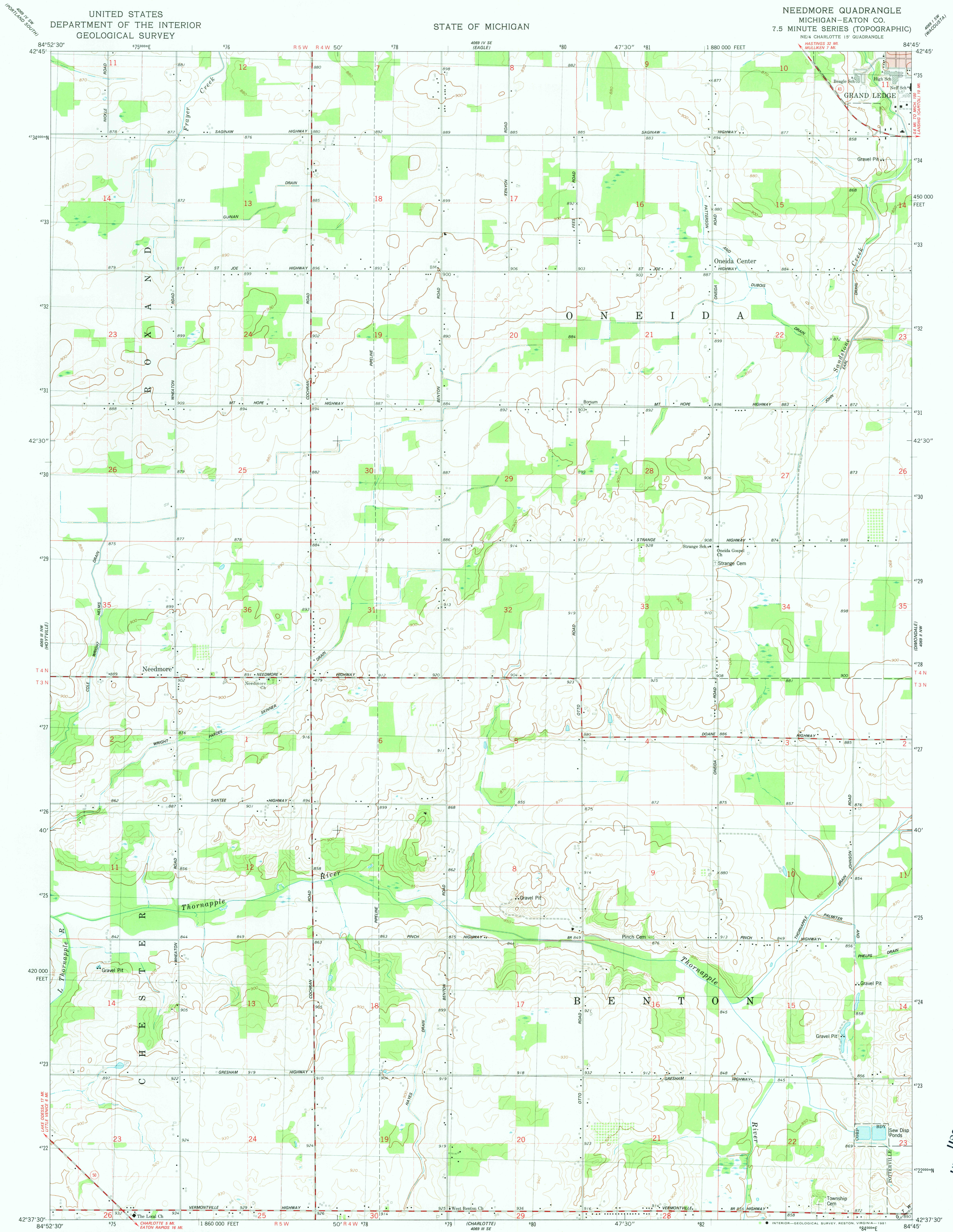
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF MICHIGAN

NEEDMORE QUADRANGLE
MICHIGAN–EATON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 CHARLOTTE 15′ QUADRANGLE



INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1981

Mapped, edited, and published by the Geological Survey
in cooperation with State of Michigan agencies

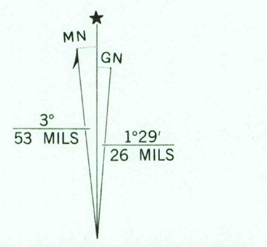
Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1976. Field checked 1976. Map edited 1980

Projection and 10,000-foot grid ticks: Michigan coordinate system, south zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 16
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 1 meter north and 2 meters west as shown by dashed corner ticks

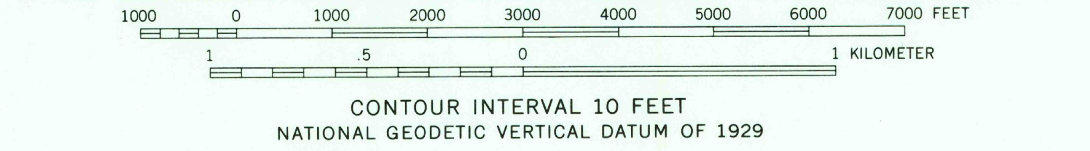
Red tint indicates area in which only landmark buildings are shown

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked



UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
AND BY THE GEOLOGICAL SURVEY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES, LANSING, MICHIGAN 48909
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Primary highway, hard surface	Light-duty road, hard or improved surface
Secondary highway, hard surface	Unimproved road

Interstate Route U. S. Route State Route

NEEDMORE, MICH.
NE/4 CHARLOTTE 15′ QUADRANGLE
N4237.5–W8445/7.5

1980

DMA 4069 III NE–SERIES V862

USGS
Historical File
National Mapping Div.

MAR 2 1981

1900