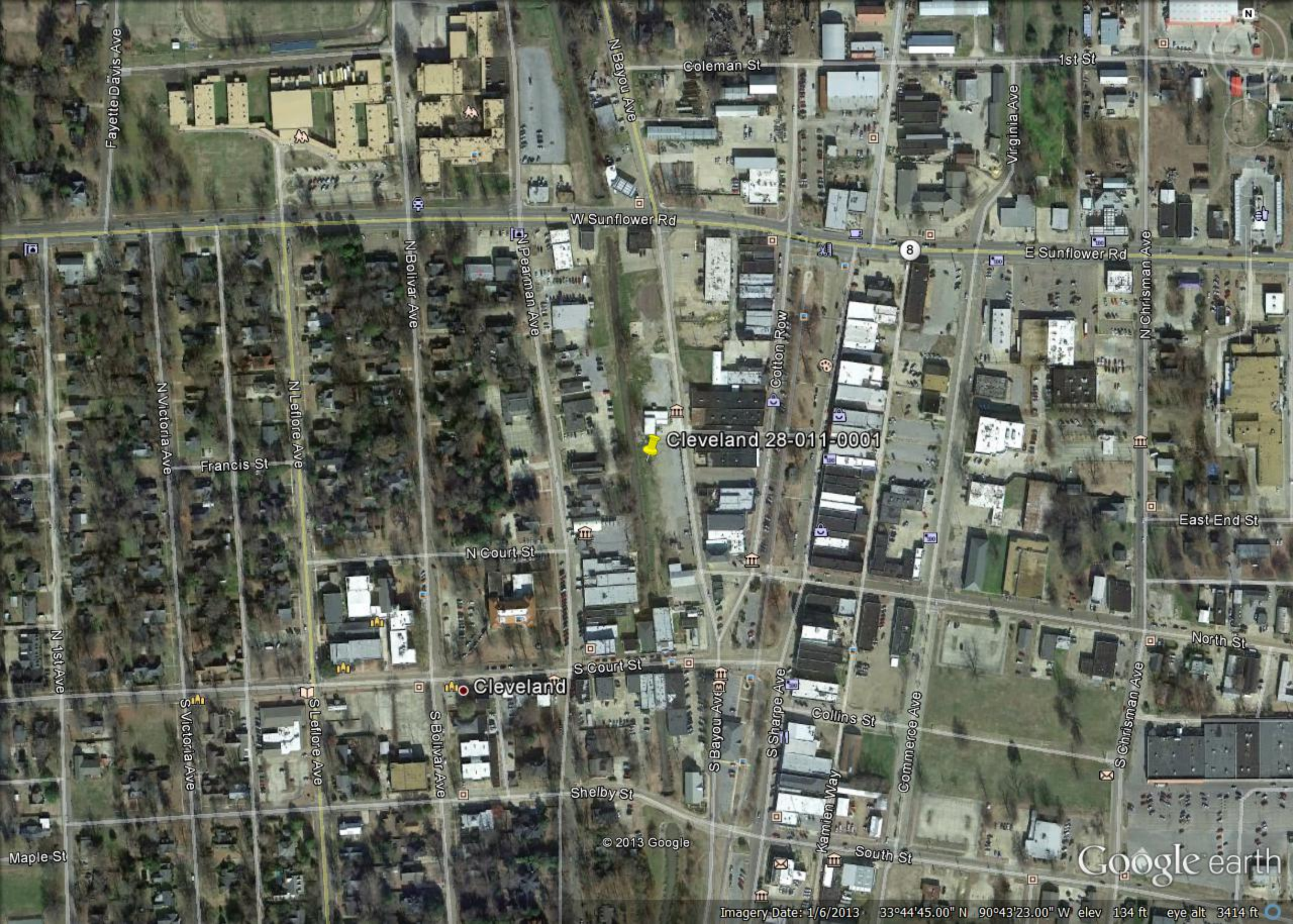

Fayette Davis Ave
N Bayou Ave
Coleman St
1st St
Virginia Ave
W Sunflower Rd
E Sunflower Rd
N Bolivar Ave
N Pearman Ave
Cotton Row
N Chrisman Ave
Cleveland 28-011-0001
N Victoria Ave
N Leflore Ave
Francis St
East End St
N Court St
North St
N 1st Ave
S Court St
Cleveland
S Victoria Ave
S Leflore Ave
S Bolivar Ave
S Bayou Ave
S Sharpe Ave
Collins St
Commerce Ave
S Chrisman Ave
Shelby St
Kamien Way
South St
Maple St
© 2013 Google
Google earth
Imagery Date: 1/6/2013 33°44'45.00" N 90°43'23.00" W elev 134 ft eye alt 3414 ft

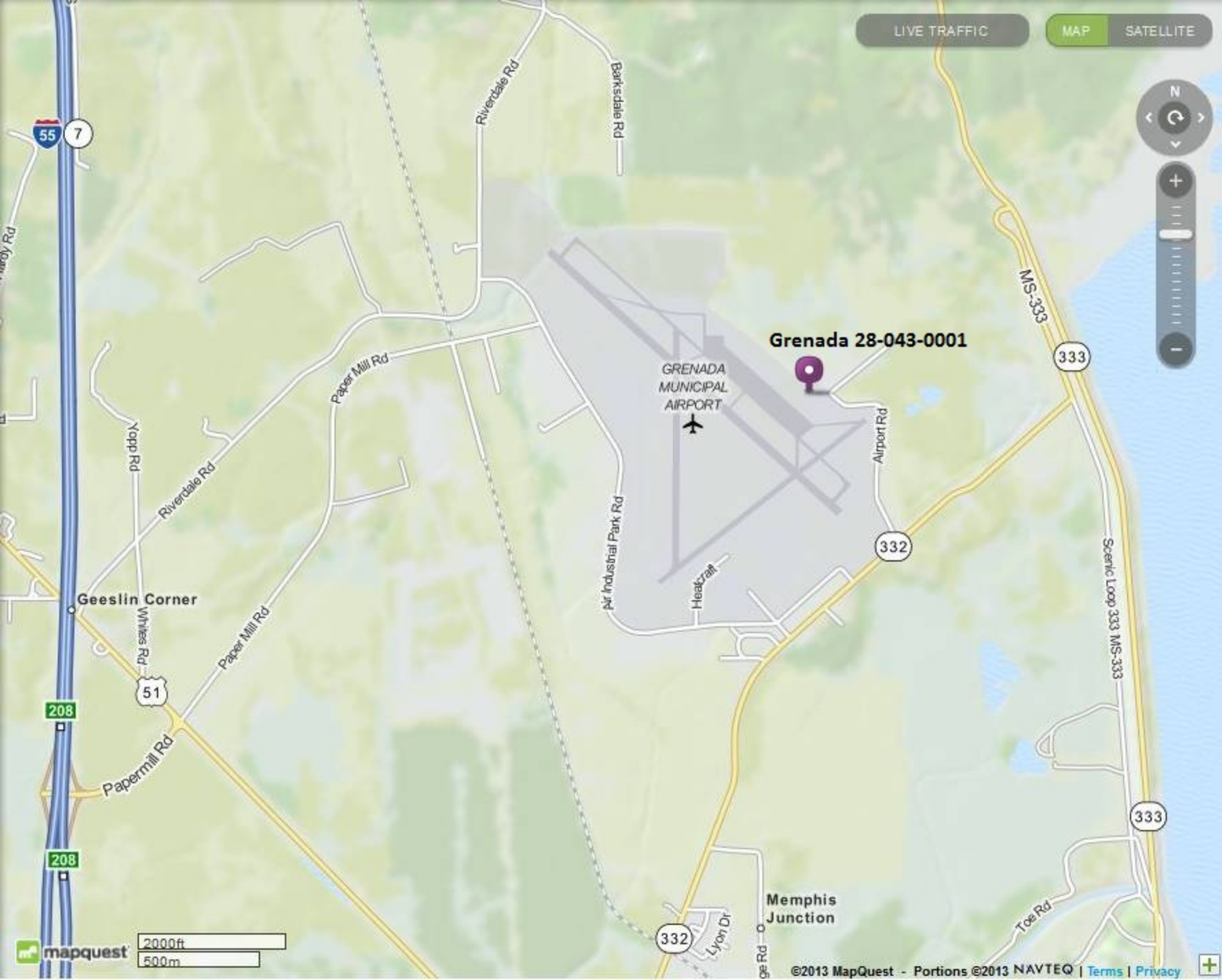
Grenada - N

Grenada - E

Grenada - S

Grenada - W

Grenada 28-043-0001


LIVE TRAFFIC
MAP
SATELLITE
Grenada 28-043-0001
GRENADA MUNICIPAL AIRPORT
Riverdale Rd
Barksdale Rd
Paper Mill Rd
Yopp Rd
Whites Rd
Air Industrial Park Rd
Heatcraft
Airport Rd
MS-333
Scenic Loop 333 MS-333
Geeslin Corner
Papermill Rd
Memphis Junction
Lyon Dr
Toe Rd
55
7
51
208
332
333
2000ft
500m
mapquest
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Grenada 28-043-0001
333
Mississippi 333 Scenic Loop
Old Hwy 7
332
L D Boone Airport Rd
© 2013 Google
Google earth
Imagery Date: 11/1/2011 33°50'10.85" N 89°47'22.06" W elev 200 ft eye alt 8006 ft

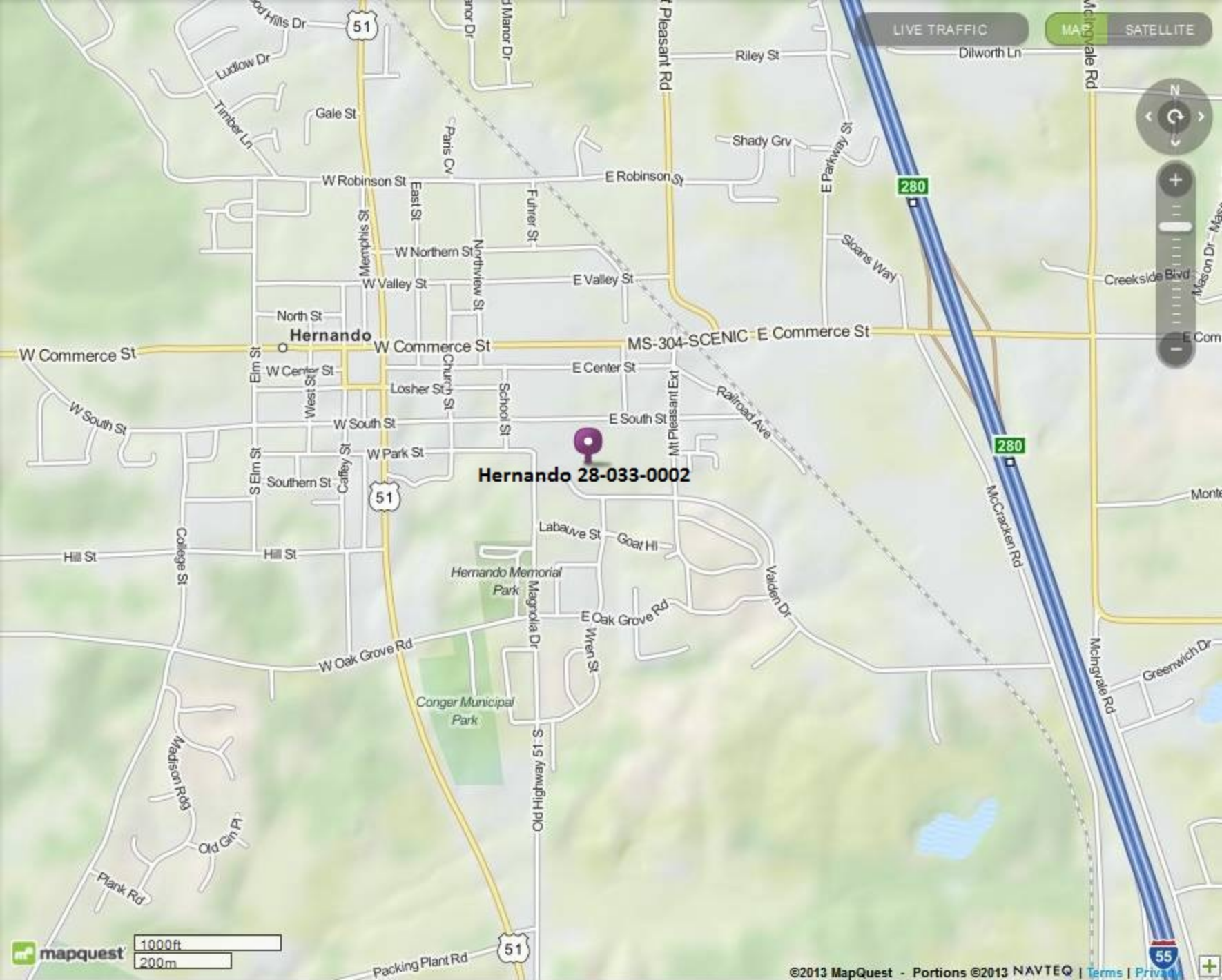
Hernando - N

Hernando - E

Hernando - S

Hernando - W

Hernando 28-033-0002


LIVE TRAFFIC
MAP
SATELLITE
Hernando 28-033-0002
Hernando
W Commerce St
MS-304-SCENIC
E Commerce St
W Robinson St
E Robinson St
W Northern St
W Valley St
E Valley St
North St
W Center St
E Center St
Losher St
W South St
E South St
W Park St
Southern St
Hill St
Labauve St
Goat Hl
Hernando Memorial Park
E Oak Grove Rd
W Oak Grove Rd
Conger Municipal Park
Old Highway 51 S
Packing Plant Rd
Riley St
Dilworth Ln
Shady Grv
Sloans Way
Creekside Blvd
Railroad Ave
McCracken Rd
McIngvale Rd
Greenwich Dr
Valden Dr
Magnolia Dr
Wren St
Mt Pleasant Ext
Mt Pleasant Rd
Fuhrer St
Northview St
Church St
School St
Paris Cv
East St
Memphis St
West St
Elm St
S Elm St
Caffey St
College St
Madison Rdg
Old Gin Pl
Plank Rd
Ludlow Dr
Timber Ln
Gale St
Manor Dr
Mason Dr
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280
55
1000ft
200m
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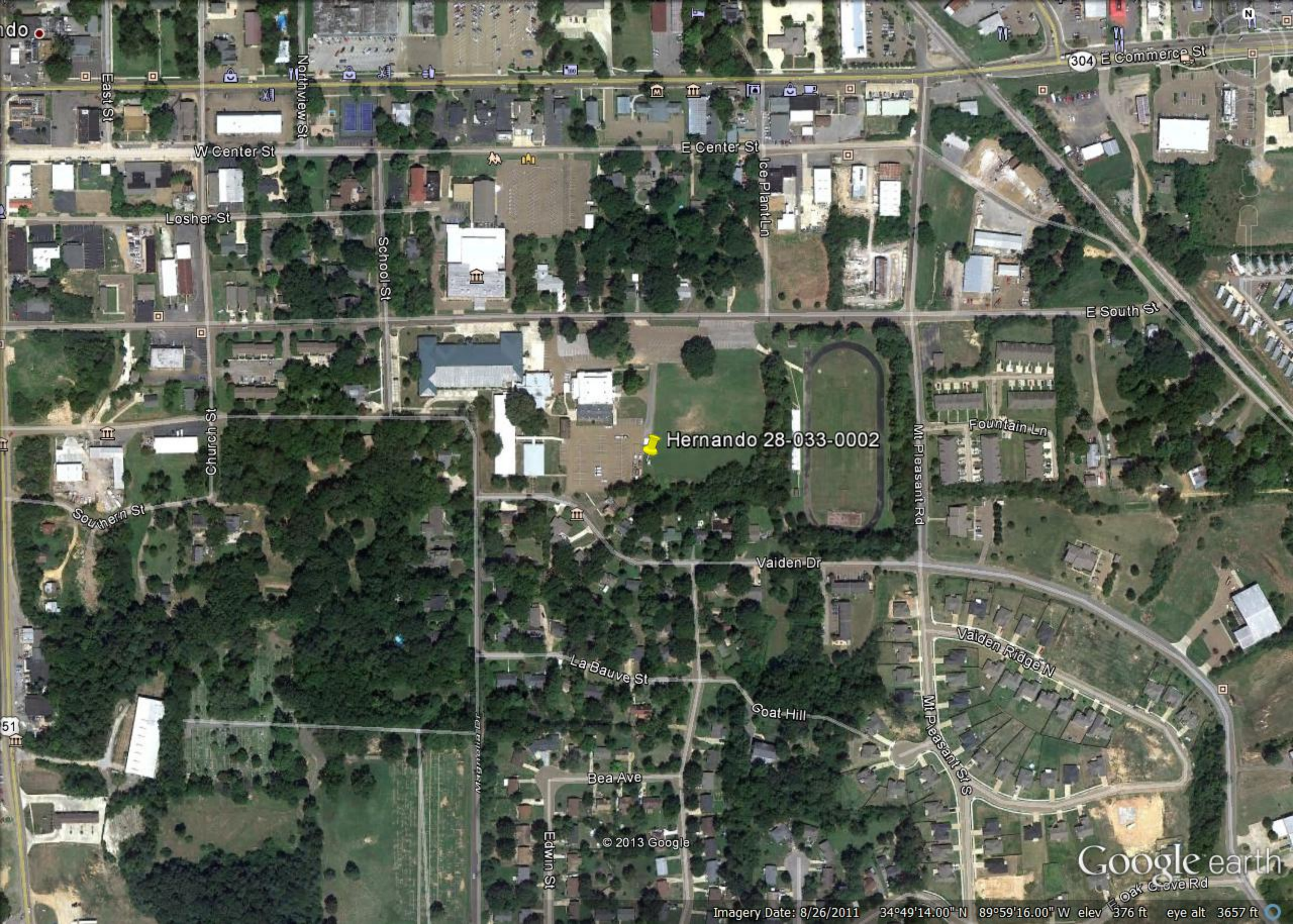

