



STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
GARY C. RIKARD, EXECUTIVE DIRECTOR

June 28, 2017

Gregg Worley
Chief, Air Analysis and Support Branch
US EPA Region 4
61 Forsyth St., SW
Atlanta, GA 30303-8960

Dear Mr. Worley,

Please find enclosed the 2018 Annual Monitoring Network Plan for the Mississippi Department of Environmental Quality. The 2018 Annual Monitoring Network Plan was posted on the MDEQ website from May 21 through June 22 where public comments were requested. No comments were received. If additional information is needed, please call me at 601-961-5790.

Sincerely,

A handwritten signature in blue ink that reads "Michael Jordan".

Michael Jordan
Chief, Air Monitoring Section

cc: Njeri Carlton-Carew
Todd Rinck
Darren Palmer



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

2018 Annual Monitoring Network Plan for Mississippi

The MDEQ Air Division is receiving comments on the 2018 Annual Monitoring Network Plan until June 22, 2017.

MDEQ did not receive any public comments about the 2018 Annual Monitoring Network Plan.

Please address comments to:
MJordan@mdeq.ms.gov



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

Monitoring Network Plan - 2018



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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, NO₂, SO₂, 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 08/13/14, while the Criteria Pollutants QAPP is dated 10/01/06. MDEQ is currently working to update the QAPP and will periodically update EPA on the status.

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.

MDEQ has installed seven PM_{2.5} continuous FEM monitors at sites across the state. MDEQ is planning to report this data to AQS with an exclusion while MDEQ reviews and compares the data to the network's FRM PM_{2.5} monitors and non-FEM PM_{2.5} continuous monitors. Once MDEQ has collected enough data points and is confident the PM_{2.5} continuous FEM monitors accurately capture PM_{2.5}, then MDEQ will shut down all non-FEM PM_{2.5} continuous monitors. The following section 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.

1. *Memphis MSA:*

- **Hernando** (DeSoto Co. 28.033.0002) – A FRM PM_{2.5} monitor is designated as a transport monitor and therefore is a required monitor. A collocated FRM PM_{2.5} monitor, a non-FEM PM_{2.5} continuous monitor, and an ozone monitor are required and operated at this site. An additional FEM PM_{2.5} continuous monitor was installed at this site in 2017. 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.
- **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4 meters above ground level and 69 meters, southwest, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
- **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.

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 NO_y, FRM PM_{2.5} manual, FEM PM_{2.5} continuous, PM_{10-2.5}, Speciated PM_{2.5}, wind speed, wind direction, ambient temperature and relative humidity. The NCore site is the location for MDEQ's urban PM₁₀ sampling.

- **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4.5 meters above ground level and 40 meters, east, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
- **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.
- **Jackson Metro** (Hinds Co. 28.049.0021) – A FRM PM_{2.5} monitor, non-FEM PM_{2.5} continuous monitor, and an ozone monitor is required and operated in this MSA. A FEM PM_{2.5} continuous monitor was installed at this site in 2017.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4.5 meters above ground level and 247 meters, northeast, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.
- **PM₁₀ Sampling** – PM₁₀ sampling for the Jackson metro area is based on the sampling requirements for population in Appendix D. The PM₁₀ monitors, 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} monitor, a collocated FRM PM_{2.5} monitor, and a non-FEM PM_{2.5} continuous monitor is operated at this site. A FEM PM_{2.5} continuous monitor was installed at this site in 2017.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4 meters above ground level and 14 meters, northwest, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.

4. *Gulfport-Biloxi MSA:*

- **Gulfport** (Harrison Co. 28.047.0008) – A FRM PM_{2.5} monitor, non-FEM PM_{2.5} continuous monitor, and an ozone monitor is operated at this site. A FEM PM_{2.5} continuous monitor was installed at this site in 2017.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4.5 meters above ground level and 45 meters, east, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.
- **Waveland** (Hancock Co. 28.045.0003) – A FRM PM_{2.5} monitor, an ozone monitor, and a met tower is operated at this site. A FEM PM_{2.5} continuous monitor was installed at this site in 2017.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 5.5 meters above ground level and 24 meters, northwest, from the nearest road.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.

5. *Pascagoula MSA:*

- **Pascagoula** (Jackson Co. 28.059.0006) – An ozone monitor, NO_x monitor, SO₂ monitor, and a FRM PM_{2.5} monitor is operated at this site. A FEM PM_{2.5} continuous monitor was installed at this site in 2017 and the NO_x analyzer is designated as a RA-40 site.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4.5 meters above ground level and 43 meters, northwest, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.

6. *Non- MSA Sites:*

- **Grenada** (Grenada Co. 28.043.0001) – A FRM PM_{2.5} monitor is operated at this site as a background monitor for PM_{2.5} as required by regulations.
 - **Site Approval Status:** Site and monitor meet all design criteria for the monitoring network. The sample inlet is about 2 meters above ground level and 50 meters, southeast, from the nearest road. There are no trees or obstacles that would impact the

siting criteria for this site. A newly constructed hangar for painting airplanes has been established next to the Grenada site. The hangar was noted to be a concern during MDEQ's Technical Systems Audit. MDEQ will request permission from EPA to shut down this site and move the FRM PM_{2,5} monitor to the Cleveland site.

- **Meridian** (Lauderdale Co. 28.075.0003) – An ozone monitor is operated at this site.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4.5 meters above ground level and 22 meters, west, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.
- **Tupelo** (Lee Co. 28.081.0005) – An ozone monitor is operated at this site.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4 meters above ground level and 14.5 meters, south, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.
- **Cleveland** (Bolivar Co. 28.011.0001) - An ozone monitor is operated at this site.
 - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet is about 4 meters above ground level and 29 meters, south, from the nearest road. There are no trees or obstacles that would impact the siting criteria for this site. It should be noted that MDEQ has been notified of construction that is scheduled to take place in 2017 which will require MDEQ to relocate this site. MDEQ has received permission from Delta State University to relocate the Cleveland air monitoring building to their campus. The physical address of the campus is Highway 8 West, Cleveland, MS 38733 and the GPS coordinates are latitude 33° 45' 3.02°N and longitude 90° 44' 3.03°W. The new site location is approximately 0.72 miles northwest of the existing site. See attached map for proposed relocation site. MDEQ will retain the current AQS ID.
 - **Sampling train:** The probe tubing is FEP and the fittings are PFA. The stainless steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel.

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	32.19.45	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 Monitor	Non-Dispersive IR	Jan-Dec	
NO _y	Pop. Exp.	Neighborhood /Urban	NCore	Continuous Monitor	Chemiluminescence	Jan-Dec	
O ₃	Pop. Exp.	Neighborhood /Urban	NCore	Continuous Monitor	UV Photometry	Jan-Dec	
SO ₂	Pop. Exp.	Neighborhood	NCore	Continuous Monitor	UV fluorescence	Jan-Dec	
FRM PM _{2.5}	Pop. Exp	Neighborhood	NCore	Manual Reference Monitor (3 Day)	Gravimetric Analysis	Jan-Dec	
FEM PM _{2.5}	Pop. Exp	Neighborhood	NCore	Continuous Monitor	Broadband Spectroscopy	Jan-Dec	T640
FEM PM _{2.5}	Pop. Exp	Neighborhood	NCore	Continuous Monitor	Gravimetric	Jan-Dec	TEOM
PM _{2.5} Speciation	Pop. Exp	Neighborhood	NCore	Manual Monitor (3 Day)	Multiple Methods	Jan-Dec	
PM coarse	Pop. Exp	Neighborhood	NCore	Manual Monitor (3 Day)	Difference by Gravimetric Analysis	Jan-Dec	
Meteorological	--	--	NCore	--	Wind speed, direction, ambient temperature, humidity	Jan-Dec	
PM ₁₀	Pop. Exp	Urban	SLAMS	Manual Reference Monitor (6 Day)	Gravimetric Analysis	Jan-Dec	Required for the metro area 500,000+, non NCore
Radiation	Pop. Exp	Urban	Rad Net	Continuous / Manual Monitor		Jan-Dec	Non NCore

V. Network Tables:

NETWORK DESIGN TABLES MISSISSIPPI

PM₁₀

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.	Urban	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 Continuous	145 SEQ 702 TEOM 236 T640	Jan-Dec Jan-Dec Jan-Dec
Hattiesburg	Forrest	Hattiesburg	28-035-0004	Pop. Exp.	Neighborhood	1	Y	Manual (3 Day) Continuous Continuous	145 SEQ 702 TEOM 236 T640	Jan-Dec Jan-Dec Jan-Dec
Grenada	Grenada	N/A	28-043-0001	Background	Neighborhood	1	N	Manual (3 Day)	145 SEQ	Jan-Dec
Waveland	Hancock	Gulf/Biloxi	28-045-0003	Pop. Exp.	Neighborhood	0	N	Manual (3 Day) Continuous	145 SEQ 236 T640	Jan-Dec Jan-Dec
Gulfport	Harrison	Gulf/Biloxi	28-047-0008	Pop. Exp.	Neighborhood	1	N	Manual (3 Day) Continuous Continuous	145 SEQ 702 TEOM 236 T640	Jan-Dec Jan-Dec Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	N	Manual (3 Day) Continuous	145 SEQ 236 T640	Jan-Dec Jan-Dec
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	N	Manual (3 Day) Continuous Continuous	145 SEQ 702 TEOM 236 T640	Jan-Dec Jan-Dec Jan-Dec
Jackson	Hinds	Jackson	28-049-0021	Pop. Exp.	Neighborhood	1	N	Manual (3 Day) Continuous Continuous	145 SEQ 702 TEOM 236 T640	Jan-Dec Jan-Dec Jan-Dec

