

Illinois State Geological Survey
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Surface Topography of Lee County, Illinois

Compiled by Renee J. Nagy

1999

State of Illinois
Department of Natural Resources

Explanation

This map shows the land surface topography of Lee County, Illinois. Elevations range from slightly greater than 1000 feet above mean sea level (MSL) to slightly less than 640 feet above MSL. Lee County is situated within the Till Plains Section of the Central Lowland Physiographic Province (Leighton, et al., 1948), which is characterized by nearly flat to gently undulating glacial terrain. Three distinct subdivisions of the Till Plains Section are present in Lee County and include the Rock River Hill Country, the Green River Lowland, and the Bloomington Ridge Plain (Leighton, et al., 1948). Their boundaries within Lee County are shown on Inset A.

The northwestern and north-central portion of the county lie within the Rock River Hill Country. This area is typically underlain by a thin veneer of glacial drift overlying bedrock. Consequently, the topography of the Rock River Hill Country is determined primarily by the bedrock surface (Leighton et al., 1948). The Green River Lowland extends across the central portion of the county along the Green River and broadens in the western portion of Lee County. The Green River Lowland is a low lying, poorly drained outwash plain containing sand ridges and dunes (Leighton et al., 1948). The lowest land surface elevations are present in the Green River Lowland in southwestern Lee County where elevations lower than 650 feet MSL are encountered. The southern and eastern portions of the county lie within the Bloomington Ridge Plain (Inset B). In Lee County, this area is characterized by the broad ridge of the Bloomington Moraine and consists of thick glacial till deposited approximately 20,000 to 17,000 years ago, with the crest of the moraine at an approximate elevation of 900 to 950 feet above MSL. The highest point in the county is located on this ridge 0.7 miles north of Compton, where elevations reach to slightly higher than 1000 feet above MSL. An east-west trending ridge with elevations of greater 850 feet above MSL is located in north-central Lee County. This ridge, called Temperance Hill, is the remnant of an Illinoian age moraine (Berg, et al., 1985) and was deposited prior to 125,000 years ago (Killely, 1998).

This map was compiled from Digital Raster Graphic (DRG) files of 7.5-minute topographic quadrangles from the United States Geological Survey using ArcSWAT software from the Environmental Systems Research Institute, Inc. The information shown on this map was used to create additional maps depicting shaded relief, drift thickness and bedrock surface topography. The use of trade names or brand names does not constitute an endorsement by the Illinois State Geological Survey.

Acknowledgments

Digital data for this map were compiled by Christopher Blakley, Christopher C. Goldsmith, and Joseph Schoen. Digital Cartography by Matthew H. Riggs.

References

Berg, R.C., J.P. Kempton, L.R. Follmer, and D.P. McKenna, 1985, Illinoian and Wisconsinan Stratigraphy and Environments in Northern Illinois - The Altonian Revised: Illinois State Geological Survey Guidebook 19, 177 p.

Killely, M.M., 1998, Illinois' Ice Age Legacy: Illinois State Geological Survey GeoScience Education Series 14, 66 p.

