

# Licking County, Ohio

**1998 Geodetic  
Ground Control Survey**

*Volume 1 of 5*

For:

Kucera International, Inc.

Submitted by:

**G E O M E T R I C S**  
**GPS, INC.**

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SECTION I  
Introduction and Analysis

(A)  
Executive Summary

## Executive Summary

The Licking County Board of Commissioners, Licking County, Ohio (County), contracted with Kucera International, Inc. of Willoughby, Ohio and GeoMetrics GPS, Inc. of Fredericksburg, Virginia to provide Monumentation and Digital Orthophoto Imagery services. The monumentation and imagery will provide a base for the County's Geographical Information System.

The monumentation portion of the project included the reconnaissance and inventory of existing survey control in the vicinity of the County; reconnaissance and monumentation of new survey control throughout the County; targeting of survey control to act as ground control for photogrammetry, and survey of new control.

The survey of new control was accomplished using static differential carrier phase Global Positioning System (GPS) methodology to measure vectors between existing and new survey points. Physically, all of the new points meet or exceed NGS class "C" monumentation standards (i.e. disk set in concrete). There were 231 survey marks surveyed during in the project.

The network was surveyed in accordance with the specifications and standards of the Federal Geodetic Control Subcommittee (FGCS) and is intended to achieve First Order accuracy. The project was submitted to the National Geodetic Survey for inclusion in the National Spatial Reference System (NSRS).

SECTION I  
Introduction and Analysis

(B)  
Project Submission Checklist

PROJECT SUBMISSION CHECKLIST  
GPS PROJECTS

Project Title: Licking County, Ohio, 1993 Geodetic Control Survey

Accession Number: \_\_\_\_\_

Submitting Agency: GeoMetrics GPS, Inc. (GEOMET)

Observing Agency: GeoMetrics GPS, Inc. (GEOMET)

Receiver Type: Trimble 4000 SSi

PACKAGE CONTENTS

<u>Project Report and Attachments</u>	<u>Required For</u>
(X ) Project Report	All Projects
(X ) Approved Recon Sketch and Project Sketch	All Projects
(X ) Project Instructions or Contract Specifications	All Projects
(X ) Final Station List	All Projects
(X ) Station Visibility Diagrams (on Log Sheets)	All Projects
(X ) Final Observing Schedule (Base Line Vectors)	All Projects
(X ) Observation Logs	All Projects
(X ) Equipment Failure Logs (on Log Sheets)	NGS Projects
(X ) Loop Misclosures or Adjustment Analysis	Optional
(X ) Free Adjustment	All Projects
(X ) Free Adjustment with Accuracies	All Projects
(X ) Constrained Horizontal Adjustment	All Projects
(X ) Constrained Vertical Adjustment (NAVD88 Heights)	All Projects
(N/A) Meteorological Instrument Comparison Logs	If Specified
(X ) Photographs of Views from Stations	If Specified
(X ) Photographs or Rubbings of Station Marks	All Projects
(X ) COMPGB Output (Validation program - B/G file)	All Projects
(X ) OBSDES Output (Validation program-D-file)	All Projects
(X ) OBSCHK Output (Validation program- B/G file)	All Projects
(X ) CHKDESC Output (Validation program-D-file)	All Projects
(X ) ELLACC Output	All Projects
(X ) BBACCUR Output	All Projects
<u>Digitized Data Files</u> ( ) Diskettes    ( x ) Other: <u>CD ROM</u>	
(X ) Raw Phase Data (R-files)	All Projects
(X ) Base Line Vectors (G-file)	All Projects
(X ) Project and Station Occupation Data (final B-file)	All Projects
(X ) Descriptions or Recovery Notes (D-file)	All Projects
(N/A) Terrestrial Horizontal Observations (T-file)	If Applicable
(N/A) Differential Leveling Observations (L-file)	If Applicable

Comments - Enter on the reverse side of this form.

	<u>Org Code</u>	<u>Name</u>	<u>Date</u>
Received by: _____			
Reviewed by: _____			
Reviewed by: _____			



SECTION I  
Introduction and Analysis

(C)  
Project Specifications

1.0 General

1.2 Work Statement:

The Contractor shall furnish all materials, superintendence, labor, equipment, and transportation and shall execute and complete all work required by the contract in conformance with these specifications and any contractual modifications to these specifications. Any deviation from these specifications, unless specifically authorized in writing by the County or Counties representative, shall be sufficient cause for rejection of any part or all of the work performed.

1.3 General Mapping Specifications:

- a. The Contractor shall submit to the County, representative samples of any deliverable to be produced during execution of the project phase being considered. It will be the County's policy that no project work may be initiated prior to the Contractor obtaining formal approval of the deliverable products. Sample deliverables include, but are not limited to;
- 1) Monuments - The Contractor shall describe the physical characteristics of the monuments and placement techniques that will be used on this project. Records from similar projects should be used to demonstrate to the County that the monuments will be placed in accordance with this specification.
  - 2) Hardcopy Material - The Contractor shall provide samples of the proposed format for titled negative film, photo indexes, ortho photographic tiles, and any map or overlay to be delivered to the County as part of this project.
  - 3) Electronic media data - The Contractor shall provide sample electronic media in the agreed upon format for testing by the County. This testing will be performed to ensure that the digital data can successfully be transferred to the County's computer system.
- b. Prior to initiating any phase of this project, the Contractor shall submit a plan to the County that details the specific activities to be accomplished during the phase being initiated. This plan shall include, but is not limited to, such items as permanent monument location layouts, GPS or conventional survey geometry and observation plans, aerial photography flight plans, and tile layout for the digital orthophotography.
- c. All Activities and deliverables for this project will be based on the following datum:
- |                    |                                   |
|--------------------|-----------------------------------|
| <u>Horizontal</u>  |                                   |
| Datum:             | North American Datum 1983 (NAD83) |
| Coordinate System: | Ohio State Plane, South Zone      |
| Units:             | Feet                              |

Vertical

Datum: North American Datum 1988 (NAVD88)  
Units: Feet

- d. Control Surveys will adhere to the following accuracy specifications;  
Note: Control Surveys for monumentation shall be eligible for "Blue Booking"

Horizontal Control

Monumentation: 1<sup>st</sup> order Class I  
(minimum accuracy 1:100,000)  
Supplemental Mapping Control: 2<sup>nd</sup> order Class I  
(minimum accuracy 1:50,000)

Vertical Control

All vertical control will be 3<sup>rd</sup> order or better

- e. Photography will be flown at 3 photo scales.

<u>Photo Scale</u>	<u>Final Mapping Scale</u>	<u>Contour Interval</u>
1" = 660'	1" = 100'	2'
1" = 1330'	1" = 200'	5'
1" = 3000'	1" = 400'	Ortho DEM (10')

- f. Digital Orthophoto Tiles will have a neat area of 25" x 25" (5x5 grid format). When plotted the overall plotted sheet size will be 30" x 36". The digital orthophoto tile layout shall match the Licking County Tax Map sheet system established by the County Engineers Office.  
g. Licking County retains exclusive rights to any and all information and materials developed during execution of this project.

2. **Monumentation**

a. Permanent Monuments

All monuments set as part of this project will meet or exceed the minimum requirements for Control "Blue Booking". Monuments will consist of an iron pin and cap set in poured-in-place concrete. Monuments will be a minimum of 10 inches in diameter, set to below the frost line, belled at the bottom, and have an affixed aluminum or brass cap that is appropriately stamped, center-punched, and numbered. All monument caps being set flush to the ground.

Monument placement should either be in the public right-of-way or in an area that is accessible to the general public without the need to gain special authorization for placement or occupation. Acceptable areas include, but are not limited to, school property, parks, recreational areas, and other State, County, or Township owned properties. Road placement of monuments and areas where radio interference or overhead obstructions may be an issue will be avoided.

The Contractor will be responsible for restoring the area surrounding the monument to a condition that generally represents the site characteristics prior to monument placement.

Each monument set will have a minimum of 3 reference points to ensure that the monument may be recovered if inadvertently damaged or destroyed. The reference points may be a PK nail, a railroad spike, or a chiseled "+" on a permanent structure. Reference points are to be located a sufficient distance from the placed monument to ensure that damage to the monument would not also damage or destroy the reference points.

~~Where existing section corners are accessible for the 2 mile grid, box style monuments may be set so as not to disturb the original mark.~~

b. Field Notes and Records

Field books and standard forms will be used to describe and record each monument and its reference information. The purpose of this monument description is to convey to the next user, in a concise and standard manner, information sufficient to locate and positively identify the monument location. A separate description is to be written for each monument. The contractor shall provide enough information for easy recovery of the point. A well written description should at a minimum contain:

- 1) One or more references to some well known, readily available, location in terms of distances and directions. Intersections of prominent highways, landmarks, and public buildings in nearby towns are examples of such locations.
- 2) Directions from cited landmark to general monument location.
- 3) Distance and direction from one or more reference objects in the immediate locale should be noted. Examples of these reference objects are the centerlines of roads, fire plugs, or telephone poles.
- 4) Sketch of monument location and surrounding area, showing location of reference points.
- 5) Distance and direction from monument to the set reference points.

c. Deliverables

Deliverables associated with County wide permanent monumentation phase of this project include;

- 1) An approved monumentation plan.
- 2) Placed Monuments
- 3) A monumentation report which will include copies of the field books, forms, and as appropriate any other information that will aid in recovering the monument at some future date.

### 3. Horizontal and Vertical Control

Horizontal and vertical control surveys may be accomplished by either conventional methods, GPS survey, or a combination of both. Due to cost and time considerations, the County anticipates that a major portion of the field survey work will be accomplished by GPS methods. Therefore, all horizontal control established for this project must meet the minimum requirements as set forth in the Federal Geodetic Control Committee's specifications titled *Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques*, Version 5.0, August 1, 1989, or the most recent version available at the time of the survey. County Wide monuments will meet or exceed the requirements of 1<sup>st</sup> order Class I surveys and be eligible for inclusion into the NGS' data base i.e. "Blue Booked". Supplemental horizontal control used to support the digital orthophoto and aerial triangulation phases of this project may be 2<sup>nd</sup> order Class I.

~~All GPS network design, observation techniques and data adjustments must be performed under the direct supervision of an Ohio Registered Professional Land Surveyor. The GPS network design and work plan will be reviewed and approved by the County prior to initiating any field observations. Since the County Wide monument points shall be eligible for "Blue Booking", the GPS Contractor will be required to submit a copy of the network design and work plan to the NGS State Advisor Group GPS for review and approval.~~

Vertical control obtained by GPS methods must be acquired through instruments and procedures that assure a minimum accuracy of  $10 \text{ mm} \pm 1$  part per million, times the length of the baseline. Prior to using GPS methods for vertical control, the contractor must convincingly demonstrate to the County that the vertical accuracy obtained will meet or exceed the Counties requirements.

#### a. Reconnaissance

The Contractor shall determine the locations of existing horizontal and vertical control in the project areas and incorporate these control points into the control network for this project as appropriate. Recovered existing control will be combine with the established new permanent monument network to develop a horizontal and vertical control layout for the entire project. The Contractor shall obtain the Counties approval of the control network layout prior to initiating any field work other than that associated with the reconnaissance activity.

~~The County will provide the Contractor with a diagram that identifies existing NGS control in the area. In addition, a diagram will be available which identifies those existing control points which are proposed for occupation during the GPS survey.~~

b. Coordination of field activities

~~Since the proposal associated with this specification does not require that a single Contractor perform all phases of this project or preclude the use of sub-contractors, the potential exists that several contractors or sub-contractors could be responsible for completing various phases of this project. Coordination of the horizontal and vertical control survey activity with the other project phases is of major importance to ensure the projects success. Therefore, the principle the horizontal and vertical control Contractor shall be responsible for coordinating any required interaction between the monumentation and/or GPS survey personnel. shall review all monumentation plans and recommend changes prior to commencement of the Monumentation phase. In addition, The principle contractor shall be responsible for obtaining the appropriate approvals to access private property should the monumentation and survey personnel require such access. the survey contractor shall consult with the persons responsible for the aerial triangulation and digital orthophotography phase of this project and incorporate any identified need for additional control to support the mapping phase of the project. The survey Contractor shall receive approval by the County prior to initiating any field work.~~

c. Special considerations for conventional surveys

All horizontal and vertical control established by conventional surveys shall be by closed traverse or level line. These conventional surveys will span between two known control monuments and include all intermediate points as part of the traverse or level line. No side-shots or circular loops will be allowed.

Vertical control survey lines shall be tied to monuments of third order accuracy or higher. The maximum length of a line between control or junction monuments shall not exceed 10 km for a single-run line or 25 km for a double-run line unless 2<sup>nd</sup> order procedures are used. Error of closure of the 3<sup>rd</sup> order circuit in feet shall not be greater than 0.05 times the square root of the length of the level line in miles. Note: Vertical Control established by GPS observations are not prohibited by this project. However, the selected Contractor shall prove to the County that the accuracy standards can be achieved and that sufficient safeguards and checks are included in the vertical control plan to assure the County that errors will not occur.

d. Deliverables

- 1) The Contractor shall deliver to the County, at a minimum, a report containing the control plan, a control diagram identifying control point locations with intervisible station pairs noted, and horizon diagrams showing obstructions greater than 15 degrees above the horizon.

- 2) A coordinate list for all points included in the control survey. This list will contain the least squares adjusted three dimensional positions of all points and contain latitude/longitude, the State Plane Coordinates ( in both US survey feet and meters). The vertical data shall include the geoid height and list elevations in both feet and meters.

#### 4. Aerial Photography

Three (3) photo scales for the Urban and Rural areas are planned. These photo scales shall be capable of supporting 1"=100', 1"=200', and 1"=400' mapping. See Section 1.3. *General Mapping Specifications* for the specific photo scales to use on this project. All photography will be flown at an 80% forward overlap.

- a. Flight Planning. The Contractor shall develop a proposed flight plan on a standard 7.5-minute USGS quadrangle topographic base map. Flight lines must be proposed that ensure coverage of all areas identified on the project map at the appropriate scales. The principal points of the first two exposures of each flight strip must fall outside the boundaries of the area to be mapped. The flight plan must provide a minimum of 1000 feet stereo coverage outside the County boundary.

Photogrammetric targets shall be placed on all horizontal and vertical control points in the area of mapping prior to flying the photography. It will be the contractors responsibility to maintain all targets until the photography has been successfully flown and to remove all targets and anchoring materials within two weeks after the date of acceptable photography.

- b. Aerial Camera. The camera shall be a precise aerial mapping camera designed for vertical aerial photography with a 9" x 9" format. The camera shall be fitted with an appropriate glass filter with a metallic antivignetting coating. The camera shall be equipped with a low-distortion, high-resolution lens and must meet or exceed the following requirements;

- 1) A calibrated focal length of 153 mm  $\pm$  3.0 mm
- 2) a minimum aperture of f/4.5
- 3) Radial distortion that does not exceed 10 micrometers
- 4) A nominal 6-inch focal length with a usable angular field of view of at least 90°
- 5) The aerial weighted average resolution (AWAR) of the camera lens shall be a minimum of 75 mm/inch, as determined by the current USGS calibration report.
- 6) Eight fiducial marks recorded on each negative.
- 7) A current calibration report (within 2 years) from the USGS.

- c. Aerial Film. The black-and-white aerial film used on this project will be fine grain, high-speed, photographic emulsion on a dimensionally stable base.

SECTION I  
Introduction and Analysis

(D)  
NGS/County Review of Network



# Memo

**To:** Doug Richmond  
**From:** Dan Hickman  
**Date:** April 28, 1998  
**Re:** Monumentation control review

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We meet with ODOT District 5 on Friday April 24 to review the proposed placement of monuments that were in State owned RW's. Based on this discussion the following proposed monument locations should be further checked by ODOT prior to digging. (OOPS does not locate underground ODOT signal wires).

Prior to digging please contact ODOT concerning point numbers; 140, 108, 30, and 44. ODOT suggested moving point 108 approximately 500' east toward Newark. When you discuss the monuments with ODOT please remember that the monuments are being placed for Licking County and not ODOT. If you are comfortable with the current monument location and do not anticipate the auguring destroying any of ODOT's underground wiring, I see no need to move a proposed point. Please feel free to use your judgment concerning movement of the points falling in the ODOT RW or for that matter, any of the proposed monument locations.

Representatives for Heath and Newark have reviewed the proposed monument locations and concur that the selected locations are acceptable with the following exception.

Point 97 on Kelley Lane (TR 257) likely falls under the paved area for a new street (Irish Lane) that should start construction in the next several months. (See attached Subdivision Plan). Since the final monument will not be used as a photo control point, I suggest that we move the monument north to the frontage area for Heather Heights Subdivision. Restrictions prohibit lots in that subdivision from having driveways fronting on the township road.

We performed a drive by for a substantial number of panel locations and determined that little would be accomplished by moving the points from their current locations.

Please note the following items;

1. The City of Newark asked that you contact them prior to digging a hole for point 128. They have some buried traffic cable in the area.
2. Points 133 and 150 are near underground telephone cable boxes which may require that the monument hole be hand dug.
3. Point 134 has no description and no point along Texas road could not be found.
4. Point 146 either was described incorrectly or has been completely removed.

With the above described exceptions, this memo serves as the Counties acceptance of the proposed monument locations.

SECTION II  
Station List

(A)  
Numerical Order

# STATION LIST

## NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
0010	00-0049
0020	KNOX 28
0030	HARTFORD TWP 2
0040	BENNINGTON TWP 1
0050	BENNINGTON TWP 2
0060	BURLINGTON TWP 1
0070	BURLINGTON TWP 2
0080	83 DAW
0090	BURLINGTON TWP 4
0100	BURLINGTON TWP 5
0110	WASHINGTON TWP 1
0120	WASHINGTON TWP 2
0130	WASHINGTON TWP 3
0140	EDEN TWP 1
0150	EDEN TWP 2
0160	FALLSBURY TWP 1
0170	FALLSBURY TWP 2
0180	FALLSBURY TWP 3
0190	HARTFORD TWP 3
0200	HARTFORD TWP 4
0210	HARTFORD TWP 5
0220	81 DAW
0230	BENNINGTON TWP 3
0240	HARTFORD TWP 6
0250	HARTFORD TWP 7
0260	HARTFORD TWP 8
0270	BENNINGTON TWP 4
0280	BENNINGTON TWP 5
0290	BENNINGTON TWP 6
0300	BURLINGTON TWP 6
0310	BURLINGTON TWP 7
0320	WASHINGTON TWP 4
0330	WASHINGTON TWP 5
0340	WASHINGTON TWP 6
0350	EDEN TWP 3
0360	EDEN TWP 4
0370	FALLSBURY TWP 4
0380	FALLSBURY TWP 5

# STATION LIST

## NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
0390	FALLSBURY TWP 6
0400	MONROE TWP 1
0410	MONROE TWP 2
0420	MONROE TWP 3
0430	LIBERTY TWP 1
0440	LIBERTY TWP 2
0450	MCKEAN TWP 1
0460	BURLINGTON TWP 8
0470	BURLINGTON TWP 9
0480	WASHINGTON TWP 7
0490	WASHINGTON TWP 8
0500	WASHINGTON TWP 9
0510	EDEN TWP 5
0520	EDEN TWP 6
0530	FALLSBURY TWP 7
0540	FALLSBURY TWP 8
0550	FALLSBURY TWP 9
0560	MONROE TWP 4
0570	MONROE TWP 5
0580	MONROE TWP 6
0590	LIBERTY TWP 4
0600	GOLDSBERRY
0610	LIBERTY TWP 3
0620	MCKEAN TWP 2
0630	MCKEAN TWP 3
0640	NEWTON TWP 2
0650	NEWTON TWP 1
0660	MARY ANN TWP 1
0670	MARY ANN TWP 2
0680	MARY ANN TWP 3
0690	PERRY TWP 1
0700	PERRY TWP 2
0710	GPS 90
0720	07-0109
0730	MONROE TWP 7
0740	MONROE TWP 8
0750	LIBERTY TWP 5

# STATION LIST

## NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
0760	LIBERTY TWP 6
0770	MCKEAN TWP 4
0780	MCKEAN TWP 6
0790	MCKEAN TWP 5
0800	NEWTON TWP 3
0810	NEWTON TWP 4
0820	NEWTON TWP 5
0830	MARY ANN TWP 4
0840	MARY ANN TWP 5
0850	PERRY TWP 3
0860	PERRY TWP 4
0870	PERRY TWP 5
0880	JERSEY TWP 1
0890	JERSEY TWP 2
0900	JERSEY TWP 3
0910	ST ALBANS TWP 1
0920	ST ALBANS TWP 2
0930	ST ALBANS TWP 3
0940	GRANVILLE TWP 1
0950	GRANVILLE TWP 2
0960	NEWARK TWP 1
0970	NEWTON TWP 6
0980	NEWARK TWP 2
0990	MARY ANN TWP 6
1000	MADISON TWP 1
1010	PERRY TWP 6
1020	PERRY TWP 7
1030	PERRY TWP 8
1040	JERSEY TWP 4
1050	JERSEY TWP 5
1060	JERSEY TWP 6
1070	ST ALBANS TWP 5
1080	ST ALBANS TWP 6
1090	ST ALBANS TWP 4
1100	GRANVILLE TWP 3
1110	GRANVILLE TWP 4
1120	NEWARK TWP 3

# STATION LIST

NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
1130	MADISON TWP 4
1140	MADISON TWP 2
1150	MADISON TWP 3
1160	HANOVER TWP 1
1170	HANOVER TWP 2
1180	HANOVER TWP 3
1190	JERSEY TWP 7
1200	PATASKALA CITY 1
1210	JERSEY TWP 8
1220	HARRISON TWP 1
1230	ST ALBANS TWP 7
1240	ST ALBANS TWP 8
1250	GRANVILLE TWP 5
1260	GRANVILLE TWP 6
1270	NEWARK TWP 4
1280	NEWARK TWP 5
1290	NEWARK TWP 6
1300	MADISON TWP 5
1310	MADISON TWP 6
1320	MADISON TWP 7
1330	HANOVER TWP 4
1340	131 RHM RESET
1350	HANOVER TWP 5
1360	PATASKALA CITY 2
1370	PATASKALA CITY 3
1380	PATASKALA CITY 4
1390	HARRISON TWP 2
1400	HARRISON TWP 3
1410	HARRISON TWP 4
1420	UNION TWP 1
1430	UNION TWP 2
1440	LICKING TWP 1
1450	LICKING TWP 2
1460	FRANKLIN TWP 1
1470	FRANKLIN TWP 2
1480	FRANKLIN TWP 3
1490	HOPEWELL TWP 1

# STATION LIST

NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
1500	HOPEWELL TWP 2
1510	HOPEWELL TWP 3
1520	PATASKALA CITY 5
1530	TT 209 TWC
1540	PATASKALA CITY 6
1550	PATASKALA CITY 7
1560	HARRISON TWP 6
1570	UNION TWP 4
1580	UNION TWP 5
1590	UNION TWP 6
1600	LICKING TWP 4
1610	LICKING TWP 3
1620	LICKING TWP 5
1630	FRANKLIN TWP 4
1640	FRANKLIN TWP 5
1650	HOPEWELL TWP 6
1660	HOPEWELL TWP 4
1670	HOPEWELL TWP 5
1680	ETNA TWP 1
1690	ETNA TWP 2
1700	ETNA TWP 3
1710	ETNA TWP 4
1720	ETNA TWP 5
1730	UNION TWP 3
1740	UNION TWP 7
1750	UNION TWP 8
1760	UNION TWP 9
1770	LICKING TWP 6
1780	LICKING TWP 7
1790	BOWLING GREEN TWP 1
1800	BOWLING GREEN TWP 2
1810	BOWLING GREEN TWP 3
1820	BOWLING GREEN TWP 4
1830	HOPEWELL TWP 7
1840	V 102A AZ
1850	ETNA TWP 6
1860	ETNA TWP 7

# STATION LIST

NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
1870	ETNA TWP 8
1880	ETNA TWP 9
1890	UNION TWP 10
1900	WA 08
1910	UNION TWP 11
1920	LICKING TWP 9
1930	LICKING TWP 8
1940	BOWLING GREEN TWP 5
1950	BOWLING GREEN TWP 6
1960	BOWLING GREEN TWP 7
1970	BOWLING GREEN TWP 8
1980	BOWLING GREEN TWP 9
1990	BOWLING GREEN TWP 10
2010	PERRY COUNTY 1
2020	PERRY COUNTY 2
2030	G 190
2040	FAIRFIELD COUNTY 4
2050	FAIRFIELD COUNTY 3
2060	FAIRFIELD COUNTY 2
2070	FAIRFIELD COUNTY 1
2080	FAIRFIELD COUNTY 6
2090	FAIRFIELD COUNTY 5
2100	PERRY COUNTY 5
2110	PERRY COUNTY 3
2120	PERRY COUNTY 4
2130	FAIRFIELD COUNTY 9
2140	FAIRFIELD COUNTY 8
2150	FAIRFIELD COUNTY 7
7000	BUCKEYE
7001	CORN AZ MK
7002	COS 79
7003	DIST 5 HQ
7006	FRANK 48
7010	PAINTER
7012	J 190
7014	B 27
7020	Q 190



# STATION LIST

NUMERICAL ORDER

<u>SPN</u>	<u>DESIGNATION</u>
7022	S 32
7023	U 185
7024	J 272
7027	KNOX 30
7028	KNOX 32
7041	GPS 80
7044	F 191
7046	GPS 40

SECTION II  
Station List

(B)  
Alphabetical Order

# GEO METRICS

GPS, INC.

355 Butler Road  
Fredericksburg, Virginia 22405  
Phone (540) 372-3499  
Fax (540) 371-5703

June 30, 1998

Project Development Branch  
National Geodetic Survey, N/NGS21  
1315 East West Highway, Room 8853  
Silver Spring, Maryland 20910

Attn: Steve Frakes

Ref: GPS Project Plan Review  
Licking County, Ohio

Dear Steve,

Please review and comment on the attached proposed First Order survey network in the vicinity of Licking County, Ohio. I have also attached a copy of the specifications from the County. We plan to submit the project for inclusion in the NGS database.

Briefly:

1. 215 stations will be surveyed to First Order standards. The stations are single stations and are not arranged as station pairs.
2. Most of the new stations are monumented with an aluminum disk set flush with the ground in a 10 inch diameter by 36 inch reinforced poured in place concrete monument.
3. A few of the new stations are USGS bench mark stations which were recovered in good condition in an optimal location.
4. We intend to use conventional static differential carrier phase GPS observations to determine vectors between monuments. We will adhere to all specifications and standards of the FGCS as detailed in "GeoMetric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques, ver 5.0: May 11, 1988, Reprinted August 1, 1989.
5. We plan to observe the network using four Trimble 4000 SSI dual frequency receivers. Basic data processing will be performed using Trimble GPSurvey ver 2.30. Final adjustments will be performed using ADJUST.
6. During reconnaissance, an effort was made to recover all existing survey control in the vicinity of the County. The attached table "Licking County Proposed Existing Control" summarizes our efforts to date. We plan to occupy all of the stations shown on the table.

Sincerely,



Douglas A. Richmond, L.S.  
President

cc: David Conner                    N/NGS1x1 Ohio Advisor  
Dan Hickman                        Licking County  
John Antalovich, Jr.                Kucera International, Inc.



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
National Geodetic Survey  
Silver Spring, Maryland 20910-9282

July 16, 1998

Mr. Douglas A. Richmond, L.S.  
Geometrics GPS, Inc.  
355 Butler Road  
Fredericksburg, Virginia 22405

Dear Mr. Richmond:

Thank you for the information you submitted regarding the proposed first-order survey in the vicinity of Licking County, Ohio. After review, it was determined that the specifications for station geometry, instrumentation, monumentation, order-type, occupation scheme, etc., have been met according to the Federal Geodetic Control Subcommittee's standards manual. Mr. David Conner, our Ohio Geodetic Advisor, is a good source for questions and other problems that you might have with the project. He can be reached at 614-292-1619.

As long as the appropriate specifications are adhered to, the project is acceptable for the stated accuracy.

Sincerely,

A handwritten signature in cursive script that reads "Robert J. Siclari".

Robert J. Siclari  
Project Development Branch  
Spatial Reference System Division

cc: N/NGS1x1 - D. Conner



Printed on Recycled Paper





SECTION I  
Introduction and Analysis

(E)  
Project Report

# Project Report

## *Introduction*

The Licking County Board of Commissioners, Licking County, Ohio (County), contracted with Kucera International, Inc. of Willoughby, Ohio and GeoMetrics GPS, Inc. of Fredericksburg, Virginia to provide Monumentation and Digital Orthophoto Imagery services. The monumentation and imagery will provide a base for the County's Geographical Information System.

The monumentation portion of the project included the reconnaissance and inventory of existing survey control in the vicinity of the County; reconnaissance and monumentation of new survey control throughout the County; targeting of survey control to act as ground control for photogrammetry, and survey of new control.

The survey of new control was accomplished using static differential carrier phase Global Positioning System (GPS) methodology to measure vectors between existing and new survey points. Physically, all of the new points meet or exceed NGS class "C" monumentation standards (i.e. disk set in concrete). There were 231 survey marks surveyed during in the project.

The network was surveyed in accordance with the specifications and standards of the Federal Geodetic Control Subcommittee (FGCS) and is intended to achieve First Order accuracy. The project was submitted to the National Geodetic Survey for inclusion in the National Spatial Reference System (NSRS).

***Points of Contact***

Licking County Commissioners Office  
20 South Second Street  
Newark, Ohio 43055-5692  
Point of Contact: Dan Hickman, GIS Coordinator  
Telephone/Fax/Email: (614) 349-6066/349-6114/

Kucera International, Inc.  
38133 Western Parkway  
Willoughby, Ohio 44094-7589  
Point of Contract: John Antalovich, Jr., PE, President  
Telephone/Fax/Email: (440) 975-4230/4238/[map@kucera-gis.com](mailto:map@kucera-gis.com)

GeoMetrics GPS, Inc.  
236 Cambridge Street  
Fredericksburg, Virginia 22405  
Point of Contact: Douglas A. Richmond, L.S., President  
Telephone/Fax/Email: (540) 372-3499/371-5703/[maps@geometrics-gps.com](mailto:maps@geometrics-gps.com)

## ***Chronology of Field Work***

Field work on the project took place from March 1998 to December 1998. The initial reconnaissance for existing control and new stations began on March 16, 1998.

First, the existing survey control point locations in and around the County were visited by the reconnaissance team. The marks were searched for, recovered if possible, and evaluated for integrity, stability, and suitability for occupation by GPS equipment. GeoMetrics searched for control at approximately 65 locations. Reconnaissance results were as follows:

**TABLE 1**

### **Reconnaissance of Existing Control**

#### NSRS Points searched for

NSRS points not recovered	11
NSRS points recovered, not occupied	23
NSRS points recovered and occupied	<u>24</u>
Subtotal	58

#### USGS Points searched for

USGS points recovered, not occupied	3
USGS points recovered and occupied	<u>4</u>
Subtotal	7

Total	65
-------	----

The general locations for new survey control points were determined by photogrammetric requirements. Kucera chose the general locations and plotted them on a County map. GeoMetrics personnel evaluated the desired areas, and chose an exact



location based upon photogrammetric targeting requirements, sky visibility, permanence, stability, accessibility, future use, and suitability for reception of GPS signals.

At each location, GeoMetrics personnel marked the point with a hub or rebar. The points were targeted with appropriately sized and shaped aerial targeting material. The survey points were referenced to nearby objects for future recovery. In some cases, an existing NSRS or USGS monument was found at or near the desired location. Where suitable, the existing monument was used. The reconnaissance and targeting effort was completed on April 8, 1998.

GeoMetrics prepared a preliminary network diagram which was transmitted to the County and NGS. The network design was approved by NGS on July 16, 1998. The correspondence regarding preliminary network design is included in Volume I Section (D) of this report. The County used the network map and field sketches to inspect each location. Most of the locations were approved by the County. Where necessary, GeoMetrics moved the points to locations desired by the County.

GeoMetrics then contacted the Ohio Utility Protection Services (OUPS) for clearance to install a concrete monument at each location. Again, most of the locations were approved by OUPS. GeoMetrics adjusted the point locations slightly in the few instances where OUPS indicated that underground utility clearance was a problem.

GeoMetrics then installed permanent concrete monuments at each new location, replacing the temporary targeted point. The monumentation effort began on June 1, 1998 and was completed on August 4, 1998. The new monuments are poured in place concrete, ten inches in diameter, 36 inches deep, and belled at the bottom. They are

reinforced with steel rebar for strength. The steel rebar also aids future recovery when using a ferrous metal locator.

GeoMetrics began GPS observations on September 10, 1998. GPS observations were taken on 18 days, and were completed December 11, 1998. Generally, the GPS observations were taken using three Trimble 4000 SSi dual frequency receivers. Occasionally, two receivers were operated while the third person performed GPS processing and analysis. In all, four different receivers were used on the project.

The number of sessions per day varied. The sessions were designated with the Julian Day and alphabetical session i.e. 345A, 345B, etc. Weather during the period was seasonal, ranging from hot to mild to cold. Thunderstorms were present on September 28, 1998 (day 271), but did not adversely effect the survey effort. There was a power failure on September 12, 1998 at station 1020 with receiver 141, but it occurred before the scheduled start of the session. On September 13, 1998, one operator had minor difficulty locating a station (1510). There were no other significant problems. The field work is summarized in the following table.

**TABLE 2**  
**Chronology of Field Work**

<u>Date</u>	<u>JD</u>	<u>Sessions</u>	<u>Receivers</u>	<u>Ind Vectors</u>	<u>Remarks</u>
03/16/98 thru 03/25/98					Reconnaissance and Targets
03/30/98 thru 04/08/98					Reconnaissance and Targets
06/01/98 thru 06/10/98					Setting of concrete monuments
06/15/98 thru 06/24/98					Setting of concrete monuments
06/29/98 thru 07/07/98					Setting of concrete monuments
07/27/98 thru 08/04/98					Setting of concrete monuments
09/10/98	253	12	3	24	No equipment failures All vectors accepted
09/11/98	254	11 1	3 2	22 1	No equipment failures All vectors accepted
09/12/98	255	11 3	3 2	22 3	One power failure All vectors accepted

**TABLE 2**  
**Continued**  
**Chronology of Field Work**

<u>Date</u>	<u>JD</u>	<u>Sessions</u>	<u>Receivers</u>	<u>Ind Vectors</u>	<u>Remarks</u>
12/08/98	342	8	3	16	No equipment failures All vectors accepted
12/10/98	344	13	2	13	No equipment failures All vectors accepted
12/11/98	345	2	3	4	No equipment failures
		2	2	2	All vectors accepted
<hr/>					
GPS					
TOTALS :	18	207	2-3	356	

### ***Existing Survey Control***

Twenty-four existing National Spatial Reference Stations (NSRS) were recovered and occupied during the project. Four existing US Geological Survey (USGS) benchmarks were recovered and occupied during the project. An effort was made to recover and use all existing suitable stations in the vicinity of the project. The project was tied to five existing Ohio High Accuracy Reference Network (HARN) Order B horizontal stations. Fifteen additional existing First Order horizontal stations were also occupied.

Eleven existing vertical NSRS benchmarks were recovered and occupied. There were six First Order benchmarks, two Second Order benchmarks, and three Third Order benchmarks. The four usable USGS benchmarks had Third Order elevations, of which two were converted to NAVD88 and used.

There were 34 other NSRS stations which were searched for and either not recovered, found destroyed, not used due to obstructions, or not used due to network configuration. There were three USGS Benchmarks recovered but not used.

The existing control is detailed in the following tables.

**TABLE 3**  
**Existing Survey Control Occupied**

<u>PID</u>	<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>	<u>HORIZ ORDER</u>	<u>VERT ORDER</u>
KZ2326	0010	00-0049	40°16'28.51372"	82°45'03.09168"	351.6	FIRST	G
KZ2386	0720	07-0109	40°07'50.64263"	82°45'41.53315"	341.2	FIRST	G
USGS	1340	131 RHM RESET	-----	-----	239.723		THIRD (1) (2)
USGS	0220	81 DAW	-----	-----	342.569		THIRD (1)
USGS	0080	83 DAW	-----	-----	321.097		THIRD (1)
JY1560	7000	BUCKEYE	39°57'51.58516"	82°32'24.20006"	278.7	B	G
JY0005	7014	B 27	-----	-----	277.934		SECOND
KZ1246	7001	CORN AZ MK	40°01'26.03557"	82°27'52.05784"	267.0	B	G
AB6066	7002	COS 79	40°14'15.31508"	82°09'12.42055"	255.2	B	G
AB6101	7003	DIST 5 HQ	39°57'05.61686"	82°24'54.73908"	321.0	B	G
JY0822	7044	F 191	-----	-----	256.095		FIRST
KZ2386	7006	FRANK 48	39°59'13.76523"	82°46'32.35371"	310.9	FIRST	THIRD
JY0038	2030	G 190	-----	-----	285.851		FIRST
KZ1890	0600	GOLDSBERRY	40°09'18.77563"	82°36'44.85732"	404.95	FIRST	THIRD
AA5282	7046	GPS 40	39°54'57.65974"	82°13'55.01073"	312.2	FIRST	G
AA5313	7041	GPS 80	39°56'59.52775"	82°12'50.46574"	300.7	FIRST	G

**TABLE 3**

**Continued**

**Existing Survey Control Occupied**

<u>PID</u>	<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>	<u>HORIZ ORDER</u>	<u>VERT ORDER</u>
AA5322	0710	GPS 90	40°09'53.89393"	82°11'13.80419"	238.2	FIRST	G
JY0002	7012	J 190	-----	-----	275.019		FIRST
KZ0966	7024	J 272	40°19'12.07956"	82°41'30.81514"	378.455	FIRST	SECOND
AA6183	0020	KNOX 28	40°16'30.77755"	82°42'17.18448"	361.1	FIRST	G
AA6185	7027	KNOX 30	40°16'02.95598"	82°32'05.95246"	318.6	FIRST	G
AA6187	7028	KNOX 32	40°14'27.81574"	82°21'42.64858"	301.3	FIRST	G
KZ1839	7010	PAINTER	40°12'34.53726"	82°14'54.13403"	368.4	FIRST	G
JY0338	7020	Q 190	39°50'47.48015"	82°31'46.52328"	276.397	B	FIRST
KZ0723	7022	S 32	40°06'46.39144"	82°00'37.57887"	224.51	FIRST	FIRST
USGS	1530	TT 209 TWC	-----	-----	325.294		THIRD (1) (2)
JY0053	7023	U 185	39°52'40.50528"	82°15'05.96568"	247.869	FIRST	FIRST
JY1741	1900	WA 08	39°55'42.17871"	82°32'38.83137"	273.7	FIRST	THIRD

Notes:

G = GPS OBSERVATION

(1) USGS elevation published in NGVD29 and converted to NAVD88 using VERTCON

(2) Not held in final adjustment

**TABLE 4****Existing Control Not Used**

<u>PID</u>	<u>DESIGNATION</u>	<u>REMARKS</u>
KZ2191	VERNPORT	Recovered
KZ1849	DEERING	Recovered, Disturbed
AA6189	KNOX 34	Destroyed
AA6188	KNOX 33	Recovered, Disturbed
KZ1896	ASHBROOK	Recovered, Obstructed
JY0003	H 190	Recovered, Obstructed
JY1337	FLINT	Recovered, Obstructed
KZ1893	HANKINSON	Recovered, Obstructed
KZ0741	K 27	Searched for, Not recovered
KZ0742	L 27	Searched for, Not recovered
KZ0743	M 27	Searched for, Not recovered
KZ0745	N 27	Searched for, Not recovered
KZ0746	P 27	Searched for, Not recovered
KZ0748	Q 27	Searched for, Not recovered
KZ1841	NETHERS	Searched for, Not recovered
JY1335	EAGLE	Searched for, Not recovered
KZ1863	GOOD	Searched for, Not recovered
KZ1888	NEW WAY	Searched for, Not recovered
JY1338	MIKE	Searched for, Not recovered
KZ1861	COMMONS	Recovered, Obstructed
AB6184	KNOX 29	Recovered, Obstructed
JY1312	HOPEWELL	Destroyed
JY0687	B 191	Destroyed
AA5315	GPS 82	Recovered, Not used
AA5293	GPS 56	Recovered, Not used
JY0825	C 191	Recovered, Not used



**TABLE 4**

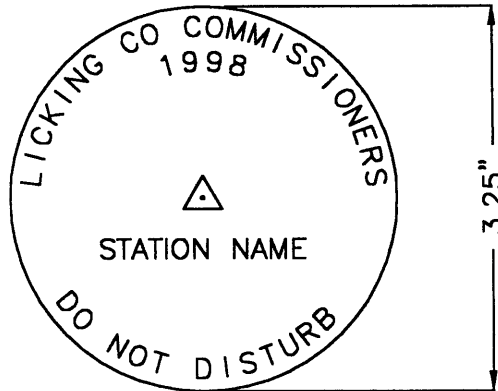
**Continued  
Existing Control Not Used**

<u>PID</u>	<u>DESIGNATION</u>	<u>REMARKS</u>
JY1710	LI 05	Recovered, Not used
JY1711	LI 06	Recovered, Not used
JY1728	RI 22	Recovered, Not used
JY1227	RI 14	Recovered, Not used
JY1310	TAYLOR	Recovered, Not used
JY1746	WA 13	Recovered, Not used
JY1740	WA 07	Recovered, Not used
AA6220	KNOX 34A	Recovered, Not used
AA6188	KNOX 33	Recovered, Disturbed
USGS	9 LRM	USGS, Recovered, Obstructed
USGS	ET/120 RHM	USGS, Recovered, Obstructed
USGS	152 RHM	USGS, Recovered, Obstructed

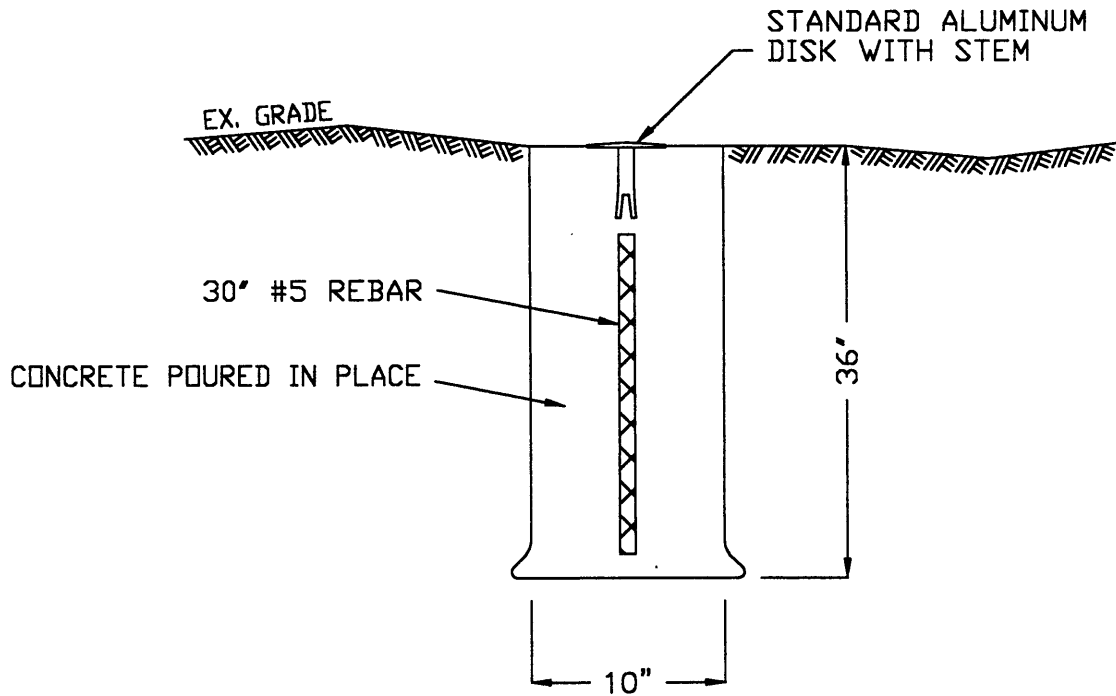
## ***New Stations***

GeoMetrics installed new concrete monuments at 203 locations. Each concrete monument consists of a 10 inch diameter, 36 inch deep bottom, belled poured in place monument. The monument is reinforced with a 30 inch long #5 rebar to add strength and to aid in future recovery with metal detectors. A Berntsen C-1 3 1/4 inch aluminum survey disk is set into the top of the mark. The marks are stamped with a designation which identifies the station and date set. The top of the mark is flush or slightly below the ground surface. A standard Licking County aluminum disk was set into the top of each monument, which is generally flush with or slightly below the ground. A Berntsen C-1 3 1/4 inch domed disk was used. Each disk is stamped "Licking Co Commissioners Do Not Disturb", the designation, and the date (1998). The center point is indicated by a dot inside of a triangle. As directed by the County, the designation of a mark placed inside the County reflects the County township where the mark was set: i.e. Bowling Green TWP 1, Newark TWP 2, etc. Marks which were placed outside of Licking County received the designation of the county in which they were set: i.e. Perry County 1, etc. The stations were sketched and referenced to nearby objects. A detail sketch of a typical monument is shown on the following page.

LICKING COUNTY, OHIO  
MONUMENT DETAIL



TYPICAL ALUMINUM DISK  
TOP VIEW



STANDARD CONCRETE MONUMENT  
SIDE VIEW

## ***Survey Equipment***

GeoMetrics used the following Trimble dual frequency geodetic GPS receivers at various times during the course of the project. No other conventional survey instrumentation was used.

**TABLE 5**

### **Survey Equipment**

<u>Equip #</u>	<u>Type</u>	<u>S/N</u>	<u>Freq</u>	<u>Channel</u>	<u>Mem</u>
276	Trimble 4000 SSi	3301A02276	L1/L2	9	1.0
539	Trimble 4000 SSi	3307A02539	L1/L2	9	2.5
605	Trimble 4000 SSi	3308A02605	L1/L2	9	2.5
141	Trimble 4000 SSi	3524A11141	L1/L2	9	1.0

## ***Data Processing***

At the end of each day, data was downloaded from the receivers into an IBM compatible computer. The data was backed up on 3 ½ inch high density floppy disks using PKZIP ver 2.04G. The message files were checked against the field log sheets. Instrument HI's were checked and corrected if necessary. No further field processing was done.

The data disks and log sheets were transmitted to the office. The data was backed up on Bernoulli zip disk and magnetic tape. The data was then processed using Trimble GPSurvey ver 2.30. Default meteorological settings were used. The program applies ionospheric corrections to lines over five kilometers in length. The GPS broadcast ephemeris was used to process vectors, since lines were comparatively short.

The GPSurvey processor (WAVE) produces a binary file with the extension .ssf. The prefix is assigned by the program and is unrelated to the name of the raw data files, Julian Day, or session. The .ssf file contains all possible solutions for the vector (triple difference, wide lane float, narrow lane float, and fixed integer double difference). Only the L1/L2 fixed integer double difference solutions were accepted. No triple difference, wide lane float, or narrow lane float solutions were accepted.

Because the number of receivers present on the project varied, only independent non-trivial lines were processed and bluebooked. Therefore, all vectors are equal in weight, regardless of the number of receivers observing simultaneously. If this procedure is not followed, a session with additional receivers would appear to be stronger and would erroneously receive a proportionally smaller adjustment.

The baselines were checked for loop closure within GPSurvey with its viewing and loop closures function. Loop closures are tabulated elsewhere in this report. Loop closures were excellent, with closures averaging 1 - 5 ppm. Repeat baselines were also examined and compared. Repeat baselines are tabulated as redundant vectors in Volume 2, Section VIII. There was one rejected baseline, 1060 - 1070, on Julian Day 257 session K, as a result of this analysis.

**Project Statistics**

**TABLE 6**  
**Project Statistics**

Number of New (Monumented NGRS) Stations	=	207	
Number of Existing (NGRS) Stations	=	<u>24</u>	
Total Number of Stations in Network	=	231	
Number of Independent Vectors Accepted	=	355	
Number of Rejected Vectors	=	<u>1</u>	
Total Number of Independent Vectors	=	336	
Independent Occupations Per Station	<u>Recommended</u>	<u>Actual</u>	
3 or more	10%	25%	
2 or more	30%	53%	New Stations
Vertical	100%	100%	
Horizontal	25%	90%	
Number of Redundant Lines = 40	5%	11%	

## ***Bluebooking***

The GPS vectors were processed one day at a time. After processing, the .ssf files were combined into a separate adjustment project. Bluebooking was performed by GPSurvey on the individual days. The GPSurvey program created the B and G files. The B and G files were then edited by hand for mistakes, weather codes, instrument numbers, etc. The individual B and G files were then combined into a project file. The default designation of A1 was used as the job code.

The description file was created with DDPROC. After creation, the program READFILE was run to produce a D file from the HA file. The program CHKDESC was run to check the D file. The program CR8SER was run to create the station file. The program COMPGB was run to check the B and G files. The programs OBSCHK and NEWCHKOB were run to check the B and G files. The program OBSDES was run to check the B and D files. Initially, the program COMPGB reported the missing (trivial) baselines because only independent non trivial baselines were processed. The program COMPGB was rerun with mode reductions not calculated. The program CHKDESC reported an invalid agency code for Licking County since the County was not in the NGS Agency .dat file. The code OH-089 was used for Licking County. Otherwise, the data validation programs reported no errors. The printouts from the NGS bluebook data validation programs are included in Volume 2., Section X.

Least squares adjustment were performed using the Trimble program TRIMNET and the NGS program ADJUST. The output from ADJUST is included in this submittal.



Three adjustments were performed. First, an unconstrained or "free" three dimensional adjustment was run holding one HARN station fixed. After the free adjustment, the programs BBACCUR and ELLACC were run on the output file to produce accuracy statistics. Second, a constrained horizontal adjustment was run holding all horizontal control fixed. Third, a constrained vertical (final) adjustment was run holding all NSRS benchmarks and two USGS benchmarks fixed.

### ***Free Adjustment***

A minimally constrained, or "free" adjustment was performed on the network using ADJUST. The HARN station BUCKEYE (SPN 7000) was held fixed. A three dimensional adjustment was chosen. The original GPS vector file was modified by scaling the vector covariance matrix elements in the file by a factor of 5.0 using the program MODGEE. Geoid heights were input as \*86\* records using the GEOID 96 model.

There were 375 degrees of freedom in the least squares adjustment. The use of a scale factor of 5.0 produced a standard deviation of unit weight of 1.00. The accuracy of all vectors was better than 1:100,000. The mean absolute residuals were 1 cm or less (4 mm north and east, 1 cm up). The output from the free adjustment is shown in Volume 2, Section XI of this report.

The programs BBACCUR and ELLAC were run on the free adjustment output file to produce statistical accuracies.

### ***Constrained Horizontal Adjustment***

A constrained two dimensional adjustment was then performed on the network using ADJUST. All known existing NSRS horizontal stations (5 B and 15 First Order) were held fixed. As in the free adjustment, the GPS vector file scaled by 5.0 was used. The B file which was output from the free adjustment was used as input for this adjustment.

There were 643 degrees of freedom in the constrained horizontal adjustment. Due to the high accuracy of the existing control, the standard deviation of unit weight rose only slightly to 1.01. The mean absolute residuals were 1 cm north and east, 2.2 cm up. The output from the constrained horizontal adjustment is shown in Volume 3, Section XII of this report.

### ***Constrained Vertical (Final) Adjustment***

Finally, a constrained one dimensional vertical adjustment was performed on the network using ADJUST. All eight known existing NSRS vertical stations and two USGS benchmarks were held fixed. The elevations of the two USGS benchmarks 83 DAW (SPN 0080) and 81 DAW (SPN 0220) were converted to NAVD88 using VERTCON ver 2.0 and held since they seemed to fit acceptably ( $\pm 2$ cm). The elevations of the other two USGS benchmarks 131 RHM RESET (SPN 1340) and TT 209 TWC (SPN 1530) were not held since they did not fit at the 2 cm level.

The B file which was output from the constrained horizontal adjustment was used as input for this adjustment. As before, the GPS vector file scaled by 5.0 was used.

There were 844 degrees of freedom in the least squares adjustment. The standard deviation of unit weight was 0.74. The mean absolute residuals were 1 cm north and east, 1.8 cm up. The output from the constrained vertical (final) adjustment is shown in Volume 3, Section XIII of this report.

***Final Coordinates***

Final coordinates were output in the NAD83/95 horizontal datum, NAVD88 vertical datum. Both geographical and Ohio State Plane, South Zone coordinates were calculated. The US Survey Foot is used to convert from meters (1 meter = 39.37 inches).

## Digital Data

### Free Adjustment Data Files

(Subdirectory: Free on CD-Rom)

A File	LICKFREE.A
B File (in)	LICKING.B
G File (original)	LICKING.G
G File (scaled 5.0)	LICKING5.G
Adjustment Output	FREEADJ.TXT
BBACCUR	BBACCUR.TXT
ELLACC	ELLACC.TXT
B File (out)	FREEOUT.B

### Constrained Horizontal Adjustment Data Files

(Subdirectory: Horizontal on CD-Rom)

A File	LICKCONH.A
B File (in)	HORIZ_IN.B (= FREEOUT.B)
G File	LICKING5.G
Adjustment Output	HORIZ.TXT
B File (out)	HORIZOUT.B

### Constrained Vertical Adjustment Data Files

(Subdirectory: Vertical on CD-Rom)

A File	LICKCONV.A
B File (in)	VERT_IN.B (= HORIZOUT.B)
G File	LICKING5.G
Adjustment Output	VERTICAL.TXT
B File (out)	VERT_OUT.B
Adjusted Positions	ADJPOS
Final Coordinates	GEOG.TXT
	SPLANE.TXT

**Description Data Files**

(Subdirectory: Desc on CD-Rom)

D File	LICKING.D
HA File	LICKING.HA
STT File	LICKING.STT

**Data Checking Files**

(Subdirectory: Validate on CD-Rom)

STATION FILE	SERFIL
COMPGB OUTPUT	COMPGB.TXT
OBSCHK OUTPUT (long)	LONG.TXT
OBSCHK OUTPUT (short)	SHORT.TXT
CHKDESC OUTPUT	CHKDESC.TXT
OBSDESC OUTPUT	OBSDESC.TXT
NEWCHKOB OUTPUT	NEWCHKOB.TXT

**Raw Data**

(Subdirectory: Rawgps on CD-Rom)

(Subdirectory: DYYMJD)

<u>File Type</u>	<u>File Name</u>
Trimble Data	*.DAT
Trimble Ephemeris	*EPH

**Baseline Vector Data**

(Subdirectory: Trimvec on CD-Rom)

<u>File Type</u>	<u>File Name</u>
Trimble Vector	*.SSF

SECTION III  
Final Coordinates, NAD83/95, NAVD88

(A)  
Geographic, meter



# FINAL COORDINATES

GEOGRAPHIC  
NAD83/95, NAVD88  
METERS

<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>
0010	00-0049	40°16'28.51372" N	82°45'03.09168" W	351.674
0020	KNOX 28	40°16'30.77755" N	82°42'17.18448" W	361.086
0030	HARTFORD TWP 2	40°16'25.94321" N	82°40'31.25099" W	358.318
0040	BENNINGTON TWP 1	40°16'21.26841" N	82°38'28.94929" W	341.566
0050	BENNINGTON TWP 2	40°15'59.95930" N	82°35'10.01299" W	335.997
0060	BURLINGTON TWP 1	40°16'05.64669" N	82°32'59.89657" W	319.830
0070	BURLINGTON TWP 2	40°15'59.40378" N	82°31'00.86792" W	310.006
0080	83 DAW	40°15'23.99503" N	82°33'14.36868" W	321.097
0090	BURLINGTON TWP 4	40°15'20.20554" N	82°31'04.39024" W	300.716
0100	BURLINGTON TWP 5	40°15'06.59135" N	82°28'38.16581" W	318.140
0110	WASHINGTON TWP 1	40°14'39.65817" N	82°27'08.12427" W	294.808
0120	WASHINGTON TWP 2	40°14'34.83309" N	82°25'06.62778" W	336.493
0130	WASHINGTON TWP 3	40°14'29.94895" N	82°22'58.99249" W	340.559
0140	EDEN TWP 1	40°13'57.06254" N	82°20'11.92736" W	319.019
0150	EDEN TWP 2	40°14'14.72247" N	82°17'57.85956" W	349.225
0160	FALLSBURY TWP 1	40°14'02.63555" N	82°15'04.18747" W	268.110
0170	FALLSBURY TWP 2	40°14'22.26210" N	82°13'00.53386" W	272.148
0180	FALLSBURY TWP 3	40°13'44.70695" N	82°11'25.27298" W	250.829
0190	HARTFORD TWP 3	40°14'46.65543" N	82°45'11.59804" W	345.387
0200	HARTFORD TWP 4	40°14'41.13438" N	82°42'52.03302" W	352.800
0210	HARTFORD TWP 5	40°14'20.36681" N	82°41'10.94476" W	352.641
0220	81 DAW	40°14'21.98588" N	82°38'31.10881" W	342.569
0230	BENNINGTON TWP 3	40°14'43.62750" N	82°34'57.01970" W	322.180
0240	HARTFORD TWP 6	40°13'05.16124" N	82°45'18.40490" W	338.006
0250	HARTFORD TWP 7	40°13'00.59474" N	82°42'54.91786" W	356.277
0260	HARTFORD TWP 8	40°12'59.69894" N	82°40'52.70850" W	358.268
0270	BENNINGTON TWP 4	40°12'49.83602" N	82°38'24.20841" W	356.633
0280	BENNINGTON TWP 5	40°13'10.55273" N	82°35'57.03204" W	341.703
0290	BENNINGTON TWP 6	40°13'39.02614" N	82°33'40.72184" W	327.195
0300	BURLINGTON TWP 6	40°13'35.83069" N	82°31'10.04996" W	302.028
0310	BURLINGTON TWP 7	40°13'20.17221" N	82°29'01.83087" W	319.388
0320	WASHINGTON TWP 4	40°13'38.34497" N	82°26'04.56166" W	307.815
0330	WASHINGTON TWP 5	40°13'20.74875" N	82°24'16.35747" W	348.221
0340	WASHINGTON TWP 6	40°13'11.30838" N	82°22'37.41559" W	347.510
0350	EDEN TWP 3	40°12'44.49928" N	82°20'09.14910" W	344.161
0360	EDEN TWP 4	40°12'57.36462" N	82°17'56.72910" W	322.642
0370	FALLSBURY TWP 4	40°12'48.63791" N	82°15'23.42420" W	338.599
0380	FALLSBURY TWP 5	40°12'39.84293" N	82°13'02.60152" W	323.594
0390	FALLSBURY TWP 6	40°12'36.94512" N	82°11'07.17569" W	252.054
0400	MONROE TWP 1	40°11'21.80796" N	82°45'25.52096" W	337.049

# FINAL COORDINATES

GEOGRAPHIC  
NAD83/95, NAVD88  
METERS

<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>
0410	MONROE TWP 2	40°11'30.48202" N	82°43'02.76816" W	348.398
0420	MONROE TWP 3	40°10'43.47312" N	82°41'33.46603" W	354.030
0430	LIBERTY TWP 1	40°11'33.83635" N	82°38'55.79680" W	359.513
0440	LIBERTY TWP 2	40°11'13.68914" N	82°36'37.35274" W	356.294
0450	MCKEAN TWP 1	40°11'28.47307" N	82°33'35.92896" W	360.488
0460	BURLINGTON TWP 8	40°11'50.52305" N	82°31'05.94446" W	342.643
0470	BURLINGTON TWP 9	40°11'36.90965" N	82°28'59.17326" W	351.950
0480	WASHINGTON TWP 7	40°11'48.59484" N	82°27'12.79670" W	308.999
0490	WASHINGTON TWP 8	40°11'56.19497" N	82°25'03.83841" W	283.139
0500	WASHINGTON TWP 9	40°11'33.02058" N	82°22'34.00808" W	331.282
0510	EDEN TWP 5	40°11'11.02302" N	82°20'15.20915" W	316.681
0520	EDEN TWP 6	40°11'13.70764" N	82°17'51.24078" W	345.771
0530	FALLSBURY TWP 7	40°11'25.64636" N	82°15'54.28904" W	293.862
0540	FALLSBURY TWP 8	40°10'54.64043" N	82°13'47.59025" W	274.757
0550	FALLSBURY TWP 9	40°10'59.52926" N	82°11'14.71113" W	243.104
0560	MONROE TWP 4	40°09'21.44483" N	82°45'33.95850" W	342.216
0570	MONROE TWP 5	40°09'25.74509" N	82°43'12.33600" W	343.319
0580	MONROE TWP 6	40°09'24.67550" N	82°40'46.23521" W	356.106
0590	LIBERTY TWP 4	40°09'30.23318" N	82°39'03.50765" W	351.746
0600	GOLDSBERRY	40°09'18.77563" N	82°36'44.85732" W	404.950
0610	LIBERTY TWP 3	40°10'16.20595" N	82°33'47.97554" W	372.988
0620	MCKEAN TWP 2	40°09'48.76941" N	82°31'13.59694" W	358.969
0630	MCKEAN TWP 3	40°09'50.71905" N	82°29'05.94120" W	315.192
0640	NEWTON TWP 2	40°09'18.32119" N	82°27'11.15076" W	284.461
0650	NEWTON TWP 1	40°09'46.07366" N	82°24'21.78208" W	280.378
0660	MARY ANN TWP 1	40°09'48.83244" N	82°21'50.96847" W	288.612
0670	MARY ANN TWP 2	40°09'30.13509" N	82°19'43.89726" W	338.724
0680	MARY ANN TWP 3	40°09'14.71084" N	82°17'32.95400" W	270.657
0690	PERRY TWP 1	40°09'05.19650" N	82°15'33.09888" W	275.097
0700	PERRY TWP 2	40°09'19.67846" N	82°13'23.83071" W	249.675
0710	GPS 90	40°09'53.89393" N	82°11'13.80419" W	238.263
0720	07-0109	40°07'50.64263" N	82°45'41.53315" W	341.273
0730	MONROE TWP 7	40°07'54.72521" N	82°43'17.94572" W	351.026
0740	MONROE TWP 8	40°08'01.28240" N	82°40'29.14668" W	335.669
0750	LIBERTY TWP 5	40°07'46.48978" N	82°38'08.96365" W	342.003
0760	LIBERTY TWP 6	40°07'10.05354" N	82°36'56.21876" W	331.300
0770	MCKEAN TWP 4	40°08'00.32622" N	82°33'37.17819" W	330.880
0780	MCKEAN TWP 6	40°07'26.82193" N	82°31'53.26000" W	307.684
0790	MCKEAN TWP 5	40°08'10.43579" N	82°29'06.74381" W	314.839
0800	NEWTON TWP 3	40°07'56.33740" N	82°27'18.77689" W	294.763

# FINAL COORDINATES

GEOGRAPHIC  
NAD83/95, NAVD88  
METERS

<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>
0810	NEWTON TWP 4	40°08'01.38788" N	82°25'28.83393" W	263.500
0820	NEWTON TWP 5	40°07'54.42012" N	82°22'33.62238" W	307.644
0830	MARY ANN TWP 4	40°08'16.71522" N	82°20'36.84017" W	276.081
0840	MARY ANN TWP 5	40°07'34.40140" N	82°18'07.58586" W	256.198
0850	PERRY TWP 3	40°07'34.42305" N	82°15'15.28718" W	252.933
0860	PERRY TWP 4	40°07'47.89683" N	82°13'33.94207" W	246.238
0870	PERRY TWP 5	40°07'20.91637" N	82°11'22.60410" W	255.293
0880	JERSEY TWP 1	40°06'34.11174" N	82°45'11.15158" W	345.644
0890	JERSEY TWP 2	40°05'52.05289" N	82°43'26.60655" W	359.449
0900	JERSEY TWP 3	40°06'08.39804" N	82°41'08.28012" W	361.118
0910	ST ALBANS TWP 1	40°06'42.94528" N	82°39'22.81780" W	312.961
0920	ST ALBANS TWP 2	40°05'56.77673" N	82°37'46.38245" W	301.814
0930	ST ALBANS TWP 3	40°06'38.40989" N	82°34'17.97021" W	341.622
0940	GRANVILLE TWP 1	40°06'32.30882" N	82°31'07.28295" W	362.357
0950	GRANVILLE TWP 2	40°06'36.75925" N	82°29'07.66750" W	296.172
0960	NEWARK TWP 1	40°05'58.77839" N	82°27'04.05354" W	285.559
0970	NEWTON TWP 6	40°06'41.95481" N	82°24'56.84083" W	268.191
0980	NEWARK TWP 2	40°05'45.37473" N	82°23'02.92606" W	321.449
0990	MARY ANN TWP 6	40°06'37.56768" N	82°20'06.79384" W	318.553
1000	MADISON TWP 1	40°05'37.92009" N	82°18'23.03666" W	270.731
1010	PERRY TWP 6	40°06'32.61217" N	82°16'43.82851" W	247.525
1020	PERRY TWP 7	40°05'50.64123" N	82°13'59.12473" W	270.106
1030	PERRY TWP 8	40°05'49.88992" N	82°11'43.54840" W	249.024
1040	JERSEY TWP 4	40°04'17.12942" N	82°45'15.18864" W	345.375
1050	JERSEY TWP 5	40°04'40.89846" N	82°43'27.27787" W	357.701
1060	JERSEY TWP 6	40°04'35.55842" N	82°41'18.38346" W	367.956
1070	ST ALBANS TWP 5	40°04'30.66157" N	82°39'23.62064" W	348.802
1080	ST ALBANS TWP 6	40°04'28.35969" N	82°36'17.76066" W	301.127
1090	ST ALBANS TWP 4	40°05'11.89526" N	82°34'19.61213" W	285.073
1100	GRANVILLE TWP 3	40°04'42.86456" N	82°31'53.56598" W	308.511
1110	GRANVILLE TWP 4	40°03'48.45988" N	82°29'34.77193" W	277.950
1120	NEWARK TWP 3	40°04'37.43274" N	82°27'13.25437" W	269.646
1130	MADISON TWP 4	40°04'18.58347" N	82°22'24.84444" W	281.414
1140	MADISON TWP 2	40°05'17.42581" N	82°21'05.26740" W	304.050
1150	MADISON TWP 3	40°04'38.62448" N	82°18'37.51681" W	248.582
1160	HANOVER TWP 1	40°04'45.83365" N	82°15'49.52599" W	242.681
1170	HANOVER TWP 2	40°03'58.71439" N	82°13'39.44558" W	245.631
1180	HANOVER TWP 3	40°04'26.75704" N	82°11'32.07325" W	250.706
1190	JERSEY TWP 7	40°03'01.10696" N	82°45'19.86061" W	332.879
1200	PATASKALA CITY 1	40°02'29.99370" N	82°44'03.49202" W	335.288

# FINAL COORDINATES

GEOGRAPHIC  
NAD83/95, NAVD88  
METERS

<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>
1210	JERSEY TWP 8	40°03'20.07428" N	82°42'30.07589" W	358.057
1220	HARRISON TWP 1	40°02'31.09570" N	82°40'10.12505" W	374.975
1230	ST ALBANS TWP 7	40°02'58.86613" N	82°38'41.95602" W	358.675
1240	ST ALBANS TWP 8	40°03'02.41628" N	82°36'48.37705" W	323.947
1250	GRANVILLE TWP 5	40°03'06.51209" N	82°33'04.60269" W	333.018
1260	GRANVILLE TWP 6	40°02'47.08481" N	82°31'23.90922" W	324.402
1270	NEWARK TWP 4	40°02'35.06448" N	82°27'57.02370" W	269.883
1280	NEWARK TWP 5	40°02'59.33127" N	82°26'29.33451" W	267.421
1290	NEWARK TWP 6	40°02'34.84982" N	82°24'44.99886" W	248.572
1300	MADISON TWP 5	40°02'19.33782" N	82°22'05.85417" W	309.692
1310	MADISON TWP 6	40°02'59.70554" N	82°20'31.88990" W	282.143
1320	MADISON TWP 7	40°02'41.00297" N	82°18'39.67314" W	259.338
1330	HANOVER TWP 4	40°02'29.65152" N	82°15'52.01332" W	248.230
1340	131 RHM RESET	40°03'38.89502" N	82°17'18.33061" W	239.812
1350	HANOVER TWP 5	40°02'22.55056" N	82°11'42.04336" W	261.421
1360	PATASKALA CITY 2	40°01'03.21792" N	82°45'55.23998" W	328.320
1370	PATASKALA CITY 3	40°00'40.89805" N	82°43'32.23144" W	318.421
1380	PATASKALA CITY 4	40°00'59.79558" N	82°40'41.42191" W	316.752
1390	HARRISON TWP 2	40°01'05.26199" N	82°37'27.48391" W	353.739
1400	HARRISON TWP 3	40°01'56.70443" N	82°35'39.16058" W	361.888
1410	HARRISON TWP 4	40°00'52.49171" N	82°34'34.57619" W	338.155
1420	UNION TWP 1	40°01'21.43148" N	82°31'26.64340" W	298.001
1430	UNION TWP 2	40°01'12.08716" N	82°28'50.55003" W	276.905
1440	LICKING TWP 1	40°01'09.32152" N	82°27'00.28259" W	261.298
1450	LICKING TWP 2	40°01'06.10761" N	82°24'57.29636" W	296.047
1460	FRANKLIN TWP 1	40°01'38.52317" N	82°22'54.63391" W	325.555
1470	FRANKLIN TWP 2	40°01'06.19104" N	82°20'10.01098" W	317.259
1480	FRANKLIN TWP 3	40°00'46.02707" N	82°18'29.34418" W	323.193
1490	HOPEWELL TWP 1	40°00'57.07514" N	82°16'16.17330" W	307.373
1500	HOPEWELL TWP 2	40°01'10.11140" N	82°13'23.03500" W	252.582
1510	HOPEWELL TWP 3	40°00'28.15434" N	82°11'50.83052" W	312.803
1520	PATASKALA CITY 5	39°59'35.74946" N	82°45'57.66367" W	320.431
1530	TT 209 TWC	39°59'46.56883" N	82°43'00.31848" W	325.241
1540	PATASKALA CITY 6	39°59'46.40849" N	82°40'31.88972" W	306.358
1550	PATASKALA CITY 7	39°58'57.78847" N	82°39'52.65662" W	297.209
1560	HARRISON TWP 6	39°58'46.43549" N	82°37'34.83253" W	306.331
1570	UNION TWP 4	39°58'43.12132" N	82°33'07.58236" W	290.350
1580	UNION TWP 5	40°00'05.64456" N	82°31'26.33486" W	334.569
1590	UNION TWP 6	39°59'00.37844" N	82°30'26.15240" W	274.608
1600	LICKING TWP 4	39°59'04.68330" N	82°27'41.35833" W	274.491

# FINAL COORDINATES

GEOGRAPHIC  
NAD83/95, NAVD88  
METERS

<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>
1610	LICKING TWP 3	39°59'53.68013" N	82°25'44.69410" W	272.270
1620	LICKING TWP 5	39°59'06.97223" N	82°23'15.26763" W	287.094
1630	FRANKLIN TWP 4	39°59'00.78872" N	82°19'54.87751" W	341.186
1640	FRANKLIN TWP 5	39°58'52.60496" N	82°18'01.65096" W	377.862
1650	HOPEWELL TWP 6	39°58'32.25628" N	82°16'00.69071" W	310.335
1660	HOPEWELL TWP 4	39°59'14.33684" N	82°14'09.78914" W	344.553
1670	HOPEWELL TWP 5	39°59'12.07954" N	82°11'48.50901" W	330.308
1680	ETNA TWP 1	39°58'17.66464" N	82°46'12.42953" W	312.359
1690	ETNA TWP 2	39°58'13.45076" N	82°43'44.83604" W	326.153
1700	ETNA TWP 3	39°57'33.14655" N	82°40'56.18108" W	320.673
1710	ETNA TWP 4	39°57'29.23176" N	82°38'48.97649" W	308.156
1720	ETNA TWP 5	39°57'32.89815" N	82°36'34.92273" W	290.118
1730	UNION TWP 3	39°57'30.75782" N	82°34'13.98983" W	279.008
1740	UNION TWP 7	39°57'27.79741" N	82°32'08.38613" W	277.110
1750	UNION TWP 8	39°57'37.78223" N	82°29'56.59514" W	271.810
1760	UNION TWP 9	39°57'39.54195" N	82°27'49.85286" W	271.409
1770	LICKING TWP 6	39°57'34.75187" N	82°25'18.07815" W	306.711
1780	LICKING TWP 7	39°57'35.87049" N	82°23'11.07262" W	353.777
1790	BOWLING GREEN TWP 1	39°57'21.12955" N	82°20'55.48825" W	291.165
1800	BOWLING GREEN TWP 2	39°57'15.44167" N	82°18'43.45299" W	334.443
1810	BOWLING GREEN TWP 3	39°56'57.20276" N	82°16'17.96167" W	315.770
1820	BOWLING GREEN TWP 4	39°56'48.24468" N	82°14'16.49054" W	285.644
1830	HOPEWELL TWP 7	39°57'07.96006" N	82°11'55.89350" W	298.940
1840	V 102A AZ	39°56'19.35125" N	82°46'06.90293" W	291.681
1850	ETNA TWP 6	39°56'13.62078" N	82°43'50.82126" W	314.569
1860	ETNA TWP 7	39°56'19.63201" N	82°41'49.24880" W	324.053
1870	ETNA TWP 8	39°56'17.65218" N	82°38'54.70974" W	334.825
1880	ETNA TWP 9	39°56'19.38579" N	82°36'53.85570" W	319.500
1890	UNION TWP 10	39°56'13.24048" N	82°34'30.06067" W	279.624
1900	WA 08	39°55'42.17871" N	82°32'38.83137" W	273.661
1910	UNION TWP 11	39°55'43.30040" N	82°29'34.52743" W	269.361
1920	LICKING TWP 9	39°55'27.03626" N	82°26'23.24782" W	276.632
1930	LICKING TWP 8	39°56'18.36768" N	82°24'29.75416" W	328.491
1940	BOWLING GREEN TWP 5	39°55'50.79195" N	82°22'28.72902" W	286.339
1950	BOWLING GREEN TWP 6	39°55'26.15473" N	82°20'24.71174" W	293.371
1960	BOWLING GREEN TWP 7	39°55'52.13342" N	82°18'22.12371" W	304.514
1970	BOWLING GREEN TWP 8	39°54'58.07143" N	82°18'22.22108" W	265.268
1980	BOWLING GREEN TWP 9	39°54'50.46504" N	82°15'11.95885" W	289.877
1990	BOWLING GREEN TWP 10	39°55'50.39808" N	82°14'16.35036" W	283.479
2010	PERRY COUNTY 1	39°54'19.41229" N	82°22'15.62539" W	277.496

# FINAL COORDINATES

GEOGRAPHIC  
NAD83/95, NAVD88  
METERS

<u>SPN</u>	<u>DESIGNATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>ELEV</u>
2020	PERRY COUNTY 2	39°54'55.80827" N	82°24'31.89754" W	273.192
2030	G 190	39°53'45.86546" N	82°26'12.29120" W	285.851
2040	FAIRFIELD COUNTY 4	39°54'56.82970" N	82°29'08.65716" W	274.265
2050	FAIRFIELD COUNTY 3	39°54'48.08928" N	82°32'00.65865" W	271.983
2060	FAIRFIELD COUNTY 2	39°54'37.00085" N	82°36'08.12510" W	310.736
2070	FAIRFIELD COUNTY 1	39°54'59.30824" N	82°39'36.56077" W	319.301
2080	FAIRFIELD COUNTY 6	39°53'25.25497" N	82°35'03.50762" W	285.560
2090	FAIRFIELD COUNTY 5	39°53'28.14552" N	82°32'08.16307" W	282.381
2100	PERRY COUNTY 5	39°53'22.99524" N	82°28'00.52407" W	329.514
2110	PERRY COUNTY 3	39°52'27.65444" N	82°23'00.30894" W	315.092
2120	PERRY COUNTY 4	39°51'59.76247" N	82°24'48.91072" W	339.465
2130	FAIRFIELD COUNTY 9	39°52'16.00749" N	82°28'07.43157" W	302.619
2140	FAIRFIELD COUNTY 8	39°52'08.99695" N	82°32'13.91064" W	274.158
2150	FAIRFIELD COUNTY 7	39°52'03.54559" N	82°35'09.11014" W	279.495
7000	BUCKEYE	39°57'51.58516" N	82°32'24.20006" W	278.717
7001	CORN AZ MK	40°01'26.03557" N	82°27'52.05784" W	267.041
7002	COS 79	40°14'15.31508" N	82°09'12.42055" W	255.306
7003	DIST 5 HQ	39°57'05.61686" N	82°24'54.73908" W	321.044
7006	FRANK 48	39°59'13.76523" N	82°46'32.35371" W	310.891
7010	PAINTER	40°12'34.53726" N	82°14'54.13403" W	368.448
7012	J 190	39°55'28.21288" N	82°24'49.64682" W	275.019
7014	B 27	39°59'13.10136" N	82°26'08.35601" W	277.934
7020	Q 190	39°50'47.48015" N	82°31'46.52328" W	276.397
7022	S 32	40°06'46.39144" N	82°00'37.57887" W	224.612
7023	U 185	39°52'40.50528" N	82°15'05.96568" W	247.869
7024	J 272	40°19'12.07956" N	82°41'30.81514" W	378.455
7027	KNOX 30	40°16'02.95598" N	82°32'05.95246" W	318.574
7028	KNOX 32	40°14'27.81574" N	82°21'42.64858" W	301.360
7041	GPS 80	39°56'59.52775" N	82°12'50.46574" W	300.658
7044	F 191	39°53'01.60388" N	82°45'02.83180" W	256.095
7046	GPS 40	39°54'57.65974" N	82°13'55.01073" W	312.214

SECTION III  
Final Coordinates, NAD83/95, NAVD88

(B)  
Ohio State Plane, South Zone, U.S. Survey Foot

# FINAL COORDINATES

OHIO STATE PLANE, SOUTH ZONE  
 NAD83/95, NAVD88  
 US SURVEY FOOT

<u>SPN</u>	<u>DESIGNATION</u>	<u>NORTH</u>	<u>EAST</u>	<u>ELEV</u>	<u>COMBINED CONVERGENCE</u>	
					<u>FACTOR</u>	<u>ANGLE</u>
0010	00-0049	828583.202	1898497.089	1153.784	1.000001575	-0°09'33.02
0020	KNOX 28	828779.858	1911357.836	1184.663	1.000000272	-0°07'47.75
0030	HARTFORD TWP 2	828273.335	1919568.210	1175.582	1.000000340	-0°06'40.54
0040	BENNINGTON TWP 1	827783.615	1929047.749	1120.621	1.000002611	-0°05'22.93
0050	BENNINGTON TWP 2	825607.689	1944466.642	1102.350	1.000001883	-0°03'16.70
0060	BURLINGTON TWP 1	826175.657	1954554.067	1049.309	1.000004841	-0°01'54.14
0070	BURLINGTON TWP 2	825540.452	1963781.282	1017.078	1.000005912	-0°00'38.62
0080	83 DAW	821961.131	1953429.641	1053.466	1.000001540	-0°02'03.33
0090	BURLINGTON TWP 4	821573.622	1963507.432	986.599	1.000004452	-0°00'40.85
0100	BURLINGTON TWP 5	820196.167	1974845.451	1043.764	1.000000719	+0°00'51.92
0110	WASHINGTON TWP 1	817473.256	1981828.743	967.216	1.000002400	+0°01'49.05
0120	WASHINGTON TWP 2	816991.701	1991251.078	1103.977	0.999995520	+0°03'06.15
0130	WASHINGTON TWP 3	816508.304	2001149.858	1117.317	0.999994528	+0°04'27.13
0140	EDEN TWP 1	813200.332	2014112.055	1046.648	0.999995523	+0°06'13.14
0150	EDEN TWP 2	815008.457	2024506.628	1145.749	0.999992066	+0°07'38.21
0160	FALLSBURY TWP 1	813818.792	2037979.354	879.624	1.000003898	+0°09'28.41
0170	FALLSBURY TWP 2	815833.232	2047563.688	892.872	1.000004684	+0°10'46.87
0180	FALLSBURY TWP 3	812056.949	2054964.556	822.928	1.000005316	+0°11'47.31
0190	HARTFORD TWP 3	818276.973	1897808.815	1133.157	0.999994989	-0°09'38.42
0200	HARTFORD TWP 4	817690.218	1908630.237	1157.478	0.999993425	-0°08'09.87
0210	HARTFORD TWP 5	815571.152	1916465.099	1156.956	0.999991940	-0°07'05.72
0220	81 DAW	815712.464	1928861.369	1123.912	0.999993635	-0°05'24.30
0230	BENNINGTON TWP 3	817881.950	1945466.872	1057.019	0.999998403	-0°03'08.46
0240	HARTFORD TWP 6	808007.363	1897251.950	1108.941	0.999988848	-0°09'42.74
0250	HARTFORD TWP 7	807516.249	1908382.269	1168.885	0.999985663	-0°08'11.70
0260	HARTFORD TWP 8	807404.777	1917863.012	1175.418	0.999985288	-0°06'54.15
0270	BENNINGTON TWP 4	806386.164	1929382.059	1170.053	0.999984849	-0°05'19.93
0280	BENNINGTON TWP 5	808467.539	1940802.723	1121.071	0.999988650	-0°03'46.54
0290	BENNINGTON TWP 6	811339.618	1951379.138	1073.472	0.999992949	-0°02'20.05
0300	BURLINGTON TWP 6	811011.015	1963066.323	990.904	0.999996662	-0°00'44.44
0310	BURLINGTON TWP 7	809426.212	1973012.381	1047.859	0.999992828	+0°00'36.90
0320	WASHINGTON TWP 4	811271.486	1986762.435	1009.890	0.999995935	+0°02'29.39
0330	WASHINGTON TWP 5	809498.244	1995157.476	1142.455	0.999988353	+0°03'38.04
0340	WASHINGTON TWP 6	808552.172	2002834.018	1140.122	0.999987794	+0°04'40.82
0350	EDEN TWP 3	805857.418	2014340.889	1129.135	0.999986428	+0°06'14.90
0360	EDEN TWP 4	807180.133	2024611.721	1058.535	0.999990703	+0°07'38.92
0370	FALLSBURY TWP 4	806326.273	2036507.547	1110.887	0.999987590	+0°09'16.20
0380	FALLSBURY TWP 5	805468.068	2047435.772	1061.658	0.999989322	+0°10'45.55



# FINAL COORDINATES

OHIO STATE PLANE, SOUTH ZONE  
NAD83/95, NAVD88  
US SURVEY FOOT

<u>SPN</u>	<u>DESIGNATION</u>	<u>NORTH</u>	<u>EAST</u>	<u>ELEV</u>	<u>COMBINED FACTOR</u>	<u>CONVERGENCE ANGLE</u>
0390	FALLSBURY TWP 6	805204.434	2056392.176	826.947	1.000000324	+0°11'58.79
0400	MONROE TWP 1	797549.824	1896670.124	1105.802	0.999981817	-0°09'47.26
0410	MONROE TWP 2	798398.503	1907751.289	1143.036	0.999980632	-0°08'16.68
0420	MONROE TWP 3	793625.607	1914671.648	1161.513	0.999976558	-0°07'20.01
0430	LIBERTY TWP 1	798699.080	1926918.667	1179.502	0.999979121	-0°05'39.97
0440	LIBERTY TWP 2	796644.815	1937660.332	1168.941	0.999978249	-0°04'12.12
0450	MCKEAN TWP 1	798127.627	1951742.135	1182.701	0.999978601	-0°02'17.01
0460	BURLINGTON TWP 8	800353.986	1963382.619	1124.155	0.999982910	-0°00'41.84
0470	BURLINGTON TWP 9	798976.264	1973220.496	1154.689	0.999980516	+0°00'38.59
0480	WASHINGTON TWP 7	800161.674	1981475.306	1013.774	0.999988047	+0°01'46.09
0490	WASHINGTON TWP 8	800937.922	1991482.021	928.932	0.999992621	+0°03'07.92
0500	WASHINGTON TWP 9	798606.002	2003112.006	1086.881	0.999983487	+0°04'42.99
0510	EDEN TWP 5	796396.987	2013887.741	1038.978	0.999984272	+0°06'11.06
0520	EDEN TWP 6	796691.239	2025061.023	1134.417	0.999979899	+0°07'42.41
0530	FALLSBURY TWP 7	797921.384	2034134.810	964.112	0.999988843	+0°08'56.62
0540	FALLSBURY TWP 8	794811.180	2043977.139	901.432	0.999989728	+0°10'17.01
0550	FALLSBURY TWP 9	795344.199	2055841.654	797.584	0.999995016	+0°11'54.01
0560	MONROE TWP 4	785371.394	1895980.291	1122.754	0.999972964	-0°09'52.61
0570	MONROE TWP 5	785777.364	1906977.986	1126.372	0.999973073	-0°08'22.75
0580	MONROE TWP 6	785644.024	1918321.950	1168.324	0.999971000	-0°06'50.04
0590	LIBERTY TWP 4	786191.842	1926299.342	1154.020	0.999972047	-0°05'44.86
0600	GOLDSBERRY	785016.681	1937063.398	1328.573	0.999962964	-0°04'16.88
0610	LIBERTY TWP 3	790815.047	1950802.092	1223.711	0.999971761	-0°02'24.65
0620	MCKEAN TWP 2	788033.007	1962785.987	1177.717	0.999972136	-0°00'46.69
0630	MCKEAN TWP 3	788230.005	1972697.053	1034.092	0.999979121	+0°00'34.30
0640	NEWTON TWP 2	784954.522	1981610.933	933.269	0.999981806	+0°01'47.13
0650	NEWTON TWP 1	787773.220	1994759.274	919.873	0.999984267	+0°03'34.60
0660	MARY ANN TWP 1	788067.297	2006468.031	946.888	0.999983160	+0°05'10.30
0670	MARY ANN TWP 2	786191.970	2016337.318	1111.297	0.999974080	+0°06'30.92
0680	MARY ANN TWP 3	784652.418	2026507.982	887.981	0.999983732	+0°07'54.01
0690	PERRY TWP 1	783712.713	2035817.257	902.547	0.999982417	+0°09'10.06
0700	PERRY TWP 2	785206.986	2045850.765	819.142	0.999987343	+0°10'32.08
0710	GPS 90	788702.400	2055935.059	781.701	0.999991380	+0°11'54.59
0720	07-0109	776184.356	1895365.525	1119.660	0.999967271	-0°09'57.42
0730	MONROE TWP 7	776567.651	1906519.803	1151.658	0.999966002	-0°08'26.31
0740	MONROE TWP 8	777202.425	1919632.484	1101.274	0.999968823	-0°06'39.20
0750	LIBERTY TWP 5	775686.761	1930518.616	1122.055	0.999966894	-0°05'10.25
0760	LIBERTY TWP 6	771991.742	1936164.520	1086.940	0.999966285	-0°04'24.09
0770	MCKEAN TWP 4	777064.010	1951631.112	1085.562	0.999969512	-0°02'17.80
0780	MCKEAN TWP 6	773669.444	1959701.571	1009.460	0.999971032	-0°01'11.86

# FINAL COORDINATES

OHIO STATE PLANE, SOUTH ZONE  
NAD83/95, NAVD88  
US SURVEY FOOT

<u>SPN</u>	<u>DESIGNATION</u>	<u>NORTH</u>	<u>EAST</u>	<u>ELEV</u>	<u>COMBINED FACTOR</u>	<u>CONVERGENCE ANGLE</u>
0790	MCKEAN TWP 5	778081.753	1972636.402	1032.934	0.999972668	+0°00'33.79
0800	NEWTON TWP 3	776657.831	1981022.888	967.068	0.999974916	+0°01'42.29
0810	NEWTON TWP 4	777174.594	1989562.200	864.500	0.999980133	+0°02'52.06
0820	NEWTON TWP 5	776484.512	2003172.315	1009.329	0.999972777	+0°04'43.23
0830	MARY ANN TWP 4	778754.750	2012239.439	905.776	0.999979139	+0°05'57.33
0840	MARY ANN TWP 5	774495.556	2023841.075	840.543	0.999979571	+0°07'32.04
0850	PERRY TWP 3	774530.626	2037225.381	829.831	0.999980084	+0°09'21.36
0860	PERRY TWP 4	775916.750	2045093.812	807.866	0.999981982	+0°10'25.67
0870	PERRY TWP 5	773219.491	2055305.071	837.574	0.999978868	+0°11'49.00
0880	JERSEY TWP 1	768433.153	1897703.728	1134.000	0.999961815	-0°09'38.14
0890	JERSEY TWP 2	764155.605	1905816.275	1179.292	0.999957090	-0°08'31.80
0900	JERSEY TWP 3	765785.242	1916569.405	1184.768	0.999957819	-0°07'04.03
0910	ST ALBANS TWP 1	769265.693	1924770.696	1026.773	0.999967477	-0°05'57.11
0920	ST ALBANS TWP 2	764581.858	1932256.734	990.201	0.999966402	-0°04'55.92
0930	ST ALBANS TWP 3	768776.836	1948456.094	1120.805	0.999962709	-0°02'43.68
0940	GRANVILLE TWP 1	768152.031	1963272.085	1188.833	0.999959087	-0°00'42.69
0950	GRANVILLE TWP 2	768602.174	1972566.186	971.691	0.999969726	+0°00'33.20
0960	NEWARK TWP 1	764762.115	1982172.953	936.871	0.999969070	+0°01'51.64
0970	NEWTON TWP 6	769138.591	1992054.686	879.890	0.999974428	+0°03'12.36
0980	NEWARK TWP 2	763422.842	2000912.912	1054.621	0.999962638	+0°04'24.64
0990	MARY ANN TWP 6	768725.710	2014591.381	1045.119	0.999966270	+0°06'16.40
1000	MADISON TWP 1	762705.754	2022666.115	888.223	0.999970133	+0°07'22.23
1010	PERRY TWP 6	768257.945	2030362.736	812.088	0.999977091	+0°08'25.18
1020	PERRY TWP 7	764045.347	2043172.783	886.173	0.999970997	+0°10'09.69
1030	PERRY TWP 8	764002.660	2053709.085	817.006	0.999974254	+0°11'35.71
1040	JERSEY TWP 4	754572.386	1897351.025	1133.118	0.999953663	-0°09'40.70
1050	JERSEY TWP 5	756955.407	1905746.224	1173.557	0.999953123	-0°08'32.23
1060	JERSEY TWP 6	756392.139	1915764.692	1207.202	0.999951203	-0°07'10.44
1070	ST ALBANS TWP 5	755879.571	1924685.109	1144.361	0.999953916	-0°05'57.62
1080	ST ALBANS TWP 6	755625.717	1939133.262	987.947	0.999961248	-0°03'59.69
1090	ST ALBANS TWP 4	760022.205	1948321.527	935.277	0.999966330	-0°02'44.72
1100	GRANVILLE TWP 3	757077.984	1959672.005	1012.173	0.999960942	-0°01'12.05
1110	GRANVILLE TWP 4	751571.167	1970461.519	911.908	0.999962565	+0°00'16.00
1120	NEWARK TWP 3	756530.105	1981462.171	884.664	0.999966710	+0°01'45.80
1130	MADISON TWP 4	754644.143	2003884.722	923.272	0.999963765	+0°04'48.80
1140	MADISON TWP 2	760607.985	2010061.403	997.537	0.999963688	+0°05'39.29
1150	MADISON TWP 3	756703.068	2021553.356	815.556	0.999970079	+0°07'13.04
1160	HANOVER TWP 1	757463.374	2034610.316	796.196	0.999971428	+0°08'59.64
1170	HANOVER TWP 2	752723.749	2044736.275	805.874	0.999968218	+0°10'22.18

# FINAL COORDINATES

OHIO STATE PLANE, SOUTH ZONE  
NAD83/95, NAVD88  
US SURVEY FOOT

<u>SPN</u>	<u>DESIGNATION</u>	<u>NORTH</u>	<u>EAST</u>	<u>ELEV</u>	<u>COMBINED FACTOR</u>	<u>CONVERGENCE ANGLE</u>
1180	HANOVER TWP 3	755593.252	2054629.528	822.525	0.999969052	+0°11'43.00
1190	JERSEY TWP 7	746880.561	1896966.047	1092.121	0.999951264	-0°09'43.66
1200	PATASKALA CITY 1	743716.062	1902896.750	1100.024	0.999949144	-0°08'55.21
1210	JERSEY TWP 8	748765.981	1910173.942	1174.725	0.999948395	-0°07'55.93
1220	HARRISON TWP 1	743786.993	1921047.232	1230.230	0.999942989	-0°06'27.13
1230	ST ALBANS TWP 7	746585.185	1927909.126	1176.753	0.999947098	-0°05'31.19
1240	ST ALBANS TWP 8	746931.791	1936742.251	1062.816	0.999952737	-0°04'19.12
1250	GRANVILLE TWP 5	747330.382	1954144.465	1092.577	0.999951548	-0°01'57.13
1260	GRANVILLE TWP 6	745361.267	1961974.334	1064.309	0.999951803	-0°00'53.24
1270	NEWARK TWP 4	744145.877	1978064.394	885.441	0.999959670	+0°01'18.03
1280	NEWARK TWP 5	746604.974	1984882.766	877.364	0.999961416	+0°02'13.67
1290	NEWARK TWP 6	744134.217	1992999.007	815.523	0.999962996	+0°03'19.87
1300	MADISON TWP 5	742579.560	2005378.663	1016.048	0.999952561	+0°05'00.85
1310	MADISON TWP 6	746676.144	2012679.979	925.664	0.999959132	+0°06'00.47
1320	MADISON TWP 7	744800.360	2021410.642	850.845	0.999961653	+0°07'11.68
1330	HANOVER TWP 4	743682.345	2034452.916	814.401	0.999962760	+0°08'58.06
1340	131 RHM RESET	750672.583	2027723.107	786.783	0.999967989	+0°08'03.29
1350	HANOVER TWP 5	743021.984	2053896.912	857.679	0.999960299	+0°11'36.67
1360	PATASKALA CITY 2	734959.214	1894179.685	1077.163	0.999945494	-0°10'06.11
1370	PATASKALA CITY 3	732670.415	1905300.477	1044.686	0.999945853	-0°08'35.37
1380	PATASKALA CITY 4	734552.944	1918594.877	1039.211	0.999947122	-0°06'46.99
1390	HARRISON TWP 2	735080.821	1933684.759	1160.559	0.999941622	-0°04'43.93
1400	HARRISON TWP 3	740276.126	1942117.982	1187.294	0.999943138	-0°03'35.20
1410	HARRISON TWP 4	733773.649	1947136.267	1109.430	0.999943380	-0°02'54.22
1420	UNION TWP 1	736693.958	1961759.385	977.692	0.999951223	-0°00'54.97
1430	UNION TWP 2	735748.079	1973903.216	908.479	0.999954023	+0°00'44.06
1440	LICKING TWP 1	735471.510	1982482.190	857.275	0.999956318	+0°01'54.03
1450	LICKING TWP 2	735153.392	1992050.939	971.281	0.999950703	+0°03'12.07
1460	FRANKLIN TWP 1	738444.232	2001590.023	1068.092	0.999947834	+0°04'29.90
1470	FRANKLIN TWP 2	735192.524	2014402.274	1040.874	0.999947386	+0°06'14.35
1480	FRANKLIN TWP 3	733167.554	2022238.667	1060.342	0.999945379	+0°07'18.23
1490	HOPEWELL TWP 1	734309.647	2032597.597	1008.440	0.999948446	+0°08'42.73
1500	HOPEWELL TWP 2	735666.514	2046064.488	828.679	0.999957726	+0°10'32.59
1510	HOPEWELL TWP 3	731443.903	2053252.252	1026.255	0.999946059	+0°11'31.09
1520	PATASKALA CITY 5	726108.862	1893965.041	1051.281	0.999942130	-0°10'07.65
1530	TT 209 TWC	727166.770	1907770.415	1067.062	0.999941936	-0°08'15.12
1540	PATASKALA CITY 6	727125.453	1919322.083	1005.110	0.999944885	-0°06'40.94
1550	PATASKALA CITY 7	722199.872	1922366.494	975.093	0.999943828	-0°06'16.05
1560	HARRISON TWP 6	721033.788	1933093.365	1005.021	0.999941825	-0°04'48.60
1570	UNION TWP 4	720677.874	1953897.372	952.590	0.999944161	-0°01'59.02

# FINAL COORDINATES

OHIO STATE PLANE, SOUTH ZONE  
 NAD83/95, NAVD88  
 US SURVEY FOOT

<u>SPN</u>	<u>DESIGNATION</u>	<u>NORTH</u>	<u>EAST</u>	<u>ELEV</u>	<u>COMBINED CONVERGENCE FACTOR</u>	<u>ANGLE</u>
1580	UNION TWP 5	729025.045	1961781.352	1097.665	0.999941467	-0°00'54.78
1590	UNION TWP 6	722419.977	1966464.268	900.943	0.999947499	-0°00'16.59
1600	LICKING TWP 4	722857.803	1979291.837	900.559	0.999947735	+0°01'27.97
1610	LICKING TWP 3	727821.275	1988369.059	893.272	0.999950601	+0°02'41.99
1620	LICKING TWP 5	723106.729	2000003.981	941.908	0.999945878	+0°04'16.81
1630	FRANKLIN TWP 4	722505.253	2015603.307	1119.374	0.999937092	+0°06'23.96
1640	FRANKLIN TWP 5	721695.087	2024418.785	1239.702	0.999930934	+0°07'35.80
1650	HOPEWELL TWP 6	719658.588	2033840.048	1018.157	0.999940486	+0°08'52.55
1660	HOPEWELL TWP 4	723940.435	2042461.242	1130.421	0.999937254	+0°10'02.92
1670	HOPEWELL TWP 5	723746.555	2053458.744	1083.685	0.999939370	+0°11'32.57
1680	ETNA TWP 1	718210.960	1892792.181	1024.798	0.999939441	-0°10'17.02
1690	ETNA TWP 2	717752.799	1904281.860	1070.054	0.999937072	-0°08'43.37
1700	ETNA TWP 3	713644.566	1917404.348	1052.075	0.999935950	-0°06'56.35
1710	ETNA TWP 4	713230.379	1927308.888	1011.008	0.999937720	-0°05'35.64
1720	ETNA TWP 5	713586.541	1937748.027	951.829	0.999940724	-0°04'10.58
1730	UNION TWP 3	713359.010	1948722.064	915.379	0.999942360	-0°02'41.16
1740	UNION TWP 7	713053.699	1958502.580	909.152	0.999942513	-0°01'21.46
1750	UNION TWP 8	714062.075	1968765.126	891.763	0.999943829	+0°00'02.16
1760	UNION TWP 9	714242.165	1978634.074	890.448	0.999943977	+0°01'22.58
1770	LICKING TWP 6	713764.955	1990452.624	1006.268	0.999938215	+0°02'58.88
1780	LICKING TWP 7	713888.655	2000342.113	1160.683	0.999930898	+0°04'19.47
1790	BOWLING GREEN TWP 1	712412.527	2010902.206	955.264	0.999939989	+0°05'45.50
1800	BOWLING GREEN TWP 2	711856.292	2021185.237	1097.252	0.999932936	+0°07'09.28
1810	BOWLING GREEN TWP 3	710036.851	2032519.833	1035.989	0.999934985	+0°08'41.59
1820	BOWLING GREEN TWP 4	709156.094	2041982.535	937.150	0.999939276	+0°09'58.67
1830	HOPEWELL TWP 7	711185.195	2052925.843	980.772	0.999938136	+0°11'27.88
1840	V 102A AZ	706237.795	1893186.840	956.957	0.999936965	-0°10'13.51
1850	ETNA TWP 6	705628.635	1903784.888	1032.048	0.999933112	-0°08'47.17
1860	ETNA TWP 7	706214.464	1913255.835	1063.164	0.999931908	-0°07'30.03
1870	ETNA TWP 8	705988.118	1926850.530	1098.505	0.999930128	-0°05'39.28
1880	ETNA TWP 9	706149.803	1936264.278	1048.226	0.999932610	-0°04'22.59
1890	UNION TWP 10	705516.191	1947464.128	917.400	0.999938567	-0°02'51.35
1900	WA 08	702367.412	1956126.590	897.836	0.999938060	-0°01'40.78
1910	UNION TWP 11	702477.967	1970484.376	883.729	0.999938785	+0°00'16.16
1920	LICKING TWP 9	700837.795	1985386.625	907.583	0.999936900	+0°02'17.53
1930	LICKING TWP 8	706039.329	1994223.356	1077.724	0.999931154	+0°03'29.54
1940	BOWLING GREEN TWP 5	703260.341	2003654.058	939.431	0.999936472	+0°04'46.34
1950	BOWLING GREEN TWP 6	700782.624	2013319.420	962.501	0.999934238	+0°06'05.03
1960	BOWLING GREEN TWP 7	703430.036	2022864.322	999.060	0.999933687	+0°07'22.81
1970	BOWLING GREEN TWP 8	697959.649	2022868.480	870.300	0.999937367	+0°07'22.75

# FINAL COORDINATES

OHIO STATE PLANE, SOUTH ZONE  
 NAD83/95, NAVD88  
 US SURVEY FOOT

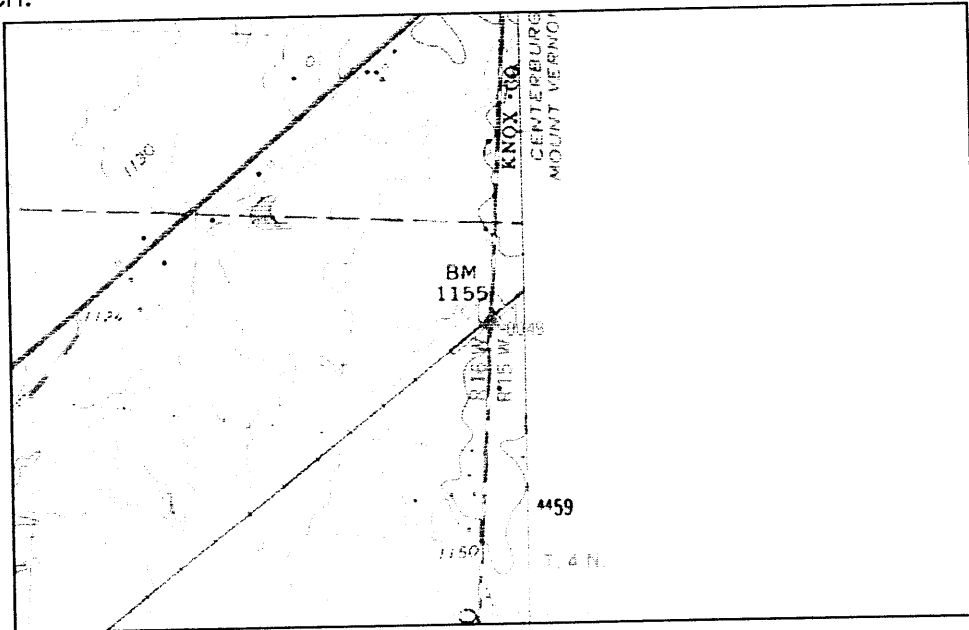
SPN	DESIGNATION	NORTH	EAST	ELEV	COMBINED CONVERGENCE	
					FACTOR	ANGLE
1980	BOWLING GREEN TWP 9	697226.144	2037695.113	951.038	0.999933171	+0°09'23.47
1990	BOWLING GREEN TWP 10	703302.782	2042010.445	930.047	0.999936901	+0°09'58.76
2010	PERRY COUNTY 1	694015.350	2004688.040	910.418	0.999933730	+0°04'54.65
2020	PERRY COUNTY 2	697685.196	1994064.836	896.297	0.999936024	+0°03'28.18
2030	G 190	690601.233	1986247.399	937.829	0.999930956	+0°02'24.48
2040	FAIRFIELD COUNTY 4	697775.966	1972500.476	899.818	0.999935902	+0°00'32.57
2050	FAIRFIELD COUNTY 3	696892.978	1959098.320	892.331	0.99993586	-0 01'16.56
2060	FAIRFIELD COUNTY 2	695785.473	1939814.556	1019.473	0.999929303	-0°03'53.58
2070	FAIRFIELD COUNTY 1	698066.285	1923576.623	1047.573	0.999928960	-0°06'05.83
2080	FAIRFIELD COUNTY 6	688520.563	1944842.970	936.875	0.999930115	-0°03'12.58
2090	FAIRFIELD COUNTY 5	688803.972	1958510.389	926.445	0.999930736	-0°01'21.32
2100	PERRY COUNTY 5	688282.577	1977812.687	1081.081	0.999923134	+0°01'15.80
2110	PERRY COUNTY 3	682702.282	2001220.518	1033.764	0.999923063	+0°04'26.30
2120	PERRY COUNTY 4	679870.504	1992756.264	1113.728	0.999918099	+0°03'17.39
2130	FAIRFIELD COUNTY 9	681504.176	1977276.621	992.843	0.999924536	+0°01'11.42
2140	FAIRFIELD COUNTY 8	680795.443	1958059.099	899.467	0.999928705	-0°01'24.96
2150	FAIRFIELD COUNTY 7	680253.153	1944398.418	916.977	0.999927646	-0°03'16.13
7000	BUCKEYE	715461.263	1957272.219	914.424	0.999943422	-0°01'31.49
7001	CORN AZ MK	737160.910	1978453.360	876.117	0.999956321	+0°01'21.18
7002	COS 79	815191.891	2065257.409	837.616	1.000006819	+0°13'11.61
7003	DIST 5 HQ	710818.474	1992272.753	1053.292	0.999934562	+0°03'13.69
7006	FRANK 48	723892.395	1891258.333	1019.982	0.999942497	-0°10'29.66
7010	PAINTER	804905.546	2038783.943	1208.816	0.999981926	+0°09'34.78
7012	J 190	700962.766	1992678.731	902.292	0.999937207	+0°03'16.92
7014	B 27	723713.744	1986530.508	911.855	0.999947625	+0°02'26.98
7020	Q 190	672546.371	1960191.765	906.812	0.999925090	-0°01'07.59
7022	S 32	769947.768	2105432.495	736.915	0.999981528	+0°18'38.29
7023	U 185	684077.325	2038198.259	813.217	0.999934126	+0°09'27.28
7024	J 272	845096.043	1914986.797	1241.648	1.000010051	-0°07'18.33
7027	KNOX 30	825901.387	1958735.814	1045.188	1.000004836	-0°01'19.91
7028	KNOX 32	816300.788	2007070.786	988.712	1.000000512	+0°05'15.57
7041	GPS 80	710318.133	2048678.694	986.409	0.999937463	+0°10'53.25
7044	F 191	686214.091	1898121.827	840.205	0.999933724	-0°09'32.86
7046	GPS 40	697971.239	2043688.641	1024.322	0.999929996	+0°10'12.30

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

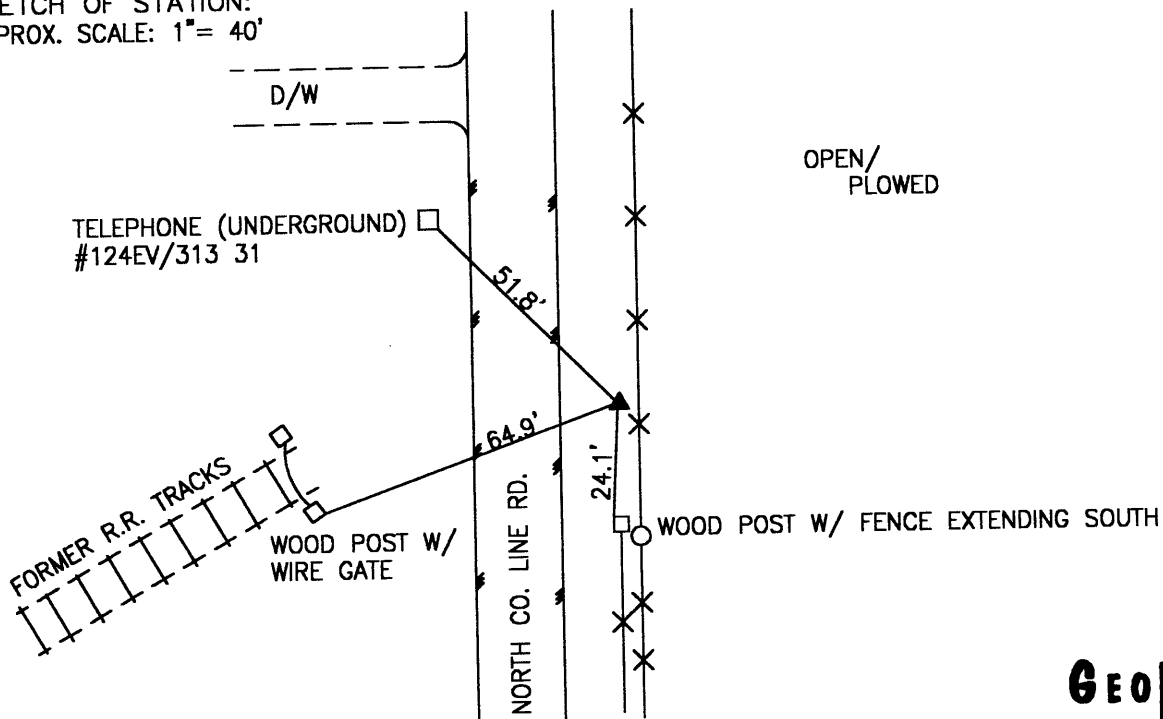
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	00-0049		1998
N: 828583.202	E: 1898497.089	LAT: 40°16'28.51372" N	LONG: 82°45'03.09168" W
ELEV.: 1153.784 (GPS)	COMB. FACTOR: 1.000001575		θ ANGLE: -0°09'33.02

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 0010.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 0010  
Designation: 00-0049

PID: KZ2326

Latitude: 401628N  
Longitude: 0824503W  
Elevation: 351.6M  
Stamping: 00-0049 1991

State: OH  
County: LICKING  
Disk From: OH-041

Surface Mark-  
    Type: Traverse Station disk  
Magnetic code: 0  
    Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 04011998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED WITH THE EXCEPTION THAT THE MONUMENT IS IN LICKING  
COUNTY.

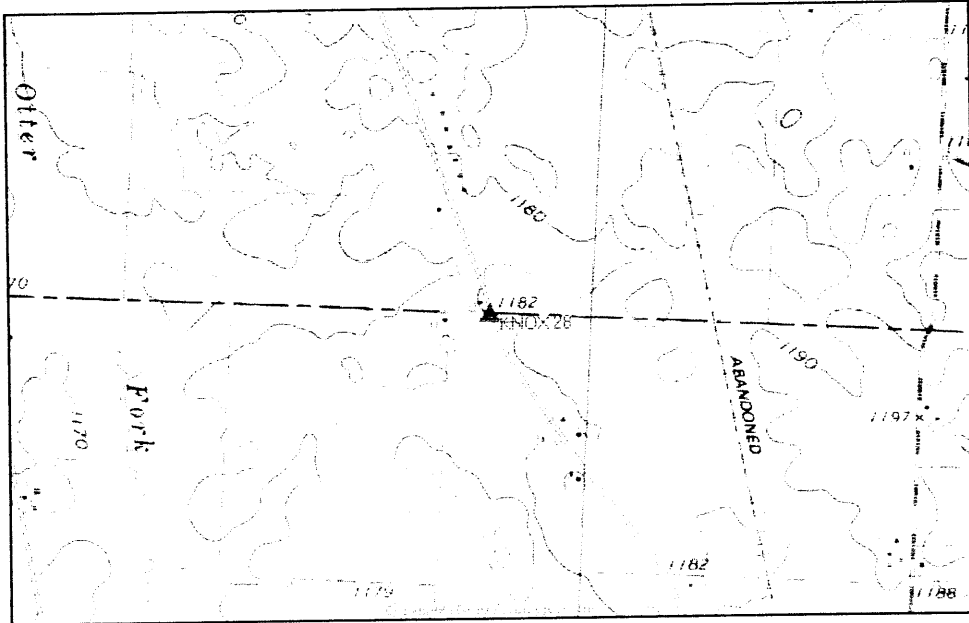
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

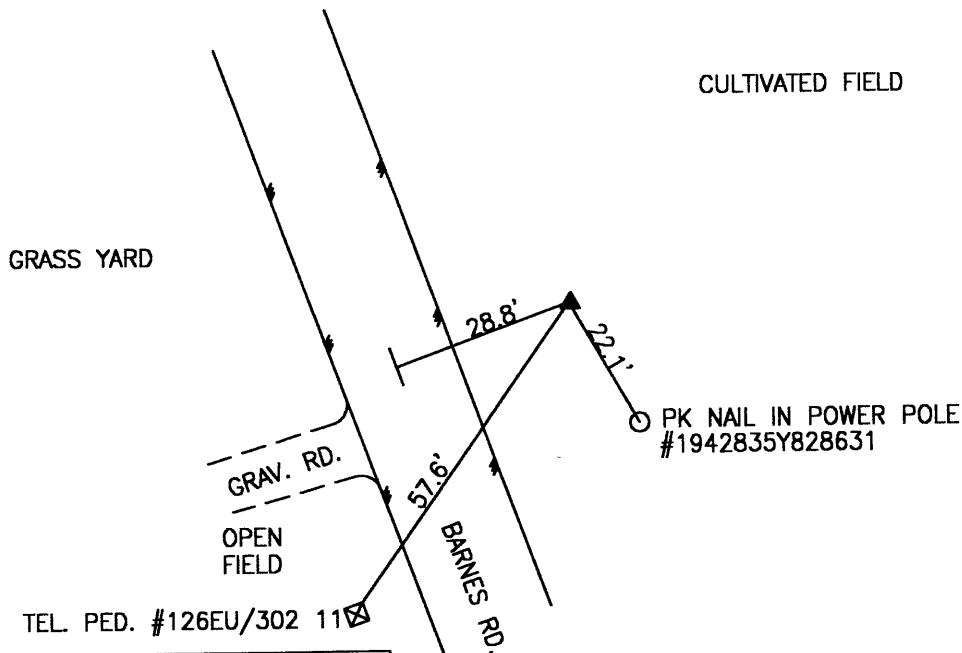
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
KNOX	KNOX 28		1998
N: 828779.858	E: 1911357.836	LAT: 40°16'30.77755" N	LONG: 82°42'17.18448" W
ELEV.: 1184.663	(GPS)	COMB. FACTOR: 1.000000272	Θ ANGLE: -0°07'47.75

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 0020.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



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\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 0020  
Designation: KNOX 28

PID: AA6183

Latitude: 401630N  
Longitude: 0824217W  
Elevation: 239.8M  
Stamping: 28 1993

State: OH  
County: KNOX  
Disk From: OH-083

Surface Mark-  
Type: Survey disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 06021998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED.

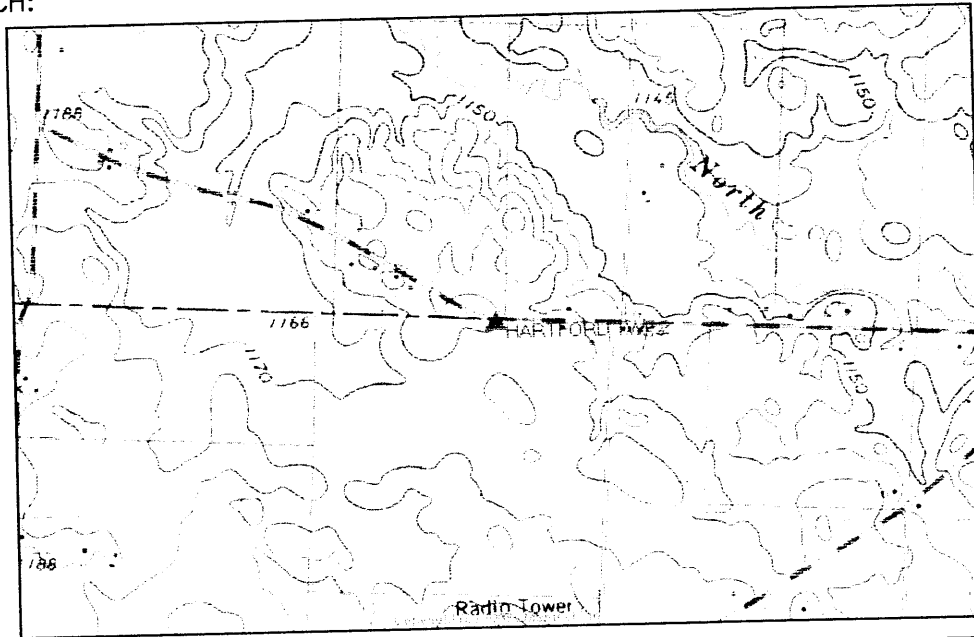
JN 98016

# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

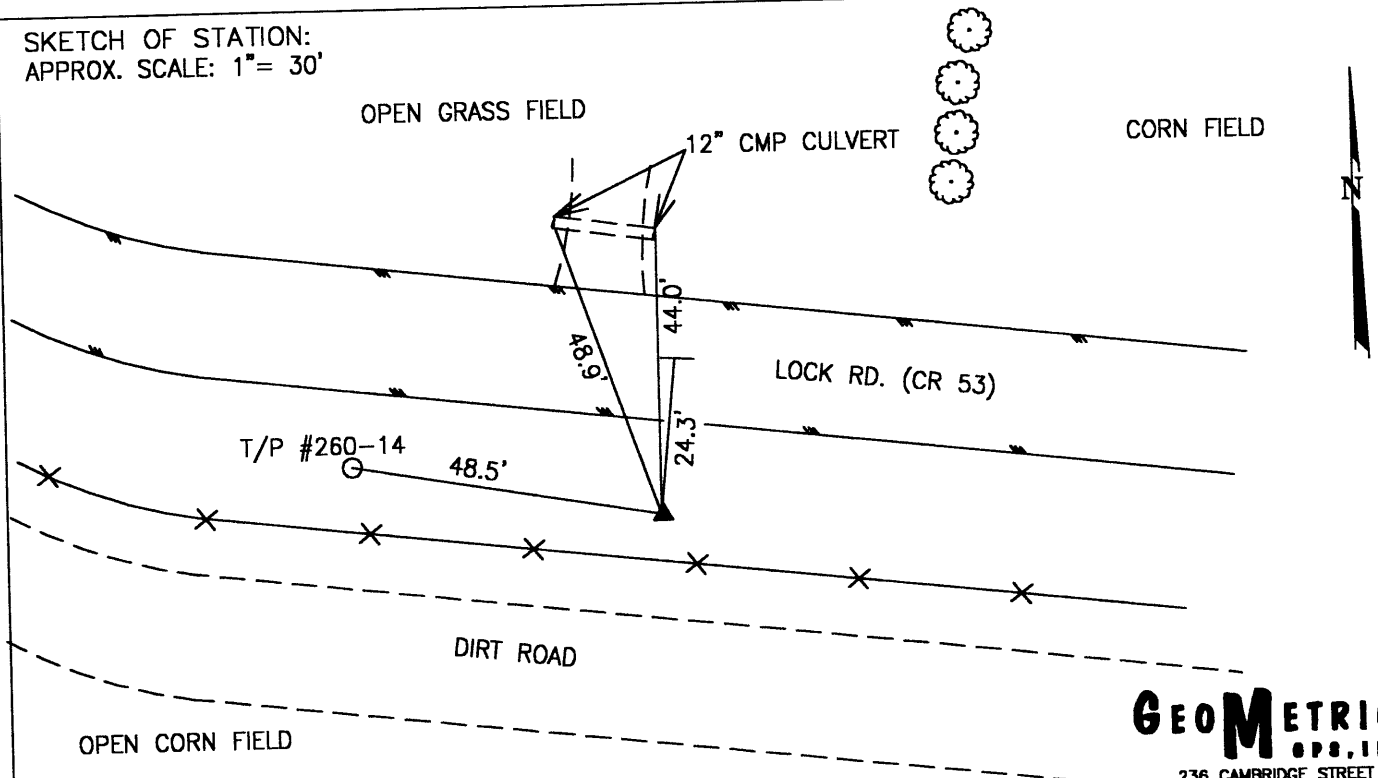
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARTFORD TWP 2		1998
N: 828273.335	E: 1919568.210	LAT: 40°16'25.94321" N	LONG: 82°40'31.25099" W
ELEV.: 1175.582 (GPS)	COMB. FACTOR: 1.000000340		Ø ANGLE: -0°06'40.54

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0030.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0030

Designation: HARTFORD TWP 2

PID:

Latitude: 401625N  
Longitude: 0824031W  
Elevation: 341.2M  
Stamping: HARTFORD TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARTFORD TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHEAST OF THE TOWN OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF BENNINGTON CHAPEL ROAD (CR 2) AND FAIRGROUNDS ROAD (CR 44) IN THE CITY OF HARTFORD PROCEED NORTHEAST ALONG FAIRGROUNDS ROAD (CR 44) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH BRIAR ROAD (T-55) . TURN LEFT AND PROCEED NORTH ALONG BRIAR ROAD (T-55) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH LOCK ROAD (CR 53) . TURN LEFT AND PROCEED WEST ALONG LOCK ROAD (CR 53) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE STATION ON THE LEFT ON THE SOUTH SIDE OF THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 2 1998. THE STATION IS 48.5 FEET (14.8 M) AZIMUTH 280 DEGREES TO A TELEPHONE POLE WITH NUMBER 260-14, 44.0 FEET (13.4 M) AZIMUTH 0 DEGREES TO A 12 INCH CMP CULVERT, 48.9 FEET (14.9 M) AZIMUTH 340 DEGREES TO A 12 INCH CMP CULVERT AND 24.3 FEET (7.4 M) SOUTH FROM THE CENTERLINE LOCK ROAD (CR 53) .

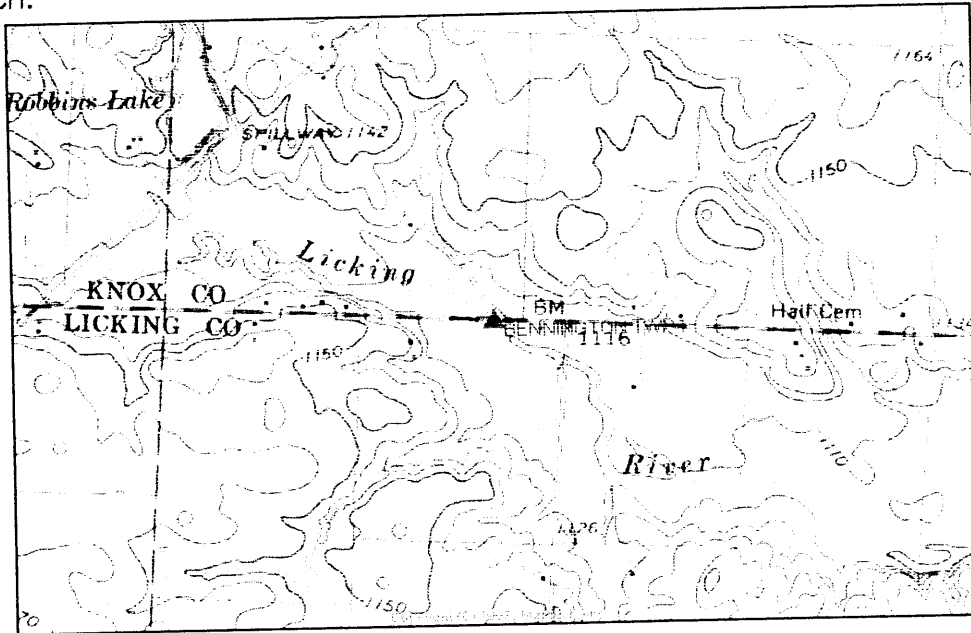
# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

JN 98016

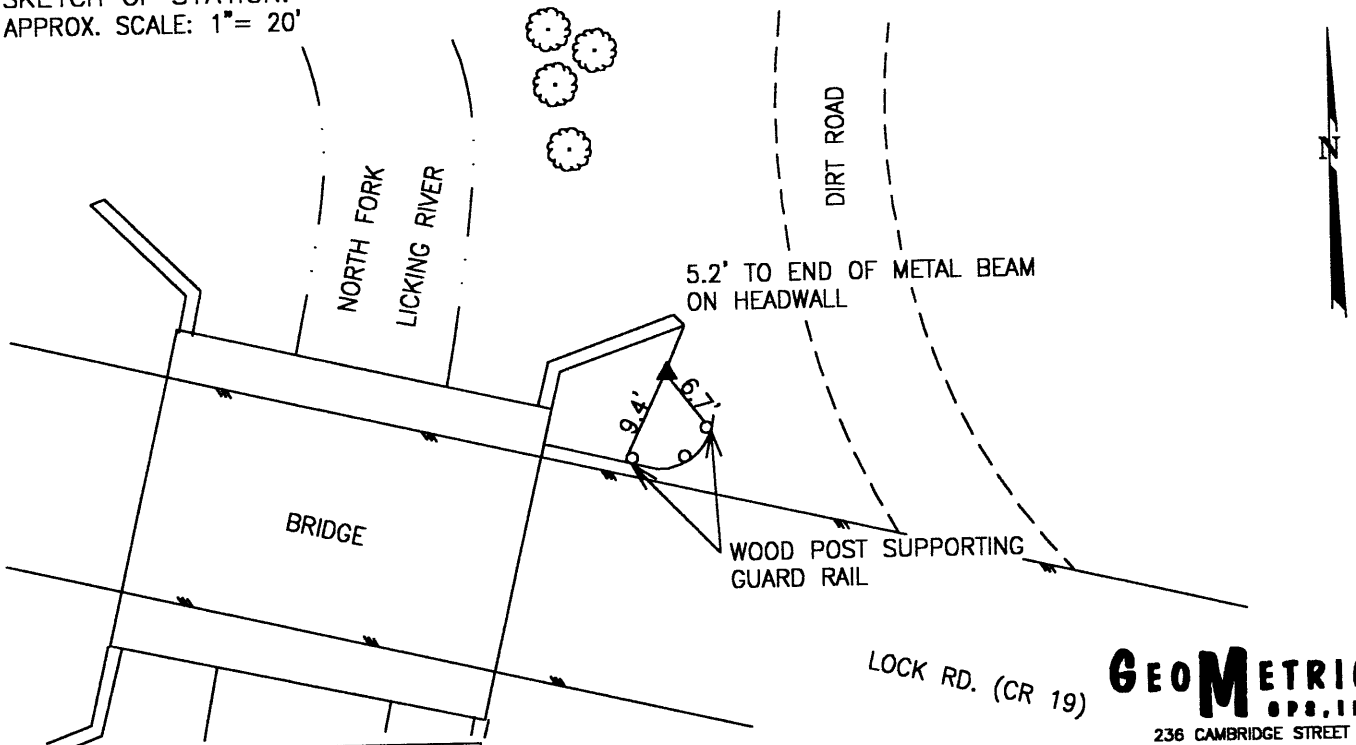
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
KNOX	BENNINGTON TWP 1		1998
N: 827783.615	E: 1929047.749	LAT: 40°16'21.26841" N	LONG: 82°38'28.94929" W
ELEV.: 1120.621 (GPS)	COMB. FACTOR: 1.000002611		Ø ANGLE: -0°05'22.93

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 20'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0040.DWG

LOCK RD. (CR 19)

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0040

Designation: BENNINGTON TWP 1

PID:

Latitude: 401621N

Longitude: 0823828W

Elevation: 342.5M

Stamping: BENNINGTON TWP 1 1998

State: OH

County: KNOX

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN KNOX COUNTY, OHIO ON THE LICKING AND KNOX COUNTY LINE ABOUT 3.0 MILES (4.8 KM) NORTHEAST OF THE TOWN OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF BENNINGTON CHAPEL ROAD (CR 2) AND FAIRGROUNDS ROAD (CR 44) IN THE TOWN OF HARTFORD PROCEED NORTHEAST ALONG FAIRGROUNDS ROAD (CR 44) A DISTANCE OF 3.0 MILES (4.8 KM) TO ITS INTERSECTION WITH LOCK ROAD (CR 19) . TURN RIGHT AND PROCEED EAST ALONG LOCK ROAD (CR 19) A DISTANCE OF 0.9 MILE (1.4 KM) TO THE STATION ON THE NORTH SIDE OF THE ROAD AT THE EAST END OF THE BRIDGE OVER NORTH FORK LICKING RIVER. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE STAMPED BENNINGTON TWP 1 1998. THE STATION IS 6.7 FEET (2.0 M) AZIMUTH 143 DEGREES TO A WOOD POST SUPPORTING A GUARDRAIL, 9.4 FEET (2.9 M) AZIMUTH 205 DEGREES TO A WOOD POST SUPPORTING A GUARDRAIL, 5.2 FEET (1.6 M) AZIMUTH 23 DEGREES TO THE END OF A METAL BEAM ON TOP OF THE HEAD WALL, 14.4 FEET (4.4 M) WEST FROM THE EDGE OF THE DIRT ROAD, AND 14.2 FEET (4.3 M) NORTH FROM THE EDGE OF PAVEMENT OF COUNTY ROAD 19.

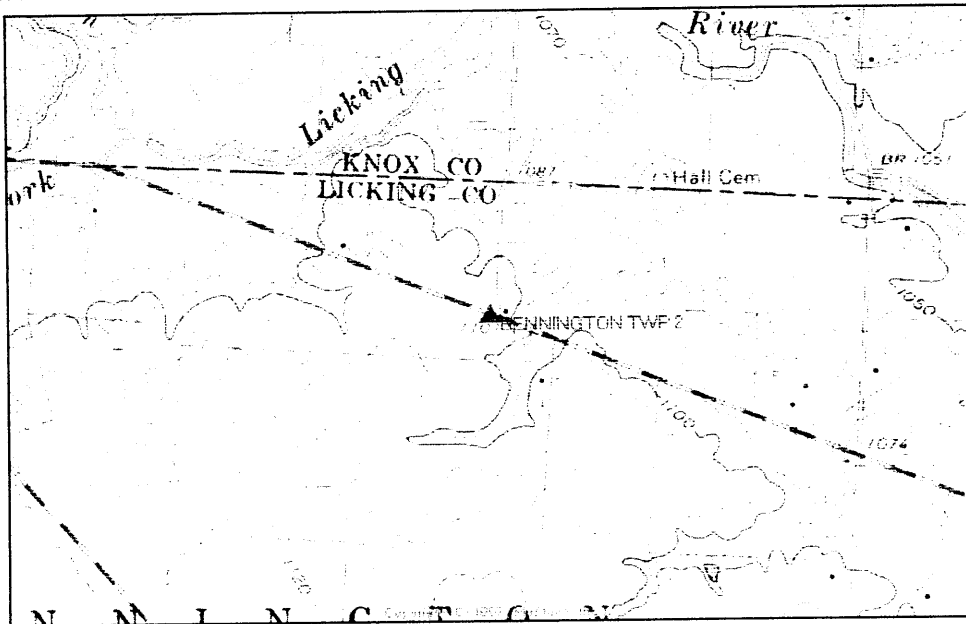
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

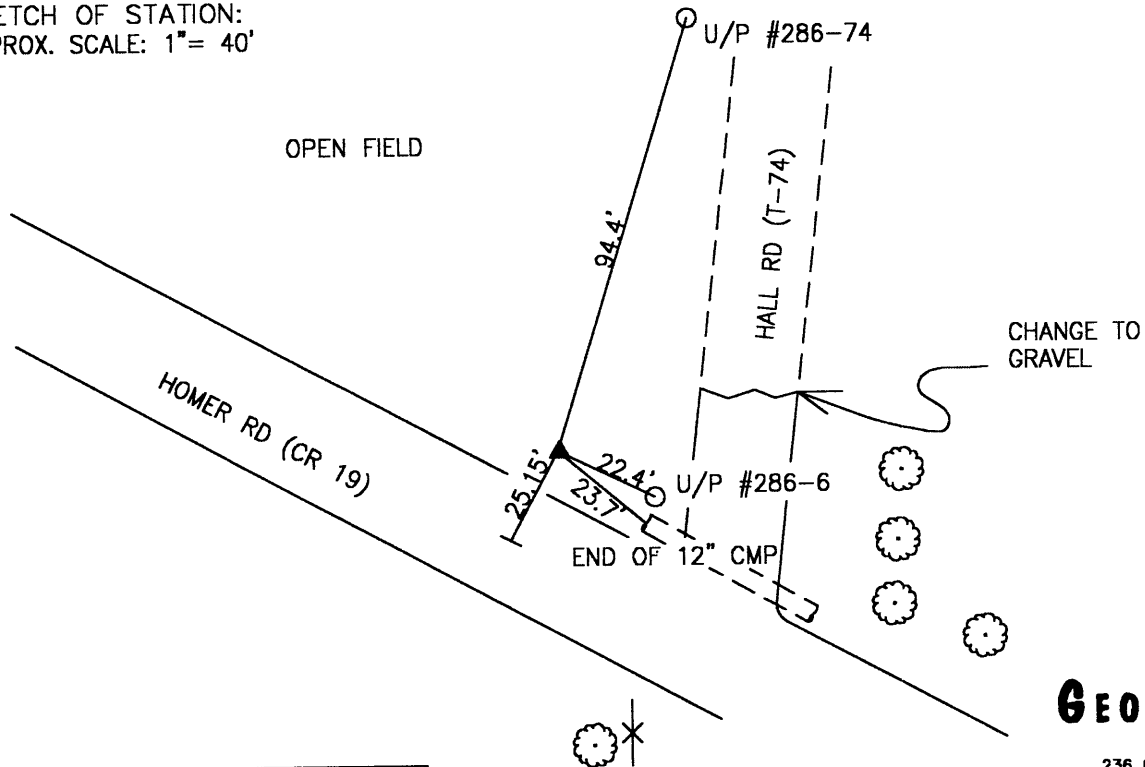
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BENNINGTON TWP 2		1998
N: 825607.689	E: 1944466.642	LAT: 40°15'59.95930" N	LONG: 82°35'10.01299" W
ELEV.: 1102.350	(GPS)	COMB. FACTOR: 1.000001883	Ø ANGLE: -0°03'16.70

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0050.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0050  
Designation: BENNINGTON TWP 2

PID:

Latitude: 401559N  
Longitude: 0823510W  
Elevation: 321.0M  
Stamping: BENNINGTON TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LICKING COUNTY, OHIO ON THE LICKING AND KNOX COUNTY  
LINE ABOUT 3.5 MILES (5.6 KM) NORTHWEST OF THE TOWN OF HOMER. TO REACH THE  
STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND HOMER ROAD (CR 19)  
PROCEED WEST ALONG HOMER ROAD (CR 19) A DISTANCE OF 3.8 MILES (6.1 KM) TO ITS  
INTERSECTION WITH HALL ROAD (T- 74) AND THE STATION ON THE RIGHT IN THE  
NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH  
LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH  
WITH THE GROUND SURFACE AND STAMPED BENNINGTON TWP 2 1998. THE STATION IS  
94.4 FEET (28.8 M) AZIMUTH 17 DEGREES TO POWER POLE WITH NUMBER 286-74, 22.4  
FEET (6.8 M) AZIMUTH 116 DEGREES TO A POWER POLE WITH NUMBER 286-6, 23.7 FEET  
(7.2 M) AZIMUTH 130 DEGREES TO THE END OF A 12 INCH CMP, AND 25.1 FEET (7.7 M)  
NORTH FROM THE CENTERLINE OF HOMER ROAD (CR 19) .

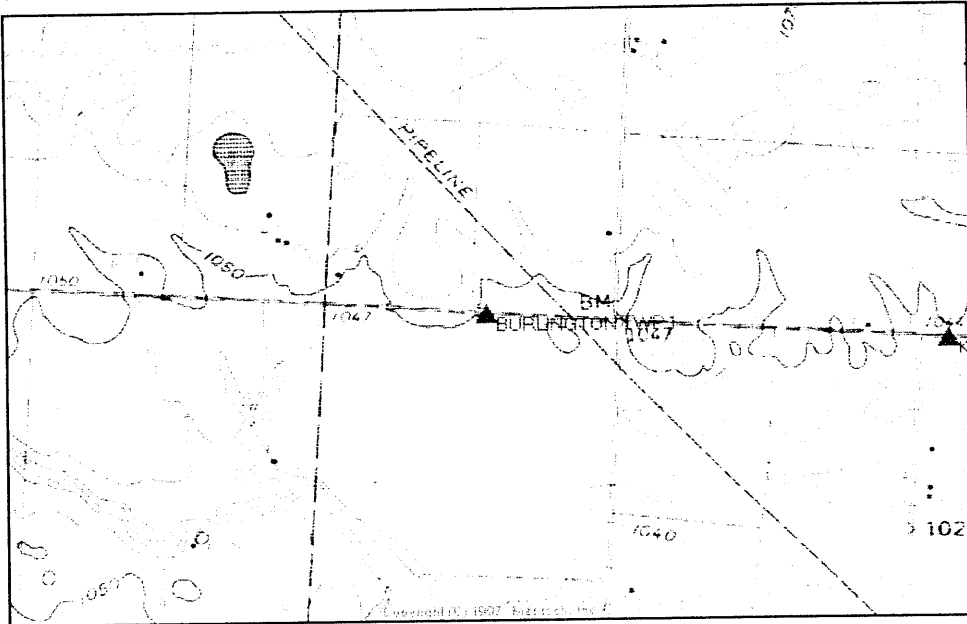
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

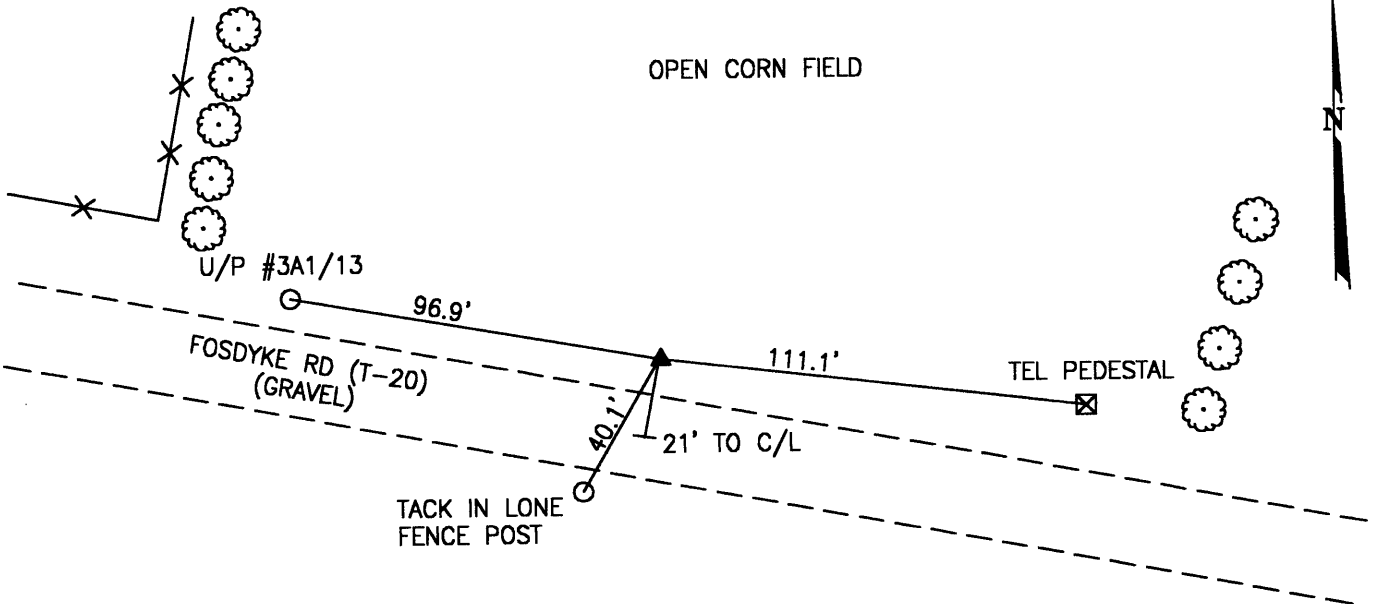
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
KNOX	BURLINGTON TWP 1		1998
N: 826175.657	E: 1954554.067	LAT: 40°16'05.64669" N	LONG: 82°32'59.89657" W
ELEV.: 1049.309	(GPS)	COMB. FACTOR: 1.000004841	θ ANGLE: -0°01'54.14

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0060.DWG



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0060  
Designation: BURLINGTON TWP 1

PID:

Latitude: 401605N  
Longitude: 0823259W  
Elevation: 341.5M  
Stamping: BURLINGTON TWP 1 1998

State: OH  
County: KNOX  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN KNOX COUNTY, OHIO ON THE LICKING AND KNOX COUNTY LINE ABOUT 2.0 MILES (3.2 KM) NORTHWEST OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF GRANVILLE ROAD (SR 661) AND HOMER ROAD (CR 19) PROCEED NORTH ALONG GRANVILLE ROAD (SR 661) A DISTANCE OF 1.1 MILES (1.8 KM) TO ITS INTERSECTION WITH FOSDYKE ROAD (T-20) . TURN LEFT AND PROCEED WEST ALONG FOSDYKE ROAD (T-20) A DISTANCE OF 1.8 MILES (2.9 KM) TO THE STATION ON THE NORTH SIDE OF ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 1 1998. THE STATION IS 111.1 FEET (33.9 M) AZIMUTH 97 DEGREES TO A TELEPHONE PEDESTAL, 40.1 FEET (12.2 M) AZIMUTH 210 DEGREES TO A TACK IN A FENCE POST, 96.9 FEET (29.5 M) AZIMUTH 280 DEGREES TO A POLE WITH NUMBER 3A1/13 AND 21.0 FEET (6.4 M) NORTH OF THE CENTERLINE OF FOSDYKE ROAD.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

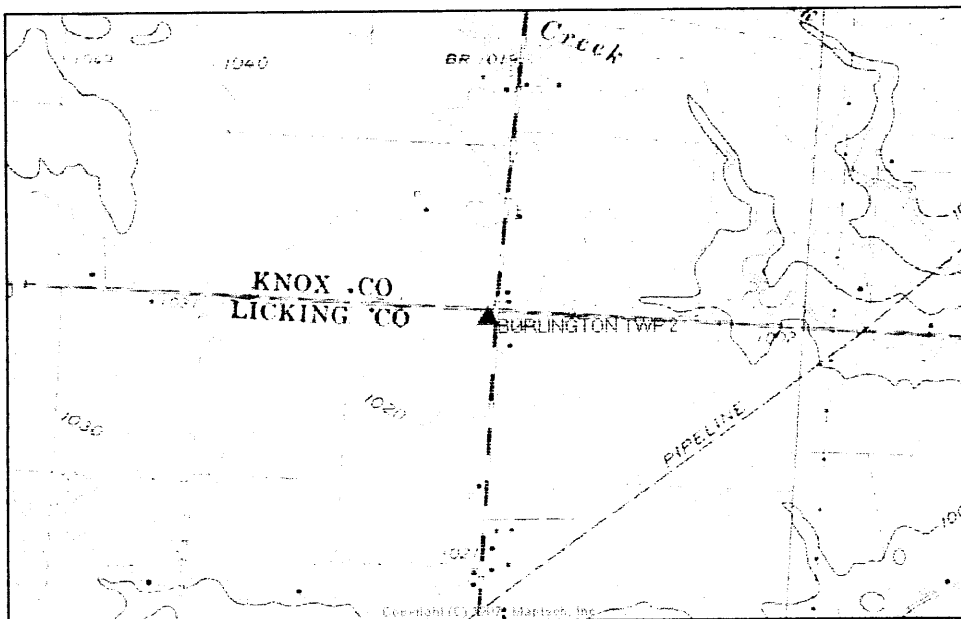
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

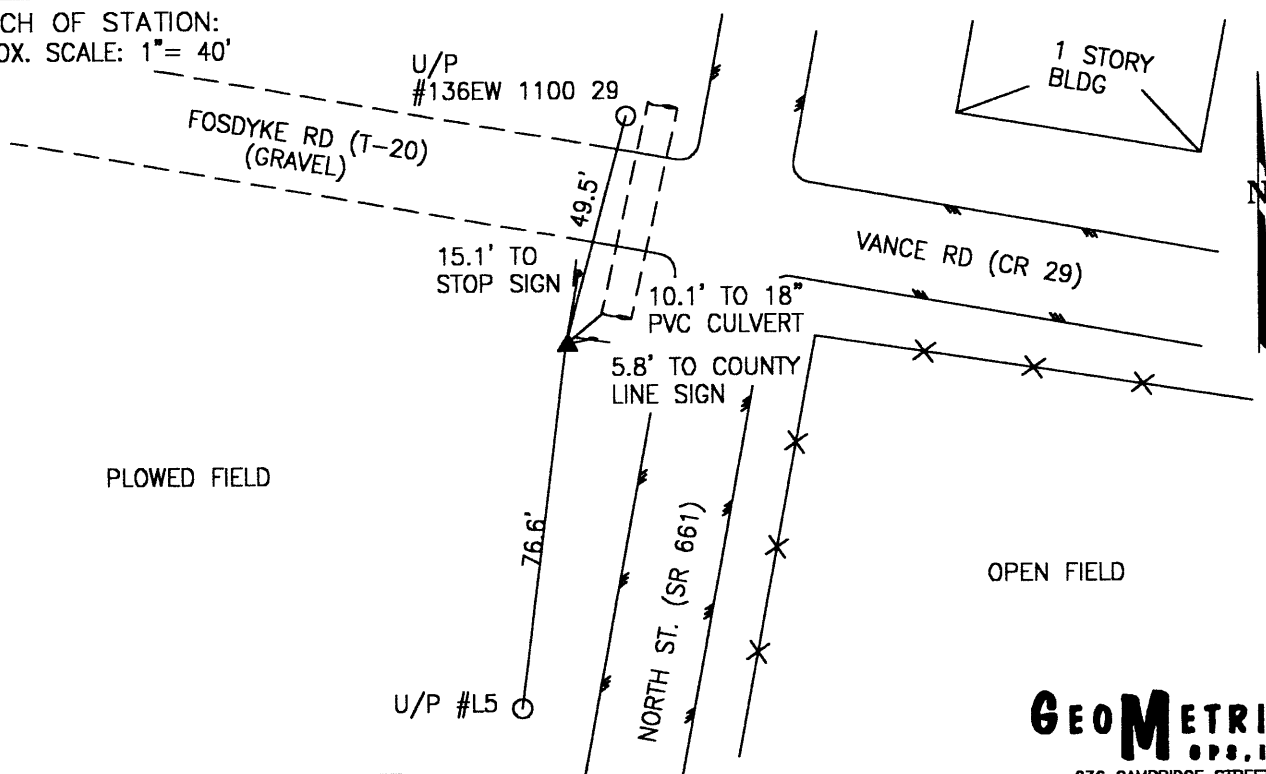
COUNTY	NAME OF STATION	YEAR
LICKING	BURLINGTON TWP 2	1998

N: 825540.452	E: 1963781.282	LAT: 40°15'59.40378" N	LONG: 82°31'00.86792" W
ELEV.: 1017.078	(GPS)	COMB. FACTOR: 1.000005912	θ ANGLE: -0°00'38.62

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0070.DWG

**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0070  
Designation: BURLINGTON TWP 2

PID:

Latitude: 401559N  
Longitude: 0823100W  
Elevation: 335.9M  
Stamping: BURLINGTON TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP ON THE LICKING AND KNOX COUNTY LINE, OHIO ABOUT 1.0 MILE (1.6 KM) NORTH OF THE TOWN OF HOMER. TO REACH THE STATION FROM INTERSECTION OF NORTH STREET (SR 661) AND HOMER ROAD (CR 19) IN THE TOWN OF HOMER PROCEED NORTH ALONG NORTH STREET (SR 661) A DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH FOSDYKE ROAD (T-20) AND VANCE ROAD (CR 29) AND THE STATION IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 2 1998. THE STATION IS 5.8 FEET (1.8 M) AZIMUTH 79 DEGREES TO A COUNTY-LINE SIGN, 10.1 FEET (3.1 M) AZIMUTH 50 DEGREES TO A 18 INCH PVC CULVERT, 15.1 FEET (4.6 M) AZIMUTH 10 DEGREES TO A STOP SIGN, 49.5 FEET (15.1 M) AZIMUTH 15 DEGREES TO A POWER POLE WITH THE NUMBER 136EW 1100 29, AND 76.6 FEET (23.3 M) AZIMUTH 187 DEGREES TO A POWER POLE WITH THE NUMBER L5.

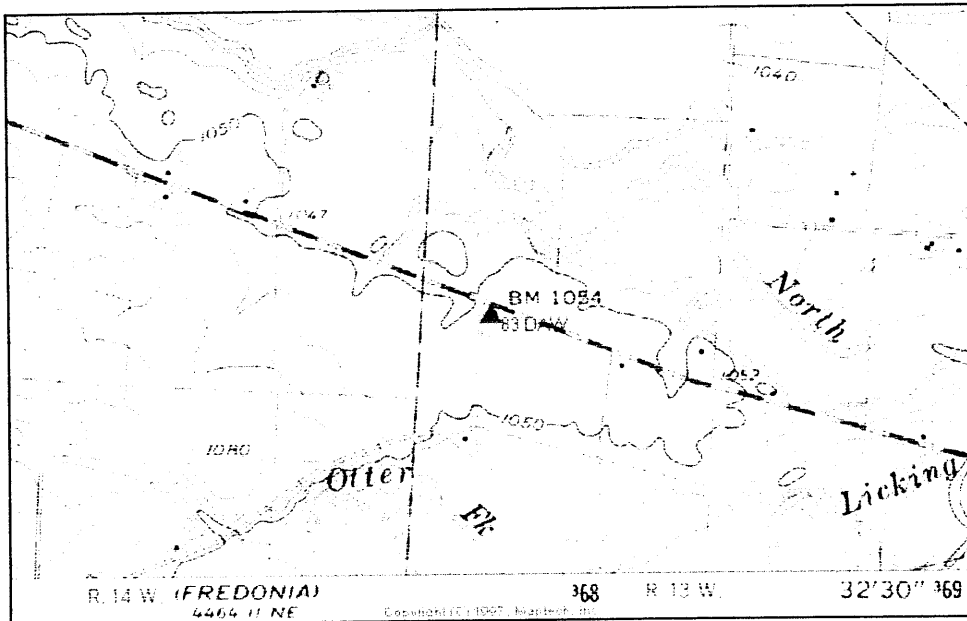
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

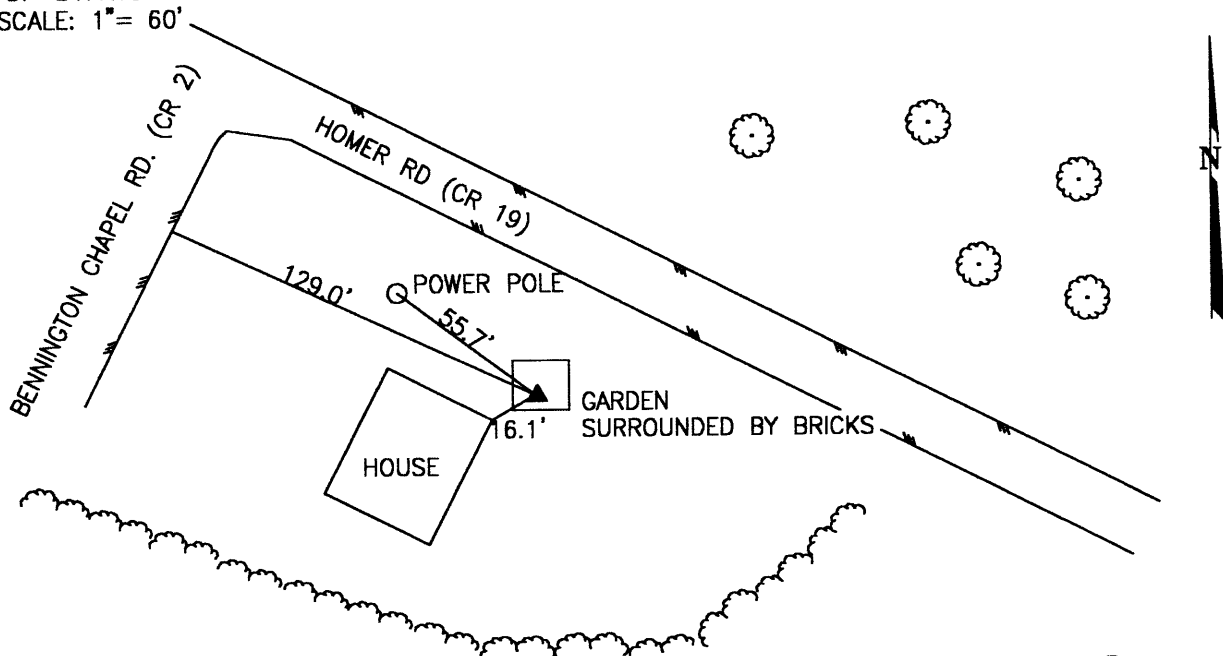
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	83 DAW		1998
N: 821961.131	E: 1953429.641	LAT: 40°15'23.99503" N	LONG: 82°33'14.36868" W
ELEV.: 1053.466	(GPS)	COMB. FACTOR: 1.000001540	Θ ANGLE: -0°02'03.33

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 0080.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0080  
Designation: 83 DAW

PID:

Latitude: 401523N  
Longitude: 0823314W  
Elevation: 322.1M  
Stamping: 1054 FEET 83 DAW 1959

State: OH  
County: LICKING  
Disk From: USGS

Surface Mark-  
Type: Bench Mark disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A SQUARE CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by USGS in 1959, Chief of party .

-----  
THE STATION IS LOCATED IN LICKING COUNTY, OHIO APPROXIMATELY 1.9 MILES (3.1 KM) WEST OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND HOMER ROAD (CR 19) PROCEED WEST ALONG HOMER ROAD (CR 19) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH BENNINGTON CHAPEL ROAD (CR 2) AND THE STATION ON THE LEFT IN THE SOUTHEAST CORNER OF THE INTERSECTION IN A GARDEN SURROUNDED BY BRICKS. THE STATION IS A STANDARD 3 1/2 INCH U.S. GEOLOGICAL BENCH MARK DISK SET IN A SQUARE CONCRETE MONUMENT PROJECTING THREE INCHES ABOVE THE GROUND SURFACE STAMPED 1054 83 DAW 1959. THE STATION 16.1 FEET (4.9 M) AZIMUTH 240 DEGREES TO THE NORTHEAST CORNER OF A HOUSE, 129.0 FEET (39.3 M) EAST FROM THE EDGE OF BENNINGTON CHAPEL ROAD (CR 2) , AND 55.7 FEET (17.0 M) AZIMUTH 307 DEGREES TO A POWER POLE.

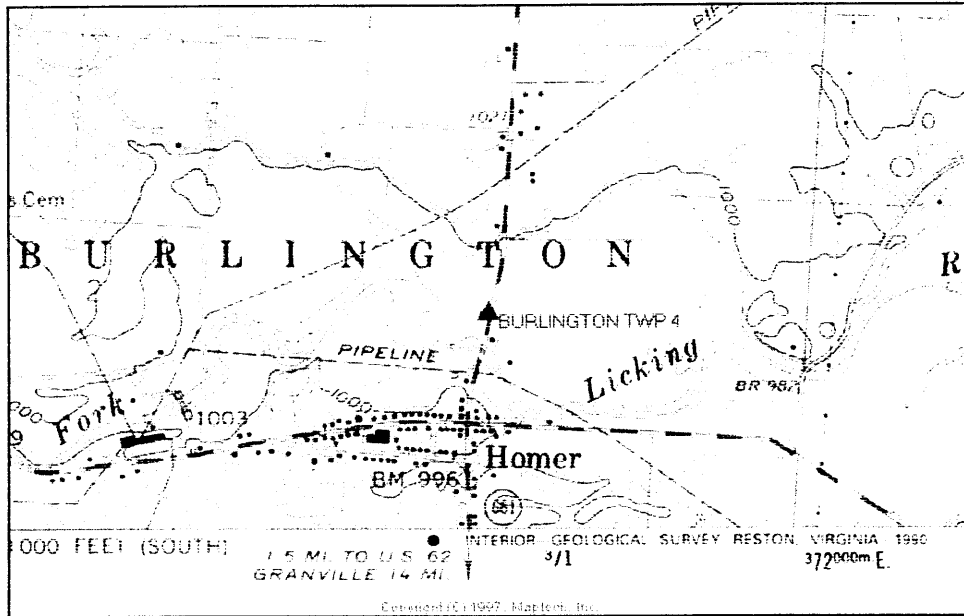
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

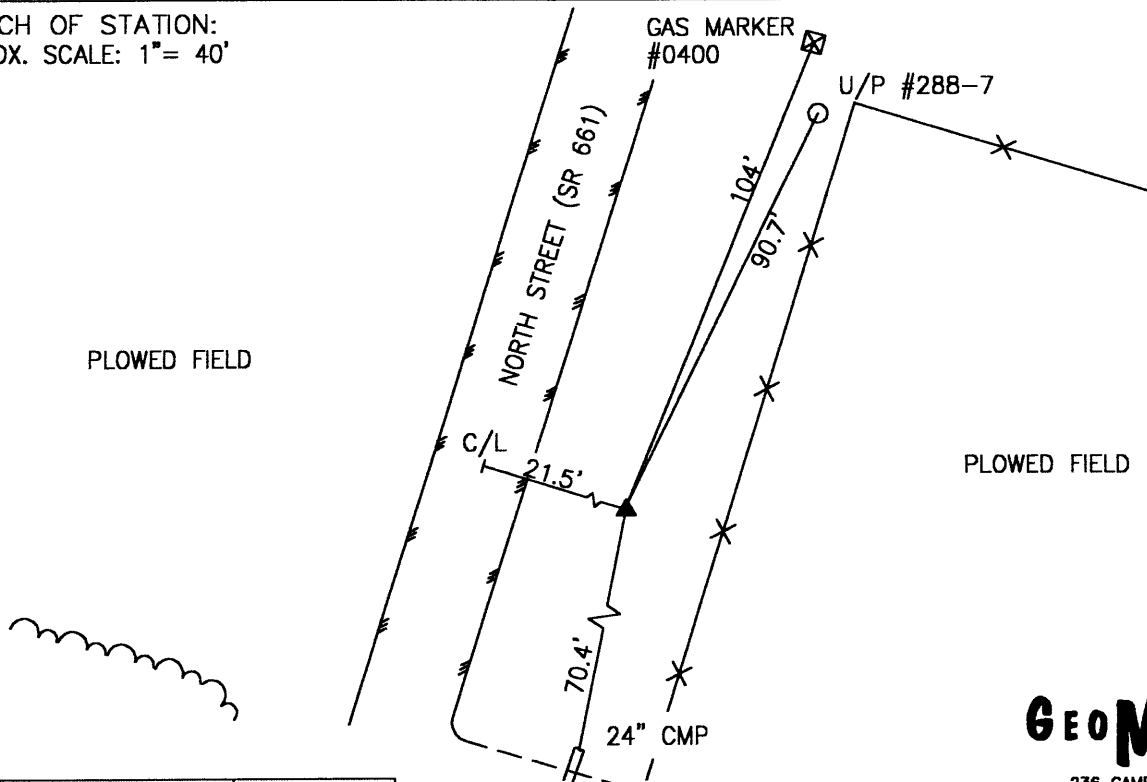
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	BURLINGTON TWP 4	1998
N: 821573.622	E: 1963507.432	LAT: 40°15'20.20554" N LONG: 82°31'04.39024" W
ELEV.: 986.599 (GPS)	COMB. FACTOR: 1.000004452	Θ ANGLE: -0°00'40.85

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0090.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0090

Designation: BURLINGTON TWP 4

PID:

Latitude: 401520N

State: OH

Longitude: 0823104W

County: LICKING

Elevation: 356.6M

Disk From: OH-089

Stamping: BURLINGTON TWP 4 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.4 MILE (0.6 KM) NORTH OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF HOMER ROAD (CR 19) AND NORTH STREET (SR 661) IN THE TOWN OF HOMER PROCEED NORTH ALONG NORTH STREET (SR 661) A DISTANCE OF 0.3 MILE (0.5 KM) TO THE STATION ON THE EAST SIDE OF THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 4 1998. THE STATION IS 90.7 FEET (27.6 M) AZIMUTH 26 DEGREES TO A POWER POLE WITH NUMBER 288-7, 104.0 FEET (31.7 M) AZIMUTH 22 DEGREES TO A GAS MARKER WITH NUMBER 0400, 70.4 FEET (21.5 M) AZIMUTH 191 DEGREES TO A 24 INCH CMP CULVERT, AND 21.5 FEET (6.6 M) EAST FROM THE CENTERLINE OF NORTH STREET.

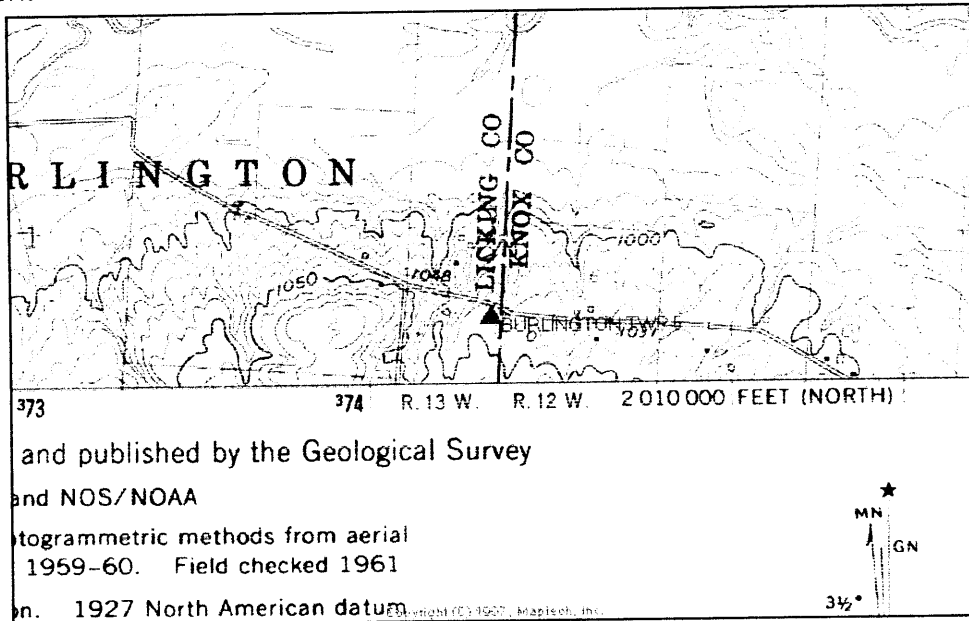
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

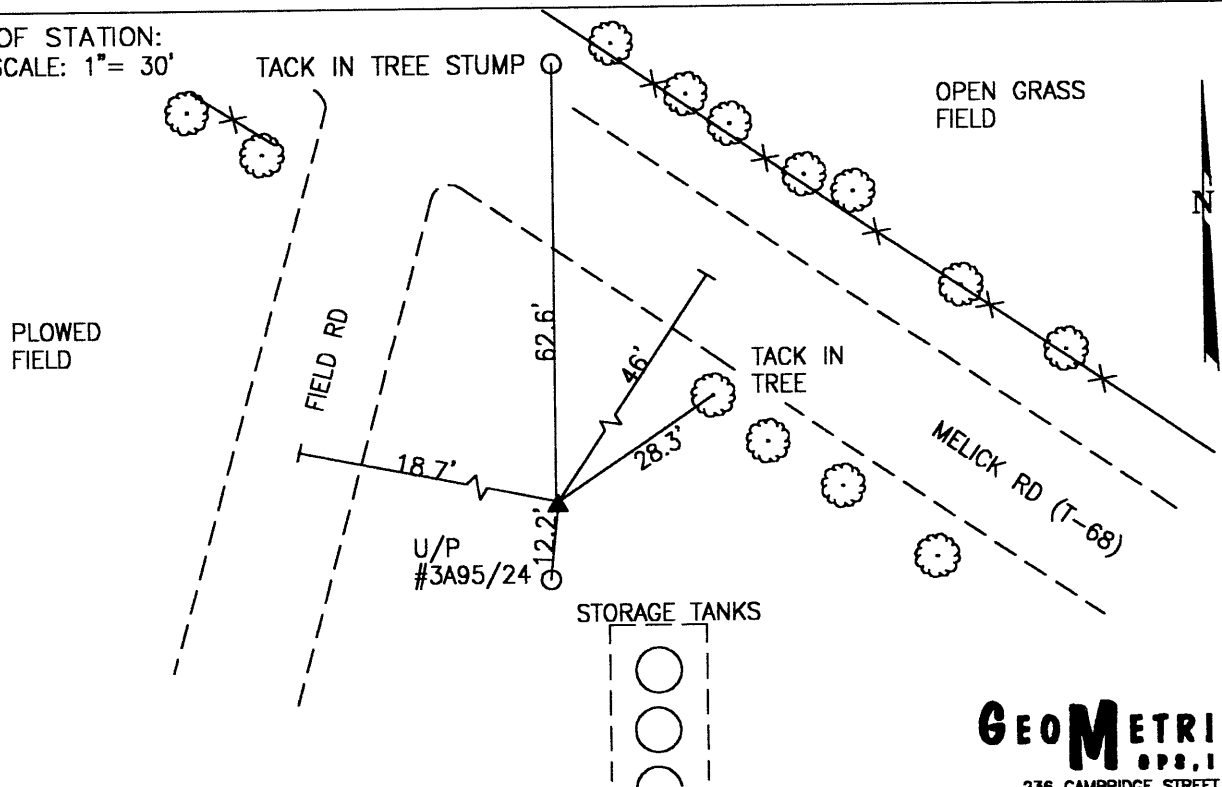
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	BURLINGTON TWP 5	1998
N: 820196.167	E: 1974845.451	LAT: 40°15'06.59135" N
ELEV.: 1043.764 (GPS)	COMB. FACTOR: 1.000000719	LONG: 82°28'38.16581" W
		θ ANGLE: +0°00'51.92

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0100.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0100  
Designation: BURLINGTON TWP 5

PID:

Latitude: 401506N  
Longitude: 0822838W  
Elevation: 341.7M  
Stamping: BURLINGTON TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

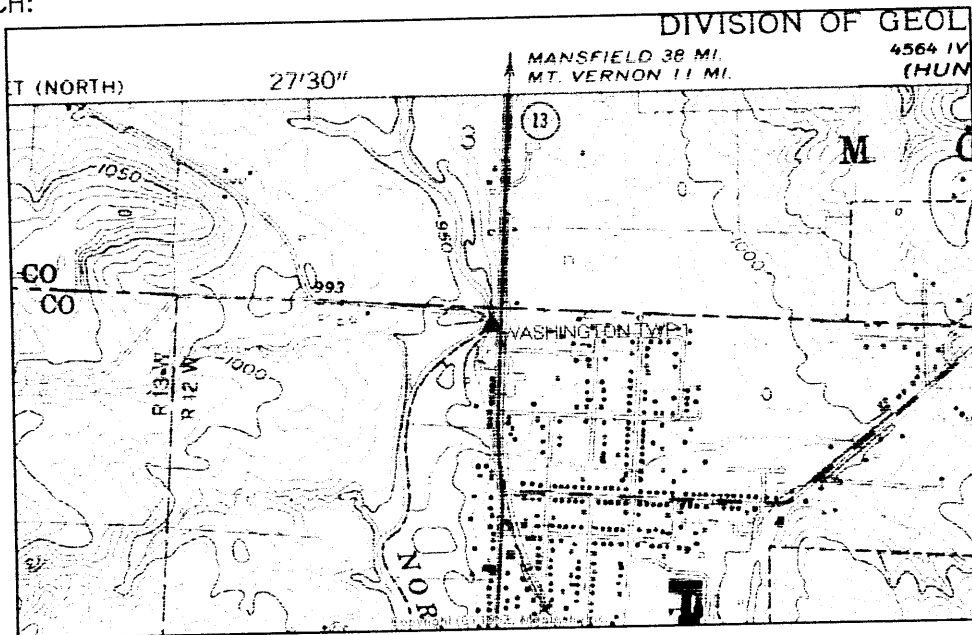
-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) NORTHWEST OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND VERNON ROAD (SR 13) PROCEED WEST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH HOMER ROAD (CR 19) . TURN RIGHT AND PROCEED NORTHWEST ALONG HOMER ROAD (CR 19) A DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH JUSTIN ROAD (T-67) . TURN RIGHT AND PROCEED NORTH ALONG JUSTIN ROAD (T-67) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH MELICK ROAD (T-68) . TURN RIGHT AND PROCEED SOUTHEAST ALONG MELICK ROAD (T-68) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE SOUTH SIDE OF THE ROAD. THE STATION IS ON THE LEFT SIDE OF THE DRIVEWAY LEADING TO A STORAGE TANK AREA. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 5 1998. THE STATION IS 12.2 FEET (3.7 M) AZIMUTH 189 DEGREES TO A POWER POLE WITH NUMBER 3A95-24, 28.3 FEET (8.6 M) AZIMUTH 55 DEGREES TO A TACK IN A TREE, 62.6 FEET (19.1 M) AZIMUTH 0 DEGREES TO A TACK IN A TREE STUMP ON THE NORTH SIDE OF MELICK ROAD, 46.0 FEET (14.0 M) SOUTHWEST FROM THE CENTERLINE OF MELICK ROAD, AND 18.7 FEET (5.7 M) SOUTHEAST FROM THE CENTERLINE OF A FIELD ROAD.

# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

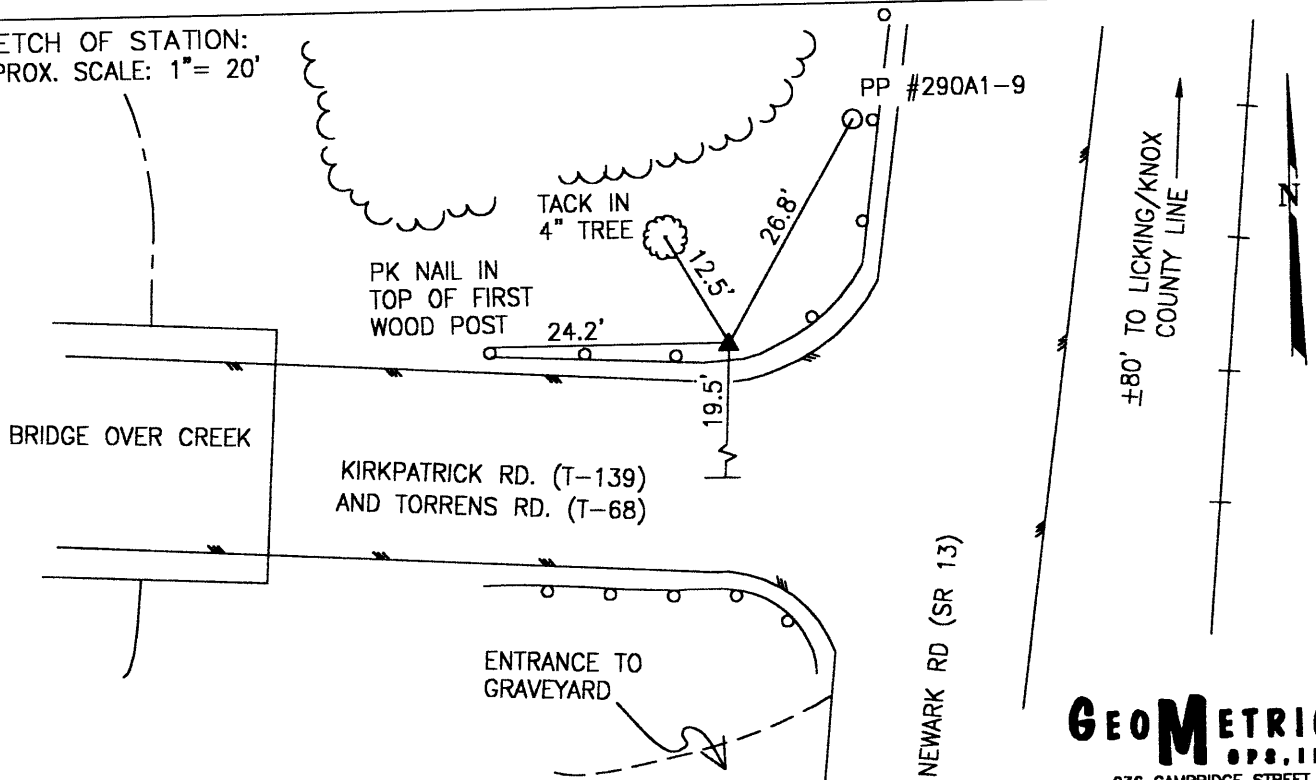
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	WASHINGTON TWP 1		1998
N: 817473.256	E: 1981828.743	LAT: 40°14'39.65817" N	LONG: 82°27'08.12427" W
ELEV.: 967.216 (GPS)	COMB. FACTOR: 1.000002400		Θ ANGLE: +0°01'49.05

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 20'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0110.DWG

**GEOMETRICS**  
OPS. INC.  
238 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0110

Designation: WASHINGTON TWP 1

PID:

Latitude: 401439N  
Longitude: 0822708W  
Elevation: 327.1M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: WASHINGTON TWP 1 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

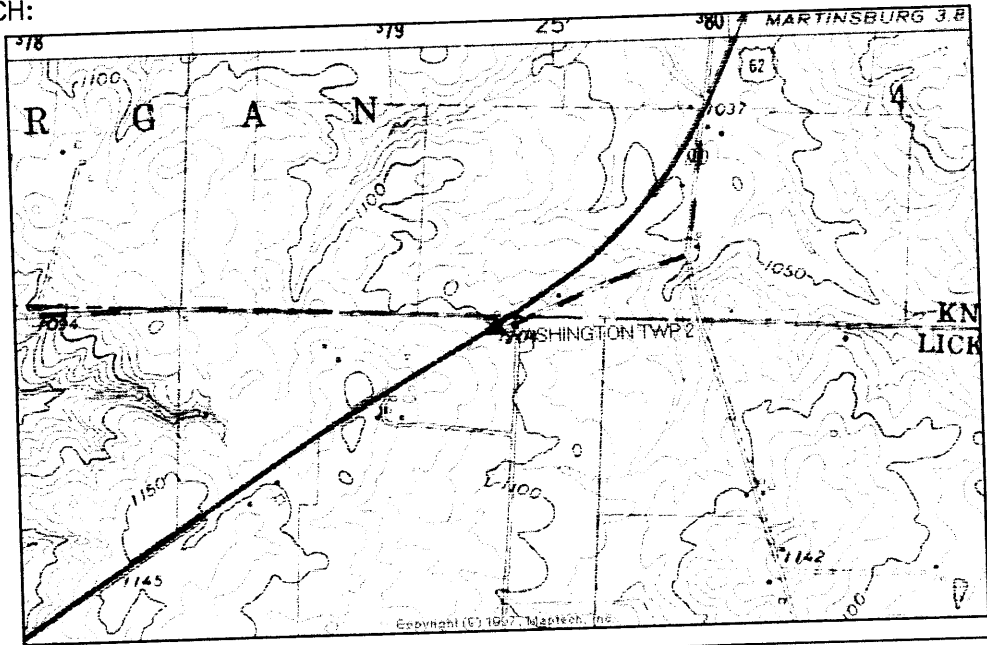
-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) NORTH OF THE TOWN OF UTICA AND APPROXIMATELY 80 FEET (24.4 M) SOUTH OF THE KNOX LICKING COUNTY LINE. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) IN THE CITY OF UTICA PROCEED NORTH ALONG MOUNT VERNON ROAD WHICH BECOMES NEWARK ROAD (SR 13) A DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH TORRENS ROAD (T-68) /KIRKPATRICK ROAD (T-139) AND NEWARK ROAD (SR 13) . A SIGN OPPOSITE AND ON THE EAST SIDE OF NEWARK ROAD READS KIRKPATRICK ROAD (T-139) . IT APPEARS THAT TORRENS ROAD (T-68) HAS TWO NAMES. THE STATION IN THE NORTHWEST CORNER OF THE INTERSECTION BEHIND A GUARDRAIL. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED WASHINGTON TWP 1 1998. THE STATION IS 11.2 FEET (3.4 M) AZIMUTH 155 DEGREES TO A PK NAIL IN THE PAVEMENT OF THE ROAD, 24.2 FEET (7.4 M) AZIMUTH 270 DEGREES TO A PK NAIL IN TOP OF THE FIRST WOOD POST, 12.5 FEET (3.8 M) AZIMUTH 330 DEGREES TO A TACK IN A FOUR INCH TREE, 26.8 FEET (8.2 M) AZIMUTH 30 DEGREES TO A POWER POLE WITH NUMBER 290A1-9, AND 19.5 FEET (5.9 M) NORTH FROM THE CENTERLINE OF TORRENS ROAD/KIRKPATRICK ROAD.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

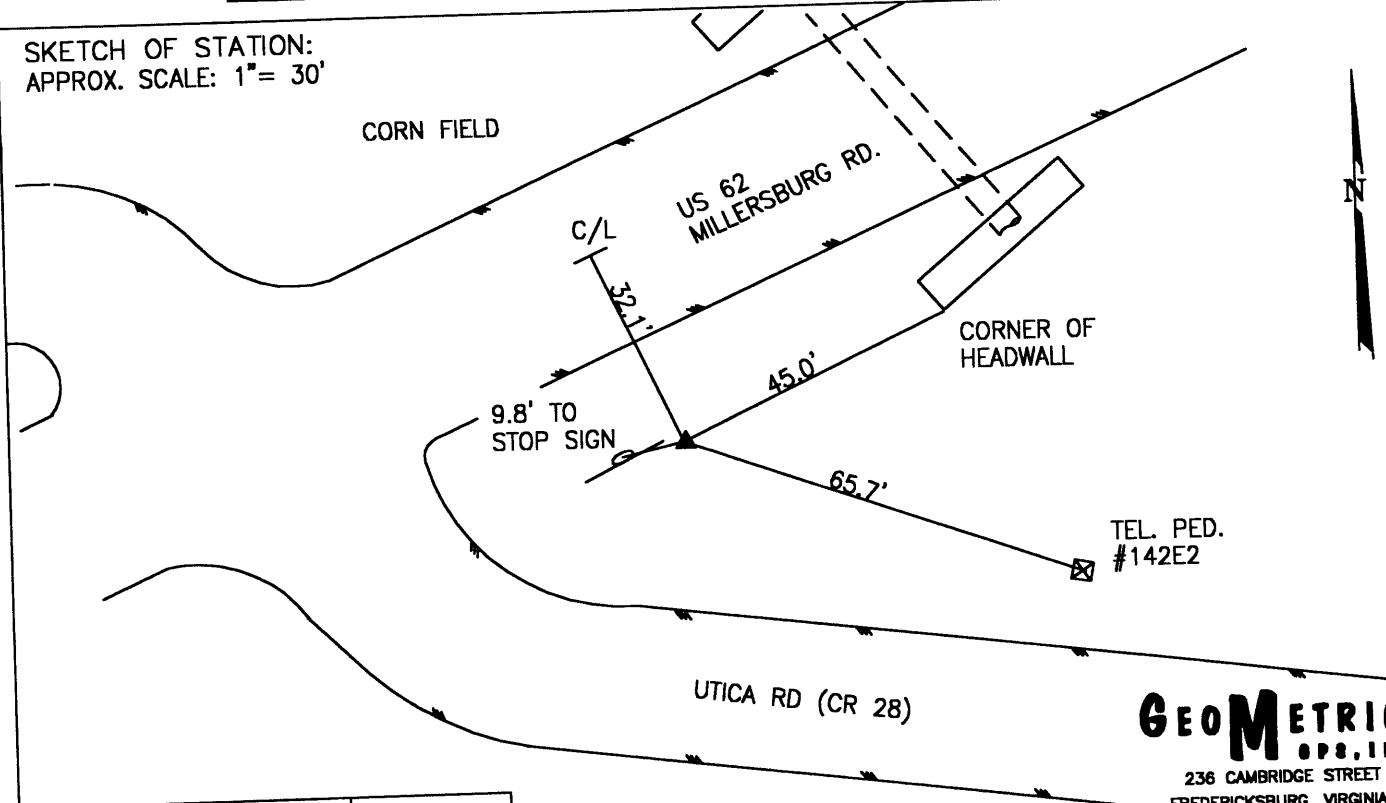
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 HORIZ. ORDER OF SURVEY: FIRST  
 VERTICAL DATUM: NAVD 88

COUNTY	NAME OF STATION		YEAR
LICKING	WASHINGTON TWP 2		1998
N: 816991.701	E: 1991251.078	LAT: 40°14'34.83309" N	LONG: 82°25'06.62778" W
ELEV.: 1103.977	(GPS)	COMB. FACTOR: 0.999995520	Θ ANGLE: +0°03'06.15

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0120.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0120

Designation: WASHINGTON TWP 2

PID:

Latitude: 401434N

Longitude: 0822506W

Elevation: 291.1M

Stamping: WASHINGTON TWP 2 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

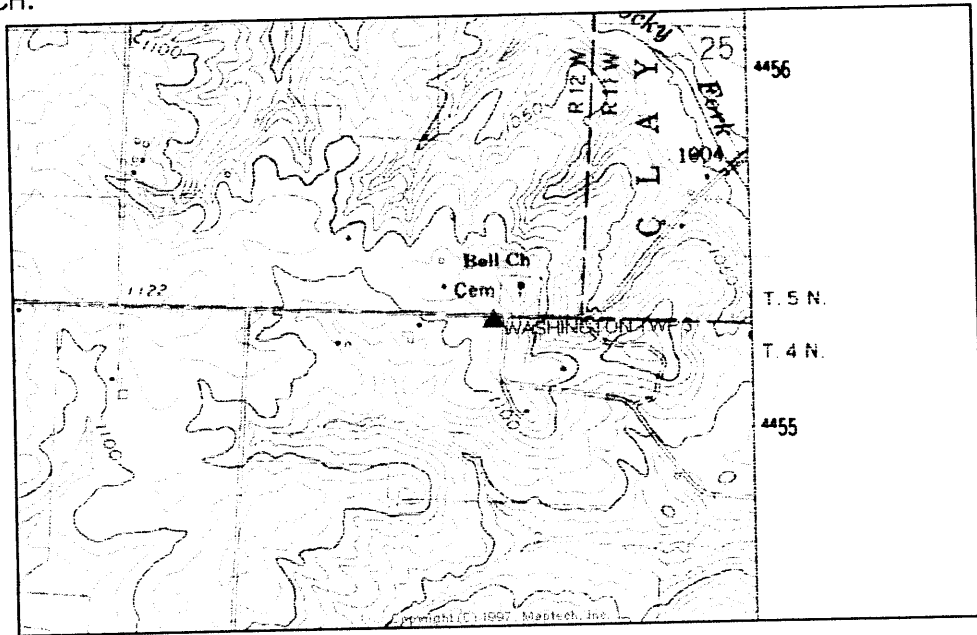
-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO APPROXIMATELY 0.7 MILE (1.1 KM) EAST OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) IN THE TOWN OF UTICA PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) WHICH CHANGES TO MILLERSBURG ROAD A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH UTICA ROAD (CR 28) AND THE STATION IN THE SOUTHEAST CORNER OF THE INTERSECTION OF UTICA ROAD AND MILLERSBURG ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED WASHINGTON TWP 2 1998. THE STATION IS 9.8 FEET (3.0 M) AZIMUTH 257 DEGREES TO A STOP SIGN, 45.0 FEET (13.7 M) AZIMUTH 65 DEGREES TO CORNER OF HEAD WALL TO A CULVERT, 65.7 FEET (20.0 M) AZIMUTH 110 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 142E2 AND 32.2 FEET (9.8 M) SOUTHEAST OF JOHNSTOWN-UTICA ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

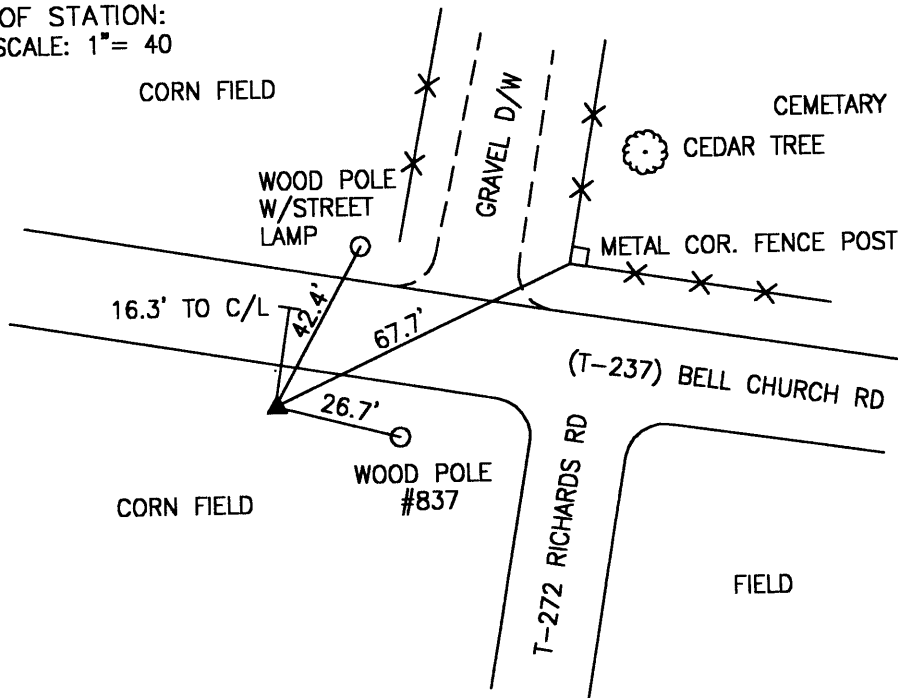
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY		NAME OF STATION		YEAR
LICKING		WASHINGTON TWP 3		1998
N: 816508.304	E: 2001149.858	LAT: 40°14'29.94895" N	LONG: 82°22'58.99249" W	
ELEV.: 1117.317 (GPS)	COMB. FACTOR: 0.999994528		θ ANGLE: +0°04'27.13	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: LLR	7/98
CHECKED BY: LLR	1/99

FILE: 0130.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0130  
Designation: WASHINGTON TWP 3

PID:

Latitude: 401429N  
Longitude: 0822258W  
Elevation: 283.4M  
Stamping: WASHINGTON TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.7 MILES (4.3 KM) EAST OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) IN THE TOWN OF UTICA PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH UTICA ROAD (T-490) . TURN RIGHT AND PROCEED EAST ALONG UTICA ROAD (T-490) A DISTANCE OF 0.4 MILE (0.6 KM) TO ITS INTERSECTION WITH BELL CHURCH ROAD (T-237) . PROCEED EAST ALONG BELL CHURCH ROAD (T-237) A DISTANCE OF 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH RICHARDS ROAD (T-272) AND THE STATION IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED WASHINGTON TWP 3 1998. THE STATION IS 26.7 FEET (8.1 M) AZIMUTH 105 DEGREES TO A WOOD POLE WITH NUMBER 837, 42.4 FEET (12.9 M) AZIMUTH 32 DEGREES TO A WOOD POLE WITH A STREET LAMP, 67.7 FEET (20.6 M) AZIMUTH 65 DEGREES TO A METAL FENCE CORNER POST, AND 16.3 FEET (5.0 M) SOUTH FROM THE CENTERLINE OF BELL CHURCH ROAD.

