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

4069 IV SW (PORTLAND SOUTH)
4069 I SW (WACOUSTA)
4069 III NW (HOYTVILLE)
4069 II NW (DIMONDALE)
(CHESTER) 4069 III SW
(EATON RAPIDS) 4069 II SW
4069 IV SE (EAGLE)
(CHARLOTTE) 4069 III SE

84°52'30" 42°45' 42°30" 40' 42°37'30"
1 880 000 FEET 1 860 000 FEET
420 000 FEET 450 000 FEET
R5W R4W 50' R4W R5W
T4N T3N

HASTINGS 32 MI.
MULLIKEN 7 MI.
0.6 MI. TO MICH. 100
LANSING (CAPITOL) 10 MI.
LAKE ODESSA 17 MI.
LITTLE VENICE 6 MI.
CHARLOTTE 5 MI.
EATON RAPIDS 16 MI.

Beagle Sch
High Sch
Neff Sch
GRAND LEDGE
Gravel Pit
Oneida Center
Borsum
Strange Sch
Oneida Gospel Ch
Strange Cem
Needmore
Needmore Ch
The Local Ch
West Benton Ch
Township Cem
Pinch Cem
Sew Disp Ponds
Gravel Pit

O N E I D A
B E N T O N
Frayer Creek
Thornapple River
L Thornapple R
Sandstone Drain
Creek Drain

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

MN GN
3° 53 MILS
1°29 26 MILS
UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETER
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

MICHIGAN
QUADRANGLE LOCATION

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

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1981

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