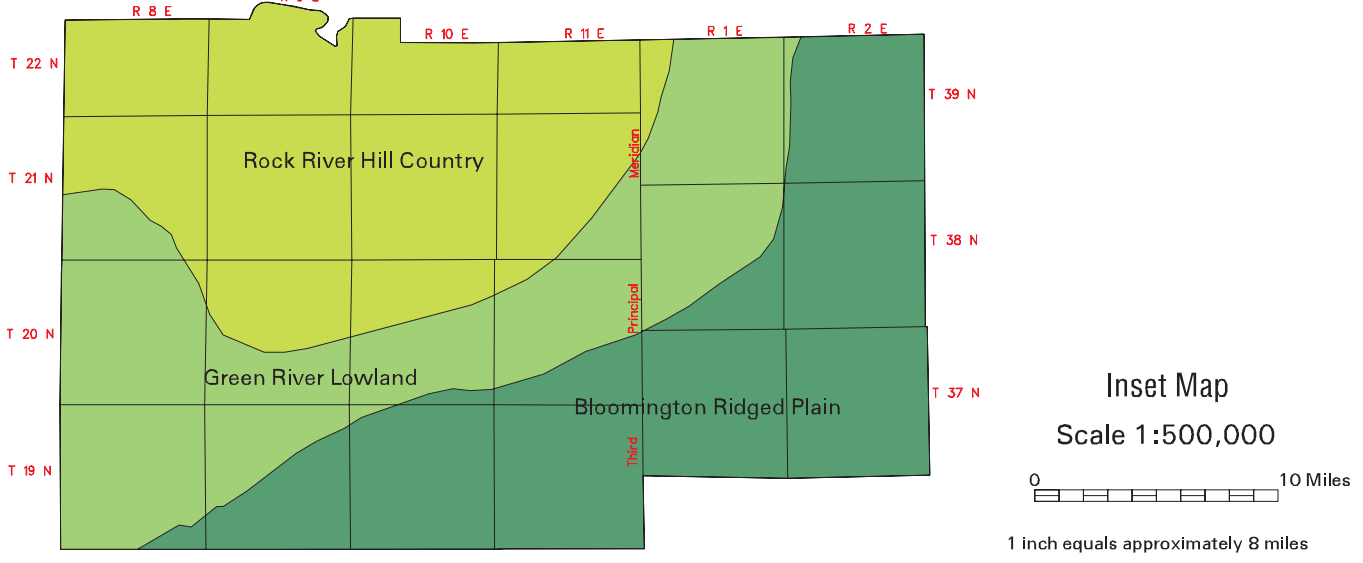
Leighton, M.M., G.E. Elkbaw, and C.L. Horberg, 1948, Physiographic Divisions of Illinois, Illinois State Geological Survey Report of Investigations 129, 33p.

Elevations in feet
above mean sea level

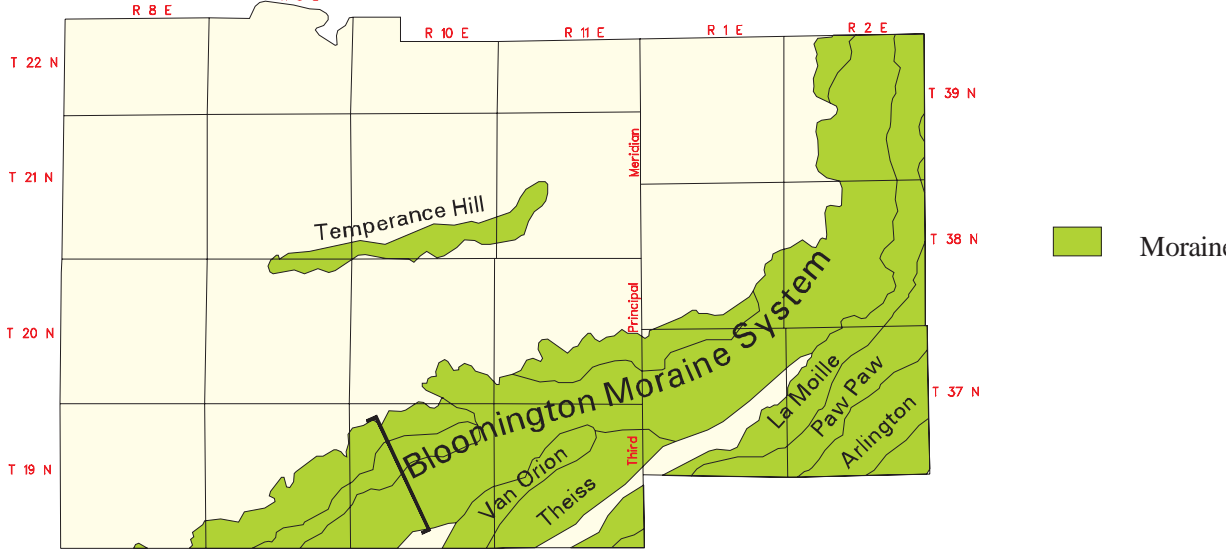
- 975 and above
- 950 - 975
- 925 - 950
- 900 - 925
- 875 - 900
- 850 - 875
- 825 - 850
- 800 - 825
- 775 - 800
- 750 - 775
- 725 - 750
- 700 - 725
- 675 - 700
- 650 - 675
- 650 or less
- Surface Water

- US Highway
- State Highway
- Interstate Highway
- Other Roads
- Railroad
- Streams
- Contour Interval 25 Feet