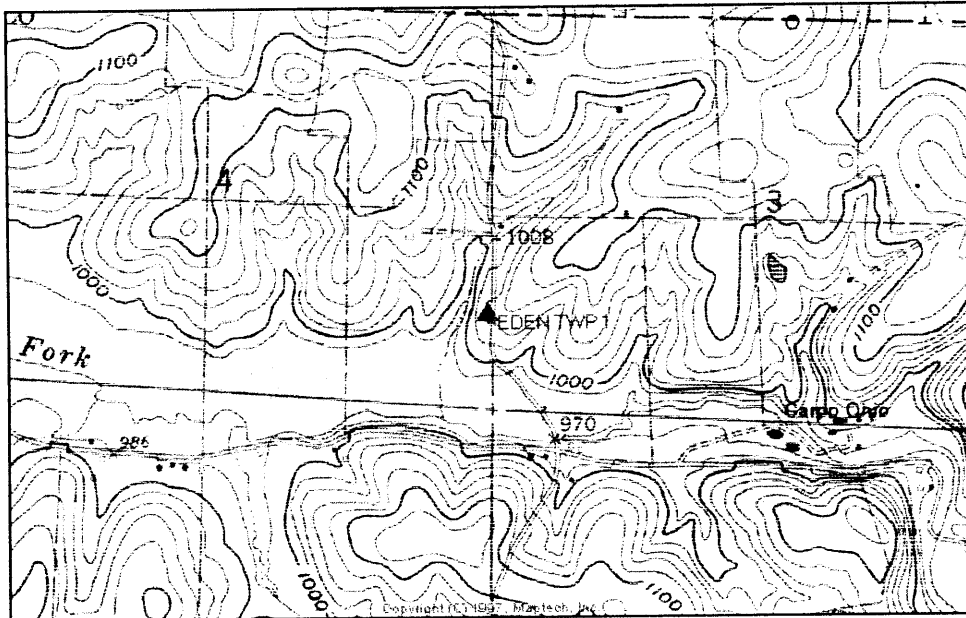
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

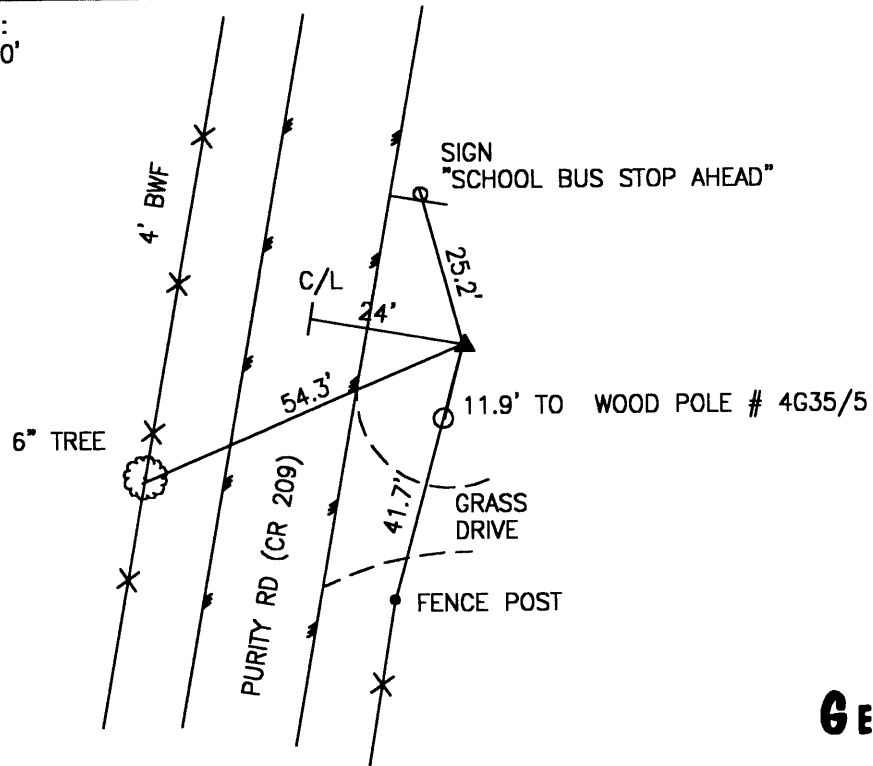
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	EDEN TWP 1		1998
N: 813200.332	E: 2014112.055	LAT: 40°13'57.06254" N	LONG: 82°20'11.92736" W
ELEV.: 1046.648	(GPS) COMB. FACTOR: 0.999995523	θ ANGLE: +0°06'13.14	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0140.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0140  
Designation: EDEN TWP 1

PID:

Latitude: 401357N  
Longitude: 0822011W  
Elevation: 334.4M  
Stamping: EDEN TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN EDEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTH OF THE TOWN OF PURITY. TO REACH THE STATION FROM THE INTERSECTION OF PURITY ROAD (CR 209) AND FALLSBURG ROAD (SR 79) AT WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 6.4 MILES (10.3 KM) TO THE STATION ON THE EAST SIDE OF THE ROAD APPROXIMATELY 25 FEET (7.6 M) SOUTH FROM A SCHOOL BUS STOP AHEAD SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POUR IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED EDEN TWP 1 1998. THE STATION IS 11.9 FEET (3.6 M) AZIMUTH 194 DEGREES TO A WOOD POLE WITH THE NUMBER 4G35/5, 25.2 FEET (7.7 M) AZIMUTH 345 DEGREES TO A SCHOOL BUS STOP AHEAD SIGN, 41.7 FEET (12.7 M) AZIMUTH 195 DEGREES TO A FENCE POST AND 24.0 FEET (7.3 M) EAST FROM THE CENTERLINE OF PURITY ROAD.

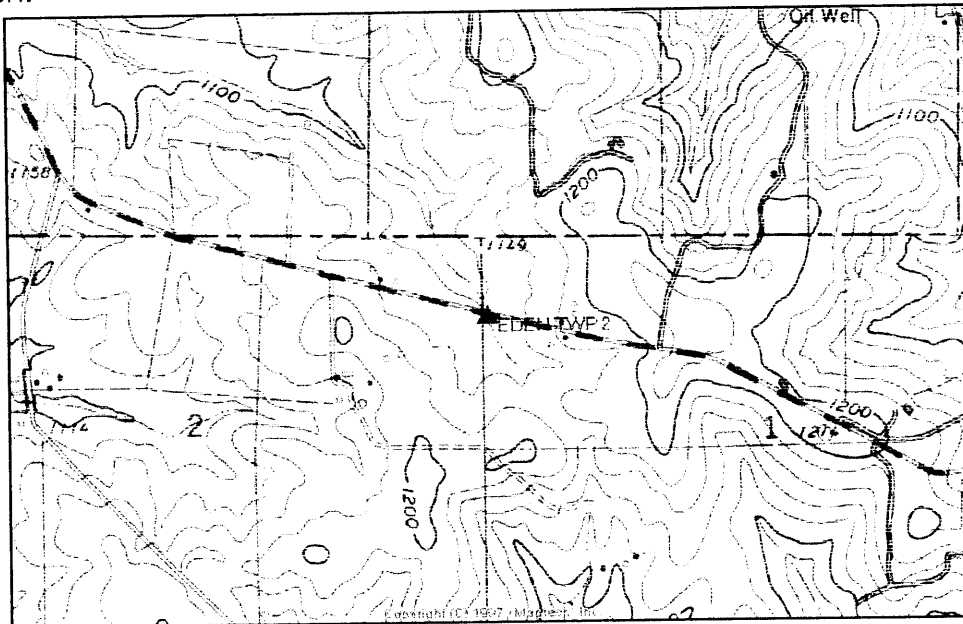
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

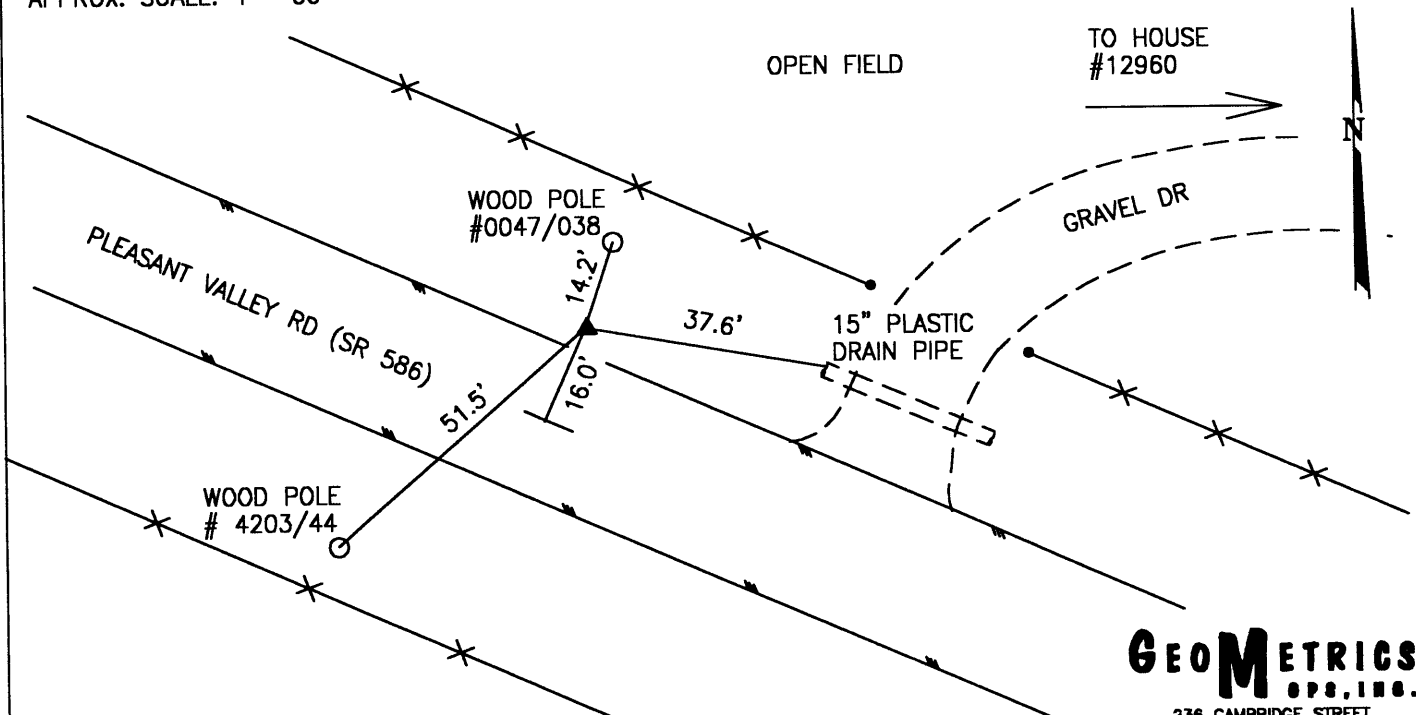
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	EDEN TWP 2		1998
N: 815008.457	E: 2024506.628	LAT: 40°14'14.72247" N	LONG: 82°17'57.85956" W
ELEV.: 1145.749	(GPS) COMB. FACTOR: 0.999992066	θ ANGLE: +0°07'38.21	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0150.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0150  
Designation: EDEN TWP 2

PID:

Latitude: 401414N  
Longitude: 0821757W  
Elevation: 315.7M  
Stamping: EDEN TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

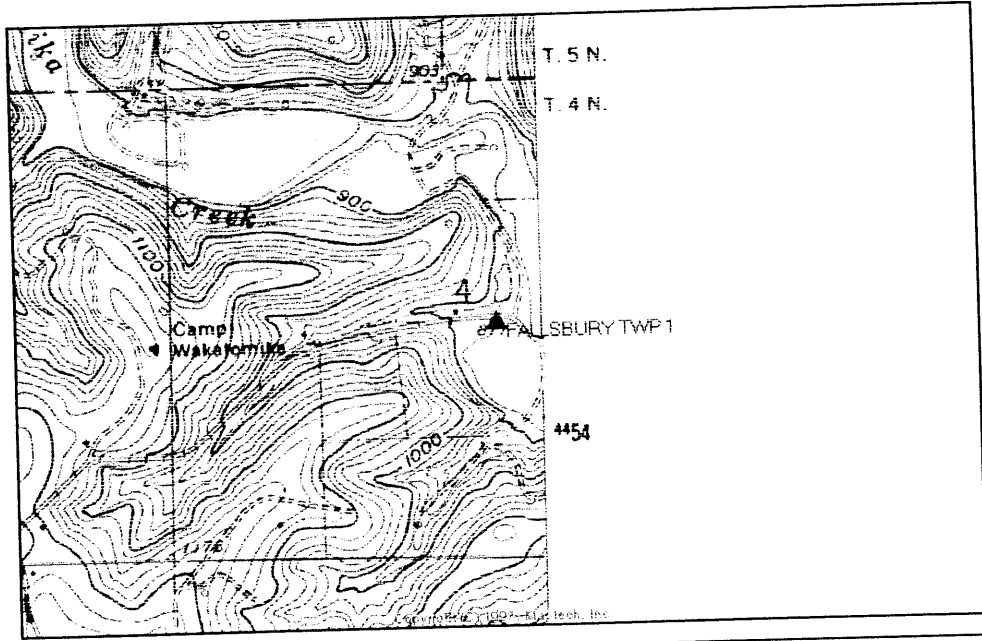
Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN EDEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTHWEST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PLEASANT VALLEY ROAD (SR 586) IN THE TOWN OF FALLSBURG PROCEED NORTHWEST ALONG PLEASANT VALLEY ROAD (SR 586) A DISTANCE OF 3.4 MILES (5.5 KM) TO ITS INTERSECTION WITH RAINROCK ROAD (CR 244) . CONTINUE WEST NORTHWEST ALONG PLEASANT VALLEY ROAD (SR 586) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE RIGHT ON THE NORTH SIDE OF THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured in place concrete monument set about one inch below the ground surface and stamped EDEN TWP 2 1998. THE STATION IS 14.2 FEET (4.3 M) AZIMUTH 18 TO A POWER POLE WITH THE NUMBER 0047/038, 51.5 FEET (15.7 M) AZIMUTH 229 DEGREES TO A POWER POLE WITH THE NUMBER 4203/44, 37.6 FEET (11.5 M) AZIMUTH 100 DEGREES TO A CULVERT RIM AT DRIVEWAY ENTRANCE AND 16.0 FEET (4.9 M) NORTH FROM THE CENTERLINE OF PLEASANT VALLEY ROAD.

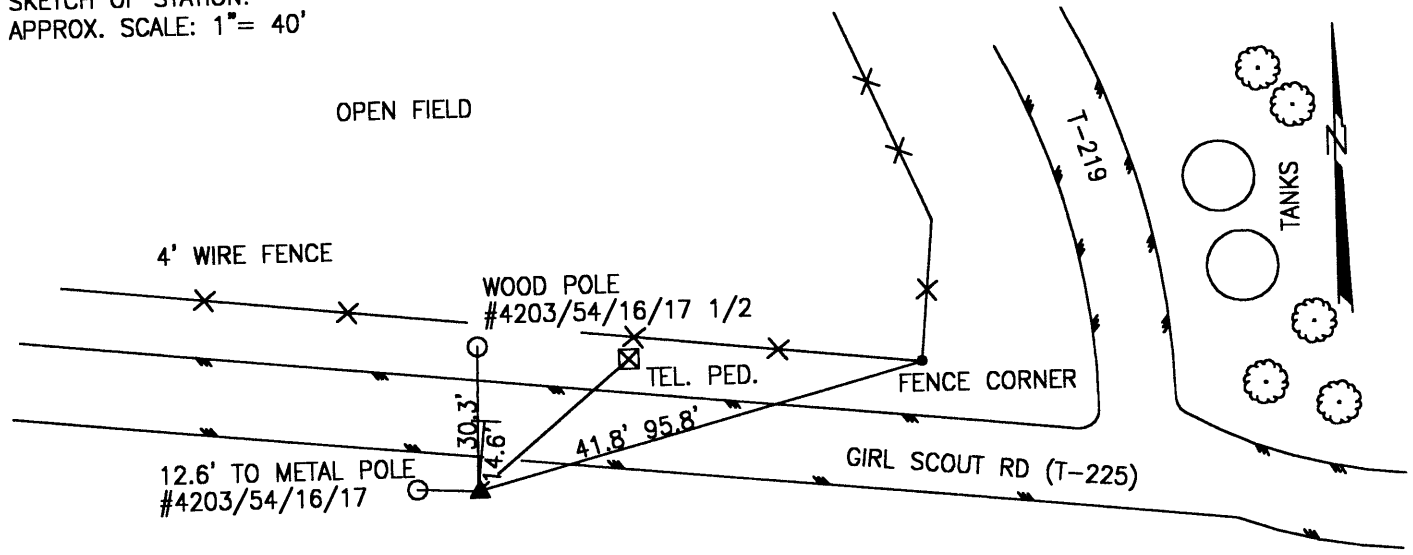
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY  
 NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY		NAME OF STATION		YEAR
LICKING		FALLSBURY TWP 1		1998
N: 813818.792	E: 2037979.354	LAT: 40°14'02.63555" N	LONG: 82°15'04.18747" W	
ELEV.: 879.624 (GPS)	COMB. FACTOR: 1.000003898		Q ANGLE: +0°09'28.41	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0160.DWG

**GEOMETRICS**  
 ops., inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0160  
Designation: FALLSBURY TWP 1

PID:

Latitude: 401402N  
Longitude: 0821504W  
Elevation: 285.6M  
Stamping: FALLSBURY TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

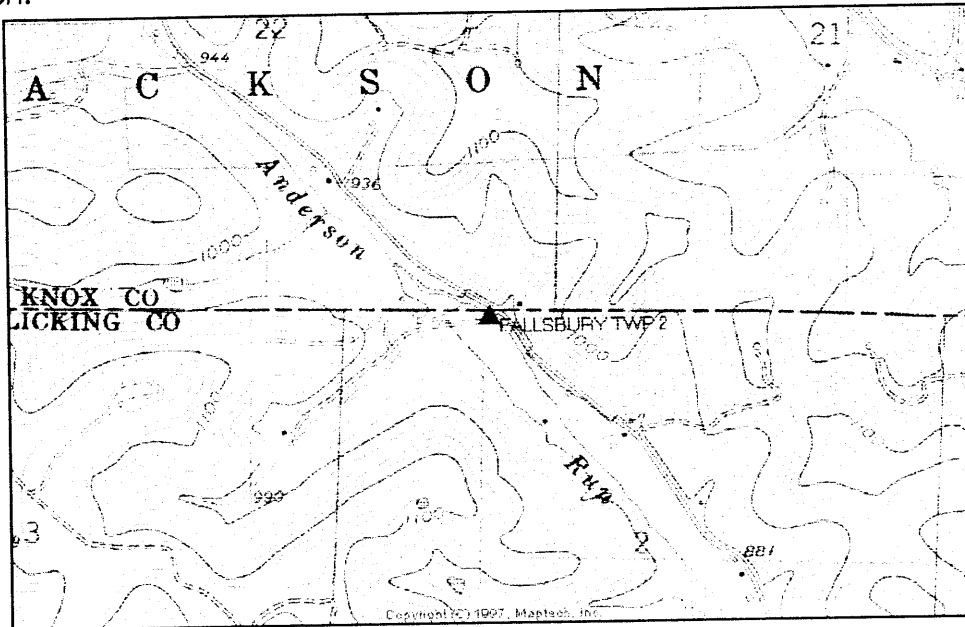
-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.2 MILES (3.5 KM) NORTHWEST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF PLEASANT VALLEY ROAD (SR 79) AND FALLSBURG ROAD (SR 586) IN THE TOWN OF FALLSBURG PROCEED NORTHWEST ALONG PLEASANT VALLEY ROAD (SR 79) A DISTANCE OF 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH GIRL SCOUT ROAD (T-225) . TURN RIGHT AND PROCEED NORTHEAST ALONG GIRL SCOUT ROAD (T-225) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE RIGHT NEAR THE INTERSECTION OF NORRIS ROAD (T-219) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED FALLSBURY TWP 1 1998. THE STATION IS 12.6 FEET (3.8 M) AZIMUTH 273 DEGREES TO A METAL POLE WITH THE NUMBER 4203/54/16/17, 30.3 FEET (9.2 M) AZIMUTH ONE DEGREE TO A POWER POLE WITH THE NUMBER 4203/54/16/17 1/2, 95.8 FEET (29.2 M) AZIMUTH 75 DEGREES TO A FENCE CORNER, 41.8 FEET AZIMUTH 50 DEGREES TO A TELEPHONE PEDESTAL AND 14.6 FEET (4.5 M) SOUTH FROM THE CENTERLINE OF GIRL SCOUT ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

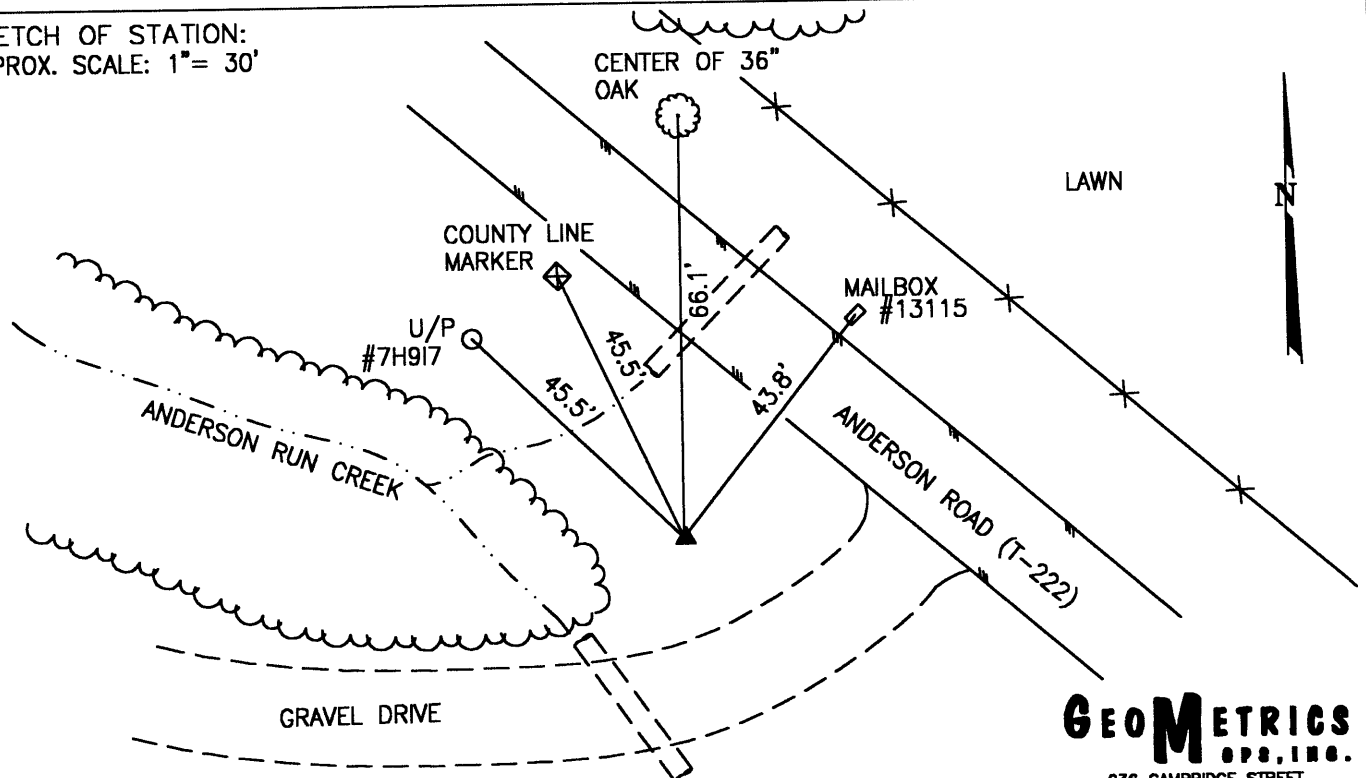
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	FALLSBURY TWP 2		1998
N: 815833.232	E: 2047563.688	LAT: 40°14'22.26210" N	LONG: 82°13'00.53386" W
ELEV.: 892.872	(GPS) COMB. FACTOR: 1.000004684	θ ANGLE: +0°10'46.87	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0170.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0170

Designation: FALLSBURY TWP 2

PID:

Latitude: 401422N  
Longitude: 0821300W  
Elevation: 286.3M  
Stamping: FALLSBURY TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHEAST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF PLEASANT VALLEY ROAD (SR 586) AND FALLSBURG ROAD (SR 79) IN THE TOWN OF FALLSBURG PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE ITS INTERSECTION WITH PINE BLUFF ROAD (CR 223) . TURN LEFT AND PROCEED NORTH ALONG PINE BLUFF ROAD (CR 223) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH FRAMPTON ROAD (CR 201) . TURN RIGHT AND PROCEED EAST ALONG FRAMPTON ROAD (CR 201) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH ANDERSON ROAD (T-222) . TURN LEFT AND PROCEED NORTHWEST ALONG ANDERSON ROAD (T-222) A DISTANCE OF 1.1 MILES (1.8 KM) TO ITS INTERSECTION WITH A GRAVEL DRIVEWAY ON THE LEFT AND THE STATION IS ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FALLSBURY TWP 2 1998. THE STATION IS 43.8 FEET (13.4 M) AZIMUTH 38 DEGREES TO A MAILBOX WITH NUMBER 13115, 66.1 FEET (20.1 M) AZIMUTH 0 DEGREES TO THE CENTER OF A 36 INCH OAK TREE, 45.5 FEET (13.9 M) AZIMUTH 335 DEGREES TO A COUNTY LINE MARKER POST, AND 45.5 FEET (13.9 M) AZIMUTH 314 DEGREES TO A UTILITY POLE WITH NUMBER 7H9 17.

LICKING COUNTY, OHIO

1998 GEODETIC CONTROL SURVEY

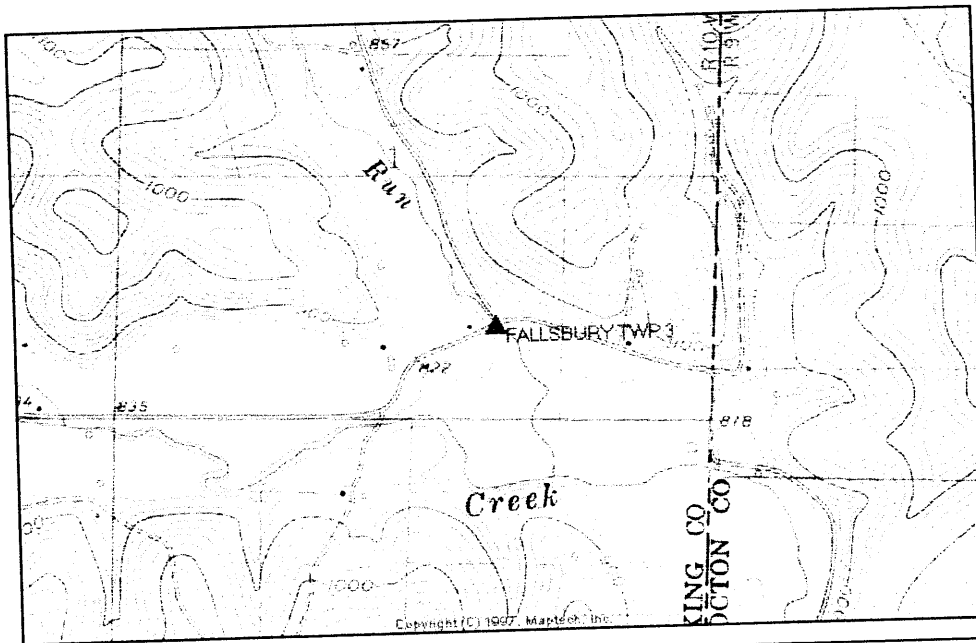
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT

HORIZ. ORDER OF SURVEY: FIRST

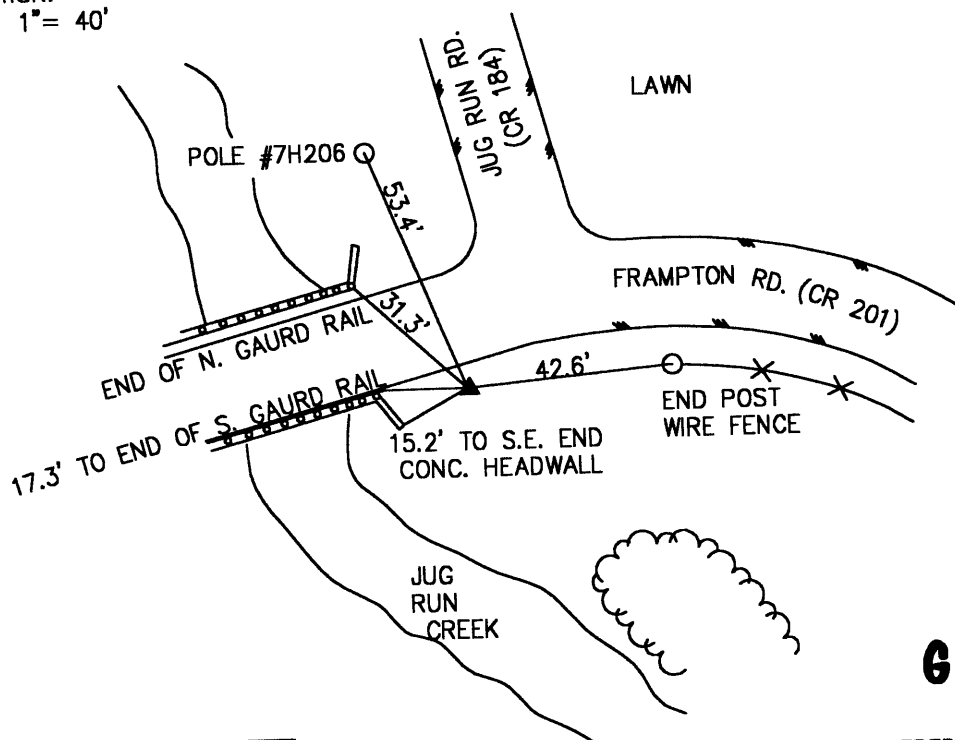
VERTICAL DATUM: NAVD 88

COUNTY	NAME OF STATION	YEAR
LICKING	FALLSBURY TWP 3	1998
N: 812056.949	E: 2054964.556	LAT: 40°13'44.70695" N
ELEV.: 822.928 (GPS)		COMB. FACTOR: 1.000005316
		LONG: 82°11'25.27298" W
		Q ANGLE: +0°11'47.31

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	1/99
CHECKED BY: LLR	1/99

FILE: 0180.DWG

**GEOMETRICS**  
S.P.S. INC.  
355 BUTLER ROAD  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0180  
Designation: FALLSBURY TWP 3

PID:

Latitude: 401344N  
Longitude: 0821125W  
Elevation: 293.3M  
Stamping: FALLSBURY TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

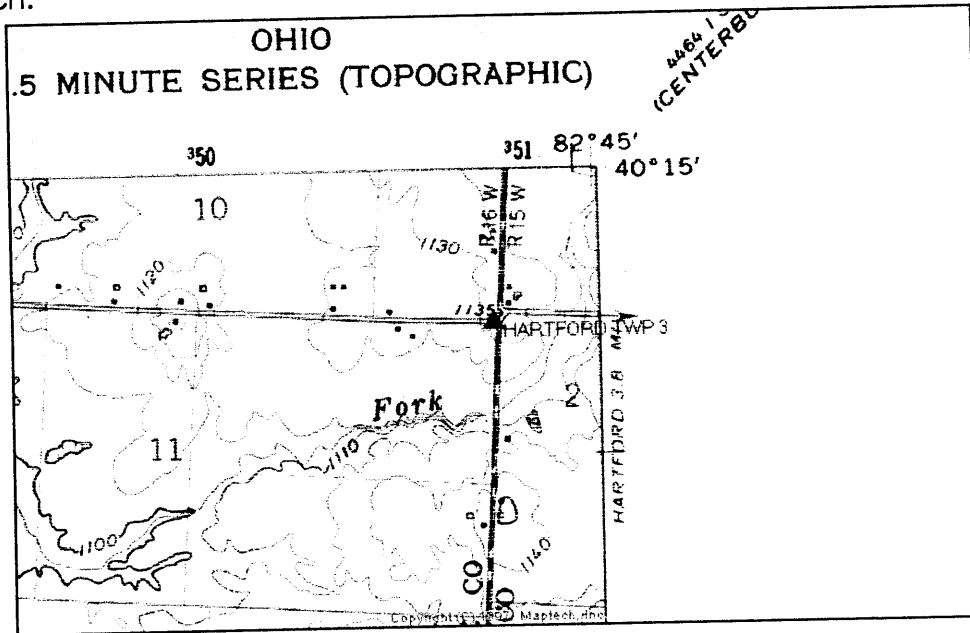
-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHEAST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF PLEASANT VALLEY ROAD (SR 586) AND FALLSBURG ROAD (SR 79) IN THE TOWN OF FALLSBURG PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH PINE BLUFF ROAD (CR 223) . TURN LEFT AND PROCEED NORTH ALONG PINE BLUFF ROAD (CR 223) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH FRAMPTON ROAD (CR 201) . TURN RIGHT AND PROCEED EAST ALONG FRAMPTON ROAD (CR 201) A DISTANCE OF 2.1 MILES (3.4 KM) TO ITS INTERSECTION WITH JUG RUN ROAD (T-184) AND THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FALLSBURY TWP 3 1998. THE STATION IS 42.6 FEET (13.0 M) AZIMUTH 85 DEGREES TO AN END POST OF A WIRE FENCE, 15.2 FEET (4.6 M) AZIMUTH 241 DEGREES TO THE SOUTHEAST END OF A CONCRETE HEAD WALL, 17.3 FEET (5.3 M) AZIMUTH 270 DEGREES TO THE EAST END OF SOUTH GUARD RAIL, 31.3 FEET (9.5 M) AZIMUTH 313 DEGREES TO THE EAST END ON THE NORTH GUARD RAIL, AND 53.4 FEET (16.3 M) AZIMUTH 338 DEGREES TO A POWER POLE WITH THE NUMBER 7 H 206.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

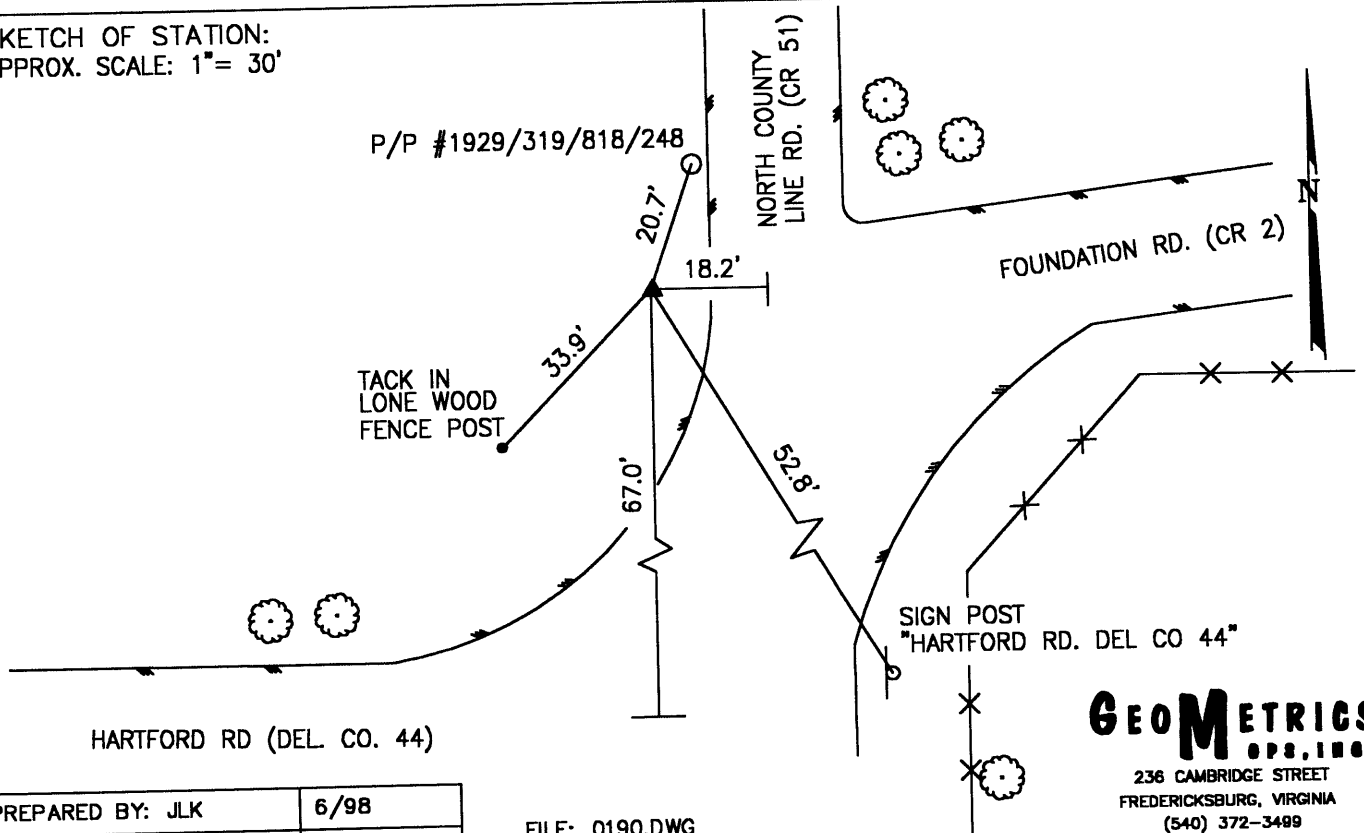
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
DELAWARE	HARTFORD TWP 3		1998
N: 818276.973	E: 1897808.815	LAT: 40°14'46.65543" N	LONG: 82°45'11.59804" W
ELEV.: 1133.157 (GPS)	COMB. FACTOR: 0.999994989		θ ANGLE: -0°09'38.42

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0190.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0190  
Designation: HARTFORD TWP 3

PID:

Latitude: 401446N  
Longitude: 0824511W  
Elevation: 304.5M  
Stamping: HARTFORD TWP 3 1998

State: OH  
County: DELAWARE  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN DELAWARE COUNTY, OHIO ABOUT 3.6 MILES (5.8 KM) WEST OF THE CITY OF HARTFORD IN OHIO. TO REACH THE STATION FROM THE INTERSECTION OF FOUNDATION ROAD (CR 2) AND CROTON ROAD (CR 3) IN THE CITY OF HARTFORD PROCEED WEST ALONG FOUNDATION ROAD (CR 2) A DISTANCE OF 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (CR 26) . TURN RIGHT AND PROCEED NORTH ALONG CLOVER VALLEY ROAD (CR 26) A DISTANCE OF 0.4 MILE (0.6 KM) TO ITS INTERSECTION WITH FOUNDATION ROAD (CR 2) . TURN LEFT AND PROCEED WEST ALONG FOUNDATION ROAD (CR 2) A DISTANCE OF 2.0 MILES (3.2 KM) . THE STATION IS IN THE NORTHWEST QUADRANT OF THE INTERSECTION OF COUNTY LINE ROAD (DEL CO 51) , HARTFORD ROAD (DEL CO 44) AND FOUNDATION ROAD (CR 2) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 3 1998. THE STATION IS 20.7 FEET (6.3 M) AZIMUTH 19 DEGREES TO A POWER POLE WITH THE NUMBER 1929/319/818/248, 52.8 FEET (16.1 M) AZIMUTH 150 DEGREES TO A SIGN POST STATING HARTFORD ROAD DEL CO 44, 33.9 FEET (10.3 M) AZIMUTH 224 DEGREES TO A TACK IN A LONE WOOD FENCE POST, 18.2 FEET (5.5 M) WEST FROM THE CENTERLINE NORTH COUNTY LINE ROAD AND 67.0 FEET (20.4 M) NORTH OF THE CENTERLINE OF HARTFORD ROAD.

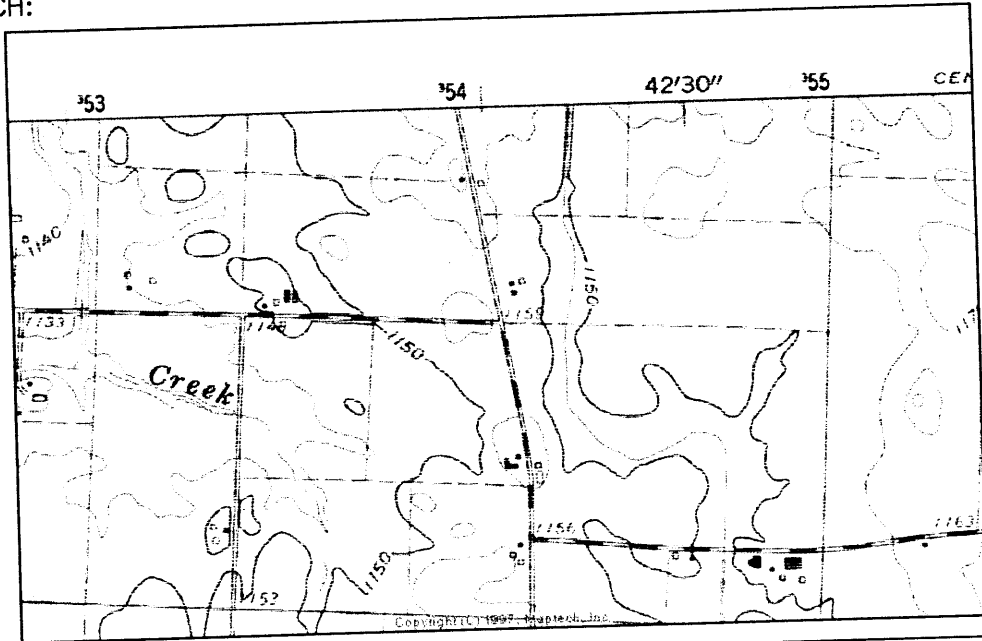
JN 98016

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

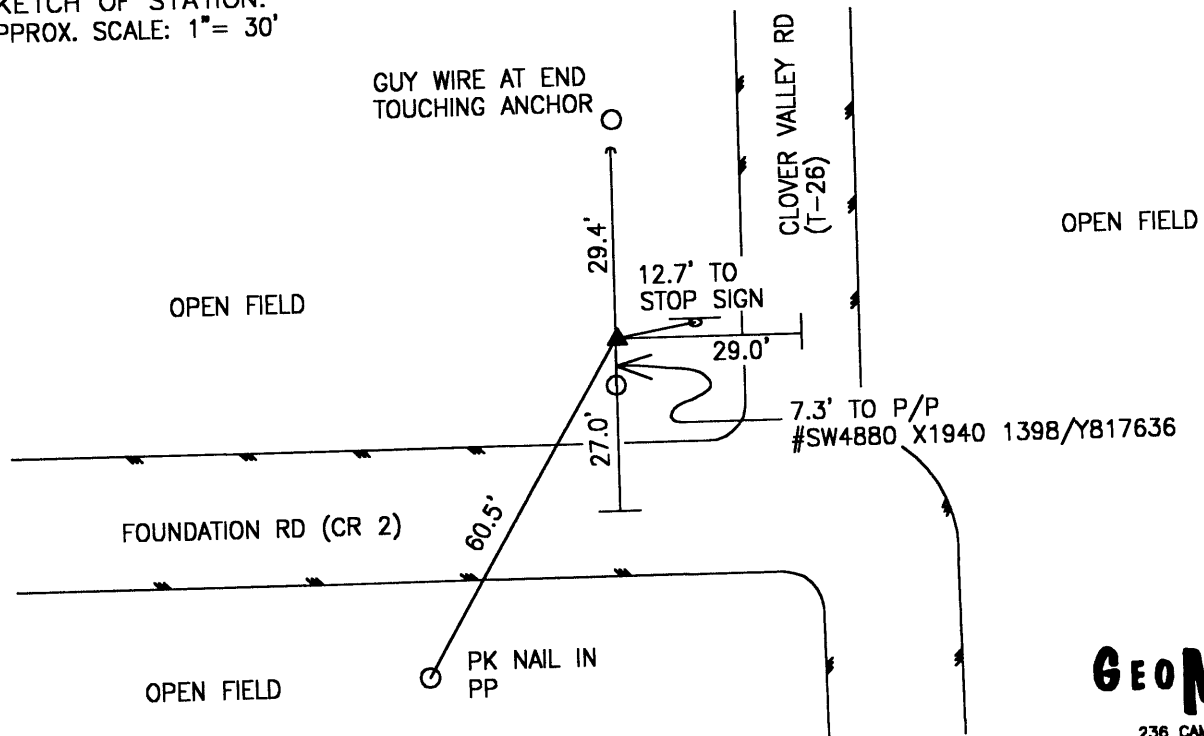
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88

COUNTY	NAME OF STATION		YEAR
LICKING	HARTFORD TWP 4		1998
N: 817690.218	E: 1908630.237	LAT: 40°14'41.13438" N	LONG: 82°42'52.03302" W
ELEV.: 1157.478 (GPS)	COMB. FACTOR: 0.999993425		Ø ANGLE: -0°08'09.87

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0200.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0200  
Designation: HARTFORD TWP 4

PID:

Latitude: 401441N  
Longitude: 0824252W  
Elevation: 265.2M  
Stamping: HARTFORD TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARTFORD TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.7 MILES (2.7 KM) NORTHWEST OF CITY OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF FOUNDATION ROAD (CR 2) AND CROTON ROAD (CR 3) IN THE CITY OF HARTFORD PROCEED WEST ALONG FOUNDATION ROAD (CR 2) A DISTANCE OF 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (CR 26) . TURN RIGHT AND PROCEED NORTH ALONG CLOVER VALLEY ROAD (CR 26) A DISTANCE OF 0.4 MILE (0.6 KM) TO ITS INTERSECTION WITH FOUNDATION ROAD (CR 2) AND THE STATION IN THE NORTHWEST QUADRANT OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 4 1998. THE STATION IS 29.4 FEET (9.0 M) AZIMUTH 0 DEGREES TO A GUY WIRE AT THE END TOUCHING THE ANCHOR, 12.7 FEET (3.9 M) AZIMUTH 80 DEGREES TO A STOP SIGN, 60.5 FEET (18.4 M) AZIMUTH 210 DEGREES TO A PK NAIL IN A POWER POLE, 7.3 FEET (2.2 M) AZIMUTH 181 DEGREES TO A POWER POLE WITH THE NUMBER SW4880 X1940 1398/Y817636, 27.0 FEET (8.2 M) NORTH FROM THE CENTERLINE OF FOUNDATION ROAD AND 27.0 FEET (8.2 M) WEST FROM THE CENTERLINE OF CLOVER VALLEY ROAD.

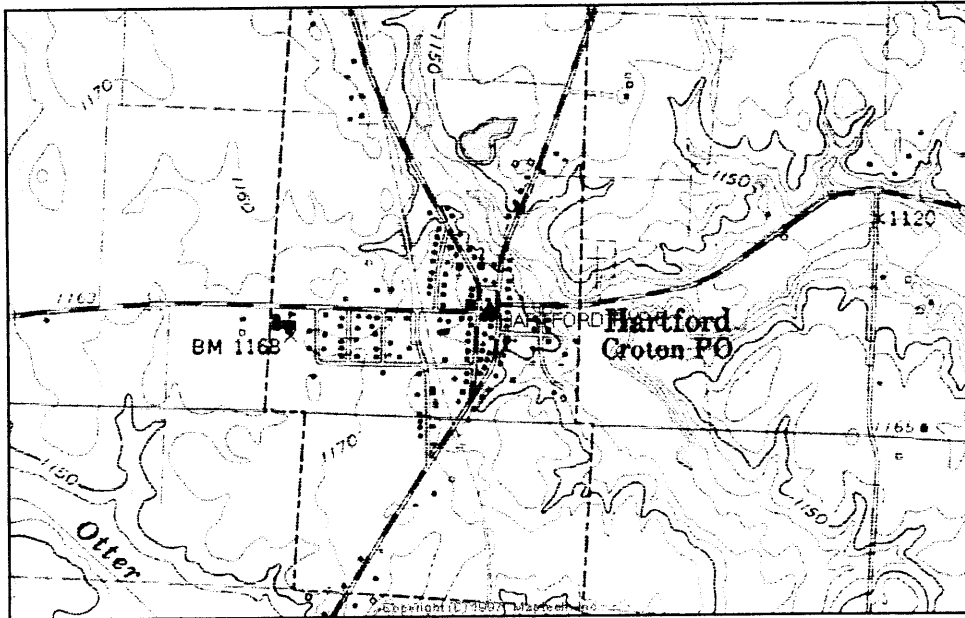
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

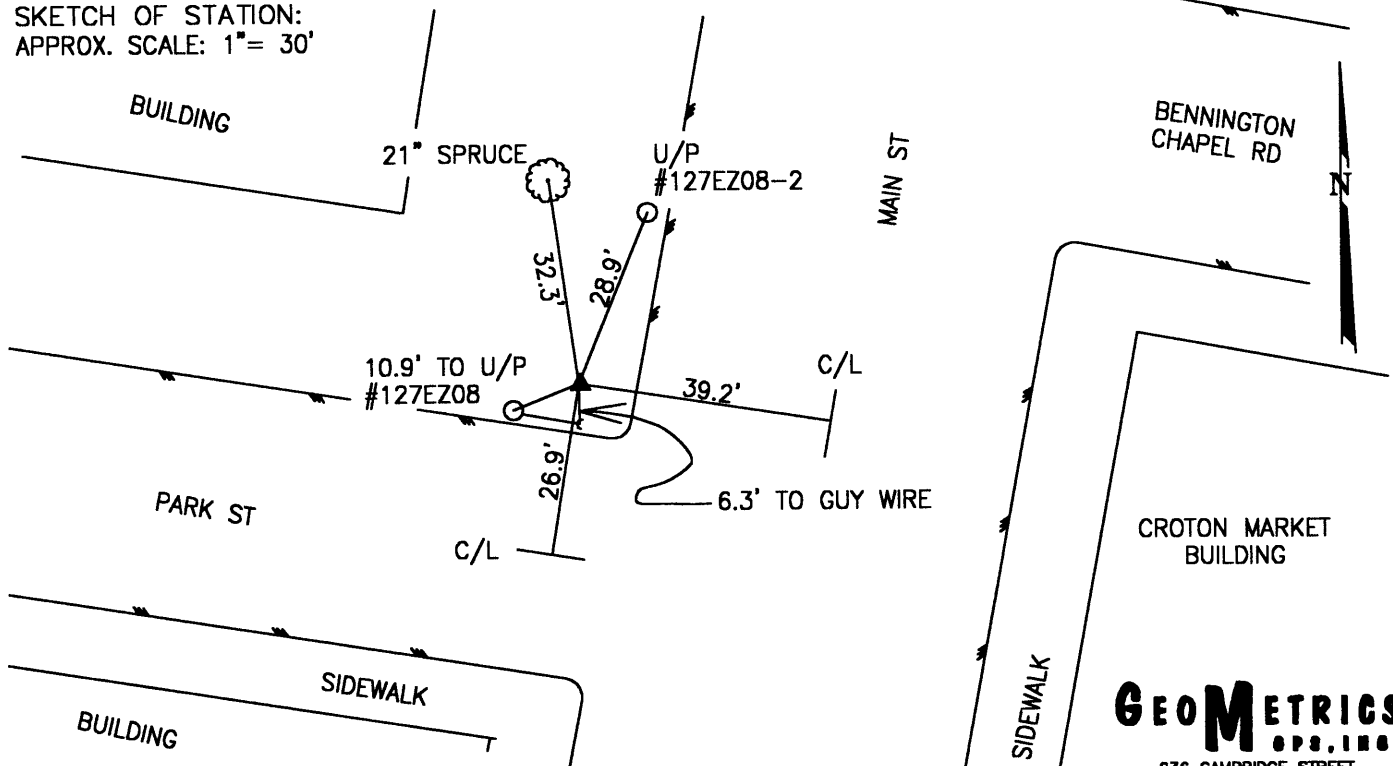
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88      HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARTFORD TWP 5		1998
N: 815571.152	E: 1916465.099	LAT: 40°14'20.36681" N	LONG: 82°41'10.94476" W
ELEV.: 1156.956	(GPS)	COMB. FACTOR: 0.999991940	θ ANGLE: -0°07'05.72

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: JLK	6/98
CHECKED BY: LLR	1/99

FILE: 0210.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0210  
Designation: HARTFORD TWP 5  
Latitude: 401420N  
Longitude: 0824110W  
Elevation: 289.8M  
Stamping: HARTFORD TWP 5 1998

PID:  
State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

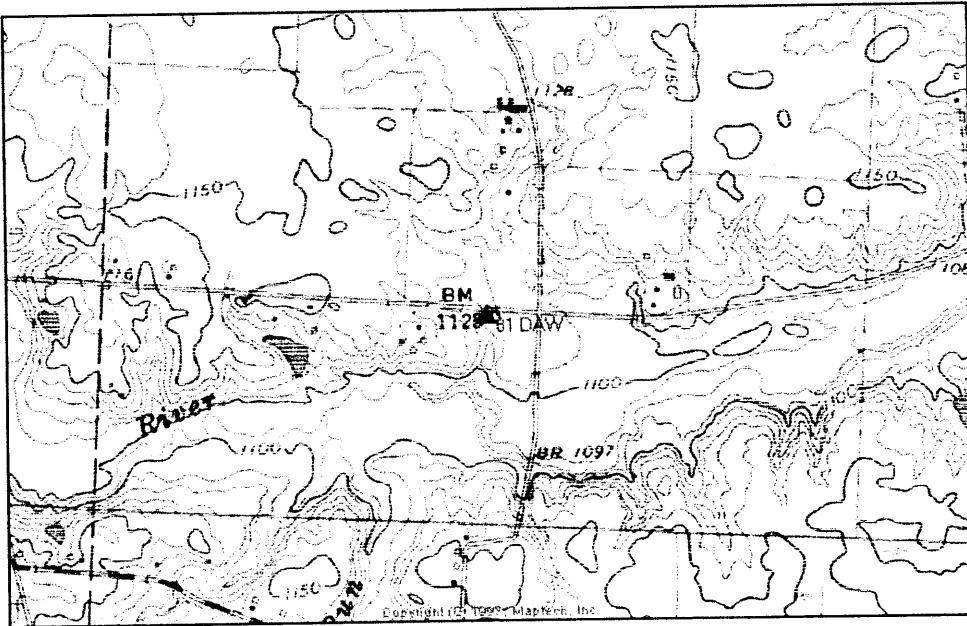
-----  
THE STATION IS LOCATED IN HARTFORD TOWNSHIP LICKING COUNTY, OHIO IN THE CITY OF HARTFORD. THE STATION IS IN THE CENTER OF THE CITY OF HARTFORD AT THE INTERSECTION OF MAIN STREET AND PARK STREET IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 5 1998. THE STATION IS 10.9 FEET (3.3 M) AZIMUTH 248 DEGREES TO A POWER POLE WITH THE NUMBER 127EZ08, 32.3 FEET (9.8 M) AZIMUTH 352 DEGREES TO A 21 INCH SPRUCE TREE, 28.9 FEET (8.8 M) AZIMUTH 22 DEGREES TO A POWER POLE WITH NUMBER 127EZ08-2, 6.3 FEET (1.9 M) AZIMUTH 179 DEGREES TO A GUY WIRE, 26.9 FEET (8.2 M) NORTH FROM THE CENTERLINE OF PARK STREET AND 39.2 FEET (11.9 M) WEST FROM THE CENTERLINE OF MAIN STREET.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

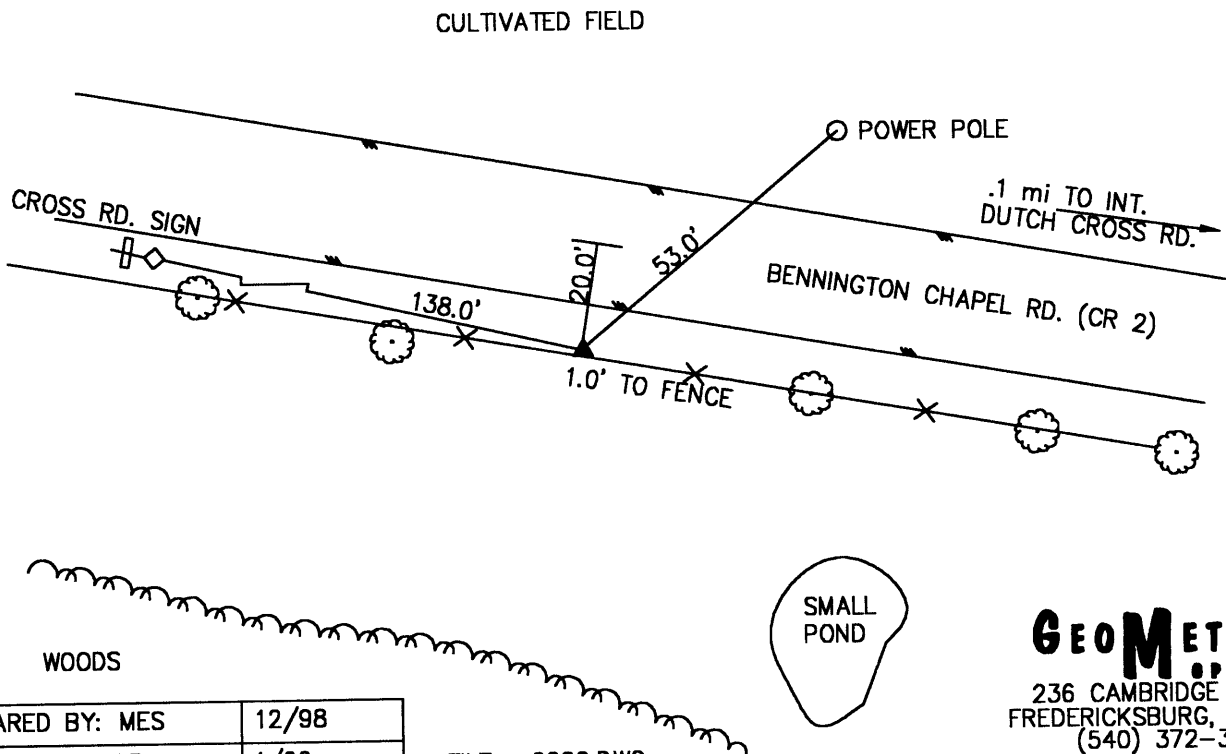
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	B1 DAW	1998
N: 815712.464	E: 1928861.369	LAT: 40°14'21.98588" N
ELEV.: 1123.912 (GPS)	COMB. FACTOR: 0.999993635	LONG: 82°38'31.10881" W
		Q ANGLE: -0°05'24.30

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 0220.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



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\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0220

Designation: 81 DAW

PID:

Latitude: 401421N  
Longitude: 0823831W  
Elevation: 278.7M  
Stamping: 1125 81 DAW 1959

State: OH  
County: LICKING  
Disk From: USGS

Surface Mark-

Type: Bench Mark disk

Magnetic code: 0

Setting: SET INTO THE TOP OF A SQUARE CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by USGS in 1959, Chief of party .

-----  
THE STATION IS LOCATED IN BENNINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.2 MILES (3.5 KM) EAST OF THE TOWN OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF BENNINGTON CHAPEL ROAD (CR 2) AND MARION ROAD (SR 657) PROCEED WEST ALONG BENNINGTON CHAPEL ROAD (CR 2) A DISTANCE OF 3.2 MILES (5.1 KM) TO INTERSECTION WITH DUTCH CROSS ROAD (T-56) . CONTINUE WEST ALONG BENNINGTON CHAPEL ROAD (CR 2) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE LEFT. THE STATION IS A USGS BENCHMARK DISK SET IN THE TOP OF A 6 INCH BY 6 INCH CONCRETE POST PROJECTING 5 INCHES ABOVE THE GROUND SURFACE AND STAMPED 1125 81 DAW 1959. THE STATION IS 53.0 FEET (16.2 M) AZIMUTH 50 DEGREES TO A POWER POLE ON THE NORTH SIDE OF BENNINGTON CHAPEL ROAD, 138 FEET (42.1 M) AZIMUTH 283 DEGREES TO A DUTCH CROSS ROAD SIGN, 1.0 FOOT (0.3 M) AZIMUTH 190 DEGREES TO A FENCE, AND 20.0 FEET (6.1 M) SOUTH FROM THE CENTERLINE OF BENNINGTON CHAPEL ROAD.

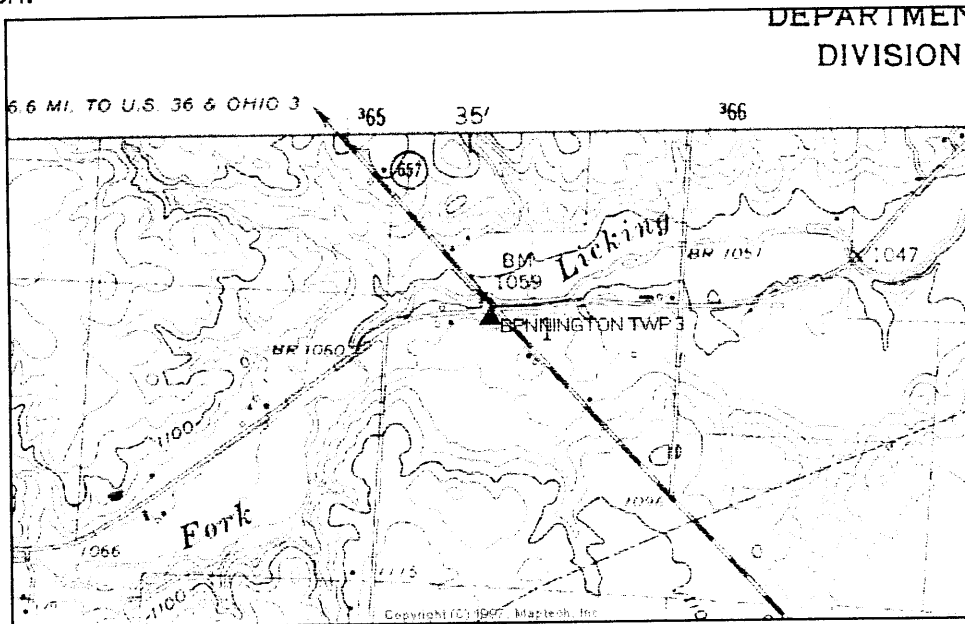
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

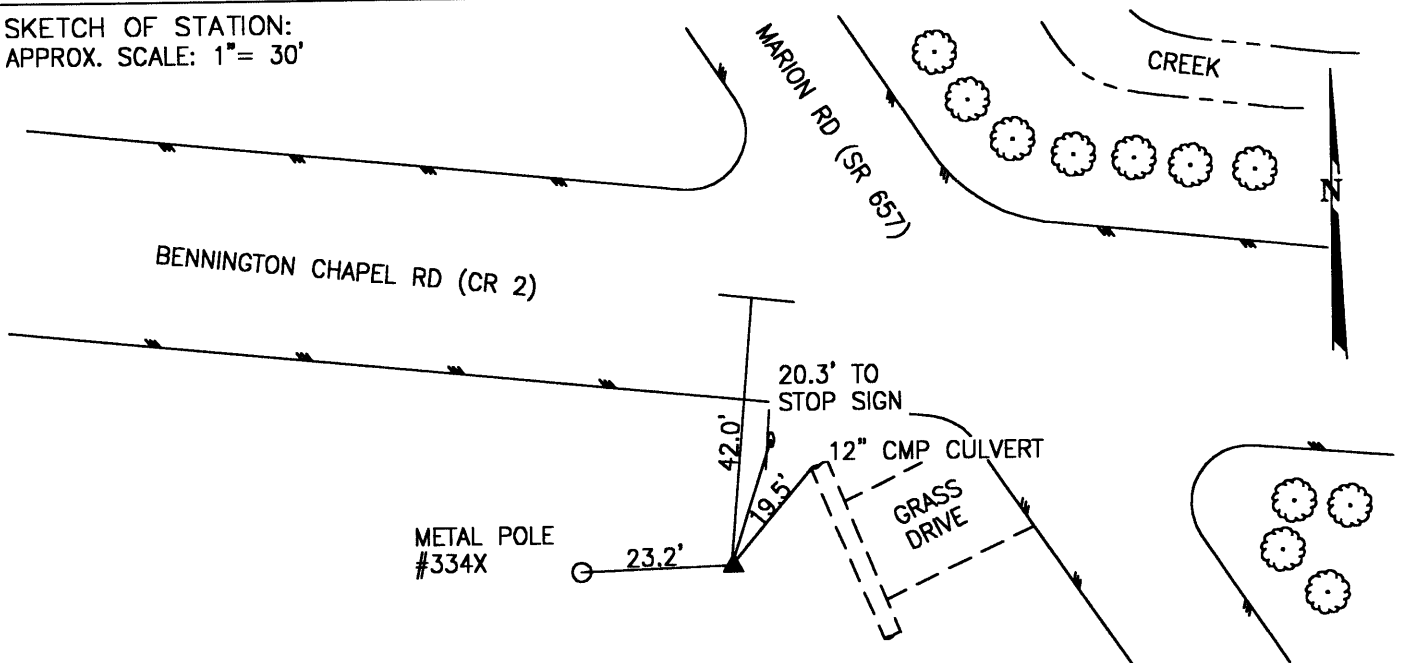
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BENNINGTON TWP 3		1998
N: 817881.950	E: 1945466.872	LAT: 40°14'43.62750" N	LONG: 82°34'57.01970" W
ELEV.: 1057.019	(GPS)	COMB. FACTOR: 0.999998403	Θ ANGLE: -0°03'08.46

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: JLK	6/98
CHECKED BY:	X/XX

FILE: 0230.DWG

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0230

Designation: BENNINGTON TWP 3

PID:

Latitude: 401443N  
Longitude: 0823457W  
Elevation: 319.8M  
Stamping: BENNINGTON TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BENNINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.5 MILES (5.6 KM) SOUTHWEST OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND HOMER ROAD (CR 19) IN THE TOWN OF HOMER PROCEED WEST ALONG HOMER ROAD (CR 19) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH BENNINGTON CHAPEL ROAD (CR 2) . TURN LEFT AND PROCEED SOUTHWEST ALONG BENNINGTON CHAPEL ROAD (CR 2) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH MARION ROAD (SR 657) AND THE STATION IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BENNINGTON TWP 3 1998. THE STATION IS 23.2 FEET (7.1 M) AZIMUTH 268 DEGREES TO A METAL POLE WITH THE NUMBER 334X, 20.3 FEET (6.2 M) AZIMUTH 18 DEGREES TO A STOP SIGN, 19.5 FEET (5.9 M) AZIMUTH 40 DEGREES TO A 12 INCH CMP CULVERT, AND 42.0 FEET (12.8 M) SOUTH FROM THE CENTERLINE OF BENNINGTON CHAPEL ROAD.

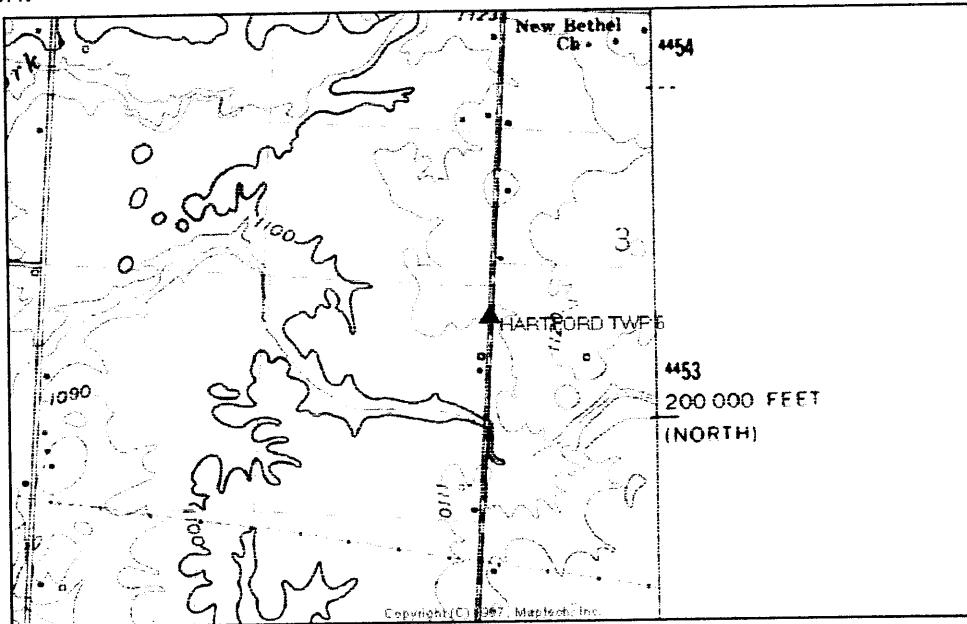
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

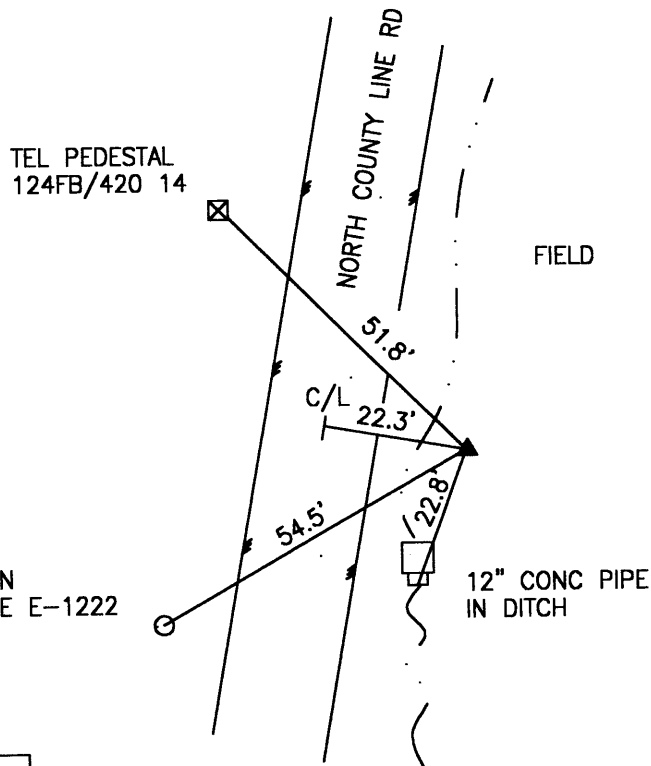
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARTFORD TWP 6		1998
N: 808007.363	E: 1897251.950	LAT: 40°13'05.16124" N	LONG: 82°45'18.40490" W
ELEV.: 1108.941	(GPS) COMB. FACTOR: 0.999988848	θ ANGLE: -0°09'42.74	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: LLR	7/98
CHECKED BY: LLR	1/99

FILE: 0240.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0240  
Designation: HARTFORD TWP 6

PID:

Latitude: 401305N  
Longitude: 0824518W  
Elevation: 310.0M  
Stamping: HARTFORD TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARTFORD TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.8 MILES (6.1 KM) SOUTHWEST OF THE TOWN OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF FOUNDATION ROAD (CR 2) AND CROTON ROAD (CR 3) IN HARTFORD PROCEED WEST ALONG FOUNDATION ROAD (CR 2) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (T-26) . TURN RIGHT AND PROCEED NORTH ALONG CLOVER VALLEY ROAD (T-26) A DISTANCE OF 0.3 MILES (0.5 KM) TO ITS INTERSECTION WITH FOUNDATION ROAD (CR 2) . TURN LEFT AND PROCEED WEST ALONG FOUNDATION ROAD (CR 2) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH NORTH COUNTY LINE ROAD (CR 51) . TURN LEFT AND PROCEED SOUTH ALONG NORTH COUNTY LINE ROAD (CR 51) A DISTANCE OF 1.9 MILES (3.1 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 6 1998. THE STATION IS 51.8 FEET (15.8 M) AZIMUTH 315 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 124FB/420 14, 54.5 FEET (16.6 M) AZIMUTH 240 DEGREES TO A TACK IN A POWER POLE WITH THE NUMBER DRE E-1222, 22.8 FEET (6.9 M) AZIMUTH 200 DEGREES TO A 12 INCH CONCRETE PIPE EXTENSION OUT OF A 4X4 BOX AND 22.3 FEET (6.8 M) EAST FROM THE CENTERLINE OF NORTH COUNTY LINE ROAD.

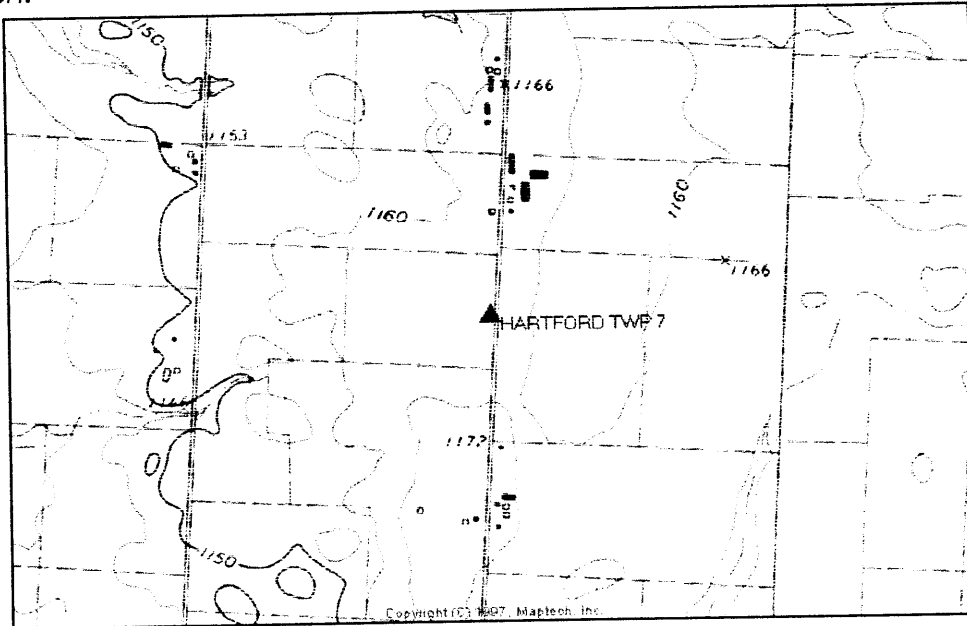
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

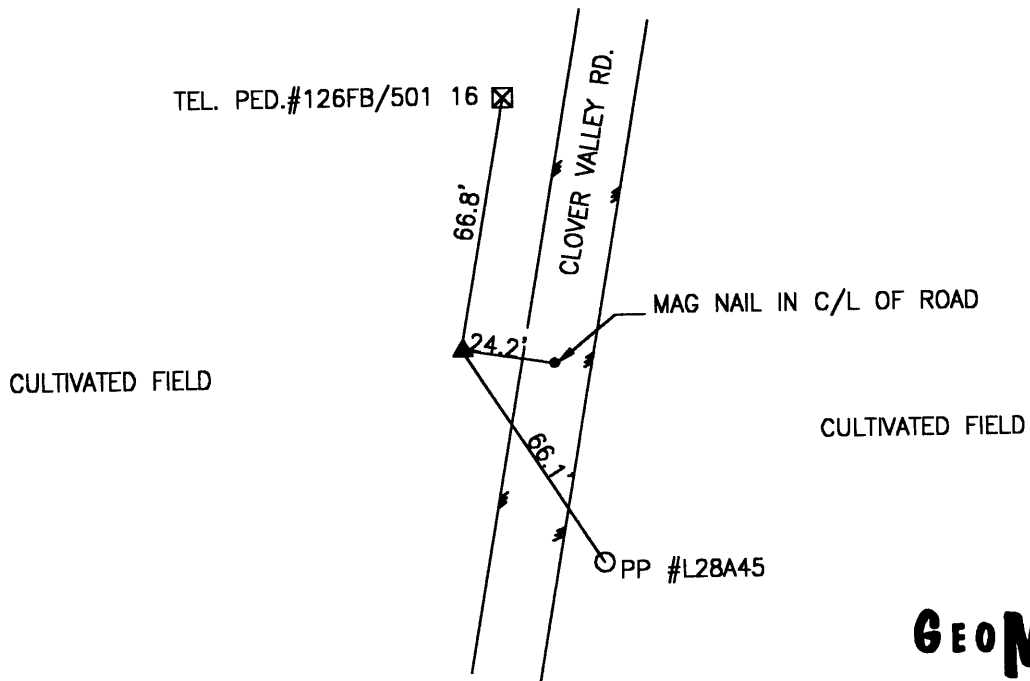
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARTFORD TWP 7		1998
N: 807516.249	E: 1908382.269	LAT: 40°13'00.59474" N	LONG: 82°42'54.91786" W
ELEV.: 1168.885 (GPS)	COMB. FACTOR: 0.999985663		θ ANGLE: -0°08'11.70

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	9/98
CHECKED BY: LLR	1/99

FILE: 0250.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0250  
Designation: HARTFORD TWP 7

PID:

Latitude: 401300N  
Longitude: 0824254W  
Elevation: 300.7M  
Stamping: HARTFORD TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARTFORD TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHWEST OF THE CITY OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF FOUNDATION ROAD (CR 2) AND CROTON ROAD (CR 3) PROCEED WEST ALONG FOUNDATION ROAD (CR 2) A DISTANCE OF 1.4 MILES (2.3 KM) TO THE INTERSECTION WITH CLOVER VALLEY ROAD (T-26) . TURN LEFT AND PROCEED SOUTH ALONG CLOVER VALLEY ROAD (T-26) A DISTANCE OF 1.5 MILES (2.4 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 7 1998. THE STATION IS 24.2 FEET (7.4 M) AZIMUTH 99 DEGREES TO A MAG NAIL IN THE CENTERLINE OF CLOVER VALLEY ROAD, 66.1 FEET (20.1 M) 147 DEGREES TO A POWER POLE WITH THE NUMBER L28A45, AND 66.8 FEET (20.4 M) AZIMUTH 10 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 126FB/501 16.

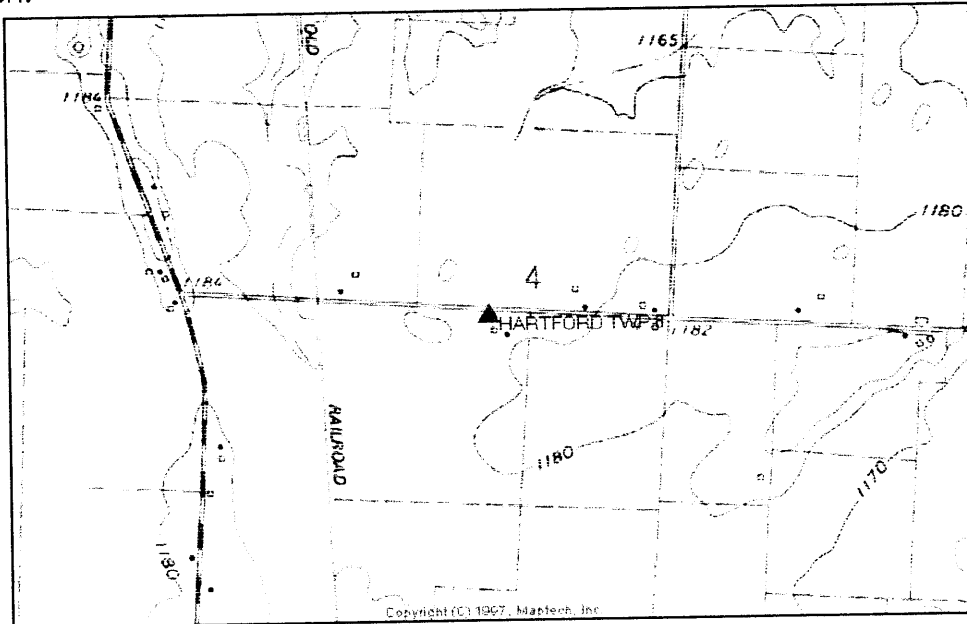
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

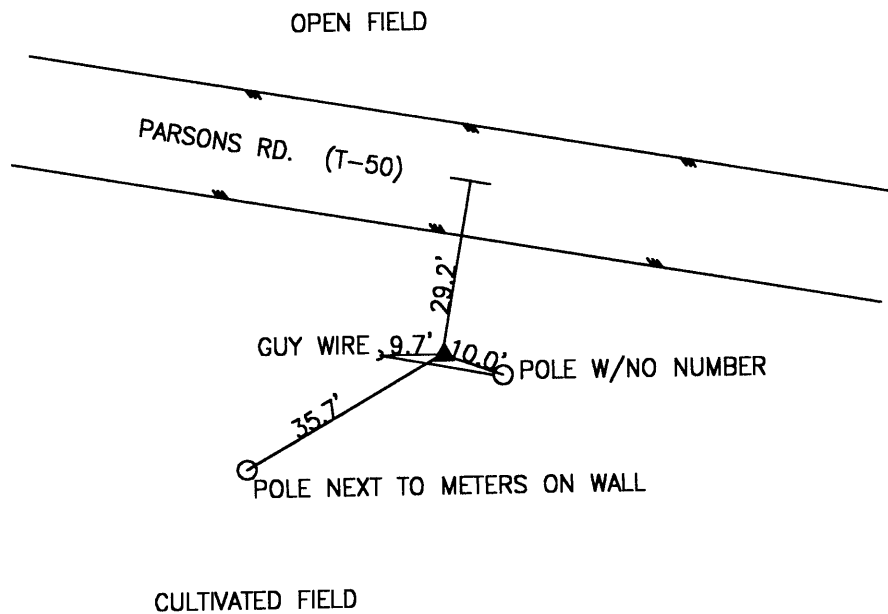
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARTFORD TWP 8		1998
N: 807404.777	E: 1917863.012	LAT: 40°12'59.69894" N	LONG: 82°40'52.70850" W
ELEV.: 1175.418 (GPS)	COMB. FACTOR: 0.999985288		θ ANGLE: -0°06'54.15

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	9/98
CHECKED BY: LLR	1/99

FILE: 0260.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0260

Designation: HARTFORD TWP 8

PID:

Latitude: 401259N  
Longitude: 0824052W  
Elevation: 318.1M  
Stamping: HARTFORD TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARTFORD TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) SOUTH OF THE CITY OF HARTFORD. TO REACH THE STATION FROM THE INTERSECTION OF FOUNDATION ROAD (CR 2) AND CROTON ROAD (CR 3) PROCEED SOUTH ALONG CROTON ROAD (CR 3) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH PARSONS ROAD (T-50) . TURN LEFT AND PROCEED EAST ALONG PARSONS ROAD (T-50) A DISTANCE OF 0.5 MILE (0.8 KM) TO THE STATION ON THE RIGHT ON THE SOUTH SIDE OF THE ROAD. THE STATION IS IN A WIDE PIECE OF GRASS STRIP WHERE THERE ARE TWO TELEPHONE POLES. THE STATION IS A STANDARD LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARTFORD TWP 8 1998. THE STATION IS 35.7 FEET (10.9 M) AZIMUTH 240 DEGREES TO A POLE NEXT TO A WALL WITH METERS MOUNTED ON THE WALL, 10.0 FEET (3.0 M) AZIMUTH 110 DEGREES TO A POLE WITH NO NUMBER, 9.7 FEET (3.0 M) AZIMUTH 270 DEGREES TO A GUY WIRE AND 29.2 FEET (8.9 M) SOUTH FROM THE CENTERLINE OF PARSONS ROAD.

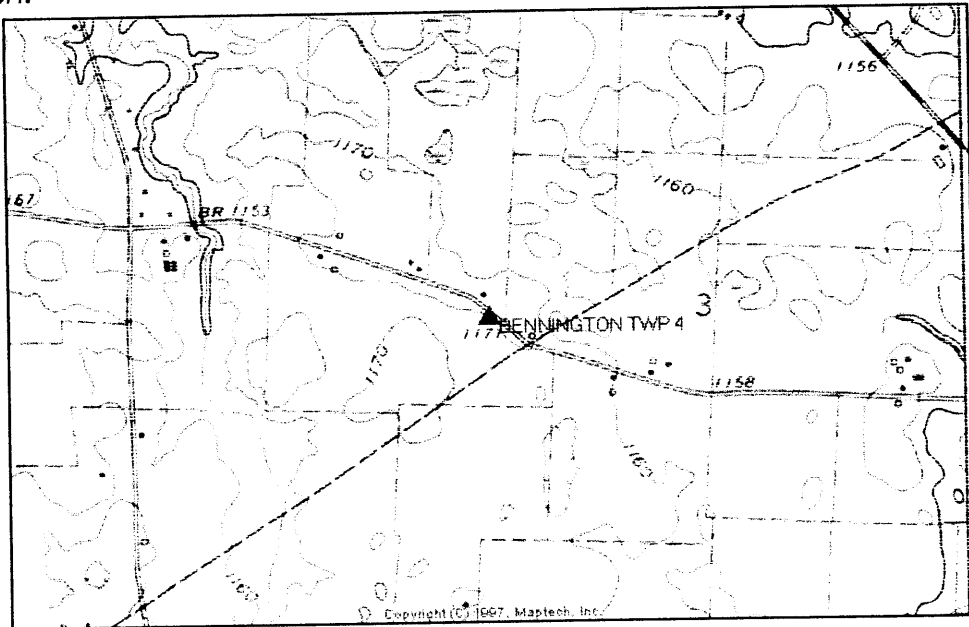
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

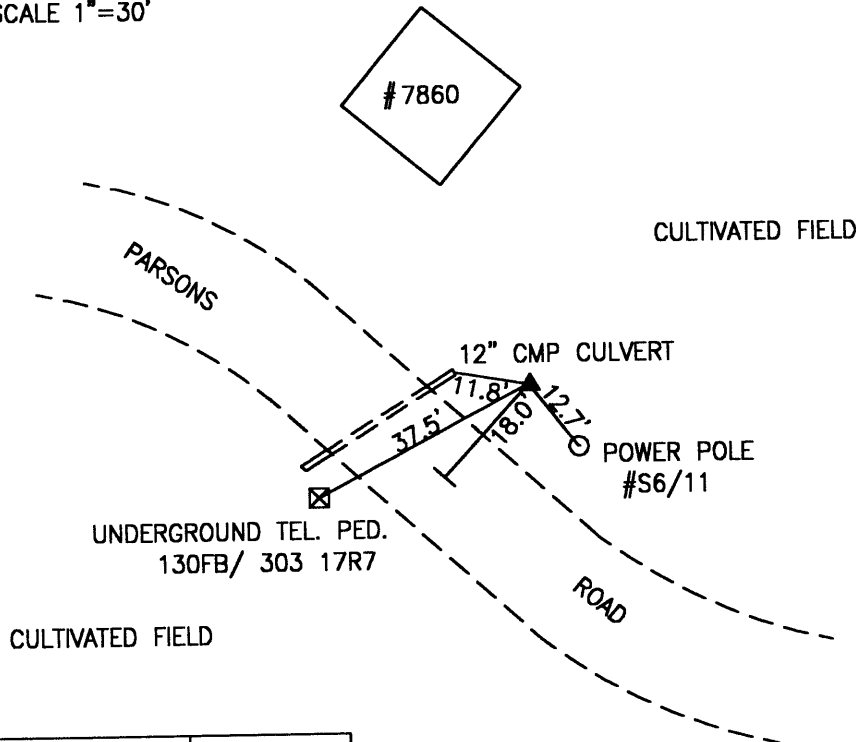
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BENNINGTON TWP 4		1998
N: 806386.164	E: 1929382.059	LAT: 40°12'49.83602" N	LONG: 82°38'24.20841" W
ELEV.: 1170.053	(GPS)	COMB. FACTOR: 0.999984849	θ ANGLE: -0°05'19.93

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE 1"=30'



PREPARED BY: MES	9/98
CHECKED BY: LLR	1/99

FILE: 0270.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0270

Designation: BENNINGTON TWP 4

PID:

Latitude: 401249N

Longitude: 0823824W

Elevation: 302.0M

Stamping: BENNINGTON TWP 4 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BENNINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) NORTHWEST OF THE TOWN OF APPLETON. TO REACH THE STATION FROM THE INTERSECTION OF APPLETON ROAD (CR 10) AND VAN FOSSEN ROAD (T-4) IN THE TOWN OF APPLETON PROCEED NORTHWEST ALONG APPLETON ROAD (CR 10) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH PARSONS ROAD (T-50) . TURN LEFT AND PROCEED WEST ALONG PARSONS ROAD (T-50) A DISTANCE OF 1.2 MILES (1.9 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE NORTH SIDE OF PARSONS ROAD APPROXIMATELY 150 FEET (45.7 M) EASTERLY OF HOUSE AND MAILBOX NUMBER 7860. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BENNINGTON TWP 4 1998. THE STATION IS 12.7 FEET (3.9 M) AZIMUTH 142 DEGREES TO A POWER POLE WITH THE NUMBER S6/11, 11.8 FEET (3.6 M) AZIMUTH 280 DEGREES TO A 12 INCH CMP CULVERT, 37.5 FEET (11.4 M) AZIMUTH 242 DEGREES TO AN UNDERGROUND TELEPHONE PEDESTAL WITH THE NUMBER 130FB/303 17R7 AND 18.0 FEET (5.5 M) NORTH OF THE CENTERLINE OF PARSONS ROAD.

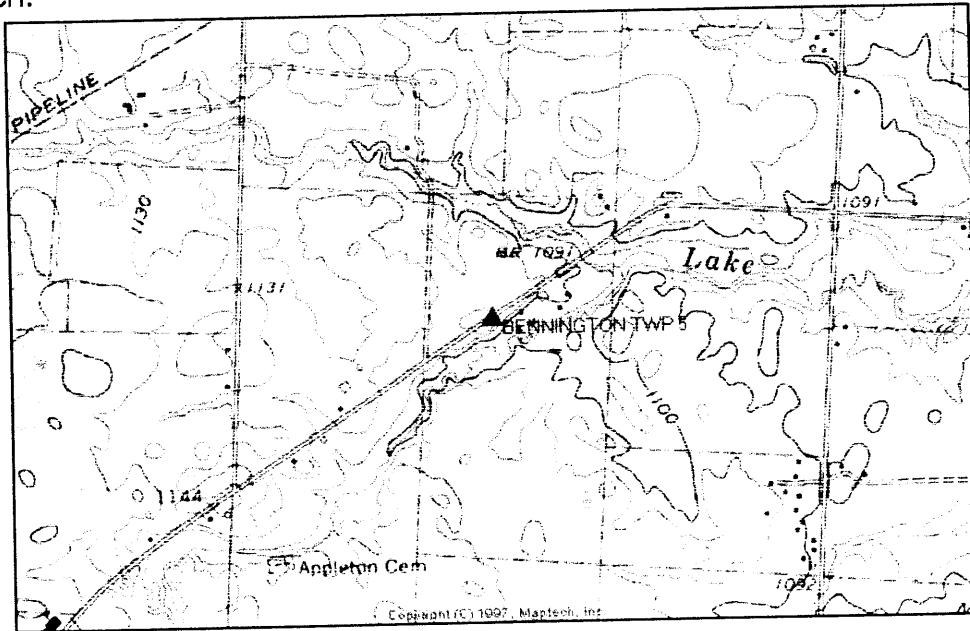
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

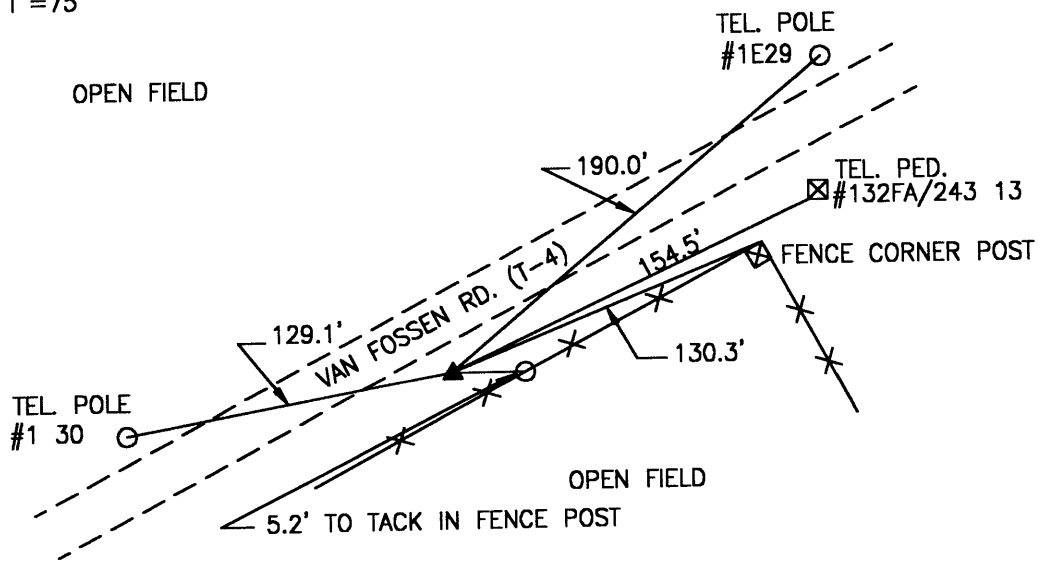
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BENNINGTON TWP 5		1998
N: 808467.539	E: 1940802.723	LAT: 40°13'10.55273" N	LONG: 82°35'57.03204" W
ELEV.: 1121.071 (GPS)	COMB. FACTOR: 0.999988650		θ ANGLE: -0°03'46.54

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=75'



PREPARED BY: MES	9/98
CHECKED BY: LLR	1/99

FILE: 0280.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0280  
Designation: BENNINGTON TWP 5

PID:

Latitude: 401310N  
Longitude: 0823557W  
Elevation: 319.3M  
Stamping: BENNINGTON TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BENNINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTHWEST OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN UTICA-ROAD (US 62) AND MARION ROAD (SR 657) PROCEED NORTHWEST ALONG MARION ROAD (SR 657) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH VAN FOSSEN ROAD (T-4) . TURN LEFT AND PROCEED WEST ALONG VAN FOSSEN ROAD (T-4) A DISTANCE OF 2.5 MILES (4.0 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE SOUTH SIDE OF VAN FOSSEN ROAD APPROXIMATELY 155 FEET (47.2 M) WEST OF A TELEPHONE PEDESTAL AND THE CORNER OF A FENCE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BENNINGTON TWP 5 1998. THE STATION IS 190.0 FEET (57.9 M) AZIMUTH 50 DEGREES TO A TELEPHONE POLE WITH THE NUMBER 1E29, 154.5 FEET (47.1 M) AZIMUTH 60 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 132FA/243 13, 130.3 FEET (39.7 M) AZIMUTH 65 DEGREES TO A CORNER FENCE POST, 5.2 FEET (1.6 M) AZIMUTH 90 DEGREES TO A TACK IN A FENCE POST, AND 129.1 FEET (39.3 M) AZIMUTH 260 TELEPHONE POLE WITH THE NUMBER 1 30.

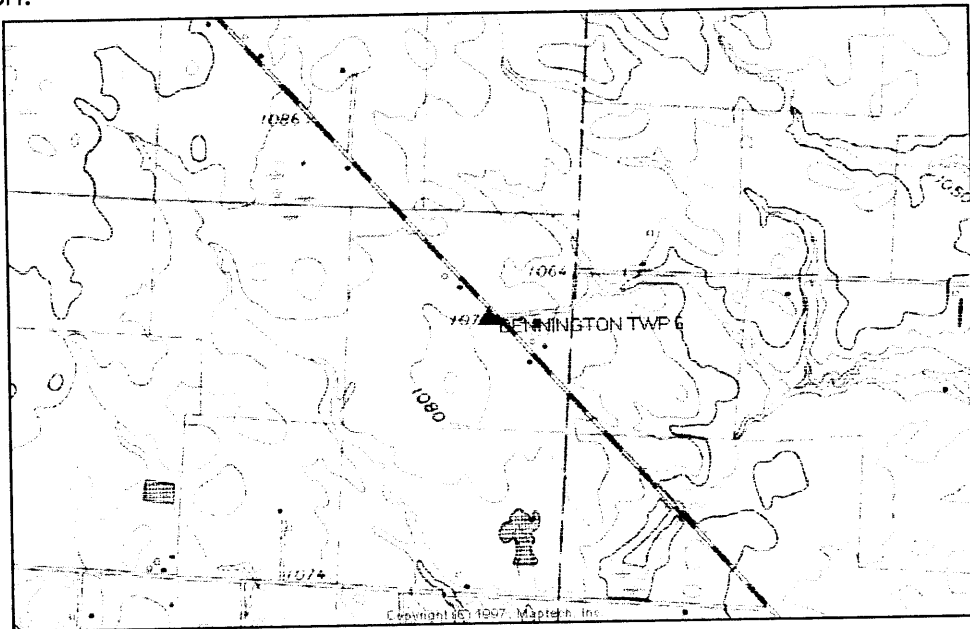
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

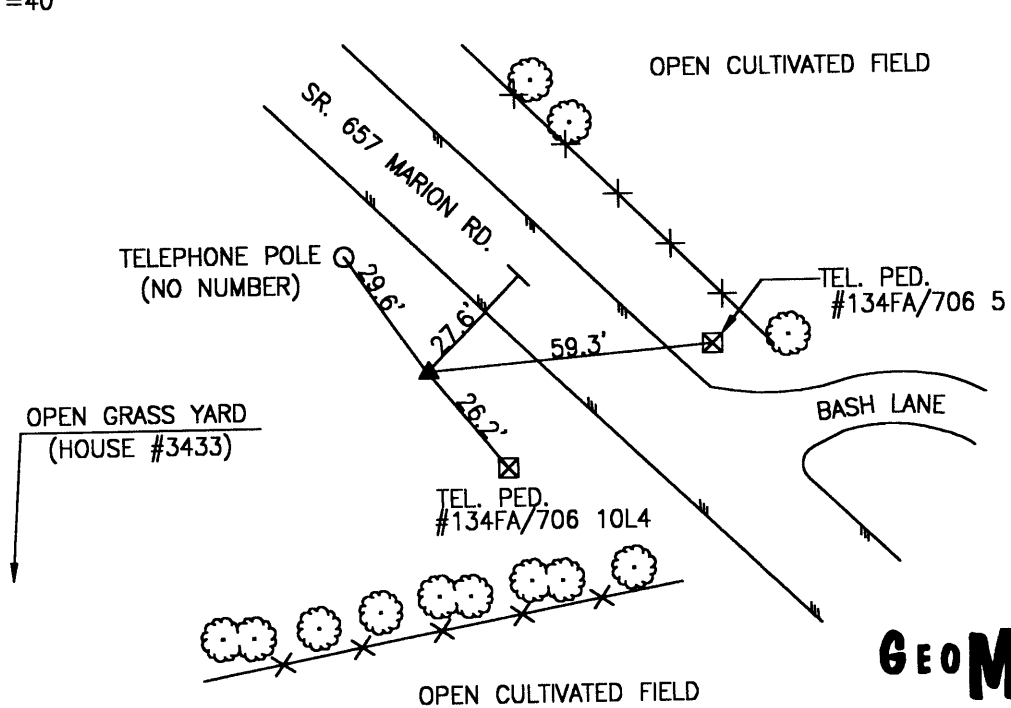
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BENNINGTON TWP 6		1998
N: 811339.618	E: 1951379.138	LAT: 40°13'39.02614" N	LONG: 82°33'40.72184" W
ELEV.: 1073.472	(GPS)	COMB. FACTOR: 0.999992949	θ ANGLE: -0°02'20.05

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=40'



PREPARED BY: MES	9/98
CHECKED BY: LLR	1/99

FILE: 0290.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0290

Designation: BENNINGTON TWP 6

PID:

Latitude: 401339N

Longitude: 0823340W

Elevation: 342.6M

Stamping: BENNINGTON TWP 6 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

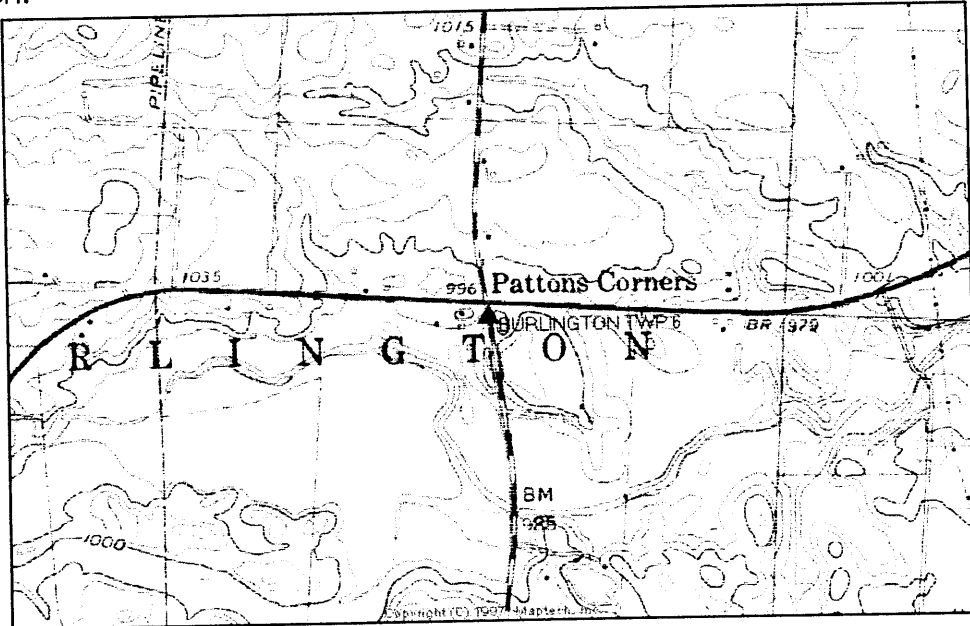
-----  
THE STATION IS LOCATED IN BENNINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) SOUTHWEST OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MARION ROAD (SR 657) PROCEED NORTHWEST ALONG MARION ROAD (SR 657) A DISTANCE OF 1.05 MILES (1.69 KM) TO ITS INTERSECTION WITH BASH LANE ROAD (T-81) AND THE STATION ON THE LEFT. THERE IS A SHALLOW DITCH BETWEEN THE MARK AND THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BENNINGTON TWP 6 1998. THE STATION IS 26.2 FEET (8.0 M) AZIMUTH 141 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 134FA/706 10L4, 59.3 FEET (18.1 M) AZIMUTH 85 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 134FA/706 5, 29.6 FEET (9.0 M) AZIMUTH 325 DEGREES TO A TELEPHONE POLE WITH NO NUMBER AND 27.6 FEET (8.4 M) SOUTHWEST FROM THE CENTERLINE OF MARION ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

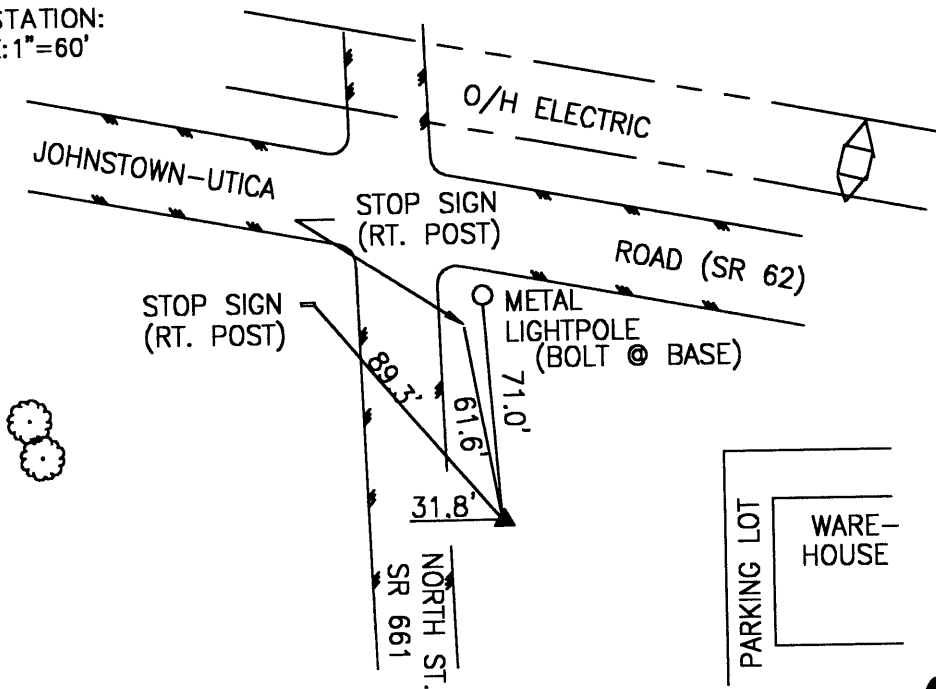
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BURLINGTON TWP 6		1998
N: 811011.015	E: 1963066.323	LAT: 40°13'35.83069" N	LONG: 82°31'10.04996" W
ELEV.: 990.904 (GPS)	COMB. FACTOR: 0.999996662		θ ANGLE: -0°00'44.44

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=60'



PREPARED BY: MES	6/98
CHECKED BY: LLR	01/99

FILE: 0300.DWG

**GEOMETRICS**  
GPS, INC.

236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0300

Designation: BURLINGTON TWP 6

PID:

Latitude: 401335N  
Longitude: 0823110W  
Elevation: 351.9M  
Stamping: BURLINGTON TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

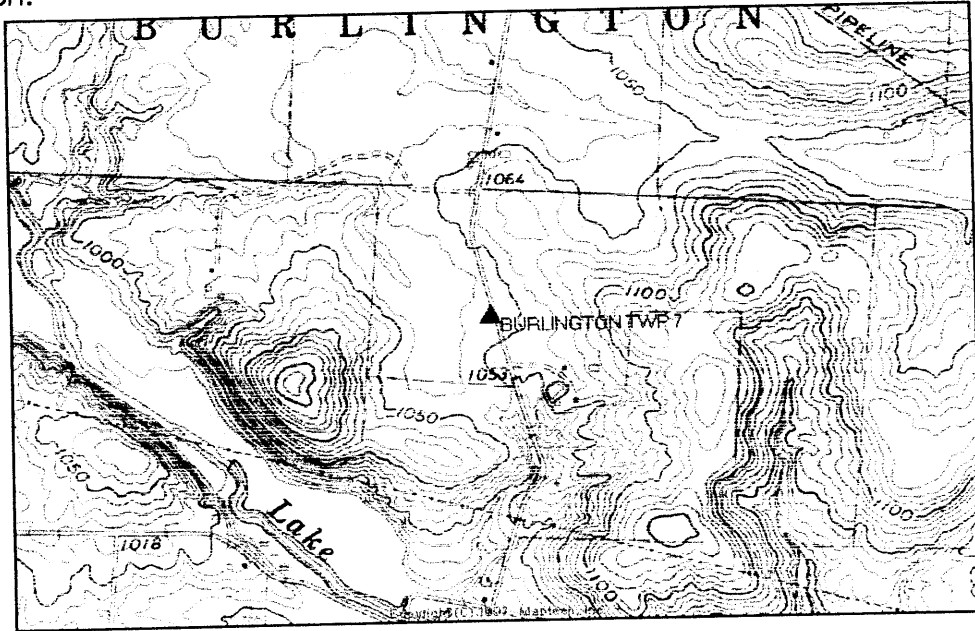
-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP IN LICKING COUNTY, OHIO, AND IS LOCATED ABOUT 1.8 MILES (2.9 KM) SOUTH OF TOWN OF HOMER. THE STATION IS IN THE SOUTHEAST CORNER OF THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND NORTH STREET (SR 661) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 6 1998. THE STATION IS 71.0 FEET (21.6 M) AZIMUTH 356 DEGREES TO A BOLT AT THE BASE OF A METAL LIGHT POLE, 61.6 FEET (18.8 M) AZIMUTH 350 DEGREES TO THE RIGHT POST OF A STOP SIGN ON THE EAST SIDE OF NORTH STREET ROAD, 89.3 FEET (27.2 M) AZIMUTH 320 DEGREES TO THE RIGHT POST OF A STOP SIGN ON THE WEST SIDE OF NORTH STREET, AND 31.8 FEET (9.7 M) FROM THE CENTERLINE OF NORTH STREET ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

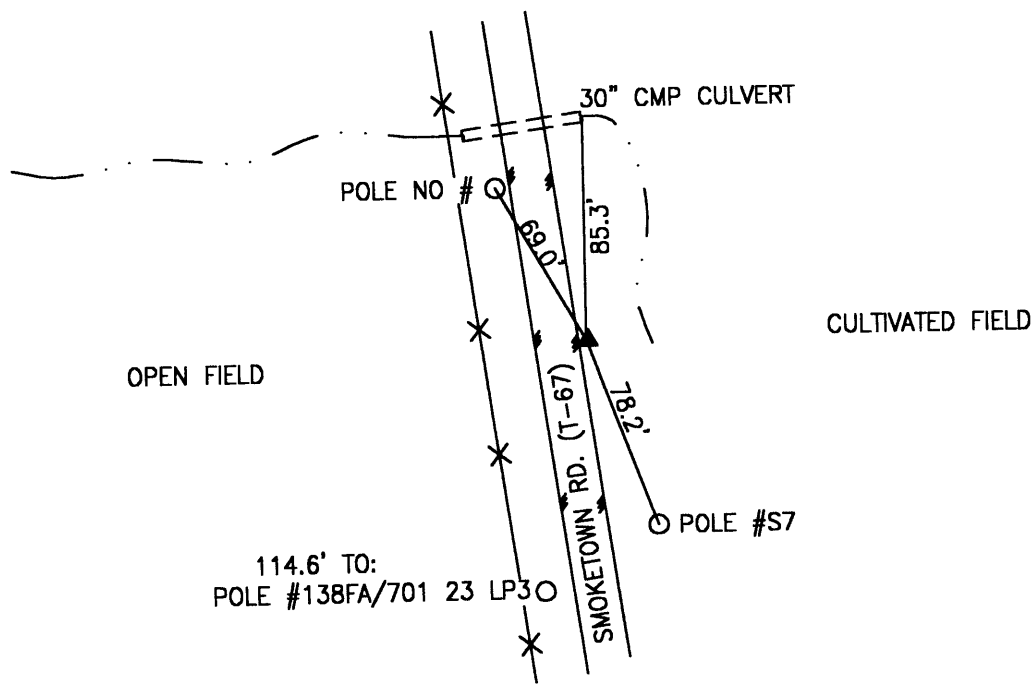
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY		NAME OF STATION		YEAR
LICKING		BURLINGTON TWP 7		1998
N: 809426.212	E: 1973012.381	LAT: 40°13'20.17221" N	LONG: 82°29'01.83087" W	
ELEV.: 1047.859 (GPS)	COMB. FACTOR: 0.999992828		θ ANGLE: +0°00'36.90	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=75'



PREPARED BY: MES	6/98
CHECKED BY: LLR	01/99

FILE: 0310.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0310

Designation: BURLINGTON TWP 7

PID:

Latitude: 401320N  
Longitude: 0822901W  
Elevation: 277.9M  
Stamping: BURLINGTON TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.9 MILES (4.7 KM) SOUTHEAST OF TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MT VERNON ROAD (SR 13) PROCEED WEST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH SMOKETOWN ROAD (T-67) . TURN LEFT AND PROCEED SOUTH ALONG SMOKETOWN ROAD (T-67) A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 7 1998. THE STATION IS 78.2 FEET (23.8 M) AZIMUTH 160 DEGREES TO A POWER POLE WITH THE NUMBER S7, 114.6 FEET (34.9 M) AZIMUTH 180 DEGREES TO A POWER POLE WITH THE NUMBER 138FA/701 23 LP3, 69.0 FEET (21.0 M) AZIMUTH 330 DEGREES TO A POWER POLE WITH NO NUMBER, AND 85.3 FEET (26.0 M) AZIMUTH 352 DEGREES TO A 30 INCH CMP.

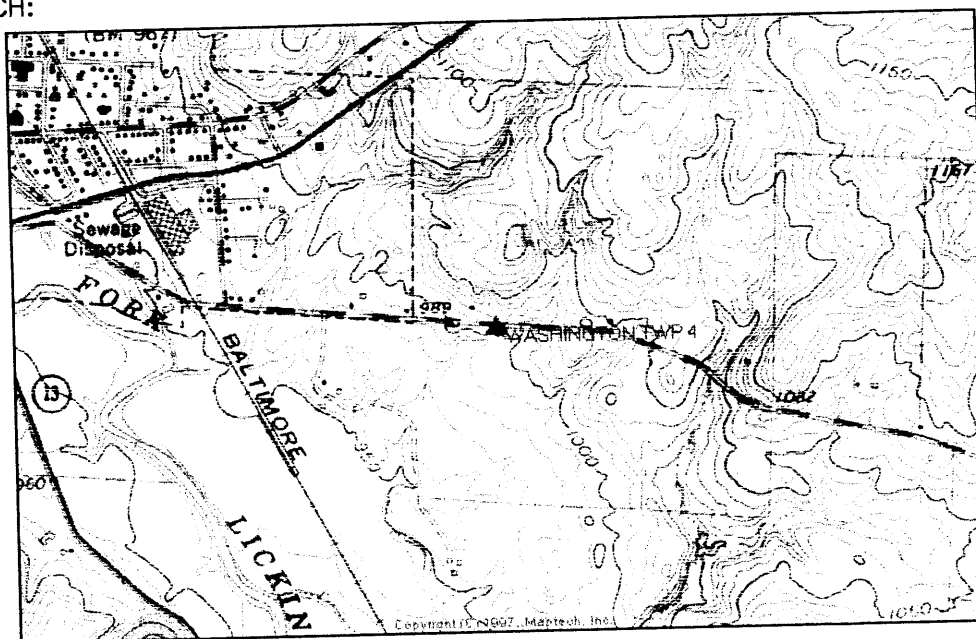
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

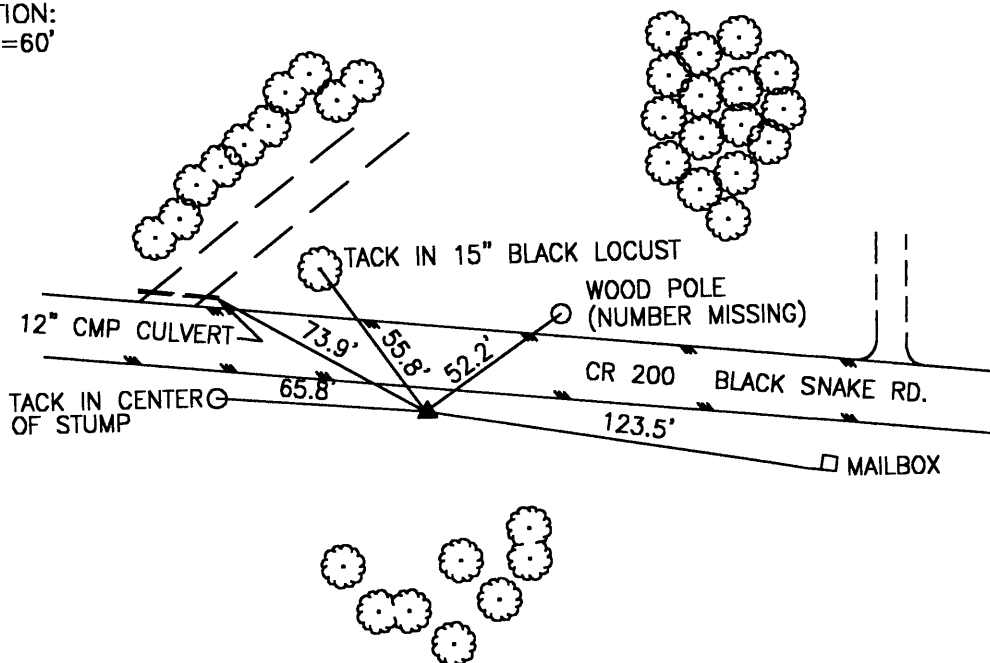
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	WASHINGTON TWP 4	1998
N: 811271.486	E: 1986762.435	LAT: 40°13'38.34497" N LONG: 82°26'04.56166" W
ELEV.: 1009.890 (GPS)	COMB. FACTOR: 0.999995935	θ ANGLE: +0°02'29.39

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=60'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0320.DWG

**GEO METRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0320

Designation: WASHINGTON TWP 4

PID:

Latitude: 401338N  
Longitude: 0822604W  
Elevation: 267.0M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: WASHINGTON TWP 4 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

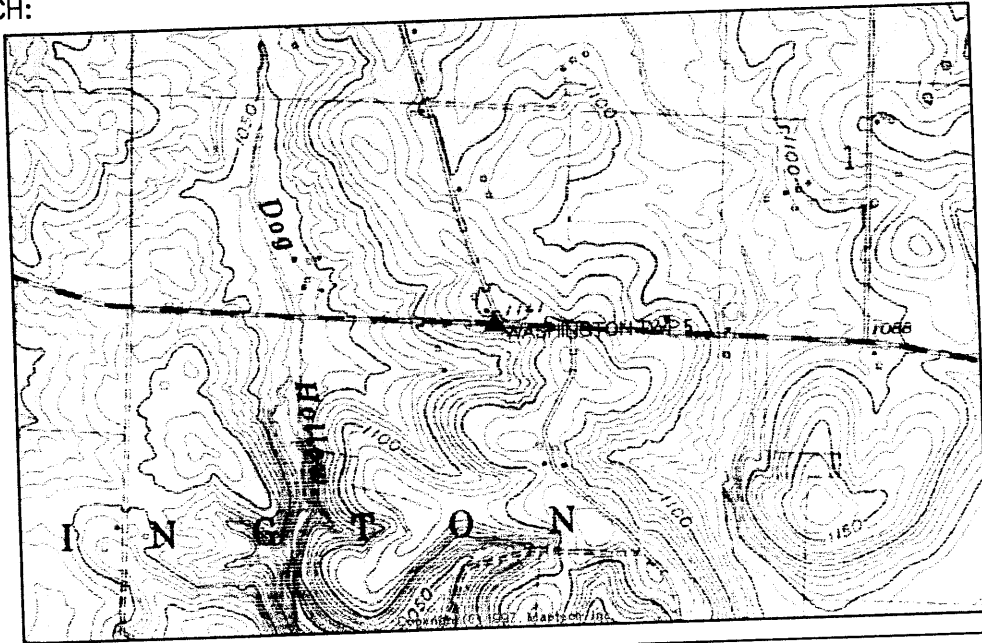
-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTHWEST FROM THE TOWN OF ST LOUISVILLE. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTON-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) PROCEED SOUTH ALONG MOUNT VERNON ROAD (SR 13) A DISTANCE OF 0.02 MILE (0.03 KM) TO ITS INTERSECTION WITH BLACKSNAKE ROAD (CR 200) . TURN LEFT AND PROCEED EAST ALONG BLACKSNAKE ROAD (CR 200) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE RIGHT. THE STATION IS APPROXIMATELY 120 WEST FROM MAIL BOX 675A. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET FLUSH WITH THE GROUND SURFACE AND STAMPED WASHINGTON TWP 4 1998. THE STATION IS 55.8 FEET (17.0 M) AZIMUTH 325 DEGREES TO A TACK IN A 15 INCH BLACK LOCUST TREE, 52.2 AZIMUTH 55 DEGREES TO A POWER POLE WITH NO NUMBER, 123.5 FEET (37.6 M) AZIMUTH 100 DEGREES TO A MAILBOX WITH THE NUMBER 675A, 65.8, AZIMUTH 275 DEGREES TO A TACK IN A STUMP, AND 73.9 FEET (22.5 M) AZIMUTH 300 DEGREES TO A 12 INCH CULVERT.

# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

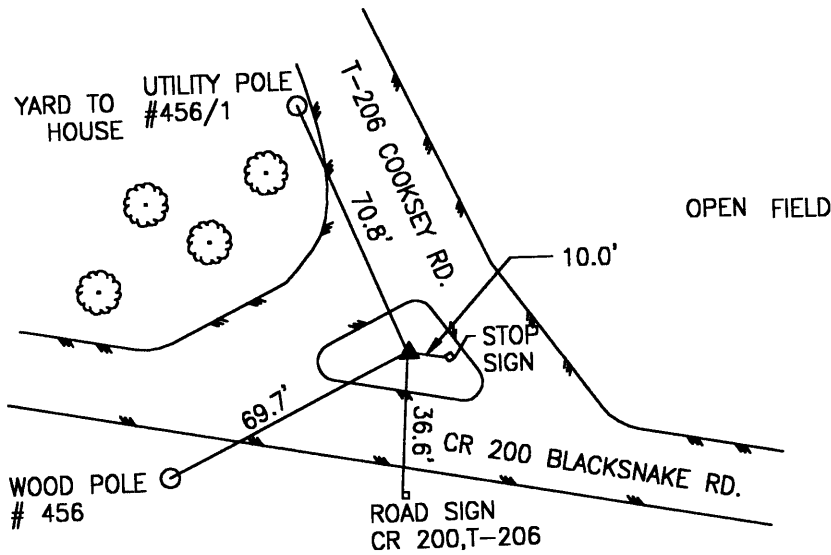
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88

COUNTY	NAME OF STATION		YEAR
LICKING	WASHINGTON TWP 5		1998
N: 809498.244	E: 1995157.476	LAT: 40°13'20.74875" N	LONG: 82°24'16.35747" W
ELEV.: 1142.455 (GPS)	COMB. FACTOR: 0.999988353		θ ANGLE: +0°03'38.04

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0330.DWG



**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0330

Designation: WASHINGTON TWP 5

PID:

Latitude: 401320N  
Longitude: 0822416W

Elevation: 255.3M

Stamping: WASHINGTON TWP 5 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

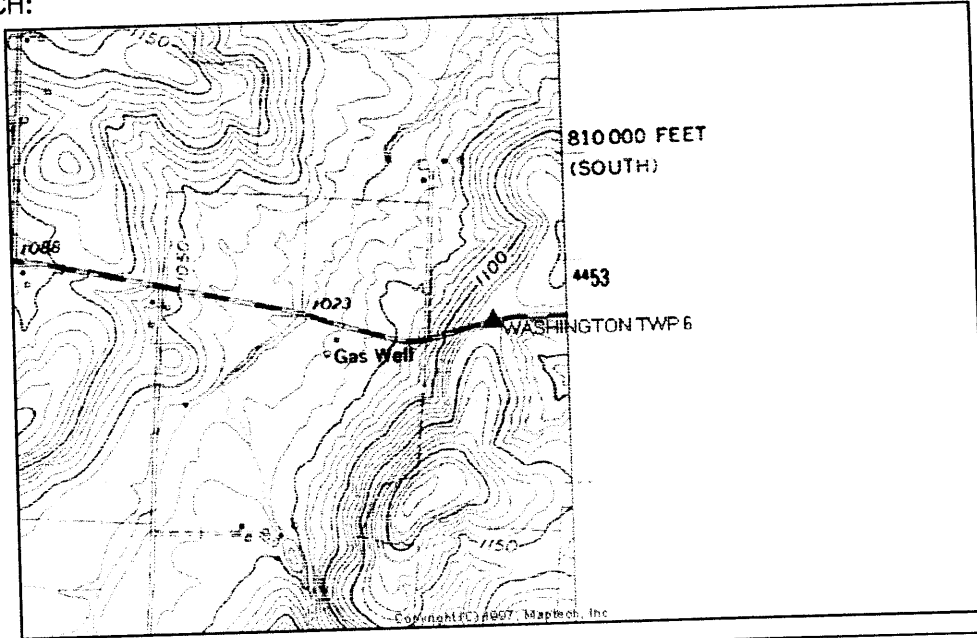
-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) EAST OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) PROCEED SOUTH ALONG MOUNT VERNON ROAD (SR 13) A DISTANCE OF 0.02 MILE (0.03 KM) TO ITS INTERSECTION WITH BLACKSNAKE ROAD (CR 200) . TURN LEFT AND PROCEED EAST ALONG BLACKSNAKE ROAD (CR 200) A DISTANCE OF 2.7 MILES (4.3 KM) TO ITS INTERSECTION WITH COOKSEY ROAD (T 206) AND THE STATION ON THE LEFT. THE STATION IS IN THE TRIANGULAR SHAPED DIVIDER AT THE INTERSECTION OF BLACKSNAKE ROAD (CR 200) AND COOKSEY ROAD (T-206) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ABOUT ONE INCH BELOW THE GROUND SURFACE AND STAMPED WASHINGTON TWP 5 1998. THE STATION IS 69.7 FEET (21.2 M) AZIMUTH 244 DEGREES TO A WOOD POLE WITH THE NUMBER 456, 10.0 FEET (3.0 M) AZIMUTH 100 DEGREES TO A STOP SIGN, 36.6 FEET (11.2 M) AZIMUTH 184 DEGREES TO A SIGN STATING ROAD NUMBERS CR-200 AND T-206, AND 70.8 FEET (21.6 M) AZIMUTH 338 DEGREES TO A UTILITY POLE WITH THE NUMBER 456/1.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

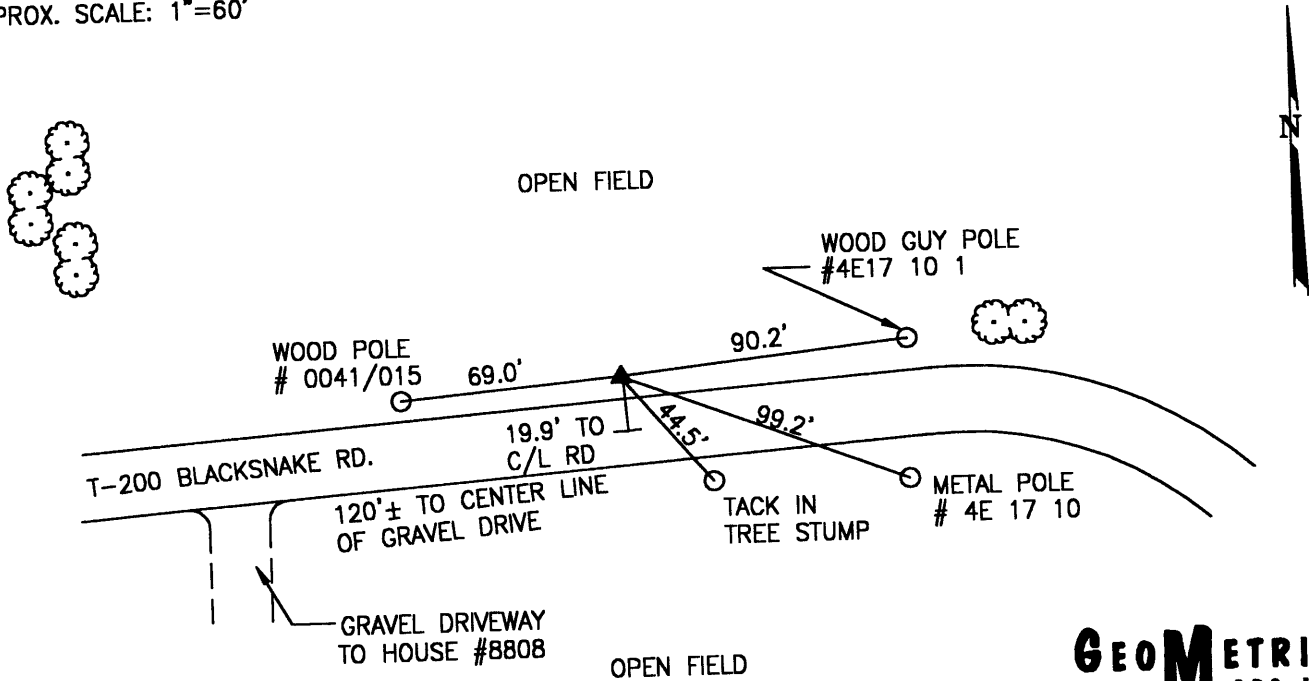
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	WASHINGTON TWP 6		1998
N: 808552.172	E: 2002834.018	LAT: 40°13'11.30838" N	LONG: 82°22'37.41559" W
ELEV.: 1140.122 (GPS)	COMB. FACTOR: 0.999987794		Θ ANGLE: +0°04'40.82

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=60'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0340.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0340

Designation: WASHINGTON TWP 6

PID:

Latitude: 401311N  
Longitude: 0822237W  
Elevation: 321.0M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: WASHINGTON TWP 6 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

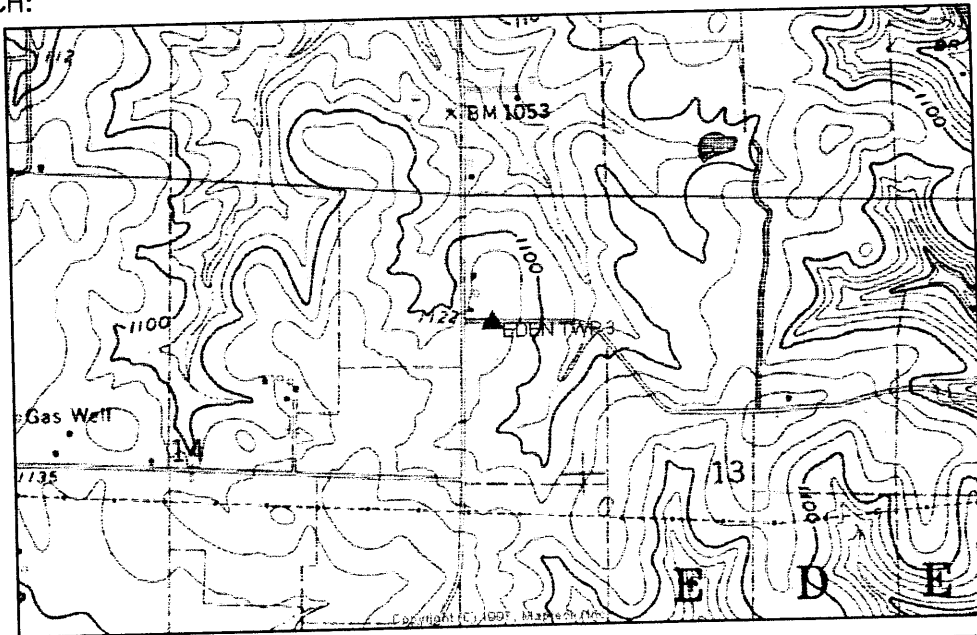
-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) EAST OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) PROCEED SOUTH ALONG MOUNT VERNON ROAD (SR 13) A DISTANCE OF 0.02 MILE (0.03 KM) TO ITS INTERSECTION WITH BLACKSNAKE ROAD (CR 200) . TURN LEFT AND PROCEED EAST ALONG BLACKSNAKE ROAD A DISTANCE OF APPROXIMATELY 4.5 MILES (7.2 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 200 FEET (61.0 M) EAST OF RESIDENCE NUMBER 8808. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED WASHINGTON TWP 6 1998. THE STATION IS 90.2 FEET (27.5 M) AZIMUTH 84 TO A WOOD GUY WIRE WITH THE NUMBER 4E17 10 1, 69.0 FEET (21.0 M) AZIMUTH 265 TO A WOOD POLE WITH THE NUMBER 0041/015, 44.5 FEET (13.6 M) AZIMUTH 140 DEGREES TO A TACK IN A TREE STUMP, 99.2 FEET (30.2 M) AZIMUTH 109 DEGREES TO A METAL POLE WITH THE NUMBER 4E 17 10, AND APPROXIMATELY 120 FEET (36.6 M) TO THE CENTERLINE OF GRAVEL DRIVEWAY TO HOUSE NUMBER 8808.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

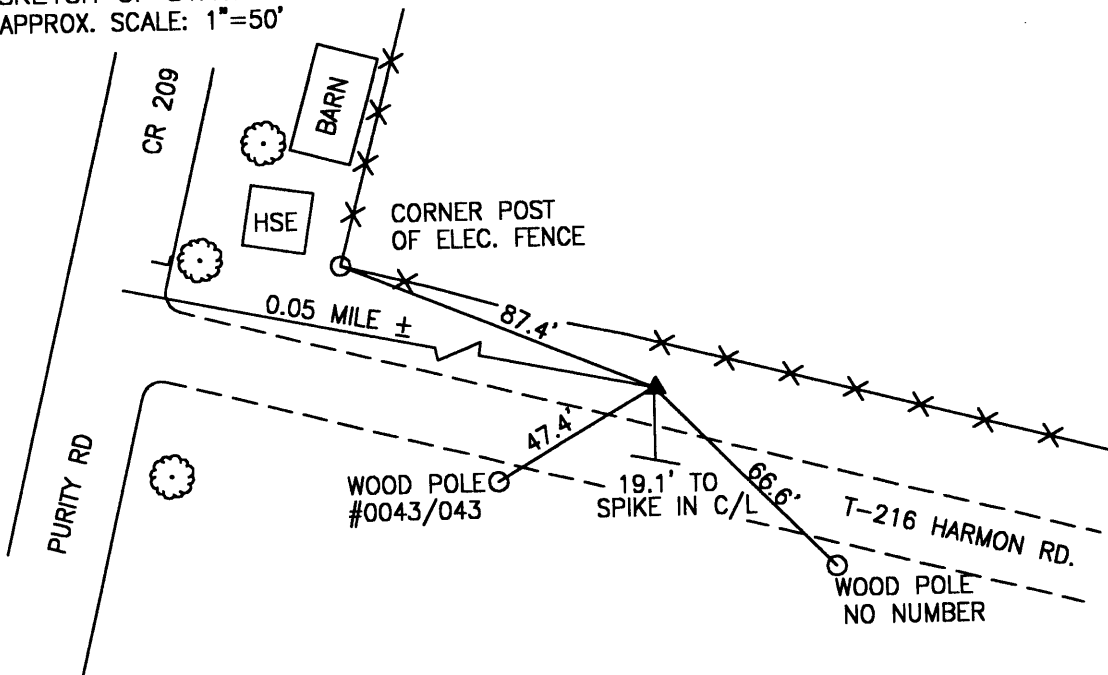
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	EDEN TWP 3		1998
N: 805857.418	E: 2014340.889	LAT: 40°12'44.49928" N	LONG: 82°20'09.14910" W
ELEV.: 1129.135 (GPS)	COMB. FACTOR: 0.999986428		θ ANGLE: +0°06'14.90

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0350.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0350  
Designation: EDEN TWP 3

PID:

Latitude: 401244N  
Longitude: 0822009W  
Elevation: 319.0M  
Stamping: EDEN TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN EDEN TOWNSHIP IN LICKING COUNTY, OHIO AND IS ABOUT 6.0 MILES (9.7 KM) NORTH OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 5.8 MILES (9.3 KM) TO ITS INTERSECTION WITH HARMON ROAD (T-216) . TURN RIGHT AND PROCEED EAST ALONG HARMON ROAD (T-216) A DISTANCE OF 0.05 MILE (0.08 KM) TO THE STATION ON THE LEFT ON THE NORTH SIDE OF THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED EDEN TWP 3 1998. THE STATION IS 66.6 FEET (20.3 M) AZIMUTH 136 DEGREES TO A POWER POLE WITH NO NUMBER, 47.4 FEET (14.4 M) AZIMUTH 240 TO A POWER POLE WITH THE NUMBER 0043/043, 87.4 FEET (26.6 M) AZIMUTH 285 DEGREES TO A FENCE CORNER POST, AND 19.1 FEET (5.8 M) NORTH FROM A SPIKE IN THE CENTERLINE OF HARMON ROAD.

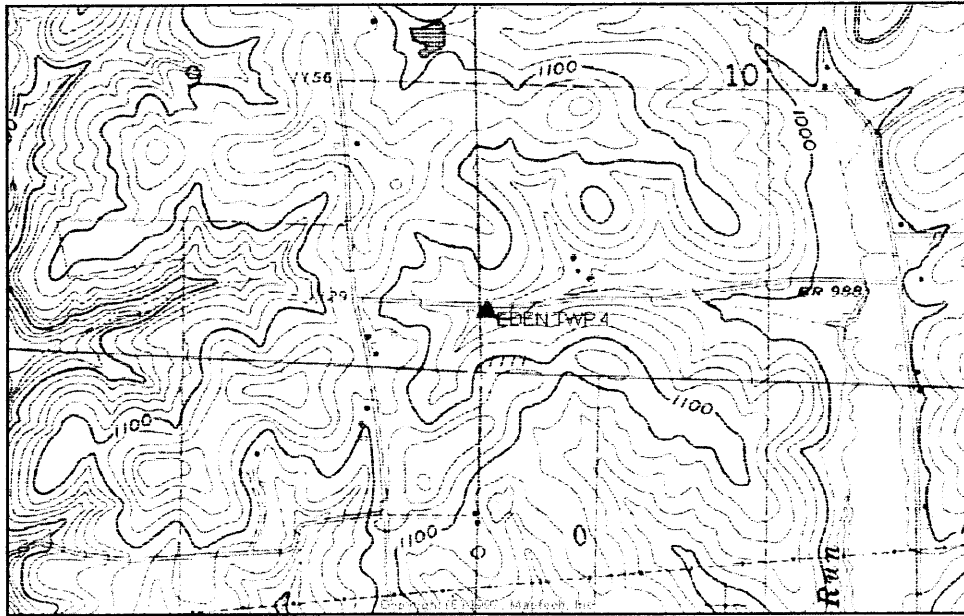
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

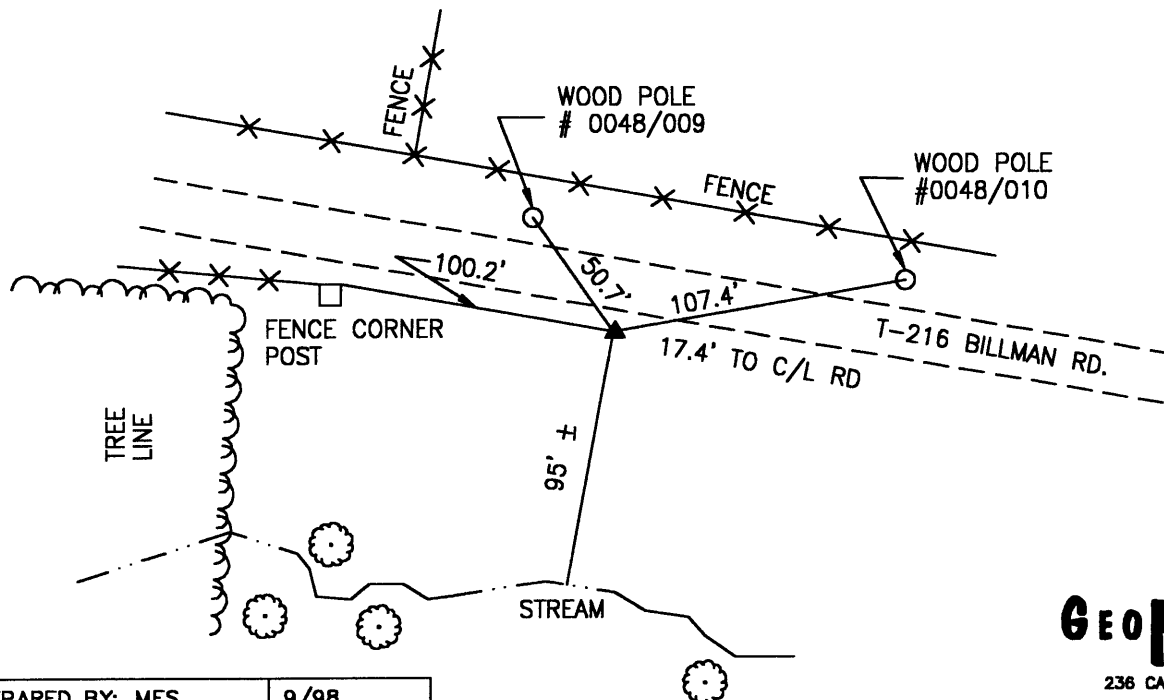
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	EDEN TWP 4		1998
N: 807180.133	E: 2024611.721	LAT: 40°12'57.36462" N	LONG: 82°17'56.72910" W
ELEV.: 1058.535 (GPS)	COMB. FACTOR: 0.999990703		Θ ANGLE: +0°07'38.92

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=70'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0360.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0360  
Designation: EDEN TWP 4

PID:

Latitude: 401257N  
Longitude: 0821756W  
Elevation: 349.2M  
Stamping: EDEN TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

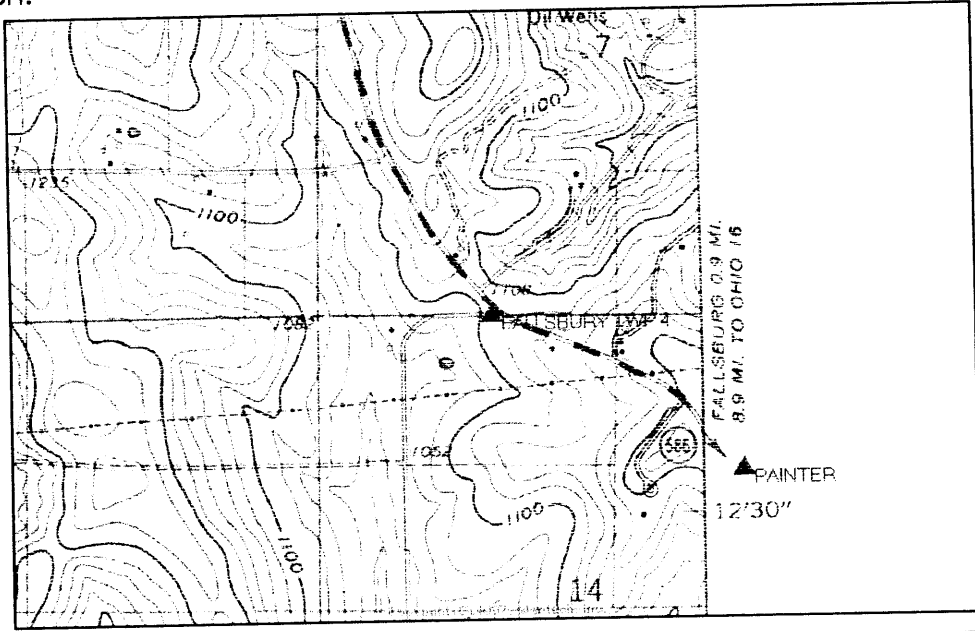
-----  
THE STATION IS LOCATED IN EDEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.5 MILES (10.5 KM) NORTHEAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) APPROXIMATELY 4.0 MILES (6.4 KM) TO ITS INTERSECTION WITH RAINROCK ROAD (CR 244) . TURN LEFT AND PROCEED NORTH ALONG RAINROCK ROAD APPROXIMATELY 4.0 MILES (6.4 KM) TO ITS INTERSECTION WITH BILLMAN ROAD (T-216) . TURN LEFT AND PROCEED WEST ALONG BILLMAN ROAD (T-216) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED EDEN TWP 4 1998. THE STATION IS 50.7 FEET (15.5 M) AZIMUTH 323 DEGREES TO A WOOD POLE WITH THE NUMBER 0048/009, 107.4 FEET (32.7 M) AZIMUTH 80 DEGREES TO A WOOD POLE WITH THE NUMBER 0048/010 100.2 FEET (30.5 M) AZIMUTH 280 DEGREES TO A FENCE CORNER POST AND 17.4 FEET (5.3 M) SOUTH FROM THE CENTERLINE OF BILLMAN ROAD.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

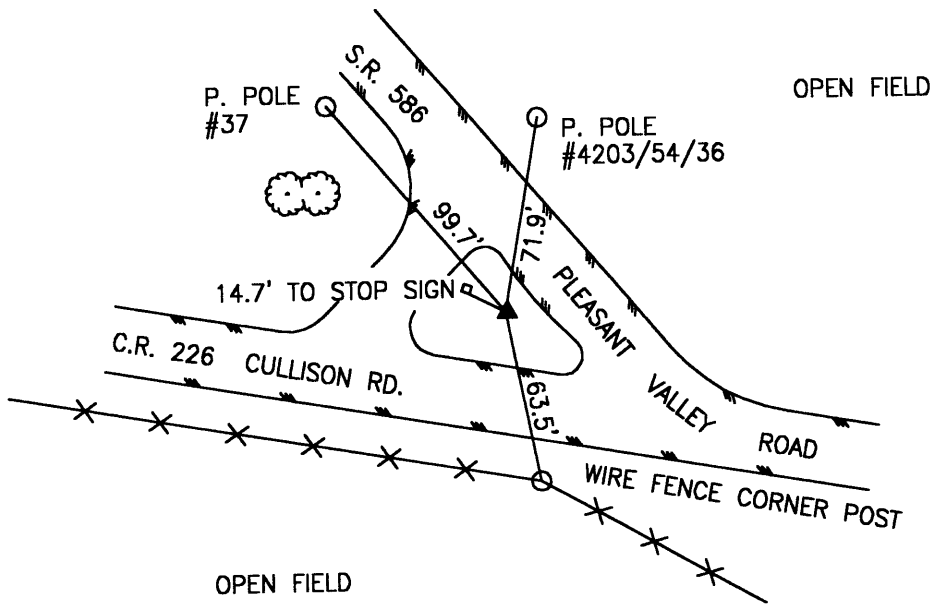
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	FALLSBURY TWP 4		1998
N: 806326.273	E: 2036507.547	LAT: 40°12'48.63791" N	LONG: 82°15'23.42420" W
ELEV.: 1110.887 (GPS)	COMB. FACTOR: 0.999987590		θ ANGLE: +0°09'16.20

VICINITY SKETCH:



SKETCH OF STATION:  
 approx. scale 1"=70'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0370.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0370

Designation: FALLSBURY TWP 4

PID:

Latitude: 401248N  
Longitude: 0821523W  
Elevation: 344.1M  
Stamping: FALLSBURY TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.3 MILES (2.1 KM) NORTHWEST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PLEASANT VALLEY ROAD (SR 586) IN FALLSBURG PROCEED NORTHWEST ALONG PLEASANT VALLEY ROAD (SR 586) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH CULLISON ROAD (CR 226) TO THE STATION ON THE LEFT IN THE CENTER OF THE TRIANGULAR SHAPED DIVIDER BETWEEN THE EAST AND WEST BOUND ENTRANCE TO CULLISON ROAD (CR 226) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FALLSBURY TWP 4 1998. THE STATION IS 14.7 FEET (4.5 M) AZIMUTH 311 DEGREES TO A STOP SIGN, 71.9 FEET (21.9 M) AZIMUTH 10 DEGREES TO A POWER POLE WITH THE NUMBER 4203/54/36, 63.5 FEET (19.4 M) AZIMUTH 169 DEGREES TO A FENCE CORNER, AND 99.7 FEET (30.4 M) AZIMUTH 320 DEGREES TO A POWER POLE WITH THE NUMBER 37.

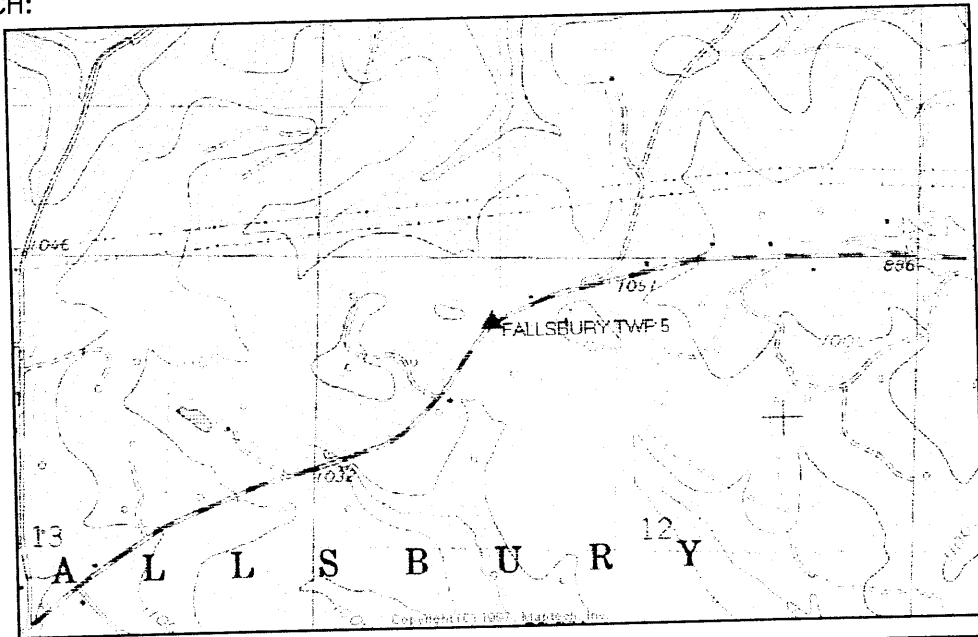
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

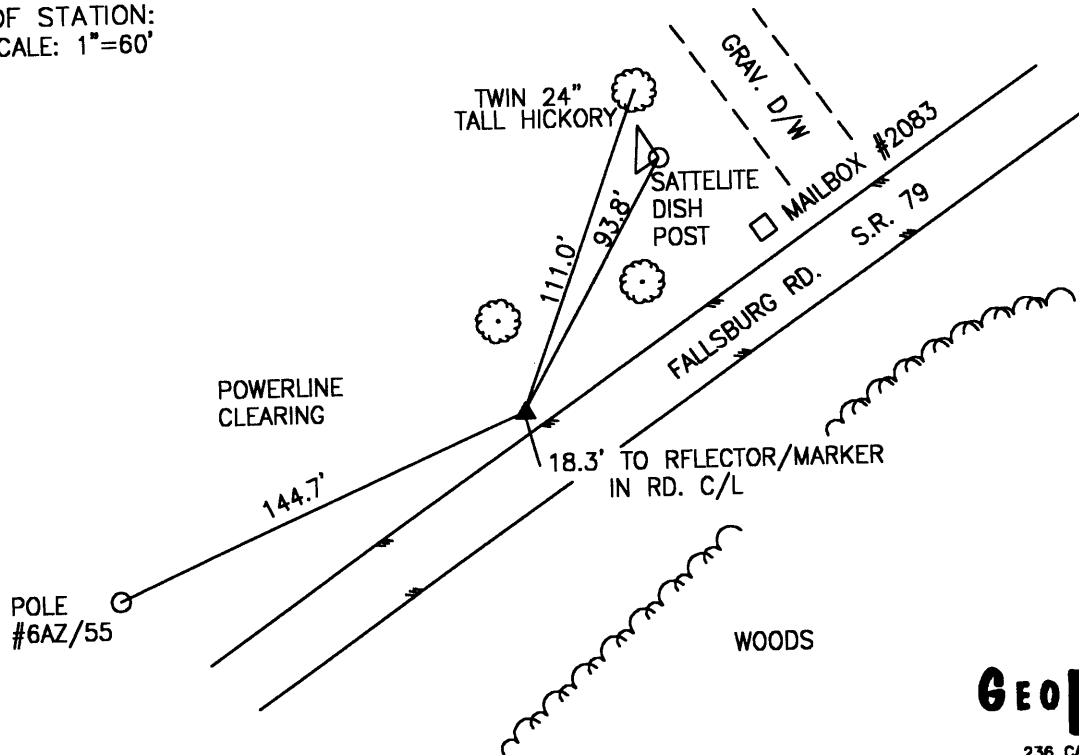
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	FALLSBURY TWP 5	1998
N: 805468.068	E: 2047435.772	LAT: 40°12'39.84293" N LONG: 82°13'02.60152" W
ELEV.: 1061.658 (GPS)	COMB. FACTOR: 0.999989322	Ø ANGLE: +0°10'45.55

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=60'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0380.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0380

Designation: FALLSBURY TWP 5

PID:

Latitude: 401239N  
Longitude: 0821302W

Elevation: 322.6M

Stamping: FALLSBURY TWP 5 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) NORTHEAST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PLEASANT VALLEY ROAD (SR 586) IN FALLSBURG PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 1.15 MILES (1.85 KM) TO THE STATION ON THE LEFT. THE IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED FALLSBURY TWP 5 1998. THE STATION IS 111.0 FEET (33.8 M) AZIMUTH 20 DEGREES TO TWIN 24 INCH TALL HICKORY TREE, 18.3 FEET (5.6 M) AZIMUTH 16 DEGREES TO A REFLECTOR MARKER IN THE CENTERLINE OF THE ROAD, 144.7 FEET (44.1 M) AZIMUTH 246 DEGREES TO A POLE WITH THE NUMBER 6AZ/55, AND 93.8 AZIMUTH 29 DEGREES TO A SATELLITE DISH POST.

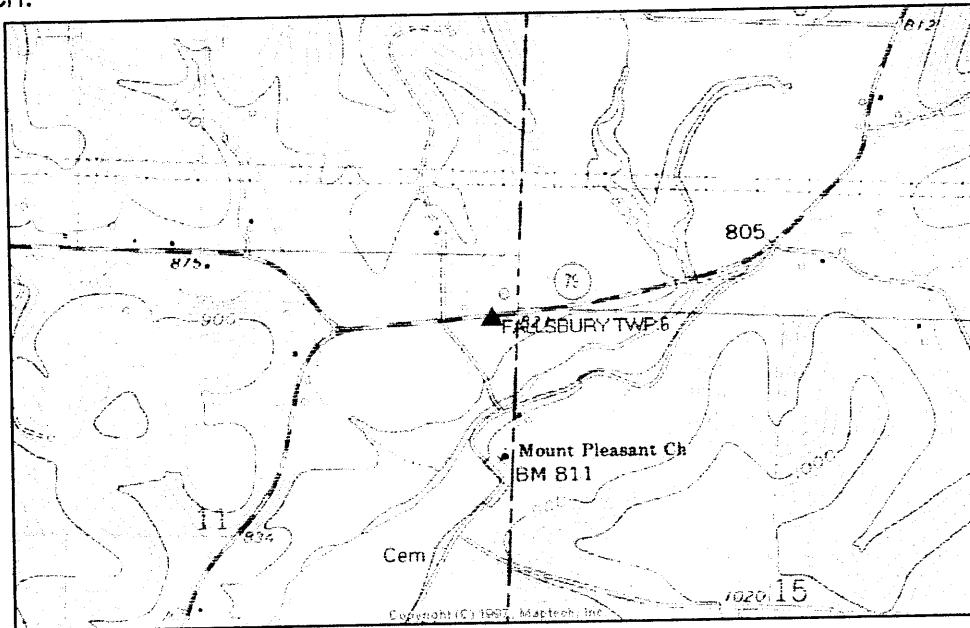
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

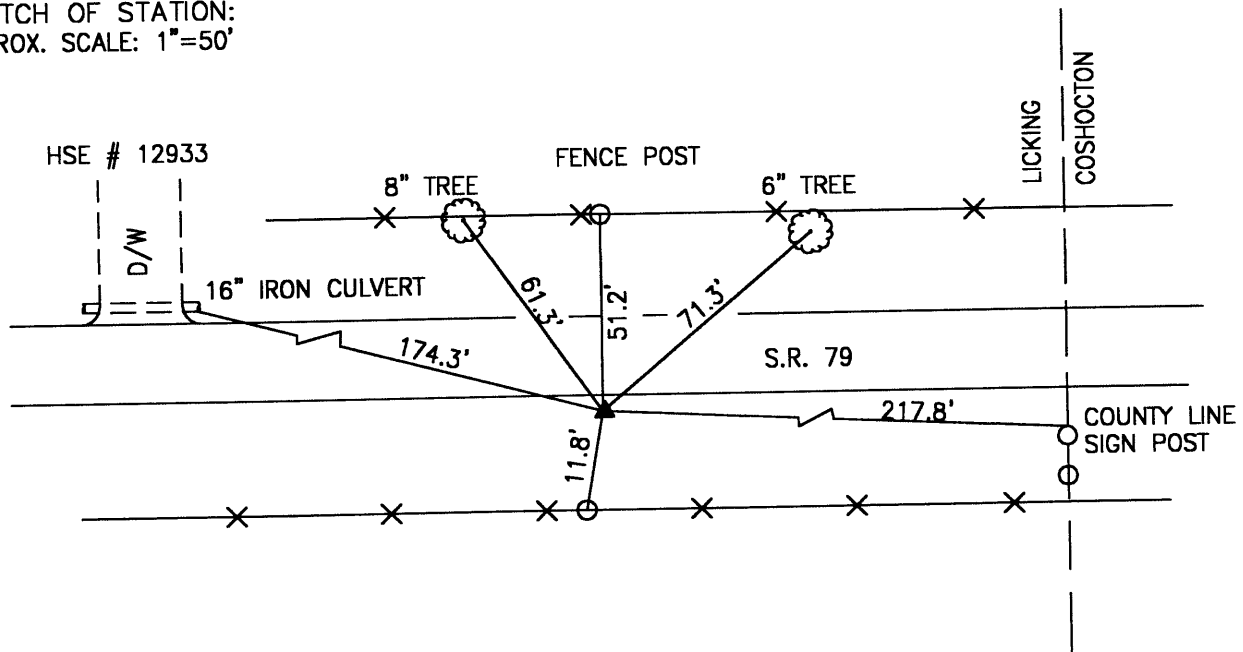
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	FALLSBURY TWP 6		1998
N: 805204.434	E: 2056392.176	LAT: 40°12'36.94512" N	LONG: 82°11'07.17569" W
ELEV.: 826.947 (GPS)	COMB. FACTOR: 1.000000324		Θ ANGLE: +0°11'58.79

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0390.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0390

Designation: FALLSBURY TWP 6

PID:

Latitude: 401236N  
Longitude: 0821107W  
Elevation: 316.6M  
Stamping: FALLSBURY TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) EAST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PLEASANT VALLEY ROAD (SR 586) IN FALLSBURG PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 2.8 MILES (4.5 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE SOUTH SIDE OF FALLSBURG ROAD (SR 79) IN THE GRASSY SHOULDER APPROXIMATELY 200 FEET (61.0 M) EAST OF HOUSE NUMBER 12933 AND 200 FEET (61.0 M) WEST OF THE LICKING/COSHOCTON COUNTY LINE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FALLSBURY TWP 6 1998. THE STATION IS 11.8 FEET (3.6 M) AZIMUTH 190 DEGREES TO FENCE POST ON THE SOUTH SIDE OF FALLSBURG ROAD, 174.3 FEET (53.1 M) AZIMUTH 285 DEGREES TO A 16 INCH IRON PIPE IN A DRIVEWAY TO HOUSE NUMBER 12933, AND 217.8 FEET (66.4 M) AZIMUTH 93 DEGREES TO A COUNTY LINE SIGN POST.

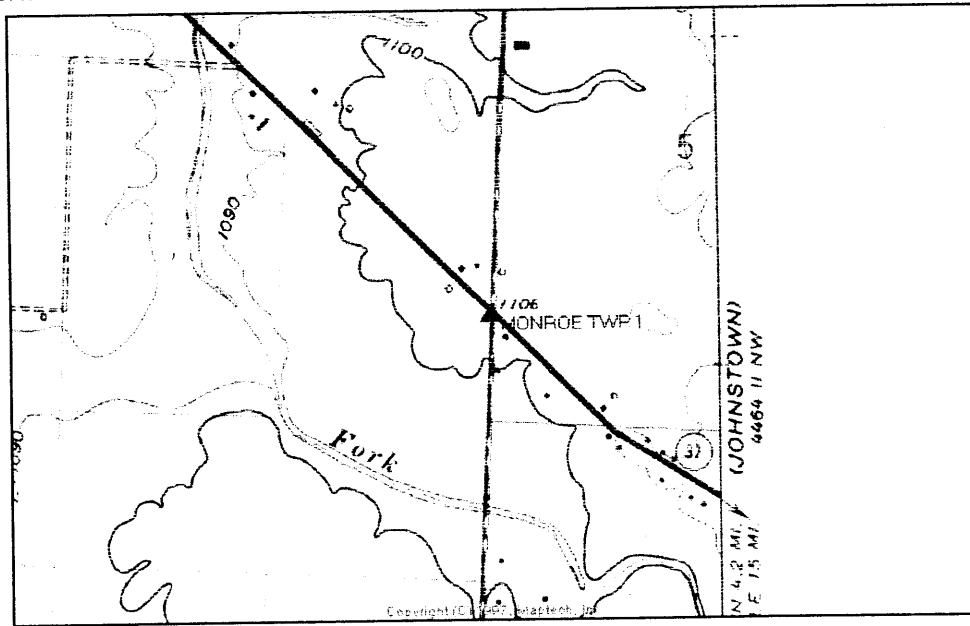
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

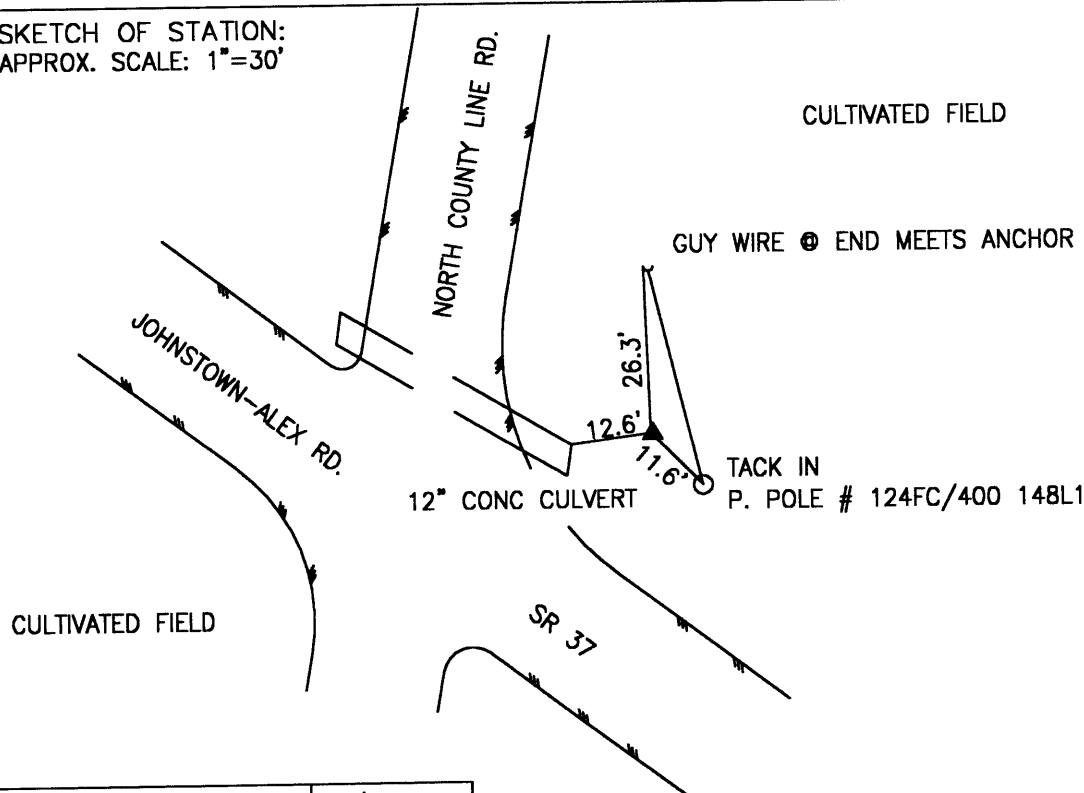
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 1		1998
N: 797549.824	E: 1896670.124	LAT: 40°11'21.80796" N	LONG: 82°45'25.52096" W
ELEV.: 1105.802	(GPS)	COMB. FACTOR: 0.999981817	Θ ANGLE: -0°09'47.26

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0400.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0400

Designation: MONROE TWP 1

PID:

Latitude: 401121N

Longitude: 0824525W

Elevation: 345.7M

Stamping: MONROE TWP 1 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) NORTHWEST OF THE CITY OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 4.6 MILES (7.4 KM) TO ITS INTERSECTION WITH NORTH COUNTY LINE ROAD (CR 51) AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED MONROE TWP 1 1998. THE STATION IS 26.3 FEET (8.0 M) AZIMUTH 358 TO A GUY WIRE END WHERE IT MEETS THE ANCHOR, 11.6 FEET (3.5 M) AZIMUTH 136 DEGREES TO A TACK IN POWER POLE WITH THE NUMBER 124FC/400 148L1, 12.6 FEET (3.8 M) AZIMUTH 62 DEGREES TO A 12 INCH CONCRETE CULVERT, 21.1 FEET (6.4 M) NORTH OF THE EDGE OF THE PAVEMENT OF JOHNSTOWN-ALEX ROAD AND 25.0 FEET (7.6 M) EAST OF THE EDGE OF THE PAVEMENT OF NORTH COUNTY LINE ROAD.

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0580

Designation: MONROE TWP 6

PID:

Latitude: 400924N

Longitude: 0824046W

Elevation: 274.1M

Stamping: MONROE TWP 6 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

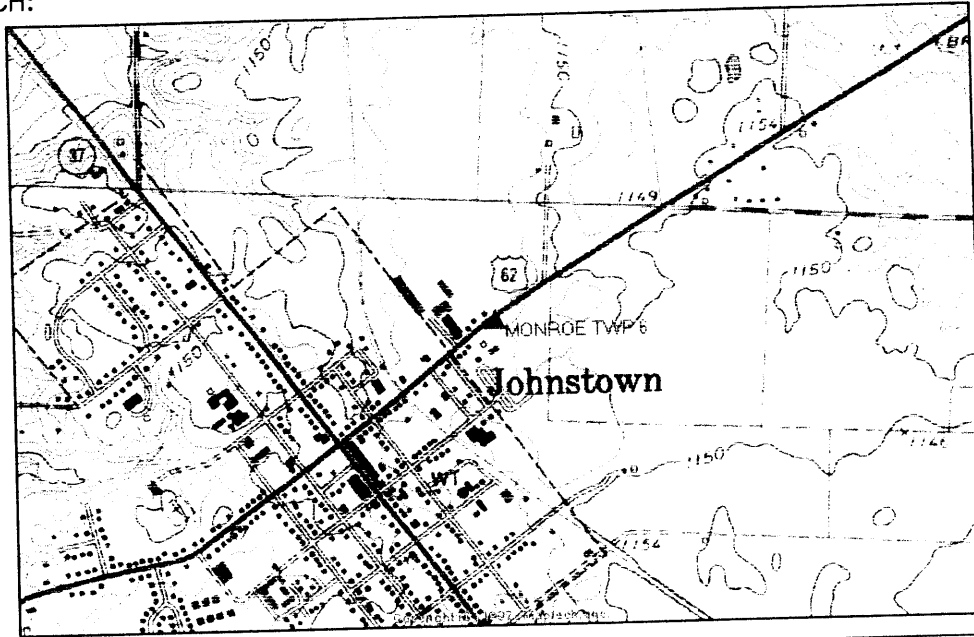
-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO IN THE NORTHEAST END OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE STATION ON THE RIGHT IN FRONT OF A HOUSE AND BUSINESS GROVE AND SONS CUSTOM SILK SCREEN PRINTING. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED WITH MONROE TWP 6 1998. THE STATION IS 28.6 FEET (8.7 M) AZIMUTH 79 DEGREES TO A POWER POLE WITH THE NUMBER 1949822/785646, 4.4 FEET (1.3 M) AZIMUTH 305 DEGREES TO A 12 INCH CMP CULVERT, 37.6 FEET (11.5 M) AZIMUTH 269 DEGREES TO A NAIL IN THE PAVEMENT, 68.4 FEET (20.8 M) AZIMUTH 55 DEGREES TO A LIGHT POLE WITH THE NUMBER X1949828Y785680, AND 116.6 FEET (35.5 M) AZIMUTH 236 DEGREES TO A POWER POLE WITH THE NUMBER 128FF01.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

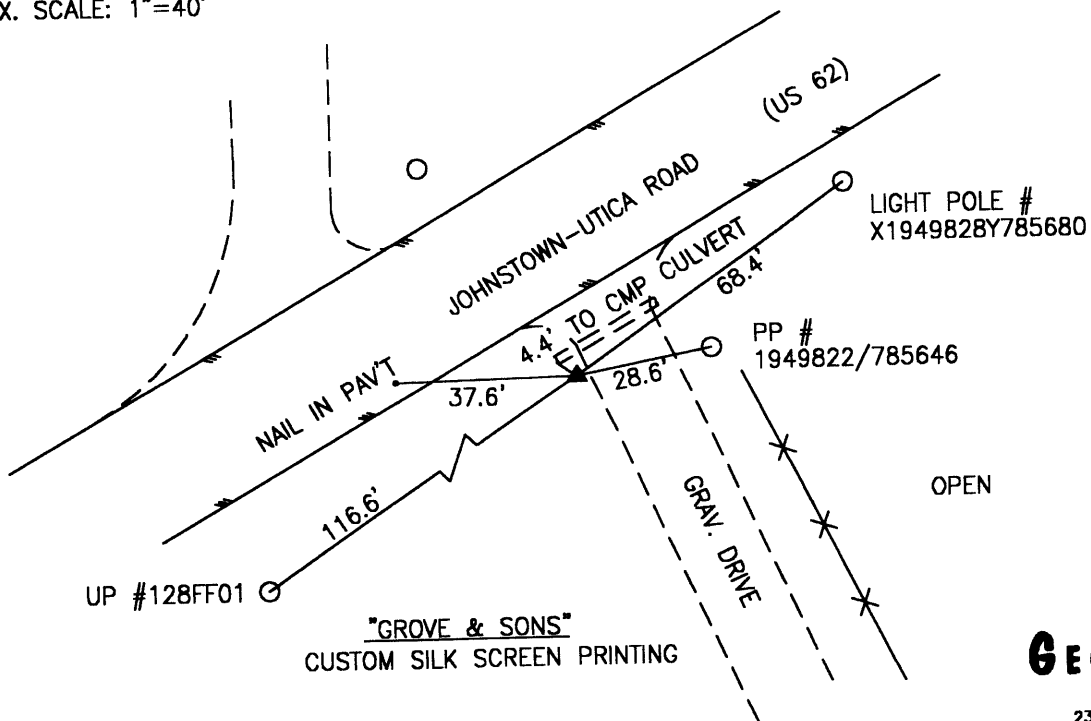
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 6		1998
N: 785644.024	E: 1918321.950	LAT: 40°09'24.67550" N	LONG: 82°40'46.23521" W
ELEV.: 1168.324 (GPS)	COMB. FACTOR: 0.999971000		Θ ANGLE: -0°06'50.04

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=40'



"GROVE & SONS"  
CUSTOM SILK SCREEN PRINTING

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0580.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0570  
Designation: MONROE TWP 5

PID:

Latitude: 400925N  
Longitude: 0824312W  
Elevation: 279.4M  
Stamping: MONROE TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.9 MILES (3.1 KM) NORTHWEST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH EDWARDS ROAD (T-59) . TURN LEFT AND PROCEED WEST ALONG EDWARDS ROAD (T-59) A DISTANCE OF 1.7 MILES (2.7 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (CR 26) . TURN RIGHT AND PROCEED NORTH ALONG CLOVER VALLEY ROAD (CR 26) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE WITH AND STAMPED WITH MONROE TWP 5 1998. THE STATION IS 3.9 FEET (1.2 M) AZIMUTH 30 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 126FF/602-1, 39.9 FEET (12.2 M) AZIMUTH 12 DEGREES TO A POWER POLE WITH THE NUMBER 1U3/4, 53.7 FEET (16.4 M) AZIMUTH 49 DEGREES TO A GUY POLE WITH THE NUMBER 1U3/4/112, AND 38.4 FEET (11.7 M) AZIMUTH 79 DEGREES TO A MAILBOX WITH THE NUMBER 7153.



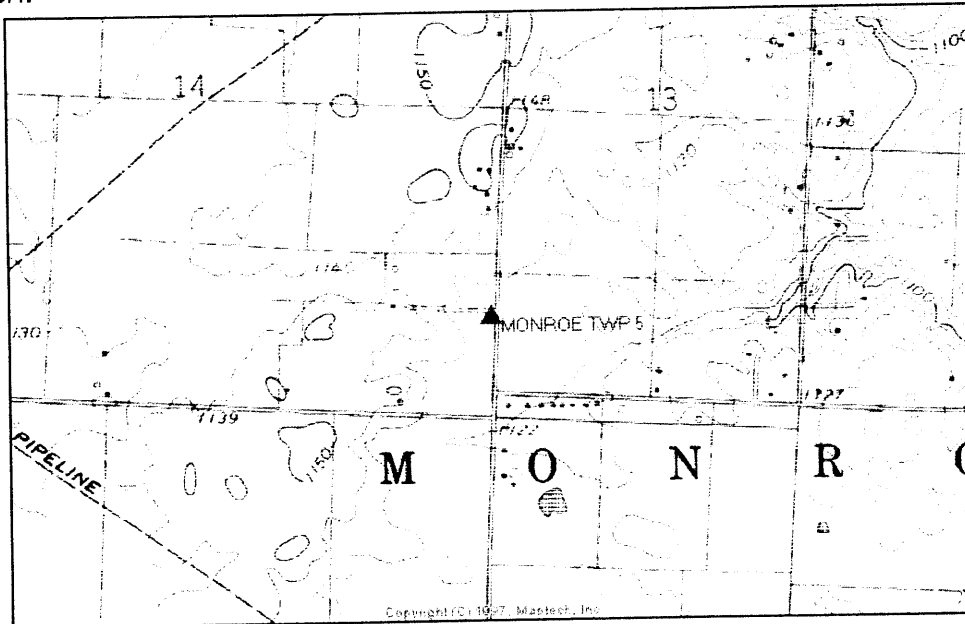
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

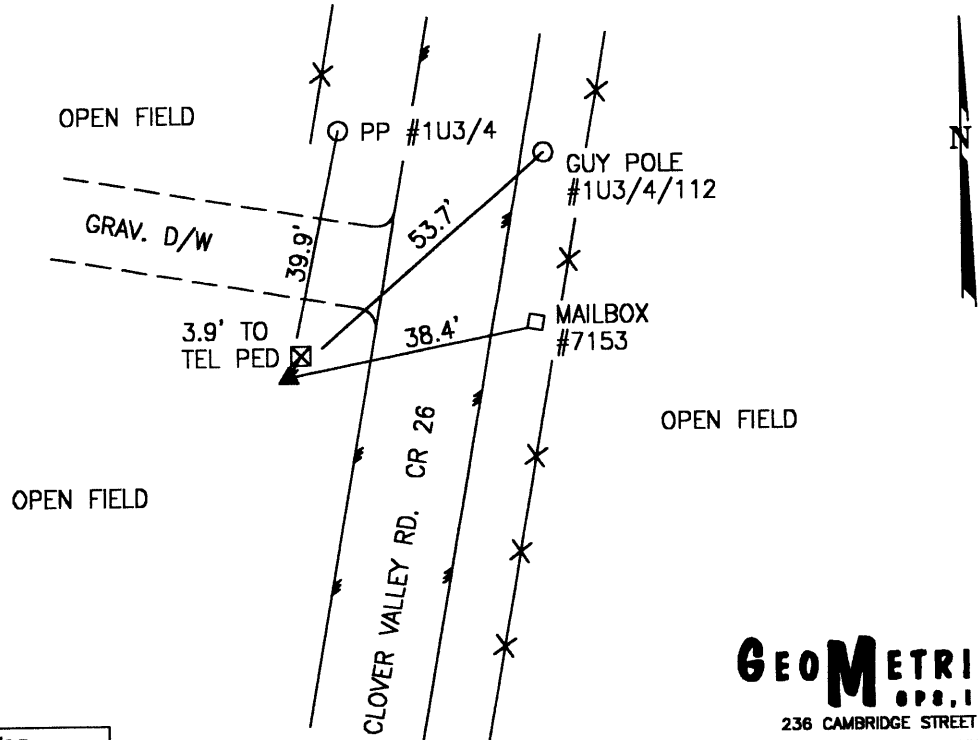
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 5		1998
N: 785777.364	E: 1906977.986	LAT: 40°09'25.74509" N	LONG: 82°43'12.33600" W
ELEV.: 1126.372 (GPS)	COMB. FACTOR: 0.999973073		θ ANGLE: -0°08'22.75

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0570.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0560

Designation: MONROE TWP 4

PID:

Latitude: 400921N  
Longitude: 0824533W

Elevation: 285.5M

Stamping: MONROE TWP 4 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) WEST OF THE CITY OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN THE TOWN OF JOHNSTOWN PROCEED SOUTHWEST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 2.0 MILE (3.2 KM) TO ITS INTERSECTION WITH DUNCAN PLAINS ROAD (CR 33) . TURN RIGHT AND PROCEED NORTHWEST ALONG DUNCAN PLAINS ROAD (CR 33) A DISTANCE OF 2.4 MILES (3.9 KM) TO ITS INTERSECTION WITH SOUTH COUNTY LINE ROAD AND THE STATION ON THE LEFT AND THE STATION IS IN THE SOUTHEAST CORNER OF THE INTERSECTION OF DUNCAN PLAINS ROAD (CR 33) AND COUNTY LINE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED WITH MONROE TWP 4 1998. THE STATION IS 12.0 FEET (3.7 M) AZIMUTH 09 DEGREES TO A POWER POLE WITH THE NUMBER 1U100X, 25.1 FEET (7.7 M) AZIMUTH 83 DEGREES TO A POWER POLE WITH THE NUMBER 1U41, AND 137.6 FEET (41.9 M) AZIMUTH 190 DEGREES TO A POWER POLE WITH THE NUMBER 1U100XX.

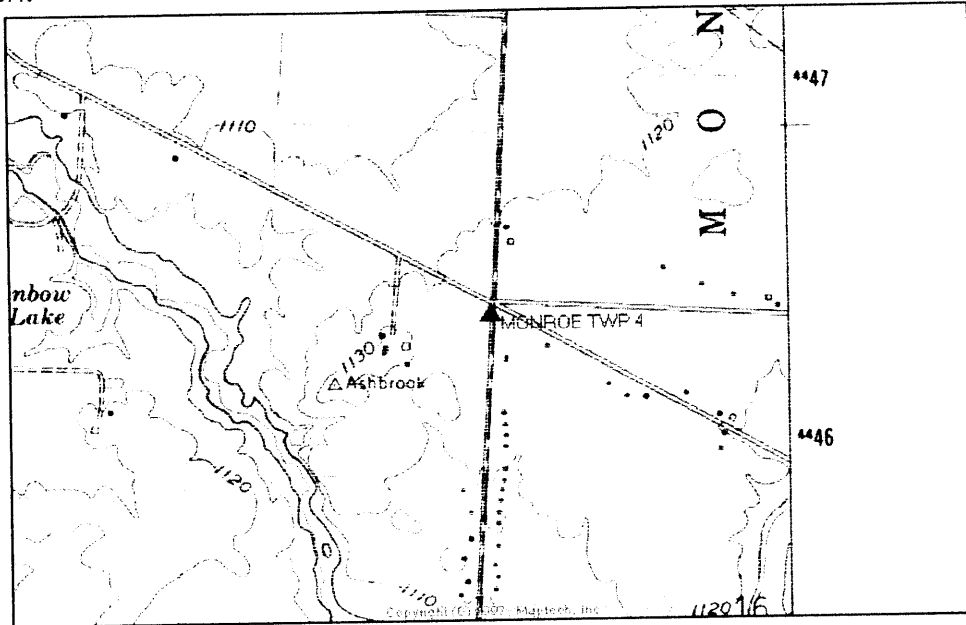
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

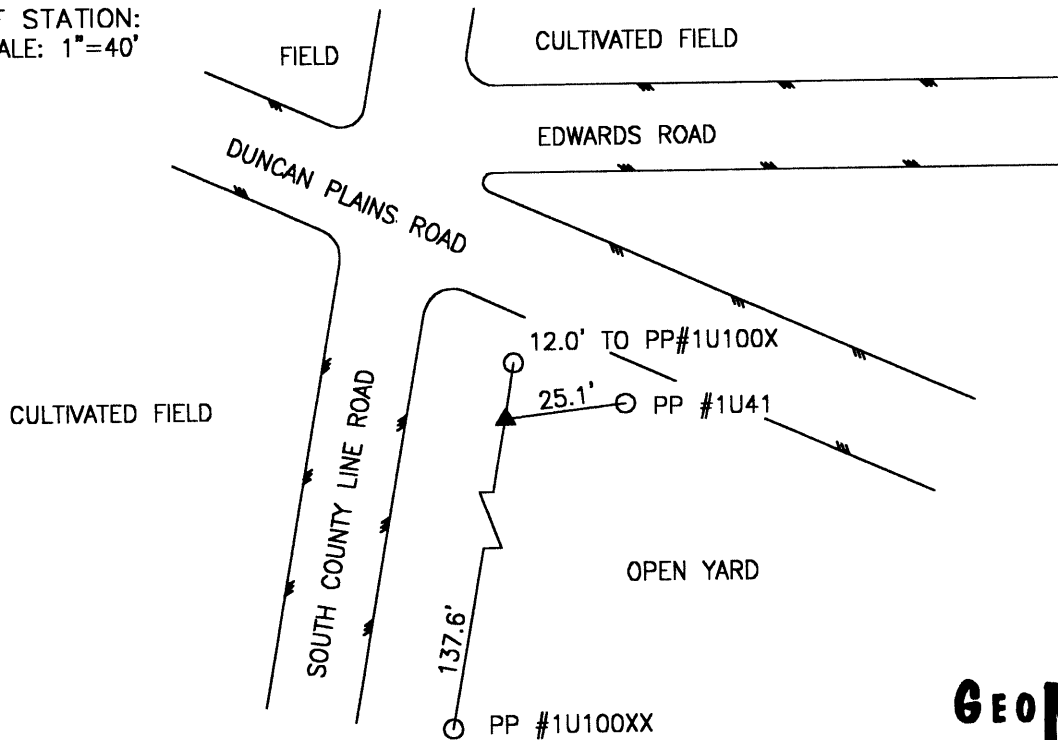
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 4		1998
N: 785371.394	E: 1895980.291	LAT: 40°09'21.44483" N	LONG: 82°45'33.95850" W
ELEV.: 1122.754	(GPS)	COMB. FACTOR: 0.999972964	θ ANGLE: -0°09'52.61

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0560.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0550  
Designation: FALLSBURY TWP 9

PID:

Latitude: 401059N  
Longitude: 0821114W  
Elevation: 282.3M  
Stamping: FALLSBURY TWP 9 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.7 MILES (4.3 KM) SOUTHEAST OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF PLEASANT VALLEY ROAD (SR 586) AND FALLSBURG ROAD (SR 79) IN FALLSBURG PROCEED SOUTH ALONG PLEASANT VALLEY ROAD (SR 586) A DISTANCE OF ABOUT 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH MCKEE HILL ROAD (T-228) . TURN LEFT AND PROCEED EAST ALONG MCKEE HILL ROAD (T-228) A DISTANCE OF APPROXIMATELY 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH LICKING VALLEY ROAD (CR 668) . CONTINUE AND PROCEED EAST ALONG MCKEE HILL ROAD (T-228) A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE RIGHT. THE IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED FALLSBURG TWP 9 1998. THE STATION IS 15.0 FEET (4.6 M) AZIMUTH 27 DEGREES TO A POWER POLE WITH THE NUMBER 9, 31.3 FEET (9.5 M) AZIMUTH 67 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 474/4LP5, 88.1 FEET (26.9 M) AZIMUTH 88 DEGREES TO A TANK VALVE ON A TANK WITH THE NUMBER 111022, AND 36.3 FEET (11.1 M) AZIMUTH 78 DEGREES TO A CORNER FENCE POST.