E Commerce St
304
East St
Northview St
W Center St
E Center St
Ice Plant Ln
Losher St
School St
E South St
Church St
Hernando 28-033-0002
Mt Pleasant Rd
Fountain Ln
Southern St
Vaiden Dr
Vaiden Ridge N
La Bauve St
Goat Hill
Mt Pleasant St S
Bea Ave
Edwin St
© 2013 Google
Google earth
Imagery Date: 8/26/2011 34°49'14.00" N 89°59'16.00" W elev 376 ft eye alt 3657 ft

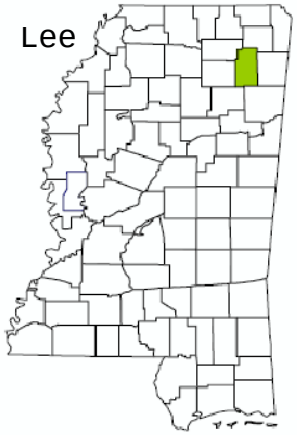
Tupelo - N

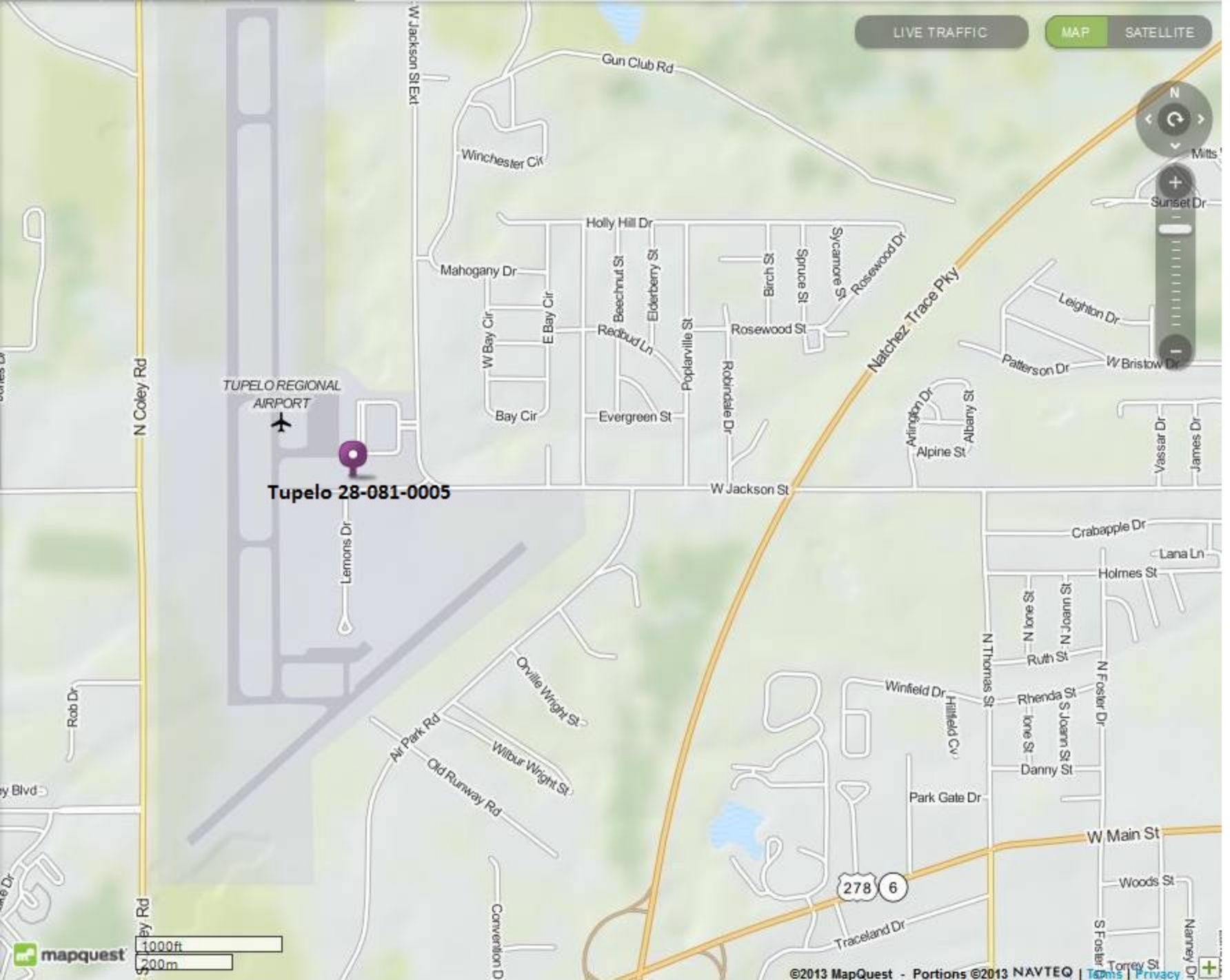
Tupelo - E

Tupelo - S

Tupelo - W

Tupelo 28-081-0005




LIVE TRAFFIC
MAP
SATELLITE
Gun Club Rd
W Jackson St Ext
Winchester Cir
Holly Hill Dr
Mahogany Dr
W Bay Cir
E Bay Cir
Beechnut St
Elderberry St
Redbud Ln
Poplarville St
Rosewood St
Birch St
Spruce St
Sycamore St
Rosewood Dr
Natchez Trace Pky
Leighton Dr
Patterson Dr
W Bristow Dr
Sunset Dr
Mitts
TUPELO REGIONAL AIRPORT
N Coley Rd
Bay Cir
Evergreen St
Robindale Dr
Arlington Dr
Albany St
Alpine St
Vassar Dr
James Dr
Tupelo 28-081-0005
W Jackson St
Lemons Dr
Crabapple Dr
Lana Ln
Holmes St
N Joann St
N Joyce St
Ruth St
N Thomas St
N Foster Dr
Winfield Dr
Rhenda St
Hillfield Cv
S Joann St
Ione St
Danny St
Orville Wright St
Air Park Rd
Wilbur Wright St
Old Runway Rd
Rob Dr
Park Gate Dr
W Main St
Woods St
278
6
Traceland Dr
Convention D
S Foster
Torrey St
Nanney Dr
1000ft
200m
mapquest
©2013 MapQuest - Portions ©2013 NAVTEQ | Terms | Privacy

Mahogany Dr
W Jackson Street Extended
Sourwood Dr
E Bay Cir
Persimmon Dr
Huckleberry Trail
Bay Cir
Beechnut St
Elderberry St
Redbud Ln
Hickory Dr
Evergreen St
Holly Hill Dr
Poplarville St
Tupelo 28-081-0005
W Jackson St
Lemons Dr
Coley Rd
A O Park Rd
© 2013 Google
Google earth
Imagery Date: 10/28/2012 34°15'56.88" N 88°45'50.19" W elev 342 ft eye alt 5372 ft

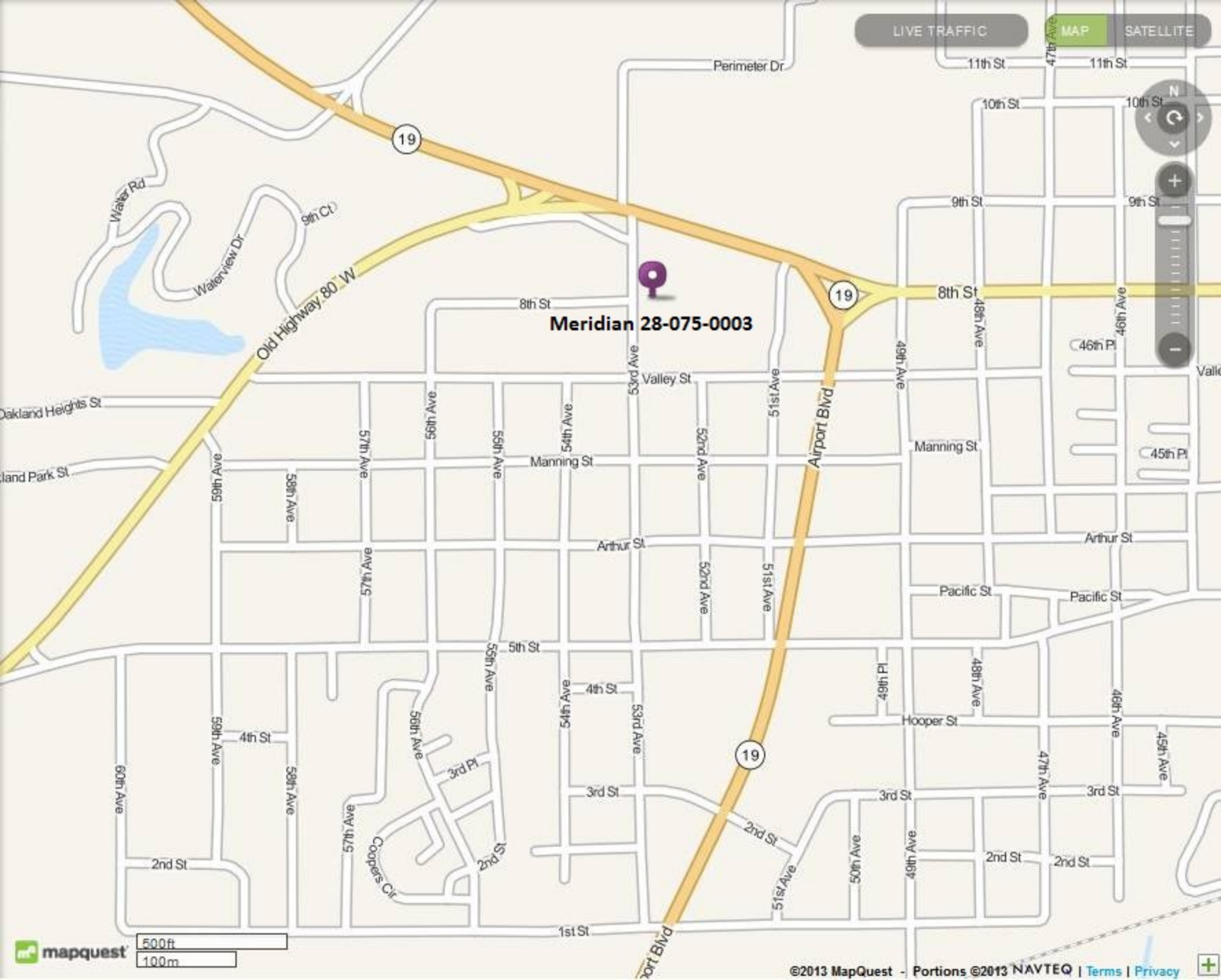
Meridian - N

Meridian - E

Meridian - S

Meridian - W

Meridian 28-075-0003



LIVE TRAFFIC
MAP
SATELLITE
Meridian 28-075-0003
Perimeter Dr
11th St
10th St
9th St
8th St
Valley St
Manning St
Arthur St
Pacific St
5th St
4th St
3rd St
2nd St
1st St
Hooper St
Airport Blvd
Old Highway 80 W
Waterview Dr
Water Rd
9th Ct
Oakland Heights St
Oakland Park St
Cooper's Cir
3rd Pl
46th Pl
45th Pl
49th Pl
47th Ave
48th Ave
49th Ave
50th Ave
51st Ave
52nd Ave
53rd Ave
54th Ave
55th Ave
56th Ave
57th Ave
58th Ave
59th Ave
60th Ave
46th Ave
45th Ave
19
500ft
100m
mapquest
©2013 MapQuest - Portions ©2013 NAVTEQ | Terms | Privacy

Meridian 28-075-0003
Old Hwy 80 W
Hwy 19 N
19
10th St
9th St
8th St
Vally St
Valley St
Manning St
56th Ave
55th Ave
54th Ave
53rd Ave
52nd Ave
51st Ave
49th Ave
48th Ave
© 2013 Google
Google earth
Imagery Date: 10/16/2011 32°21'51.31" N 88°43'50.66" W elev 360 ft eye alt 3049 ft