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

SO₂

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

Comments: All monitors are classified as SLAMS

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	200	Jan-Dec

Comments: All monitors are classified as SLAMS

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

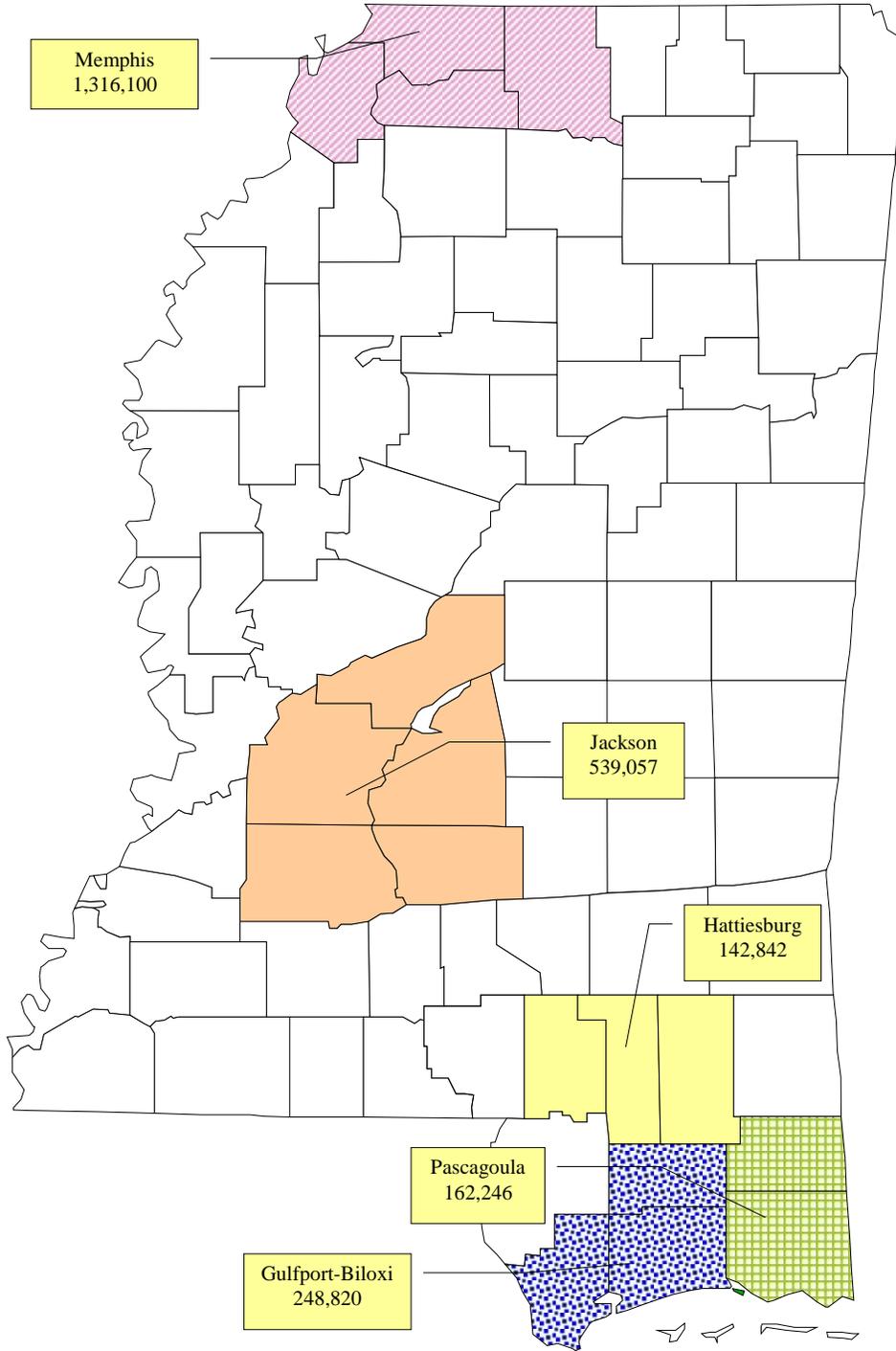
Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Cleveland	Bolivar	N/A	28-011-0001	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Gulfport	Harrison	Gulf/Biloxi	28-047-0008	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Waveland	Hancock	Gulf/Biloxi	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	28-049-0021	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

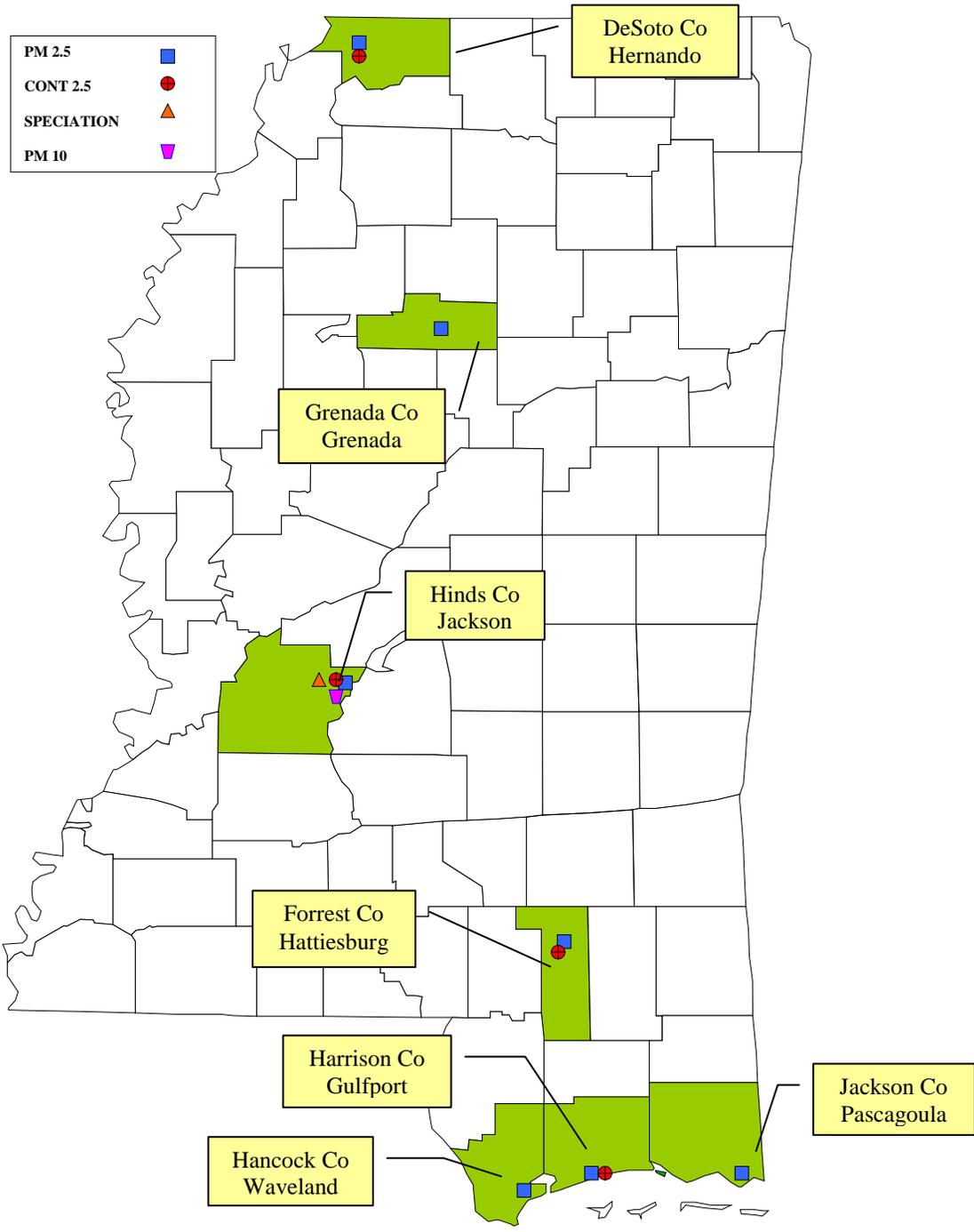
#	SITE ID	LAT			LONG			NAME	COUNTY	ADDRESS
1	28-011-0001	33	44	45	90	43	23	CLEVELAND	BOLIVAR	213 North Bayou Ave.
2	28-033-0002	34	49	14	89	59	16	HERNANDO	DESOTO	5 East South St.
3	28-035-0004	31	19	26	89	17	32	HATTIESBURG	FORREST	101 Ferguson St.
4	28-043-0001	33	50	4	89	47	34	GRENADA	GRENADA	Hwy 332 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	28-049-0021	32	19	14	90	10	50	HINDS CC	HINDS	3925 Sunset Dr.
8	28-049-0020	32	19	45	90	10	58	JACKSON N CORE	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:

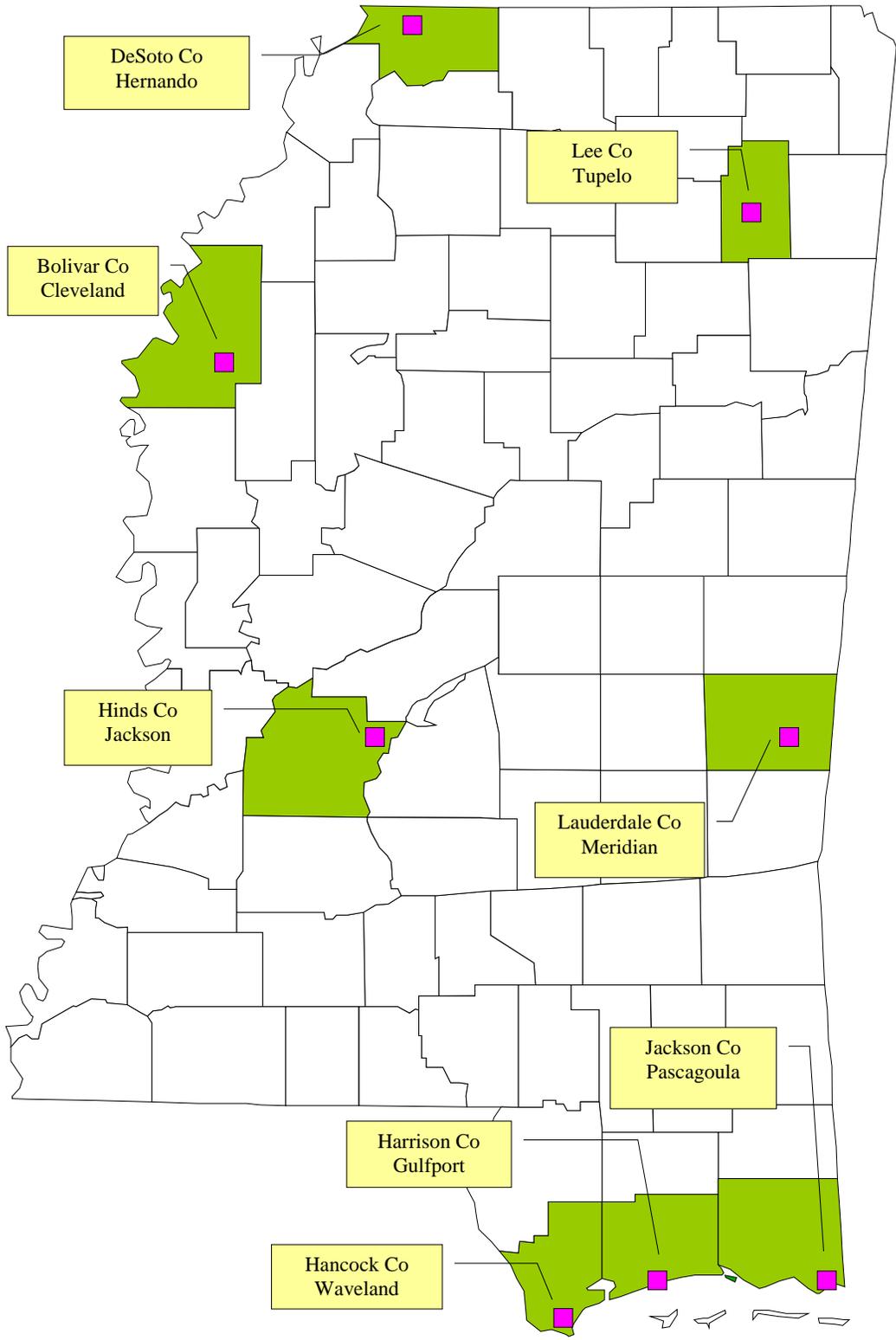


MISSISSIPPI MSA AREAS

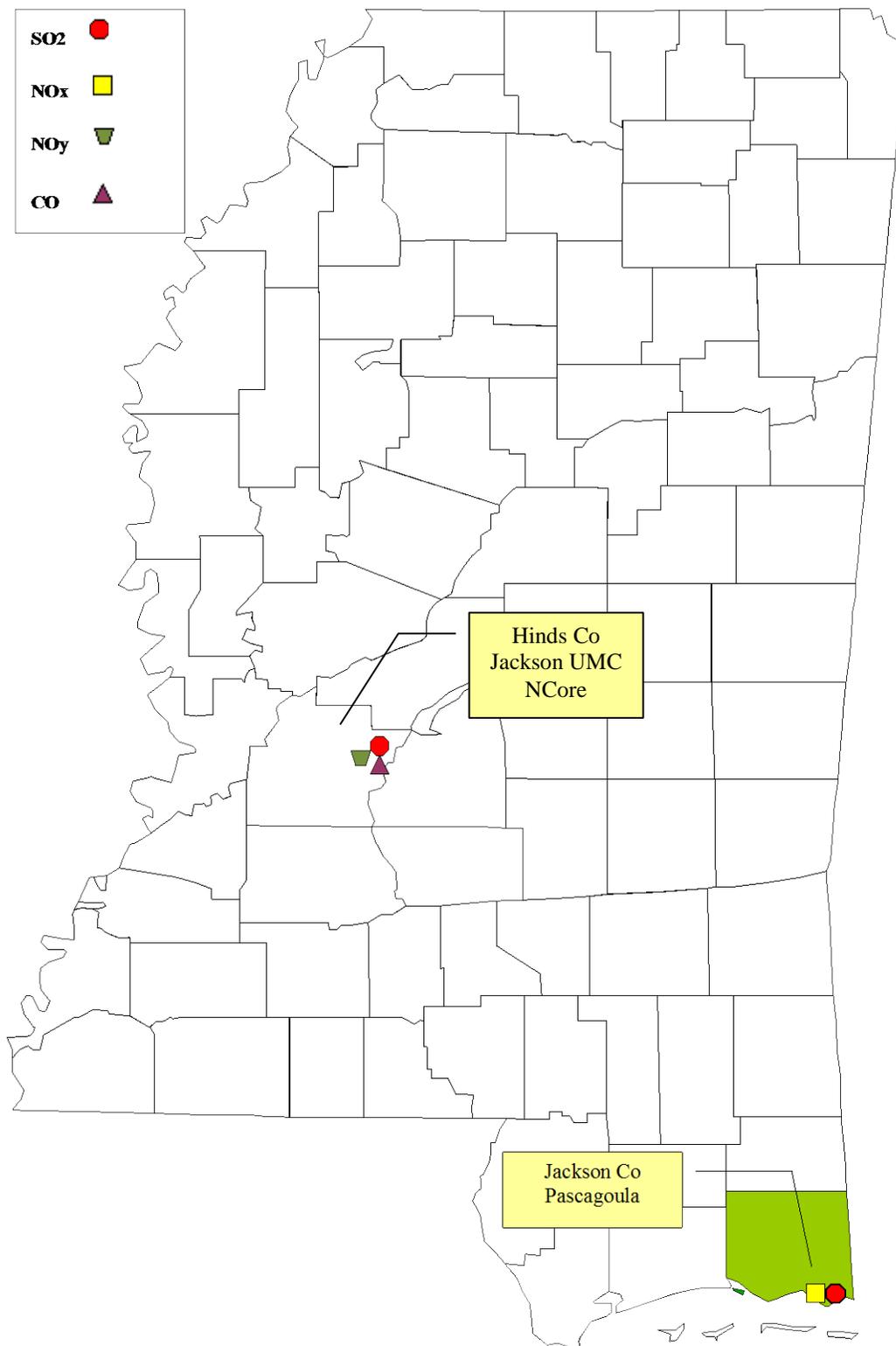
- MEMPHIS – DeSoto, Tunica, Marshall, Tate
- JACKSON – Hinds, Rankin, Copiah, Simpson, Madison
- HATTIESBURG – Lamar, Forrest, Perry
- GULFPORT-BILOXI – Hancock, Harrison, Stone
- PASCAGOULA – Jackson, George