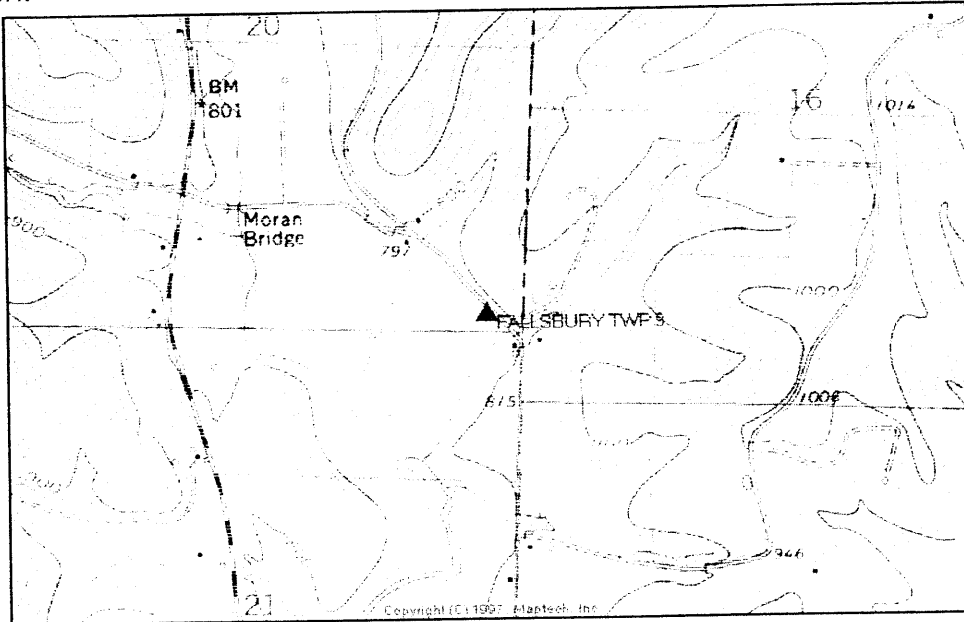
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

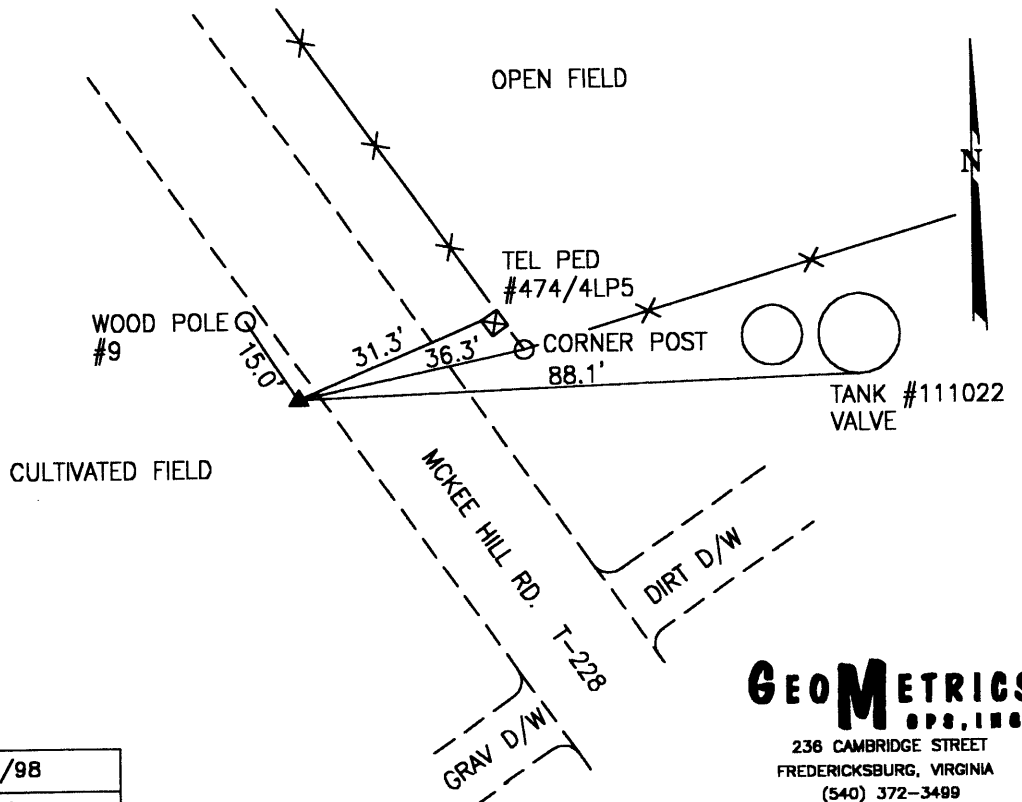
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	FALLSBURY TWP 9		1998
N: 795344.199	E: 2055841.654	LAT: 40°10'59.52926" N	LONG: 82°11'14.71113" W
ELEV.: 797.584 (GPS)	COMB. FACTOR: 0.999995016		θ ANGLE: +0°11'54.01

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0550.DWG

**GEOMETRICS**  
ops, inc.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0540

Designation: FALLSBURY TWP 8

PID:

Latitude: 401054N

Longitude: 0821347W

Elevation: 274.2M

Stamping: FALLSBURY TWP 8 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

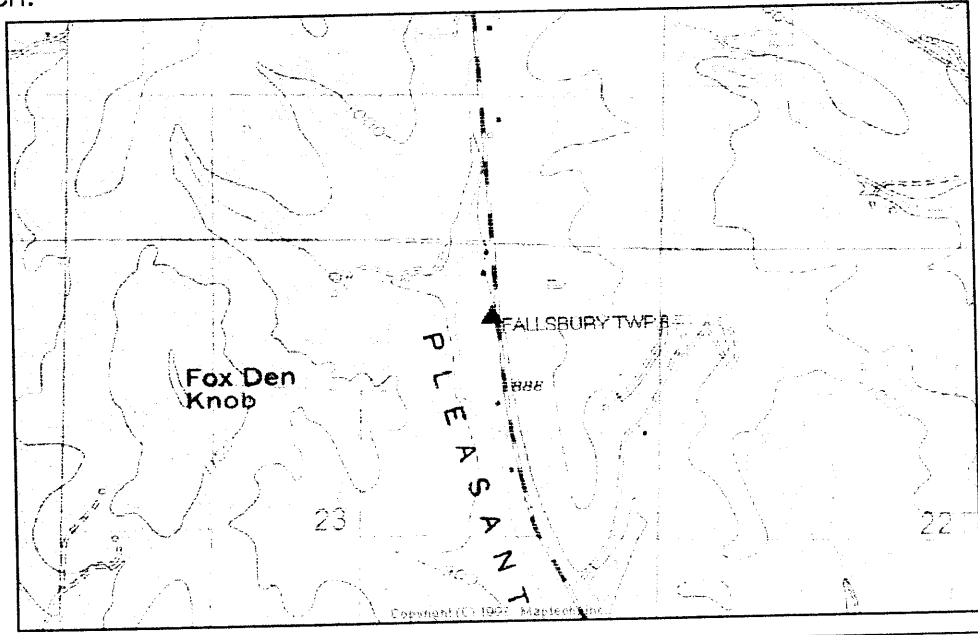
-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) SOUTH OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF PLEASANT VALLEY ROAD (SR 586) AND FALLSBURG ROAD (SR 79) IN THE TOWN OF FALLSBURG PROCEED SOUTHEAST ALONG PLEASANT VALLEY ROAD (SR 586) A DISTANCE OF 1.5 MILES (2.4 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED FALLSBURG TWP 8 1998. THE STATION IS 59.5 FEET (18.1 M) AZIMUTH 352 DEGREES TO A WOOD POLE WITH THE NUMBER 152FD, 127.8 FEET (39.0 M) AZIMUTH 359 DEGREES TO METAL POLE WITH THE NUMBER 6A1/25, 107.0 FEET (32.6 M) AZIMUTH 191 DEGREES TO A METAL POLE WITH THE NUMBER 6A1/25X, 63.5 FEET (19.4 M) AZIMUTH 124 DEGREES TO AN EIGHT INCH PINE TREE ON THE EAST SIDE OF PLEASANT VALLEY ROAD, AND 16.0 FEET (4.9 M) AZIMUTH 275 DEGREES TO A FOUR FOOT WIRE FENCE.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

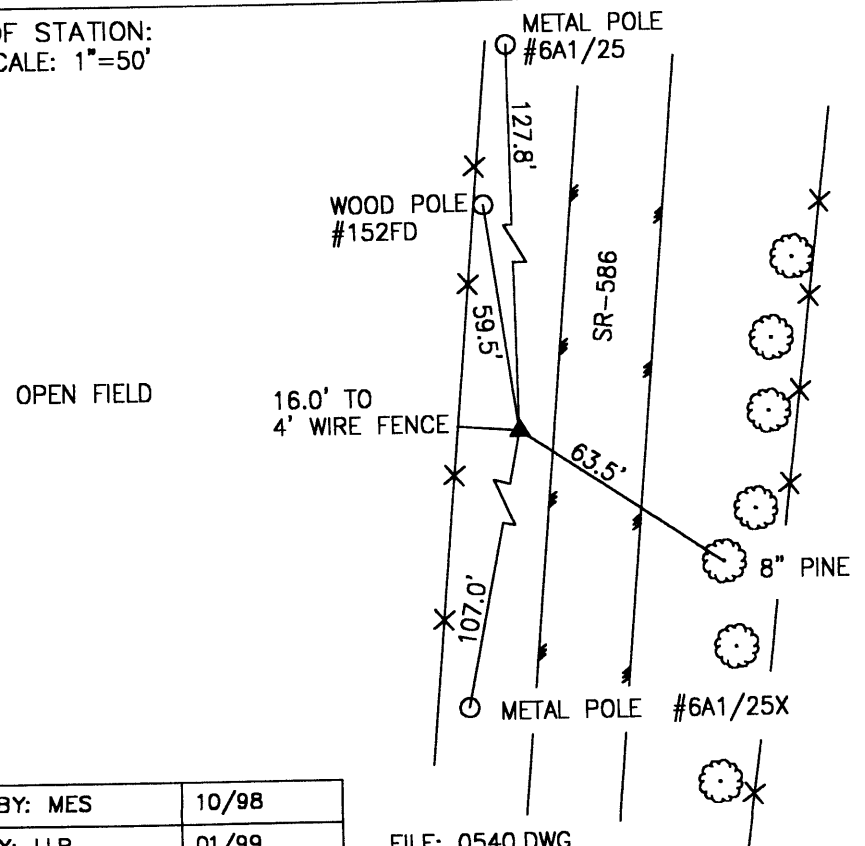
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	FALLSBURY TWP 8		1998
N: 794811.180	E: 2043977.139	LAT: 40°10'54.64043" N	LONG: 82°13'47.59025" W
ELEV.: 901.432 (GPS)	COMB. FACTOR: 0.999989728		θ ANGLE: +0°10'17.01

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0540.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0530

Designation: FALLSBURY TWP 7

PID:

Latitude: 401125N  
Longitude: 0821554W  
Elevation: 271.9M  
Stamping: FALLSBURY TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FALLSBURY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTHWEST OF THE TOWN OF FALLSBURG. TO REACH THE STATION FROM THE INTERSECTION OF PLEASANT VALLEY ROAD (SR 586) AND FALLSBURG ROAD (SR 79) IN THE TOWN OF FALLSBURG PROCEED SOUTHWEST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 2.0 MILES (3.2 KM) TO THE STATION ON THE RIGHT ON THE WEST SIDE OF ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FALLSBURG TWP 7 1998. THE STATION IS 102.8 FEET (31.3 M) AZIMUTH 23 DEGREES TO A WOOD POLE WITH THE NUMBER 0056/401, 102.4 FEET (31.2 M) AZIMUTH 150 DEGREES TO A WOOD POLE WITH THE NUMBER 256/400, 166.0 FEET (50.6 M) AZIMUTH 350 DEGREES TO THE SOUTHEAST CORNER OF A CONCRETE BLACK HOUSE, AND 18.1 FEET (5.5 M) AZIMUTH 85 DEGREES TO A MAG NAIL IN THE CENTERLINE OF FALLSBURG ROAD.



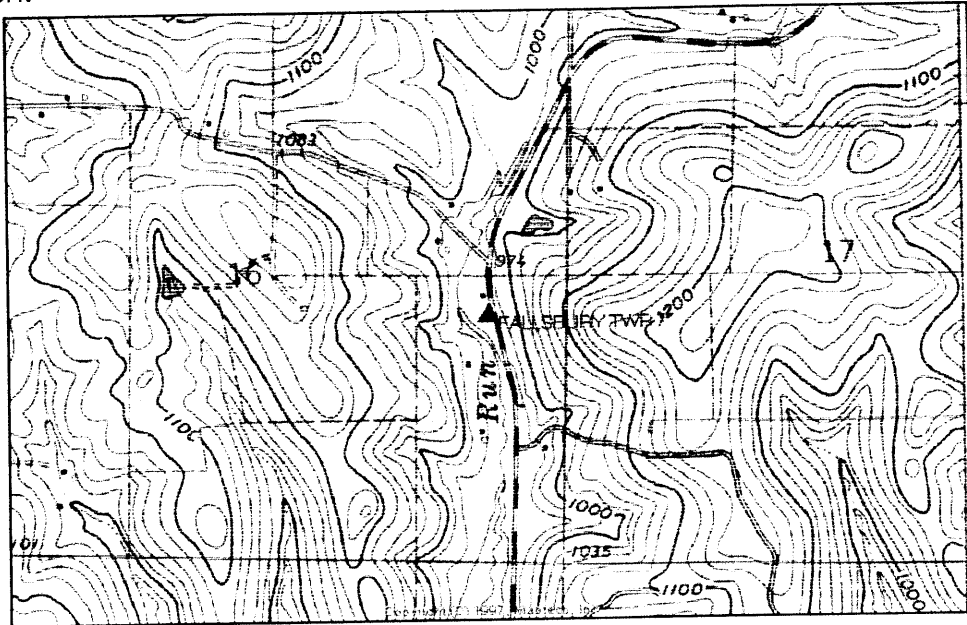
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

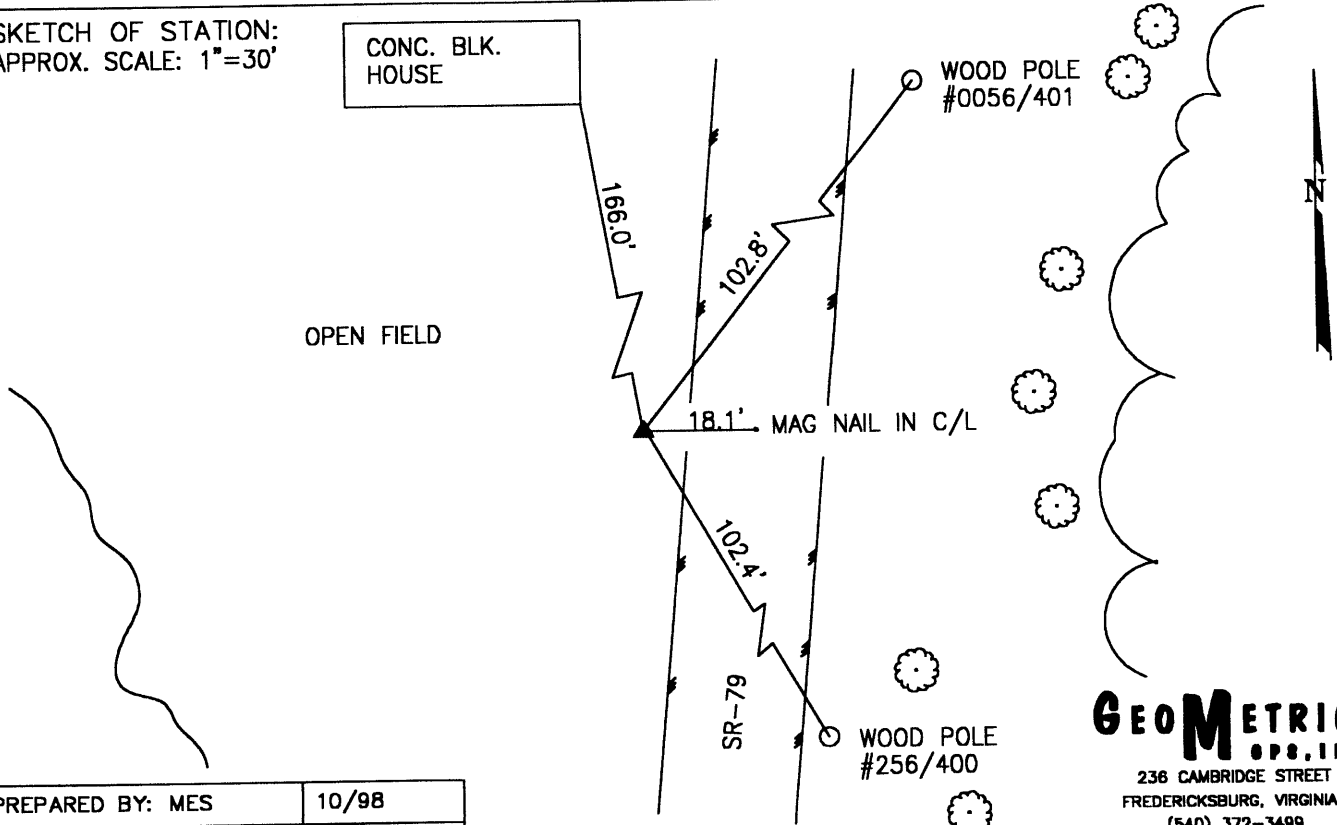
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	FALLSBURY TWP 7	1998
N: 797921.384	E: 2034134.810	LAT: 40°11'25.64636" N LONG: 82°15'54.28904" W
ELEV.: 964.112 (GPS)	COMB. FACTOR: 0.999988843	θ ANGLE: +0°08'56.62

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0530.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0520  
Designation: EDEN TWP 6

PID:

Latitude: 401113N  
Longitude: 0821751W  
Elevation: 310.7M  
Stamping: EDEN TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN EDEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) NORTHEAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 4.2 MILES (6.8 KM) TO ITS INTERSECTION WITH FORK ROAD (CR 210) . TURN LEFT AND PROCEED NORTH ALONG FORK ROAD (CR 210) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH RAINROCK ROAD (CR 244) . TURN RIGHT AND PROCEED NORTHEAST ALONG RAINROCK ROAD (CR 244) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH BAKER ROAD (T-211) . TURN LEFT AND PROCEED NORTHWEST ALONG BAKER ROAD (T-211) A DISTANCE OF 1.1 MILES (1.8 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED EDEN TWP 6 1998. THE STATION IS 40.0 FEET AZIMUTH 297 DEGREES TO A WOOD POLE WITH THE NUMBER 4H15/8, 53.5 FEET (16.3 M) AZIMUTH 353 DEGREES TO A METAL FENCE CORNER OF AN ELECTRIC WIRE FENCE, 26.6 AZIMUTH 100 DEGREES TO A PK NAIL IN A FENCE POST, AND 136.6 FEET (41.6 M) AZIMUTH 27 DEGREES TO A CORNER POST.

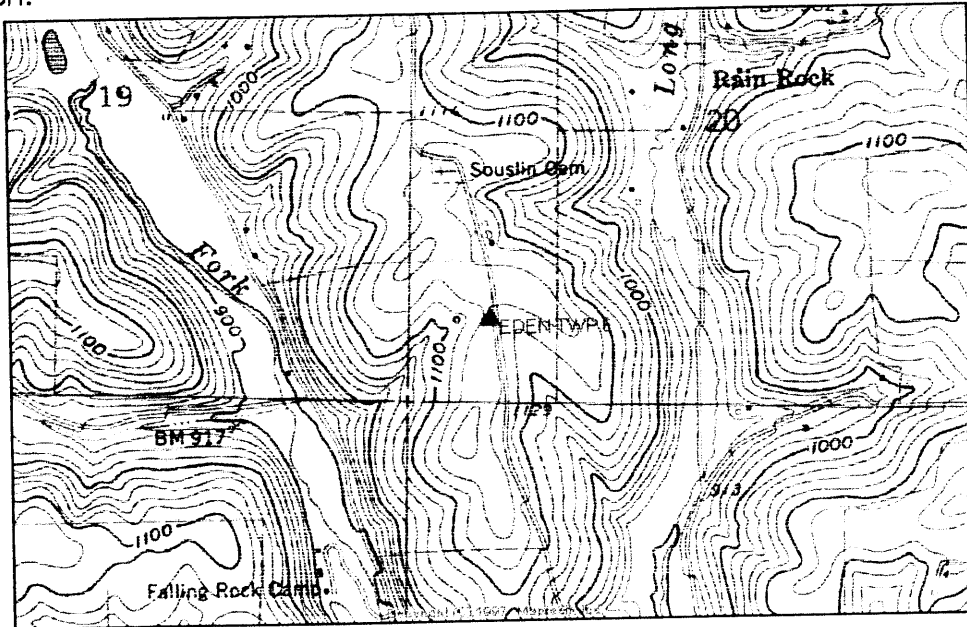
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

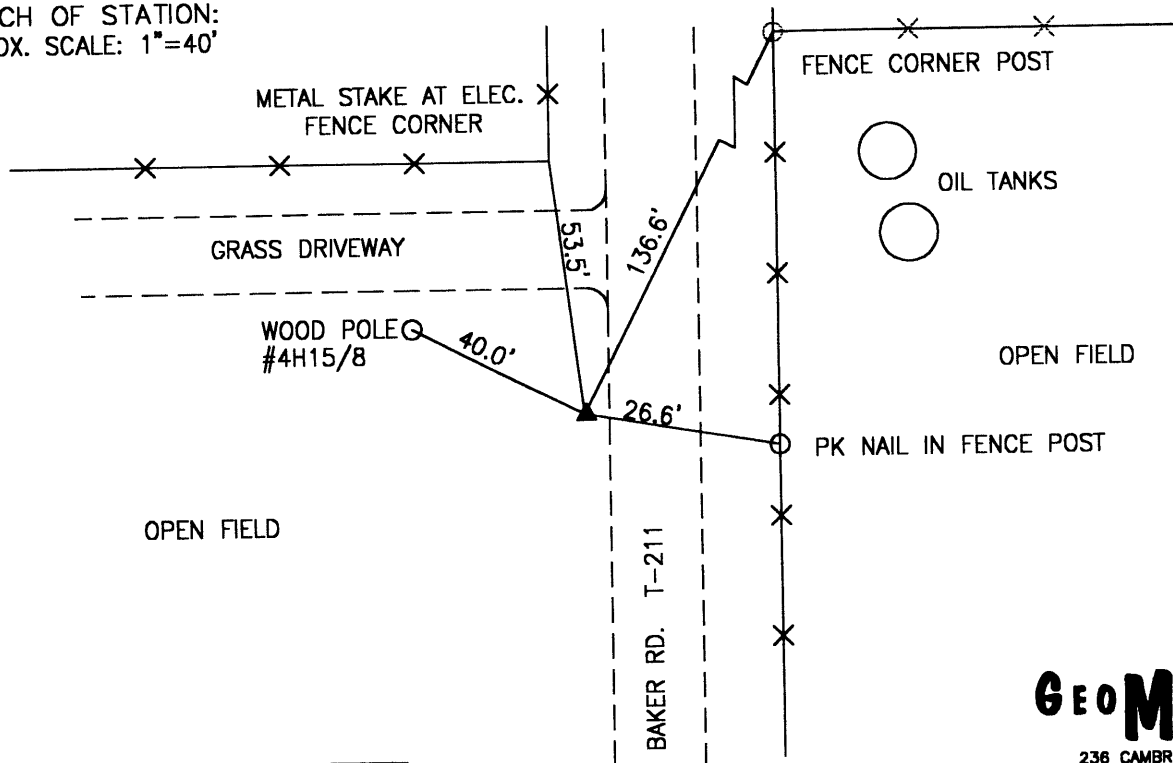
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	EDEN TWP 6		1998
N: 796691.239	E: 2025061.023	LAT: 40°11'13.70764" N	LONG: 82°17'51.24078" W
ELEV.: 1134.417 (GPS)	COMB. FACTOR: 0.999979899		θ ANGLE: +0°07'42.41

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0520.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0510

Designation: EDEN TWP 5

PID:

Latitude: 401111N  
Longitude: 0822015W  
Elevation: 319.3M  
Stamping: EDEN TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN EDEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTH OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 4.0 MILES (6.4 KM) TO ITS INTERSECTION WITH SWICK-HOLTON ROAD (T-236) AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED EDEN TWP 5 1998. THE STATION IS 24.5 FEET (7.5 M) AZIMUTH 345 DEGREES TO A WOOD POLE WITH THE NUMBER 0036/034, 39.9 FEET (12.2 M) AZIMUTH 100 DEGREES TO A WOOD POLE WITH THE NUMBER 0039/001, AND 120.5 AZIMUTH 205 DEGREES TO A WOOD POLE WITH THE NUMBER 0036/035.

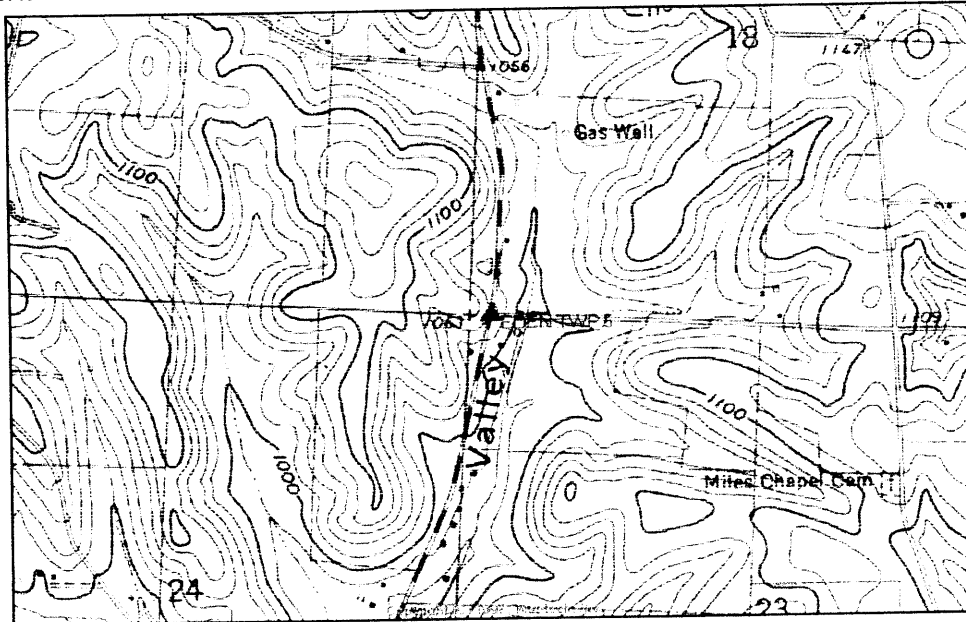
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

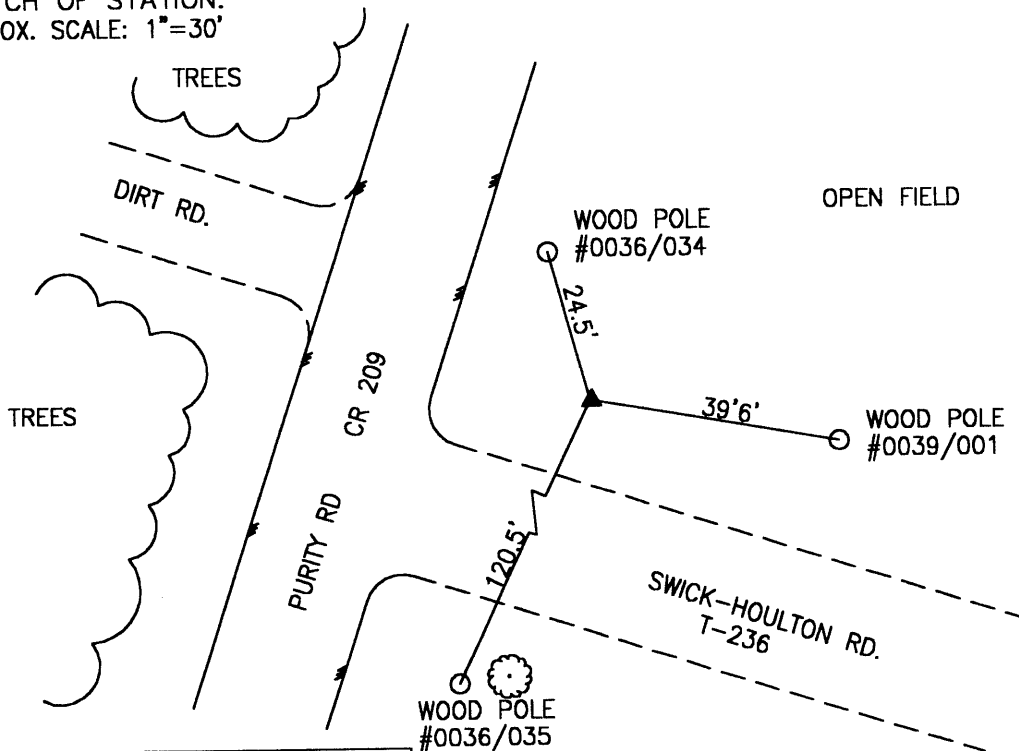
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	EDEN TWP 5		1998
N: 796396.987	E: 2013887.741	LAT: 40°11'11.02302" N	LONG: 82°20'15.20915" W
ELEV.: 1038.978 (GPS)	COMB. FACTOR: 0.999984272		θ ANGLE: +0°06'11.06

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0510.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0500  
Designation: WASHINGTON TWP 9

PID:

Latitude: 401133N  
Longitude: 0822234W  
Elevation: 256.0M  
Stamping: WASHINGTON TWP 9 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY OHIO ABOUT 4.0 MILES (6.4 KM) NORTHWEST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH LOCHES ROAD (CR 202) . TURN LEFT AND PROCEED WEST ALONG LOCHES ROAD (CR 202) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH MARTINSBURG ROAD (CR 204) . TURN RIGHT AND PROCEED NORTH ALONG MARTINSBURG ROAD (CR 204) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH HUNT ROAD (T-214) . TURN RIGHT AND PROCEED EAST ALONG HUNT ROAD (T-214) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED WASHINGTON TWP 9 1998. THE STATION IS 63.1 FEET (19.2 M) AZIMUTH 95 DEGREES TO A WOOD POLE WITH A ONE INCH BLACK PVC STUCK ON THE SIDE, 26.0 FEET (7.9 M) AZIMUTH 67 DEGREES TO A PK NAIL IN THE CENTERLINE OF HUNT ROAD, 25.8 FEET (7.9 M) AZIMUTH 310 DEGREES TO A PK NAIL IN THE CENTERLINE OF HUNT ROAD, AND 142.9 FEET (43.6 M) AZIMUTH 273 DEGREES TO A POWER POLE WITH THE NUMBER 0029 017.

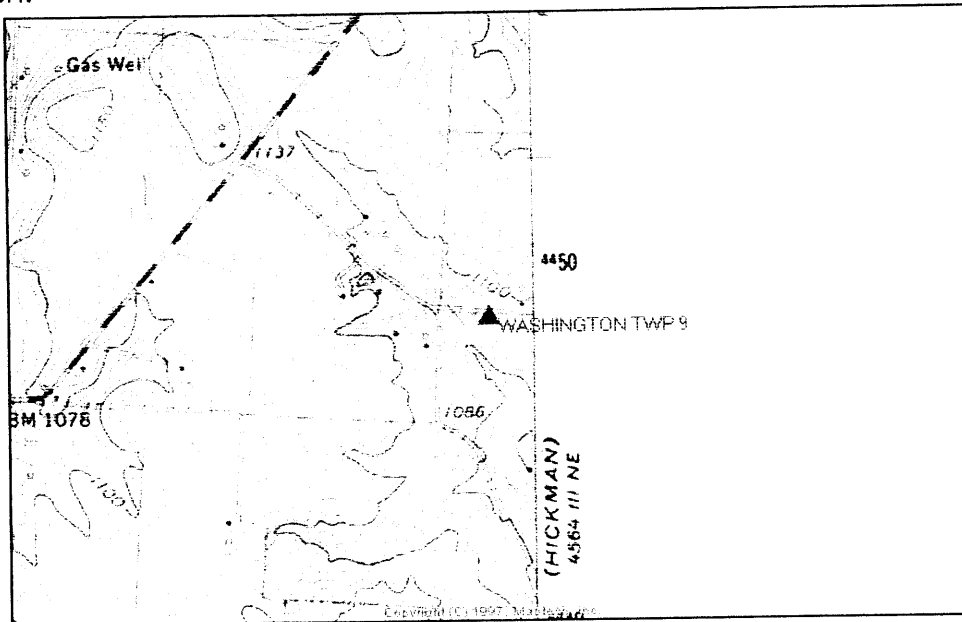
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

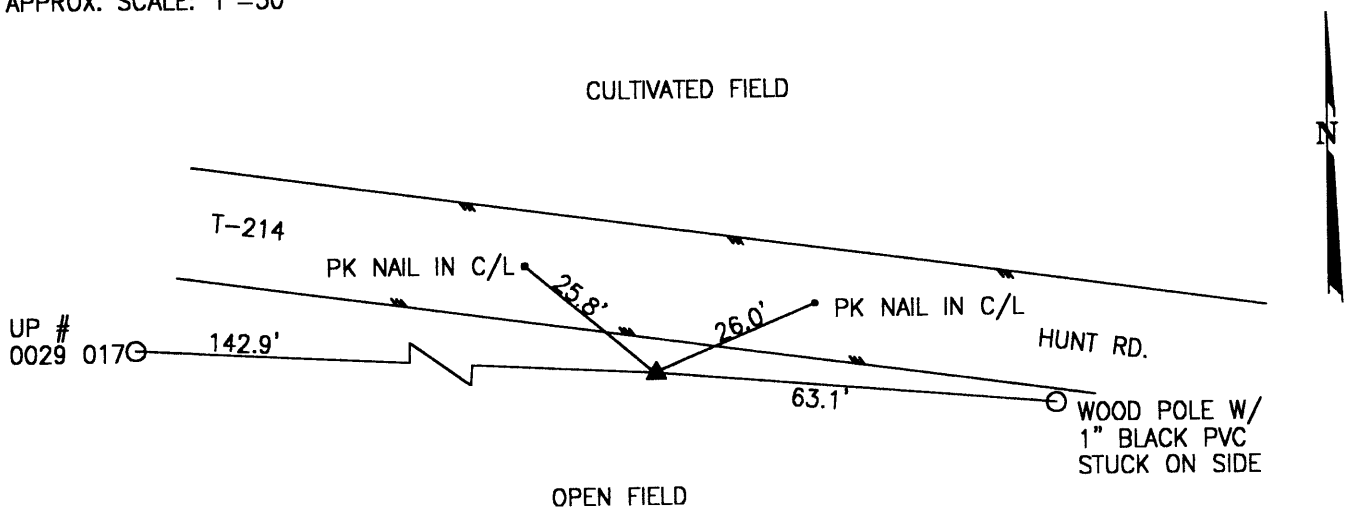
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	WASHINGTON TWP 9		1998
N: 798606.002	E: 2003112.006	LAT: 40°11'33.02058" N	LONG: 82°22'34.00808" W
ELEV.: 1086.881 (GPS)	COMB. FACTOR: 0.999983487		θ ANGLE: +0°04'42.99

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0500.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0490  
Designation: WASHINGTON TWP 8

PID:

Latitude: 401156N  
Longitude: 0822503W  
Elevation: 319.5M  
Stamping: WASHINGTON TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY OHIO AND ABOUT 2.0 MILES (3.2 KM) SOUTHEAST OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA (US 62) AND MOUNT VERNON ROAD (SR 13) PROCEED SOUTHEAST ALONG MOUNT VERNON ROAD (SR 13) APPROXIMATELY A DISTANCE OF 1.5 MILES (2.4 KM) TO ITS INTERSECTION WITH GINGER HILL ROAD (T-207) . TURN LEFT AND PROCEED EAST ALONG GINGER HILL ROAD (T-207) A DISTANCE OF 1.8 MILES (2.9 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND AND STAMPED WASHINGTON TWP 8 1998. THE STATION IS 21.0 FEET (6.4 M) AZIMUTH 128 DEGREES TO A UTILITY POLE WITH THE NUMBER 487/12X, 64.7 FEET (19.7 M) AZIMUTH 330 DEGREES TO A UTILITY POLE WITH THE NUMBER 487/13, 50.4 FEET (15.4 M) AZIMUTH 315 DEGREES TO THE GUY ANCHOR OF THE POLE NUMBERED 487/13, 10.6 FEET (3.2 M) AZIMUTH 187 DEGREES TO THE GUY ANCHOR OF THE POLE NUMBERED 487/12X, AND 33.2 FEET (10.1 M) SOUTH FROM THE CENTERLINE OF GINGER HILL ROAD.



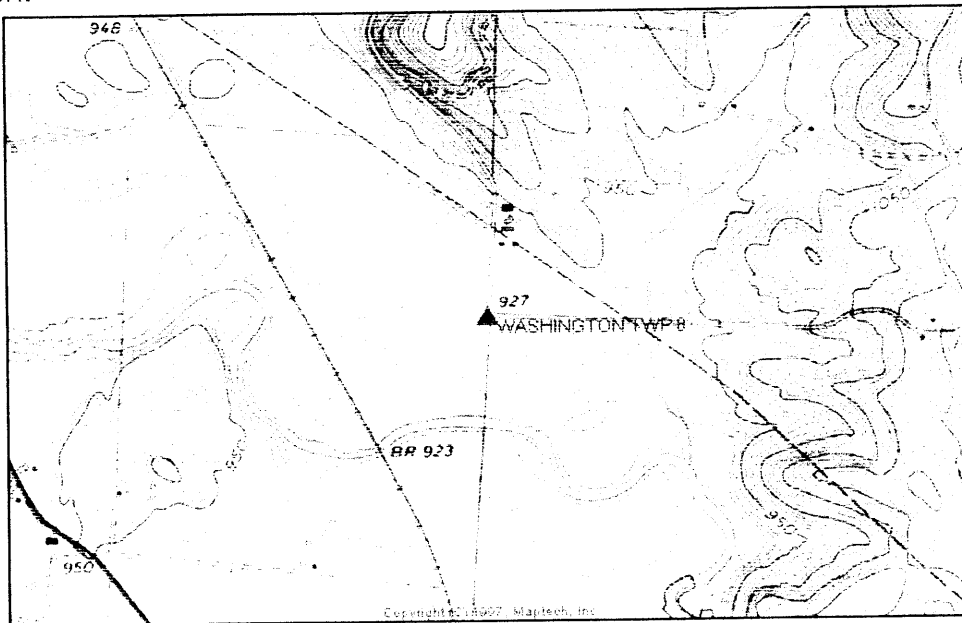
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

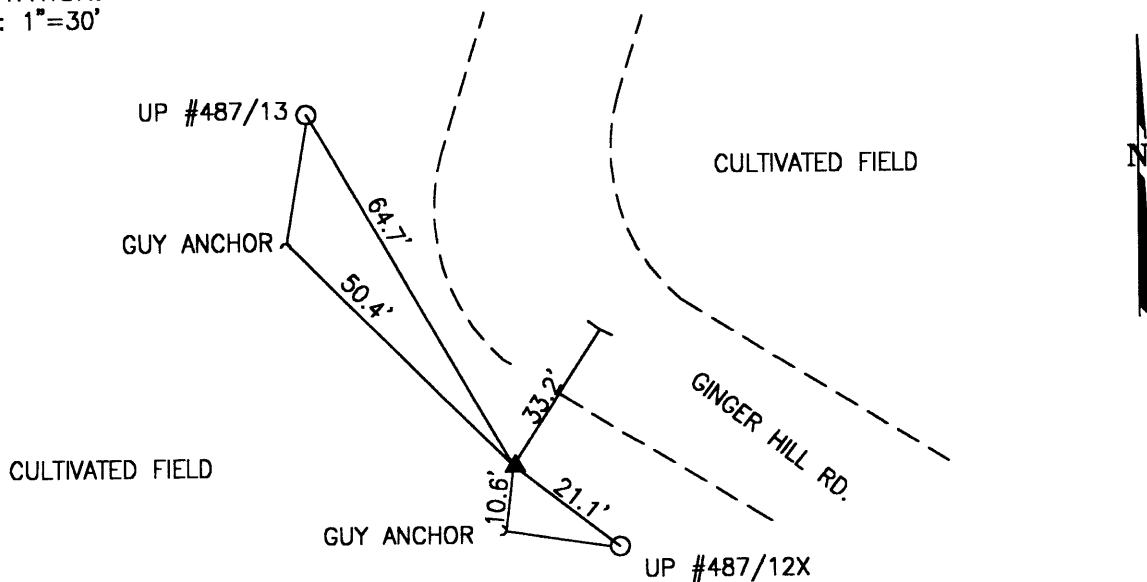
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	WASHINGTON TWP 8		1998
N: 800937.922	E: 1991482.021	LAT: 40°11'56.19497" N	LONG: 82°25'03.83841" W
ELEV.: 928.932	(GPS)	COMB. FACTOR: 0.999992621	θ ANGLE: +0°03'07.92

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0490.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0480  
Designation: WASHINGTON TWP 7

PID:

Latitude: 401148N  
Longitude: 0822712W  
Elevation: 334.8M  
Stamping: WASHINGTON TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WASHINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTH OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) IN UTICA PROCEED SOUTH ALONG MOUNT VERNON ROAD (SR 13) A DISTANCE OF APPROXIMATELY 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH SMOOTS ROAD (T-80) . TURN RIGHT AND PROCEED SOUTHWEST ALONG SMOOTS ROAD (T-80) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH WEAVER ROAD (T-76) . TURN RIGHT AND PROCEED NORTHWEST ALONG WEAVER ROAD (T-76) A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED WASHINGTON TWP 7 1998. THE STATION IS 177.5 FEET (54.1 M) AZIMUTH 330 DEGREES TO A 12 INCH TREE, 28.9 FEET (8.8 M) AZIMUTH 270 DEGREES TO A RAILROAD SPIKE IN THE GROUND, 56.1 FEET (17.1 M) AZIMUTH 140 DEGREES TO A TACK IN A FENCE POST, 131.2 FEET (40.0 M) AZIMUTH 160 DEGREES TO A POWER POLE WITH NUMBER 4A1/10/S7, AND 225.2 FEET (68.6 M) AZIMUTH 318 DEGREES TO A UTILITY POLE WITH NUMBER S7.

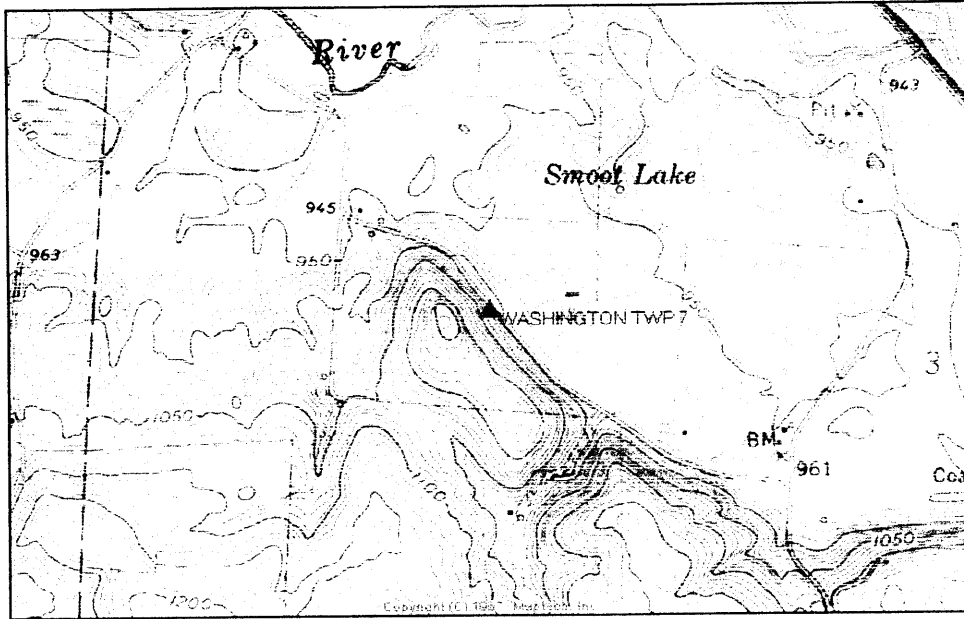
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

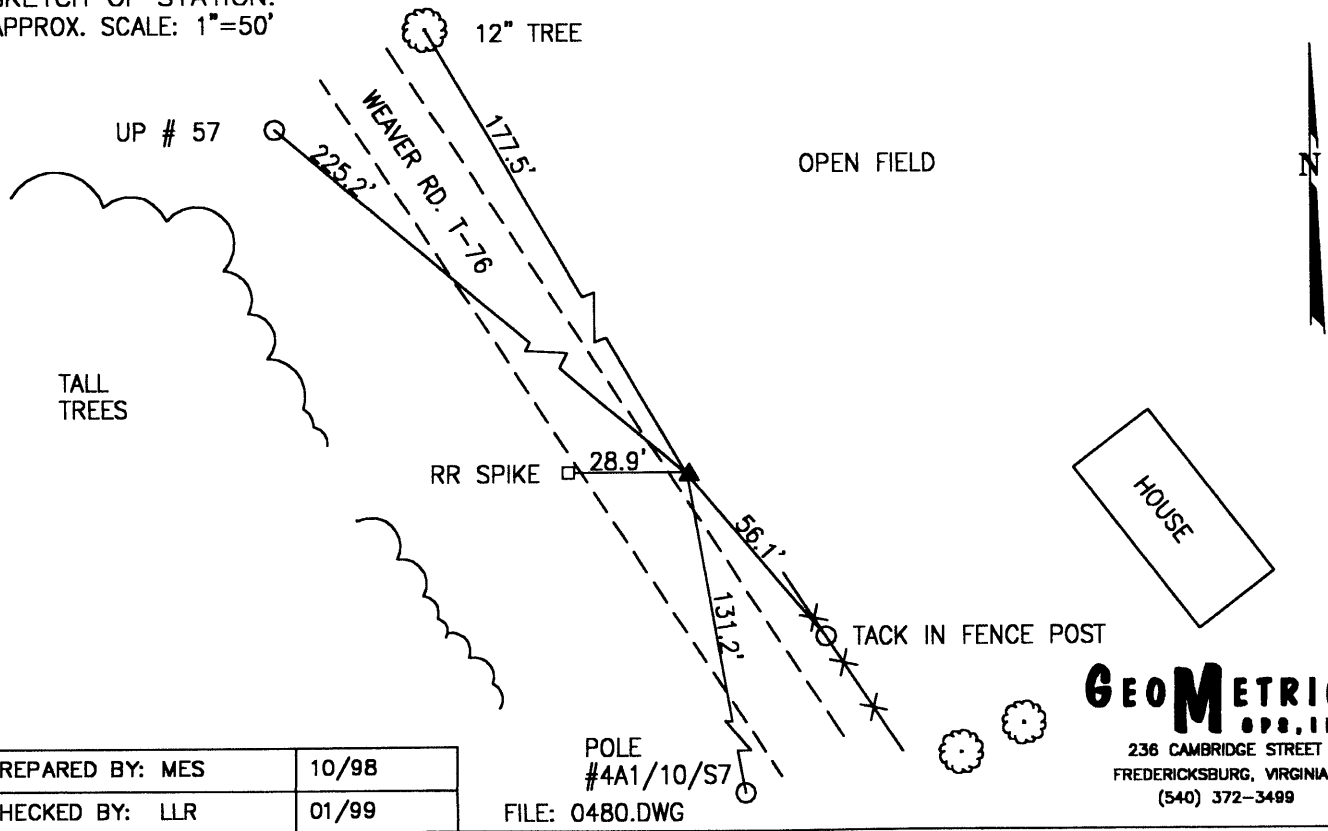
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	WASHINGTON TWP 7	1998
N: 800161.674	E: 1981475.306	LAT: 40°11'48.59484" N
LONG: 82°27'12.79670" W		
ELEV.: 1013.774 (GPS)	COMB. FACTOR: 0.999988047	θ ANGLE: +0°01'46.09

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0480.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0470

Designation: BURLINGTON TWP 9

PID:

Latitude: 401136N

State: OH

Longitude: 0822859W

County: LICKING

Elevation: 324.0M

Disk From: OH-089

Stamping: BURLINGTON TWP 9 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) SOUTHWEST OF THE TOWN OF UTICA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND MOUNT VERNON ROAD (SR 13) IN UTICA PROCEED WEST ALONG JOHNSTOWN- UTICA ROAD (US 62) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH REYNOLDS ROAD (CR 17) . TURN LEFT AND PROCEED SOUTH ALONG REYNOLDS ROAD (CR 17) TO ITS INTERSECTION WITH CENTENNIAL ROAD (T-78) AND THE STATION IN THE MIDDLE OF THE TRIANGULAR ISLAND. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 9 1998. THE STATION IS 61.9 FEET (18.9 M) AZIMUTH 165 DEGREES TO A STREET SIGN (CR17/T-78) , 49.7 FEET (15.1 M) AZIMUTH 75 DEGREES TO A STOP SIGN, AND 66.7 FEET (20.3 M) AZIMUTH 330 DEGREES TO A POWER POLE WITH THE NUMBER 1D3/32.

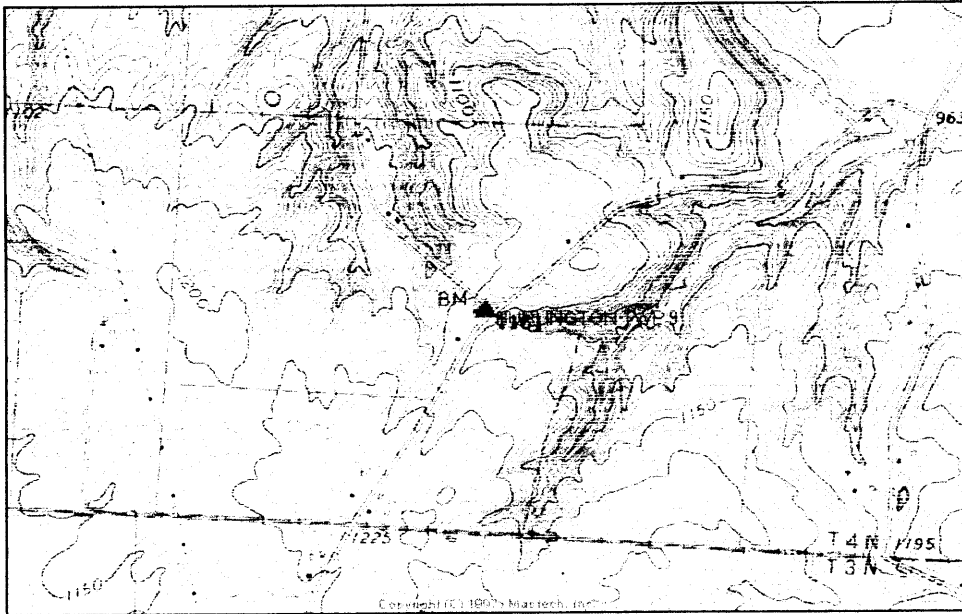
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

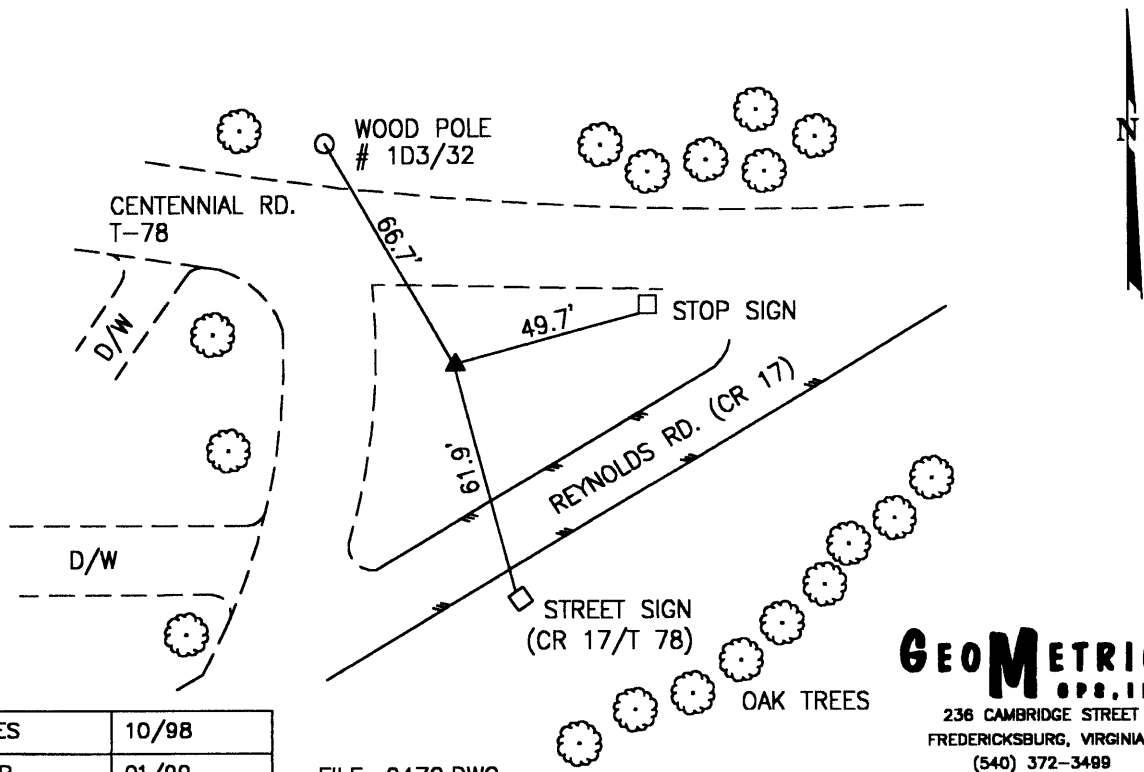
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BURLINGTON TWP 9		1998
N: 798976.264	E: 1973220.496	LAT: 40°11'36.90965" N	LONG: 82°28'59.17326" W
ELEV.: 1154.689 (GPS)	COMB. FACTOR: 0.999980516		Ø ANGLE: +0°00'38.59

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0470.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0460  
Designation: BURLINGTON TWP 8

PID:

Latitude: 401150N  
Longitude: 0823105W  
Elevation: 314.5M  
Stamping: BURLINGTON TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BURLINGTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.8 MILES (6.1 KM) SOUTH OF THE TOWN OF HOMER. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND NORTH STREET (SR 661) PROCEED SOUTH ALONG NORTH STREET (SR 661) A DISTANCE OF 2.0 MILE (3.2 KM) TO ITS INTERSECTION WITH SMOKETOWN ROAD (T-67) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTESECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BURLINGTON TWP 8 1998. THE STATION IS 40.5 FEET (12.3 M) AZIMUTH 0 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 136FC/702 24, 5.6 FEET (1.7 M) AZIMUTH 25 DEGREES TO A STOP SIGN, 100.0 FEET (30.5 M) AZIMUTH 282 DEGREES TO A LONE FENCE POST, AND 6.1 FEET (1.9 M) AZIMUTH 79 DEGREES TO A 12 INCH CMP CULVERT.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

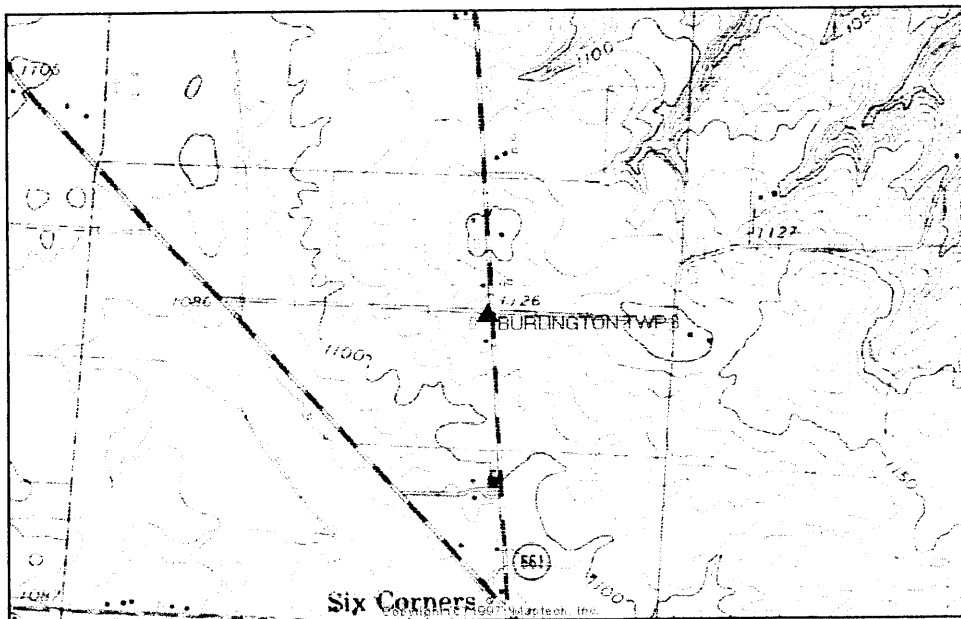
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

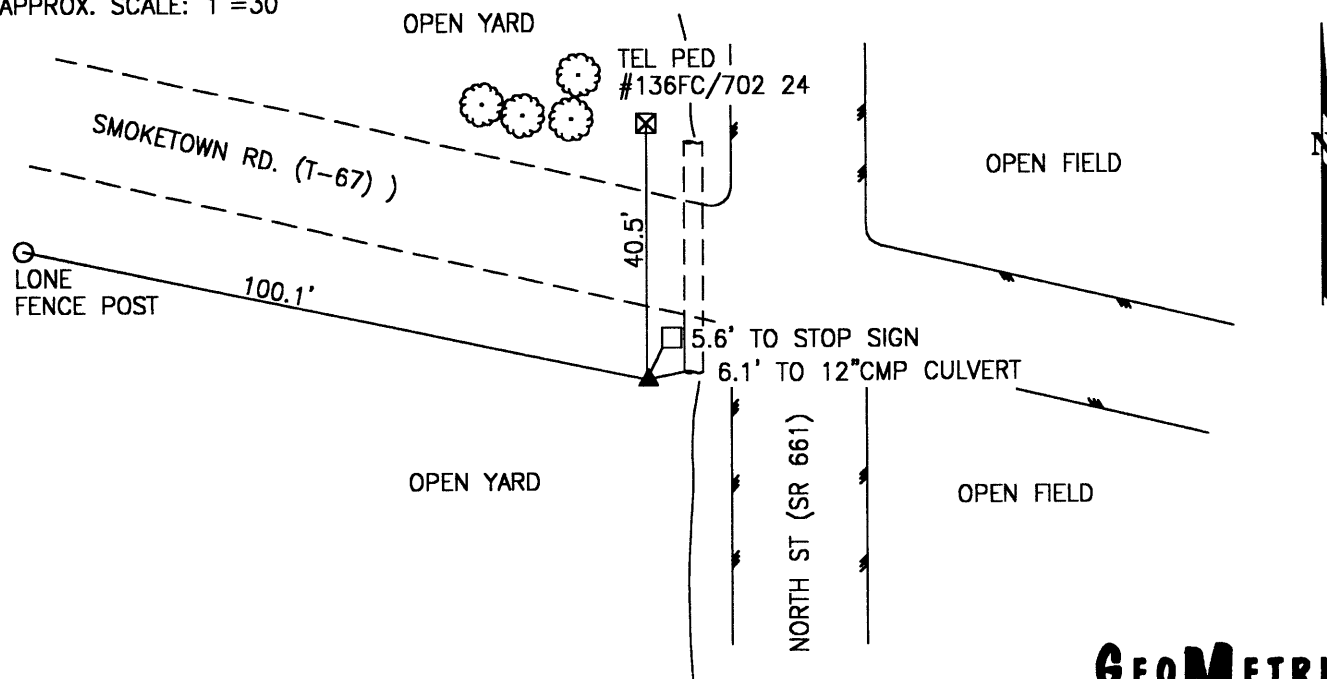
COUNTY	NAME OF STATION	YEAR
LICKING	BURLINGTON TWP 8	1998

N: 800353.986	E: 1963382.619	LAT: 40°11'50.52305" N	LONG: 82°31'05.94446" W
ELEV.: 1124.155	(GPS)	COMB. FACTOR: 0.999982910	θ ANGLE: -0°00'41.84

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0460.DWG

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0450

Designation: MCKEAN TWP 1

PID:

Latitude: 401128N  
Longitude: 0823335W  
Elevation: 290.1M  
Stamping: MCKEAN TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MCKEAN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.8 MILES (10.9 KM) NORTHEAST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 5.2 MILES (8.4 KM) TO ITS INTERSECTION WITH RILEY ROAD (T-65) . TURN RIGHT AND PROCEED EAST ALONG RILEY ROAD (T-65) A DISTANCE OF 2.0 MILES (3.2 KM) TO THE STATION ON THE RIGHT ON THE SOUTH SIDE OF THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ABOUT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MCKEAN TWP 1 1998. THE STATION IS 101.0 FEET (30.8 M) AZIMUTH 312 DEGREES TO A METAL FENCE POST AT THE CORNER, 45.4 FEET (13.8 M) AZIMUTH 47 DEGREES TO A SCHOOL BUS STOP AHEAD SIGN, 65.9 FEET (20.1 M) AZIMUTH 324 DEGREES TO A METAL UTILITY POLE WITH THE NUMBER 1F32 AND 21.4 FEET (6.5 M) FROM THE CENTERLINE OF RILEY ROAD.



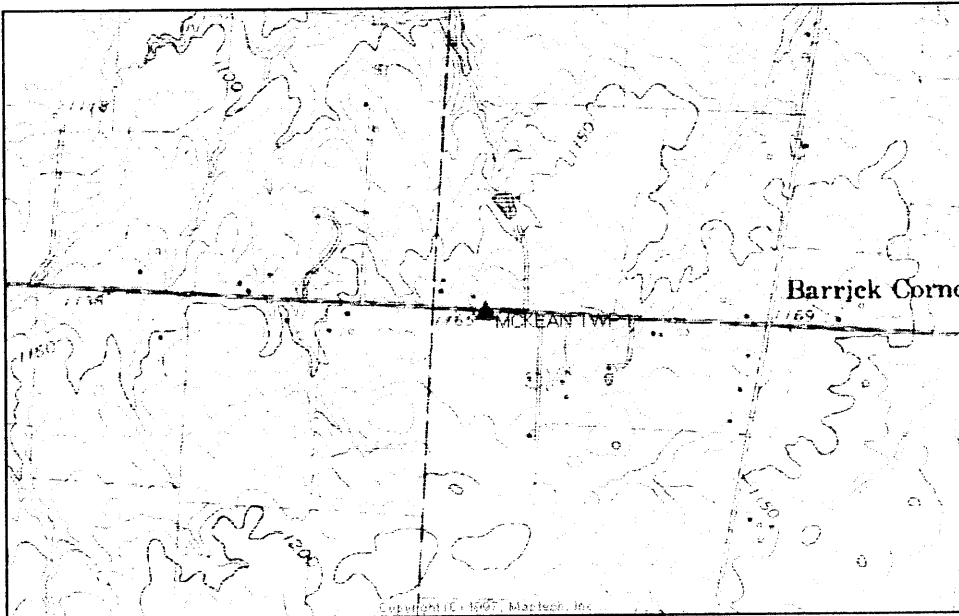
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

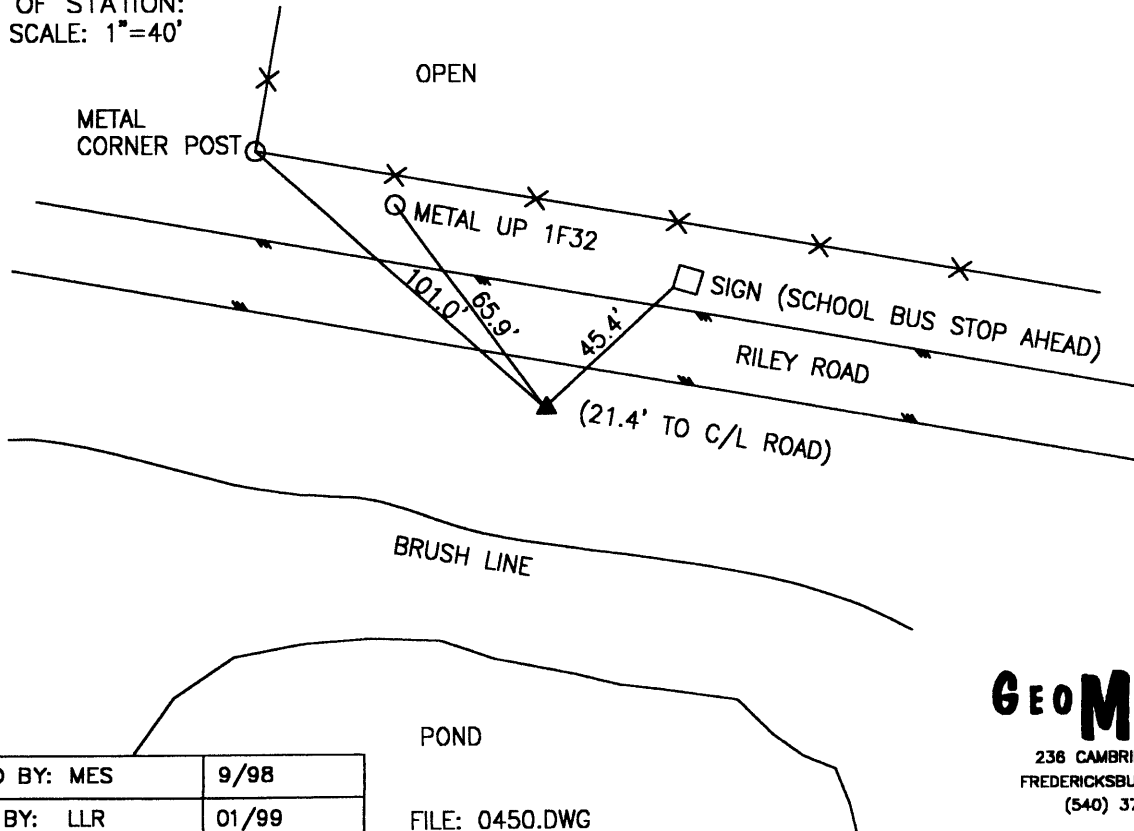
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MCKEAN TWP 1		1998
N: 798127.627	E: 1951742.135	LAT: 40°11'28.47307" N	LONG: 82°33'35.92896" W
ELEV.: 1182.701	(GPS)	COMB. FACTOR: 0.999978601	θ ANGLE: -0°02'17.01

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



**GEOMETRICS**  
 OPS., INC.  
 238 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0450.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0440

Designation: LIBERTY TWP 2

PID:

Latitude: 401113N  
Longitude: 0823637W  
Elevation: 308.1M  
Stamping: LIBERTY TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTHEAST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 4.7 MILE (7.6 KM) TO ITS INTERSECTION WITH NORTHRIDGE ROAD (CR 21) . TURN RIGHT AND PROCEED SOUTH ALONG NORTHRIDGE ROAD (CR 21) A DISTANCE OF 0.1 MILES (0.2 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE EAST SIDE OF NORTHRIDGE ROAD, SOUTH OF A GRAVEL DRIVEWAY AND OPPOSITE A BASEBALL DIAMOND. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ABOUT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LIBERTY TWP 2 1998. THE STATION IS 15.9 FEET (4.8 M) AZIMUTH 07 DEGREES TO A UTILITY POLE WITH THE NUMBER 1127/1X, 22.3 FEET (6.8 M) AZIMUTH 122 DEGREES TO A METAL POST FOR LEFT FIELD, 127.5 FEET (38.9 M) AZIMUTH 187 DEGREES TO AN END POST AT OPENING OF BASEBALL FIELD, AND 27.5 FEET (8.4 M) FROM THE CENTERLINE OF NORTH RIDGE ROAD.

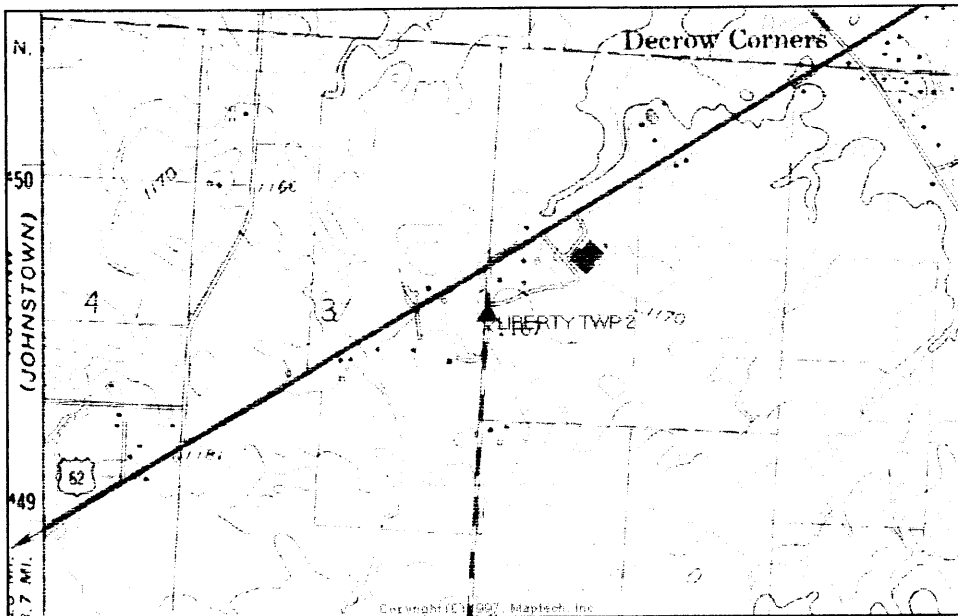
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

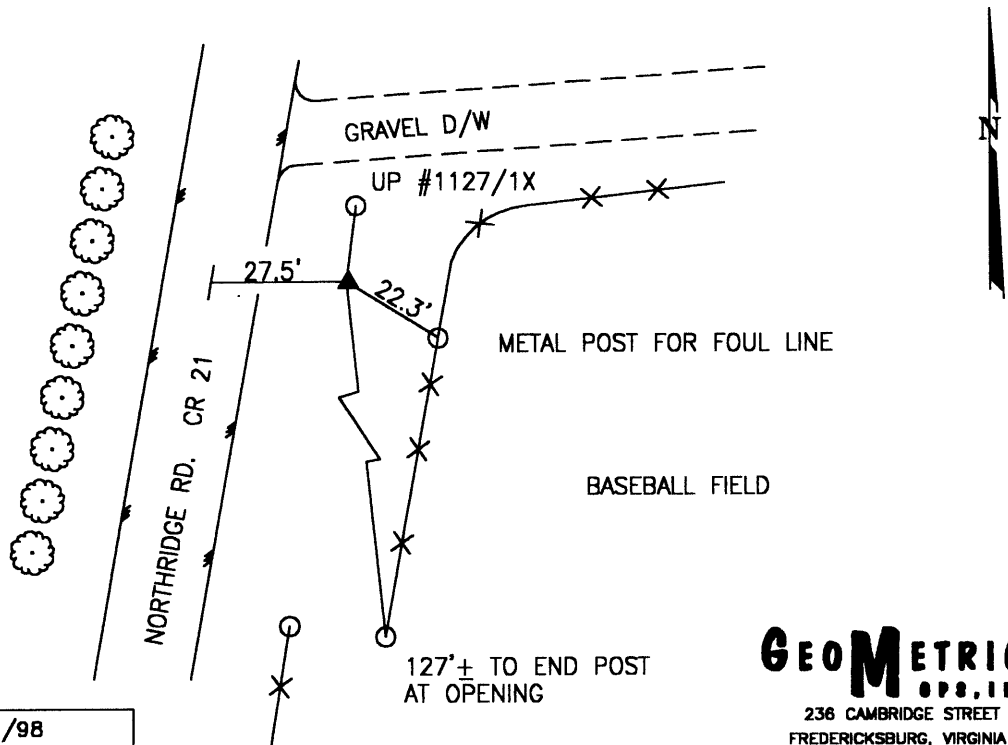
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LIBERTY TWP 2		1998
N: 796644.815	E: 1937660.332	LAT: 40°11'13.68914" N	LONG: 82°36'37.35274" W
ELEV.: 1168.941	(GPS) COMB. FACTOR: 0.999978249	θ ANGLE: -0°04'12.12	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0440.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0430  
Designation: LIBERTY TWP 1

PID:

Latitude: 401133N  
Longitude: 0823855W  
Elevation: 320.6M  
Stamping: LIBERTY TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.2 MILES (5.1 KM) NORTHEAST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH CROUSE-WILLISON ROAD (CR 13) . TURN LEFT AND PROCEED NORTH ALONG CROUSE-WILLISON ROAD (CR 13) A DISTANCE OF 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH HARMONY CHURCH ROAD (T-53) AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ABOUT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LIBERTY TWP 1 1998. THE STATION IS 46.0 FEET (14.0 M) AZIMUTH 185 DEGREES TO A POWER POLE WITH THE NUMBER 129FC/207F84.5, 84.9 FEET (25.9 M) AZIMUTH 230 DEGREES TO A POWER POLE WITH THE NUMBER 1J24, AND 25.4 FEET (7.7 M) EAST OF FROM THE CENTERLINE OF CROUSE-WILLISON ROAD.

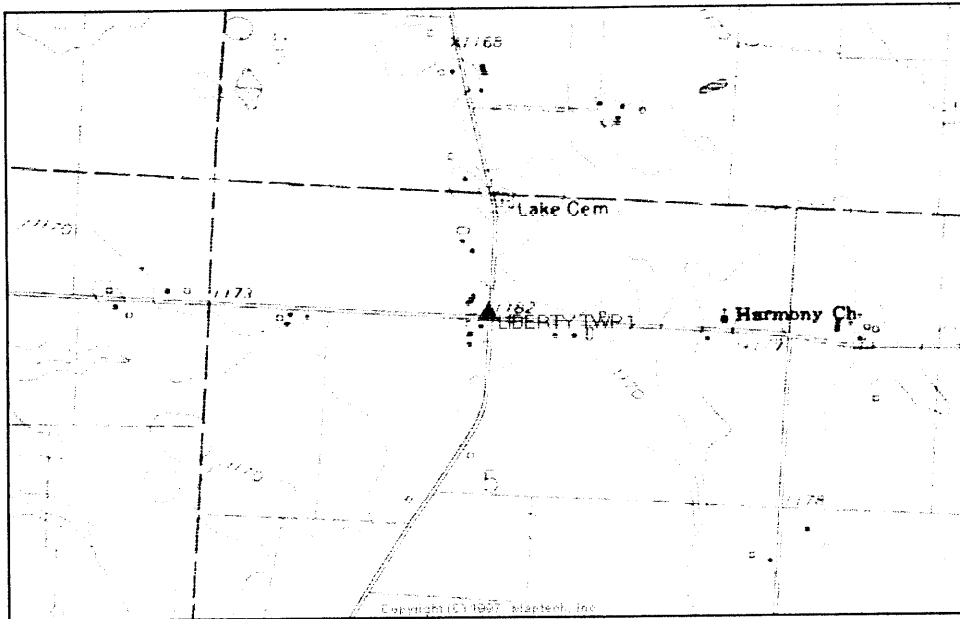
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

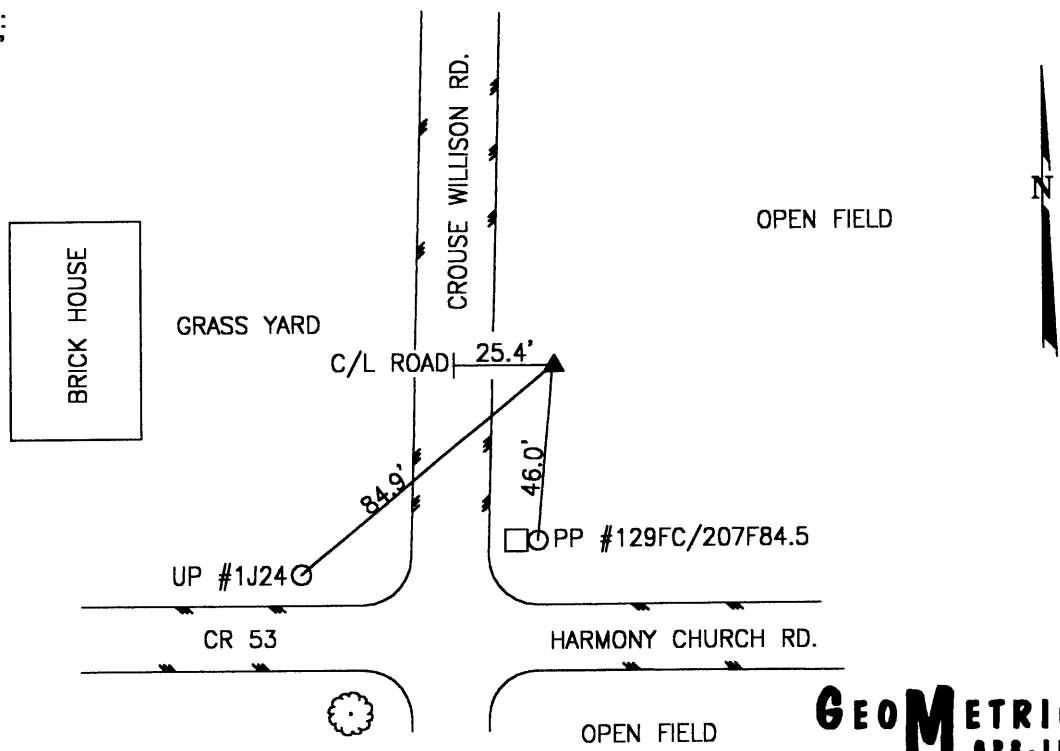
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LIBERTY TWP 1		1998
N: 798699.080	E: 1926918.667	LAT: 40°11'33.83635" N	LONG: 82°38'55.79680" W
ELEV.: 1179.502	(GPS)	COMB. FACTOR: 0.999979121	θ ANGLE: -0°05'39.97

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=50'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0430.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0420  
Designation: MONROE TWP 3

PID:

Latitude: 401043N  
Longitude: 0824133W  
Elevation: 326.1M  
Stamping: MONROE TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.8 MILES (4.5 KM) NORTH OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH CROTON ROAD (CR 3) . TURN RIGHT AND PROCEED NORTH ALONG CROTON ROAD (CR 3) A DISTANCE OF APPROXIMATELY 1.2 MILES (1.9 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE WEST SIDE OF CROTON ROAD ABOUT 60 FEET (18.3 M) SOUTH OF MAIL BOX NUMBER 8708. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MONROE TWP 3 1998. THE STATION IS 8.0 FEET (2.4 M) AZIMUTH 242 DEGREES TO A POWER POLE WITH NO NUMBER, 21.4 FEET (6.5 M) AZIMUTH 87 DEGREES TO A MAG NAIL IN THE CENTERLINE OF CROTON ROAD, 60.4 FEET (18.4 M) AZIMUTH 30 DEGREES TO A MAIL BOX WITH THE NUMBER 8708, AND 106.8 FEET (32.6 M) AZIMUTH 140 DEGREES TO A METAL UTILITY POLE WITH THE NUMBER 1J78.

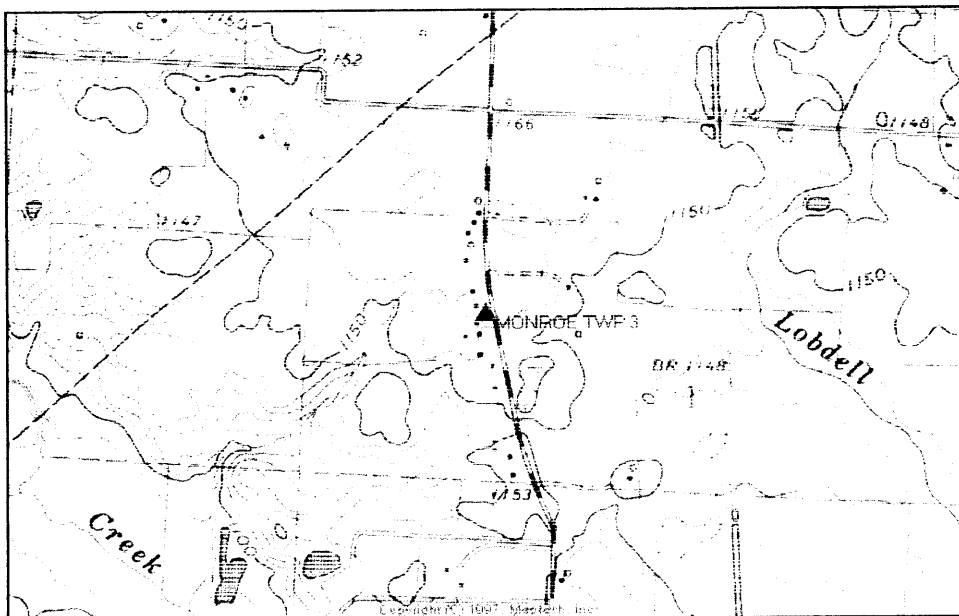
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

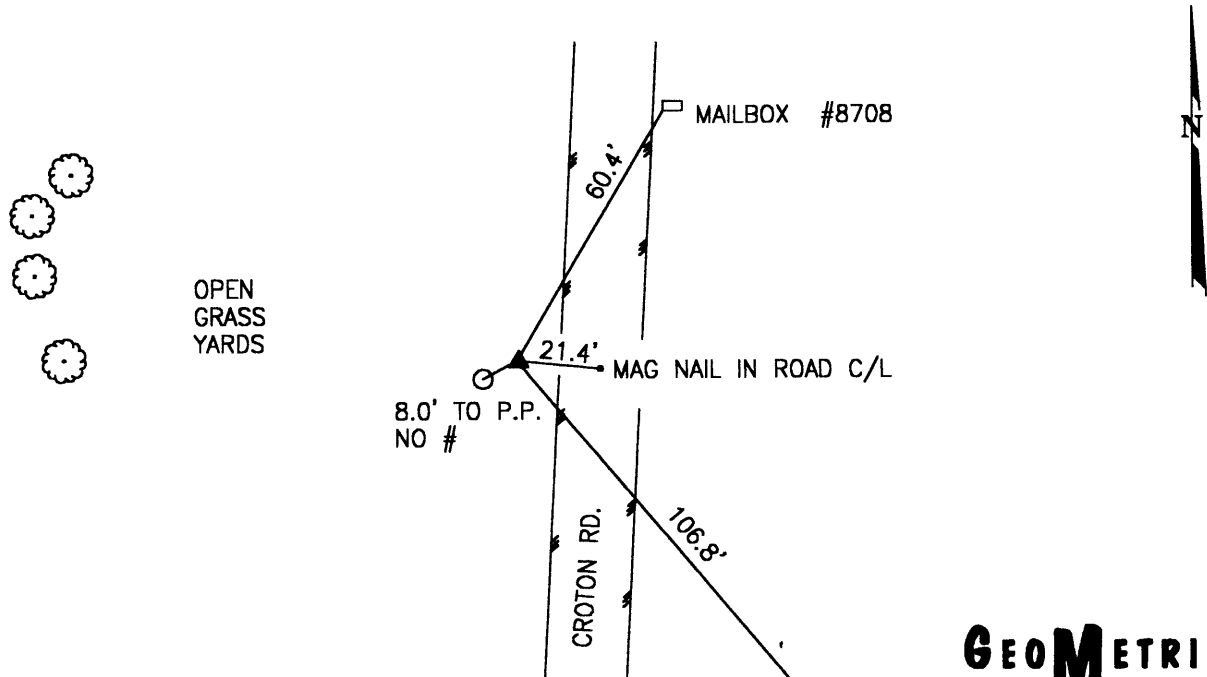
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 3		1998
N: 793625.607	E: 1914671.648	LAT: 40°10'43.47312" N	LONG: 82°41'33.46603" W
ELEV.: 1161.513 (GPS)	COMB. FACTOR: 0.999976558		Ø ANGLE: -0°07'20.01

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=50'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0420.DWG

METAL U.P.  
 # 1J78

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0410  
Designation: MONROE TWP 2

PID:

Latitude: 401130N  
Longitude: 0824302W  
Elevation: 312.3M  
Stamping: MONROE TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.4 MILES (5.5 KM) NORTHWEST OF THE CITY OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (CR 26) . TURN RIGHT AND PROCEED NORTH ALONG CLOVER VALLEY ROAD (CR 26) A DISTANCE OF APPROXIMATELY 1.6 MILES (2.6 KM) TO THE STATION ON THE LEFT. THE STATION IS 0.2 MILE (0.3 KM) NORTH OF ITS INTERSECTION WITH WOODHAVEN ROAD (T-57) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED WITH MONROE TWP 2 1998. THE STATION IS 48.1 FEET (14.7 M) AZIMUTH 188 DEGREES TO A POWER POLE WITH NO NUMBER, 37.5 FEET (11.4 M) AZIMUTH 85 DEGREES TO A 12 INCH CMP CULVERT, AND 17.8 FEET (5.4 M) AZIMUTH 6 DEGREES TO A LONE FENCE POST.



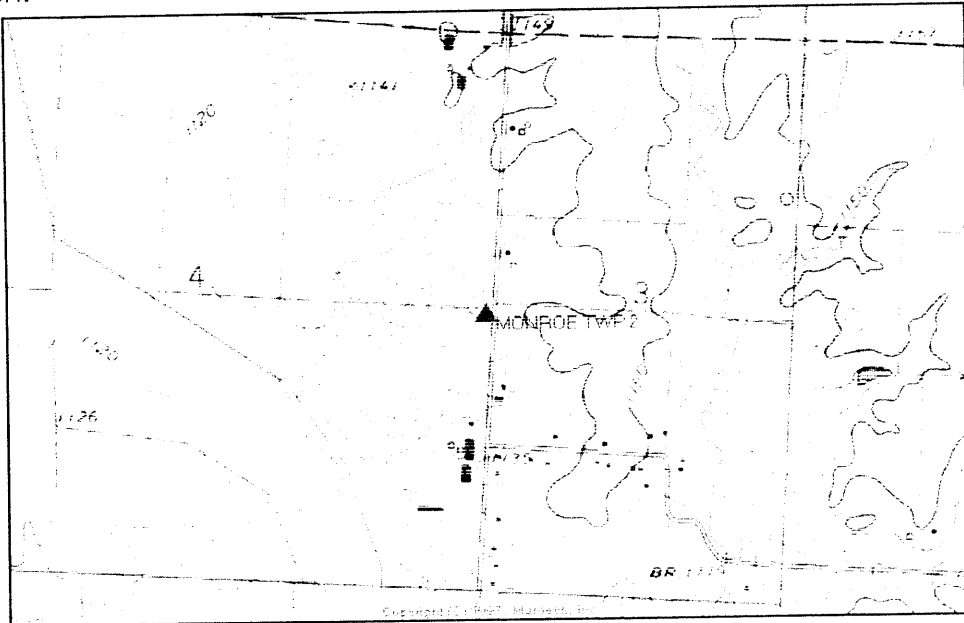
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

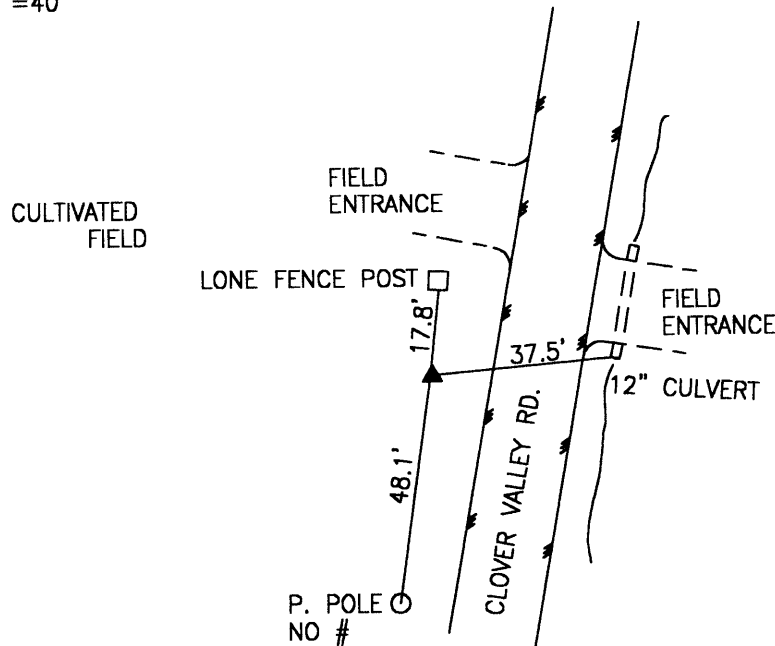
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 2		1998
N: 798398.503	E: 1907751.289	LAT: 40°11'30.48202" N	LONG: 82°43'02.76816" W
ELEV.: 1143.036 (GPS)	COMB. FACTOR: 0.999980632		θ ANGLE: -0°08'16.68

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



PREPARED BY: MES	9/98
CHECKED BY: LLR	01/99

FILE: 0410.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

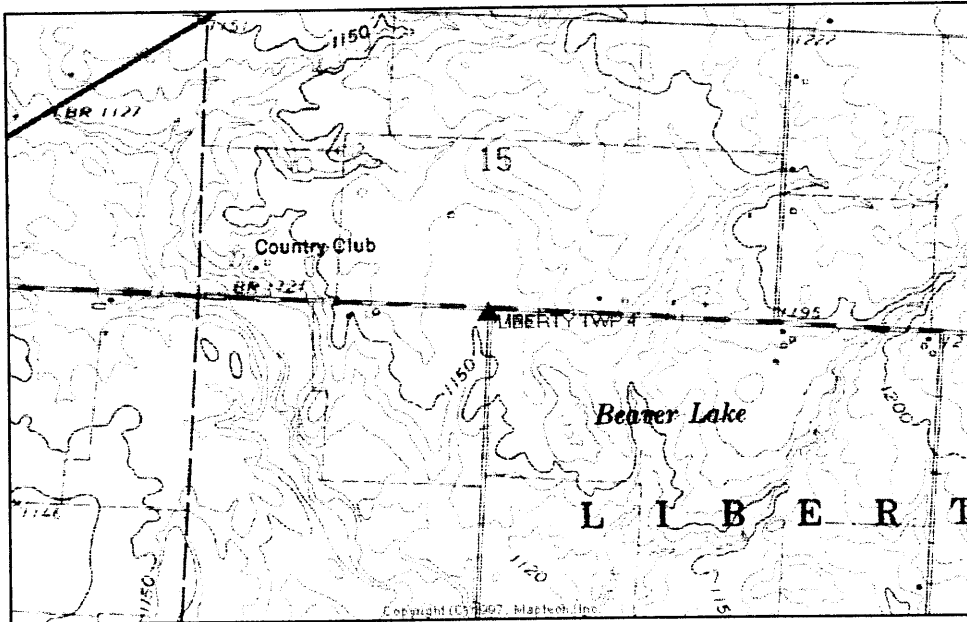
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

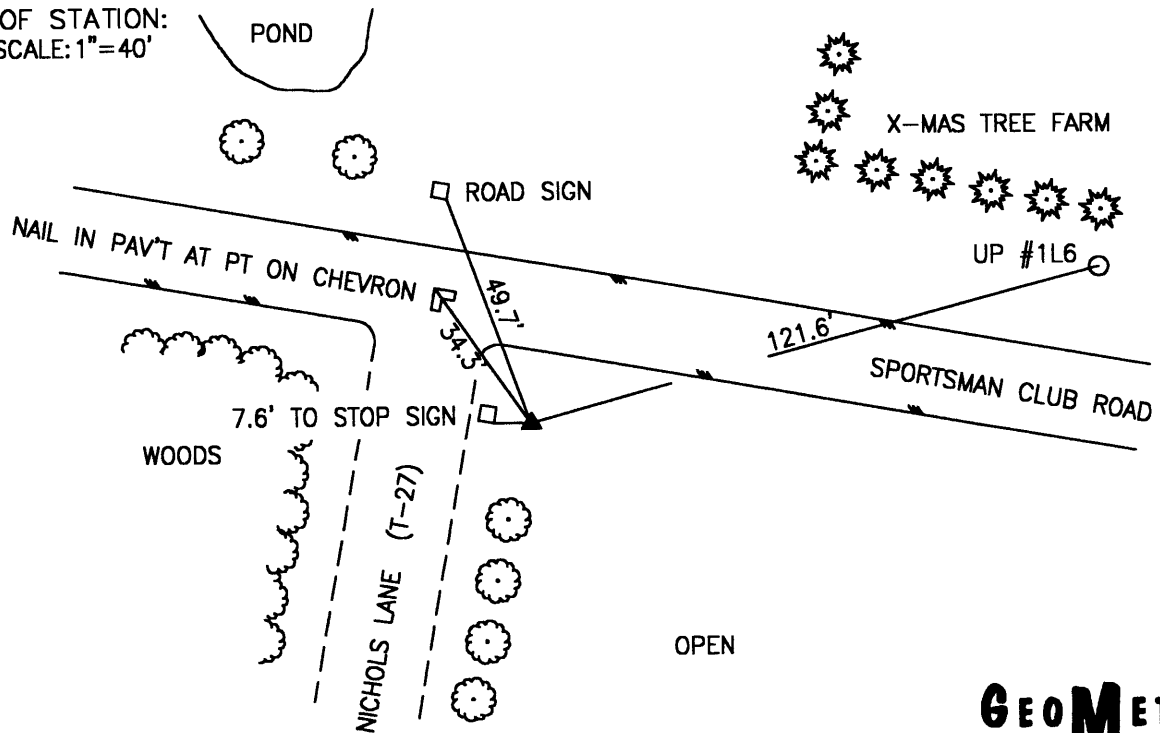
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LIBERTY TWP 4		1998
N: 786191.842	E: 1926299.342	LAT: 40°09'30.23318" N	LONG: 82°39'03.50765" W
ELEV.: 1154.020 (GPS)	COMB. FACTOR: 0.999972047		Ø ANGLE: -0°05'44.86

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0590.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0590

Designation: LIBERTY TWP 4

PID:

Latitude: 400930N  
Longitude: 0823903W  
Elevation: 302.6M  
Stamping: LIBERTY TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.8 MILES (2.9 KM) NORTHEAST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH SPORTSMAN CLUB ROAD (CR 16) . TURN RIGHT AND PROCEED EAST ALONG SPORTSMAN CLUB ROAD (CR 16) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH NICHOLS LANE ROAD (T-27) AND THE STATION ON THE RIGHT IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED LIBERTY TWP 4 1998. THE STATION IS 34.3 FEET (10.5 M) AZIMUTH 325 DEGREES TO A NAIL IN THE PAVEMENT AT THE POINT OF A CHEVRON, 7.6 FEET (2.3 M) AZIMUTH 271 DEGREES TO A STOP SIGN, 49.7 FEET (15.1 M) AZIMUTH 340 DEGREES TO A ROAD SIGN , AND 121.6 FEET (37.1 M) AZIMUTH 75 DEGREES TO A POWER POLE WITH THE NUMBER 1L6.

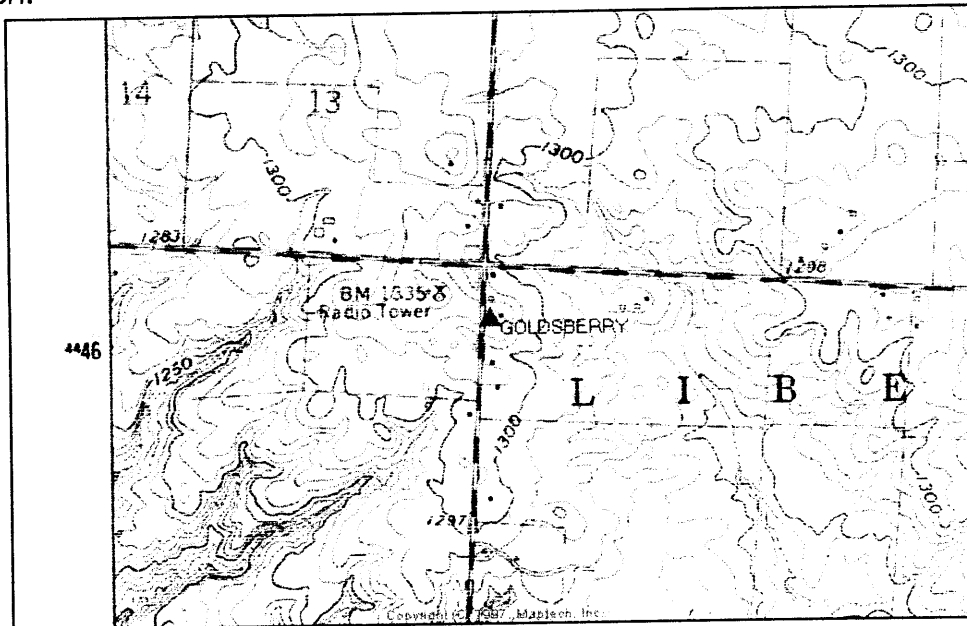
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

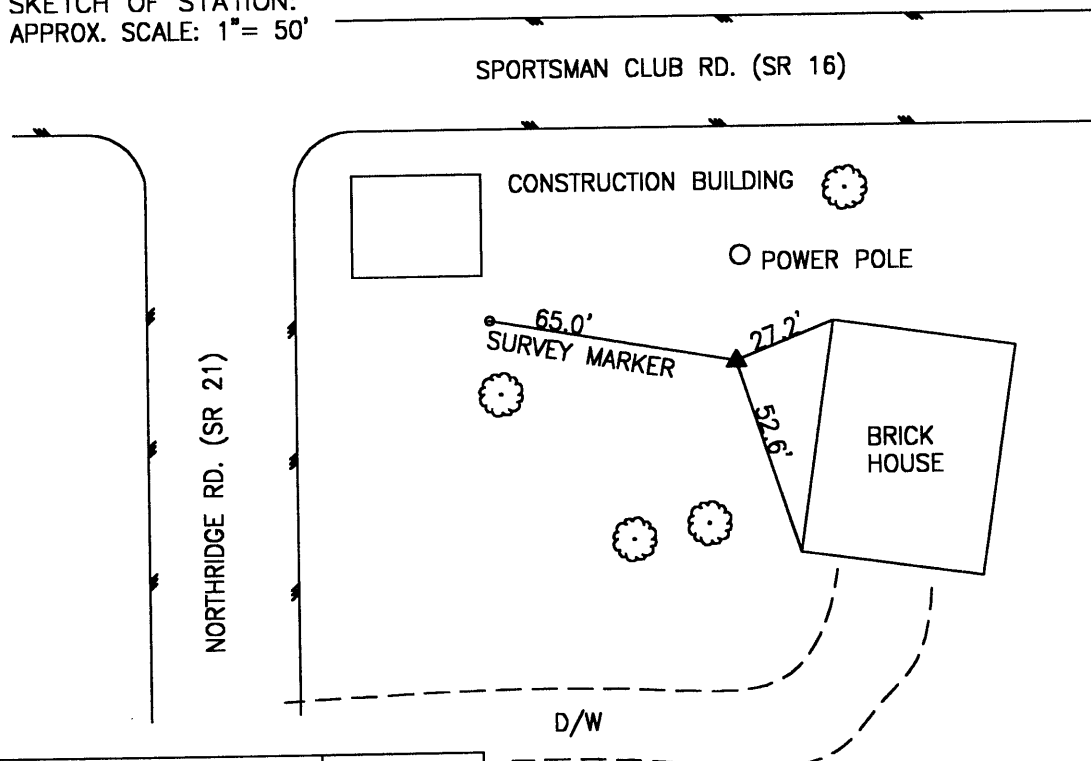
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GOLDSBERRY		1998
N: 785016.681	E: 1937063.398	LAT: 40°09'18.77563" N	LONG: 82°36'44.85732" W
ELEV.: 1328.573 (GPS)	COMB. FACTOR: 0.999962964		Θ ANGLE: -0°04'16.88

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0600.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 0600

Designation: GOLDSBERRY

PID: KZ1890

Latitude: 400918N

Longitude: 0823644W

Elevation: 268.1M

Stamping: GOLDSBERRY 1969

State: OH

County: LICKING

Disk From: USE

Surface Mark-

  Type: Survey disk

Magnetic code: 0

  Setting: SET INTO THE TOP OF A SQUARE CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 03171998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED.

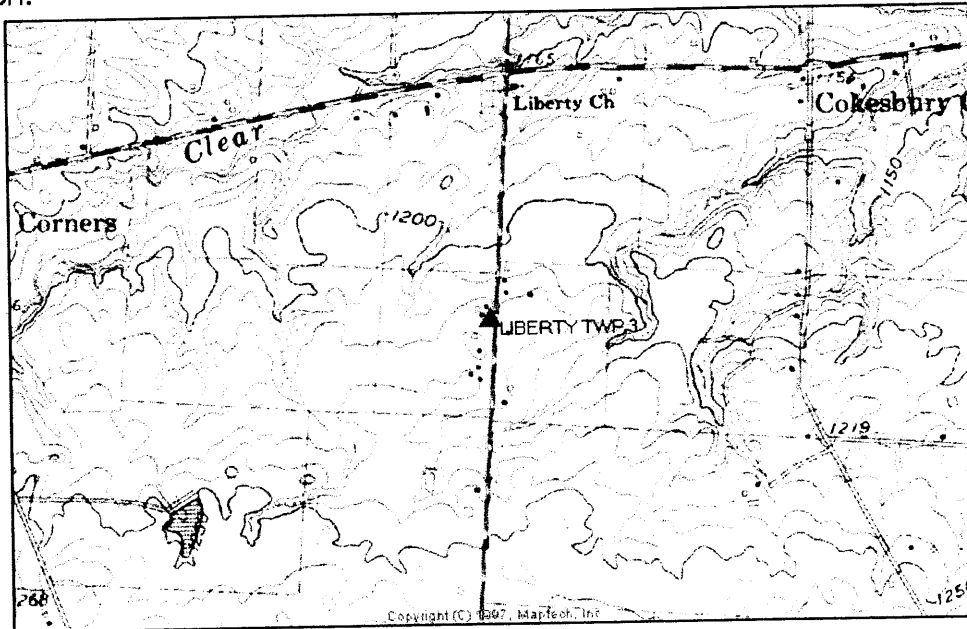
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

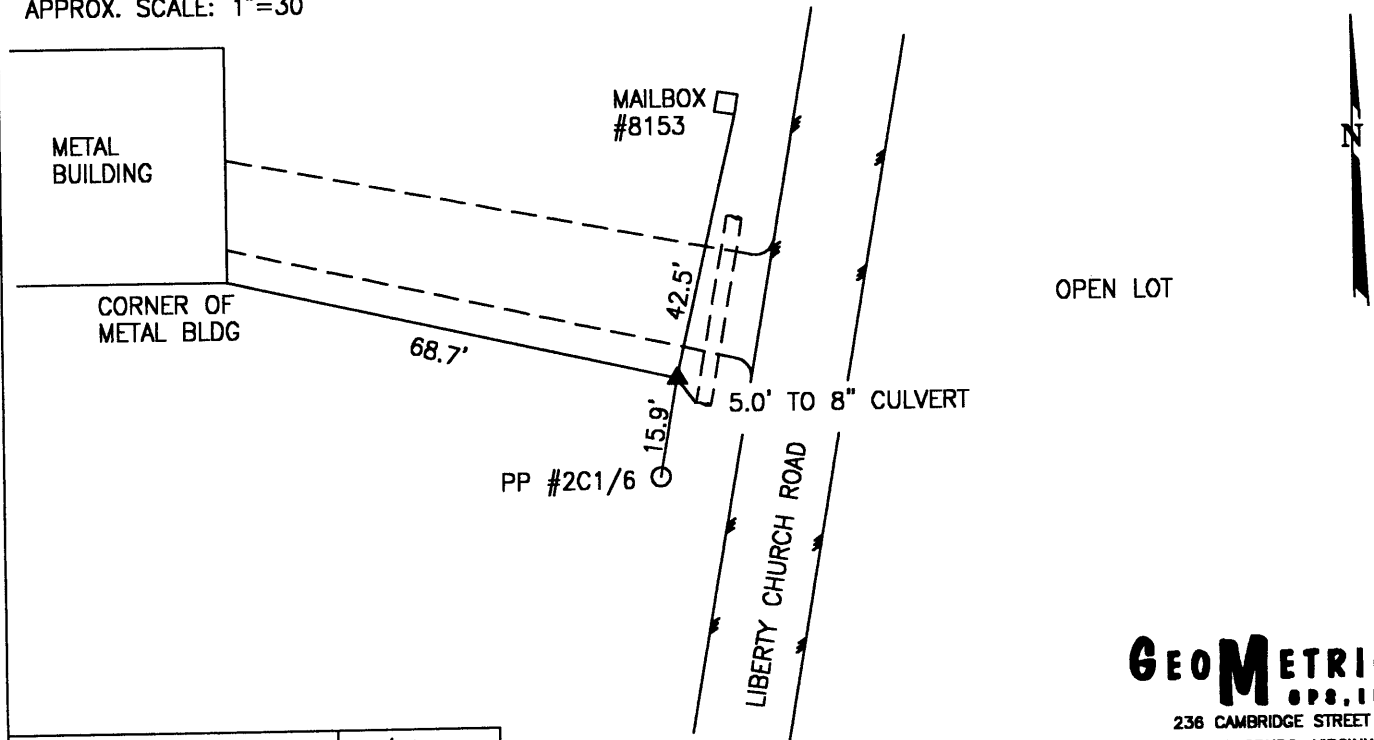
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LIBERTY TWP 3		1998
N: 790815.047	E: 1950802.092	LAT: 40°10'16.20595" N	LONG: 82°33'47.97554" W
ELEV.: 1223.711	(GPS)	COMB. FACTOR: 0.999971761	θ ANGLE: -0°02'24.65

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0610.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0610  
Designation: LIBERTY TWP 3

PID:

Latitude: 401016N  
Longitude: 0823347W  
Elevation: 272.1M  
Stamping: LIBERTY TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.0 MILES (9.7 KM) NORTHEAST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND RACCOON VALLEY ROAD (CR 539) IN THE TOWN OF ALEXANDRIA PROCEED EAST ALONG RACCOON VALLEY ROAD (CR 539) A DISTANCE OF 2.6 MILES (4.2 KM) TO ITS INTERSECTION WITH CR 110. TURN LEFT AND PROCEED NORTH ALONG CR 110 A DISTANCE OF 3.2 MILES (5.1 KM) TO ITS INTERSECTION WITH LOUDON STREET ROAD (CR 10) . TURN LEFT AND PROCEED NORTHWEST ALONG LOUDON STREET ROAD (CR 10) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH SPORTSMAN CLUB ROAD (CR 16) . TURN RIGHT AND PROCEED EAST ALONG SPORTSMAN CLUB ROAD (CR 16) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH LIBERTY CHURCH ROAD (T-160) . TURN LEFT AND PROCEED NORTH ALONG LIBERTY CHURCH ROAD (T-160) A DISTANCE OF 1.3 MILES (2.1 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 40 FEET (12.2 M) SOUTH OF MAIL BOX 8153 ON THE SOUTH SIDE OF A DRIVEWAY LEADING TO A METAL BUILDING. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured in place concrete monument one inch below the ground surface and stamped LIBERTY TWP 3 1998. THE STATION IS 15.9 FEET (4.8 M) AZIMUTH 190 DEGREES TO A POWER POLE WITH THE NUMBER 2C1/6, 5.0 FEET (1.5 M) AZIMUTH 144 DEGREES TO AN EIGHT INCH CULVERT, 42.5 FEET (13.0 M) AZIMUTH 13 DEGREES TO A MAILBOX WITH THE NUMBER 8153, AND 68.7 FEET (20.9 M) AZIMUTH 286 DEGREES TO THE SOUTHEAST CORNER OF A METAL BUILDING. ROAD.

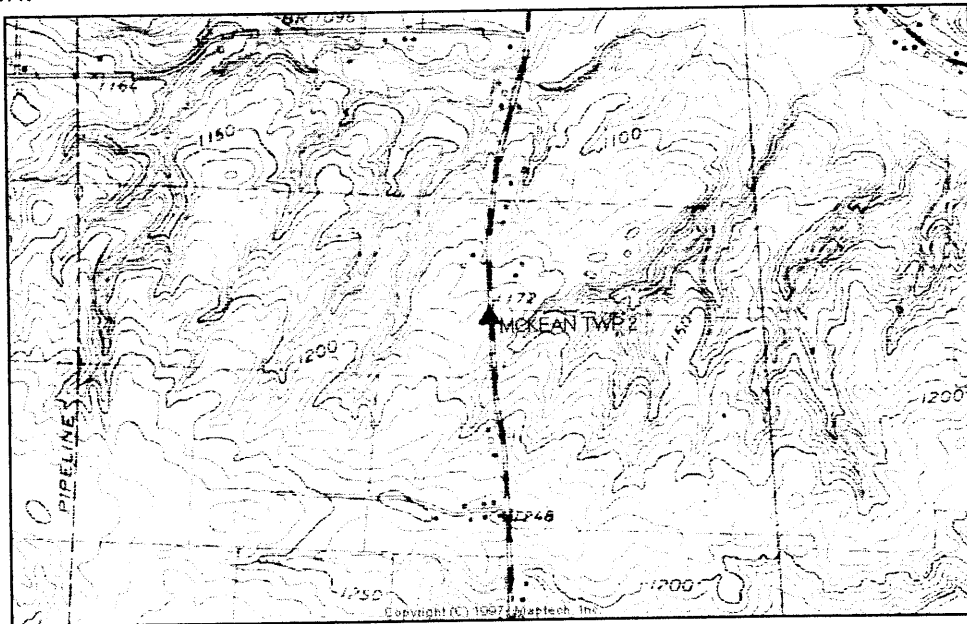
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

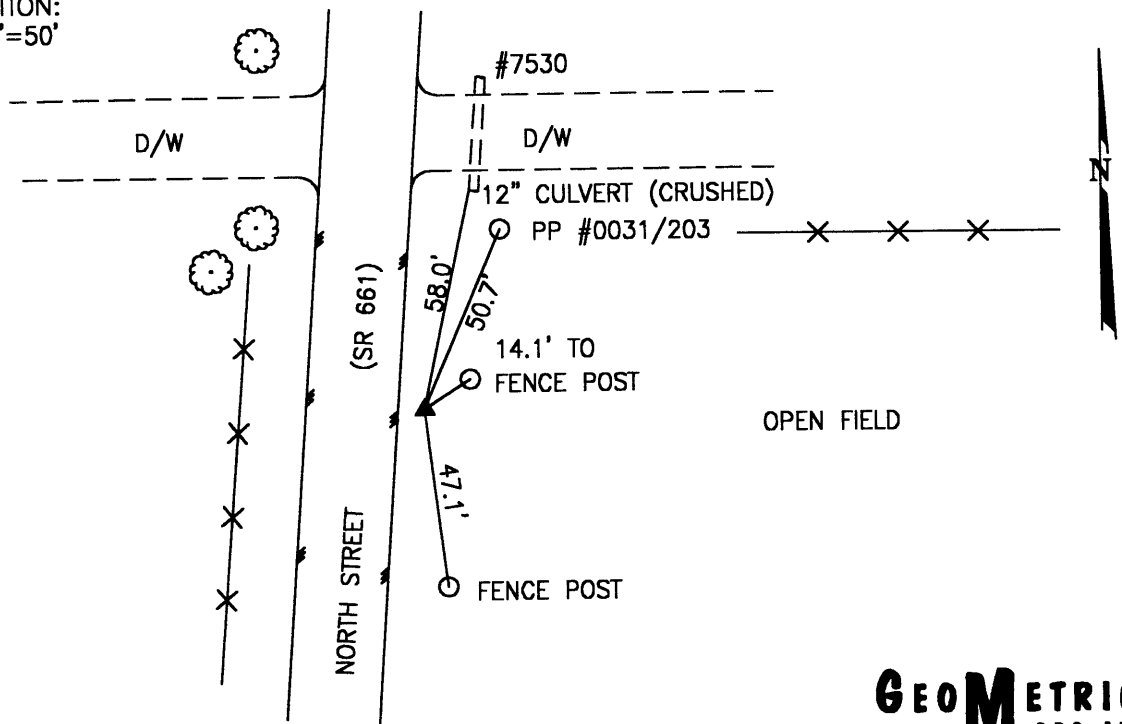
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MCKEAN TWP 2		1998
N: 788033.007	E: 1962785.987	LAT: 40°09'48.76941" N	LONG: 82°31'13.59694" W
ELEV.: 1177.717 (GPS)	COMB. FACTOR: 0.999972136		θ ANGLE: -0°00'46.69

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0620.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0620

Designation: MCKEAN TWP 2

PID:

Latitude: 400948N  
Longitude: 0823113W  
Elevation: 250.8M  
Stamping: MCKEAN TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MCKEAN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.7 MILES (1.1 KM) NORTH OF THE TOWN OF FREDONIA. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND SPORTSMAN CLUB ROAD (CR 16) PROCEED NORTH ALONG NORTH STREET (SR 661) A DISTANCE OF APPROXIMATELY 0.7 MILE (1.1 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE SOUTH SIDE OF A GRAVEL DRIVE ADDRESS POST NUMBER 7530. THE STATION IS A STANDARD 3 1/4 INCH SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MCKEAN TWP 2 1998. THE STATION IS 50.7 FEET (15.5 M) AZIMUTH 23 DEGREES TO A POWER POLE WITH THE NUMBER 0031/203, 14.1 FEET (4.3 M) AZIMUTH 57 DEGREES TO A FENCE POST, 58.0 FEET (17.7 M) AZIMUTH 12 DEGREES TO A 12 INCH CRUSHED CULVERT, AND 47.1 FEET (14.4 M) 173 DEGREES TO A FENCE POST.

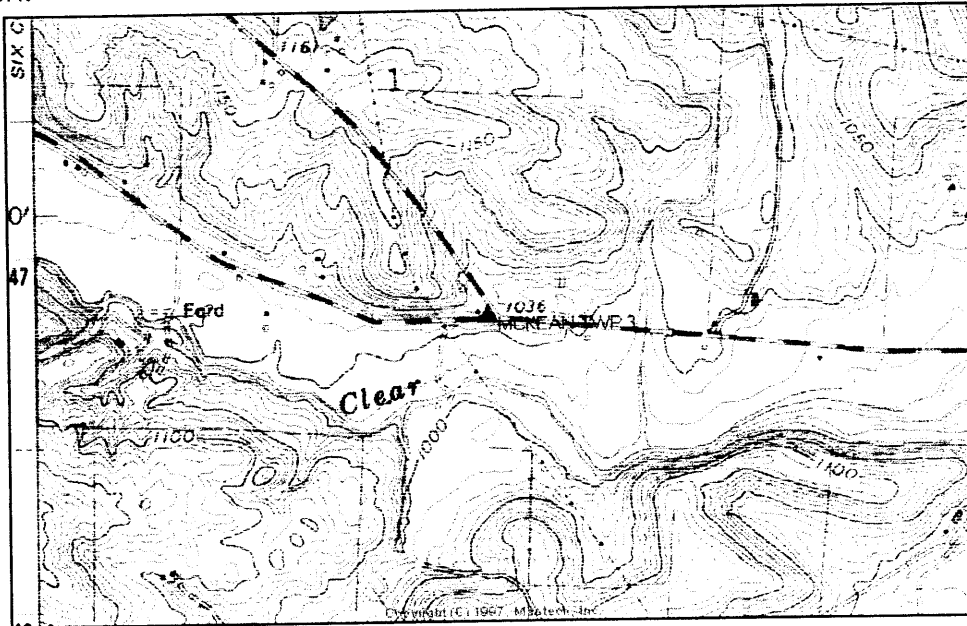
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

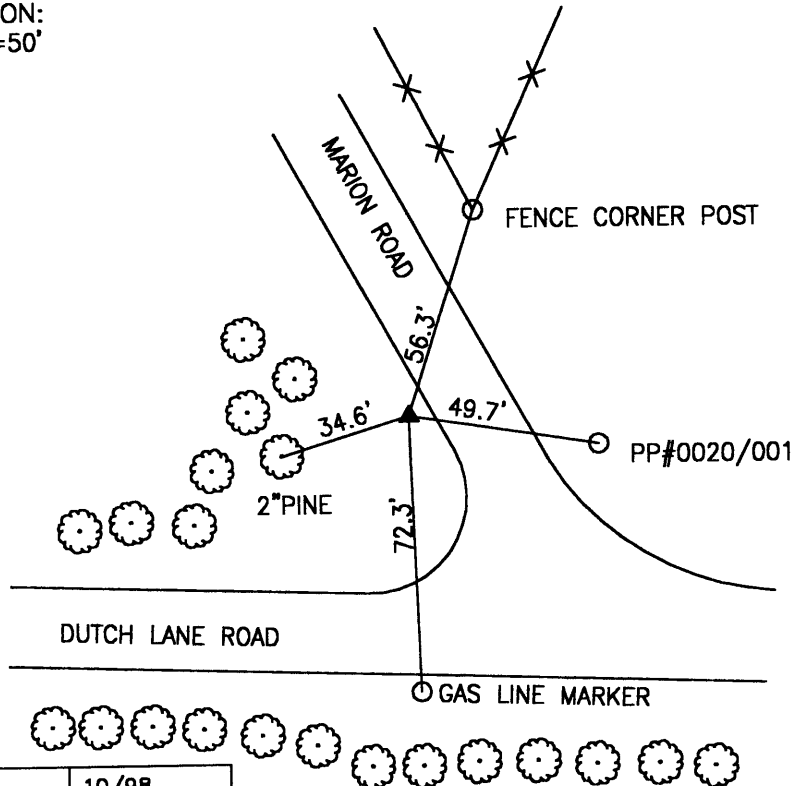
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MCKEAN TWP 3		1998
N: 788230.005	E: 1972697.053	LAT: 40°09'50.71905" N	LONG: 82°29'05.94120" W
ELEV.: 1034.092 (GPS)	COMB. FACTOR: 0.999979121		θ ANGLE: +0°00'34.30

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0630.DWG

**GEOMETRICS**  
OPS. INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0630

Designation: MCKEAN TWP 3

PID:

Latitude: 400950N  
Longitude: 0822905W  
Elevation: 338.5M  
Stamping: MCKEAN TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MCKEAN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHEAST OF THE TOWN OF FREDONIA. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND SPORTSMAN CLUB ROAD (CR 16) IN FREDONIA PROCEED NORTH ALONG NORTH STREET (SR 661) A DISTANCE OF APPROXIMATELY 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH DUTCH-LANE ROAD (CR 15) . TURN RIGHT AND PROCEED EAST ALONG DUTCH-LANE ROAD (CR 15) A DISTANCE OF 2.1 MILES (3.4 KM) TO ITS INTERSECTION WITH MARION ROAD (SR 657) AND THE STATION ON THE LEFT. THE STATION IS IN THE SPACE BETWEEN MARION ROAD (SR 657) AND DUTCH-LANE ROAD (CR 15) WHERE THE TWO ROADS COME TOGETHER IN A V. THE STATION IS A STANDARD 3 1/4 INCH SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MCKEAN TWP 3 1998. THE STATION IS 49.7 FEET (15.1 M) AZIMUTH 99 DEGREES TO A POWER POLE WITH THE NUMBER 0020/001, 56.3 FEET (17.2 M) AZIMUTH 18 DEGREES TO A CORNER FENCE POST, 34.6 FEET (10.5 M) AZIMUTH 253 DEGREES TO A TWO INCH WHITE PINE TREE, AND 72.3 FEET (22.0 M) AZIMUTH 178 DEGREES TO A GAS LINE MARKER.

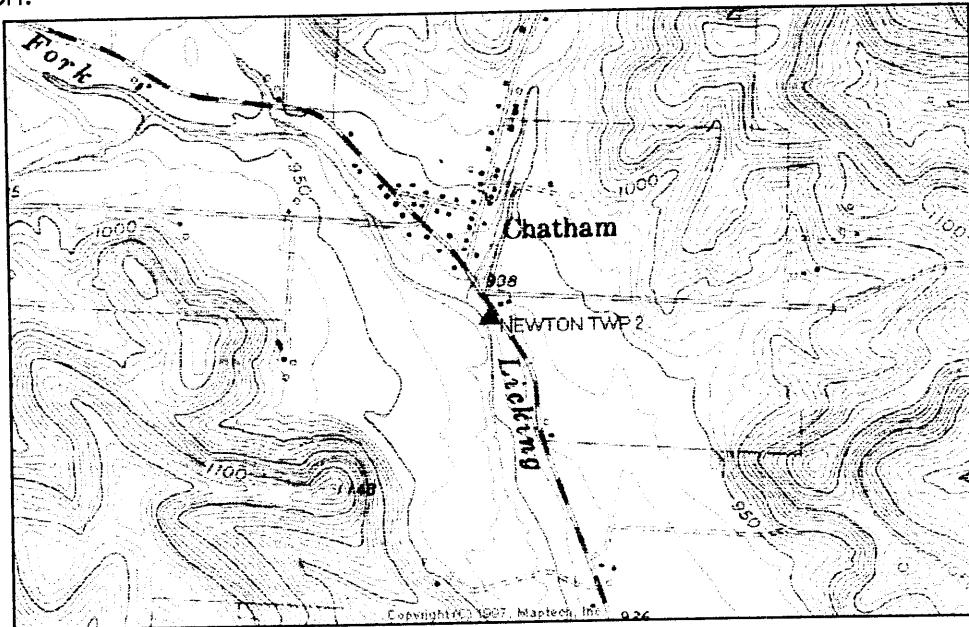
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

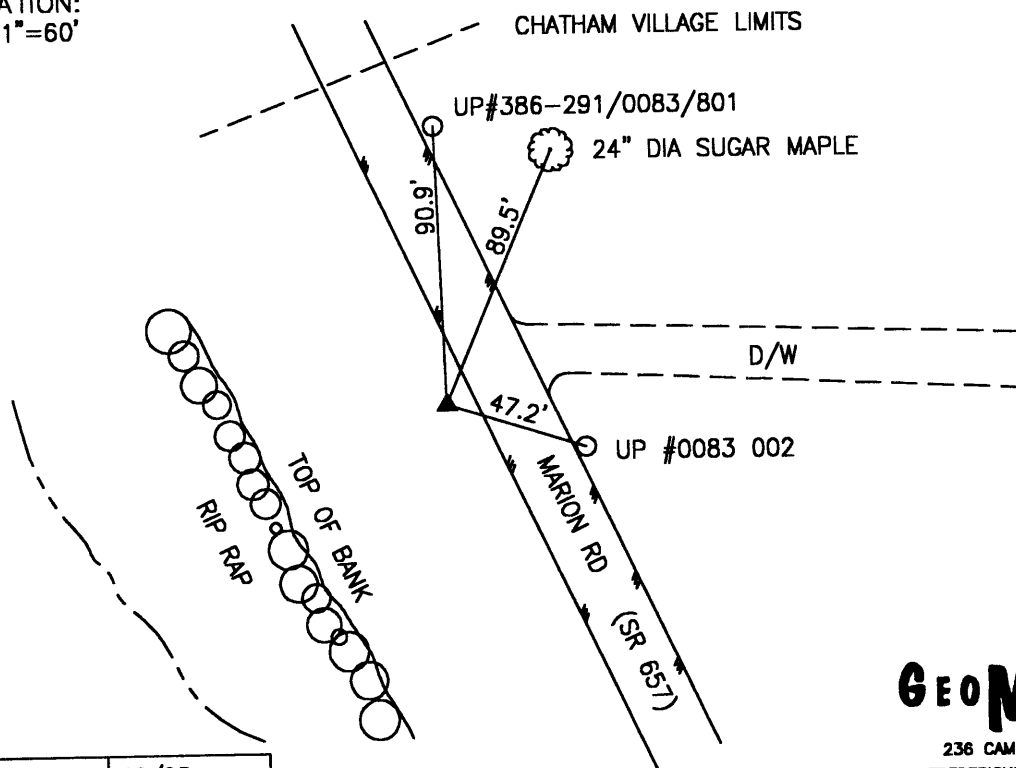
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	NEWTON TWP 2		1998
N: 784954.522	E: 1981610.933	LAT: 40°09'18.32119" N	LONG: 82°27'11.15076" W
ELEV.: 933.269 (GPS)	COMB. FACTOR: 0.999981806		θ ANGLE: +0°01'47.13

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=60'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0640.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0640

Designation: NEWTON TWP 2

PID:

Latitude: 400918N  
Longitude: 0822711W  
Elevation: 323.5M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: NEWTON TWP 2 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

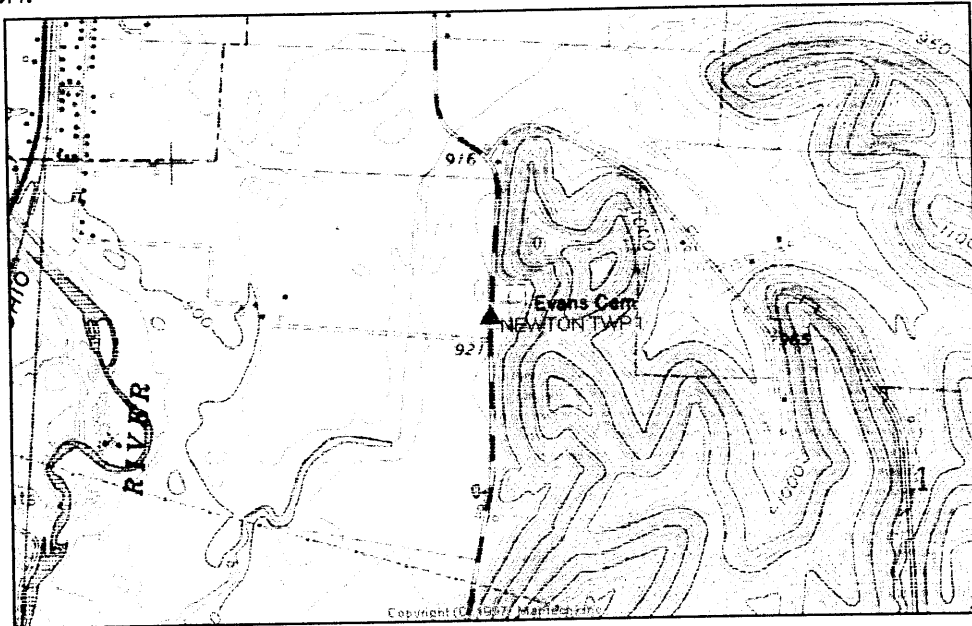
-----  
THE STATION IS LOCATED IN NEWTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHWEST OF THE TOWN OF VANATTA. TO REACH THE STATION FROM THE INTERSECTION OF MOUNT VERNON ROAD (SR 13) AND MARION ROAD (SR 657) PROCEED NORTHWEST ALONG MARION ROAD (SR 657) A DISTANCE OF 3.0 MILES (4.8 KM) TO THE STATION ON THE LEFT. THE STATION IS 0.1 MILE (0.2 KM) SOUTHEAST OF THE CHATHAM VILLAGE LIMITS SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWTON TWP 2 1998. THE STATION IS 90.9 FEET (27.7 M) AZIMUTH 358 DEGREES TO A UTILITY POLE WITH THE NUMBER 386-291/0083/801, 89.5 FEET (27.3 M) AZIMUTH 23 DEGREES TO A 24 INCH IN DIAMETER SUGAR MAPLE TREE, AND 47.2 FEET (14.4 M) AZIMUTH 108 DEGREES TO A UTILITY POLE WITH THE NUMBER 0083-002.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

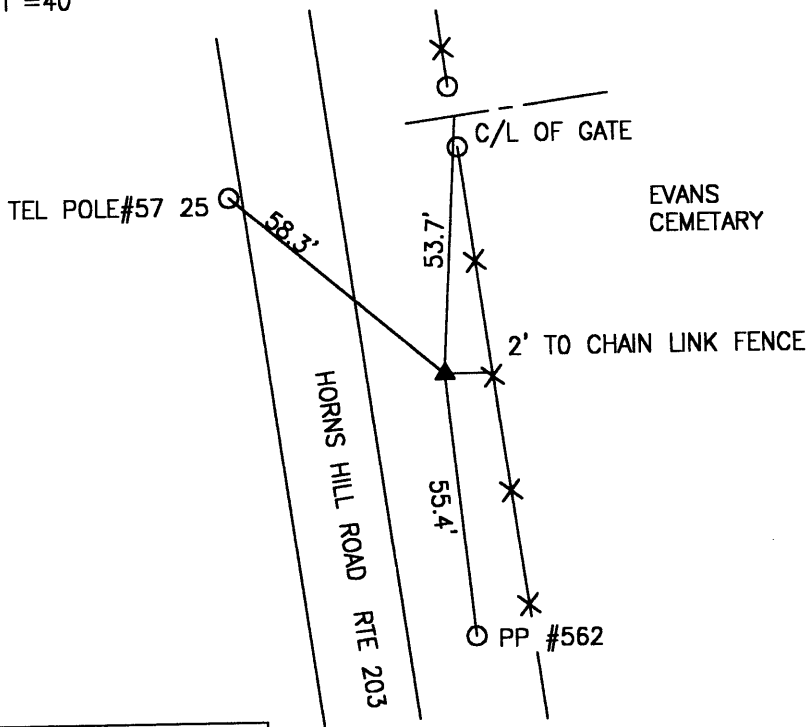
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	NEWTON TWP 1		1998
N: 787773.220	E: 1994759.274	LAT: 40°09'46.07366" N	LONG: 82°24'21.78208" W
ELEV.: 919.873	(GPS)	COMB. FACTOR: 0.999984267	Θ ANGLE: +0°03'34.60

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0650.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0650

Designation: NEWTON TWP 1

PID:

Latitude: 400946N  
Longitude: 0822421W  
Elevation: 252.0M  
Stamping: NEWTON TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

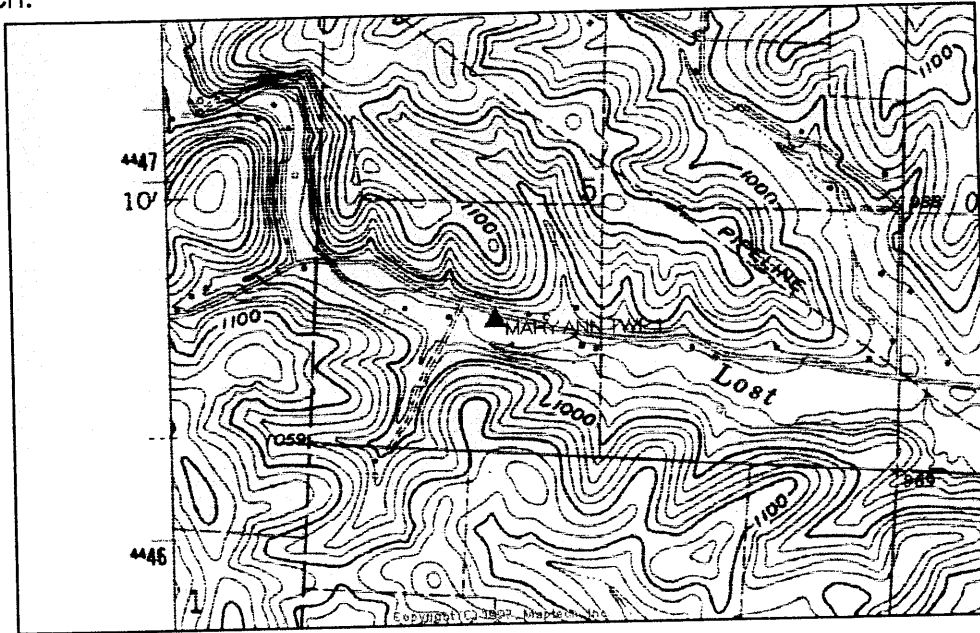
-----  
THE STATION IS LOCATED IN NEWTON TOWNSHIP IN LICKING COUNTY, OHIO AT EVANS CEMETERY. TO REACH THE STATION FROM THE INTERSECTION OF MOUNT VERNON ROAD (SR 13) AND MORELAND ROAD IN THE TOWN OF ST LOUISVILLE PROCEED EAST ALONG MORELAND ROAD A DISTANCE OF 0.65 MILE (1.05 KM) TO ITS INTERSECTION WITH HORNS HILL ROAD (CR 203) . TURN RIGHT AND PROCEED SOUTH ALONG HORNS HILL ROAD (CR 203) A DISTANCE OF 0.7 MILE (1.1 KM) TO EVANS CEMETERY AND THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWTON TWP 1 1998. THE STATION IS 53.7 FEET (16.4 M) AZIMUTH 3 DEGREES TO A CENTER LINE OF THE GATE ENTRANCE TO EVANS CEMETARY, 2.0 FEET (0.6 M) AZIMUTH 90 DEGREES TO A FENCE, 55.4 FEET (16.9 M) AZIMUTH 174 DEGREES TO POWER POLE WITH THE NUMBER 562, AND 58.3 FEET (17.8 M) AZIMUTH 310 DEGREES TO A POWER POLE WITH THE NUMBER 57 25.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

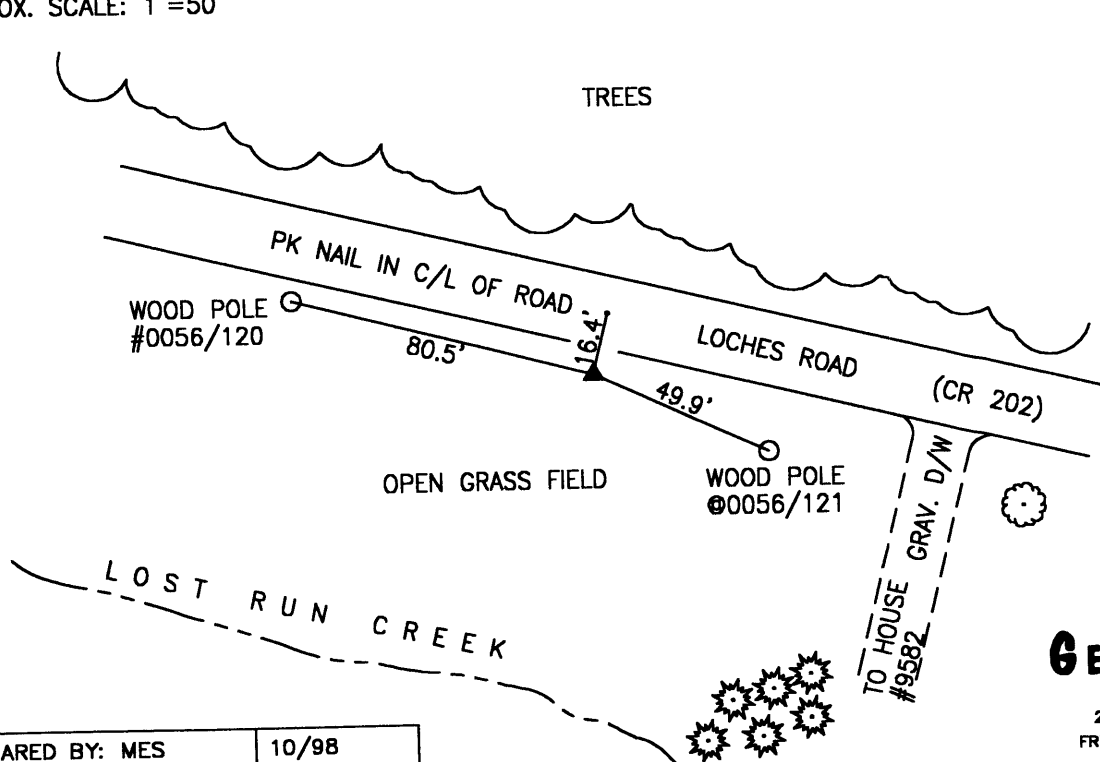
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MARY ANN TWP 1		1998
N: 788067.297	E: 2006468.031	LAT: 40°09'48.83244" N	LONG: 82°21'50.96847" W
ELEV.: 946.888 (GPS)	COMB. FACTOR: 0.999983160		θ ANGLE: +0°05'10.30

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0660.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0660

Designation: MARY ANN TWP 1

PID:

Latitude: 400948N

Longitude: 082215W

Elevation: 293.8M

Stamping: MARY ANN TWP 1 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

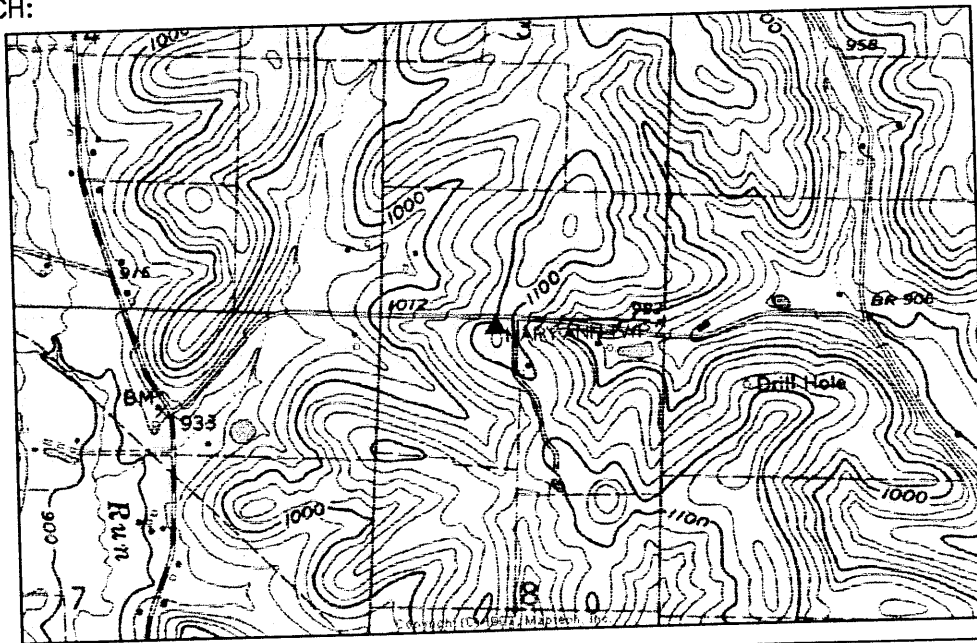
-----  
THE STATION IS LOCATED IN MARY ANN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.7 MILES (4.3 KM) NORTHWEST OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 2.1 MILES (3.4 KM) TO ITS INTERSECTION WITH LOCHES ROAD (CR 202) . TURN LEFT AND PROCEED WEST ALONG LOCHES ROAD (CR 202) A DISTANCE OF 1.6 MILES (2.6 KM) TO THE STATION ON THE LEFT JUST PAST HOUSE NUMBER 9582. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED MARY ANN TWP 1 1998. THE STATION IS 80.5 FEET (24.5 M) AZIMUTH 285 DEGREES TO A WOOD POLE WITH THE NUMBER 0056/120, 49.9 FEET (15.2 M) AZIMUTH 115 DEGREES TO A WOOD POLE WITH THE NUMBER 0056/121, AND 16.4 FEET (5.0 M) AZIMUTH 25 DEGREES TO A PK NAIL IN THE CENTERLINE OF LOCHES ROAD.  
-----

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

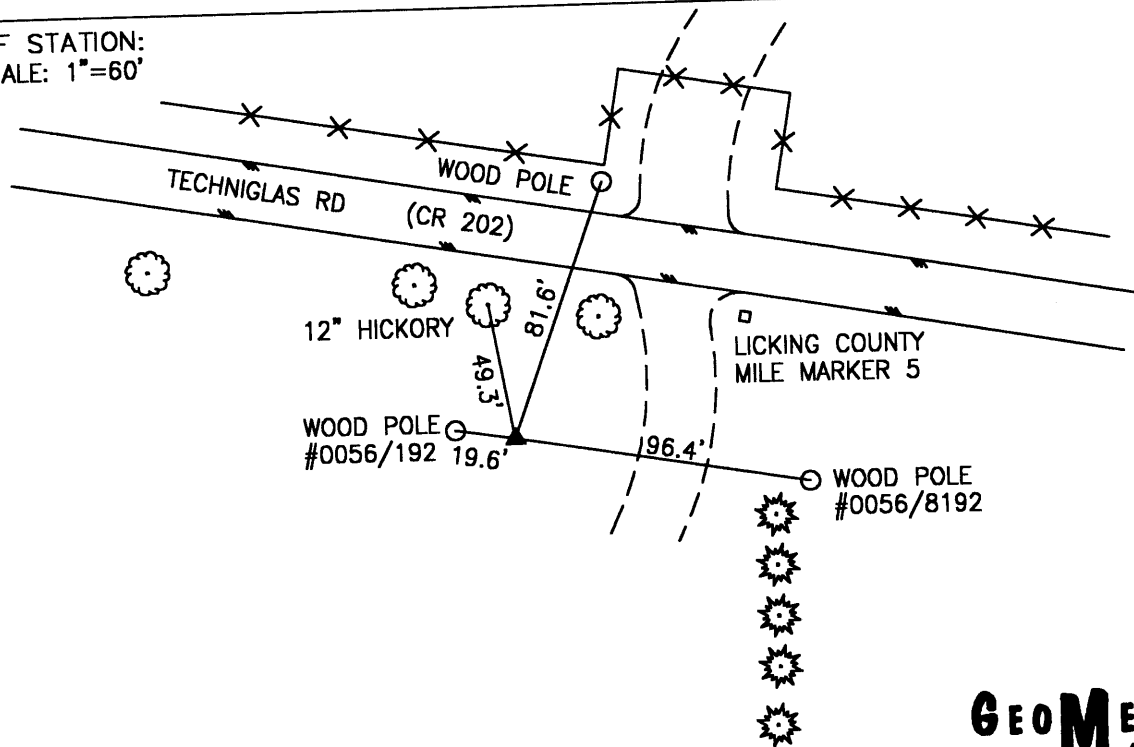
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	MARY ANN TWP 2	1998
N: 786191.970	E: 2016337.318	LAT: 40°09'30.13509" N
ELEV.: 1111.297 (GPS)		COMB. FACTOR: 0.999974080
		LONG: 82°19'43.89726" W
		θ ANGLE: +0°06'30.92

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=60'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0670.DWG

**GEOMETRICS**  
OPS, INC.  
238 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0670

Designation: MARY ANN TWP 2

PID:

Latitude: 400930N

Longitude: 0821943W

Elevation: 274.7M

Stamping: MARY ANN TWP 2 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MARY ANN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES NORTH OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH TECHNIGLAS ROAD (CR 202) . TURN RIGHT AND PROCEED EAST ALONG TECHNIGLAS ROAD (CR 202) A DISTANCE OF 0.6 MILES (1.0 KM) TO THE STATION ON THE RIGHT JUST BEFORE THE LICKING COUNTY MILE MARKER 5. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MARY ANN TWP 2 1998. THE STATION IS 19.6 FEET (6.0 M) AZIMUTH 279 DEGREES TO A WOOD POLE WITH THE NUMBER 0056/192, 49.3 FEET (15.0 M) AZIMUTH 350 DEGREES TO A 12 INCH HICKORY TREE, 81.6 FEET (24.9 M) AZIMUTH 20 DEGREES TO A WOOD POLE WITH NO NUMBER, AND 96.4 FEET (29.4 M) AZIMUTH 100 DEGREES TO A POWER POLE WITH THE NUMBER 0056/8192.

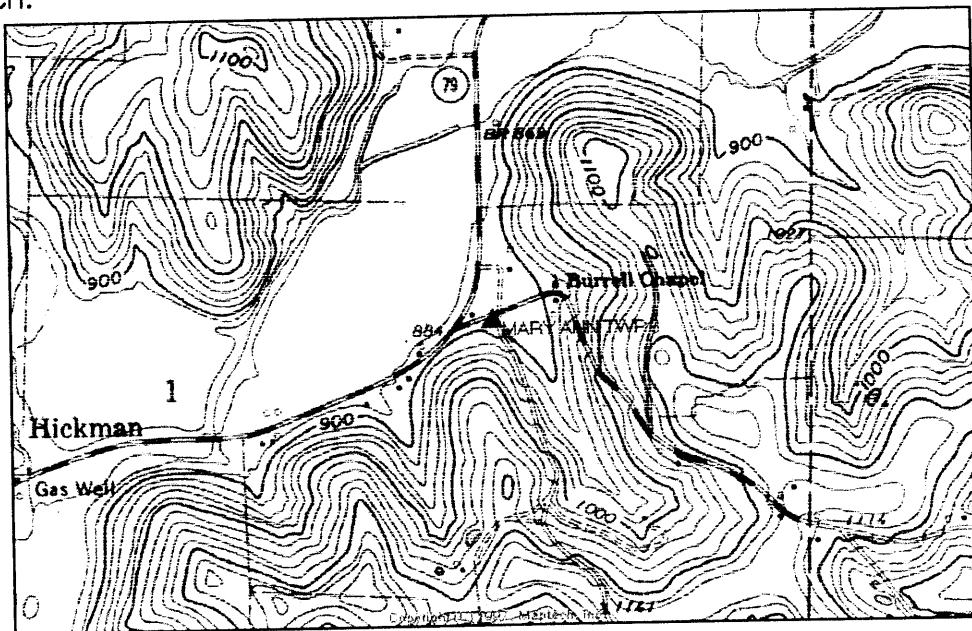
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

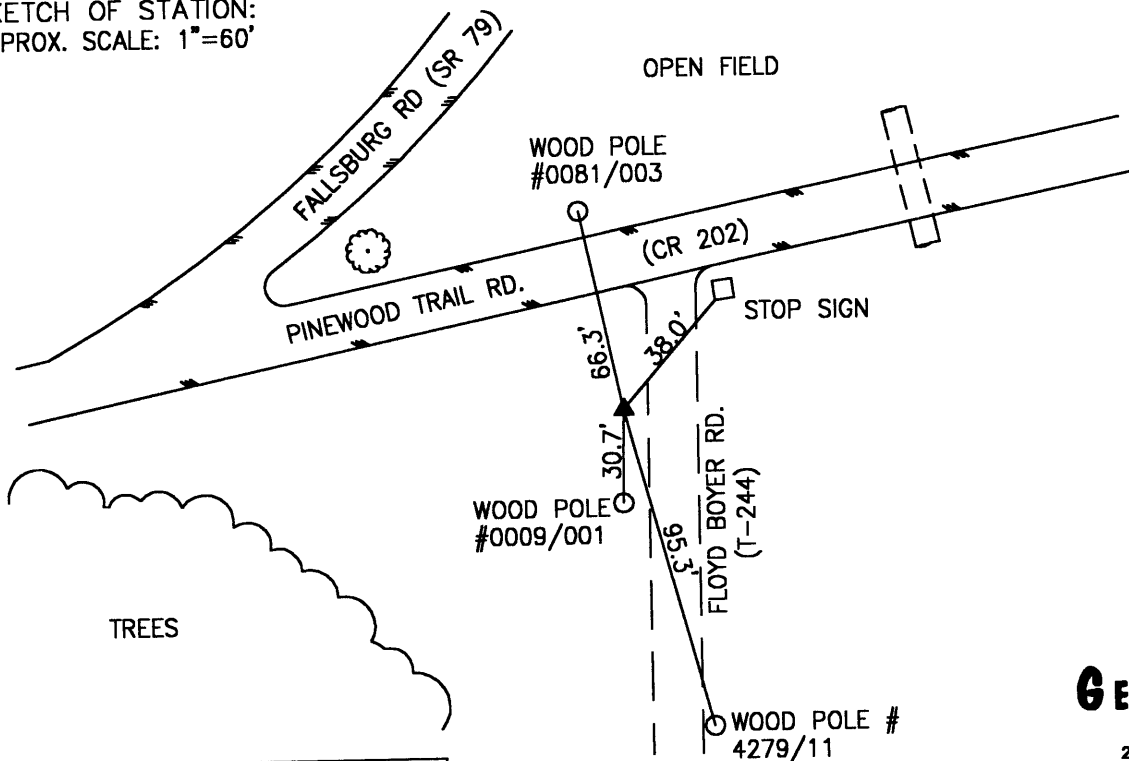
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	MARY ANN TWP 3	1998
N: 784652.418	E: 2026507.982	LAT: 40°09'14.71084" N
ELEV.: 887.981 (GPS)		COMB. FACTOR: 0.999983732
		LONG: 82°17'32.95400" W
		θ ANGLE: +0°07'54.01

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=60'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE:0680.DWG

**GEO METRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0680  
Designation: MARY ANN TWP 3

PID:

Latitude: 400914N  
Longitude: 0821732W  
Elevation: 243.1M  
Stamping: MARY ANN TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MARY ANN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES NORTHEAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF APPROXIMATELY 3.5 MILES (5.6 KM) TO ITS INTERSECTION WITH PINWOOD TRAIL ROAD (CR 202) . TURN RIGHT AND PROCEED EAST ALONG PINWOOD TRAIL ROAD (CR 202) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITYH FLOYD-BOYER ROAD (T-244) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED MARY ANN TWP 3 1998. THE STATION IS 66.3 FEET (20.2 M) AZIMUTH 348 DEGREES TO A WOOD POLE WITH THE NUMBER 0081/003, 95.3 FEET (29.0 M) AZIMUTH 165 DEGREES TO A WOOD POLE WITH THE NUMBER 4279/11, 30.7 FEET (9.4 M) AZIMUTH 181 DEGREES TO A WOOD POLE WITH THE NUMBER 0009/001, AND 38.0 FEET (11.6 M) AZIMUTH 41 DEGREES TO A STOP SIGN.

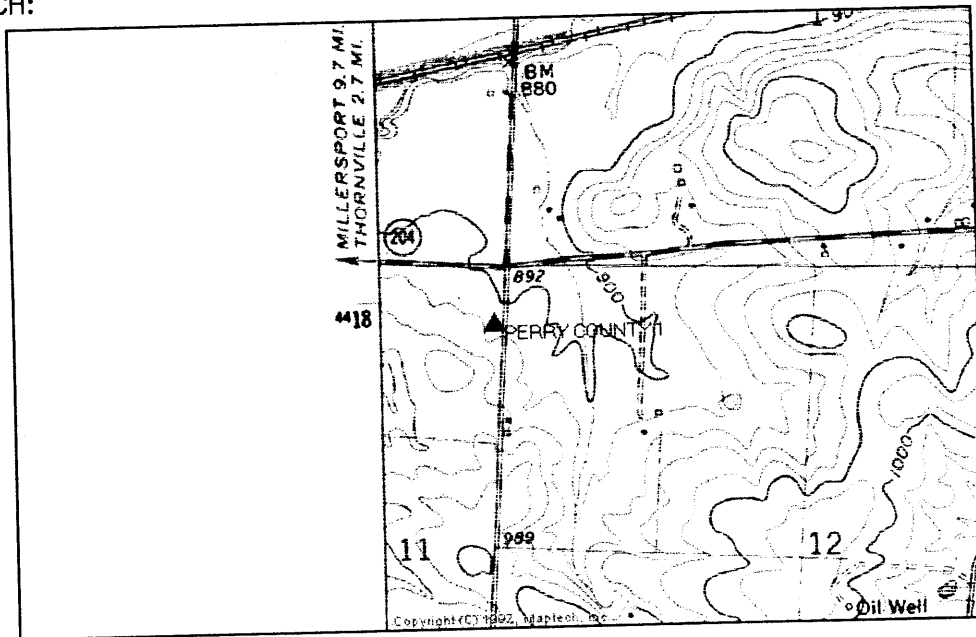
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

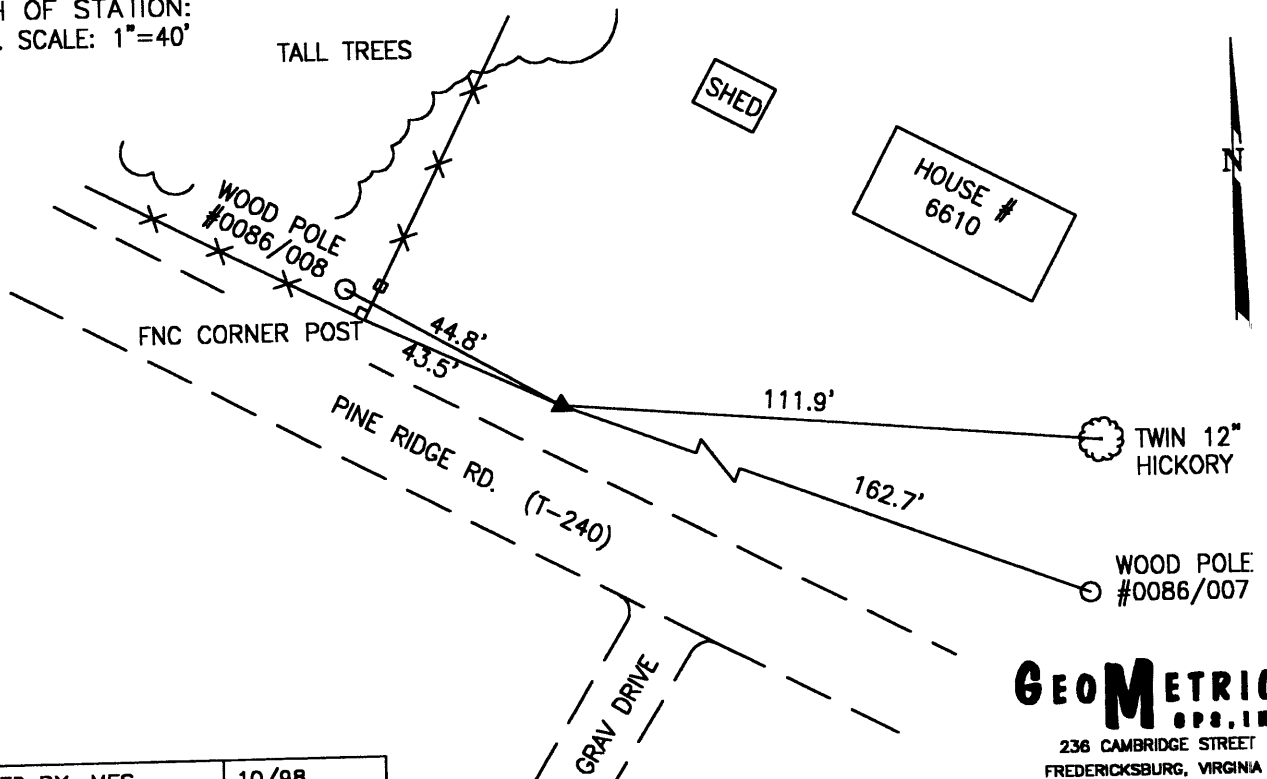
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	PERRY TWP 1	1998
N: 783712.713	E: 2035817.257	LAT: 40°09'05.19650" N
ELEV.: 902.547 (GPS)		COMB. FACTOR: 0.999982417
		LONG: 82°15'33.09888" W
		θ ANGLE: +0°09'10.06

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0690.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0690

Designation: PERRY TWP 1

PID:

Latitude: 400905N  
Longitude: 0821533W  
Elevation: 310.8M  
Stamping: PERRY TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

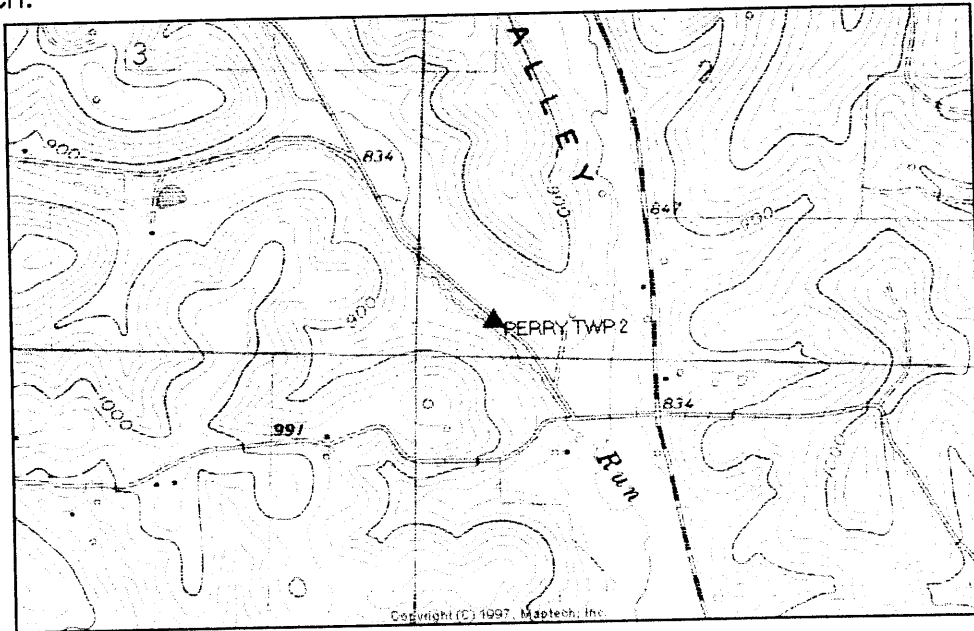
-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTHEAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 3.5 MILES (5.6 KM) TO ITS INTERSECTION WITH PINWOOD TRAIL ROAD (CR 202) . TURN RIGHT AND PROCEED SOUTHEAST ALONG PINWOOD TRAIL ROAD (CR 202) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH REFORM ROAD (CR 232) . TURN LEFT AND PROCEED NORTH ALONG REFORM ROAD (CR 232) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH PINE RIDGE ROAD (T-240) . TURN LEFT AND PROCEED WEST ALONG PINE RIDGE ROAD (T-240) A DISTANCE OF 0.3 MILE (0.5 KM) TO THE STATION ON THE RIGHT NEAR HOUSE NUMBER 6610. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY TWP 1 1998. THE STATION IS 44.9 FEET (13.7 M) AZIMUTH 295 TO A WOOD POLE WITH THE NUMBER 0086/008, 111.9 FEET (34.1 M) AZIMUTH 95 DEGREES TO A TWIN 12 INCH HICKORY TREE, 162.7 FEET (49.6 M) AZIMUTH 111 DEGREES TO A WOOD POLE WITH A NUMBER 0086/007, AND 43.5 FEET (13.3 M) AZIMUTH 300 DEGREES TO A FENCE CORNER POST.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

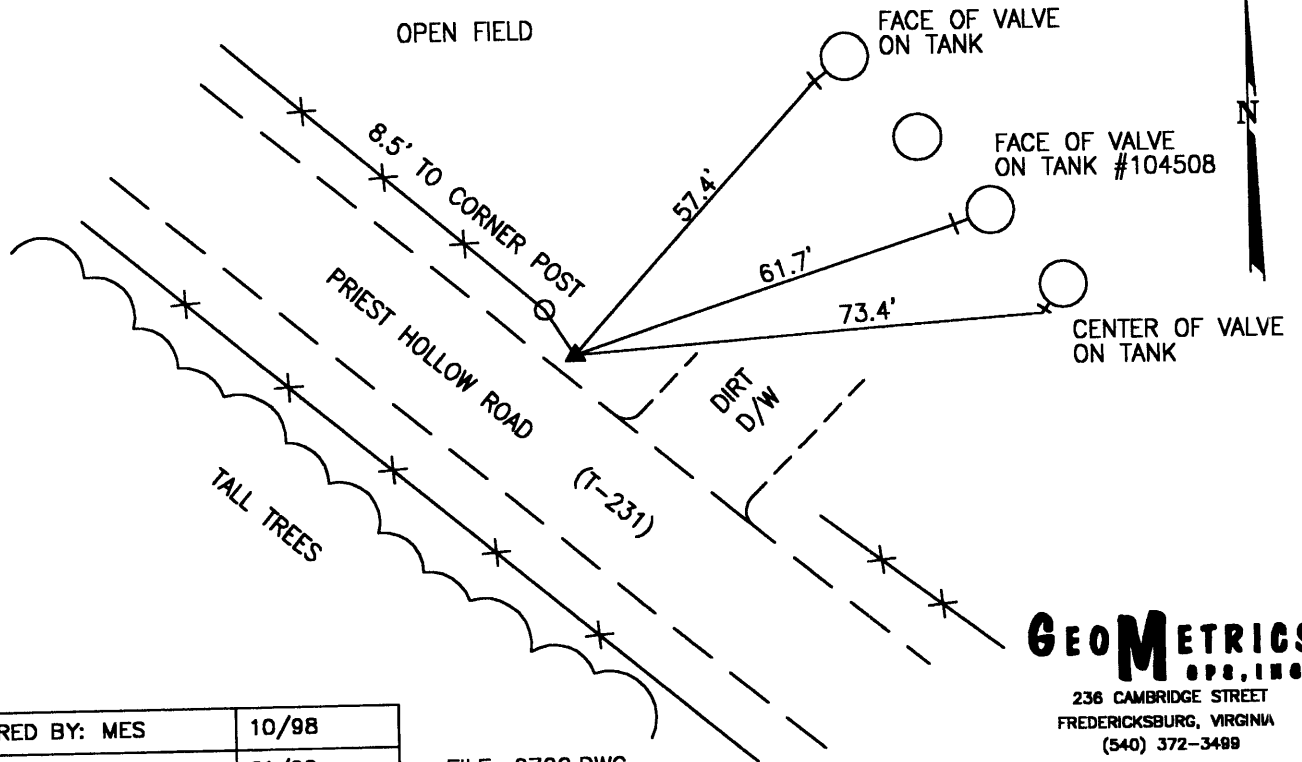
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY		NAME OF STATION		YEAR
LICKING		PERRY TWP 2		1998
N: 785206.986	E: 2045850.765	LAT: 40°09'19.67846" N	LONG: 82°13'23.83071" W	
ELEV.: 819.142	(GPS)	COMB. FACTOR: 0.999987343	θ ANGLE: +0°10'32.08	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0700.DWG

**GEO METRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0700

Designation: PERRY TWP 2

PID:

Latitude: 400919N  
Longitude: 0821323W  
Elevation: 325.5M  
Stamping: PERRY TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) NORTHEAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 202) IN WILKINS CORNER PROCEED EAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 3.7 MILES (6.0 KM) TO ITS INTERSECTION WITH PINWOOD TRAIL ROAD (CR 202) . TURN RIGHT AND PROCEED EAST ALONG PINWOOD TRAIL ROAD (CR 202) A DISTANCE OF 4.2 MILES (6.8 KM) TO ITS INTERSECTION WITH PRIEST HOLLOW ROAD (T-231) . TURN LEFT AND PROCEED NORTHWEST ALONG PRIEST HOLLOW ROAD (T-231) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED PERRY TWP 2 1998. THE STATION IS 8.5 FEET (2.6 M) AZIMUTH 327 DEGREES TO A FENCE POST, 57.4 FEET (17.5 M) AZIMUTH 42 DEGREES TO THE FACE OF VALVE ON THE LEFT TANK, 61.7 FEET (18.8 M) AZIMUTH 72 DEGREES TO THE FACE OF VALVE ON THE TANK WITH THE NUMBER 104508, AND 73.4 FEET (22.4 M) AZIMUTH 86 DEGREES TO THE CENTER OF THE VALVE OF THE RIGHT TANK.

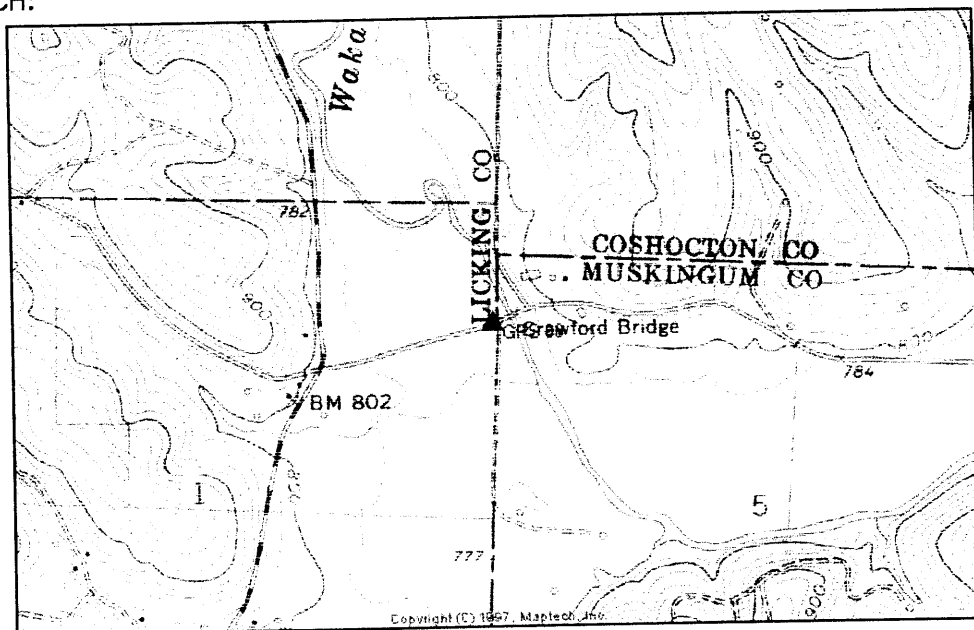
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

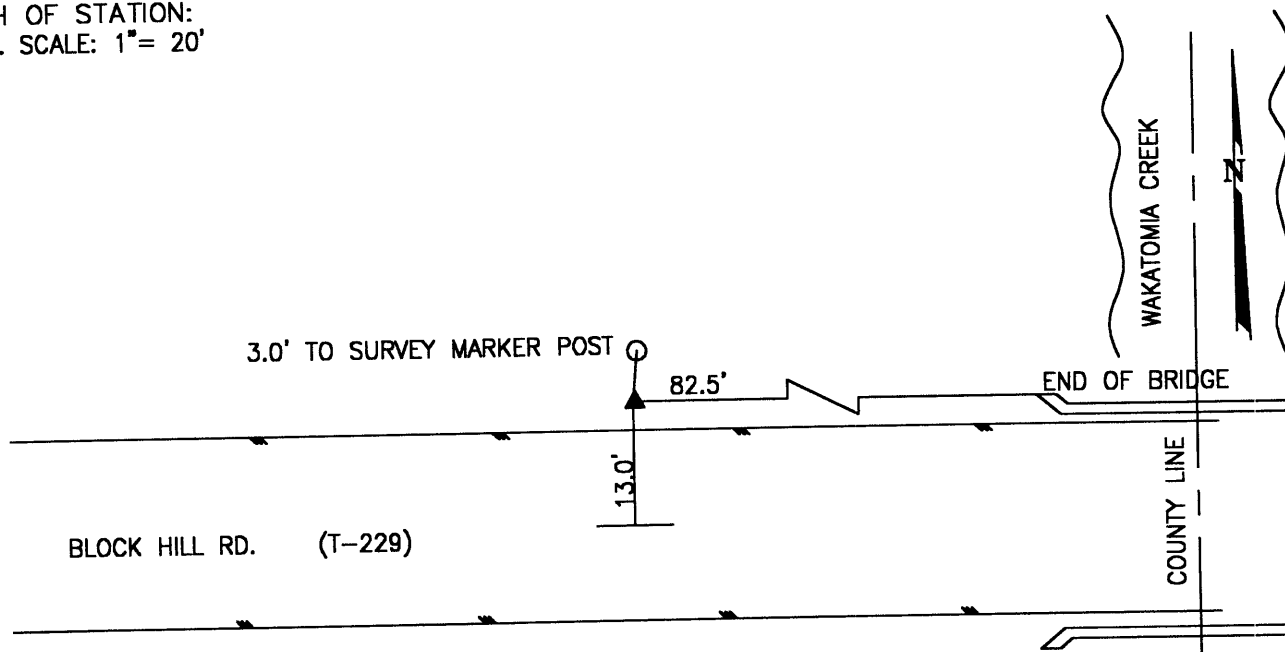
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GPS 90		1998
N: 788702.400	E: 2055935.059	LAT: 40°09'53.89393" N	LONG: 82°11'13.80419" W
ELEV.: 781.701 (GPS)	COMB. FACTOR: 0.999991380		θ ANGLE: +0°11'54.59

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 20'



**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 0710.DWG

-----  
\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 0710  
Designation: GPS 90

PID: AA5322

Latitude: 400953N  
Longitude: 0821113W  
Elevation: 317.2M  
Stamping: GPS 90

State: OH  
County: LICKING  
Disk From: OH-119

Surface Mark-  
Type: Survey disk  
Magnetic code: 0

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 03211998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED WITH THE EXCEPTION THAT THE MONUMENT IS IN LICKING  
COUNTY.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

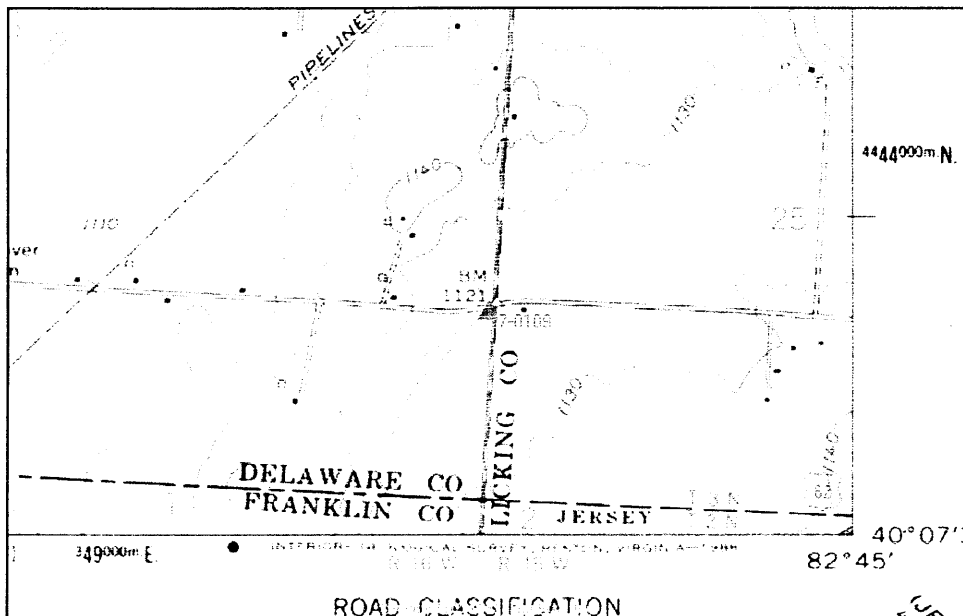
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

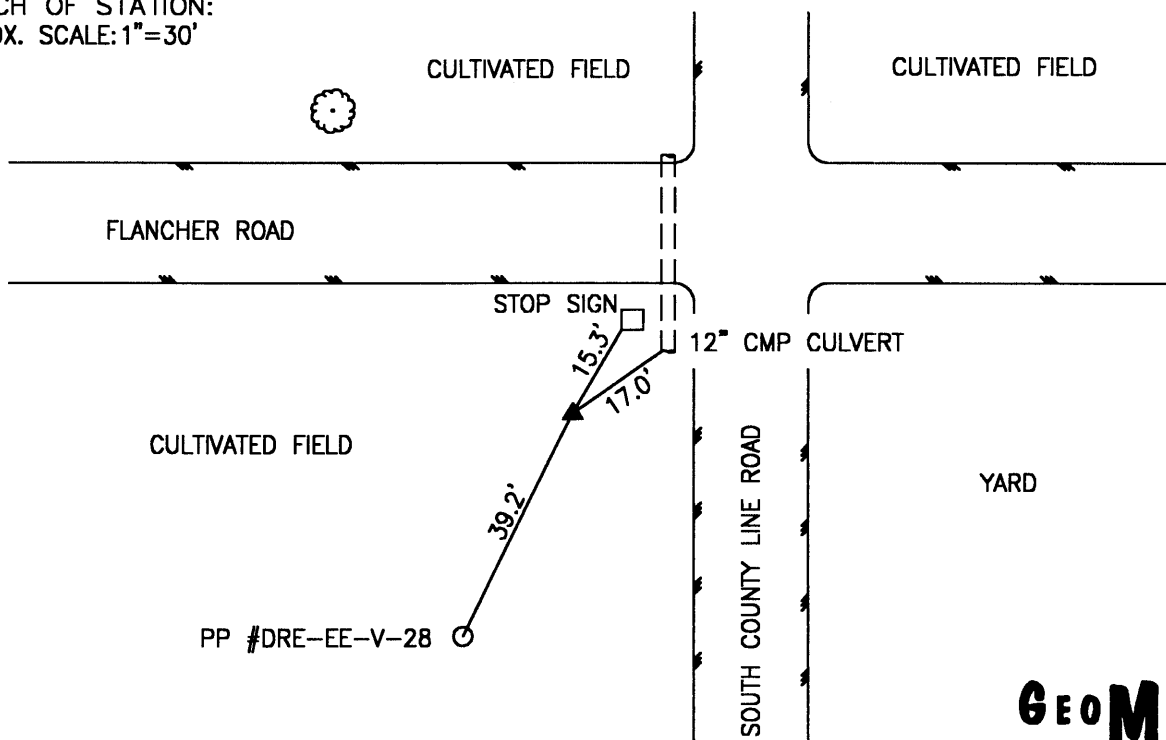
COUNTY	NAME OF STATION	YEAR
DELAWARE	07-0109	1998

N: 776184.356	E: 1895365.525	LAT: 40°07'50.64263" N	LONG: 82°45'41.53315" W
ELEV.: 1119.660 (GPS)	COMB. FACTOR: 0.999967271	Θ ANGLE: -0°09'57.42	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0720.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

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\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 0720  
Designation: 07-0109

PID: KZ2386

Latitude: 400750N  
Longitude: 0824541W  
Elevation: 323.1M  
Stamping: 07-0109 1991

State: OH  
County: DELAWARE  
Disk From: OH-041

Surface Mark-  
Type: Traverse Station disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 03311998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED.

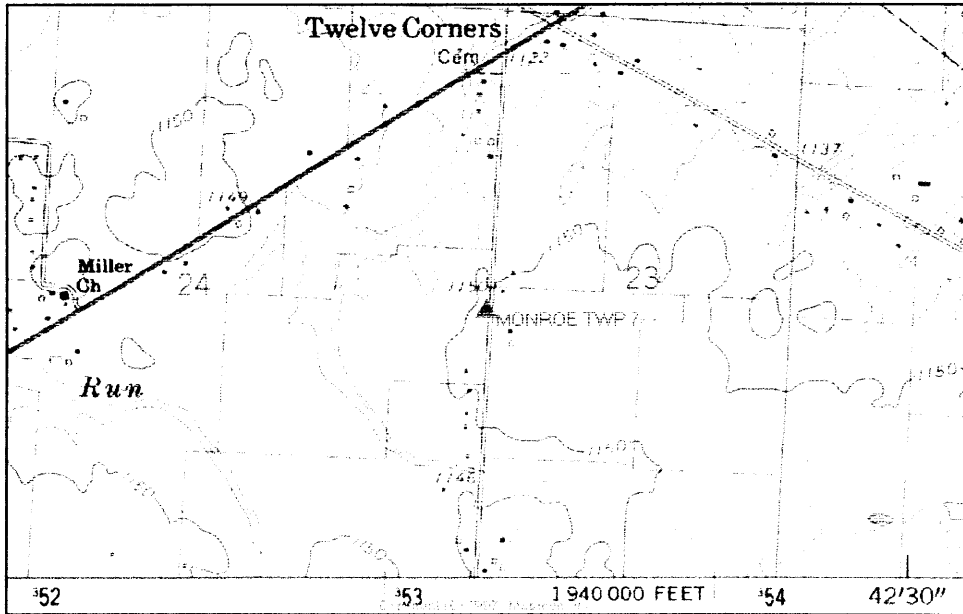
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

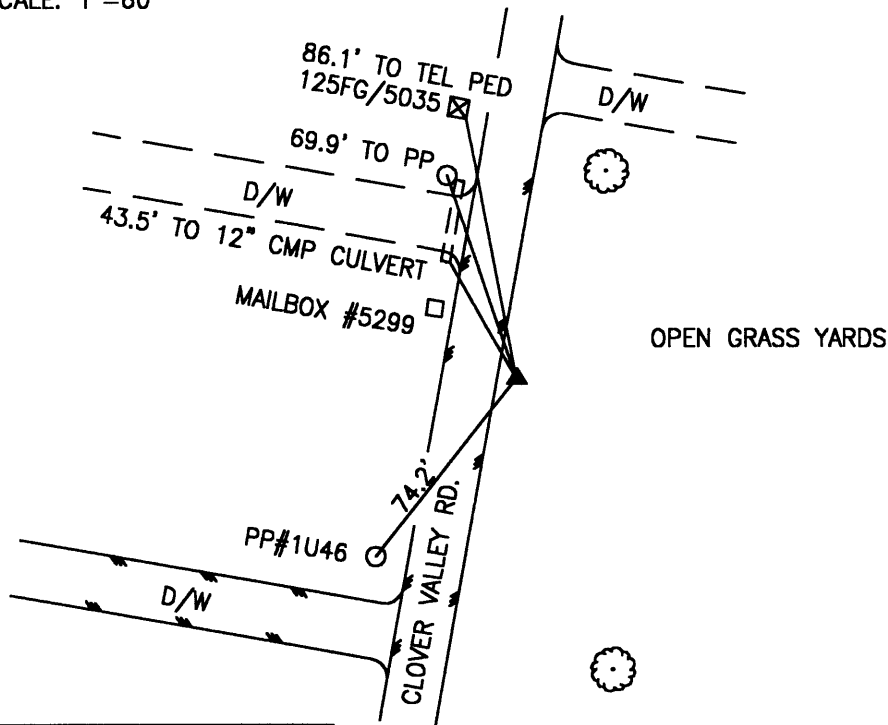
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MONROE TWP 7		1998
N: 776567.651	E: 1906519.803	LAT: 40°07'54.72521" N	LONG: 82°43'17.94572" W
ELEV.: 1151.658 (GPS)	COMB. FACTOR: 0.999966002		Ø ANGLE: -0°08'26.31

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=60'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0730.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0730

Designation: MONROE TWP 7

PID:

Latitude: 400754N  
Longitude: 0824317W  
Elevation: 341.1M  
Stamping: MONROE TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.6 MILES (4.2 KM) SOUTHWEST OF THE CITY OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHWEST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (CR 26) . TURN LEFT AND PROCEED SOUTH ALONG CLOVER VALLEY ROAD (CR 26) A DISTANCE OF 0.5 MILE (0.8 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE EAST SIDE OF CLOVER VALLEY ROAD AND ACROSS THE STREET FROM HOUSE NUMBER 5299. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MONROE TWP 7 1998. THE STATION IS 43.6 FEET (13.3 M) AZIMUTH 330 DEGREES TO A 12 INCH CMP CULVERT, 69.6 FEET (21.2 M) AZIMUTH 341 DEGREES TO A POWER POLE WITH NO NUMBER, 86.1 FEET (26.2 M) AZIMUTH 349 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 125FG/5035, AND 74.2 FEET (22.6 M) AZIMUTH 218 DEGREES TO A POWER POLE WITH THE NUMBER 1U64.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

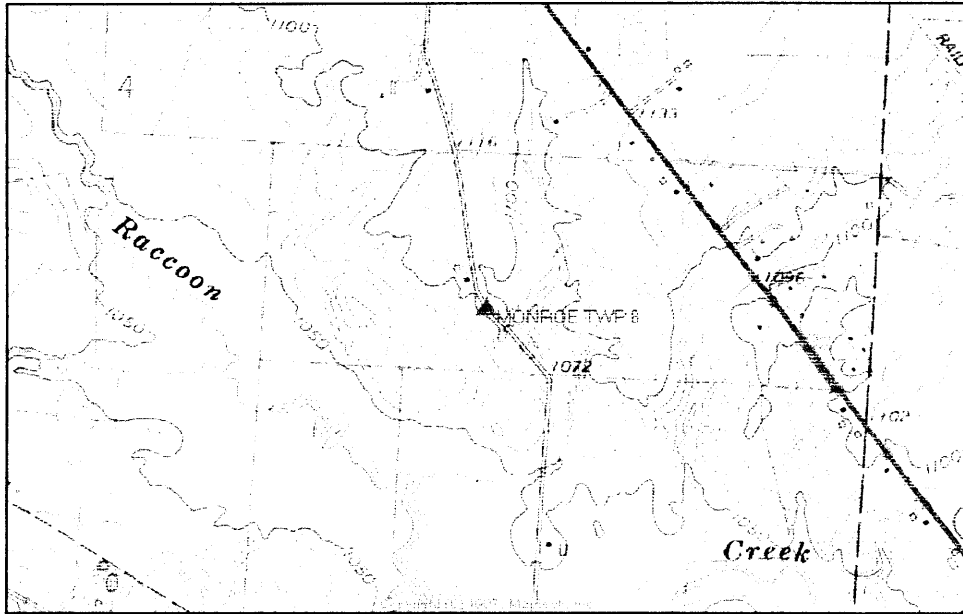
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

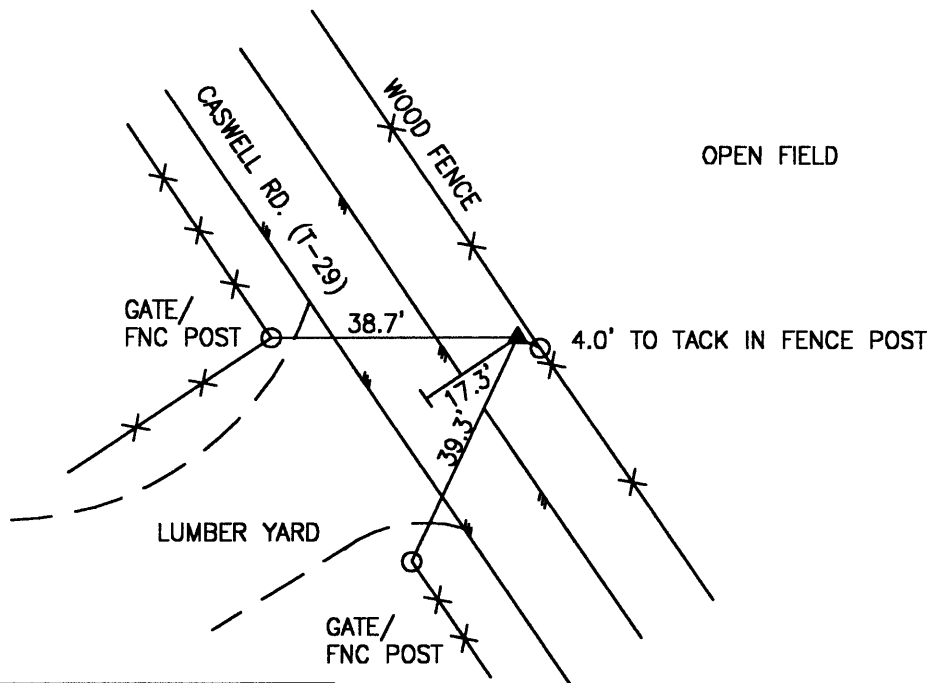
COUNTY	NAME OF STATION	YEAR
LICKING	MONROE TWP 8	1998

N: 777202.425	E: 1919632.484	LAT: 40°08'01.28240" N	LONG: 82°40'29.14668" W
ELEV.: 1101.274 (GPS)	COMB. FACTOR: 0.999968823	θ ANGLE: -0°06'39.20	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0740.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0740  
Designation: MONROE TWP 8

PID:

Latitude: 400801N  
Longitude: 0824029W  
Elevation: 377.8M  
Stamping: MONROE TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MONROE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) SOUTHEAST OF THE CITY OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHEAST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 0.8 MILES (1.3 KM) TO ITS INTERSECTION WITH CASWELL ROAD (T-29) . TURN RIGHT AND PROCEED SOUTH ALONG CASWELL ROAD (T-29) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE STAMPED MONROE TWP 8 1998. THE STATION IS 4.0 FEET (1.2 M) AZIMUTH 115 DEGREES TO A TACK IN A FENCE POST, 39.3 FEET (12.0 M) AZIMUTH 205 DEGREES TO THE SOUTH POST OF A GATE FENCE, 38.7 FEET (11.8 M) AZIMUTH 270 TO THE NORTH POST OF A GATE FENCE AND 17.3 FEET (5.3 M) FROM THE CENTERLINE OF CASWELL ROAD.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

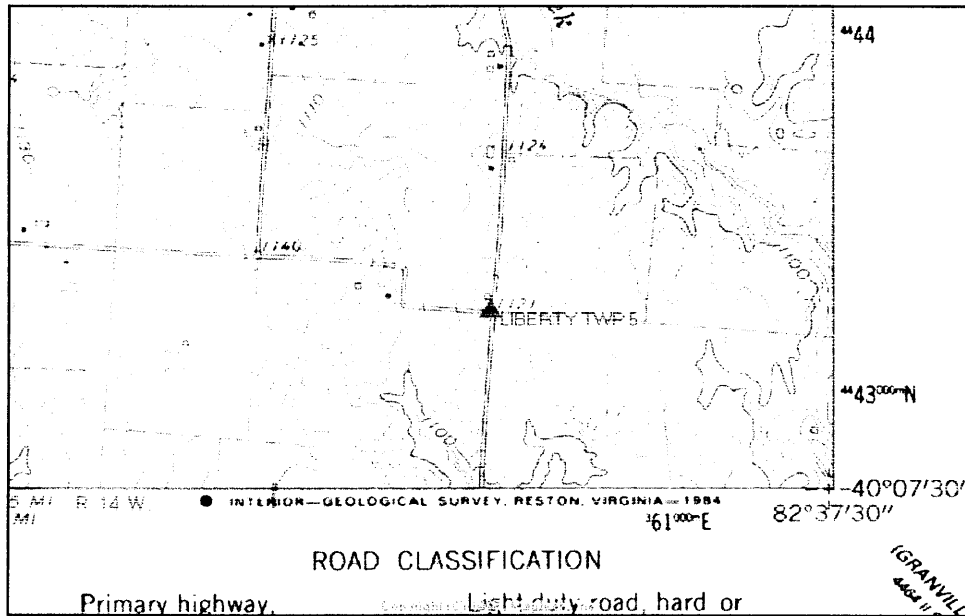
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

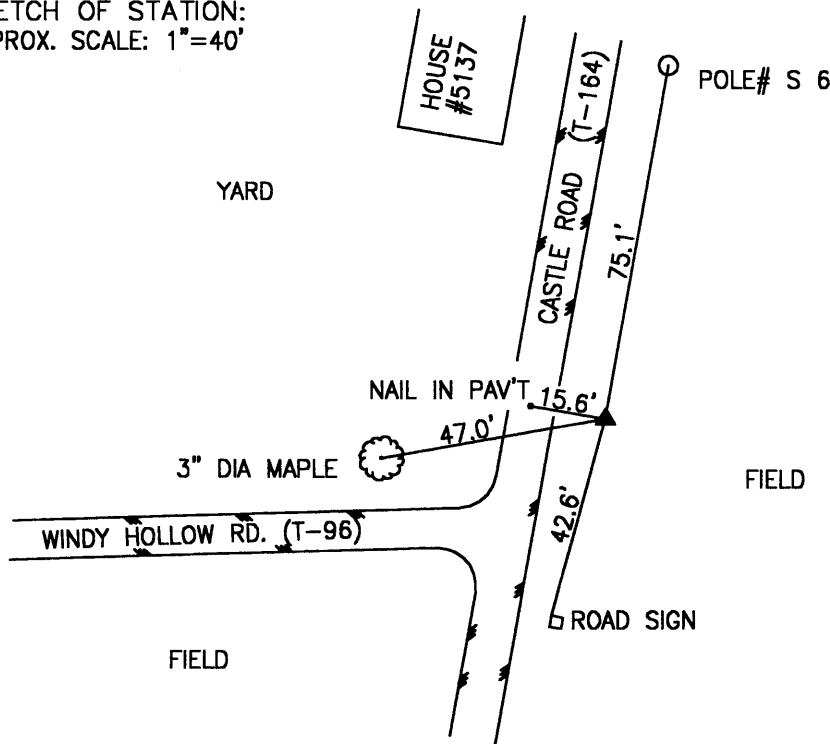
COUNTY	NAME OF STATION	YEAR
LICKING	LIBERTY TWP 5	1998

N: 775686.761	E: 1930518.616	LAT: 40°07'46.48978" N	LONG: 82°38'08.96365" W
ELEV.: 1122.055 (GPS)	COMB. FACTOR: 0.999966894		Θ ANGLE: -0°05'10.25

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0750.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0750

Designation: LIBERTY TWP 5

PID:

Latitude: 400746N  
Longitude: 0823808W  
Elevation: 285.8M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: LIBERTY TWP 5 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.2 MILES (5.1 KM) NORTHWEST OF TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND LIBERTY STREET IN THE TOWN OF ALEXANDRIA PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH CASTLE ROAD (T-164) . TURN RIGHT AND PROCEED NORTH ALONG CASTLE ROAD (T-164) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH WINDY HOLLOW ROAD (T-96) AND THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LIBERTY TWP 5 1998. THE STATION IS 42.6 FEET (13.0 M) AZIMUTH 195 DEGREES TO A ROAD SIGN, 75.1 AZIMUTH 10 DEGREES TO A POLE WITH THE NUMBER S 6, 15.6 FEET (4.8 M) AZIMUTH 280 DEGREES TO A NAIL IN THE CENTERLINE OF CASTLE ROAD, AND 47.0 FEET (14.3 M) AZIMUTH 260 DEGREES TO A THREE INCH DIAMETER MAPLE TREE.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

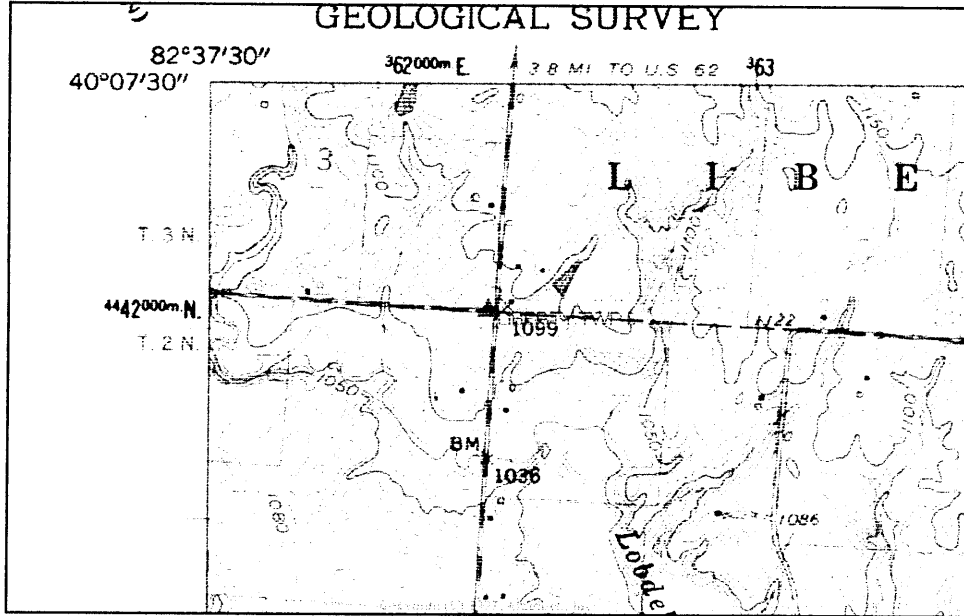
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

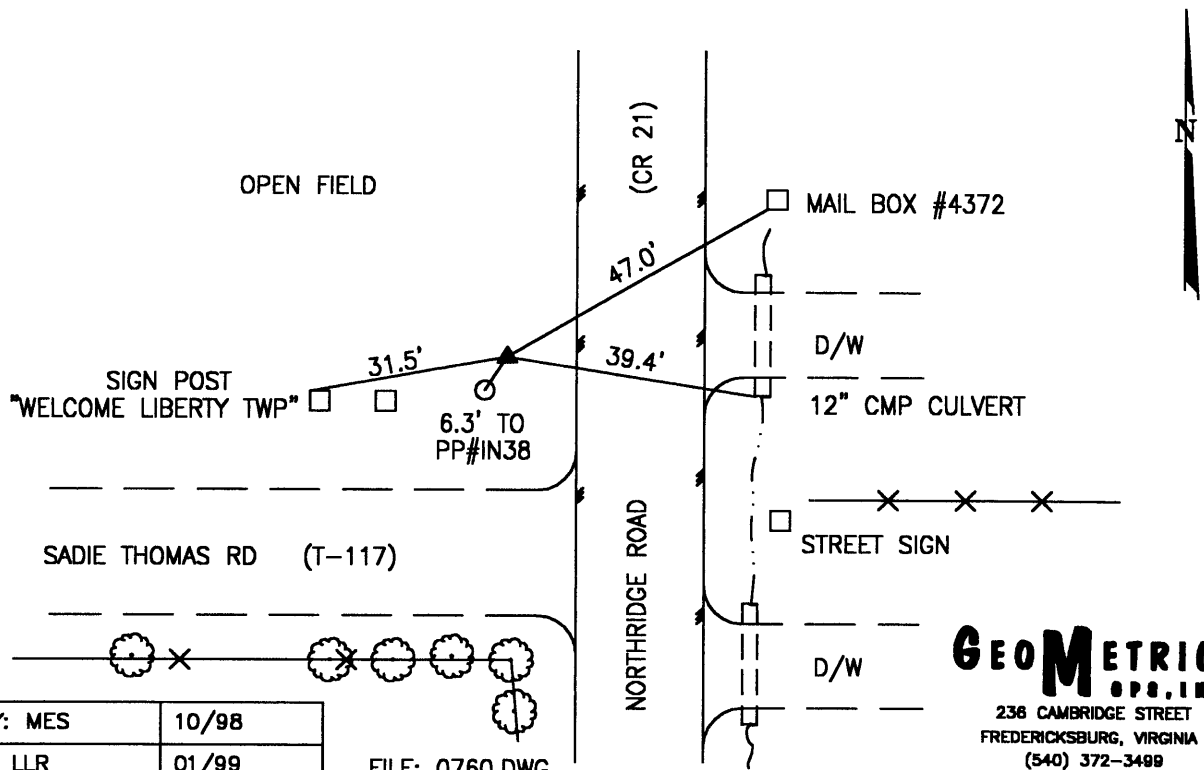
COUNTY	NAME OF STATION	YEAR
LICKING	LIBERTY TWP 6	1998

N: 771991.742	E: 1936164.520	LAT: 40°07'10.05354" N	LONG: 82°36'56.21876" W
ELEV.: 1086.940 (GPS)	COMB. FACTOR: 0.999966285	Θ ANGLE: -0°04'24.09	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0760.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3488

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0760

Designation: LIBERTY TWP 6

PID:

Latitude: 400710N  
Longitude: 0823656W  
Elevation: 404.9M  
Stamping: LIBERTY TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) SOUTHEAST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED NORTHEAST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 4.5 MILES (7.2 KM) TO ITS INTERSECTION WITH NORTHRIDGE ROAD (CR 21) . TURN RIGHT AND PROCEED SOUTH ALONG NORTH RIDGE ROAD A DISTANCE OF 4.6 MILES (7.4 KM) TO ITS INTERSECTION WITH SADIE THOMAS ROAD (T-117) AND THE STATION ON THE RIGHT IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH GROUND SURFACE AND STAMPED LIBERTY TWP 6 1998. THE STATION IS 6.3 FEET (1.9 M) AZIMUTH 213 DEGREES TO A POWER POLE WITH THE NUMBER 1N38, 31.5 FEET (9.6 M) AZIMUTH 260 TO A WELCOME LIBERTY TOWNSHIP SIGN, 39.4 FEET (12.0 M) AZIMUTH 99 DEGREES TO A 12 INCH CMP CULVERT, AND 47.0 FEET (14.3 M) AZIMUTH 60 DEGREES TO A MAILBOX WITH THE NUMBER 4372.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

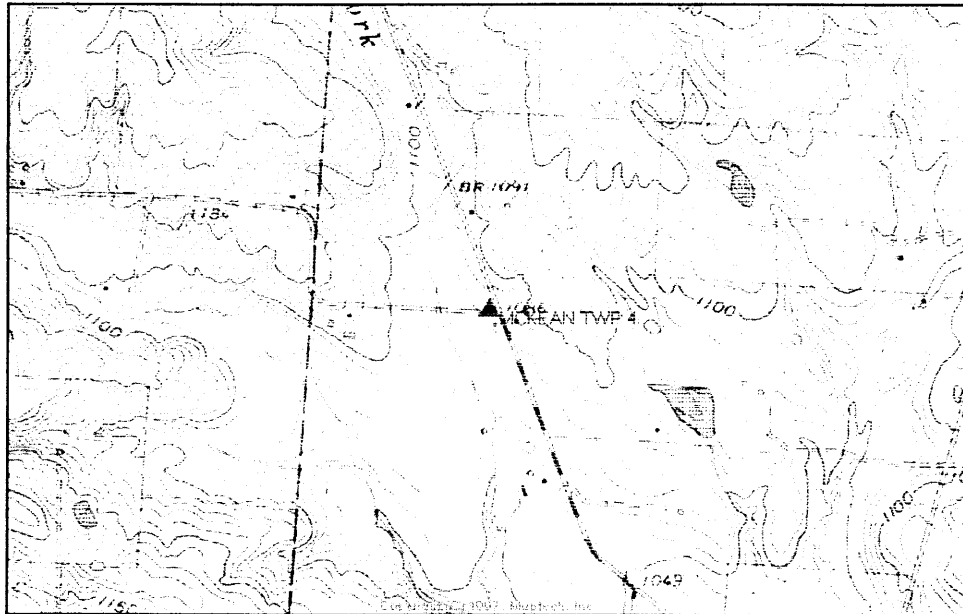
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

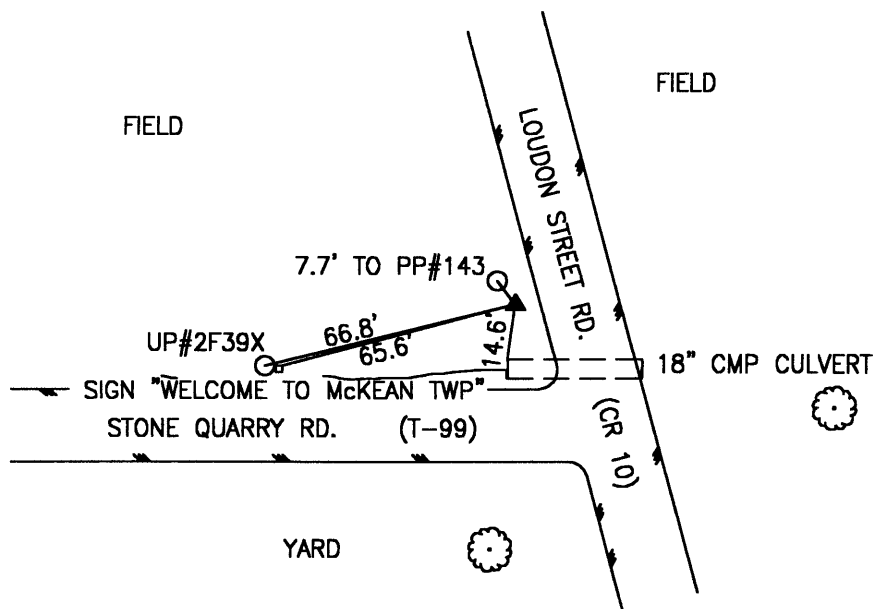
COUNTY	NAME OF STATION	YEAR
LICKING	MCKEAN TWP 4	1998

N: 777064.010	E: 1951631.112	LAT: 40°08'00.32622" N	LONG: 82°33'37.17819" W
ELEV.: 1085.562	(GPS)	COMB. FACTOR: 0.999969512	Θ ANGLE: -0°02'17.80

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0770.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0770

Designation: MCKEAN TWP 4

PID:

Latitude: 400800N  
Longitude: 0823337W  
Elevation: 312.2M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: MCKEAN TWP 4 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MCKEAN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.2 MILES (6.8 KM) NORTHEAST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND RACCOON VALLEY ROAD (CR 539) PROCEED EAST ALONG RACCOON VALLEY ROAD (CR 539) A DISTANCE OF 2.6 MILES (4.2 KM) TO ITS INTERSECTION WITH LOUDON ROAD (CR 110) . TURN LEFT AND PROCEED NORTH ALONG LOUDON ROAD (CR 110) A DISTANCE OF 3.2 MILES (5.1 KM) TO ITS INTERSECTION WITH LOUDON STREET ROAD (CR 10) . TURN LEFT AND PROCEED NORTHWEST ALONG LOUDON STREET ROAD (CR 10) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH STONE QUARRY ROAD (T-99) AND THE STATION IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED MCKEAN TWP 4 1998. THE STATION IS 7.7 FEET (2.3 M) AZIMUTH 323 DEGREES TO A POWER POLE WITH THE NUMBER 143, 14.6 FEET (4.5 M) AZIMUTH 188 DEGREES TO AN 18 INCH CMP CULVERT, 65.6 FEET (20.0 M) AZIMUTH 255 DEGREES TO A WELCOME TO MCKEAN TOWNSHIP SIGN, AND 66.8 FEET (20.4 M) AZIMUTH 256 DEGREES TO A UTILITY POLE WITH THE NUMBER 2F39X.