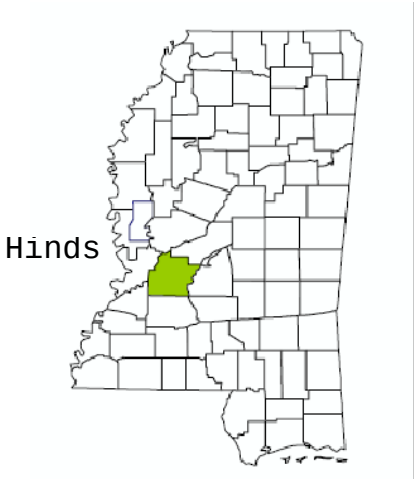
Jackson - N

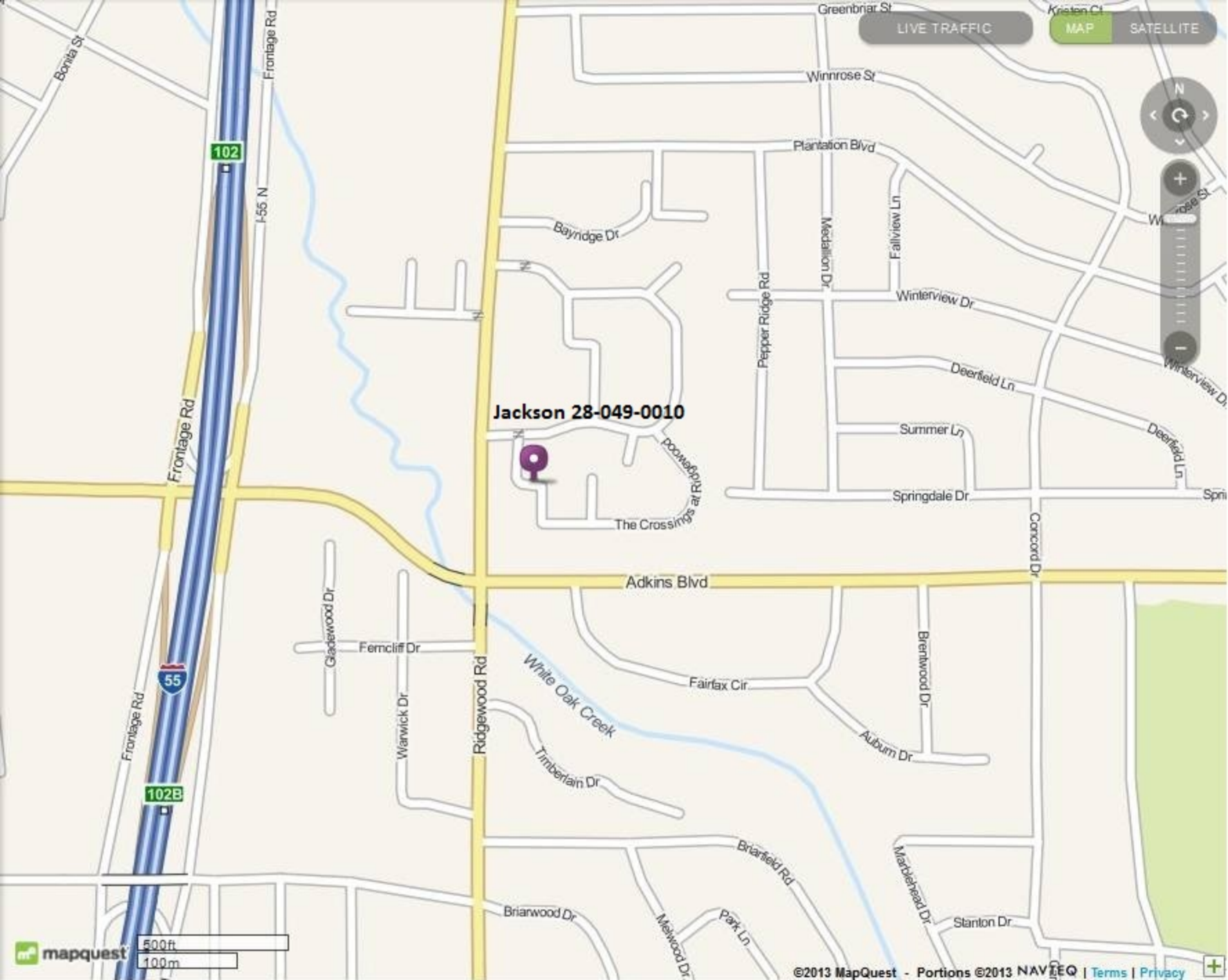
Jackson - E

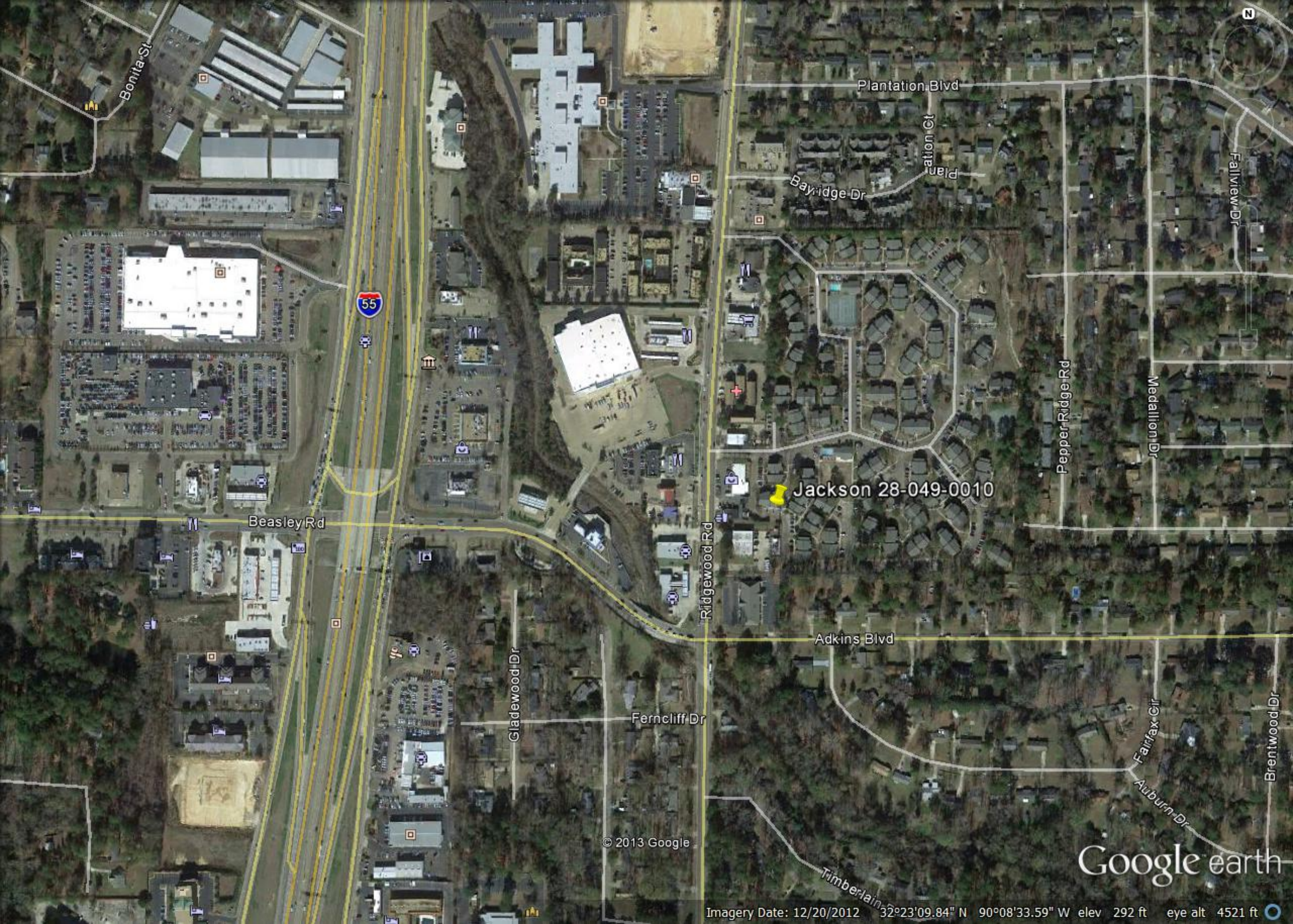
Jackson - S

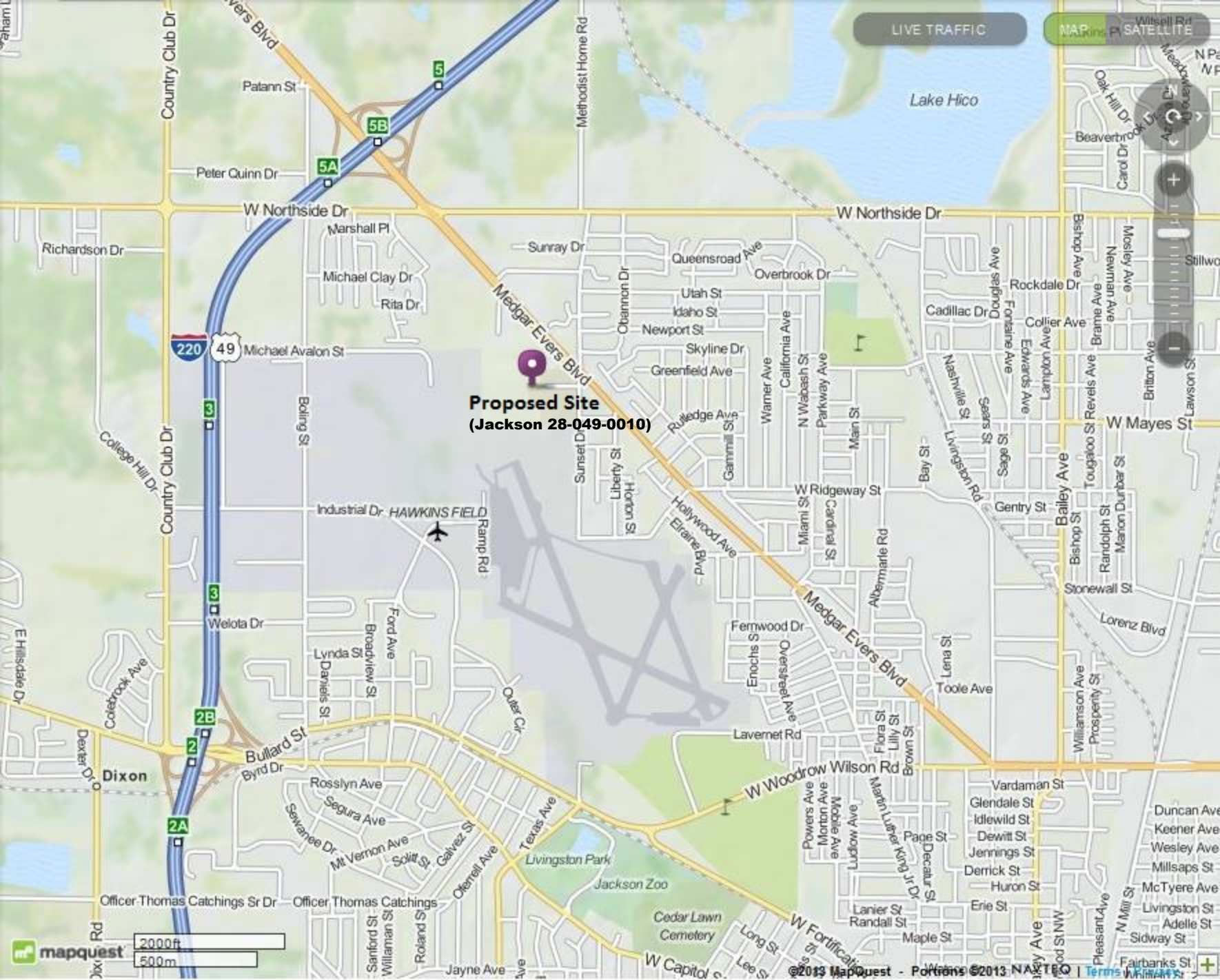
Jackson - W

Jackson 28-049-0010

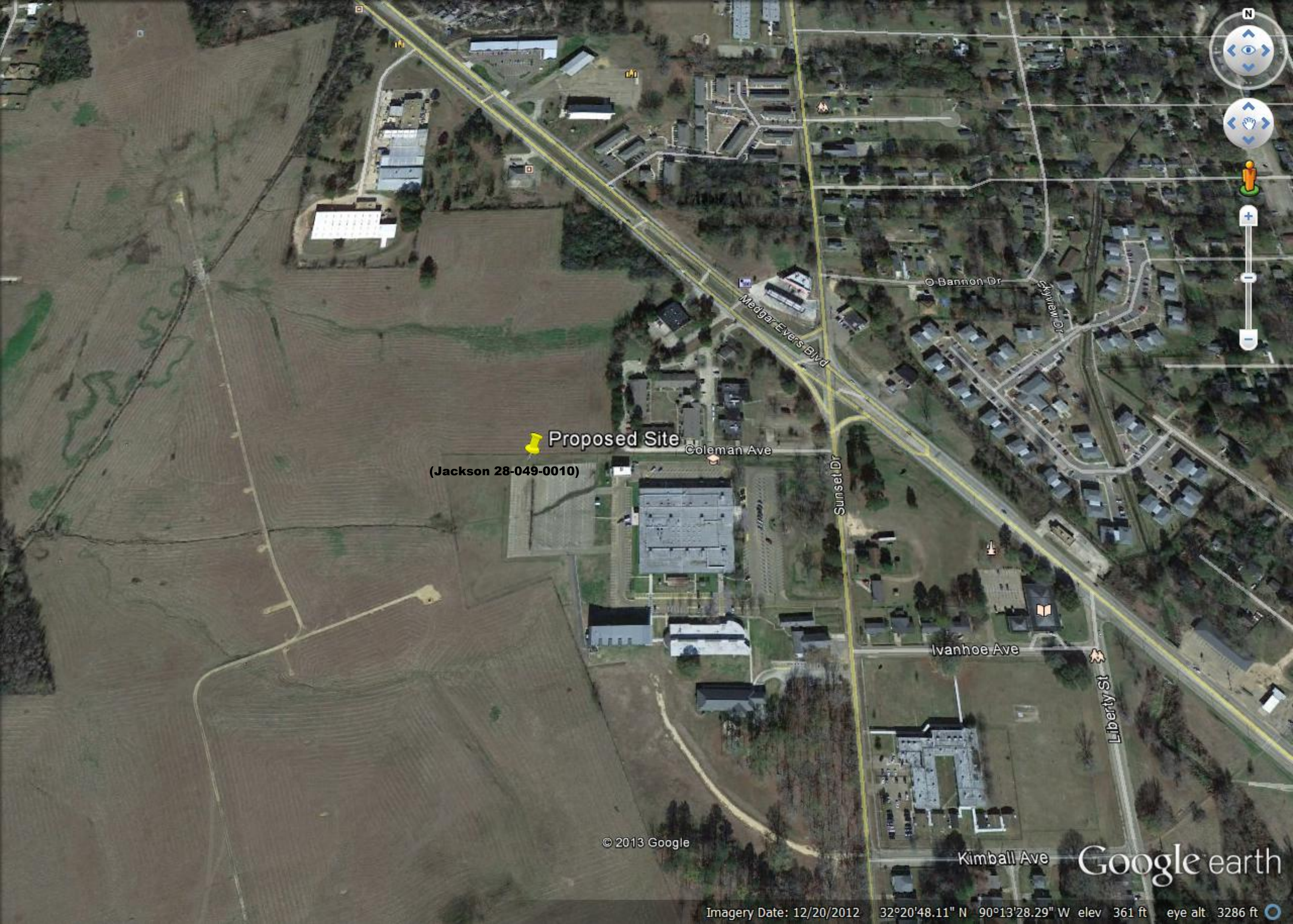


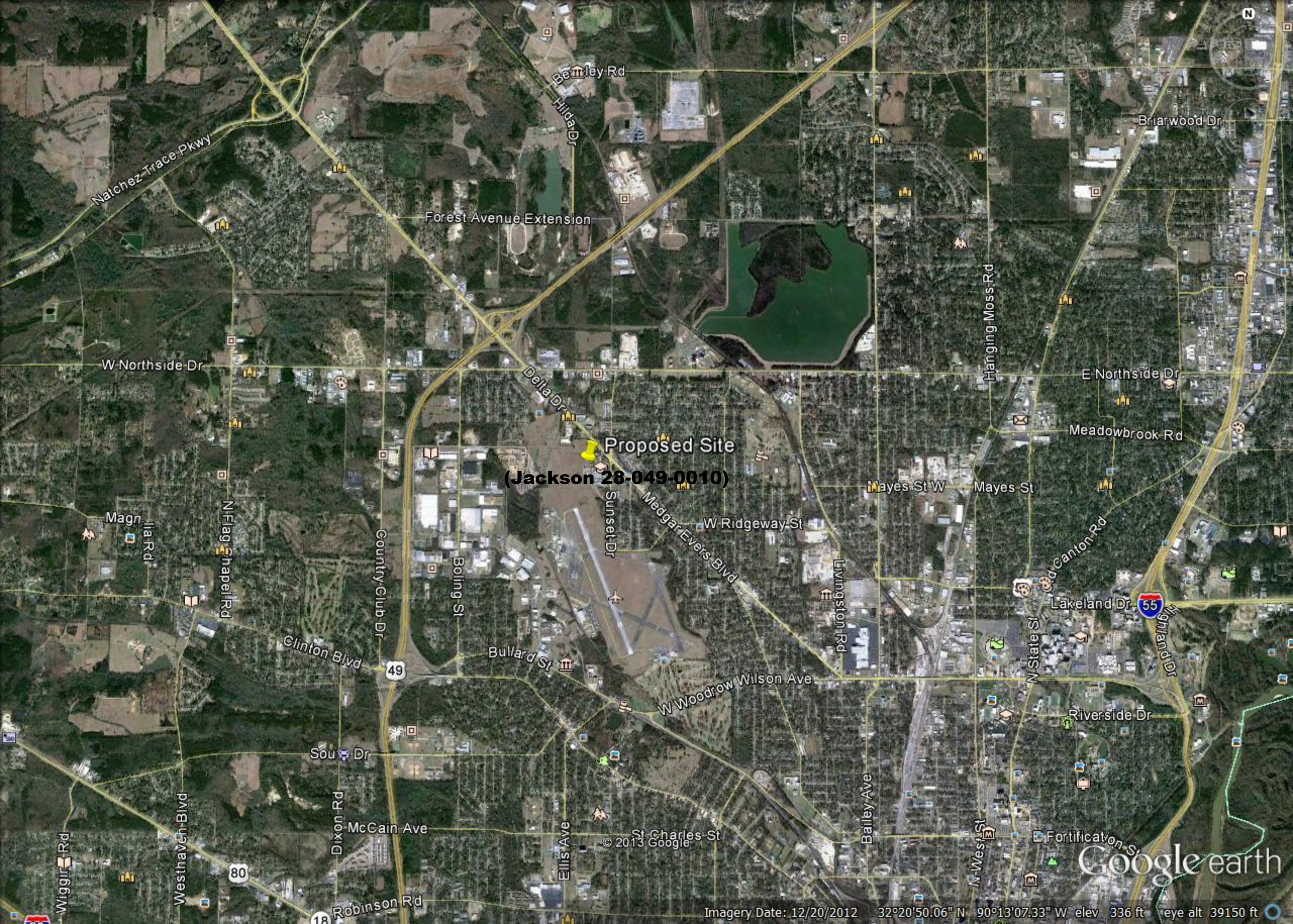

Jackson 28-049-0010
LIVE TRAFFIC
MAP
SATELLITE
Greenbriar St
Kristen Ct
Winnrose St
Plantation Blvd
Bayridge Dr
Pepper Ridge Rd
Medallion Dr
Fallview Ln
Winterview Dr
Deerfield Ln
Summer Ln
Springdale Dr
The Crossings at Ridgewood
Ridgewood Rd
Adkins Blvd
Concord Dr
Brentwood Dr
Auburn Dr
Fairfax Cir
White Oak Creek
Timberlain Dr
Briarfield Rd
Marblehead Dr
Stanton Dr
Briarwood Dr
Park Ln
Melwood Dr
Gladewood Dr
Fernclift Dr
Warwick Dr
Frontage Rd
I-55 N
102
55
102B
Bonita St
500 ft
100 m
©2013 MapQuest - Portions ©2013 NAVTEQ | Terms | Privacy