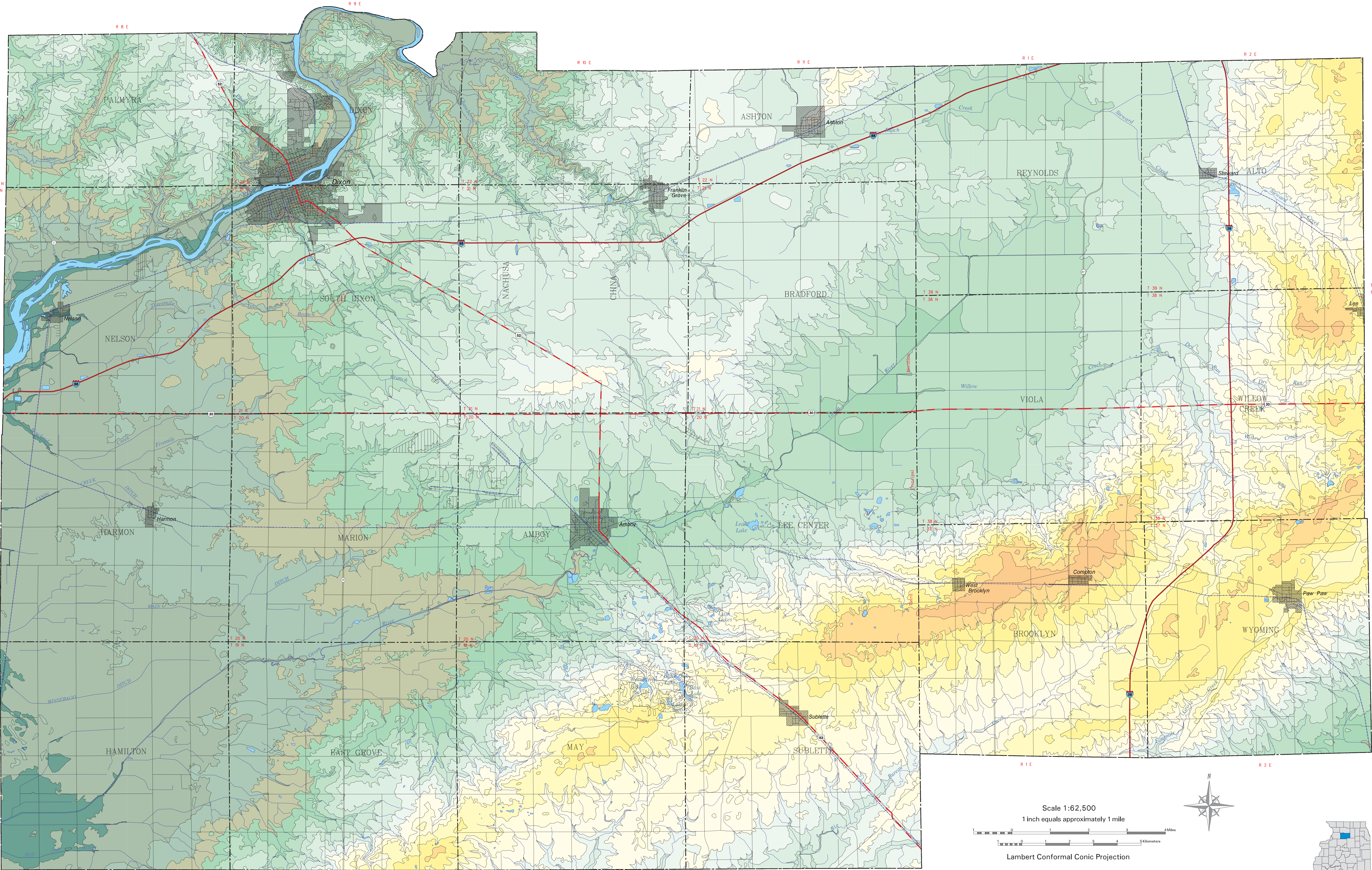
Inset A. Physiographic Divisions of Lee County, Illinois
modified from Leighton et al., (1948)



Inset B. Glacial Moraines of Lee County, Illinois
modified from Willman and Frye, (1970)



This map was prepared by the Illinois State Geological Survey, in cooperation with the Illinois Department of Commerce and Community Affairs and the Lee County Board. It is part of a suite of maps created to assist local government in addressing geologic questions concerning capable sites for landfill development. Maps produced for this study are intended for regional land use planning purposes. More detailed mapping is needed for site specific considerations. This map has been reviewed for scientific accuracy and has been edited to meet the quality standards of maps in the ISGS Map Series.



Scale 1:62,500
1 inch equals approximately 1 mile
Lambert Conformal Conic Projection