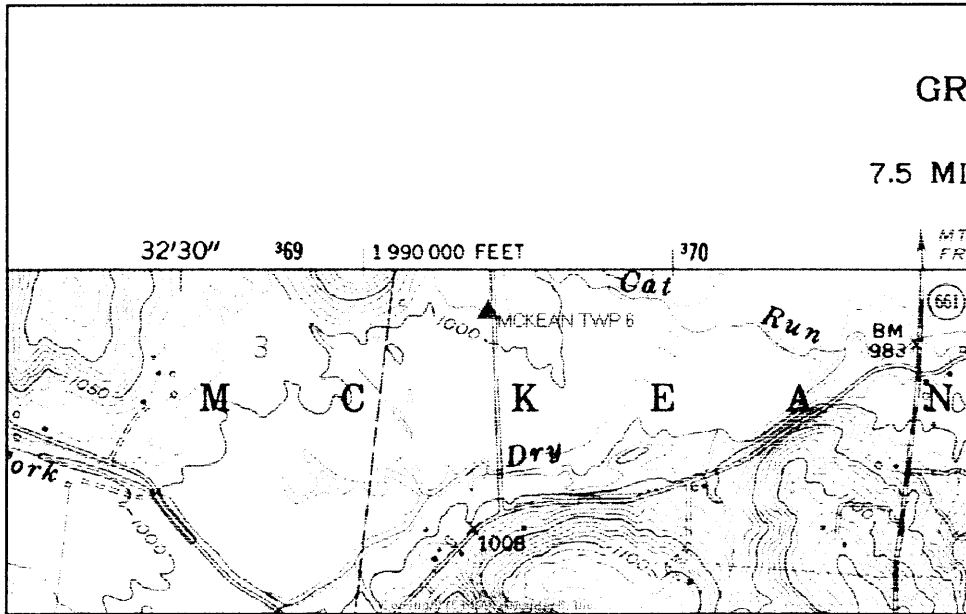
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

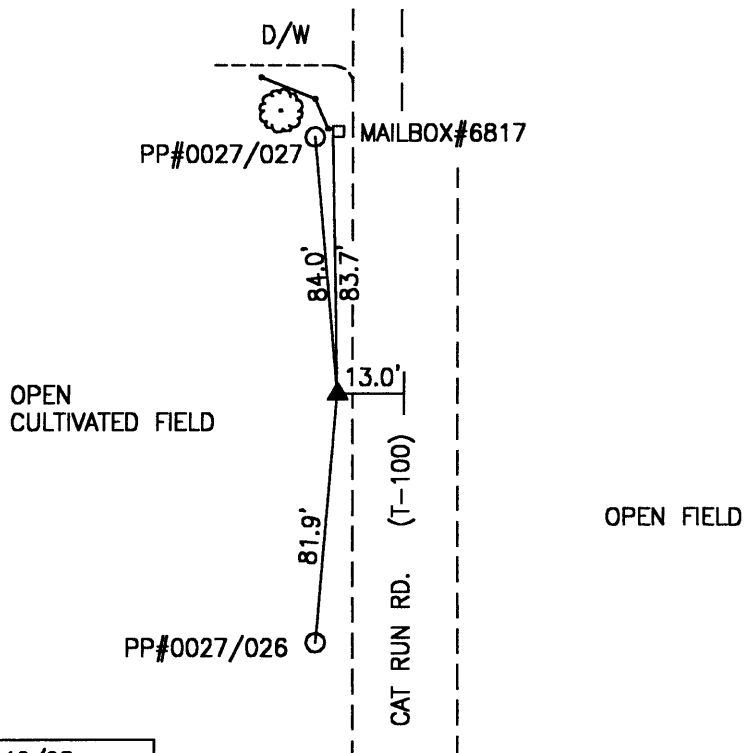
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MCKEAN TWP 6		1998
N: 773669.444	E: 1959701.571	LAT: 40°07'26.82193" N	LONG: 82°31'53.26000" W
ELEV.: 1009.460 (GPS)	COMB. FACTOR: 0.999971032		θ ANGLE: -0°01'11.86

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=60'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0780.DWG

**GEOMETRICS**  
 OPS, INC.  
 238 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0780

Designation: MCKEAN TWP 6

PID:

Latitude: 400726N  
Longitude: 0823153W  
Elevation: 300.6M  
Stamping: MCKEAN TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MCKEAN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) NORTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND NEWARK-GRANVILLE ROAD (CR 539) PROCEED NORTH ALONG NORTH STREET (SR 661) A DISTANCE OF 3.9 MILES (6.3 KM) TO ITS INTERSECTION WITH DRY CREEK ROAD (T-10) . TURN LEFT AND PROCEED WEST ALONG DRY CREEK ROAD (T-10) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH CAT RUN ROAD (T-100) . TURN RIGHT AND PROCEED NORTH ALONG CAT RUN ROAD (T-100) A DISTANCE OF 0.4 MILE (0.6 KM) TO THE STATION ON THE LEFT ABOUT 84 FEET (25.6 M) SOUTH OF MAILBOX NUMBER 6817. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MCKEAN TWP 6 1998. THE STATION IS 81.9 FEET (25.0 M) AZIMUTH 185 DEGREES TO A POWER POLE WITH THE NUMBER 0027/026, 84.0 FEET (25.6 M) AZIMUTH 355 DEGREES TO A POWER POLE WITH THE NUMBER 0027/027, 83.7 FEET (25.5 M) AZIMUTH 359 DEGREES TO A MAILBOX WITH THE NUMBER 6817 AND 13.0 FEET (4.0 M) FROM THE CENTERLINE OF CAT RUN ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

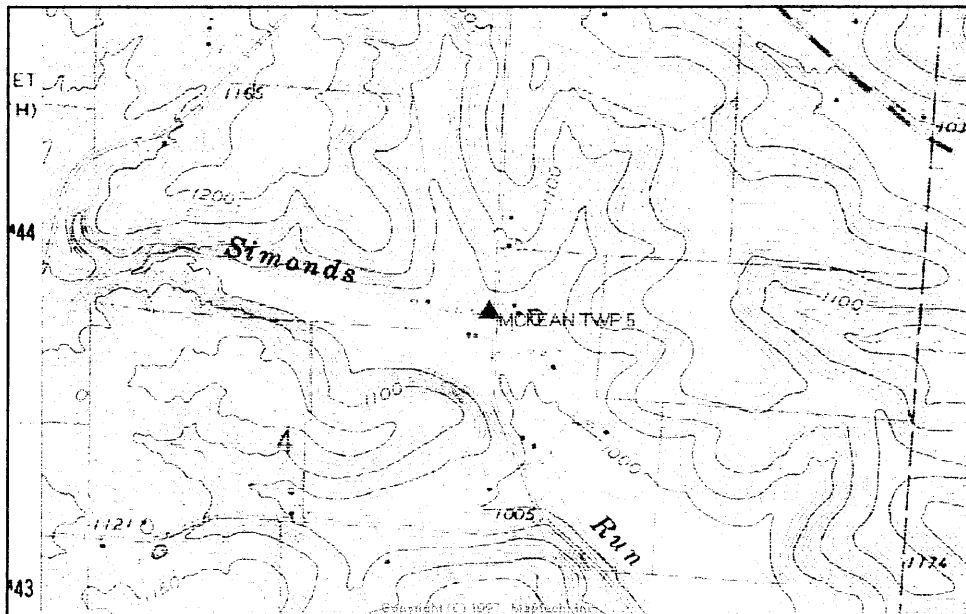
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	MCKEAN TWP 5	1998

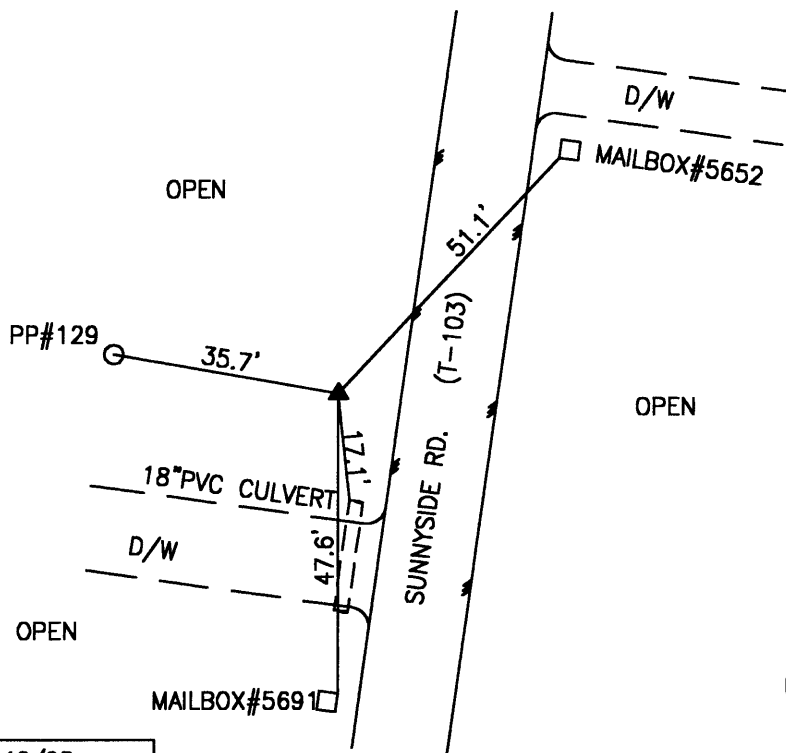
N: 778081.753 E: 1972636.402 LAT: 40°08'10.43579" N LONG: 82°29'06.74381" W

ELEV.: 1032.934 (GPS) COMB. FACTOR: 0.999972668 Θ ANGLE: +0°00'33.79

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0790.DWG

**GEOMETRICS**  
GPS, INC.

236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0790

Designation: MCKEAN TWP 5

PID:

Latitude: 400810N  
Longitude: 0822906W  
Elevation: 283.2M  
Stamping: MCKEAN TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MCKEAN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHEAST OF THE TOWN OF FREDONIA. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND SPORTSMAN CLUB ROAD (CR 16) IN FREDONIA PROCEED SOUTH SPORTSMAN CLUB ROAD (CR 16) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH CHESTNUT HILLS ROAD (CR 16) . TURN RIGHT AND PROCEED SOUTHEAST ALONG CHESTNUT HILLS ROAD (CR 16) A DISTANCE OF 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH SUNNYSIDE ROAD (T-103) . TURN RIGHT AND PROCEED SOUTH ALONG SUNNYSIDE ROAD (T-103) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE RIGHT BETWEEN HOUSE NUMBERS 5652 AND 5691. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MCKEAN TWP 5 1998. THE STATION IS 35.7 FEET (10.9 M) AZIMUTH 280 DEGREES TO A POWER POLE WITH THE NUMBER 129, 17.1 FEET (5.2 M) AZIMUTH 174 DEGREES TO AN 18 INCH PVC CULVERT, 51.1 FEET (15.6 M) AZIMUTH 43 DEGREES TO A MAILBOX WITH THE NUMBER 5652, AND 47.6 FEET (14.5 M) AZIMUTH 180 DEGREES TO A MAILBOX POST WITH THE NUMBER 5691.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

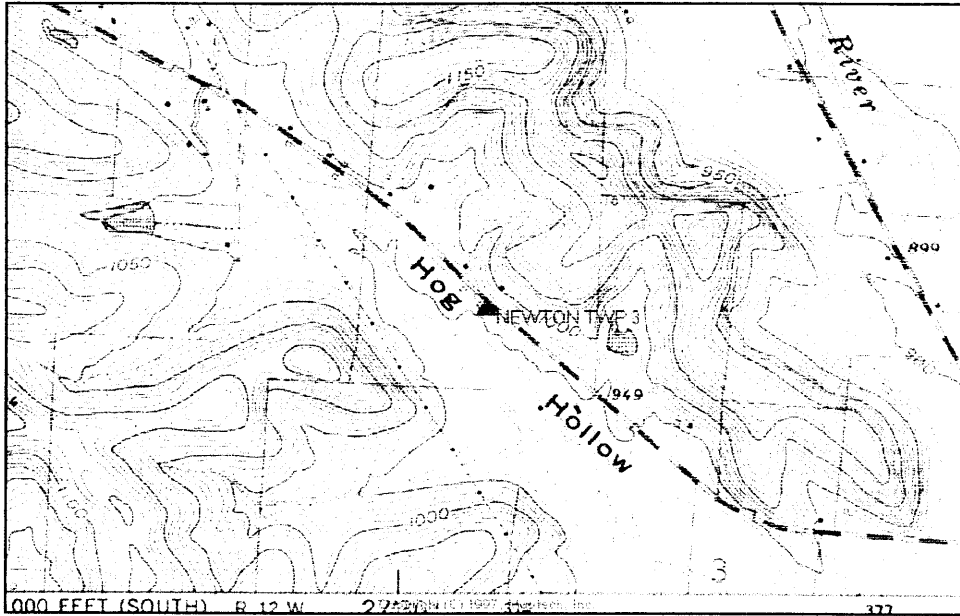
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

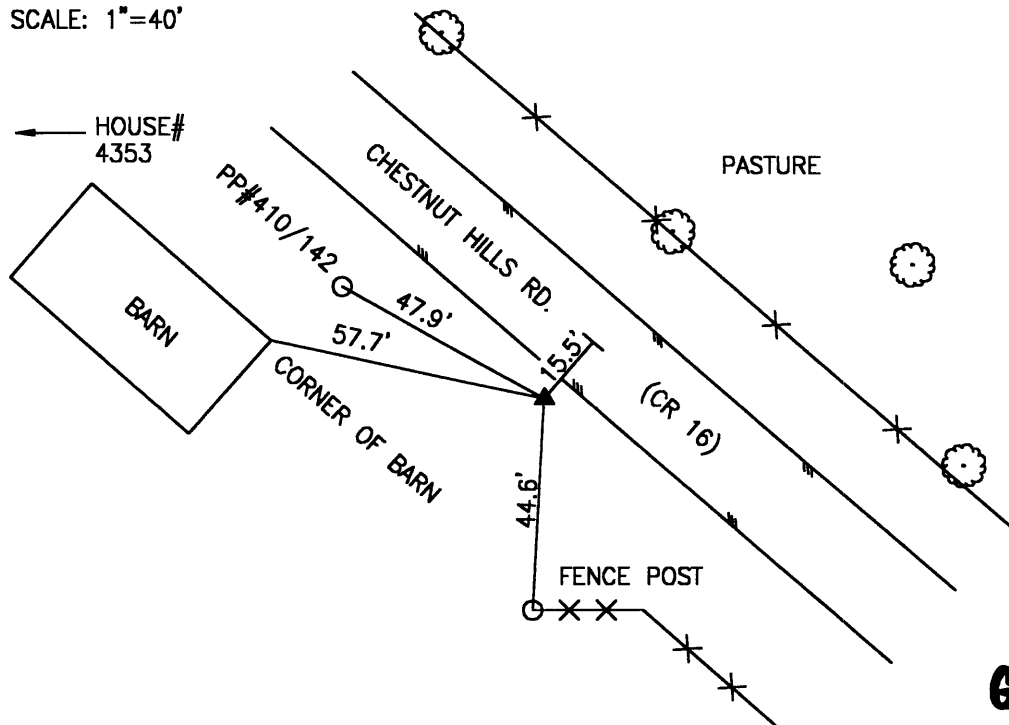
COUNTY	NAME OF STATION	YEAR
LICKING	NEWTON TWP 3	1998

N: 776657.831	E: 1981022.888	LAT: 40°07'56.33740" N	LONG: 82°27'18.77689" W
ELEV.: 967.068 (GPS)	COMB. FACTOR: 0.999974916	Θ ANGLE: +0°01'42.29	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0800.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0800

Designation: NEWTON TWP 3

PID:

Latitude: 400756N  
Longitude: 0822718W  
Elevation: 362.3M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: NEWTON TWP 3 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN NEWTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) SOUTHEAST OF THE TOWN OF FREDONIA. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET (SR 661) AND SPORTSMAN CLUB ROAD (CR 16) IN FREDONIA PROCEED EAST ALONG SPORTSMAN CLUB ROAD (CR 16) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH CHESTNUT HILLS ROAD (CR 16) . TURN RIGHT AND PROCEED SOUTHEAST ALONG CHESTNUT HILLS ROAD (CR 16) A DISTANCE OF 3.3 MILES (5.3 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 320 FEET (97.5 M) PAST MAILBOX NUMBER 4353. THE IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWTON TWP 3 1998. THE STATION IS 47.9 FEET (14.6 M) AZIMUTH 299 DEGREES TO A POWER POLE WITH THE NUMBER 410/142, 57.7 FEET (17.6 M) AZIMUTH 282 DEGREES TO A CORNER OF A BARN, 44.6 FEET (13.6 M) AZIMUTH 183 DEGREES TO A FENCE POST AND 15.5 FEET (4.7 M) FROM THE CENTERLINE OF CHESTNUT HILLS ROAD.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

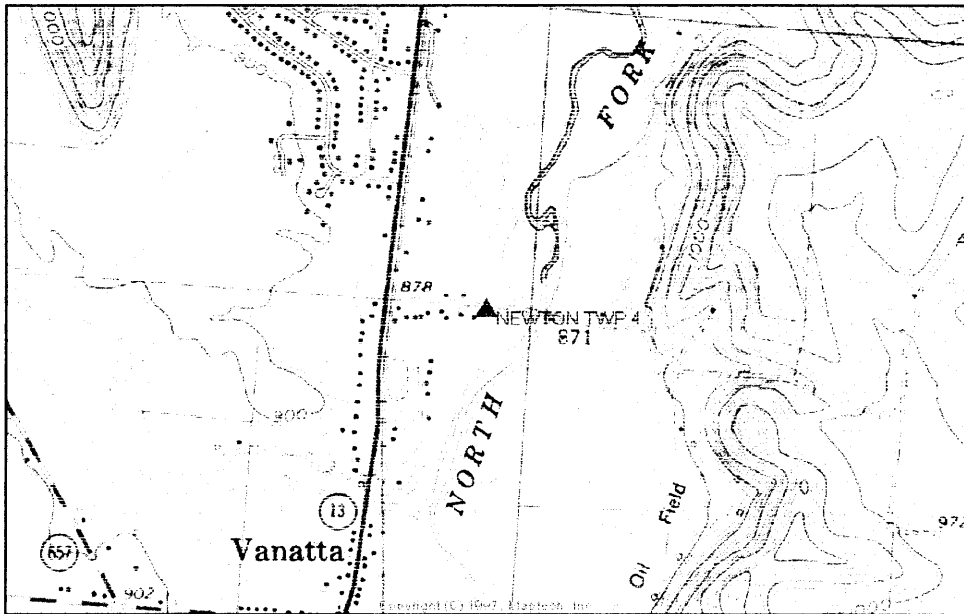
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

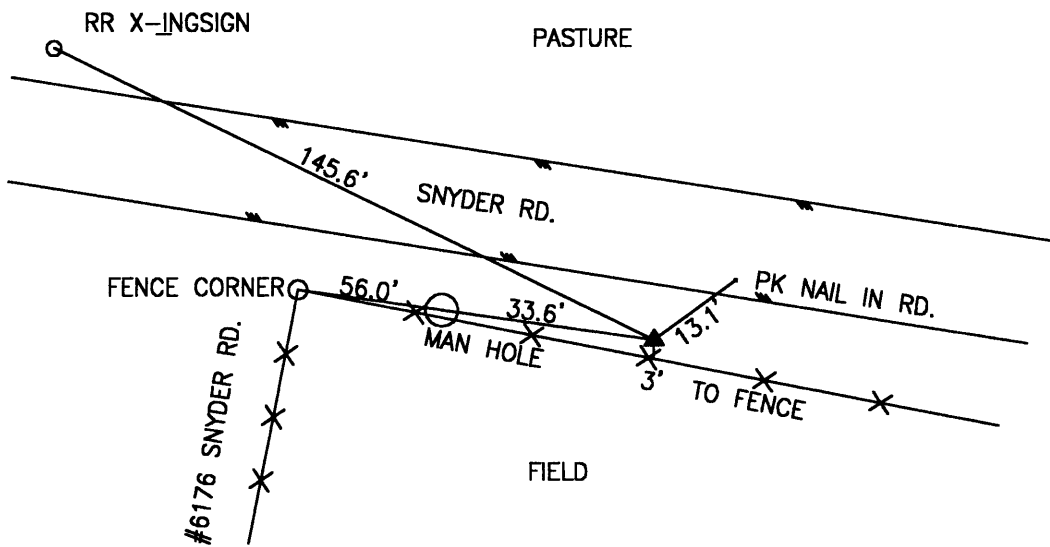
COUNTY	NAME OF STATION	YEAR
LICKING	NEWTON TWP 4	1998

N: 777174.594	E: 1989562.200	LAT: 40°08'01.38788" N	LONG: 82°25'28.83393" W
ELEV.: 864.500 (GPS)	COMB. FACTOR: 0.999980133	θ ANGLE: +0°02'52.06	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=30'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0810.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0810

Designation: NEWTON TWP 4

PID:

Latitude: 400801N  
Longitude: 0822528W  
Elevation: 296.1M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: NEWTON TWP 4 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN NEWTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.7 MILE (1.1 KM) NORTH OF THE TOWN OF VANETTA. TO REACH THE STATION FROM THE INTERSECTION OF MOUNT VERNON ROAD (SR 13) AND CHESTNUT HILLS ROAD (CR 16) PROCEED NORTH ALONG MOUNT VERNON ROAD (SR 13) A DISTANCE OF APPROXIMATELY 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH SNYDER ROAD (T-254) . TURN RIGHT AND PROCEED EAST ALONG SNYDER ROAD (T-254) A DISTANCE OF 0.15 TO THE STATION ON THE RIGHT. THE STATION IS ABOUT 400 FEET (121.9 M) WEST OF THE BRIDGE OVER THE LICKING RIVER. THE IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWTON TWP 4 1998. THE STATION IS 56.0 FEET (17.1 M) AZIMUTH 278 DEGREES TO A FENCE CORNER, 13.1 FEET (4.0 M) AZIMUTH 54 DEGREES TO A PK NAIL IN THE ROAD, 3.0 FEET (0.9 M) AZIMUTH 180 DEGREES TO A FENCE, 33.6 FEET (10.2 M) AZIMUTH 278 DEGREES TO A MANHOLE, AND 145.6 FEET (44.4 M) AZIMUTH 293 DEGREES TO A RAILROAD CROSSING SIGN.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

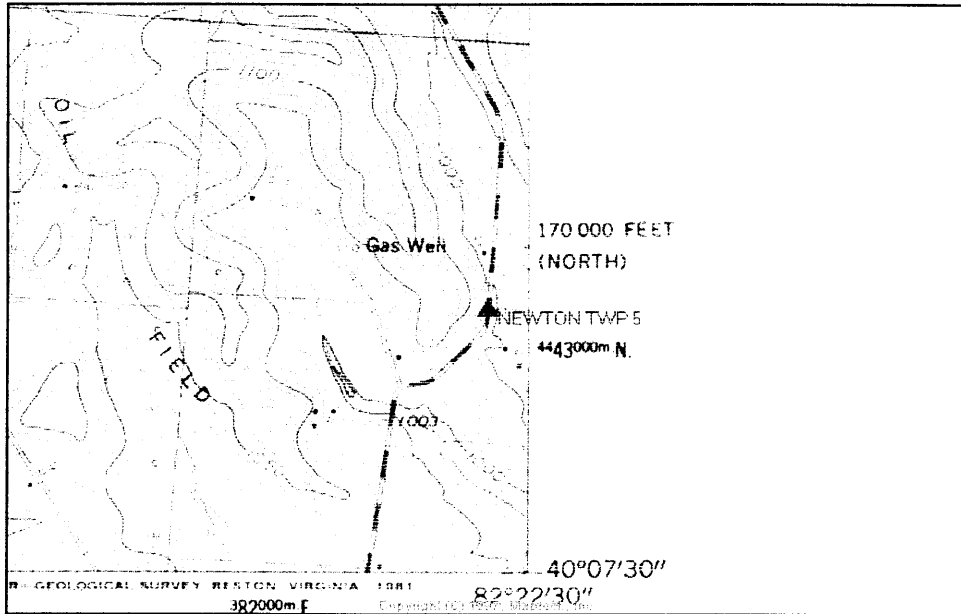
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

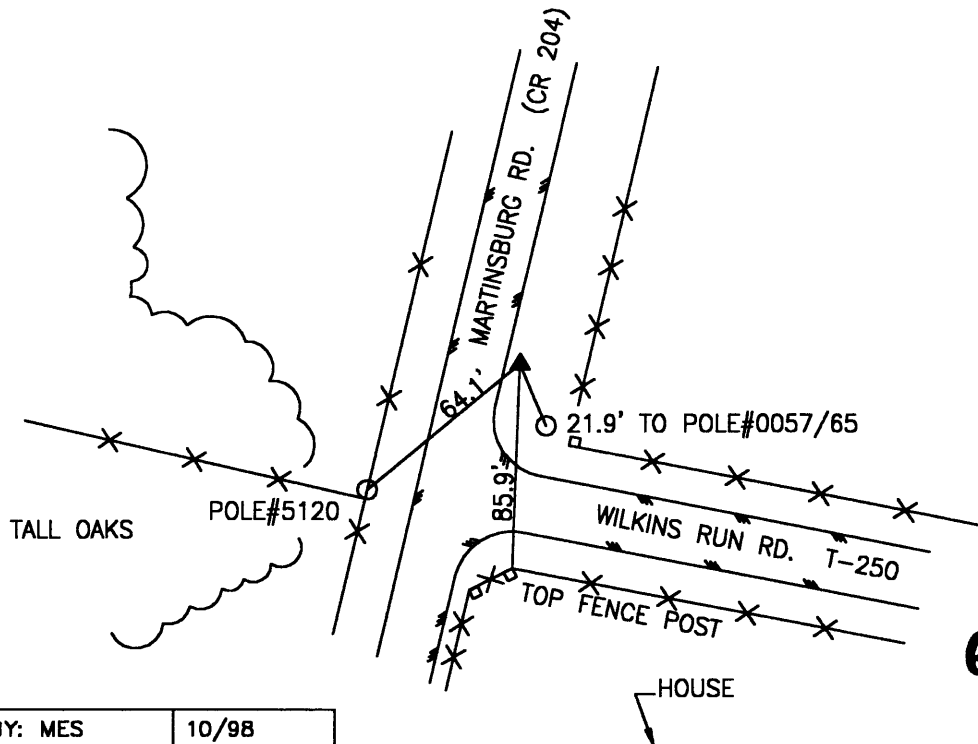
COUNTY	NAME OF STATION	YEAR
LICKING	NEWTON TWP 5	1998

N: 776484.512	E: 2003172.315	LAT: 40°07'54.42012" N	LONG: 82°22'33.62238" W
ELEV.: 1009.329 (GPS)	COMB. FACTOR: 0.999972777	Θ ANGLE: +0°04'43.23	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=60'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0820.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0820  
Designation: NEWTON TWP 5

PID:

Latitude: 400754N  
Longitude: 082223W  
Elevation: 308.5M  
Stamping: NEWTON TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN NEWTON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.8 MILES (2.9 KM) WEST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED WEST ALONG CATT ROAD (T-249) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH WILKINS RUN ROAD (T-250) . TURN LEFT AND PROCEED WEST ALONG WILKINS RUN ROAD (T-250) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH MARTINSBURG ROAD (CR 204) AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED NEWTON TWP 5 1998. THE STATION IS 64.1 FEET (19.5 M) AZIMUTH 230 TO A POLE WITH THE NUMBER 5120, 21.9 FEET (6.7 M) AZIMUTH 157 DEGREES TO A POLE WITH THE NUMBER 0057/65, AND 85.9 FEET (26.2 M) AZIMUTH 182 TO THE TOP OF A FENCE POST.

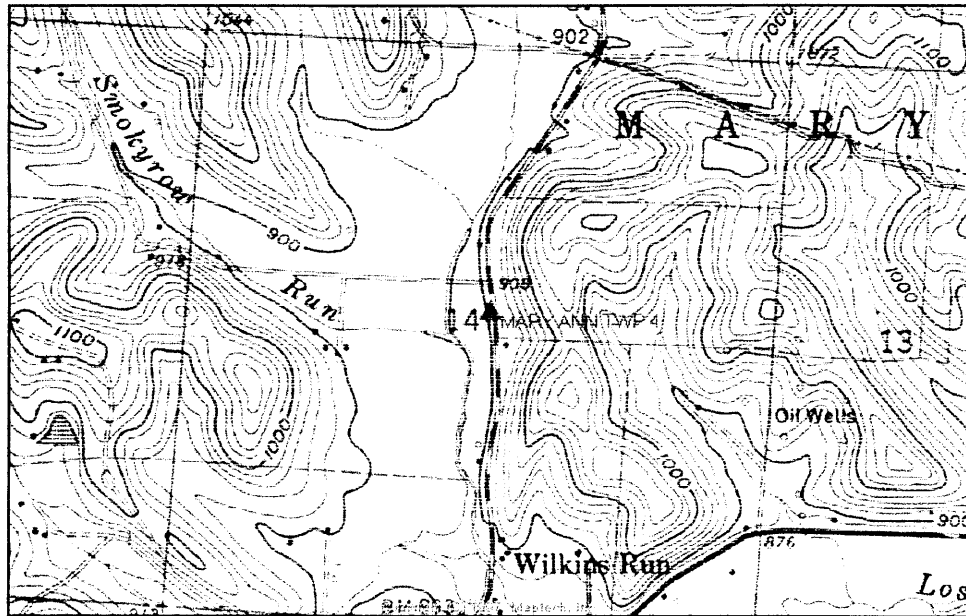
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

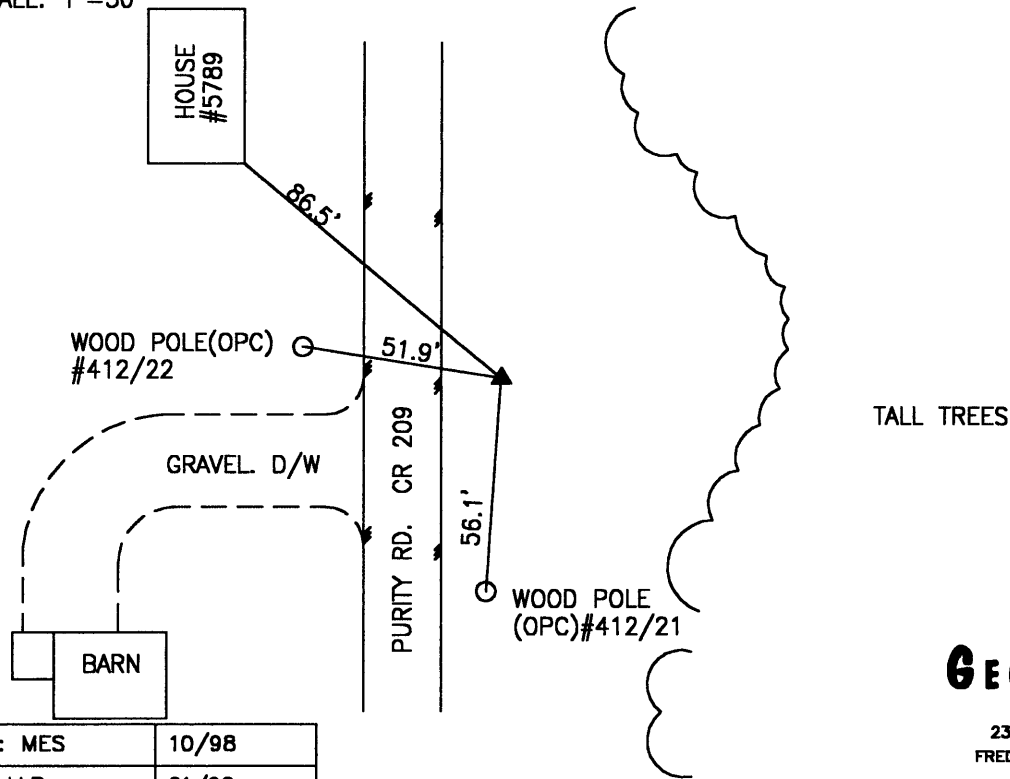
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MARY ANN TWP 4		1998
N: 778754.750	E: 2012239.439	LAT: 40°08'16.71522" N	LONG: 82°20'36.84017" W
ELEV.: 905.776 (GPS)	COMB. FACTOR: 0.999979139		Ø ANGLE: +0°05'57.33

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0830.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0830  
Designation: MARY ANN TWP 4 PID:  
Latitude: 400816N State: OH  
Longitude: 0822036W County: LICKING  
Elevation: 277.9M Disk From: OH-089  
Stamping: MARY ANN TWP 4 1998

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MARY ANN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.5 MILES NORTH OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTH ALONG PURITY ROAD (CR 209) A DISTANCE OF 0.5 MILE (0.8 KM) TO THE STATION ON THE RIGHT. THE STATION IS APPROXIMATELY 86 FEET (26.2 M) SOUTHEAST OF HOUSE NUMBER 5789. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED MARY ANN TWP 4 1998. THE STATION IS 56.1 FEET (17.1 M) AZIMUTH 184 DEGREES TO A WOOD OPC POLE WITH THE NUMBER 412/21, 51.9 FEET (15.8 M) AZIMUTH 279 DEGREES TO A WOOD OPC POLE WITH THE NUMBER 412/22, AND 86.6 FEET (26.4 M) AZIMUTH 310 DEGREES TO THE SOUTHEAST CORNER OF THE HOUSE WITH THE NUMBER 5789.

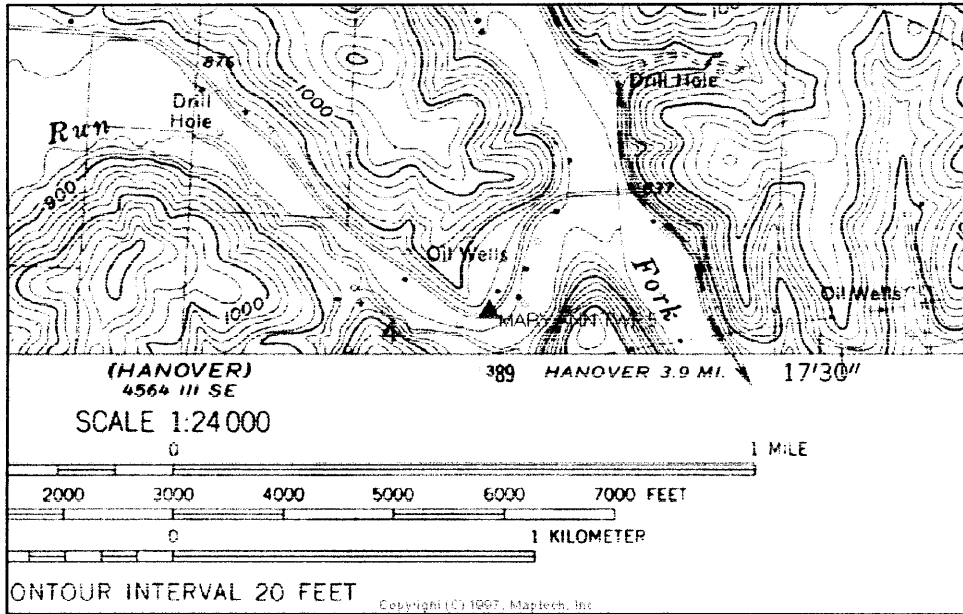
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

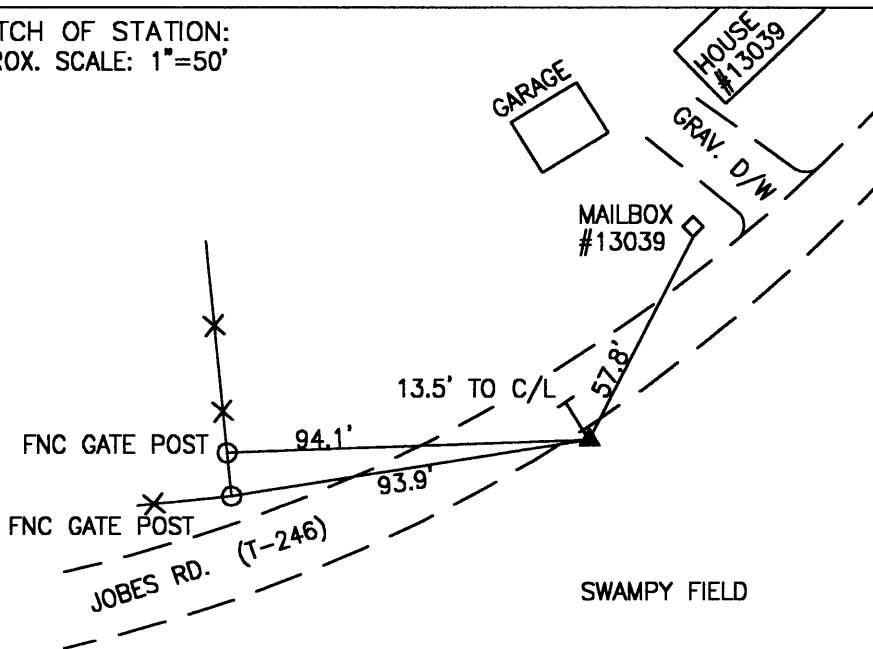
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MARY ANN TWP 5		1998
N: 774495.556	E: 2023841.075	LAT: 40°07'34.40140" N	LONG: 82°18'07.58586" W
ELEV.: 840.543 (GPS)	COMB. FACTOR: 0.999979571		θ ANGLE: +0°07'32.04

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0840.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0840

Designation: MARY ANN TWP 5

PID:

Latitude: 400734N  
Longitude: 0821807W  
Elevation: 333.0M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: MARY ANN TWP 5 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MARY ANN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES EAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH JOBES ROAD (T-246) . TURN RIGHT AND PROCEED EAST ALONG JOBES ROAD (T-246) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 57 FEET (17.4 M) SOUTHWEST OF MAILBOX 13039. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED MARY ANN TWP 5 1998. THE STATION IS 93.9 FEET (28.6 M) AZIMUTH 265 DEGREES TO A FENCE GATE POST, 94.1 FEET (28.7 M) AZIMUTH 268 DEGREES TO A FENCE GATE POST, 57.8 FEET (17.6 M) 27 DEGREES TO A MAILBOX POST WITH THE NUMBER 13039, AND 13.5 FEET (4.1 M) SOUTH FROM THE CENTERLINE OF JOBES ROAD.

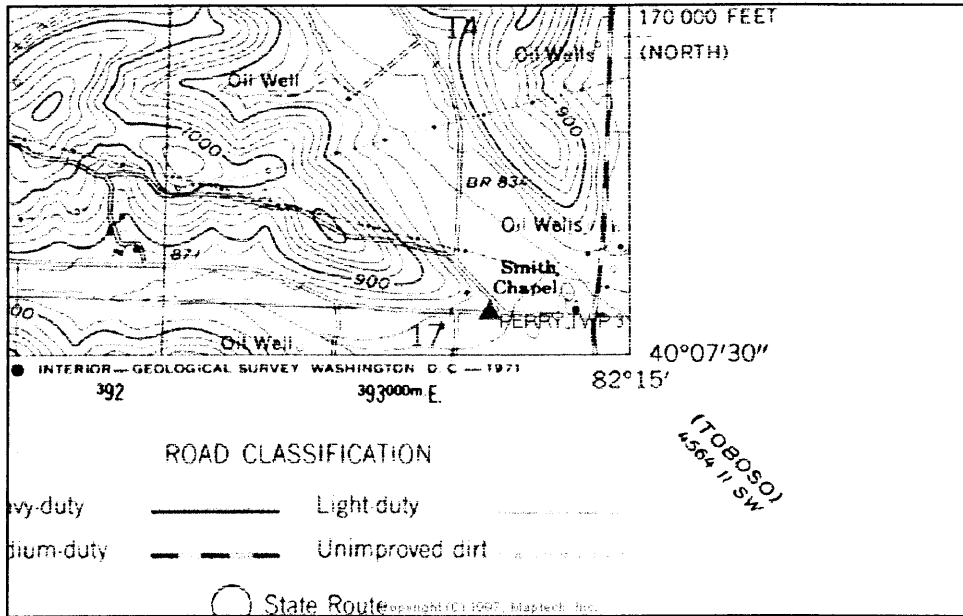
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

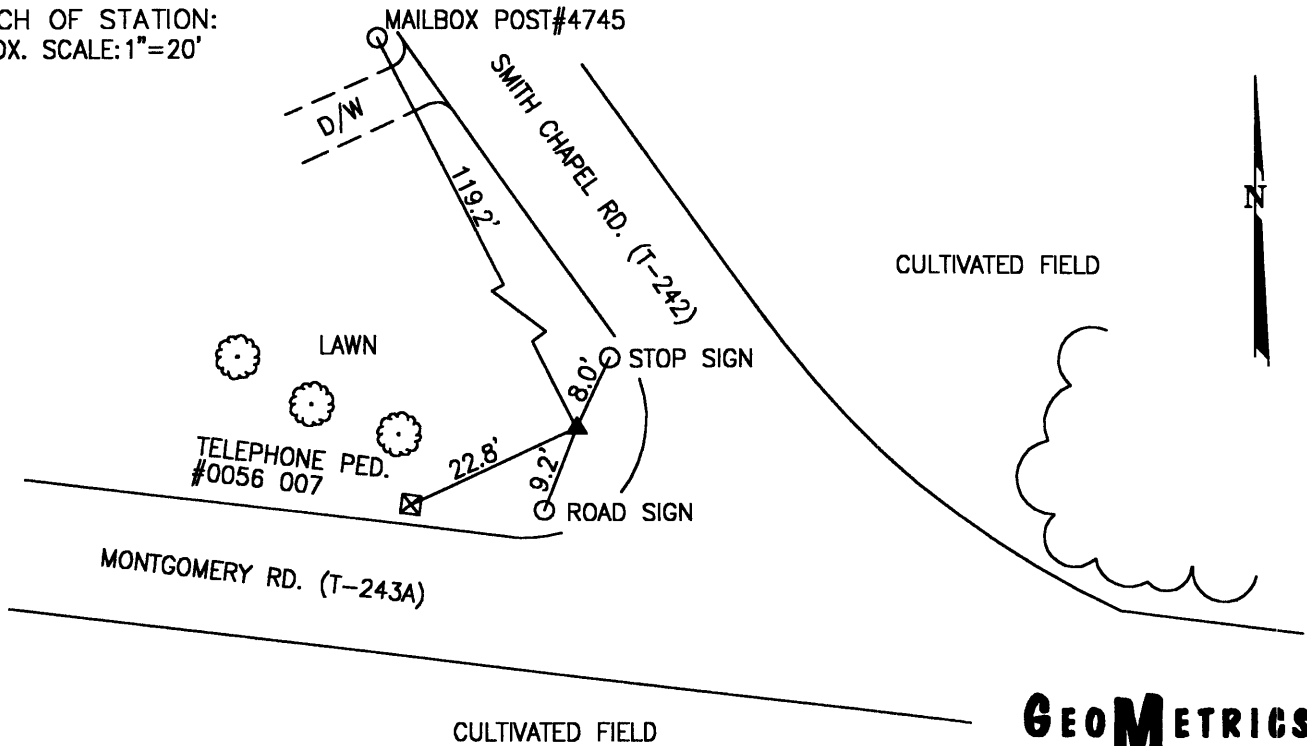
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	PERRY TWP 3		1998
N: 774530.626	E: 2037225.381	LAT: 40°07'34.42305" N	LONG: 82°15'15.28718" W
ELEV.: 829.831 (GPS)	COMB. FACTOR: 0.999980084		Θ ANGLE: +0°09'21.36

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=20'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0850.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0850  
Designation: PERRY TWP 3

PID:

Latitude: 400734N  
Longitude: 0821515W  
Elevation: 324.4M  
Stamping: PERRY TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) EAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PINWOOD TRAIL ROAD (CR 202) PROCEED EAST ALONG PINWOOD TRAIL ROAD (CR 202) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH REFORM ROAD (CR 232) . TURN RIGHT AND PROCEED SOUTH ALONG REFORM ROAD (CR 232) A DISTANCE OF 1.5 MILES (2.4 KM) TO ITS INTERSECTION WITH SMITH CHAPEL ROAD (T-242) . TURN RIGHT AND PROCEED WEST ALONG SMITH CHAPEL ROAD (T-242) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITH MONTGOMERY ROAD (T-243A) AND THE STATION IN THE INTERSECTION OF THE ROADS. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED PERRY TWP 3 1998. THE STATION IS 119.2 FEET (36.3 M) AZIMUTH 333 DEGREES TO A MAIL BOX POST WITH THE NUMBER 4745, 8.0 FEET (2.4 M) AZIMUTH 25 DEGREES TO A STOP SIGN, 9.2 FEET (2.8 M) AZIMUTH 201 DEGREES TO A ROAD SIGN, AND 22.8 FEET (6.9 M) AZIMUTH 245 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 0056 007.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

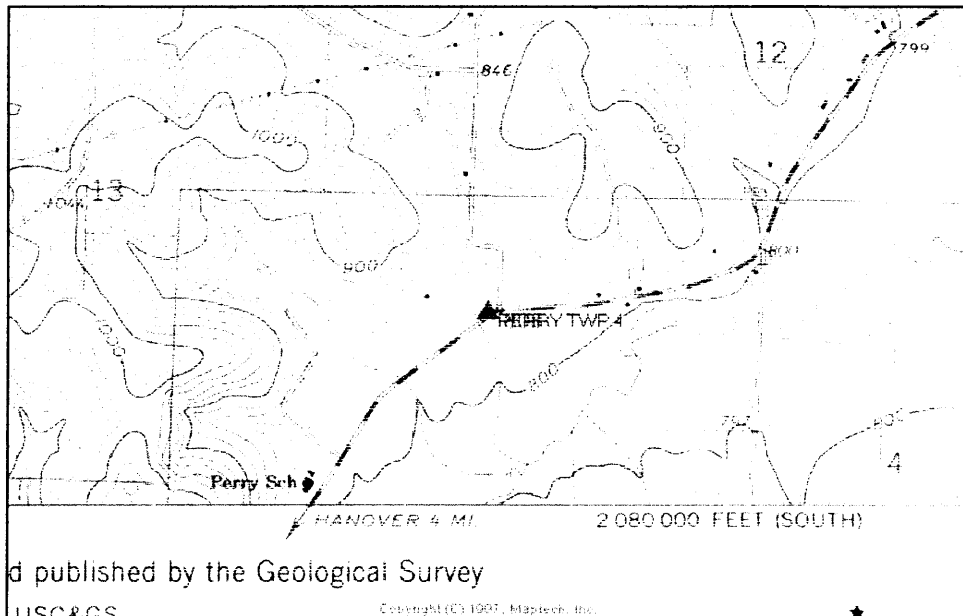
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

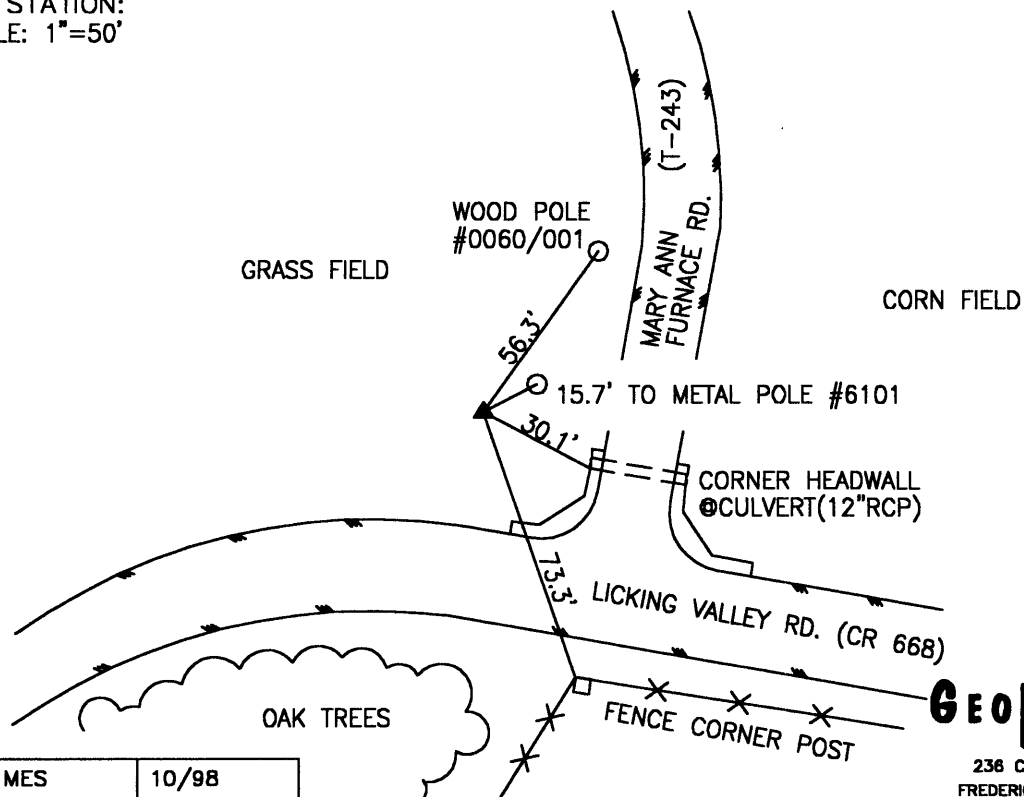
COUNTY	NAME OF STATION	YEAR
LICKING	PERRY TWP 4	1998

N: 775916.750 E: 2045093.812 LAT: 40°07'47.89683" N LONG: 82°13'33.94207" W  
ELEV.: 807.866 (GPS) COMB. FACTOR: 0.999981982 Θ ANGLE: +0°10'25.67

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=50'



PREPARED BY: MES	10/98
CHECKED BY: LLR	01/99

FILE: 0860.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0860  
Designation: PERRY TWP 4

PID:

Latitude: 400747N  
Longitude: 0821333W  
Elevation: 242.6M  
Stamping: PERRY TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.0 MILES (9.7 KM) EAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED EAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 3.7 MILES (6.0 KM) TO ITS INTERSECTION WITH PINWOOD TRAIL ROAD (CR 202) . TURN RIGHT AND PROCEED EAST ALONG PINWOOD TRAIL ROAD (CR 202) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH REFORM ROAD (CR 232) . TURN RIGHT AND PROCEED SOUTH ALONG REFORM ROAD (CR 232) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH MARY ANN FURNACE ROAD (T-243) . TURN LEFT AND PROCEED EAST ALONG MARY ANN FURNACE ROAD (T-243) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH LICKING VALLEY ROAD (CR 668) TO THE STATION ON THE RIGHT IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY TWP 4 1998. THE STATION IS 56.3 FEET (17.2 M) AZIMUTH 37 DEGREES TO A WOOD POLE WITH THE NUMBER 0060/001, 15.7 FEET (4.8 M) AZIMUTH 62 DEGREES TO A METAL POLE WITH THE NUMBER 6101, 30.0 FEET (9.1 M) AZIMUTH 118 DEGREES TO A CORNER HEAD WALL AT THE CULVERT (12 INCH RCP) , AND 73.3 FEET (22.3 M) AZIMUTH 161 DEGREES TO A FENCE CORNER POST.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

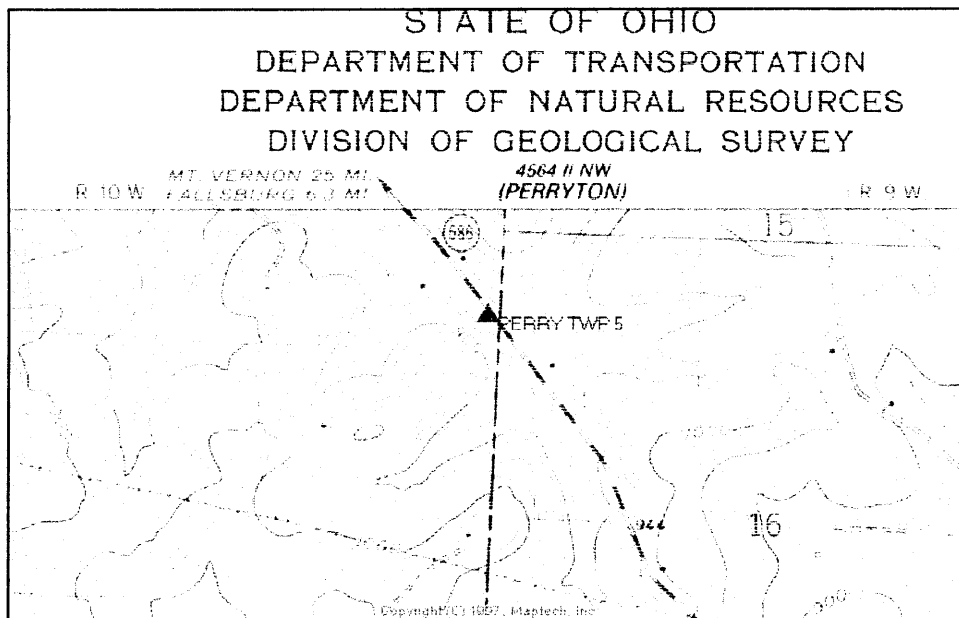
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	PERRY TWP 5	1998

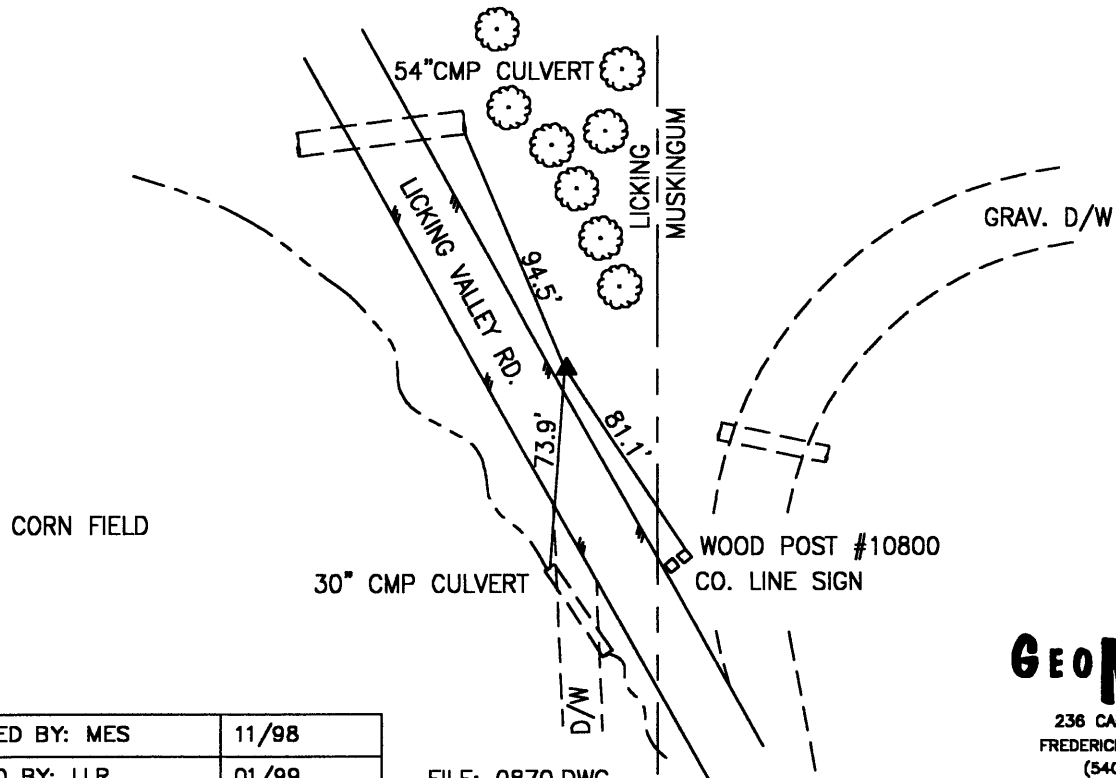
N: 773219.491 E: 2055305.071 LAT: 40°07'20.91637" N LONG: 82°11'22.60410" W

ELEV.: 837.574 (GPS) COMB. FACTOR: 0.999978868 Θ ANGLE: +0°11'49.00

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0870.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0870

Designation: PERRY TWP 5

PID:

Latitude: 400720N  
Longitude: 0821122W  
Elevation: 245.6M  
Stamping: PERRY TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 8.0 MILES (12.9 KM) EAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED NORTHEAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 3.7 MILES (6.0 KM) TO ITS INTERSECTION WITH PINWOOD TRAIL ROAD (CR 202) . TURN RIGHT AND PROCEED EAST ALONG PINWOOD TRAIL ROAD (CR 202) A DISTANCE OF 3.7 MILES (6.0 KM) TO ITS INTERSECTION WITH PLEASANT VALLEY ROAD (SR 586) . TURN RIGHT AND PROCEED SOUTHEAST ALONG PLEASANT VALLEY ROAD (SR 586) A DISTANCE OF 2.2 MILES (3.5 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 84 FEET (25.6 M) WEST OF THE COUNTY LINE SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY TWP 5 1998. THE STATION IS 94.5 FEET (28.8 M) AZIMUTH 337 DEGREES TO A 54 INCH CMP CULVERT, 81.1 FEET (24.7 M) AZIMUTH 147 DEGREES TO A WOOD POST WITH THE NUMBER 10800, AND 73.9 FEET (22.5 M) AZIMUTH 183 DEGREES TO A 30 INCH CMP CULVERT.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

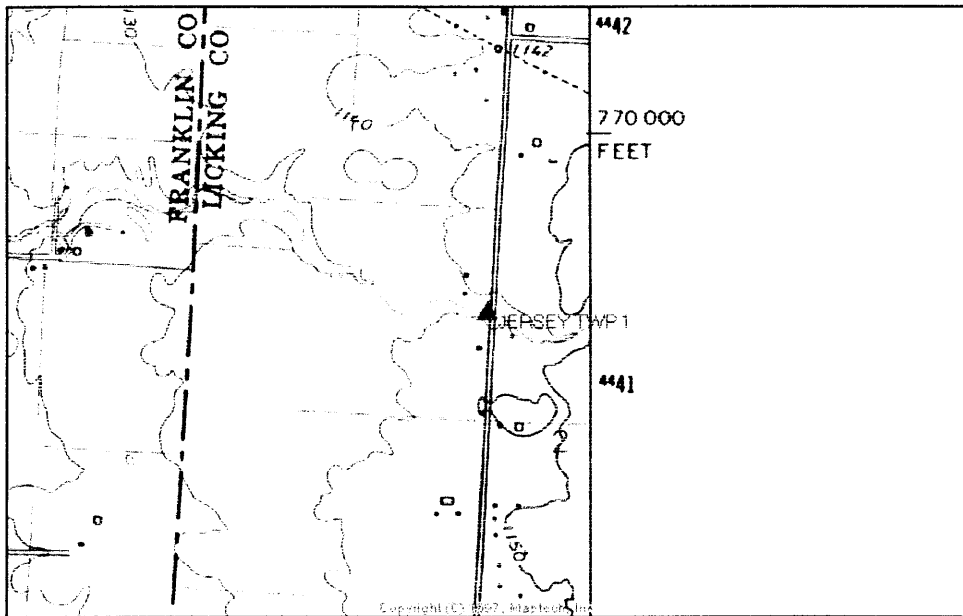
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

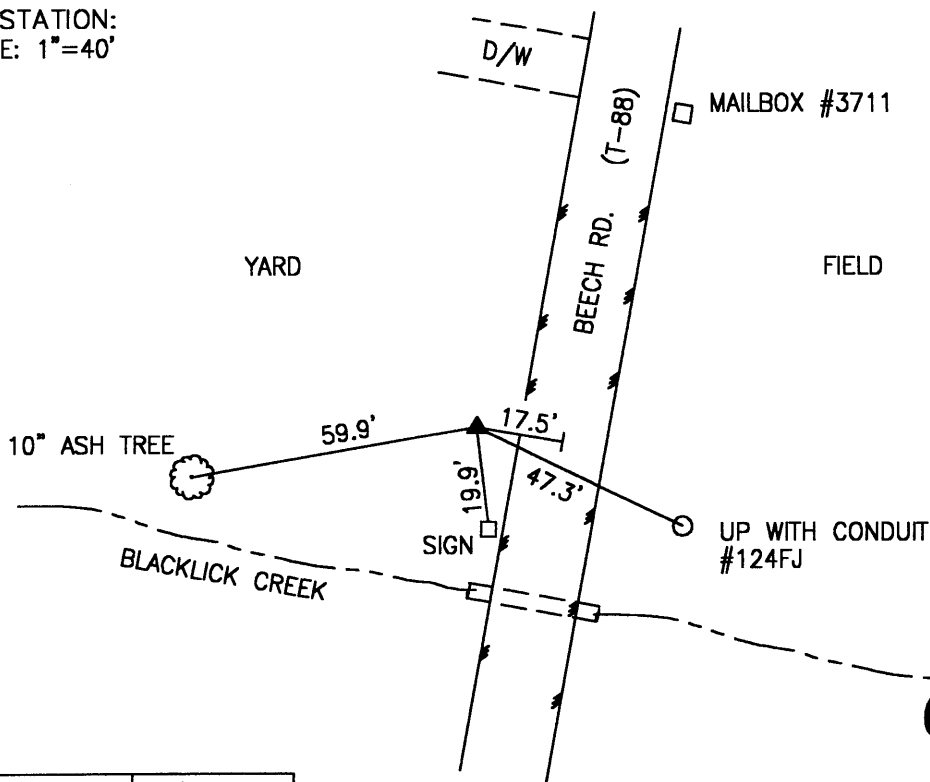
COUNTY	NAME OF STATION	YEAR
LICKING	JERSEY TWP 1	1998

N: 768433.153	E: 1897703.728	LAT: 40°06'34.11174" N	LONG: 82°45'11.15158" W
ELEV.: 1134.000 (GPS)	COMB. FACTOR: 0.999961815	Θ ANGLE: -0°09'38.14	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0880.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0880

Designation: JERSEY TWP 1

PID:

Latitude: 400634N  
Longitude: 0824511W  
Elevation: 250.7M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: JERSEY TWP 1 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) SOUTHWEST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHWEST ALONG JOHNSTOWN-UTICA ROAD (US 62) A DISTANCE OF 4.3 MILES (6.9 KM) TO ITS INTERSECTION WITH BEECH ROAD (T-88) . TURN LEFT AND PROCEED SOUTH ALONG BEECH ROAD (T-88) A DISTANCE OF 1.1 MILES (1.8 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 35 FEET (10.7 M) NORTH OF BLACKLICK CREEK. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 1 1998. THE STATION IS 19.9 FEET (6.1 M) AZIMUTH 173 DEGREES TO A SIGN, 59.9 FEET (18.3 M) AZIMUTH 260 DEGREES TO A 10 INCH ASH TREE, 47.3 FEET (14.4 M) AZIMUTH 116 DEGREES TO A POWER POLE WITH CONDUIT WITH THE NUMBER 124FJ, AND 17.5 FEET (5.3 M) FROM THE CENTERLINE OF BEECH ROAD.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

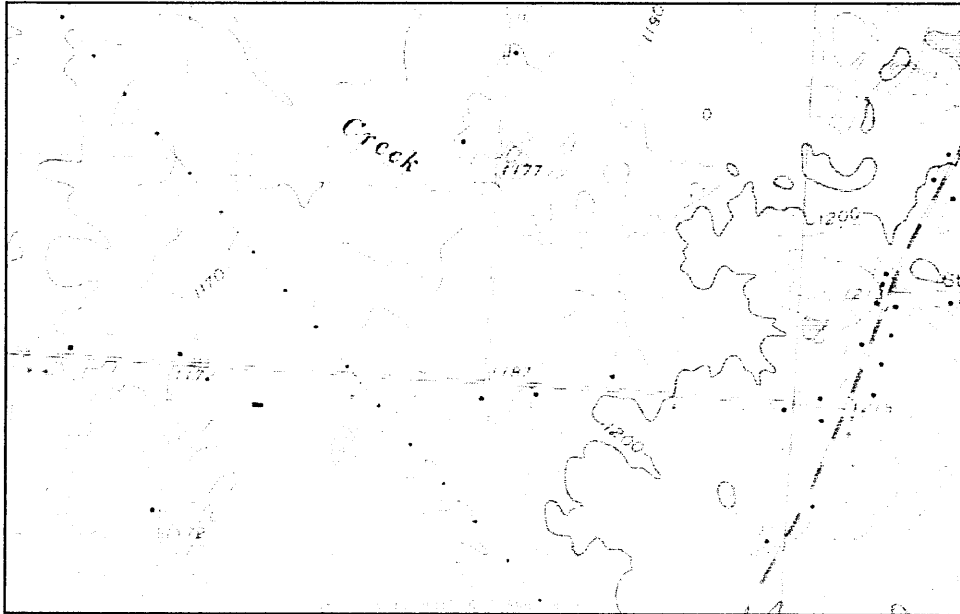
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

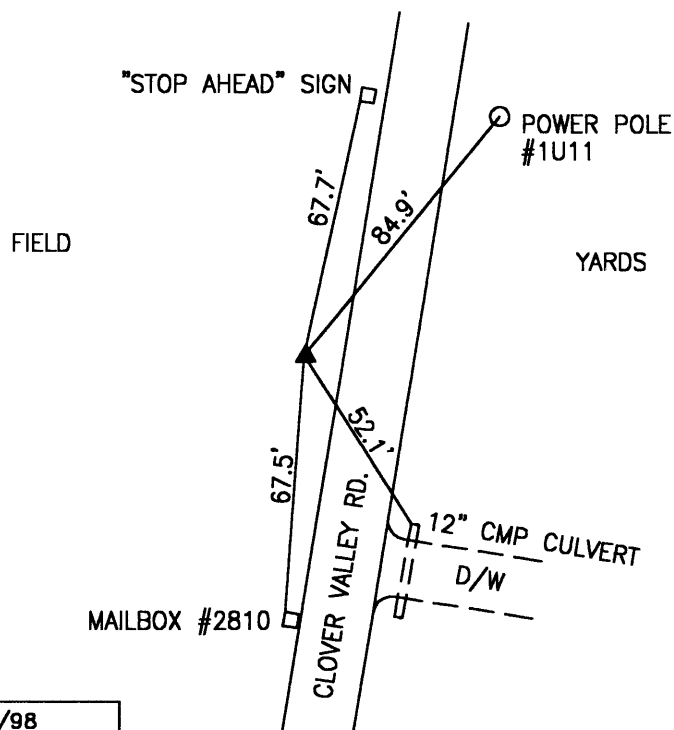
COUNTY	NAME OF STATION	YEAR
LICKING	JERSEY TWP 2	1998

N: 764155.605	E: 1905816.275	LAT: 40°05'52.05289" N	LONG: 82°43'26.60655" W
ELEV.: 1179.292 (GPS)	COMB. FACTOR: 0.999957090	Θ ANGLE: -0°08'31.80	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0890.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0890  
Designation: JERSEY TWP 2

PID:

Latitude: 400552N  
Longitude: 0824326W  
Elevation: 248.2M  
Stamping: JERSEY TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.0 MILES (9.7 KM) WEST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND JOHNSTOWN-UTICA ROAD (US 62) PROCEED SOUTHEAST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH HAZELTON-ETNA ROAD (SR 310) . TURN RIGHT AND PROCEED SOUTH ALONG HAZELTON-ETNA ROAD (SR 310) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH JUG STREET ROAD (CR 22) . TURN RIGHT AND PROCEED WEST ALONG JUG STREET ROAD (CR 22) A DISTANCE OF APPROXIMATELY 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH MINK STREET (CR 41) . TURN LEFT AND PROCEED SOUTHWEST ALONG MINK STREET (CR 41) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH JUG STREET ROAD (CR 22) . TURN RIGHT AND PROCEED WEST ALONG JUG STREET ROAD (CR 22) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH CLOVER VALLEY ROAD (CR 26) . TURN RIGHT AND PROCEED NORTH ALONG CLOVER VALLEY ROAD (CR 26) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE LEFT ABOUT 67 FEET (20.4 M) NORTH OF MAILBOX NUMBER 2810. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 2 1998. THE STATION IS 52.1 FEET (15.9 M) AZIMUTH 148 DEGREES TO A 12 INCH CMP CULVERT, 67.7 FEET (20.6 M) AZIMUTH 12 DEGREES TO A STOP AHEAD SIGN, 84.9 FEET (25.9 M) AZIMUTH 40 DEGREES TO A POWER POLE WITH THE NUMBER 1U11, AND 67.5 FEET (20.6 M) AZIMUTH 184 DEGREES TO A MAIL BOX WITH THE NUMBER 2810.

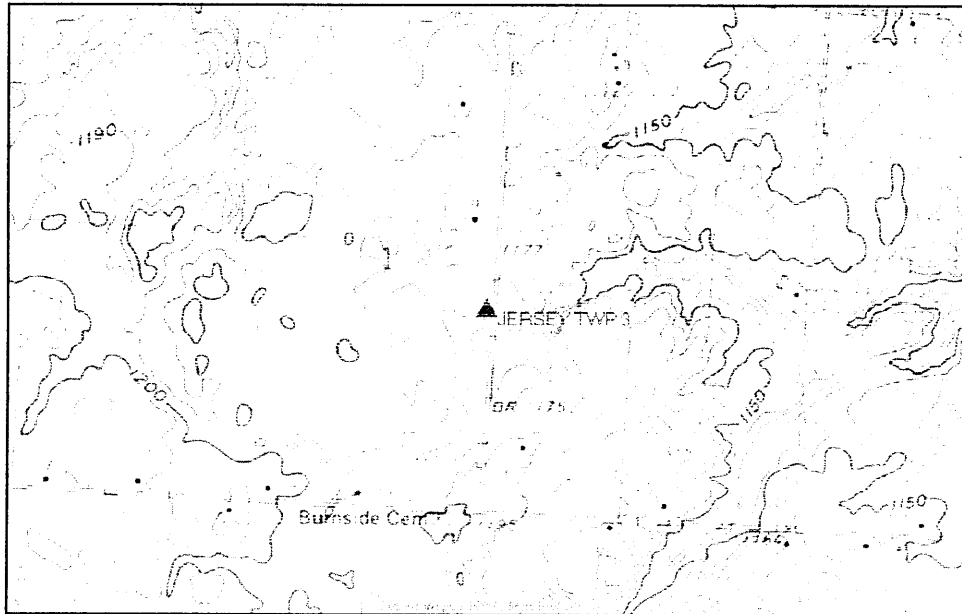
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

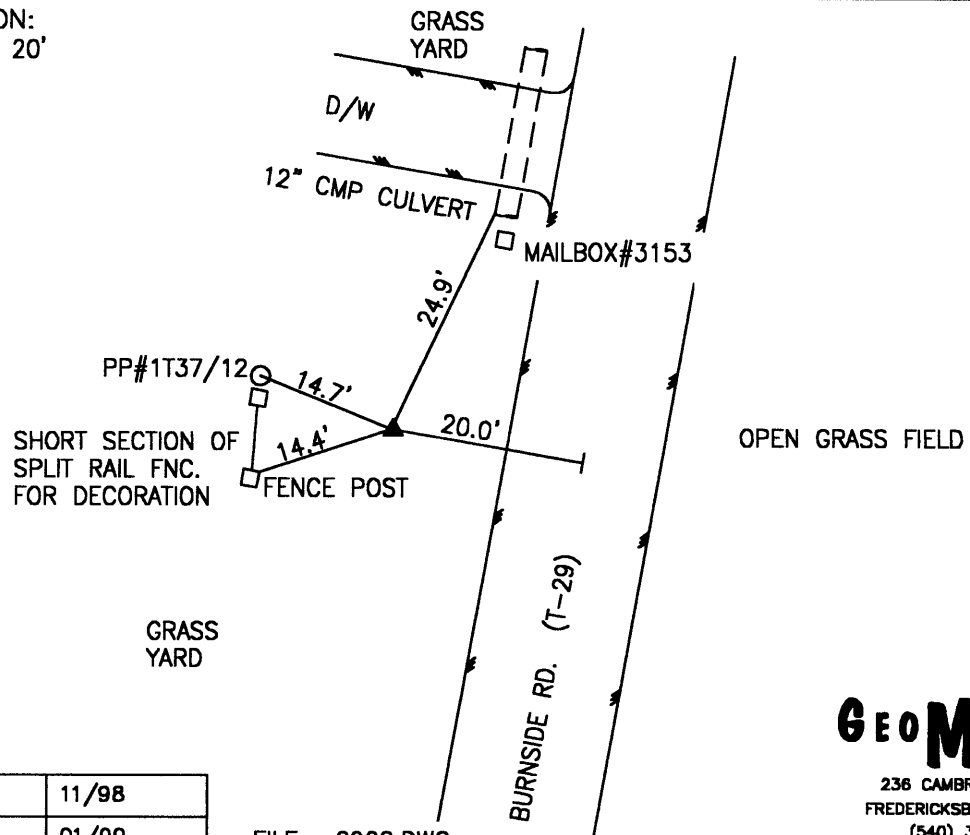
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	JERSEY TWP 3		1998
N: 765785.242	E: 1916569.405	LAT: 40°06'08.39804" N	LONG: 82°41'08.28012" W
ELEV.: 1184.768 (GPS)	COMB. FACTOR: 0.999957819		θ ANGLE: -0°07'04.03

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 20'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0900.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0900  
Designation: JERSEY TWP 3

PID:

Latitude: 400608N  
Longitude: 0824108W  
Elevation: 261.4M  
Stamping: JERSEY TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.5 MILES (5.6 KM) SOUTH OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHEAST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH HAZELTON-ETNA ROAD (CR 310) . TURN RIGHT AND PROCEED SOUTH ALONG HAZELTON-ETNA ROAD (CR 310) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH JUG STREET ROAD (CR 22) . TURN RIGHT AND PROCEED WEST ALONG JUG STREET ROAD (CR 22) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH BURNSIDE ROAD (T-29) . TURN RIGHT AND PROCEED NORTH ALONG BURNSIDE ROAD (T-29) A DISTANCE OF 0.4 MILE (0.6 KM) TO THE STATION ON THE LEFT ABOUT 25 FEET (7.6 M) SOUTH FROM MAILBOX NUMBER 3153. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 3 1998. THE STATION IS 14.4 FEET (4.4 M) AZIMUTH 252 DEGREES TO A FENCE POST, 14.7 FEET (4.5 M) AZIMUTH 292 DEGREES TO A POWER POLE WITH THE NUMBER 1T37/12, 24.9 FEET (7.6 M) AZIMUTH 25 DEGREES TO A 12 INCH CMP CULVERT, AND 20.0 FEET (6.1 M) FROM THE CENTERLINE OF BURNSIDE ROAD.

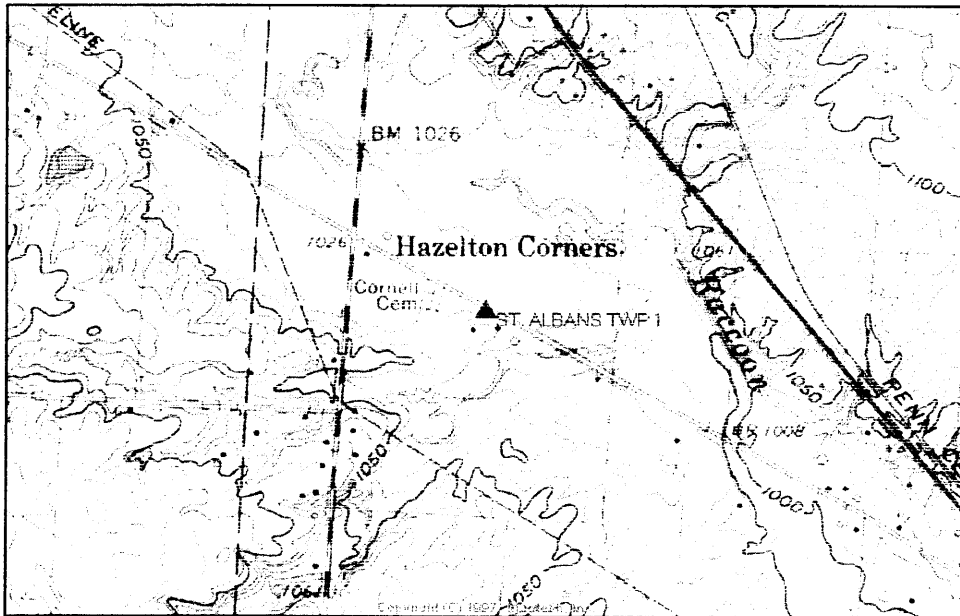
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

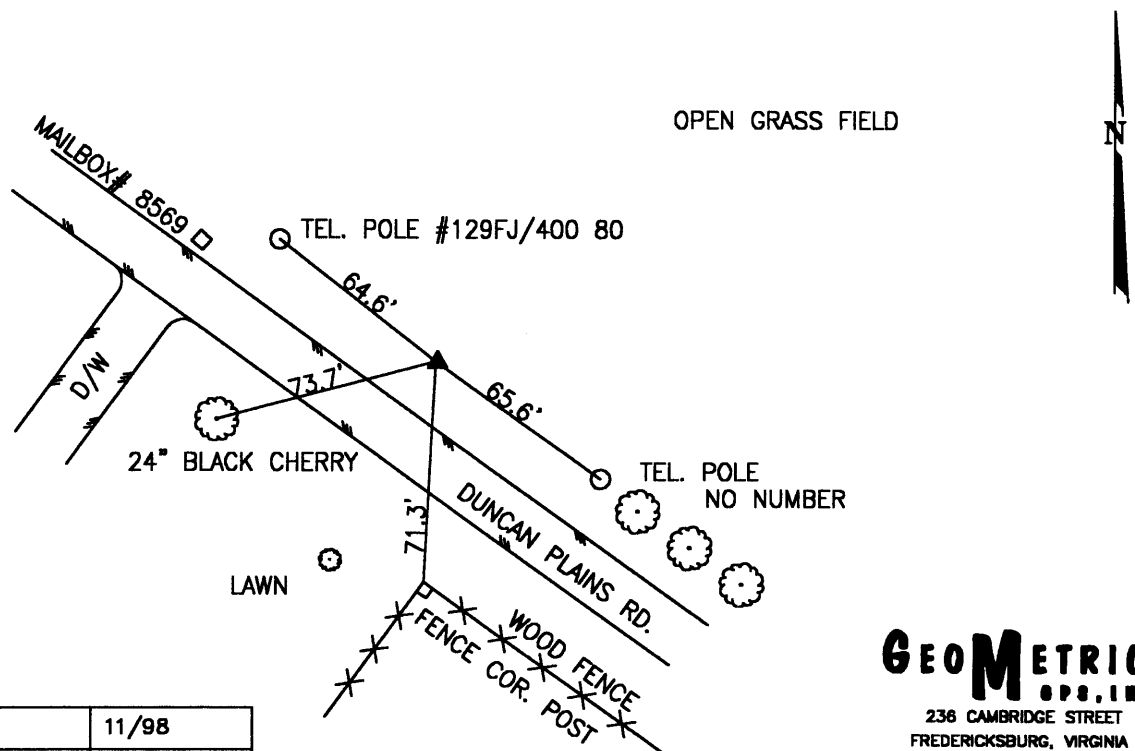
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 1		1998
N: 769265.693	E: 1924770.696	LAT: 40°06'42.94528" N	LONG: 82°39'22.81780" W
ELEV.: 1026.773 (GPS)	COMB. FACTOR: 0.999967477		θ ANGLE: -0°05'57.11

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0910.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0910  
Designation: ST ALBANS TWP 1

PID:

Latitude: 400642N  
Longitude: 0823922W  
Elevation: 374.9M  
Stamping: ST ALBANS TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHWEST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND WORTHINGTON ROAD (SR 161) PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF APPROXIMATELY 2.8 MILES (4.5 KM) TO ITS INTERSECTION WITH DUNCAN PLAINS ROAD (CR 33) . CONTINUE NORTHWEST ALONG DUNCAN PLAINS ROAD (CR 33) A DISTANCE OF 1.1 MILES (1.8 KM) TO THE STATION ON THE RIGHT ABOUT 65 FEET (19.8 M) SOUTH OF MAILBOX 8569. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 1 1998. THE STATION IS 65.6 FEET (20.0 M) AZIMUTH 126 DEGREES TO A TELEPHONE POLE WITH NO NUMBER, 71.3 FEET (21.7 M) AZIMUTH 183 DEGREES TO A FENCE CORNER POST, 64.6 FEET (19.7 M) AZIMUTH 308 DEGREES TO A TELEPHONE POLE WITH THE NUMBER 129FJ/400 80, AND 73.7 FEET (22.5 M) AZIMUTH 255 DEGREES TO A 24 INCH BLACK CHERRY TREE.

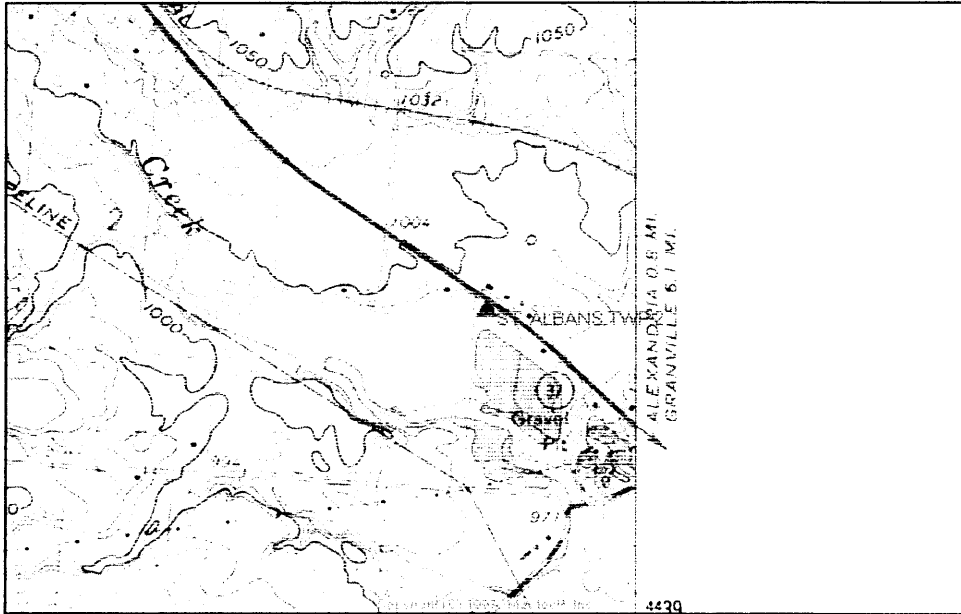
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

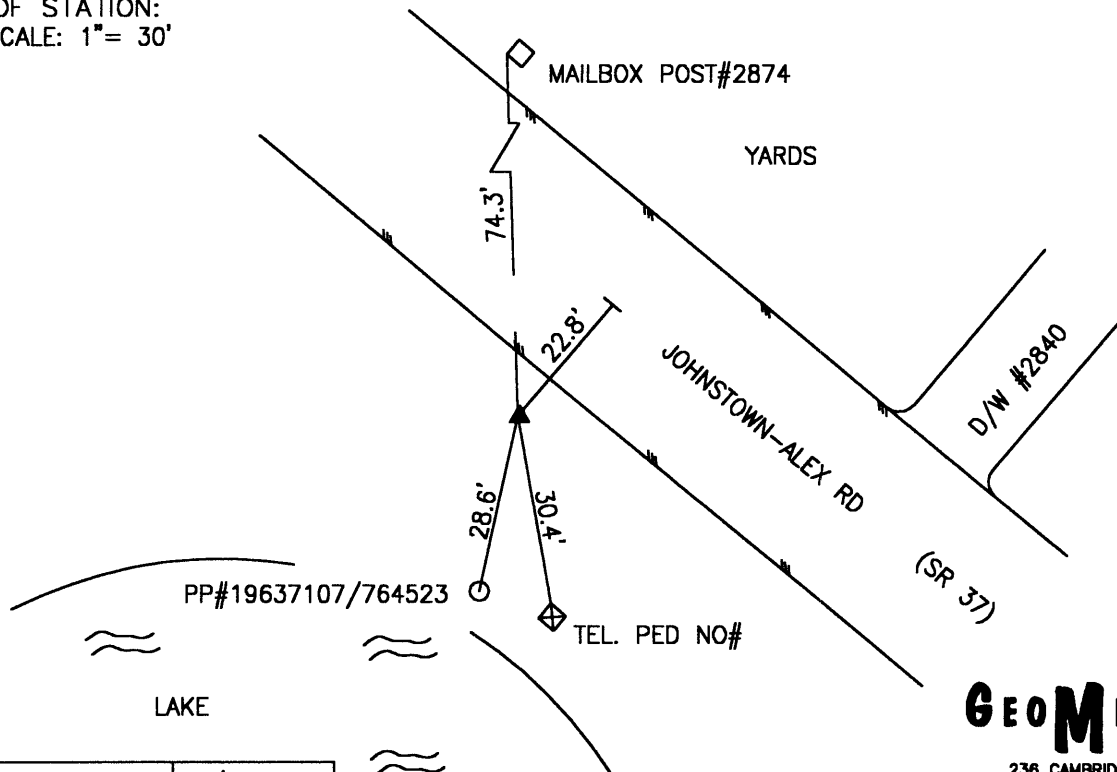
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 2		1998
N: 764581.858	E: 1932256.734	LAT: 40°05'56.77673" N	LONG: 82°37'46.38245" W
ELEV.: 990.201 (GPS)	COMB. FACTOR: 0.999966402		θ ANGLE: -0°04'55.92

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0920.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0920  
Designation: ST ALBANS TWP 2

PID:

Latitude: 400556N  
Longitude: 0823746W  
Elevation: 353.7M  
Stamping: ST ALBANS TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.2 MILES (1.9 KM) NORTHWEST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND LIBERTY STREET PROCEED NORTHWEST ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 1.2 MILES (1.9 KM) TO THE STATION ON THE LEFT BETWEEN HOUSE NUMBERS 2840 AND 2874. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 2 1998. THE STATION IS 30.4 FEET (9.3 M) AZIMUTH 170 DEGREES TO A TELEPHONE PEDESTAL WITH NO NUMBER, 28.6 FEET (8.7 M) AZIMUTH 192 DEGREES TO A POWER POLE WITH THE NUMBER 19637107/764523, 74.3 FEET (22.6 M) AZIMUTH 346 DEGREES TO A MAIL BOX WITH THE NUMBER 2874, AND 22.8 FEET (6.9 M) FROM THE CENTERLINE OF JOHNSTOWN-ALEX ROAD.

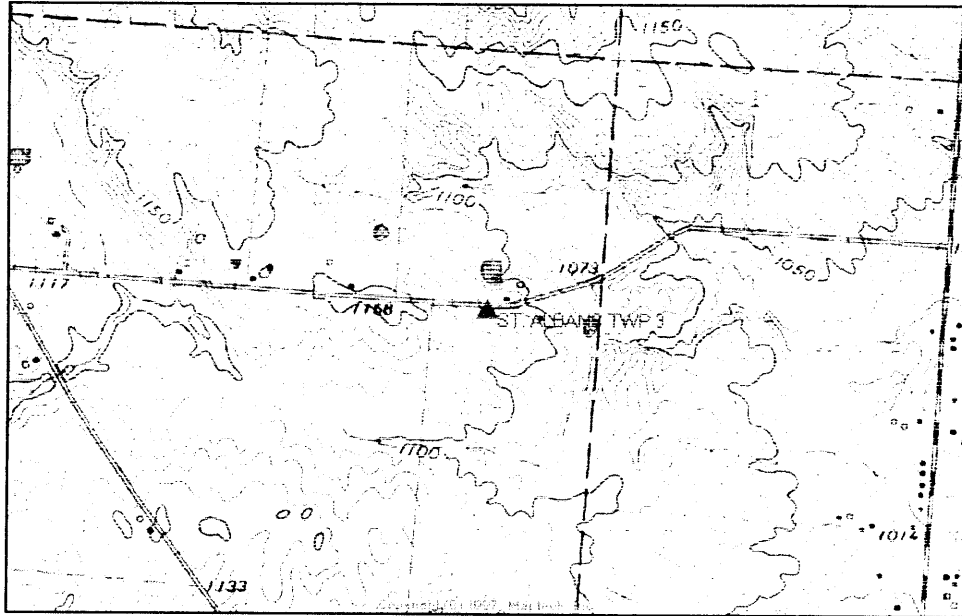
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

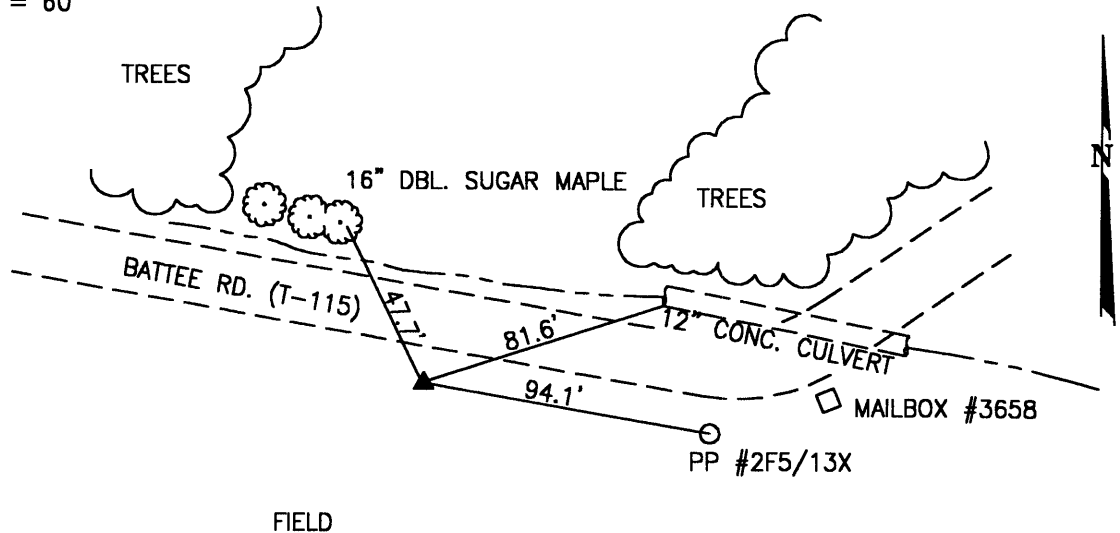
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 3		1998
N: 768776.836	E: 1948456.094	LAT: 40°06'38.40989" N	LONG: 82°34'17.97021" W
ELEV.: 1120.805 (GPS)	COMB. FACTOR: 0.999962709		θ ANGLE: -0°02'43.68

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0930.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0930

Designation: ST ALBANS TWP 3

PID:

Latitude: 400638N  
Longitude: 0823417W  
Elevation: 361.8M  
Stamping: ST ALBANS TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP, IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHEAST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-ALEX ROAD (SR 37) AND RACCOON VALLEY ROAD (CR 539) PROCEED EAST ALONG RACCOON VALLEY ROAD (CR 539) A DISTANCE OF 2.6 MILES (4.2 KM) TO ITS INTERSECTION WITH LOUDOUN STREET ROAD (CR 110) . TURN LEFT AND PROCEED NORTH ALONG LOUDOUN STREET ROAD (CR 110) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH BATTEE ROAD (T-115) . TURN LEFT AND PROCEED WEST ALONG BATTEE ROAD (T-115) A DISTANCE OF 0.8 MILE (1.3 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 150 FEET (45.7 M) WEST OF MAILBOX NUMBER 3658. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 3 1998. THE STATION IS 81.6 FEET (24.9 M) AZIMUTH 72 DEGREES TO A 12 INCH CONCRETE CULVERT, 94.1 FEET (28.7 M) AZIMUTH 100 DEGREES TO A POWER POLE WITH THE NUMBER 2F5/13X, AND 47.7 FEET (14.5 M) AZIMUTH 334 DEGREES TO A 16 INCH DIAMETER DOUBLE SUGAR MAPLE.

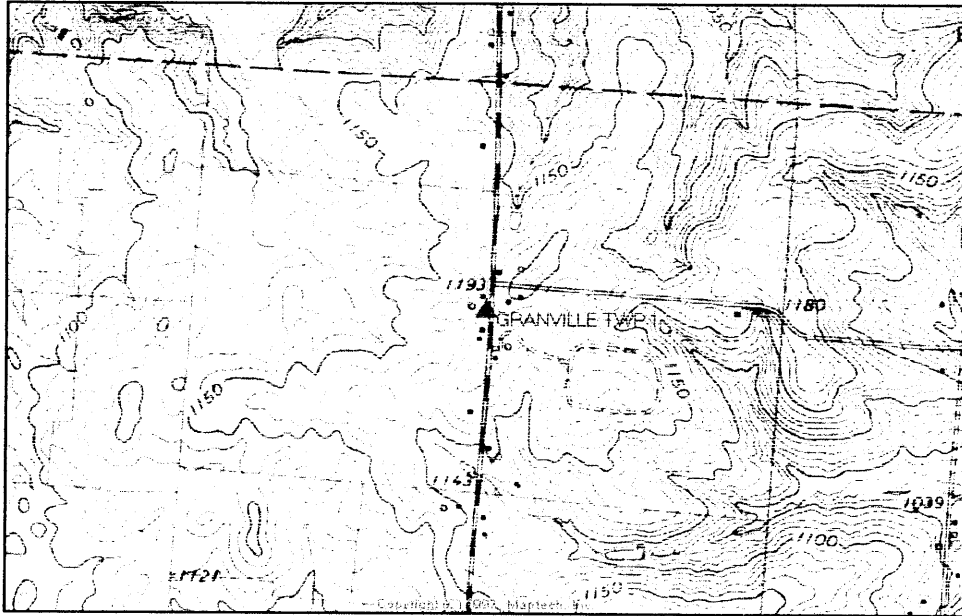
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

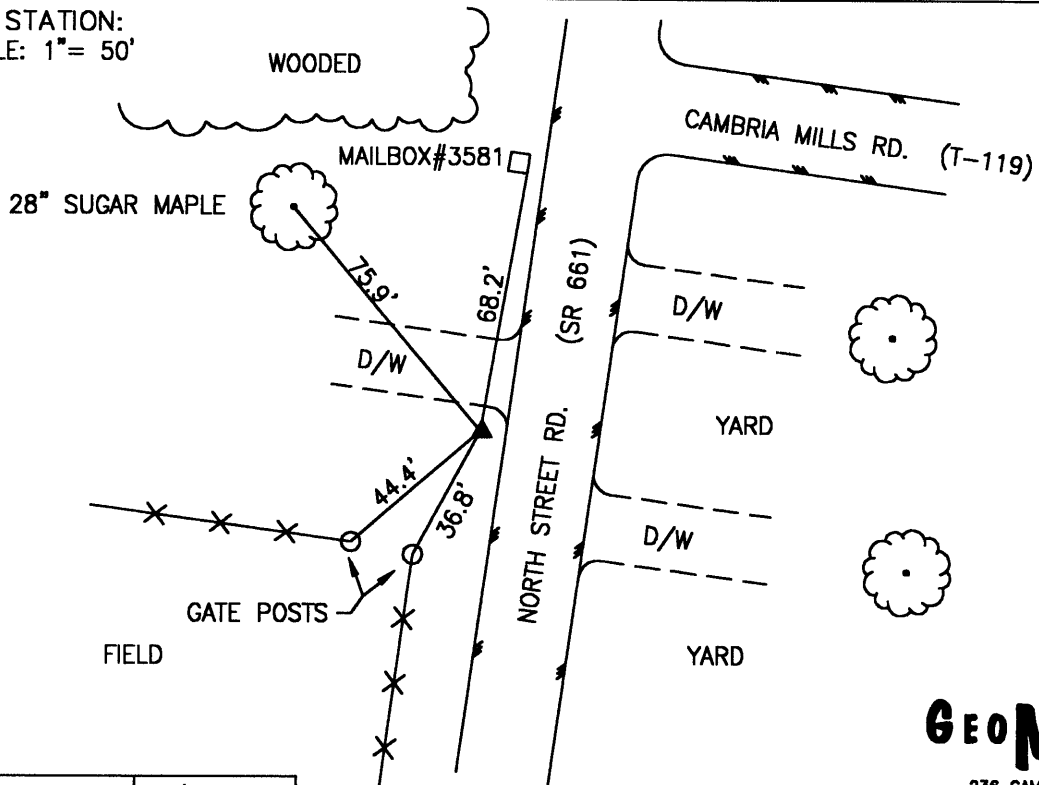
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY		NAME OF STATION		YEAR
LICKING		GRANVILLE TWP 1		1998
N: 768152.031	E: 1963272.085	LAT: 40°06'32.30882" N	LONG: 82°31'07.28295" W	
ELEV.: 1188.833 (GPS)	COMB. FACTOR: 0.999959087		Θ ANGLE: -0°00'42.69	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0940.DWG

**GEOMETRICS**  
 OPS., INC.  
 238 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0940

Designation: GRANVILLE TWP 1

PID:

Latitude: 400632N

Longitude: 0823107W

Elevation: 338.1M

Stamping: GRANVILLE TWP 1 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN GRANVILLE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTH OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET ROAD (SR 661) AND NEWARK-GRANVILLE ROAD (CR 539) IN GRANVILLE PROCEED NORTH ALONG NORTH STREET ROAD (SR 661) A DISTANCE OF 3.0 MILES (4.8 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 300 FEET (91.4 M) SOUTH OF CAMBRIA MILLS ROAD (T-119) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT SET TWO INCHES BELOW THE GROUND SURFACE AND STAMPED GRANVILLE TWP 1 1998. THE STATION IS 36.8 FEET (11.2 M) AZIMUTH 208 DEGREES TO A FENCE GATE POST, 44.4 FEET (13.5 M) AZIMUTH 229 DEGREES TO A FENCE GATE POST, 75.9 FEET (23.1 M) AZIMUTH 320 DEGREES TO A 28 INCH SUGAR MAPLE TREE, AND 68.2 FEET (20.8 M) AZIMUTH10 DEGREES TO A MAIL BOX POST.

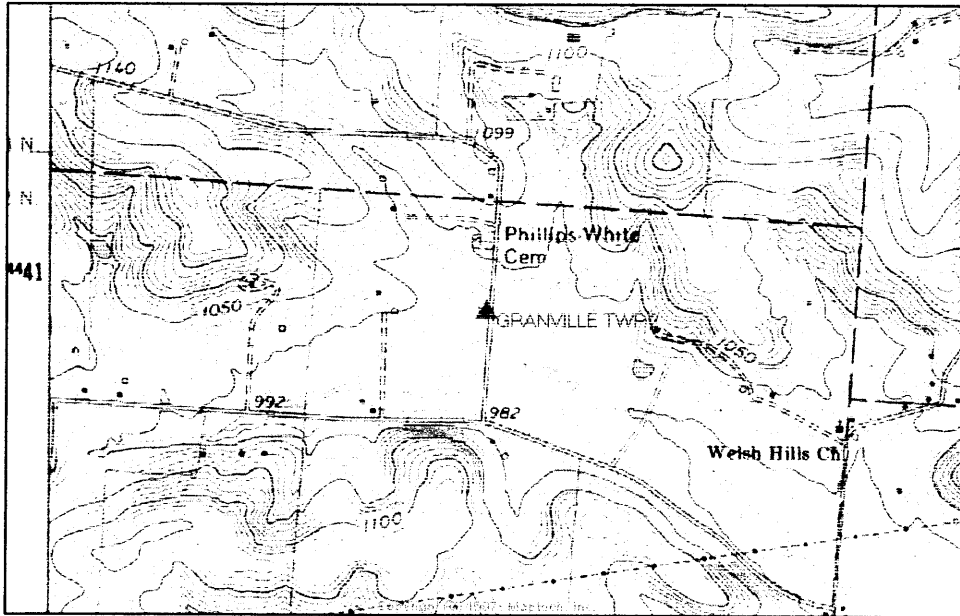
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

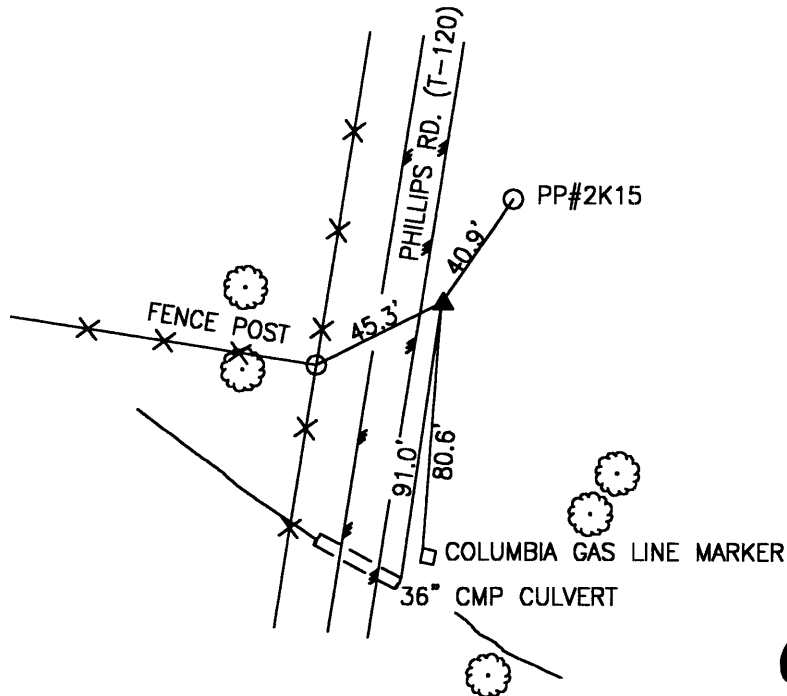
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GRANVILLE TWP 2		1998
N: 768602.174	E: 1972566.186	LAT: 40°06'36.75925" N	LONG: 82°29'07.66750" W
ELEV.: 971.691 (GPS)	COMB. FACTOR: 0.999969726		θ ANGLE: +0°00'33.20

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0950.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0950  
Designation: GRANVILLE TWP 2

PID:

Latitude: 400636N  
Longitude: 0822907W  
Elevation: 306.3M  
Stamping: GRANVILLE TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN GRANVILLE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHEAST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET ROAD (SR 661) AND NEWARK-GRANVILLE ROAD (CR 539) IN GRANVILLE PROCEED NORTH ALONG NORTH STREET ROAD (SR 661) A DISTANCE OF 3.0 MILES (4.8 KM) TO ITS INTERSECTION WITH CAMBRIA MILL ROAD (T-119) . TURN RIGHT AND PROCEED EAST ALONG CAMBRIA MILL ROAD (T-119) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH PHILLIPS ROAD (T-120) . TURN LEFT AND PROCEED NORTH ALONG PHILLIPS ROAD (T-120) A DISTANCE OF 0.2 MILES (0.3 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED GRANVILLE TWP 2 1998. THE STATION IS 91.0 FEET (27.7 M) AZIMUTH 188 DEGREES TO A 36 INCH CMP CULVERT, 40.9 FEET (12.5 M) AZIMUTH 34 DEGREES TO A POWER POLE WITH THE NUMBER 2K15, 45.3 FEET (13.8 M) AZIMUTH 243 DEGREES TO A FENCE POST, AND 80.6 FEET (24.6 M) AZIMUTH 184 DEGREES TO A COLUMBIA GAS LINE MARKER.

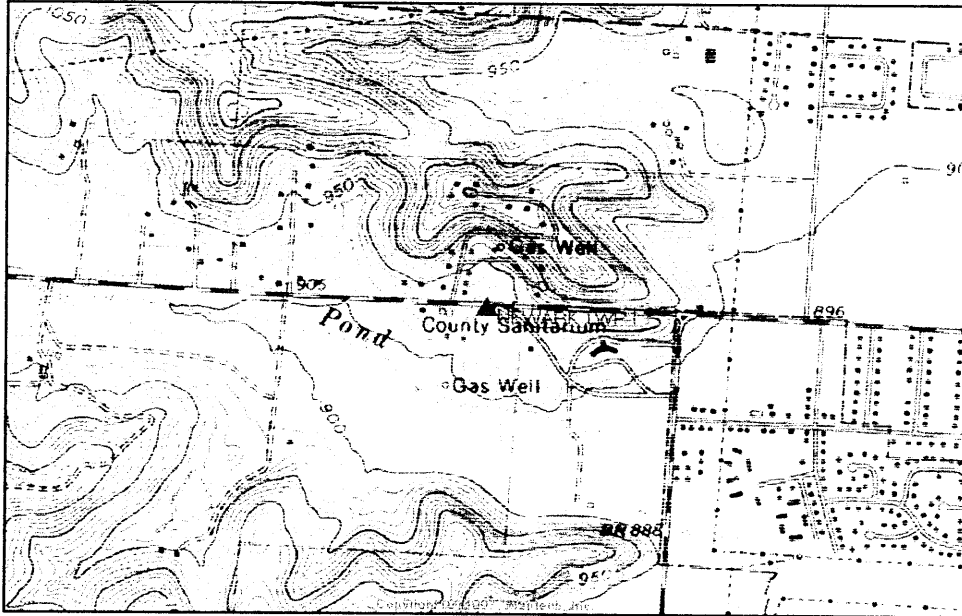
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

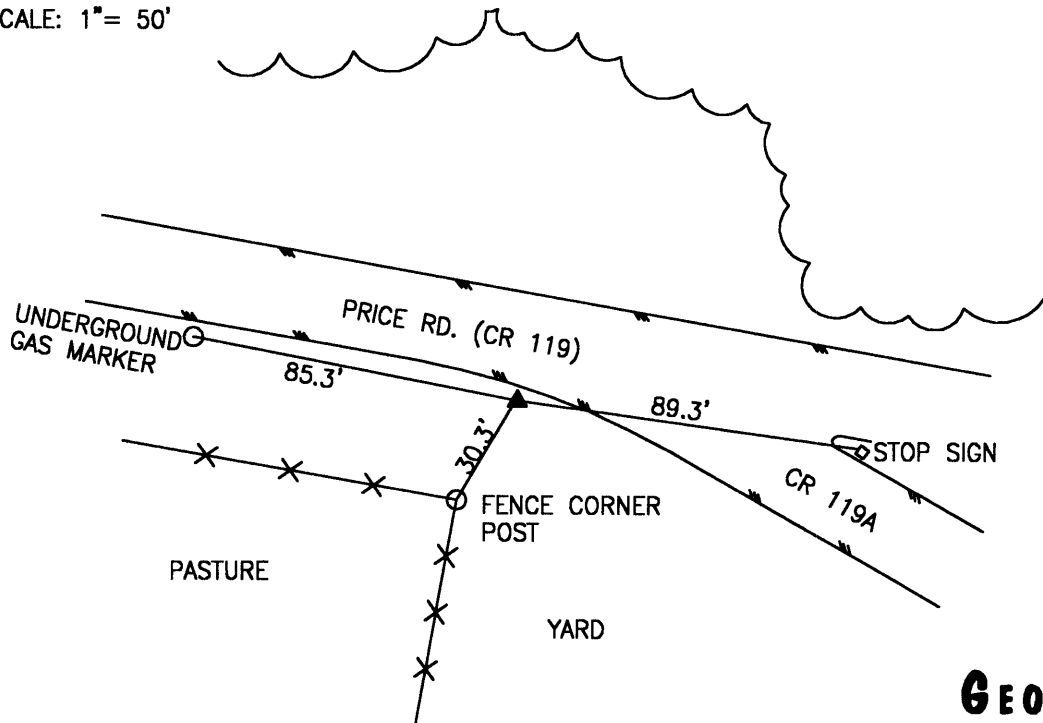
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	NEWARK TWP 1		1998
N: 764762.115	E: 1982172.953	LAT: 40°05'58.77839" N	LONG: 82°27'04.05354" W
ELEV.: 936.871 (GPS)	COMB. FACTOR: 0.999969070		Ø ANGLE: +0°01'51.64

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0960.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 0960

Designation: NEWARK TWP 1

PID:

Latitude: 400558N  
Longitude: 0822704W  
Elevation: 358.3M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: NEWARK TWP 1 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN NEWARK TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.2 MILES (6.8 KM) NORTHEAST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND MOUNT VERNON ROAD (SR 13) PROCEED NORTH ALONG MOUNT VERNON ROAD (SR 13) A DISTANCE OF 3.0 MILES (4.8 KM) TO ITS INTERSECTION WITH 22ND STREET. TURN LEFT AND PROCEED WEST ALONG 22ND STREET APPROXIMATELY 150 FEET (45.7 M) TO ITS INTERSECTION WITH PRICE STREET (CR 119) . TURN RIGHT AND PROCEED NORTH AND THEN WEST ALONG PRICE STREET (CR 119) A DISTANCE OF 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH CR 119A AND THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWARK TWP 1 1998. THE STATION IS 89.3 FEET (27.2 M) AZIMUTH 98 DEGREES TO A STOP SIGN, 30.3 FEET (9.2 M) AZIMUTH 210 DEGREES TO A FENCE CORNER POST, AND 85.3 FEET (26.0 M) AZIMUTH 281 DEGREES TO A UNDERGROUND GAS MARKER.

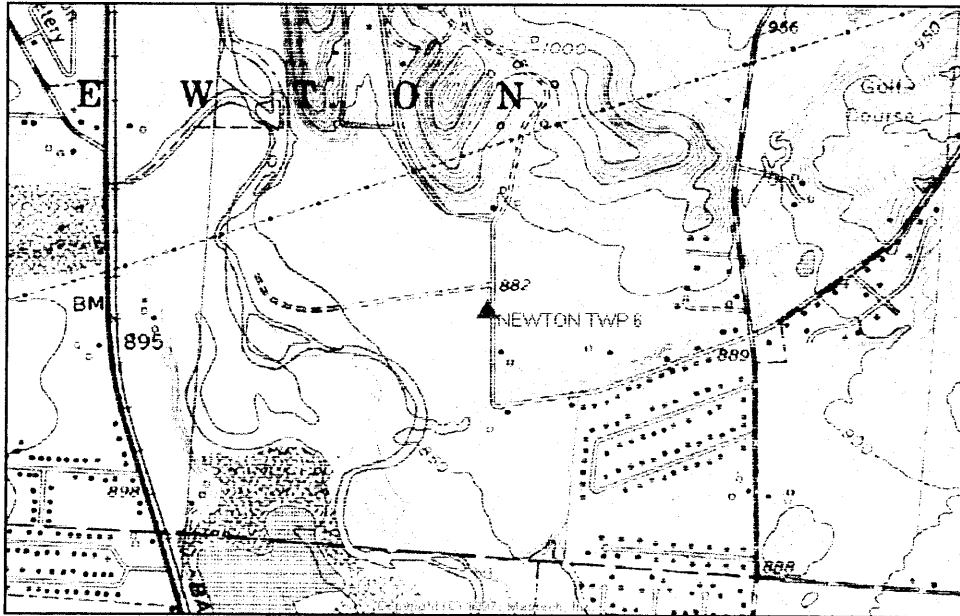
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

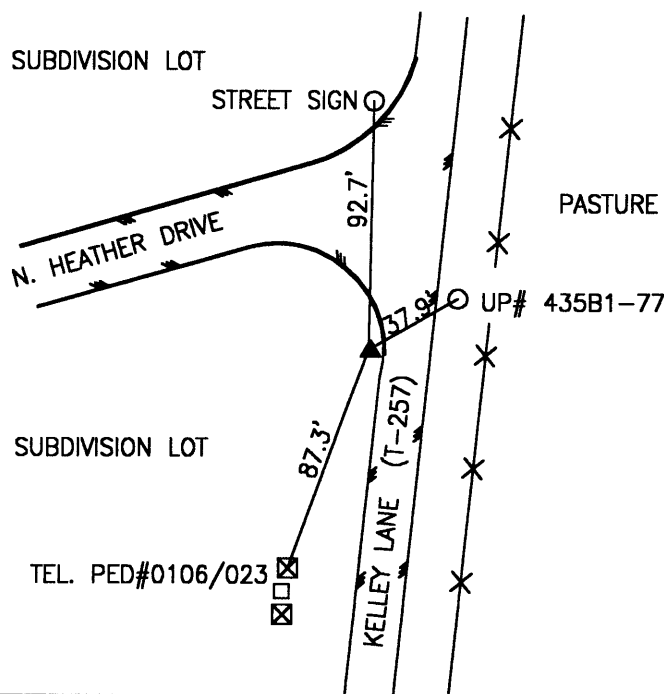
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	NEWTON TWP 6		1998
N: 769138.591	E: 1992054.686	LAT: 40°06'41.95481" N	LONG: 82°24'56.84083" W
ELEV.: 879.890 (GPS)	COMB. FACTOR: 0.999974428		Ø ANGLE: +0°03'12.36

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0970.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0970  
Designation: NEWTON TWP 6

PID:

Latitude: 400641N  
Longitude: 0822456W  
Elevation: 345.3M  
Stamping: NEWTON TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THE CITY OF NEWARK IN LICKING COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION OF HORNS HILL ROAD (CR 203) , LICKING SPRINGS ROAD (CR 257) , AND KELLEY LANE (T-257) PROCEED WEST ALONG KELLEY LANE (T-257) A DISTANCE OF 0.65 MILE (1.05 KM) TO ITS INTERSECTION WITH HEATHER DRIVE NORTH AND THE STATION IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED NEWTON TWP 6 1998. THE STATION IS 92.7 FEET (28.3 M) AZIMUTH 01 DEGREES TO A STREET SIGN, 37.9 FEET (11.6 M) AZIMUTH 60 DEGREES TO A UTILITY POLE WITH THE NUMBER 435B1-77, AND 87.3 FEET (26.6 M) AZIMUTH 200 DEGREES TO A TELEPHONE PEDESTAL NUMBER 0106/023.

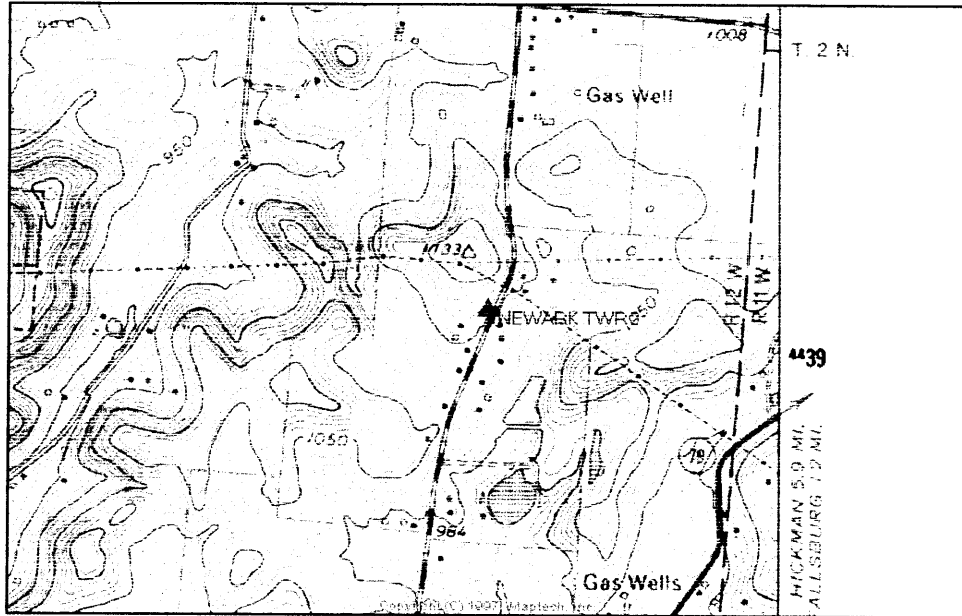
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

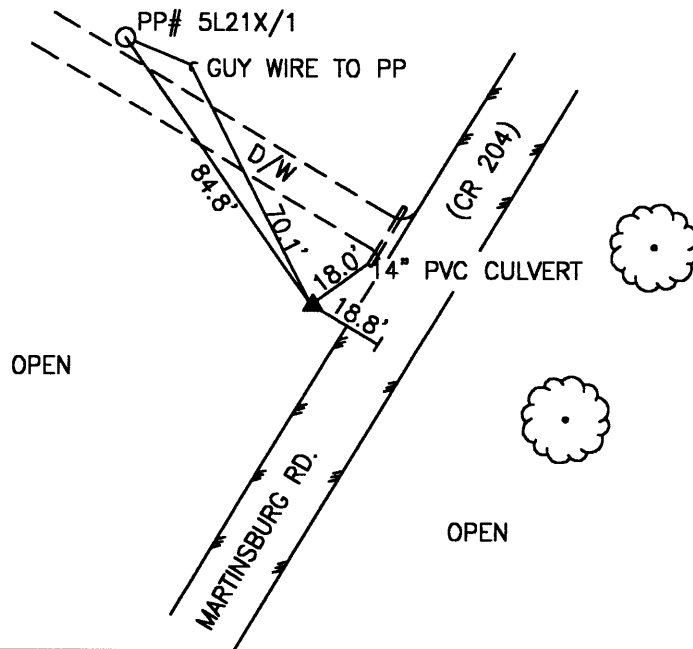
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	NEWARK TWP 2		1998
N: 763422.842	E: 2000912.912	LAT: 40°05'45.37473" N	LONG: 82°23'02.92606" W
ELEV.: 1054.621 (GPS)	COMB. FACTOR: 0.999962638		Ø ANGLE: +0°04'24.64

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0980.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0980

Designation: NEWARK TWP 2

PID:

Latitude: 400545N  
Longitude: 0822302W  
Elevation: 352.8M  
Stamping: NEWARK TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN NEWARK TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.5 MILES (5.6 KM) SOUTHWEST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) PROCEED SOUTH ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 2.4 MILES (3.9 KM) TO ITS INTERSECTION WITH STEWART ROAD (T-166) . TURN RIGHT AND PROCEED WEST ALONG STEWART ROAD (T-166) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH MARTINSBURG ROAD (CR 204) . TURN LEFT AND PROCEED SOUTH ALONG MARTINSBURG ROAD (CR 204) A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWARK TWP 2 1998. THE STATION IS 84.8 FEET (25.8 M) AZIMUTH 325 DEGREES TO A POWER POLE WITH THE NUMBER 5L21X/1, 70.1 FEET (21.4 M) AZIMUTH 333 DEGREES TO A GUY WIRE, 18.0 FEET (5.5 M) AZIMUTH 54 DEGREES TO A 14 INCH PVC CULVERT, AND 18.8 FEET (5.7 M) FROM THE CENTERLINE OF MARTINSBURG ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

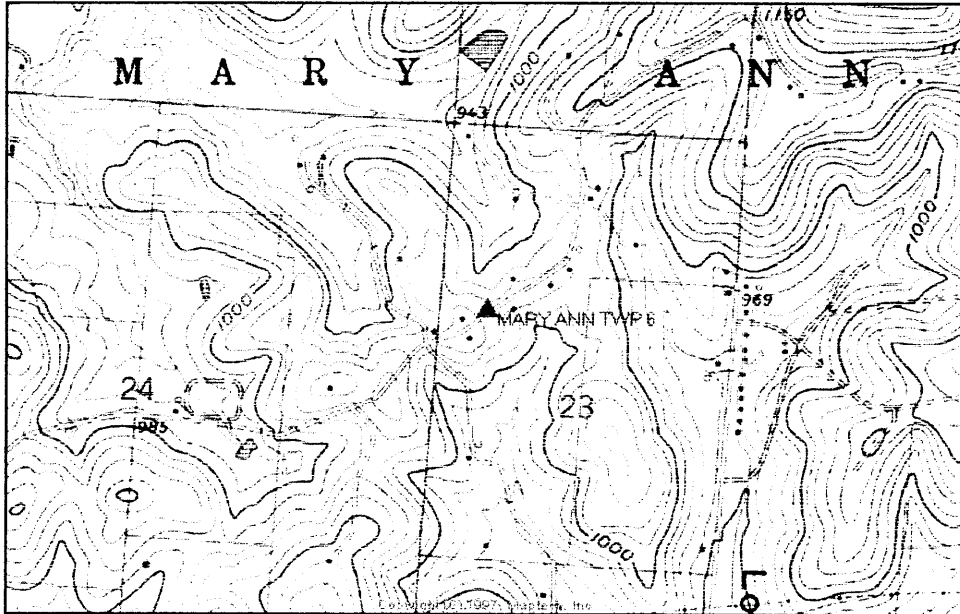
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

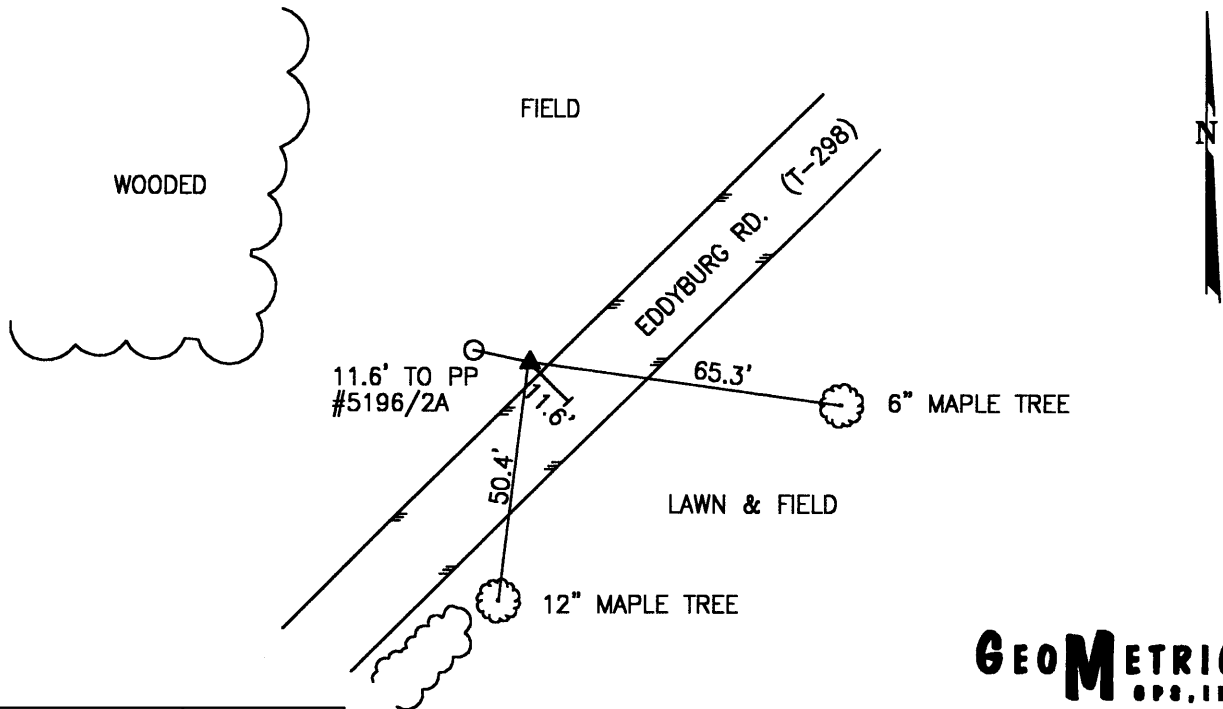
COUNTY	NAME OF STATION	YEAR
LICKING	MARY ANN TWP 6	1998

N: 768725.710	E: 2014591.381	LAT: 40°06'37.56768" N	LONG: 82°20'06.79384" W
ELEV.: 1045.119 (GPS)	COMB. FACTOR: 0.999966270		Θ ANGLE: +0°06'16.40

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 0990.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 0990  
Designation: MARY ANN TWP 6

PID:

Latitude: 400637N  
Longitude: 0822006W  
Elevation: 352.6M  
Stamping: MARY ANN TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MARY ANN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) NORTHEAST OF THE CITY OF NEWARK. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND STATE ROUTE 16 PROCEED NORTH ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF APPROXIMATELY 3.0 MILES (4.8 KM) TO ITS INTERSECTION WITH EDDYBURG ROAD (T-298) . TURN RIGHT AND PROCEED EAST ALONG EDDYBURG ROAD (T-298) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH SWANS ROAD (T-297) . CONTINUE NORTH ALONG EDDYBURG ROAD (T-298) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MARY ANN TWP 6 1998. THE STATION IS 11.6 FEET (3.5 M) AZIMUTH 282 DEGREES TO A POWER POLE WITH THE NUMBER 5196/2A, 50.4 FEET (15.4 M) AZIMUTH 187 DEGREES TO A 12 INCH MAPLE TREE, 65.3 FEET (19.9 M) AZIMUTH 98 DEGREES TO A 6 INCH MAPLE TREE AND 11.6 FEET (3.5 M) FROM THE CENTERLINE OF EDDYBURG ROAD.

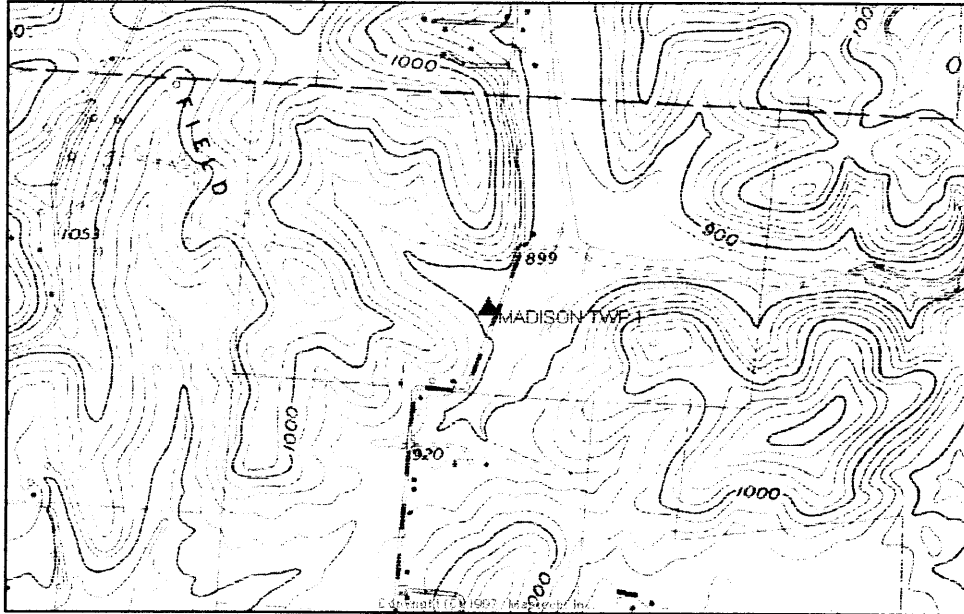
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

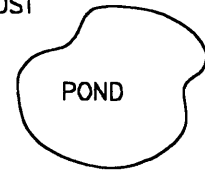
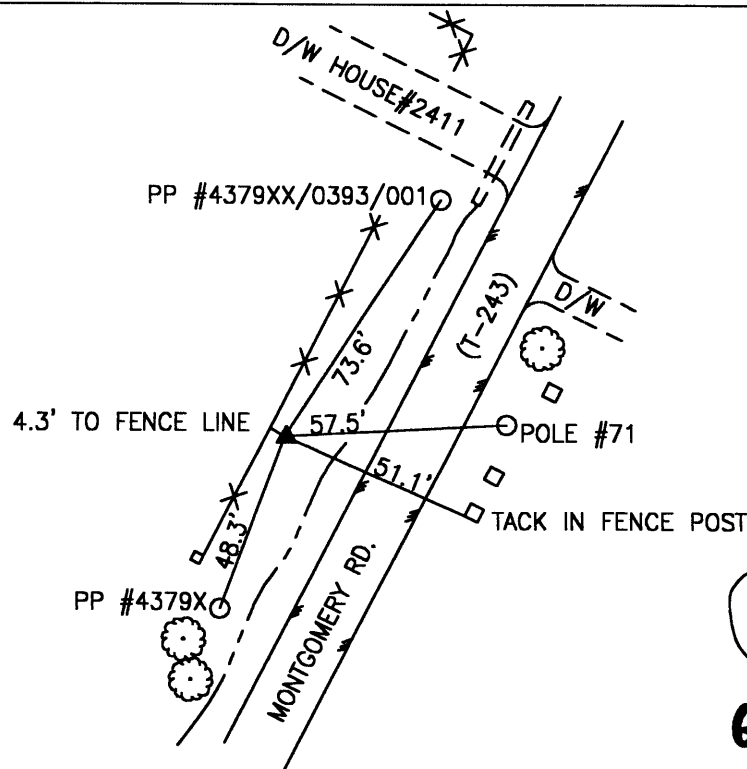
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 1		1998
N: 762705.754	E: 2022666.115	LAT: 40°05'37.92009" N	LONG: 82°18'23.03666" W
ELEV.: 888.223 (GPS)	COMB. FACTOR: 0.999970133		Θ ANGLE: +0°07'22.23

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



**GEOMETRICS**  
OPS, INC.

236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3488

PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1000.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1000  
Designation: MADISON TWP 1

PID:

Latitude: 400537N  
Longitude: 0821823W  
Elevation: 338.0M  
Stamping: MADISON TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHWEST OF THE TOWN OF HANOVER. TO REACH THE STATION FROM THE INTERSECTION OF LICKING VALLEY ROAD (CR 668) AND HICKMAN ROAD (CR 210) PROCEED WEST ALONG LICKING VALLEY ROAD (CR 668) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH BOLEN ROAD (T-266) . TURN RIGHT AND PROCEED WEST ALONG BOLEN ROAD (T-266) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH MONTGOMERY ROAD (T-243) . TURN RIGHT AND PROCEED NORTH ALONG MONTGOMERY ROAD (T-243) A DISTANCE OF 1.3 MILES (2.1 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE WEST SIDE OF MONTGOMERY ROAD (T-243) AND SOUTH OF A GRAVEL DRIVE WAY LEADING TO A HOUSE ON A HIGH HILL. IT IS APPROXIMATELY 450 FEET (137.2 M) WEST OF A SMALL LAKE OR POND. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 1 1998. THE STATION IS 48.3 FEET (14.7 M) AZIMUTH 200 DEGREES TO A POWER POLE WITH THE NUMBER 4379X, 73.6 FEET (22.4 M) AZIMUTH 33 DEGREES TO A POWER POLE WITH THE NUMBER 4379XX/0393/001, 51.1 FEET (15.6 M) AZIMUTH 114 DEGREES TO A TACK IN A FENCE POST, 57.5 FEET (17.5 M) AZIMUTH 87 DEGREES TO A POWER POLE WITH THE NUMBER 71, AND 4.3 FEET (1.3 M) AZIMUTH 300 DEGREES TO A FENCE LINE.

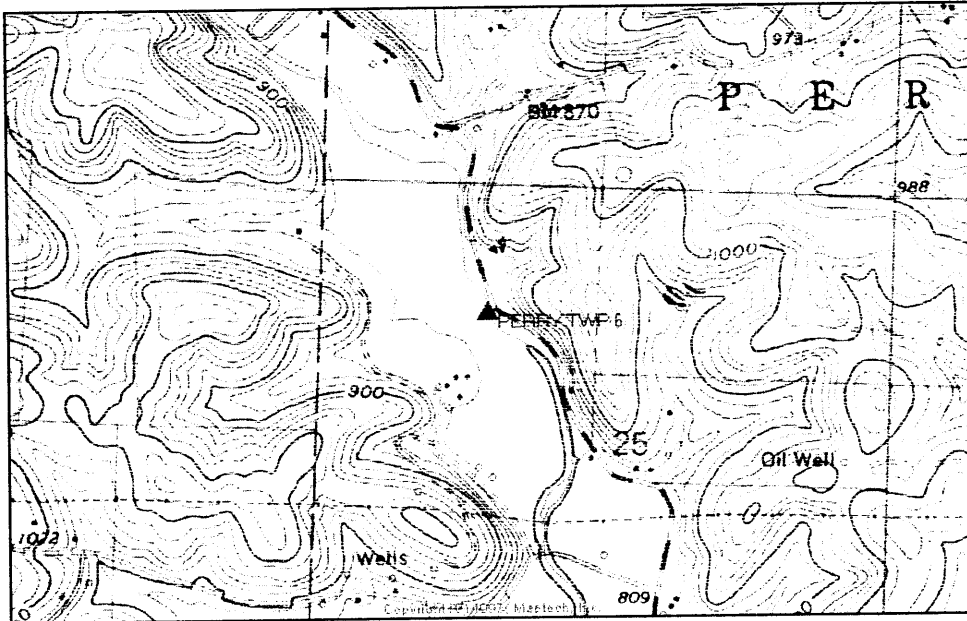
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

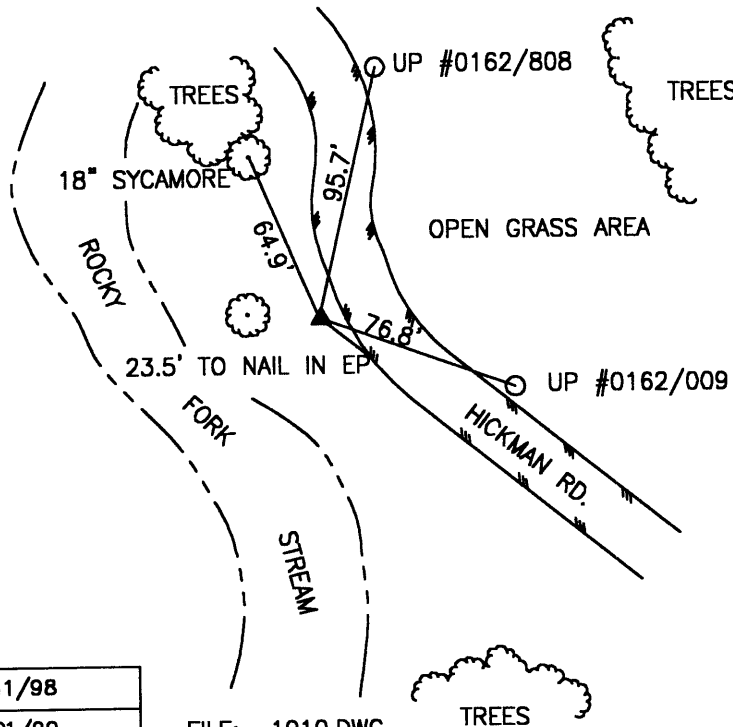
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR	
LICKING	PERRY TWP 6	1998	
N: 768257.945	E: 2030362.736	LAT: 40°06'32.61217" N	LONG: 82°16'43.82851" W
ELEV.: 812.088	(GPS) COMB. FACTOR: 0.999977091	θ ANGLE: +0°08'25.18	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1010.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1010  
Designation: PERRY TWP 6

PID:

Latitude: 400632N  
Longitude: 0821643W  
Elevation: 356.2M  
Stamping: PERRY TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.6 MILES (7.4 KM) SOUTHEAST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) IN WILKINS CORNER PROCEED EAST ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH WILKINS RUN ROAD (CR 250) . TURN RIGHT AND PROCEED SOUTHEAST ALONG WILKINS RUN ROAD (CR 250) A DISTANCE OF 3.0 MILES (4.8 KM) TO ITS INTERSECTION WITH MONTGOMERY ROAD (T-243) . TURN LEFT AND PROCEED NORTH ALONG MONTGOMERY ROAD (T-243) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH HICKMAN ROAD (CR 210) . TURN RIGHT AND PROCEED SOUTH ALONG HICKMAN ROAD (CR 210) A DISTANCE OF 0.8 MILE (1.3 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED PERRY TWP 6 1998. THE STATION IS 95.7 FEET (29.2 M) AZIMUTH 13 DEGREES TO A UTILITY POLE WITH THE NUMBER 0162/808, 78.6 FEET (24.0 M) AZIMUTH 110 DEGREES TO A UTILITY POLE WITH THE NUMBER 0162/009, AND 64.9 FEET (19.8 M) AZIMUTH 337 DEGREES TO AN 18 INCH SYCAMORE TREE.

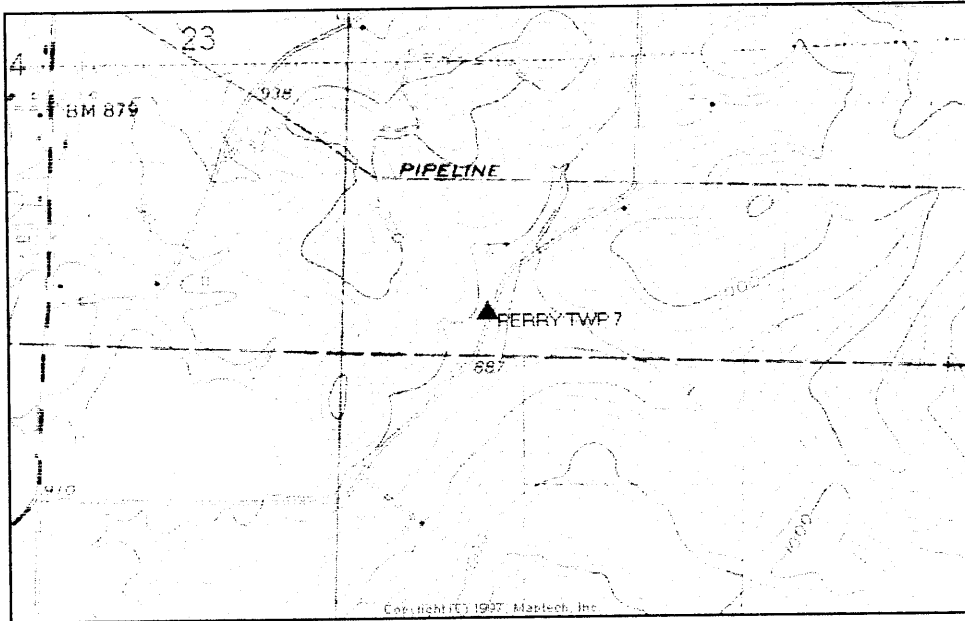
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

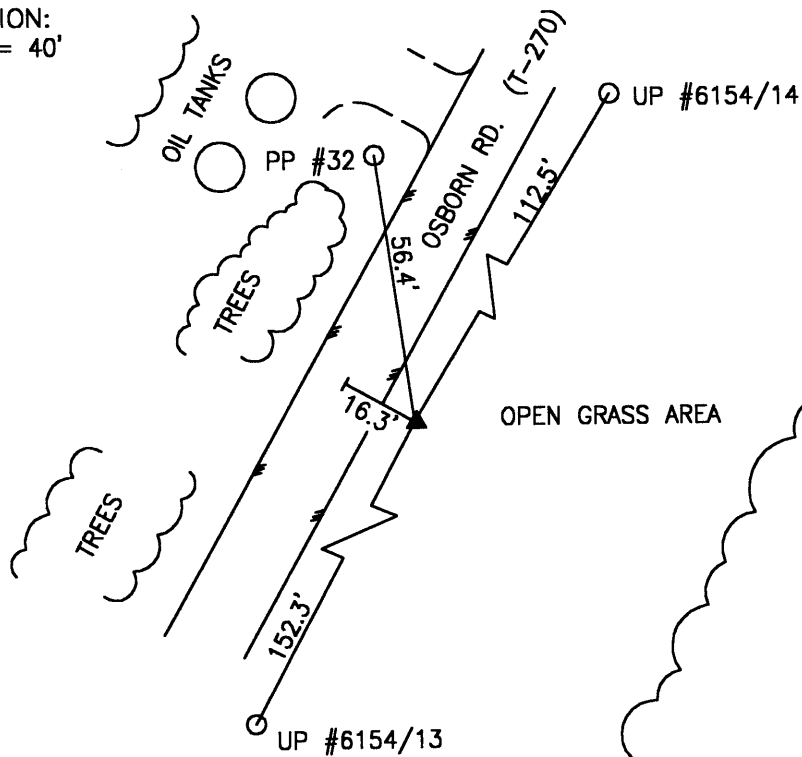
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	PERRY TWP 7	1998
N: 764045.347	E: 2043172.783	LAT: 40°05'50.64123" N
		LONG: 82°13'59.12473" W
ELEV.: 886.173	(GPS)	COMB. FACTOR: 0.999970997
		θ ANGLE: +0°10'09.69

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1020.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1020  
Designation: PERRY TWP 7

PID:

Latitude: 400550N  
Longitude: 0821359W  
Elevation: 358.2M  
Stamping: PERRY TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

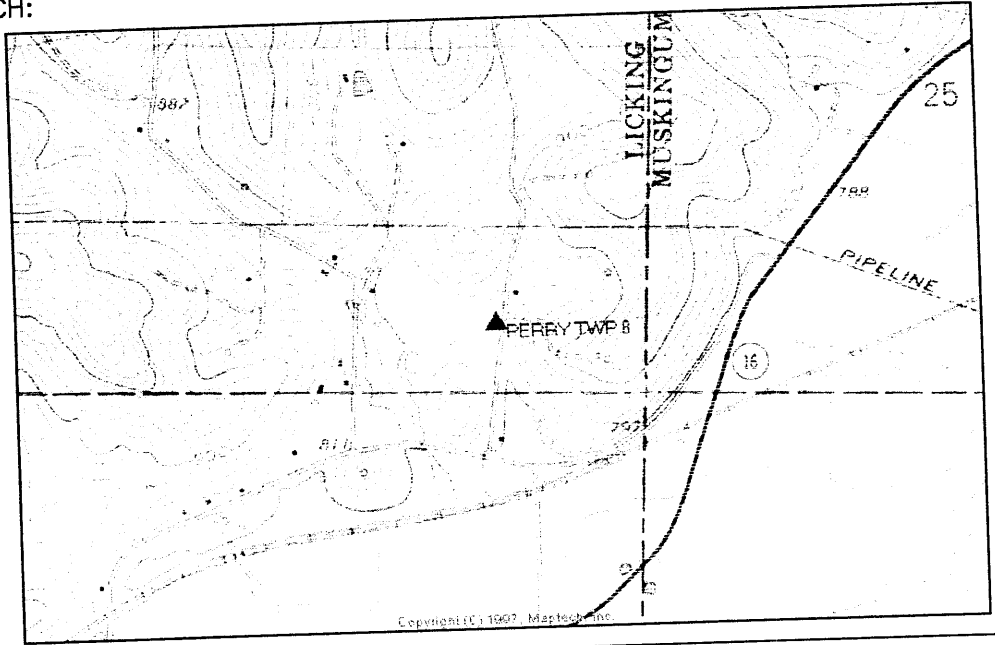
-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHEAST OF THE CITY OF HANOVER. TO REACH THE STATION FROM THE INTERSECTION OF HICKMAN ROAD (CR 210) AND LICKING VALLEY ROAD (CR 668) PROCEED NORTH ALONG LICKING VALLEY ROAD (CR 668) A DISTANCE OF 1.1 MILES (1.8 KM) TO ITS INTERSECTION WITH OSBORN ROAD (T-270) . TURN RIGHT AND PROCEED EAST ALONG OSBORN ROAD (T-270) 1.0 MILE (1.6 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE EAST SIDE OF OSBORN ROAD (T-270) AND APPROXIMATELY 300 FEET (91.4 M) SOUTHEAST OF TWO OIL TANKS. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED PERRY TWP 7 1998. THE STATION IS 56.4 FEET (17.2 M) AZIMUTH 352 DEGREES TO A POWER POLE WITH THE NUMBER 32, 112.5 FEET (34.3 M) AZIMUTH 31 DEGREES TO A UTILITY POLE WITH THE NUMBER 6154/14, 152.3 FEET (46.4 M) AZIMUTH 208 DEGREES TO A UTILITY POLE WITH THE NUMBER 6154/13, AND 16.3 FEET (5.0 M) FROM THE CENTERLINE OF OSBORN ROAD.

# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

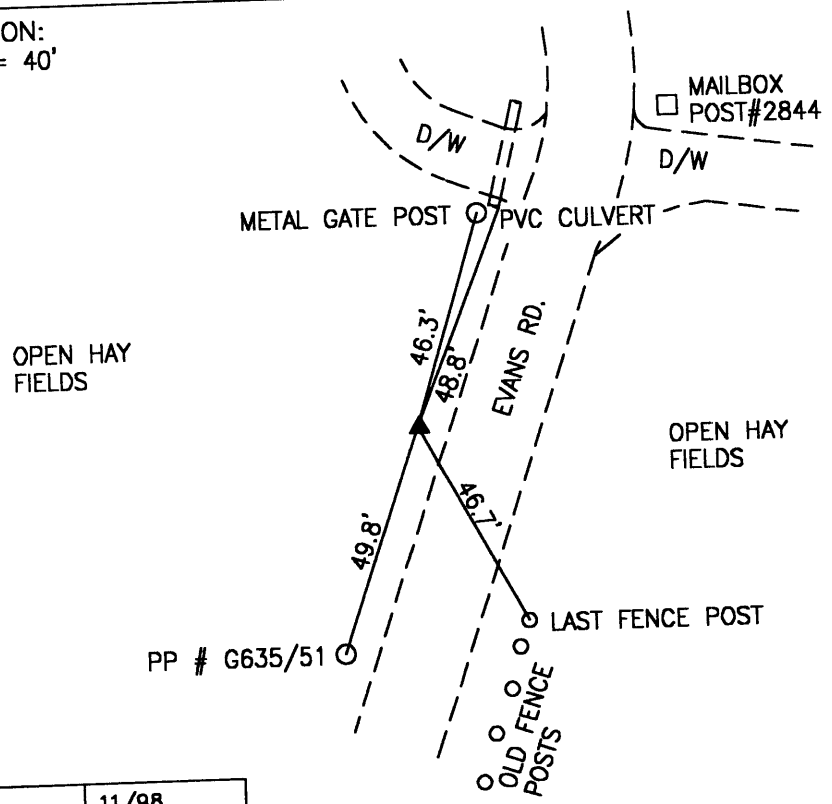
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	PERRY TWP 8		1998
N: 764002.660	E: 2053709.085	LAT: 40°05'49.88992" N	LONG: 82°11'43.54840" W
ELEV.: 817.006	(GPS)	COMB. FACTOR: 0.999974254	Θ ANGLE: +0°11'35.71

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1030.DWG

**GEOMETRICS**  
ops, inc.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1030

Designation: PERRY TWP 8

PID:

Latitude: 400549N

Longitude: 0821143W

Elevation: 307.3M

Stamping: PERRY TWP 8 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PERRY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHEAST OF THE TOWN OF BOSTON. TO REACH THE STATION FROM THE INTERSECTION OF SR 16 AND NASHPORT ROAD (SR 146) PROCEED EAST ALONG SR 16 ABOUT 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH BOSTON ROAD (CR 273A) . TURN LEFT AND PROCEED NORTHEAST ALONG BOSTON ROAD (CR 273A) ABOUT 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH MARINE ROAD (CR 585) . TURN RIGHT AND PROCEED EAST ALONG MARINE ROAD (CR 585) ABOUT 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH EVANS ROAD (T-269) . TURN LEFT AND PROCEED NORTH ALONG EVANS ROAD (T-269) A DISTANCE OF 0.3 MILE (0.5 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED PERRY TWP 8 1998. THE STATION IS 49.8 FEET (15.2 M) AZIMUJTH 199 DEGREES TO POWER POLE WITH THE NUMBER G635/51, 46.3 FEET (14.1 M) AZIMUTH 317 DEGREES TO A METAL GATE POST, 48.8 FEET (14.9 M) AZIMUTH 22 DEGREES TO A PVC CULVERT, AND 46.7 FEET (14.2 M) AZIMUTH 152 DEGREES TO THE LAST FENCE POST ON THE EAST SIDE OF EVANS ROAD.

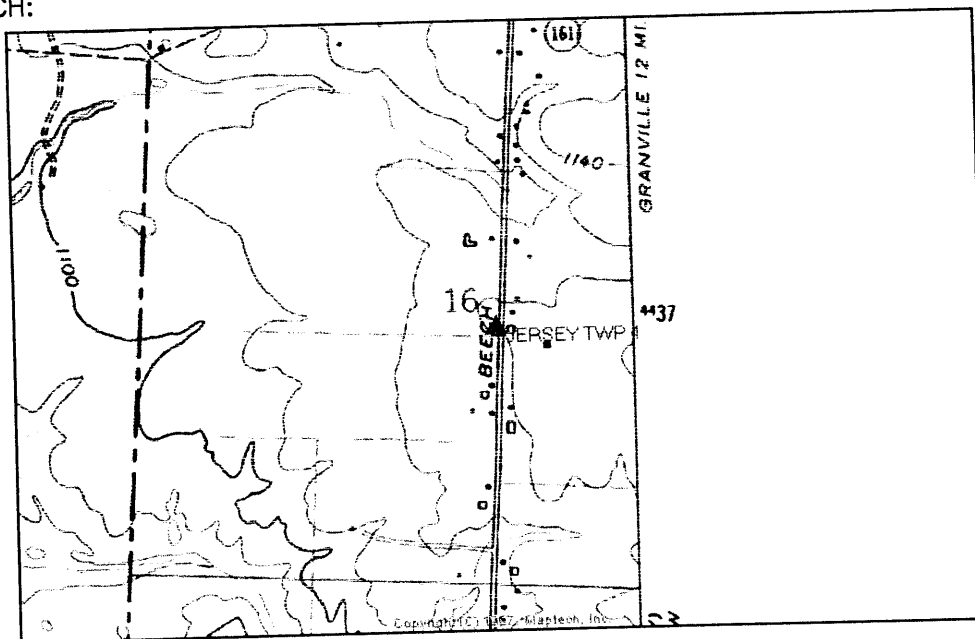
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

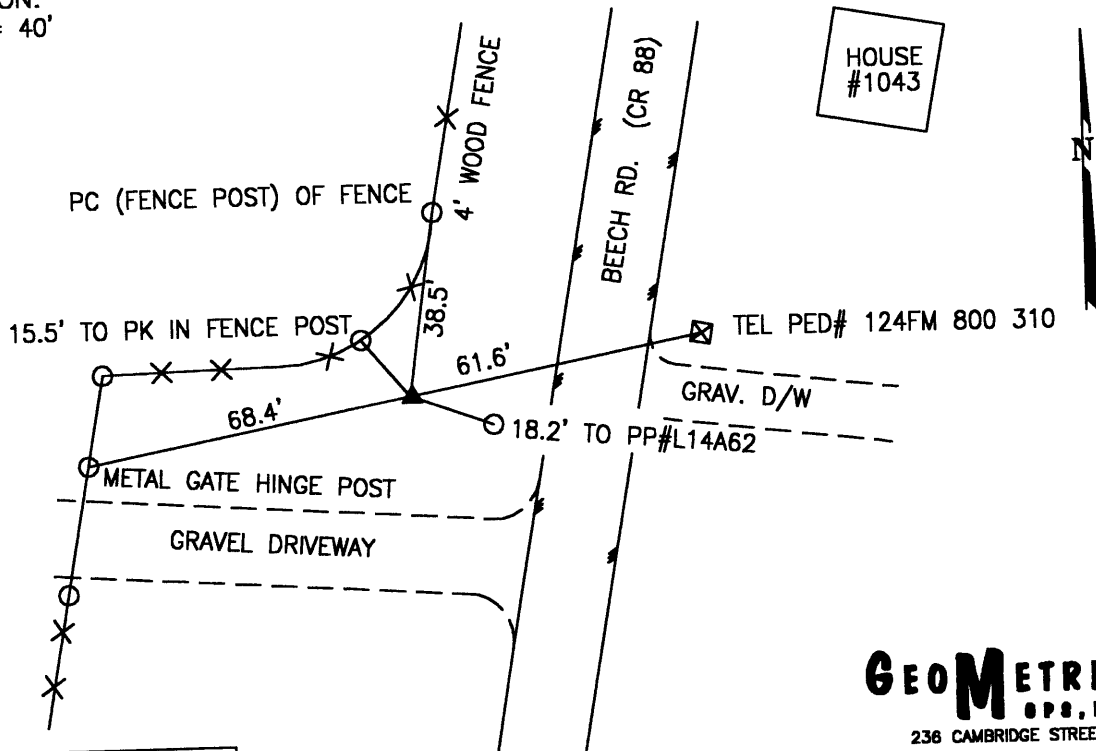
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	JERSEY TWP 4		1998
N: 754572.386	E: 1897351.025	LAT: 40°04'17.12942" N	LONG: 82°45'15.18864" W
ELEV.: 1133.118 (GPS)	COMB. FACTOR: 0.999953663		Ø ANGLE: -0°09'40.70

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1040.DWG

**GEOMETRICS**  
 OPS., INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1040  
Designation: JERSEY TWP 4

PID:

Latitude: 400417N  
Longitude: 0824515W  
Elevation: 252.5M  
Stamping: JERSEY TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.0 MILES (9.7 KM) SOUTHWEST OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHWEST ALONG JOHNSTOWN-UTICA ROAD (US 62) ABOUT 4.0 MILES (6.4 KM) TO ITS INTERSECTION WITH BEECH ROAD (T-88) . TURN LEFT AND PROCEED SOUTH ALONG BEECH ROAD (T-88) ABOUT 2.8 MILES (4.5 KM) TO ITS INTERSECTION WITH WORTHINGTON ROAD (SR 161) . CONTINUE SOUTH ALONG BEECH ROAD (T-88) A DISTANCE OF 0.5 MILE (0.8 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 4 1998. THE STATION IS 15.5 FEET (4.7 M) AZIMUTH 320 DEGREES TO A PK NAIL IN A FENCE POST, 18.2 FEET (5.5 M) AZIMUTH 110 DEGREES TO A POWER POLE WITH THE NUMBER L14A62, 38.5 FEET (11.7 M) AZIMUTH 08 DEGREES TO THE FENCE POST AT THE POINT OF CURVE, 68.4 FEET (20.8 M) AZIMUTH 259 DEGREES TO A METAL GATE HINGE POST, AND 61.6 FEET (18.8 M) AZIMUTH 79 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 124FM 800 310.

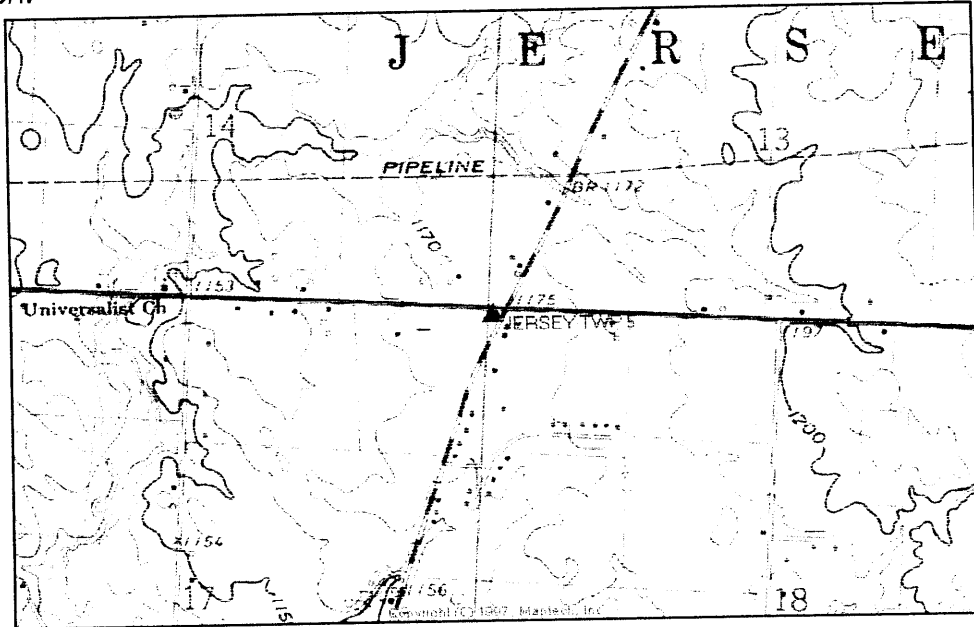
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

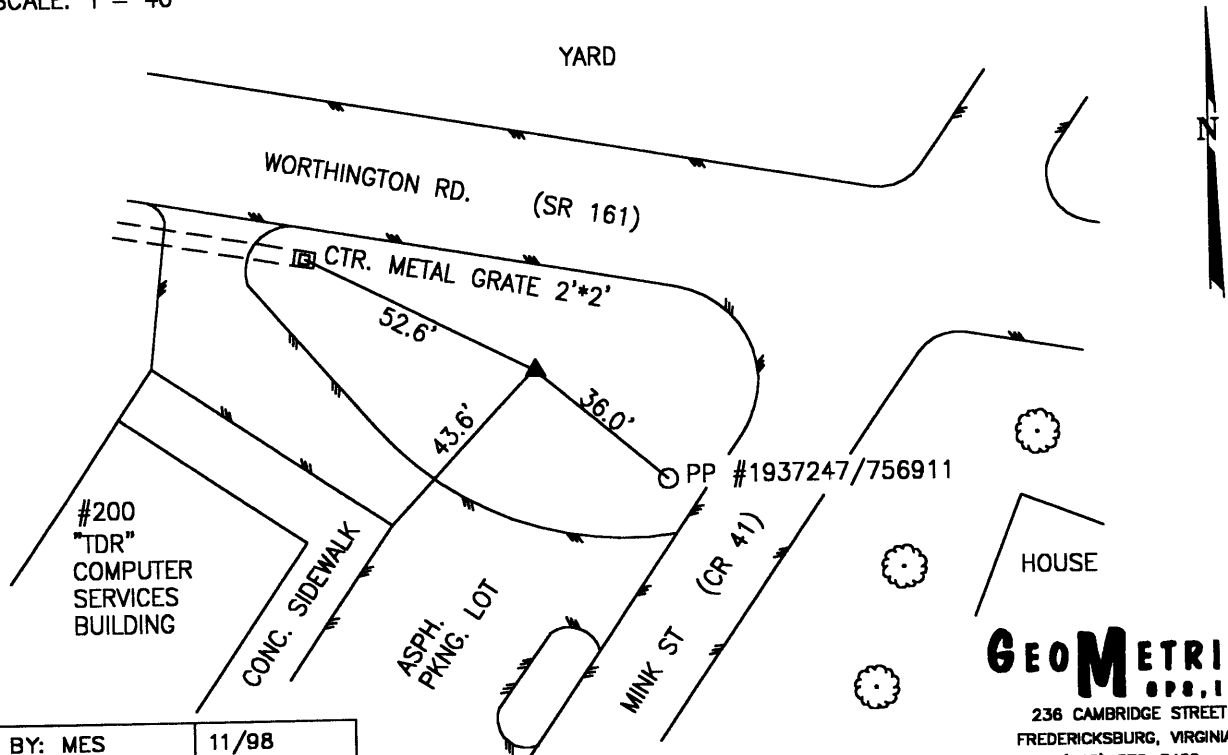
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	JERSEY TWP 5		1998
N: 756955.407	E: 1905746.224	LAT: 40°04'40.89846" N	LONG: 82°43'27.27787" W
ELEV.: 1173.557	(GPS)	COMB. FACTOR: 0.999953123	θ ANGLE: -0°08'32.23

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1050.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1050

Designation: JERSEY TWP 5

PID:

Latitude: 400440N

Longitude: 0824327W

Elevation: 312.8M

Stamping: JERSEY TWP 5 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTH OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHEAST ALONG JOHNSTOWN-ALEX ROAD (SR 37) APPROXIMATELY OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH MINK STREET (CR 41) . TURN RIGHT AND PROCEED SOUTHWEST ALONG MINK STREET (CR 41) APPROXIMATELY 5.5 MILES (8.9 KM) TO ITS INTERSECTION WITH WORTHINGTON ROAD (SR 161) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 5 1998. THE STATION IS 36.0 FEET (11.0 M) AZIMUTH 130 DEGREES TO A POWER POLE WITH THE NUMBER 1937247/756911, 52.6 FEET (16.0 M) AZIMUTH 297 DEGREES TO THE CENTER OF A METAL GRATE, AND 43.6 FEET (13.3 M) AZIMUTH 223 DEGREES TO THE CORNER OF A CONCRETE SIDEWALK.

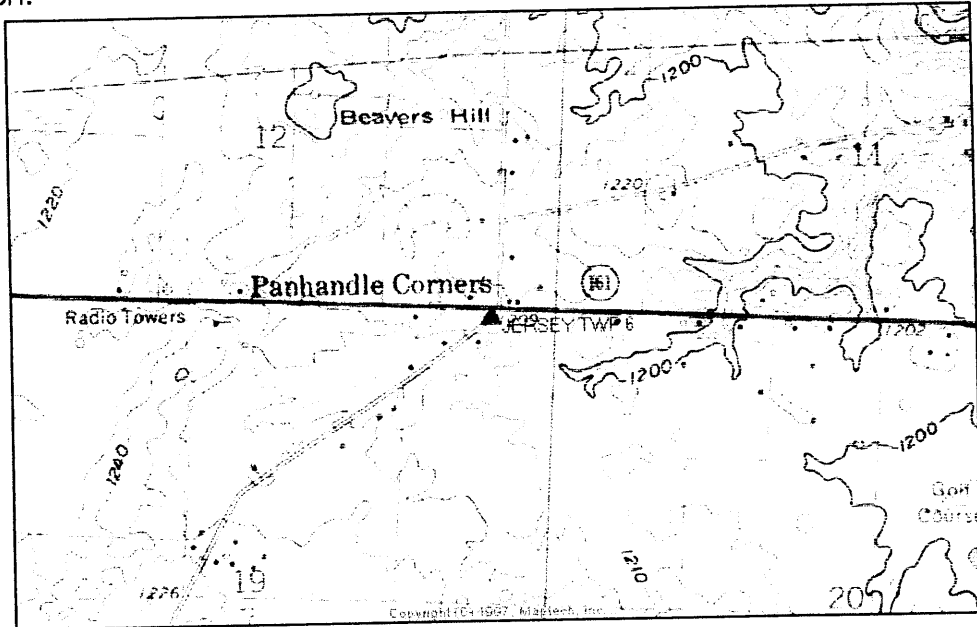
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

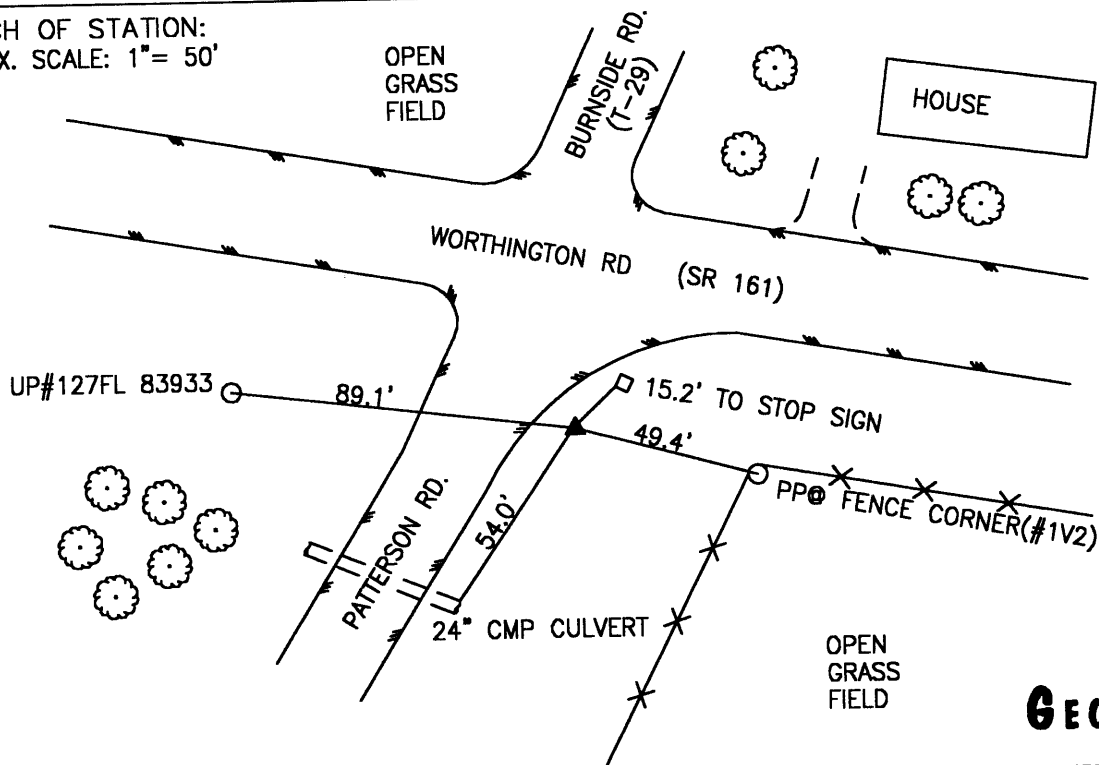
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	JERSEY TWP 6		1998
N: 756392.139	E: 1915764.692	LAT: 40°04'35.55842" N	LONG: 82°41'18.38346" W
ELEV.: 1207.202 (GPS)	COMB. FACTOR: 0.999951203		θ ANGLE: -0°07'10.44

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1060.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1060  
Designation: JERSEY TWP 6

PID:

Latitude: 400435N  
Longitude: 0824118W  
Elevation: 344.5M  
Stamping: JERSEY TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

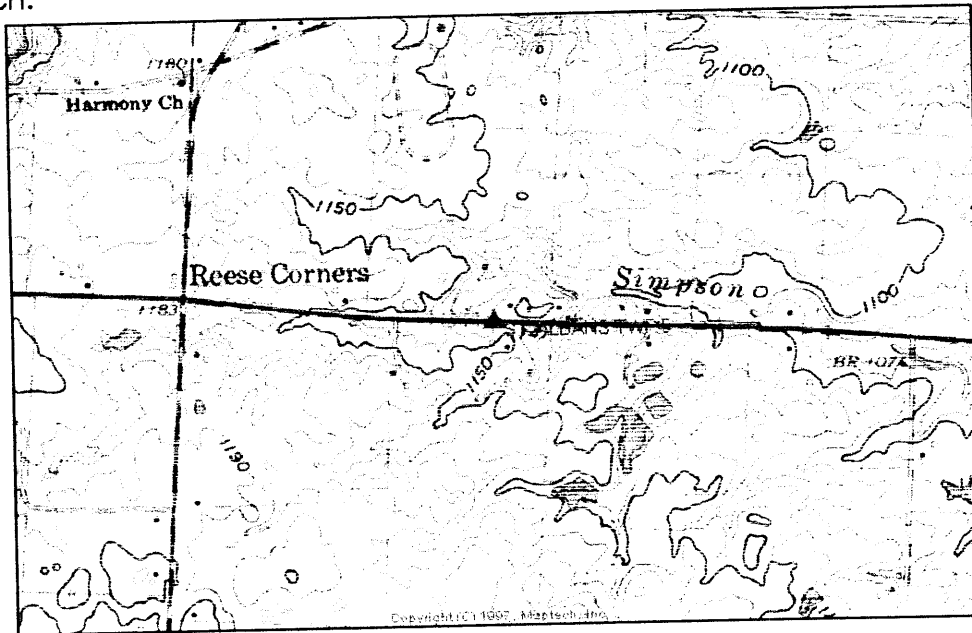
-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTH OF THE TOWN OF JOHNSTOWN. TO REACH THE STATION FROM THE INTERSECTION OF JOHNSTOWN-UTICA ROAD (US 62) AND JOHNSTOWN-ALEX ROAD (SR 37) IN JOHNSTOWN PROCEED SOUTHEAST ALONG JOHNSTOWN-ALEX ROAD (SR 37) APPROXIMATELY 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH HAZELTON-ETNA ROAD (SR 310) . TURN RIGHT AND PROCEED SOUTH ALONG HAZELTON-ETNA ROAD (SR 31) APPROXIMATELY 3.7 MILES (6.0 KM) TO ITS INTERSECTION WITH WORTHINGTON ROAD (SR 161) . TURN RIGHT AND PROCEED WEST ALONG WORTHINGTON ROAD (SR 161) APPROXIMATELY 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH PATTERSON ROAD (T-29) AND THE STATION IS ON THE LEFT IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 6 1998. THE STATION IS 15.2 FEET (4.6 M) AZIMUTH 46 DEGREES TO A STOP SIGN, 49.4 FEET (15.1 M) AZIMUTH 105 DEGREES TO A POWER POLE WITH THE NUMBER 1V2 AT THE FENCE CORNER, 54.0 FEET (16.5 M) AZIMUTH 214 DEGREES TO A 24 INCH CMP CULVERT, AND 89.1 FEET (27.2 M) AZIMUTH 277 DEGREES TO A POWER POLE WITH THE NUMBER 127FL 839 33.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

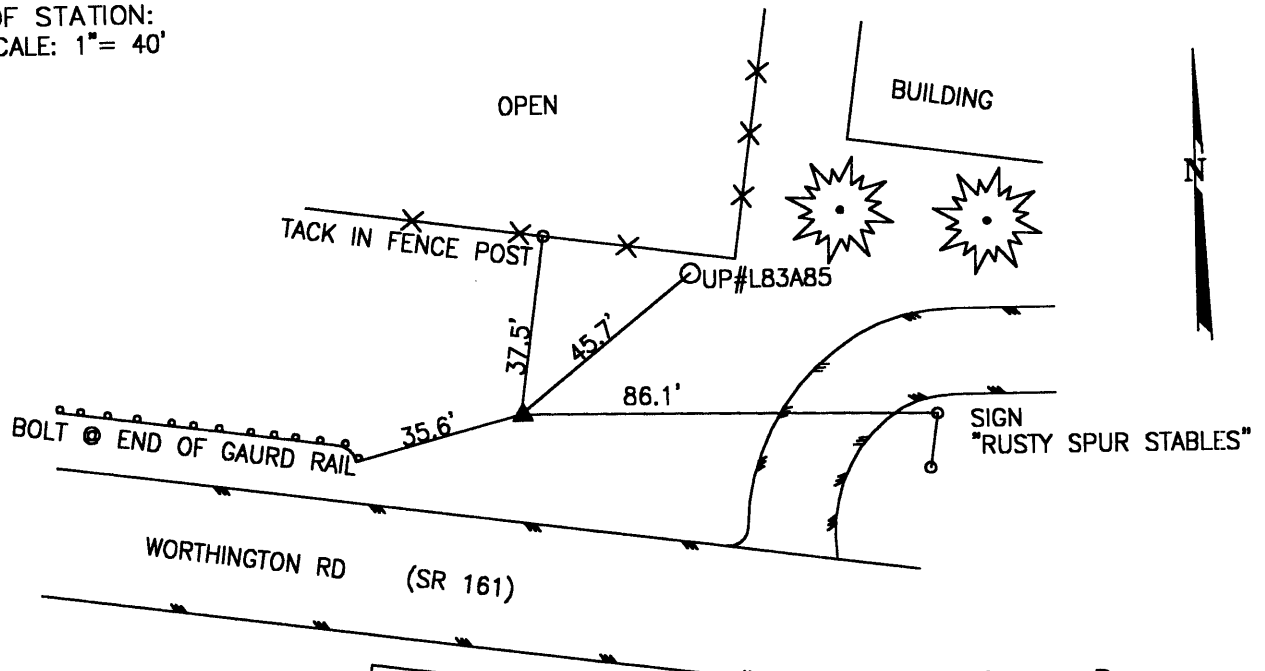
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 5		1998
N: 755879.571	E: 1924685.109	LAT: 40°04'30.66157" N	LONG: 82°39'23.62064" W
ELEV.: 1144.361 (GPS)	COMB. FACTOR: 0.999953916		θ ANGLE: -0°05'57.62

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



WIND SONG  
WESTERN WORLD

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1070.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1070

Designation: ST ALBANS TWP 5

PID:

Latitude: 400430N  
Longitude: 0823923W  
Elevation: 330.3M  
Stamping: ST ALBANS TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

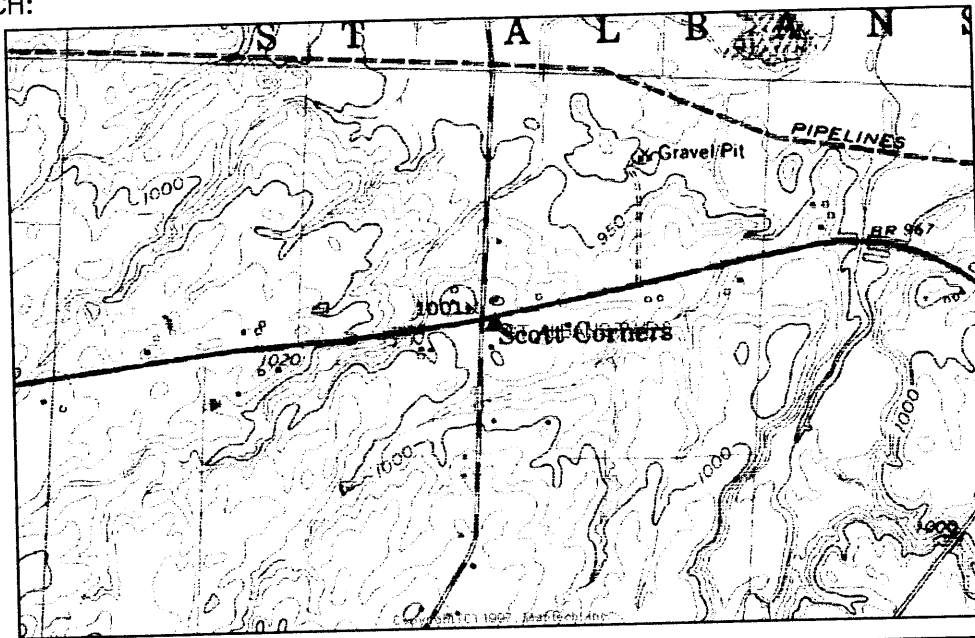
-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTHWEST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF YORK ROAD (SR 37) AND WORTHINGTON ROAD (SR 161) PROCEED WEST ALONG WORTHINGTON ROAD (SR 161) A DISTANCE OF 2.8 MILES (4.5 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 5 1998. THE STATION IS 35.6 FEET (10.9 M) AZIMUTH 255 DEGREES TO A BOLT AT THE END OF A GUARD RAIL, 37.5 FEET (11.4 M) AZIMUTH 08 DEGREES TO A TACK IN A FENCE POST, 86.1 FEET (26.2 M) AZIMUTH 91 DEGREES TO A RUSTY SPUR STABLES SIGN, AND 45.7 FEET (13.9 M) AZIMUTH 51 DEGREES TO A UTILITY POLE WITH THE NUMBER L83A85.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

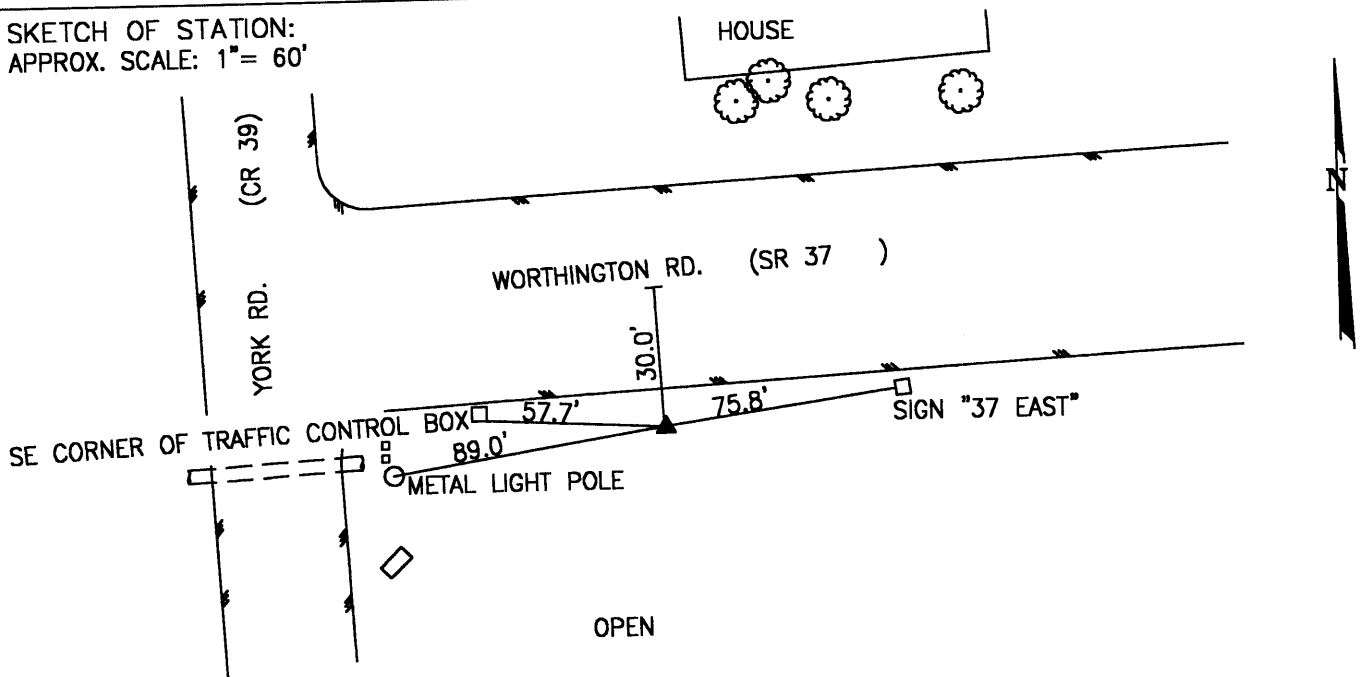
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 6		1998
N: 755625.717	E: 1939133.262	LAT: 40°04'28.35969" N	LONG: 82°36'17.76066" W
ELEV.: 987.947 (GPS)	COMB. FACTOR: 0.999961248		θ ANGLE: -0°03'59.69

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1080.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1080

Designation: ST ALBANS TWP 6

PID:

Latitude: 400428N

Longitude: 0823617W

Elevation: 310.3M

Stamping: ST ALBANS TWP 6 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTH OF THE TOWN OF ALEXANDRIA. THE STATION IS LOCATED IN THE SOUTHEAST CORNER OF THE INTERSECTION OF YORK ROAD (CR 39) AND WORTHINGTON ROAD (SR 161) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED ST ALBANS TWP 6 1998. THE STATION IS 75.8 FEET (23.1 M) AZIMUTH 82 DEGREES TO A 37 EAST SIGN, 89.0 FEET (27.1 M) AZIMUTH 261 DEGREES TO A METAL LIGHT POLE, 57.5 FEET (17.5 M) AZIMUTH 273 DEGREES TO THE SOUTHEAST CORNER OF A TRAFFIC CONTROL BOX AND 30.0 FEET (9.1 M) FROM THE CENTERLINE OF WORTHINGTON ROAD.