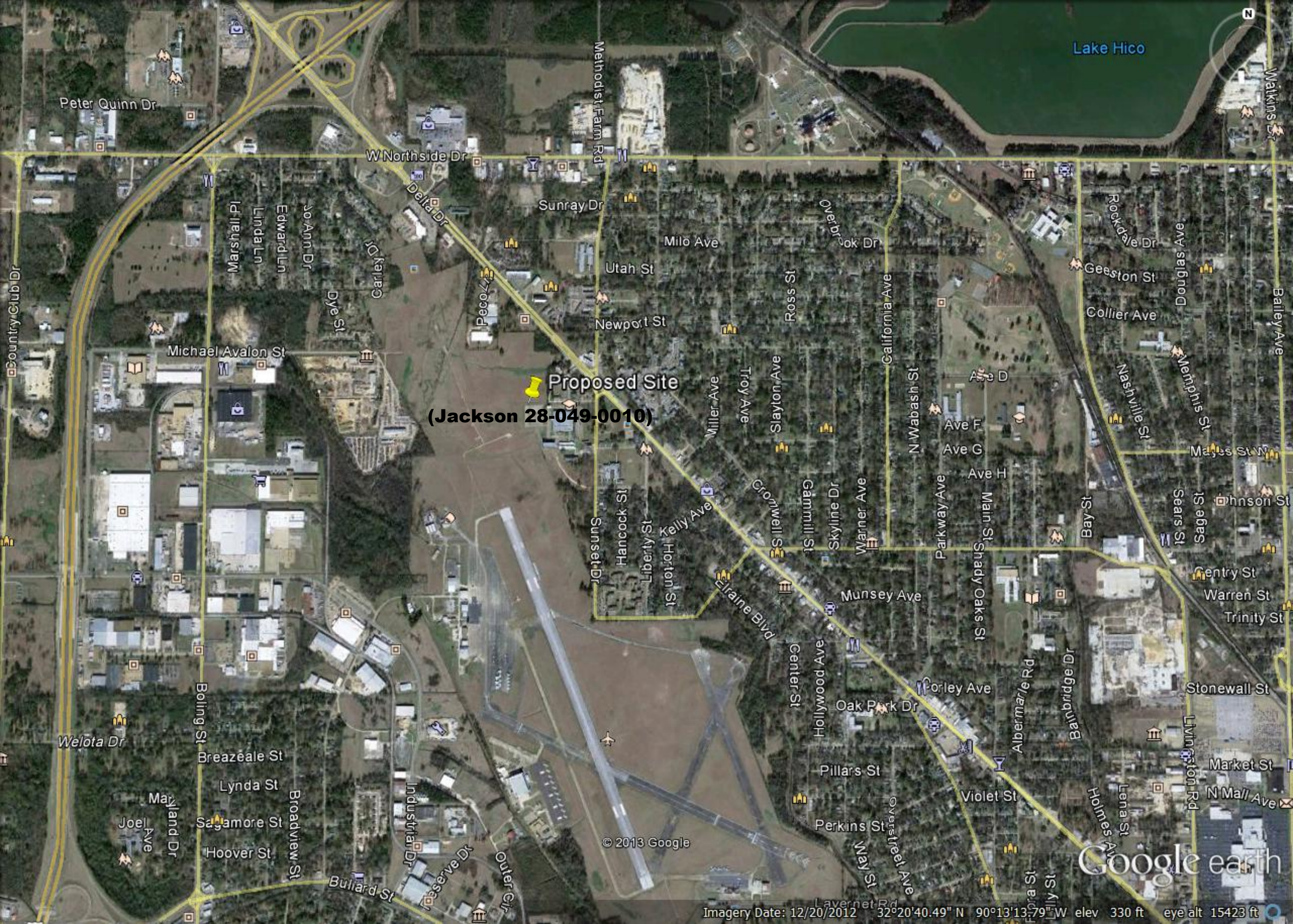

Bonita St
Plantation Blvd
Plantation Ct
Bayridge Dr
Fairview Dr
55
Pepper Ridge Rd
Medallion Dr
Jackson 28-049-0010
Beasley Rd
Ridgewood Rd
Adkins Blvd
Gladewood Dr
Ferncliff Dr
Fairfax Cir
Brentwood Dr
Auburn Dr
© 2013 Google
Google earth
Imagery Date: 12/20/2012 32°23'09.84" N 90°08'33.59" W elev 292 ft eye alt 4521 ft



LIVE TRAFFIC
MAP
SATELLITE
Lake Hico
Proposed Site
(Jackson 28-049-0010)
Medgar Evers Blvd
W Northside Dr
W Mayes St
W Woodrow Wilson Rd
Bullard St
Dixon
HAWKINS FIELD
Livingston Park
Jackson Zoo
Cedar Lawn Cemetery
Country Club Dr
Methodist Home Rd
Patann St
Peter Quinn Dr
Richardson Dr
Marshall Pl
Michael Clay Dr
Rita Dr
Michael Avalon St
Sunray Dr
Queensroad Ave
Overbrook Dr
Utah St
Idaho St
Newport St
Skyline Dr
Greenfield Ave
Rutledge Ave
Cadillac Dr
Rockdale Dr
Collier Ave
Stillwo
Boling St
College Hill Dr
Industrial Dr
Ramp Rd
Welota Dr
Lynda St
Ford Ave
Broadview St
Daniels St
Outer Cir
Hollywood Ave
Elraine Blvd
W Ridgeway St
Gentry St
Bailey Ave
Stonewall St
Lorenz Blvd
Fernwood Dr
Toole Ave
Lavernet Rd
Rosslyn Ave
Segura Ave
Sewanee Dr
Mt Vernon Ave
Solitt St
Galvez St
Oferrell Ave
Texas Ave
Officer Thomas Catchings Sr Dr
Officer Thomas Catchings
Jayne Ave
Vardaman St
Glendale St
Idlewild St
Dewitt St
Jennings St
Derrick St
Huron St
Erie St
Lanier St
Randall St
Maple St
Page St
Duncan Ave
Keener Ave
Wesley Ave
Millsaps St
McTyere Ave
Livingston St
Adelle St
Sidway St
Fairbanks St
Beaverbrook Dr
Oak Hill Dr
Carol Dr
Bishop Ave
Newman Ave
Mosley Ave
Brame Ave
Britton Ave
Lawson St
Tougaloo St
Randolph St
Marion Dunbar St
Bishop St
Nashville St
Sears St
Sage St
Livingston Rd
Bay St
Albermarle Rd
Miami St
Cardinal St
Enochs St
Overstreet Ave
Lena St
Flora St
Lilly St
Brown St
Powers Ave
Morton Ave
Mobile Ave
Ludlow Ave
Martin Luther King Jr Dr
Decatur St
Williamson Ave
Prosperity St
Pleasant Ave
N Mill St
Sanford St
Willaman St
Roland St
Long St
Lee St
Warner Ave
California Ave
N Wabash St
Parkway Ave
Main St
Gammill St
Liberty St
Horton St
Sunset Dr
Obannon Dr
Ramp Rd
Colebrook Ave
E Hillsdale Dr
Dexter Dr
Dixon Rd
Oak Hill Dr
Meadowlane Dr
Stillwo
220
49
5
5A
5B
3
2
2A
2B
mapquest
2000ft
500m
©2013 MapQuest - Portions ©2013 NAVTEQ | Terms of Use


Proposed Site
(Jackson 28-049-0010)
Coleman Ave
Medgar Evers Blvd
O Bannon Dr
Skyview Dr
Sunset Dr
Ivanhoe Ave
Liberty St
Kimball Ave
© 2013 Google
Google earth
Imagery Date: 12/20/2012 32°20'48.11" N 90°13'28.29" W elev 361 ft eye alt 3286 ft


Natchez Trace Pkwy
Bentley Rd
Hilda Dr
Forest Avenue Extension
Briarwood Dr
Hanging Moss Rd
W Northside Dr
Delta Dr
E Northside Dr
Meadowbrook Rd
Proposed Site
(Jackson 28-049-0010)
Mayes St W
Mayes St
Sunset Dr
Medgar Evers Blvd
W Ridgeway St
Magn
Ila Rd
N Flag Chapel Rd
Country Club Dr
Boling St
Livingston Rd
Canton Rd
Lakeland Dr
55
Highland Dr
N State St
Clinton Blvd
49
Bullard St
W Woodrow Wilson Ave
Riverside Dr
Sou Dr
Bailey Ave
Westhaven Blvd
Dixon Rd
McCain Ave
Ellis Ave
St Charles St
© 2013 Google
N West St
Fortification St
Wiggins Rd
80
Robinson Rd
18
Google earth
Imagery Date: 12/20/2012 32°20'50.06" N 90°13'07.33" W elev 336 ft eye alt 39150 ft


Lake Hico
Peter Quinn Dr
W Northside Dr
Methodist Farm Rd
Delta Dr
Sunray Dr
Milo Ave
Utah St
Newport St
Overbrook Dr
Ross St
California Ave
Rockdale Dr
Geeston St
Douglas Ave
Collier Ave
Bailey Ave
Walkins Dr
Country Club Dr
Marshall Pl
Linda Ln
Edward Ln
Jo Ann Dr
Dye St
Carley Dr
Pecos
Michael Avalon St
Proposed Site
(Jackson 28-049-0010)
Miller Ave
Troy Ave
Slayton Ave
N Wabash St
Ave D
Ave F
Ave G
Ave H
Nashville St
Memphis St
Majors St W
Sunset Dr
Hancock St
Liberty St
Horton St
Kelly Ave
Cromwell St
Gammill St
Skyline Dr
Warner Ave
Parkway Ave
Main St
Shady Oaks St
Bay St
Sears St
Sage St
Johnson St
Gentry St
Warren St
Trinity St
Elaine Blvd
Munsey Ave
Center St
Hollywood Ave
Forley Ave
Albermarle Rd
Bainbridge Dr
Stonewall St
Oak Park Dr
Pillars St
Violet St
Livingston Rd
Market St
N Mall Ave
Holmes Ave
Lena St
Perkins St
Overstreet Ave
Way St
Lavernet Rd
Welota Dr
Boling St
Breazeale St
Lynda St
Maryland Dr
Joel Ave
Sycamore St
Hoover St
Broadview St
Industrial Dr
Reserve Dr
Outer Cir
Bullard St
© 2013 Google
Google earth
Imagery Date: 12/20/2012 32°20'40.49" N 90°13'13.79" W elev 330 ft eye alt 15423 ft