MDEQ PARTICULATE SITES – 2017



MDEQ OZONE SITES - 2017



MDEQ SO2 / NOx/ NOy/ CO SITES - 2017

Appendix I
Site Maps and Photos



Cleveland - N



Cleveland - E



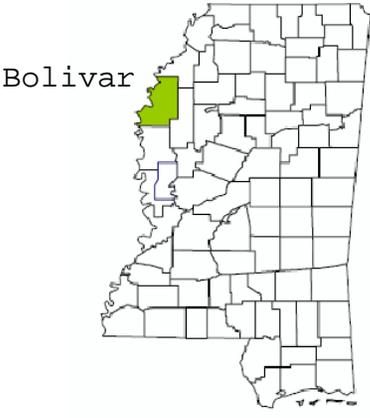
Cleveland - S



Cleveland - W



Cleveland 28-011-0001

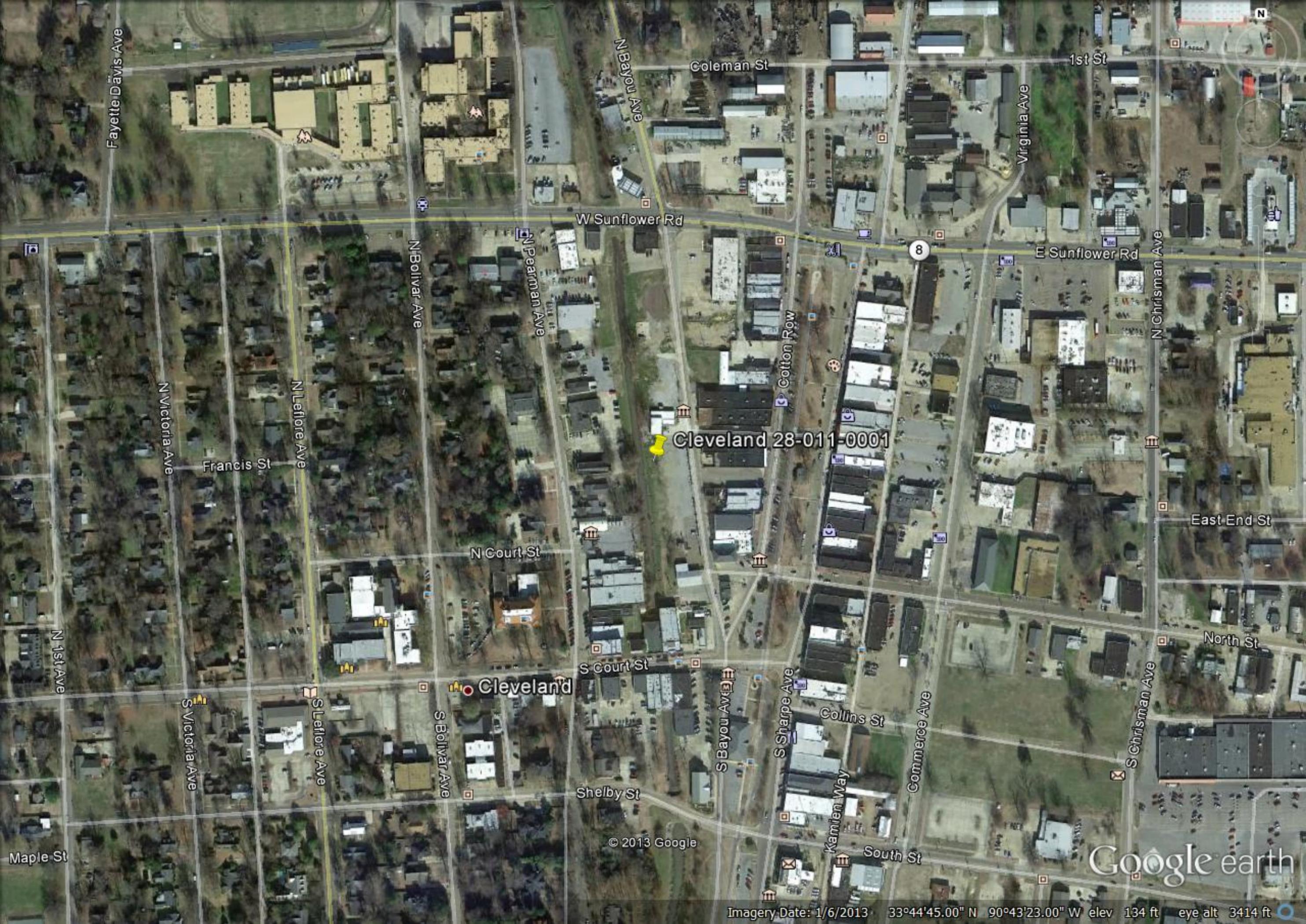


Delta State Golf Course

Delta State University

Cleveland
28-011-0001

61 278



Cleveland 28-011-0001

Cleveland

© 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



Proposed Site

Cleveland Site

Google Earth

© 2016 Google



Grenada - N



Grenada - E



Grenada - S



Grenada - W



Grenada 28-043-0001



Grenada

LIVE TRAFFIC

MAP

SATELLITE



55 7

Grenada 28-043-0001

GRENADA MUNICIPAL AIRPORT



Geeslin Corner

Memphis Junction

2000ft
500m

mapquest



Grenada 28-043-0001

Boone Airport Rd

333

Mississippi 333 Scenic Loop

Old Hwy 7

332

© 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

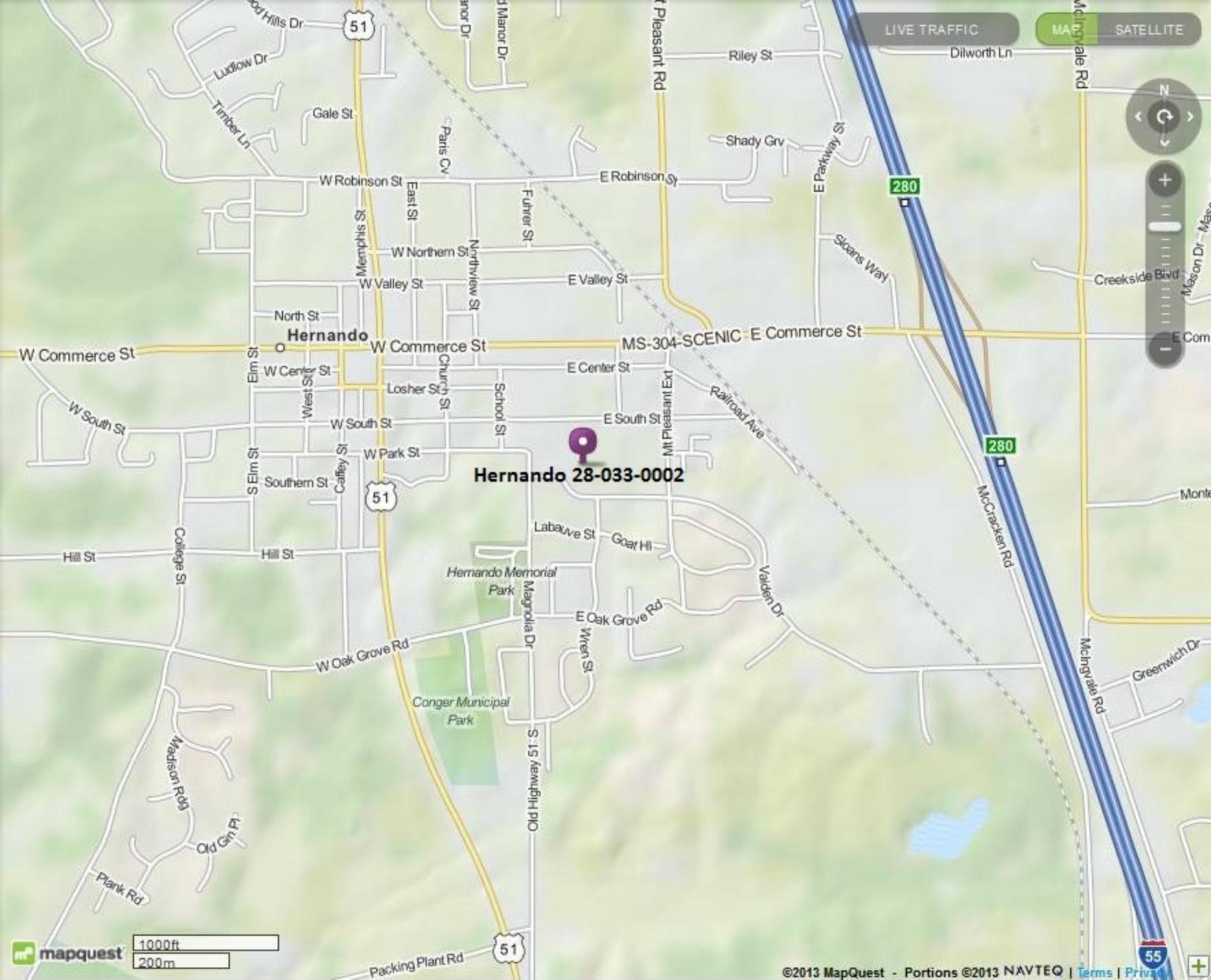


Hernando - W



Hernando 28-033-0002





LIVE TRAFFIC

MA

SATELLITE

51

280

280

Hernando

Hernando 28-033-0002

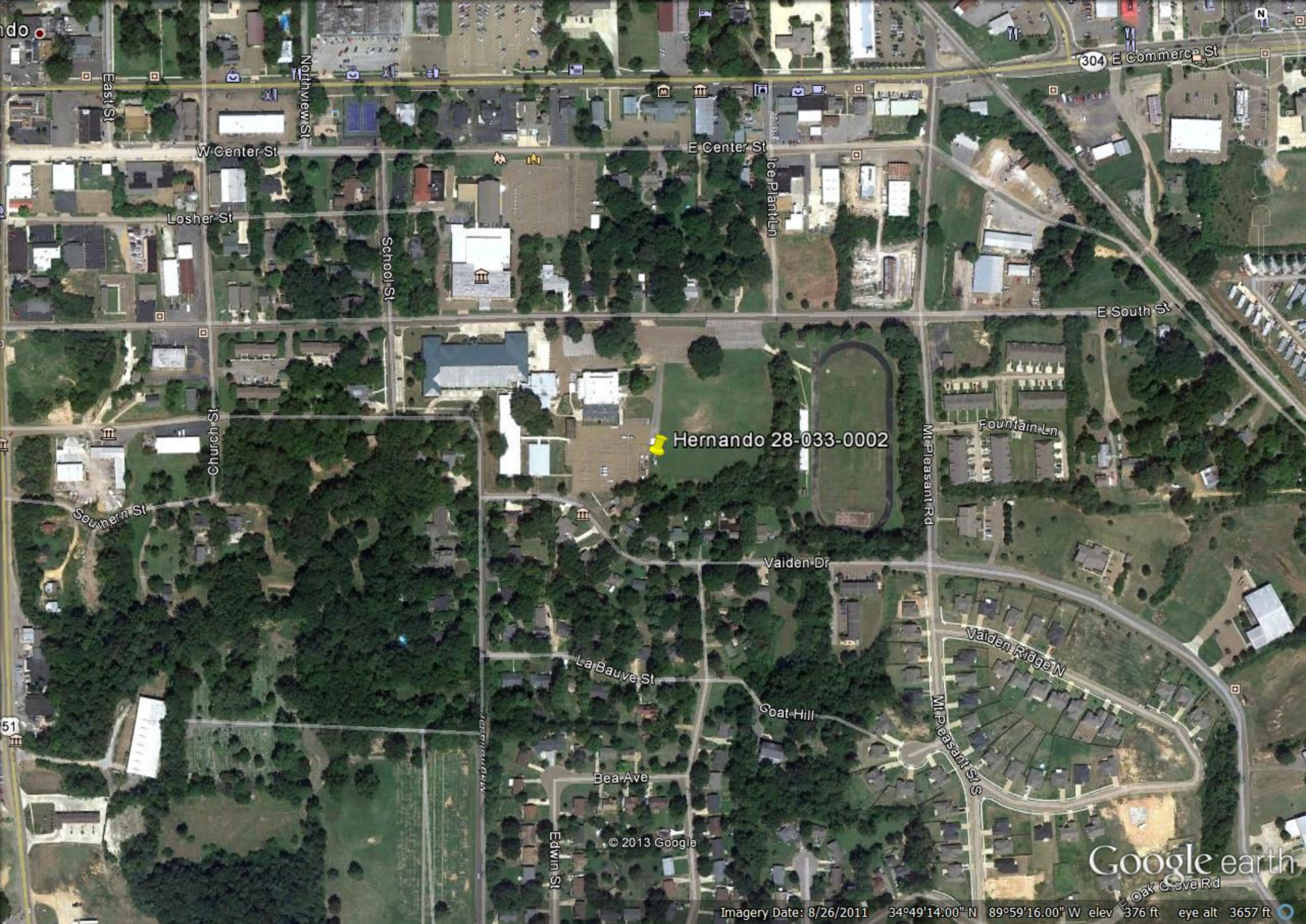
51

55

mapquest

1000ft

200m



Hernando 28-033-0002

© 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



N Coley Rd

TUPELO REGIONAL AIRPORT

Tupelo 28-081-0005

Lemons Dr

W Jackson St Ext

Gun Club Rd

Winchester Ct

Mahogany Dr

Holly Hill Dr

Beechnut St

Elderberry St

Birch St

Spruce St

Sycamore St

Rosewood Dr

Redbud Ln

