

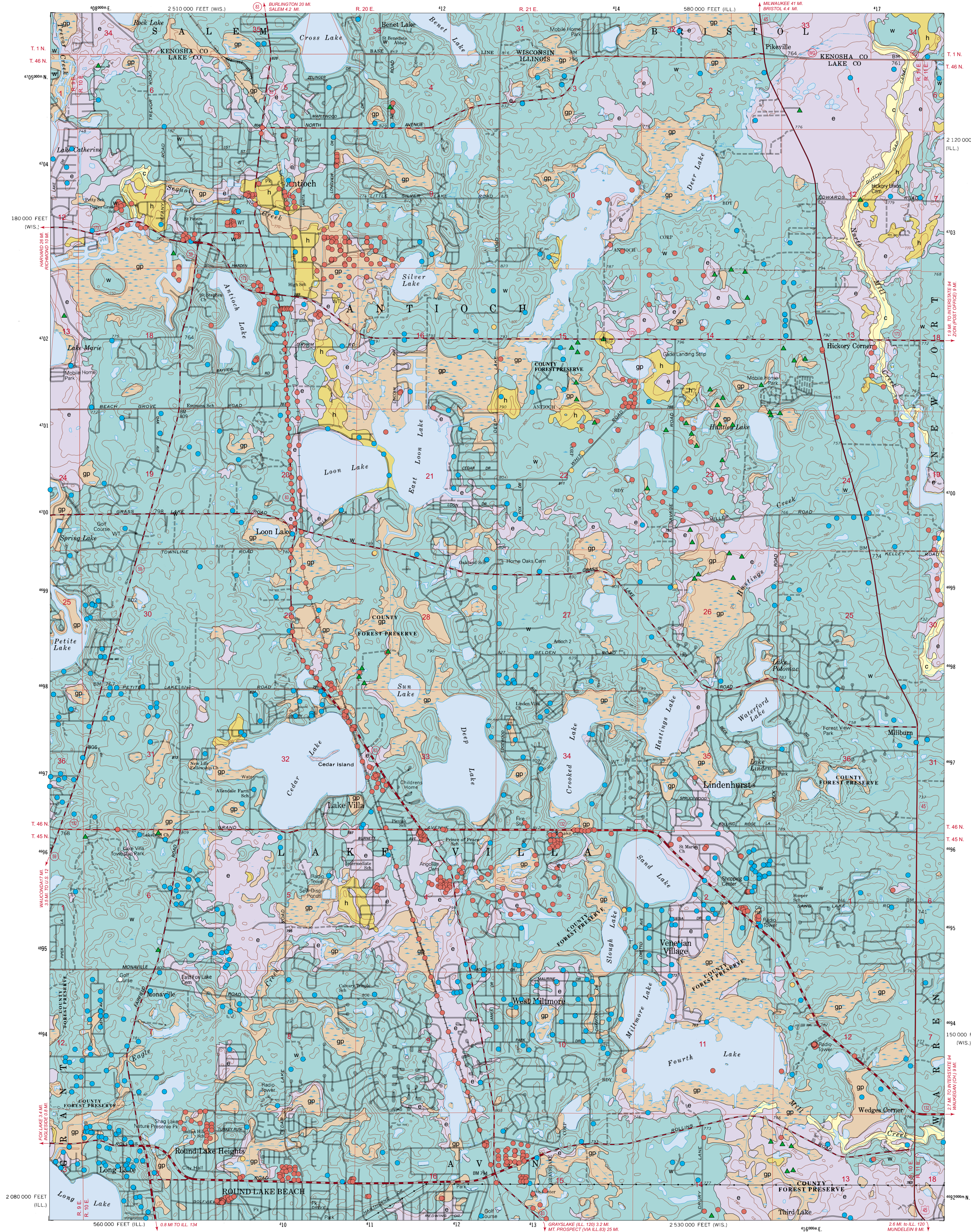
SURFICIAL GEOLOGY OF ANTIOCH QUADRANGLE

LAKE COUNTY, ILLINOIS AND KENOSHA COUNTY, WISCONSIN

Department of Natural Resources
ILLINOIS STATE GEOLOGICAL SURVEY
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2005