Jackson NCore - N

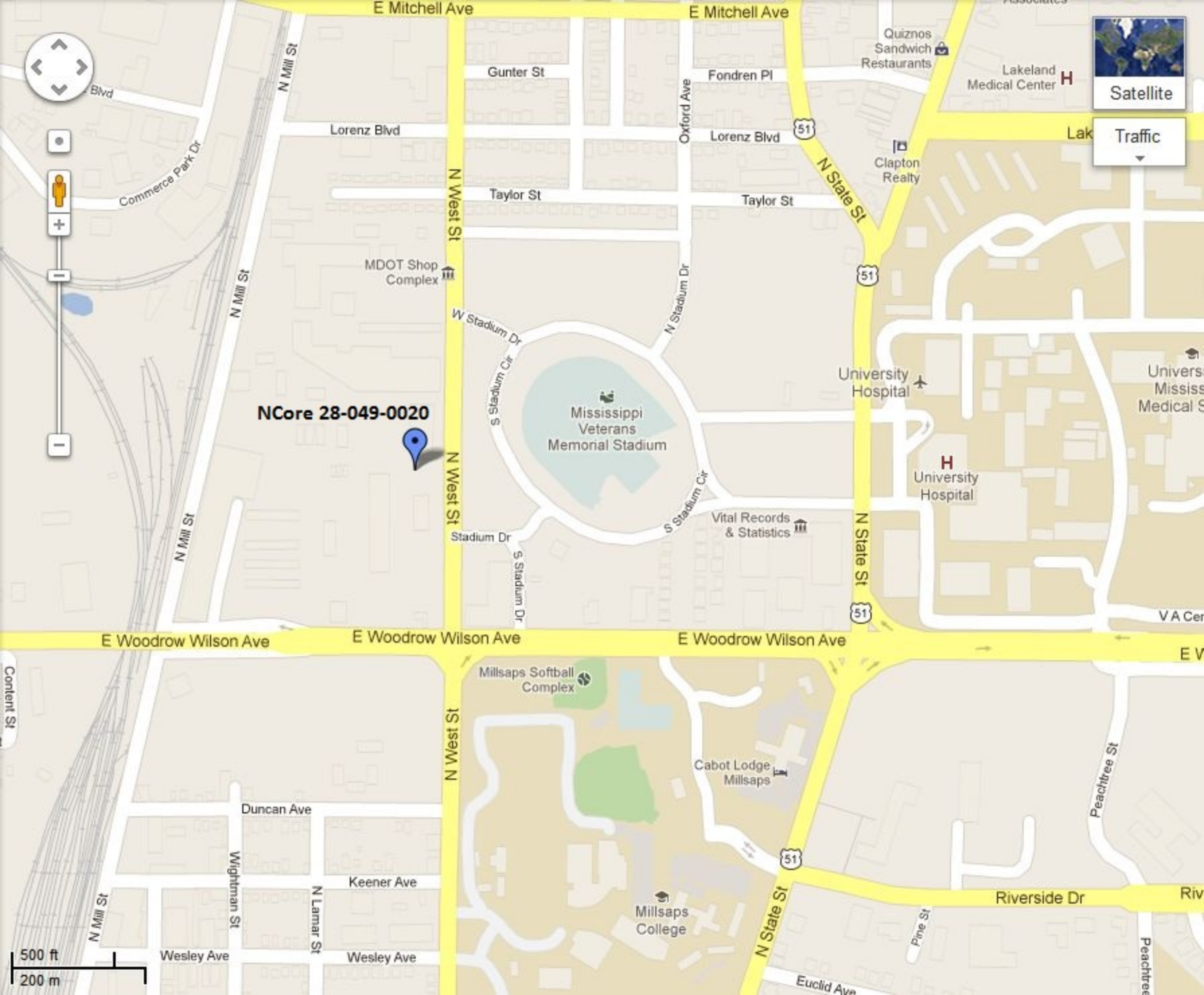
Jackson NCore - E

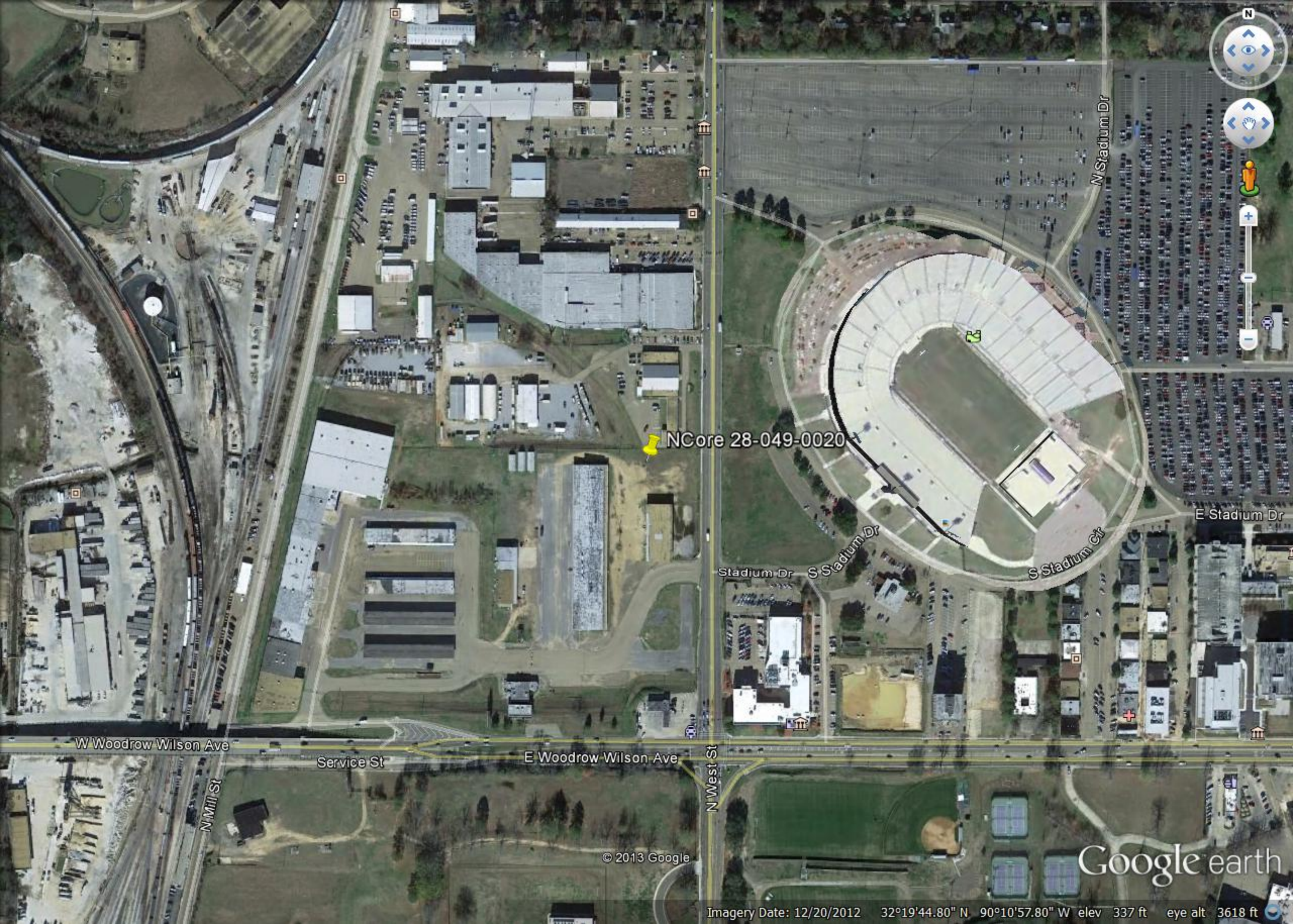
Jackson NCore - S

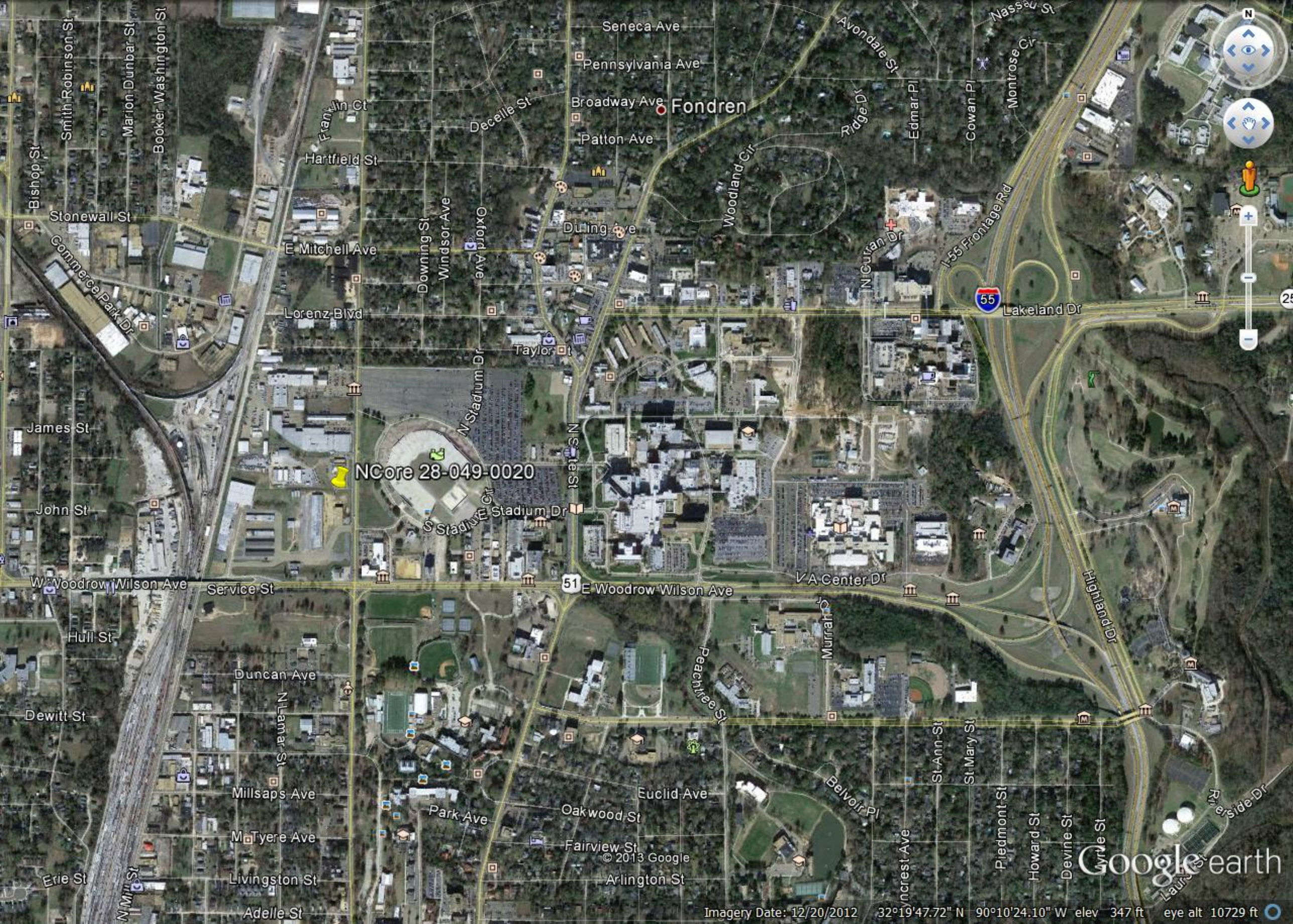
Jackson NCore - W

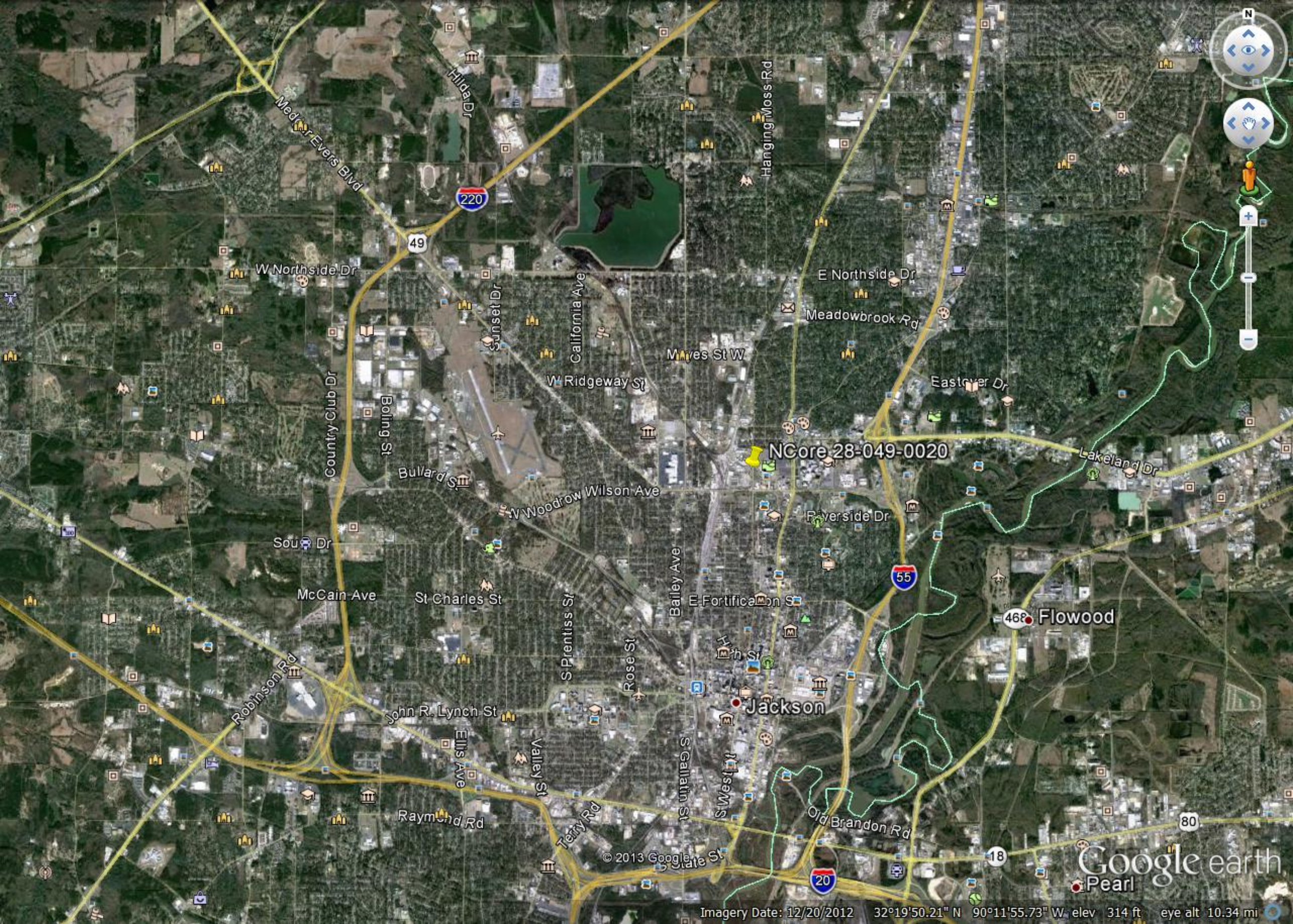
Jackson NCore

Jackson NCore Site Views 28-049-0020


NCore 28-049-0020
E Mitchell Ave
E Mitchell Ave
Gunter St
Fondren Pl
Quiznos Sandwich Restaurants
Lakeland Medical Center
Satellite
Traffic
Lorenz Blvd
Lorenz Blvd
Oxford Ave
Clapton Realty
Taylor St
Taylor St
N West St
N State St
N Mill St
Commerce Park Dr
MDOT Shop Complex
W Stadium Dr
N Stadium Dr
S Stadium Cir
Mississippi Veterans Memorial Stadium
University Hospital
University Hospital
Vital Records & Statistics
Stadium Dr
S Stadium Dr
E Woodrow Wilson Ave
E Woodrow Wilson Ave
E Woodrow Wilson Ave
Millsaps Softball Complex
Cabot Lodge Millsaps
Duncan Ave
Keener Ave
Wightman St
N Lamar St
Millsaps College
Riverside Dr
Peachtree St
Pine St
Wesley Ave
Wesley Ave
Euclid Ave
Content St
500 ft
200 m

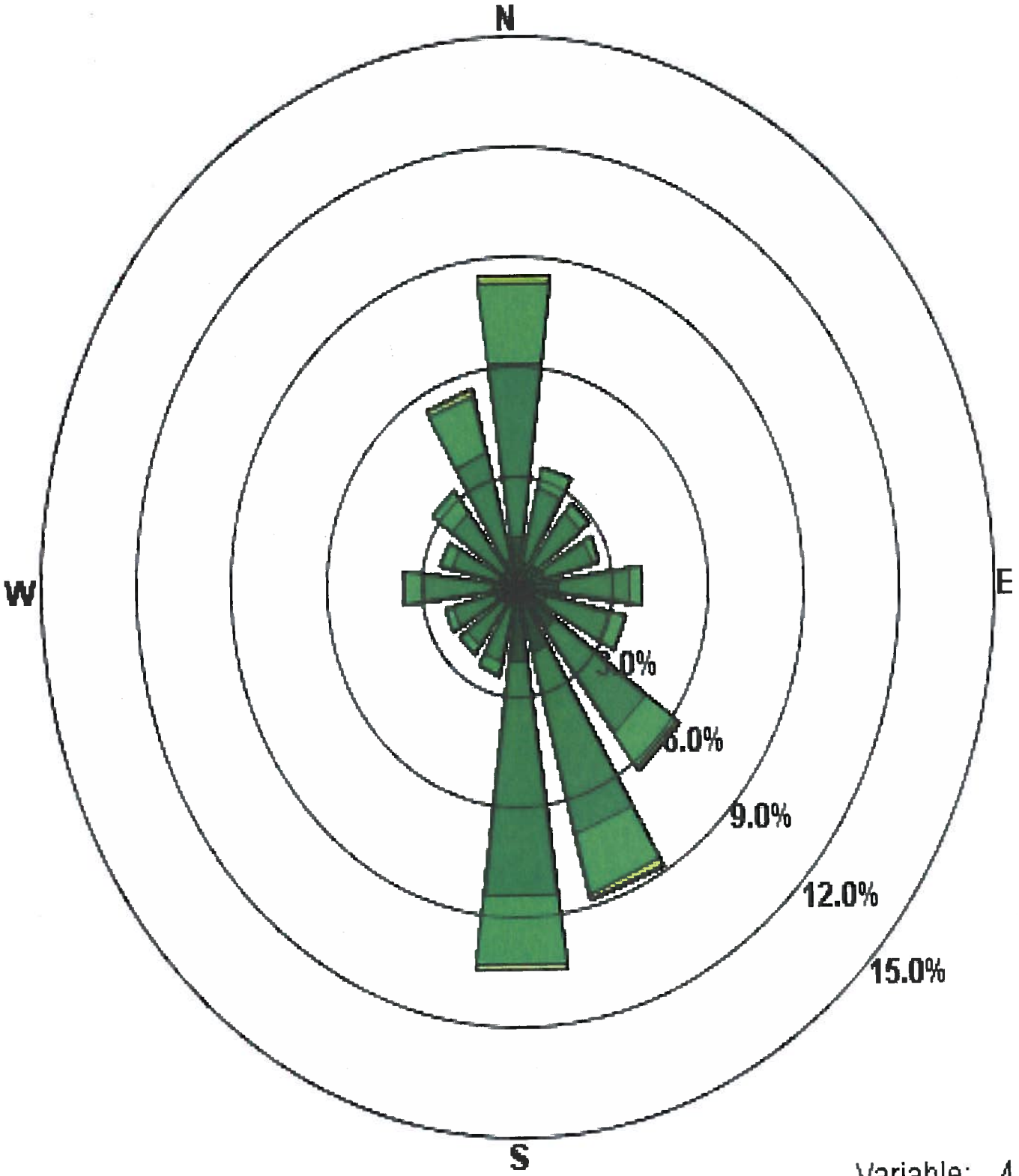

NCore 28-049-0020
N Stadium Dr
E Stadium Dr
S Stadium Dr
S Stadium Cir
Stadium Dr
W Woodrow Wilson Ave
Service St
E Woodrow Wilson Ave
N West St
N Mill St
© 2013 Google
Google earth
Imagery Date: 12/20/2012 32°19'44.80" N 90°10'57.80" W elev 337 ft eye alt 3618 ft

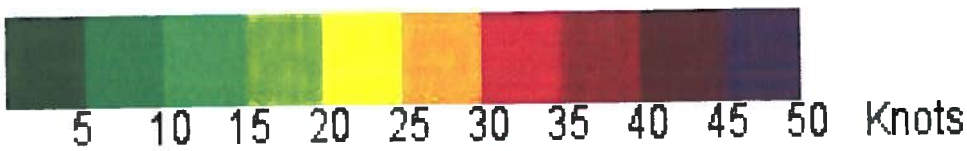

Seneca Ave
Pennsylvania Ave
Broadway Ave
Fondren
Patton Ave
Avondale St
Nassau St
Montrose Cir
Ridge Dr
Edmar Pl
Cowan Pl
Woodland Cir
Franklin Ct
Decelle St
Hartfield St
Smith Robinson St
Marion Dunbar St
Booker Washington St
Bishop St
Stonewall St
Commerce Park Dr
E Mitchell Ave
Downing St
Windsor Ave
Oxford Ave
Duling Ave
N Curran Dr
I-55 Frontage Rd
55
Lakeland Dr
Lorenz Blvd
Taylor St
N Stadium Dr
N State St
NCore 28-049-0020
James St
John St
S Stadium Dr
E Stadium Dr
W Woodrow Wilson Ave
Service St
51
E Woodrow Wilson Ave
VA Center Dr
Murrah Dr
Highland Dr
Hull St
Duncan Ave
N Lamar St
Dewitt St
Peachtree St
Millsaps Ave
Euclid Ave
Park Ave
Oakwood St
Belvoir Pl
St Ann St
St Mary St
Piedmont St
Howard St
Devine St
Cyrle St
Riverside Dr
M Tyere Ave
Fairview St
© 2013 Google
Erie St
Livingston St
Arlington St
Adelle St
Google earth
Imagery Date: 12/20/2012 32°19'47.72" N 90°10'24.10" W elev 347 ft eye alt 10729 ft


Medgar Evers Blvd
Hilda Dr
Hanging Moss Rd
220
49
W Northside Dr
E Northside Dr
Meadowbrook Rd
Sunset Dr
California Ave
Mayes St W
W Ridgeway St
Eastover Dr
Country Club Dr
Boling St
Bullard St
NCore 28-049-0020
Lakeland Dr
W Woodrow Wilson Ave
Riverside Dr
Sou Dr
McCain Ave
St Charles St
S Prentiss St
Bailey Ave
E Fortification St
55
Flowood
Rose St
High St
Jackson
Robinson Rd
John R. Lynch St
Ellis Ave
Valley St
S Gallatin St
S West St
Raymond Rd
Terry Rd
Old Brandon Rd
80
18
20
Pearl
© 2013 Google
Google earth
Imagery Date: 12/20/2012 32°19'50.21" N 90°11'55.73" W elev 314 ft eye alt 10.34 mi