Rosewood St

Poplarville St

Robindale Dr

Evergreen St

Bay Cir

W Bay Cir

E Bay Cir

Arlington Dr

Alpine St

Albany St

Leighton Dr

Patterson Dr

W Bristow Dr

Vassar Dr

James Dr

W Jackson St

Crabapple Dr

Lana Ln

Holmes St

N Lone St

N Joann St

Ruth St

N Foster Dr

Rhenda St

S Joann St

one St

Danny St

Winfield Dr

Hillfield Cv

N Thomas St

Park Gate Dr

W Main St

Woods St

Torrey St

Narney Dr

278 6

Air Park Rd

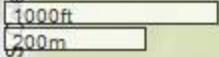
Old Runway Rd

Orville Wright St

Wilbur Wright St

Convention D

mapquest





Tupelo 28-081-0005

© 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

Coley Rd

W Jacksco Street Extended

Mahogany Dr

Sourwood Dr

Persimmon Dr

Huckleberry Trail

Bay Cir

E Bay Cir

Beechnut St

Elderberry St

Redbud Ln

Hickory Dr

Evergreen St

Holly Hill Dr

Poplarville St

W Jackson St

Lemons Dr

A Park Rd



Meridian - N



Meridian - E



Meridian - S



Meridian - W



Meridian 28-075-0003



Lauderdale



Meridian 28-075-0003

Old Hwy 80 W

Hwy 19 N

9th St

8th St

Vally St

Valley St

48th Ave

49th Ave

51st Ave

Manning St

53rd Ave

52nd Ave

54th Ave

55th Ave

56th Ave

40th St

© 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 NCore - N



Jackson NCore - E



Jackson NCore - S

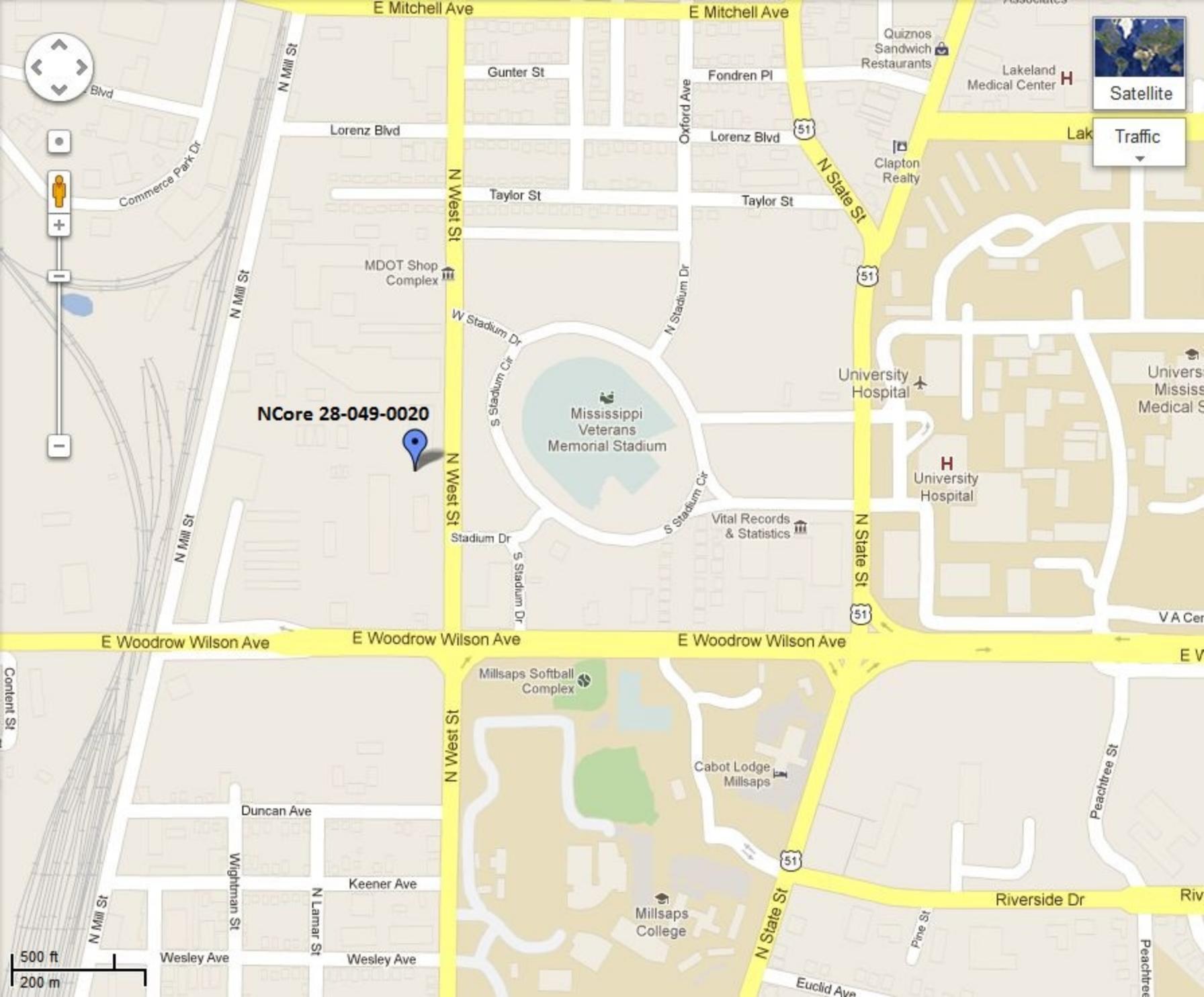


Jackson NCore - W



Jackson NCore 28-049-0020





NCore 28-049-0020



Mississippi Veterans Memorial Stadium

University Hospital