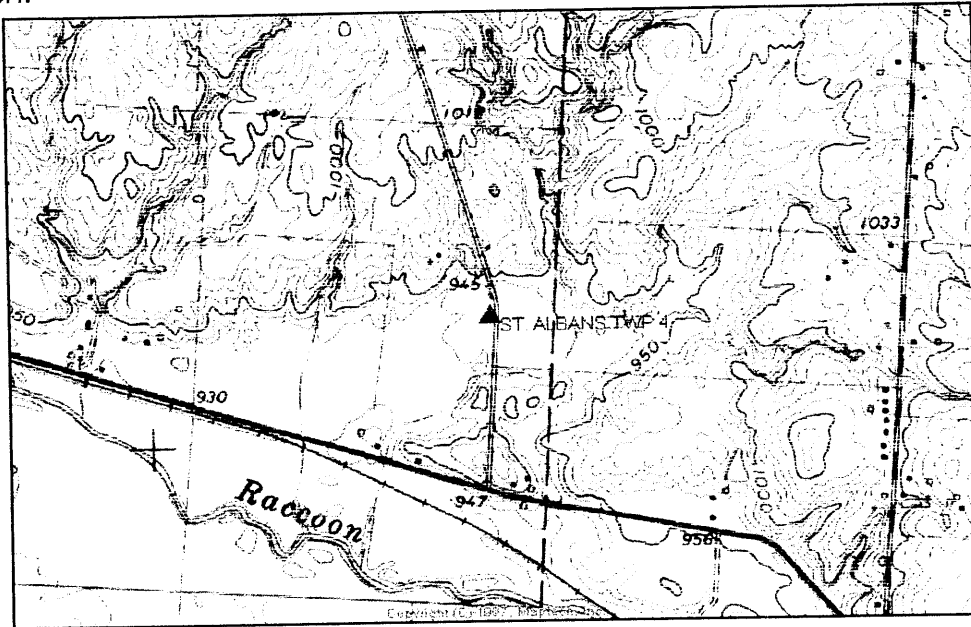
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

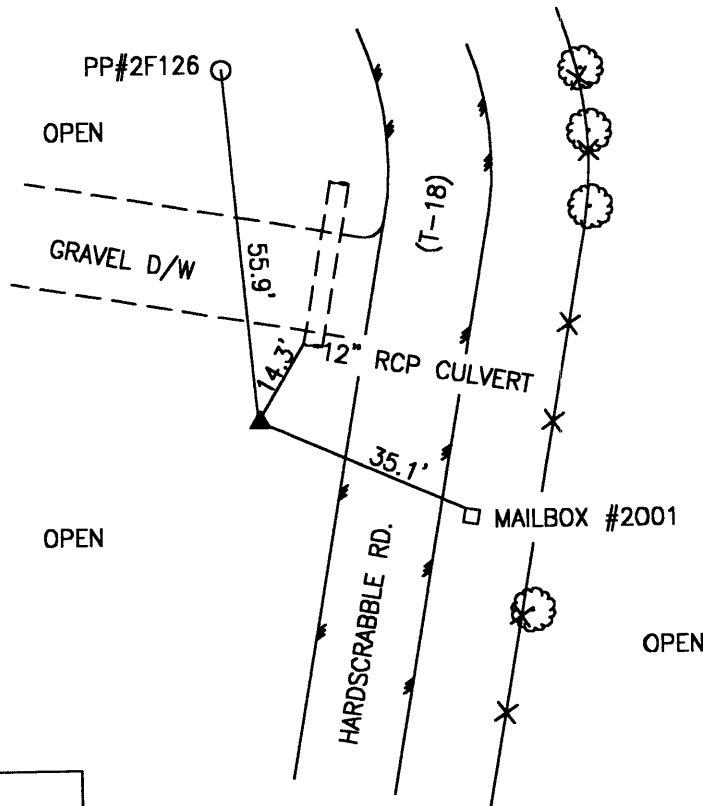
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 4		1998
N: 760022.205	E: 1948321.527	LAT: 40°05'11.89526" N	LONG: 82°34'19.61213" W
ELEV.: 935.277	(GPS)	COMB. FACTOR: 0.999966330	θ ANGLE: -0°02'44.72

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1090.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1090  
Designation: ST ALBANS TWP 4

PID:

Latitude: 400511N  
Longitude: 0823419W  
Elevation: 298.9M  
Stamping: ST ALBANS TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

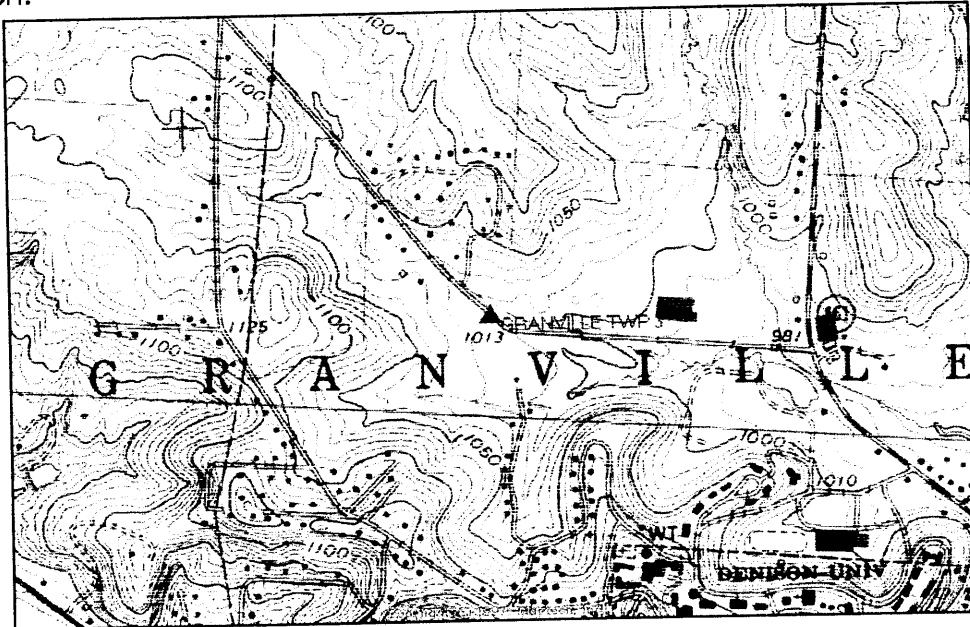
-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) EAST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF WORTHINGTON ROAD (SR 161) AND JOHNSTOWN-ALEX ROAD (SR 37) PROCEED NORTH ALONG JOHNSTOWN-ALEX ROAD (SR 37) A DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH RACCOON VALLEY ROAD (CR 539) . TURN RIGHT AND PROCEED EAST ALONG RACCOON VALLEY ROAD (CR 539) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH HARDSCRABBLE ROAD (T-18) . TURN LEFT AND PROCEED NORTH ALONG HARDSCRABBLE ROAD (T-18) A DISTANCE OF 0.3 MILE (0.5 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 4 1998. THE STATION IS 35.1 FEET (10.7 M) AZIMUTH 114 DEGREES TO A MAIL BOX WITH THE NUMBER 2001, 14.3 FEET (4.4 M) AZIMUTH 31 DEGREES TO A 12 INCH RCP CULVERT, AND 55.9 FEET (17.0 M) AZIMUTH 355 DEGREES TO A POWER POLE WITH THE NUMBER 2F126.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

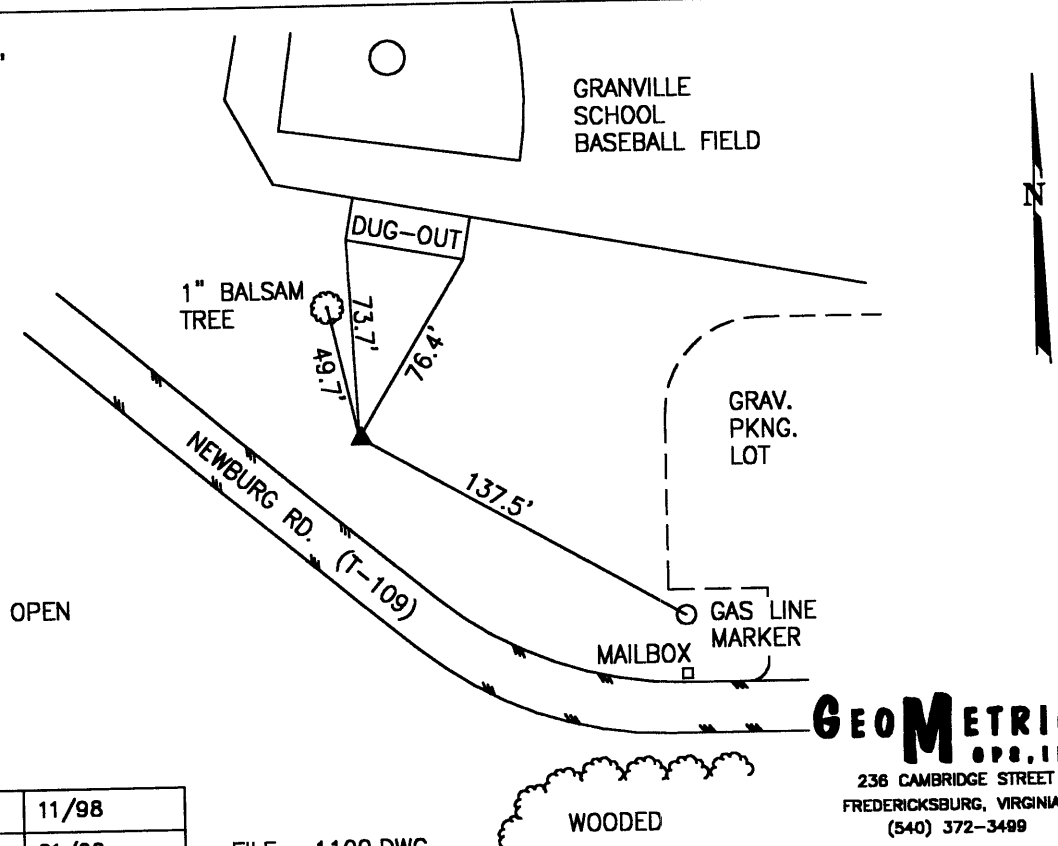
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GRANVILLE TWP 3		1998
N: 757077.984	E: 1959672.005	LAT: 40°04'42.86456" N	LONG: 82°31'53.56598" W
ELEV.: 1012.173 (GPS)	COMB. FACTOR: 0.999960942		θ ANGLE: -0°01'12.05

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1100.DWG

**GEOMETRICS**  
OPS. INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1100  
Designation: GRANVILLE TWP 3

PID:

Latitude: 400442N  
Longitude: 0823153W  
Elevation: 275.0M  
Stamping: GRANVILLE TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN GRANVILLE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) NORTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET ROAD (SR 661) AND NEWARK-GRANVILLE ROAD (CR 539) IN GRANVILLE PROCEED NORTH ALONG NORTH STREET ROAD (CR 661) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITH NEWBURG ROAD (T-109) . TURN LEFT AND PROCEED WEST ALONG NEWBURG ROAD (T-109) A DISTANCE OF 0.5 MILE (0.8 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE NORTH SIDE OF NEWBURG ROAD AT THE GRANVILLE SCHOOL BALLFIELD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED GRANVILLE TWP 3 1998. THE STATION IS 76.4 FEET (23.3 M) AZIMUTH 31 DEGREES TO THE EAST CORNER OF THE BASEBALL DUGOUT, 73.7 FEET (22.5 M) AZIMUTH 357 DEGREES TO THE WEST CORNER OF THE BASEBALL DUGOUT, 49.7 FEET (15.1 M) AZIMUTH 347 DEGREES TO A ONE INCH IN DIAMETER BALSM TREE, AND 137.5 FEET (41.9 M) AZIMUTH 142 DEGREES TO A GAS LINE MARKER.

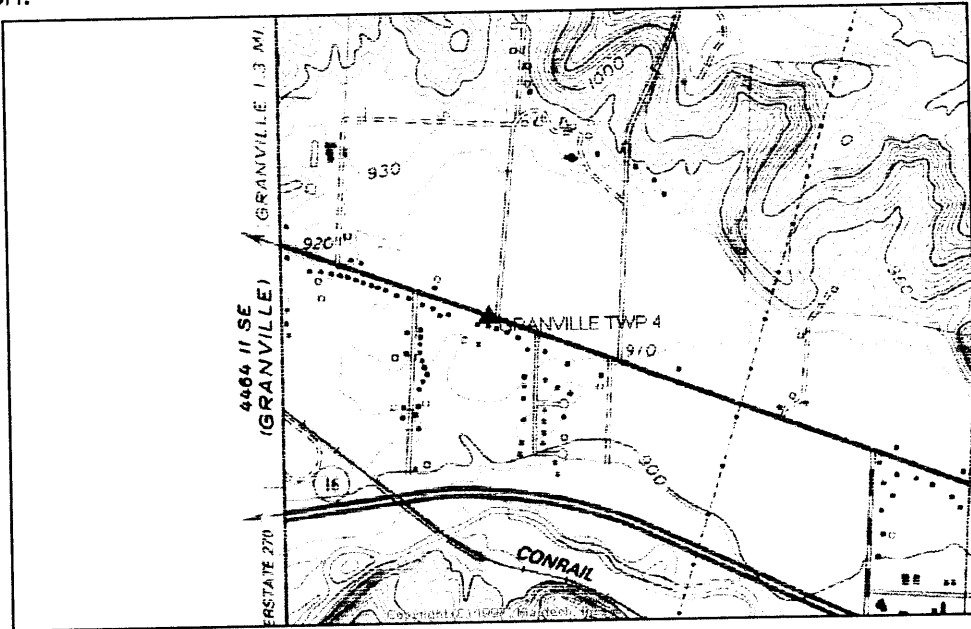
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

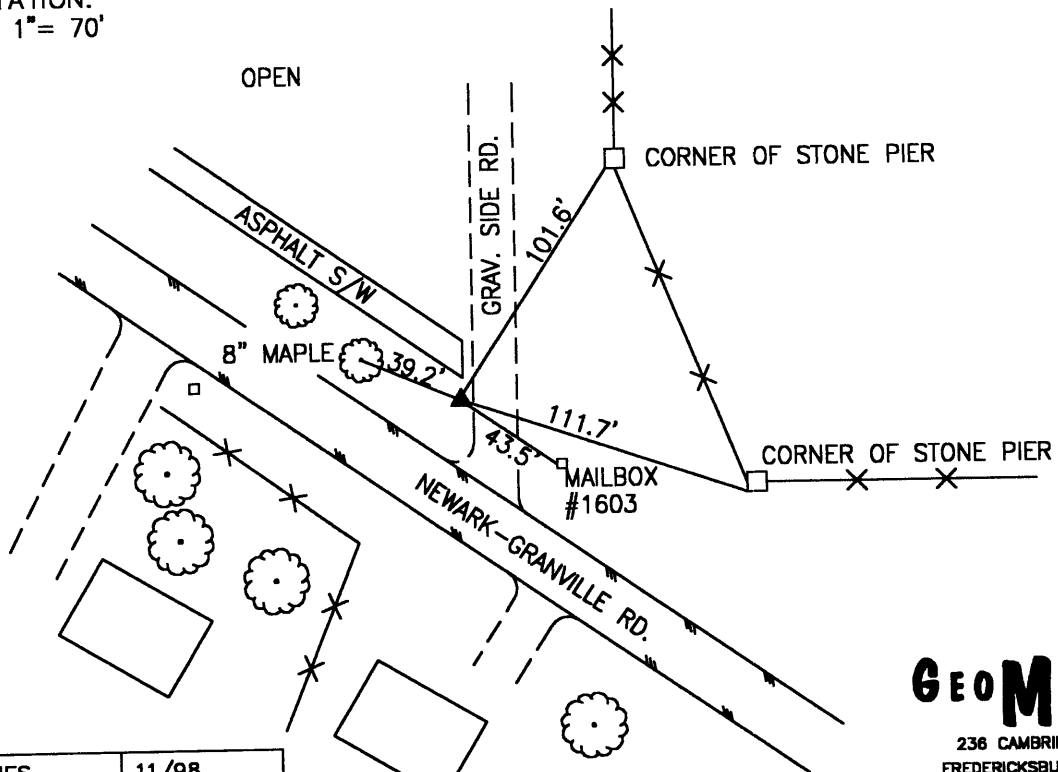
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GRANVILLE TWP 4		1998
N: 751571.167	E: 1970461.519	LAT: 40°03'48.45988" N	LONG: 82°29'34.77193" W
ELEV.: 911.908	(GPS) COMB. FACTOR: 0.999962565	θ ANGLE: +0°00'16.00	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1110.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1110  
Designation: GRANVILLE TWP 4

PID:

Latitude: 400348N  
Longitude: 0822934W  
Elevation: 378.4M  
Stamping: GRANVILLE TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

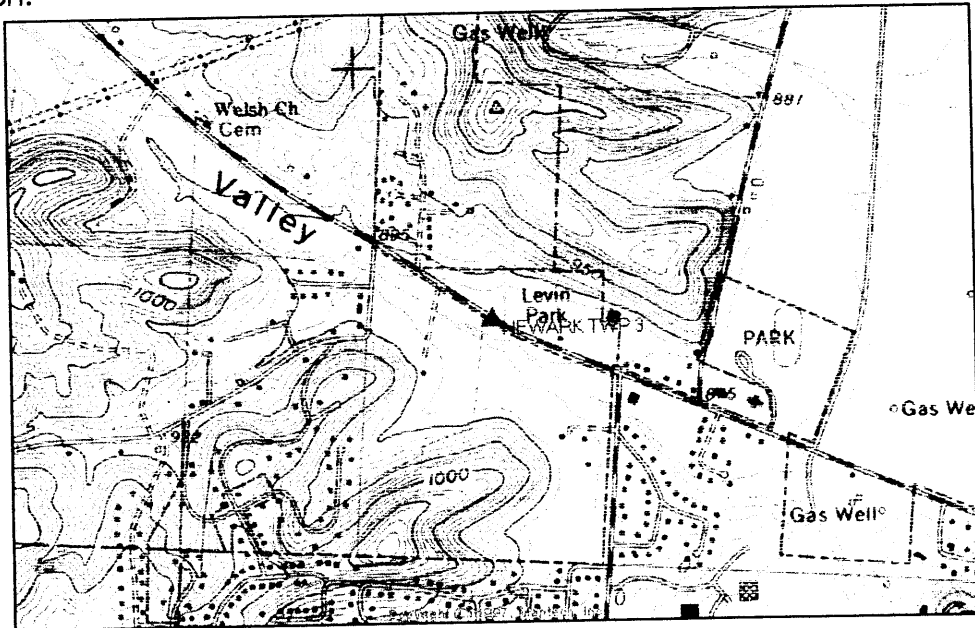
-----  
THE STATION IS LOCATED IN GRANVILLE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) EAST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NORTH STREET ROAD (SR 661) AND NEWARK-GRANVILLE ROAD (CR 539) IN GRANVILLE PROCEED EAST ALONG NEWARK-GRANVILLE ROAD (CR 539) A DISTANCE OF 1.2 MILES (1.9 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 43 FEET (13.1 M) WEST OF MAIL BOX NUMBER 1603. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED GRANVILLE TWP 4 1998. THE STATION IS 39.2 FEET (11.9 M) AZIMUTH 293 DEGREES TO AN EIGHT INCH IN DIAMETER MAPLE TREE, 43.5 FEET (13.3 M) AZIMUTH 125 DEGREES TO A MAIL BOX WITH THE NUMBER 1603, 101.6 FEET (31.0 M) AZIMUTH 33 DEGREES TO A CORNER OF A STONE PIER, AND 111.7 FEET (34.0 M) AZIMUTH 109 DEGREES TO A CORNER OF ANOTHER STONE PIER.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

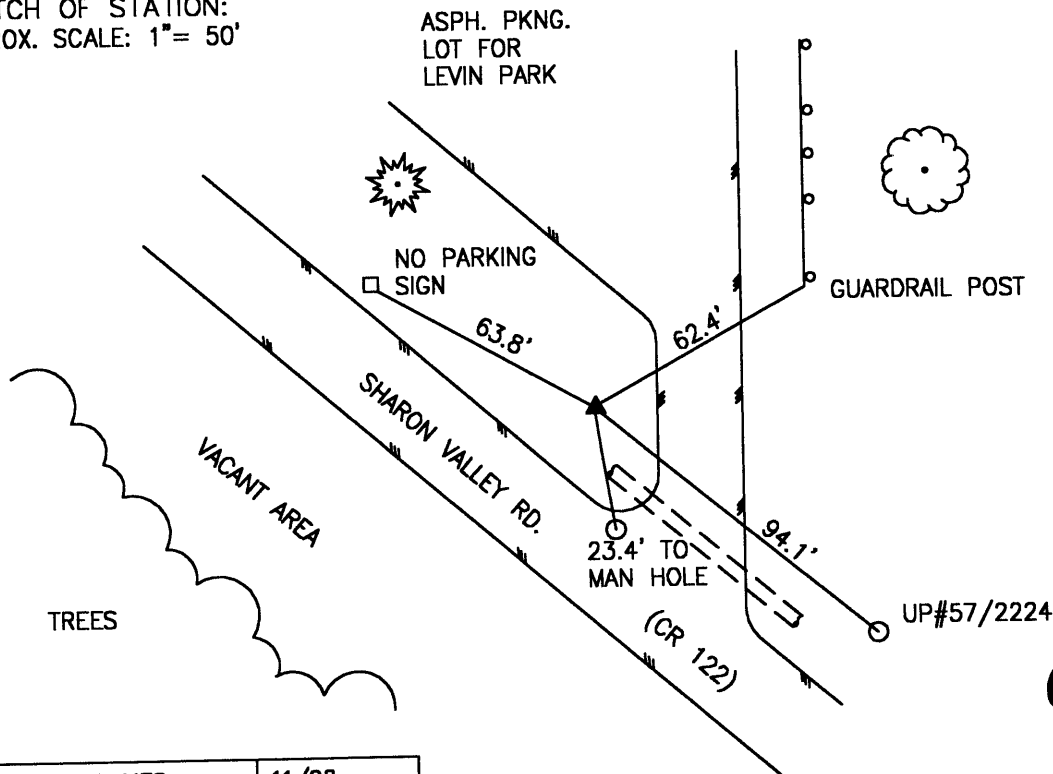
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	NEWARK TWP 3		1998
N: 756530.105	E: 1981462.171	LAT: 40°04'37.43274" N	LONG: 82°27'13.25437" W
ELEV.: 884.664	(GPS)	COMB. FACTOR: 0.999966710	θ ANGLE: +0°01'45.80

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1120.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1120  
Designation: NEWARK TWP 3

PID:

Latitude: 400437N  
Longitude: 0822713W  
Elevation: 345.6M  
Stamping: NEWARK TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN NEWARK TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.1 MILES (5.0 KM) NORTHEAST OF TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NEWARK-GRANVILLE ROAD (CR 539) AND NORTH STREET ROAD (SR 661) PROCEED EAST ALONG NEWARK-GRANVILLE ROAD (CR 539) A DISTANCE OF 1.5 MILES (2.4 KM) TO ITS INTERSECTION WITH JONES ROAD (T-126) . TURN LEFT AND PROCEED NORTH ALONG JONES ROAD (T-126) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH SHARON VALLEY ROAD (CR 122) . TURN RIGHT AND PROCEED EAST ALONG SHARON VALLEY ROAD (CR 122) A DISTANCE OF 1.8 MILES (2.9 KM) TO THE STATION ON THE LEFT APPROXIMATELY 30 FEET (9.1 M) WEST OF THE ENTRANCE TO LEVIN PARK. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWARK TWP 3 1998. THE STATION IS 62.4 FEET (19.0 M) AZIMUTH 61 DEGREES TO A GUARDRAIL POST, 63.8 FEET (19.4 M) AZIMUTH 299 DEGREES TO A NO PARKING SIGN, 23.4 FEET (7.1 M) AZIMUTH 171 DEGREES TO A MANHOLE, AND 94.1 FEET (28.7 M) AZIMUTH 130 DEGREES TO A UTILITY POLE WITH THE NUMBER S7/2224.

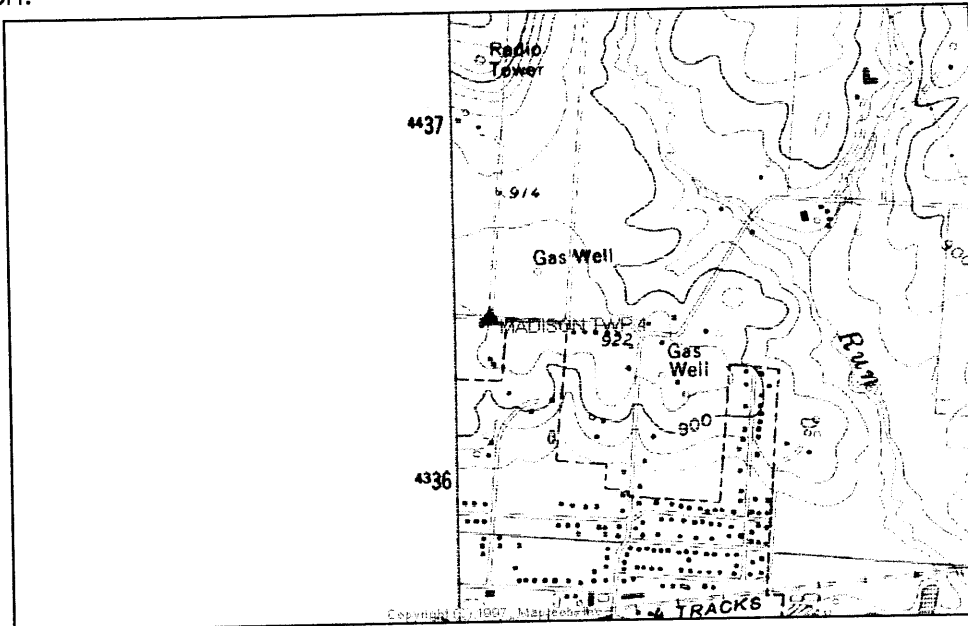
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

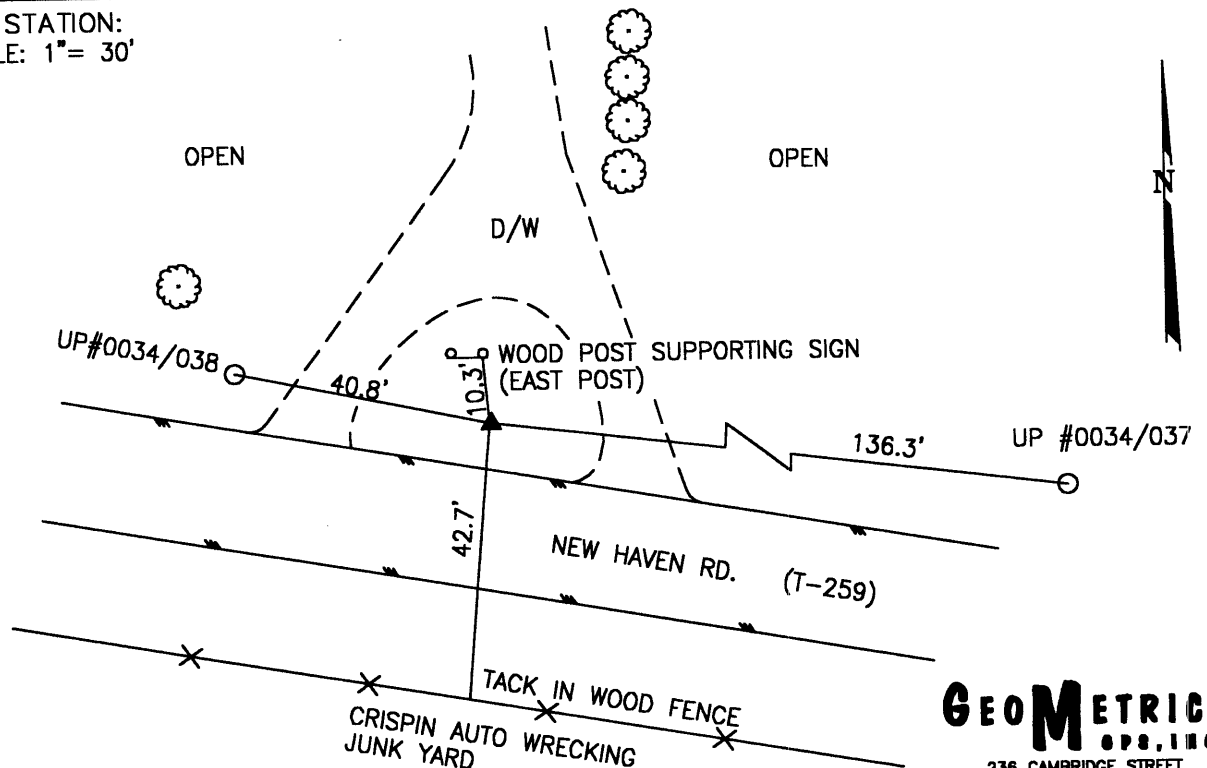
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 4		1998
N: 754644.143	E: 2003884.722	LAT: 40°04'18.58347" N	LONG: 82°22'24.84444" W
ELEV.: 923.272 (GPS)	COMB. FACTOR: 0.999963765		θ ANGLE: +0°04'48.80

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE:1130.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1130  
Designation: MADISON TWP 4

PID:

Latitude: 400418N  
Longitude: 0822224W  
Elevation: 359.4M  
Stamping: MADISON TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) SOUTHWEST OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) PROCEED SOUTH ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 4.5 MILES (7.2 KM) TO ITS INTERSECTION WITH NEW HAVEN ROAD (T-259) . TURN LEFT AND PROCEED EAST ALONG NEW HAVEN ROAD (T-259) A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE LEFT ACROSS FROM CRISPIN AUTO WRECKING JUNK YARD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 4 1998. THE STATION IS 10.3 FEET (3.1 M) AZIMUTH 355 DEGREES TO A EASTERLY WOOD POST SUPPORTING A SIGN, 40.8 FEET (12.4 M) AZIMUTH 282 TO A UTILITY POLE WITH THE NUMBER 0034/038, 42.7 FEET (13.0 M) AZIMUTH 185 DEGREES TO TACK IN A WOOD FENCE, AND 136.3 FEET (41.5 M) AZIMUTH 97 DEGREES TO A UTILITY POLE WITH THE NUMBER 0034/037.

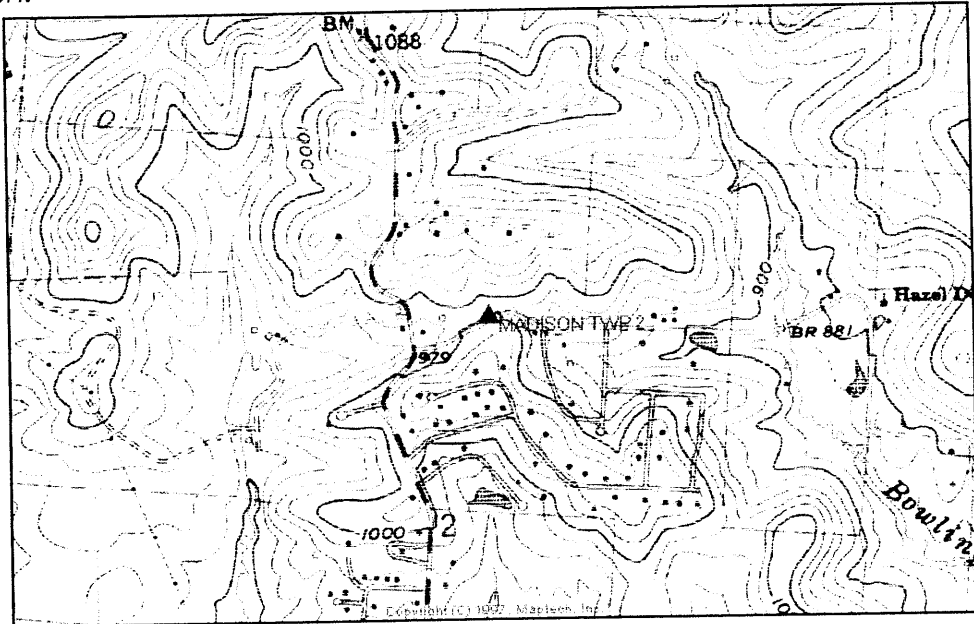
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

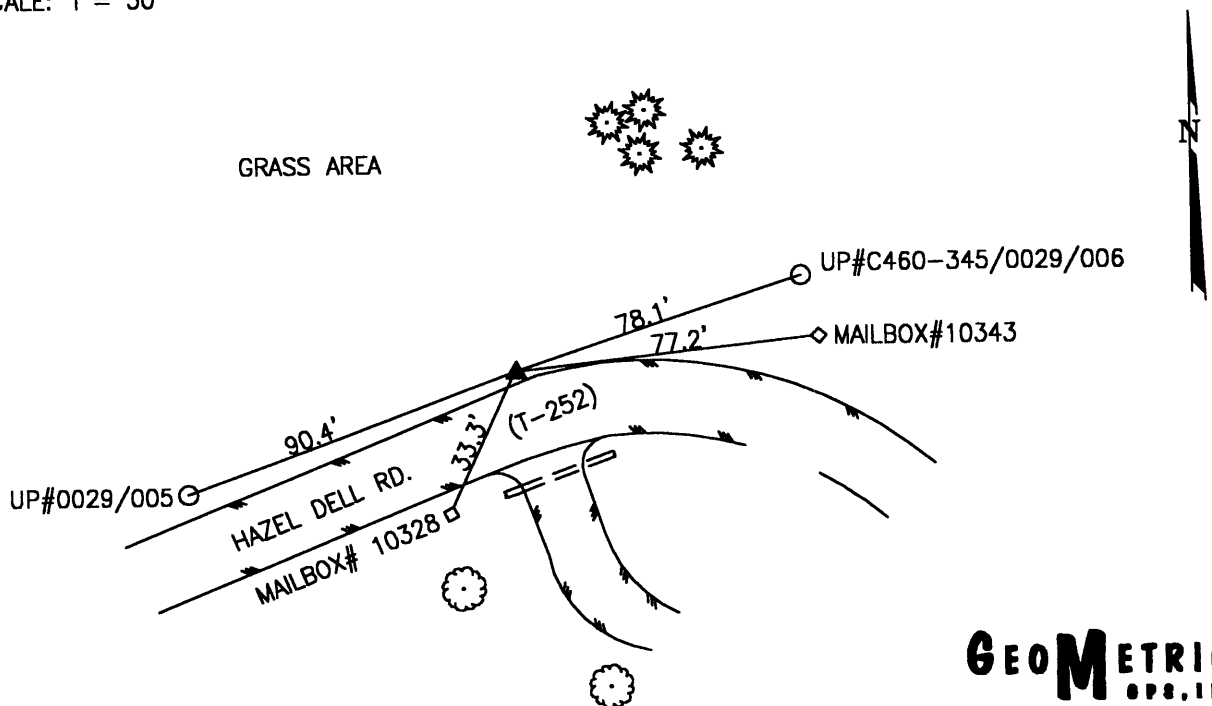
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 2		1998
N: 760607.985	E: 2010061.403	LAT: 40°05'17.42581" N	LONG: 82°21'05.26740" W
ELEV.: 997.537	(GPS)	COMB. FACTOR: 0.999963688	θ ANGLE: +0°05'39.29

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1140.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1140  
Designation: MADISON TWP 2

PID:

Latitude: 400517N  
Longitude: 0822105W  
Elevation: 361.1M  
Stamping: MADISON TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) SOUTH OF THE TOWN OF WILKINS CORNER. TO REACH THE STATION FROM THE INTERSECTION OF FALLSBURG ROAD (SR 79) AND PURITY ROAD (CR 209) PROCEED SOUTH ALONG FALLSBURG ROAD (SR 79) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH DAYTON ROAD (CR 260) . TURN LEFT AND PROCEED SOUTH ALONG DAYTON ROAD (CR 260) A DISTANCE OF 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH HAZEL DELL ROAD (T-262) . TURN LEFT AND PROCEED EAST ALONG HAZEL DELL ROAD (T-262) A DISTANCE OF 0.15 MILE (0.24 KM) TO THE STATION ON THE LEFT AT THE BEGINNING OF CURVE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 2 1998. THE STATION IS 78.1 FEET (23.8 M) AZIMUTH 72 DEGREES TO A UTILITY POLE WITH THE NUMBER C460-345/0029/006, 33.3 FEET (10.1 M) AZIMUTH 205 DEGREES TO A MAIL BOX WITH THE NUMBER 10328, 77.2 FEET (23.5 M) AZIMUTH 84 DEGREES TO A MAIL BOX WITH THE NUMBER 10343, AND 90.4 FEET (27.6 M) AZIMUTH 250 DEGREES TO A UTILITY POLE WITH THE NUMBER 0029/005.

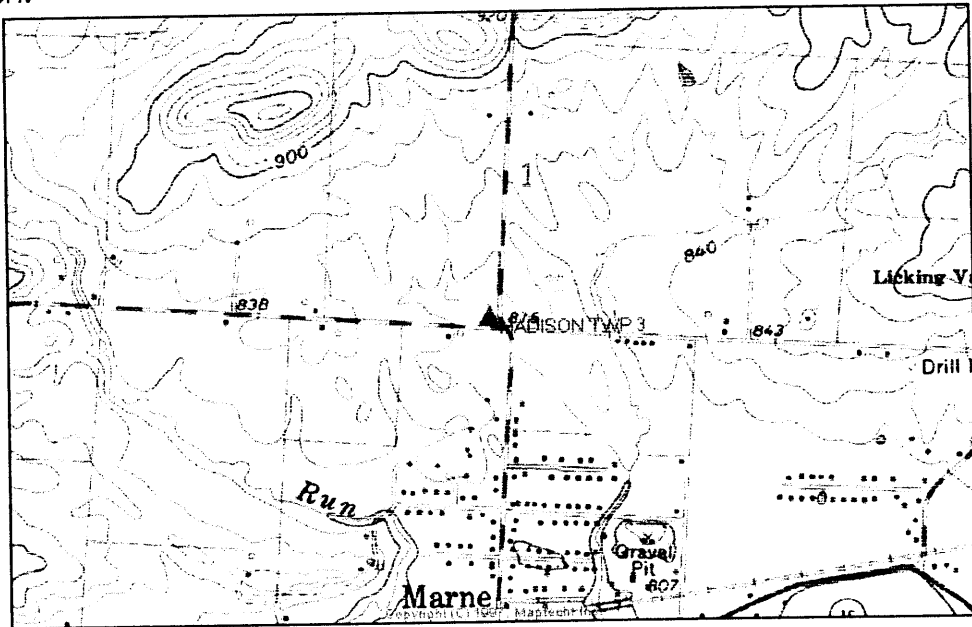
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

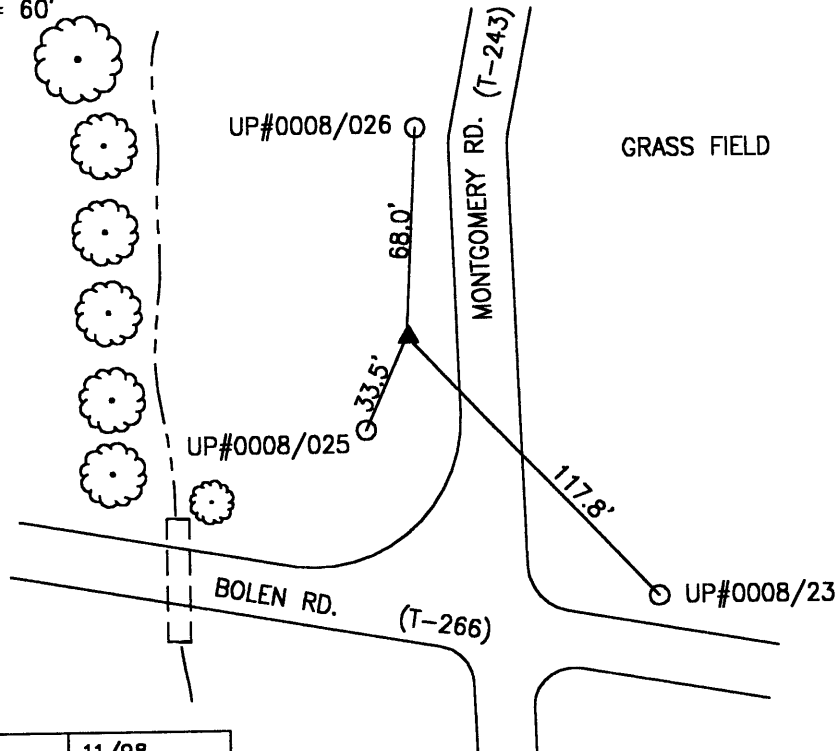
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 3		1998
N: 756703.068	E: 2021553.356	LAT: 40°04'38.62448" N	LONG: 82°18'37.51681" W
ELEV.: 815.556	(GPS) COMB. FACTOR: 0.999970079	θ ANGLE: +0°07'13.04	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1150.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1150  
Designation: MADISON TWP 3

PID:

Latitude: 400438N  
Longitude: 0821837W  
Elevation: 345.3M  
Stamping: MADISON TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.4 MILES (3.9 KM) WEST OF THE TOWN OF HANOVER. TO REACH THE STATION FROM THE INTERSECTION OF LICKING VALLEY ROAD (CR 668) AND HICKMAN ROAD (CR 210) PROCEED WEST ALONG LICKING VALLEY ROAD (CR 668) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH BOLEN ROAD (T-266) . TURN RIGHT AND PROCEED WEST ALONG BOLEN ROAD (T-266) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH MONTGOMERY ROAD (T-243) AND THE STATION IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 3 1998. THE STATION IS 33.5 FEET (10.2 M) AZIMUTH 204 DEGREES TO A UTILITY POLE WITH THE NUMBER 0008/025, 68.0 FEET (20.7 M) AZIMUTH 3 DEGREES TO A UTILITY POLE WITH THE NUMBER 0008/026, AND 117.8 FEET (35.9 M) AZIMUTH 137 TO A UTILITY POLE WITH THE NUMBER 0008/23.

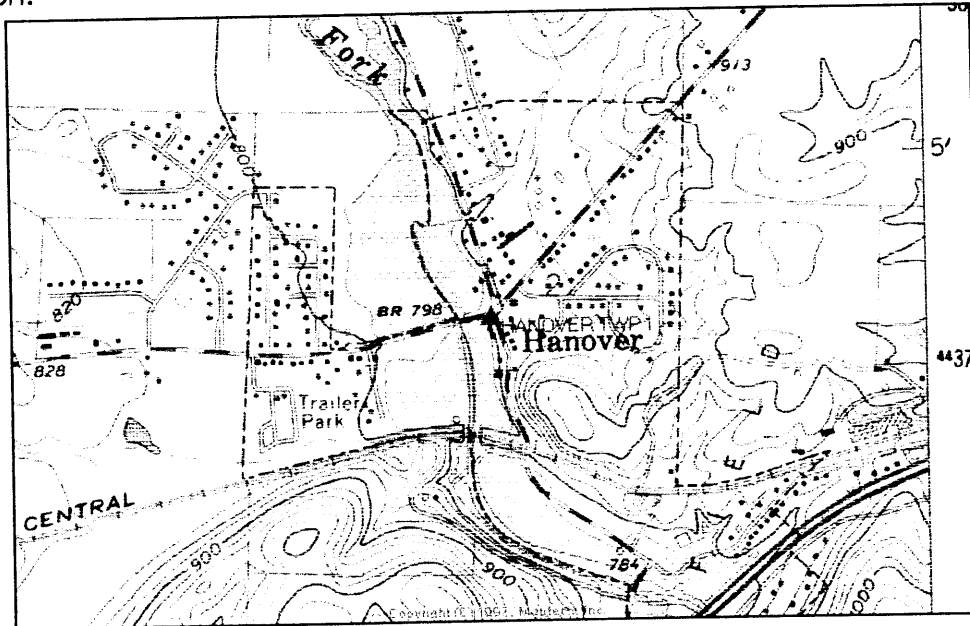
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

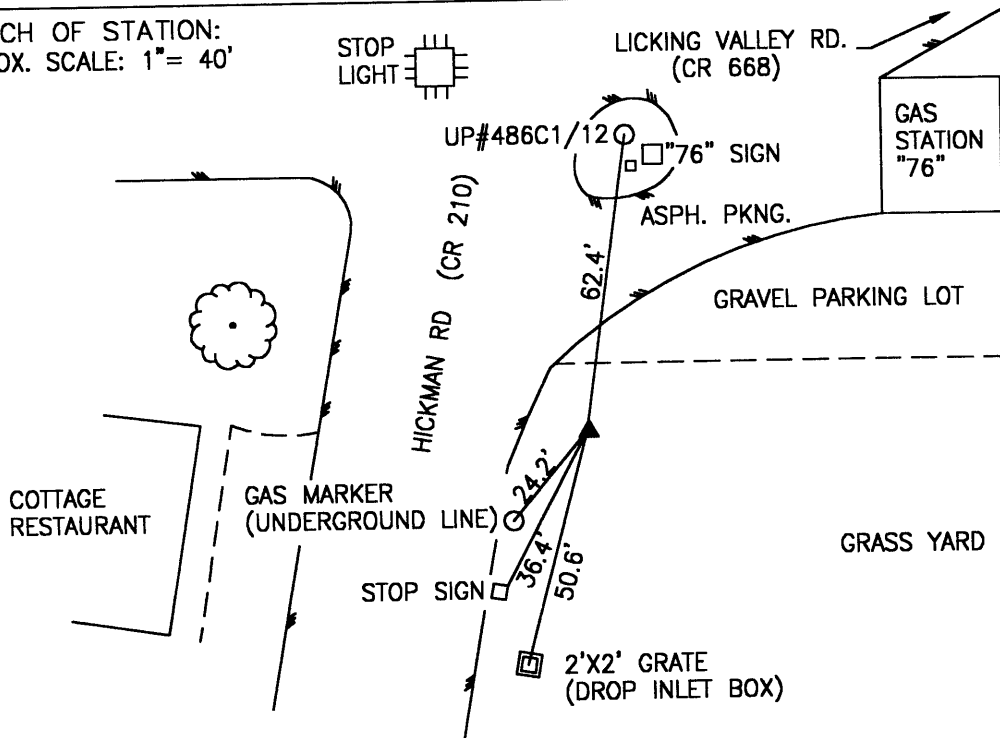
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HANOVER TWP 1		1998
N: 757463.374	E: 2034610.316	LAT: 40°04'45.83365" N	LONG: 82°15'49.52599" W
ELEV.: 796.196 (GPS)	COMB. FACTOR: 0.999971428		Ø ANGLE: +0°08'59.64

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1160.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1160  
Designation: HANOVER TWP 1

PID:

Latitude: 400445N  
Longitude: 0821549W  
Elevation: 357.7M  
Stamping: HANOVER TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HANOVER TOWNSHIP IN LICKING COUNTY, OHIO IN THE TOWN OF HANOVER AT THE INTERSECTION OF HICKMAN ROAD (CR 210) AND LICKING VALLEY ROAD (CR 668) IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HANOVER TWP 1 1998. THE STATION IS 24.2 FEET (7.4 M) AZIMUTH 220 DEGREES TO A GAS MARKER FOR AN UNDERGROUND PIPELINE, 36.4 FEET (11.1 M) AZIMUTH 208 DEGREES TO A STOP SIGN, 50.6 FEET (15.4 M) AZIMUTH 195 DEGREES TO A TWO FOOT BY TWO FOOT GRATE OF A DROP INLET BOX, AND 62.4 FEET (19.0 M) AZIMUTH 08 DEGREES TO A UTILITY POLE WITH THE NUMBER 486C1/12.

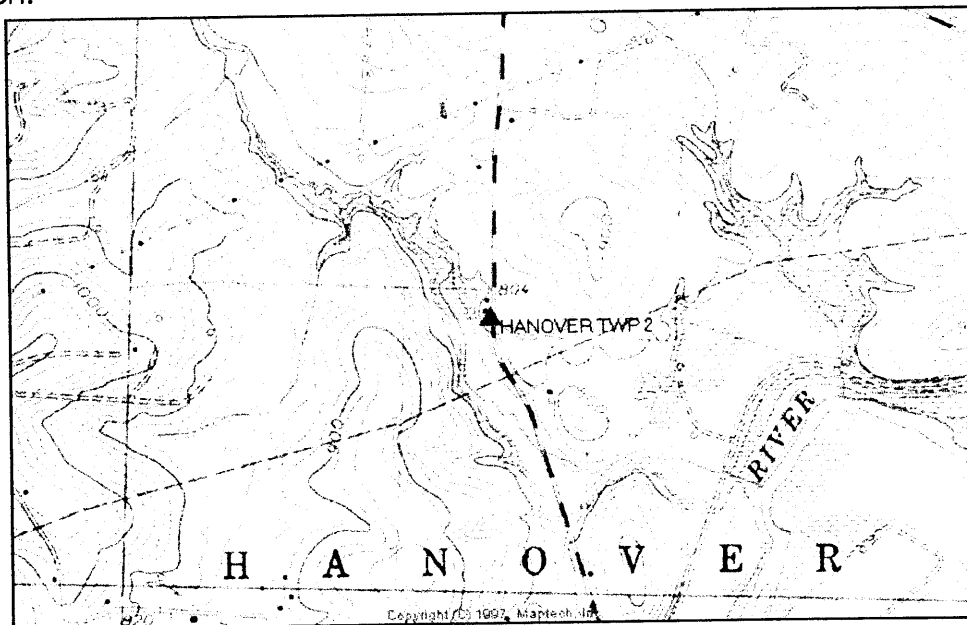
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

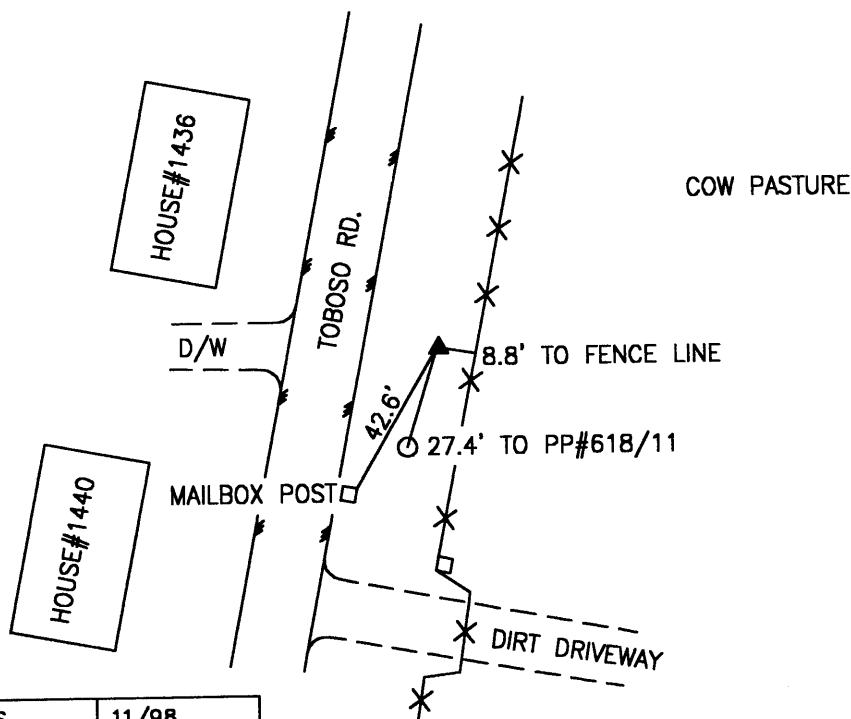
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HANOVER TWP 2		1998
N: 752723.749	E: 2044736.275	LAT: 40°03'58.71439" N	LONG: 82°13'39.44558" W
ELEV.: 805.874	(GPS)	COMB. FACTOR: 0.999968218	θ ANGLE: +0°10'22.18

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1170.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1170  
Designation: HANOVER TWP 2

PID:

Latitude: 400358N  
Longitude: 0821339W  
Elevation: 367.9M  
Stamping: HANOVER TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HANOVER TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) NORTHWEST OF THE TOWN OF TOBOSO. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND NASHPORT ROAD (SR 146) PROCEED SOUTHEAST ALONG NASHPORT ROAD (SR 146) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE INTERSECTION WITH TOBOSO ROAD (T-273) . TURN RIGHT AND PROCEED SOUTH ALONG TOBOSO ROAD (T-273) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE LEFT BETWEEN HOUSE NUMBERS 1440 AND 1436. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HANOVER TWP 2 1998. THE STATION IS 27.4 FEET (8.4 M) AZIMUTH 197 DEGREES TO A POWER POLE WITH THE NUMBER 618/11, 42.6 FEET (13.0 M) AZIMUTH 210 DEGREES TO THE EDGE OF A SQUARE POST SUPPORTING A MAILBOX, AND 8.8 FEET (2.7 M) AZIMUTH 100 DEGREES TO A FENCE LINE.

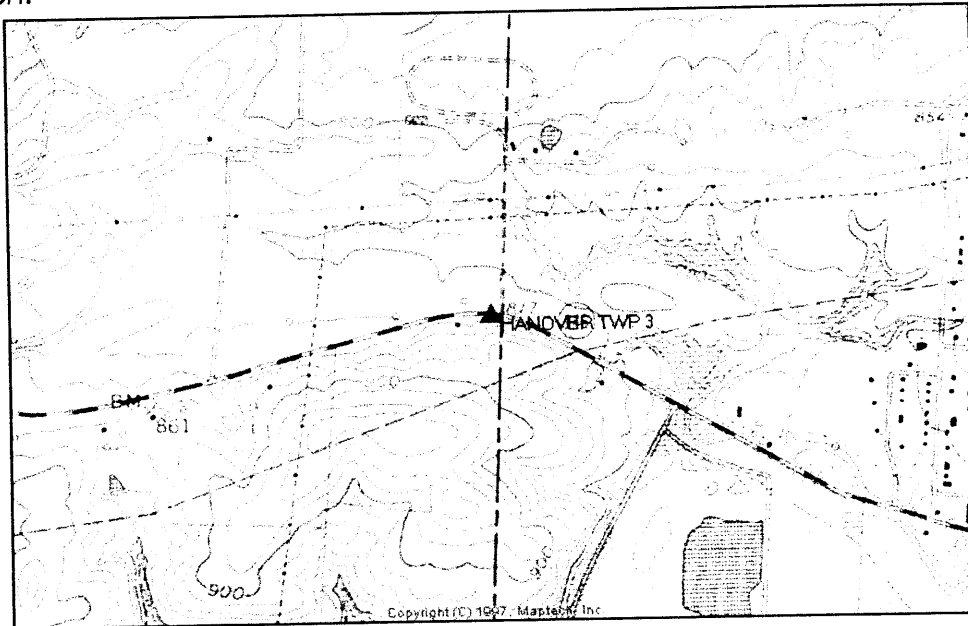
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

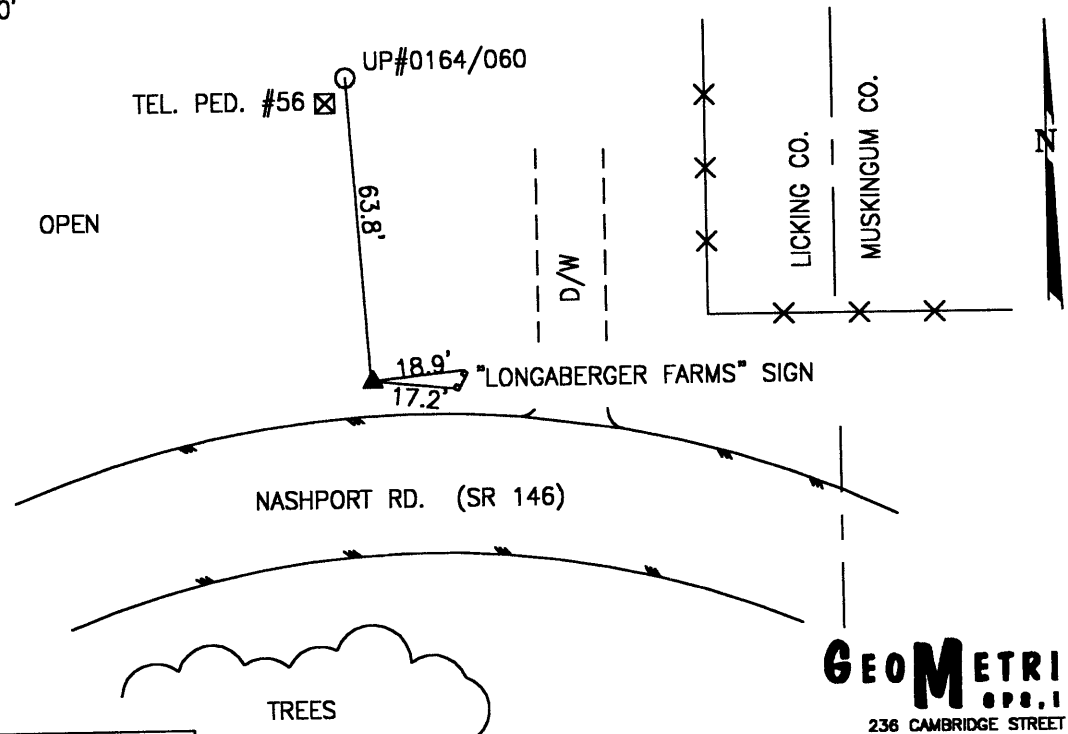
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HANOVER TWP 3		1998
N: 755593.252	E: 2054629.528	LAT: 40°04'26.75704" N	LONG: 82°11'32.07325" W
ELEV.: 822.525	(GPS) COMB. FACTOR: 0.999969052	θ ANGLE: +0°11'43.00	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1180.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1180  
Designation: HANOVER TWP 3

PID:

Latitude: 400426N  
Longitude: 0821132W  
Elevation: 332.8M  
Stamping: HANOVER TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HANOVER TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.7 MILES (2.7 KM) NORTHEAST OF THE TOWN OF TOBOSO. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND NASHPORT ROAD (SR 146) PROCEED EAST ALONG NASHPORT ROAD (SR 146) A DISTANCE OF 2.1 MILES (3.4 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE WEST SIDE OF THE LONGABERGER FARMS SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HANOVER TWP 3 1998. THE STATION IS 63.8 FEET (19.4 M) AZIMUTH 356 TO A TELEPHONE POLE WITH THE NUMBER 0164/060, 18.9 FEET (5.8 M) AZIMUTH 84 DEGREES TO THE NORTHERN POST OF THE LONGABERGER FARMS SIGN, 17.2 FEET (5.2 M) AZIMUTH 96 DEGREES TO THE SOUTHERN POST OF THE LONGABERGER FARMS SIGN AND 27.9 FEET (8.5 M) FROM THE CENTERLINE OF NASHPORT ROAD.

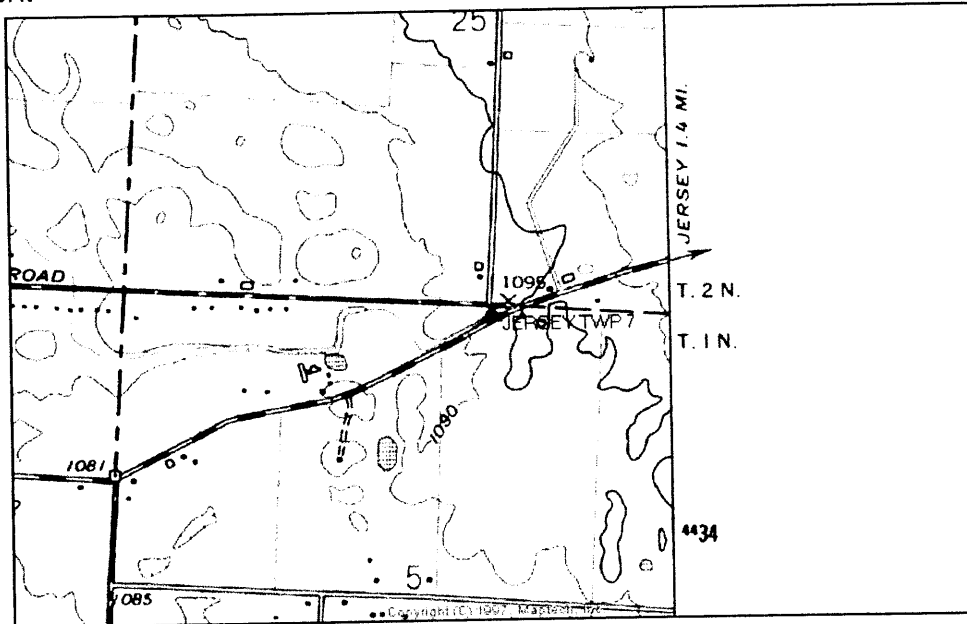
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

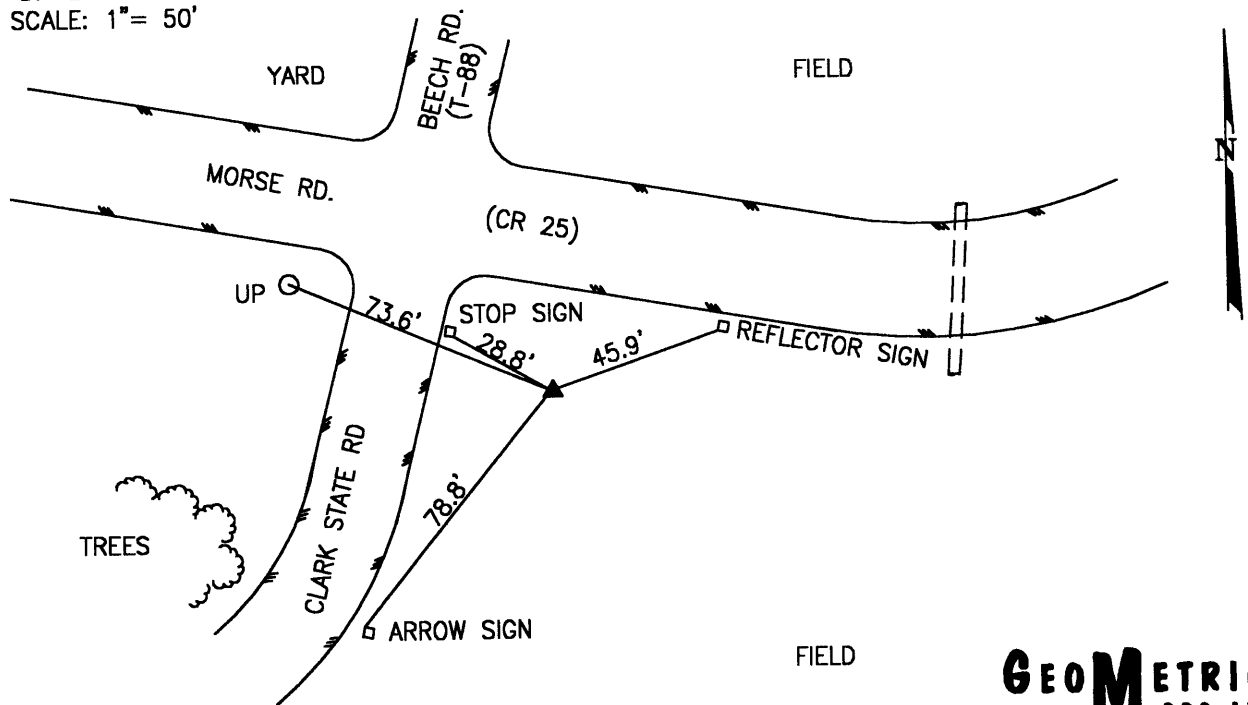
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	JERSEY TWP 7		1998
N: 746880.561	E: 1896966.047	LAT: 40°03'01.10696" N	LONG: 82°45'19.86061" W
ELEV.: 1092.121 (GPS)	COMB. FACTOR: 0.999951264		θ ANGLE: -0°09'43.66

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	01/99

FILE: 1190.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1190  
Designation: JERSEY TWP 7

PID:

Latitude: 400301N  
Longitude: 0824519W  
Elevation: 358.0M  
Stamping: JERSEY TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

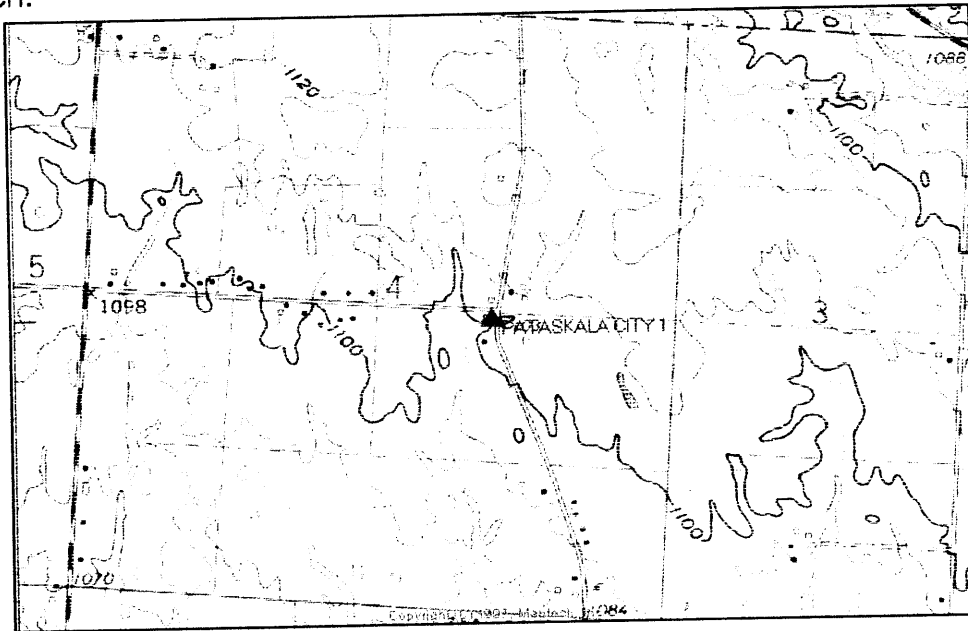
-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.7 MILE (2.7 KM) WEST OF THE TOWN OF JERSEY. TO REACH THE STATION FROM THE INTERSECTION OF CONDIT DRIVE (CR 28) AND MORSE ROAD (CR 25) PROCEED WEST ALONG MORSE ROAD (CR 25) A DISTANCE OF 1.7 MILES (2.7 KM) TO ITS INTERSECTION WITH BEECH ROAD (T-88) AND CLARK STATE ROAD AND THE STATION IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 7 1998. THE STATION IS 28.8 FEET (8.8 M) AZIMUTH 300 DEGREES TO A STOP SIGN, 45.9 FEET (14.0 M) AZIMUTH 71 DEGREES TO A REFLECTOR SIGN, 78.9 FEET (24.0 M) AZIMUTH 219 DEGREES TO AN ARROW SIGN, AND 73.6 FEET (22.4 M) AZIMUTH 293 DEGREES TO A UTILITY POLE WITH NO NUMBER.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

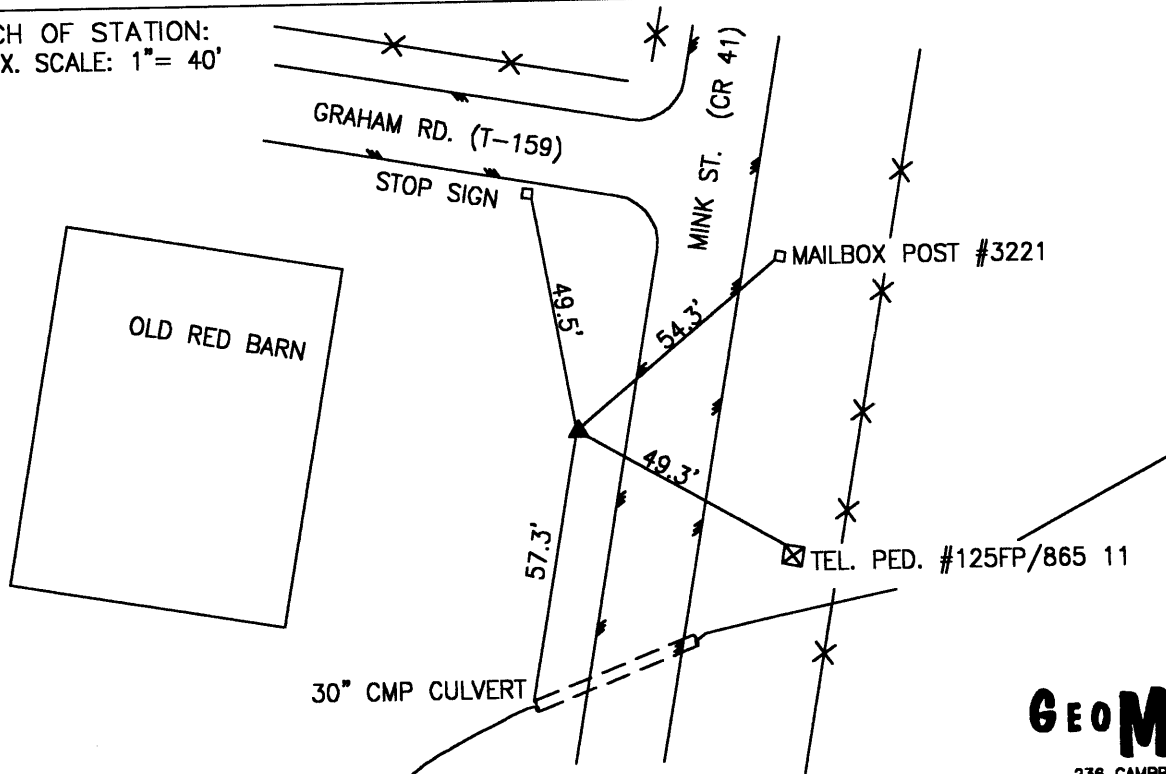
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	PATASKALA CITY 1		1998
N: 743716.062	E: 1902896.750	LAT: 40°02'29.99370" N	LONG: 82°44'03.49202" W
ELEV.: 1100.024 (GPS)	COMB. FACTOR: 0.999949144		θ ANGLE: -0°08'55.21

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1200.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1200

Designation: PATASKALA CITY 1

PID:

Latitude: 400229N

Longitude: 0824403W

Elevation: 361.0M

Stamping: PATASKALA CITY 1 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

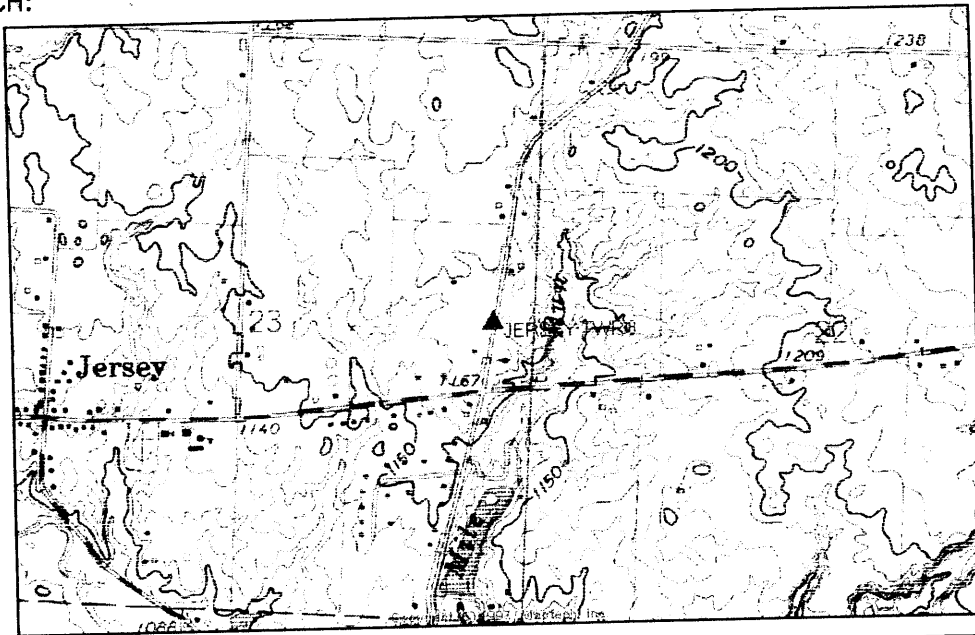
-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTHWEST OF THE TOWN OF JERSEY. TO REACH THE STATION FROM THE INTERSECTION OF CONDIT DRIVE (CR 28) AND MORSE ROAD (CR 25) PROCEED WEST ALONG MORSE ROAD (CR 25) A DISTANCE OF 0.4 MILE (0.6 KM) TO ITS INTERSECTION WITH MINK ROAD (CR 41) . TURN LEFT AND PROCEED SOUTH ALONG MINK ROAD (CR 41) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH GRAHAM ROAD (T-159) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION IN FRONT OF A RED BARN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED PATASKALA CITY 1 1998. THE STATION IS 57.3 FEET (17.5 M) AZIMUTH 190 DEGREES TO A 30 INCH CMP CULVERT, 49.3 FEET (15.0 M) AZIMUTH 120 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 125FP/865 11, 49.5 FEET (15.1 M) AZIMUTH 350 DEGREES TO A STOP SIGN, AND 54.3 FEET (16.6 M) AZIMUTH 50 DEGREES TO A MAIL BOX POST WITH THE NUMBER 3221.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

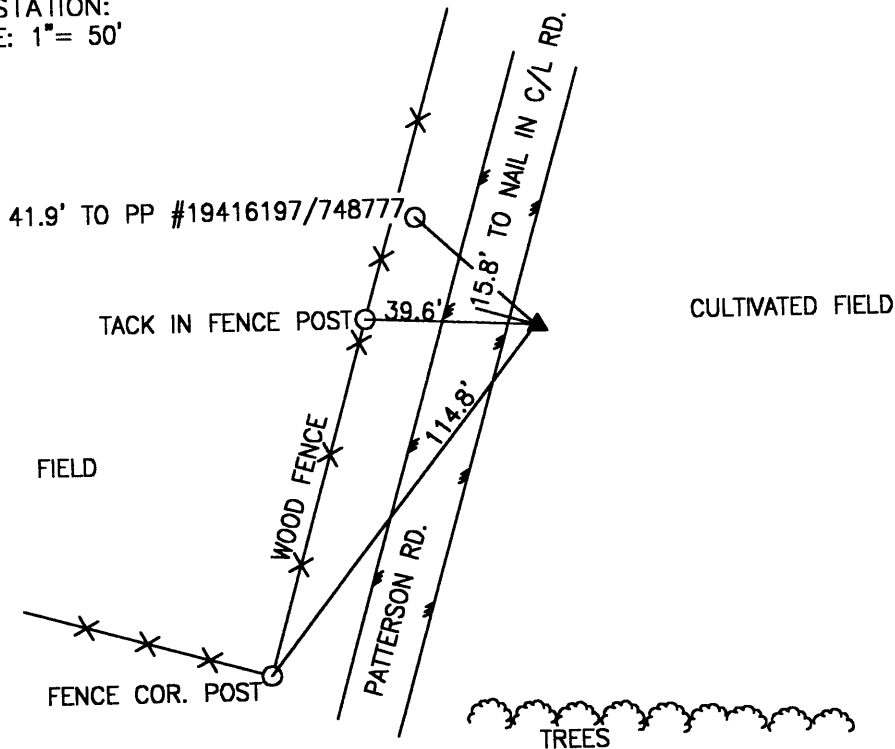
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88  
HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	JERSEY TWP 8		1998
N: 748765.981	E: 1910173.942	LAT: 40°03'20.07428" N	LONG: 82°42'30.07589" W
ELEV.: 1174.725 (GPS)	COMB. FACTOR: 0.999948395		θ ANGLE: -0°07'55.93

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1210.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1210

Designation: JERSEY TWP 8

PID:

Latitude: 400320N

Longitude: 0824230W

Elevation: 318.5M

Stamping: JERSEY TWP 8 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

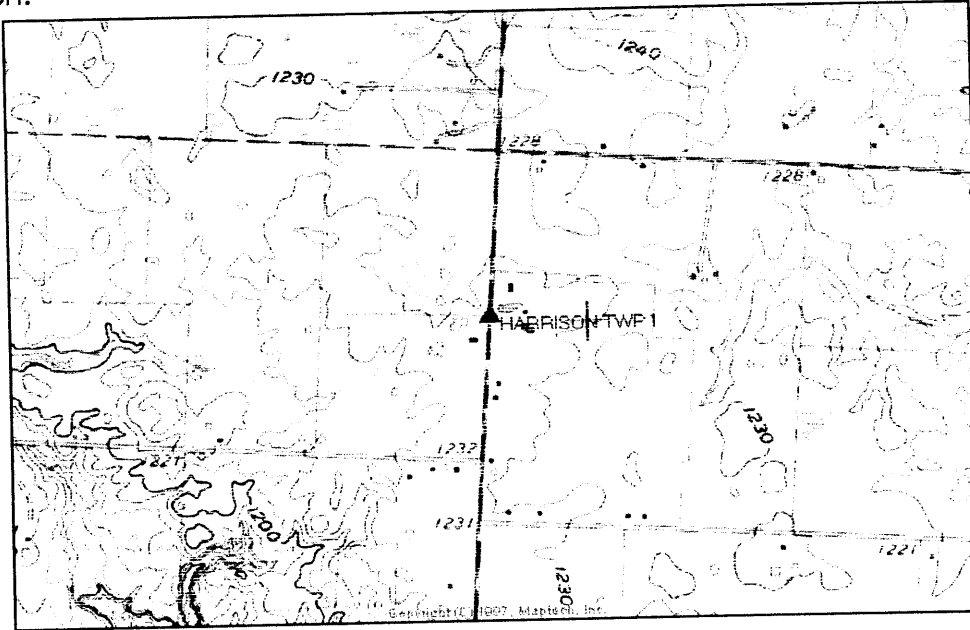
-----  
THE STATION IS LOCATED IN JERSEY TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.5 MILE (0.8 KM) EAST OF THE TOWN OF JERSEY. TO REACH THE STATION FROM THE INTERSECTION OF CONDIT DRIVE (CR 28) AND MORSE ROAD (CR 25) PROCEED EAST ALONG MORSE ROAD (CR 25) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH PATTERSON ROAD (T-29) . TURN LEFT AND PROCEED NORTH ALONG PATTERSON ROAD (T-29) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED JERSEY TWP 8 1998. THE STATION IS 41.9 FEET (12.8 M) AZIMUTH 313 DEGREES TO A POWER POLE WITH THE NUMBER 19416197/748777, 15.8 FEET (4.8 M) AZIMUTH 286 DEGREES TO A NAIL IN THE CENTERLINE OF PATTERSON ROAD, 39.6 FEET (12.1 M) AZIMUTH 273 DEGREES TO A TACK IN A FENCE POST, AND 114.8 FEET (35.0 M) AZIMUTH 218 DEGREES TO A FENCE CORNER POST.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

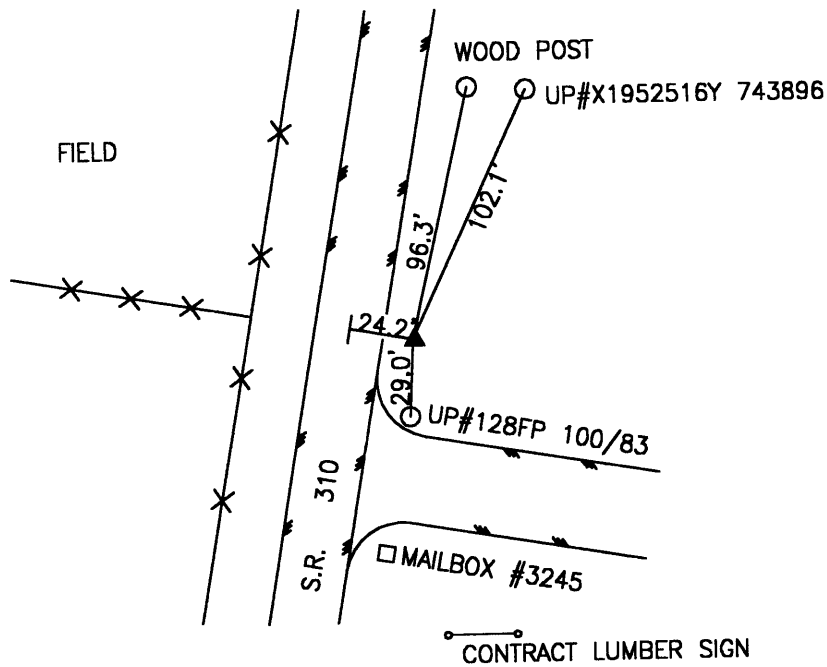
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88  
 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARRISON TWP 1		1998
N: 743786.993	E: 1921047.232	LAT: 40°02'31.09570" N	LONG: 82°40'10.12505" W
ELEV.: 1230.230 (GPS)	COMB. FACTOR: 0.999942989		θ ANGLE: -0°06'27.13

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1220.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1220

Designation: HARRISON TWP 1

PID:

Latitude: 400231N

Longitude: 0824010W

Elevation: 301.3M

Stamping: HARRISON TWP 1 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTHEAST OF THE CITY OF PATASKALA. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND HAZELTON-ETNA ROAD (SR 310) PROCEED NORTH ALONG HAZELTON-ETNA ROAD (SR 310) A DISTANCE OF 2.65 MILES (4.26 KM) TO THE STATION ON THE RIGHT IN FRONT OF A CONTRACT LUMBER BUILDING. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARRISON TWP 1 1998. THE STATION IS 96.3 FEET (29.4 M) AZIMUTH 13 DEGREES TO A WOOD POST, 102.1 AZIMUTH 25 DEGREES TO A UTILITY POLE NUMBER X1952516Y743896, 29.0 FEET (8.8 M) AZIMUTH 183 DEGREES TO A UTILITY POLE WITH NUMBER 128FP 100/83, AND 12.7 FEET (3.9 M) AZIMUTH 275 DEGREES TO A TACK IN THE EAST EDGE OF PAVEMENT.

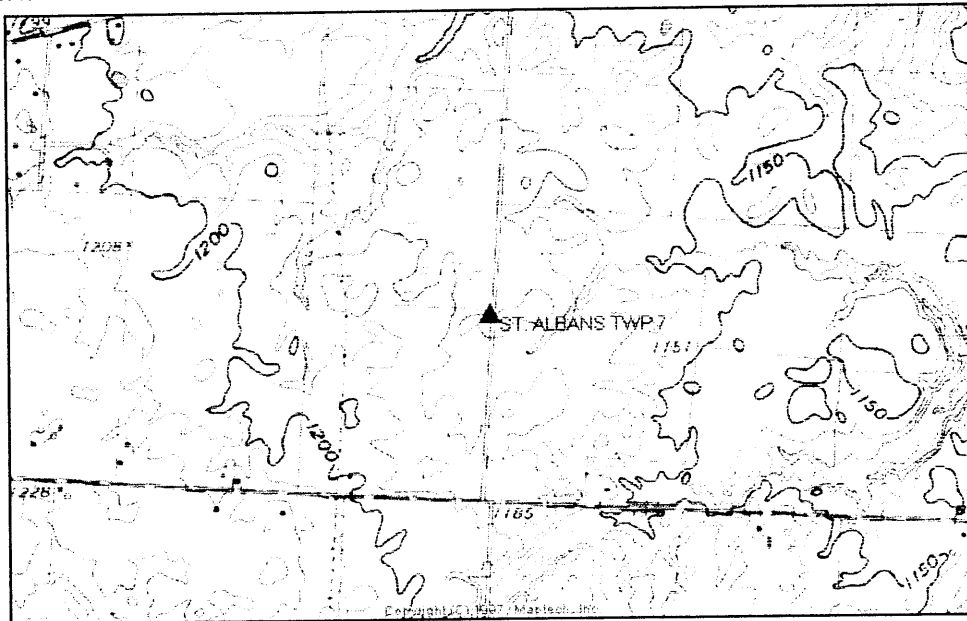
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

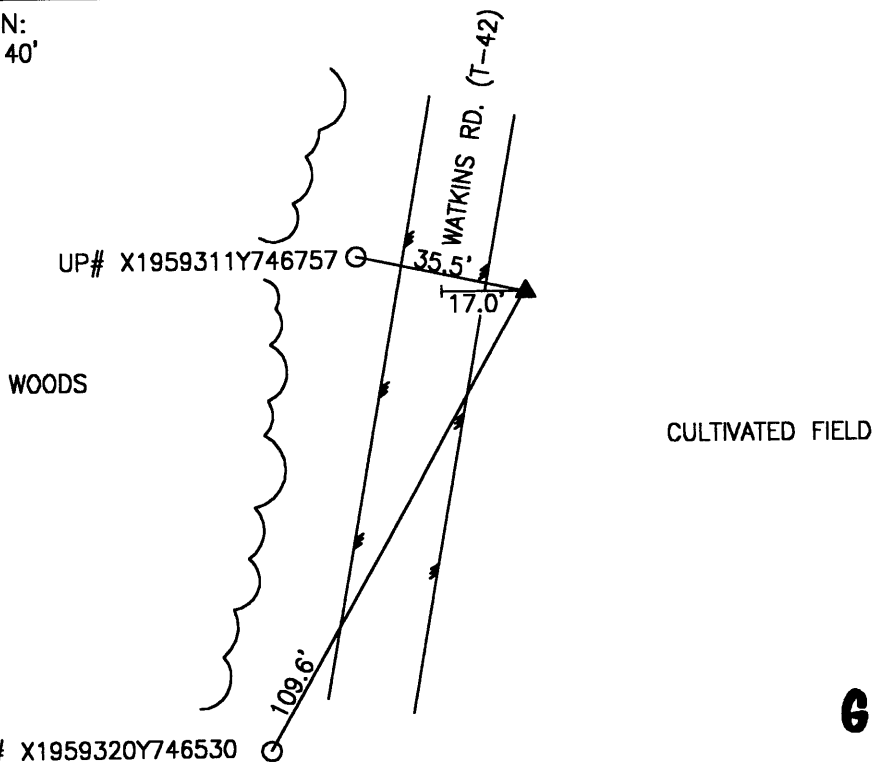
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR	
LICKING	ST ALBANS TWP 7	1998	
N: 746585.185	E: 1927909.126	LAT: 40°02'58.86613" N	LONG: 82°38'41.95602" W
ELEV.: 1176.753	(GPS)	COMB. FACTOR: 0.999947098	Θ ANGLE: -0°05'31.19

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1230.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1230  
Designation: ST ALBANS TWP 7

PID:

Latitude: 400258N  
Longitude: 0823841W  
Elevation: 359.5M  
Stamping: ST ALBANS TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.5 MILES (5.6 KM) SOUTHWEST OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF YORK ROAD (CR 39) AND WORTHINGTON ROAD (SR 161) PROCEED WEST ALONG WORTHINGTON ROAD (SR 161) A DISTANCE OF APPROXIMATELY 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH WATKINS ROAD (T-42) . TURN LEFT AND PROCEED SOUTH ALONG WATKINS ROAD (T-42) A DISTANCE OF 1.7 MILES (2.7 KM) TO THE STATION ON THE LEFT. THE STATION IS ON THE EAST SIDE OF WATKINS ROAD (T-42) , BETWEEN MORSE ROAD (CR 25) AND WESLEYAN CHURCH ROAD (T-148) , OPPOSITE A WOOD UTILITY POLE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 7 1998. THE STATION IS 35.5 FEET (10.8 M) AZIMUTH 282 DEGREES TO A UTILITY POLE WITH THE NUMBER X1959311Y746757, 109.6 FEET (33.4 M) AZIMUTH 209 DEGREES TO A POWER POLE WITH THE NUMBER X1959320Y746530 AND 17.0 FEET (5.2 M) FROM THE CENTERLINE OF WATKINS ROAD.

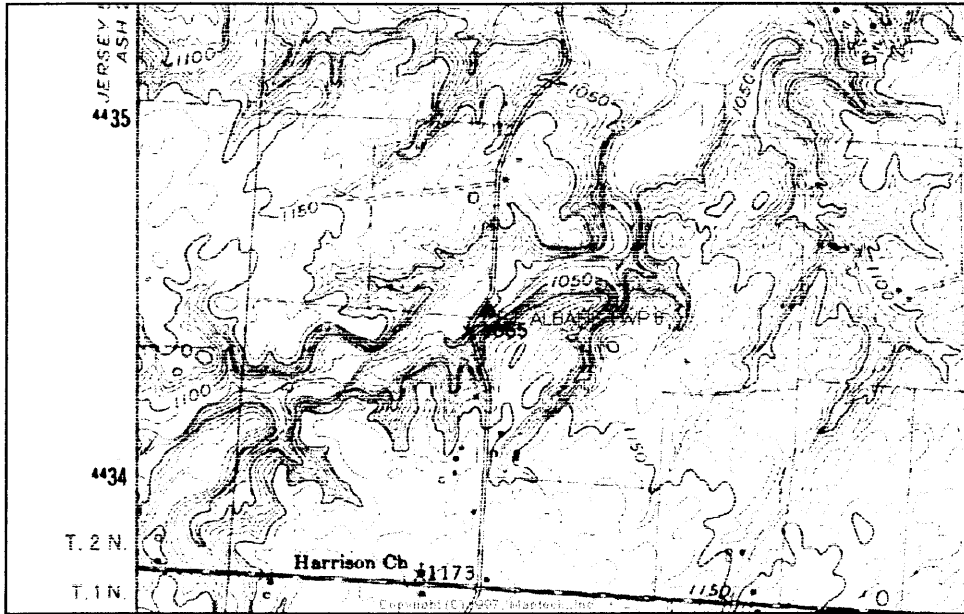
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

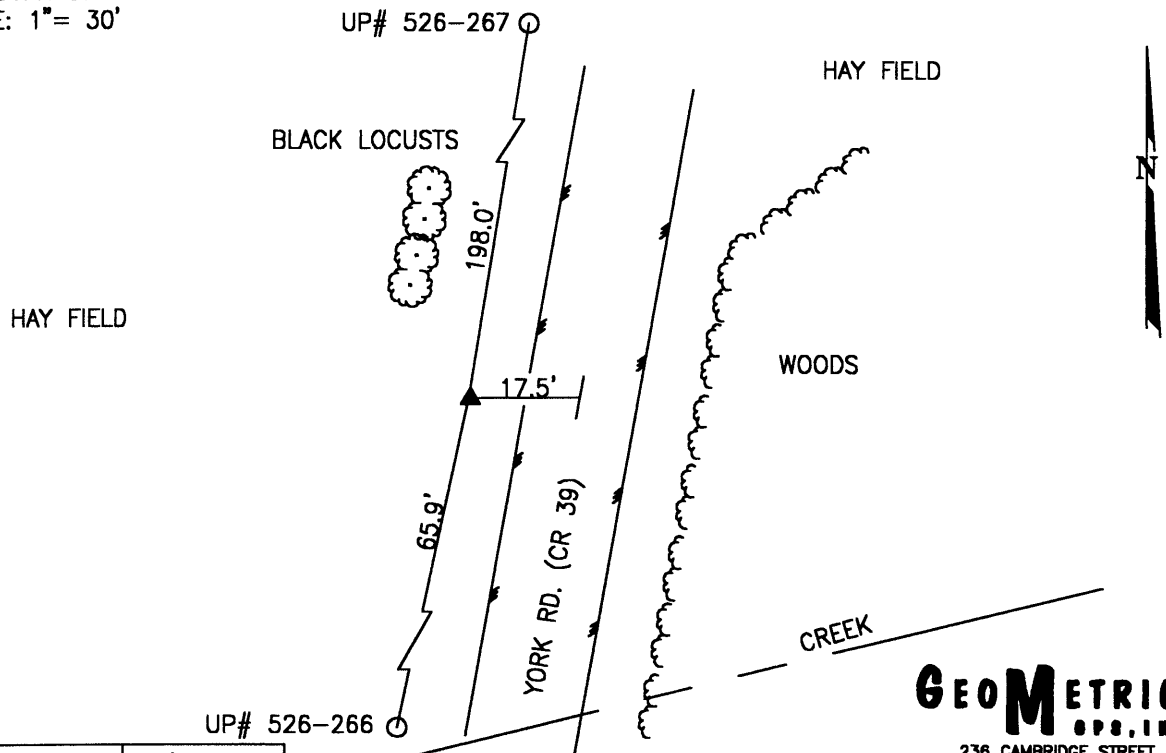
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ST ALBANS TWP 8		1998
N: 746931.791	E: 1936742.251	LAT: 40°03'02.41628" N	LONG: 82°36'48.37705" W
ELEV.: 1062.816 (GPS)	COMB. FACTOR: 0.999952737		Ø ANGLE: -0°04'19.12

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1240.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1240  
Designation: ST ALBANS TWP 8

PID:

Latitude: 400302N  
Longitude: 0823648W  
Elevation: 356.2M  
Stamping: ST ALBANS TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ST ALBANS TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTH OF THE TOWN OF ALEXANDRIA. TO REACH THE STATION FROM THE INTERSECTION OF YORK ROAD (CR 39) AND WORTHINGTON ROAD (SR 161) PROCEED SOUTH ALONG YORK ROAD (CR 39) APPROXIMATELY 1.0 MILE (1.6 KM) TO ITS INTERSECTION OF MORSE ROAD (CR 25) . CONTINUE SOUTH ALONG YORK ROAD (CR 39) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE RIGHT. THE STATION IS APPROXIMATELY 120 FEET (36.6 M) NORTH OF A CREEK. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ST ALBANS TWP 8 1998. THE STATION IS 65.9 FEET (20.1 M) AZIMUTH 192 DEGREES TO A UTILITY POLE WITH THE NUMBER 526-266, 198.0 FEET (60.4 M) AZIMUTH 09 DEGREES TO A UTILITY POLE WITH THE NUMBER 526-267 AND 17.0 FEET (5.2 M) FROM THE CENTERLINE OF YORK ROAD.

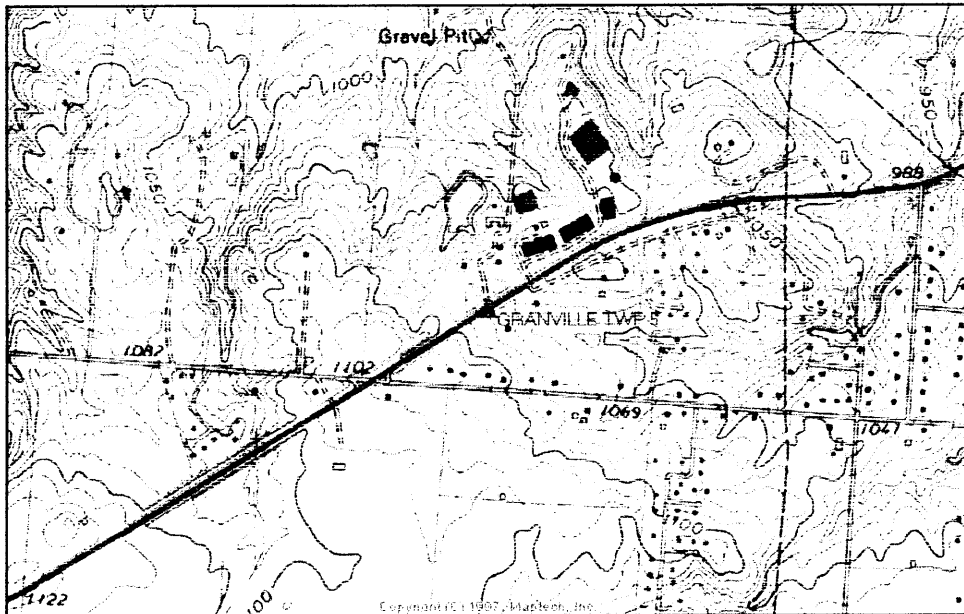
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

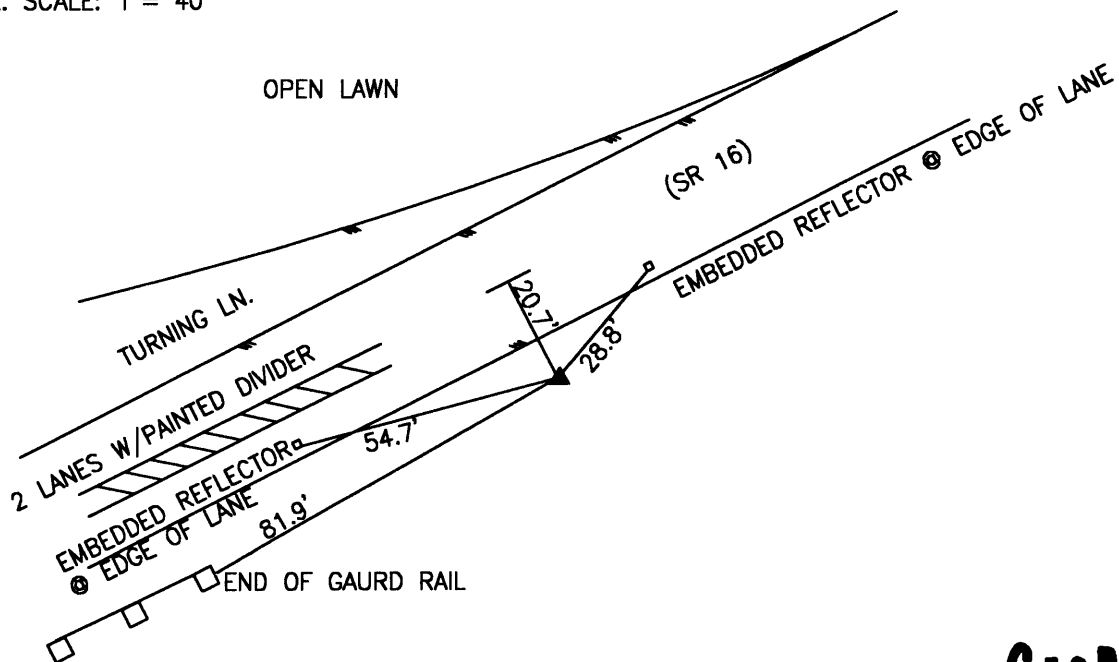
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GRANVILLE TWP 5		1998
N: 747330.382	E: 1954144.465	LAT: 40°03'06.51209" N	LONG: 82°33'04.60269" W
ELEV.: 1092.577 (GPS)	COMB. FACTOR: 0.999951548		θ ANGLE: -0°01'57.13

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1250.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1250  
Designation: GRANVILLE TWP 5

PID:

Latitude: 400306N  
Longitude: 0823304W  
Elevation: 372.9M  
Stamping: GRANVILLE TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN GRANVILLE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF COLUMBUS ROAD (SR 16) AND WORTHINGTON ROAD (SR 37) PROCEED SOUTH ALONG COLUMBUS ROAD (SR 16) A DISTANCE OF 1.4 MILES (2.3 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED GRANVILLE TWP 5 1998. THE STATION IS 81.9 FEET (25.0 M) AZIMUTH 240 DEGREES TO THE END OF A GUARDRAIL, 54.7 FEET (16.7 M) AZIMUTH 255 DEGREES TO AN EMBEDDED REFLECTOR AT THE EDGE OF THE LANE, 28.8 FEET (8.8 M) AZIMUTH 40 DEGREES TO ANOTHER EMBEDDED REFLECTOR AT THE EDGE OF THE LANE, AND 20.7 FEET (6.3 M) FROM THE CENTERLINE OF NEWARK-GRANVILLE.

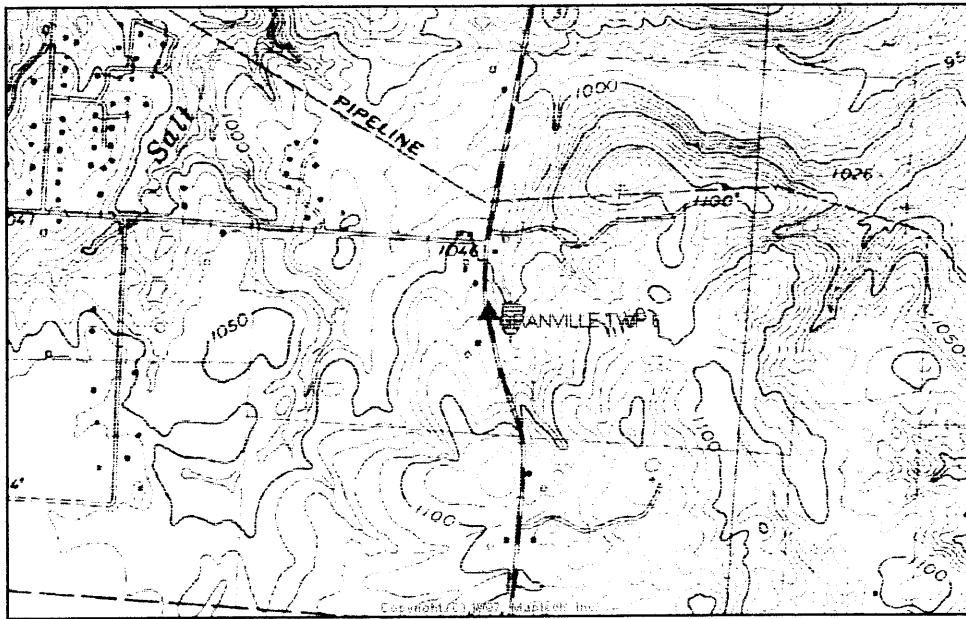
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

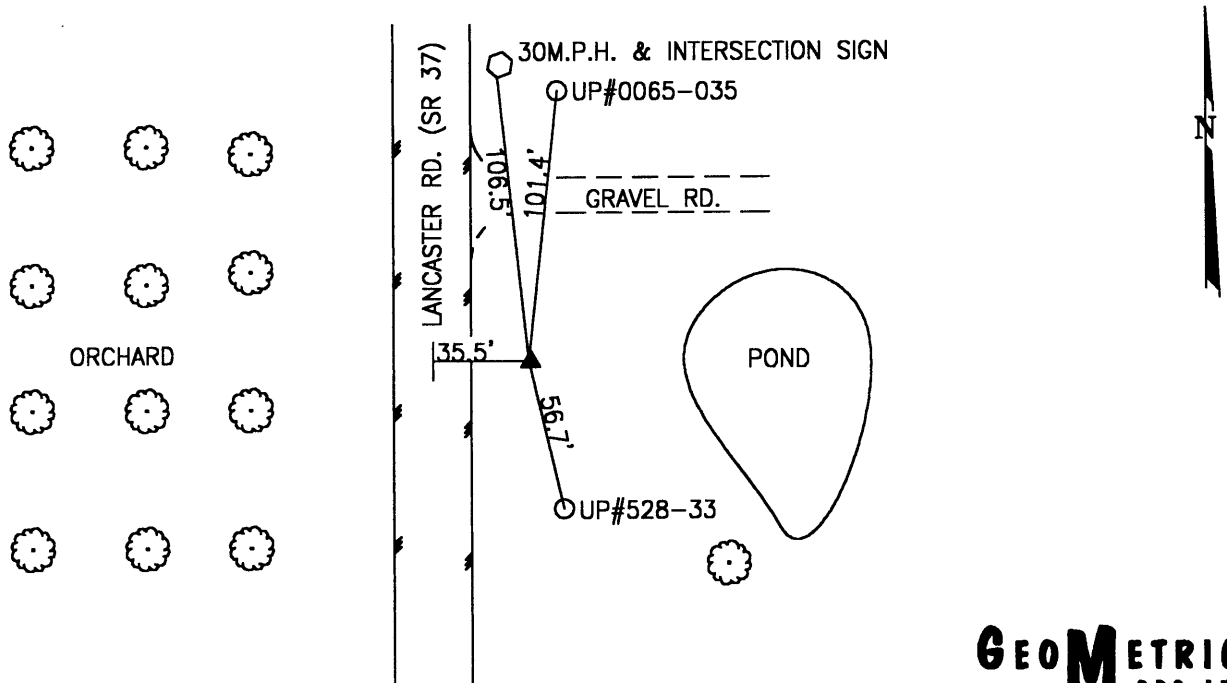
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	GRANVILLE TWP 6		1998
N: 745361.267	E: 1961974.334	LAT: 40°02'47.08481" N	LONG: 82°31'23.90922" W
ELEV.: 1064.309 (GPS)	COMB. FACTOR: 0.999951803		θ ANGLE: -0°00'53.24

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY:	X/XX

FILE: 1260.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1260  
Designation: GRANVILLE TWP 6

PID:

Latitude: 400247N  
Longitude: 0823123W  
Elevation: 351.7M  
Stamping: GRANVILLE TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN GRANVILLE TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTH OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF LANCASTER ROAD (SR 37) AND WORTHINGTON ROAD (SR 37) PROCEED SOUTH ALONG LANCASTER ROAD (SR 37) A DISTANCE OF 0.8 MILE (1.3 KM) TO THE STATION ON THE LEFT APPROXIMATELY 60 FEET (18.3 M) SOUTH OF A GRAVEL ROAD LEADING TO A SMALL POND. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED GRANVILLE TWP 6 1998. THE STATION IS 101.4 FEET (30.9 M) AZIMUTH 06 DEGREES TO A UTILITY POLE WITH THE NUMBER 0065-035, 56.7 FEET (17.3 M) AZIMUTH 167 DEGREES TO A UTILITY POLE WITH THE NUMBER 528-33, 106.5 FEET (32.5 M) AZIMUTH 354 DEGREES TO A 30 MPH AND INTERSECTION, AND 35.5 FEET (10.8 M) FROM THE CENTERLINE OF LANCASTER ROAD.

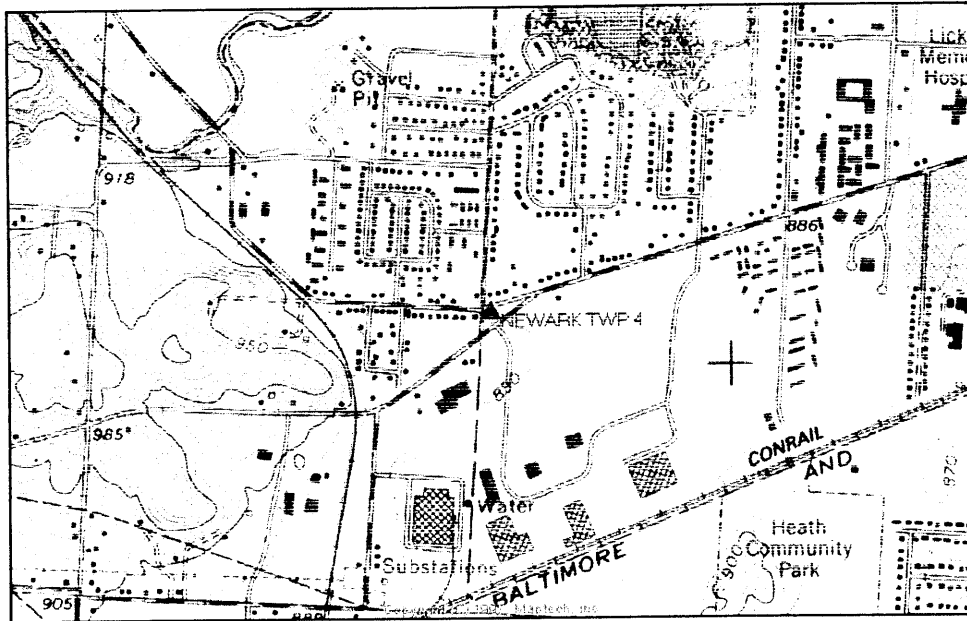
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

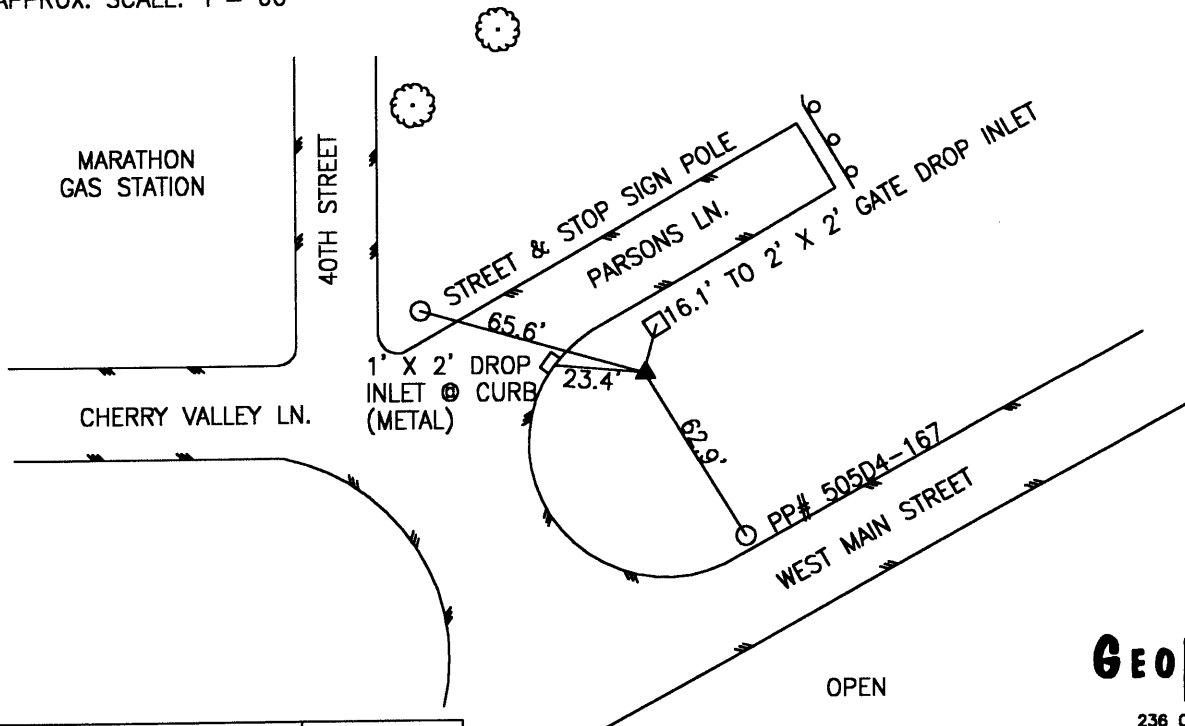
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	NEWARK TWP 4	1998
N: 744145.877	E: 1978064.394	LAT: 40°02'35.06448" N
ELEV.: 885.441 (GPS)		COMB. FACTOR: 0.999959670
		LONG: 82°27'57.02370" W
		Θ ANGLE: +0°01'18.03

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1270.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1270  
Designation: NEWARK TWP 4

PID:

Latitude: 400235N  
Longitude: 0822757W  
Elevation: 342.0M  
Stamping: NEWARK TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN SOUTHWESTERN NEWARK CITY IN LICKING COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION OF JACKSONTOWN ROAD (SR 13) AND WEST MAIN STREET (CR 128) PROCEED SOUTHWEST ALONG WEST MAIN STREET (CR 128) A DISTANCE OF 3.4 MILES (5.5 KM) TO ITS INTERSECTION WITH CHERRY VALLEY ROAD. TURN RIGHT AND THE STATION IS ON THE RIGHT BETWEEN PARSONS LANE AND WEST MAIN STREET. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWARK TWP 4 1998. THE STATION IS 16.1 FEET (4.9 M) AZIMUTH 15 DEGREES TO A TWO FOOT BY TWO FOOT SQUARE GRATE DROP INLET, 23.4 FEET (7.1 M) AZIMUTH 275 DEGREES TO A ONE FOOT BY TWO FEET METAL DROP INLET AT THE CURB, 62.9 FEET (19.2 M) AZIMUTH 149 DEGREES TO A POWER POLE WITH THE NUMBER 505D4-167, AND 65.6 FEET (20.0 M) AZIMUTH 286 DEGREES TO A STREET AND STOP SIGN POLE.

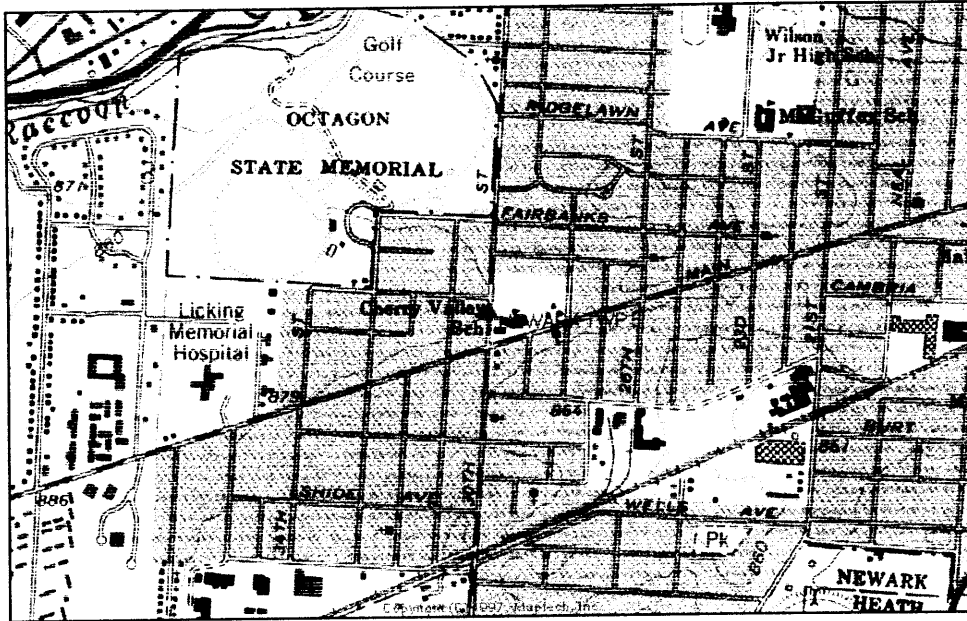
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

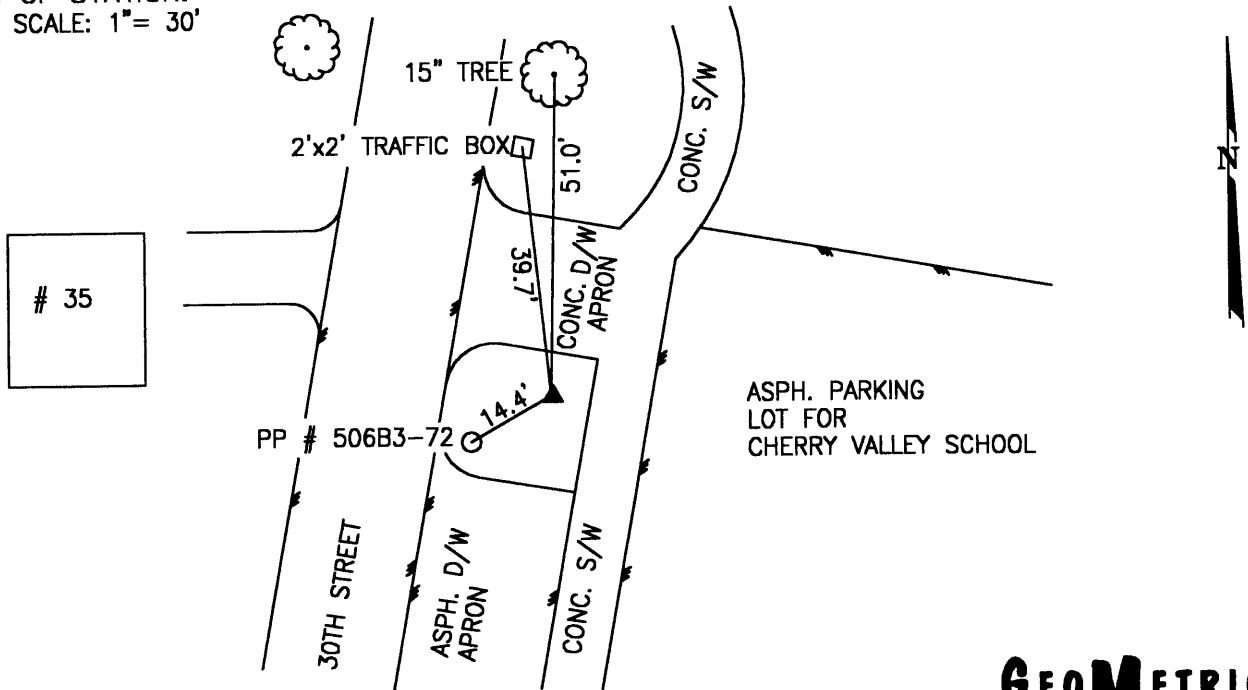
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	NEWARK TWP 5	1998
N: 746604.974	E: 1984882.766	LAT: 40°02'59.33127" N LONG: 82°26'29.33451" W
ELEV.: 877.364 (GPS)	COMB. FACTOR: 0.999961416	Θ ANGLE: +0°02'13.67

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1280.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1280  
Designation: NEWARK TWP 5

PID:

Latitude: 400259N  
Longitude: 0822629W  
Elevation: 331.3M  
Stamping: NEWARK TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN CENTRAL NEWARK CITY IN LICKING COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION OF JACKSONTOWN ROAD (SR 13) AND CHURCH STREET IN NEWARK PROCEED SOUTHWEST ALONG CHURCH STREET A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH 30TH STREET. TURN LEFT AND PROCEED SOUTH ALONG 30TH STREET A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE LEFT. THE STATION IS SOUTHWEST OF THE INTERSECTION OF SIDEWALK AND DRIVEWAY LEADING FROM 30TH STREET INTO NORTH PARKING LOT FOR CHERRY VALLEY SCHOOL. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED NEWARK TWP 5 1998. THE STATION IS 14.4 FEET (4.4 M) AZIMUTH 249 DEGREES TO A POWER POLE WITH THE NUMBER 506B3-72, 39.7 FEET (12.1 M) AZIMUTH 354 DEGREES TO A TWO FEET BY TWO FEET TRAFFIC BOX FLUSH WITH THE GROUND, 51.0 FEET (15.5 M) AZIMUTH 01 DEGREES TO A 15 INCH TREE AND 28.5 FEET (8.7 M) FROM THE CENTERLINE OF 30TH STREET.

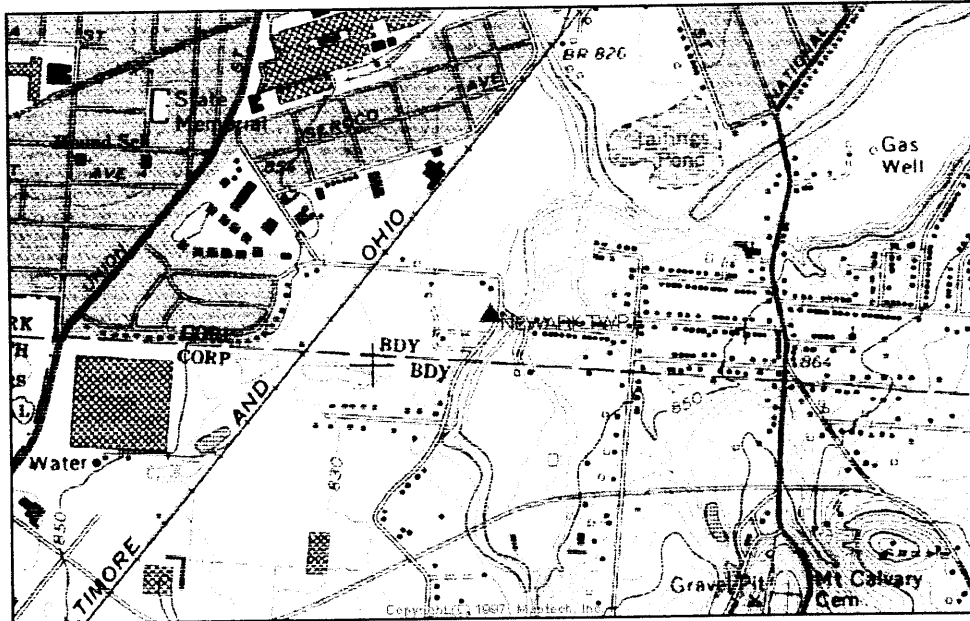
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

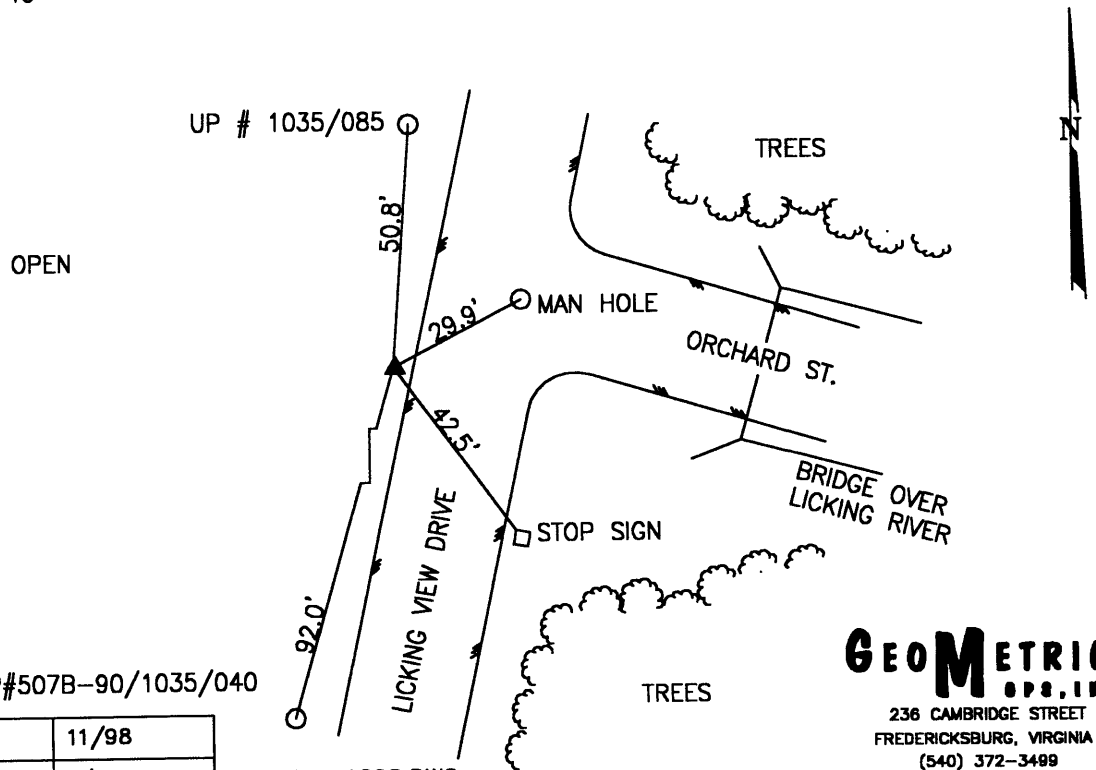
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	NEWARK TWP 6	1998
N: 744134.217	E: 1992999.007	LAT: 40°02'34.84982" N LONG: 82°24'44.99886" W
ELEV.: 815.523 (GPS)	COMB. FACTOR: 0.999962996	θ ANGLE: +0°03'19.87

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1290.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1290  
Designation: NEWARK TWP 6

PID:

Latitude: 400234N  
Longitude: 0822444W  
Elevation: 261.2M  
Stamping: NEWARK TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN EASTERN NEWARK CITY IN LICKING COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION OF MAIN STREET AND JACKSONTOWN ROAD (SR 13) PROCEED SOUTH ALONG JACKSONTOWN ROAD (SR 13) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH ORCHARD STREET. TURN RIGHT AND PROCEED WEST ALONG ORCHARD STREET A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH LICKING VIEW ROAD. THE STATION IS ON THE WEST SIDE OF LICKING VIEW ROAD OPPOSITE THE T ROAD INTERSECTION OF ORCHARD STREET. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED NEWARK TWP 6 1998. THE STATION IS 50.8 FEET (15.5 M) AZIMUTH 4 DEGREES TO A UTILITY POLE WITH THE NUMBER 1035/085, 29.9 FEET (9.1 M) AZIMUTH 62 DEGREES TO A MANHOLE, 42.5 FEET (13.0 M) AZIMUTH 144 DEGREES TO A STOP SIGN, AND 92.0 FEET (28.0 M) AZIMUTH 196 DEGREES TO A UTILITY POLE WITH THE NUMBER 507B-90/1035/040.

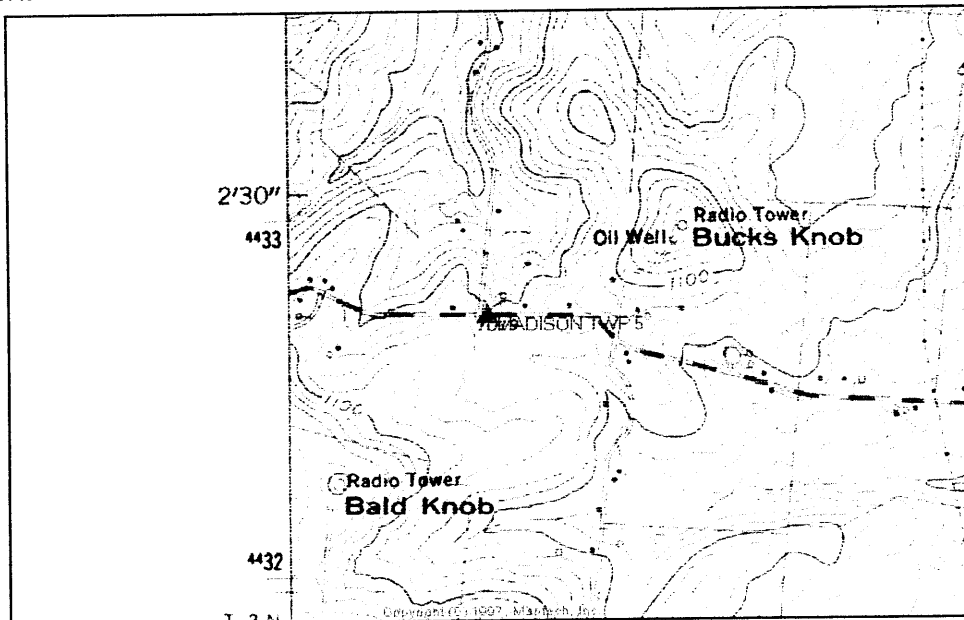
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

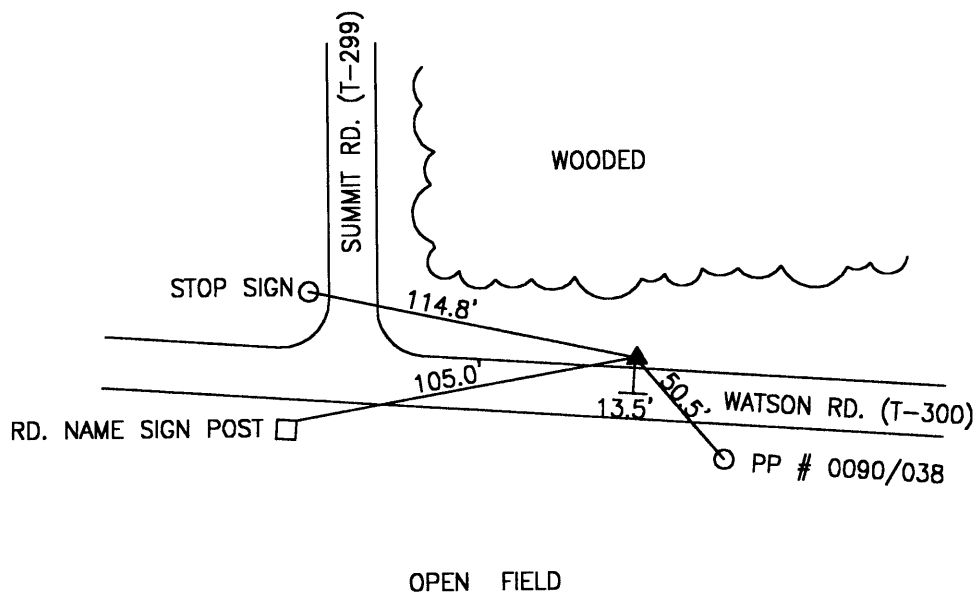
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 5		1998
N: 742579.560	E: 2005378.663	LAT: 40°02'19.33782" N	LONG: 82°22'05.85417" W
ELEV.: 1016.048	(GPS) COMB. FACTOR: 0.999952561	θ ANGLE: +0°05'00.85	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 70'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1300.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1300  
Designation: MADISON TWP 5

PID:

Latitude: 400219N  
Longitude: 0822205W  
Elevation: 296.0M  
Stamping: MADISON TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHEAST OF THE CITY OF NEWARK. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND DAYTON ROAD (CR 260) PROCEED SOUTH ALONG DAYTON ROAD (CR 260) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITH EAST MAIN STREET (CR 585) . TURN LEFT AND PROCEED EAST ALONG EAST MAIN STREET (CR 585) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH STADDENS BRIDGE ROAD (CR 315) . TURN RIGHT AND PROCEED SOUTH ALONG STADDENS BRIDGE ROAD (CR 315) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH SLEEPY HOLLOW ROAD (T-294) . TURN RIGHT AND PROCEED WEST AND THEN SOUTH ALONG SLEEPY HOLLOW ROAD (T-294) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH WATSON ROAD (T-300) . TURN RIGHT AND PROCEED WEST ALONG WATSON ROAD (T-300) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH SUMMIT ROAD (T-299) AND THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 5 1998. THE STATION IS 50.5 FEET (15.4 M) AZIMUTH 140 DEGREES TO A POWER POLE WITH THE NUMBER 0090/038, 105.0 FEET (32.0 M) AZIMUTH 260 DEGREES TO A ROAD NAME SIGN POST, 114.8 FEET (35.0 M) AZIMUTH 282 DEGREES TO A STOP SIGN AND 13.5 FEET (4.1 M) FROM THE CENTERLINE OF WATSON ROAD.

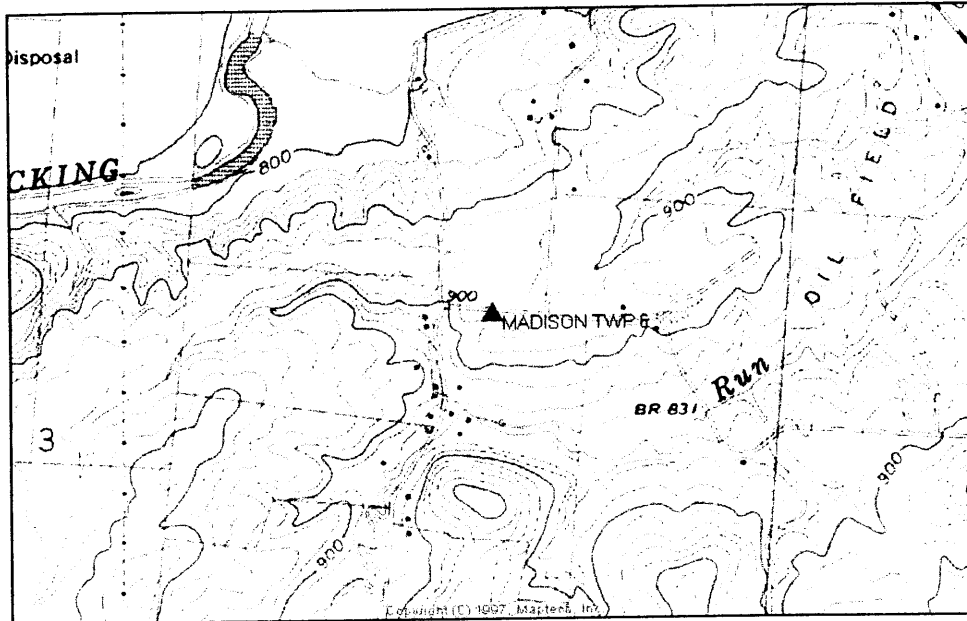
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

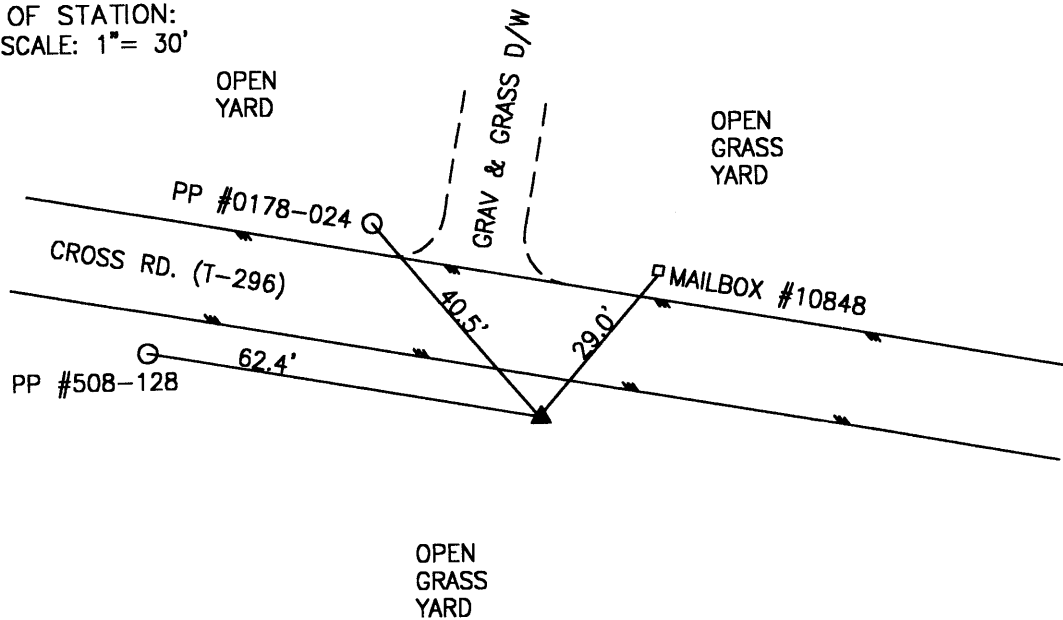
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 6		1998
N: 746676.144	E: 2012679.979	LAT: 40°02'59.70554" N	LONG: 82°20'31.88990" W
ELEV.: 925.664	(GPS)	COMB. FACTOR: 0.999959132	θ ANGLE: +0°06'00.47

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	11/98
CHECKED BY: LLR	1/99

FILE: 1310.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1310  
Designation: MADISON TWP 6

PID:

Latitude: 400259N  
Longitude: 0822031W  
Elevation: 272.2M  
Stamping: MADISON TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) EAST OF THE CITY OF NEWARK. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND DAYTON ROAD (CR 260) PROCEED SOUTH ALONG DAYTON ROAD (CR 260) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITH EAST MAIN STREET (CR 585) . TURN LEFT AND PROCEED EAST ALONG EAST MAIN STREET (CR 585) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH STADDENS BRIDGE ROAD (CR 315) . TURN RIGHT AND PROCEED SOUTH ALONG STADDENS BRIDGE ROAD (CR 315) A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH SLEEPY HOLLOW ROAD (T-294) . TURN RIGHT AND PROCEED WEST AND THEN SOUTH ALONG SLEEPY HOLLOW ROAD (T-294) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH CROSS ROAD (T-296) . TURN LEFT AND PROCEED EAST ALONG CROSS ROAD (T-296) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 6 1998. THE STATION IS 62.4 FEET (19.0 M) AZIMUTH 280 DEGREES TO A POWER POLE WITH THE NUMBER 508-128, 40.5 FEET (12.3 M) AZIMUTH 320 DEGREES TO A POWER POLE WITH THE NUMBER 0178-024, AND 29.0 FEET (8.8 M) AZIMUTH 40 DEGREES TO A MAIL BOX WITH THE NUMBER 10848.

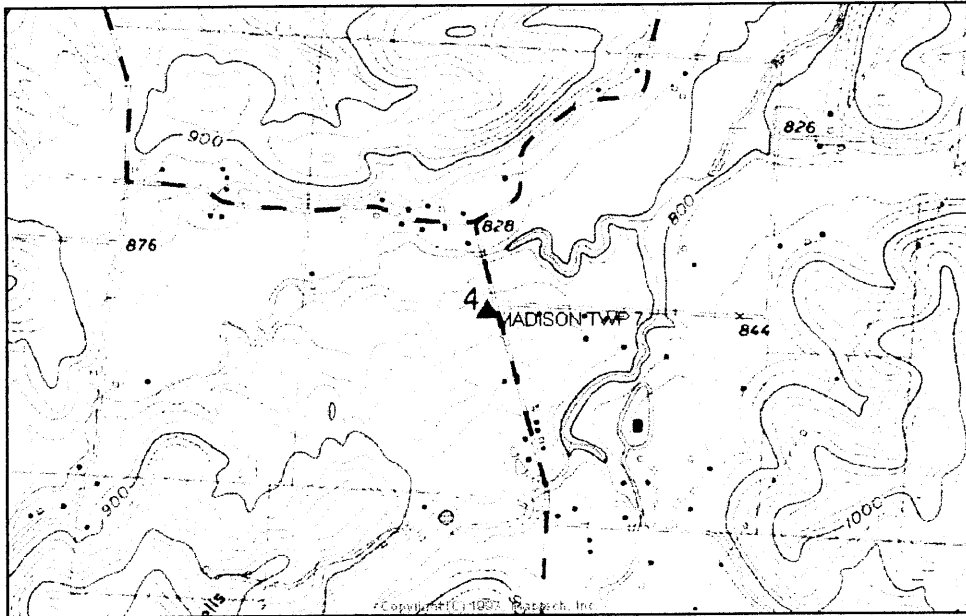
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

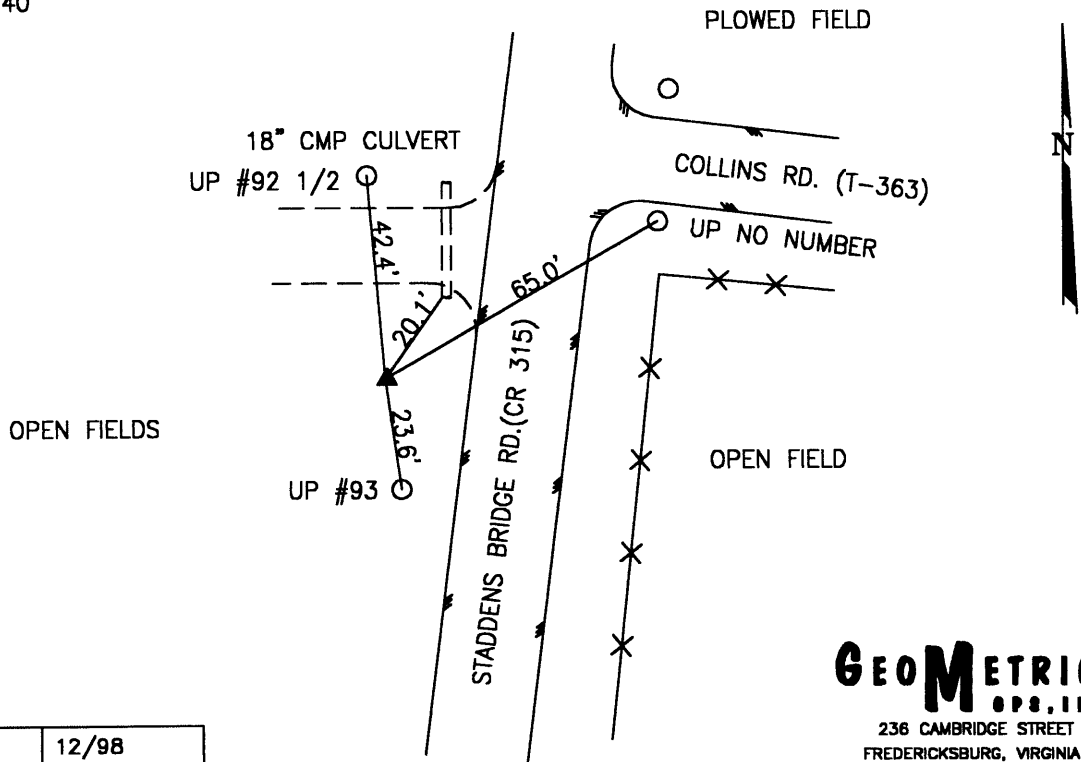
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	MADISON TWP 7		1998
N: 744800.360	E: 2021410.642	LAT: 40°02'41.00297" N	LONG: 82°18'39.67314" W
ELEV.: 850.845	(GPS)	COMB. FACTOR: 0.999961653	Θ ANGLE: +0°07'11.68

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



**GEOMETRICS**  
 OPS., INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1320.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1320  
Designation: MADISON TWP 7

PID:

Latitude: 400241N  
Longitude: 0821839W  
Elevation: 274.4M  
Stamping: MADISON TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.0 MILES (9.7 KM) EAST OF THE CITY OF NEWARK. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND DAYTON ROAD (CR 260) PROCEED SOUTH ALONG DAYTON ROAD (CR 260) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITH EAST MAIN STREET (CR 585) . TURN LEFT AND PROCEED EAST ALONG EAST MAIN STREET (CR 585) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH STADDENS BRIDGE ROAD (CR 315) . TURN RIGHT AND PROCEED SOUTH ALONG STADDENS BRIDGE ROAD (CR 315) A DISTANCE OF 2.4 MILES (3.9 KM) TO ITS INTERSECTION WITH COLLINS ROAD (T-363) AND THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED MADISON TWP 7 1998. THE STATION IS 23.6 FEET (7.2 M) AZIMUTH 172 DEGREES TO A UTILITY POLE WITH THE NUMBER 93, 20.1 FEET (6.1 M) AZIMUTH 35 DEGREES TO AN 18 INCH CULVERT, 65.0 FEET (19.8 M) AZIMUTH 60 DEGREES TO A UTILITY POLE WITH NO NUMBER, AND 42.4 FEET (12.9 M) AZIMUTH 355 DEGREES TO A UTILITY POLE WITH THE NUMBER 92 1/2.

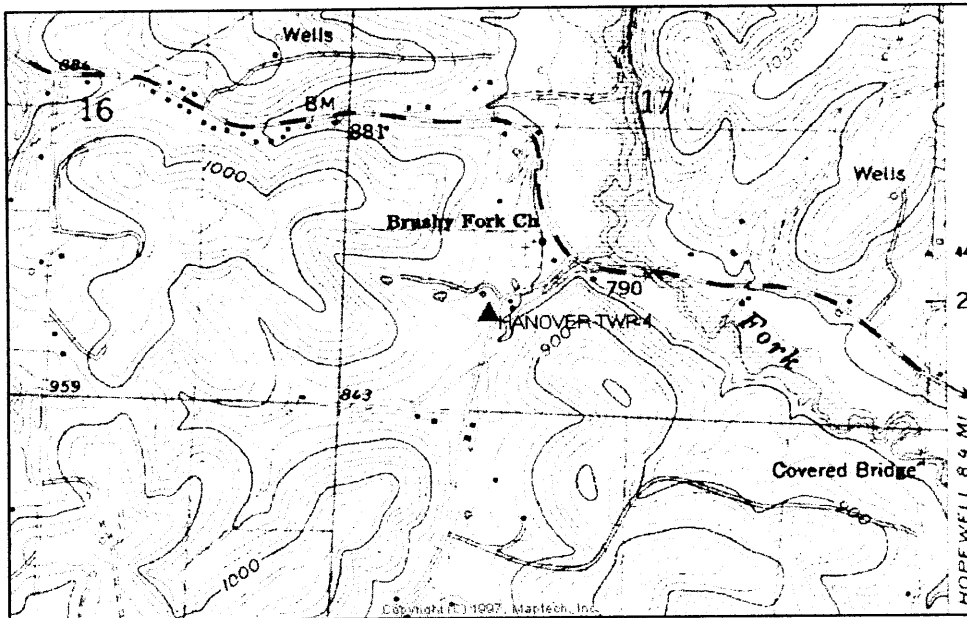
# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

JN 98016

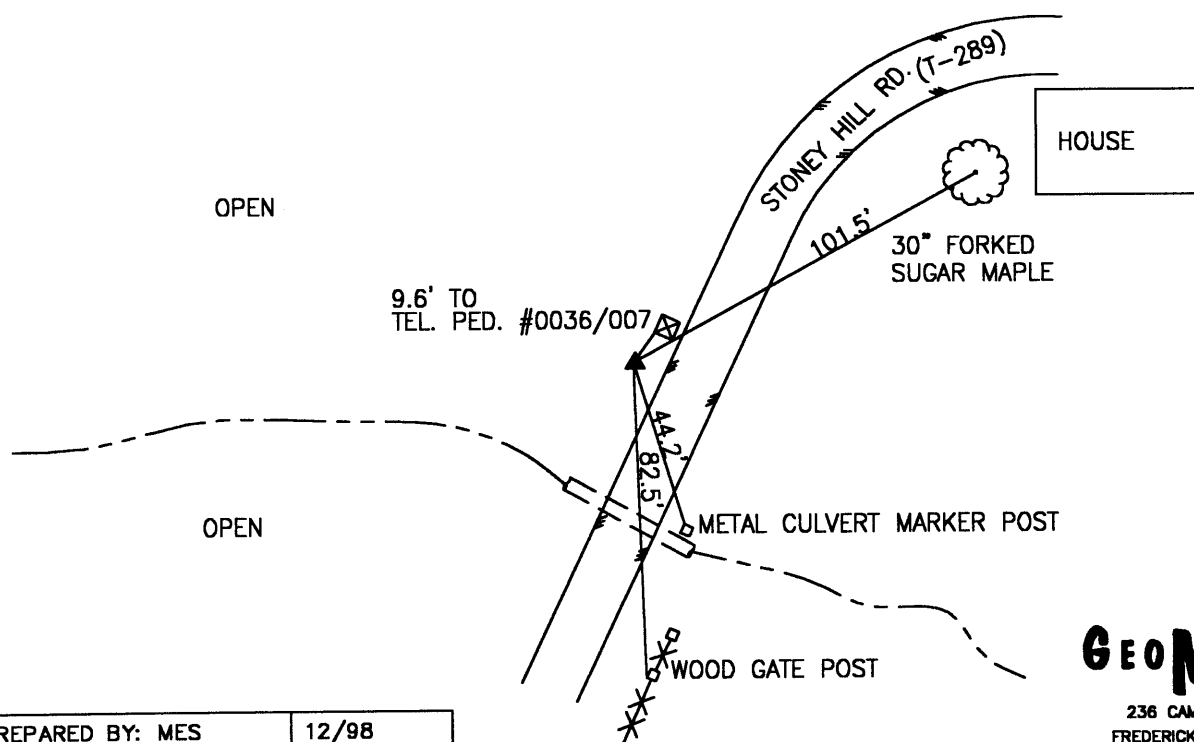
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	HANOVER TWP 4	1998
N: 743682.345	E: 2034452.916	LAT: 40°02'29.65152" N
ELEV.: 814.401 (GPS)		COMB. FACTOR: 0.999962760
		Ø ANGLE: +0°08'58.06

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1330.DWG

**GEOMETRICS**  
OPS. INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1330  
Designation: HANOVER TWP 4

PID:

Latitude: 400229N  
Longitude: 0821552W  
Elevation: 287.0M  
Stamping: HANOVER TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HANOVER TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTHWEST OF TOWN OF TOBOSO. TO REACH THE STATION FROM THE INTERSECTION OF GRATIOT ROAD (CR 278) AND CLAYPOOL ROAD (T-276) PROCEED SOUTH ALONG GRATIOT ROAD (CR 278) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH TEXAS ROAD (T-280) . TURN RIGHT AND PROCEED WEST ALONG TEXAS ROAD (T-280) A DISTANCE OF 1.7 MILES (2.7 KM) TO ITS INTERSECTION WITH BRUSHY FORK ROAD (CR 277) . TURN RIGHT AND PROCEED NORTHWEST ALONG BRUSHY FORK ROAD A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH STONEY HILL ROAD (T-289) . TURN LEFT AND PROCEED SOUTH ALONG STONEY HILL ROAD (T-289) A DISTANCE OF 0.2 MILE (0.3 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HANOVER TWP 4 1998. THE STATION IS 9.6 FEET (2.9 M) AZIMUTH 36 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 0036/007, 44.2 FEET (13.5 M) AZIMUTH 163 DEGREES TO A METAL CULVERT MARKER POST, 82.5 FEET (25.1 M) AZIMUTH 178 DEGREES TO A WOODEN GATE POST, AND 101.5 FEET (30.9 M) AZIMUTH 61 DEGREES TO A 30 INCH IN DIAMETER FORKED SUGAR MAPLE.

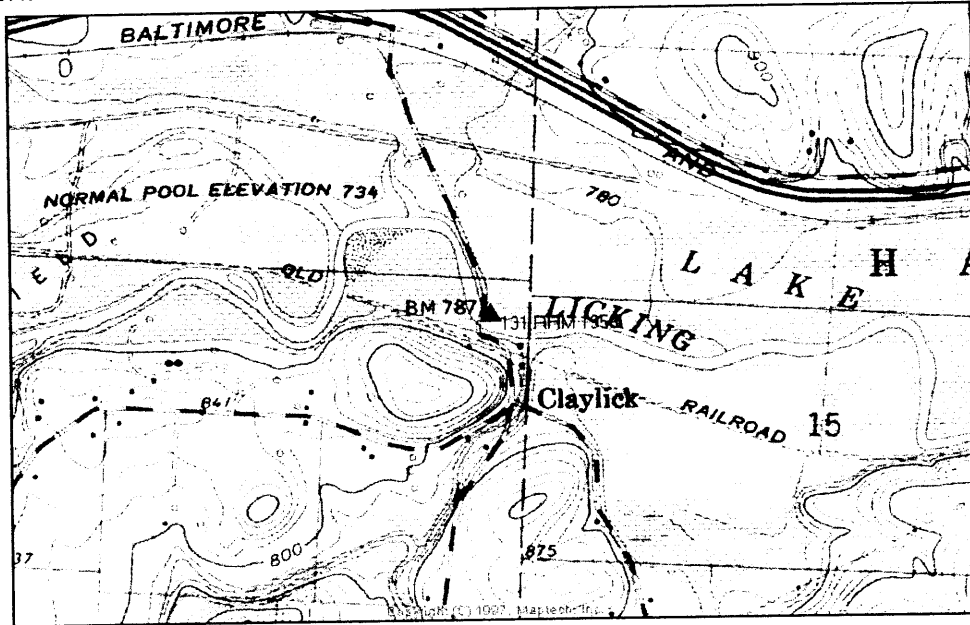
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

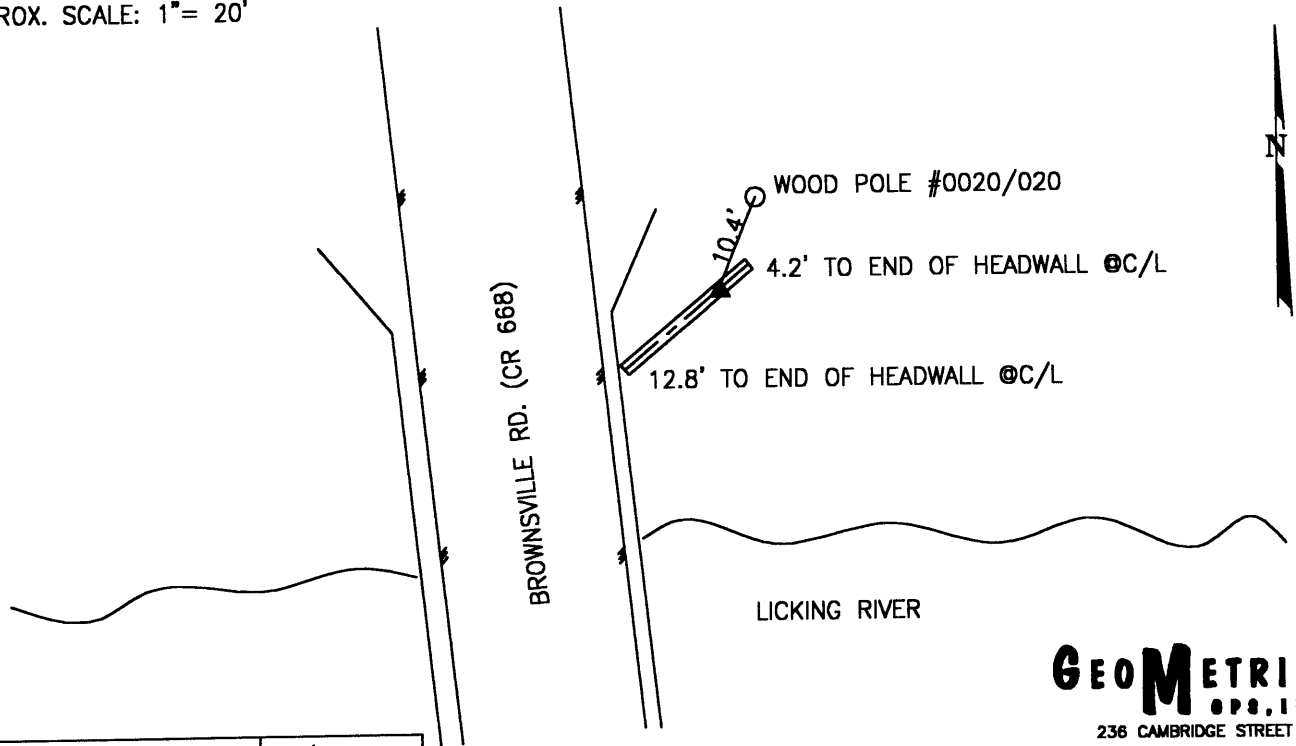
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR	
LICKING	131 RHM RESET	1998	
N: 750672.583	E: 2027723.107	LAT: 40°03'38.89502" N	LONG: 82°17'18.33061" W
ELEV.: 786.783	(GPS)	COMB. FACTOR: 0.999967989	Ø ANGLE: +0°08'03.29

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 20'



PREPARED BY: MES	01/99
CHECKED BY: LLR	1/99

FILE: 1340.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1340  
Designation: 131 RHM RESET

PID:

Latitude: 400338N  
Longitude: 0821718W  
Elevation: 306.7M  
Stamping: 131 RHM 1959 RESET 1979

State: OH  
County: LICKING  
Disk From: USGS

Surface Mark-  
Type: Bench Mark disk  
Magnetic code: N  
Setting: BRIDGE ABUTMENT

\*\*\*\*Mark is suitable for GPS

Set by USGS in 1979, Chief of party .

-----  
THE STATION IS LOCATED IN MADISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHWEST OF THE TOWN OF HANOVER. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND BROWNSVILLE ROAD (CR 668) PROCEED SOUTH ALONG BROWNSVILLE ROAD (CR 668) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE LEFT IN THE HEADWALL OF BRIDGE OVER LICKING RIVER. THE STATION IS A STANDARD U.S. GEOLOGICAL BENCH MARK DISK SET IN A BRIDGE ABUTMENT AND STAMPED 131 RHM 1959 RESET 1979. THE STATION IS 4.2 FEET (1.3 M) AZIMUTH 50 DEGREES TO THE END OF HEADWALL, 12.8 FEET (3.9 M) AZIMUTH 230 DEGREES TO THE END OF HEADWALL, AND 10.4 FEET (3.2 M) AZIMUTH 22 DEGREES TO A WOOD UTILITY POLE WITH THE NUMBER 0020/020.

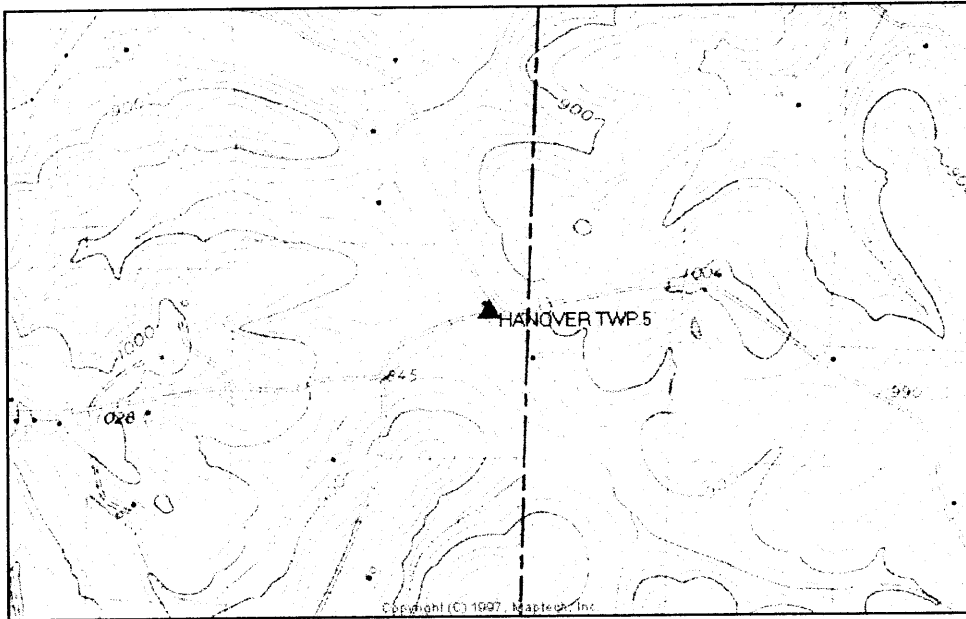
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

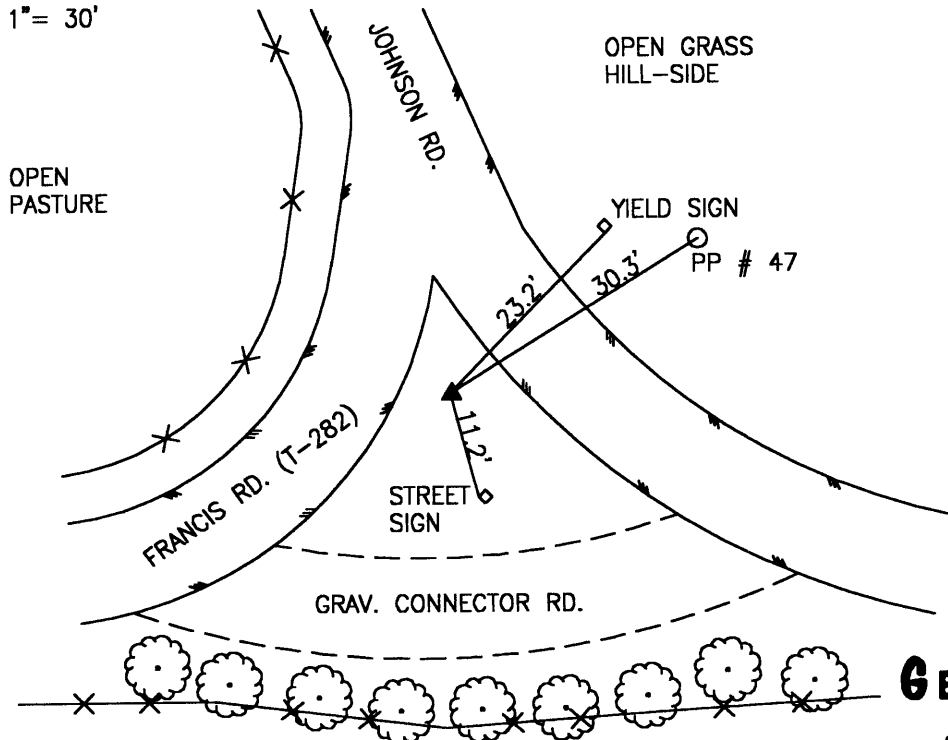
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HANOVER TWP 5		1998
N: 743021.984	E: 2053896.912	LAT: 40°02'22.55056" N	LONG: 82°11'42.04336" W
ELEV.: 857.679	(GPS)	COMB. FACTOR: 0.999960299	θ ANGLE: +0°11'36.67

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1350.DWG

OPEN PASTURE

**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1350  
Designation: HANOVER TWP 5

PID:

Latitude: 400222N  
Longitude: 0821142W  
Elevation: 353.7M  
Stamping: HANOVER TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HANOVER TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.6 MILES (2.6 KM) SOUTHEAST OF THE TOWN OF TOBOSO. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND NASHPORT ROAD (SR 146) PROCEED SOUTHEAST ALONG NASHPORT ROAD (SR 146) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH TOBOSO ROAD (CR 273) . TURN RIGHT AND PROCEED SOUTH ALONG TOBOSO ROAD (CR 273) A DISTANCE OF 1.8 MILES (2.9 KM) TO INTERSECTION WITH CLAYPOOL ROAD (T-275) . TURN LEFT AND PROCEED EAST ALONG CLAYPOOL ROAD (T-275) A DISTANCE OF 0.4 MILE (0.6 KM) TO ITS INTERSECTION WITH JOHNSON ROAD (T-276) (UNMARKED EXCEPT FOR SIGN NO THRU TRAFFIC EXCEPT FARM MACH. TURN RIGHT AND PROCEED SOUTHEAST ALONG JOHNSON ROAD (T-276) (TURN LEFT AFTER CROSSING RAILROAD TRACKS) AND PROCEED EAST ALONG JOHNSON ROAD (T-276) A DISTANCE OF 1.3 MILES (2.1 KM) TO ITS INTERSECTION WITH FRANCIS ROAD (T-282) AND THE STATION IN THE TRIANGLE ISLAND. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HANOVER TWP 5 1998. THE STATION IS 30.3 FEET (9.2 M) AZIMUTH 58 DEGREES TO POWER POLE WITH THE NUMBER 47, 23.2 FEET (7.1 M) AZIMUTH 44 DEGREES TO A YIELD SIGN, AND 11.2 FEET (3.4 M) AZIMUTH 165 DEGREES TO A STREET SIGN.

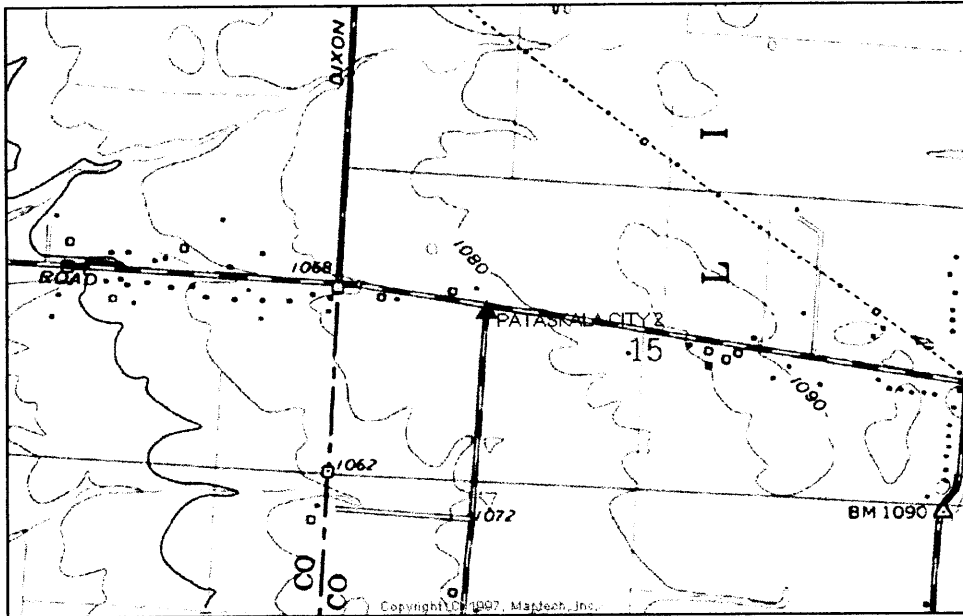
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

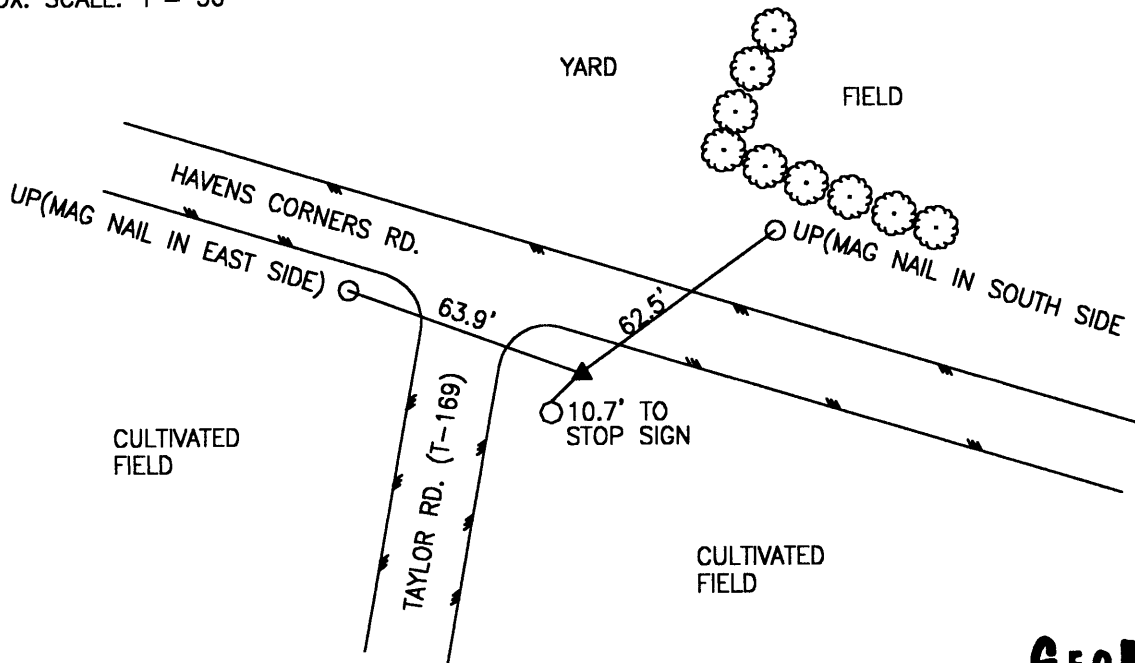
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	PATASKALA CITY 2		1998
N: 734959.214	E: 1894179.685	LAT: 40°01'03.21792" N	LONG: 82°45'55.23998" W
ELEV.: 1077.163	(GPS)	COMB. FACTOR: 0.999945494	θ ANGLE: -0°10'06.11

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1360.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1360  
Designation: PATASKALA CITY 2

PID:

Latitude: 400103N  
Longitude: 0824555W  
Elevation: 328.4M  
Stamping: PATASKALA CITY 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) NORTHWEST OF THE TOWN OF SUMMIT STATION. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND MINK STREET (CR 41) PROCEED NORTH ON MINK STREET (CR 41) A DISTANCE OF APPROXIMATELY 1.5 MILES (2.4 KM) TO ITS INTERSECTION WITH HAVENS CORNERS ROAD. TURN LEFT AND PROCEED WEST ALONG HAVENS CORNERS ROAD A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH TAYLOR ROAD (T-169) AND THE STATION ON THE LEFT IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PATASKALA CITY 2 1998. THE STATION IS 63.9 FEET (19.5 M) AZIMUTH 290 DEGREES TO A POWER POLE WITH A MAG NAIL IN THE EAST SIDE OF POLE, 62.5 FEET (19.1 M) AZIMUTH 54 DEGREES TO A POWER POLE WITH A MAG NAIL IN THE SOUTH SIDE OF POLE, AND 10.7 FEET (3.3 M) AZIMUTH 225 DEGREES TO A STOP SIGN.

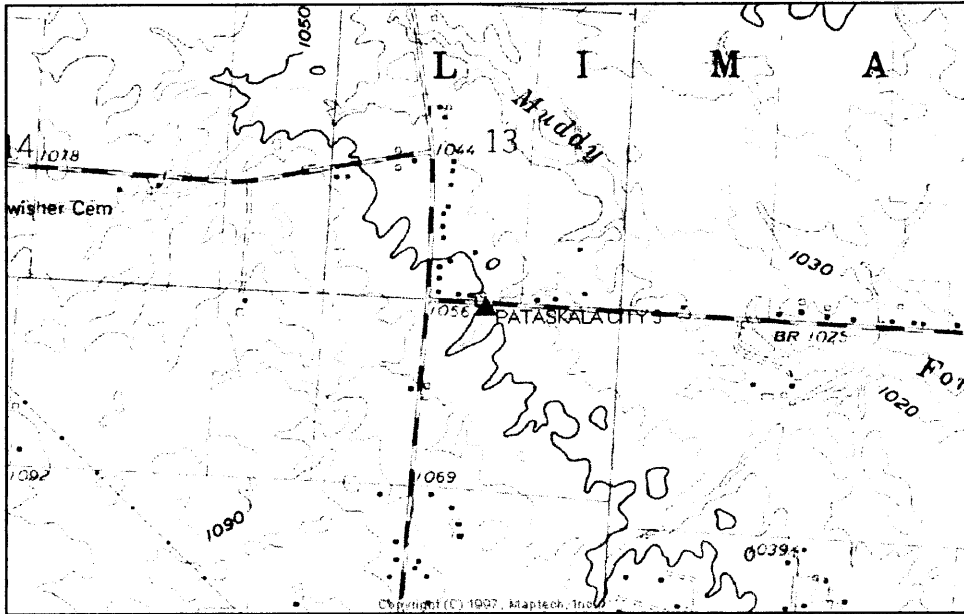
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

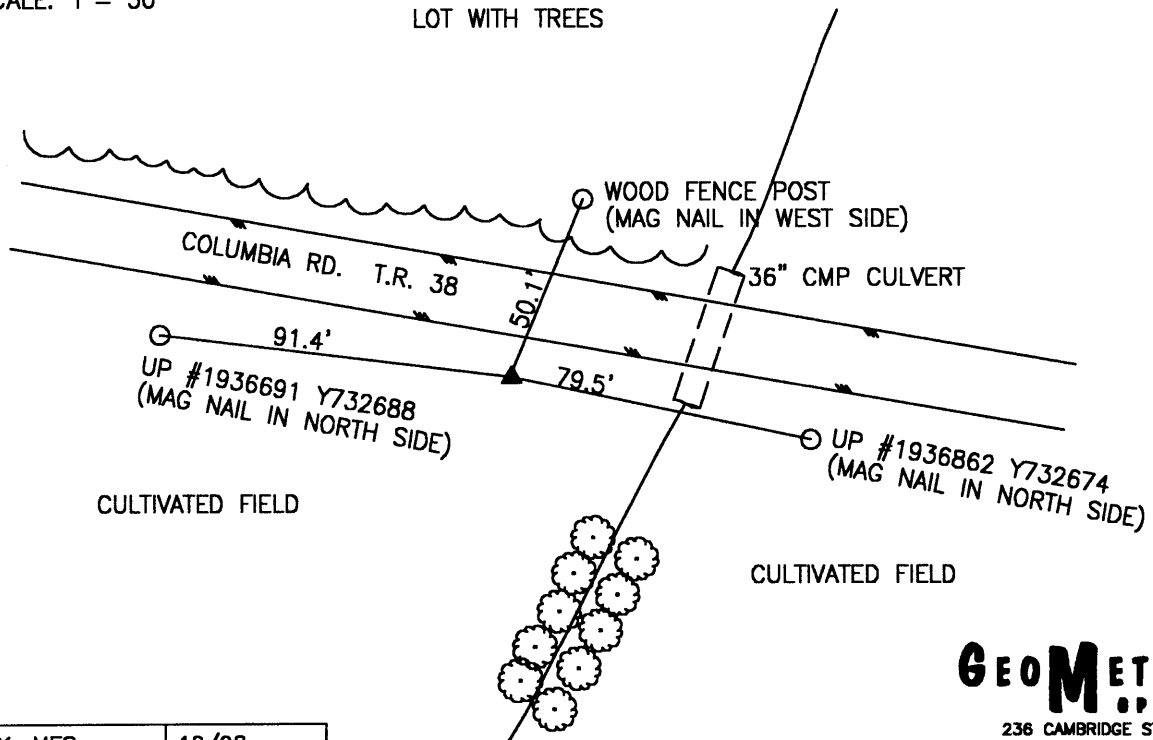
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	PATASKALA CITY 3	1998
N: 732670.415	E: 1905300.477	LAT: 40°00'40.89805" N LONG: 82°43'32.23144" W
ELEV.: 1044.686 (GPS)	COMB. FACTOR: 0.999945853	θ ANGLE: -0°08'35.37

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1370.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1370

Designation: PATASKALA CITY 3

PID:

Latitude: 400040N

Longitude: 0824332W

Elevation: 276.6M

Stamping: PATASKALA CITY 3 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) NORTHEAST OF THE TOWN OF SUMMIT STATION. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND MINK STREET (CR 41) PROCEED NORTH ON MINK STREET (CR 41) A DISTANCE OF 1.15 MILES (1.85 KM) TO ITS INTERSECTION WITH COLUMBIA ROAD (T-38) . TURN RIGHT AND PROCEED EAST ALONG COLUMBIA ROAD (T-38) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED PATASKALA CITY 3 1998. THE STATION IS 91.4 FEET (27.9 M) AZIMUTH 277 DEGREES TO A POWER POLE WITH THE NUMBER X1936691 Y732688, 50.1 FEET (15.3 M) AZIMUTH 22 DEGREES TO A WOOD FENCE POST WITH A MAG NAIL IN THE NORTH SIDE, AND 79.5 FEET (24.2 M) AZIMUTH 102 DEGREES TO A POWER POLE WITH THE NUMBER X1936862 Y 732674.

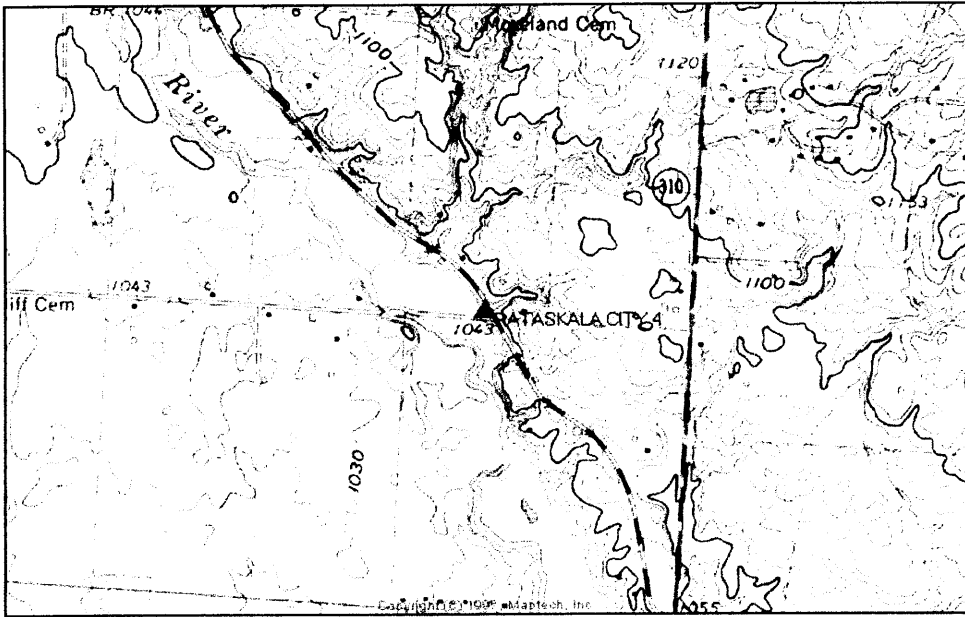
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

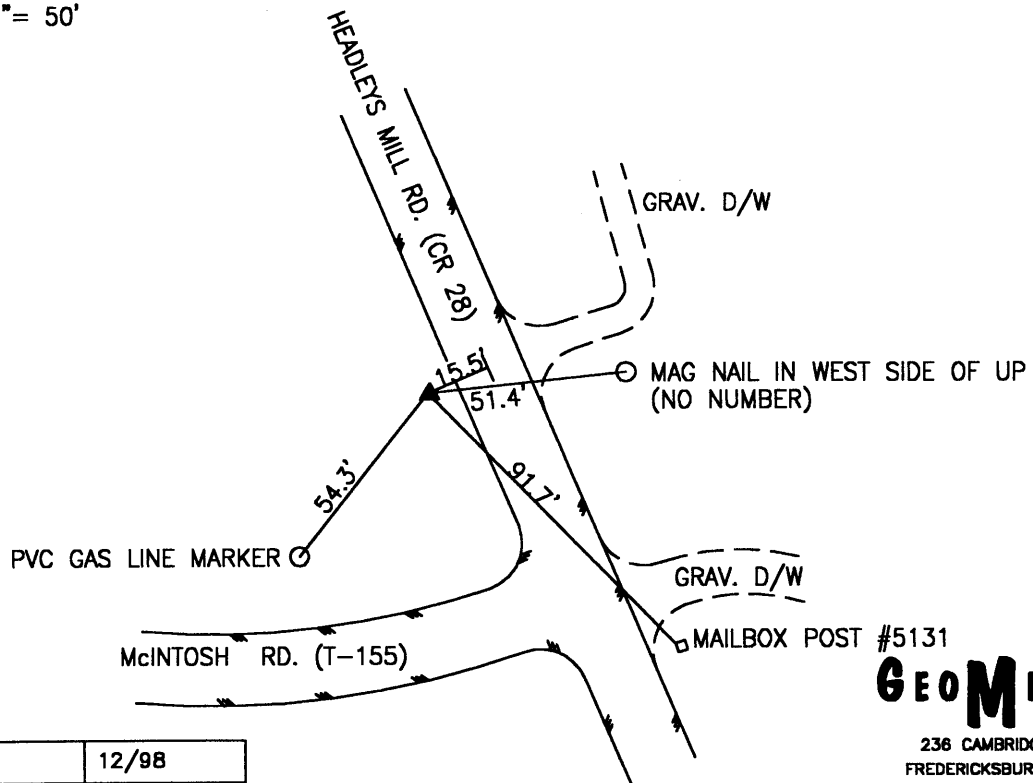
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	PATASKALA CITY 4	1998
N: 734552.944	E: 1918594.877	LAT: 40°00'59.79558" N
ELEV.: 1039.211 (GPS)		COMB. FACTOR: 0.999947122
		LONG: 82°40'41.42191" W
		Θ ANGLE: -0°06'46.99

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1380.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1380

Designation: PATASKALA CITY 4

PID:

Latitude: 400059N

Longitude: 0824041W

Elevation: 270.7M

Stamping: PATASKALA CITY 4 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) NORTHEAST OF THE TOWN OF SUMMIT STATION. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND HEADLEYS MILL ROAD PROCEED NORTH ALONG HEADLEYS MILL ROAD A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 100 FEET (30.5 M) NORTH OF MCINTOSH ROAD (T-155) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PATASKALA CITY 4 1998. THE STATION IS 54.3 FEET (16.6 M) AZIMUTH 18 DEGREES TO A PVC GAS LINE MARKER, 51.4 FEET (15.7 M) AZIMUTH 84 DEGREES TO A MAG NAIL IN THE WEST SIDE OF A UTILITY POLE, 91.7 FEET (28.0 M) AZIMUTH 136 DEGREES TO A MAIL BOX POST WITH THE NUMBER 5131, AND 16.5 FEET (5.0 M) FROM THE CENTERLINE OF HEADLEYS MILL ROAD.