JACKSON/ALLEN C. TH

30-year summary: 1980 - 2009





Variable: 4.4%
Calm: 21.5%
Mean: 5.6 KT

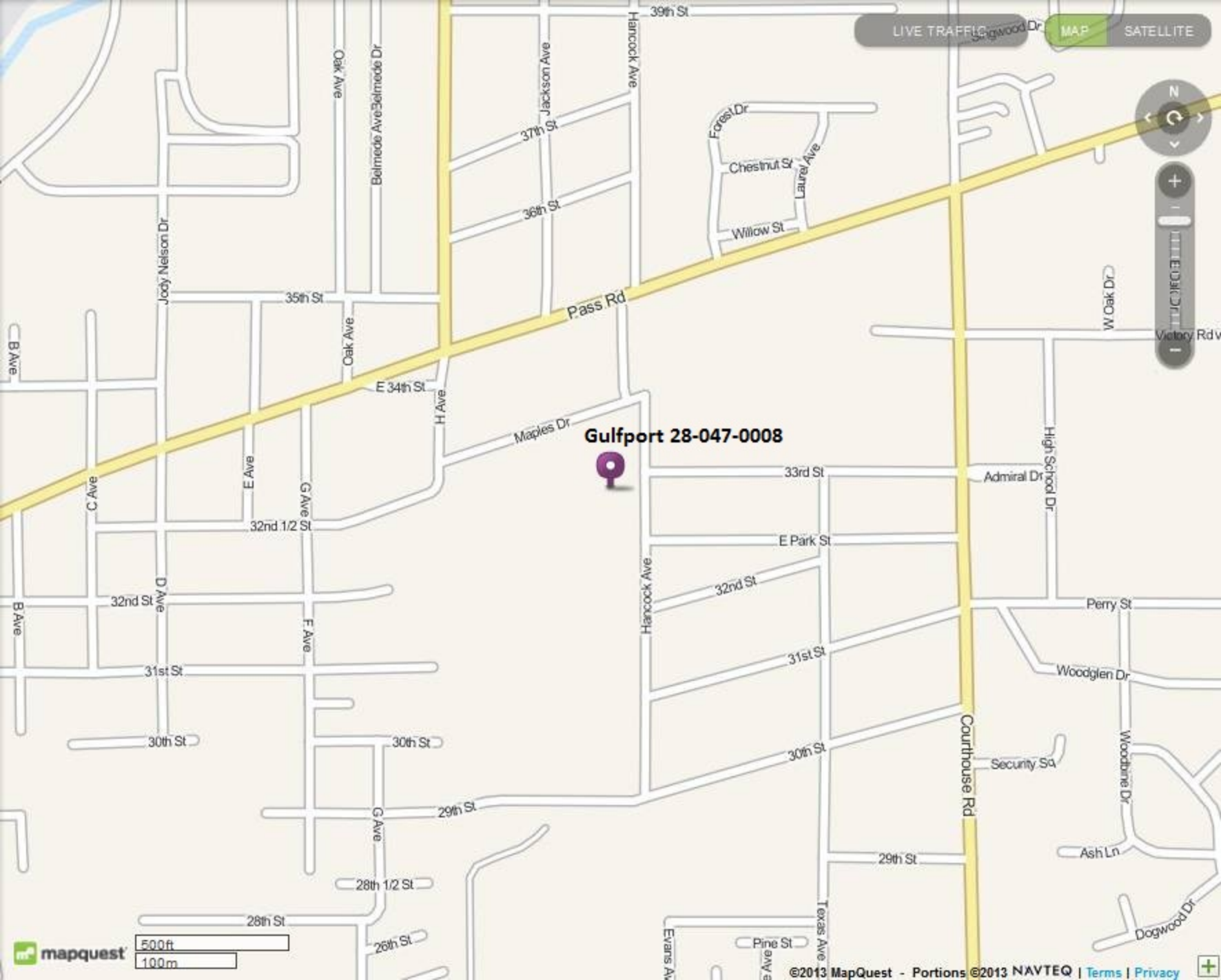
Gulfport - N

Gulfport - E

Gulfport - S

Gulfport - W

Gulfport 28-047-0008


Gulfport 28-047-0008
LIVE TRAFFIC
MAP
SATELLITE
39th St
Dogwood Dr
Oak Ave
Belmede Ave
Belmede Dr
Jackson Ave
Hancock Ave
37th St
36th St
Forest Dr
Chestnut St
Laurel Ave
Willow St
Jody Nelson Dr
35th St
Pass Rd
W Oak Dr
Victory Rd
B Ave
E 34th St
H Ave
Maples Dr
C Ave
E Ave
G Ave
32nd 1/2 St
33rd St
Admiral Dr
High School Dr
E Park St
32nd St
D Ave
F Ave
Perry St
31st St
Woodglen Dr
30th St
Security Sq
Courthouse Rd
Woodbine Dr
29th St
Ash Ln
28th 1/2 St
28th St
26th St
Texas Ave
Pine St
Dogwood Dr
Evans Ave
500 ft
100 m
mapquest
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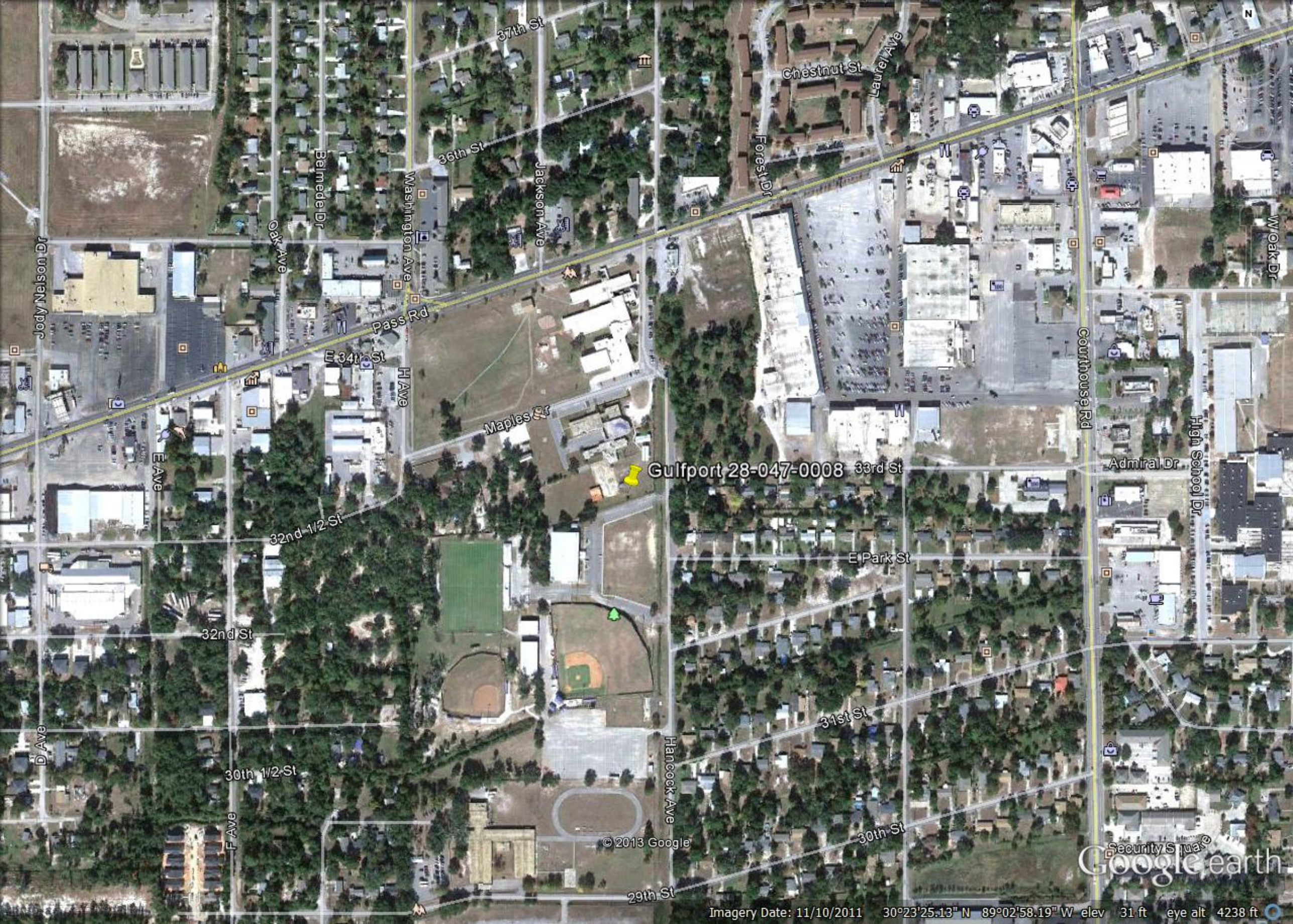

37th St
36th St
Chestnut St
Laurel Ave
Forest Dr
Jackson Ave
Washington Ave
Belmede Dr
Oak Ave
Jody Nelson Dr
Pass Rd
E 34th St
H Ave
Maples St
Gulfport 28-047-0008
33rd St
Courthouse Rd
Admiral Dr
High School Dr
W Oak Dr
E Ave
32nd 1/2 St
E Park St
32nd St
31st St
D Ave
30th 1/2 St
Hancock Ave
F Ave
30th St
29th St
Security Square
© 2013 Google
Google earth
Imagery Date: 11/10/2011 30°23'25.13" N 89°02'58.19" W elev 31 ft eye alt 4238 ft

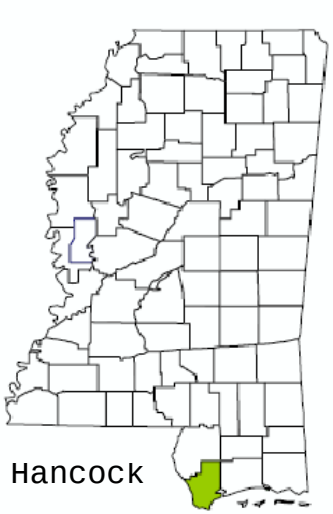
Waveland - N

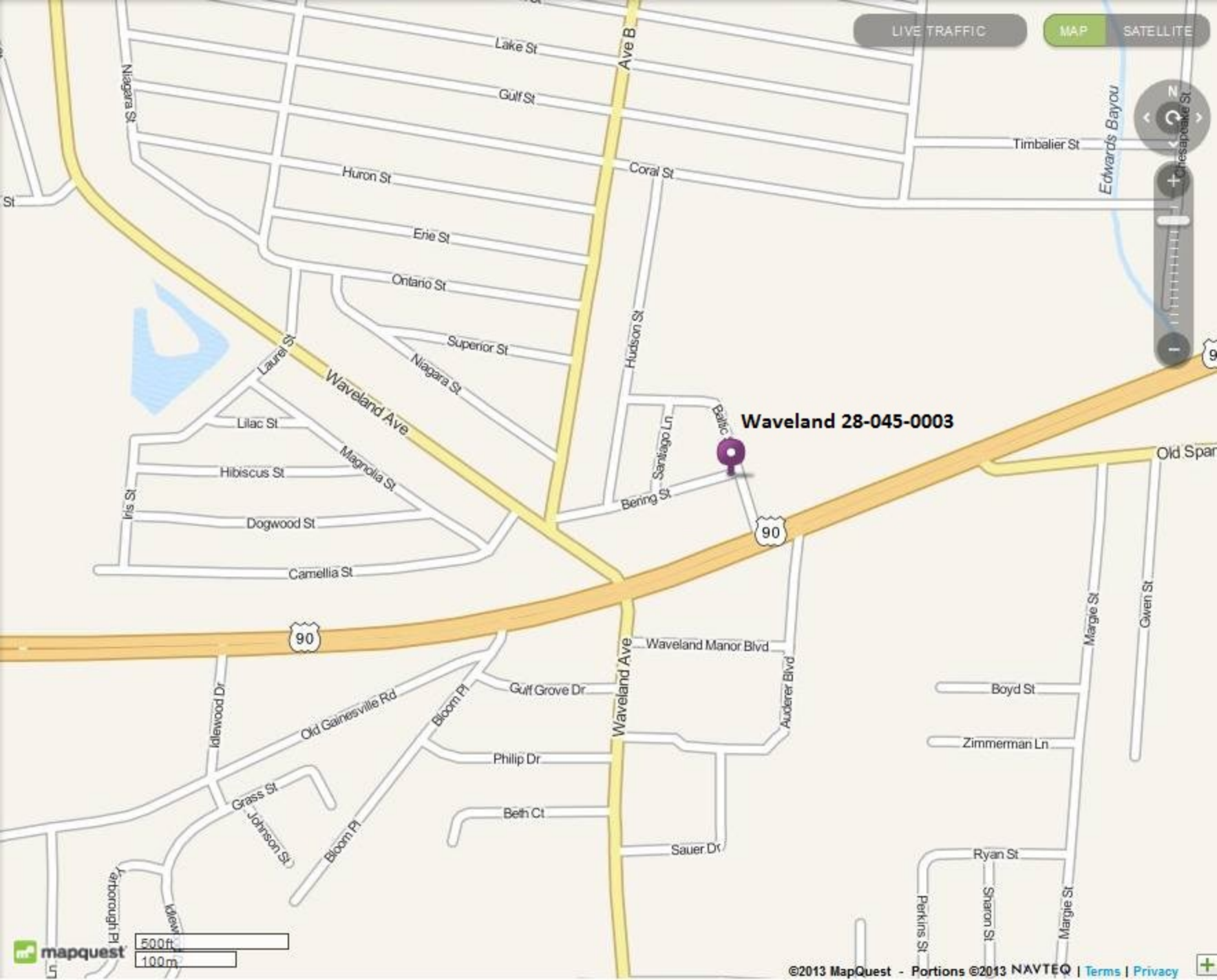
Waveland - E

Waveland - S

Waveland - W

Waveland 28-045-0003




LIVE TRAFFIC
MAP
SATELLITE
Waveland 28-045-0003
Lake St
Gulf St
Coral St
Huron St
Erie St
Ontario St
Superior St
Niagara St
Laurel St
Waveland Ave
Ave B
Hudson St
Lilac St
Magnolia St
Hibiscus St
Iris St
Dogwood St
Camellia St
Santiago Ln
Baltic
Bering St
Timbalier St
Edwards Bayou
Chesapeake St
Old Spar
90
Waveland Manor Blvd
Auderer Blvd
Gulf Grove Dr
Bloom Pl
Old Gainesville Rd
Idlewood Dr
Philip Dr
Grass St
Johnson St
Beth Ct
Sauer Dr
Arborough Pl
Margie St
Gwen St
Boyd St
Zimmerman Ln
Ryan St
Perkins St
Sharon St
500ft
100m
mapquest
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Waveland 28-045-0003
Huron St
Erie St
Ontario St
Niagara St
Superior St
D Ave
B Ave
Hudson St
Santiago Ln
Baltic St
Coral St
Chesapeake St
90
Laurel St
Lilac St
Magnolia St
Hibiscus St
Dogwood St
Camellia St
Ave B
Waveland Kiln Rd
Bering St
Old Gainsville Rd
Lower Bay Rd
Wilcox Blvd
Philip Dr
Waveland Ave
Beth Ct
Grass
Johnson St
Idlewood Dr
Auderer Blvd
East
Zimmerman St
Margie St
Gwen Ave
Sauer Dr
Monroe St
Ryan St
Perkins St
Sharon St
© 2013 Google
Google earth
Imagery Date: 10/29/2012 30°18'00.19" N 89°23'48.53" W elev 15 ft eye alt 4704 ft