University Hospital

Millsaps College

MDOT Shop Complex

Millsaps Softball Complex

Cabot Lodge Millsaps

Vital Records & Statistics

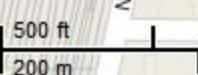
Quiznos Sandwich Restaurants

Lakeland Medical Center



Satellite

Traffic





NCore 28-049-0020

W Woodrow Wilson Ave

Service St

E Woodrow Wilson Ave

N West St

N Mill St

Stadium Dr

S Stadium Dr

S Stadium Ct

N Stadium Dr

E Stadium Dr

© 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



Hinds CC - N



Hinds CC - E



Hinds CC - S

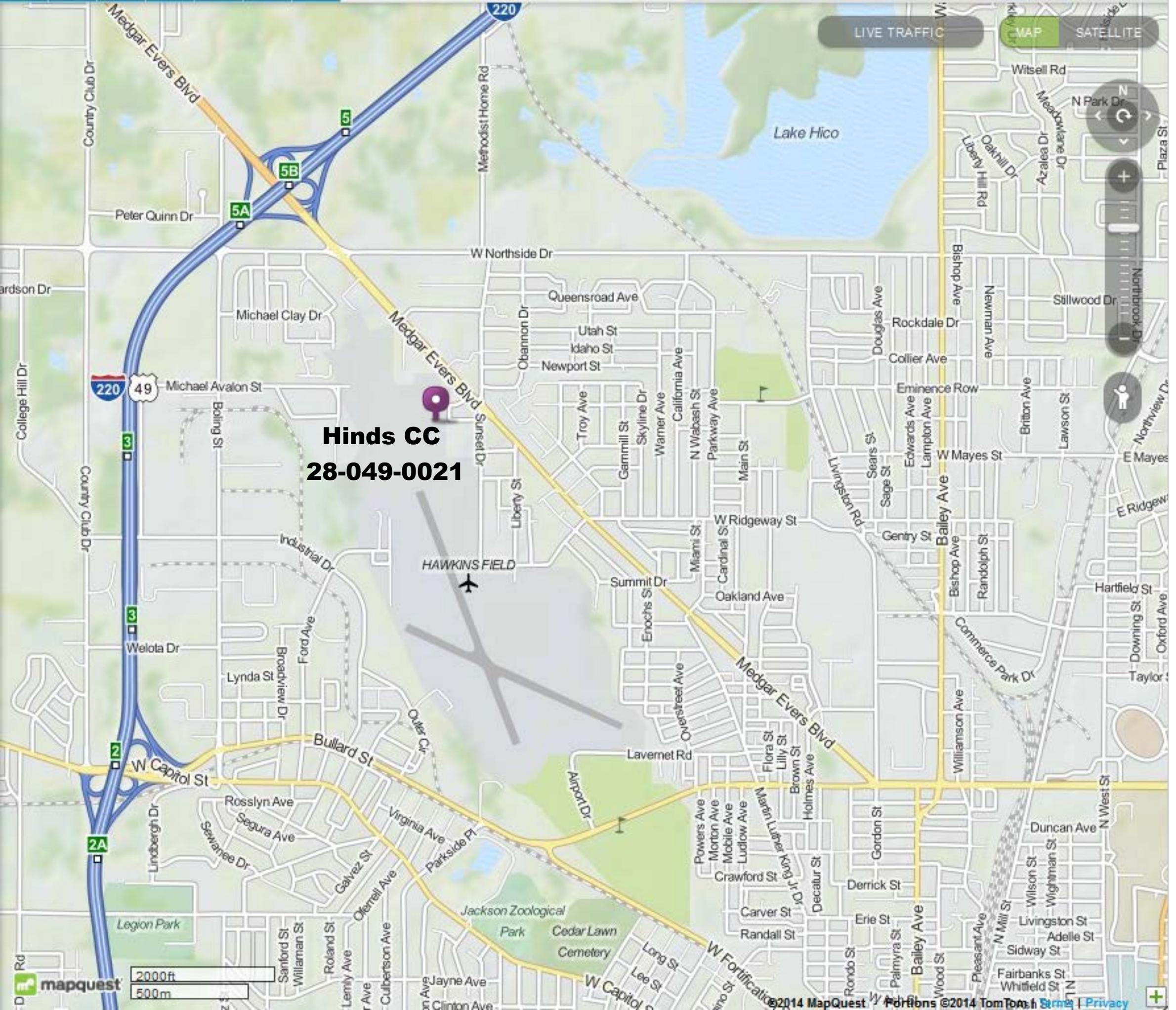


Hinds CC - W



Hinds CC 28-049-0021





Hinds CC
28-049-0021

2000ft
500m

mapquest



Hinds CC 28-049-0021 Coleman Ave

Obannon Dr

Skyline Dr

Skyview Dr

Medgar Evers Blvd

Sunset Dr

Ivanhoe Ave

Liberty St

© 2015 Google

Google earth

Kimball Ave



Gulfport - N



Gulfport - E



Gulfport - S



Gulfport - W



Gulfport 28-047-0008



LIVE TRAFFIC

MAP

SATELLITE

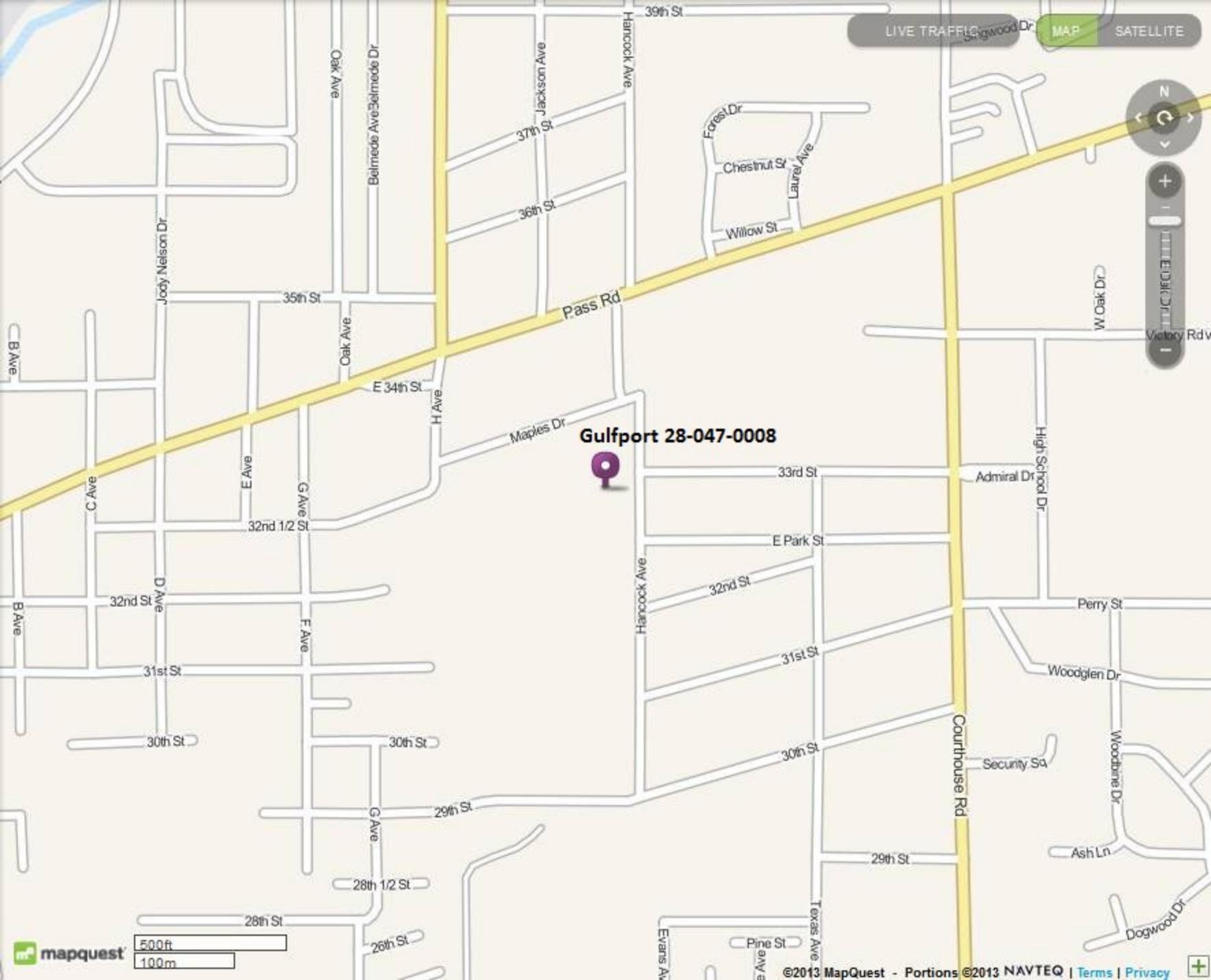


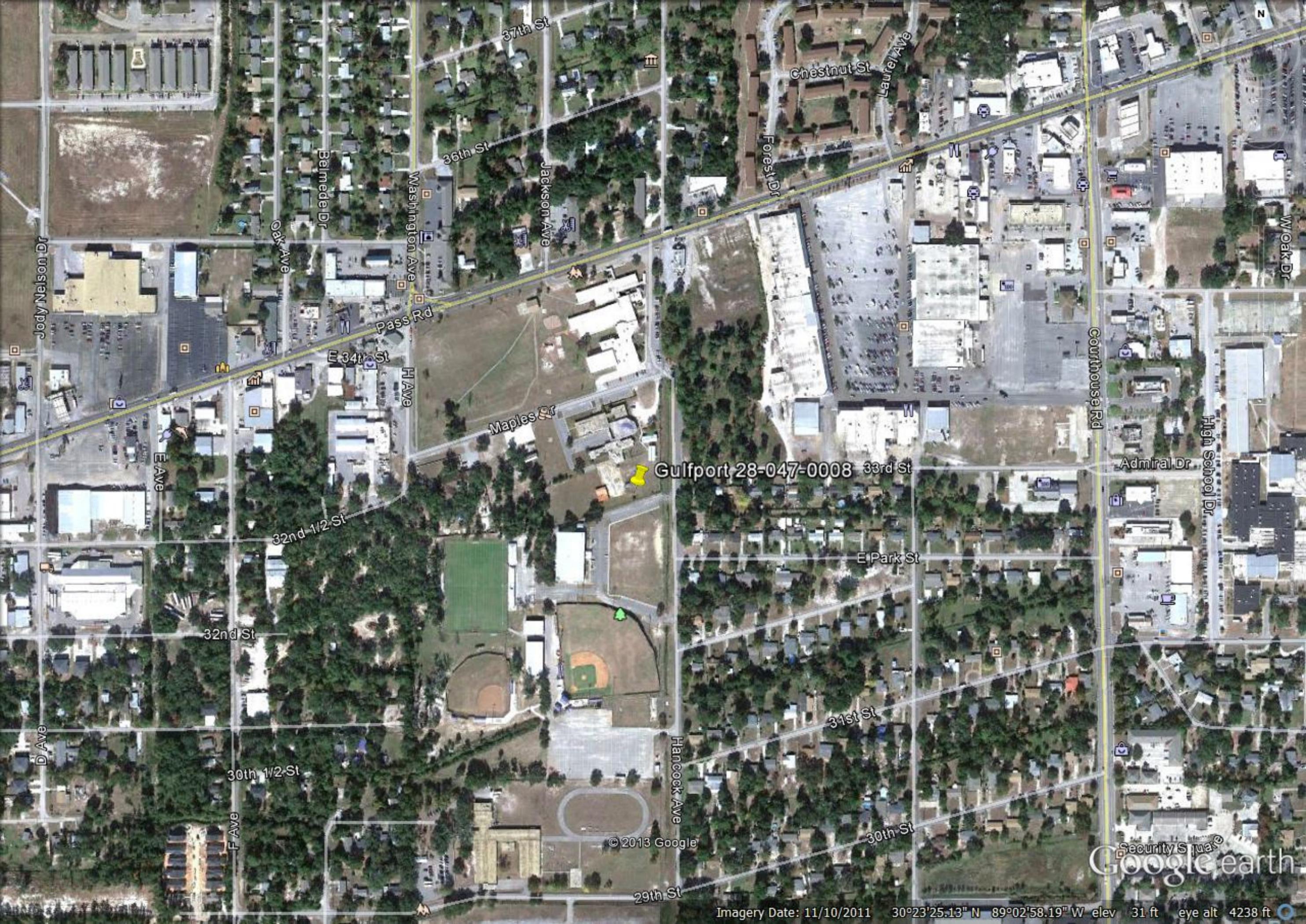
Gulfport 28-047-0008



mapquest

500ft
100m





Jody Nelson Dr

Oak Ave

Bermede Dr

37th St

36th St

Washington Ave

Jackson Ave

Chestnut St

Laurel Ave

Forest Dr

Pass Rd

E 34th St

H Ave

Maples Dr

Gulfport 28-047-0008

33rd St

32nd 1/2 St

Admiral Dr

High School Dr

Courthouse Rd

E Park St

32nd St

D Ave

30th 1/2 St

F Ave

Hancock Ave

31st St

30th St

29th St

© 2013 Google

Security S...
Google earth



Waveland - N