Illinois Preliminary Geologic Map
IPGM Antioch-SG



QUATERNARY DEPOSITS

Material	Unit	Interpretation
HUDSON EPISODE (postglacial)		
Clay, silt, sand, gravel and human-produced materials; texture, color, and thickness are variable; compact to loose	Disturbed ground	Includes landfills, fill for transportation network, construction of residential, municipal, and recreational facilities in low-lying areas, and excavations such as gravel pits wherein bodies of water may occupy some low-lying areas; where possible, original underlying sediments have been identified and mapped as one of the lithostratigraphic units described below (human disturbed deposits)
Silt and clay; occasional sand lenses; brown to yellow-brown; may be mottled and gleyed; some bedding; organic-rich in places; loose to compact	Cahokia Formation	Postglacial river and stream sediment (alluvium) found in active floodplains; derived mainly from eroded loess and diamictics; may overlie outwash sand and gravel, lacustrine silt and clay, and/or till; may be overlain by or interfingering with silty slope wash deposits (colluvium) in footslope locations; thickness ranges from less than 5 feet to more than 20 feet (alluvial deposits)
Peat and muck; may be interbedded with silt, clay and some fine sand; black to dark brown; small shells common; soft to firm	Grayslake Peat	Decomposed organic (peat) and organic-rich sediments (muck) accumulated in low-lying depressions, drainage ways, and on floodplains; may include small areas of open water; locally intertongued with modern alluvium, silty slope wash, or lake sediment overlying diamictic; commonly found around lakes and marshes and drainage ways connecting bodies of water; includes some areas where thin lenses of organic-rich sediments occur at shallow depths within gleyed, silty lake sediments; locally, may include colluvial deposits; variable thickness may range from one foot to tens of feet (organic deposits)

HUDSON AND WISCONSIN EPISODES

Silt and clay; very fine and fine sand may occur along bedding planes; dark gray to light gray; occasional light gray and white silt inclusions and lenses; very few clasts; massive to bedded; generally abrupt upper and lower contacts; soft to hard; compact	Equality Formation	Postglacial and glacial lake deposits; found at or near land surface along major floodplains and around modern lakes; in the subsurface may be interfingering with diamictic; may be overlain by silty slope wash deposits at the base of slopes (proglacial lacustrine deposits)
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WISCONSIN EPISODE

Sand and/or gravel; sand is fine to coarse, very well to poorly sorted; gravel is very fine to coarse, very well to very poorly sorted; variable color; generally light brown; minor amounts of silt and clay; bedded; loose	Henry Formation	Glacial meltwater sediment found in kettled terraces and floodplains; may delineate the margin of stagnant ice (proglacial fluvial deposits)
Diamictic; silty clay loam to silty clay; pebbly with occasional cobbles and boulders; silt and sand inclusions; sand and/or gravel lenses common; may contain pebble-free, silty and clayey zones with strongly expressed laminations interbedded with diamictic; gray to yellow brown; compact; lenses of saturated silt and very fine sand are loose and runny	Wadsworth Formation	Subglacial till, subglacial channel and lake deposits, and sediment that melted out on top of the glacier or along the ice margin and was reworked by slope processes and water; laminated sequences may be more than 40 feet thick but their areal extent is irregular and difficult to delineate; included in this mapping unit are thin, irregular, and discontinuous silty sediments deposited postglacially along ephemeral drainage ways in hilly topography (till)

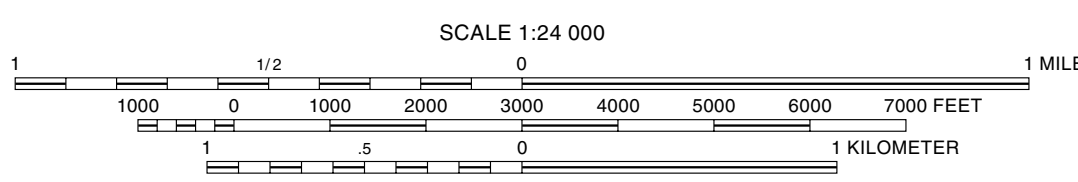
Data Type

- Hand auger boring
- Stratigraphic boring
- Water well
- Engineering boring
- Other boring
- Contact
- Water

Base map compiled by Illinois State Geological Survey from digital data provided by the United States Geological Survey. Topography and PLSS compiled 1960, digital revision 1993. Planimetry derived from imagery taken 1988.

North American Datum of 1983 (NAD 83)
Projection: transverse Mercator
10,000-foot ticks: Illinois State Plane coordinate system, west zone (transverse Mercator)
1,000-meter ticks: Universal Transverse Mercator grid system, zone 16

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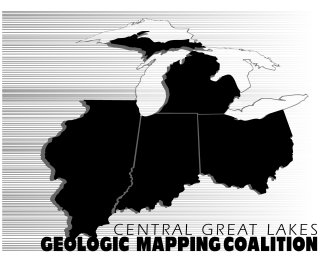
BASE MAP CONTOUR INTERVAL, 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1989

Released by the authority of the State of Illinois: 2005

Digital cartography by M. Barrett, Illinois State Geological Survey.

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ADJOINING QUADRANGLES
1 Silver Lake
2 Peabody Lake
3 Pleasant Prairie
4 Fox Lake
5 Wadsworth
6 Graylake
7 Libertyville

2 1/2°
NORTH
APPROXIMATE MEAN DECLINATION, 2005

ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U.S. Route
State Route