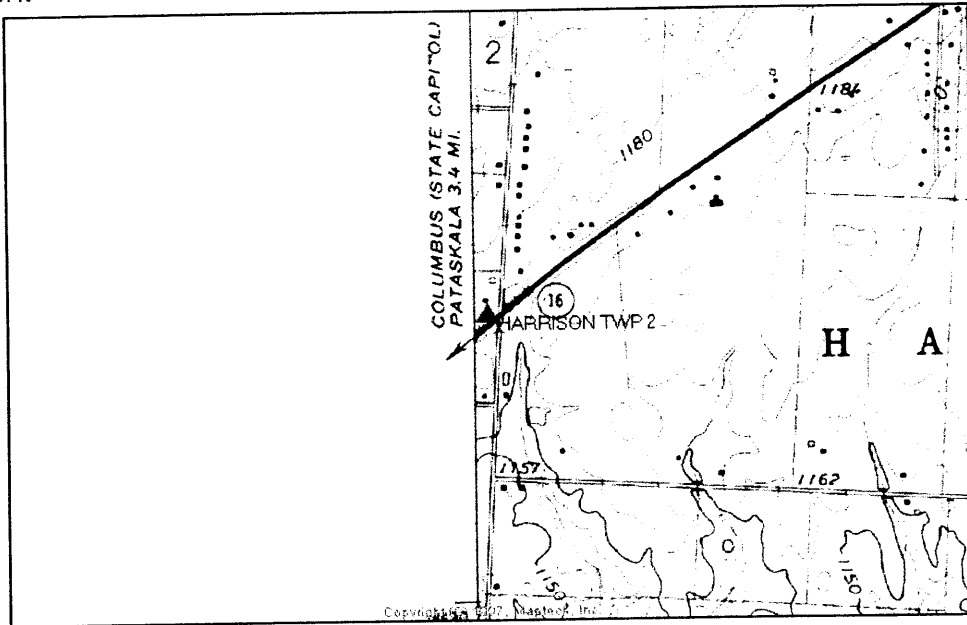
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

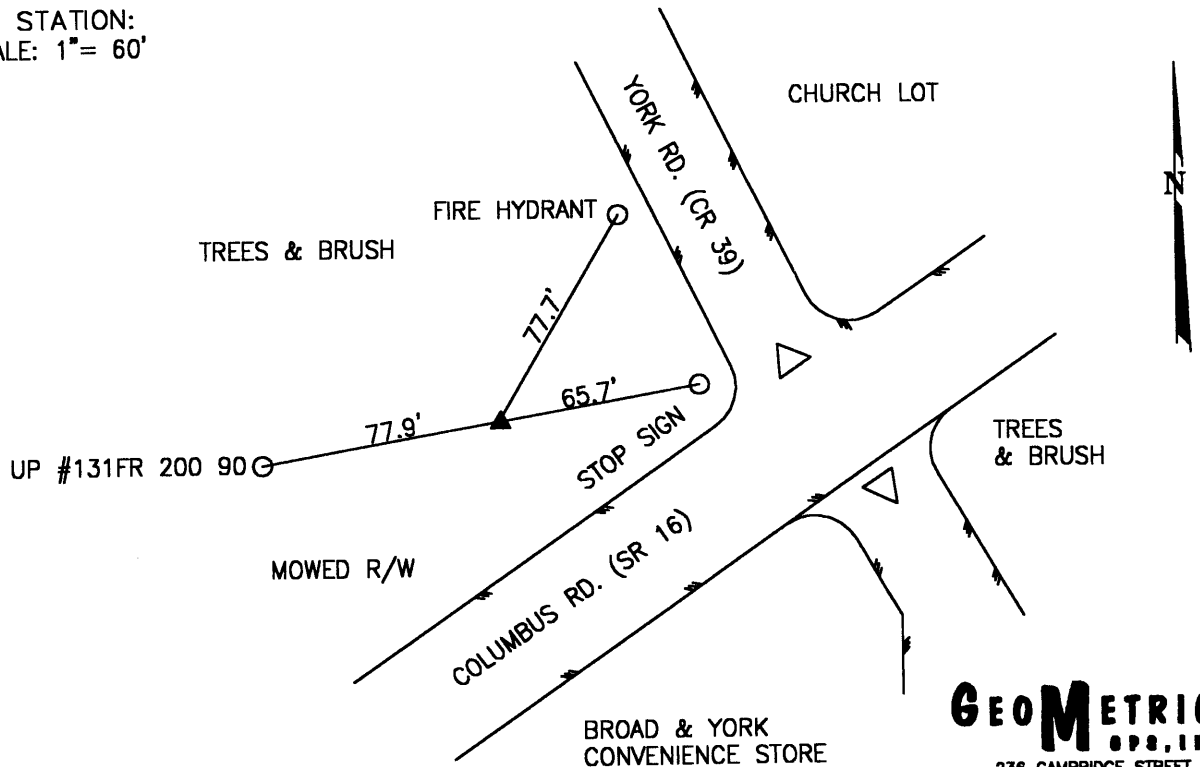
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	HARRISON TWP 2	1998
N: 735080.821	E: 1933684.759	LAT: 40°01'05.26199" N LONG: 82°37'27.48391" W
ELEV.: 1160.559	(GPS) COMB. FACTOR: 0.999941622	Θ ANGLE: -0°04'43.93

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	12/98
CHECKED BY: LLR	1/99

FILE: 1390.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1390  
Designation: HARRISON TWP 2

PID:

Latitude: 400105N  
Longitude: 0823727W  
Elevation: 304.0M  
Stamping: HARRISON TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.8 MILES (9.3 KM) SOUTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF WORTHINGTON ROAD (SR 37) AND COLUMBUS ROAD (SR 16) PROCEED SOUTHWEST ALONG COLUMBUS ROAD (SR 16) A DISTANCE OF 5.8 MILES (9.3 KM) TO ITS INTERSECTION WITH YORK ROAD (CR 39) AND THE STATION ON THE RIGHT IN THE NORTHWEST CORNER OF THE INTERSECTION. THE IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARRISON TWP 2 1998. THE STATION IS 77.7 FEET (23.7 M) AZIMUTH 30 DEGREES TO A FIRE HYDRANT, 65.7 FEET (20.0 M) AZIMUTH 80 DEGREES TO A STOP SIGN, 77.9 FEET (23.7 M) AZIMUTH 260 DEGREES TO A POWER POLE WITH THE NUMBER 131FR 200 90, AND 24.6 FEET (7.5 M) AZIMUTH 77 DEGREES TO A MANHOLE.

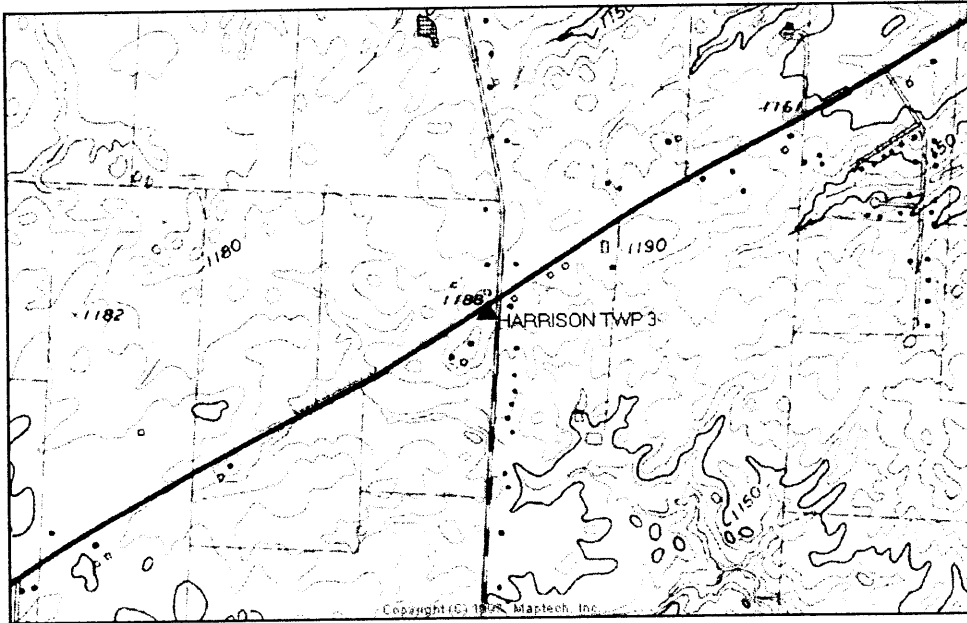
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

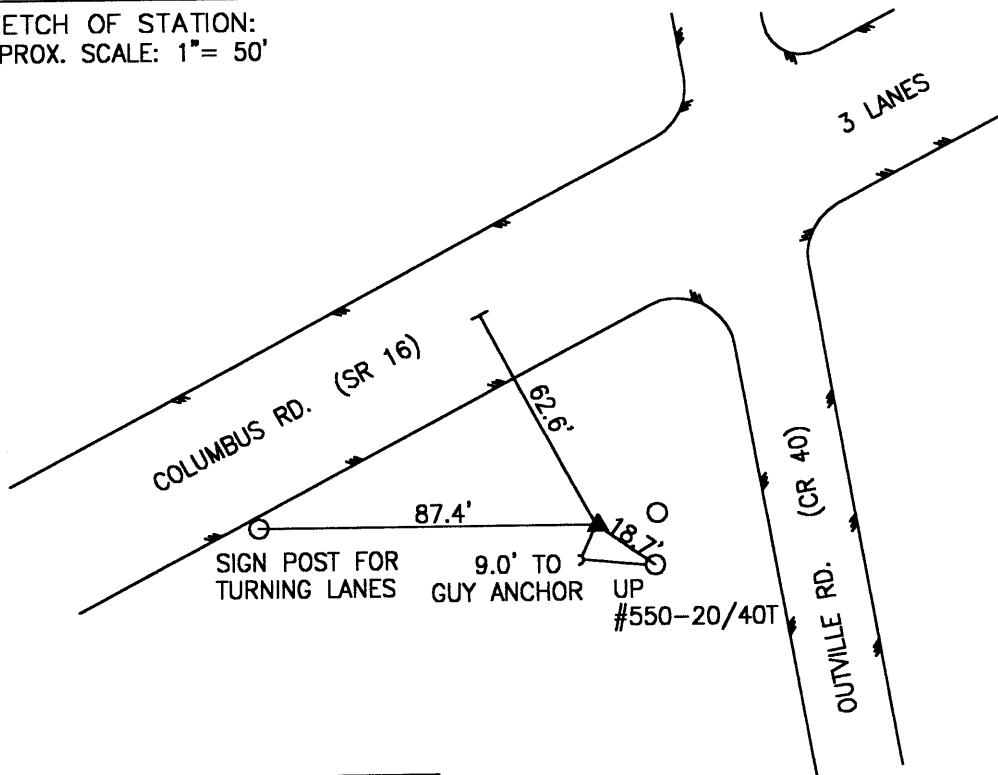
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	HARRISON TWP 3	1998
N: 740276.126	E: 1942117.982	LAT: 40°01'56.70443" N
		LONG: 82°35'39.16058" W
ELEV.: 1187.294	(GPS)	COMB. FACTOR: 0.999943138
		θ ANGLE: -0°03'35.20

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1400.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1400  
Designation: HARRISON TWP 3

PID:

Latitude: 400156N  
Longitude: 0823539W  
Elevation: 248.5M  
Stamping: HARRISON TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) SOUTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF WORTHINGTON ROAD (SR 37) AND COLUMBUS ROAD (SR 16) PROCEED SOUTHWEST ALONG COLUMBUS ROAD (SR 16) A DISTANCE OF 4.0 MILES (6.4 KM) TO ITS INTERSECTION WITH OUTVILLE ROAD (CR 40) AND THE STATION ON THE LEFT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HARRISON TWP 3 1998. THE STATION IS 18.7 FEET (5.7 M) AZIMUTH 125 DEGREES TO A POWER POLE WITH THE NUMBER 550-20/40T, 87.4 FEET (26.6 M) AZIMUTH 270 DEGREES TO A SIGN POST FOR TURNING LANES, 9.0 FEET (2.7 M) AZIMUTH 204 DEGREES TO A GUY ANCHOR, AND 62.6 FEET (19.1 M) FROM THE CENTERLINE OF COLUMBUS ROAD.

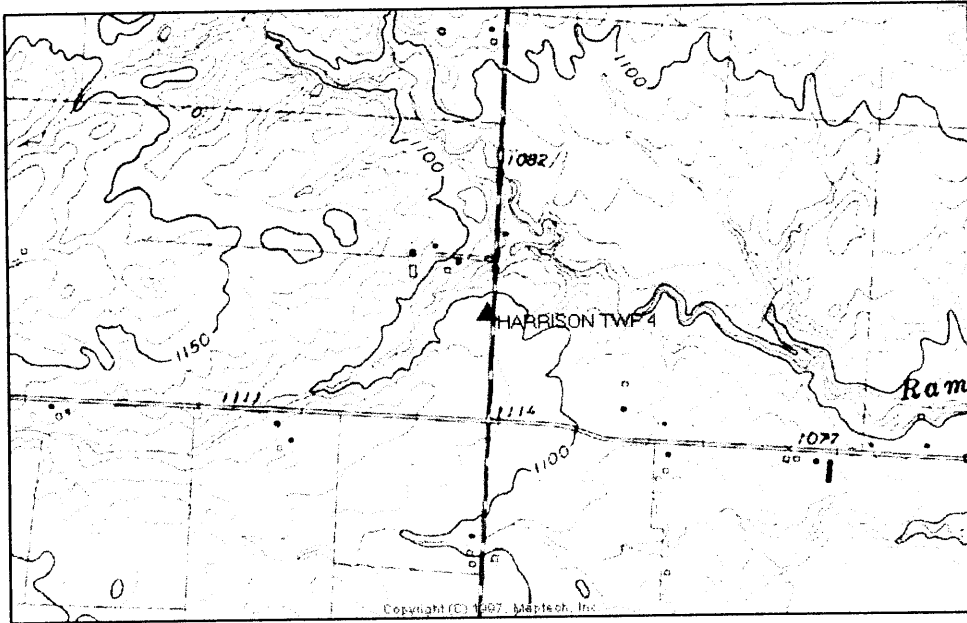
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

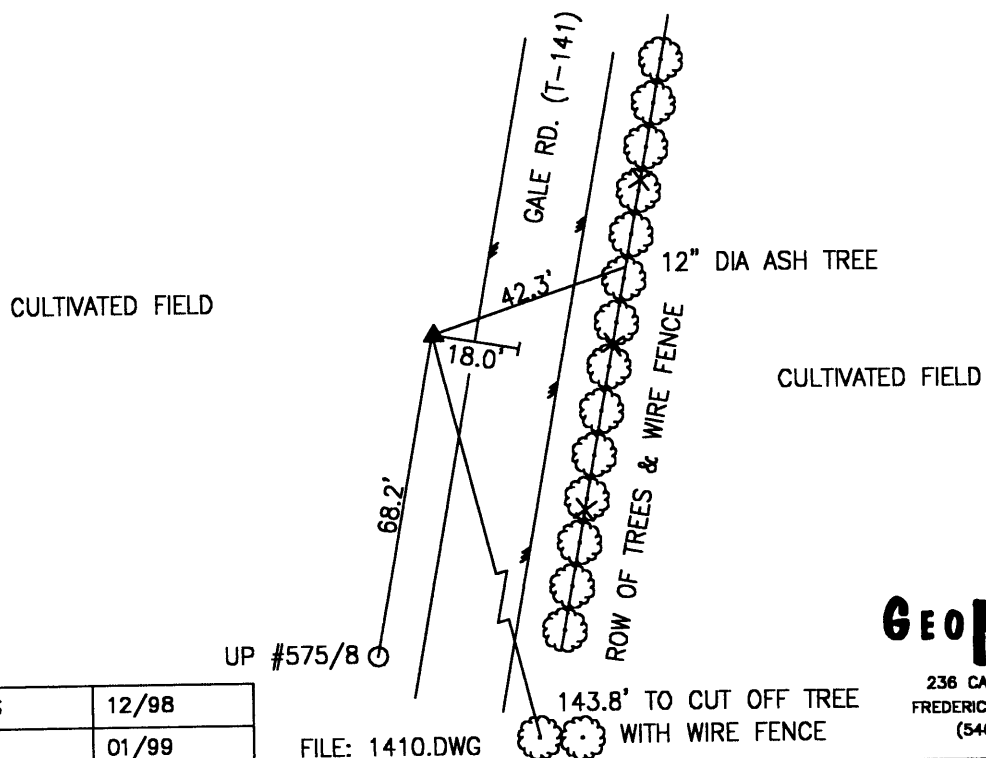
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	HARRISON TWP 4	1998
N: 733773.649	E: 1947136.267	LAT: 40°00'52.49171" N LONG: 82°34'34.57619" W
ELEV.: 1109.430 (GPS)	COMB. FACTOR: 0.999943380	Ø ANGLE: -0°02'54.22

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1410.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1410  
Designation: HARRISON TWP 4

PID:

Latitude: 400052N  
Longitude: 0823434W  
Elevation: 281.4M  
Stamping: HARRISON TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF WORTHINGTON ROAD (SR 37) AND COLUMBUS ROAD (SR 16) PROCEED SOUTHWEST ALONG COLUMBUS ROAD (SR 16) A DISTANCE OF 2.8 MILES (4.5 KM) TO ITS INTERSECTION WITH GALE ROAD (T-141) . TURN LEFT AND PROCEED SOUTH ALONG GALE ROAD (T-141) A DISTANCE OF 1.8 MILES (2.9 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HARRISON TWP 4 1998. THE STATION IS 68.2 FEET (20.8 M) AZIMUTH 190 DEGREES TO A POWER POLE WITH THE NUMBER 575/8, 42.3 FEET (12.9 M) AZIMUTH 71 DEGREES TO A 12 INCH IN DIAMETER ASH TREE, 143.8 FEET (43.8 M) AZIMUTH 172 DEGREES TO A CUT OFF TREE WITH WIRE FENCE AND 18.0 FEET (5.5 M) FROM THE CENTERLINE OF GALE ROAD.

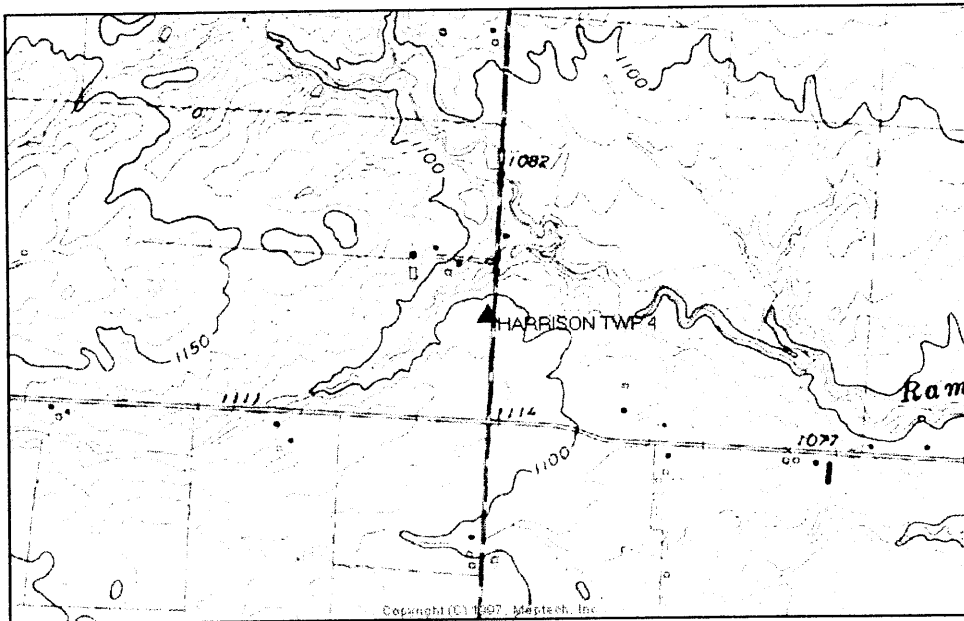
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

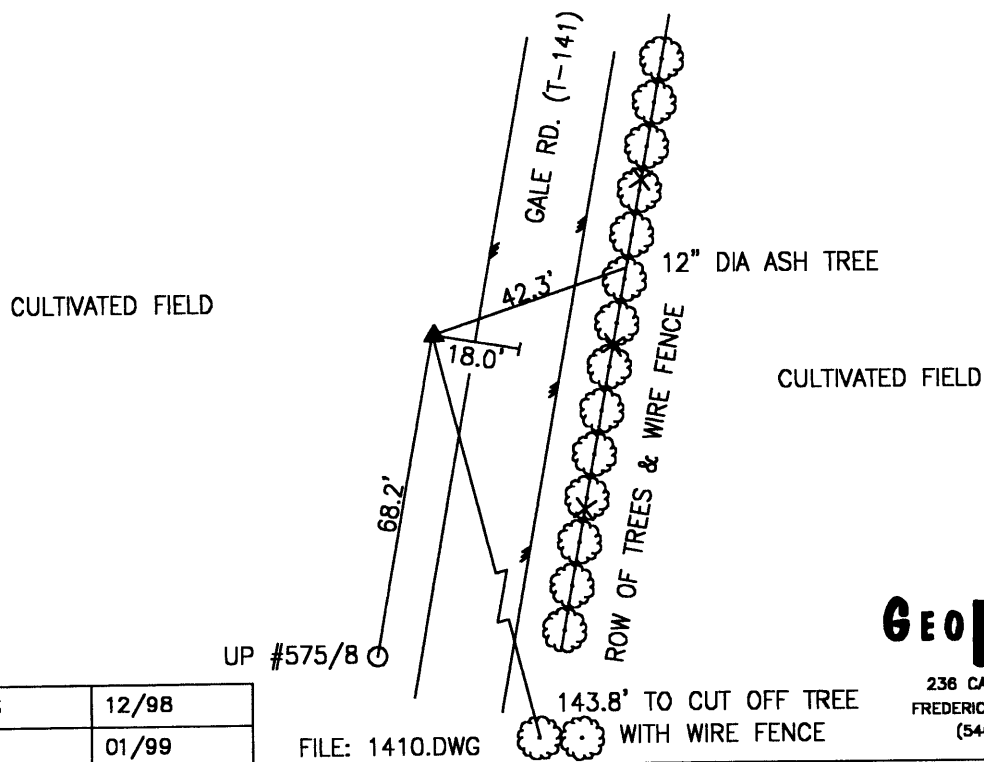
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	HARRISON TWP 4	1998
N: 733773.649	E: 1947136.267	LAT: 40°00'52.49171" N
ELEV.: 1109.430 (GPS)		COMB. FACTOR: 0.999943380
		LONG: 82°34'34.57619" W
		Θ ANGLE: -0°02'54.22

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1410.DWG

**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1410  
Designation: HARRISON TWP 4

PID:

Latitude: 400052N  
Longitude: 0823434W  
Elevation: 281.4M  
Stamping: HARRISON TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTHWEST OF THE TOWN OF GRANVILLE. TO REACH THE STATION FROM THE INTERSECTION OF WORTHINGTON ROAD (SR 37) AND COLUMBUS ROAD (SR 16) PROCEED SOUTHWEST ALONG COLUMBUS ROAD (SR 16) A DISTANCE OF 2.8 MILES (4.5 KM) TO ITS INTERSECTION WITH GALE ROAD (T-141) . TURN LEFT AND PROCEED SOUTH ALONG GALE ROAD (T-141) A DISTANCE OF 1.8 MILES (2.9 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HARRISON TWP 4 1998. THE STATION IS 68.2 FEET (20.8 M) AZIMUTH 190 DEGREES TO A POWER POLE WITH THE NUMBER 575/8, 42.3 FEET (12.9 M) AZIMUTH 71 DEGREES TO A 12 INCH IN DIAMETER ASH TREE, 143.8 FEET (43.8 M) AZIMUTH 172 DEGREES TO A CUT OFF TREE WITH WIRE FENCE AND 18.0 FEET (5.5 M) FROM THE CENTERLINE OF GALE ROAD.

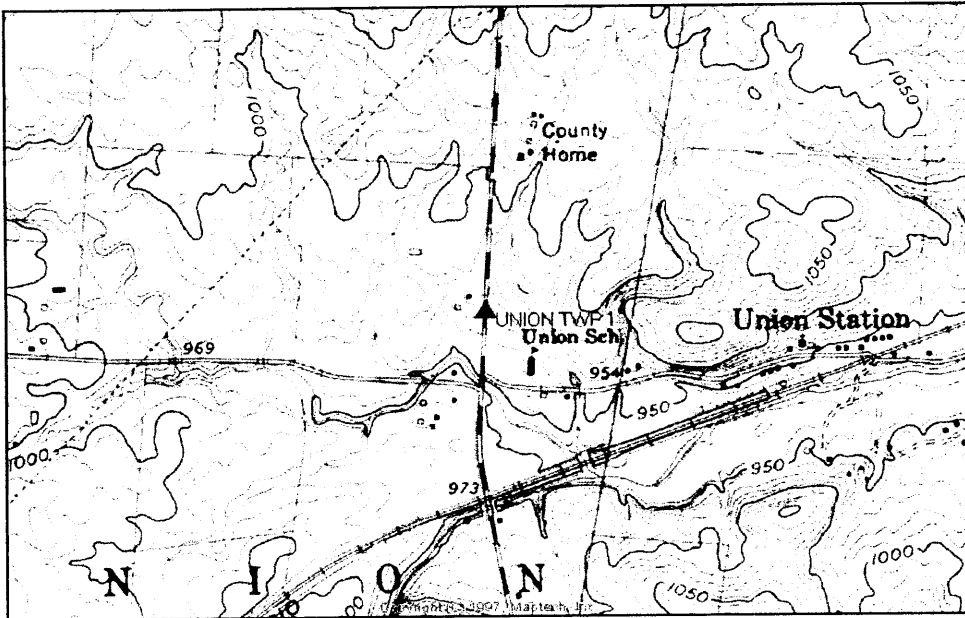
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

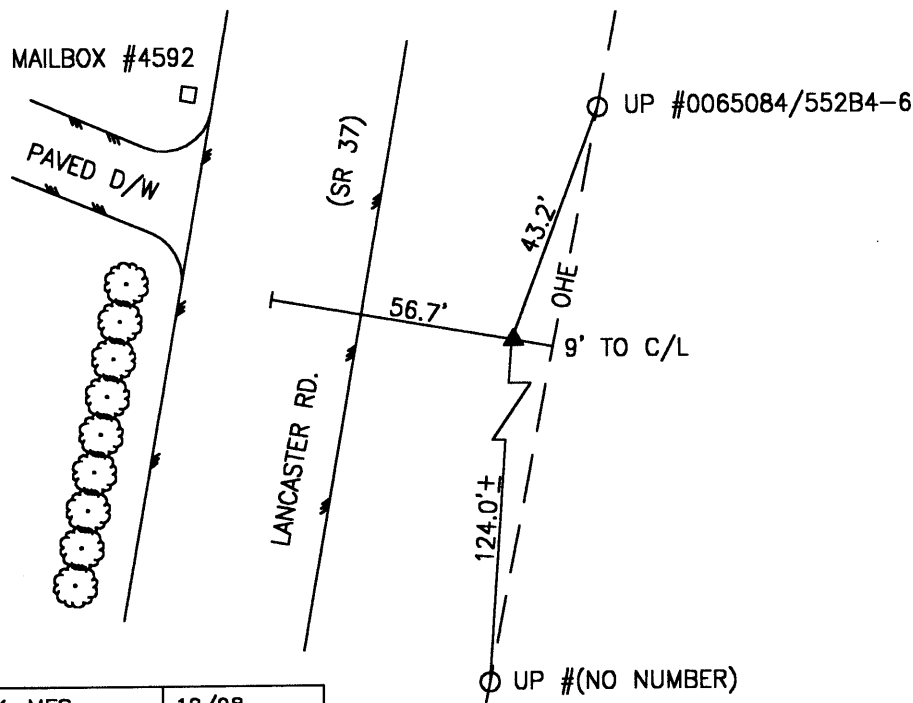
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 1		1998
N: 736693.958	E: 1961759.385	LAT: 40°01'21.43148" N	LONG: 82°31'26.64340" W
ELEV.: 977.692	(GPS)	COMB. FACTOR: 0.999951223	Θ ANGLE: -0°00'54.97

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1420.DWG

**GEOMETRICS**  
 OPS, INC.  
 238 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1420  
Designation: UNION TWP 1

PID:

Latitude: 400121N  
Longitude: 0823126W  
Elevation: 309.6M  
Stamping: UNION TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.1 MILE (0.2 KM) NORTH OF THE TOWN OF UNION STATION. TO REACH THE STATION FROM THE INTERSECTION OF LANCASTER ROAD (SR 37) AND UNION STATION ROAD (CR 139) PROCEED NORTH ALONG LANCASTER ROAD (SR 37) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH ABOVE THE GROUND SURFACE AND STAMPED UNION TWP 1 1998. THE STATION IS 43.2 FEET (13.2 M) AZIMUTH 25 DEGREES TO A UTILITY POLE WITH THE NUMBER 0065 084/552B4-6, 8.6 FEET (2.6 M) AZIMUTH 90 DEGREES TO THE CENTERLINE OF OVERHEAD ELECTRIC WIRES, APPROXIMATELY 124 FEET (37.8 M) AZIMUTH 184 DEGREES TO A UTILITY POLE AND 56.7 FEET (17.3 M) FROM THE CENTERLINE OF LANCASTER ROAD.

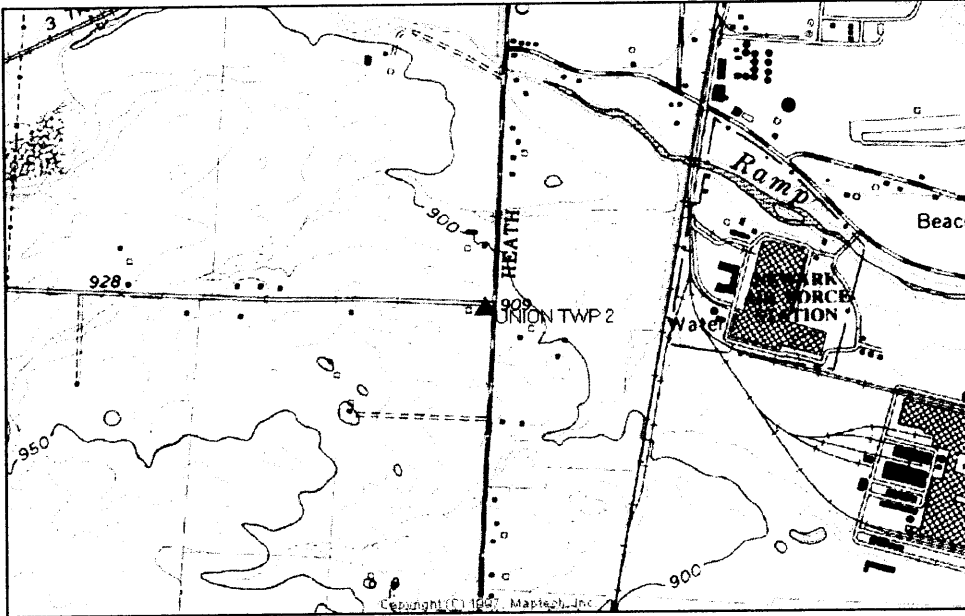
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

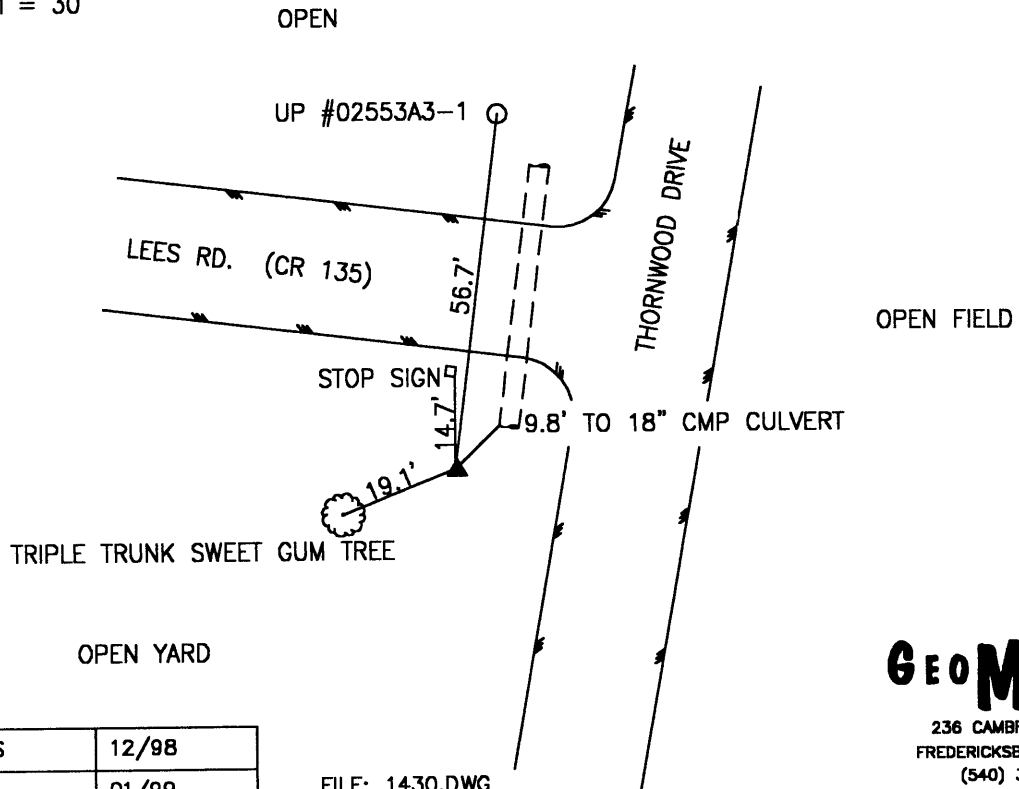
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	UNION TWP 2	1998
N: 735748.079	E: 1973903.216	LAT: 40°01'12.08716" N
LONG: 82°28'50.55003" W		
ELEV.: 908.479	(GPS) COMB. FACTOR: 0.999954023	Θ ANGLE: +0°00'44.06

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1430.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1430  
Designation: UNION TWP 2

PID:

Latitude: 400112N  
Longitude: 0822850W  
Elevation: 282.1M  
Stamping: UNION TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTHWEST OF THE CITY OF NEWARK. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND WEST MAIN STREET (CR 128) PROCEED SOUTH ALONG WEST MAIN STREET (CR 128) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH RIVER ROAD (T-131) . TURN RIGHT AND PROCEED WEST ALONG RIVER ROAD (T-131) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH THORNWOOD DRIVE. TURN LEFT AND PROCEED SOUTH ALONG THORNWOOD DRIVE A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH LEES ROAD (CR 135) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION NEXT TO A UNION STATION COMMUNITY CHURCH SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED UNION TWP 2 1998. THE STATION IS 14.7 FEET (4.5 M) AZIMUTH 00 DEGREES TO A STOP SIGN, 9.8 FEET (3.0 M) AZIMUTH 45 DEGREES TO AN 18 INCH CMP CULVERT, 19.1 FEET (5.8 M) AZIMUTH 248 DEGREES TO A THREE INCH TRIPLE TRUNK SWEET GUM TREE, AND 56.7 FEET (17.3 M) AZIMUTH 07 DEGREES TO A UTILITY POLE WITH THE NUMBER 02553A3-1.

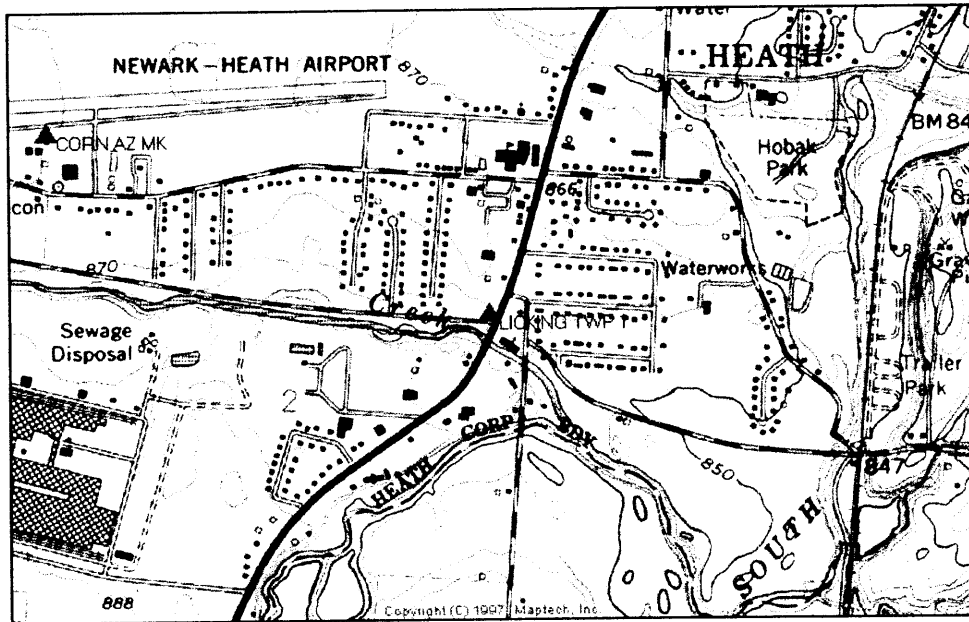
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

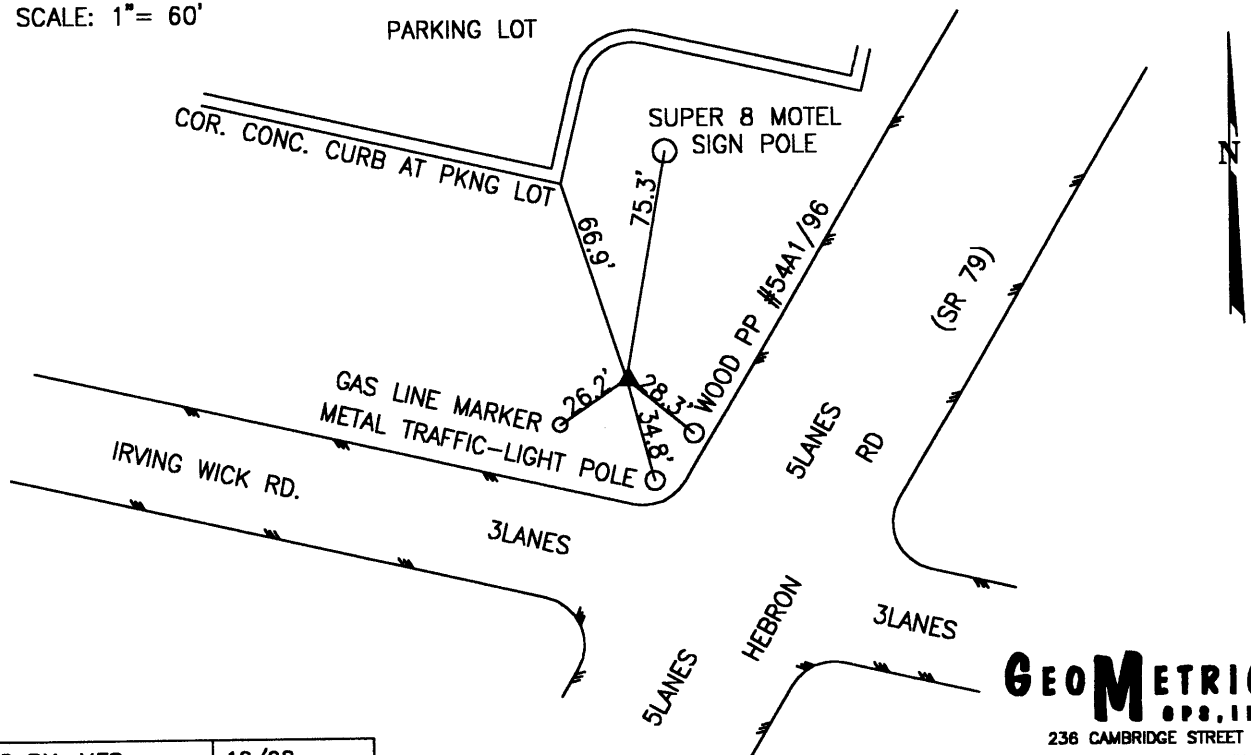
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LICKING TWP 1		1998
N: 735471.510	E: 1982482.190	LAT: 40°01'09.32152" N	LONG: 82°27'00.28259" W
ELEV.: 857.275 (GPS)	COMB. FACTOR: 0.999956318		Θ ANGLE: +0°01'54.03

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1440.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1440  
Designation: LICKING TWP 1

PID:

Latitude: 400109N  
Longitude: 0822700W  
Elevation: 259.3M  
Stamping: LICKING TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN CITY OF HEATH IN LICKING COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND HEBRON ROAD (SR 79) PROCEED SOUTH ALONG HEBRON ROAD (SR 79) A DISTANCE OF 3.4 MILES (5.5 KM) TO ITS INTERSECTION WITH IRVING WICK DRIVE AND THE STATION ON THE RIGHT IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED LICKING TWP 1 1998. THE STATION IS 28.3 FEET (8.6 M) AZIMUTH 130 DEGREES TO A WOOD POWER POLE WITH NUMBER 59A1/96, 34.8 FEET (10.6 M) AZIMUTH 165 DEGREES TO A METAL TRAFFIC LIGHT POLE, 26.2 FEET (8.0 M) AZIMUTH 235 DEGREES TO A GAS LINE MARKER, 66.9 FEET (20.4 M) AZIMUTH 342 DEGREES TO THE CORNER OF THE CONCRETE CURB AT PARKING LOT TO SUPER 8 MOTEL, AND 75.3 FEET (23.0 M) 10 DEGREES AZIMUTH TO A SUPER 8 MOTEL SIGN POLE.

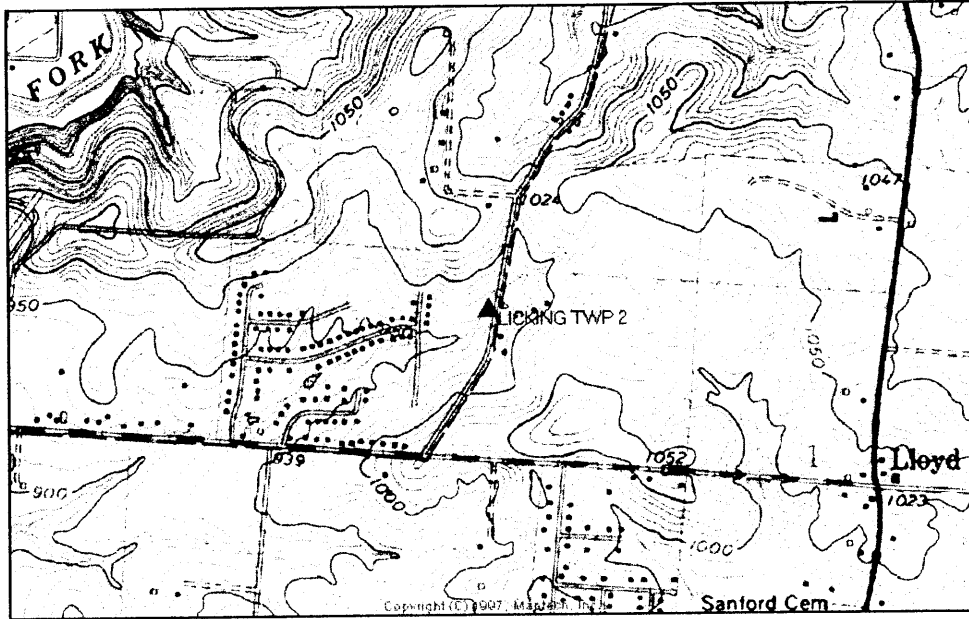
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

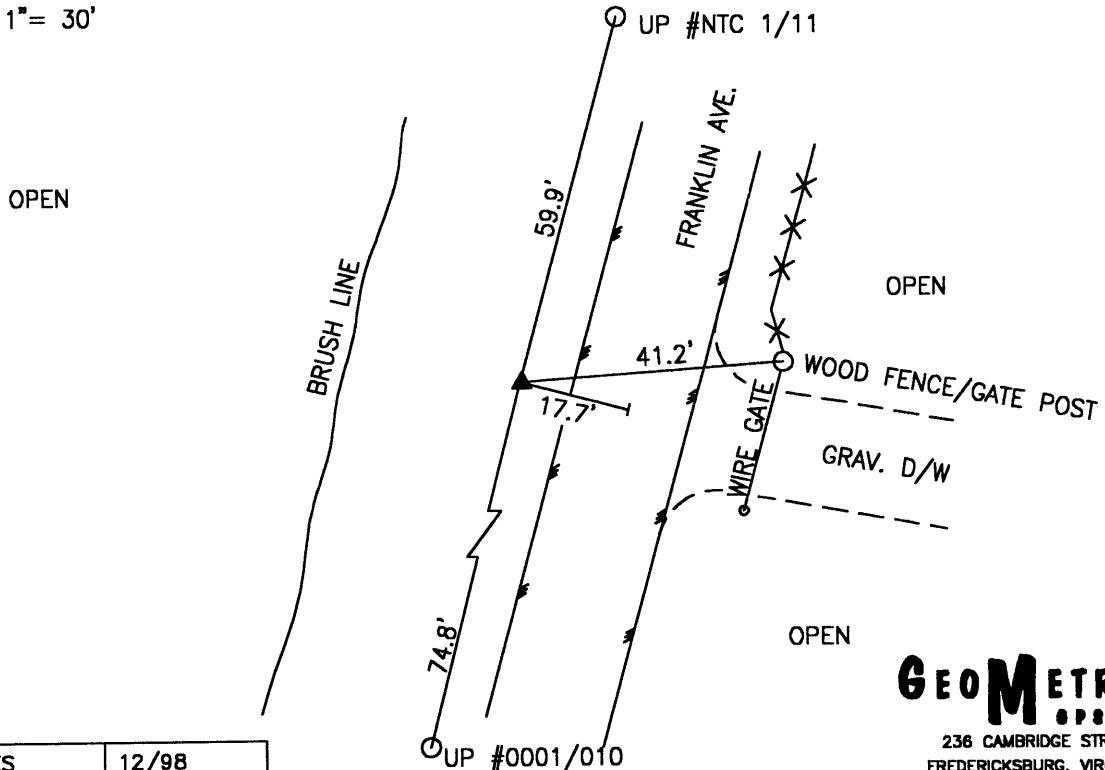
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	LICKING TWP 2	1998
N: 735153.392	E: 1992050.939	LAT: 40°01'06.10761" N
ELEV.: 971.281 (GPS)		COMB. FACTOR: 0.999950703
		LONG: 82°24'57.29636" W
		θ ANGLE: +0°03'12.07

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1450.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1450  
Designation: LICKING TWP 2

PID:

Latitude: 400106N  
Longitude: 0822457W  
Elevation: 288.6M  
Stamping: LICKING TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTHWEST OF THE CITY OF NEWARK. TO REACH THE STATION FROM THE INTERSECTION OF JACKSONTOWN ROAD (SR 13) AND DORSEY MILL ROAD (CR 343) PROCEED WEST ALONG DORSEY MILL ROAD (CR 343) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH FRANKLIN AVENUE. TURN RIGHT AND PROCEED NORTH ALONG FRANKLIN AVENUE A DISTANCE OF 0.3 MILE (0.5 KM) TO THE STATION ON THE LEFT ACROSS FROM A GRAVEL DRIVEWAY. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 2 1998. THE STATION IS 41.2 FEET (12.6 M) AZIMUTH 86 DEGREES TO A WOOD FENCE GATE POST, 59.9 FEET (18.3 M) AZIMUTH 15 DEGREES TO A UTILITY POLE WITH THE NUMBER NTC 1/11, 74.8 FEET (22.8 M) AZIMUTH 194 DEGREES TO A UTILITY POLE WITH THE NUMBER 0001/010 AND 17.7 FEET (5.4 M) FROM THE CENTERLINE OF FRANKLIN ROAD.

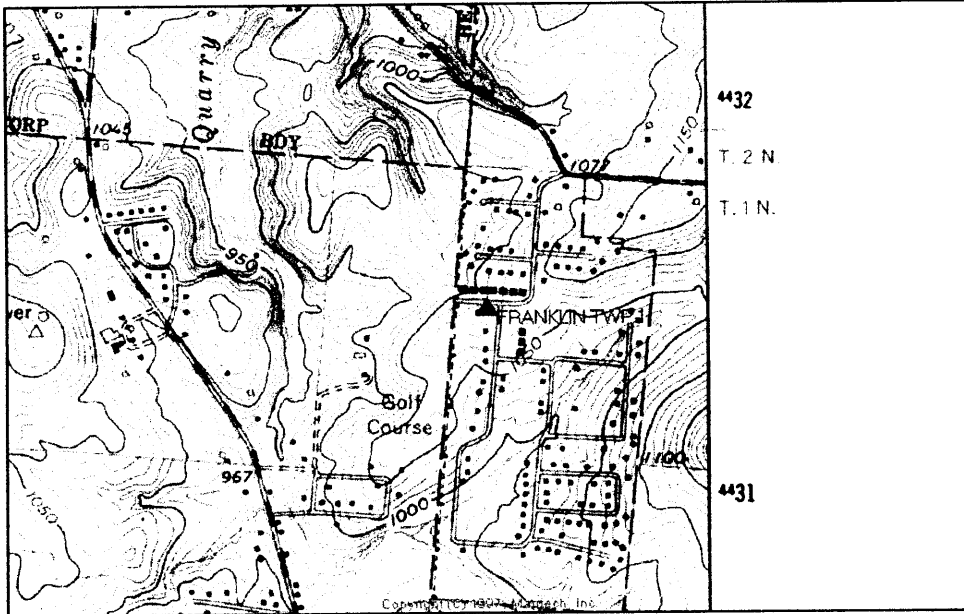
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

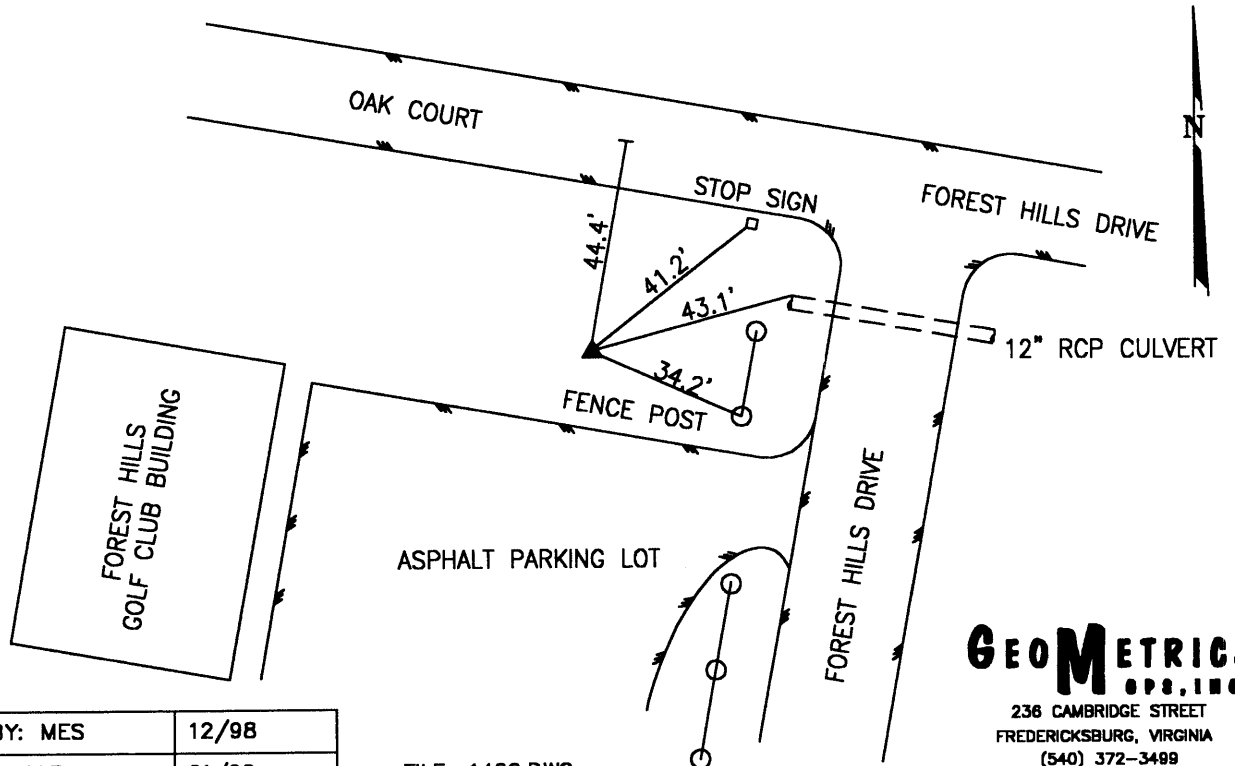
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	FRANKLIN TWP 1	1998
N: 738444.232	E: 2001590.023	LAT: 40°01'38.52317" N
LONG: 82°22'54.63391" W		
ELEV.: 1068.092 (GPS)	COMB. FACTOR: 0.999947834	θ ANGLE: +0°04'29.90

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1460.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1460  
Designation: FRANKLIN TWP 1

PID:

Latitude: 400138N  
Longitude: 0822254W  
Elevation: 338.7M  
Stamping: FRANKLIN TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THE CITY OF HEATH IN LICKING COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION JACKSONTOWN ROAD (SR 13) AND LINVILLE ROAD (CR 311) PROCEED SOUTHEAST ALONG LINVILLE ROAD (CR 311) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH BLACKFOOT TRAIL. TURN LEFT AND PROCEED EAST ALONG BLACKFOOT TRAIL A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH BLUE JAY ROAD. TURN RIGHT AND PROCEED SOUTHEAST ALONG BLUE JAY ROAD A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH FOREST HILL DRIVE. TURN RIGHT AND PROCEED SOUTHWEST ALONG FOREST HILLS DRIVE A DISTANCE OF 0.3 MILE (0.5 KM) TO ITS INTERSECTION WITH OAK COURT AND THE STATION IN THE SOUTHWEST CORNER OF THE INTERSECTION APPROXIMATELY 20 FEET (6.1 M) NORTH OF THE PARKING LOT FOR THE FOREST HILLS GOLF CLUB. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FRANKLIN TWP 1 1998. THE STATION IS 41.2 FEET (12.6 M) AZIMUTH 52 DEGREES TO A STOP SIGN, 43.1 FEET (13.1 M) AZIMUTH 75 DEGREES TO A 12 INCH RCP CULVERT, 34.2 FEET (10.4 M) AZIMUTH 114 DEGREES TO A FENCE POST AND APPROXIMATELY 44.4 FEET (13.5 M) FROM THE CENTERLINE OF FOREST HILLS DRIVE.

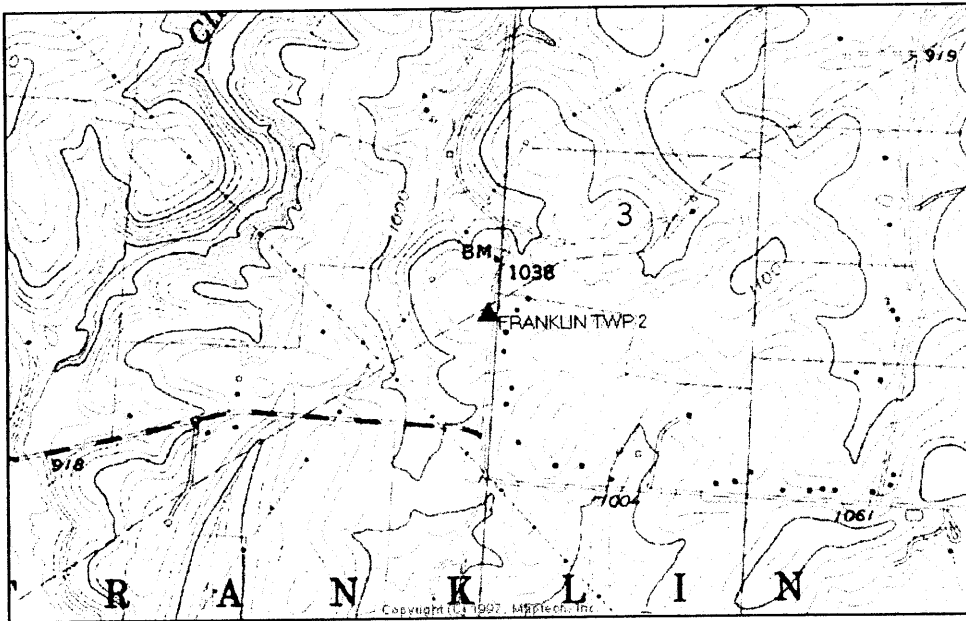
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

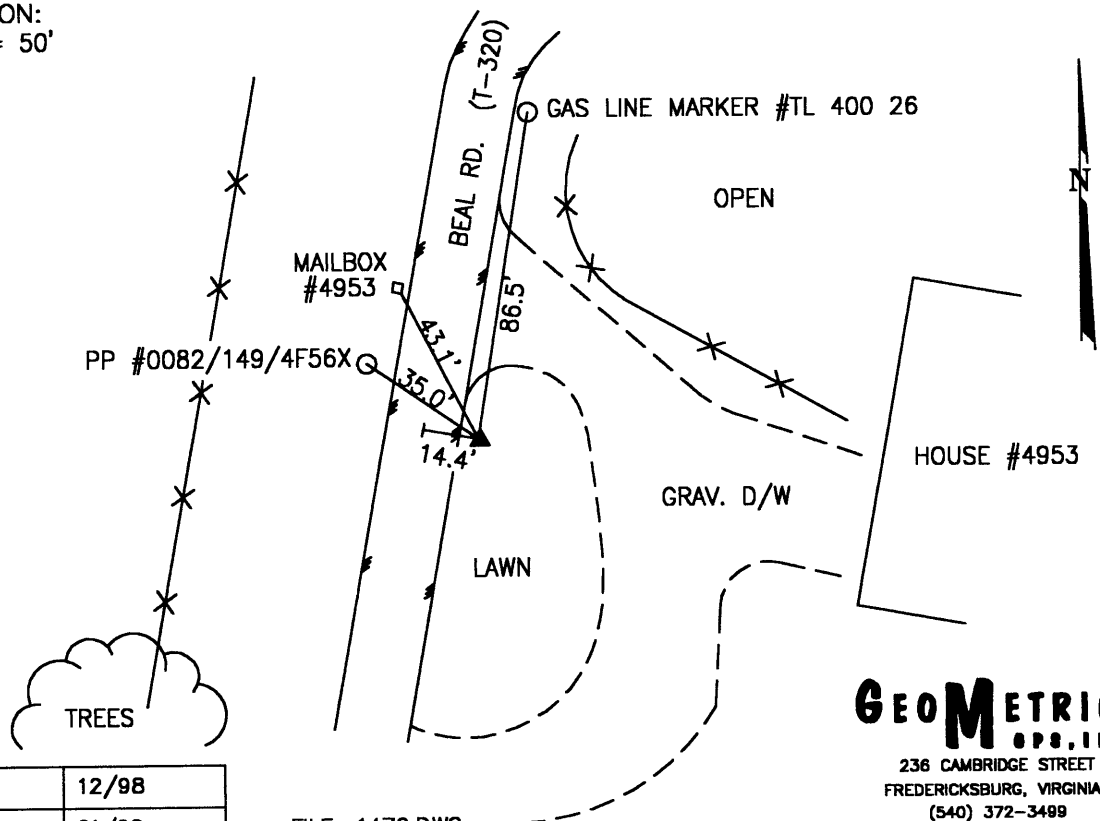
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	FRANKLIN TWP 2	1998
N: 735192.524	E: 2014402.274	LAT: 40°01'06.19104" N
ELEV.: 1040.874 (GPS)		COMB. FACTOR: 0.999947386
		Ø ANGLE: +0°06'14.35

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1470.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1470  
Designation: FRANKLIN TWP 2

PID:

Latitude: 400106N  
Longitude: 0822010W  
Elevation: 270.6M  
Stamping: FRANKLIN TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FRANKLIN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 6.5 MILES (10.5 KM) NORTHWEST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF BROWNSVILLE ROAD (CR 668) AND BLUE JAY ROAD (CR 314) PROCEED WEST ALONG BLUE JAY ROAD (CR 314) APPROXIMATELY 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH BEAL ROAD (T-320) . TURN RIGHT AND PROCEED NORTH ON BEAL ROAD (T-320) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT IN FRONT OF HOUSE NUMBER 4953. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FRANKLIN TWP 2 1998. THE STATION IS 43.1 FEET (13.1 M) AZIMUTH 333 DEGREES TO A MAILBOX WITH THE NUMBER 4953, 35.0 FEET (10.7 M) AZIMUTH 305 DEGREES TO A POWER POLE WITH THE NUMBER 0082/149/4F56X, 86.5 FEET (26.4 M) AZIMUTH 09 DEGREES TO A GAS LINE MARKER WITH THE NUMBER TL400 26 AND 14.4 FEET (4.4 M) FROM THE CENTERLINE OF BEAL ROAD.

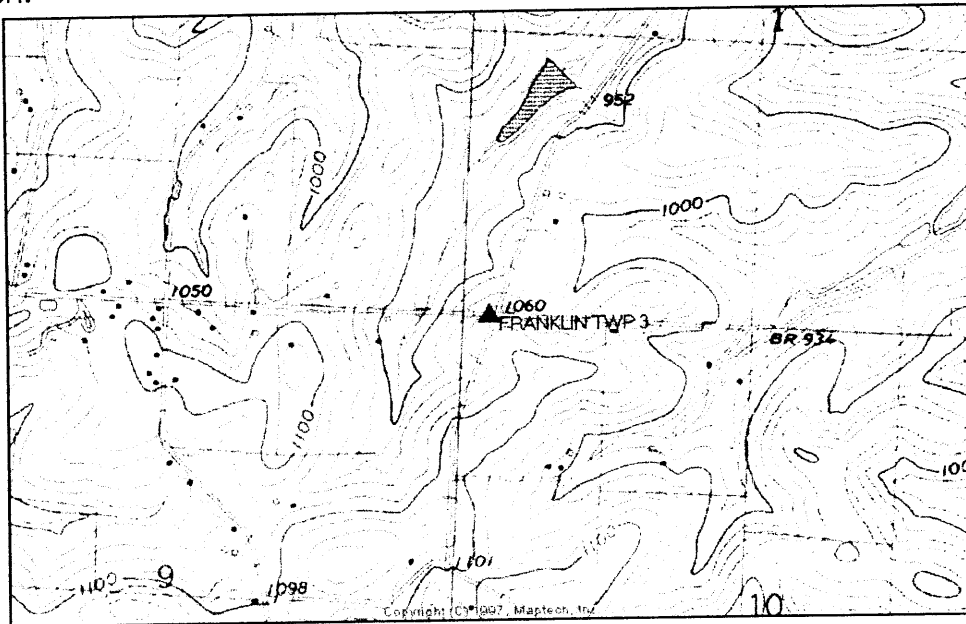
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

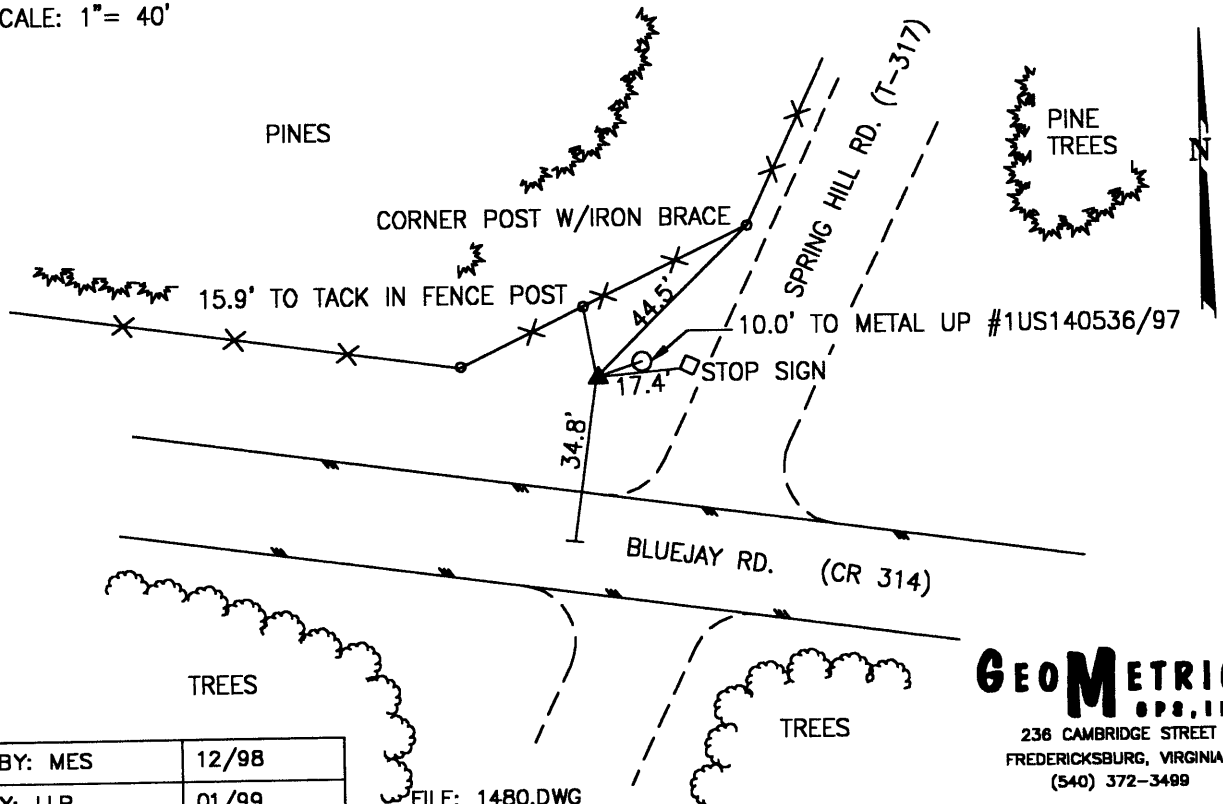
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	FRANKLIN TWP 3		1998
N: 733167.554	E: 2022238.667	LAT: 40°00'46.02707" N	LONG: 82°18'29.34418" W
ELEV.: 1060.342	(GPS) COMB. FACTOR: 0.999945379	θ ANGLE: +0°07'18.23	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1480.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1480  
Designation: FRANKLIN TWP 3

PID:

Latitude: 400046N  
Longitude: 0821829W  
Elevation: 276.0M  
Stamping: FRANKLIN TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FRANKLIN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.5 MILES (8.9 KM) NORTHWEST OF TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF BROWNSVILLE ROAD (CR 668) AND BLUE JAY ROAD (CR 314) PROCEED WEST ALONG BLUE JAY ROAD (CR 314) A DISTANCE OF 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH SPRING HILL ROAD (T-317) AND THE STATION ON THE RIGHT IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FRANKLIN TWP 3 1998. THE STATION IS 15.9 FEET (4.8 M) AZIMUTH 350 DEGREES TO A TACK IN THE FENCE POST, 17.4 FEET (5.3 M) AZIMUTH 85 DEGREES TO A STOP SIGN, 10.0 FEET (3.0 M) AZIMUTH 72 DEGREES TO A METAL UTILITY POLE WITH THE NUMBER 1US1 40536/97, 44.5 FEET (13.6 M) AZIMUTH 45 DEGREES TO A CORNER POST WITH AN IRON BRACE AND 34.8 FEET (10.6 M) FROM THE CENTERLINE OF BLUE JAY ROAD.

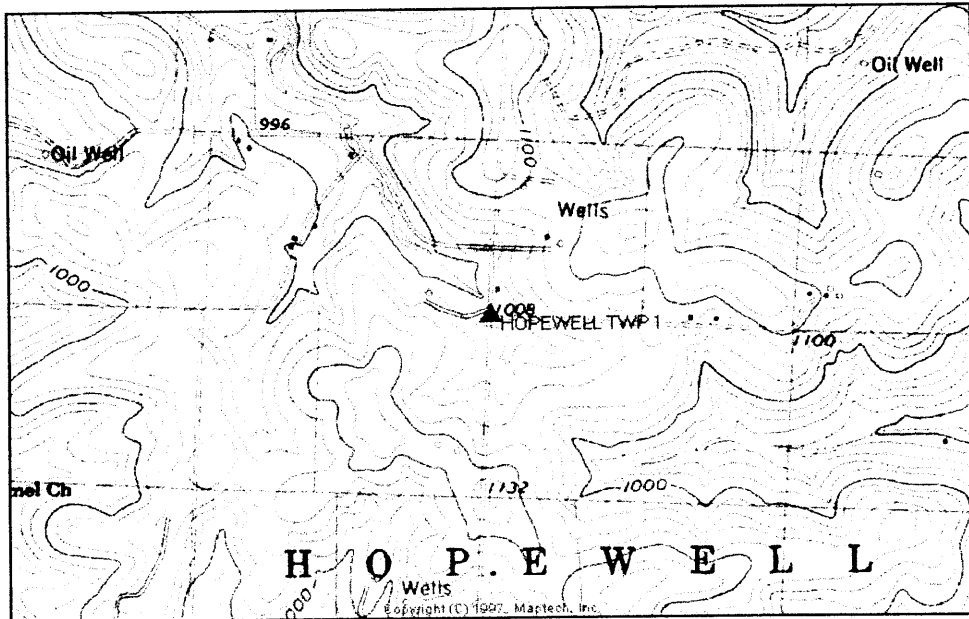
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

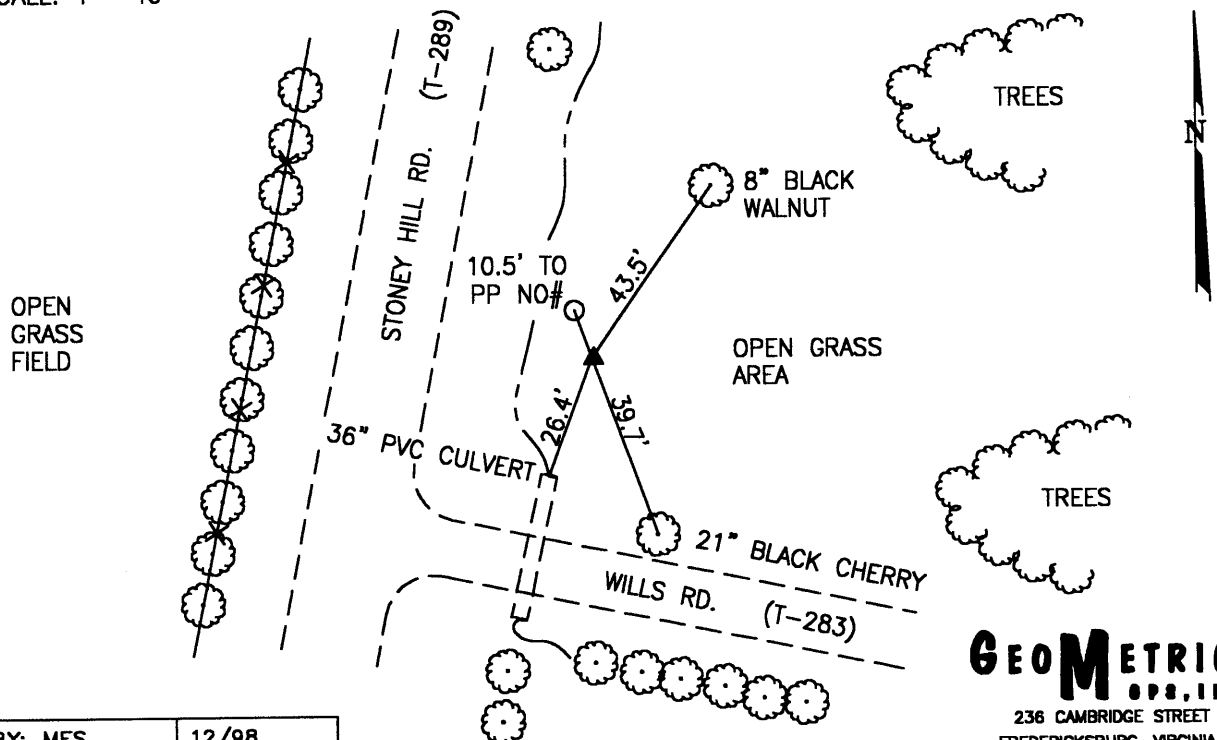
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HOPEWELL TWP 1		1998
N: 734309.647	E: 2032597.597	LAT: 40°00'57.07514" N	LONG: 82°16'16.17330" W
ELEV.: 1008.440	(GPS)	COMB. FACTOR: 0.999948446	θ ANGLE: +0°08'42.73

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1490.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1490  
Designation: HOPEWELL TWP 1

PID:

Latitude: 400057N  
Longitude: 0821616W  
Elevation: 256.1M  
Stamping: HOPEWELL TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) NORTH OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED NORTH ALONG BROWNSVILLE ROAD (CR 668) APPROXIMATELY 3.9 MILES (6.3 KM) TO ITS INTERSECTION WITH STONEY HILL ROAD (T-289) . TURN RIGHT AND PROCEED NORTH ALONG STONEY HILL ROAD (T-289) APPROXIMATELY 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH WILLS ROAD (T-283) AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HOPEWELL TWP 1 1998. THE STATION IS 10.5 FEET (3.2 M) AZIMUTH 340 DEGREES TO A POWER POLE WITH NO NUMBER, 26.4 FEET (8.0 M) AZIMUTH 200 DEGREES TO A 36 INCH PVC CULVERT, 39.7 FEET (12.1 M) AZIMUTH 160 DEGREES TO A 21 INCH BLACK CHERRY TREE, AND 43.5 FEET (13.3 M) AZIMUTH 35 DEGREES TO AN 8 INCH BLACK WALNUT TREE.

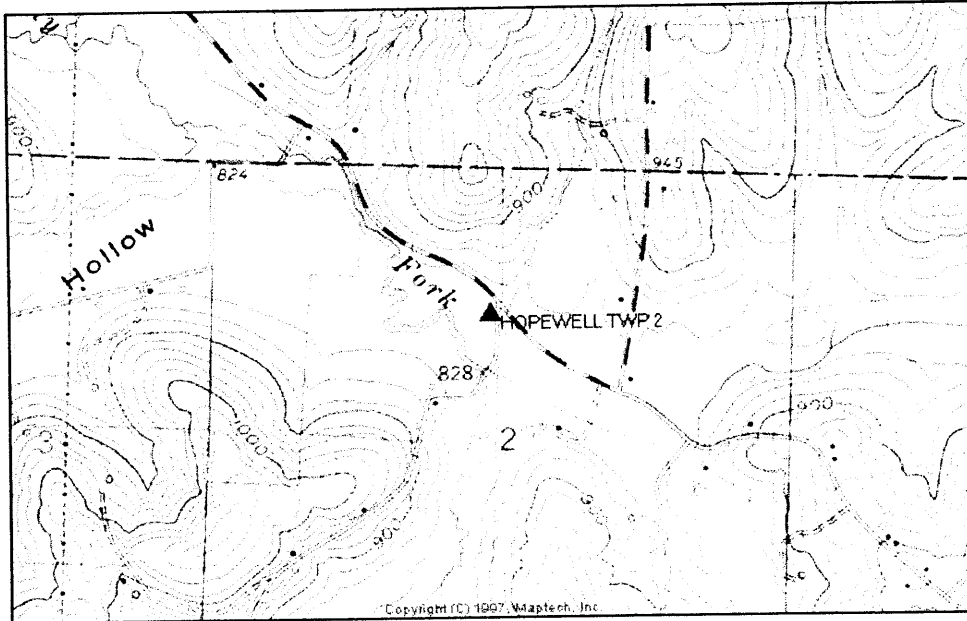
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

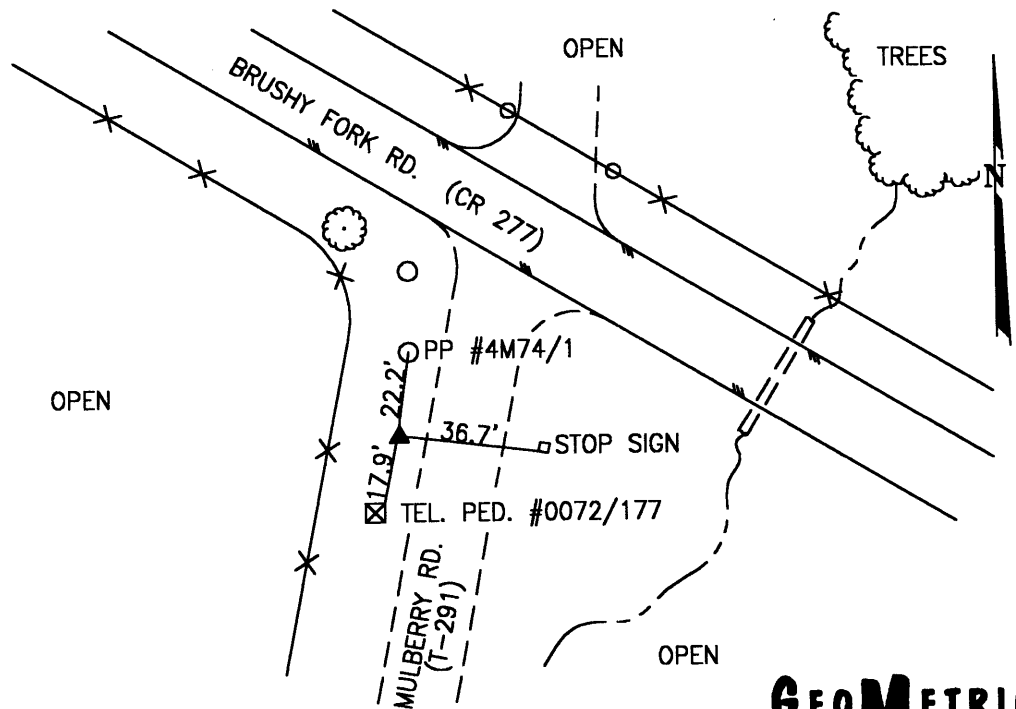
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	HOPEWELL TWP 2	1998
N: 735666.514	E: 2046064.488	LAT: 40°01'10.11140" N
ELEV.: 828.679 (GPS)		COMB. FACTOR: 0.999957726
		θ ANGLE: +0°10'32.59

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1500.dwg

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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1500  
Designation: HOPEWELL TWP 2

PID:

Latitude: 400110N  
Longitude: 0821323W  
Elevation: 318.5M  
Stamping: HOPEWELL TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTH OF THE TOWN OF TOBOSO. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND NASHPORT ROAD (SR 146) PROCEED SOUTHEAST ALONG NASHPORT ROAD (SR 146) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH TOBOSO ROAD (CR 273) . TURN RIGHT AND PROCEED SOUTH ALONG TOBOSO ROAD (CR 273) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH CLAYPOOL ROAD (T-276) AND GRATIOT ROAD (CR 278) . TURN RIGHT AND PROCEED SOUTH ALONG GRATIOT (CR 278) A DISTANCE OF 2.8 MILES (4.5 KM) TO ITS INTERSECTION WITH BRUSHY FORK ROAD (CR 277) . TURN RIGHT AND PROCEED NORTHWEST ALONG BRUSHY FORK ROAD (CR 277) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH MULBERRY ROAD (T-291) AND THE STATION ON THE LEFT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED HOPEWELL TWP 2 1998. THE STATION IS 22.2 FEET (6.8 M) AZIMUTH 08 DEGREES TO A POWER POLE WITH THE NUMBER 4M74/1, 17.9 FEET (5.5 M) AZIMUTH 191 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 0072/177, AND 36.7 FEET (11.2 M) AZIMUTH 97 DEGREES TO A STOP SIGN.

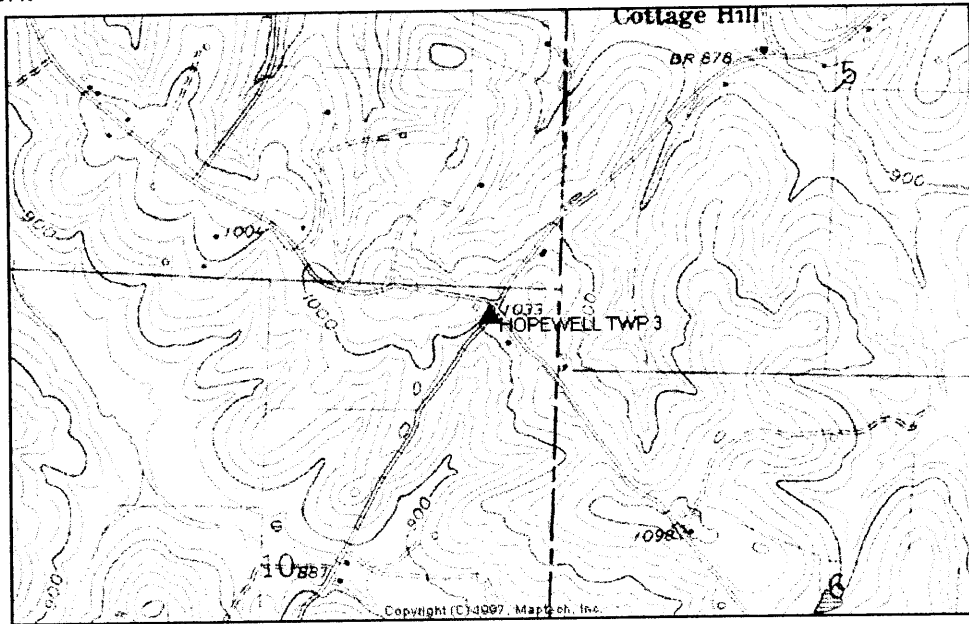
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

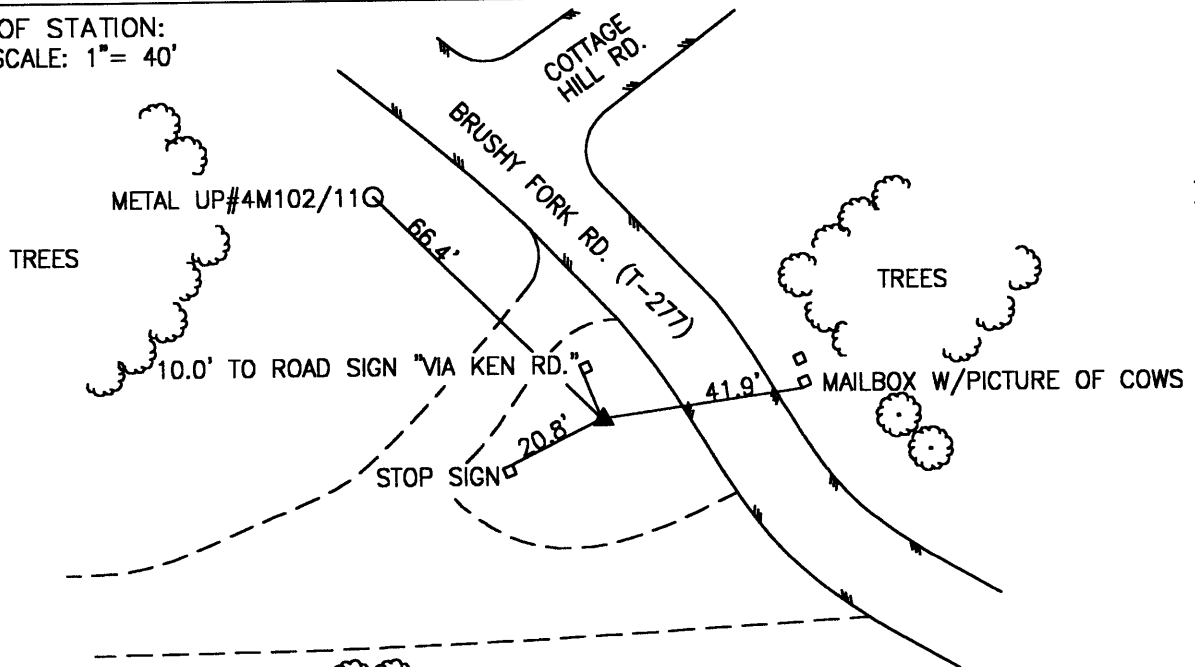
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY		NAME OF STATION	YEAR
LICKING		HOPEWELL TWP 3	1998
N: 731443.903	E: 2053252.252	LAT: 40°00'28.15434" N	LONG: 82°11'50.83052" W
ELEV.: 1026.255	(GPS)	COMB. FACTOR: 0.999946059	θ ANGLE: +0°11'31.09

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1510.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1510  
Designation: HOPEWELL TWP 3

PID:

Latitude: 400028N  
Longitude: 0821150W  
Elevation: 360.4M  
Stamping: HOPEWELL TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.5 MILES (5.6 KM) SOUTHEAST OF THE TOWN OF TOBOSO. TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 16 AND NASHPORT ROAD (SR 146) PROCEED SOUTHEAST ALONG NASHPORT ROAD A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH TOBOSO ROAD (CR 273) . TURN RIGHT AND PROCEED SOUTH ALONG TOBOSO ROAD (CR 273) A DISTANCE OF 1.8 MILES (2.9 KM) TO ITS INTERSECTION WITH CLAYPOOL ROAD (T-276) AND GRATIOT ROAD (CR 278) . TURN RIGHT AND PROCEED SOUTH ALONG GRATIOT ROAD (CR 278) A DISTANCE OF 2.7 MILES (4.3 KM) TO ITS INTERSECTION WITH BRUSHY FORK ROAD (T-277) . TURN LEFT AND PROCEED EAST ALONG BRUSHY FORK ROAD (T-277) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH VIA-KEN ROAD (T-292) AND THE STATION ON THE RIGHT IN THE TRIANGLE ISLAND. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HOPEWELL TWP 3 1998. THE STATION IS 20.8 FEET (6.3 M) AZIMUTH 243 DEGREES TO A STOP SIGN, 10.0 FEET (3.0 M) AZIMUTH 338 DEGREES TO A VIA KEN ROAD SIGN, 41.9 FEET (12.8 M) AZIMUTH 82 DEGREES TO A MAIL BOX WITH A PICTURE OF COWS, AND 66.4 FEET (20.2 M) AZIMUTH 315 DEGREES TO A METAL POWER POLE WITH THE NUMBER 4M102/11.

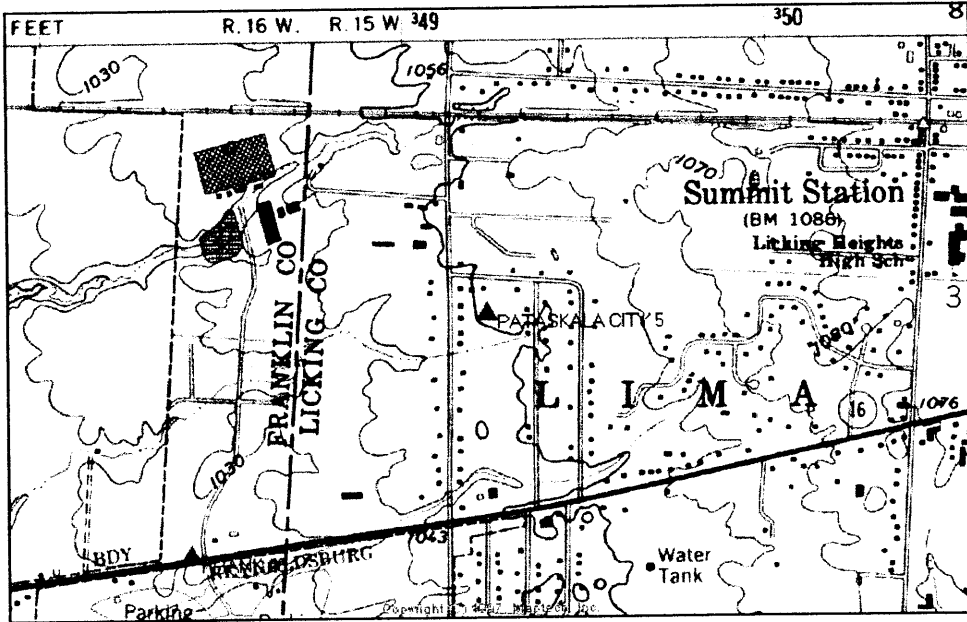
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

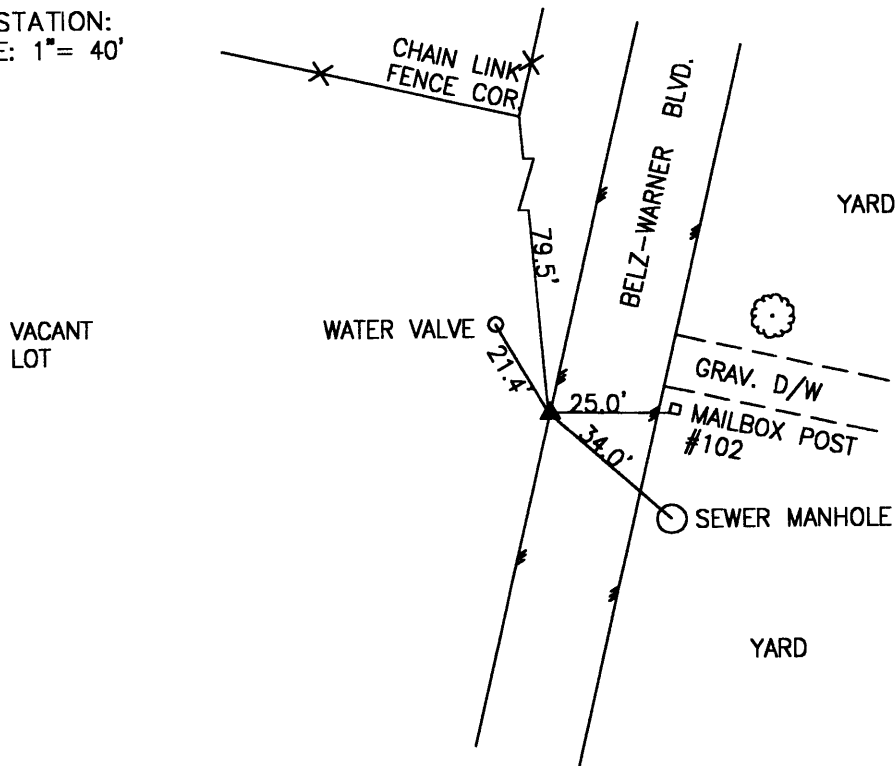
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR	
LICKING	PATASKALA CITY 5	1998	
N: 726108.862	E: 1893965.041	LAT: 39°59'35.74946" N	LONG: 82°45'57.66367" W
ELEV.: 1051.281 (GPS)	COMB. FACTOR: 0.999942130	Θ ANGLE: -0°10'07.65	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1520.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1520  
Designation: PATASKALA CITY 5

PID:

Latitude: 395935N  
Longitude: 0824557W  
Elevation: 358.9M  
Stamping: PATASKALA CITY 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTHWEST OF THE TOWN OF SUMMIT STATION. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND MINK STREET (CR 41) PROCEED SOUTHWEST ON BROAD STREET ROAD (SR 16) APPROXIMATELY 2.0 MILES (3.2 KM) TO ITS INTERSECTION WITH TAYLOR ROAD (T-169) . TURN RIGHT AND PROCEED NORTH ALONG TAYLOR ROAD (T-169) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH BARRY AVENUE. TURN RIGHT AND PROCEED EAST ALONG BARRY AVENUE A DISTANCE OF 0.05 MILE (0.08 KM) TO ITS INTERSECTION WITH BELZ-WARNER ROAD. TURN RIGHT AND PROCEED SOUTH ALONG BELZ-WARNER ROAD A DISTANCE OF 0.05 MILE (0.08 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PATASKALA CITY 5 1998. THE STATION IS 79.5 FEET (24.2 M) AZIMUTH 355 DEGREES TO A CHAIN LINK FENCE CORNER, 34.0 FEET (10.4 M) AZIMUTH 132 DEGREES TO A SEWER MANHOLE, 21.4 FEET (6.5 M) AZIMUTH 330 DEGREES TO A WATER VALVE, 25.0 FEET (7.6 M) AZIMUTH 91 DEGREES TO A MAIL BOX POST WITH THE NUMBER 102 AND 0.9 FOOT (27.4 CM) FROM THE EDGE OF THE PAVEMENT OF BELZ-WARNER ROAD.

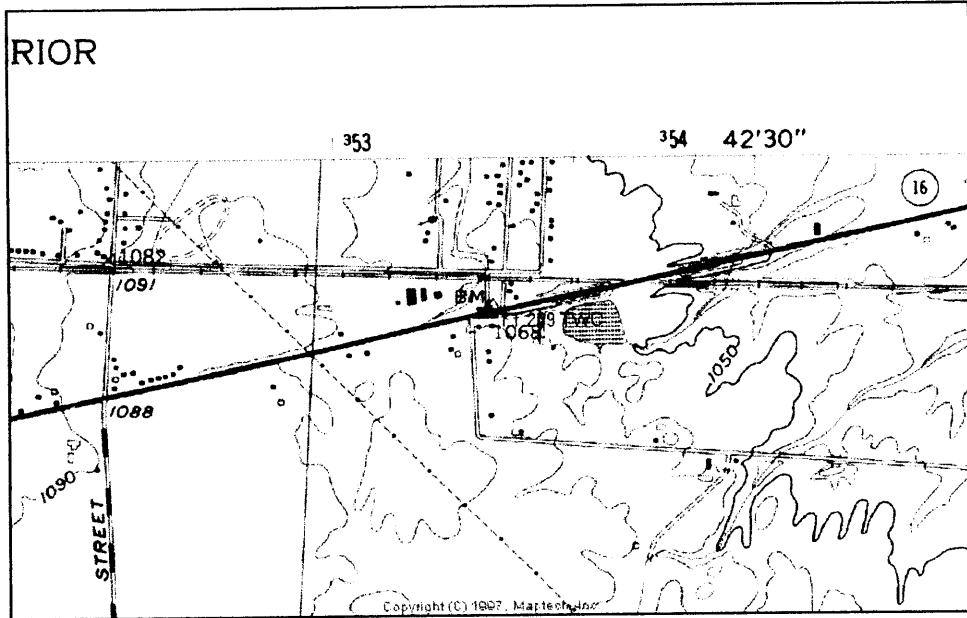
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

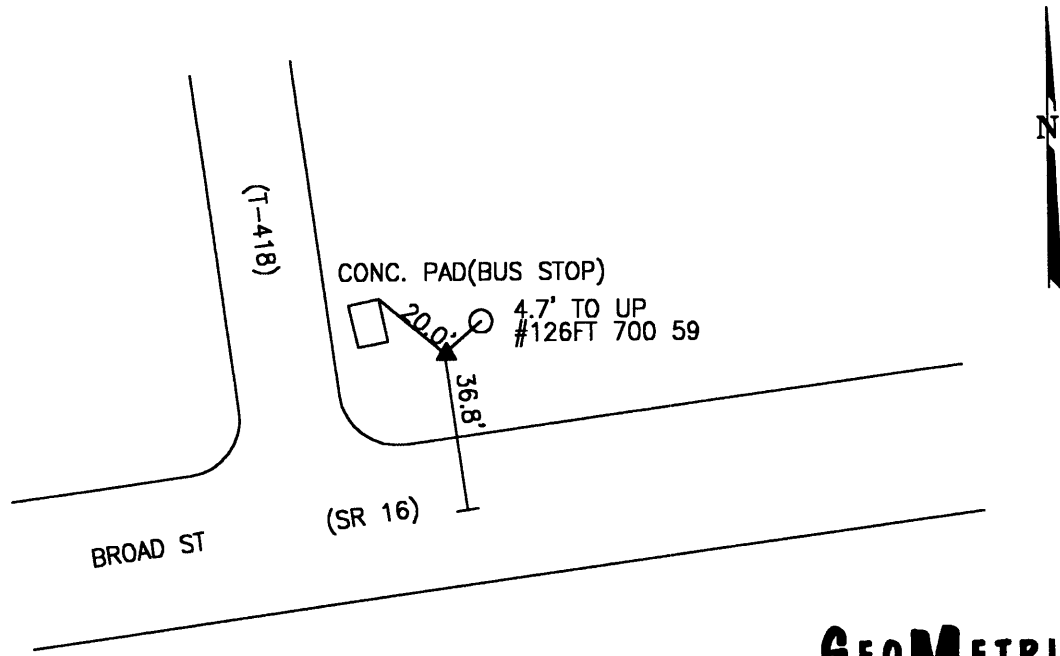
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	TT 209 TWC		1998
N: 727166.770	E: 1907770.415	LAT: 39°59'46.56883" N	LONG: 82°43'00.31848" W
ELEV.: 1067.062	(GPS)	COMB. FACTOR: 0.999941936	θ ANGLE: -0°08'15.12

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1530.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1530  
Designation: TT 209 TWC

PID:

Latitude: 395946N  
Longitude: 0824300W  
Elevation: 315.1M  
Stamping: 1068 TT209 TWC 1995

State: OH  
County: LICKING  
Disk From: USGS

Surface Mark-  
Type: Bench Mark disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A SQUARE CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by USGS in 1955, Chief of party .

-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 1.8 MILES (2.9 KM) EAST OF THE TOWN OF SUMMIT STATION. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND HAZELTON-ETNA ROAD (SR 310) PROCEED WEST ALONG BROAD STREET (SR 16) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH T-418 AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A U.S. GEOLOGICAL BRONZE DISK SET IN A FIVE INCH SQUARE CONCRETE POST STAMPED 1068 TT209 TWC 1955. THE STATION IS 20.0 FEET (6.1 M) 310 DEGREES AZIMUTH TO THE NORTHEAST CORNER OF A CONCRETE PAD TO A BUS STOP, 4.7 FEET (1.4 M) AZIMUTH 57 DEGREES TO A UTILITY POLE WITH THE NUMBER 126 FT (38.4 M) 700 59, AND 36.8 FEET (11.2 M) NORTH FROM THE CENTERLINE OF BROAD STREET (SR 16) .

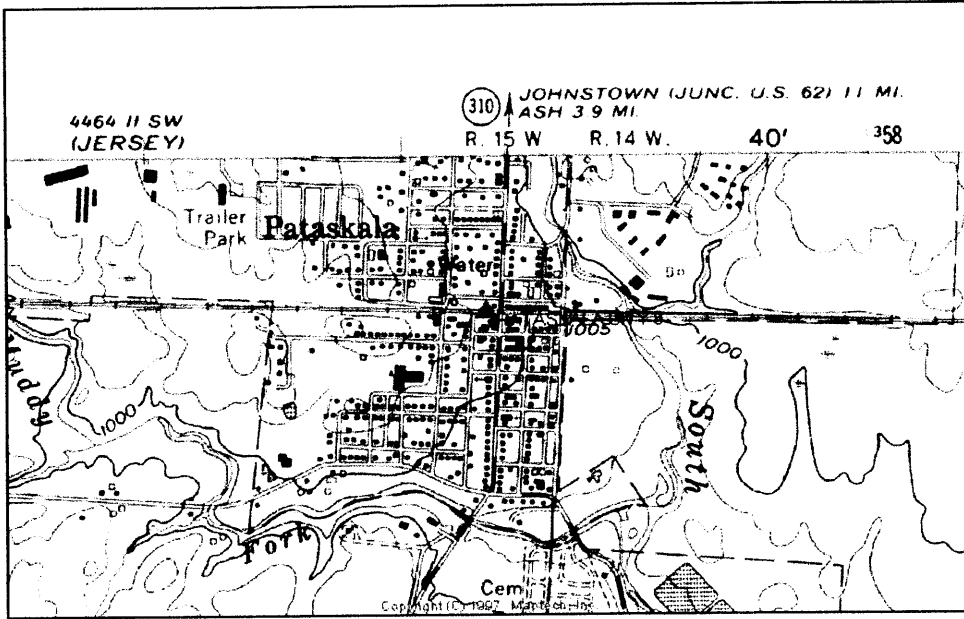
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

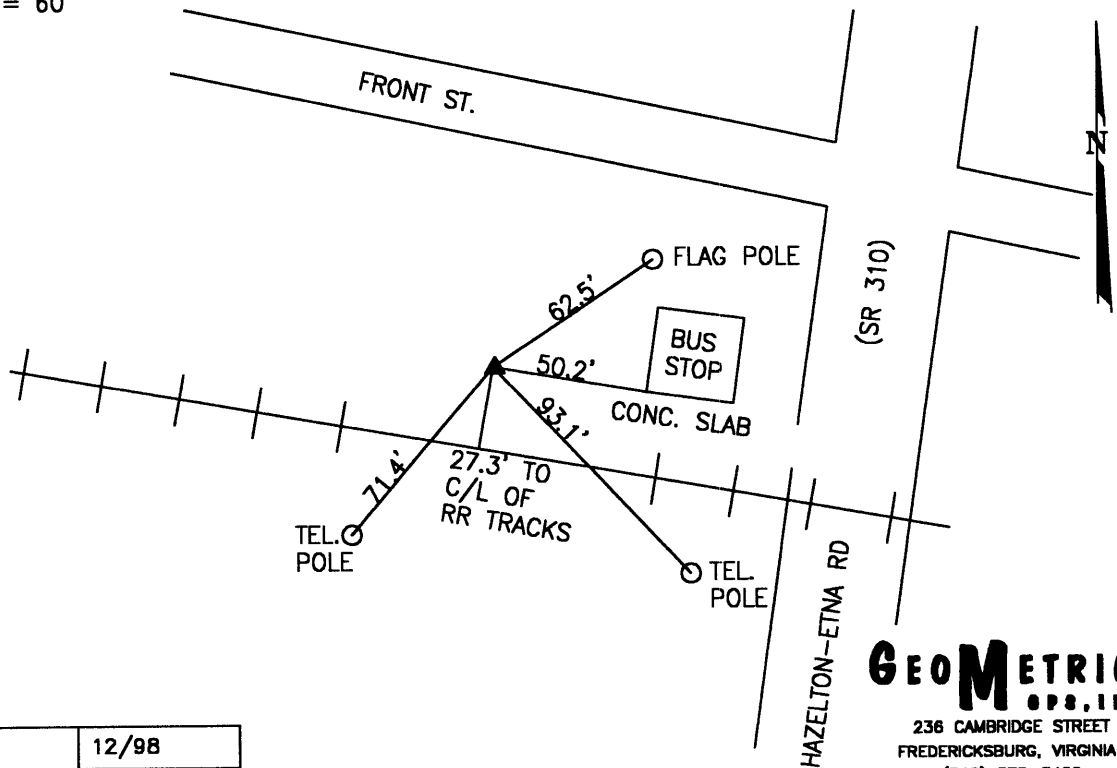
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	PATASKALA CITY 6	1998
N: 727125.453	E: 1919322.083	LAT: 39°59'46.40849" N
ELEV.: 1005.110 (GPS)		COMB. FACTOR: 0.999944885
		LONG: 82°40'31.88972" W
		Ø ANGLE: -0°06'40.94

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1540.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1540  
Designation: PATASKALA CITY 6

PID:

Latitude: 395946N  
Longitude: 0824031W  
Elevation: 330.8M  
Stamping: PATASKALA CITY 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN PATASKALA CITY IN LICKING COUNTY, OHIO ABOUT 1.2 MILE (1.9 KM) EAST OF THE TOWN OF COLUMBIA CENTER. TO REACH THE STATION FROM THE INTERSECTION OF BROAD STREET (SR 16) AND HAZELTON-ETNA ROAD (SR 310) PROCEED SOUTH ALONG HAZELTON-ETNA ROAD (SR 310) A DISTANCE OF 0.47 MILE (0.76 KM) TO ITS INTERSECTION WITH FRONT STREET AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS NORTH OF THE RAILROAD TRACKS IN A SMALL PARK DEDICATED TO VETERANS OF U.S. WARS. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PATASKALA CITY 6 1998. THE STATION IS 62.5 FEET (19.1 M) AZIMUTH 56 DEGREES TO A FLAG POLE, 93.1 FEET (28.4 M) AZIMUTH 137 DEGREES TO A TELEPHONE POLE, 71.4 FEET (21.8 M) AZIMUTH 220 DEGREES TO A TELEPHONE POLE, 50.2 FEET (15.3 M) AZIMUTH 100 DEGREES TO THE SOUTHWEST CORNER OF A CONCRETE SLAB FOR A BUS STOP SHELTER, AND 27.3 FEET (8.3 M) AZIMUTH 180 DEGREES TO THE CENTERLINE OF THE RAILROAD TRACKS.

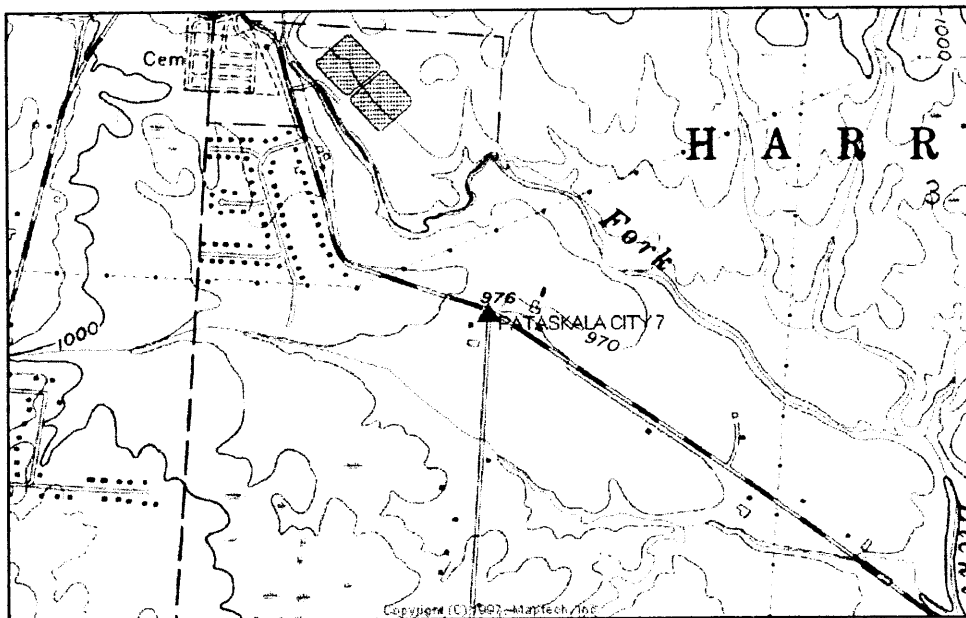
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

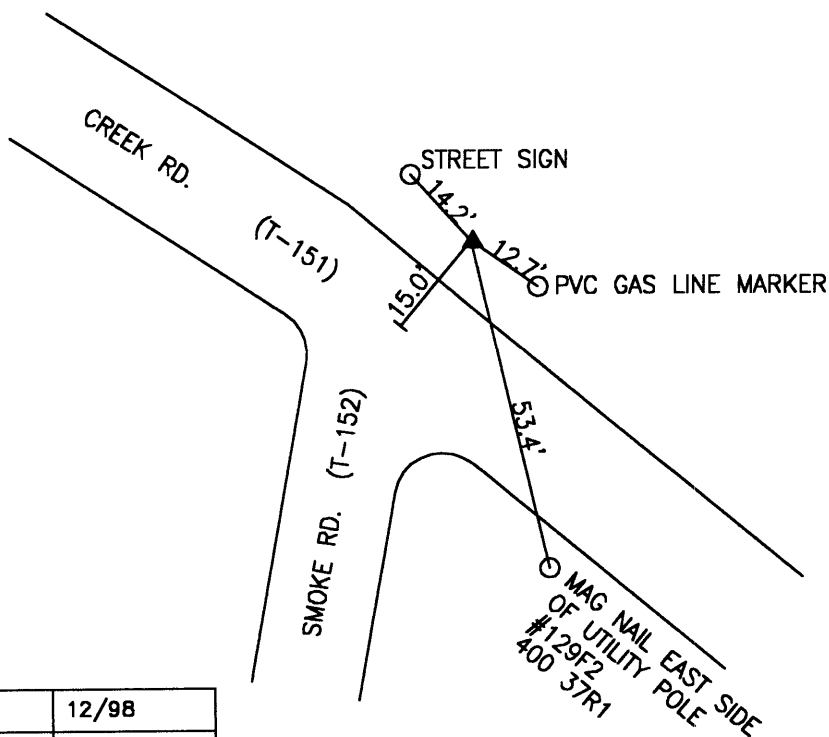
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	PATASKALA CITY 7		1998
N: 722199.872	E: 1922366.494	LAT: 39°58'57.78847" N	LONG: 82°39'52.65662" W
ELEV.: 975.093	(GPS)	COMB. FACTOR: 0.999943828	Θ ANGLE: -0°06'16.05

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1550.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1550  
Designation: PATASKALA CITY 7

PID:

Latitude: 395857N  
Longitude: 0823952W  
Elevation: 314.8M  
Stamping: PATASKALA CITY 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHEAST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN ETNA PROCEED NORTH ALONG HAZELTON-ETNA ROAD (SR 310) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH CREEK ROAD (T-151) . TURN RIGHT AND PROCEED EAST ALONG CREEK ROAD (T-151) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH SMOKE ROAD (T-152) AND THE STATION ON THE LEFT ON THE NORTH SIDE OF THE T INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PATASKALA CITY 7 1998. THE STATION IS 12.7 FEET (3.9 M) AZIMUTH 125 DEGREES TO A PVC GAS LINE MARKER, 53.4 FEET (16.3 M) AZIMUTH 167 DEGREES TO A MAG NAIL IN THE EAST SIDE OF UTILITY POLE WITH THE NUMBER 129F2 400 37RI, 14.2 FEET (4.3 M) AZIMUTH 318 DEGREES TO A STREET SIGN AND 15.0 FEET (4.6 M) FROM THE CENTERLINE OF CREEK ROAD.

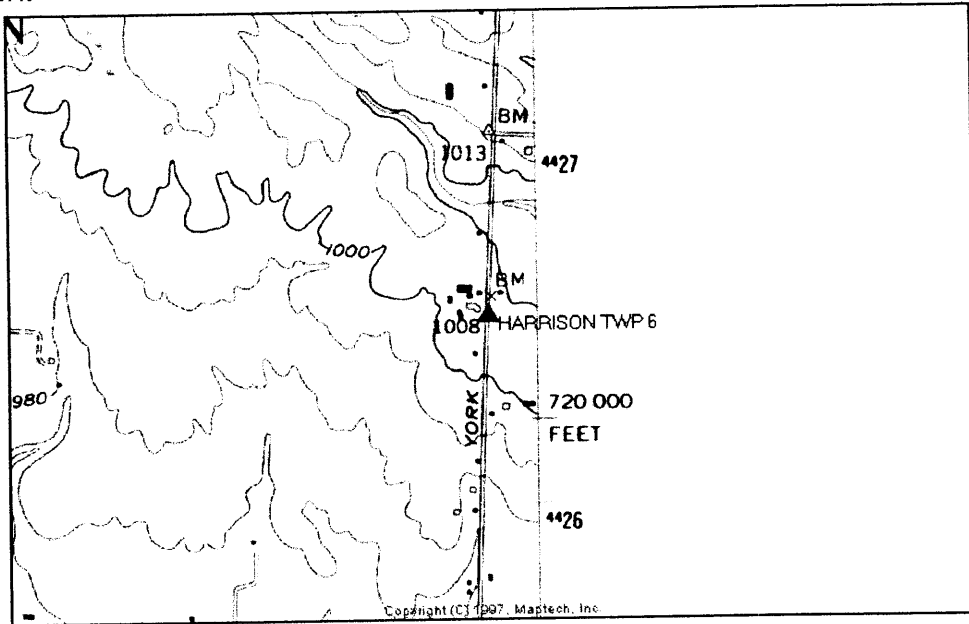
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

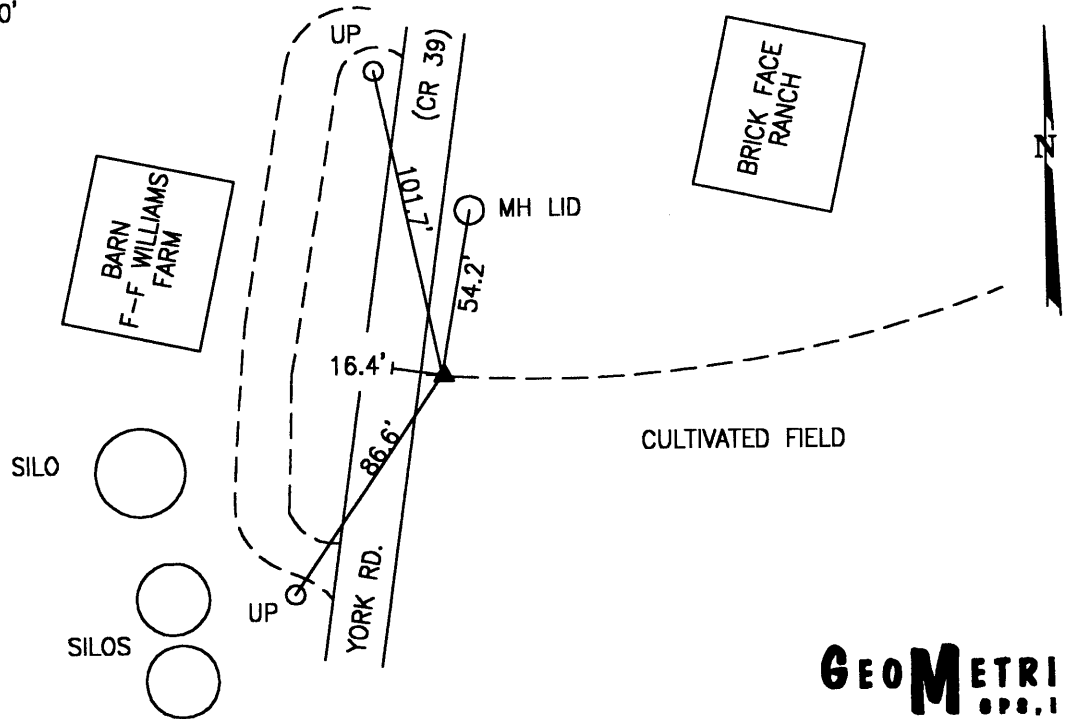
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HARRISON TWP 6		1998
N: 721033.788	E: 1933093.365	LAT: 39°58'46.43549" N	LONG: 82°37'34.83253" W
ELEV.: 1005.021	(GPS) COMB. FACTOR: 0.999941825	Θ ANGLE: -0°04'48.60	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 60'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1560.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1560

Designation: HARRISON TWP 6

PID:

Latitude: 395846N  
Longitude: 0823734W  
Elevation: 307.6M  
Stamping: HARRISON TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HARRISON TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.5 MILE (5.6 KM) NORTHEAST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF HAZLETON-ETNA ROAD (SR 310) AND NATIONAL ROAD (US 40) IN ETNA PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 2.9 MILES (4.7 KM) TO ITS INTERSECTION WITH YORK ROAD (CR 39) . TURN LEFT AND PROCEED NORTH ALONG YORK ROAD (CR 39) A DISTANCE OF 1.4 MILES (2.3 KM) TO THE STATION ON THE RIGHT AT THE EDGE OF A FIELD WHERE IT MEETS A YARD. THE STATION IS ACROSS THE STREET FROM AN OLD BARN F-F WILLIAMS FARM AND SILOS. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HARRISON TWP 6 1998. THE STATION IS 54.2 FEET (16.5 M) AZIMUTH 10 DEGREES TO A MANHOLE LID, 86.6 FEET (26.4 M) AZIMUTH 214 DEGREES TO A UTILITY POLE WITH NO NUMBER, 101.7 FEET (31.0 M) AZIMUTH 348 DEGREES TO A UTILITY POLE, AND 16.4 FEET (5.0 M) EAST FROM THE CENTERLINE OF YORK ROAD.

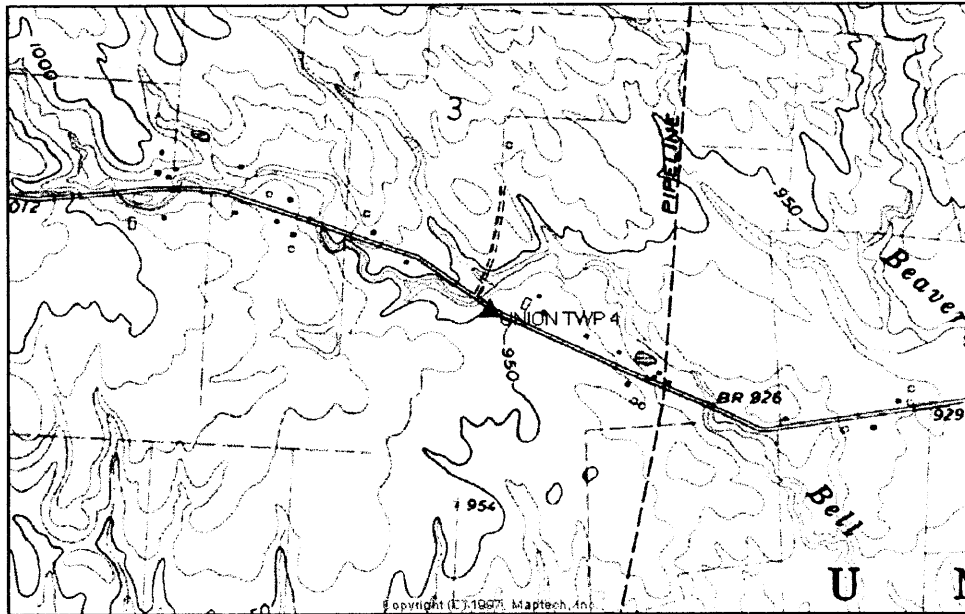
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

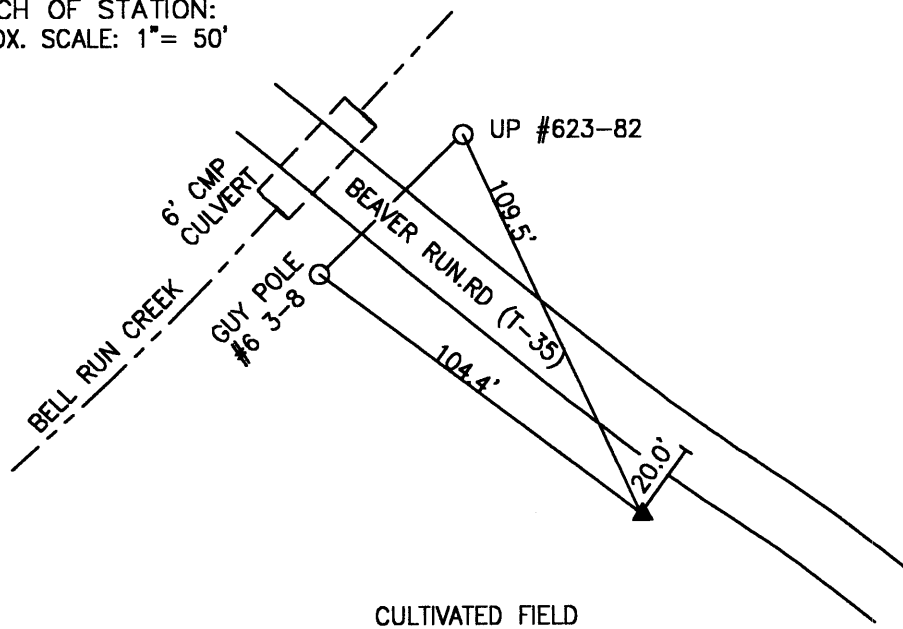
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 4		1998
N: 720677.874	E: 1953897.372	LAT: 39°58'43.12132" N	LONG: 82°33'07.58236" W
ELEV.: 952.590 (GPS)	COMB. FACTOR: 0.999944161		Θ ANGLE: -0°01'59.02

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1570.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1570  
Designation: UNION TWP 4

PID:

Latitude: 395843N  
Longitude: 0823307W  
Elevation: 337.0M  
Stamping: UNION TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHWEST OF THE TOWN OF LURAY. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND LANCASTER ROAD (SR 37) IN LURAY PROCEED NORTH ALONG LANCASTER ROAD (SR 37) A DISTANCE OF 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH BEAVER RUN ROAD (T-35) . TURN LEFT AND PROCEED WEST ALONG BEAVER RUN ROAD (T-35) A DISTANCE OF 1.5 MILES (2.4 KM) TO THE STATION ON THE LEFT APPROXIMATELY 140 FEET (42.7 M) EAST OF BELL RUN CREEK. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED UNION TWP 4 1998. THE STATION IS 104.4 FEET (31.8 M) AZIMUTH 309 DEGREES TO A GUY POLE WITH THE NUMBER 6 3-8, 109.5 FEET (33.4 M) AZIMUTH 335 DEGREES TO A POWER POLE WITH THE NUMBER 623-82 AND 20.0 FEET (6.1 M) FROM THE CENTERLINE OF BEAVER RUN ROAD.

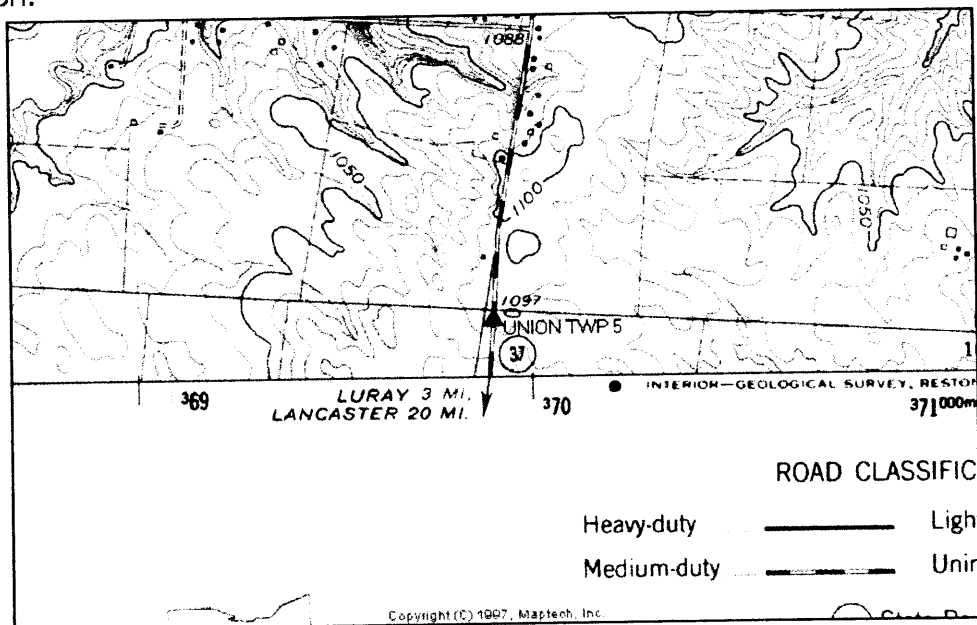
# LICKING COUNTY, OHIO 1998 GEODETIC CONTROL SURVEY

JN 98016

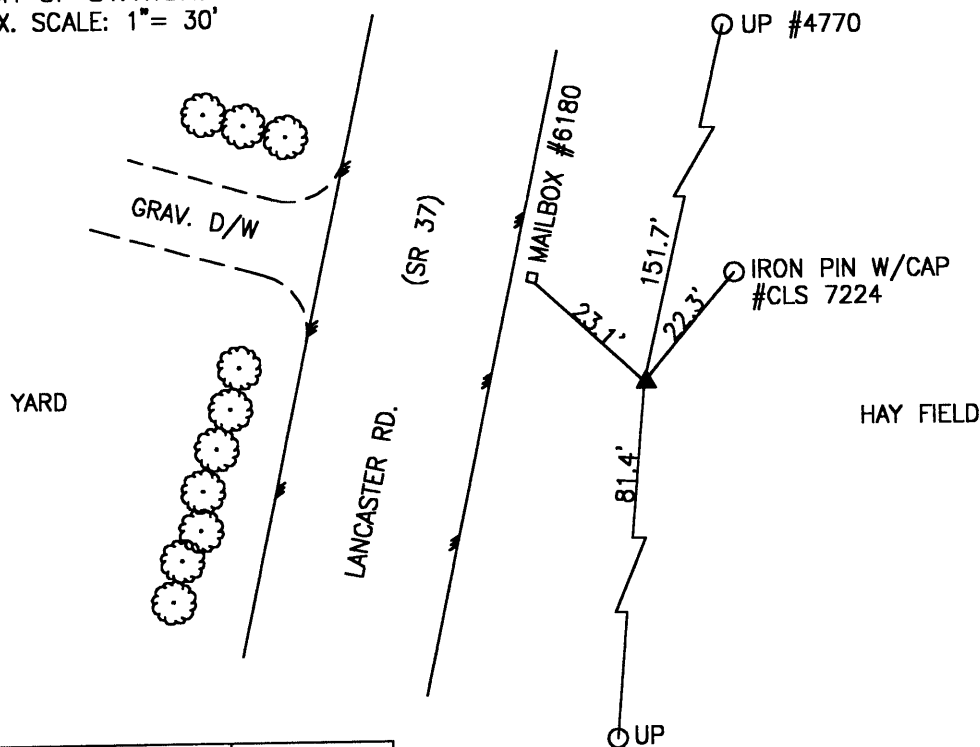
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 5		1998
N: 729025.045	E: 1961781.352	LAT: 40°00'05.64456" N	LONG: 82°31'26.33486" W
ELEV.: 1097.665 (GPS)	COMB. FACTOR: 0.999941467		θ ANGLE: -0°00'54.78

## VICINITY SKETCH:



## SKETCH OF STATION: APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1580.DWG

**GEOMETRICS**  
GPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1580  
Designation: UNION TWP 5

PID:

Latitude: 400005N  
Longitude: 0823126W  
Elevation: 348.3M  
Stamping: UNION TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTH OF THE TOWN OF LURAY. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND LANCASTER ROAD (SR 37) PROCEED NORTH ALONG LANCASTER ROAD (SR 37) A DISTANCE OF 3.1 MILES (5.0 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 23 FEET (7.0 M) SOUTHEAST OF MAIL BOX NUMBER 6180. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED UNION TWP 5 1998. THE STATION IS 151.7 FEET (46.2 M) AZIMUTH 13 DEGREES TO A UTILITY POLE WITH THE NUMBER 4770, 81.4 FEET (24.8 M) AZIMUTH 185 DEGREES TO A UTILITY POLE WITH NO NUMBER, 23.1 FEET (7.0 M) AZIMUTH 313 DEGREES TO A MAIL BOX WITH THE NUMBER 6180, AND 22.3 FEET (6.8 M) AZIMUTH 40 DEGREES TO AN IRON PIN WITH A CAP AND NUMBER CLS 7224.

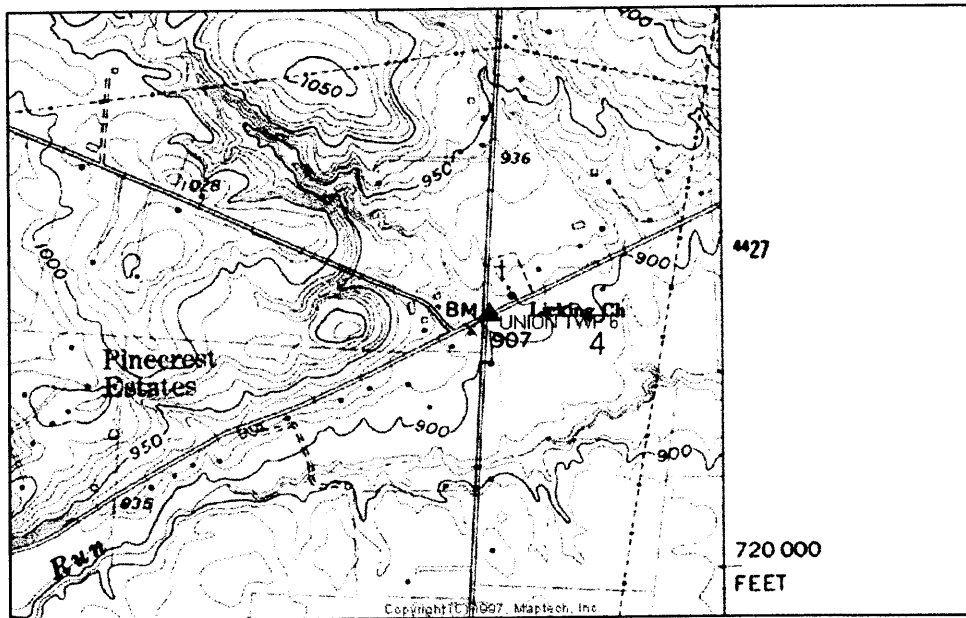
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

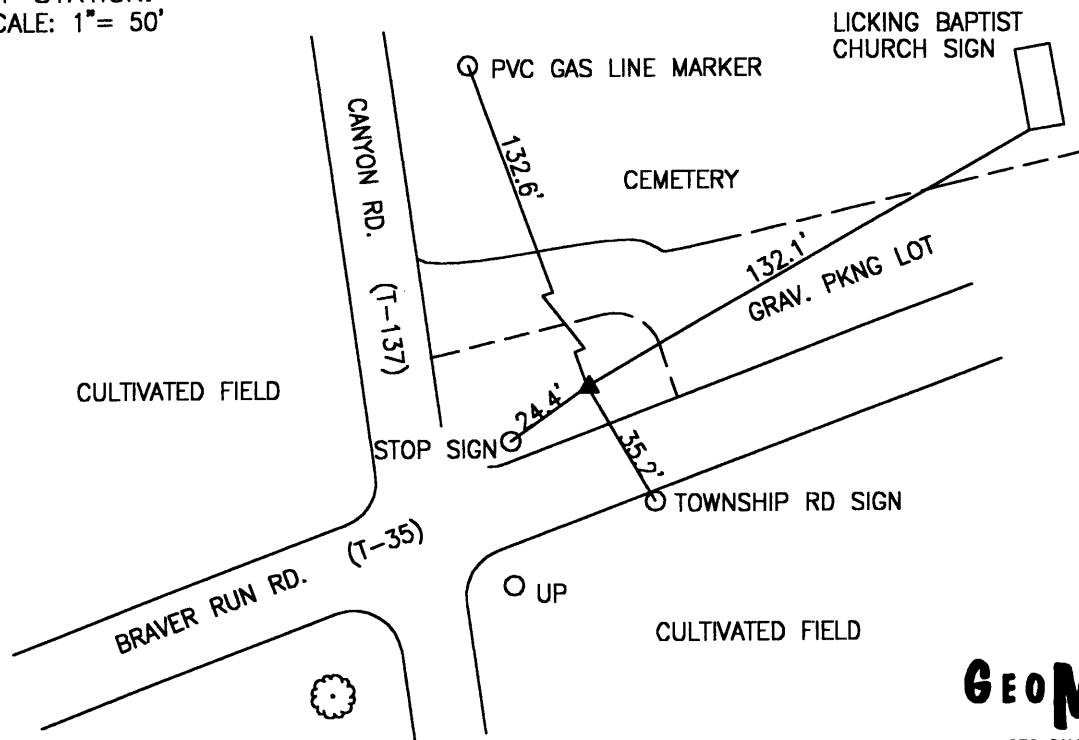
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 6		1998
N: 722419.977	E: 1966464.268	LAT: 39°59'00.37844" N	LONG: 82°30'26.15240" W
ELEV.: 900.943 (GPS)	COMB. FACTOR: 0.999947499		Ø ANGLE: -0°00'16.59

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1590.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1590  
Designation: UNION TWP 6

PID:

Latitude: 395900N  
Longitude: 0823026W  
Elevation: 354.0M  
Stamping: UNION TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHEAST OF THE TOWN OF LURAY. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND LANCASTER ROAD (SR 37) IN LURAY PROCEED NORTH ALONG LANCASTER ROAD (SR 37) A DISTANCE OF 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH BEAVER RUN ROAD (T-35) . TURN RIGHT AND PROCEED NORTHEAST ALONG BEAVER RUN ROAD (T-35) A DISTANCE OF 1.1 MILES (1.8 KM) TO ITS INTERSECTION WITH CANYON ROAD (T-137) AND THE STATION ON THE LEFT IN THE NORTHEAST CORNER OF THE INTERSECTION IN THE GRASSY AREA BETWEEN THE ROAD AND LICKING BAPTIST CHURCH. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED UNION TWP 6 1998. THE STATION IS 132.6 FEET (40.4 M) AZIMUTH 348 DEGREES TO A PVC GAS LINE MARKER, 132.1 FEET (40.3 M) AZIMUTH 60 DEGREES TO THE SOUTHWEST CORNER OF THE LICKING BAPTIST BRICK CHURCH SIGN, 35.2 FEET (10.7 M) AZIMUTH 150 DEGREES TO THE TOWNSHIP ROAD SIGN, AND 24.4 FEET (7.4 M) AZIMUTH 234 DEGREES TO A STOP SIGN.

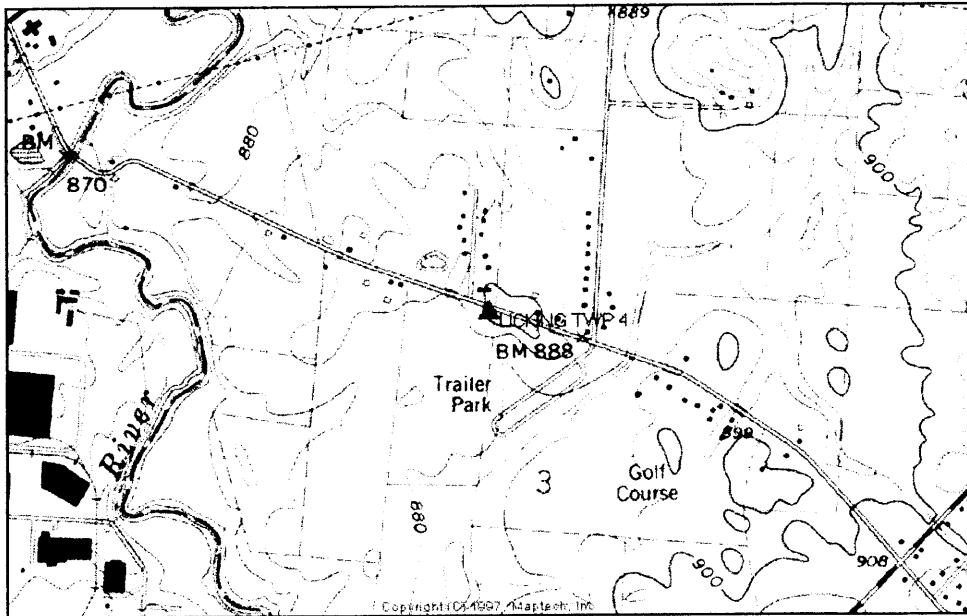
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

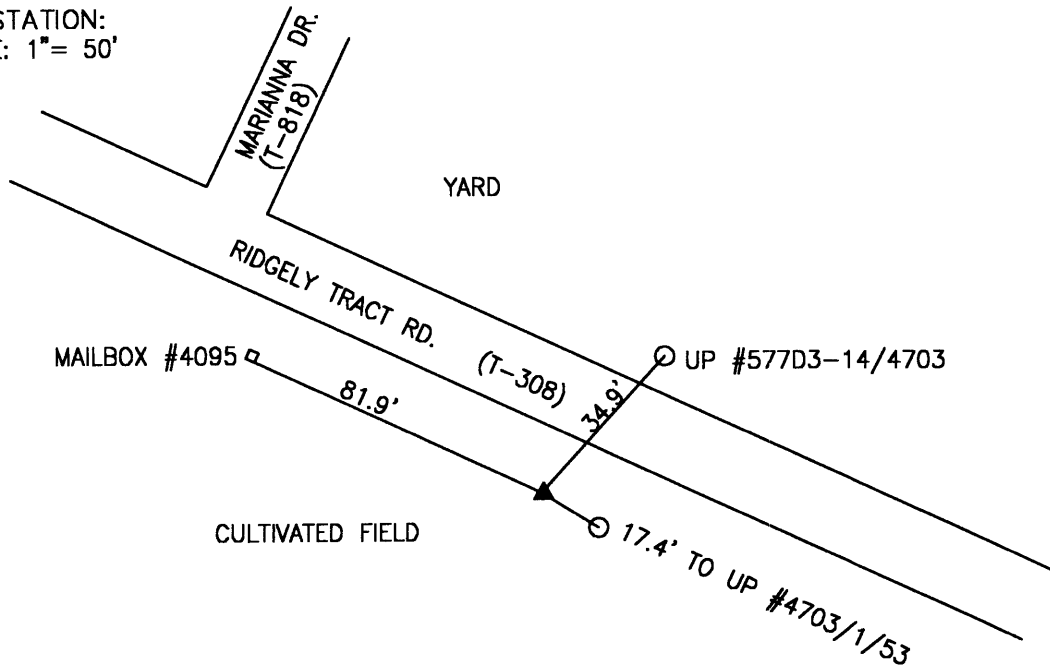
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LICKING TWP 4		1998
N: 722857.803	E: 1979291.837	LAT: 39°59'04.68330" N	LONG: 82°27'41.35833" W
ELEV.: 900.559	(GPS)	COMB. FACTOR: 0.999947735	Ø ANGLE: +0°01'27.97

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1600.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1600  
Designation: LICKING TWP 4

PID:

Latitude: 395904N  
Longitude: 0822741W  
Elevation: 342.2M  
Stamping: LICKING TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHEAST OF THE TOWN OF HEBRON. TO REACH THE STATION FROM THE INTERSECTION OF HEBRON ROAD (SR 79) AND NATIONAL ROAD (US 40) IN THE TOWN OF HEBRON PROCEED NORTH ALONG HEBRON ROAD (SR 79) A DISTANCE OF 2.4 MILES (3.9 KM) TO ITS INTERSECTION WITH RIDGELY TRACT (T-308) . TURN RIGHT AND PROCEED SOUTHEAST ALONG RIDGELY TRACT (T-308) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 250 FEET (76.2 M) EAST OF MARIANNA DRIVE (T-818) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 4 1998. THE STATION IS 34.9 FEET (10.6 M) AZIMUTH 42 DEGREES TO A POWER POLE WITH THE NUMBER 577D3-14/4703, 17.4 FEET (5.3 M) AZIMUTH 122 DEGREES TO A POWER POL WITH THE NUMBER 4703/1/53, 81.9 FEET (25.0 M) AZIMUTH 295 DEGREES TO A MAIL BOX WITH THE NUMBER 4095 AND 6.6 N, AND 37.4 FEET (11.4 M) AZIMUTH 87 DEGREES TO A 48 INCH CMP CULVERT.

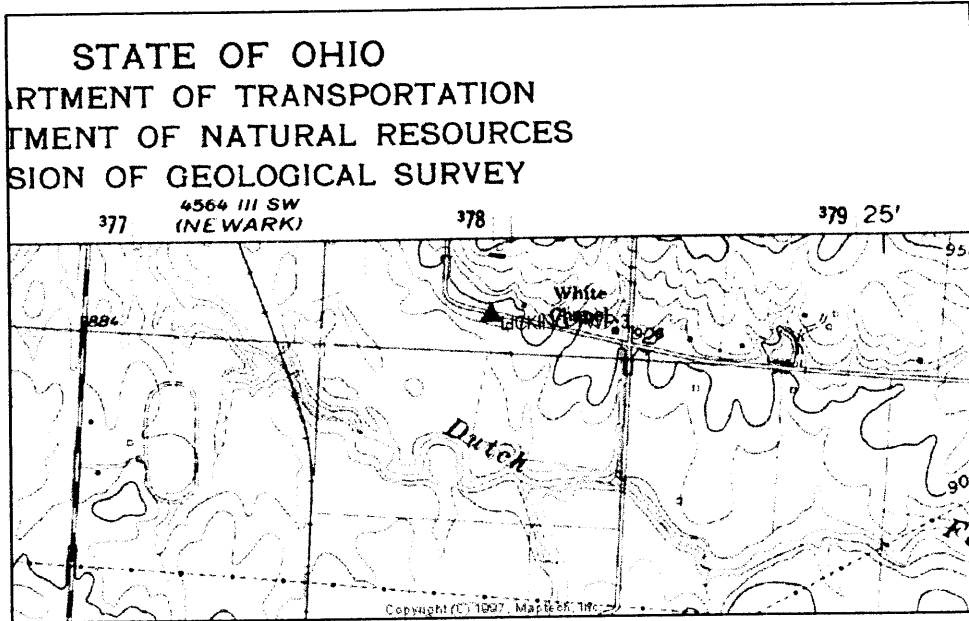
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

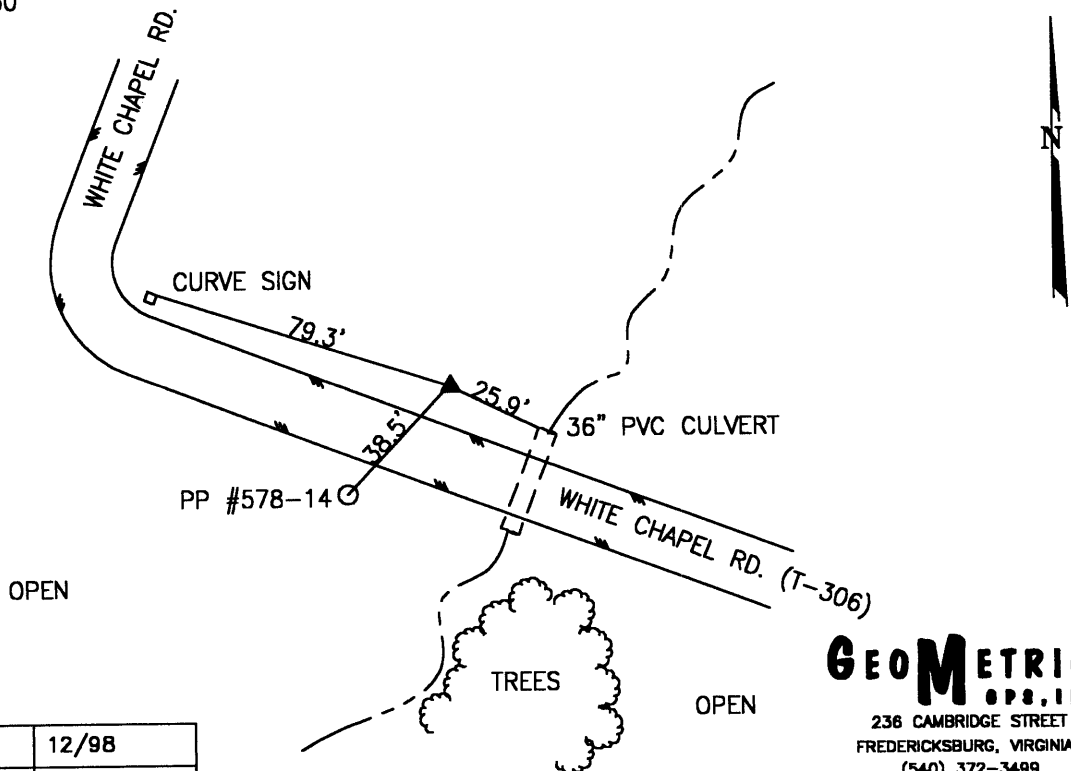
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LICKING TWP 3		1998
N: 727821.275	E: 1988369.059	LAT: 39°59'53.68013" N	LONG: 82°25'44.69410" W
ELEV.: 893.272 (GPS)	COMB. FACTOR: 0.999950601		θ ANGLE: +0°02'41.99

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1610.DWG

**GEOMETRICS**  
OPS, INC.  
238 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1610  
Designation: LICKING TWP 3

PID:

Latitude: 395953N  
Longitude: 0822544W  
Elevation: 343.3M  
Stamping: LICKING TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.7 MILES (6.0 KM) NORTHEAST OF THE TOWN OF HEBRON. TO REACH THE STATION FROM THE INTERSECTION OF HEBRON ROAD (SR 79) AND NATIONAL ROAD (US 40) IN THE TOWN OF HEBRON PROCEED EAST ALONG NATIONAL ROAD (US 40) APPROXIMATELY 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH LAKE DRIVE (CR 304) . TURN LEFT AND PROCEED NORTH ALONG LAKE DRIVE (CR 304) APPROXIMATELY 3.0 MILES (4.8 KM) TO ITS INTERSECTION WITH WHITE CHAPEL ROAD (T-306) . TURN RIGHT AND PROCEED NORTHEAST ALONG WHITE CHAPEL ROAD (T-306) A DISTANCE OF 1.2 MILES (1.9 KM) TO THE STATION ON THE LEFT AT A 90 DEGREES CURVE IN THE ROAD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 3 1998. THE STATION IS 38.5 FEET (11.7 M) AZIMUTH 223 DEGREES TO A POWER POLE WITH THE NUMBER 578-14, 25.9 FEET (7.9 M) AZIMUTH 116 DEGREES TO A 36 INCH PVC CULVERT, AND 79.3 FEET (24.2 M) AZIMUTH 288 DEGREES TO A CURVE SIGN.

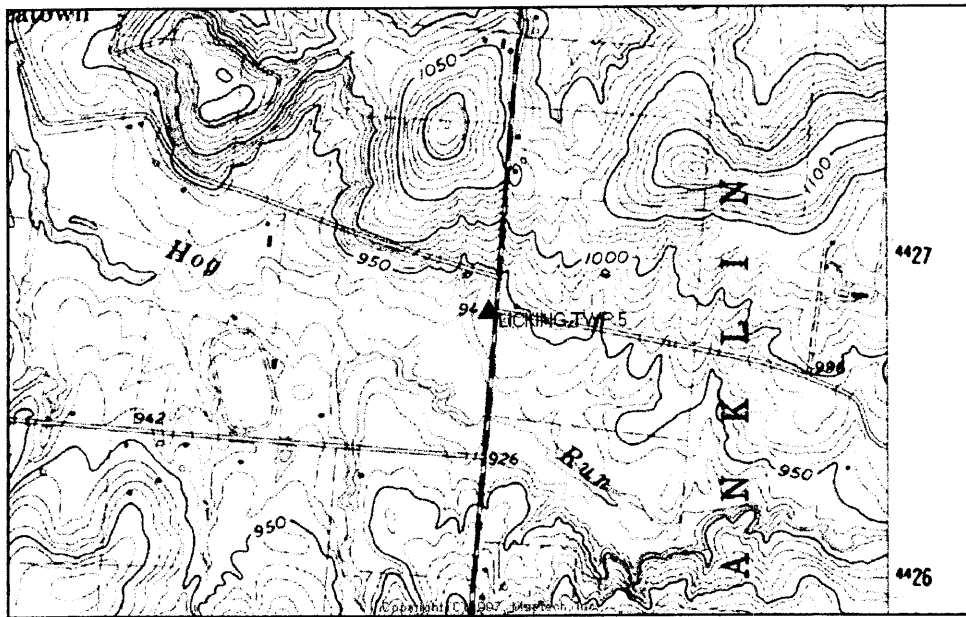
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

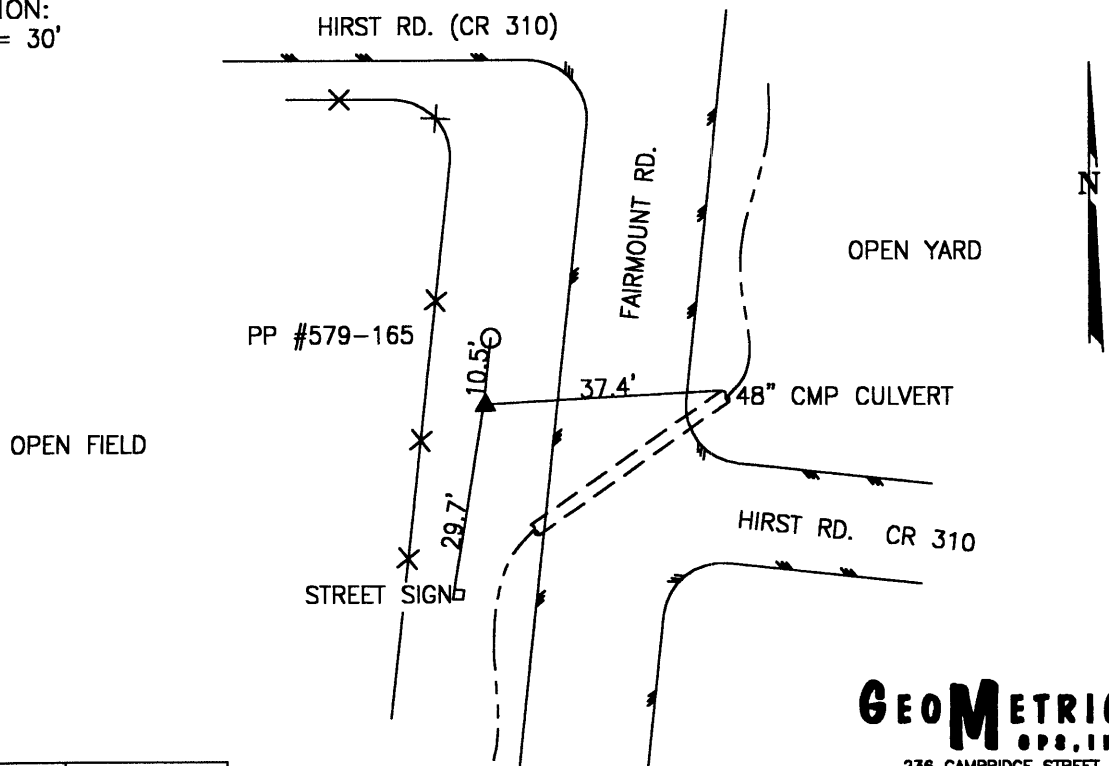
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LICKING TWP 5		1998
N: 723106.729	E: 2000003.981	LAT: 39°59'06.97223" N	LONG: 82°23'15.26763" W
ELEV.: 941.908 (GPS)	COMB. FACTOR: 0.999945878		θ ANGLE: +0°04'16.81

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3488

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1620.DWG

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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1620  
Designation: LICKING TWP 5

PID:

Latitude: 395906N  
Longitude: 0822315W  
Elevation: 356.1M  
Stamping: LICKING TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHEAST OF THE TOWN OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN JACKSONTOWN PROCEED NORTH ALONG JACKSONTOWN ROAD (SR 13) APPROXIMATELY 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH HIRST ROAD (CR 310) . TURN RIGHT AND PROCEED SOUTHEAST ALONG HIRST ROAD (CR 310) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH FAIRMOUNT ROAD (T-323) . TURN RIGHT AND PROCEED SOUTH ALONG FAIRMOUNT ROAD (T-323) A DISTANCE OF 0.1 MILE (0.2 KM) TO ITS INTERSECTION WITH HIRST ROAD (CR 31) AGAIN AND THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 5 1998. THE STATION IS 10.5 FEET (3.2 M) AZIMUTH 06 DEGREES TO A POWER POLE WITH THE NUMBER 579-165, 29.7 FEET (9.1 M) AZIMUTH 189 DEGREES TO A STREET SIGN, AND 37.4 FEET (11.4 M) AZIMUTH 87 DEGREES TO A 48 INCH CMP CULVERT.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

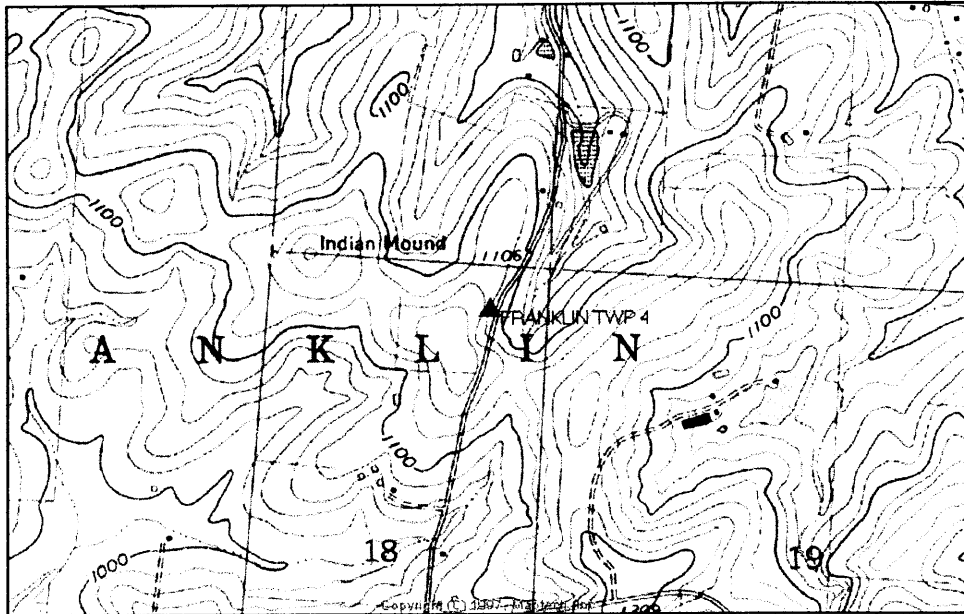
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

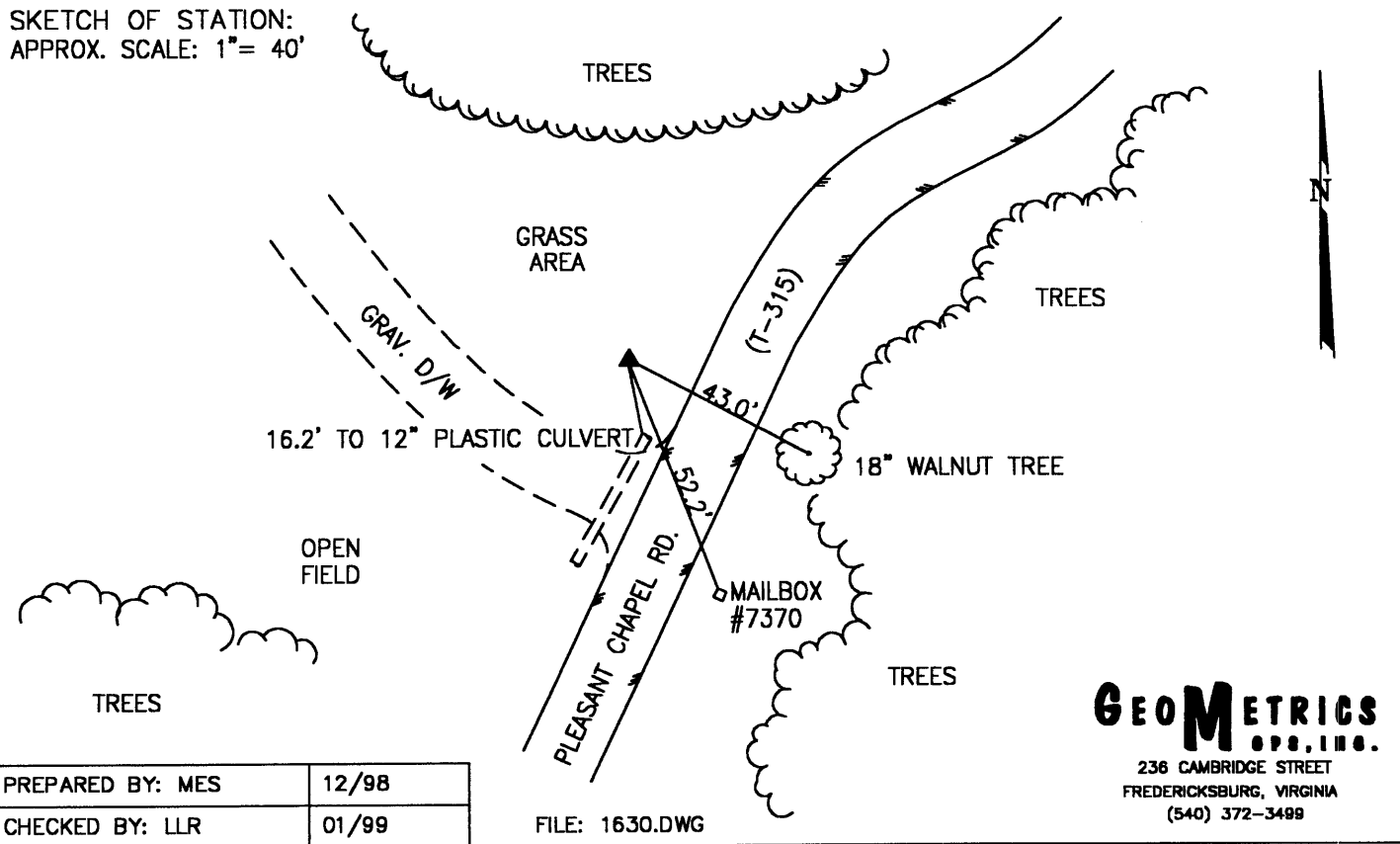
COUNTY	NAME OF STATION	YEAR
LICKING	FRANKLIN TWP 4	1998

N: 722505.253	E: 2015603.307	LAT: 39°59'00.78872" N	LONG: 82°19'54.87751" W
ELEV.: 1119.374 (GPS)	COMB. FACTOR: 0.999937092	Θ ANGLE: +0°06'23.96	

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1630.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1630  
Designation: FRANKLIN TWP 4

PID:

Latitude: 395900N  
Longitude: 0821954W  
Elevation: 351.0M  
Stamping: FRANKLIN TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FRANKLIN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) NORTHEAST OF THE TOWN OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN THE JACKSONTOWN PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 3.6 MILES (5.8 KM) TO ITS INTERSECTION WITH LINNVILLE ROAD (CR 311) . TURN LEFT AND PROCEED NORTHWEST ALONG LINVILLE ROAD (CR 311) A DISTANCE OF 1.4 MILES (2.3 KM) TO ITS INTERSECTION WITH FAIRVIEW ROAD (T-310) . TURN RIGHT AND PROCEED EAST ALONG FAIRVIEW ROAD (T-310) A DISTANCE OF 1.2 MILES (1.9 KM) TO INTERSECTION WITH PLEASANT CHAPEL ROAD (T-315) . TURN LEFT AND PROCEED NORTH ALONG PLEASANT CHAPEL ROAD (T-315) A DISTANCE OF 0.6 MILE (1.0 KM) TO THE STATION ON THE LEFT ON THE WEST SIDE OF THE ROAD ACROSS FROM MAILBOX NUMBER 7370. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FRANKLIN TWP 4 1998. THE STATION IS 52.2 FEET (15.9 M) AZIMUTH 159 DEGREES TO MAIL BOX WITH THE NUMBER 7370, 16.2 FEET (4.9 M) AZIMUTH 169 DEGREES TO A 12 INCH PLASTIC CULVERT, AND 43.0 FEET (13.1 M) AZIMUTH 118 DEGREES TO AN 18 INCH WALNUT TREE.

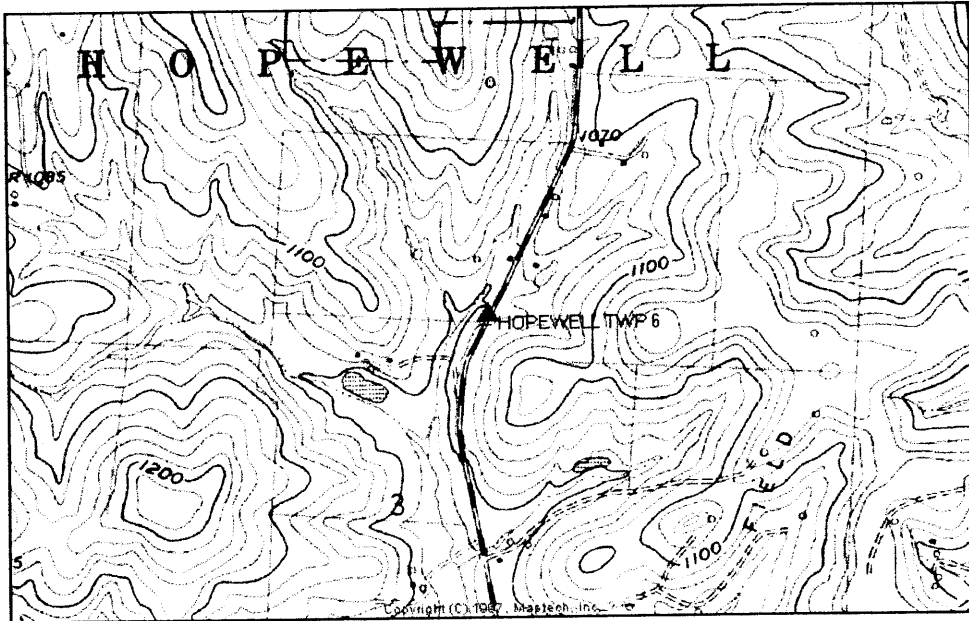
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

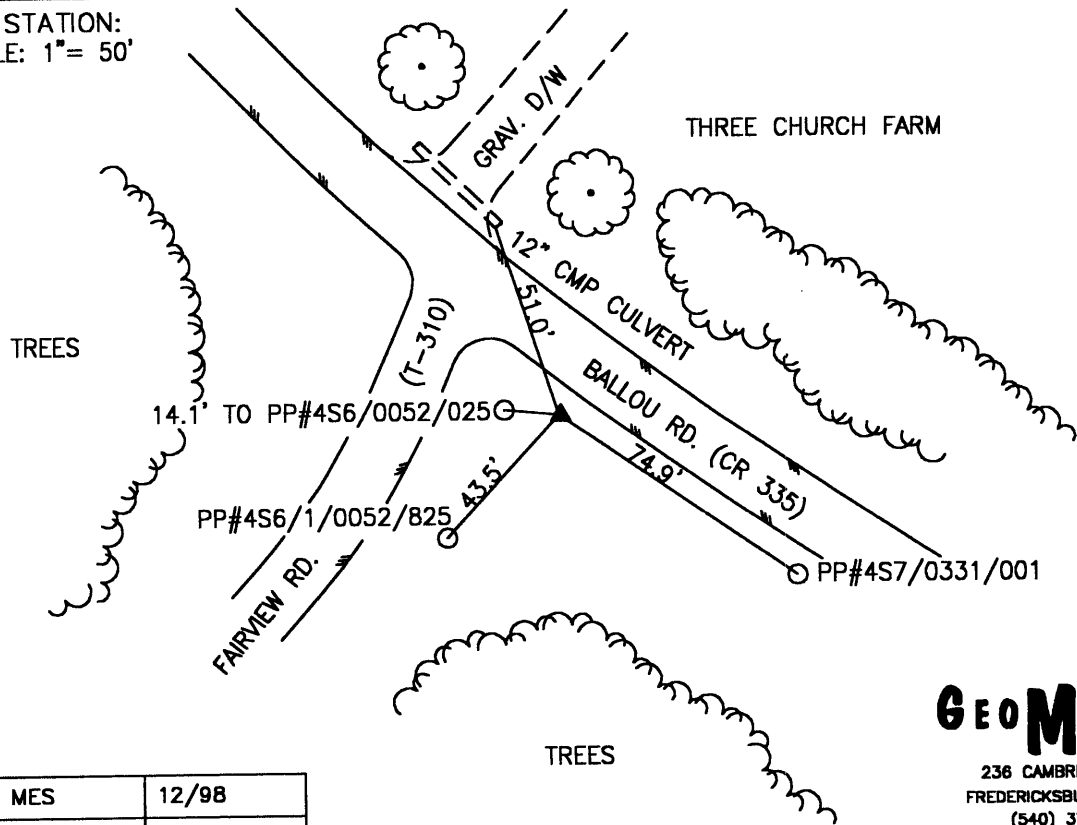
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR	
LICKING	FRANKLIN TWP 5	1998	
N: 721695.087	E: 2024418.785	LAT: 39°58'52.60496" N	LONG: 82°18'01.65096" W
ELEV.: 1239.702	(GPS)	COMB. FACTOR: 0.999930934	θ ANGLE: +0°07'35.80

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1640.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1640  
Designation: FRANKLIN TWP 5

PID:

Latitude: 395852N  
Longitude: 0821801W  
Elevation: 335.6M  
Stamping: FRANKLIN TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN FRANKLIN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHWEST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED WEST ALONG NATIONAL ROAD (US 40) APPROXIMATELY OF 1.5 MILES (2.4 KM) TO ITS INTERSECTION WITH BALLOU ROAD (CR 335) . TURN RIGHT AND PROCEED NORTH ALONG BALLOU ROAD (CR 335) A DISTANCE OF 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH FAIRVIEW ROAD (T-310) AND THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FRANKLIN TWP 5 1998. THE STATION IS 74.9 FEET (22.8 M) AZIMUTH 125 DEGREES TO A POWER POLE WITH THE NUMBER 4S7/0331/001, 43.5 FEET (13.3 M) AZIMUTH 222 DEGREES TO A POWER POLE 4S6/1/0052/825, 14.1 FEET (4.3 M) AZIMUTH 275 TO A POWER POLE WITH THE NUMBER 4S6/0052/025, AND 51.0 FEET (15.5 M) AZIMUTH 342 DEGREES TO A 12 INCH CMP CULVERT.

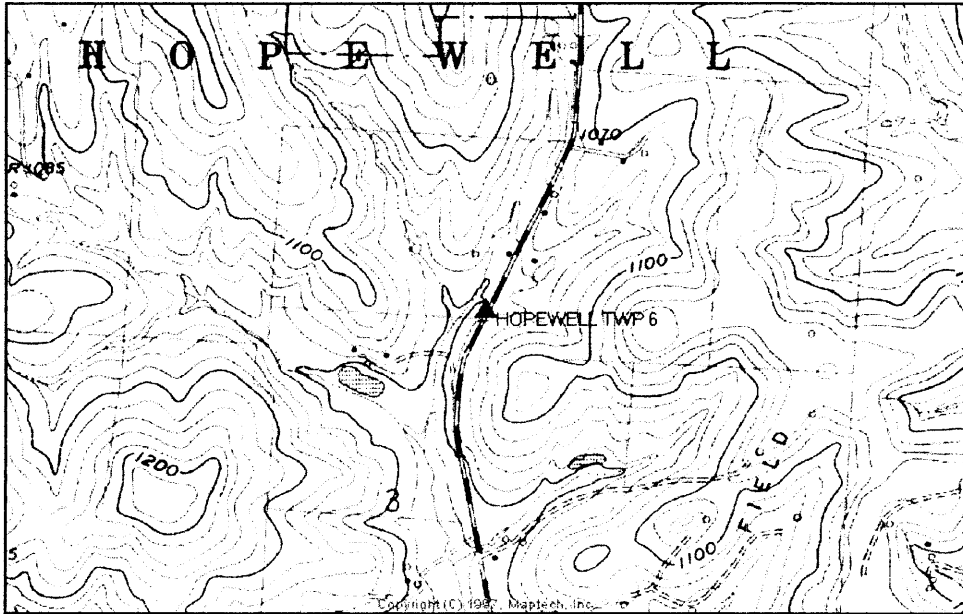
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

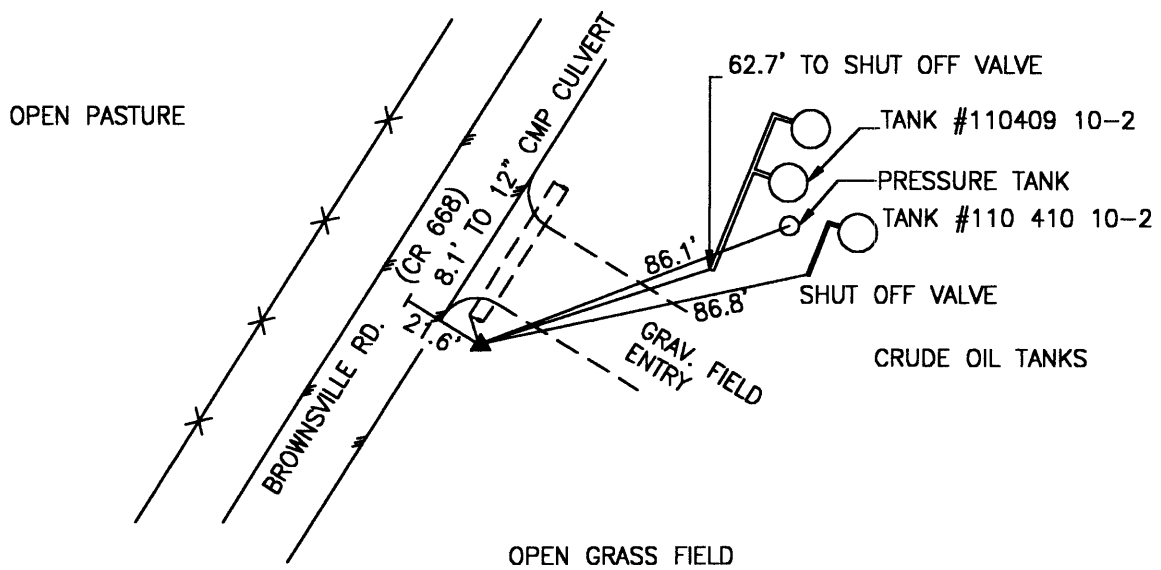
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HOPEWELL TWP 6		1998
N: 719658.588	E: 2033840.048	LAT: 39°58'32.25628" N	LONG: 82°16'00.69071" W
ELEV.: 1018.157	(GPS)	COMB. FACTOR: 0.999940486	Θ ANGLE: +0°08'52.55

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1650.DWG

**GEOMETRICS**  
 ops, inc.  
 238 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1650  
Designation: HOPEWELL TWP 6

PID:

Latitude: 395832N  
Longitude: 0821600W  
Elevation: 285.5M  
Stamping: HOPEWELL TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTH OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED NORTH ALONG BROWNSVILLE ROAD (CR 668) A DISTANCE OF 2.1 MILES (3.4 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HOPEWELL TWP 6 1998. THE STATION IS 8.1 FEET (2.5 M) AZIMUTH 344 DEGREES TO A 12 INCH CMP CULVERT, 62.7 FEET (19.1 M) AZIMUTH 72 DEGREES TO A SHUT OFF VALVE, 86.8 FEET (26.5 M) AZIMUTH 78 DEGREES TO ANOTHER SHUT OFF VALVE, 86.1 FEET (26.2 M) AZIMUTH 69 DEGREES TO A PRESSURE TANK AND 21.6 FEET (6.6 M) TO THE CENTERLINE OF BROWNSVILLE ROAD.

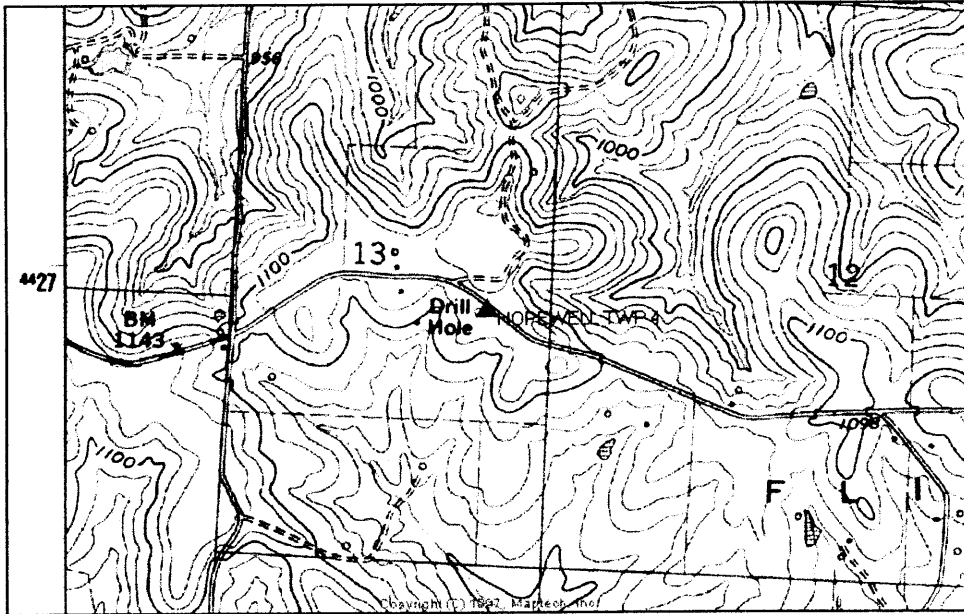
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

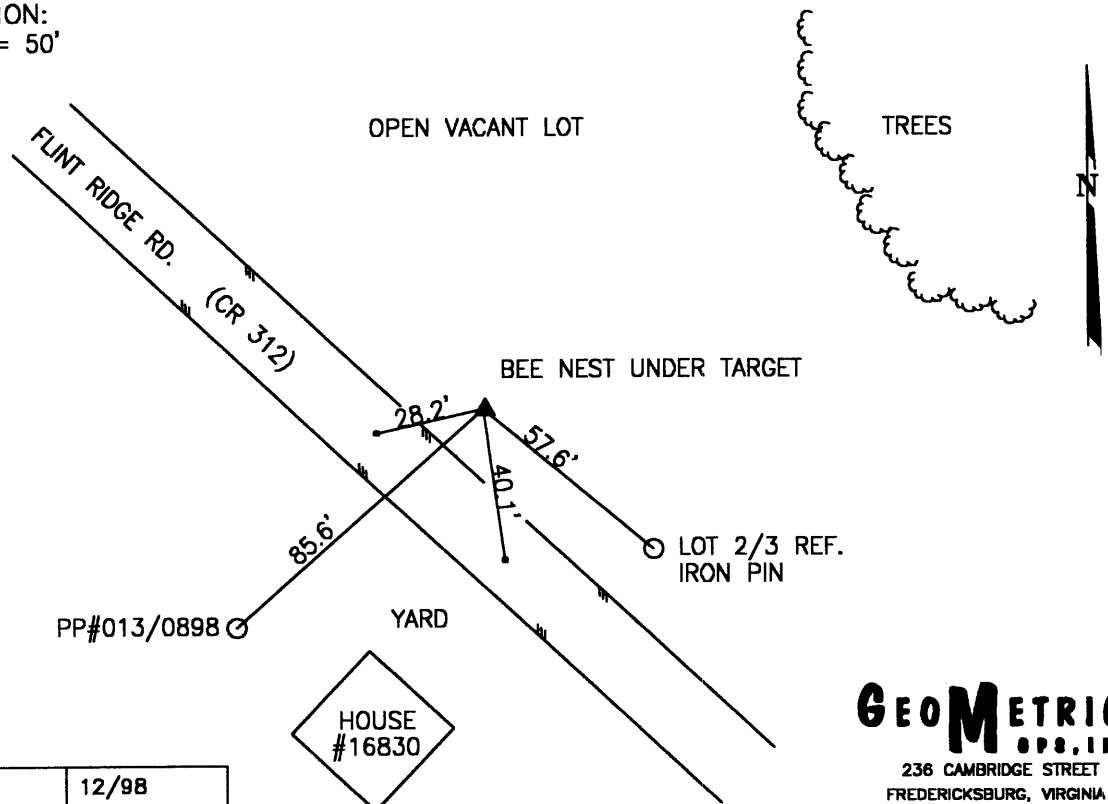
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	HOPEWELL TWP 4		1998
N: 723940.435	E: 2042461.242	LAT: 39°59'14.33684" N	LONG: 82°14'09.78914" W
ELEV.: 1130.421	(GPS)	COMB. FACTOR: 0.999937254	θ ANGLE: +0°10'02.92

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1660.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1660  
Designation: HOPEWELL TWP 4

PID:

Latitude: 395914N  
Longitude: 0821409W  
Elevation: 321.4M  
Stamping: HOPEWELL TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHEAST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE SERVICE ROAD AND OLD US 40. TURN LEFT AND PROCEED EAST ALONG OLD US 40 A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH POPLAR FORKS ROAD (CR 339) . TURN LEFT AND PROCEED NORTH ALONG POPLAR FORKS ROAD (CR 339) A DISTANCE OF 2.6 MILES (4.2 KM) TO ITS INTERSECTION WITH FLINT RIDGE ROAD (CR 312) . TURN LEFT AND PROCEED WEST ALONG FLINT ROAD (CR 312) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE OPPOSITE SIDE OF THE ROAD FROM HOUSE NUMBER 16830. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HOPEWELL TWP 4 1998. THE STATION IS 40.1 FEET (12.2 M) AZIMUTH 172 DEGREES TO A NAIL IN THE PAVEMENT, 28.2 FEET (8.6 M) AZIMUTH 257 DEGREES TO A NAIL IN THE PAVEMENT, 85.6 FEET (26.1 M) AZIMUTH 228 DEGREES TO A POWER POLE WITH THE NUMBER 013/0898, AND 57.6 FEET (17.6 M) AZIMUTH 130 DEGREES TO A LOT 2/3 REFERENCE IRON PIN.

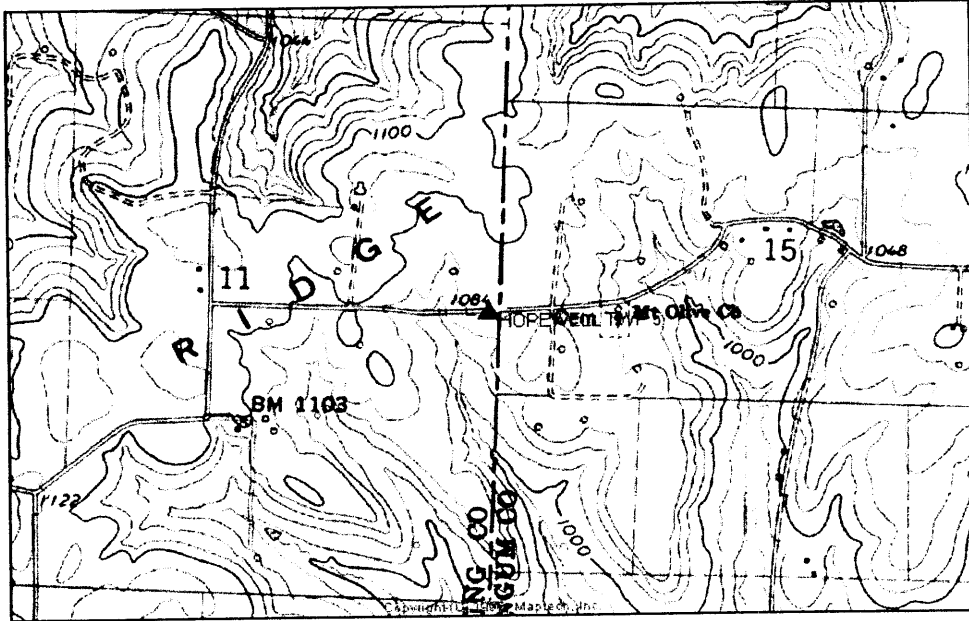
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

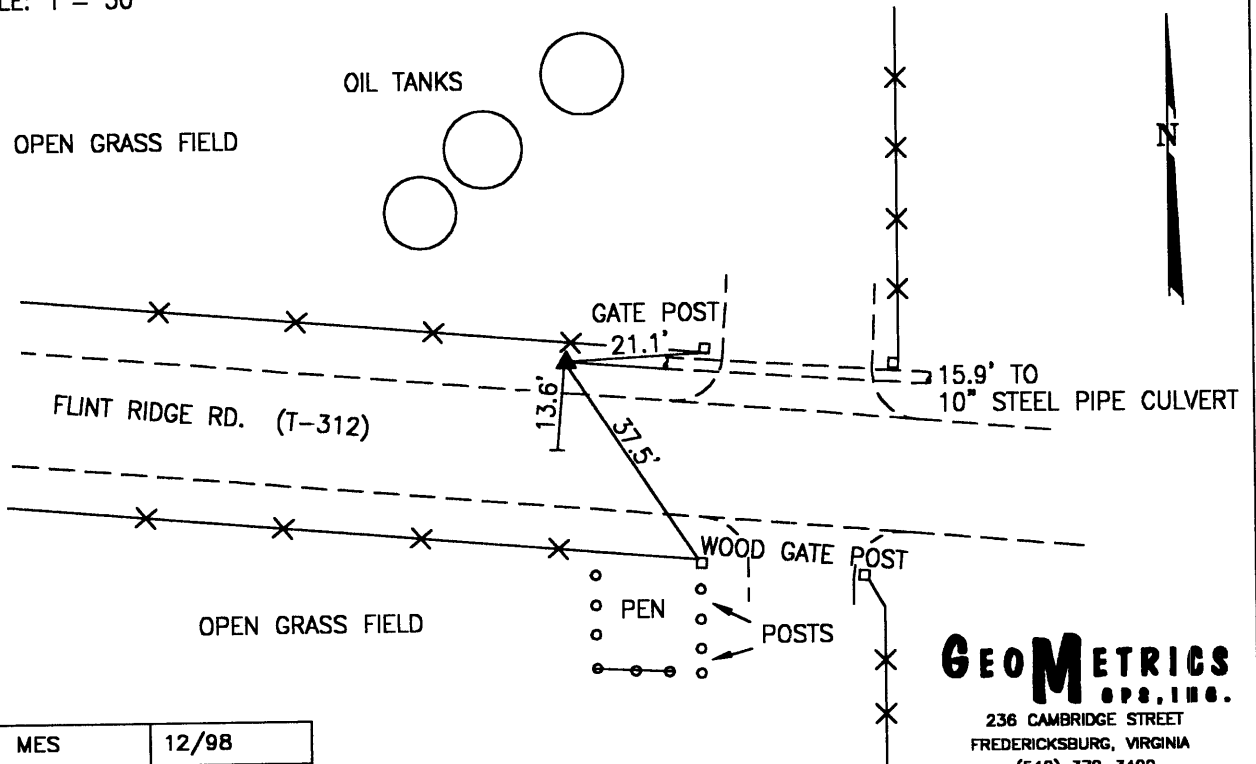
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR	
LICKING	HOPEWELL TWP 5	1998	
N: 723746.555	E: 2053458.744	LAT: 39°59'12.07954" N	LONG: 82°11'48.50901" W
ELEV.: 1083.685	(GPS)	COMB. FACTOR: 0.999939370	θ ANGLE: +0°11'32.57

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1670.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1670  
Designation: HOPEWELL TWP 5

PID:

Latitude: 395912N  
Longitude: 0821148W  
Elevation: 269.6M  
Stamping: HOPEWELL TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) NORTHEAST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.0 MILE (1.6 KM) TO THE SERVICE ROAD AND OLD US 40. TURN LEFT AND PROCEED EAST ALONG OLD US 40 A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH POPLAR FORKS ROAD (CR 339) . TURN LEFT AND PROCEED NORTH ALONG POPLAR FORKS ROAD (CR 339) A DISTANCE OF 2.6 MILES (4.2 KM) TO ITS INTERSECTION WITH FLINT RIDGE ROAD (CR 312) . TURN RIGHT AND PROCEED EAST ALONG FLINT ROAD (CR 312) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH GRATIOT ROAD (T-278) . TURN LEFT AND PROCEED NORTH ALONG FLINT RIDGE ROAD (T-312) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH VIA KEN ROAD (T-292) AND FLINT RIDGE ROAD (T-312) . TURN RIGHT AND PROCEED EAST ALONG FLINT RIDGE ROAD (T-312) A DISTANCE OF 0.5 MILE (0.8 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED HOPEWELL TWP 5 1998. THE STATION IS 21.1 FEET (6.4 M) AZIMUTH 87 DEGREES TO A WOOD GATE POST, 15.9 FEET (4.8 M) AZIMUTH 95 DEGREES TO A 10 INCH STEEL PIPE CULVERT, 37.5 FEET (11.4 M) AZIMUTH 147 DEGREES TO ANOTHER WOOD GATE POST, AND 13.6 FEET (4.1 M) NORTH FROM THE CENTERLINE OF FLINT RIDGE ROAD (T-312) .

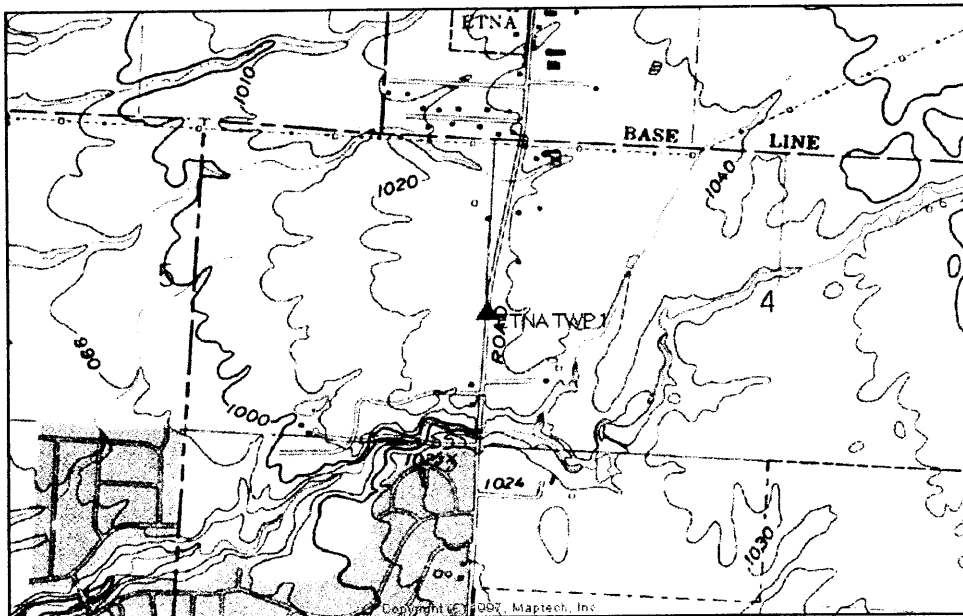
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

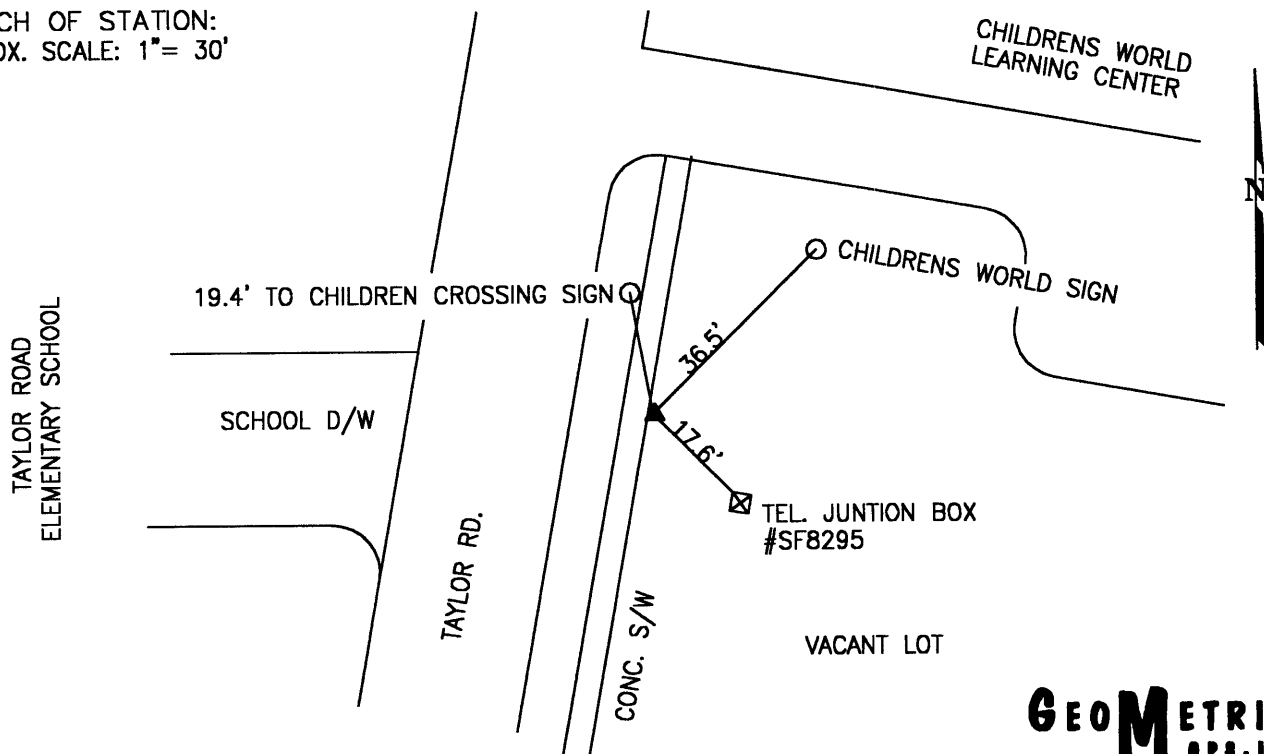
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 1		1998
N: 718210.960	E: 1892792.181	LAT: 39°58'17.66464" N	LONG: 82°46'12.42953" W
ELEV.: 1024.798 (GPS)	COMB. FACTOR: 0.999939441		θ ANGLE: -0°10'17.02

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1680.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1680  
Designation: ETNA TWP 1

PID:

Latitude: 395817N  
Longitude: 0824612W  
Elevation: 269.8M  
Stamping: ETNA TWP 1 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THE CITY OF PATASKALA IN LICKING COUNTY, OHIO ABOUT 4.5 MILES (7.2 KM) NORTHWEST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN ETNA PROCEED WEST ALONG NATIONAL ROAD (US 40) APPROXIMATELY OF 4.8 MILES (7.7 KM) TO ITS INTERSECTION WITH TAYLOR ROAD (T-169) . TURN RIGHT AND PROCEED NORTH ALONG TAYLOR ROAD (T-169) A DISTANCE OF 1.2 MILES (1.9 KM) TO THE STATION ON THE RIGHT NEAR TAYLOR ROAD ELEMENTARY SCHOOL. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ETNA TWP 1 1998. THE STATION IS 19.4 FEET (5.9 M) AZIMUTH 350 DEGREES TO A CHILDREN CROSSING SIGN, 36.5 FEET (11.1 M) AZIMUTH 45 DEGREES TO A CHILDRENS WORLD SIGN, 17.6 FEET (5.4 M) AZIMUTH 135 DEGREES TO A TELEPHONE JUNCTION BOX WITH THE NUMBER SF8295 AND 1.0 FEET (0.3 M) EAST FROM THE EDGE OF THE PAVEMENT OF SIDEWALK.