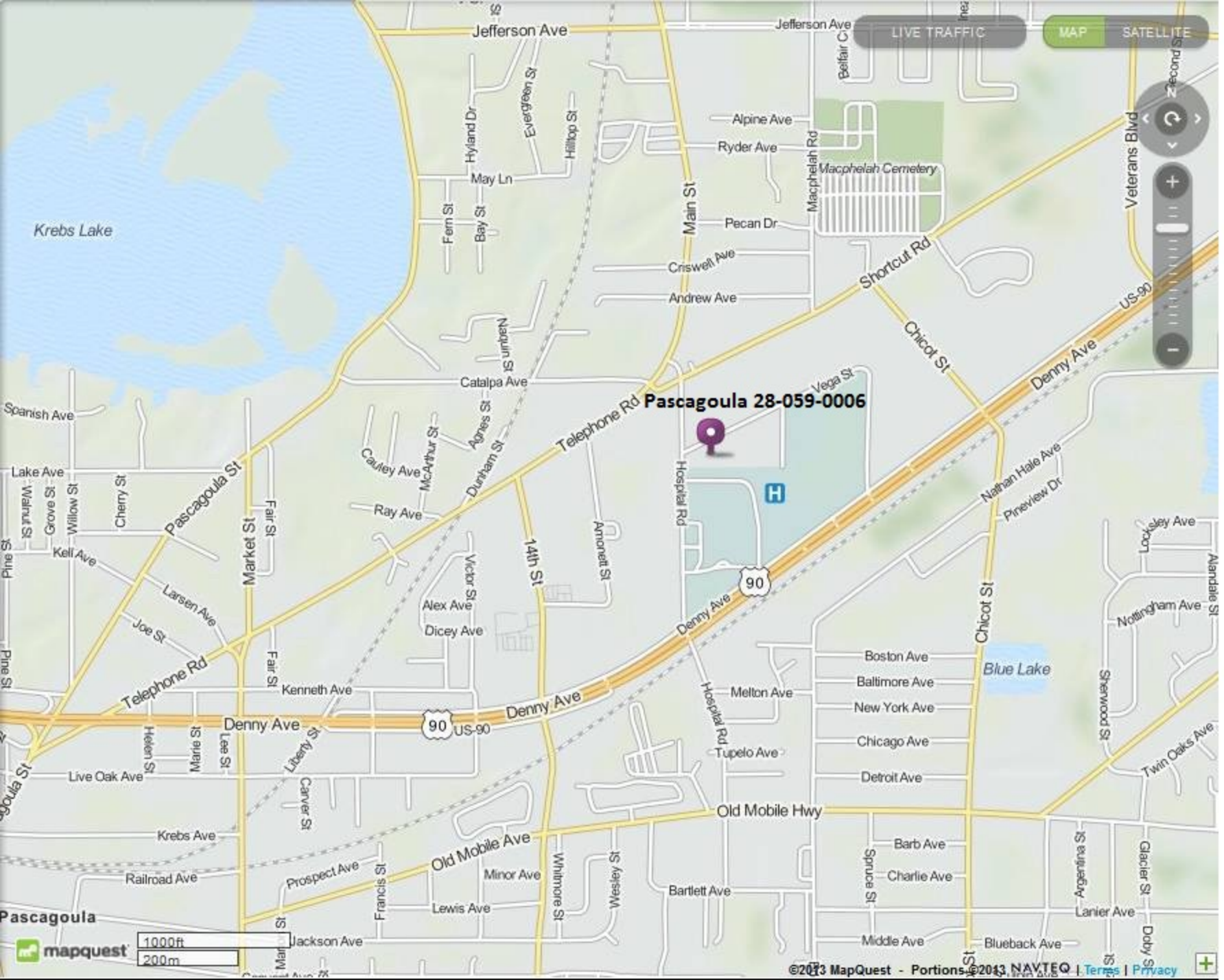
Pascagoula - N

Pascagoula - E

Pascagoula - S

Pascagoula - W

Pascagoula 28-059-0006



LIVE TRAFFIC
MAP
SATELLITE
Pascagoula 28-059-0006
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Krebs Lake
Macphelah Cemetery
Alpine Ave
Ryder Ave
May Ln
Pecan Dr
Criswell Ave
Andrew Ave
Shortcut Rd
Chicot St
Denny Ave
US-90
Veterans Blvd
Catalpa Ave
Telephone Rd
Vega St
Spanish Ave
Lake Ave
Pascagoula St
Market St
Fair St
Ray Ave
Cauley Ave
McArthur St
Agnes St
Dunham St
Hospital Rd
Nathan Hale Ave
Pineview Dr
Kell Ave
Larsen Ave
Joe St
Alex Ave
Dicey Ave
Victor St
14th St
Amonett St
Kenneth Ave
Boston Ave
Baltimore Ave
New York Ave
Chicago Ave
Detroit Ave
Melton Ave
Tupelo Ave
Blue Lake
Nottingham Ave
Sherwood St
Twin Oaks Ave
Live Oak Ave
Helen St
Marie St
Lee St
Liberty St
Carver St
Old Mobile Hwy
Old Mobile Ave
Krebs Ave
Railroad Ave
Prospect Ave
Francis St
Minor Ave
Whitmore St
Wesley St
Bartlett Ave
Barb Ave
Charlie Ave
Spruce St
Argentina St
Glacier St
Lanier Ave
Lewis Ave
Jackson Ave
Middle Ave
Blueback Ave
Pascagoula
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200m
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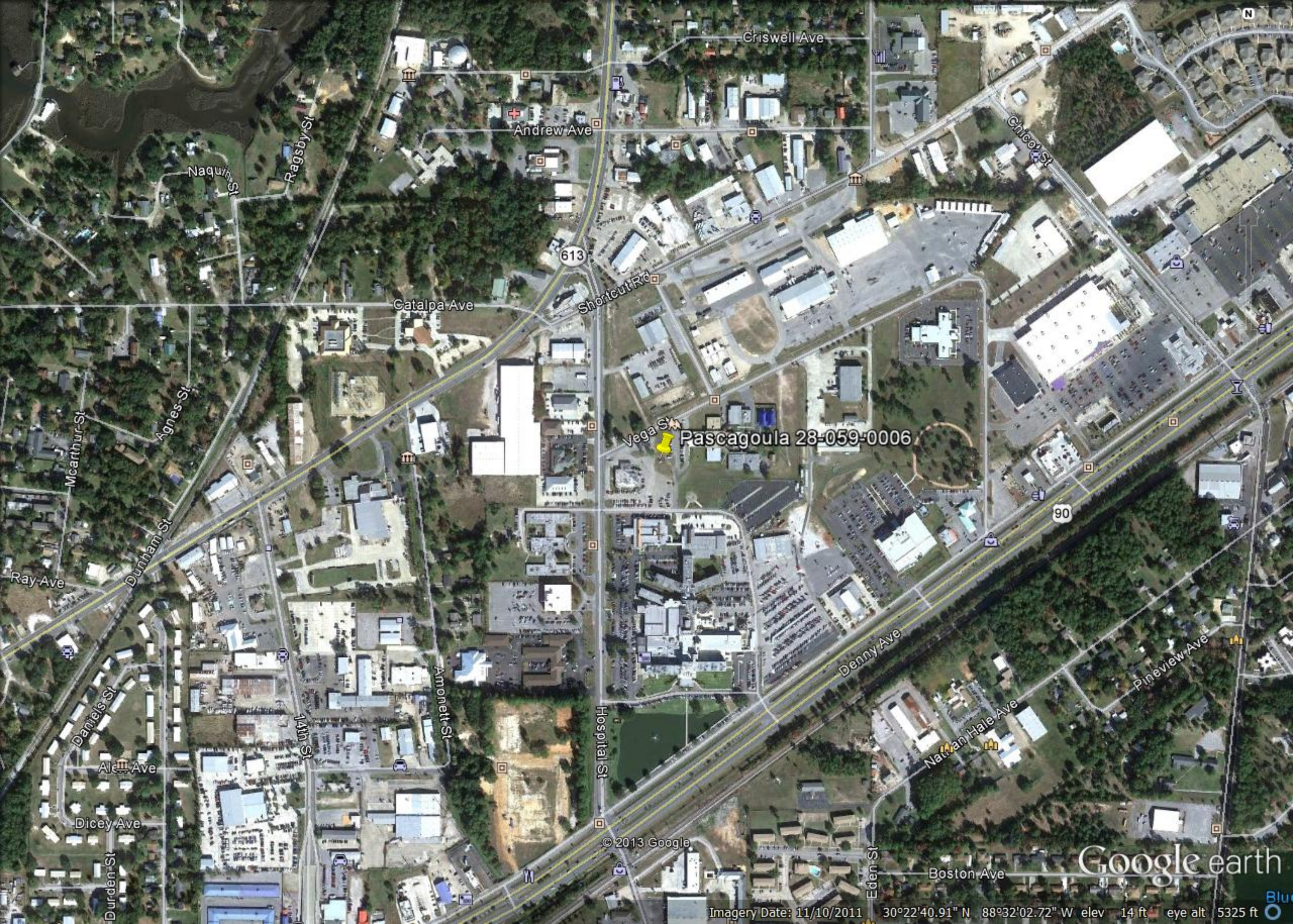
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Ray Ave
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Denny Ave
Pineview Ave
Amonett St
Hospital St
14th St
Daniels St
Al Ave
Dicey Ave
Nathan Hale Ave
© 2013 Google
Eden St
Boston Ave
Google earth
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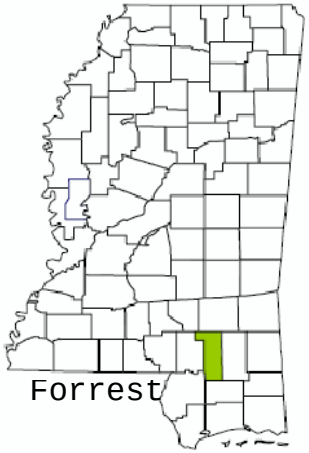
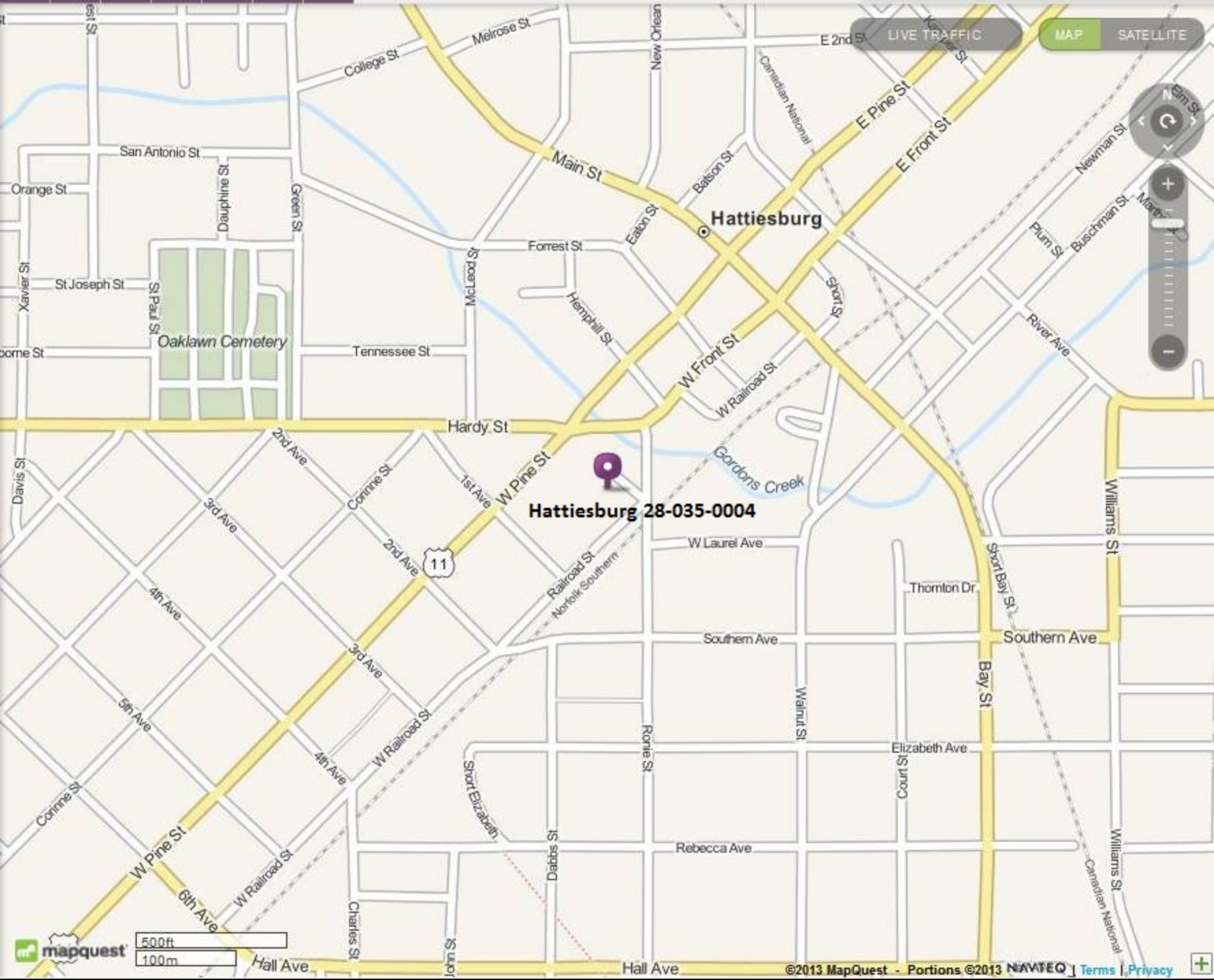
Hattiesburg – E

Hattiesburg - S

Hattiesburg – W

Hattiesburg 28-035-0004




LIVE TRAFFIC
MAP
SATELLITE
Hattiesburg
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Oaklawn Cemetery
Gordons Creek
Main St
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E Front St
W Front St
W Railroad St
Hardy St
W Pine St
Southern Ave
Bay St
Williams St
Hall Ave
Melrose St
College St
San Antonio St
Orange St
Dauphine St
Green St
Forrest St
Eaton St
Batson St
Canadian National
Newman St
Elm St
Plum St
Buschman St
Short St
River Ave
Hemphill St
McLeod St
St Joseph St
St Paul St
Xavier St
Tennessee St
Davis St
2nd Ave
3rd Ave
4th Ave
5th Ave
6th Ave
Corinne St
1st Ave
11
Railroad St
Norfolk Southern
W Laurel Ave
Thornton Dr
Short Bay St
Walnut St
Ronie St
Elizabeth Ave
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Short Elizabeth
Dabbs St
Rebecca Ave
Charles St
John St
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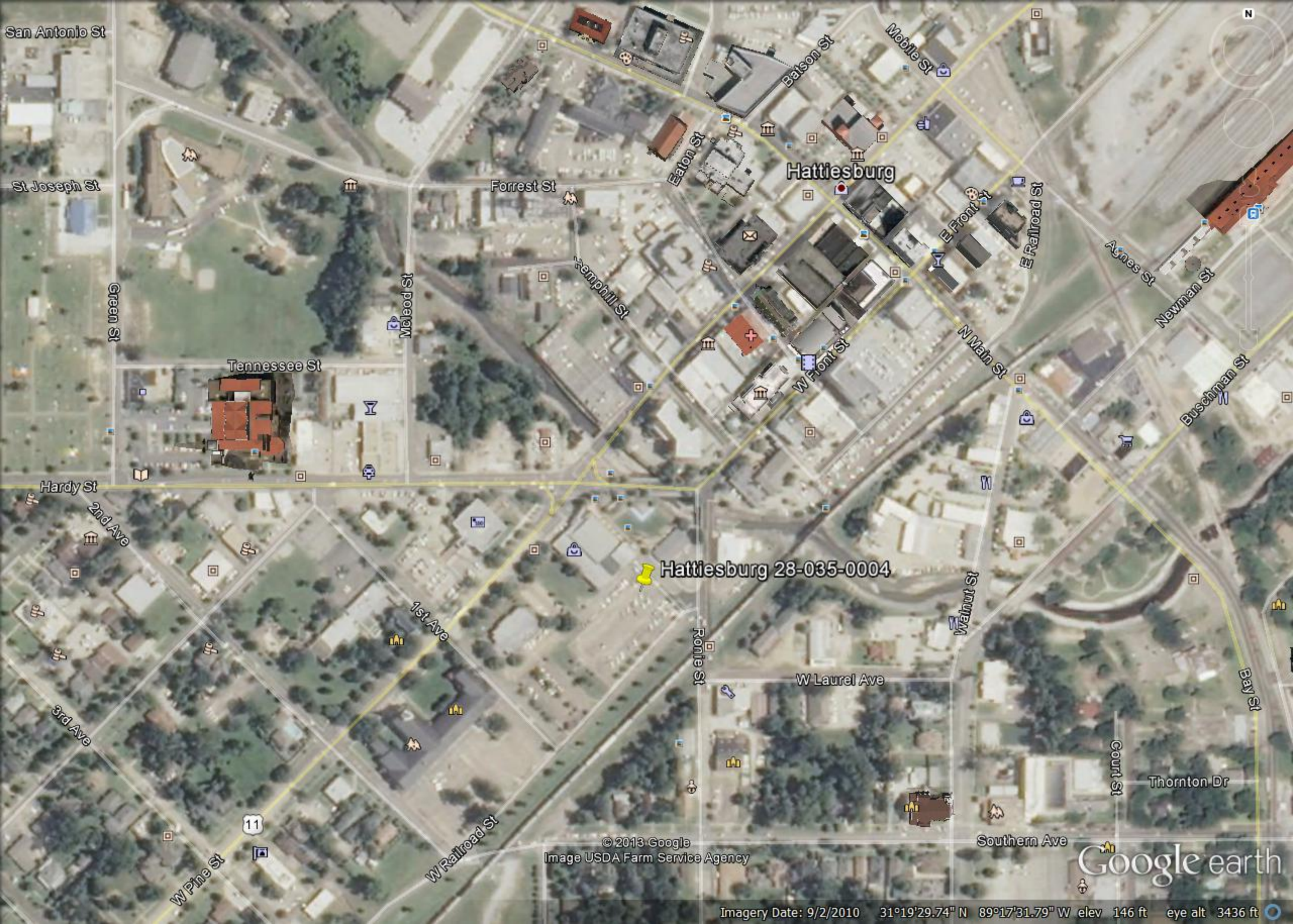
San Antonio St
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Agnes St
Newman St
Green St
McLeod St
Hemphill St
N Main St
W Front St
Tennessee St
Buschman St
Hardy St
2nd Ave
Hattiesburg 28-035-0004
1st Ave
Ronie St
Walnut St
W Laurel Ave
Bay St
3rd Ave
Court St
Thornton Dr
11
W Railroad St
Southern Ave
W Pine St
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Google earth
Imagery Date: 9/2/2010 31°19'29.74" N 89°17'31.79" W elev 146 ft eye alt 3436 ft

Appendix II

Regional Monitoring Agreement

Misc- 2013

RECEIVED
MAR 22 2013
Dept. of Environmental Quality

SHELBY COUNTY HEALTH DEPARTMENT

Mark H. Luttrell, Jr.
Mayor
Shelby County

YVONNE S. MADLOCK
DIRECTOR

HELEN MORROW, M.D.
HEALTH OFFICER

Public Health
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March 20, 2013

Mr. Robert Brawner, Acting Chief Environmental Manager
Tennessee Division of Air Pollution Control
9th Floor, L & C Annex
Nashville, TN 37243-1531

Ms. Maya Rao, Chief of the Air Division
Mississippi Department of Environmental Quality
Office of Pollution Control, Air Division
P.O. Box 2261
Jackson, MS 39225

Mr. Mike Bates, Chief of the Air Division
Arkansas Department of Environmental Quality
5301 Northshore Dr.
North Little Rock, AR 72118

Dear All,

Attached is a revision to the Air Monitoring Memorandum of Agreement (MOA) between our respective agencies. This revision document serves as the notification of changes described in the MOA between the Shelby County Health Department (SCHD), Mississippi Department of Environmental Quality (MDEQ), and the Arkansas Department of Environmental Quality (ADEQ) signed May and June of 2008. Of primary interest is the discontinuation of the SO2 monitor and relocation of the PM 10 monitor at Fite Rd (47-157-0046). Also, EPA has requested that the PM 2.5 Speciation Trends Network monitor at the Alabama Station (47-157-0024) be discontinued.

NCORE

Shelby County was chosen by EPA as one of 75 NCORE site locations, nationally. This multi-pollutant air monitoring station is located at 6388 Haley Road (47-157-0075) in the Shelby Farms area.

NO2

The Shelby County Health Department (SCHD) once operated a NO_2 analyzer at 416 Alabama (47-157-0024). It began to malfunction on October 23, 2006. The site operator, along with a service advisor with Teledyne Instruments Advanced Pollution Instrumentation concluded that diagnosis of the problem would have to be made at the factory. The Teledyne-API technician determined that the NO_2 analyzer needed considerable repair. Taking into account the age of the instrument and the cost of repair, it was deemed to be not worthy of repair. Also, the SCHD did not have the resources to replace the analyzer. As a consequence, NO_2 has not been monitored in Shelby County since 2006. This information has been notated in AQS.

Shelby County anticipates in participating in the Second Phase of the Core Based Statistical Area Near Road NO_2 monitoring in conjunction with the recently promulgated NO_2 regulations.