Waveland - E



Waveland - S



Waveland - W



Waveland 28-045-0003



Hancock

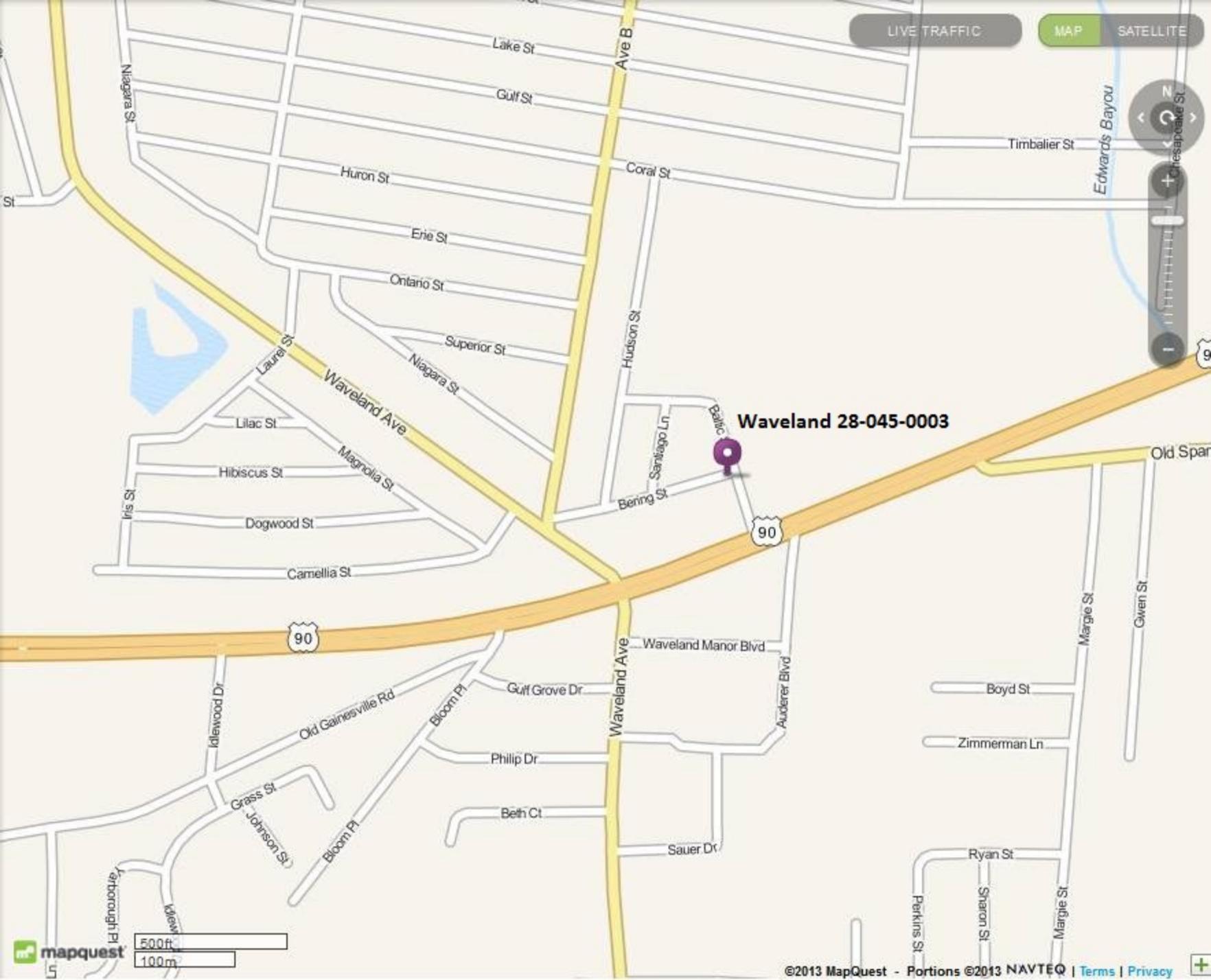
LIVE TRAFFIC

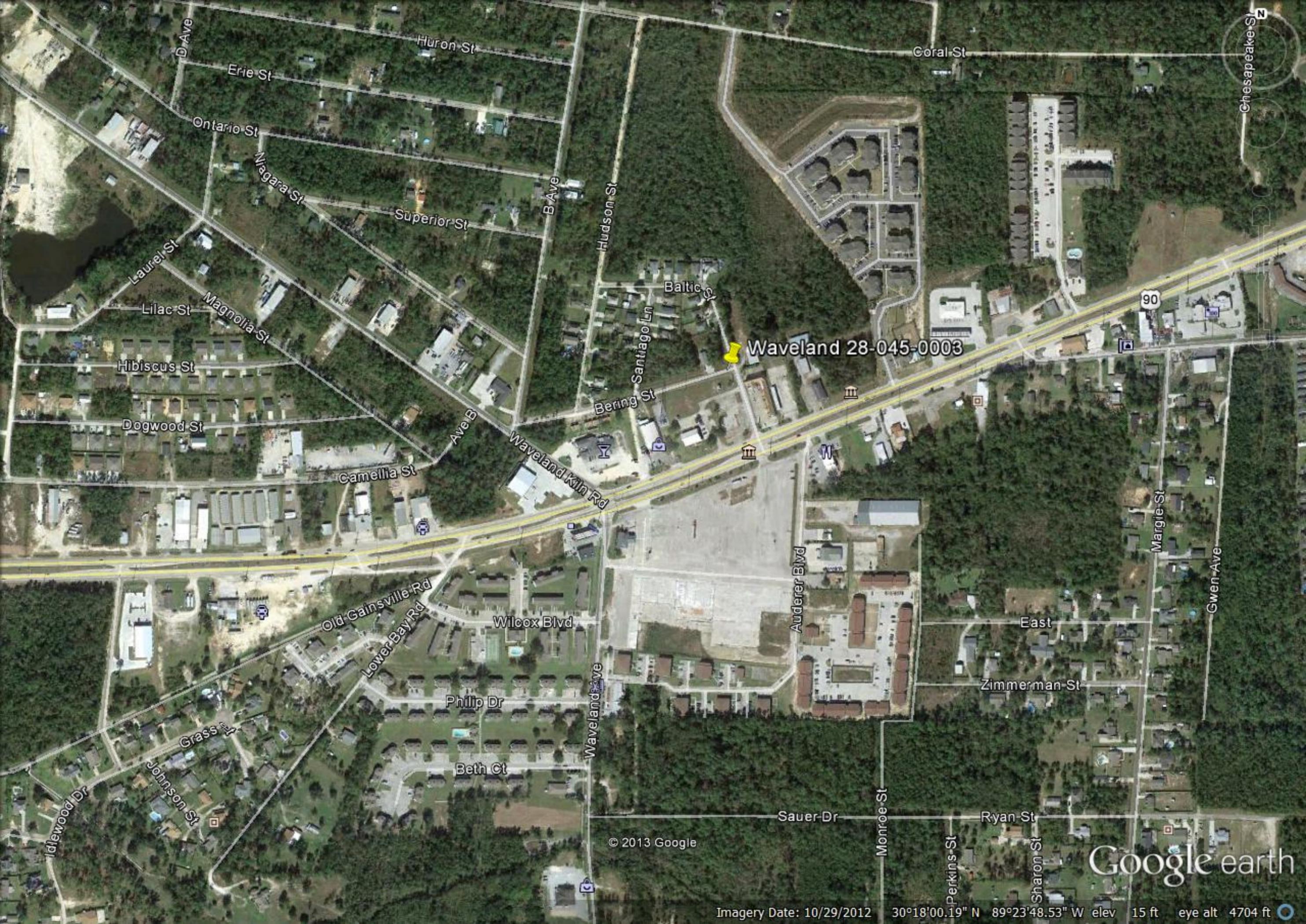
MAP

SATELLITE



Waveland 28-045-0003





Chesapeake St

Coral St

Huron St

Erie St

D Ave

Ontario St

Niagara St

Superior St

B Ave

Hudson St

Laurel St

Lilac St

Magnolia St

Hibiscus St

Dogwood St

Camellia St

Ave B

Waveland Kin Rd

Bering St

Santiago Ln

Baltic

Waveland 28-045-0003

90

Margie St

Gwen Ave

Old Gainsville Rd

Lower Bay Rd

Wilcox Blvd

Auderer Blvd

East

Zimmerman St

Philip Dr

Waveland Ave

Beth Ct

Sauer Dr

Monroe St

Ryan St

Perkins St

Sharon St

Grass St

Johnson St

Idlewood Dr

© 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



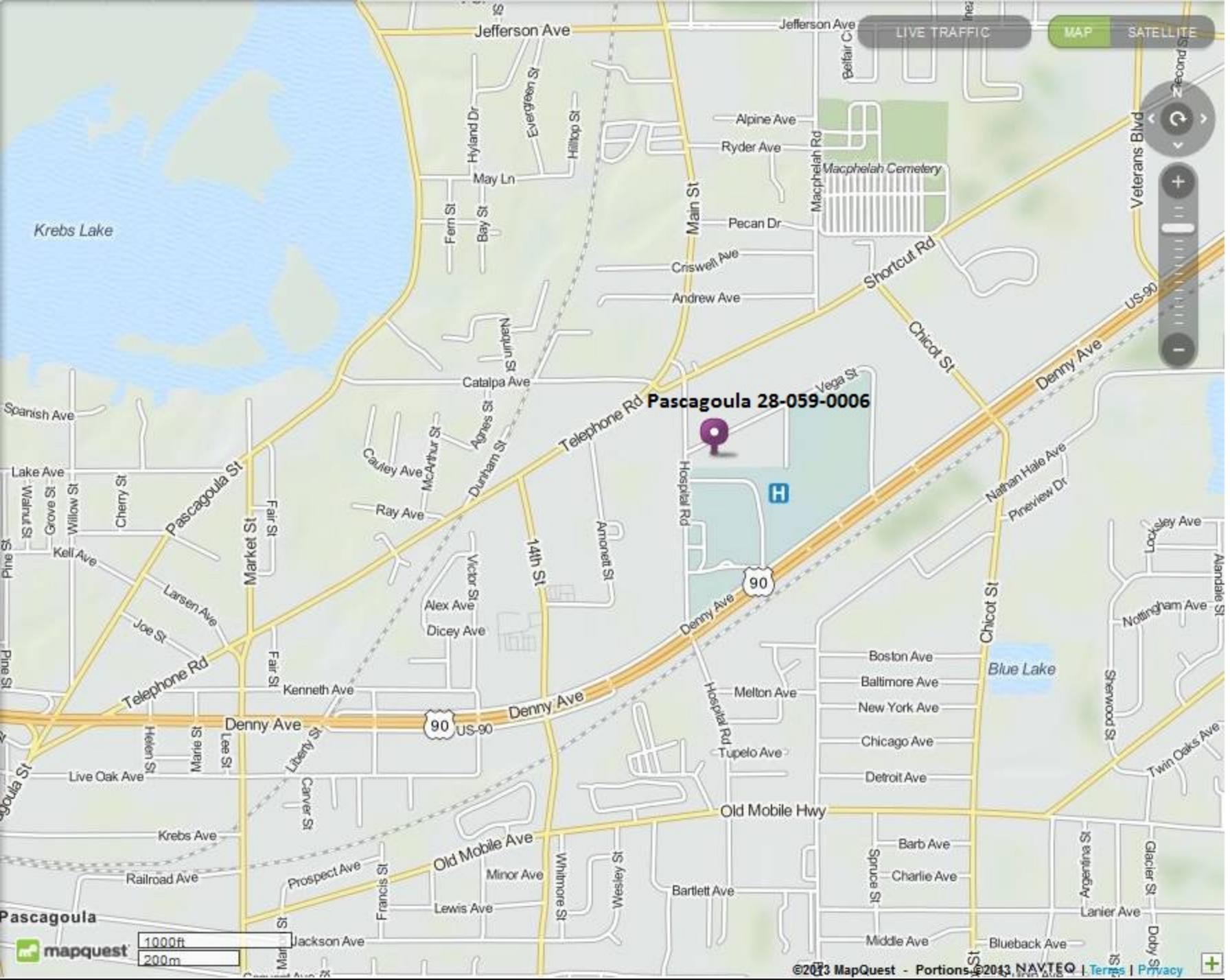
Pascagoula - W



Pascagoula 28-059-0006



Jackson



LIVE TRAFFIC

MAP

SATELLITE

Krebs Lake

Pascagoula 28-059-0006

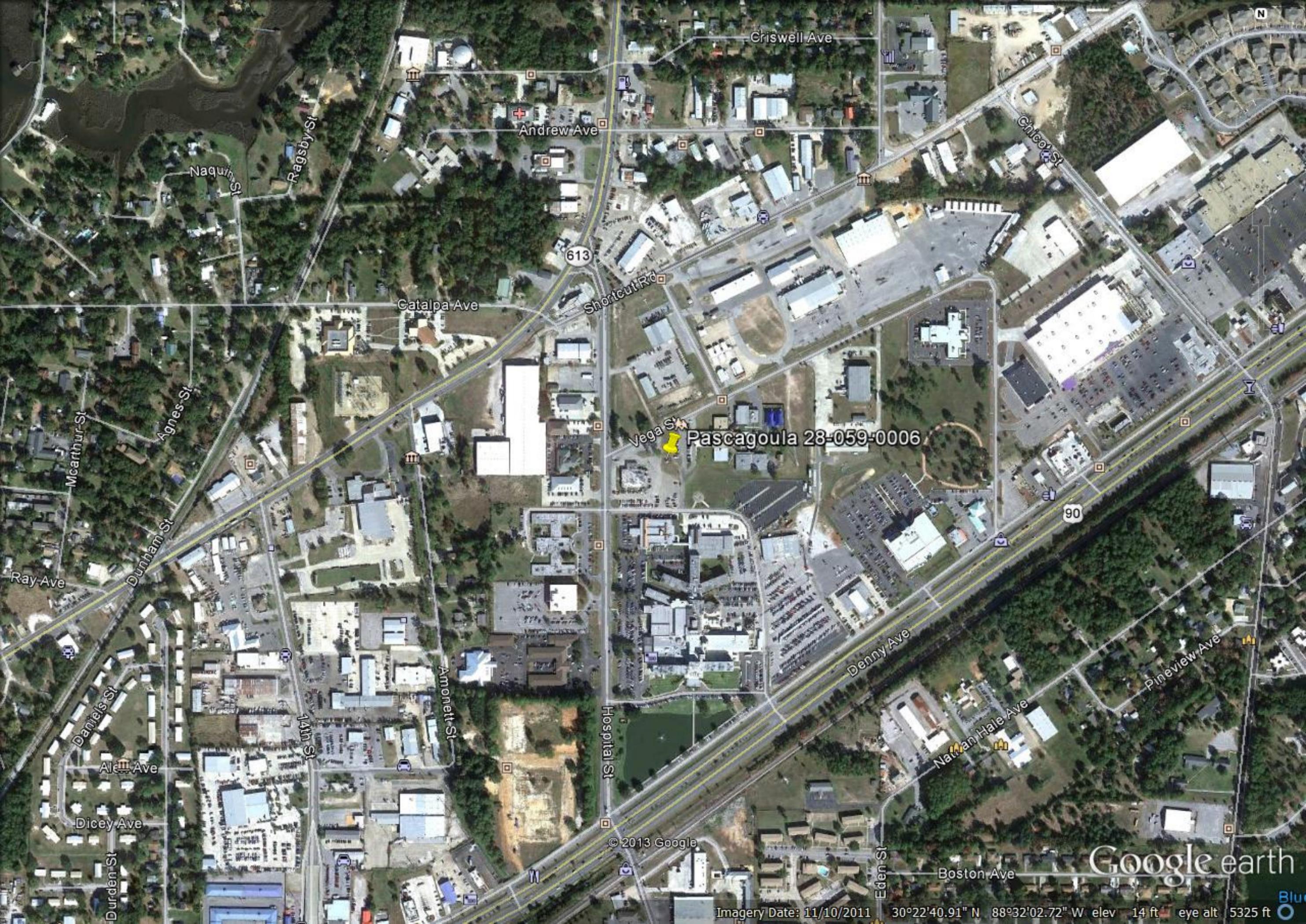
H

Blue Lake

mapquest

1000ft
200m

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Criswell Ave

Andrew Ave

Naquia St

Ragsby St

613

Catalpa Ave

Shortcut Rd

Vega St

Pascagoula 28-059-0006

90

Agnes St

Mcarthur St

Dunham St

Ray Ave

Daniels St

Alcove Ave

Dacey Ave

Durden St

14th St

Amonett St

Hospital St

Denny Ave

Nathan Hale Ave

Pineview Ave

Boston Ave

Eden St

© 2013 Google

Google earth

Imagery Date: 11/10/2011 30°22'40.91" N 88°32'02.72" W elev 14 ft eye alt 5325 ft