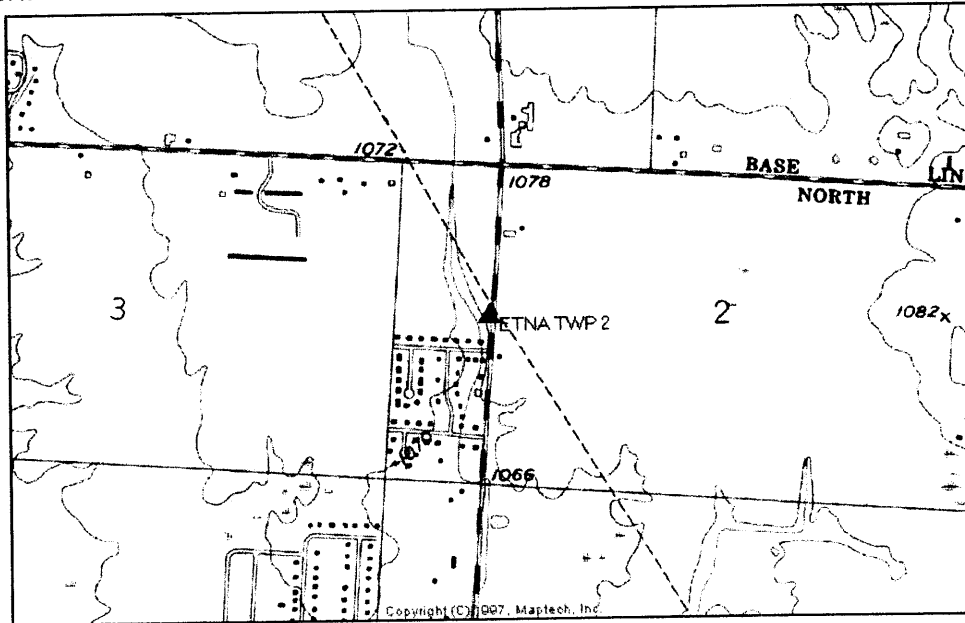
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

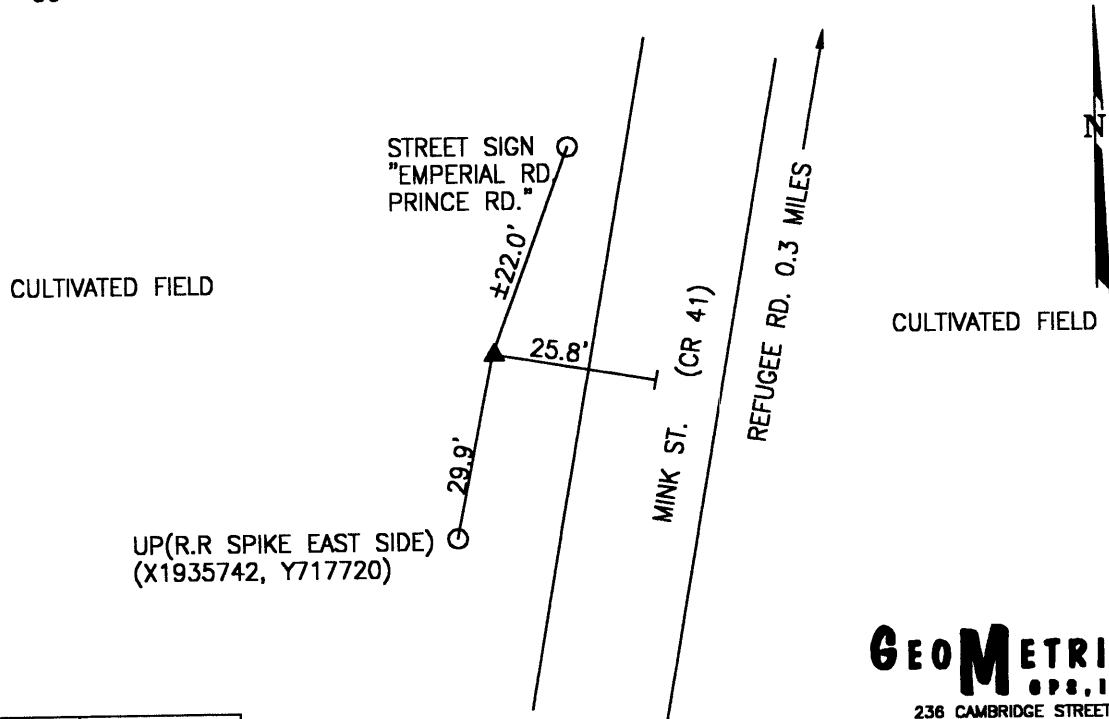
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	ETNA TWP 2	1998
N: 717752.799	E: 1904281.860	LAT: 39°58'13.45076" N LONG: 82°43'44.83604" W
ELEV.: 1070.054 (GPS)	COMB. FACTOR: 0.999937072	θ ANGLE: -0°08'43.37

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1690.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1690  
Designation: ETNA TWP 2

PID:

Latitude: 395813N  
Longitude: 0824344W  
Elevation: 267.4M  
Stamping: ETNA TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) NORTHWEST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN ETNA PROCEED WEST ALONG NATIONAL ROAD (US 40) APPROXIMATELY 2.5 MILES (4.0 KM) TO ITS INTERSECTION WITH MINK STREET (CR 41) . TURN RIGHT AND PROCEED NORTH ALONG MINK STREET (CR 41) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 0.3 MILE (0.5 KM) SOUTH OF REFUGEE ROAD (T-30) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED ETNA TWP 2 1998. THE STATION IS 29.9 FEET (9.1 M) AZIMUTH 191 DEGREES TO MAG NAIL IN THE EAST SIDE OF UTILITY POLE WITH THE NUMBER X1935742 Y717720, 25.8 FEET (7.9 M) WEST FROM THE CENTERLINE OF MINK STREET, AND APPROXIMATELY 220 FEET (67.1 M) SOUTHWEST FROM AN EMPERIAL ROAD/PRINCE ROAD SIGN.

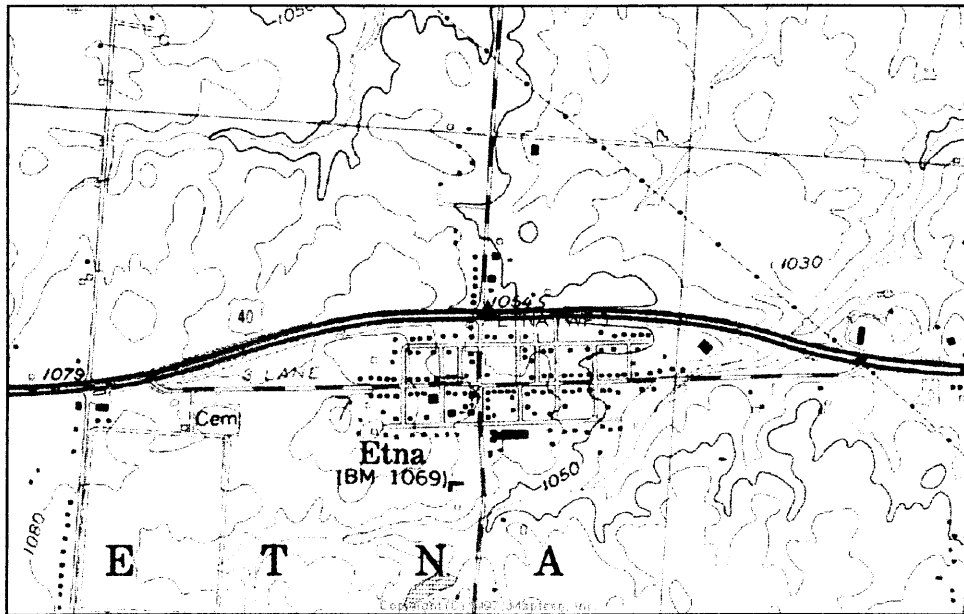
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

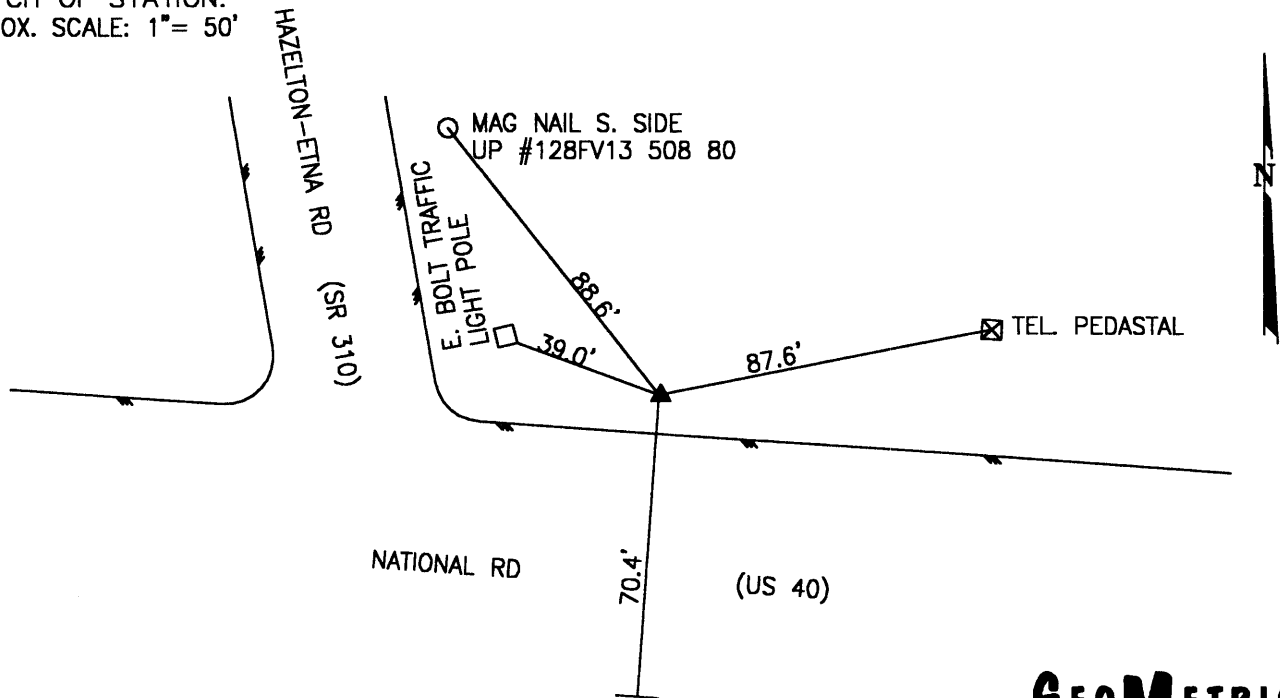
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 3		1998
N: 713644.566	E: 1917404.348	LAT: 39°57'33.14655" N	LONG: 82°40'56.18108" W
ELEV.: 1052.075 (GPS)	COMB. FACTOR: 0.999935950		θ ANGLE: -0°06'56.35

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



**GEOMETRICS**  
GPS, INC.

236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1700.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1700  
Designation: ETNA TWP 3

PID:

Latitude: 395733N  
Longitude: 0824056W  
Elevation: 248.5M  
Stamping: ETNA TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO IN THE TOWN OF ETNA. THE STATION IS IN THE NORTHEAST CORNER OF THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ETNA TWP 3 1998. THE STATION IS 39.0 FEET (11.9 M) AZIMUTH 290 DEGREES TO THE EAST BOLT OF A TRAFFIC LIGHT POLE, 88.6 FEET (27.0 M) AZIMUTH 322 DEGREES TO A MAGNAIL IN THE SOUTH SIDE OF A UTILITY POLE WITH THE NUMBER 128FV13-508 80, 87.6 FEET (26.7 M) AZIMUTH 79 DEGREES TO A TELEPHONE PEDESTAL, AND 70.4 FEET (21.5 M) NORTH FROM THE CENTERLINE OF NATIONAL ROAD.

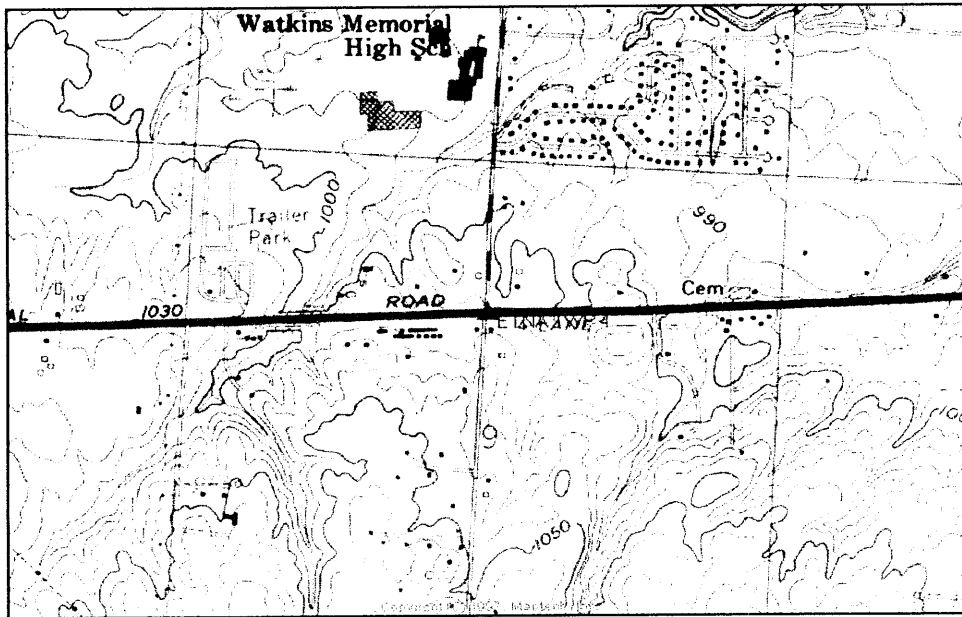
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

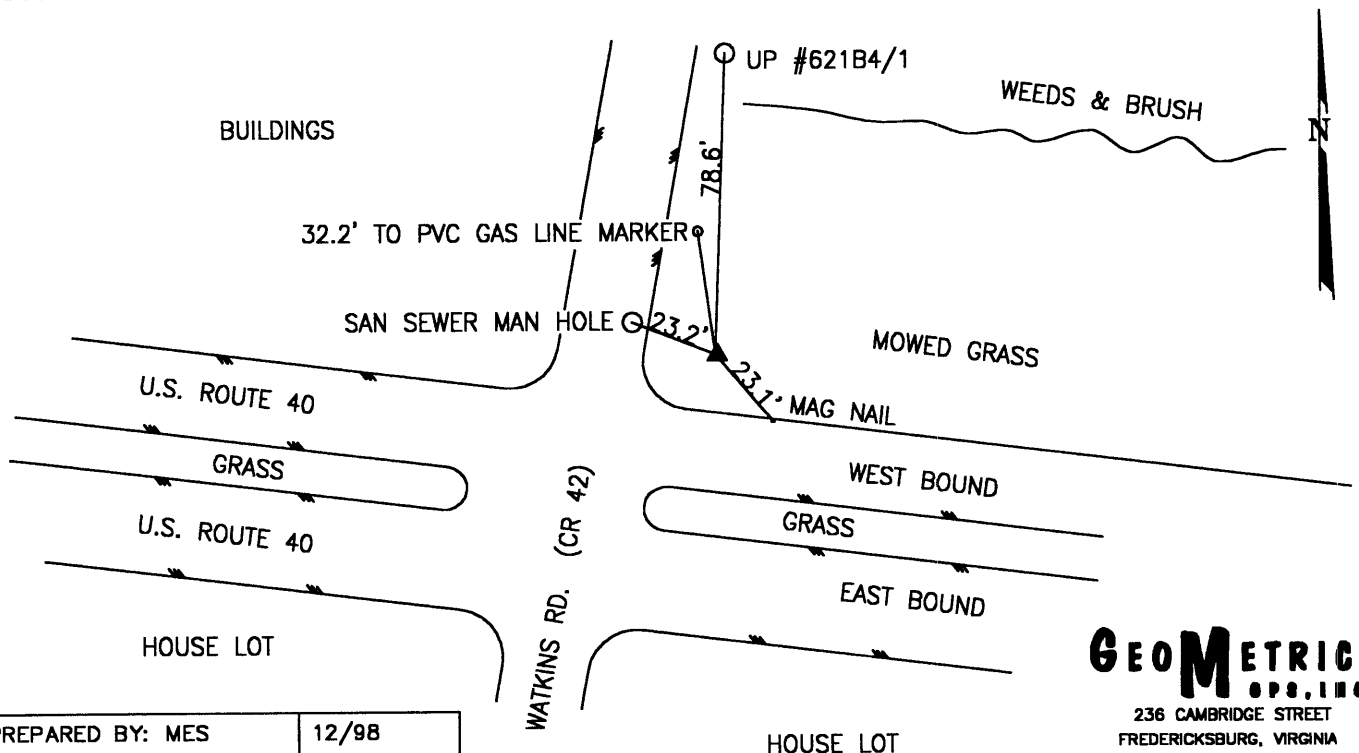
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 4		1998
N: 713230.379	E: 1927308.888	LAT: 39°57'29.23176" N	LONG: 82°38'48.97649" W
ELEV.: 1011.008	(GPS)	COMB. FACTOR: 0.999937720	θ ANGLE: -0°05'35.64

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1710.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1710  
Designation: ETNA TWP 4

PID:

Latitude: 395729N  
Longitude: 0823848W  
Elevation: 280.3M  
Stamping: ETNA TWP 4 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) EAST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN ETNA PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH WATKINS ROAD (CR 42) . TURN LEFT AND THE STATION ON THE RIGHT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED ETNA TWP 4 1998. THE STATION IS 23.1 FEET (7.0 M) AZIMUTH 140 DEGREES TO A MAG NAIL IN THE NORTH EDGE OF PAVEMENT TO US 40, 23.2 FEET (7.1 M) AZIMUTH 291 DEGREES TO A SANITARY SEWER MANHOLE COVER, 78.6 FEET (24.0 M) AZIMUTH 359 DEGREES TO A UTILITY POLE WITH THE NUMBER 621B4/1, AND 32.2 FEET (9.8 M) AZIMUTH 352 DEGREES TO A PVC GAS LINE MARKER.

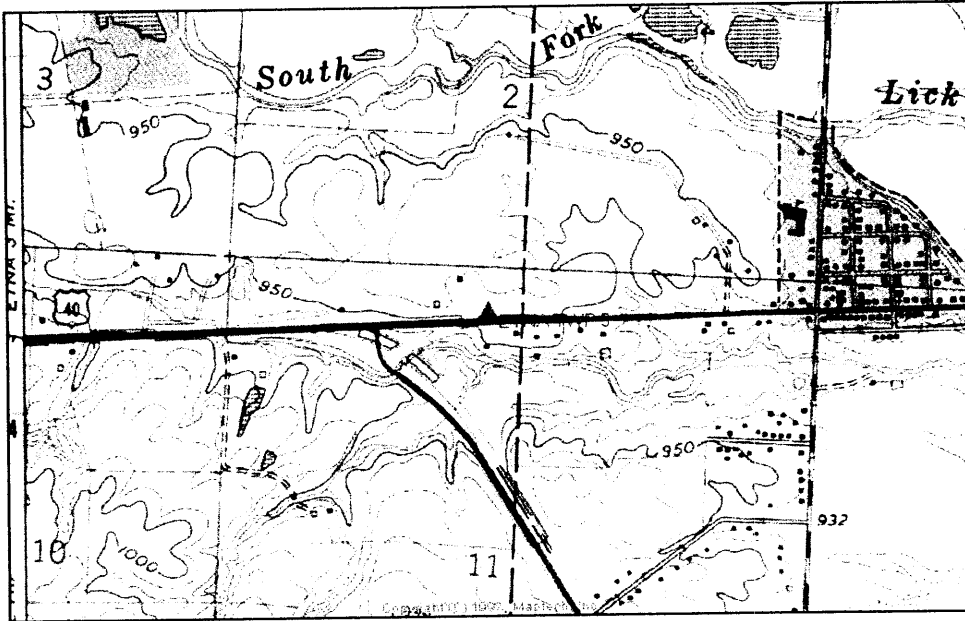
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

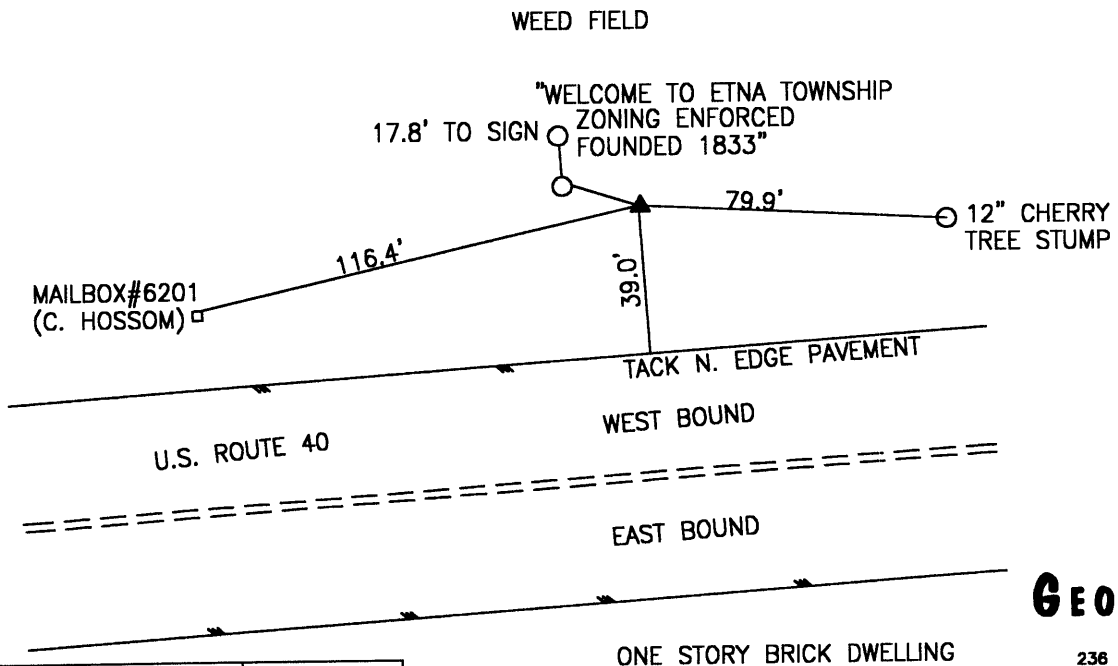
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	ETNA TWP 5	1998
N: 713586.541	E: 1937748.027	LAT: 39°57'32.89815" N LONG: 82°36'34.92273" W
ELEV.: 951.829	(GPS) COMB. FACTOR: 0.999940724	Ø ANGLE: -0°04'10.58

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1720.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1720  
Designation: ETNA TWP 5

PID:

Latitude: 395732N  
Longitude: 0823634W  
Elevation: 284.4M  
Stamping: ETNA TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.0 MILES (6.4 KM) EAST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN ETNA PROCEED EAST ALONG NATIONAL ROAD (US 40) APPROXIMATELY 4.0 MILES (6.4 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ETNA TWP 5 1998. THE STATION IS 79.9 FEET (24.4 M) AZIMUTH 93 DEGREES TO A 12 INCH DIAMETER CHERRY TREE STUMP, 39.0 FEET (11.9 M) AZIMUTH 180 DEGREES TO EDGE OF THE PAVEMENT TO U.S. 40, 17.8 FEET (5.4 M) AZIMUTH 288 DEGREES TO THE SOUTH POST OF A WELCOME TO ETNA TOWNSHIP ZONING ENFORCED FOUNDED 1833 SIGN, AND 116.4 FEET (35.5 M) AZIMUTH 257 TO A MAIL BOX WITH THE NUMBER 6201 AND THE NAME C HOSSOM.

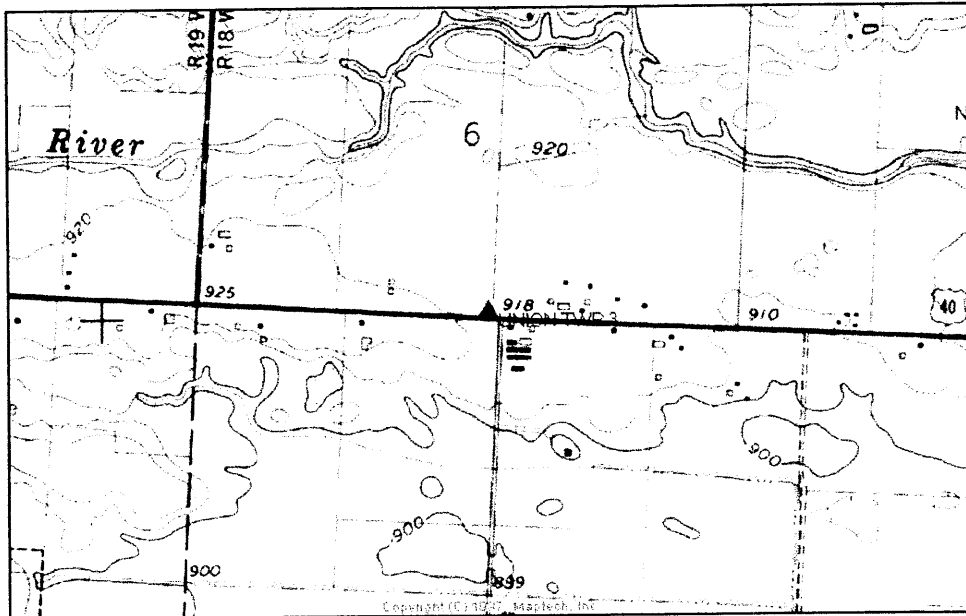
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

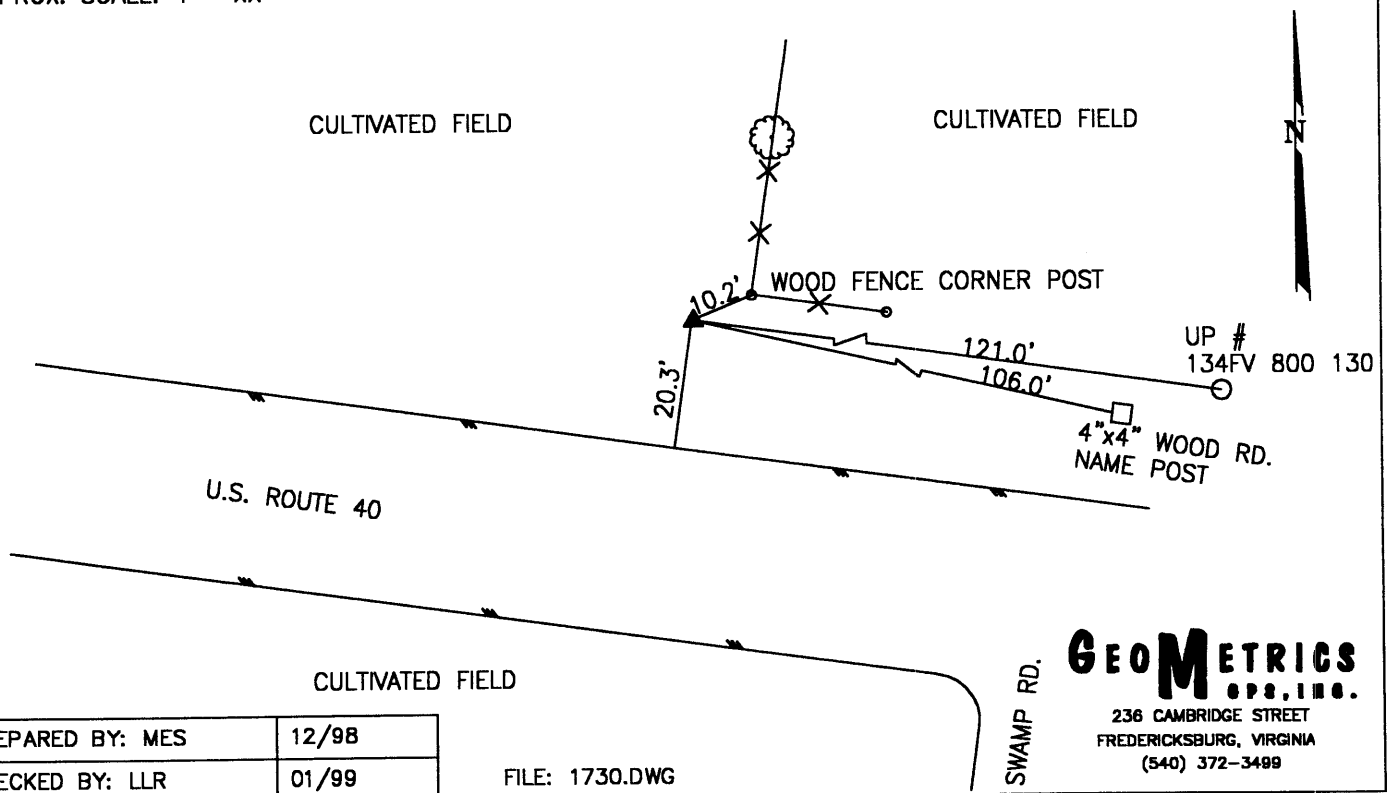
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 6		1998
N: 713359.010	E: 1948722.064	LAT: 39°57'30.75782" N	LONG: 82°34'13.98983" W
ELEV.: 915.379	(GPS)	COMB. FACTOR: 0.999942360	θ ANGLE: -0°02'41.16

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = XX



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1730.DWG

**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* O R I G I N A L                    D E S C R I P T I O N \*\*\*\*\*

SSN: 1730  
Designation: UNION TWP 3

PID:

Latitude: 395730N  
Longitude: 0823413W  
Elevation: 294.7M  
Stamping: UNION TWP 3 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) WEST OF THE TOWN OF LURAY. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND LANCASTER ROAD (SR 37) IN LURAY PROCEED WEST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 2.1 MILES (3.4 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 100 FEET (30.5 M) WEST OF SWAMP ROAD (T-144) AND BETWEEN A DITCH AND FIELD LINE AT THE SOUTHEAST CORNER OF FIELD. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED UNION TWP 3 1998. THE STATION IS 10.2 FEET (3.1 M) AZIMUTH 68 DEGREES TO A WOOD FENCE CORNER POST, 121.0 FEET (36.9 M) AZIMUTH 98 DEGREES TO A UTILITY POLE WITH THE NUMBER 134FV 800 130, 106.0 FEET (32.3 M) AZIMUTH 103 DEGREES TO A FOUR BY FOUR WOOD ROAD NAME POST, AND 20.3 FEET (6.2 M) FROM THE EDGE OF THE PAVEMENT OF NATIONAL ROAD.

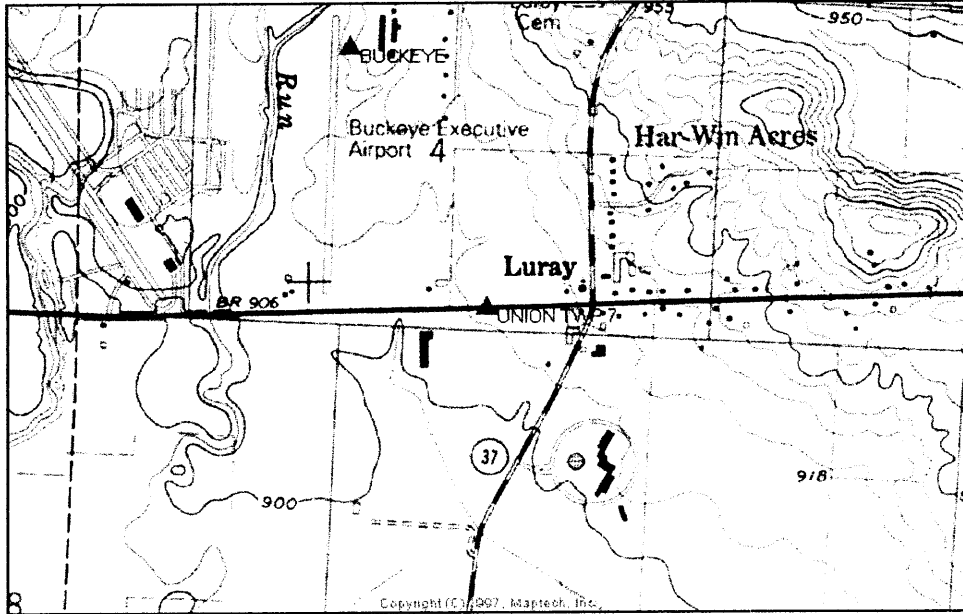
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

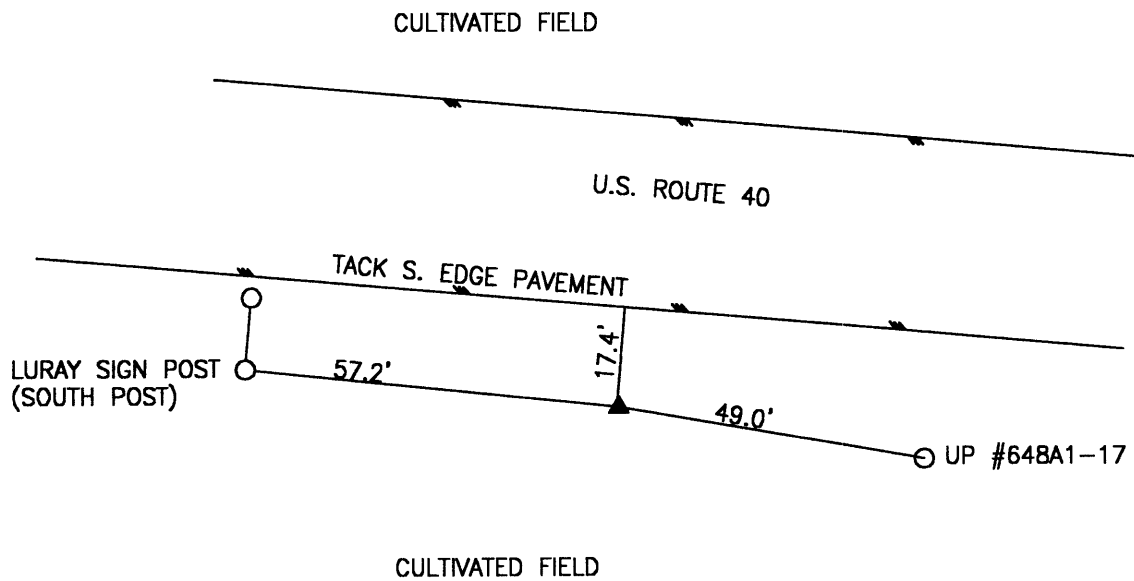
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	UNION TWP 7	1998
N: 713053.699	E: 1958502.580	LAT: 39°57'27.79741" N LONG: 82°32'08.38613" W
ELEV.: 909.152 (GPS)	COMB. FACTOR: 0.999942513	Θ ANGLE: -0°01'21.46

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1740.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1740  
Designation: UNION TWP 7

PID:

Latitude: 395727N  
Longitude: 0823208W  
Elevation: 263.5M  
Stamping: UNION TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT •

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.15 MILE (0.24 KM) WEST OF THE TOWN OF LURAY. TO REACH THE STATION FROM THE INTERSECTION OF LANCASTER ROAD (SR 37) AND NATIONAL ROAD (US 40) IN LURAY PROCEED WEST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 0.15 MILE (0.24 KM) TO THE STATION ON THE LEFT APPROXIMATELY 57 FEET (17.4 M) EAST OF LURAY SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED UNION TWP 7 1998. THE STATION IS 49.0 FEET (14.9 M) AZIMUTH 100 DEGREES TO A UTILITY POLE WITH THE NUMBER 648A1-17, 57.2 FEET (17.4 M) AZIMUTH 276 FROM THE SOUTH POST OF A LURAY SIGN, AND 17.4 FEET (5.3 M) FROM THE EDGE OF THE PAVEMENT OF US 40.

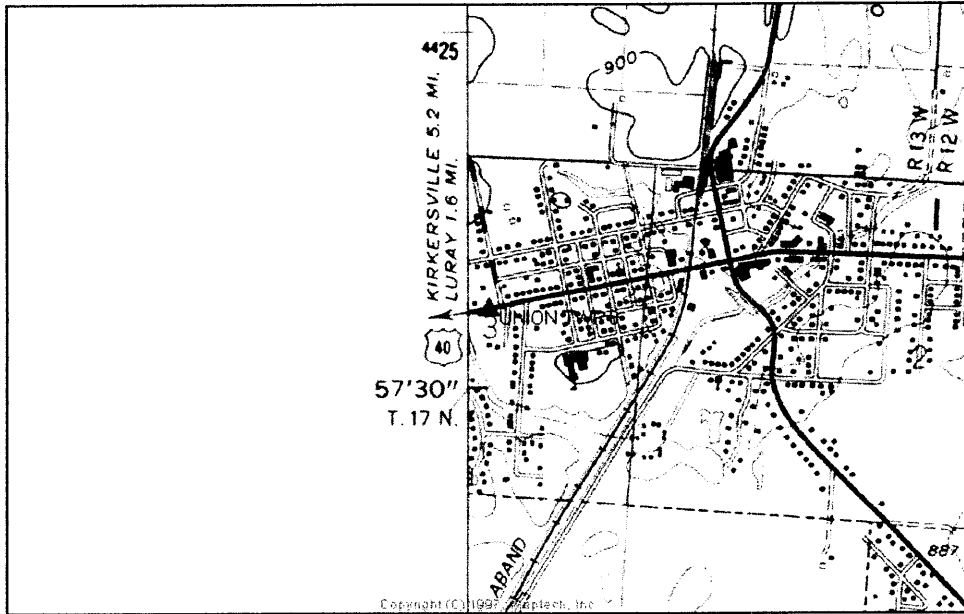
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

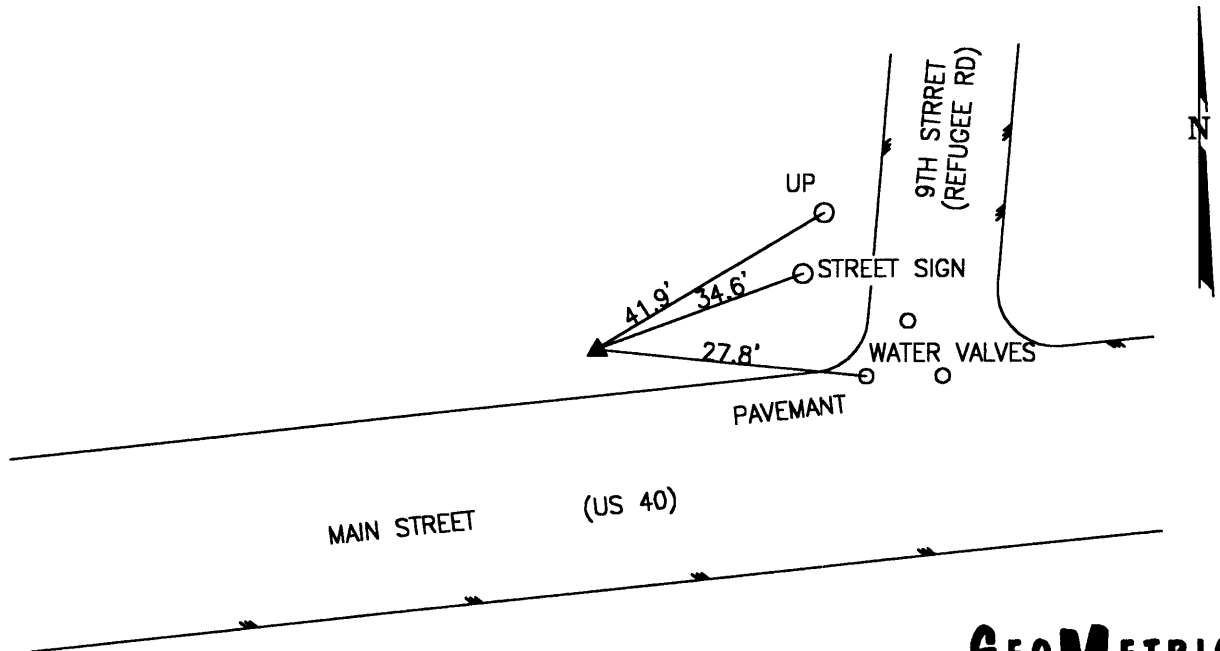
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 8		1998
N: 714062.075	E: 1968765.126	LAT: 39°57'37.78223" N	LONG: 82°29'56.59514" W
ELEV.: 891.763 (GPS)	COMB. FACTOR: 0.999943829		Θ ANGLE: +0°00'02.16

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1750.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1750

Designation: UNION TWP 8

PID:

Latitude: 395737N

State: OH

Longitude: 0822956W

County: LICKING

Elevation: 307.6M

Disk From: OH-089

Stamping: UNION TWP 8 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO IN THE TOWN OF  
HEBRON. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40)  
AND HEBRON ROAD (SR 79) IN HEBRON PROCEED WEST ALONG NATIONAL ROAD (US 40) A  
DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH 9TH STREET (REFUGEE  
ROAD T-30) AND THE STATION ON THE RIGHT IN NORTHWEST CORNER OF THE  
INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK  
SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE  
AND STAMPED UNION TWP 8 1998. THE STATION IS 34.6 FEET (10.5 M) AZIMUTH 70  
DEGREES TO A STREET SIGN, 41.9 FEET (12.8 M) AZIMUTH 59 DEGREES TO A UTILITY  
POLE, 27.8 FEET (8.5 M) AZIMUTH 96 DEGREES TO THE SOUTHWEST CAP OF A WATER  
VALVE, AND 7.4 FEET (2.3 M) FROM THE EDGE OF THE PAVEMENT OF US 40.

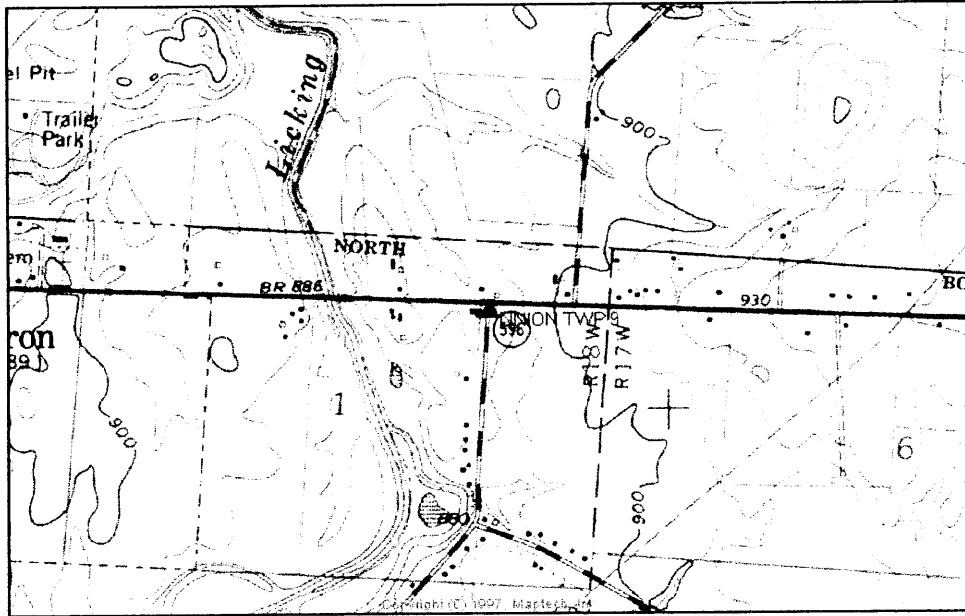
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

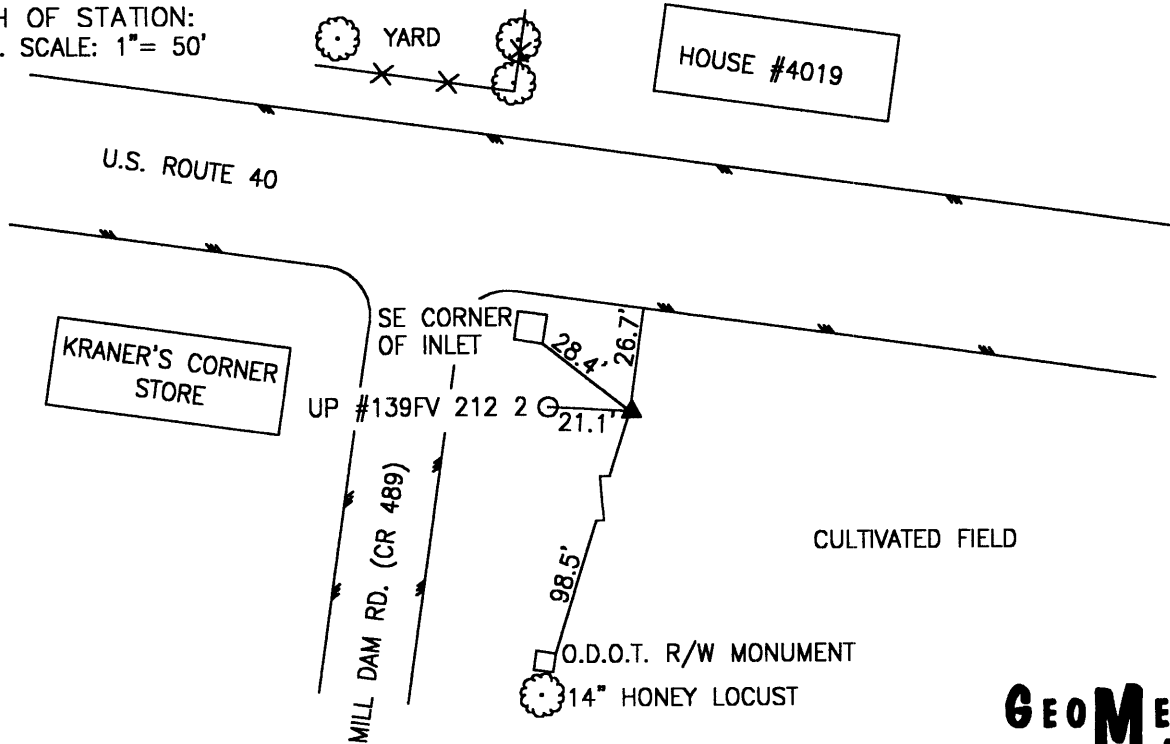
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 9		1998
N: 714242.165	E: 1978634.074	LAT: 39°57'39.54195" N	LONG: 82°27'49.85286" W
ELEV.: 890.448 (GPS)	COMB. FACTOR: 0.999943977		Ø ANGLE: +0°01'22.58

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1760.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 1760

Designation: UNION TWP 9

PID:

Latitude: 395739N

Longitude: 0822749W

Elevation: 268.1M

Stamping: UNION TWP 9 1998

State: OH

County: LICKING

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) EAST OF THE TOWN OF HEBRON. TO REACH THE STATION FROM THE INTERSECTION OF HEBRON ROAD (SR 79) AND NATIONAL ROAD (US 40) IN HEBRON PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 0.9 MILE (1.4 KM) TO ITS INTERSECTION WITH MILL DAM ROAD (CR 489) AND THE STATION ON THE RIGHT IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED UNION TWP 9 1998. THE STATION IS 98.5 FEET (30.0 M) AZIMUTH 197 DEGREES TO AN OHIO DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MONUMENT, 21.1 FEET (6.4 M) AZIMUTH 273 DEGREES TO A UTILITY POLE WITH THE NUMBER 139FV 212 2, 28.4 FEET (8.7 M) AZIMUTH 308 DEGREES TO THE SOUTHEAST CORNER OF AN INLET, AND 26.7 FEET (8.1 M) SOUTH FROM THE EDGE OF THE PAVEMENT OF NATIONAL ROAD.

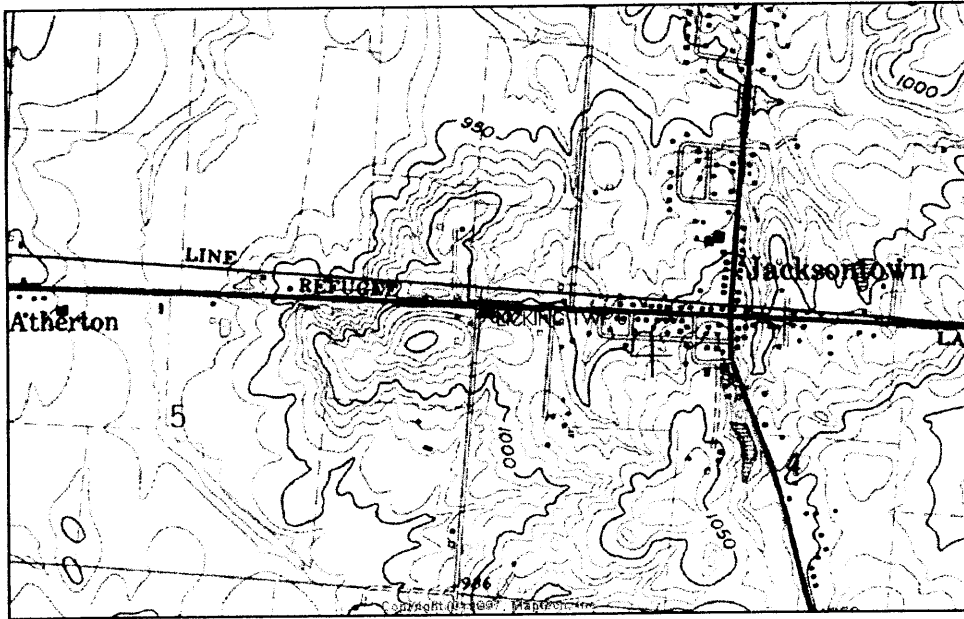
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

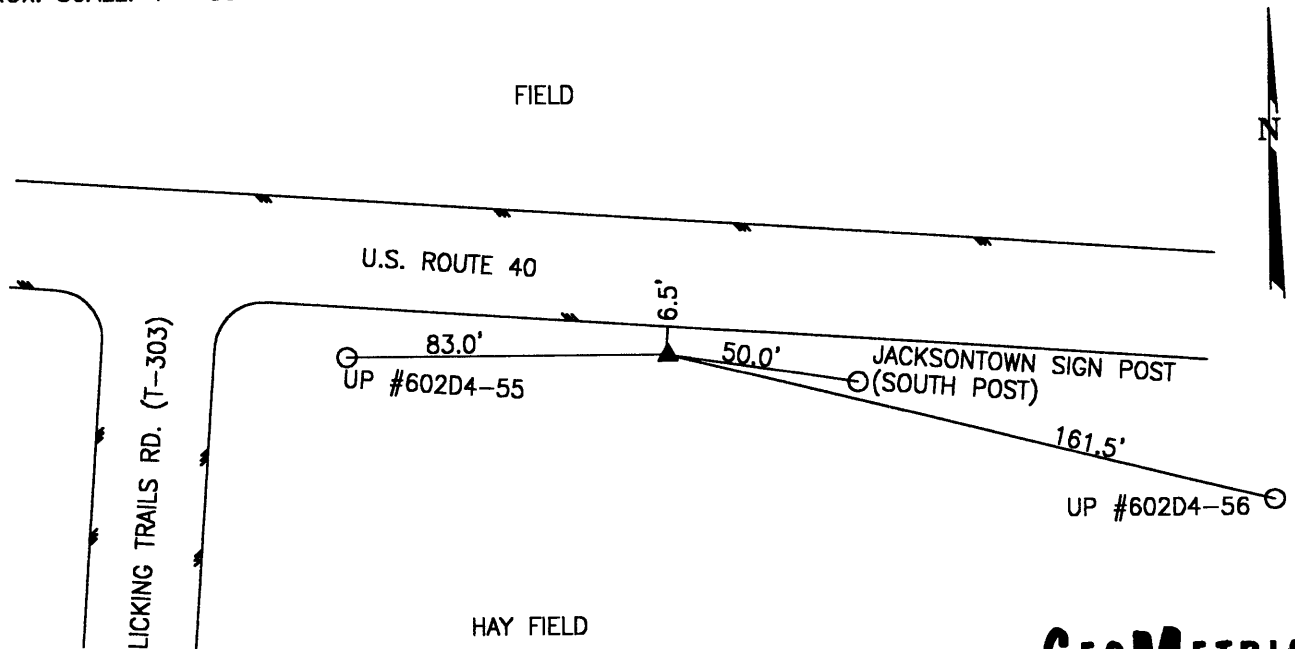
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	LICKING TWP 6		1998
N: 713764.955	E: 1990452.624	LAT: 39°57'34.75187" N	LONG: 82°25'18.07815" W
ELEV.: 1006.268	(GPS)	COMB. FACTOR: 0.999938215	θ ANGLE: +0°02'58.88

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1770.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1770  
Designation: LICKING TWP 6

PID:

Latitude: 395734N  
Longitude: 0822518W  
Elevation: 368.4M  
Stamping: LICKING TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATION IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.4 MILE (0.6 KM) WEST OF THE TOWN OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN THE TOWN OF JACKSONTOWN PROCEED WEST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 0.4 MILE (0.6 KM) TO THE STATION ON THE LEFT. THE STATION IS APPROXIMATELY 100 FEET (30.5 M) EAST OF LICKING TRAIL ROAD (T-303) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 6 1998. THE STATION IS 8.8 FEET (2.7 M) AZIMUTH 00 DEGREES TO A MAGNAIL IN THE SOUTH EDGE OF THE PAVEMENT, 50.0 FEET (15.2 M) AZIMUTH 9.9 DEGREES TO THE SOUTH POST OF A SIGN STATING JACKSONTOWN, 83.0 FEET (25.3 M) AZIMUTH 270 DEGREES TO A POWER POLE WITH THE NUMBER 602D4-55, 161.5 FEET (49.2 M) AZIMUTH 100 DEGREES TO A POWER POLE WITH THE NE ROAD SIGN.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

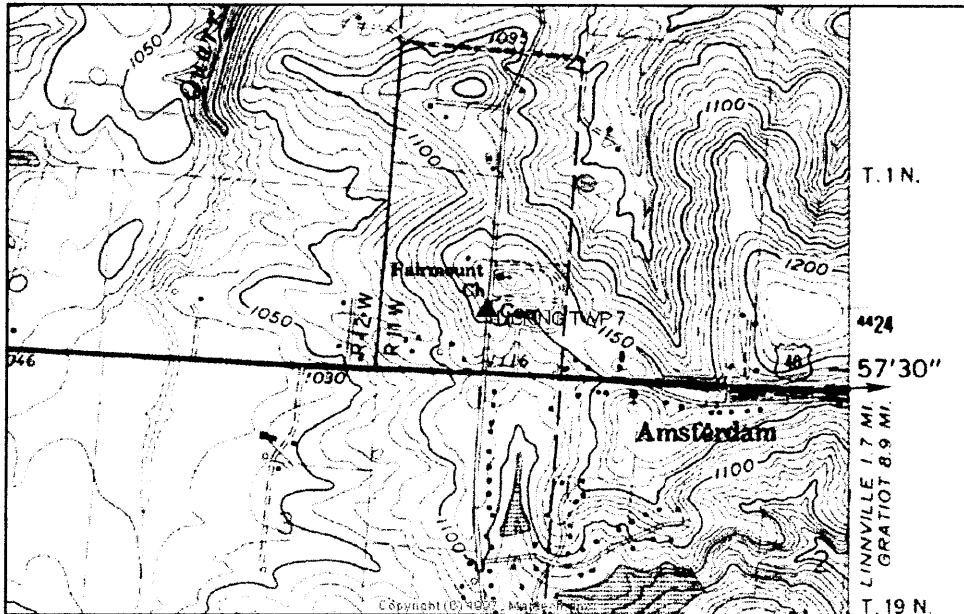
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

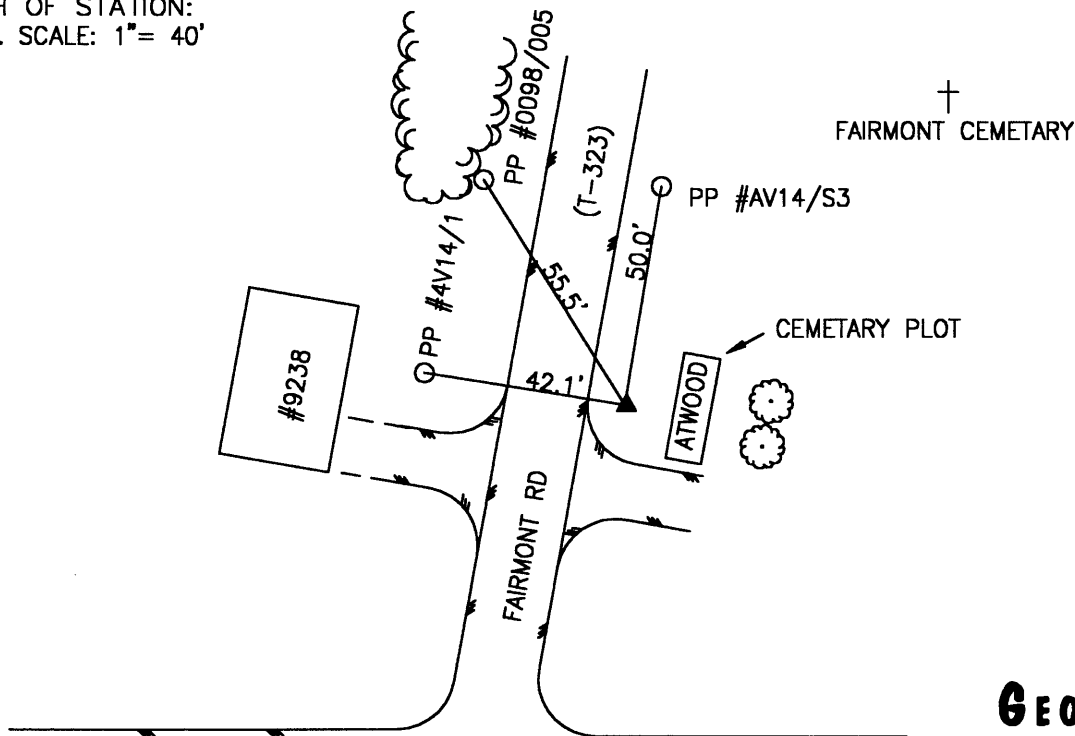
COUNTY	NAME OF STATION	YEAR
LICKING	LICKING TWP 7	1998

N: 713888.655	E: 2000342.113	LAT: 39°57'35.87049" N	LONG: 82°23'11.07262" W
ELEV.: 1160.683	(GPS)	COMB. FACTOR: 0.999930898	θ ANGLE: +0°04'19.47

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1780.DWG

U.S. 40

**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1780  
Designation: LICKING TWP 7

PID:

Latitude: 395735N  
Longitude: 0822311W  
Elevation: 335.2M  
Stamping: LICKING TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATION IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.7 MILES (2.7 KM) EAST OF THE TOWN OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN THE TOWN OF JACKSONTOWN PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH FAIRMONT ROAD (T-323) . TURN LEFT AND PROCEED NORTH ALONG FAIRMONT ROAD (T-323) A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT. THE STATION IS OPPOSITE THE HOUSE NUMBER 9238 ON THE LEFT, ON THE EAST SIDE OF FAIRMONT ROAD (T-323) AND NORTH OF THE FAIRMONT CEMETERY ENTRANCE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED LICKING TWP 7 1998. THE STATION IS 50.0 FEET (15.2 M) AZIMUTH 14 DEGREES TO A POWER POLE WITH THE NUMBER AV14/53, 42.1 FEET (12.8 M) AZIMUTH 279 DEGREES TO A POWER POLE WITH THE NUMBER 4V14/1, AND 55.5 FEET (16.9 M) AZIMUTH 328 DEGREES TO A POWER POLE WITH THE NUMBER 0098/005.

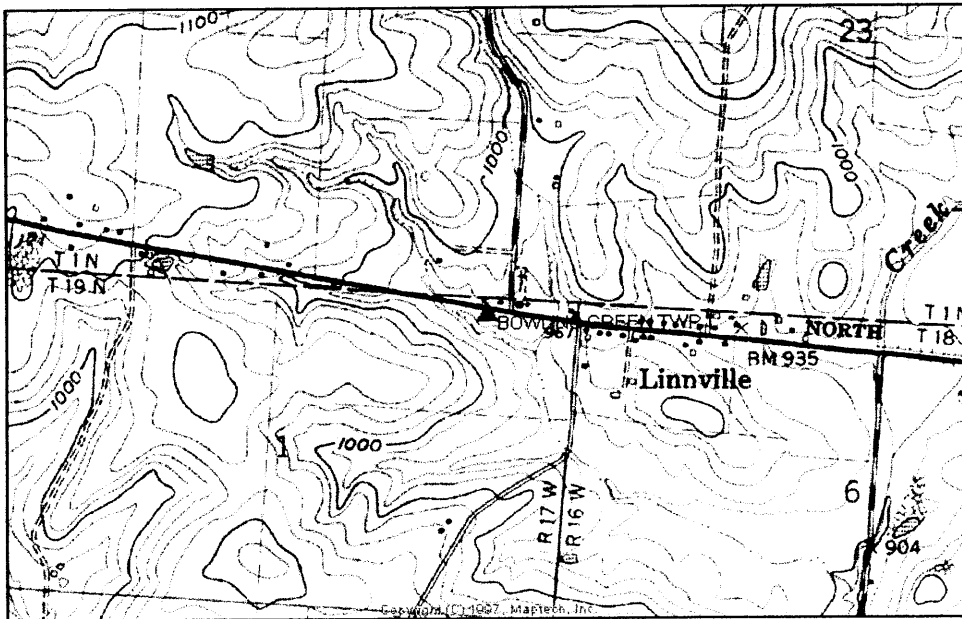
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

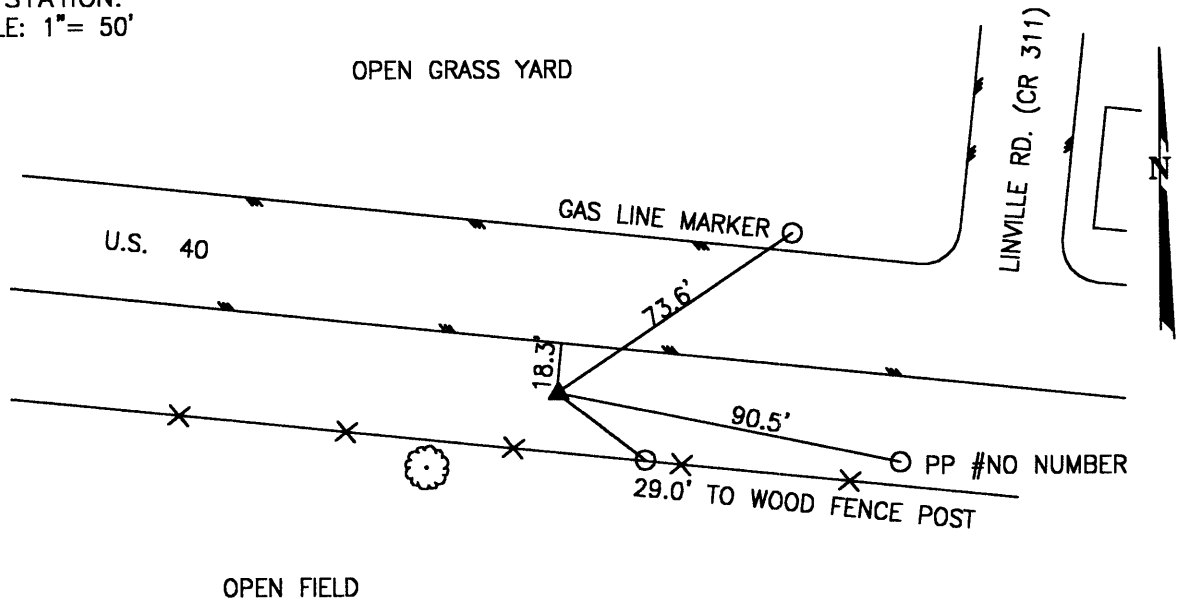
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	BOWLING GREEN TWP 1	1998
N: 712412.527	E: 2010902.206	LAT: 39°57'21.12955" N
ELEV.: 955.264 (GPS)		COMB. FACTOR: 0.999939989
		θ ANGLE: +0°05'45.50

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1790.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1790

Designation: BOWLING GREEN TWP 1

PID:

Latitude: 395721N

State: OH

Longitude: 082205W

County: LICKING

Elevation: 328.3M

Disk From: OH-089

Stamping: BOWLING GREEN TWP 1 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) WEST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (SR 668) IN BROWNSVILLE PROCEED WEST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 4.9 MILES (7.9 KM) TO ITS INTERSECTION WITH LINVILLE ROAD (CR 311) AND THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 1 1998. THE STATION IS 29.0 FEET (8.8 M) AZIMUTH 128 DEGREES TO A WOODEN FENCE POST, 90.5 FEET (27.6 M) AZIMUTH 102 DEGREES TO A POWER POLE WITH NO NUMBER, 73.6 FEET (22.4 M) AZIMUTH 56 DEGREES TO A GAS LINE MARKER, AND 18.3 FEET (5.6 M) SOUTH FROM THE EDGE OF THE PAVEMENT OF NATIONAL ROAD.

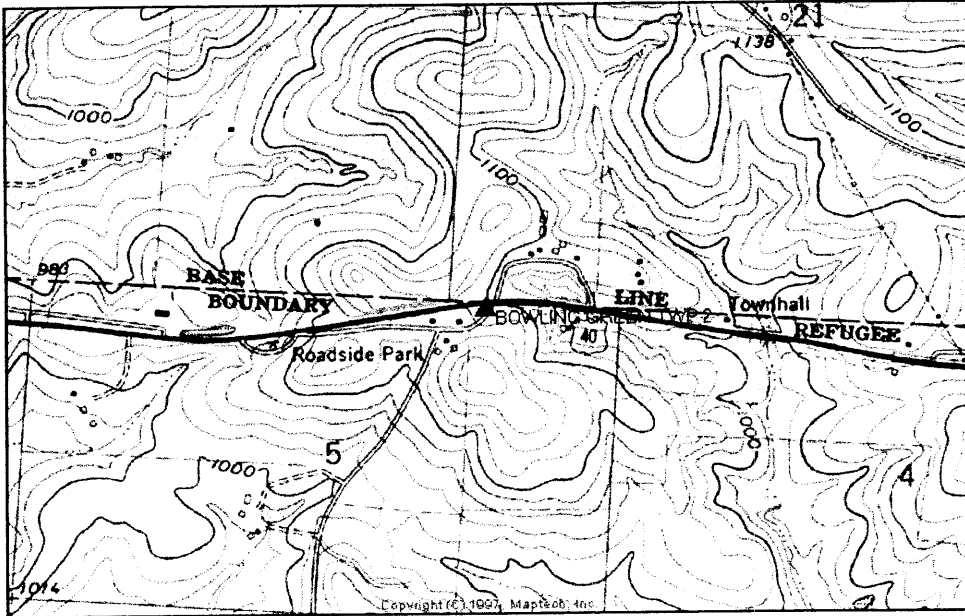
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

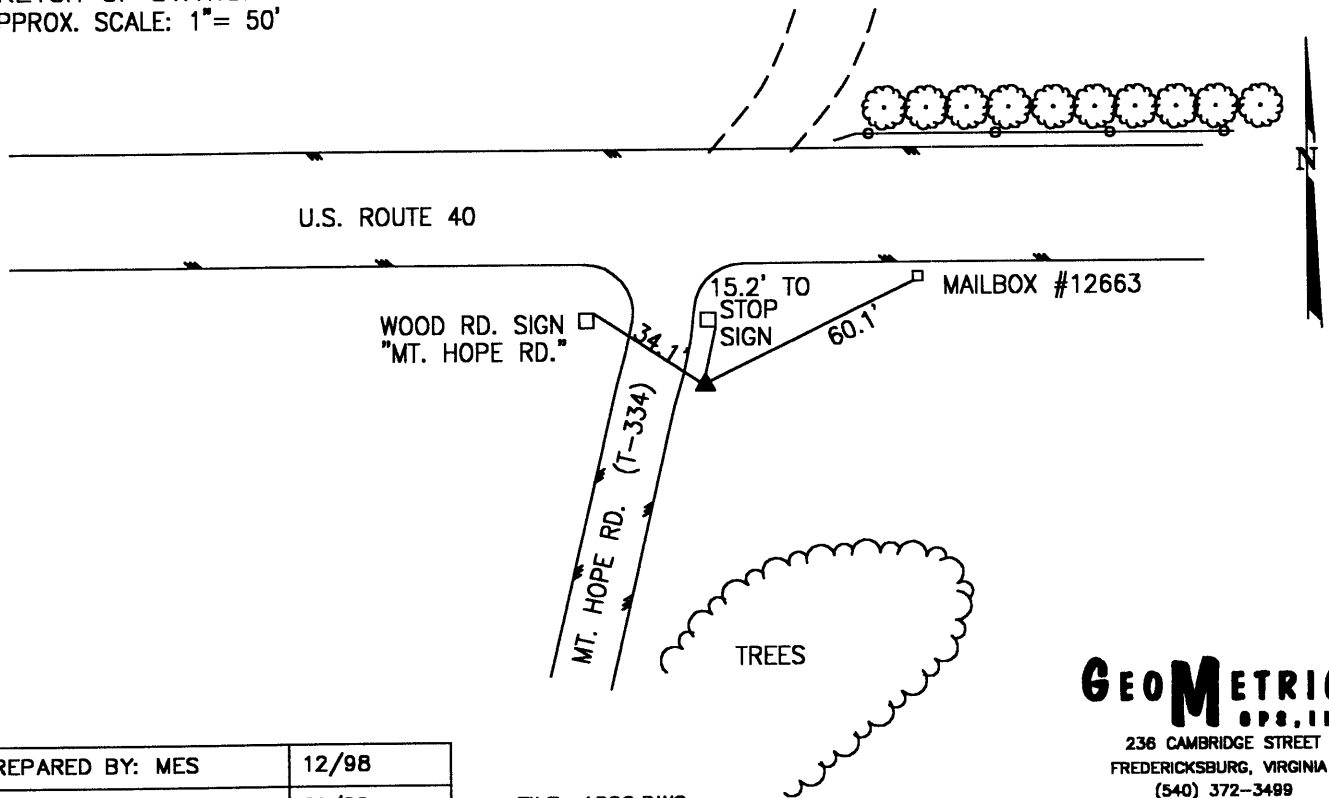
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BOWLING GREEN TWP 2		1998
N: 711856.292	E: 2021185.237	LAT: 39°57'15.44167" N	LONG: 82°18'43.45299" W
ELEV.: 1097.252 (GPS)	COMB. FACTOR: 0.999932936		Ø ANGLE: +0°07'09.28

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1800.DWG

**GEOMETRICS**  
 ops, inc.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1800  
Designation: BOWLING GREEN TWP 2

PID:

Latitude: 395715N  
Longitude: 0821843W  
Elevation: 318.4M  
Stamping: BOWLING GREEN TWP 2 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) WEST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED WEST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 2.9 MILES (4.7 KM) TO ITS INTERSECTION WITH MT HOPE ROAD (T-334) AND THE STATION ON THE LEFT IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 2 1998. THE STATION IS 15.2 FEET (4.6 M) AZIMUTH 12 DEGREES TO A STOP SIGN, 34.1 FEET (10.4 M) AZIMUTH 303 DEGREES TO A WOODEN ROAD SIGN MT HOPE ROAD, AND 60.1 FEET (18.3 M) AZIMUTH 64 DEGREES TO A MAIL BOX WITH THE NUMBER 12663.

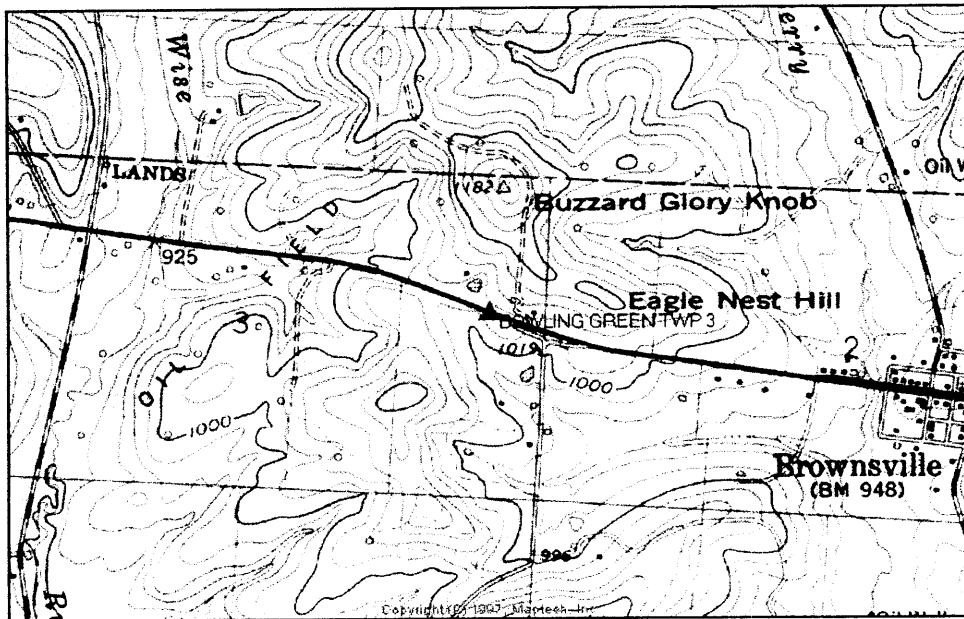
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

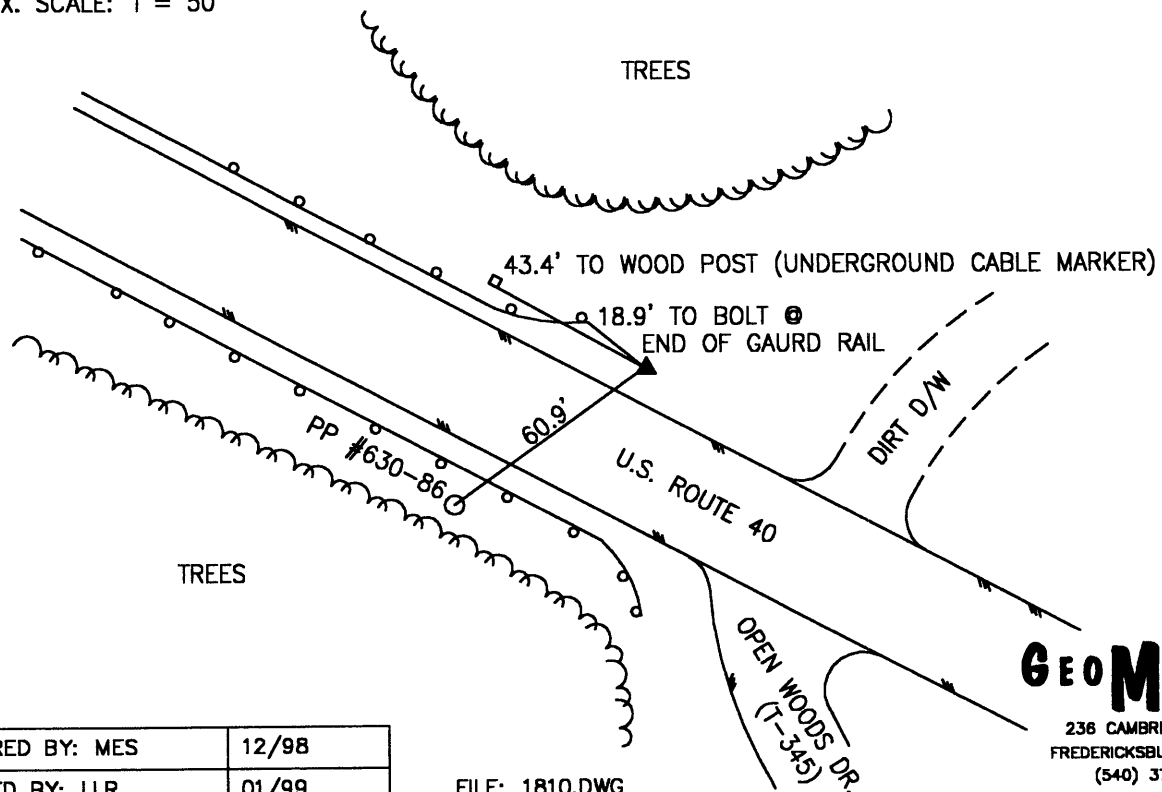
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BOWLING GREEN TWP 3		1998
N: 710036.851	E: 2032519.833	LAT: 39°56'57.20276" N	LONG: 82°16'17.96167" W
ELEV.: 1035.989	(GPS)	COMB. FACTOR: 0.999934985	θ ANGLE: +0°08'41.59

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1810.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1810

Designation: BOWLING GREEN TWP 3

PID:

Latitude: 395657N

State: OH

Longitude: 0821617W

County: LICKING

Elevation: 316.7M

Disk From: OH-089

Stamping: BOWLING GREEN TWP 3 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 0.7 MILES (1.1 KM) WEST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED WEST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 150 FEET (45.7 M) WEST OF OPEN WOOD DRIVE (T-345) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 3 1998. THE STATION IS 18.9 FEET (5.8 M) AZIMUTH 301 DEGREES TO A BOLT AT THE END OF A GUARD RAIL, 43.4 FEET (13.2 M) AZIMUTH 299 DEGREES TO A WOOD POST (UNDERGROUND CABLE MARKER) , AND 60.9 FEET (18.6 M) AZIMUTH 234 DEGREES TO A POWER POLE WITH THE NUMBER 630-86.

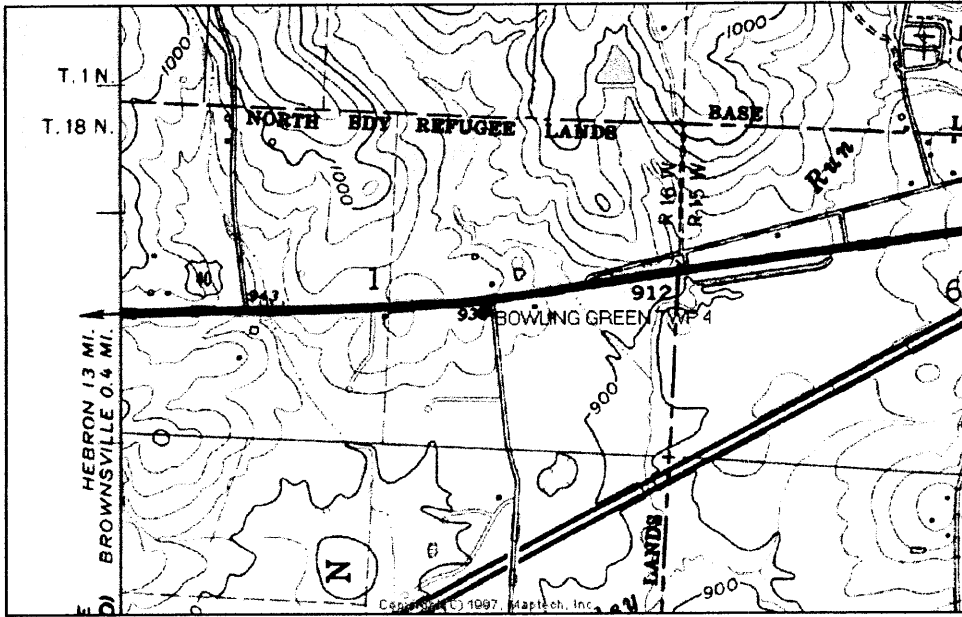
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

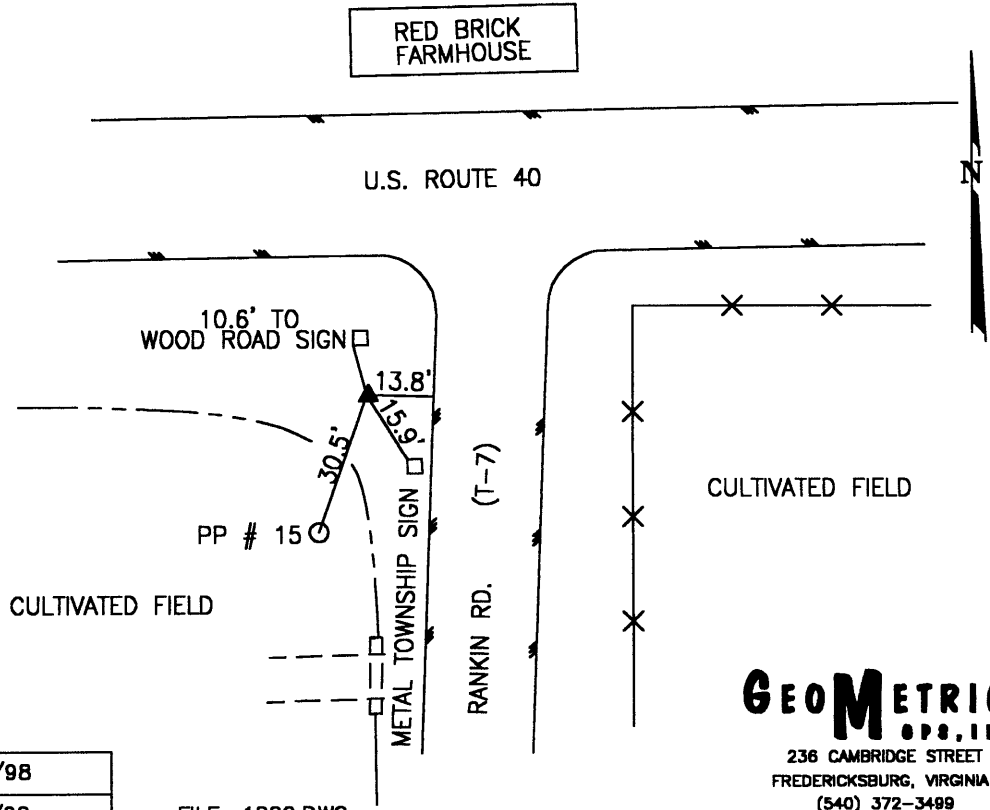
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BOWLING GREEN TWP 4		1998
N: 709156.094	E: 2041982.535	LAT: 39°56'48.24468" N	LONG: 82°14'16.49054" W
ELEV.: 937.150 (GPS)	COMB. FACTOR: 0.999939276		θ ANGLE: +0°09'58.67

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1820.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1820

Designation: BOWLING GREEN TWP 4

PID:

Latitude: 395648N  
Longitude: 0821416W  
Elevation: 320.4M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: BOWLING GREEN TWP 4 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) EAST OF TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (CR 668) IN BROWNSVILLE PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.0 MILE (1.6 KM) TO IT INTERSECTION WITH RANKIN ROAD (T-7) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 4 1998. THE STATION IS 10.6 FEET (3.2 M) AZIMUTH 345 DEGREES TO A WOOD ROAD SIGN, 15.9 FEET (4.8 M) AZIMUTH 148 DEGREES TO A METAL TOWNSHIP SIGN, 30.5 FEET (9.3 M) AZIMUTH 199 DEGREES TO A POWER POLE WITH THE NUMBER 15, AND 13.8 FEET (4.2 M) FROM THE EDGE OF THE PAVEMENT OF RANKIN ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

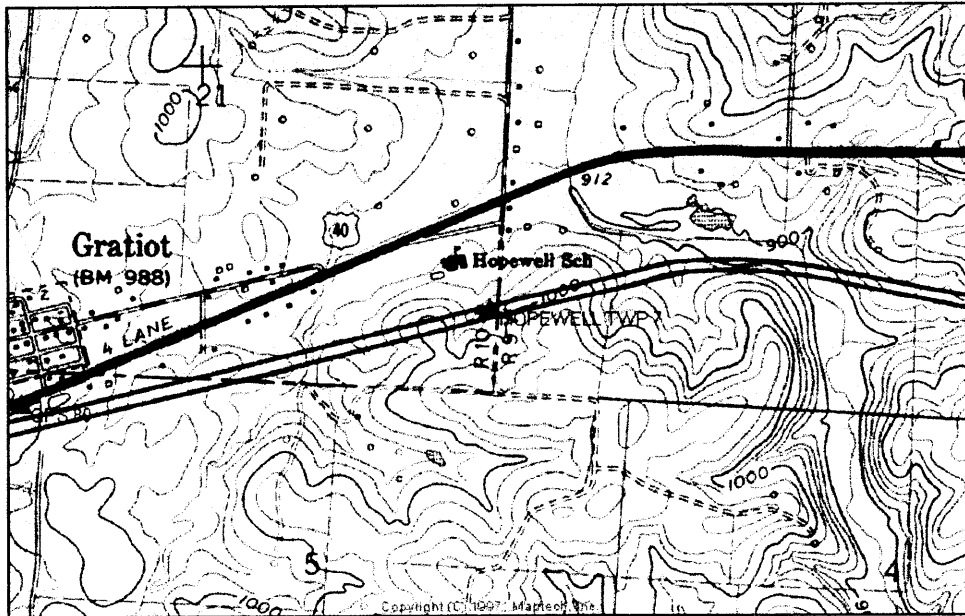
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

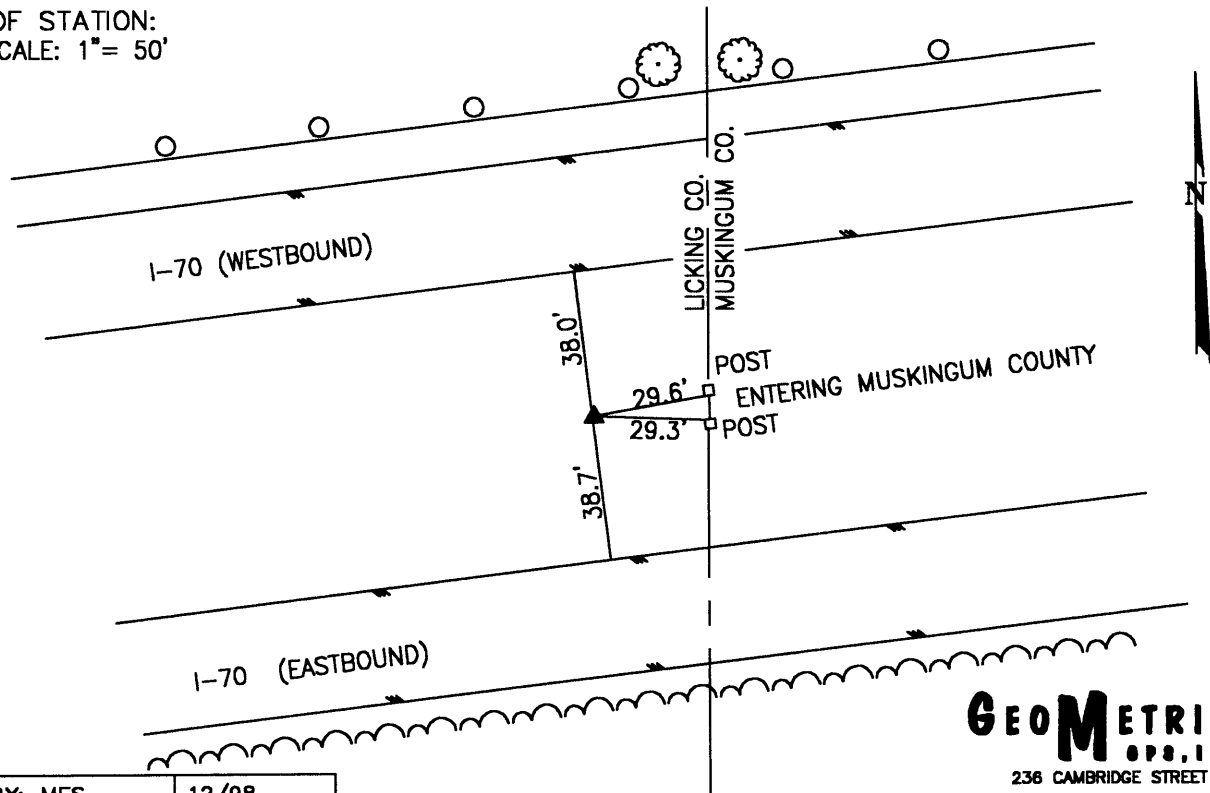
COUNTY	NAME OF STATION	YEAR
LICKING	HOPEWELL TWP 7	1998

N: 711185.195	E: 2052925.843	LAT: 39°57'07.96006" N	LONG: 82°11'55.89350" W
ELEV.: 980.772	(GPS) COMB. FACTOR: 0.999938136	Ø ANGLE: +0°11'27.88	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1830.DWG

**GEOMETRICS**  
OPS, INC.  
238 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1830

Designation: HOPEWELL TWP 7

PID:

Latitude: 395707N  
Longitude: 0821155W  
Elevation: 306.3M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: HOPEWELL TWP 7 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) EAST OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF BROWNSVILLE ROAD (CR 668) AND INTERSTATE 70 PROCEED EAST ALONG INTERSTATE 70 A DISTANCE OF 3.3 MILES (5.3 KM) TO THE STATION ON THE LEFT IN THE MEDIAN STRIP AT THE LICKING MUSKINGUM COUNTY LINE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED HOPEWELL TWP 7 1998. THE STATION IS 29.3 FEET (8.9 M) AZIMUTH 92 DEGREES TO THE EAST BOUND POST OF THE SIGN ENTERING MUSKINGUM COUNTY, 29.6 FEET (9.0 M) AZIMUTH 80 DEGREES TO THE WEST BOUND POST OF THE SIGN ENTERING MUSKINGUM COUNTY, 38.7 FEET (11.8 M) FROM THE EDGE OF THE PAVEMENT OF EASTBOUND INTERSTATE 70 AND 38.0 FEET (11.6 M) FROM THE EDGE OF THE PAVEMENT OF WESTBOUND INTERSTATE 70.

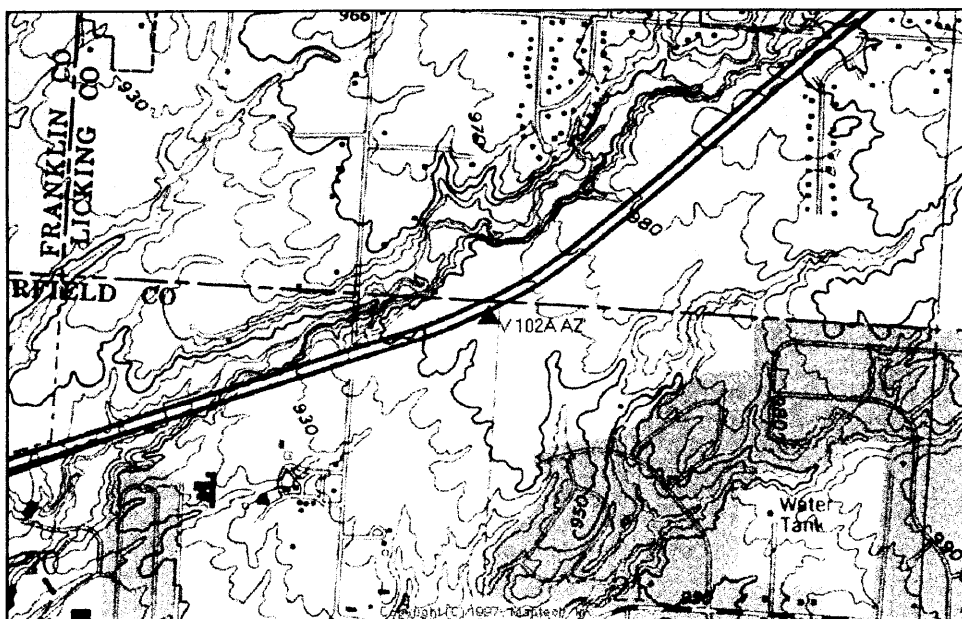
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

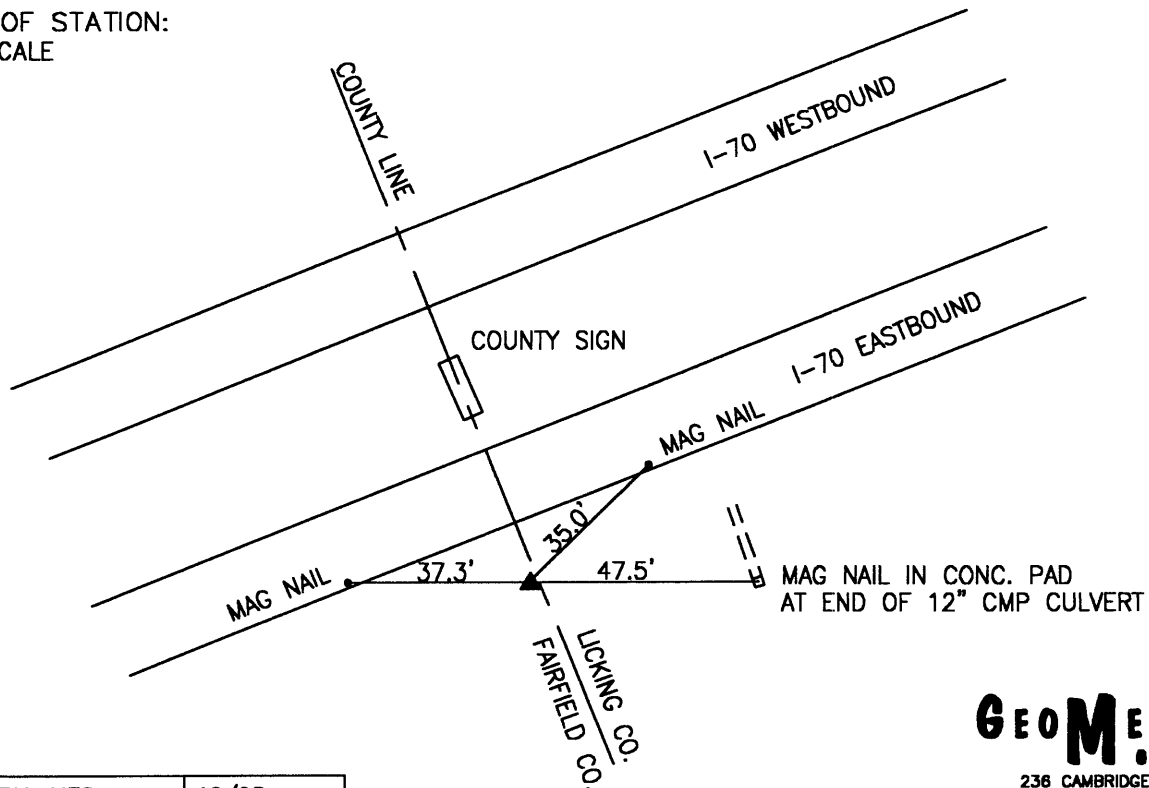
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
FAIRFIELD	V 102A AZ		1998
N: 706237.795	E: 1893186.840	LAT: 39°56'19.35125" N	LONG: 82°46'06.90293" W
ELEV.: 956.957	(GPS)	COMB. FACTOR: 0.999936965	θ ANGLE: -0°10'13.51

VICINITY SKETCH:



SKETCH OF STATION:  
NOT TO SCALE



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1840.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1840  
Designation: V 102A AZ PID:  
Alias: VI 02 A AZ

Latitude: 395619N State: OH  
Longitude: 0824606W County: FAIRFIELD  
Elevation: 297.2M Disk From: OH-045  
Stamping: V102A AZ 1991

Surface Mark-  
Type: Azimuth Mark disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by WOOLPT in 1991, Chief of party .

-----  
THE STATION IS LOCATED ON THE NORTH SIDE OF VIOLET TOWNSHIP IN FAIRFIELD COUNTY. THE REACH THE STATION FROM THE INTERSECTION OF INTERSTATE 70 AND STATE HIGHWAY 256 PROCEED EAST ALONG INTERSTATE 70 A DISTANCE OF 1.15 MILE (1.85 KM) TO THE FAIRFIELD/LICKING COUNTY LINE AND THE STATION ON THE RIGHT. THE STATION IS SOUTH OF THE EASTBOUND LANES TO INTERSTATE 70 ADJACENT TO THE FAIRFIELD/LICKING COUNTY SIGN. THE STATION IS A STANDARD FAIRFIELD COUNTY AUDITOR SURVEY DISK SET IN CONCRETE ONE INCH BELOW THE GROUND SURFACE AND STAMPED V102A AZ 1991. THE STATION IS 37.3 FEET (11.4 M) AZIMUTH 270 DEGREES TO A MAG NAIL AT THE EDGE OF PAVEMENT OF EASTBOUND I-70, 35.0 FEET (10.7 M) AZIMUTH 45 DEGREES TO A MAG NAIL IN PAVEMENT OF EASTBOUND I-70, AND 47.5 FEET (14.5 M) AZIMUTH 90 DEGREES TO A CONCRETE PAD AT END OF A 12 INCH CMP.

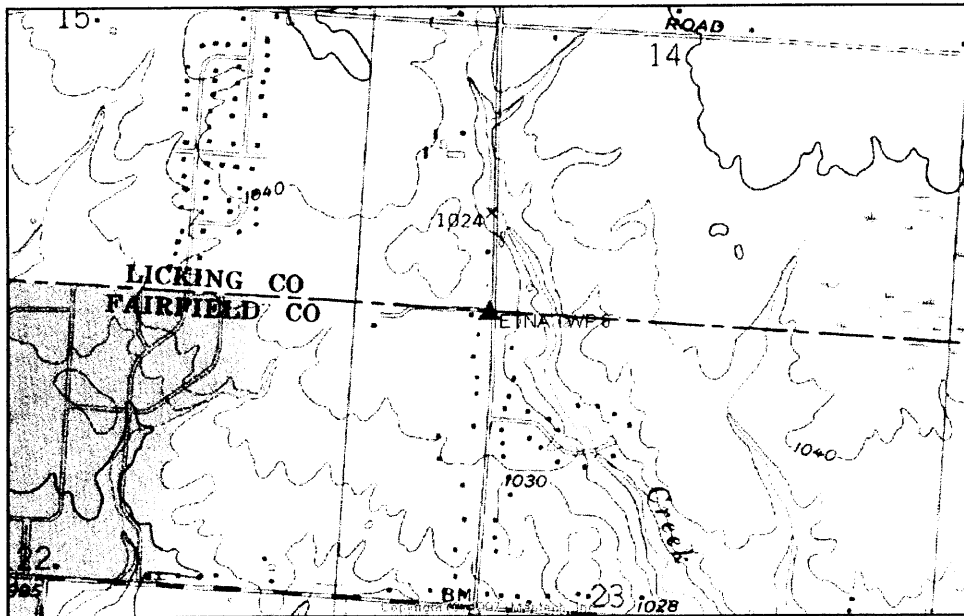
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

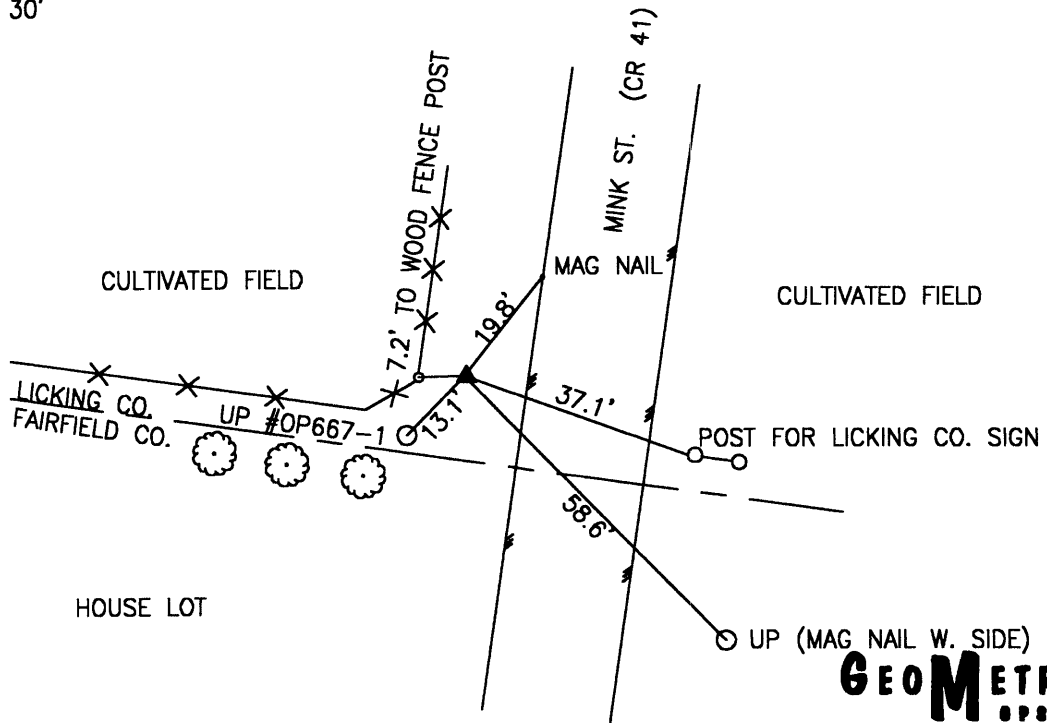
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 6		1998
N: 705628.635	E: 1903784.888	LAT: 39°56'13.62078" N	LONG: 82°43'50.82126" W
ELEV.: 1032.048 (GPS)	COMB. FACTOR: 0.999933112		θ ANGLE: -0°08'47.17

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1850.DWG



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1850  
Designation: ETNA TWP 6

PID:

Latitude: 395613N  
Longitude: 0824350W  
Elevation: 277.4M  
Stamping: ETNA TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) SOUTH OF THE TOWN OF WAGRAM. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND MINK STREET (CR 41) PROCEED SOUTH ALONG MINK STREET (CR 41) A DISTANCE OF 1.3 MILES (2.1 KM) TO THE STATION ON THE RIGHT. THE STATION IS ON THE WEST SIDE OF THE ROAD APPROXIMATELY 20 FEET (6.1 M) NORTH OF THE LICKING COUNTY FAIRFIELD COUNTY LINE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED ETNA TWP 6 1998. THE STATION IS 19.8 FEET (6.0 M) AZIMUTH 38 DEGREES TO A MAG NAIL IN THE WEST EDGE OF PAVEMENT TO MINK STREET, 58.6 FEET (17.9 M) AZIMUTH 136 DEGREES TO A A MAG NAIL IN THE WEST SIDE OF A POWER POLE, 7.2 FEET (2.2 M) AZIMUTH 268 DEGREES TO A MAG NAIL IN THE NORTH SIDE OF A WOOD FENCE POST, 37.1 FEET (11.3 M) AZIMUTH 110 DEGREES TO A POST FOR LICKING COUNTY SIGN, AND 13.1 FEET (4.0 M) AZIMUTH 224 DEGREES TO A POWER POLE WITH THE NUMBER OP667-1.

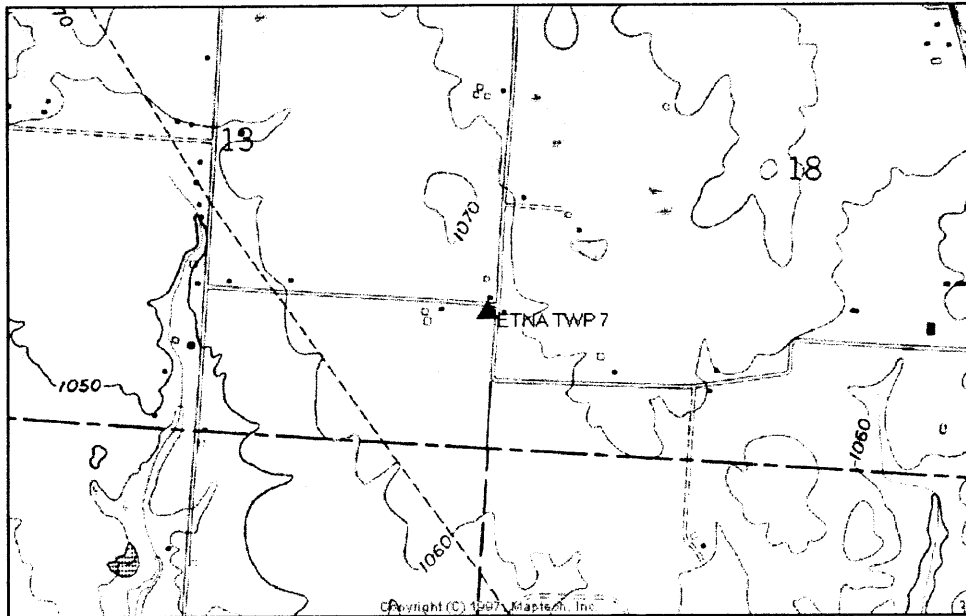
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

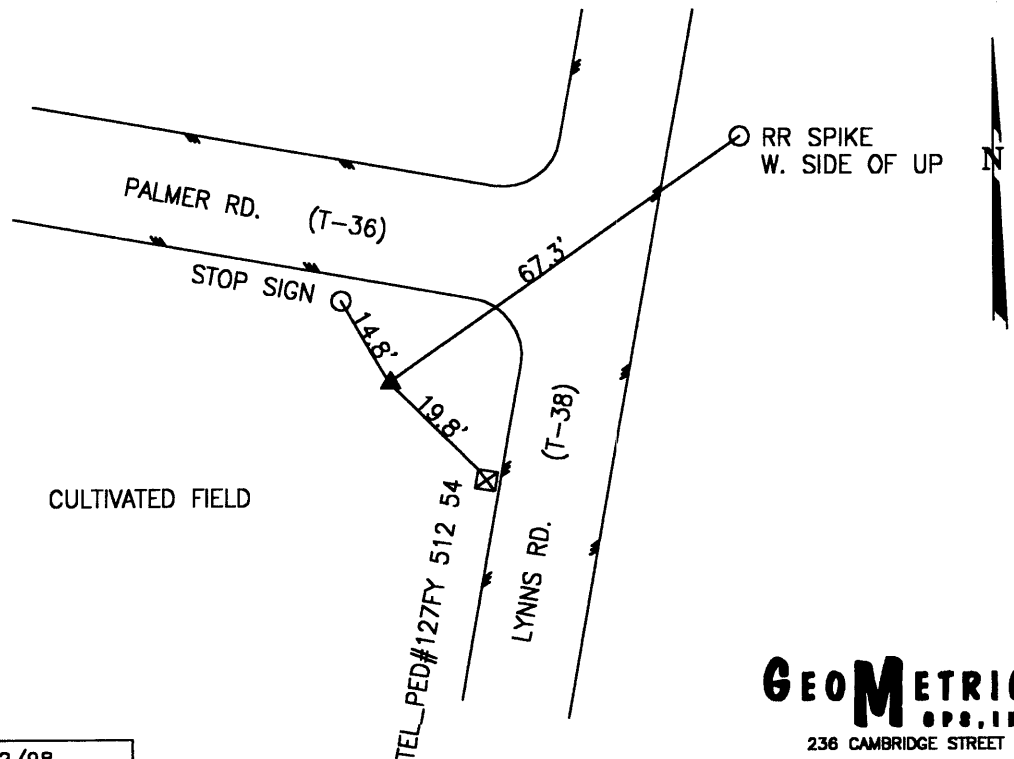
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 7		1998
N: 706214.464	E: 1913255.835	LAT: 39°56'19.63201" N	LONG: 82°41'49.24880" W
ELEV.: 1063.164 (GPS)	COMB. FACTOR: 0.999931908		θ ANGLE: -0°07'30.03

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1860.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1860  
Designation: ETNA TWP 7

PID:

Latitude: 395619N  
Longitude: 0824149W  
Elevation: 273.1M  
Stamping: ETNA TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHEAST OF THE TOWN OF WAGRAM. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND MINK STREET (CR 41) PROCEED SOUTH ALONG MINK STREET (CR 41) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION OF PALMER ROAD (T-36) . TURN LEFT AND PROCEED EAST ALONG PALMER ROAD (T-36) A DISTANCE OF 1.2 MILES (1.9 KM) TO ITS INTERSECTION WITH TOLLGATE ROAD (T-163) . TURN RIGHT AND PROCEED SOUTH ALONG TOLLGATE ROAD (T-163) A DISTANCE OF 0.2 MILE (0.3 KM) TO ITS INTERSECTION WITH PALMER ROAD (T-36) . TURN LEFT AND PROCEED EAST ALONG PALMER ROAD (T-36) TO ITS INTERSECTION WITH LYNNS ROAD (T-38) AND THE STATION ON THE RIGHT IN THE SOUTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED ETNA TWP 7 1998. THE STATION IS 67.3 FEET AZIMUTH 55 DEGREES TO A RAILROAD SPIKE IN THE WEST SIDE OF A UTILITY POLE, 14.8 FEET (4.5 M) AZIMUTH 330 DEGREES TO A STOP SIGN, AND 19.8 FEET (6.0 M) AZIMUTH 135 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 127FY 512 54.

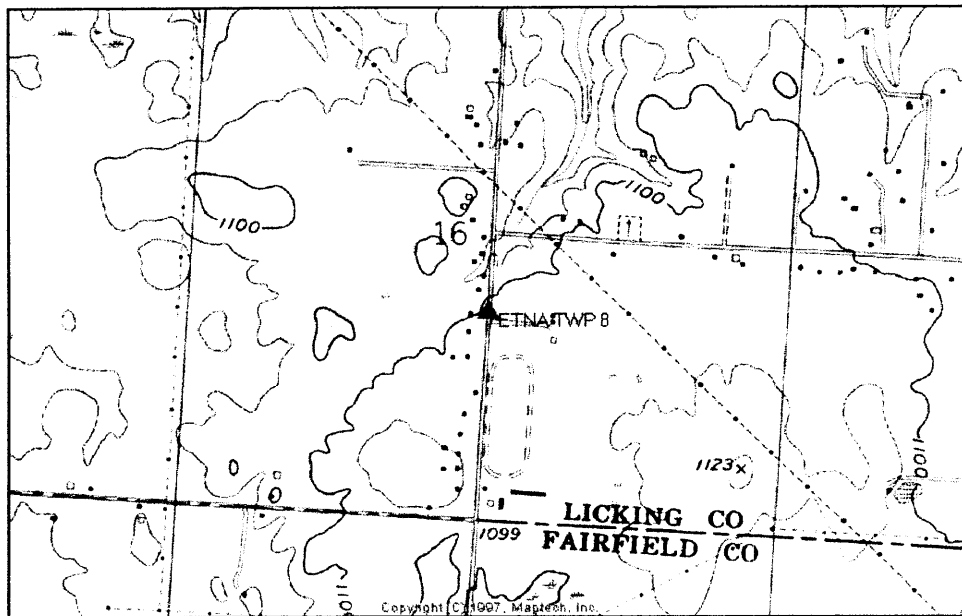
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

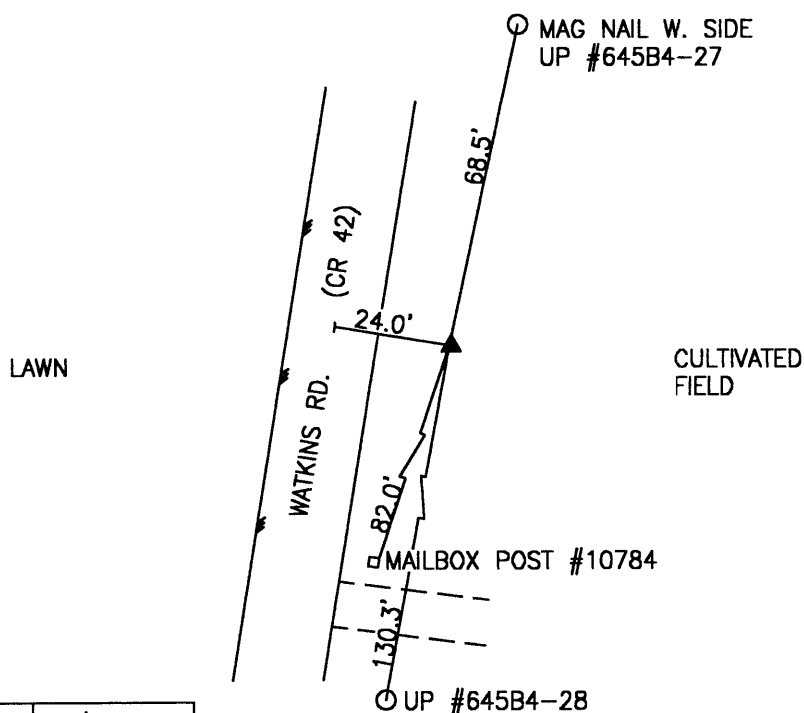
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 8		1998
N: 705988.118	E: 1926850.530	LAT: 39°56'17.65218" N	LONG: 82°38'54.70974" W
ELEV.: 1098.505 (GPS)	COMB. FACTOR: 0.999930128		Θ ANGLE: -0°05'39.28

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1870.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1870

Designation: ETNA TWP 8

PID:

Latitude: 395617N  
Longitude: 0823854W  
Elevation: 315.0M  
Stamping: ETNA TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTHEAST OF THE TOWN OF ETNA. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN ETNA PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.9 MILES (3.1 KM) TO ITS INTERSECTION WITH WATKINS ROAD (CR 42) . TURN RIGHT AND PROCEED SOUTH ALONG WATKINS ROAD (CR 42) A DISTANCE OF 1.6 MILES (2.6 KM) TO THE STATION ON THE LEFT APPROXIMATELY 80 FEET (24.4 M) NORTH OF MAIL BOX NUMBER 10784. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED ETNA TWP 8 1998. THE STATION IS 68.5 FEET (20.9 M) AZIMUTH 12 DEGREES TO A MAG NAIL IN THE WEST SIDE OF A UTILITY POLE WITH THE NUMBER 645B4-27, 130.3 FEET (39.7 M) AZIMUTH 190 DEGREES TO A UTILITY POLE WITH THE NUMBER 654B4-28, 82.0 FEET (25.0 M) AZIMUTH 198 DEGREES TO A MAIL BOX POST WITH THE NUMBER 10784 AND 24.0 FEET (7.3 M) FROM THE CENTERLINE OF WATKINS ROAD.

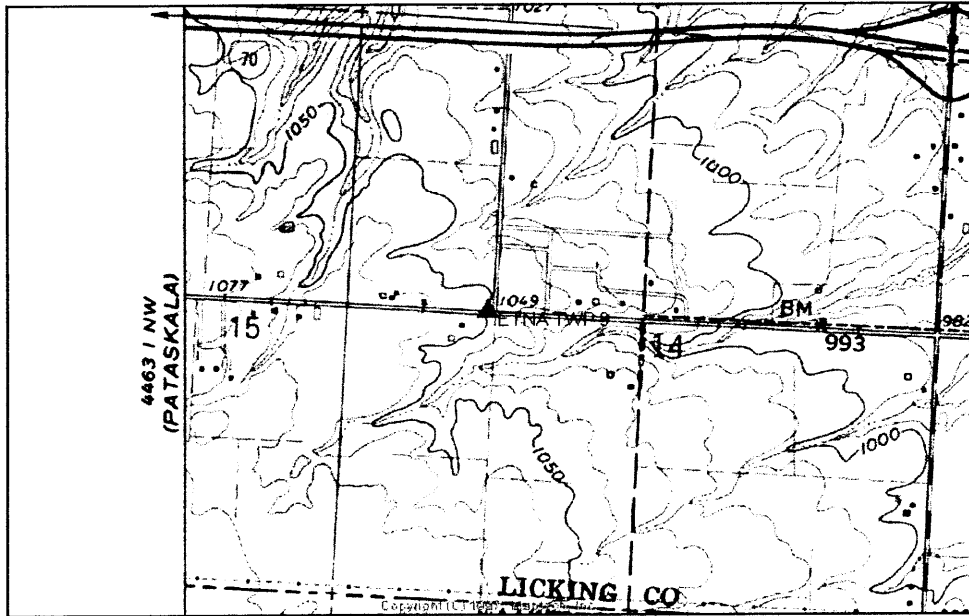
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

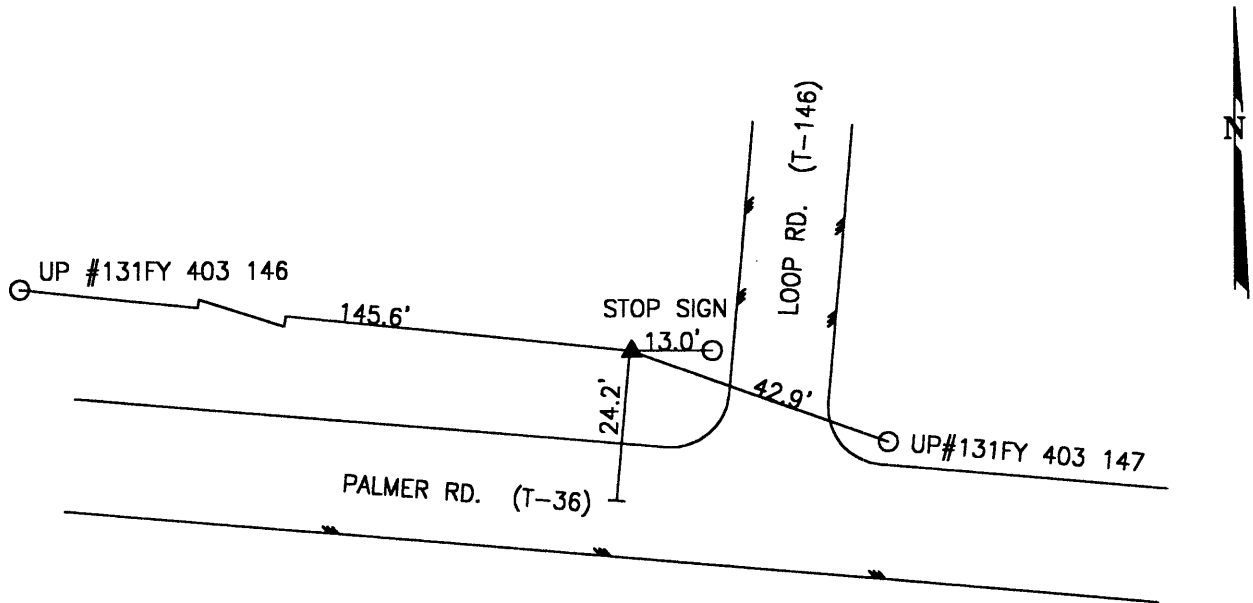
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	ETNA TWP 9		1998
N: 706149.803	E: 1936264.278	LAT: 39°56'19.38579" N	LONG: 82°36'53.85570" W
ELEV.: 1048.226	(GPS)	COMB. FACTOR: 0.999932610	Ø ANGLE: -0°04'22.59

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1880.DWG

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1880  
Designation: ETNA TWP 9

PID:

Latitude: 395619N  
Longitude: 0823653W  
Elevation: 339.4M  
Stamping: ETNA TWP 9 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN ETNA TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTHWEST OF THE TOWN OF KIRKERSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE 70 AND BALTIMORE ROAD (SR 158) PROCEED SOUTH ALONG BALTIMORE ROAD (SR 158) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH PALMER ROAD (T-36) . TURN RIGHT AND PROCEED WEST ALONG PALMER ROAD (T-36) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH LOOP ROAD (T-146) AND THE STATION ON THE RIGHT IN THE NORTHWEST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED ETNA TWP 9 1998. THE STATION IS 42.9 FEET (13.1 M) AZIMUTH 110 DEGREES TO A UTILITY POLE WITH THE NUMBER 131FY 403 147, 13.0 FEET (4.0 M) AZIMUTH 90 DEGREES TO A STOP SIGN, 145.6 FEET (44.4 M) AZIMUTH 276 DEGREES TO A UTILITY POLE WITH THE NUMBER 131FY 403 146, AND 24.0 FEET (7.3 M) FROM THE CENTERLINE OF PALMER ROAD.

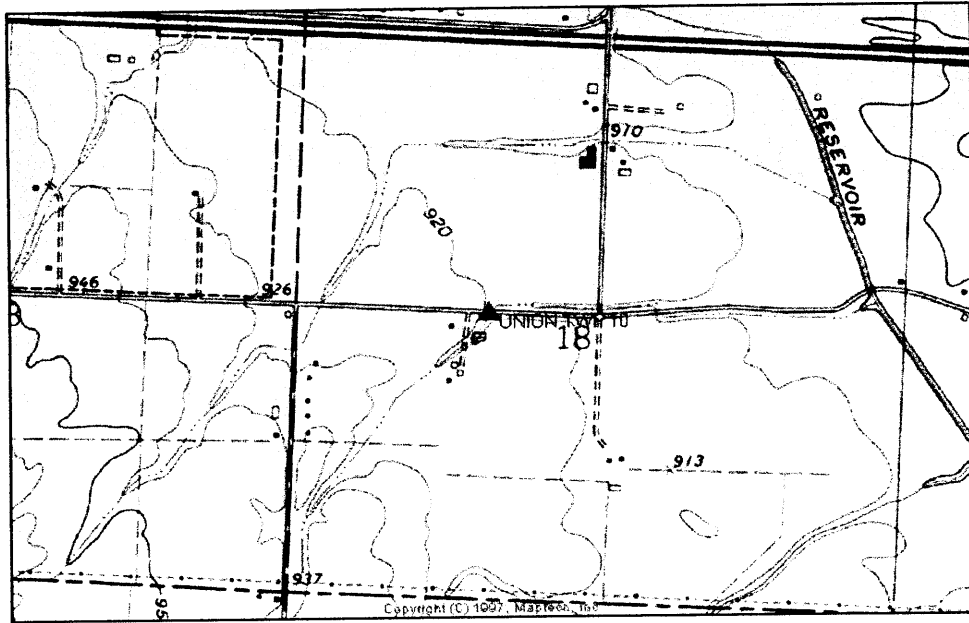
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

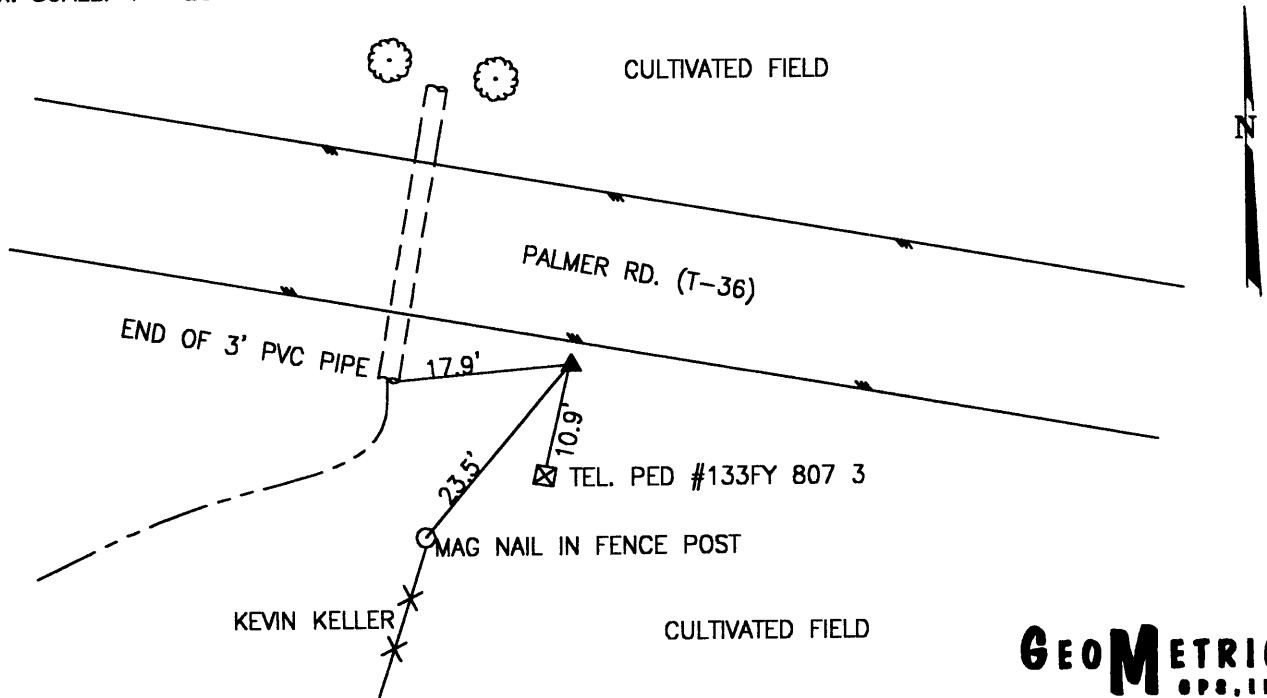
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	UNION TWP 10	1998
N: 705516.191	E: 1947464.128	LAT: 39°56'13.24048" N
ELEV.: 917.400 (GPS)		COMB. FACTOR: 0.999938567
		LONG: 82°34'30.06067" W
		θ ANGLE: -0°02'51.35

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 20'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 1890.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



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\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1890  
Designation: UNION TWP 10

PID:

Latitude: 395613N  
Longitude: 0823430W  
Elevation: 329.5M  
Stamping: UNION TWP 10 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) SOUTHEAST OF THE TOWN OF KIRKERSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE 70 AND BALTIMORE ROAD (SR 158) PROCEED SOUTH ALONG BALTIMORE ROAD (SR 158) A DISTANCE OF 0.5 MILE (0.8 KM) TO ITS INTERSECTION WITH PALMER ROAD (T-36) . TURN LEFT AND PROCEED EAST ALONG PALMER ROAD (T-36) A DISTANCE OF 1.4 MILES (2.3 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED UNION TWP 10 1998. THE STATION IS 10.9 FEET (3.3 M) AZIMUTH 193 DEGREES TO A TELEPHONE PEDESTAL NUMBER 133FY 807 3, 23.5 FEET (7.2 M) AZIMUTH 220 DEGREES TO A MAG NAIL IN A FENCE POST, 17.9 FEET (5.5 M) AZIMUTH 265 DEGREES TO THE END OF A THREE FOOT PVC PIPE, AND 2.4 FEET (0.7 M) SOUTH FROM THE EDGE OF PAVEMENT TO PALMER ROAD.

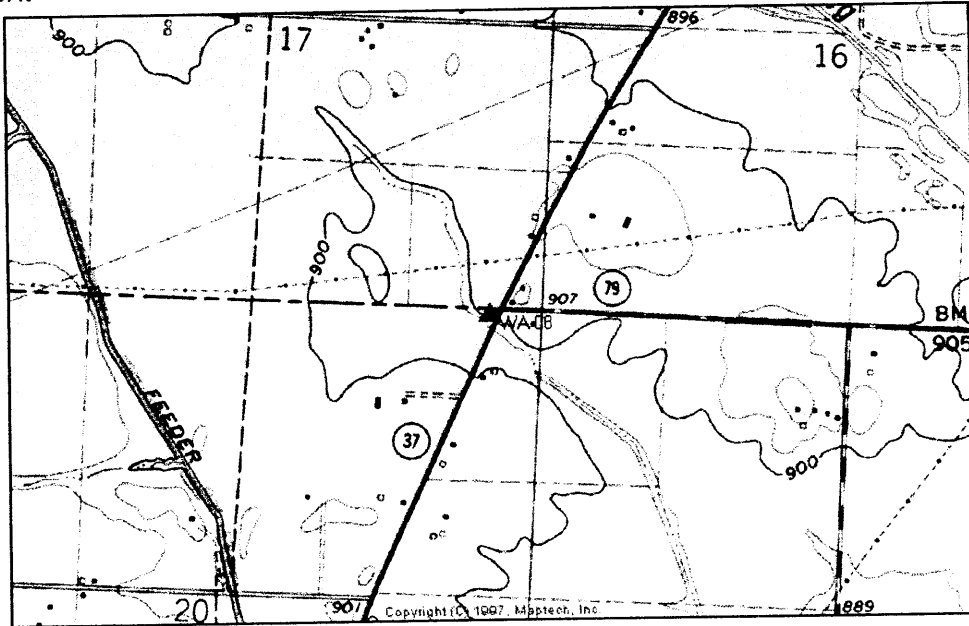
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

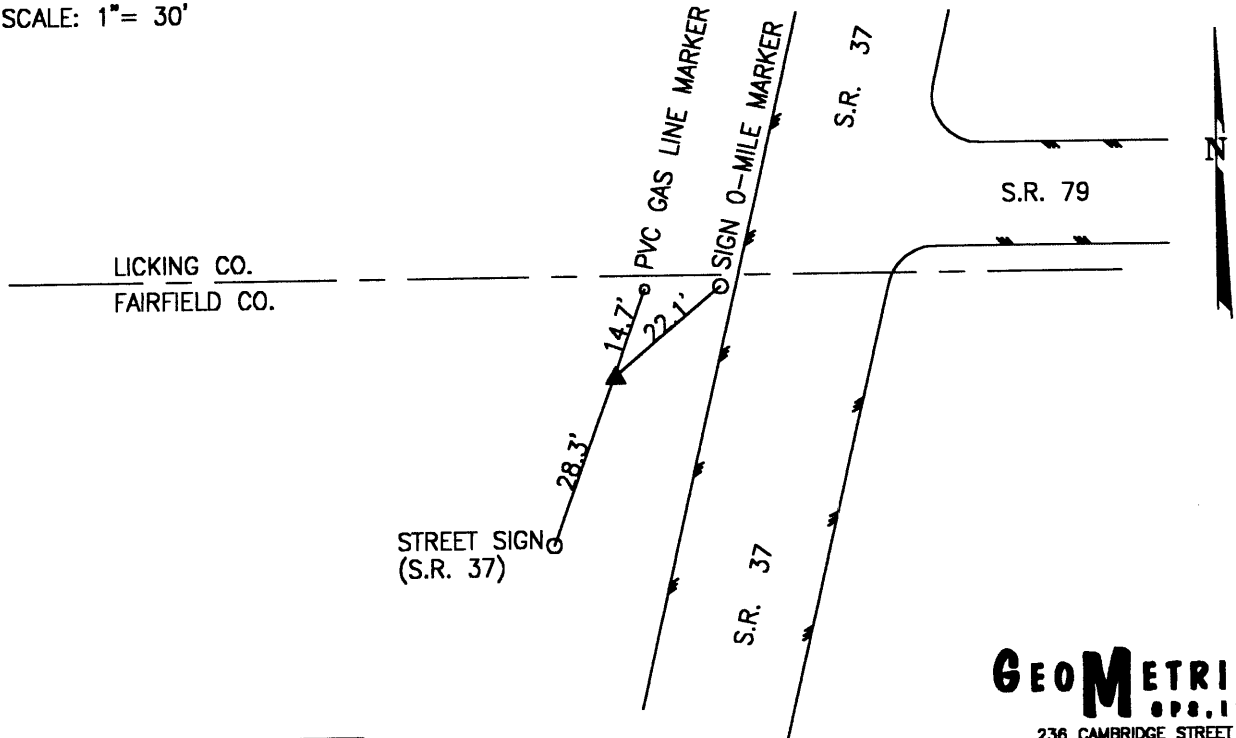
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
FAIRFIELD	WA 08		1998
N: 702367.412	E: 1956126.590	LAT: 39°55'42.17871" N	LONG: 82°32'38.83137" W
ELEV.: 897.836	(GPS) COMB. FACTOR: 0.999938060	θ ANGLE: -0°01'40.78	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1900.DWG

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\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 1900  
Designation: WA 08

PID: JY1741

Latitude: 395542N  
Longitude: 0823238W  
Elevation: 275.0M

State: OH  
County: FAIRFIELD  
Disk From: OH-045

Stamping: FAIRFIELD COUNTY AUDITOR WA 08 1991

Surface Mark-

Type: Horizontal Station disk

Magnetic code: 0

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 07031998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED.

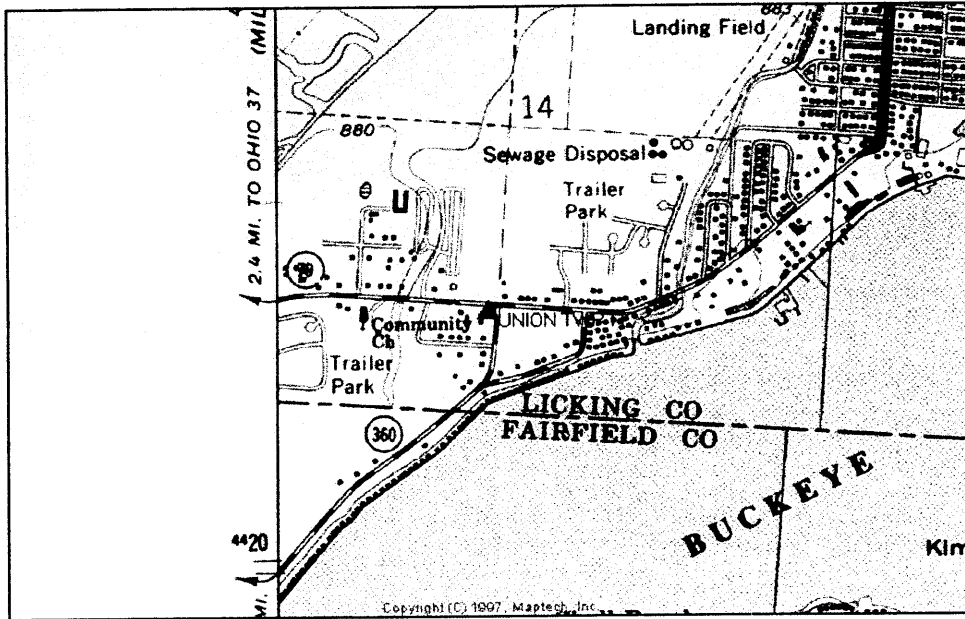
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

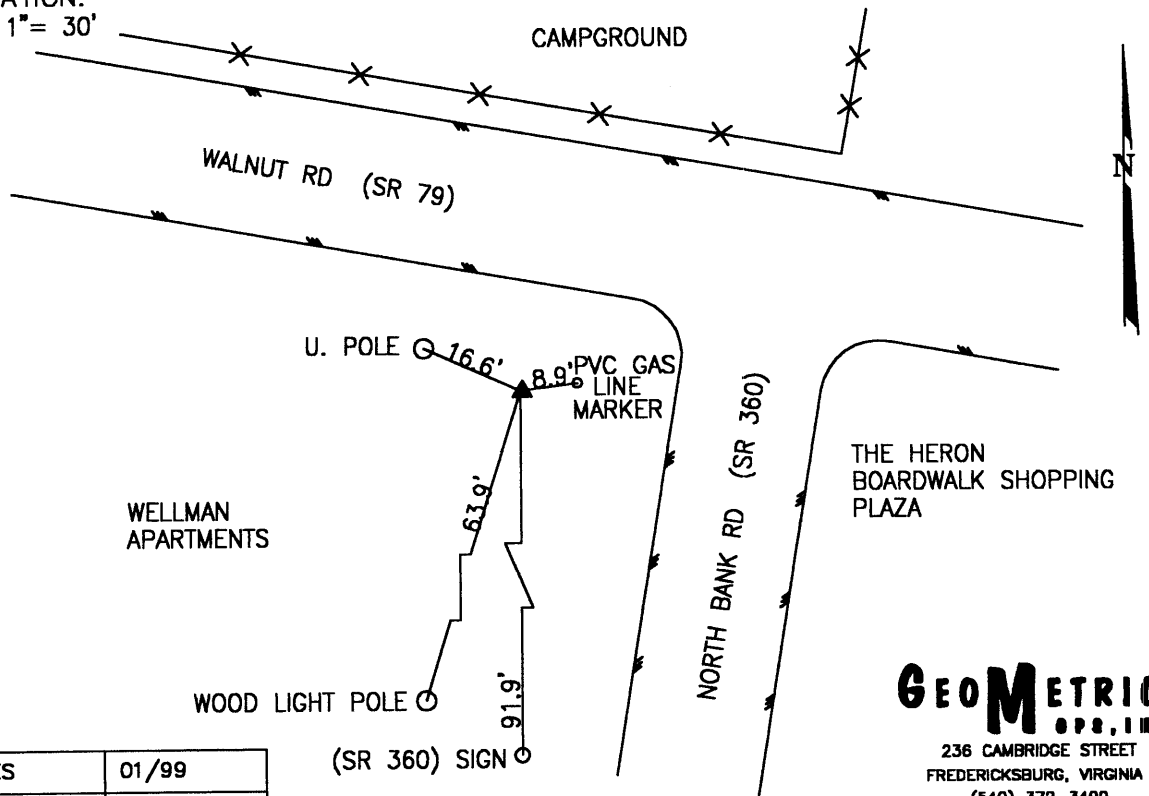
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	UNION TWP 11		1998
N: 702477.967	E: 1970484.376	LAT: 39°55'43.3004" N	LONG: 82°29'34.52743" W
ELEV.: 883.729 (GPS)	COMB. FACTOR: 0.999938785		θ ANGLE: +0°00'16.16

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

(SR 360) SIGN  
FILE: 1910.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1910  
Designation: UNION TWP 11

PID:

Latitude: 395543N  
Longitude: 0822934W  
Elevation: 249.6M  
Stamping: UNION TWP 11 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN UNION TOWNSHIP IN LICKING COUNTY, OHIO AT BUCKEYE LAKE. THE STATION IS IN THE SOUTHWEST CORNER OF THE INTERSECTION OF HEBRON ROAD (SR 79) AND NORTH BANK ROAD (SR 360) AT THE NORTHEAST CORNER OF WELLMAN APARTMENTS. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED UNION TWP 11 1998. THE STATION IS 8.9 FEET (2.7 M) AZIMUTH 83 DEGREES TO A PVC GAS LINE MARKER, 91.9 FEET (28.0 M) AZIMUTH 180 DEGREES TO A STATE ROAD 360 SIGN, 63.9 FEET (19.5 M) AZIMUTH 197 DEGREES TO A WOOD LIGHT POLE, AND 16.6 FEET (5.1 M) AZIMUTH 294 DEGREES TO A POWER POLE.

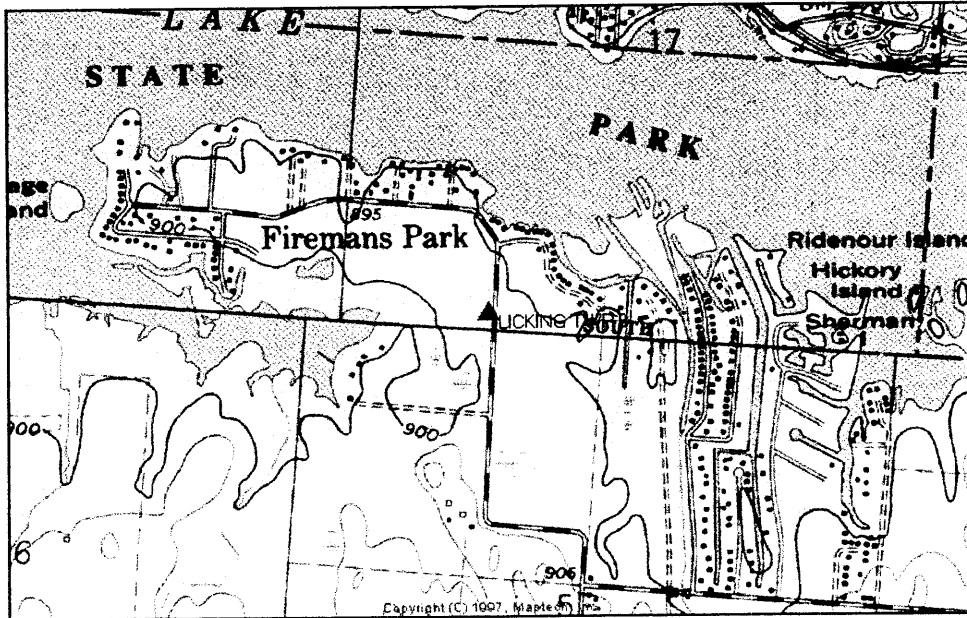
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

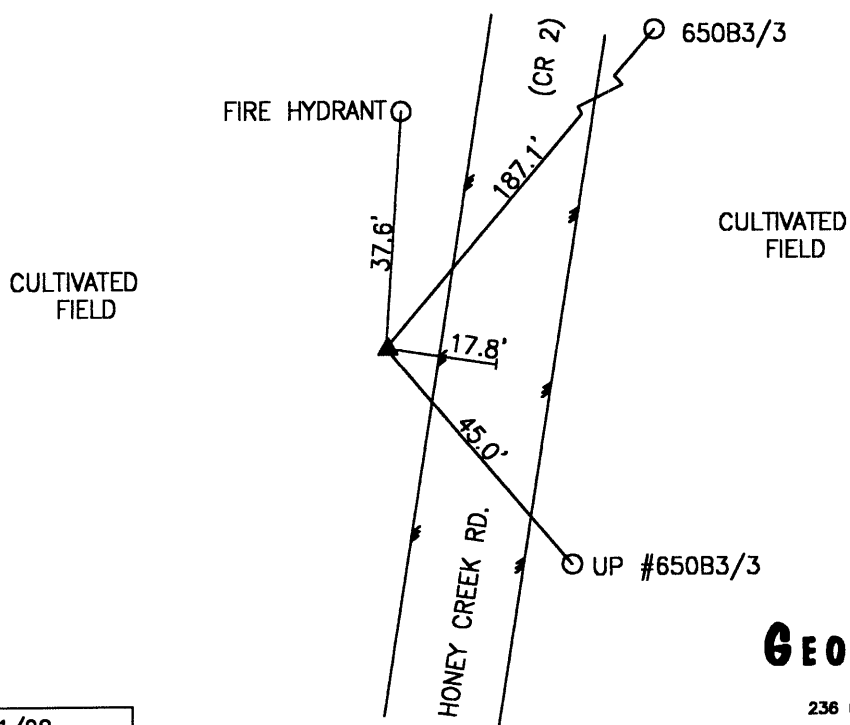
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
PERRY	LICKING TWP 9	1998
N: 700837.795	E: 1985386.625	LAT: 39°55'27.03626" N LONG: 82°26'23.24782" W
ELEV.: 907.583 (GPS)	COMB. FACTOR: 0.999936900	θ ANGLE: +0°02'17.53

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1920.DWG

**GEOMETRICS**  
 GPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1920

Designation: LICKING TWP 9

PID:

Latitude: 395527N  
Longitude: 0822623W  
Elevation: 252.9M

State: OH  
County: PERRY  
Disk From: OH-089

Stamping: LICKING TWP 9 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATION IN THORN TOWNSHIP IN PERRY COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) NORTHWEST OF THE TOWN OF THORNVILLE. TO REACH THE STATION FROM THE INTERSECTION OF ZION ROAD (CR 30) AND HONEY CREEK ROAD (CR 2) PROCEED WEST ALONG HONEY CREEK ROAD (CR 2) A DISTANCE OF 1.45 MILE (2.33 KM) TO ITS INTERSECTION WITH ROBERTS ROAD (CR 87) . TURN RIGHT AND PROCEED NORTH ALONG HONEY CREEK ROAD (CR 2) A DISTANCE OF 0.65 MILE (1.05 KM) TO THE STATION ON THE LEFT APPROXIMATELY 0.1 MILE (0.2 KM) SOUTH OF TOWNSHIP ROAD 500. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 9 1998. THE STATION IS 45.0 FEET (13.7 M) AZIMUTH 140 DEGREES TO A UTILITY POLE WITH THE NUMBER 650B3/3, 37.6 FEET (11.5 M) AZIMUTH 04 DEGREES TO A FIRE HYDRANT, 187.1 FEET (57.0 M) AZIMUTH 20 DEGREES TO A UTILITY POLE WITH THE NUMBER 650B3/4 AND 17.8 FEET (5.4 M) FROM THE CENTERLINE OF HONEY CREEK ROAD.

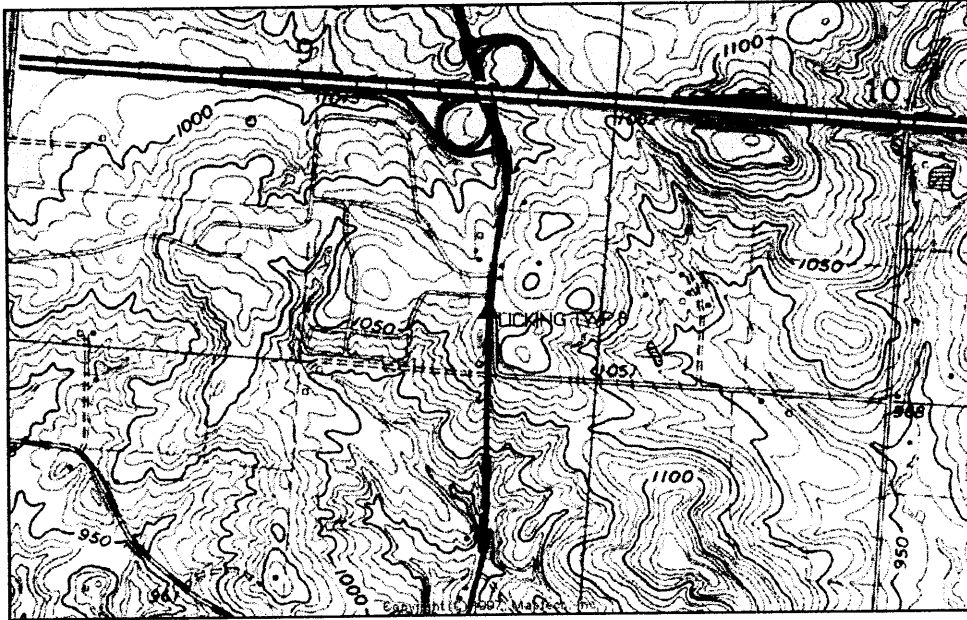
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

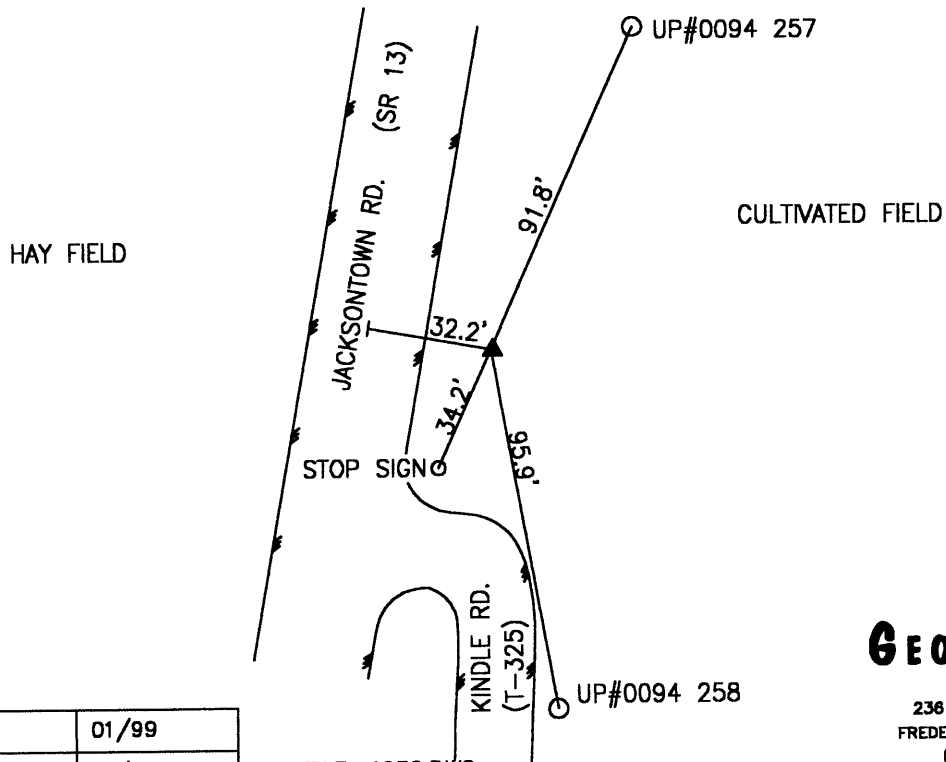
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	LICKING TWP 8	1998
N: 706039.329	E: 1994223.356	LAT: 39°56'18.36768" N LONG: 82°24'29.75416" W
ELEV.: 1077.724 (GPS)	COMB. FACTOR: 0.999931154	θ ANGLE: +0°03'29.54

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1"=50'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1930.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1930  
Designation: LICKING TWP 8

PID:

Latitude: 395618N  
Longitude: 0822429W  
Elevation: 246.2M  
Stamping: LICKING TWP 8 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATION IN LICKING TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) SOUTH OF THE TOWN OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN THE TOWN OF JACKSONTOWN PROCEED SOUTH ALONG JACKSONTOWN ROAD (SR 13) A DISTANCE OF 1.5 MILES (2.4 KM) TO THE STATION ON THE LEFT APPROXIMATELY 50.0 FEET (15.2 M) NORTH OF THE INTERSECTION WITH KINDLE ROAD (T-325) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED LICKING TWP 8 1998. THE STATION IS 91.8 FEET (28.0 M) AZIMUTH 24 DEGREES TO A UTILITY POLE WITH THE NUMBER 0094 257, 95.9 FEET (29.2 M) AZIMUTH 170 DEGREES TO A UTILITY POLE WITH THE NUMBER 0094 258, 34.2 FEET (10.4 M) AZIMUTH 204 DEGREES TO A STOP SIGN, AND 32.2 FEET (9.8 M) EAST FROM THE CENTERLINE OF JACKSONTOWN ROAD.

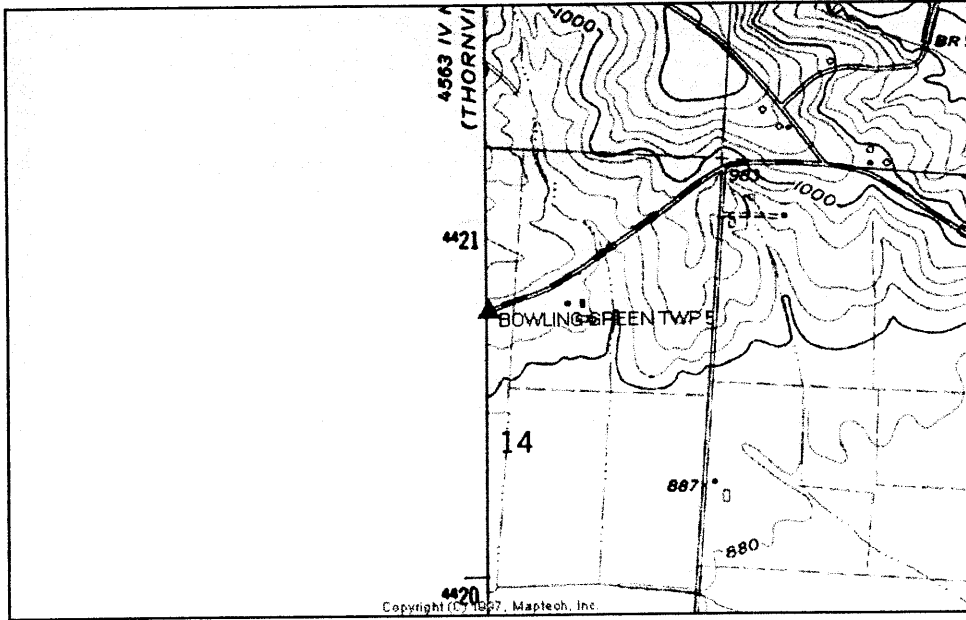
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

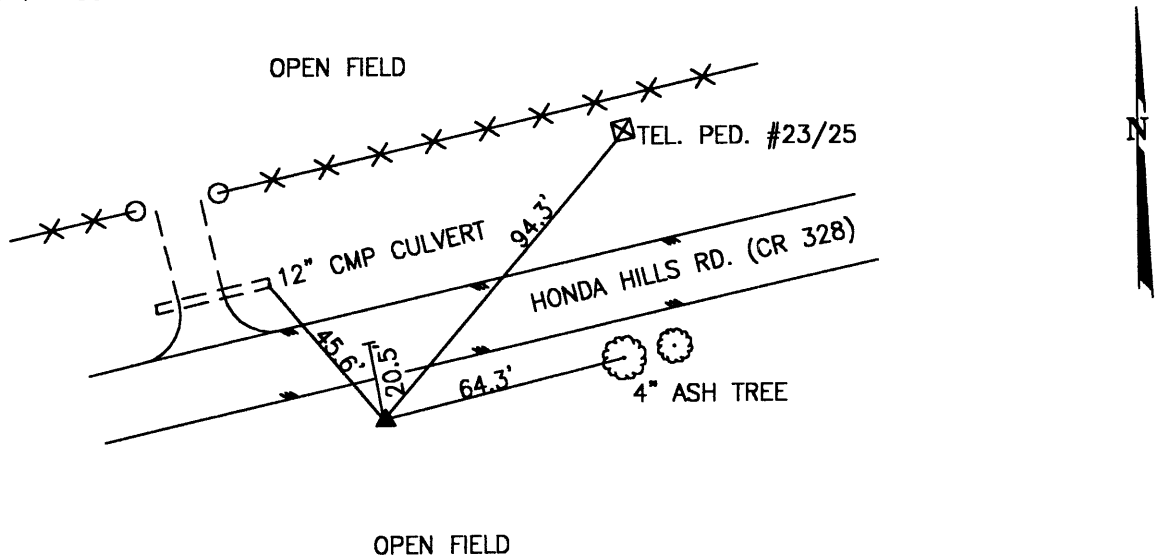
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BOWLING GREEN TWP 5		1998
N: 703260.341	E: 2003654.058	LAT: 39°55'50.79195" N	LONG: 82°22'28.72902" W
ELEV.: 939.431 (GPS)	COMB. FACTOR: 0.999936472		Θ ANGLE: +0°04'46.34

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1940.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1940

Designation: BOWLING GREEN TWP 5

PID:

Latitude: 395550N  
Longitude: 0822228W  
Elevation: 255.2M  
Stamping: BOWLING GREEN TWP 5 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 3.0 MILES (4.8 KM) SOUTHEAST OF THE TOWN OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN JACKSONTOWN PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH SOMERSET ROAD (T-323) . TURN RIGHT AND PROCEED SOUTH ALONG SOMERSET ROAD (T-323) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH HONDA HILLS ROAD (CR 328) PAST FIRST HONDA HILLS ON LEFT. TURN RIGHT AND PROCEED WEST ALONG HONDA HILLS ROAD (CR 328) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 5 1998. THE STATION IS 64.3 FEET (19.6 M) AZIMUTH 76 DEGREES TO A 4 INCH ASH TREE, 20.5 FEET (6.2 M) SOUTH FROM THE CENTERLINE OF HONDA HILLS ROAD, 45.6 FEET (13.9 M) AZIMUTH 320 DEGREES TO A 12 INCH CMP CULVERT, AND 94.3 FEET (28.7 M) AZIMUTH 40 DEGREES TO A TELEPHONE PEDESTAL WITH THE NUMBER 23/25.

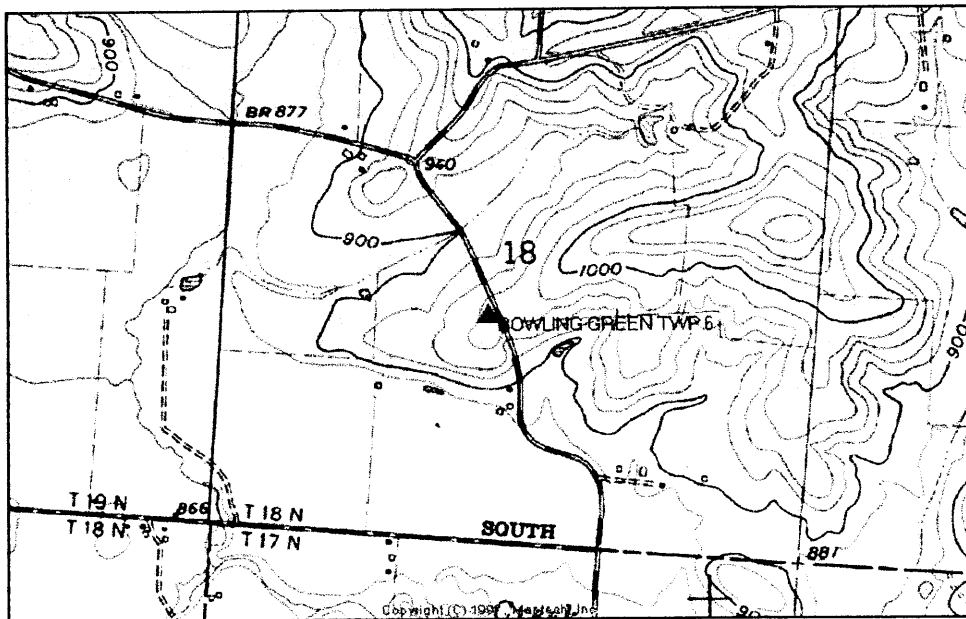
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

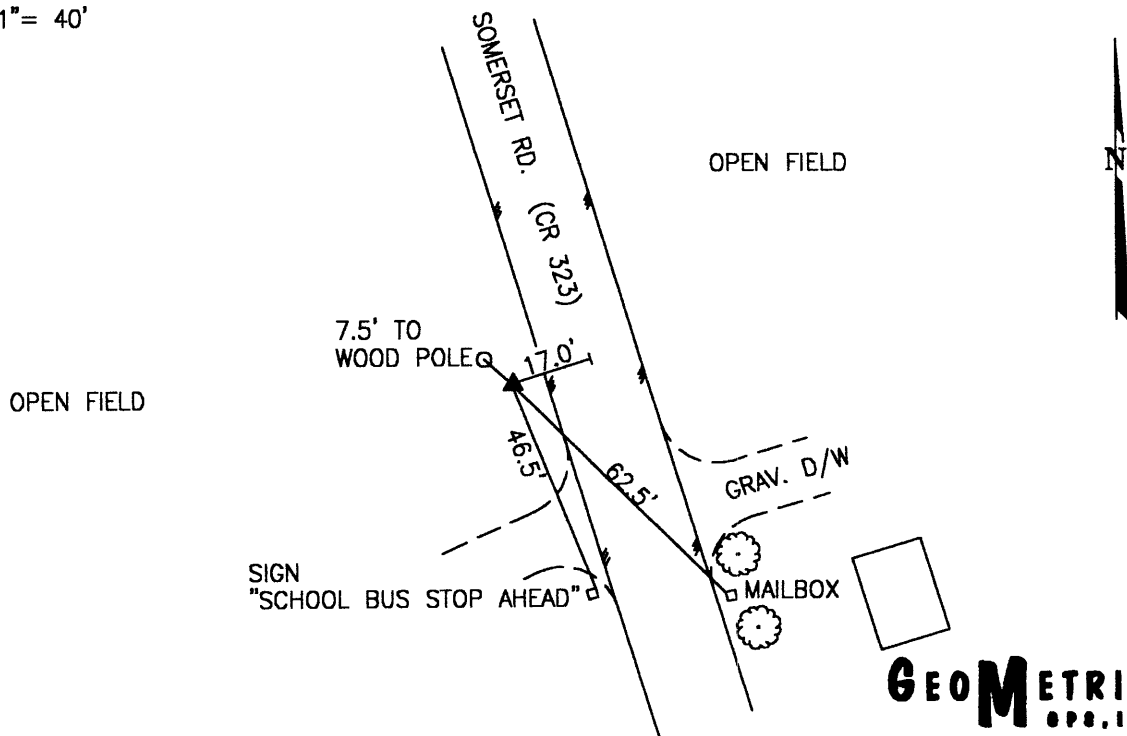
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BOWLING GREEN TWP 6		1998
N: 700782.624	E: 2013319.420	LAT: 39°55'26.15473" N	LONG: 82°20'24.71174" W
ELEV.: 962.501	(GPS)	COMB. FACTOR: 0.999934238	θ ANGLE: +0°06'05.03

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1950.DWG

**GEOMETRICS**  
 OPS, INC.

236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1950

Designation: BOWLING GREEN TWP 6

PID:

Latitude: 395526N  
Longitude: 0822024W  
Elevation: 247.5M  
Stamping: BOWLING GREEN TWP 6 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 4.7 MILES (7.6 KM) SOUTHEAST OF JACKSONTOWN. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND JACKSONTOWN ROAD (SR 13) IN JACKSONTOWN PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 1.6 MILES (2.6 KM) TO ITS INTERSECTION WITH SOMERSET ROAD (T-323) . TURN RIGHT AND PROCEED SOUTH ALONG SOMERSET ROAD (T-323) A DISTANCE OF 2.3 MILES (3.7 KM) TO A DEAD END, HONDA HILLS ROAD (CR 328) ON THE RIGHT AND SOMERSET ROAD (CR 323) ON THE LEFT. TURN LEFT AND PROCEED EAST ALONG SOMERSET ROAD (CR 323) A DISTANCE OF 1.3 MILES (2.1 KM) TO A DEAD END, LAUREL ROAD (CR 332) ON THE LEFT AND SOMERSET ROAD (CR 323) ON THE RIGHT. TURN RIGHT AND PROCEED SOUTHEAST ALONG SOMERSET ROAD (CR 323) A DISTANCE OF 0.3 MILE (0.5 KM) TO THE STATION ON THE RIGHT AT THE TOP OF A HILL, OPPOSITE A HOUSE WITH A GARAGE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 6 1998. THE STATION IS 46.5 FEET (14.2 M) AZIMUTH 158 DEGREES TO A SCHOOL BUS STOP AHEAD SIGN, 7.5 FEET (2.3 M) AZIMUTH 312 DEGREES TO A WOOD POST, 62.5 FEET (19.1 M) AZIMUTH 135 DEGREES TO A MAIL BOX AND 17.0 FEET (5.2 M) WEST FROM THE CENTERLINE OF SOMERSET ROAD.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

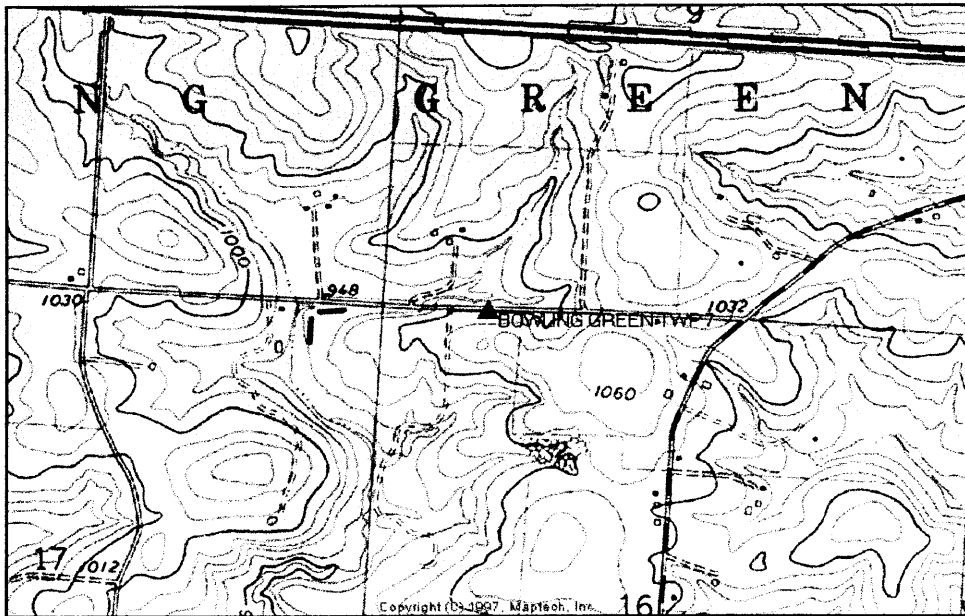
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

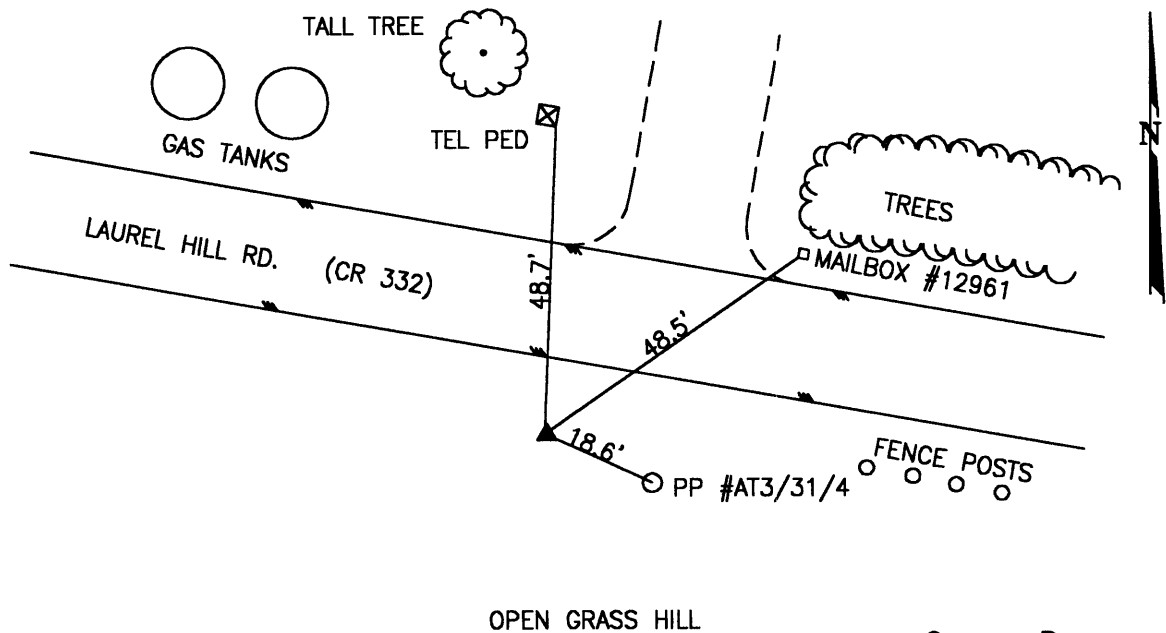
COUNTY	NAME OF STATION	YEAR
LICKING	BOWLING GREEN TWP 7	1998

N: 703430.036	E: 2022864.322	LAT: 39°55'52.13342" N	LONG: 82°18'22.12371" W
ELEV.: 999.060	(GPS) COMB. FACTOR: 0.999933687	Θ ANGLE: +0°07'22.81	

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1"=30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1960.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1960

Designation: BOWLING GREEN TWP 7

PID:

Latitude: 395552N  
Longitude: 0821822W  
Elevation: 270.0M  
Stamping: BOWLING GREEN TWP 7 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) SOUTHEAST OF THE TOWN OF LINNVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND LINNVILLE ROAD (CR 311) PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH SHELLEY ROAD (CR 330) . TURN RIGHT AND PROCEED SOUTH ALONG SHELLEY ROAD (CR 330) A DISTANCE OF 1.7 MILES (2.7 KM) TO ITS INTERSECTION WITH LAUREL HILL ROAD (CR 332) . TURN LEFT AND PROCEED EAST ALONG LAUREL HILL ROAD (CR 332) A DISTANCE OF 1.8 MILES (2.9 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 7 1998. THE STATION IS 18.6 FEET (5.7 M) AZIMUTH 115 DEGREES TO A POWER POLE WITH THE NUMBER AT3/31/4, 48.5 FEET (14.8 M) AZIMUTH 55 DEGREES TO A MAIL BOX WITH THE NUMBER 12961, 48.7 FEET (14.8 M) AZIMUTH 02 DEGREES TO A TELEPHONE PEDESTAL AND 12.1 FEET (3.7 M) SOUTH FROM THE EDGE OF THE PAVEMENT OF LAUREL HILL ROAD.

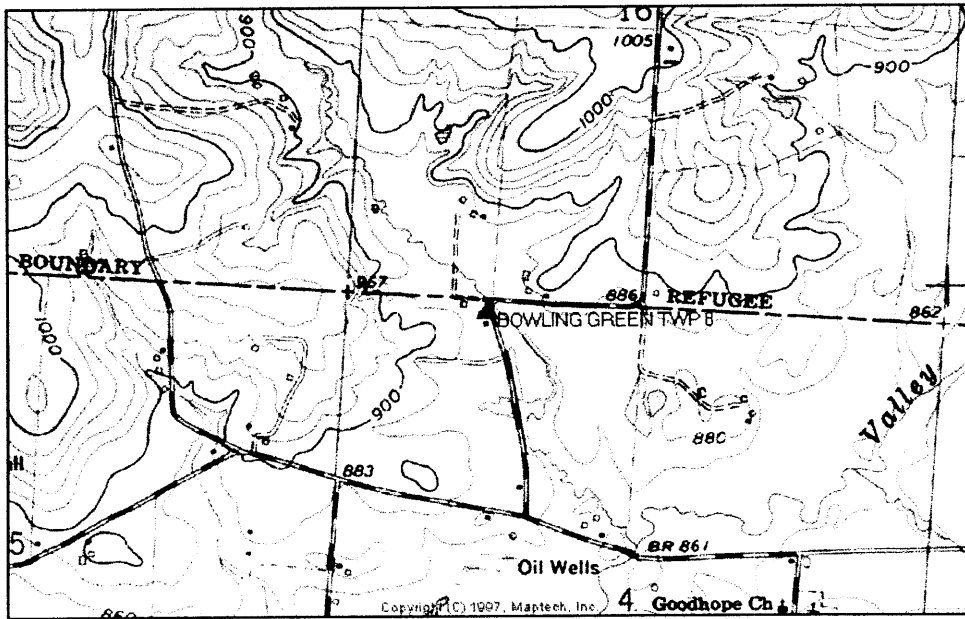
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

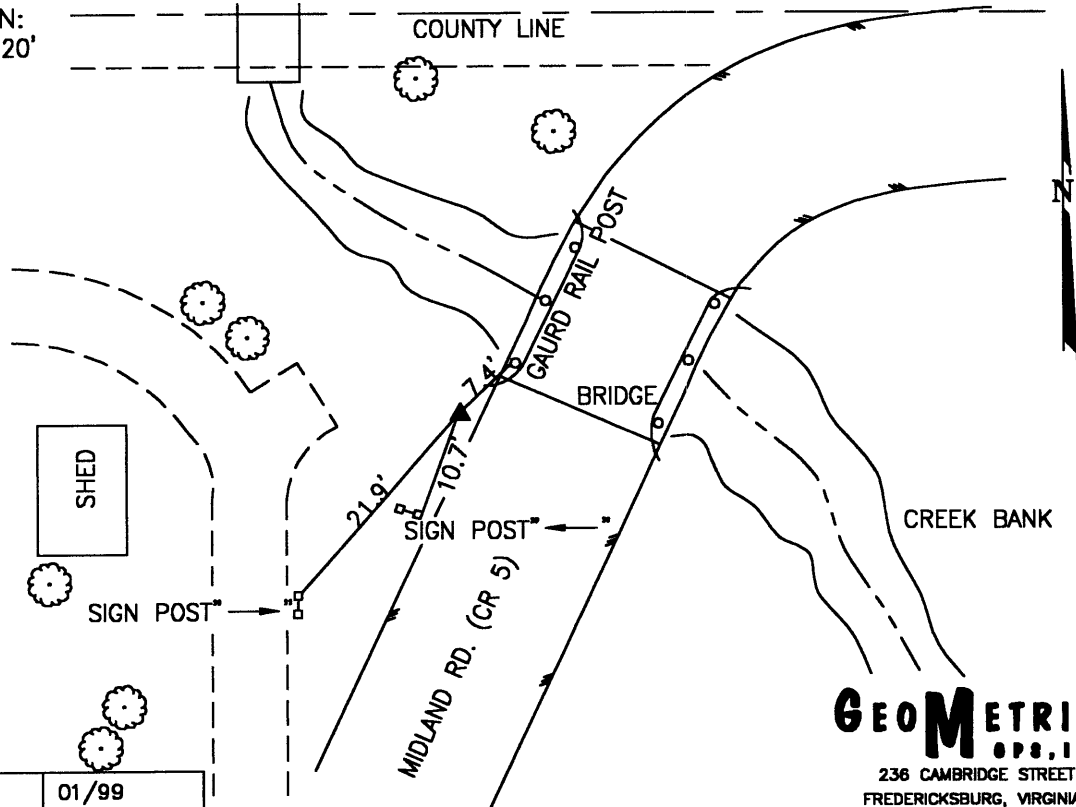
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
PERRY	BOWLING GREEN TWP 8		1998
N: 697959.649	E: 2022868.480	LAT: 39°54'58.07143" N	LONG: 82°18'22.22108" W
ELEV.: 870.300	(GPS)	COMB. FACTOR: 0.999937367	θ ANGLE: +0°07'22.75

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 20'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1970.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1970

Designation: BOWLING GREEN TWP 8

PID:

Latitude: 395458N  
Longitude: 0821822W  
Elevation: 249.0M

State: OH  
County: PERRY  
Disk From: OH-089

Stamping: BOWLING GREEN TWP 8 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN HOPEWELL TOWNSHIP IN PERRY COUNTY ABOUT 3.0 MILES (4.8 KM) SOUTHEAST OF THE TOWN OF LINNVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND LINNVILLE ROAD (CR 311) PROCEED EAST ALONG NATIONAL ROAD (US 40) A DISTANCE OF 0.6 MILE (1.0 KM) TO ITS INTERSECTION WITH SHELLEY ROAD (CR 330) . TURN RIGHT AND PROCEED SOUTH ALONG SHELLEY ROAD (CR 330) A DISTANCE OF 1.7 MILES (2.7 KM) TO ITS INTERSECTION WITH LAUREL HILL ROAD (CR 332) . TURN LEFT AND PROCEED EAST ALONG LAUREL HILL ROAD (CR 332) A DISTANCE OF 2.1 MILES (3.4 KM) TO ITS INTERSECTION WITH MIDLAND ROAD (CR 5) . TURN RIGHT AND PROCEED SOUTH ALONG MIDLAND ROAD (CR 5) A DISTANCE OF 1.3 MILES (2.1 KM) TO THE STATION ON THE RIGHT NEXT TO THE BRIDGE WHERE THE MIDLAND ROAD TURNS 90 DEGREES TO HEAD DUE SOUTH AGAIN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 8 1998. THE STATION IS 10.7 FEET (3.3 M) AZIMUTH 229 DEGREES TO A SIGN POST WITH AN ARROW POINTING LEFT, 21.9 FEET (6.7 M) AZIMUTH 250 DEGREES TO A SIGN POST WITH AN ARROW POINTING RIGHT, 7.4 FEET (2.3 M) AZIMUTH 25 DEGREES TO A GUARD RAIL POST AND 2.7 FEET (0.8 M) FROM THE EDGE OF THE PAVEMENT OF MIDLAND ROAD.

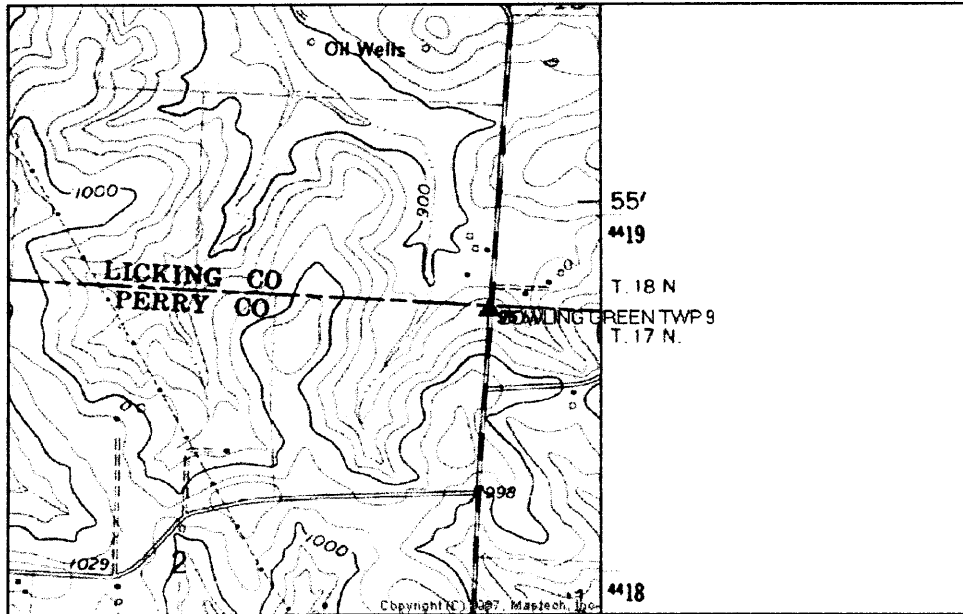
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

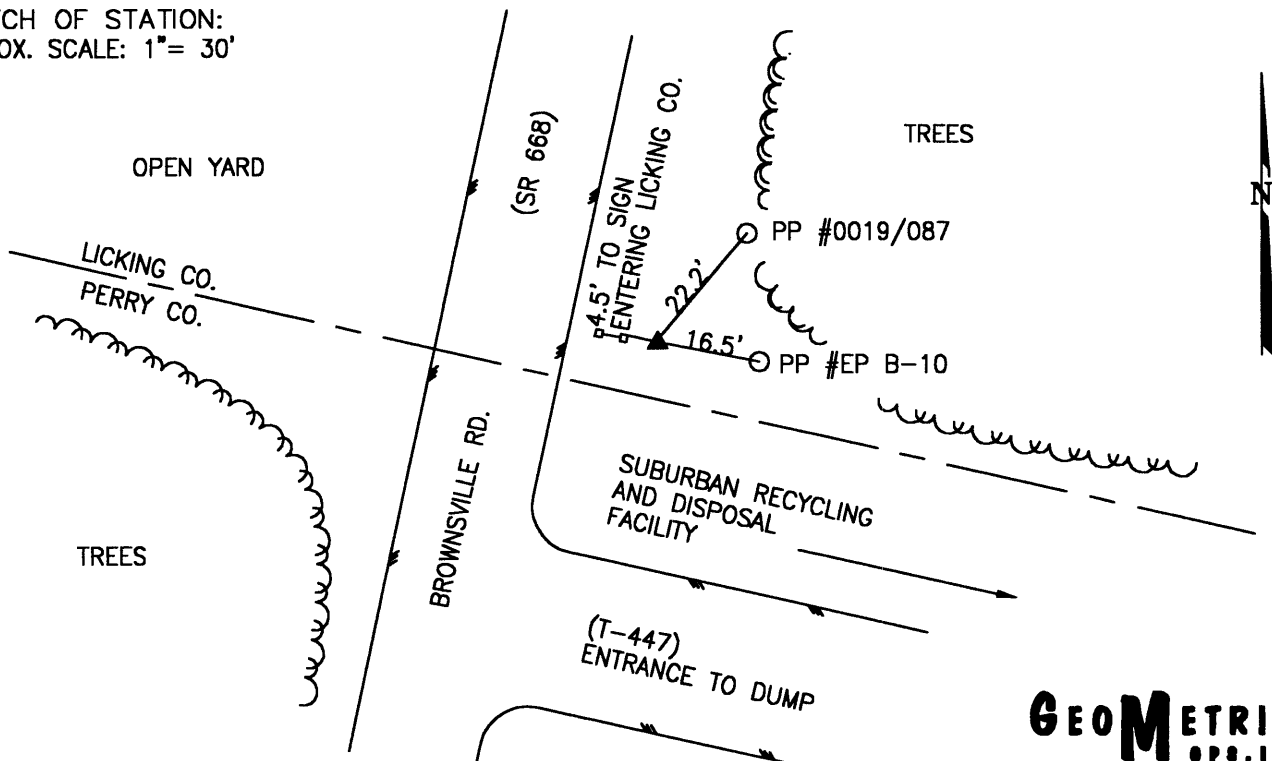
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
LICKING	BOWLING GREEN TWP 9		1998
N: 697226.144	E: 2037695.113	LAT: 39°54'50.46504" N	LONG: 82°15'11.95885" W
ELEV.: 951.038 (GPS)	COMB. FACTOR: 0.999933171		Ø ANGLE: +0°09'23.47

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1980.DWG

**GEOMETRICS**  
OPS. INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1980  
Designation: BOWLING GREEN TWP 9

PID:

Latitude: 395450N  
Longitude: 0821511W  
Elevation: 276.3M  
Stamping: BOWLING GREEN TWP 9 1998

State: OH  
County: LICKING  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 2.3 MILES (3.7 KM) SOUTH OF THE TOWN OF BROWNSVILLE. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND BROWNSVILLE ROAD (SR 668) IN BROWNSVILLE PROCEED SOUTH ALONG BROWNSVILLE ROAD (SR 668) APPROXIMATELY OF 2.9 MILES (4.7 KM) TO THE LICKING AND PERRY COUNTY LINE AND THE STATION ON THE LEFT NEAR THE COUNTY LINE SIGN. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 9 1998. THE STATION IS 4.5 FEET (1.4 M) AZIMUTH 283 DEGREES TO AN ENTERING LICKING COUNTY SIGN, 16.5 FEET (5.0 M) AZIMUTH 101 DEGREES TO A POWER POLE WITH THE NUMBER EP B-10, AND 22.2 FEET (6.8 M) AZIMUTH 40 DEGREES TO A POWER POLE WITH THE NUMBER 0019/087.

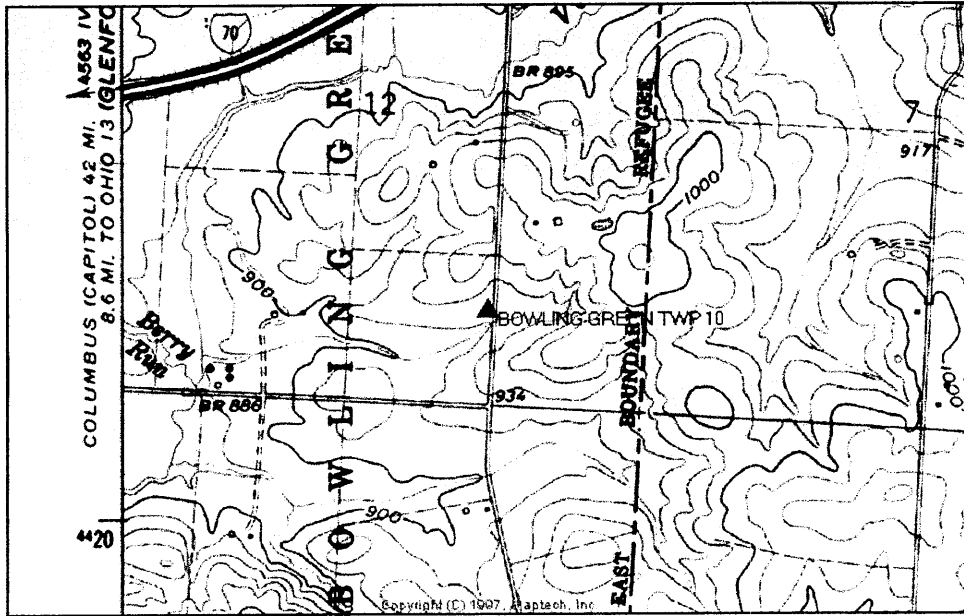
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

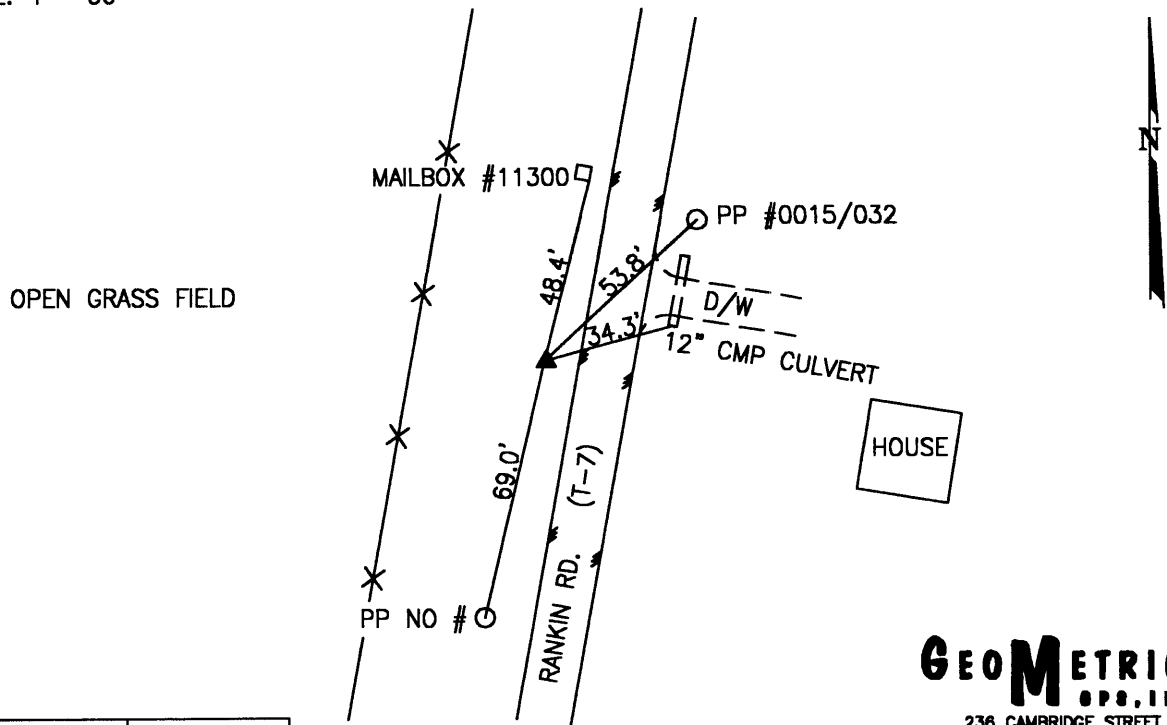
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
LICKING	BOWLING GREEN TWP 10	1998
N: 703302.782	E: 2042010.445	LAT: 39°55'50.39808" N LONG: 82°14'16.35036" W
ELEV.: 930.047 (GPS)	COMB. FACTOR: 0.999936901	Θ ANGLE: +0°09'58.76

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 1990.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 1990  
Designation: BOWLING GREEN TWP 10

PID:

Latitude: 395550N  
Longitude: 0821416W  
Elevation: 224.6M

State: OH  
County: LICKING  
Disk From: OH-089

Stamping: BOWLING GREEN TWP 10 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN BOWLING GREEN TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.7 MILES (2.7 KM) SOUTHWEST OF THE TOWN OF GRATIOT. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND RANKIN ROAD (T-7) PROCEED SOUTH ALONG RANKIN ROAD (T-7) A DISTANCE OF 1.2 MILES (1.9 KM) TO THE STATION ON THE RIGHT APPROXIMATELY 48 FEET (14.6 M) SOUTH OF MAIL BOX NUMBER 11300. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED BOWLING GREEN TWP 10 1998. THE STATION IS 48.4 FEET (14.8 M) AZIMUTH 14 DEGREES TO A MAIL BOX WITH THE NUMBER 11300, 53.8 FEET (16.4 M) AZIMUTH 47 DEGREES TO A POWER POLE WITH THE NUMBER 0015/032, 34.3 FEET (10.5 M) AZIMUTH 75 DEGREES TO A 12 INCH CMP CULVERT, AND 69.0 FEET (21.0 M) AZIMUTH 193 DEGREES TO A POWER POLE WITH NO NUMBER.