SO_2

The SCHD requested permission from the EPA on November 15, 2012 to discontinue the SO_2 monitor at Fite Rd (47-157-0046). The monitor began operating on May 1, 1994 and its primary objective was to monitor emissions impact from local sources in the area. The primary source in the area has reduced their emissions by greater that 90 percent since 2005. On January 10, 2013, the SCHD received approval from EPA to discontinue SO_2 monitoring at the Fite Rd. station. The letters requesting the discontinuation and approval are attached on pages 8 and 10 of the Appendix.

PM 2.5

The PM 2.5 continuous monitor (TEOM) is temporarily discontinued at the Alabama (47-157-0024) site. The EPA was notified on September 19, 2011 of the status on the monitor and has given the SCHD approval to temporarily discontinue this sampling until funds are located to replace the monitor. This monitor began to malfunction on July 25, 2011. This information has been notated in AQS. The letters requesting the discontinuation and approval are on pages 12 and 13 of the Appendix.

The EPA requested that the PM 2.5 Speciation Trends Network be discontinued on January 28, 2013. Funding from the EPA was discontinued. Also, EPA recognized that another Speciation Trends Network is operating at the Shelby Farms NCORE site on a 1 in 3 day schedule. This collocated sampler at the Alabama Station would not be needed. A letter of request was submitted to EPA on February 4th, 2013. It is located on page 11 of the Appendix.

PM 10

The PM 10 monitor located at Fite Rd. (47-157-0046) has been given approval by EPA to be relocated to the Alabama Station (47-157-0024). The letter requesting the relocation and approval of the monitor is located on pages 8 and 10 of the Appendix.

OZONE

The ozone monitoring requirement for NCORE increases the number of ozone analyzers in Shelby County to three at the following sites: 47-157-0021, 47-157-0075 and 47-157-1004.

LEAD

The current lead (Pb) NAAQS requires identifying sources of lead emissions of one half ton per year or greater. The emissions inventory indicates that there are no sources with emissions of one half ton or greater. Therefore, the SCHD does not anticipate having to do any lead source sampling. However, lead monitoring is a component of the NCORE site. Lead sampling began on January 4, 2012.

If you have any questions, please call me at (901) 222-9578.

Sincerely,

Bob Rogers

Bob Rogers, Technical Manager
Pollution Control

MEMORANDUM OF AGREEMENT ON AIR QUALITY MONITORING FOR CRITERIA POLLUTANTS FOR THE MEMPHIS, TN- MS- AR METROPOLITAN STATISTICAL AREA (MSA)

Participating Agencies:

Shelby County Health Department (SCHD)
Air Pollution Control Program

Mississippi Department of Environmental Quality (MDEQ)
Office of Pollution Control, Air Division

Arkansas Department of Environmental Quality (ADEQ)

PURPOSE / OBJECTIVE / GOALS

The purpose of this Memorandum of Agreement (MOA) is to inform the entities of the Memphis, Tennessee-Mississippi-Arkansas Metropolitan Statistical Area of monitoring network changes. The MOA between SCHD, MDEQ, and ADEQ is to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM 10), particles of an aerodynamic diameter of 2.5 micrometers and less (PM 2.5), and ozone; as well as other criteria pollutants air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will formalize and reaffirm the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e).

PM 2.5 MSA monitoring network include:

County	Federal Referenced Method PM 2.5	Continuous PM 2.5	Speciation PM 2.5	Co located PM 2.5
Shelby County, TN **SCHD**	2	1	1	1
Crittenden County , AR **ADEQ**	1	1		
DeSoto County, MS **MDEQ**	1	1		1

Criteria Air Pollutant MSA monitoring network include:

County	PM 10	O_3	$NO_x/NO/NO_2$	CO	SO_2
Shelby County, TN **SCHD**	2	3	0	2 (includes 1 trace at NCORE)	1 (trace at NCORE)
Crittenden County , AR **ADEQ**		1	1		
DeSoto County, MS **MDEQ**		1			

RESPONSIBILITIES / ACTIONS

Each of the parties to this Agreement is responsible for ensuring that its obligations under the MOA are met. As conditions warrant, the affected agencies may conduct telephone conference calls, meetings, or other communications to discuss monitoring activities for the MSA. Each affected agency shall inform the other affected agencies via telephone or email of any monitoring changes occurring within its jurisdiction of the MSA at its earliest convenience, after learning of the need for the change or making the changes. Such unforeseen changes may include evictions from monitoring sites, destruction of monitoring sites due to natural disasters, or any occurrences that result in an extended (greater than one quarter) or permanent change in the monitoring network.

LIMITATIONS

- All commitments made in this MOA are subject to the availability of appropriated funds and each agency's budget priorities. Nothing in this MOA obligates SCHD, MDEQ, or ADEQ to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or other financial obligation.

- This MOA is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this agreement will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate agreements that will be affected in writing by representatives of the parties.

- This MOA does not create any right or benefit enforceable by law or equity against SCHD, MDEQ, or ADEQ, their officers or employees, or any other person. This MOA does not apply to any entity outside SCHD, MDEQ, or ADEQ.

- No proprietary information or intellectual property is anticipated to arise out of this MOA.

TERMINATION

This Memorandum of Agreement may be revised upon the mutual consent of SCHD, MDEQ and ADEQ. Each party reserves the right to terminate this MOA. A thirty (30) day written notice must be given prior to the date of termination.

Shelby County Air Pollution Monitoring Sites 2013

Site	Address	State	County	Site	Pollutant	Parameter	POC
Alabama	**416 Alabama**	47	157	0024	CO	42101	1
					PM 10	81102	1
Edmund Orgill	**6855 Mudville Rd.**	47	157	1004	O_3	44201	1
Frayser	**1330 Frayser Blvd.**	47	157	0021	O_3	44201	1
Gas Service Center	**1060 Tupelo**	47	157	0016	PM 10	81102	1
					PM 10	81102	2
Guthrie Clinic	**1064 Breedlove**	47	157	0047	PM 2.5	88101	1
					PM 2.5	88101	2
Shelby Farms (NCORE)	**6388 Haley Rd.**	47	157	0075	Pb	14129	1
					CO (Trace)	42101	1
					SO_2 (Trace)	42401	1
					NOY	42600	1
					O_3	44201	1
					PM 10 (Lo Vol)	85101	1
					PM 10-2.5	86101	1
					PM 2.5	88101	1
					PM 2.5	88502	3
					PM 2.5	88502	6
					Wind Speed	61101	1
					Wind Direction	61102	1
					Ambient Temperature	62101	1
					Relative Humidity	62201	1
					Barometric Pressure	64101	1

APPENDIX

Letter to EPA requesting discontinuation of Fite Rd Station..... 8

EPA approval letter to discontinue Fite Rd.Station..... 10

Letter to EPA requesting discontinuation of STN at Alabama Station..... 11

Letter to EPA requesting discontinuation of PM 2.5 TEOM at Alabama Station.....12

EPA approval letter to discontinue PM 2.5 TEOM at Alabama Station.....13

Mark H. Luttrell, Jr.
Mayor
Shelby County

SHELBY COUNTY HEALTH DEPARTMENT

YVONNE S. MADLOCK
DIRECTOR

HELEN MORROW, M.D.
HEALTH OFFICER

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November 15th, 2012

Ryan Brown
Environmental Engineer
U.S. Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Mr. Brown,

The Shelby County Health Department (SCHD) is requesting approval to discontinue the sulfur dioxide (SO_2) monitor at the Fite Road (47-157-0046) Air Monitoring Station effective January 1, 2013. The monitor began operating on May 1, 1994 and its primary objective was maximum precursor emissions impact from the local sources in the area. The three (3) Year Design Value for 2010 was 11 parts per billion. The highest concentration for SO_2 for a 1 hour period in 2010 was 15 parts per billion and the average concentration was 3.74 parts per billion. The primary source in the area has reduced their emissions by greater than 90 percent since 2005. Therefore, with industry reducing their emissions and with the data reflecting a significant drop in the amount of SO_2 measured, the Shelby County Health Department is requesting that the Fite Road SO_2 monitor be discontinued.

On June 21, 2011, the Shelby County Health Department began operating a Trace Level SO_2 monitor at the Shelby Farms (47-157-0075) NCORE Air Monitoring Station. The monitoring objective of the NCORE site was to produce data that represents a fairly large area in a neighborhood or urban scale. Trace Level SO_2 Monitoring east of the urban core will provide the best location for measuring transport and secondary pollutant formation from that area. With the placement of the Trace Level SO_2 monitor downwind of the more industrialized areas, this compliments the existing network. Therefore, the Shelby County Health Department is requesting permission to use the Trace Level SO_2 monitor at the Shelby Farms NCORE to meet the minimum monitoring requirements in the Memphis CBSA.

In addition, the Shelby County Health Department is requesting permission to discontinue the PM 10 monitor at Fite Rd. (47-157-0046) effective January 1, 2013 and relocate the PM 10 monitor to the Air Monitoring Station located at 416 Alabama St.(47-157-0024) beginning January 1, 2013. This monitor began operating on May 1, 1994 at the Fite Rd. location. By relocating this PM 10 monitor to another Air

Monitoring Station, this will help to reduce costs. Also, during May 2010 Memphis sustained substantial flooding and one of the affected areas was where the Fite Road Air Monitoring Station was located.

These items were requested in Shelby County's Annual Ambient Air Monitoring Network Plan submitted by the State to EPA in June 2012. The Environmental Protection has given permission to discontinue the SO_2 monitoring at Fite Road and relocate the PM 10 monitoring from Fite Road in this review. This letter serves as a formal request from the Shelby County Health Department to receive permission from EPA to fulfill these objectives.

If you have any questions or comments, or if you require additional information, please contact me at (901) 222-9581.

Sincerely,

Judy Low

Judy Low, Acting Supervisor
Pollution Control / Air Monitoring Branch
Shelby County Health Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JAN 10 2013

Ms. Judy Low
Acting Supervisor
Pollution Control Air Monitoring Branch
Shelby County Health Department
814 Jefferson Avenue
Memphis, Tennessee 38105

Dear Ms. Low:

This is in response to your letter dated November 15, 2012, requesting that the U.S. Environmental Protection Agency Region 4 approve the discontinuation of sulfur dioxide (SO_2) and coarse particulate matter (PM_{10}) monitoring at Shelby County Health Department's Fite Road site (AQS ID 47-157-0046). SCHD requested to shut down its SO_2 monitor and move its PM_{10} monitor to SCHD's monitoring site at 416 Alabama Avenue (AQS ID 47-157-0024).

The EPA already approved the shutdown of the Fite Road SO_2 monitor and conditionally approved the shutdown and relocation of the Fite Road PM_{10} monitor in its September 21, 2012, response letter to Tennessee's 2012 annual ambient air monitoring network plan. The agency took these actions because it determined that the monitors meet the discontinuation requirements of 40 CFR § 58.14(c)(1) by being in attainment of the respective national ambient air quality standards (NAAQS) during the previous five years and by having a less than 10 percent chance of exceeding 80 percent of the NAAQSs during the next three years. The agency also determined that after the Fite Road site is shutdown that the Memphis Core Based Statistical Area would still meet the minimum monitoring requirements for SO_2 and PM_{10} found in 40 CFR Part 58, Section 4.4 and Table D-4. The agency approved the discontinuation and relocation of PM_{10} monitoring on the condition that the PM_{10} monitor would not be shutdown until SCHD formally identified a suitable alternative location. With SCHD's identification of the Alabama Avenue site as the new location for the PM_{10} monitor (per its November 15, 2012, letter), the EPA fully approves the PM_{10} monitor shutdown at the Fite Road site and relocation to the Alabama Avenue site.

Should you have any questions, please feel free to contact Ryan Brown of my staff at (404) 562-9147 or Brown.Ryan@epa.gov.

Sincerely,

Carol L. Kemker for 1/4/13

Beverly H. Banister
Director
Air, Pesticides and Toxics
Management Division

cc: Mr. Robert Brawner, TDEC

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SHELBY COUNTY HEALTH DEPARTMENT

Mark H. Luttrell, Jr.
Mayor
Shelby County

Yvonne S. Madlock
Director

Helen Morrow, M.D.
Health Officer

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February 4th, 2013

Mr. Todd Rinck
Monitoring and Technical Support Section Chief
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303

Dear Mr. Rinck,

The Shelby County Health Department (SCHD) is requesting approval to discontinue the Speciation Trends Network at the Alabama Avenue (47-157-0024) Air Monitoring Station effective January 28, 2013. The monitor began operating on May 14, 2006 as one of the Speciation Trends Network sites. It was relocated from its original location at Guthrie Clinic (47-157-0047) to the Alabama Station to be a part of the NCORE monitoring network but approval was not granted by EPA in the summer of 2006 for this site to be a NCORE location. Since the Speciation Trends Network could only be moved once from the original location, the monitors could not be moved again to the new NCORE site.

On February 8th, 2011, the Shelby County Health Department began operating a Chemical Speciation Network of monitors at the Shelby Farms (47-157-0075) NCORE Air Monitoring Station.

On December 18th, 2012 at the request of Daniel Garver with Region 4 EPA and Dave Shelow with OAQPS, we had a conference call to determine if Speciation monitoring should continue at the Alabama Station. It was discussed that since Speciation is being monitored at the Shelby Farms NCORE station, the Alabama station would not be needed. By discontinuing the Speciation Network at the Alabama Air Monitoring Station, this will help to reduce costs.

This letter serves as a formal request from the Shelby County Health Department to receive permission from EPA to fulfill these objectives.

If you have any questions or comments, or if you require additional information, please contact me at (901) 222-9581.

Sincerely,

Judy Low

Judy Low, Acting Supervisor
Pollution Control/Air Monitoring Branch
Shelby County Health Department

Mission
To promote, protect and improve the health and environment of all Shelby County residents.

814 Jefferson Avenue ◊ Memphis, Tennessee 38105
(901) 222-9000

SHELBY COUNTY HEALTH DEPARTMENT

Mark H. Luttrell, Jr.
Mayor
Shelby County

Yvonne S. Madlock
Director

Helen Morrow, M.D.
Health Officer

Public Health
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Stacy Harder
Environmental Engineer
Air, Pesticides & Toxics Management Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960

Dear Ms. Harder:

September 19, 2011

The Shelby County Health Department (SCHD) operates a continuous PM2.5 TEOM analyzer at 416 Alabama (47-157-0024). It began to malfunction on July 25, 2011. The analyzer would power up for a few seconds and then the CPU side of the instrument would shut down. The SCHD technician talked to a technician with Thermo Fisher Scientific, who stated that it could be any number of things wrong. The technician suggested that it should be shipped back to them in order to determine what the repair cost would be. The instrument was subsequently shut down.

This instrument was the first TEOM in Shelby County's air monitoring network, and was placed into operation on February 1, 1994. Over the years, this instrument has had numerous repairs. Staff technicians and the manufacturer performed these repairs. The SCHD currently does not have the resources to repair or replace the TEOM. And considering the age of this instrument, replacing it might be the most feasible avenue to take. Therefore, the SCHD is officially notifying EPA of the temporary status of the TEOM at 416 Alabama. As soon as funds are identified, action will be taken to rectify the situation.

Participating agencies of the Memphis, TN-MS-AR Metropolitan Statistical Area (MSA) have a signed Memorandum Of Agreement (MOA). This MOA formalizes and reaffirms the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e). Currently, Crittenden County, Arkansas and DeSoto County, Mississippi have TEOMs in operation. In addition the SCHD has a TEOM at the NCore (47-157-0075) site.

If there are any questions or concerns, feel free to call me at (901) 222-9546.

Sincerely,

Edward C. Cain, Supervisor
Air Pollution Control
Air Monitoring Branch

Mission
To promote, protect and improve the health and environment of all Shelby County residents.

814 Jefferson Avenue•Memphis, Tennessee 38105
(901) 222-9000

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

NOV 2 1 2011

NOV 29 2011

Mr. Edward C. Cain
Air Pollution Control
Air Monitoring Branch
Shelby County Health Department
814 Jefferson Avenue
Memphis, Tennessee 38105

Dear Mr. Cain:

This is in response to your letter dated September 19, 2011, requesting that the U.S. Environmental Protection Agency review a request to temporarily discontinue ambient air monitoring submitted by the Memphis and Shelby County Health Department (MSCHD). Specifically, MSCHD is proposing to temporarily discontinue fine particulate monitoring ($PM_{2.5}$) at the 416 Alabama (AQS ID 47-157-0024) state or local air monitoring station. Regulations for ambient air quality surveillance are found at 40 CFR Part 58.

EPA has reviewed this request and determined that the monitor is eligible for discontinuation under the minimum monitoring requirements for continuous $PM_{2.5}$, found in section 4.7.2 and Table D-5 of 40 CFR Part 58 Appendix D. The Memphis core based statistical area will continue to meet the continuous $PM_{2.5}$ collocation monitoring requirements after this monitor is temporarily discontinued. It is our understanding that MSCHD plans to repair or replace the monitor as soon as funds allow. Therefore, EPA approves the temporary discontinuation of the monitor listed above.

Should you have any questions, please contact Doug Neeley at (404) 562-9097, or have your staff contact Stacy Harder at (404) 562-9042 or harder.stacy@epa.gov.

Sincerely,

Gwendolyn Keyes Fleming
Regional Administrator

cc: Mr. Jackie Waynick
TDEC, Chief of Environmental Technical Services

Archie Lee, EPA Region 4 SESD

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