Hattiesburg – N



Hattiesburg – E



Hattiesburg - S



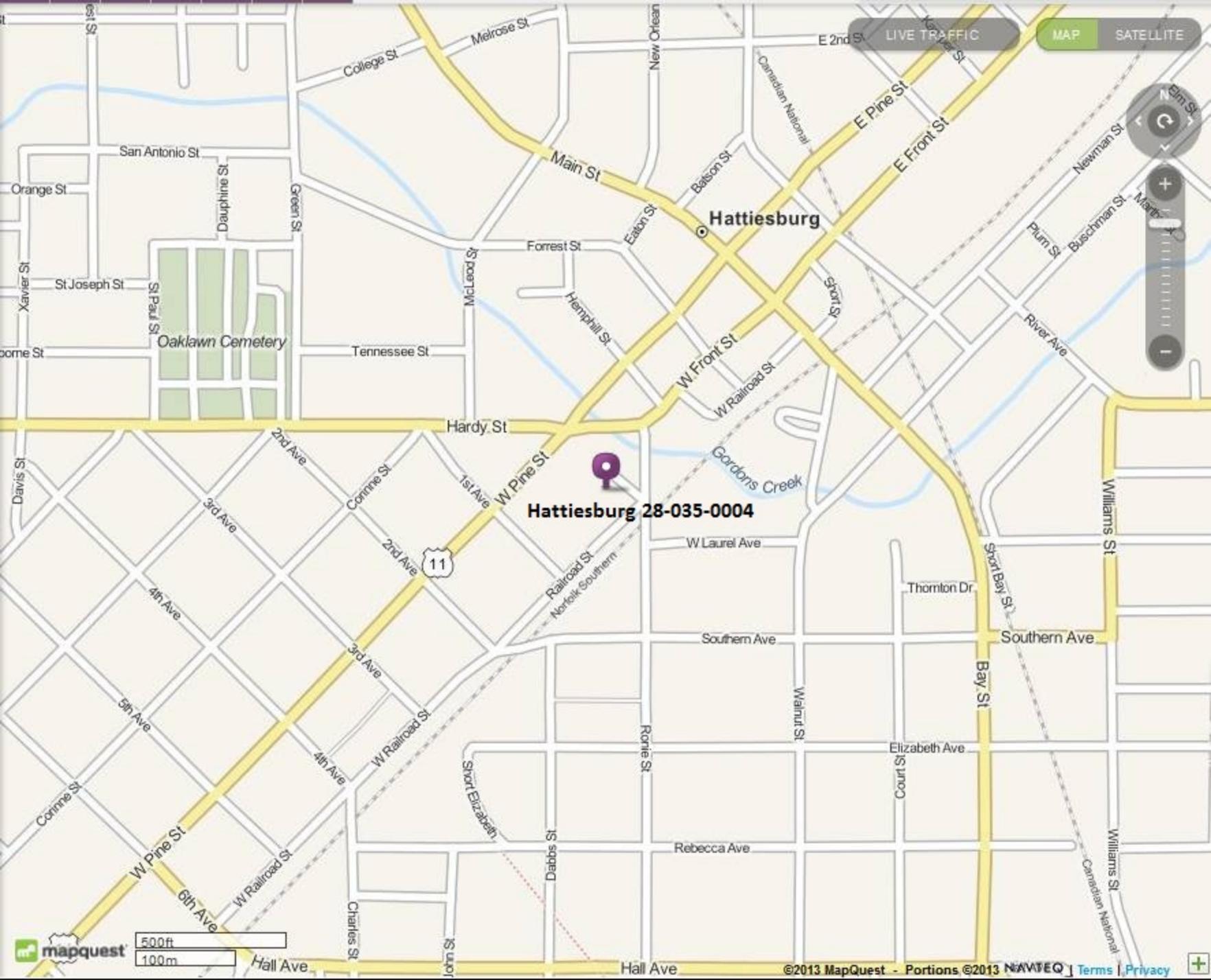
Hattiesburg – W



Hattiesburg 28-035-0004



Forrest



LIVE TRAFFIC

MAP

SATellite

Hattiesburg

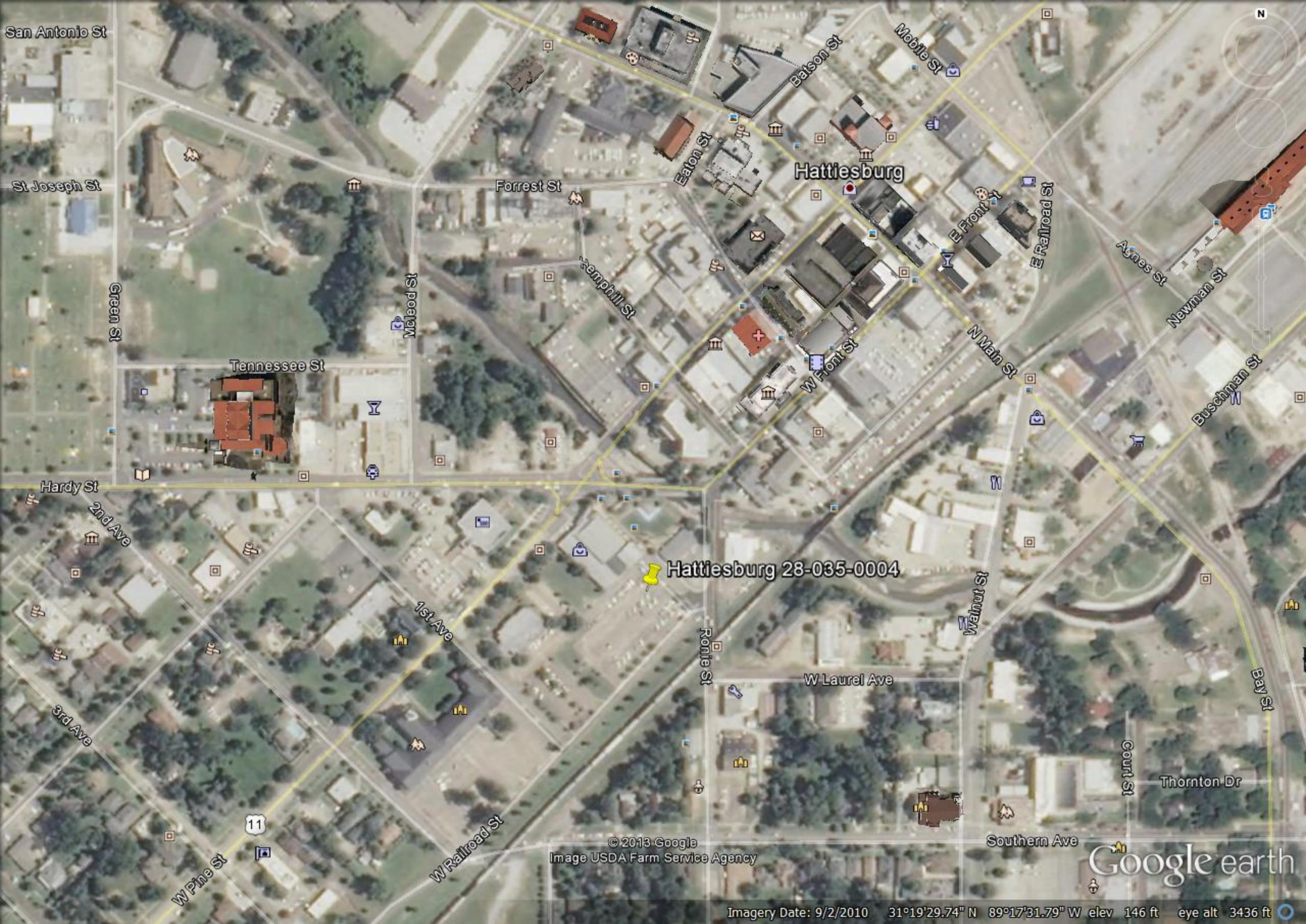
Hattiesburg 28-035-0004



mapquest

500ft
100m

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Hattiesburg 28-035-0004

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Image USDA Farm Service Agency

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



MARK H. LUTTRELL, JR.
MAYOR

SHELBY COUNTY HEALTH DEPARTMENT

ALISA R. HAUSHALTER, DNP, RN
DIRECTOR

HELEN MORROW, MD, MPA
HEALTH OFFICER



Public Health
Prevent. Promote. Protect.

April 10th, 2017

Mr. Robert Brawner, Environmental Fellow
Tennessee Department of Environment and Conservation
Air Pollution Control Division
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Ave., 15th Floor
Nashville, TN 37243-1531

Mr. Jason Stephens, Environmental Manager
Tennessee Department of Environment and Conservation
Air Pollution Control Division
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Ave., 15th Floor
Nashville, TN 37243-1531

Mr. Chad LaFontaine, Air Director
Mississippi Department of Environmental Quality
Office of Pollution Control, Air Division
P.O. Box 2261
Jackson, MS 39201

Mr. Stuart Spencer, Chief of the Air Division
Arkansas Department of Environmental Quality
5301 Northshore Dr.
North Little Rock, AR 72118-5317

Dear All,

In accordance with the provisions of the Memorandum of Agreement (MOA) signed in May and June of 2008 between the Shelby County Health Department (SCHD), Mississippi Department of Environmental Quality (MDEQ) and the Arkansas Department of Environmental Quality (ADEQ), this letter serves as a notification that changes have been made in our current network. The modifications that were made, approved by the EPA and that took effect for the current network plan are the discontinuation of the CO monitor at the Alabama Station (47-157-0024), the discontinuation of the collocated PM₁₀ monitors at the Gas Service Center (47-157-0016), and the relocation of the PM_{2.5} monitor from Guthrie Clinic (47-157-0047) to the Alabama Station (47-157-0024). Also, beginning January 2017, a PM_{2.5} monitor was added to the Near Road monitoring station.

RECEIVED
APR 17 2017
Dept. of Environmental Quality

If your agencies do not have current changes to the Network or may be contemplating changes in the near future, please notify the respective agencies of your intentions.

If you have any questions, please call me at (901) 222-9599.

Sincerely,

A handwritten signature in cursive script that reads "Robert Rogers". The signature is written in black ink and is positioned above the typed name.

Robert Rogers, P.E. / Technical Manager
Pollution Control
Shelby County Health Department

**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 (PM₁₀), 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:

<u>County</u>	<u>Federal Referenced Method PM 2.5</u>	<u>Continuous PM 2.5</u>	<u>Speciation PM 2.5</u>	<u>Co located PM 2.5</u>
Shelby County, TN SCHD	3 (includes 1 at the Near Road Station)	1	1	1
Crittenden County, AR ADEQ	1	1		
DeSoto County, MS MDEQ	1	1		1

Criteria Air Pollutant MSA monitoring network include:

<u>County</u>	<u>PM 10</u>	<u>O₃</u>	<u>NO_x/NO/NO₂</u>	<u>CO</u>	<u>SO₂</u>
Shelby County, TN SCHD	1	3	1 (includes 1 at the Near Road Station)	2 (includes 1 trace at NCORE and 1 trace at the Near Road Station)	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.