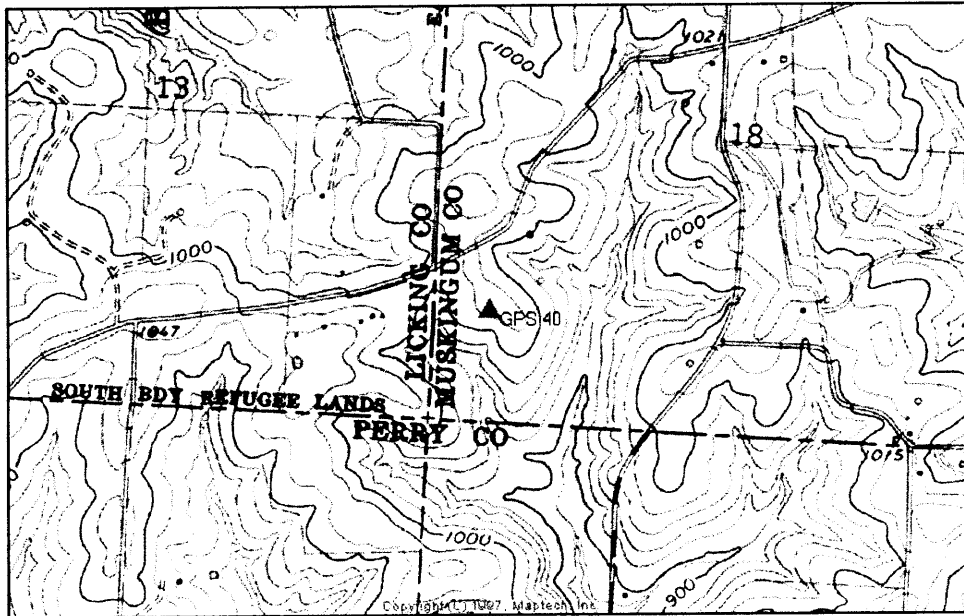
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

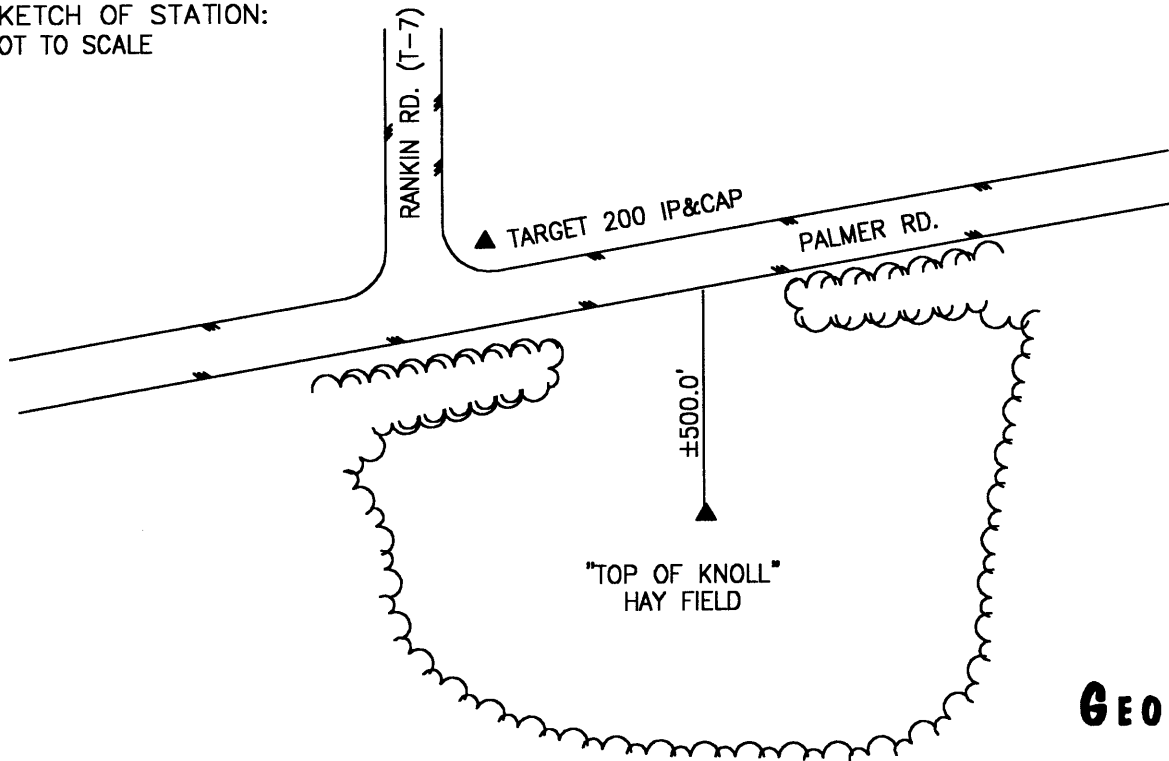
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
MUSKINGUM	GPS 40		1998
N: 697971.239	E: 2043688.641	LAT: 39°54'57.65974" N	LONG: 82°13'55.01073" W
ELEV.: 1024.322 (GPS)	COMB. FACTOR: 0.999929996		Θ ANGLE: +0°10'12.30

VICINITY SKETCH:



SKETCH OF STATION:  
 NOT TO SCALE



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2000.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 7046  
Designation: GPS 40

PID: AA5282

Latitude: 395457N  
Longitude: 0821355W  
Elevation: 331.2M  
Stamping: GPS 40

State: OH  
County: MUSKINGUM  
Disk From: OH-119

Surface Mark-  
Type: Survey disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 07041998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

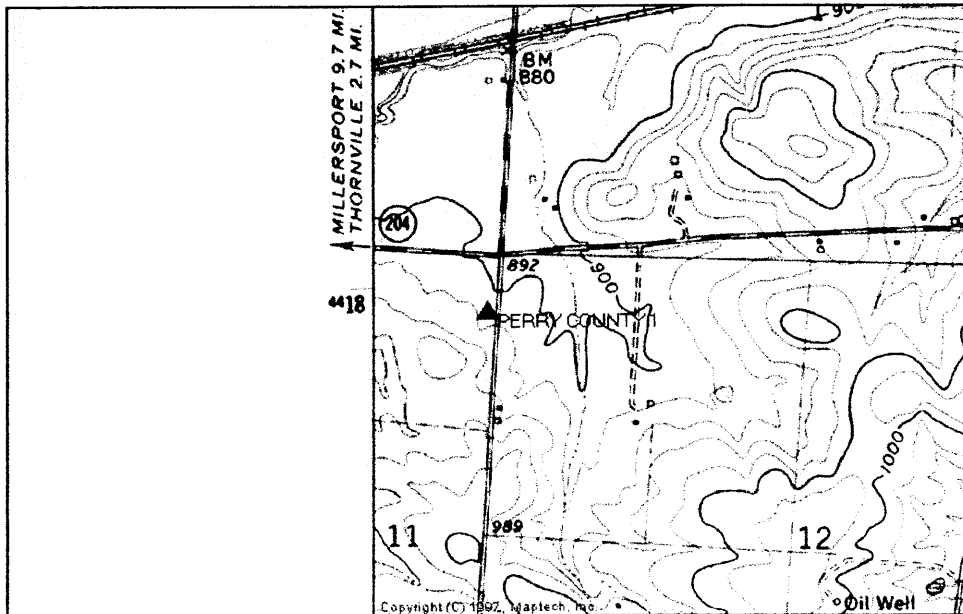
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

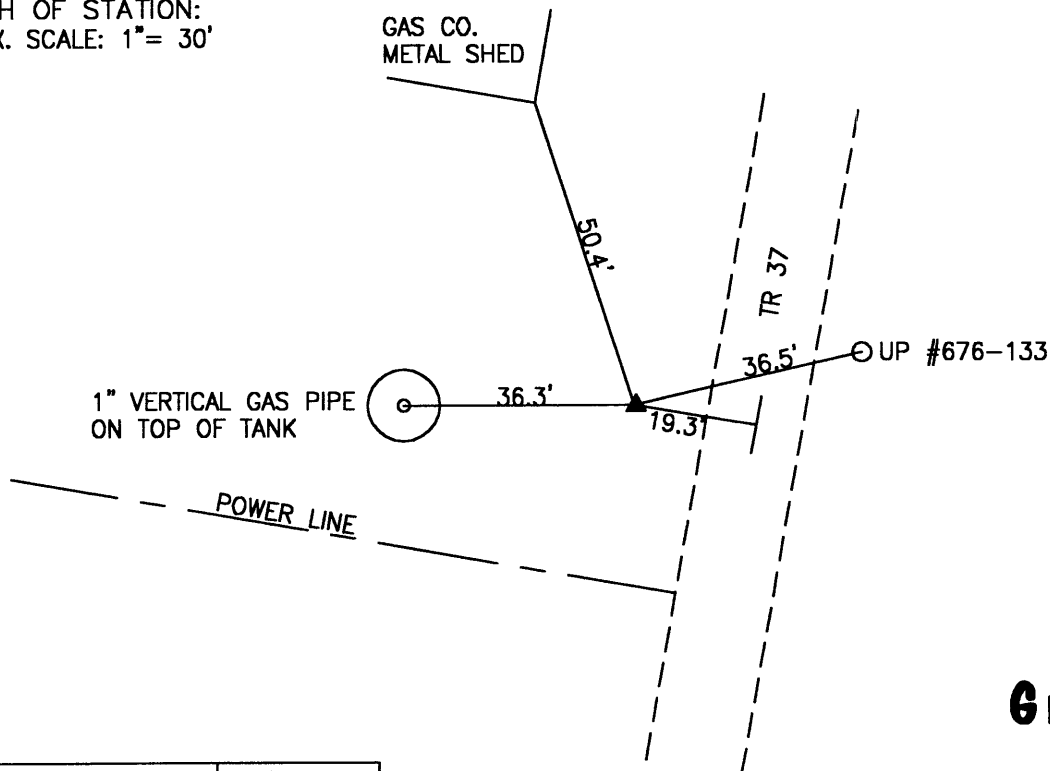
COUNTY	NAME OF STATION	YEAR
PERRY	PERRY COUNTY 1	1998

N: 694015.350	E: 2004688.040	LAT: 39°54'19.41229" N	LONG: 82°22'15.62539" W
ELEV.: 910.418	(GPS)	COMB. FACTOR: 0.999933730	θ ANGLE: +0°04'54.65

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2010.DWG

**GEOMETRICS**  
OPS. INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL

DESCRIPTION \*\*\*\*\*

SSN: 2010

Designation: PERRY COUNTY 1

PID:

Latitude: 395419N  
Longitude: 0822215W  
Elevation: 312.9M

State: OH  
County: PERRY  
Disk From: OH-089

Stamping: PERRY COUNTY 1 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THORN TOWNSHIP IN PERRY COUNTY, OHIO ABOUT 2.5 MILES (4.0 KM) EAST OF THE TOWN OF THORNVILLE. TO REACH THE STATION FROM THE INTERSECTION OF THORNVILLE ROAD (SR 188) AND BACKLICK-EASTERN ROAD (SR 204) PROCEED EAST ALONG BACKLICK-EASTERN (SR 204) A DISTANCE OF 2.3 MILES (3.7 KM) TO ITS INTERSECTION WITH T-37. TURN RIGHT AND PROCEED SOUTH ALONG T-37 A DISTANCE OF 0.1 MILE (0.2 KM) TO THE STATION ON THE RIGHT IN THE SOUTHEAST CORNER OF A GAS COMPANY LOT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT SET FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY COUNTY 1 1998. THE STATION IS 36.5 FEET (11.1 M) AZIMUTH 77 DEGREES TO A UTILITY POLE WITH NUMBER 676-133, 36.3 FEET (11.1 M) AZIMUTH 270 DEGREES TO A ONE INCH VERTICAL GAS PIPE ON TOP OF A TANK, 50.4 FEET (15.4 M) AZIMUTH 342 DEGREES TO THE SOUTHEAST CORNER OF A METAL SHED, AND 19.3 FEET (5.9 M) WEST FROM THE CENTERLINE OF T-37.

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

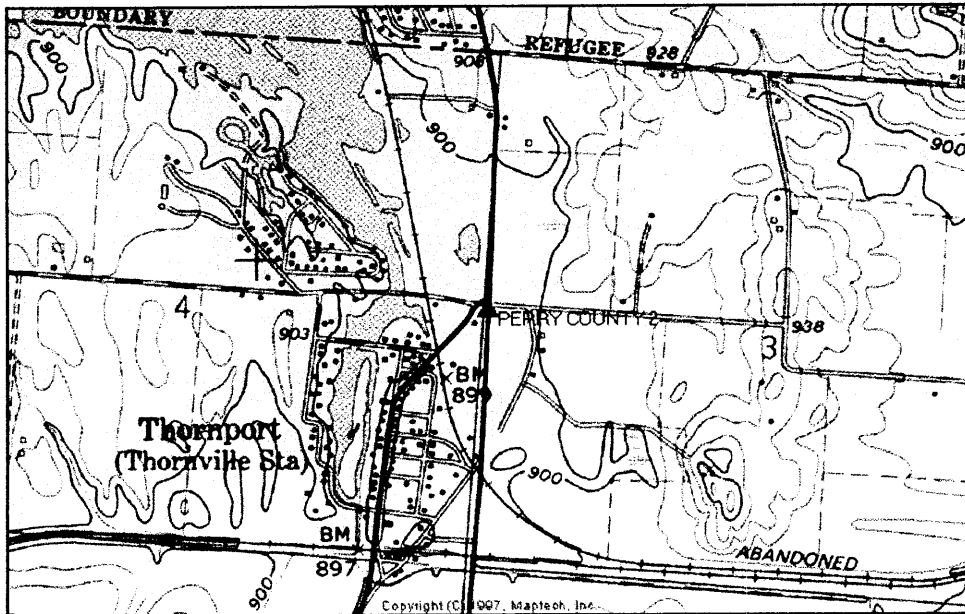
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

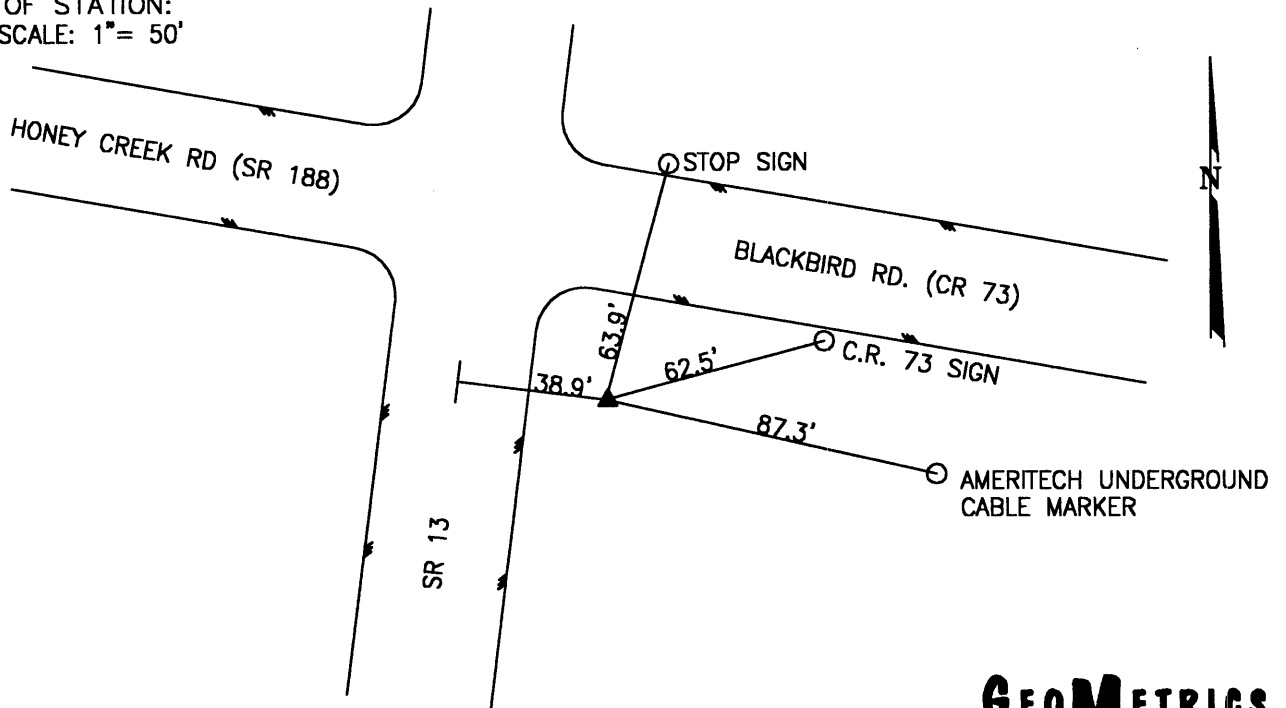
COUNTY	NAME OF STATION	YEAR
PERRY	PERRY COUNTY 2	1998

N: 697685.196	E: 1994064.836	LAT: 39°54'55.80827" N	LONG: 82°24'31.89754" W
ELEV.: 896.297	(GPS)	COMB. FACTOR: 0.999936024	θ ANGLE: +0°03'28.18

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2020.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2020

Designation: PERRY COUNTY 2

PID:

Latitude: 395455N  
Longitude: 0822431W  
Elevation: 301.8M

State: OH  
County: PERRY  
Disk From: OH-089

Stamping: PERRY COUNTY 2 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THORN TOWNSHIP IN PERRY COUNTY, OHIO ABOUT 1.5 MILES (2.4 KM) NORTHEAST OF THE TOWN OF THORNVILLE. THE STATION IS LOCATED IN THE SOUTHEAST CORNER OF THE INTERSECTION OF JACKSONTOWN ROAD (SR 13) , BLACKBIRD ROAD (CR 73) , AND HONEY CREEK ROAD (CR 2) . THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT SET FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY COUNTY 2 1998. THE STATION IS 63.9 FEET (19.5 M) AZIMUTH 15 DEGREES TO A STOP SIGN, 62.5 FEET (19.1 M) AZIMUTH 75 DEGREES TO CR 73 SIGN, 38.9 FEET (11.9 M) EAST FROM THE CENTERLINE PAVEMENT TO SR 13, AND 87.3 FEET (26.6 M) AZIMUTH 103 DEGREES TO AN AMERITECH UNDERGROUND CABLE MARKER.

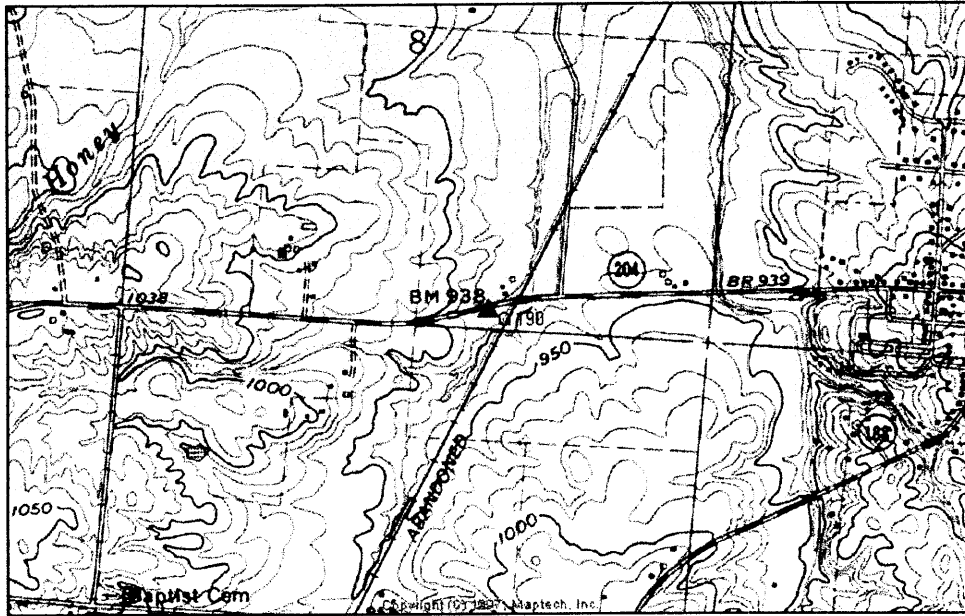
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

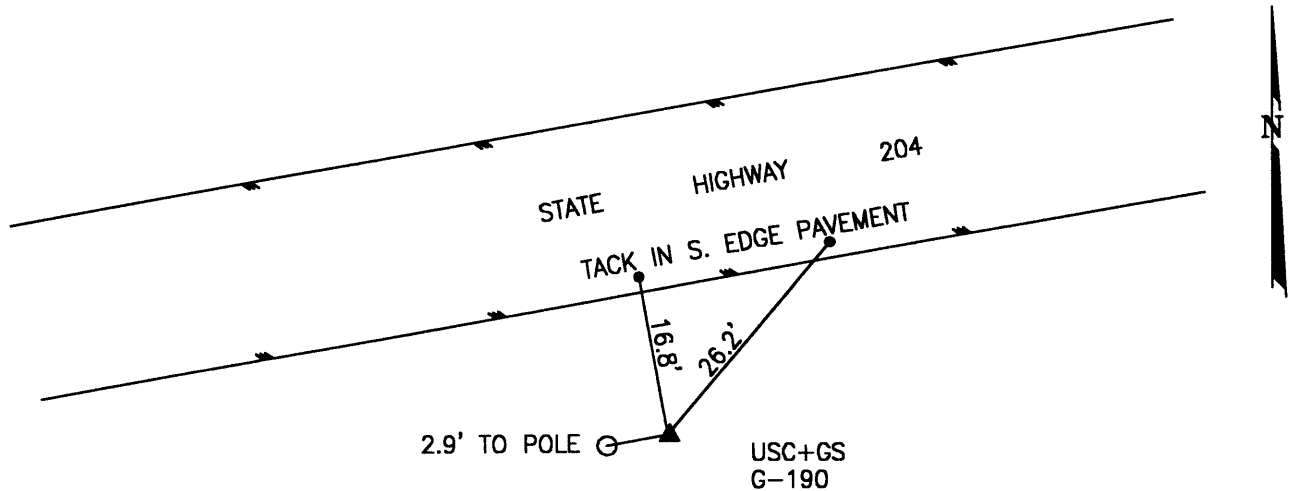
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
PERRY	G 190		1998
N: 690601.233	E: 1986247.399	LAT: 39°53'45.86546" N	LONG: 82°26'12.29120" W
ELEV.: 937.829 (GPS)	COMB. FACTOR: 0.999930956		θ ANGLE: +0°02'24.48

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 20'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2030.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* R E C O V E R Y            D E S C R I P T I O N \*\*\*\*\*

SSN: 2030  
Designation: G 190

PID: JY0038

Latitude: 395345N  
Longitude: 0822612W  
Elevation: 341.6M  
Stamping: G 190 1954

State: OH  
County: PERRY  
Disk From: CGS

Surface Mark-  
Type: Bench Mark disk  
Magnetic code: 0  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Recovered in Good condition by - GEOMET on 04041998, chief of party DAR.

-----  
RECOVERED AS DESCRIBED.

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

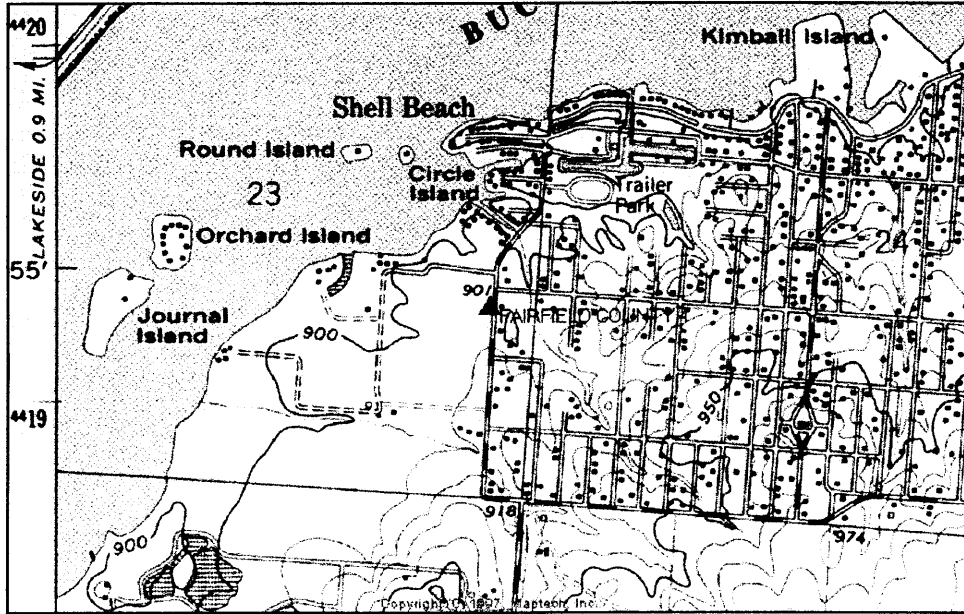
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

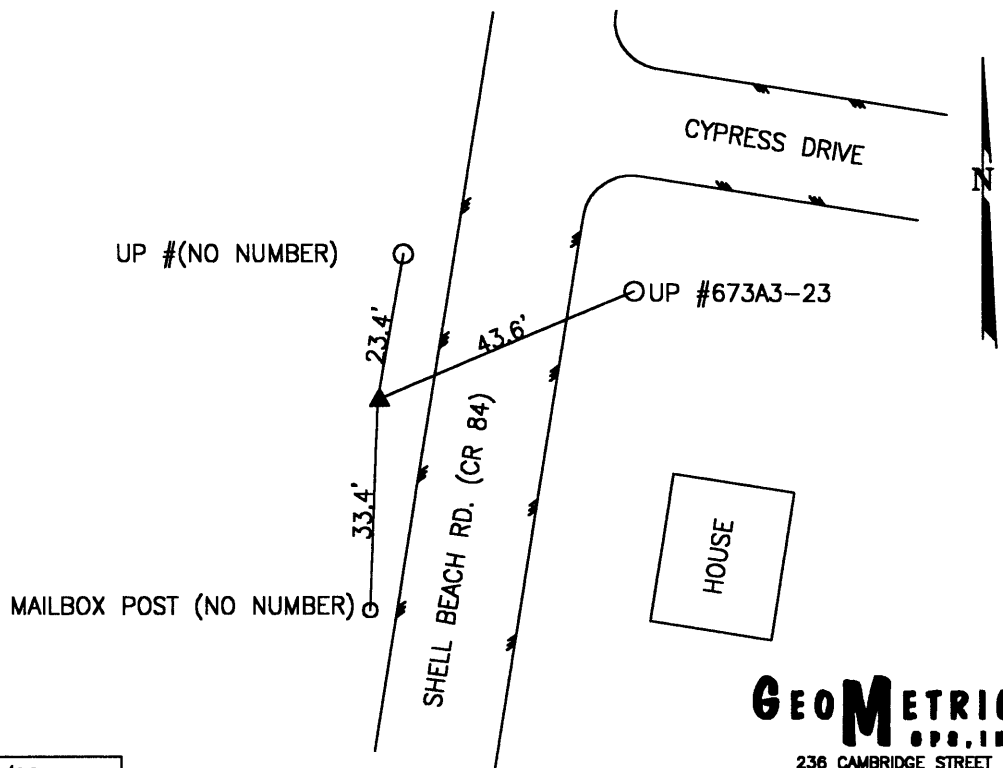
COUNTY	NAME OF STATION	YEAR
FAIRFIELD	FAIRFIELD COUNTY 4	1998

N: 697775.966 E: 1972500.476 LAT: 39°54'56.82970" N LONG: 82°29'08.65716" W  
ELEV.: 899.818 (GPS) COMB. FACTOR: 0.999935902 Θ ANGLE: +0°00'32.57

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2040.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2040

Designation: FAIRFIELD COUNTY 4

PID:

Latitude: 395456N

State: OH

Longitude: 0822908W

County: FAIRFIELD

Elevation: 285.0M

Disk From: OH-089

Stamping: FAIRFIELD COUNTY 4 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WALNUT TOWNSHIP IN FAIRFIELD COUNTY, OHIO NEAR BUCKEYE LAKE. TO REACH THE STATION FROM THE INTERSECTION OF FAIRFIELD BEACH ROAD (CR 3) AND SHELL BEACH ROAD (CR 84) PROCEED NORTH ALONG SHELL BEACH ROAD (CR 84) A DISTANCE OF 0.4 MILE (0.6 KM) TO THE STATION ON THE LEFT APPROXIMATELY 140 FEET (42.7 M) SOUTH FROM THE CENTERLINE OF CYPRESS DRIVE. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 4 1998. THE STATION IS 43.6 FEET (13.3 M) AZIMUTH 67 DEGREES TO A UTILITY POLE WITH NUMBER 673A3-23 ON THE EAST SIDE OF SHELL BEACH ROAD, 33.4 FEET (10.2 M) AZIMUTH 180 DEGREES TO A MAIL BOX, 23.4 FEET (7.1 M) AZIMUTH 10 DEGREES TO A UTILITY POLE ON THE WEST SIDE OF THE ROAD, AND 17.5 FEET (5.3 M) WEST FROM THE CENTERLINE OF SHELL BEACH ROAD (CR 84) .

LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

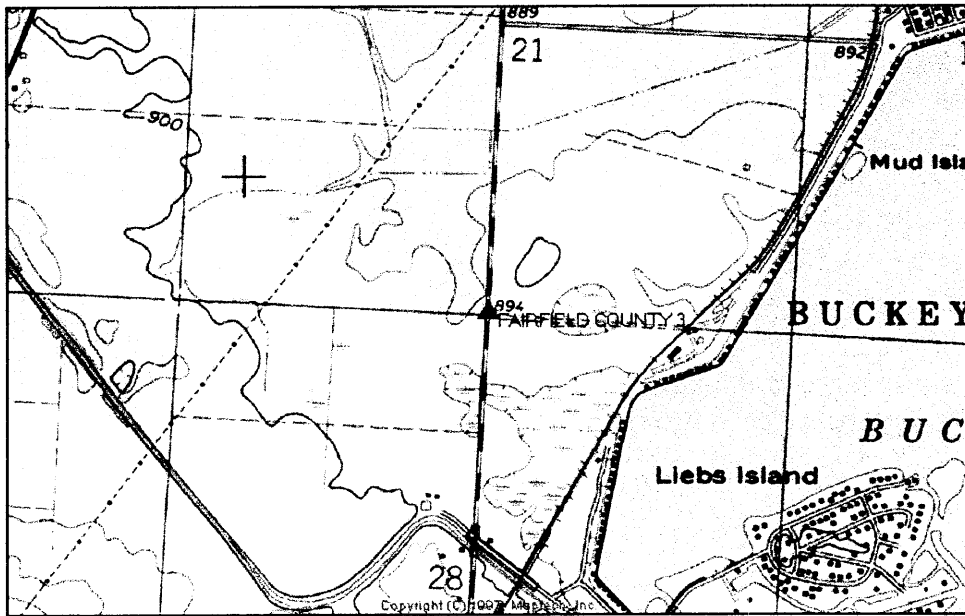
JN 98016

NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

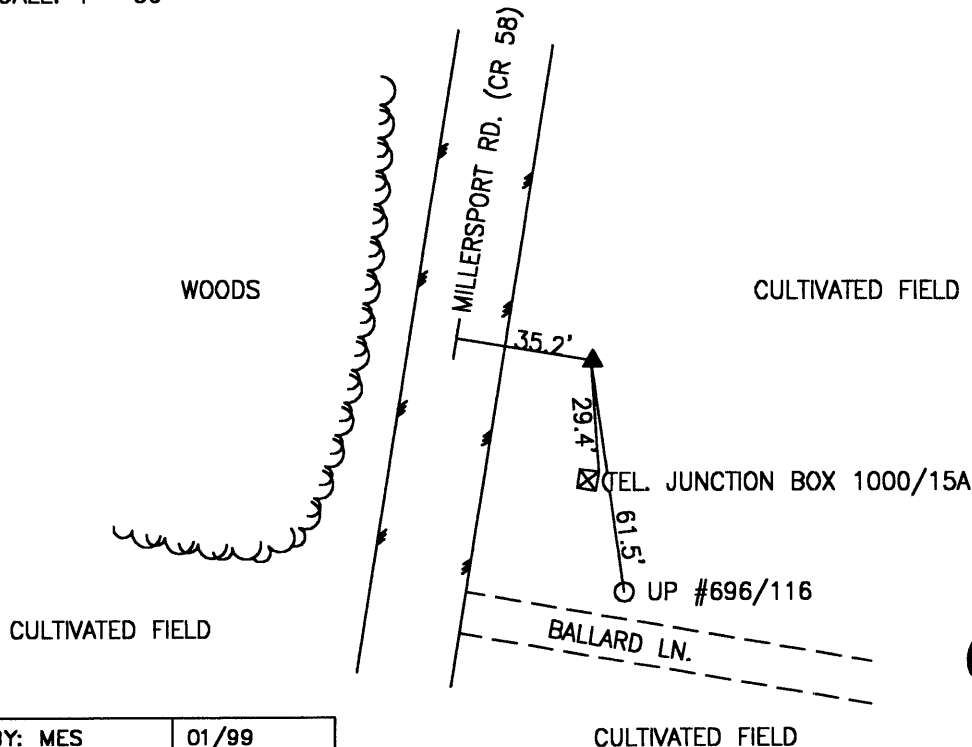
COUNTY	NAME OF STATION	YEAR
FAIRFIELD	FAIRFIELD COUNTY 3	1998

N: 696892.978	E: 1959098.320	LAT: 39°54'48.08928" N	LONG: 82°32'00.65865" W
ELEV.: 892.331	(GPS)	COMB. FACTOR: 0.999935867	θ ANGLE: -0°01'16.56

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2050.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2050

Designation: FAIRFIELD COUNTY 3

PID:

Latitude: 395448N  
Longitude: 0823200W  
Elevation: 348.8M

State: OH  
County: FAIRFIELD  
Disk From: OH-089

Stamping: FAIRFIELD COUNTY 3 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WALNUT TOWNSHIP IN LICKING COUNTY, OHIO ABOUT 1.0 MILE (1.6 KM) NORTH OF THE TOWN OF MILLERSPORT. TO REACH THE STATION FROM THE INTERSECTION OF BACKLICK-EASTERN (SR 204) AND MILLERSPORT ROAD (CR 58) PROCEED NORTH ALONG MILLERSPORT ROAD (CR 58) A DISTANCE OF 0.9 MILE (1.4 KM) TO THE STATION ON THE RIGHT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 3 1998. THE STATION IS 61.5 FEET (18.7 M) AZIMUTH 172 DEGREES TO A UTILITY POLE WITH NUMBER 696/116, 29.4 FEET (9.0 M) AZIMUTH 176 DEGREES TO A TELEPHONE JUNCTION BOX 1000/15 A, AND 35.2 FEET (10.7 M) FROM THE CENTERLINE OF MILLERSPORT ROAD.

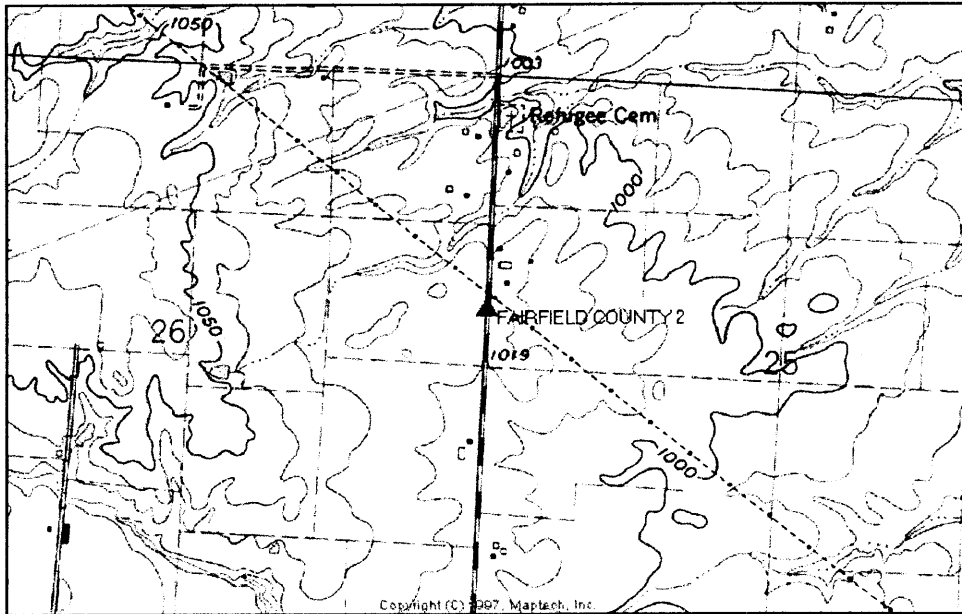
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

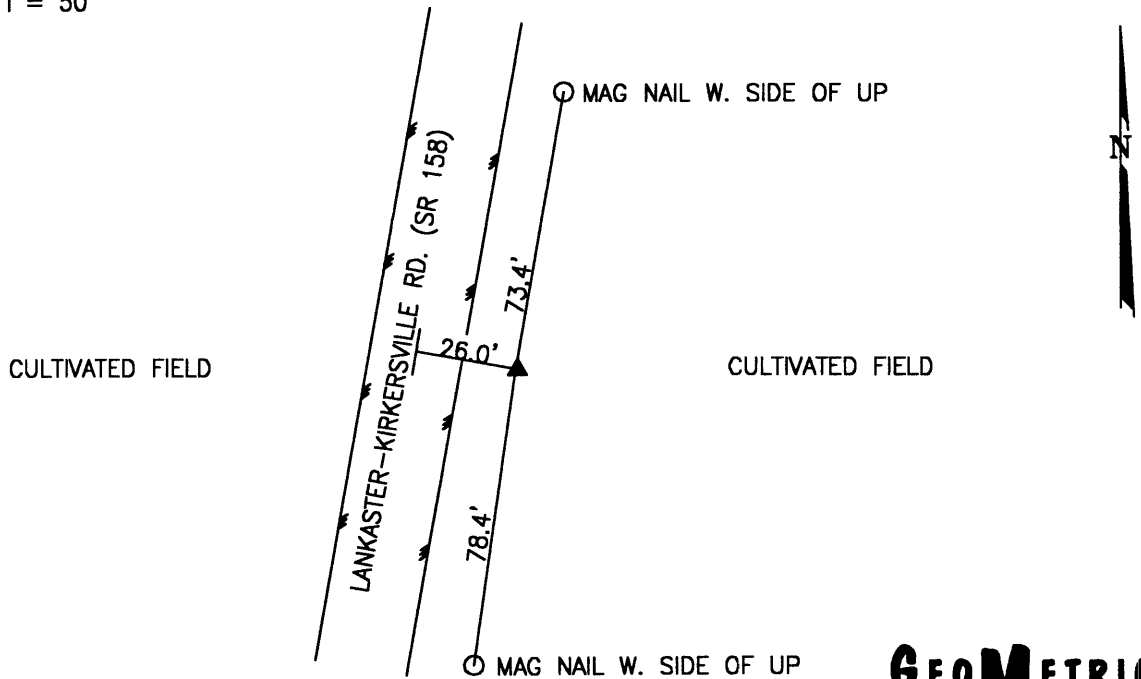
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
FAIRFIELD	FAIRFIELD COUNTY 2		1998
N: 695785.473	E: 1939814.556	LAT: 39°54'37.00085" N	LONG: 82°36'08.12510" W
ELEV.: 1019.473 (GPS)	COMB. FACTOR: 0.999929303		Θ ANGLE: -0°03'53.58

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2060.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2060

Designation: FAIRFIELD COUNTY 2

PID:

Latitude: 395437N  
Longitude: 0823608W  
Elevation: 301.1M  
Stamping: FAIRFIELD COUNTY 2 1998

State: OH  
County: FAIRFIELD  
Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN FAIRFIELD COUNTY, OHIO ABOUT 2.4 MILE (3.9 KM) SOUTH OF THE TOWN OF KIRKERSVILLE IN LICKING COUNTY. TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE 70 AND LANCASTER-KIRKERSVILLE (SR 158) IN THE TOWN OF KIRKERSVILLE PROCEED SOUTH ALONG LANCASTER-KIRKERSVILLE (SR 158) A DISTANCE OF 2.4 MILES (3.9 KM) TO THE STATION ON THE LEFT APPROXIMATELY 100 FEET (30.5 M) SOUTH OF A POWER LINE CROSSING. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT ONE INCH BELOW THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 2 1998. THE STATION IS 73.4 FEET (22.4 M) AZIMUTH 10 DEGREES TO A MAG NAIL ON THE WEST SIDE OF A UTILITY POLE, 78.4 FEET (23.9 M) AZIMUTH 188 DEGREES TO A MAG NAIL IN THE WEST SIDE OF ANOTHER UTILITY POLE, AND 26.0 FEET (7.9 M) EAST FROM THE CENTERLINE OF SR 158.

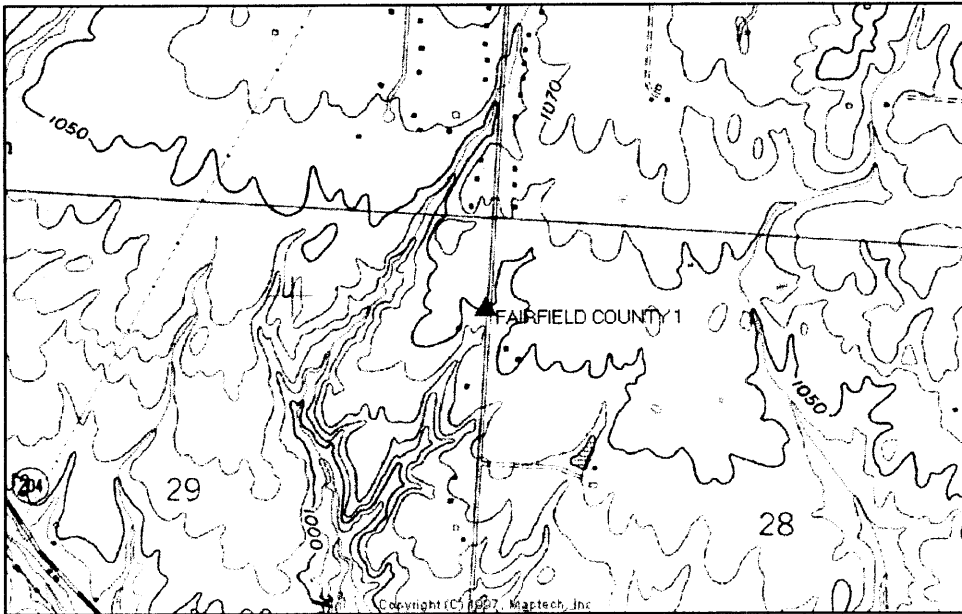
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

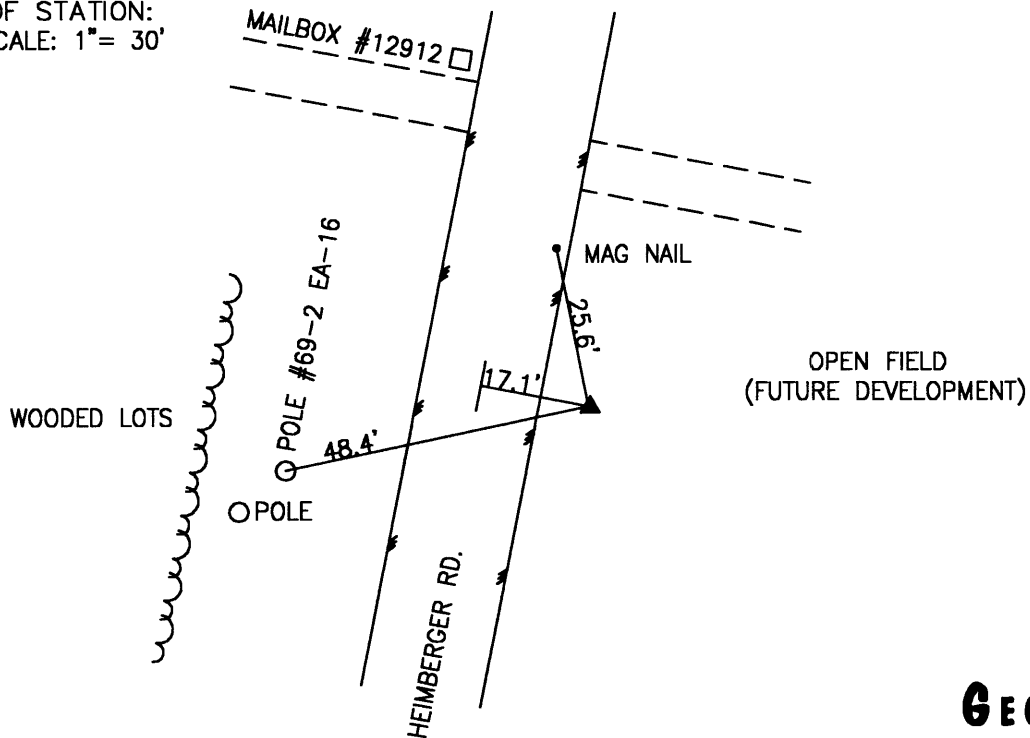
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
FAIRFIELD	FAIRFIELD COUNTY 1		1998
N: 698066.285	E: 1923576.623	LAT: 39°54'59.30824" N	LONG: 82°39'36.56077" W
ELEV.: 1047.573 (GPS)	COMB. FACTOR: 0.999928960		Θ ANGLE: -0°06'05.83

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2070.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2070

Designation: FAIRFIELD COUNTY 1

PID:

Latitude: 395459N

State: OH

Longitude: 0823936W

County: FAIRFIELD

Elevation: 358.6M

Disk From: OH-089

Stamping: FAIRFIELD COUNTY 1 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN LIBERTY TOWNSHIP IN FAIRFIELD COUNTY, OHIO ABOUT 5.0 MILES (8.0 KM) SOUTHEAST OF THE TOWN OF ETNA WHICH IS IN LICKING COUNTY. TO REACH THE STATION FROM THE INTERSECTION OF NATIONAL ROAD (US 40) AND HAZELTON-ETNA ROAD (SR 310) IN LICKING COUNTY PROCEED SOUTH ALONG HAZELTON-ETNA ROAD (SR 310) A DISTANCE OF 2.2 MILES (3.5 KM) TO ITS INTERSECTION WITH BLACKLICK ROAD (CR 83) . TURN LEFT AND PROCEED EAST ALONG BLACKLICK ROAD (CR 83) A DISTANCE OF 1.0 MILE (1.6 KM) TO ITS INTERSECTION WITH HEIMBERGER ROAD. TURN RIGHT AND PROCEED SOUTH ALONG HEIMBERGER ROAD A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT SET ONE INCH BELOW THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 1 1998. THE STATION IS 25.6 AZIMUTH 349 DEGREES TO A MAG NAIL IN THE EAST SIDE OF PAVEMENT OF HEIMBERGER ROAD, 165.5 FEET (50.4 M) SOUTHEAST FROM MAIL BOX POST 12912, 48.4 FEET (14.8 M) AZIMUTH 258 DEGREES TO A UTILITY POLE NUMBER 69-2 EA-016, AND 17.1 FEET (5.2 M) EAST FROM THE CENERLINE OF HEIMBERGER ROAD.

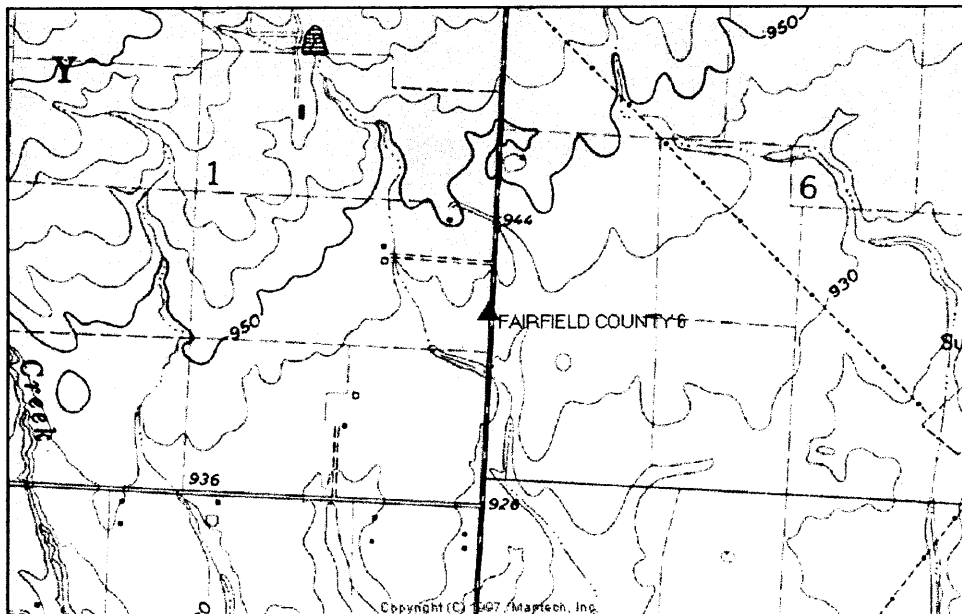
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

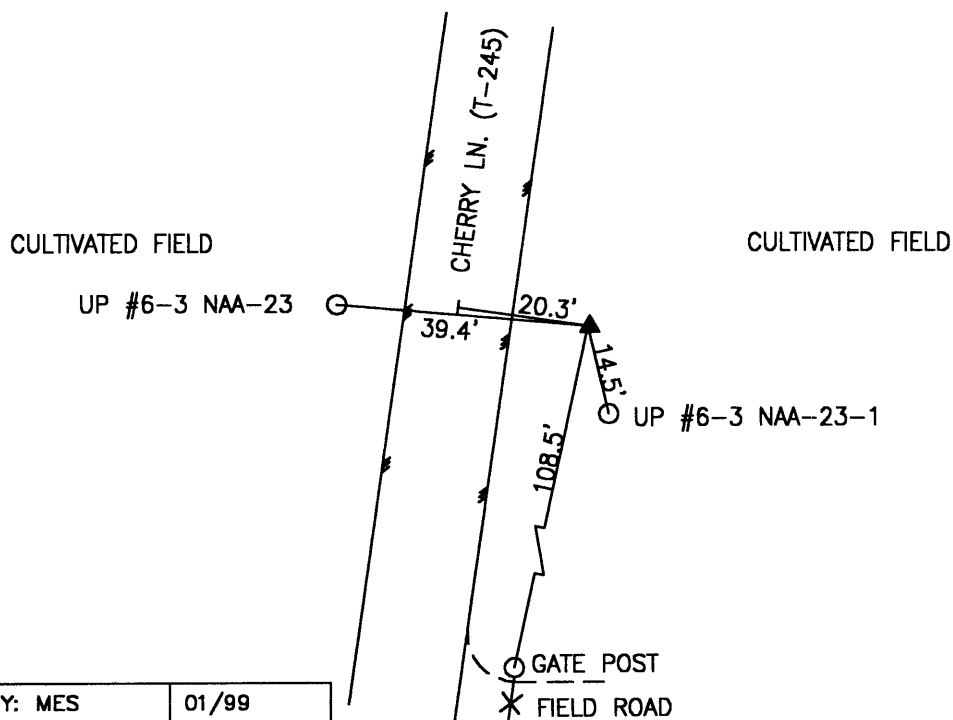
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
FAIRFIELD	FAIRFIELD COUNTY 6		1998
N: 688520.563	E: 1944842.970	LAT: 39°53'25.25497" N	LONG: 82°35'03.50762" W
ELEV.: 936.875 (GPS)	COMB. FACTOR: 0.999930115		θ ANGLE: -0°03'12.58

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2080.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2080

Designation: FAIRFIELD COUNTY 6

PID:

Latitude: 395325N  
Longitude: 0823503W  
Elevation: 323.9M

State: OH  
County: FAIRFIELD  
Disk From: OH-089

Stamping: FAIRFIELD COUNTY 6 1998

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WALNUT TOWNSHIP IN FAIRFIELD COUNTY, OHIO ABOUT 2.0 MILES (3.2 KM) SOUTHWEST OF THE TOWN OF MILLERSPORT. TO REACH THE STATION FROM THE INTERSECTION OF BLACKLICK-EASTERN ROAD (SR 204) AND MILLERSPORT (CR 58) PROCEED WEST ALONG BLACKLICK-EASTERN ROAD (SR 204) A DISTANCE OF 2.7 MILES (4.3 KM) TO ITS INTERSECTION WITH CHERRY LANE (T-245) . TURN LEFT AND PROCEED SOUTH ALONG CHERRY LANE (T-245) A DISTANCE OF 0.7 MILE (1.1 KM) TO THE STATION ON THE LEFT APPROXIMATELY 120 FEET (36.6 M) NORTH OF A FARM LANE RUNNING EAST. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 6 1998. THE STATION IS 14.5 FEET (4.4 M) AZIMUTH 167 DEGREES TO A UTILITY POLE NUMBER 6-3 NAA-23-1, 39.4 FEET (12.0 M) AZIMUTH 275 DEGREES TO A UTILITY POLE WITH NUMBER 6-3 NAA-23, 108.5 FEET (33.1 M) AZIMUTH 192 DEGREES TO A GATE POST, AND 20.3 FEET (6.2 M) EAST FROM THE CENTERLINE OF CHERRY LANE (T-245) .

LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

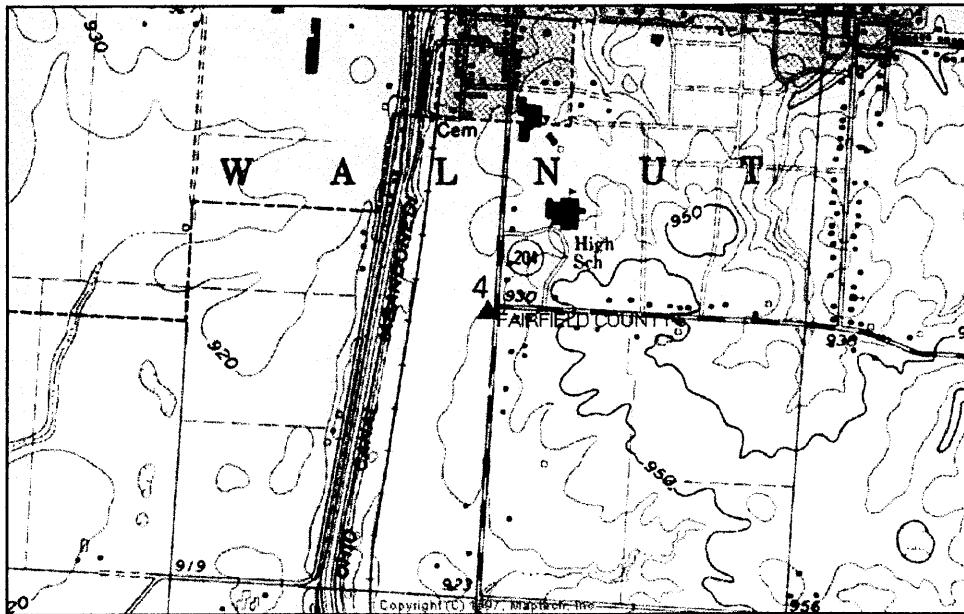
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
FAIRFIELD	FAIRFIELD COUNTY 5	1998

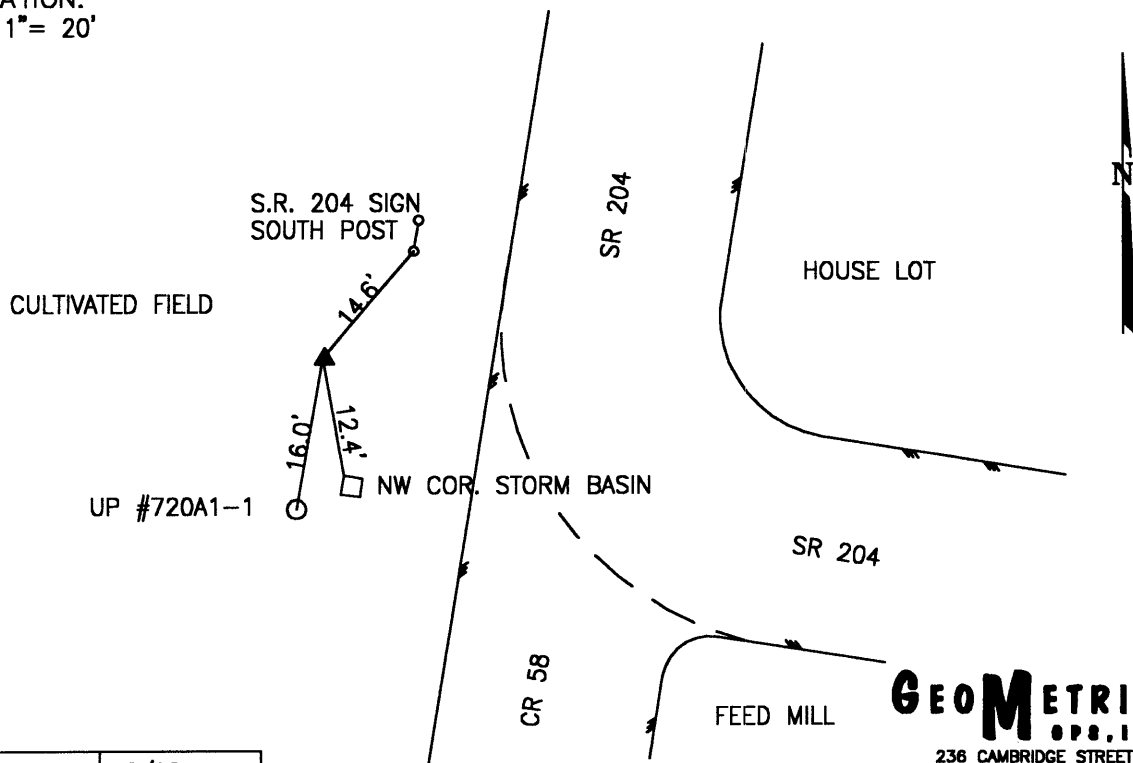
N: 688803.972 E: 1958510.389 LAT: 39°53'28.14552" N LONG: 82°32'08.16307" W

ELEV.: 926.445 (GPS) COMB. FACTOR: 0.999930736 Θ ANGLE: -0°01'21.32

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 20'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 2090.DWG

**GEOMETRICS**  
OPS., INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2090

Designation: FAIRFIELD COUNTY 5

PID:

Latitude: 395328N

Longitude: 0823208W

Elevation: 325.2M

Stamping: FAIRFIELD COUNTY 5 1998

State: OH

County: FAIRFIELD

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WALNUT TOWNSHIP IN FAIRFIELD COUNTY, OHIO. THE STATION IS AT THE INTERSECTION OF MILLERSPORT ROAD (CR 58) AND BLACKLICK-EASTERN ROAD (SR 204) ON THE WEST SIDE OF THE INTERSECTION AT THE CENTERLINE OF SR 204. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 5 1998. THE STATION IS 14.6 FEET (4.5 M) AZIMUTH 40 DEGREES TO SR 204 SIGN (SOUTH POST) , 12.4 FEET (3.8 M) AZIMUTH 170 DEGREES TO THE NORTHWEST CORNER OF A STORM CATCH BASIN, AND 16.0 FEET (4.9 M) AZIMUTH 190 DEGREES TO A UTILITY POLE WITH NUMBER 720A1-1.

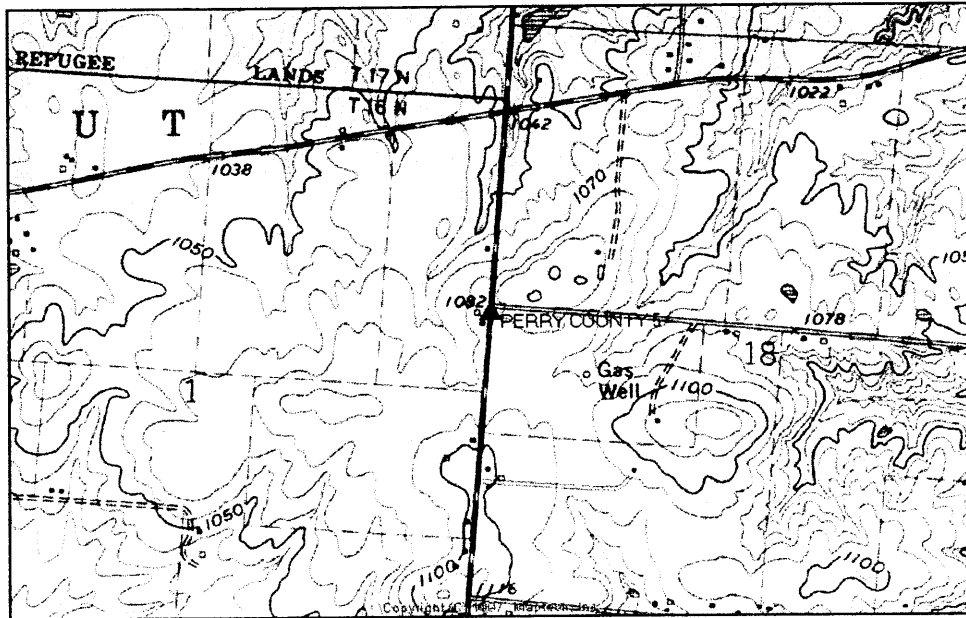
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

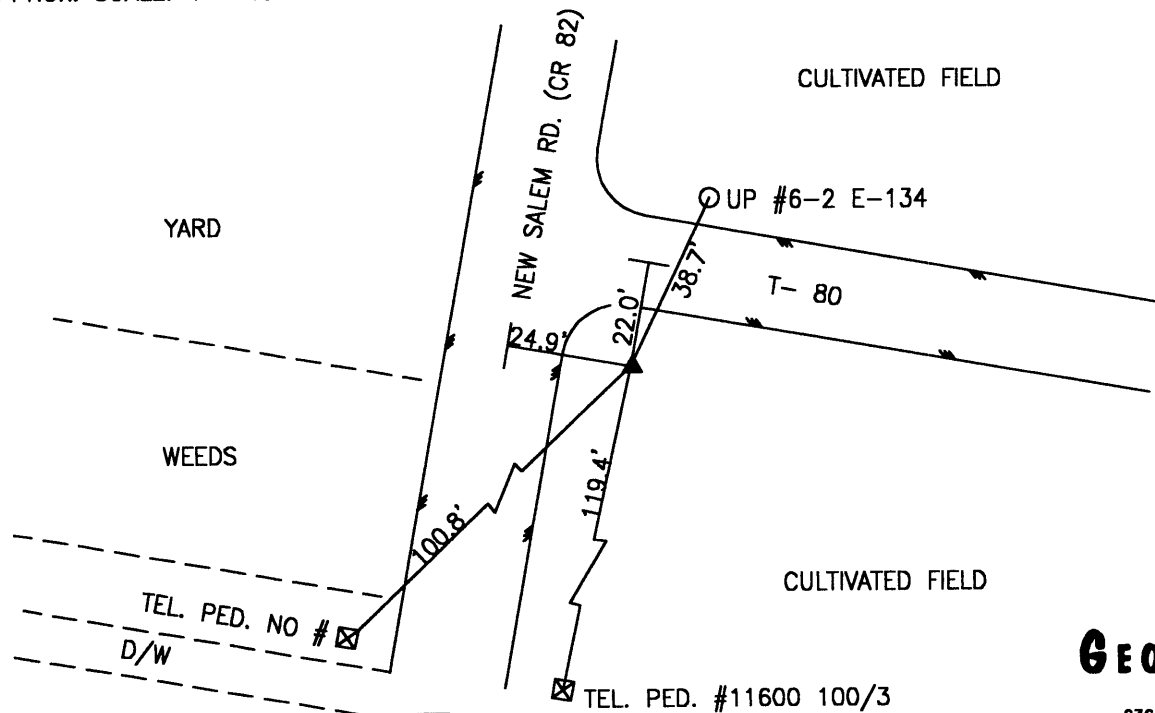
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88      HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
PERRY	PERRY COUNTY 5		1998
N: 688282.577	E: 1977812.687	LAT: 39°53'22.99524" N	LONG: 82°28'00.52407" W
ELEV.: 1081.081 (GPS)	COMB. FACTOR: 0.999923134		Θ ANGLE: +0°01'15.80

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 2100.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3489

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2100  
Designation: PERRY COUNTY 5

PID:

Latitude: 395322N  
Longitude: 0822800W  
Elevation: 247.8M  
Stamping: PERRY COUNTY 5 1998

State: OH  
County: PERRY  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THORN TOWNSHIP IN PERRY COUNTY, OHIO. THE REACH THE STATION FROM THE INTERSECTION OF THORNVILLE ROAD (SR 188) AND BLACKLICK-EASTERN ROAD (SR 204) PROCEED WEST ALONG BLACKLICK-EASTERN ROAD (SR 204) A DISTANCE OF 2.4 MILES (3.9 KM) TO ITS INTERSECTION WITH NEW SALEM ROAD (CR 82) . TURN LEFT AND PROCEED SOUTH ALONG NEW SALEM ROAD (CR 82) A DISTANCE OF 0.35 MILE (0.56 KM) TO THE STATION ON THE LEFT IN THE SOUTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT TWO INCHES BELOW THE GROUND SURFACE AND STAMPED PERRY COUNTY 5 1998. THE STATION IS 38.7 FEET (11.8 M) AZIMUTH 25 DEGREES TO A UTILITY POLE WITH NUMBER 6-2 E-134, 119.4 FEET (36.4 M) AZIMUTH 192 DEGREES TO A TELEPHONE PEDESTAL NUMBER 11600 100/3, 100.8 FEET (30.7 M) AZIMUTH 216 DEGREES TO ANOTHER TELEPHONE PEDESTAL, AND 24.9 FEET (7.6 M) EAST FROM THE CENTERLINE OF NEW SALEM ROAD.

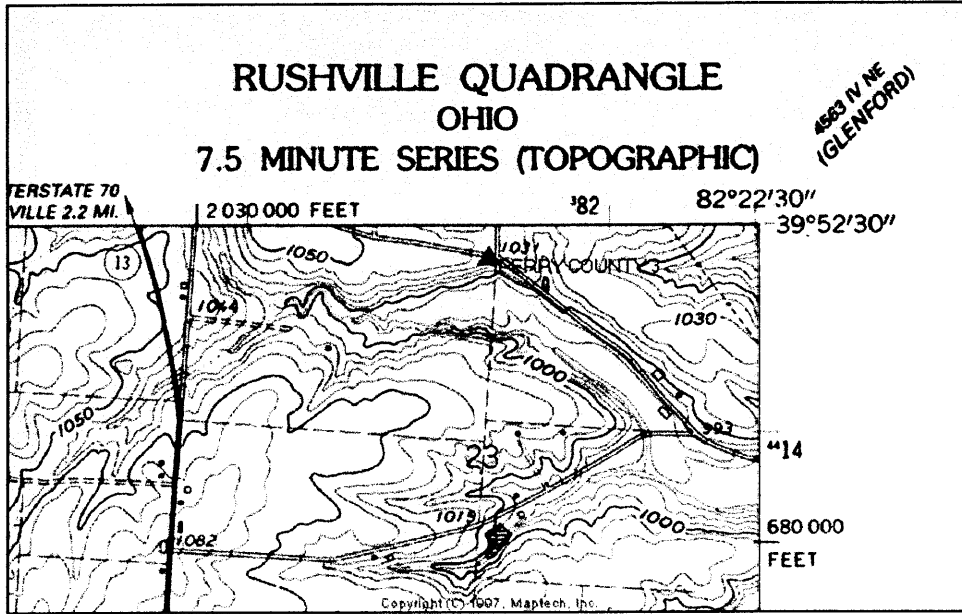
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

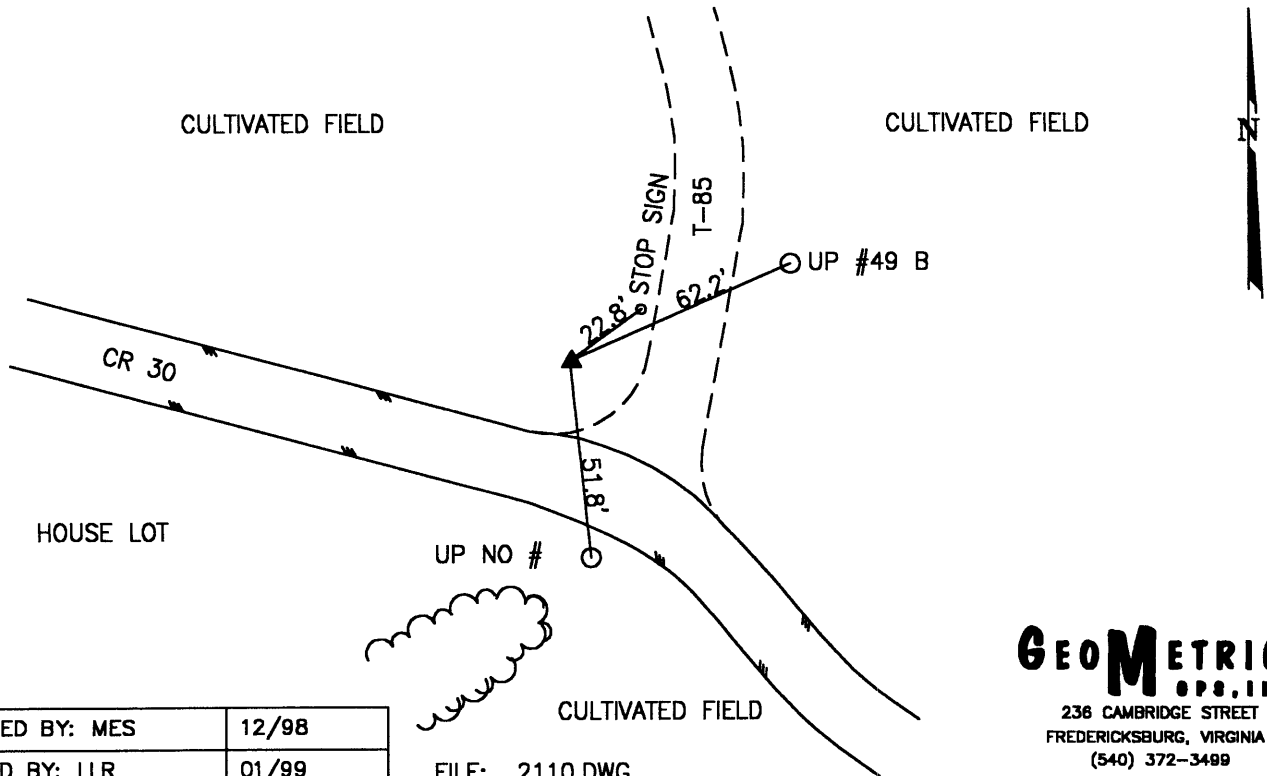
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
PERRY	PERRY COUNTY 3	1998
N: 682702.282	E: 2001220.518	LAT: 39°52'27.65444" N LONG: 82°23'00.30894" W
ELEV.: 1033.764 (GPS)	COMB. FACTOR: 0.999923063	Θ ANGLE: +0°04'26.30

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 50'



PREPARED BY: MES	12/98
CHECKED BY: LLR	01/99

FILE: 2110.DWG

**GEOMETRICS**  
 OPS, INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2110  
Designation: PERRY COUNTY 3

PID:

Latitude: 395227N  
Longitude: 0822300W  
Elevation: 298.0M  
Stamping: PERRY COUNTY 3 1998

State: OH  
County: PERRY  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THORN TOWNSHIP IN PERRY COUNTY, OHIO. THE REACH THE STATION FROM THE INTERSECTION OF BLACKLICK-EASTERN (SR 204) AND ZION ROAD (CR 30) PROCEED SOUTHEAST ALONG ZION ROAD (CR 30) A DISTANCE OF 0.8 MILE (1.3 KM) TO ITS INTERSECTION WITH THORN TWP ROAD 85 AND THE STATION ON THE LEFT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY COUNTY 3 1998. THE STATION IS 22.8 FEET (6.9 M) AZIMUTH 54 DEGREES TO A STOP SIGN, 62.2 FEET (19.0 M) AZIMUTH 56 DEGREES TO A UTILITY POLE WITH NUMBER 49 B, 51.8 FEET (15.8 M) AZIMUTH 174 DEGREES TO ANOTHER UTILITY POLE, AND 31.6 NORTH FEET FROM THE CENTERLINE OF COUNTY ROAD 30.

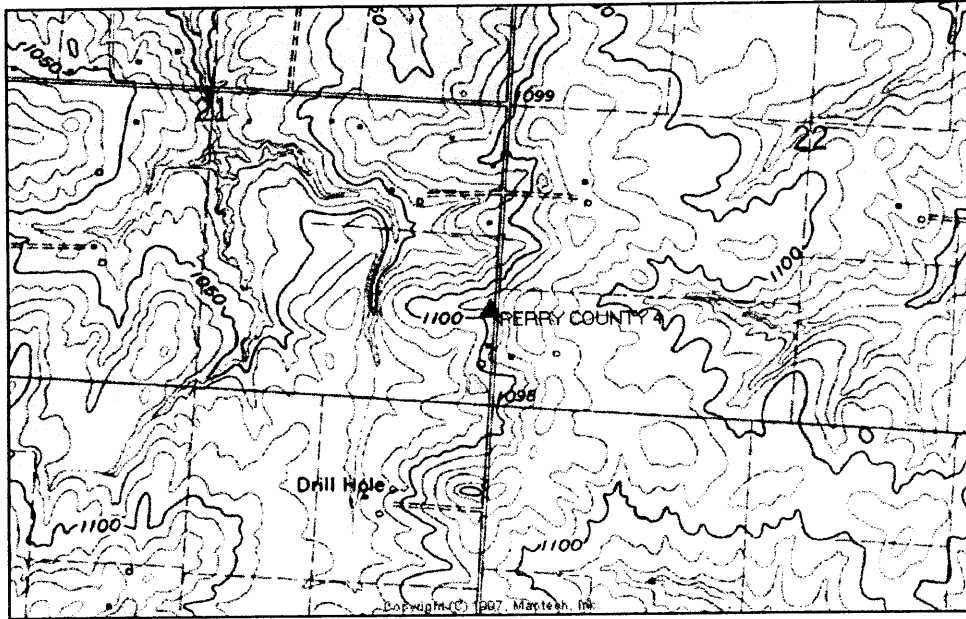
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

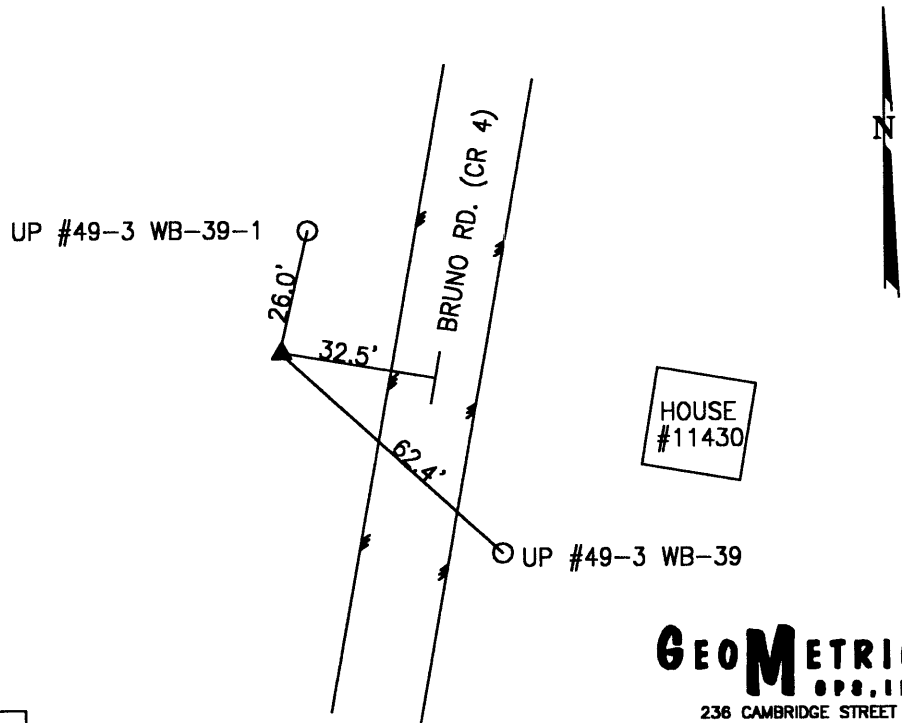
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
PERRY	PERRY COUNTY 4		1998
N: 679870.504	E: 1992756.264	LAT: 39°51'59.76247" N	LONG: 82°24'48.91072" W
ELEV.: 1113.728	(GPS)	COMB. FACTOR: 0.999918099	Ø ANGLE: +0°03'17.39

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2120.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2120  
Designation: PERRY COUNTY 4

PID:

Latitude: 395159N  
Longitude: 0822448W  
Elevation: 279.6M  
Stamping: PERRY COUNTY 4 1998

State: OH  
County: PERRY  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THORN TOWNSHIP IN PERRY COUNTY, OHIO. TO REACH THE STATION FROM THE INTERSECTION OF THORNVILLE ROAD (SR 188) AND ZION ROAD (CR 30) PROCEED SOUTHEAST ALONG ZION ROAD (CR 30) A DISTANCE OF 0.7 MILE (1.1 KM) TO ITS INTERSECTION WITH BRUNO ROAD (CR 4) . TURN RIGHT AND PROCEED SOUTH ALONG BRUNO ROAD (CR 4) A DISTANCE OF 1.45 MILES (2.33 KM) TO THE STATION ON THE RIGHT ACROSS FROM HOUSE NUMBER 11430. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED PERRY COUNTY 4 1998. THE STATION IS 26.0 FEET (7.9 M) AZIMUTH 13 DEGREES TO A UTILITY POLE WITH THE NUMBER 49-3 WB-39-1, 32.5 FEET (9.9 M) WEST FROM THE CENTERLINE OF BRUNO ROAD, AND 62.4 FEET (19.0 M) AZIMUTH 133 DEGREES TO A UTILITY POLE WITH THE NUMBER 49-3 WB-39.

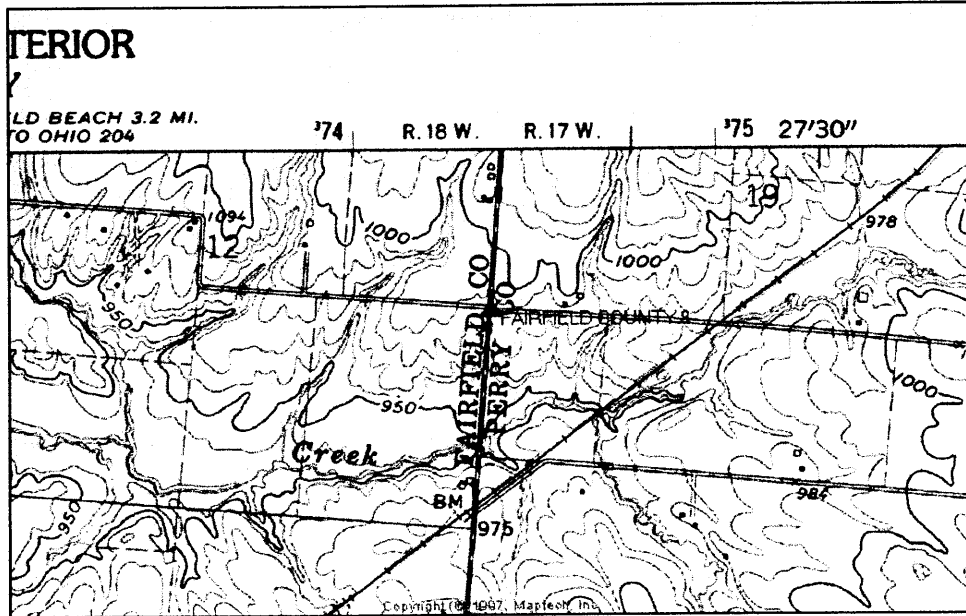
LICKING COUNTY, OHIO  
 1998 GEODETIC CONTROL SURVEY

JN 98016

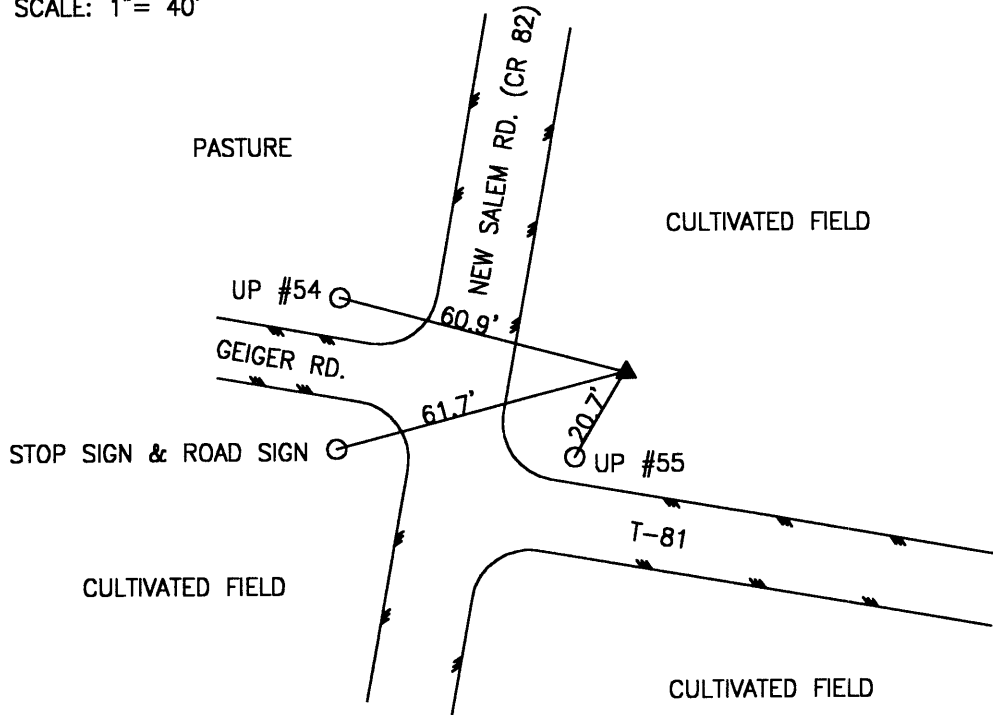
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
 VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
PERRY	FAIRFIELD COUNTY 9		1998
N: 681504.176	E: 1977276.621	LAT: 39°52'16.00749" N	LONG: 82°28'07.43157" W
ELEV.: 992.843 (GPS)	COMB. FACTOR: 0.999924536		θ ANGLE: +0°01'11.42

VICINITY SKETCH:



SKETCH OF STATION:  
 APPROX. SCALE: 1" = 40'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2130.DWG

**GEOMETRICS**  
 OPS. INC.  
 236 CAMBRIDGE STREET  
 FREDERICKSBURG, VIRGINIA  
 (540) 372-3499



-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2130  
Designation: FAIRFIELD COUNTY 9

PID:

Latitude: 395216N  
Longitude: 0822807W  
Elevation: 269.3M  
Stamping: FAIRFIELD COUNTY 9 1998

State: OH  
County: PERRY  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN THORN TOWNSHIP IN PERRY COUNTY, OHIO. THE REACH THE STATION FROM THE INTERSECTION OF THORNVILLE ROAD (SR 188) AND BLACKLICK-EASTERN ROAD (SR 204) PROCEED WEST ALONG BLACKLICK-EASTERN ROAD (SR 204) A DISTANCE OF 2.4 MILES (3.9 KM) (3.9 KM TO ITS INTERSECTION WITH NEW SALEM ROAD (CR 82) . TURN LEFT AND PROCEED SOUTH ALONG NEW SALEM ROAD (CR 82) A DISTANCE OF 1.65 MILES (2.66 KM) TO ITS INTERSECTION WITH GEIGER ROAD AND THORN TWP RD 81 AND THE STATION ON THE LEFT IN THE NORTHEAST CORNER OF THE INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK SET IN A Poured IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 9 1998. THE STATION IS 20.7 FEET (6.3 M) AZIMUTH 210 DEGREES TO UTILITY POLE WITH THE NUMBER 55, 61.7 FEET (18.8 M) AZIMUTH 255 DEGREES TO A STOP SIGN AND ROAD SIGN, AND 60.9 FEET (18.6 M) AZIMUTH 285 DEGREES TO A UTILITY POLE WITH LINE NUMBER 1317 POLE NUMBER 54.

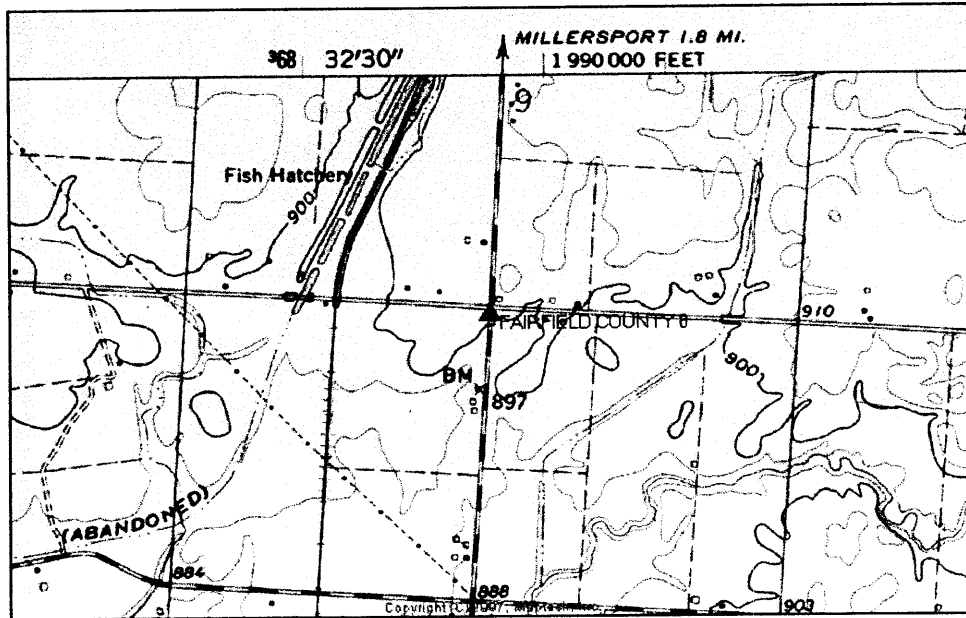
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

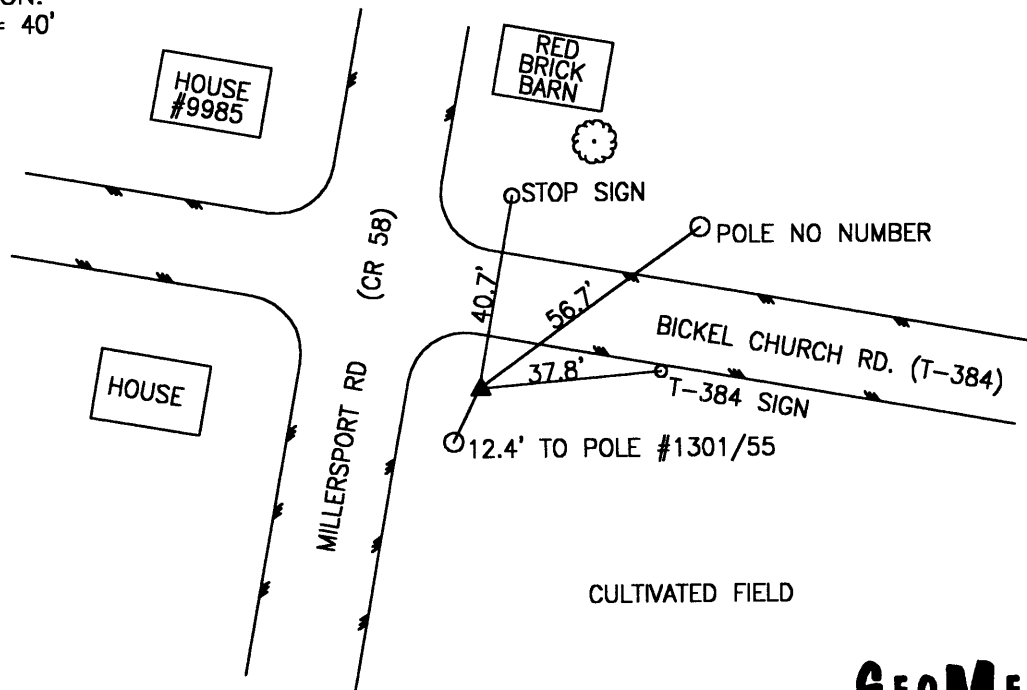
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION	YEAR
FAIRFIELD	FAIRFIELD COUNTY 8	1998
N: 680795.443	E: 1958059.099	LAT: 39°52'08.99695" N LONG: 82°32'13.91064" W
ELEV.: 899.467 (GPS)	COMB. FACTOR: 0.999928705	θ ANGLE: -0°01'24.96

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 40'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2140.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2140  
Designation: FAIRFIELD COUNTY 8

PID:

Latitude: 395208N  
Longitude: 0823213W  
Elevation: 276.9M  
Stamping: FAIRFIELD COUNTY 8 1998

State: OH  
County: FAIRFIELD  
Disk From: OH-089

Surface Mark-  
Type: Survey disk  
Magnetic code: M  
Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WALNUT TOWNSHIP IN FAIRFIELD COUNTY, OHIO. THE REACH  
THE STATION FROM THE INTERSECTION OF BLACKLICK-EASTERN ROAD (SR 204) AND  
MILLERSPORT ROAD (CR 58) PROCEED SOUTH ALONG MILLERSPORT ROAD (CR 58) A  
DISTANCE OF 1.55 MILE (2.49 KM) TO ITS INTERSECTION WITH BICKEL CHURCH ROAD  
(T-384) AND THE STATION ON THE LEFT IN THE SOUTHEAST CORNER OF THE  
INTERSECTION. THE STATION IS A STANDARD 3 1/4 INCH LICKING COUNTY SURVEY DISK  
SET IN A POURED IN PLACE CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE AND  
STAMPED FAIRFIELD COUNTY 8 1998. THE STATION IS 40.7 FEET (12.4 M) AZIMUTH 10  
DEGREES TO A STOP SIGN, 56.7 FEET (17.3 M) AZIMUTH 54 DEGREES TO A UTILITY  
POLE WITH NO NUMBER, 37.8 FEET (11.5 M) AZIMUTH 85 DEGREES TO A T-384 SIGN,  
AND 12.4 FEET (3.8 M) AZIMUTH 205 DEGREES TO A UTILITY POLE WITH THE NUMBER  
1301/55.

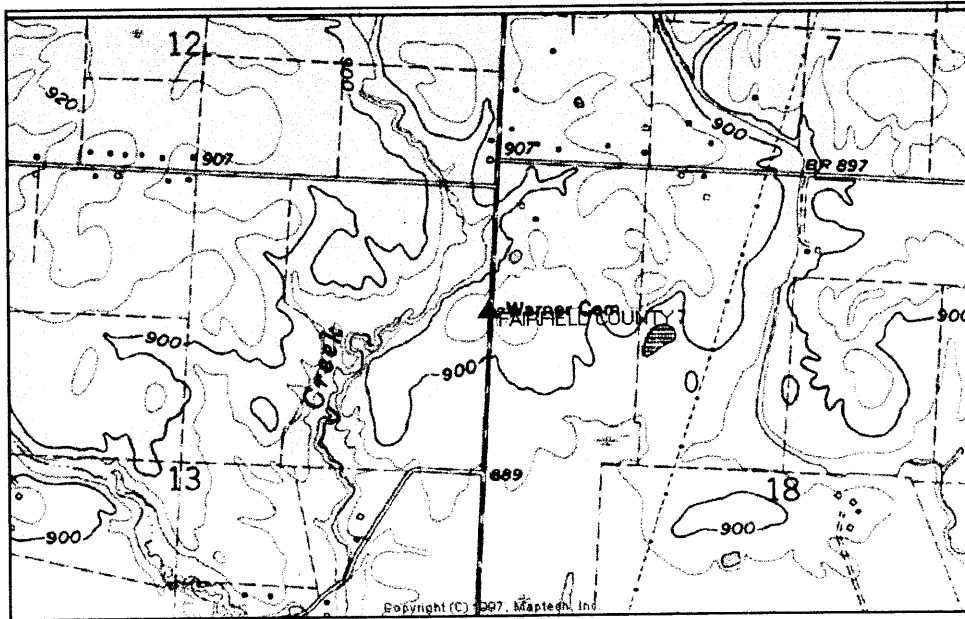
LICKING COUNTY, OHIO  
1998 GEODETIC CONTROL SURVEY

JN 98016

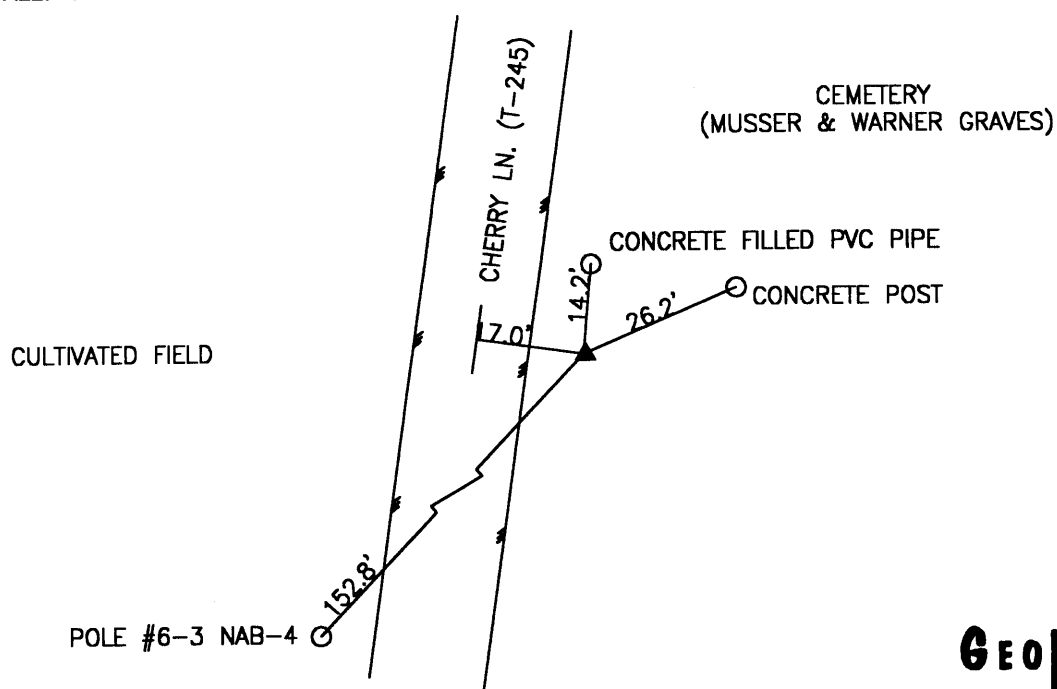
NAD 83/95 \* OHIO STATE PLANE COORDINATE SYSTEM \* SOUTH ZONE \* U.S. SURVEY FOOT  
VERTICAL DATUM: NAVD 88 HORIZ. ORDER OF SURVEY: FIRST

COUNTY	NAME OF STATION		YEAR
FAIRFIELD	FAIRFIELD COUNTY 7		1998
N: 680253.153	E: 1944398.418	LAT: 39°52'03.54559" N	LONG: 82°35'09.11014" W
ELEV.: 916.977	(GPS)	COMB. FACTOR: 0.999927646	θ ANGLE: -0°03'16.13

VICINITY SKETCH:



SKETCH OF STATION:  
APPROX. SCALE: 1" = 30'



PREPARED BY: MES	01/99
CHECKED BY: LLR	01/99

FILE: 2150.DWG

**GEOMETRICS**  
OPS, INC.  
236 CAMBRIDGE STREET  
FREDERICKSBURG, VIRGINIA  
(540) 372-3499

-----  
\*\*\*\*\* ORIGINAL DESCRIPTION \*\*\*\*\*

SSN: 2150

Designation: FAIRFIELD COUNTY 7

PID:

Latitude: 395203N

Longitude: 0823509W

Elevation: 279.0M

Stamping: FAIRFIELD COUNTY 7 1998

State: OH

County: FAIRFIELD

Disk From: OH-089

Surface Mark-

Type: Survey disk

Magnetic code: M

Setting: SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

\*\*\*Mark is suitable for GPS

Set by GEOMET in 1998, Chief of party DAR.

-----  
THE STATION IS LOCATED IN WALNUT TOWNSHIP IN FAIRFIELD COUNTY, OHIO. THE REACH  
THE STATION FROM THE INTERSECTION OF BLACKLICK-EASTERN ROAD (SR 204) AND  
CHERRY LANE ROAD (T-245) PROCEED SOUTH ALONG CHERRY LANE ROAD (T-245) A  
DISTANCE OF 2.3 MILES (3.7 KM) TO AN OLD CEMETARY (MUSSEY AND WARNER GRAVES)  
AND THE STATION ON THE LEFT. THE STATION IS A STANDARD 3 1/4 INCH LICKING  
COUNTY SURVEY DISK SET IN A POURED IN PLACE CONCRETE MONUMENT ONE INCH BELOW  
THE GROUND SURFACE AND STAMPED FAIRFIELD COUNTY 7 1998. THE STATION IS 14.2  
FEET (4.3 M) AZIMUTH 05 DEGREES TO A CONCRETE FILLED PVC PIPE, 26.2 FEET  
(8.0 M) AZIMUTH 67 DEGREES TO A CONCRETE POST, 152.8 FEET (46.6 M) AZIMUTH 203  
DEGREES TO A UTILITY POLE WITH THE NUMBER 6-3 NAB-4, AND 17.0 FEET (5.2 M)  
EAST FROM THE CENTERLINE OF CHERRY LAND ROAD.

National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

JY1560 \*\*\*\*\*  
JY1560 CBN - This is a Cooperative Base Network Control Station.  
JY1560 DESIGNATION - BUCKEYE  
JY1560 PID - JY1560  
JY1560 STATE/COUNTY- OH/LICKING  
JY1560 USGS QUAD - MILLERSPORT (1973)

\*CURRENT SURVEY CONTROL

JY1560*	NAD 83 (1995) -	39 57 51.58516 (N)	082 32 24.20006 (W)	ADJUSTED
JY1560*	NAVD 88 -	278.7 (meters)	914. (feet)	GPS OBS

JY1560	X -	635,589.856 (meters)	COMP
JY1560	Y -	-4,854,004.363 (meters)	COMP
JY1560	Z -	4,075,107.830 (meters)	COMP
JY1560	LAPLACE CORR-	-0.45 (seconds)	DEFLEC96
JY1560	ELLIP HEIGHT-	244.60 (meters)	GPS OBS
JY1560	GEOID HEIGHT-	-34.07 (meters)	GEOID96

JY1560 HORZ ORDER - B  
JY1560 ELLP ORDER - FOURTH CLASS II

JY1560.The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in August 1996. This is a SPECIAL STATUS position. See SPECIAL STATUS under the DATUM ITEM on the data sheet items page.

JY1560.The orthometric height was determined by GPS observations.

JY1560.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JY1560.The Laplace correction was computed from DEFLEC96 derived deflections.

JY1560.The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

JY1560.The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
JY1560; SPC OH S -	218,073.029	596,577.765	MT	0.99998708	-0 01 31.5
JY1560; UTM 17 -	4,424,933.683	368,470.136	MT	0.99981298	-0 59 21.6

	Primary Azimuth Mark	Grid Az
JY1560: SPC OH S -	BUCKEYE AZ MK	189 19 39.9
JY1560: UTM 17 -	BUCKEYE AZ MK	190 17 30.0

PID	Reference Object	Distance	Geod. Az
		dddmms.s	
JY1560	AE1998 3I9 A	352.652 METERS	18234
JY1560	JY1563 BUCKEYE AZ MK	APPROX. 0.5 KM	1891808.4

SUPERSEDED SURVEY CONTROL

JY1560  
JY1560 NAD 83(1986) - 39 57 51.59142(N) 082 32 24.20572(W) ADJUSTED  
JY1560 NAD 27 - 39 57 51.36741(N) 082 32 24.62531(W) ADJUSTED  
JY1560 NGVD 29 - 278.8 (meters) 915. (feet) GPS OBS  
JY1560

JY1560.Superseded values are not recommended for survey control.  
JY1560.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
JY1560.See file format.dat to determine how the superseded data were derived.

JY1560  
JY1560\_MARKER: DH = HORIZONTAL CONTROL DISK  
JY1560\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
JY1560\_STAMPING: BUCKEYE 1986  
JY1560\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
JY1560+STABILITY: SURFACE MOTION  
JY1560\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
JY1560+SATELLITE: SATELLITE OBSERVATIONS - October 09, 1995

JY1560  
JY1560 HISTORY - Date Condition Recov. By  
JY1560 HISTORY - 1986 MONUMENTED NGS  
JY1560 HISTORY - 19870827 GOOD  
JY1560 HISTORY - 19951009 GOOD NGS

JY1560  
JY1560 STATION DESCRIPTION

JY1560  
JY1560'DESCRIBED BY NATIONAL GEODETIC SURVEY 1986  
JY1560'THE STATION IS LOCATED ABOUT 23 MILES EAST OF COLUMBUS, 9 MILES SOUTH-  
JY1560'WEST OF NEWARK, 1.5 MILES NORTH OF THE JUNCTION OF INTERSTATE 70 AND  
JY1560'STATE ROUTE 37, ON THE BUCKEYE EXECUTIVE AIRPORT JUST NORTHWEST OF  
JY1560'THE JUNCTION OF U.S. ROUTE 40 AND STATE ROUTE 37. THE MARK IS SET AT  
JY1560'THE EAST SIDE OF THE RUNWAY NEAR THE WIND SOCK.  
JY1560'STATION MARKS ARE STANDARD DISKS STAMPED ---BUCKEYE 1986---. THE  
JY1560'SURFACE MARK IS SET IN A 28 CM (11 INCH) DIAMETER CONCRETE POST  
JY1560'PROJECTING 3 CM (1 INCH). IT IS 33.4 METERS (109.5 FEET) EAST OF  
JY1560'THE EAST EDGE OF THE RUNWAY, 16.7 METERS (55.0 FEET) NORTHWEST OF  
JY1560'THE WIND SOCK AND 3.9 METERS (13 FEET) EAST OF THE CENTERLINE OF  
JY1560'A 2 FOOT DITCH. THE UNDERGROUND MARK IS SET 76 CM (30 INCHES)  
JY1560'BELOW GROUND LEVEL.  
JY1560'TYPED BY JAMES MALONEY 9/04/87.

JY1560  
JY1560 STATION RECOVERY (1987)

JY1560  
JY1560'RECOVERED 1987  
JY1560'RECOVERED IN GOOD CONDITION.

JY1560  
JY1560 STATION RECOVERY (1995)

JY1560  
JY1560'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (AJL)  
JY1560'NOTE--THIS IS THE PAC STATION. THE STATION IS LOCATED ABOUT 30 KM  
JY1560'(18.65 MI) EAST OF COLUMBUS, 4 KM (2.50 MI) WEST OF HEBRON, 1.6 KM  
JY1560'(1.00 MI) NORTH OF INTERSTATE HIGHWAY 70 AT THE BUCKEYE EXECUTIVE  
JY1560'AIRPORT, IN GRASS BETWEEN THE RUNWAY AND A ROW OF HANGARS, JUST  
JY1560'NORTHWEST OF THE WINDSOCK, AND NEAR THE NORTH END OF THE AIRFIELD.  
JY1560'OWNERSHIP--JEFF AND REBECCA ROBB, 2340 US ROUTE 40, PO BOX 100,  
JY1560'HEBRON, OHIO, 43025. AIRPORT MANAGERS ARE JEFF AND REBECCA ROBB.  
JY1560'PHONE 614-928-5300. CALL ONE DAY IN ADVANCE FOR PERMISSION TO OCCUPY

JY1560'THIS STATION. TO REACH FROM THE JUNCTION OF US HIGHWAY 40 AND STATE  
JY1560'HIGHWAY 37, ABOUT 3 KM (1.85 MI) WEST OF HEBRON, GO WEST ON HIGHWAY 40  
JY1560'FOR 0.88 KM (0.55 MI) TO THE AIRPORT ENTRANCE ROAD ON THE RIGHT. TURN  
JY1560'RIGHT, NORTH, ON THE ROAD FOR 10 M (32.8 FT) TO A GRAVEL ROAD RIGHT.  
JY1560'TURN RIGHT, EAST, ON THE ROAD FOR 80 M (262.5 FT) PASSING AROUND THE  
JY1560'SOUTH END OF THE RUNWAY. TURN LEFT, NORTH, ALONG THE RUNWAY FOR 0.68  
JY1560'KM (0.40 MI) TO THE STATION ON THE RIGHT. THE STATION IS SET IN THE  
JY1560'TOP OF A 30 CM ROUND CONCRETE POST SET FLUSH WITH THE GROUND. IT IS  
JY1560'33.4 M (109.6 FT) EAST OF THE EAST EDGE OF THE RUNWAY, 16.7 M (54.8  
JY1560'FT) NORTHWEST OF THE WINDSOCK, 4.0 M (13.1 FT) EAST OF THE CENTER OF A  
JY1560'SMALL DITCH, AND 0.3 M (1.0 FT) WEST OF A FIBERGLASS WITNESS POST.



National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

KZ2146 \*\*\*\*\*  
KZ2146 CBN - This is a Cooperative Base Network Control Station.  
KZ2146 DESIGNATION - CORN AZ MK  
KZ2146 PID - KZ2146  
KZ2146 STATE/COUNTY- OH/LICKING  
KZ2146 USGS QUAD - NEWARK (1983)

\*CURRENT SURVEY CONTROL

KZ2146*	NAD 83 (1995)	-	40 01 26.03557 (N)	082 27 52.05784 (W)	ADJUSTED
KZ2146*	NAVD 88	-	267.0 (meters)	876. (feet)	GPS OBS
KZ2146	X	-	641,434.907 (meters)		COMP
KZ2146	Y	-	-4,848,938.174 (meters)		COMP
KZ2146	Z	-	4,080,167.774 (meters)		COMP
KZ2146	LAPLACE CORR-		0.48 (seconds)		DEFLEC96
KZ2146	ELLIP HEIGHT-		232.91 (meters)		GPS OBS
KZ2146	GEOID HEIGHT-		-34.04 (meters)		GEOID96

KZ2146 HORZ ORDER - B  
KZ2146 ELLP ORDER - FOURTH CLASS II

KZ2146 The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in August 1996. This is a SPECIAL STATUS position. See SPECIAL STATUS under the DATUM ITEM on the data sheet items page.

KZ2146 The orthometric height was determined by GPS observations.

KZ2146 The X, Y, and Z were computed from the position and the ellipsoidal ht.

KZ2146 The Laplace correction was computed from DEFLEC96 derived deflections.

KZ2146 The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

KZ2146 The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
KZ2146; SPC OH S	- 224,687.095	603,033.790	MT	0.99999815	+0 01 21.2
KZ2146; UTM 17	- 4,431,436.936	375,035.300	MT	0.99979224	-0 56 30.9

	Primary Azimuth Mark	Grid Az
KZ2146: SPC OH S	- 2I8 A	271 49 46.8
KZ2146: UTM 17	- 2I8 A	272 47 38.9

PID	Reference Object	Distance	Geod. Az ddmmss.s
KZ2146	AC8774 2I8 A	431.521 METERS	2715108.0

SUPERSEDED SURVEY CONTROL

KZ2146

KZ2146 NAD 83(1986) - 40 01 26.04169(N) 082 27 52.06531(W) ADJUSTED  
KZ2146 NAD 27 - 40 01 25.81787(N) 082 27 52.49344(W) ADJUSTED  
KZ2146 NGVD 29 - 267.1 (meters) 876. (feet) GPS OBS  
KZ2146

KZ2146.Superseded values are not recommended for survey control.  
KZ2146.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
KZ2146.See file format.dat to determine how the superseded data were derived.  
KZ2146

KZ2146\_MARKER: DZ = AZIMUTH MARK DISK  
KZ2146\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
KZ2146\_STAMPING: CORN 1986  
KZ2146\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
KZ2146+STABILITY: SURFACE MOTION  
KZ2146\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
KZ2146+SATELLITE: SATELLITE OBSERVATIONS - October 10, 1995

KZ2146  
KZ2146 HISTORY - Date Condition Recov. By  
KZ2146 HISTORY - 1986 MONUMENTED NGS  
KZ2146 HISTORY - 19860615 GOOD NGS  
KZ2146 HISTORY - 19870908 GOOD  
KZ2146 HISTORY - 19951010 GOOD NGS

KZ2146  
KZ2146 STATION DESCRIPTION  
KZ2146

KZ2146'DESCRIBED BY NATIONAL GEODETIC SURVEY 1986  
KZ2146'THE STATION IS LOCATED ABOUT 4 MILES SOUTHWEST OF NEWARK ON THE  
KZ2146'NEWARK-HEATH AIRPORT. IT IS AT THE EAST END OF THE RUNWAY ON THE  
KZ2146'NORTH SIDE NEAR THE WIND SOCK ON TOP OF SMALL HILL.  
KZ2146'THE AZIMUTH MARK IS ABOUT 1.0 KM (0.6 MILE) WEST SOUTHWEST OF THE  
KZ2146'STATION BETWEEN THE ADMINISTRATION BUILDING AND THE TAXIWAY. IT IS A  
KZ2146'STANDARD DISK STAMPED --CORN 1986-- SET IN A 28 CM (11 INCH) DIAMETER  
KZ2146'CONCRETE POST FLUSH WITH THE GROUND. IT IS 30.9 METERS (101.5 FEET)  
KZ2146'NORTH OF A FLAGPOLE 20.1 METERS (66.0 FEET) NORTHEAST OF THE NORTH-  
KZ2146'EAST OF THE NORTHWEST CORNER OF THE BUILDING, 14.5 METERS (47.5 FEET)  
KZ2146'NORTH OF THE NORTHEAST CORNER OF THE BUILDING, AND 15.8 METERS (52.0  
KZ2146'FEET) SOUTH OF THE SOUTH EDGE OF THE TAXIWAY. AN UNDERGROUND MARK IS  
KZ2146'SET IN AN IRREGULAR MASS OF CONCRETE 76 CM (30 INCHES) BELOW LEVEL.  
KZ2146'TYPED BY JAMES MALONEY 9/04/87.

KZ2146  
KZ2146 STATION RECOVERY (1986)  
KZ2146

KZ2146'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986  
KZ2146'THE STATION IS LOCATED ABOUT MIDFIELD SOUTH OF RUNWAY 9-27, 101.5 FT  
KZ2146'(30.9 M) NORTH OF FLAGPOLE, 52.0 FT (15.8 M) SOUTH OF SOUTH EDGE OF  
KZ2146'TAXIWAY, 66.0 FT NORTHEAST OF NORTHWEST CORNER OF TERMINAL BUILDING  
KZ2146'AND 47.5 FT (14.5 M) NORTH OF NORTHEAST CORNER OF TERMINAL BUILDING.  
KZ2146'THE STATION IS A NGS AZ MK STAMPED CORN 1986 SET IN THE TOP OF A ROUND  
KZ2146'CONCRETE MONUMENT FLUSH WITH THE GROUND. THERE IS A SUBSURFACE MARK  
KZ2146'30 INCHES BELOW THE GROUND.

KZ2146  
KZ2146 STATION RECOVERY (1987)  
KZ2146

KZ2146'RECOVERED 1987  
KZ2146'RECOVERED IN GOOD CONDITION.  
KZ2146

STATION RECOVERY (1995)

KZ2146

KZ2146

KZ2146'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (AJL)

KZ2146'NOTE--THIS IS THE PAC STATION. THE STATION IS LOCATED ABOUT 40 KM  
KZ2146'(24.85 MI) EAST OF COLUMBUS, 8 KM (4.95 MI) NORTH OF INTERSTATE  
KZ2146'HIGHWAY 70, 6 KM (3.70 MI) SOUTHWEST OF NEWARK, IN HEATH, AT THE  
KZ2146'NEWARK-HEATH AIRPORT, IN A SMALL GRASS AREA BETWEEN THE AIRPORT OFFICE  
KZ2146'AND THE PARALLEL TAXI. AIRPORT MANAGER IS STEVE GREEN, 530 HEATH  
KZ2146'ROAD, HEATH, OHIO, 43056. PHONE 614-522-6968. HOURS ARE SUNUP TO  
KZ2146'SUNDOWN. TO REACH FROM THE JUNCTION OF STATE HIGHWAYS 16 AND 79 IN  
KZ2146'NEWARK, GO SOUTH-SOUTHWEST ON HIGHWAY 79 FOR 4.99 KM (3.10 MI) TO THE  
KZ2146'JUNCTION OF HEATH ROAD ON THE RIGHT AT A BRICK SCHOOL BUILDING ON THE  
KZ2146'RIGHT. TURN RIGHT, WESTERLY, ON HEATH ROAD FOR 1.37 KM (0.85 MI) TO  
KZ2146'THE AIRPORT ENTRANCE ON THE RIGHT. TURN RIGHT, NORTH, ON THE ROAD FOR  
KZ2146'0.24 KM (0.15 MI) TO A GATE ON THE RIGHT AT THE APRON. TURN RIGHT,  
KZ2146'EAST, PASSING THROUGH THE GATE, THEN LEFT, NORTH, ON THE APRON FOR  
KZ2146'ABOUT 30 M (98.4 FT) TO THE STATION ON THE LEFT JUST BEFORE THE  
KZ2146'PARALLEL TAXI. THE STATION IS SET IN THE TOP OF A 28 CM ROUND  
KZ2146'CONCRETE POST SET FLUSH WITH THE GROUND. IT IS 30.9 M (101.4 FT)  
KZ2146'NORTH OF THE FLAGPOLE, 20.1 M (65.9 FT) NORTHEAST OF THE NORTHWEST  
KZ2146'CORNER OF THE BUILDING, 14.6 M (47.9 FT) NORTH OF THE NORTHEAST CORNER  
KZ2146'OF THE BUILDING, 16.0 M (52.5 FT) SOUTH OF THE SOUTH EDGE OF THE TAXI,  
KZ2146'AND 0.3 M (1.0 FT) NORTH OF A FIBERGLASS WITNESS POST.

National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

AB6066 \*\*\*\*\*  
 AB6066 CBN - This is a Cooperative Base Network Control Station.  
 AB6066 DESIGNATION - COS 79  
 AB6066 PID - AB6066  
 AB6066 STATE/COUNTY- OH/COSHOCTON  
 AB6066 USGS QUAD - PERRYTON (1978)

\*CURRENT SURVEY CONTROL

AB6066*	NAD 83 (1995)	-	40 14 15.31508 (N)	082 09 12.42055 (W)	ADJUSTED
AB6066*	NAVD 88	-	255.2 (meters)	837. (feet)	GPS OBS
AB6066	X	-	665,657.044 (meters)		COMP
AB6066	Y	-	-4,830,225.968 (meters)		COMP
AB6066	Z	-	4,098,302.543 (meters)		COMP
AB6066	LAPLACE CORR-		1.23 (seconds)		DEFLEC96
AB6066	ELLIP HEIGHT-		221.66 (meters)		GPS OBS
AB6066	GEOID HEIGHT-		-33.56 (meters)		GEOID96

AB6066 HORZ ORDER - B  
 AB6066 ELLP ORDER - FOURTH CLASS II

AB6066.The horizontal coordinates were established by GPS observations  
 AB6066.and adjusted by the National Geodetic Survey in August 1996.  
 AB6066.This is a SPECIAL STATUS position. See SPECIAL STATUS under the  
 AB6066.DATUM ITEM on the data sheet items page.  
 AB6066  
 AB6066.The orthometric height was determined by GPS observations.  
 AB6066  
 AB6066.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 AB6066  
 AB6066.The Laplace correction was computed from DEFLEC96 derived deflections.  
 AB6066  
 AB6066.The ellipsoidal height was determined by GPS observations  
 AB6066.and is referenced to NAD 83.  
 AB6066  
 AB6066.The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
AB6066; SPC OH N	- 63,458.358	629,491.607	MT	1.00004325	+0 13 39.6
AB6066; UTM 17	- 4,454,765.663	401,882.813	MT	0.99971851	-0 44 42.5

SUPERSEDED SURVEY CONTROL

AB6066.No superseded survey control is available for this station.  
 AB6066  
 AB6066\_MARKER: I = METAL ROD  
 AB6066\_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)  
 AB6066\_STAMPING: COS 79 1995  
 AB6066\_PROJECTION: FLUSH  
 AB6066\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 AB6066\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AB6066+SATELLITE: SATELLITE OBSERVATIONS - 1995  
 AB6066\_ROD/PIPE-DEPTH: 9.75 meters

AB6066\_SLEEVE-DEPTH : 1.0 meters

AB6066

AB6066	HISTORY	- Date	Condition	Recov. By
AB6066	HISTORY	- 1995	MONUMENTED	OHDT

AB6066

AB6066

AB6066

STATION DESCRIPTION

AB6066'DESCRIBED BY OHIO DEPARTMENT OF TRANSPORTATION 1995 (TEA)

AB6066'STATION DESCRIBED 1995. THE STATION IS LOCATED IN COSHOCTON COUNTY  
AB6066'ALONG STATE ROUTE 79 ABOUT 0.8 KM (0.50 MI) NORTH OF RINE CORNERS AND  
AB6066'0.2 KM (0.10 MI) ABOVE THE PERRY AND PIKE TOWNSHIP LINES. TO REACH  
AB6066'THE STATION FROM THE INTERSECTION OF STATE ROUTE 79 AND STATE ROUTE  
AB6066'586, GO NORTH ON STATE ROUTE 79 FOR ABOUT 2.6 KM (1.60 MI) TO THE  
AB6066'STATION ON THE RIGHT. THE STATION IS 0.55 KM (0.35 MI) SOUTH OF THE  
AB6066'INTERSECTION OF STATE ROUTE 79 AND COUNTY ROAD 383. THE STATION IS  
AB6066'7.5 M (24.6 FT) SOUTH OF THE CENTERLINE OF THE ROAD, 13.7 M (44.9 FT)  
AB6066'EAST OF A METAL TELEPHONE DROP BOX, AND 20.4 M (66.9 FT) SOUTH OF A  
AB6066'PRIVATE DRIVE TO HOUSE NUMBER 19039. THE STATION IS IN PUBLIC  
AB6066'RIGHT-OF-WAY AND IS ACCESSIBLE AT ALL TIMES. NOTE--SLEEVE DEPTH DOES  
AB6066'NOT MEET CLASS A REQUIREMENTS.

National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

AB6101 \*\*\*\*\*  
 AB6101 CBN - This is a Cooperative Base Network Control Station.  
 AB6101 DESIGNATION - DIST 5 HQ  
 AB6101 PID - AB6101  
 AB6101 STATE/COUNTY- OH/LICKING  
 AB6101 USGS QUAD - THORNVILLE (1985)

\*CURRENT SURVEY CONTROL

AB6101*	NAD 83 (1995) -	39 57 05.61686 (N)	082 24 54.73908 (W)	ADJUSTED
AB6101*	NAVD 88 -	321.0 (meters)	1053. (feet)	GPS OBS
AB6101	X -	646,289.924 (meters)		COMP
AB6101	Y -	-4,853,542.650 (meters)		COMP
AB6101	Z -	4,074,048.229 (meters)		COMP
AB6101	LAPLACE CORR-	1.27 (seconds)		DEFLEC96
AB6101	ELLIP HEIGHT-	286.95 (meters)		GPS OBS
AB6101	GEOID HEIGHT-	-34.05 (meters)		GEOID96

AB6101 HORZ ORDER - B  
 AB6101 ELLP ORDER - FOURTH CLASS II

AB6101. The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in August 1996. This is a SPECIAL STATUS position. See SPECIAL STATUS under the DATUM ITEM on the data sheet items page.

AB6101. The orthometric height was determined by GPS observations.

AB6101. The X, Y, and Z were computed from the position and the ellipsoidal ht.

AB6101. The Laplace correction was computed from DEFLEC96 derived deflections.

AB6101. The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

AB6101. The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
AB6101; SPC OH S	- 216,657.904	607,245.950	MT	0.99998485	+0 03 13.7
AB6101; UTM 17	- 4,423,339.709	379,111.002	MT	0.99977991	-0 54 31.9

SUPERSEDED SURVEY CONTROL

AB6101. No superseded survey control is available for this station.

AB6101\_MARKER: DD = SURVEY DISK  
 AB6101\_SETTING: 60 = ALUMINUM ALLOY ROD IN SLEEVE (10 FT.+)  
 AB6101\_STAMPING: DIST 5 HQ 1995  
 AB6101\_PROJECTION: FLUSH  
 AB6101\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 AB6101\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AB6101+SATELLITE: SATELLITE OBSERVATIONS - 1995  
 AB6101\_ROD/PIPE-DEPTH: 4.6 meters

AB6101\_SLEEVE-DEPTH : 1.0 meters

AB6101

AB6101	HISTORY	- Date	Condition	Recov. By
AB6101	HISTORY	- 1995	MONUMENTED	OHDT

AB6101

AB6101

AB6101

#### STATION DESCRIPTION

AB6101'DESCRIBED BY OHIO DEPARTMENT OF TRANSPORTATION 1995

AB6101'THE STATION IS LOCATED AT THE OHIO DEPARTMENT OF TRANSPORTATION

AB6101'DISTRICT FIVE HEADQUARTERS IN JACKSONTOWN, OHIO. TO REACH THE STATION

AB6101'FROM THE INTERSECTION OF US ROUTE 40 AND STATE ROUTE 13 IN

AB6101'JACKSONTOWN, GO SOUTH ON STATE ROUTE 13 FOR 0.8 KM (0.50 MI) TO THE

AB6101'DRIVE ON THE RIGHT FOR DISTRICT 5 HEADQUARTERS. TURN RIGHT AND GO

AB6101'91.4 M (299.9 FT) TO THE FORK IN THE THE DRIVE AND GO TO THE LEFT FOR

AB6101'152 M (498.7 FT) TO THE PARKING LOT ON THE LEFT. TURN LEFT INTO THE

AB6101'PARKING LOT AND GO TO THE END OF THE LOT AND THE STATION IS ON THE

AB6101'LEFT. IT IS AT THE TOP OF THE KNOB AT THE SOUTH SIDE OF THE PARKING

AB6101'LOT. THE STATION IS 15.2 M (49.9 FT) SOUTHEAST OF THE SOUTHWEST

AB6101'CORNER OF THE PARKING LOT, 53.5 M (175.5 FT) SOUTHWEST OF THE

AB6101'SOUTHEAST CORNER OF THE PARKING LOT, AND 39.0 M (128.0 FT) SOUTHEAST

AB6101'OF A LIGHT POLE. OWNERSHIP--STATE OF OHIO, DEPARTMENT OF

AB6101'TRANSPORTATION, DISTRICT 5 DEPUTY DIRECTOR, 9600 JACKSONTOWN ROAD,

AB6101'JACKSONTOWN, OHIO 43030. THE MARK IS ACCESSIBLE ONLY BY APPOINTMENT.

AB6101'CONTACT THE DISTRICT 5 SURVEY OPERATIONS MANAGER, (614) 323-4400, FOR

AB6101'ACCESS TO MARK. NOTE--SLEEVE DEPTH DOES NOT MEET CLASS A

AB6101'REQUIREMENTS.

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

JY1655 \*\*\*\*\*

JY1655 DESIGNATION - FRANK 48  
 JY1655 PID - JY1655  
 JY1655 STATE/COUNTY- OH/FRANKLIN  
 JY1655 USGS QUAD - REYNOLDSBURG (1985)

JY1655  
 JY1655 \*CURRENT SURVEY CONTROL

JY1655*	NAD 83(1995)-	39 59 13.76523(N)	082 46 32.35371(W)	ADJUSTED
JY1655*	NAVD 88	- 310.9 (meters)	1020. (feet)	VERTCON
JY1655	X	- 615,423.355 (meters)		COMP
JY1655	Y	- 4,854,985.752 (meters)		COMP
JY1655	Z	- 4,077,070.951 (meters)		COMP
JY1655	LAPLACE CORR-	0.31 (seconds)		DEFLEC96
JY1655	ELLIP HEIGHT-	276.80 (meters)		GPS OBS
JY1655	GEOID HEIGHT-	-34.02 (meters)		GEOID96

JY1655 HORZ ORDER - FIRST  
 JY1655 ELLP ORDER - FOURTH CLASS I

JY1655.The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in April 1998.

JY1655.The NAVD 88 height was computed by applying the VERTCON shift value to the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

JY1655.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JY1655.The Laplace correction was computed from DEFLEC96 derived deflections.

JY1655.The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

JY1655.The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
JY1655;SPC OH S	- 220,642.843	576,456.693	MT	0.99999119	-0 10 29.7
JY1655;UTM 17	- 4,427,841.639	348,398.055	MT	0.99988294	-1 08 28.6

	Primary Azimuth Mark	Grid Az
JY1655:SPC OH S	- FRANK 48 AZ MK	016 48 43.8
JY1655:UTM 17	- FRANK 48 AZ MK	017 46 42.7

PID	Reference Object	Distance	Geod. Az
JY1656	FRANK 48 AZ MK	434.263 METERS	0163814.1

JY1655 SUPERSEDED SURVEY CONTROL

JY1655	NAD 83(1986)-	39 59 13.77254(N)	082 46 32.35696(W)	AD( ) 1
JY1655	NGVD 29	- 311.1 (m)	1021. (f)	GPS OBS

JY1655.Superseded values are not recommended for survey control.



JY1655.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 JY1655.See file format.dat to determine how the superseded data were derived.

JY1655  
 JY1655\_MARKER: I = METAL ROD  
 JY1655\_SETTING: 2 = OBJECT DRIVEN INTO GROUND  
 JY1655\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY  
 JY1655\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 JY1655+SATELLITE: SATELLITE OBSERVATIONS - 1987

JY1655  
 JY1655 HISTORY - Date Condition Recov. By  
 JY1655 HISTORY - 1987 MONUMENTED OH-049

JY1655 STATION DESCRIPTION

JY1655  
 JY1655'DESCRIBED BY FRANKLIN COUNTY OHIO 1987 (TJA)  
 JY1655'THE STATION IS LOCATED ABOUT 6.44 KM (4.0 MI)  
 JY1655'EAST-NORTHEAST OF THE JUNCTION OF INTERSTATE 270 AND STATE ROUTE 16  
 JY1655'(BROAD STREET),  
 JY1655'1.93 KM (1.2 MI) SOUTHEAST OF THE CROSSING OF THE CONRAIL AND B AND O  
 JY1655'RAILROAD AND WAGGONER ROAD,  
 JY1655'0.56 KM (0.35 MI) WEST OF THE INTERSECTION OF STATE ROUTE 16  
 JY1655'(COLUMBUS ROAD) AND TAYLOR ROAD IN LIMA TOWNSHIP, AND WITHIN  
 JY1655'JEFFERSON TOWNSHIP.  
 JY1655'OWNERSHIP--CARDINAL INDUSTRIES, 8400 EAST BROAD STREET, PLANT  
 JY1655'MANAGER JOHN GREEN, PHONE NUMBER (614)863-2700.  
 JY1655'  
 JY1655'TO REACH THE STATION FROM THE JUNCTION OF STATE ROUTE 16 AND  
 JY1655'WAGGONER ROAD JUST NORTH OF REYNOLDSBURG, GO  
 JY1655'EAST FOR 1.4 KM (0.9 MI) ON STATE ROUTE 16 (COLUMBUS-NEWARK ROAD)  
 JY1655'TO THE ENTRANCE DRIVEWAY OF THE CARDINAL INDUSTRIES PLANT ON THE  
 JY1655'LEFT AND THE STATION IN THE NORTHWEST QUADRANT OF THE INTERSECTION.  
 JY1655'  
 JY1655'THE STATION IS A STANDARD NGS THREE DIMENSIONAL MARK. THE LOGO  
 JY1655'FLANGE WITH ACCESS COVER IS STAMPED---FRANK 48 1987---, AND IS  
 JY1655'RECESSED 3 CM BELOW GROUND. THE STATION IS A 9/16 INCH DIAMETER  
 JY1655'STAINLESS STEEL ROD DRIVEN TO THE DEPTH OF 3.7 METERS (12 FT) AND IS  
 JY1655'RECESSED 10 CM BELOW GROUND. LOCATED 21.6 METERS (70.9 FT)  
 JY1655'EAST-NORTHEAST FROM THE EDGE OF POLE NUMBER 52-1/2, 4.3 METERS  
 JY1655'(14.0 FT) SOUTH-SOUTHEAST FROM THE SOUTHEAST CORNER OF THE SIGN  
 JY1655'FOUNDATION, 11.1 METERS (36.3 FT) WEST-NORTHWEST FROM THE EDGE OF A  
 JY1655'METAL LIGHT POLE BASE, 10.3 METERS (33.9 FT ) NORTH FROM THE NORTH  
 JY1655'EDGE OF THE BROAD STREET PAVING, 20.2 METERS (66.2 FT) WEST FROM  
 JY1655'THE CENTERLINE OF THE DRIVE TO THE CARDINAL INDUSTRIES PLANT.

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

JY1656 \*\*\*\*\*  
 JY1656 DESIGNATION - FRANK 48 AZ MK  
 JY1656 PID - JY1656  
 JY1656 STATE/COUNTY- OH/FRANKLIN  
 JY1656 USGS QUAD - REYNOLDSBURG (1985)

JY1656 \*CURRENT SURVEY CONTROL

JY1656*	NAD 83(1995)-	39 59 27.25562(N)	082 46 27.11276(W)	ADJUSTED
JY1656*	NAVD 88	- 313.1 (meters)	1027. (feet)	VERTCON
JY1656	X	- 615,513.298 (meters)		COMP
JY1656	Y	- 4,854,706.549 (meters)		COMP
JY1656	Z	- 4,077,391.205 (meters)		COMP
JY1656	LAPLACE CORR-	0.31 (seconds)		DEFLEC96
JY1656	ELLIP HEIGHT-	279.05 (meters)		GPS OBS
JY1656	GEOID HEIGHT-	-34.02 (meters)		GEOID96
JY1656	HORZ ORDER	- FIRST		
JY1656	ELLP ORDER	- FOURTH	CLASS I	

JY1656

JY1656.The horizontal coordinates were established by GPS observations  
JY1656.and adjusted by the National Geodetic Survey in April 1998.

JY1656

JY1656.The NAVD 88 height was computed by applying the VERTCON shift value to  
JY1656.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

JY1656

JY1656.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JY1656

JY1656.The Laplace correction was computed from DEFLEC96 derived deflections.

JY1656

JY1656.The ellipsoidal height was determined by GPS observations  
JY1656.and is referenced to NAD 83.

JY1656

JY1656.The geoid height was determined by GEOID96.

JY1656

JY1656;		North	East	Units	Scale	Converg.
JY1656;SPC OH S	-	221,058.542	576,582.296	MT	0.99999188	-0 10 26.3
JY1656;UTM 17	-	4,428,255.115	348,530.637	MT	0.99988245	-1 08 25.6

JY1656

JY1656:		Primary Azimuth Mark	Grid Az
JY1656:SPC OH S	-	FRANK 48	196 48 43.8
JY1656:UTM 17	-	FRANK 48	197 46 43.1

JY1656

JY1656	-----			
JY1656	PID	Reference Object	Distance	Geod. Az
JY1656				ddmmss.s
JY1656	JY1655	FRANK 48	434.263 METERS	1963817.5

JY1656

JY1656

## SUPERSEDED SURVEY CONTROL

JY1656

JY1656	NAD 83(1986)-	39 59 27.26303(N)	082 46 27.11611(W)	AD( ) 1
JY1656	NGVD 29	- 313.3 (m)	1028. (f)	GPS OBS

JY1656

JY1656.Superseded values are not recommended for survey control.

JY1656.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JY1656.See file format.dat to determine how the superseded data were derived.

JY1656

JY1656 MARKER: DD = SURVEY DISK

JY1656\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)

JY1656\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JY1656+STABILITY: SURFACE MOTION

JY1656 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JY1656+SATELLITE: SATELLITE OBSERVATIONS - 1987

JY1656

JY1656	HISTORY	- Date	Condition	Recov. By
JY1656	HISTORY	- 1987	MONUMENTED	OH-049

JY1656

JY1656

## STATION DESCRIPTION

JY1656

JY1656'DESCRIBED BY FRANKLIN COUNTY OHIO 1987 (TJA)

JY1656'THE STATION IS LOCATED ABOUT 6.71 KM (4.17 MI)

JY1656'EAST-NORTHEAST OF THE JUNCTION OF INTERSTATE 270 AND STATE ROUTE 16

JY1656'(BROAD STREET),

JY1656'1.66 KM (1.03 MI) EAST-SOUTHEAST OF THE CROSSING OF THE CONRAIL AND

JY1656'B AND O RAILROAD AND WAGGONER ROAD,

JY1656'0.69 KM (0.43 MI) NORTHWEST OF THE INTERSECTION OF STATE ROUTE 16

JY1656'(COLUMBUS ROAD) AND TAYLOR ROAD IN LIMA TOWNSHIP, AND WITHIN

JY1656'JEFFERSON TOWNSHIP.

JY1656'OWNERSHIP--CARDINAL INDUSTRIES 8400 EAST BROAD STREET,

JY1656'PLANT MANAGER JOHN GREEN, PHONE NUMBER (614)863-2700.

JY1656'

JY1656'TO REACH THE STATION FROM THE CARDINAL INDUSTRIES PLANT ENTRANCE

JY1656'DRIVE AT 8400 EAST BROAD STREET, GO NORTH FOR  
JY1656'0.5 KM (0.3 MI) ON THE ENTRANCE DRIVE TO THE STATION ON THE RIGHT  
JY1656'AT THE SOUTHEAST CORNER OF THE JUNCTION OF TWO DRAINAGE DITCHES.  
JY1656'

JY1656'THE STATION IS A FRANKLIN CO. SURVEY DISK STAMPED---FRANK 48 AZ MK  
JY1656'1987---, SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 33 CM IN  
JY1656'DIAMETER RECESSED 3 CM BELOW GROUND. LOCATED 28.6 METERS (93.7 FT)  
JY1656'SOUTHEAST FROM THE BASE OF A METAL LIGHT POLE ON THE WEST SIDE OF  
JY1656'ROAD NORTH OF A CULVERT PIPE, 21.4 METERS (70.1 FT) SOUTH-SOUTHWEST  
JY1656'FROM A CHISELED X ON THE SOUTH RIM OF A MANHOLE ON THE EAST SIDE OF  
JY1656'ROAD NORTH OF A DITCH, 11.2 METERS (36.9 FT) SOUTH-SOUTHEAST FROM  
JY1656'THE TOP CENTER AT THE EAST END OF A FOUR FEET DIAMETER CONCRETE  
JY1656'CULVERT PIPE, 13.1 METERS (42.9 FT) EAST FROM THE EAST EDGE OF THE  
JY1656'PAVED ROAD.

Elapsed Time = 00:00:44

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 21, 1999

KZ1839 \*\*\*\*\*

KZ1839 DESIGNATION - PAINTER  
KZ1839 PID - KZ1839  
KZ1839 STATE/COUNTY- OH/LICKING  
KZ1839 USGS QUAD - PERRYTON (1978)

\*CURRENT SURVEY CONTROL

KZ1839*	NAD 83(1995)-	40 12 34.53726(N)	082 14 54.13403(W)	ADJUSTED
KZ1839*	NAVD 88	- 368.4 (meters)	1209. (feet)	GPS OBS
KZ1839	X	- 657,936.431 (meters)		COMP
KZ1839	Y	- 4,833,396.748 (meters)		COMP
KZ1839	Z	- 4,096,002.114 (meters)		COMP
KZ1839	LAPLACE CORR-	1.26 (seconds)		DEFLEC96
KZ1839	ELLIP HEIGHT-	334.75 (meters)		GPS OBS
KZ1839	GEOID HEIGHT-	-33.66 (meters)		GEOID96

KZ1839 HORZ ORDER - FIRST  
KZ1839 ELLP ORDER - FOURTH CLASS I

KZ1839.The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in April 1998.

KZ1839.The orthometric height was determined by GPS observations.

KZ1839.The X, Y, and Z were computed from the position and the ellipsoidal ht.

KZ1839.The Laplace correction was computed from DEFLEC96 derived deflections.

KZ1839.The ellipsoidal height was determined by GPS observations

KZ1839.and is referenced to NAD 83.

KZ1839.The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
KZ1839;SPC OH S	- 245,335.701	621,422.589	MT	1.00003964	+0 09 34.8
KZ1839;SPC OH N	- 60,322.118	621,422.817	MT	1.00005038	+0 09 55.1
KZ1839;UTM 17	- 4,451,767.715	393,764.562	MT	0.99973893	-0 48 21.6

	Primary Azimuth Mark	Grid Az
KZ1839:SPC OH S	- FOWLS	003 07 05.6
KZ1839:SPC OH N	- FOWLS	003 06 45.3
KZ1839:UTM 17	- FOWLS	004 05 02.0

PID	Reference Object	Distance	Geod. Az
			dddmsss.s
KZ1839	KZ1838 FOWLS	APPROX. 3.8 KM	0031640.4
KZ1839	PAINTER RM 1	12.402 METERS	11907
KZ1839	PAINTER RM 2	13.028 METERS	30642

SUPERSEDED SURVEY CONTROL

KZ1839 NAD 83(1986)- 40 12 34.54116(N) 082 14 54.13705(W) AD( ) 2

KZ1839 NAD 83(1986)- 40 12 34.54116(N) 082 14 54.13705(W) AD( ) 1  
 KZ1839 NAD 27 - 40 12 34.29640(N) 082 14 54.60560(W) AD( ) 2  
 KZ1839 NGVD 29 - 368.65 (m) 1209.5 (f) LEVELING 3  
 KZ1839

KZ1839.Superseded values are not recommended for survey control.  
 KZ1839.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 KZ1839.See file format.dat to determine how the superseded data were derived.  
 KZ1839

KZ1839\_MARKER: DD = SURVEY DISK  
 KZ1839\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
 KZ1839\_STAMPING: PAINTER 1959  
 KZ1839\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 KZ1839+STABILITY: SURFACE MOTION  
 KZ1839\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 KZ1839+SATELLITE: SATELLITE OBSERVATIONS - October 13, 1993  
 KZ1839

HISTORY	- Date	Condition	Recov. By
KZ1839	- 1959	MONUMENTED	CGS
KZ1839	- 19931013	GOOD	GEOONE

KZ1839

#### STATION DESCRIPTION

KZ1839

KZ1839'DESCRIBED BY COAST AND GEODETIC SURVEY 1959 (WER)  
 KZ1839'THE STATION IS ABOUT 14 MILES NORTHWEST OF DRESDEN, 7 MILES SOUTHEAST  
 KZ1839'OF MARTINSBURG, 3/4 MILE NORTHWEST  
 KZ1839'OF FALLSBURG, ON THE NORTHEAST RIGHT-OF-WAY OF STATE HIGHWAY  
 KZ1839'586, IN THE NORTH CENTER OF SECTION  
 KZ1839'14, T 4 N, R 10 W.

KZ1839'

KZ1839'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 586 AND 79  
 KZ1839'IN FALLSBURG, GO NORTHWEST ON  
 KZ1839'HIGHWAY 586 FOR 0.8 MILE TO THE TOP OF A HILL AND THE STATION ON THE  
 KZ1839'RIGHT.

KZ1839'

KZ1839'STATION MARKS ARE STANDARD DISKS STAMPED PAINTER 1959. THE SURFACE  
 KZ1839'DISK IS SET IN A SQUARE  
 KZ1839'CONCRETE POST WHICH PROJECTS 4 INCHES. IT IS 102 FEET SOUTHEAST OF A  
 KZ1839'POWERLINE POLE, 39 FEET NORTHEAST OF  
 KZ1839'THE PAINTED CENTER LINE OF HIGHWAY 586 AND 3.5 FEET SOUTHWEST  
 KZ1839'OF A FENCELINE. A STANDARD METAL WITNESS  
 KZ1839'POST WAS SET 3 FEET NORTHEAST OF THE MARK.  
 KZ1839'THE UNDERGROUND DISK IS SET IN AN IRREGULAR MASS OF CONCRETE  
 KZ1839'30 INCHES BELOW THE SURFACE OF THE GROUND.

KZ1839'

KZ1839'REFERENCE MARK NO. 1, A STANDARD DISK STAMPED PAINTER NO. 1 1959, IS  
 KZ1839'SET IN A SQUARE CONCRETE POST  
 KZ1839'WHICH PROJECTS 4 INCHES. IT IS 40 FEET NORTHEAST OF THE PAINTED  
 KZ1839'CENTER LINE OF HIGHWAY 586 AND 1  
 KZ1839'FOOT SOUTHWEST OF THE FENCELINE.

KZ1839'

KZ1839'REFERENCE MARK NO. 2, A STANDARD DISK STAMPED PAINTER NO. 2 1959, IS  
 KZ1839'SET IN A SQUARE CONCRETE POST  
 KZ1839'WHICH PROJECTS 2 INCHES. IT IS 62 FEET SOUTHEAST OF THE POWERLINE  
 KZ1839'POLE, 41 FEET NORTHEAST OF THE  
 KZ1839'PAINTED CENTER LINE OF HIGHWAY 586 AND 1 FOOT SOUTHWEST  
 KZ1839'OF THE FENCELINE.

KZ1839'

KZ1839'NOTE- NO AZIMUTH MARK WAS SET.

KZ1839

#### STATION RECOVERY (1993)

KZ1839

KZ1839

KZ1839'RECOVERY NOTE BY GEOONE INCORPORATED 1993 (SBE)  
 KZ1839'RECOVERED AS DESCRIBED.

\*\*\* retrieval complete.  
Elapsed Time = 00:00:03

National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

JY0002 \*\*\*\*\*  
JY0002 DESIGNATION - J 190  
JY0002 PID - JY0002  
JY0002 STATE/COUNTY- OH/LICKING  
JY0002 USGS QUAD - THORNVILLE (1985)

JY0002 \*CURRENT SURVEY CONTROL

JY0002\* NAD 83(1986)- 39 55 27. (N) 082 24 47. (W) SCALED  
JY0002\* NAVD 88 - 275.019 (meters) 902.29 (feet) ADJUSTED

JY0002 GEOID HEIGHT- -34.07 (meters) GEOID96  
JY0002 DYNAMIC HT - 274.861 (meters) 901.77 (feet) COMP  
JY0002 MODELED GRAV- 980,046.1 (mgal) NAVD 88

JY0002 VERT ORDER - FIRST CLASS II

JY0002.The horizontal coordinates were scaled from a topographic map and have  
JY0002.an estimated accuracy of +/- 6 seconds.

JY0002.The orthometric height was determined by differential leveling  
JY0002.and adjusted by the National Geodetic Survey in June 1991.

JY0002.The geoid height was determined by GEOID96.

JY0002.The dynamic height is computed by dividing the NAVD 88  
JY0002.geopotential number by the normal gravity value computed on the  
JY0002.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
JY0002.degrees latitude (G = 980.6199 gals.).

JY0002.The modeled gravity was interpolated from observed gravity values.

JY0002;  
JY0002;SPC OH S - North East Units Estimated Accuracy  
213,620. 607,430. MT (+/- 180 meters Scaled)

JY0002 SUPERSEDED SURVEY CONTROL

JY0002 NGVD 29 - 275.220 (meters) 902.95 (feet) ADJ UNCH

JY0002.Superseded values are not recommended for survey control.  
JY0002.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
JY0002.See file format.dat to determine how the superseded data were derived.

JY0002\_MARKER: DB = BENCH MARK DISK  
JY0002\_SETTING: 30 = SET IN A LIGHT STRUCTURE  
JY0002\_STAMPING: J 190 1954  
JY0002\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

JY0002 HISTORY - Date Condition Recov. By  
JY0002 HISTORY - 1954 MONUMENTED CGS

JY0002 STATION DESCRIPTION

JY0002'DESCRIBED BY COAST AND GEODETIC SURVEY 1954

JY0002'0.8 MI NW FROM THORNVILLE.

JY0002'0.85 MILE NORTHWEST ALONG THE BALTIMORE AND OHIO RAILROAD FROM

JY0002'THE STATION AND CROSSING OF STATE HIGHWAY 13 AT THORNVILLE, AT

JY0002'CROSSING OF A SMALL ROAD LEADING TO A GROUP OF HOUSES BETWEEN THE

JY0002'TRACK AND BUCKEYE LAKE, 10 1/2 FEET SOUTHWEST OF SOUTHWEST RAIL,

JY0002'9 FEET SOUTHEAST OF CENTER LINE OF ROAD, IN THE TOP AND 2.4

JY0002'FEET SOUTHWEST OF NORTHEAST END OF AN ANGLE SHAPED HEAD WALL FOR

JY0002'A 15-INCH PIPE CULVERT UNDER ROAD AND ABOUT LEVEL WITH TRACK.



National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

JY0005 \*\*\*\*\*  
JY0005 DESIGNATION - B 27  
JY0005 PID - JY0005  
JY0005 STATE/COUNTY- OH/LICKING  
JY0005 USGS QUAD - THORNVILLE (1985)

\*CURRENT SURVEY CONTROL

JY0005\* NAD 83(1986)- 39 59 12. (N) 082 26 08. (W) SCALED  
JY0005\* NAVD 88 - 277.934 (meters) 911.86 (feet) ADJUSTED  
JY0005  
JY0005 GEOID HEIGHT- -34.05 (meters) GEOID96  
JY0005 DYNAMIC HT - 277.778 (meters) 911.34 (feet) COMP  
JY0005 MODELED GRAV- 980,057.7 (mgal) NAVD 88

VERT ORDER - SECOND CLASS 0

JY0005.The horizontal coordinates were scaled from a topographic map and have  
JY0005.an estimated accuracy of +/- 6 seconds.

JY0005.The orthometric height was determined by differential leveling  
JY0005.and adjusted by the National Geodetic Survey in June 1991.

JY0005.The geoid height was determined by GEOID96.

JY0005.The dynamic height is computed by dividing the NAVD 88  
JY0005.geopotential number by the normal gravity value computed on the  
JY0005.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
JY0005.degrees latitude (G = 980.6199 gals.).

JY0005.The modeled gravity was interpolated from observed gravity values.

JY0005;  
JY0005;SPC OH S - North East Units Estimated Accuracy  
220,550. 605,500. MT (+/- 180 meters Scaled)

SUPERSEDED SURVEY CONTROL

JY0005 NGVD 29 - 278.133 (meters) 912.51 (feet) ADJ UNCH

JY0005.Superseded values are not recommended for survey control.  
JY0005.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
JY0005.See file format.dat to determine how the superseded data were derived.

JY0005\_MARKER: DB = BENCH MARK DISK  
JY0005\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
JY0005\_STAMPING: B 27 1934  
JY0005\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
JY0005+STABILITY: SURFACE MOTION

JY0005 HISTORY - Date Condition Recov. By  
JY0005 HISTORY - 1934 MONUMENTED CGS

STATION DESCRIPTION

JY0005

JY0005'DESCRIBED BY COAST AND GEODETIC SURVEY 1934

JY0005'1.8 MI N FROM ATHERTON.

JY0005'1.8 MILES NORTH ALONG THE BALTIMORE AND OHIO RAILROAD FROM

JY0005'ATHERTON, LICKING COUNTY, 130 FEET WEST OF A WHITE FARMHOUSE,

JY0005'100 FEET NORTHWEST OF A 32-INCH ELM TREE, AT A DIRT-ROAD

JY0005'CROSSING, 26 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 20 FEE

JY0005'WEST OF THE WEST RAIL, 22 FEET SOUTHEAST OF A 12-INCH ELM TREE,

JY0005'11 FEET SOUTHEAST OF A FENCE CORNER, 3.2 FEET EAST OF THE WEST

JY0005'FENCE, AND LEVEL WITH THE TRACK. A STANDARD DISK, STAMPED B 27

JY0005'1934 AND SET IN THE TOP OF A CONCRETE POST PROJECTING ABOUT 6

JY0005'INCHES ABOVE GROUND.

National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

JY0838 \*\*\*\*\*  
 JY0838 CBN - This is a Cooperative Base Network Control Station.  
 JY0838 DESIGNATION - Q 190  
 JY0838 PID - JY0838  
 JY0838 STATE/COUNTY- OH/FAIRFIELD  
 JY0838 USGS QUAD - BALTIMORE (1975)

\*CURRENT SURVEY CONTROL

JY0838*	NAD 83 (1995)	-	39 50 47.48015 (N)	082 31 46.52328 (W)	ADJUSTED
JY0838*	NAVD 88	-	276.397 (meters)	906.81 (feet)	ADJUSTED
JY0838	X	-	637,567.294 (meters)		COMP
JY0838	Y	-	-4,862,206.866 (meters)		COMP
JY0838	Z	-	4,065,071.868 (meters)		COMP
JY0838	LAPLACE CORR-		-0.16 (seconds)		DEFLEC96
JY0838	ELLIP HEIGHT-		242.23 (meters)		GPS OBS
JY0838	GEOID HEIGHT-		-34.11 (meters)		GEOID96
JY0838	DYNAMIC HT	-	276.238 (meters)	906.29 (feet)	COMP
JY0838	MODELED GRAV-		980,041.7 (mgal)		NAVD 88

JY0838 HORZ ORDER - B  
 JY0838 VERT ORDER - FIRST CLASS II  
 JY0838 ELLP ORDER - FOURTH CLASS II

JY0838.The horizontal coordinates were established by GPS observations  
 JY0838.and adjusted by the National Geodetic Survey in August 1996.  
 JY0838.This is a SPECIAL STATUS position. See SPECIAL STATUS under the  
 JY0838.DATUM ITEM on the data sheet items page.

JY0838.The orthometric height was determined by differential leveling  
 JY0838.and adjusted by the National Geodetic Survey in June 1991.

JY0838.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 JY0838

JY0838.The Laplace correction was computed from DEFLEC96 derived deflections.  
 JY0838

JY0838.The ellipsoidal height was determined by GPS observations  
 JY0838.and is referenced to NAD 83.

JY0838.The geoid height was determined by GEOID96.  
 JY0838

JY0838.The dynamic height is computed by dividing the NAVD 88  
 JY0838.geopotential number by the normal gravity value computed on the  
 JY0838.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 JY0838.degrees latitude (G = 980.6199 gals.).

JY0838.The modeled gravity was interpolated from observed gravity values.  
 JY0838

	North	East	Units	Scale	Converg.
JY0838; SPC OH S	- 204,992.544	597,467.645	MT	0.99996838	-0 01 07.6
JY0838; UTM 17	- 4,411,842.260	369,140.015	MT	0.99981082	-0 58 48.7

SUPERSEDED SURVEY CONTROL

JY0838  
JY0838 NAD 83(1986) - 39 50 47.48703(N) 082 31 46.52783(W) ADJUSTED  
JY0838 NGVD 29 - 276.601 (meters) 907.48 (feet) ADJ UNCH  
JY0838

JY0838.Superseded values are not recommended for survey control.  
JY0838.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
JY0838.See file format.dat to determine how the superseded data were derived.  
JY0838

JY0838\_MARKER: DB = BENCH MARK DISK

JY0838\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)

JY0838\_STAMPING: Q 190 1954

JY0838\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JY0838+STABILITY: SURFACE MOTION

JY0838\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JY0838+SATELLITE: SATELLITE OBSERVATIONS - October 13, 1995

JY0838

JY0838	HISTORY	- Date	Condition	Recov. By
JY0838	HISTORY	- 1954	MONUMENTED	CGS
JY0838	HISTORY	- 19910828	GOOD	WOOLPT
JY0838	HISTORY	- 19951013	GOOD	OHDT

JY0838

JY0838 STATION DESCRIPTION

JY0838

JY0838'DESCRIBED BY COAST AND GEODETIC SURVEY 1954

JY0838'0.9 MI E FROM THURSTON.

JY0838'0.9 MILE EAST ALONG THE NEW YORK CENTRAL RAILROAD FROM THE

JY0838'ELEVATOR BUILDINGS AT THURSTON, ABOUT 0.3 MILE WEST OF MILE POST

JY0838'COL 30, AT A NARROW NORTH-SOUTH ROAD CROSSING, 26 FEET SOUTH OF

JY0838'SOUTH RAIL, 63 FEET WEST-SOUTHWEST OF CENTER OF CROSSING, 54 1/2

JY0838'FEET WEST OF CENTER LINE OF ROAD, 40 FEET WEST OF A FENCE CORNER,

JY0838'1 FOOT NORTH OF A FENCE LINE, 2 FEET EAST OF A WHITE WOODEN

JY0838'WITNESS POST, ABOUT LEVEL WITH TRACK AND SET IN THE TOP OF A

JY0838'CONCRETE POST PROJECTING 3 INCHES.

JY0838

JY0838 STATION RECOVERY (1991)

JY0838

JY0838'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1991

JY0838'RECOVERED IN GOOD CONDITION.

JY0838

JY0838 STATION RECOVERY (1995)

JY0838

JY0838'RECOVERY NOTE BY OHIO DEPARTMENT OF TRANSPORTATION 1995

JY0838'THE STATION IS LOCATED ABOUT 5.8 KM (3.60 MI) SOUTH OF MILLERSPORT,

JY0838'4.8 KM (3.00 MI) EAST OF BALTIMORE, AND 0.8 KM (0.50 MI) EAST OF

JY0838'THURSTON, ALONG RUFFNER ROAD (TOWNSHIP ROAD 431) . FROM THE

JY0838'INTERSECTION OF STATE ROUTE 37 AND STATE ROUTE 256, STATE ROUTE 256

JY0838'EAST 3.2 KM (2.00 MI) TO RUFFNER ROAD (TOWNSHIP ROAD 431) ON LEFT,

JY0838'RUFFNER ROAD (TOWNSHIP ROAD 431) NORTH 0.6 KM (0.35 MI) TO STATION ON

JY0838'LEFT. 16.6 M (54.5 FT) WEST OF CENTERLINE OF RUFFNER ROAD (TOWNSHIP

JY0838'ROAD 431) , 21.5 M (70.5 FT) SOUTHWEST OF A FENCE CORNER, 6.7 M (22.0

JY0838'FT) NORTHWEST OF A GAS METER, 3.2 M (10.5 FT) NORTHWEST OF A POLE, 6.7

JY0838'M (22.0 FT) NORTH OF CENTERLINE OF DRIVE FOR PRIVATE RESIDENCE NUMBER

JY0838'8479, SET IN THE TOP OF A CONCRETE POST PROJECTING 0.38 M (1.25 FT) .

JY0838'THE MARK IS ACCESSIBLE AT ALL TIMES.

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71  
Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

KZ0723 \*\*\*\*\*

KZ0723 DESIGNATION - S 32  
KZ0723 PID - KZ0723  
KZ0723 STATE/COUNTY- OH/MUSKINGUM  
KZ0723 USGS QUAD - DRESDEN (1978)

\*CURRENT SURVEY CONTROL

KZ0723*	NAD 83(1995)-	40 06 46.39144(N)	082 00 37.57887(W)	ADJUSTED
KZ0723*	NAVD 88	- 224.510 (meters)	736.58 (feet)	ADJUSTED
KZ0723	X	- 678,949.680 (meters)		COMP
KZ0723	Y	- 4,837,372.531 (meters)		COMP
KZ0723	Z	- 4,087,702.563 (meters)		COMP
KZ0723	LAPLACE CORR-	0.25 (seconds)		DEFLEC96
KZ0723	ELLIP HEIGHT-	190.91 (meters)		GPS OBS
KZ0723	GEOID HEIGHT-	-33.66 (meters)		GEOID96
KZ0723	DYNAMIC HT -	224.392 (meters)	736.19 (feet)	COMP
KZ0723	MODELED GRAV-	980,096.2 (mgal)		NAVD 88

KZ0723 HORZ ORDER - FIRST  
KZ0723 VERT ORDER - FIRST CLASS II  
KZ0723 ELLP ORDER - FOURTH CLASS I

KZ0723.The horizontal coordinates were established by GPS observations  
KZ0723.and adjusted by the National Geodetic Survey in April 1998.

KZ0723.The orthometric height was determined by differential leveling  
KZ0723.and adjusted by the National Geodetic Survey in June 1991.

KZ0723.The X, Y, and Z were computed from the position and the ellipsoidal ht.

KZ0723.The Laplace correction was computed from DEFLEC96 derived deflections.

KZ0723.The ellipsoidal height was determined by GPS observations  
KZ0723.and is referenced to NAD 83.

KZ0723.The geoid height was determined by GEOID96.

KZ0723.The dynamic height is computed by dividing the NAVD 88  
KZ0723.geopotential number by the normal gravity value computed on the  
KZ0723.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
KZ0723.degrees latitude (G = 980.6199 gals.).

KZ0723.The modeled gravity was interpolated from observed gravity values.

KZ0723;	North	East	Units	Scale	Converg.
KZ0723;SPC OH S	- 234,680.549	641,737.108	MT	1.00001671	+0 18 38.3
KZ0723;UTM 17	- 4,440,775.874	413,890.698	MT	0.99969128	-0 39 03.8

SUPERSEDED SURVEY CONTROL

KZ0723	NAD 83(1986)-	40 06 46.39704(N)	082 00 37.58759(W)	AD( ) 1
KZ0723	NGVD 29	- 224.731 (m)	737.30 (f)	ADJ UNCH 1 2

KZ0723.Superseded values are not recommended for survey control.

KZ0723.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 KZ0723.See file format.dat to determine how the superseded data were derived.

KZ0723

KZ0723\_MARKER: DB = BENCH MARK DISK

KZ0723\_SETTING: 9 = SET IN PREFABRICATED CONCRETE POST IMBEDDED IN GROUND

KZ0723\_STAMPING: S 32 1934

KZ0723\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

KZ0723\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ0723+SATELLITE: SATELLITE OBSERVATIONS - December 16, 1992

KZ0723

KZ0723	HISTORY	- Date	Condition	Recov. By
KZ0723	HISTORY	- 1934	MONUMENTED	CGS
KZ0723	HISTORY	- 1959	GOOD	NGS
KZ0723	HISTORY	- 1969	GOOD	NGS
KZ0723	HISTORY	- 19921216	GOOD	OH-119

KZ0723

KZ0723

STATION DESCRIPTION

KZ0723

KZ0723'DESCRIBED BY NATIONAL GEODETIC SURVEY 1959

KZ0723'0.6 MI SE FROM DRESDEN.

KZ0723'ABOUT 0.55 MILE SOUTHEAST ALONG THE PENNSYLVANIA RAILROAD FROM

KZ0723'THE STATION AT DRESDEN, ALSO ABOUT 0.35 MILE SOUTH ALONG THE

KZ0723'NEW YORK, CHICAGO AND ST. LOUIS RAILROAD FROM THE STATION AT

KZ0723'DRESDEN, THENCE ABOUT 0.05 MILE SOUTH ALONG THE PENN. RAILROAD,

KZ0723'257 FEET SOUTH OF AND ACROSS THE TRACK FROM THE SOUTH END OF THE

KZ0723'SOUTHWEST STONE MASONRY ABUTMENT OF OVERPASS 2-57 OF NEW YORK,

KZ0723'CHICAGO AND ST. LOUIS RAILROAD OVER THE PENNSYLVANIA RAILROAD,

KZ0723'2.1 FEET EAST OF THE EAST RAIL OF PENN. TRACK, 41.2 FEET NORTHEAST

KZ0723'OF THE NORTH END OF THE EAST STONE HEAD WALL OF A PIPE CULVERT

KZ0723'UNDER THE TRACK, 57 FEET NORTHEAST OF AND ACROSS THE TRACK FROM

KZ0723'A WHISTLE POST ON THE WEST SIDE OF TRACK, 196 FEET SOUTH OF

KZ0723'B M USE, 15 1/2 FEET WEST OF A WIRE FENCE, 318 1/2 FEET SOUTH

KZ0723'OF B M R 32, 0.9 FOOT SOUTHWEST OF A STEEL WITNESS POST, ABOUT

KZ0723'LEVEL WITH THE TRACK, AND SET IN TOP OF A CONCRETE POST

KZ0723'PROJECTING 2 INCHES ABOVE THE GROUND.

KZ0723

KZ0723

STATION RECOVERY (1969)

KZ0723

KZ0723'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1969

KZ0723'RECOVERED IN GOOD CONDITION.

KZ0723

KZ0723

STATION RECOVERY (1992)

KZ0723

KZ0723

KZ0723'RECOVERY NOTE BY MUSKINGUM COUNTY OHIO 1992 (LCC)

KZ0723'THE MARK WAS RECOVERED IN GOOD CONDITION. THE RAILROAD TRACKS HAVE

KZ0723'BEEN REMOVED. A COMPLETE NEW DESCRIPTION FOLLOWS.

KZ0723'

KZ0723'THE MARK IS IN THE FOURTH QUARTER TOWNSHIP OF TOWNSHIP 3, RANGE 8,

KZ0723'JEFFERSON TOWNSHIP, ABOUT 10 MI (16.1 KM) N OF ZANESVILLE AND NEAR THE

KZ0723'S SIDE OF DRESDEN ALONG AN ABANDONED RAILROAD BED.

KZ0723'

KZ0723'TO REACH FROM DRESDEN AT THE INTERSECTION OF STATE ROUTES 60 AND 208,

KZ0723'GO 0.75 MI (1.21 KM) S ON STATE ROUTE 60 TO THE JUNCTION OF MAIN

KZ0723'STREET (TOWNSHIP ROAD 706), TURN LEFT ONTO MAIN STREET E FOR 0.40 MI

KZ0723'(0.64 KM) TO THE JUNCTION OF DEWEY STREET (TOWNSHIP ROAD 1200), TURN

KZ0723'LEFT ONTO DEWEY STREET N FOR 0.28 MI (0.45 KM) TO THE JUNCTION OF 12TH

KZ0723'STREET (TOWNSHIP ROAD 1202) AND THE MARK ON THE LEFT BEHIND THE

KZ0723'RESIDENCE OF 1339 DEWEY STREET.

KZ0723'

KZ0723'THE MARK IS SET IN THE TOP OF A CONCRETE POST FLUSH WITH THE GROUND.

KZ0723'IT IS 350.0 FT (106.7 M) W OF THE CENTERLINE OF DEWEY STREET, 340.0 FT

KZ0723'(103.6 M) S OF THE CENTERLINE OF A RAILROAD OVERPASS, 21.0 FT (6.4 M)

KZ0723'S OF A CONCRETE WHISTLE POST, 20.0 FT (6.1 M) E OF THE CENTER OF THE

KZ0723'OLD RAILROAD BED.

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

JY0053 \*\*\*\*\*

JY0053 DESIGNATION - U 185  
 JY0053 PID - JY0053  
 JY0053 STATE/COUNTY- OH/PERRY  
 JY0053 USGS QUAD - GLENFORD (1983)

\*CURRENT SURVEY CONTROL

JY0053*	NAD 83(1995)-	39 52 40.50528(N)	082 15 05.96568(W)	ADJUSTED
JY0053*	NAVD 88	- 247.869 (meters)	813.22 (feet)	ADJUSTED
JY0053	X	- 660,841.311 (meters)		COMP
JY0053	Y	- 4,856,821.399 (meters)		COMP
JY0053	Z	- 4,067,729.563 (meters)		COMP
JY0053	LAPLACE CORR-	2.00 (seconds)		DEFLEC96
JY0053	ELLIP HEIGHT-	213.88 (meters)		GPS OBS
JY0053	GEOID HEIGHT-	-33.96 (meters)		GEOID96
JY0053	DYNAMIC HT -	247.728 (meters)	812.75 (feet)	COMP
JY0053	MODELED GRAV-	980,050.4 (mgal)		NAVD 88

JY0053 HORZ ORDER - FIRST  
 JY0053 VERT ORDER - FIRST CLASS II  
 JY0053 ELLP ORDER - FOURTH CLASS I

JY0053.The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in April 1998.

JY0053.The orthometric height was determined by differential leveling and adjusted by the National Geodetic Survey in June 1991.

JY0053.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JY0053.The Laplace correction was computed from DEFLEC96 derived deflections.

JY0053.The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

JY0053.The geoid height was determined by GEOID96.

JY0053.The dynamic height is computed by dividing the NAVD 88 geopotential number by the normal gravity value computed on the Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45 degrees latitude (G = 980.6199 gals.).

JY0053.The modeled gravity was interpolated from observed gravity values.

	North	East	Units	Scale	Converg.
JY0053;SPC OH S	- 208,507.186	621,244.072	MT	0.99997295	+0 09 27.3
JY0053;UTM 17	- 4,414,957.102	392,967.366	MT	0.99974103	-0 48 09.3

SUPERSEDED SURVEY CONTROL

JY0053	NAD 83(1986)-	39 52 40.50993(N)	082 15 05.97443(W)	AD( ) 1
JY0053	NGVD 29	- 248.078 (m)	813.90 (f)	ADJ UNCH 1 2

JY0053.Superseded values are not recommended for survey control.

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

KZ0966 \*\*\*\*\*

KZ0966 DESIGNATION - J 272  
 KZ0966 PID - KZ0966  
 KZ0966 STATE/COUNTY- OH/KNOX  
 KZ0966 USGS QUAD - CENTERBURG (1984)

KZ0966  
 KZ0966 \*CURRENT SURVEY CONTROL

KZ0966*	NAD 83(1995)-	40 19 12.07956(N)	082 41 30.81514(W)	ADJUSTED
KZ0966*	NAVD 88	- 378.455 (meters)	1241.65 (feet)	ADJUSTED
KZ0966	X	- 619,494.894 (meters)		COMP
KZ0966	Y	- 4,830,491.155 (meters)		COMP
KZ0966	Z	- 4,105,365.615 (meters)		COMP
KZ0966	LAPLACE CORR-	1.22 (seconds)		DEFLEC96
KZ0966	ELLIP HEIGHT-	344.56 (meters)		GPS OBS
KZ0966	GEOID HEIGHT-	-33.89 (meters)		GEOID96
KZ0966	DYNAMIC HT -	378.252 (meters)	1240.98 (feet)	COMP
KZ0966	MODELED GRAV-	980,077.0 (mgal)		NAVD 88

KZ0966  
 KZ0966 HORZ ORDER - FIRST  
 KZ0966 VERT ORDER - SECOND CLASS 0  
 KZ0966 ELLP ORDER - FOURTH CLASS I

KZ0966.The horizontal coordinates were established by GPS observations  
 KZ0966.and adjusted by the National Geodetic Survey in April 1998.

KZ0966  
 KZ0966.The orthometric height was determined by differential leveling  
 KZ0966.and adjusted by the National Geodetic Survey in June 1991.

KZ0966  
 KZ0966.The X, Y, and Z were computed from the position and the ellipsoidal ht.

KZ0966  
 KZ0966.The Laplace correction was computed from DEFLEC96 derived deflections.

KZ0966  
 KZ0966.The ellipsoidal height was determined by GPS observations  
 KZ0966.and is referenced to NAD 83.

KZ0966  
 KZ0966.The geoid height was determined by GEOID96.

KZ0966  
 KZ0966.The dynamic height is computed by dividing the NAVD 88  
 KZ0966.geopotential number by the normal gravity value computed on the  
 KZ0966.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 KZ0966.degrees latitude (G = 980.6199 gals.).

KZ0966  
 KZ0966.The modeled gravity was interpolated from observed gravity values.

KZ0966;	North	East	Units	Scale	Converg.
KZ0966;SPC OH N	- 72,571.548	583,689.889	MT	1.00002364	-0 07 33.8
KZ0966;UTM 17	- 4,464,651.025	356,253.521	MT	0.99985436	-1 05 41.8

KZ0966  
 KZ0966 SUPERSEDED SURVEY CONTROL

KZ0966	NAD 83(1986)-	40 19 12.08575(N)	082 41 30.81849(W)	AD( ) 1
KZ0966	NGVD 29	- 378.591 (m)	1242.09 (f)	ADJ UNCH 2 0

KZ0966  
 KZ0966.Superseded values are not recommended for survey control.



KZ0966.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 KZ0966.See file format.dat to determine how the superseded data were derived.

KZ0966

KZ0966\_MARKER: DB = BENCH MARK DISK

KZ0966\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)

KZ0966\_STAMPING: J 272 1959

KZ0966\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

KZ0966+STABILITY: SURFACE MOTION

KZ0966\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ0966+SATELLITE: SATELLITE OBSERVATIONS - October 13, 1993

KZ0966

KZ0966	HISTORY	- Date	Condition	Recov. By
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KZ0966	HISTORY	- 1959	MONUMENTED	CGS
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KZ0966	HISTORY	- 19931013	GOOD	GEOONE
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KZ0966

STATION DESCRIPTION

KZ0966

KZ0966'DESCRIBED BY COAST AND GEODETIC SURVEY 1959

KZ0966'0.8 MI N FROM CENTERBURG.

KZ0966'ABOUT 0.8 MILE NORTH ALONG STATE HIGHWAY 314 FROM THE JUNCTION

KZ0966'OF U.S. HIGHWAY 36 AT CENTERBURG, 0.65 MILE NORTH OF THE

KZ0966'CROSSING OF THE PENNSYLVANIA RAILROAD, AT THE INTERSECTION OF

KZ0966'A GRAVEL ROAD (DELAWARE ROAD) LEADING EAST AND WEST, 47 FEET

KZ0966'EAST OF THE CENTER LINE OF HIGHWAY, 25 FEET NORTH OF THE CENTER

KZ0966'LINE OF GRAVEL ROAD, 1 FOOT SOUTH OF A WIRE FENCE, 21 1/2 FEET

KZ0966'EAST OF A FENCE CORNER, 2 FEET WEST OF A STEEL WITNESS POST,

KZ0966'ABOUT LEVEL WITH THE ROADS, AND SET IN TOP OF A CONCRETE

KZ0966'POST PROJECTING 2 INCHES. NOTE-- THIS MARK CAN BE REACHED BY

KZ0966'GOING ABOUT 0.4 MILE NORTHEAST ALONG THE PENNSYLVANIA RAILROAD

KZ0966'FROM THE STATION AT CENTERBURG, THENCE ABOUT 0.65 MILE NORTH

KZ0966'ALONG STATE HIGHWAY 314.

KZ0966

STATION RECOVERY (1993)

KZ0966

KZ0966'RECOVERY NOTE BY GEOONE INCORPORATED 1993 (SBE)

KZ0966'RECOVERED AS DESCRIBED.

Elapsed Time = 00:00:01

# The NGS Data Sheet

DATABASE = Sybase , PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

AA6185 \*\*\*\*\*

AA6185 DESIGNATION - KNOX 30  
AA6185 PID - AA6185  
AA6185 STATE/COUNTY- OH/KNOX  
AA6185 USGS QUAD - HOMER (1975)

\*CURRENT SURVEY CONTROL

AA6185*	NAD 83(1995)-	40 16 02.95598(N)	082 32 05.95246(W)	ADJUSTED
AA6185*	NAVD 88	- 318.6 (meters)	1045. (feet)	GPS OBS
AA6185	X	- 633,205.230 (meters)		COMP
AA6185	Y	- 4,832,472.013 (meters)		COMP
AA6185	Z	- 4,100,877.319 (meters)		COMP
AA6185	LAPLACE CORR-	0.84 (seconds)		DEFLEC96
AA6185	ELLIP HEIGHT-	284.73 (meters)		GPS OBS
AA6185	GEOID HEIGHT-	-33.88 (meters)		GEOID96

AA6185 HORZ ORDER - FIRST  
AA6185 ELLP ORDER - FOURTH CLASS I

AA6185.The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in April 1998.

AA6185.The orthometric height was determined by GPS observations.

AA6185.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AA6185.The Laplace correction was computed from DEFLEC96 derived deflections.

AA6185.The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

AA6185.The geoid height was determined by GEOID96.

	North	East	Units	Scale	Converg.
AA6185;SPC OH N	- 66,720.602	597,023.926	MT	1.00003590	-0 01 22.7
AA6185;UTM 17	- 4,458,576.605	369,484.075	MT	0.99980969	-0 59 32.2

SUPERSEDED SURVEY CONTROL

AA6185 NAD 83(1986)- 40 16 02.96242(N) 082 32 05.95596(W) AD( ) 1

AA6185.Superseded values are not recommended for survey control.  
AA6185.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
AA6185.See file format.dat to determine how the superseded data were derived.

AA6185\_MARKER: DD = SURVEY DISK  
AA6185\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
AA6185\_STAMPING: 30 1993  
AA6185\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
AA6185+STABILITY: SURFACE MOTION  
AA6185\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
AA6185+SATELLITE: SATELLITE OBSERVATIONS - 1993

AA6185 HISTORY - Date Condition Recov. By

AA6185 HISTORY - 1993 MONUMENTED GEOONE  
 AA6185  
 AA6185 STATION DESCRIPTION  
 AA6185

AA6185'DESCRIBED BY GEOONE INCORPORATED 1993 (SBE)  
 AA6185'FROM THE INTERSECTION OF U.S. HIGHWAY 62 AND STATE ROUTE 13 IN UTICA,  
 AA6185'PROCEED NORTH ON STATE ROUTE 13 FOR 2.3 MILES (3.7 KM) TO VANCE ROAD.  
 AA6185'TURN LEFT (WEST) ONTO VANCE ROAD AND PROCEED 3.9 MILES (6.3 KM) TO  
 AA6185'STATE ROUTE 661 WHERE VANCE ROAD CHANGES TO FOSDYKE ROAD. CONTINUE  
 AA6185'WEST ON FOSDYKE ROAD FOR FOR 1.0 MILE (1.6 KM) TO THE POINT LOCATED ON  
 AA6185'THE NORTH SIDE OF FOSDYKE ROAD OPPOSITE 12296 FOSDYKE ROAD.

AA6185'  
 AA6185'THE CONTROL POINT IS LOCATED 32.65 FEET (9.95 M) NORTH OF A PK NAIL IN  
 AA6185'A POWER POLE ON THE SOUTH SIDE OF FOSDYKE ROAD AND 38.4 FEET (11.7 M)  
 AA6185'NORTHWEST OF A PK NAIL IN THE CENTERLINE OF FOSDYKE ROAD AND 27.7 FEET  
 AA6185'(8.4 M) NORTHEAST OF A PK NAIL IN THE CENTERLINE OF FOSDYKE ROAD.  
 AA6185'  
 AA6185'THE CONTROL POINT IS FLUSH WITH THE SURROUNDING GROUND.

AA6185'  
 AA6185'THIS POINT IS INTER-VISIBLE WITH STATION KNOX 30A.  
 1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

AA6216 \*\*\*\*\*  
 AA6216 DESIGNATION - KNOX 30A  
 AA6216 PID - AA6216  
 AA6216 STATE/COUNTY- OH/KNOX  
 AA6216 USGS QUAD - HOMER (1975)

AA6216 \*CURRENT SURVEY CONTROL

AA6216*	NAD 83(1995)-	40 16 02.08581(N)	082 31 48.04201(W)	ADJUSTED
AA6216*	NAVD 88	- 315.4 (meters)	1035. (feet)	GPS OBS
AA6216	X	- 633,626.783 (meters)		COMP
AA6216	Y	- 4,832,431.816 (meters)		COMP
AA6216	Z	- 4,100,854.790 (meters)		COMP
AA6216	LAPLACE CORR-	0.90 (seconds)		DEFLEC96
AA6216	ELLIP HEIGHT-	281.56 (meters)		GPS OBS
AA6216	GEOID HEIGHT-	-33.87 (meters)		GEOID96

AA6216  
 AA6216 HORZ ORDER - FIRST  
 AA6216 ELLP ORDER - FOURTH CLASS I

AA6216  
 AA6216.The horizontal coordinates were established by GPS observations  
 AA6216.and adjusted by the National Geodetic Survey in April 1998.  
 AA6216  
 AA6216.The orthometric height was determined by GPS observations.  
 AA6216  
 AA6216.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 AA6216  
 AA6216.The Laplace correction was computed from DEFLEC96 derived deflections.  
 AA6216  
 AA6216.The ellipsoidal height was determined by GPS observations  
 AA6216.and is referenced to NAD 83.  
 AA6216  
 AA6216.The geoid height was determined by GEOID96.

AA6216;	North	East	Units	Scale	Converg.
AA6216;SPC OH N	- 66,693.604	597,447.115	MT	1.00003596	-0 01 11.0
AA6216;UTM 17	- 4,458,542.459	369,906.650	MT	0.99980834	-0 59 20.6

AA6216  
 AA6216 SUPERSEDED SURVEY CONTROL  
 AA6216  
 AA6216 NAD 83(1986)- 40 16 02.09202(N) 082 31 48.04578(W) AD( ) 1  
 AA6216

AA6216.Superseded values are not recommended for survey control.  
 AA6216.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 AA6216.See file format.dat to determine how the superseded data were derived.

AA6216

AA6216\_MARKER: DD = SURVEY DISK

AA6216\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)

AA6216\_STAMPING: 30A 1993

AA6216\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AA6216+STABILITY: SURFACE MOTION

AA6216\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA6216+SATELLITE: SATELLITE OBSERVATIONS - 1993

AA6216

AA6216	HISTORY	- Date	Condition	Recov. By
AA6216	HISTORY	- 1993	MONUMENTED	GEOONE

AA6216

AA6216

STATION DESCRIPTION

AA6216

AA6216'DESCRIBED BY GEOONE INCORPORATED 1993 (SBE)

AA6216'FROM THE INTERSECTION OF U.S. HIGHWAY 62 AND STATE ROUTE 13 IN UTICA,

AA6216'PROCEED NORTH ON STATE ROUTE 13 FOR 2.3 MILES (3.7 KM) TO VANCE ROAD.

AA6216'TURN LEFT (WEST) ONTO VANCE ROAD AND PROCEED 3.9 MILES (6.3 KM) TO

AA6216'STATE ROUTE 661 WHERE VANCE ROAD CHANGES TO FOSDYKE ROAD. CONTINUE

AA6216'WEST ON FOSDYKE ROAD FOR FOR 0.8 MILES (1.3 KM) TO THE POINT LOCATED

AA6216'ON THE NORTH SIDE OF FOSDYKE ROAD IN THE CENTER OF A CIRCULAR DRIVE

AA6216'NEAR A MOBILE HOME.

AA6216'

AA6216'THE CONTROL POINT IS LOCATED 89.2 FEET (27.2 M) NORTHWEST OF A PK NAIL

AA6216'IN A POWER POLE ON THE SOUTH SIDE OF FOSDYKE ROAD AND 14.05 FEET (4.28

AA6216'M) NORTH OF THE CENTERLINE OF FOSDYKE ROAD.

AA6216'

AA6216'THE CONTROL POINT IS FLUSH WITH THE SURROUNDING GROUND.

AA6216'

AA6216'THIS POINT IS INTER-VISIBLE WITH STATION KNOX 30.

Elapsed Time = 00:00:03

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

AA6187 \*\*\*\*\*

AA6187 DESIGNATION - KNOX 32  
 AA6187 PID - AA6187  
 AA6187 STATE/COUNTY- OH/KNOX  
 AA6187 USGS QUAD - HICKMAN (1972)

\*CURRENT SURVEY CONTROL

AA6187*	NAD 83(1995)-	40 14 27.81574(N)	082 21 42.64858(W)	ADJUSTED
AA6187*	NAVD 88	- 301.3 (meters)	989. (feet)	GPS OBS
AA6187	X	- 648,055.691 (meters)		COMP
AA6187	Y	- 4,832,402.986 (meters)		COMP
AA6187	Z	- 4,098,626.522 (meters)		COMP
AA6187	LAPLACE CORR-	2.28 (seconds)		DEFLEC96
AA6187	ELLIP HEIGHT-	267.54 (meters)		GPS OBS
AA6187	GEOID HEIGHT-	-33.73 (meters)		GEOID96

AA6187 HORZ ORDER - FIRST  
 AA6187 ELLP ORDER - FOURTH CLASS I

AA6187.The horizontal coordinates were established by GPS observations  
 AA6187.and adjusted by the National Geodetic Survey in April 1998.

AA6187.The orthometric height was determined by GPS observations.

AA6187.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AA6187.The Laplace correction was computed from DEFLEC96 derived deflections.

AA6187.The ellipsoidal height was determined by GPS observations  
 AA6187.and is referenced to NAD 83.

AA6187.The geoid height was determined by GEOID96.

AA6187;	North	East	Units	Scale	Converg.
AA6187;SPC OH N	- 63,794.667	611,756.336	MT	1.00004239	+0 05 26.7
AA6187;UTM 17	- 4,455,402.498	384,161.142	MT	0.99976518	-0 52 47.5

SUPERSEDED SURVEY CONTROL

AA6187 NAD 83(1986)- 40 14 27.82175(N) 082 21 42.65160(W) AD( ) 1

AA6187.Superseded values are not recommended for survey control.  
 AA6187.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 AA6187.See file format.dat to determine how the superseded data were derived.

AA6187\_MARKER: DD = SURVEY DISK  
 AA6187\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
 AA6187\_STAMPING: 32 1993  
 AA6187\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 AA6187+STABILITY: SURFACE MOTION  
 AA6187\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AA6187+SATELLITE: SATELLITE OBSERVATIONS - 1993

AA6187 HISTORY - Date Condition Recov. By

AA6187 HISTORY - 1993 MONUMENTED GEOONE

AA6187  
AA6187  
AA6187

STATION DESCRIPTION

AA6187'DESCRIBED BY GEOONE INCORPORATED 1993 (SBE)  
AA6187'FROM THE INTERSECTION OF U.S. HIGHWAY 62 AND STATE ROUTES 541 AND 586  
AA6187'IN MARTINSBURG, PROCEED SOUTH ON STATE ROUTE 586 FOR 0.1 MILES (0.2  
AA6187'KM) TO SAINT LOUISVILLE ROAD. PROCEED STRAIGHT ON SAINT LOUISVILLE  
AA6187'ROAD FOR 2.1 MILES (3.4 KM) TO THE POINT LOCATED ON THE EAST SIDE OF  
AA6187'SAINT LOUISVILLE ROAD AT THE KNOX/LICKING COUNTY LINE.

AA6187'THE CONTROL POINT IS LOCATED 17.1 FEET (5.2 M) EAST OF A THE  
AA6187'CENTERLINE OF SAINT LOUISVILLE ROAD AND 45.1 FEET (13.7 M) NORTHEAST  
AA6187'OF A PK NAIL IN THE CENTERLINE OF SAINT LOUISVILLE ROAD AND 35.0 FEET  
AA6187'(10.7 M) SOUTH OF A PK NAIL IN THE CENTERLINE OF SAINT LOUISVILLE  
AA6187'ROAD.

AA6187'THE CONTROL POINT IS FLUSH WITH THE SURROUNDING GROUND.

AA6187'  
AA6187'THIS POINT IS INTER-VISIBLE WITH STATION KNOX 32A.

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

AA6218 \*\*\*\*\*  
AA6218 DESIGNATION - KNOX 32A  
AA6218 PID - AA6218  
AA6218 STATE/COUNTY- OH/KNOX  
AA6218 USGS QUAD - HICKMAN (1972)

\*CURRENT SURVEY CONTROL

AA6218*	NAD 83(1995)-	40 14 50.86291(N)	082 21 35.06963(W)	ADJUSTED
AA6218*	NAVD 88	- 311.8 (meters)	1023. (feet)	GPS OBS
AA6218	X	- 648,173.258 (meters)		COMP
AA6218	Y	- 4,831,931.942 (meters)		COMP
AA6218	Z	- 4,099,175.960 (meters)		COMP
AA6218	LAPLACE CORR-	2.29 (seconds)		DEFLEC96
AA6218	ELLIP HEIGHT-	278.07 (meters)		GPS OBS
AA6218	GEOID HEIGHT-	-33.72 (meters)		GEOID96

AA6218  
AA6218 HORZ ORDER - FIRST  
AA6218 ELLP ORDER - FOURTH CLASS I

AA6218.The horizontal coordinates were established by GPS observations  
AA6218.and adjusted by the National Geodetic Survey in April 1998.

AA6218.The orthometric height was determined by GPS observations.

AA6218.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AA6218.The Laplace correction was computed from DEFLEC96 derived deflections.

AA6218.The ellipsoidal height was determined by GPS observations  
AA6218.and is referenced to NAD 83.

AA6218.The geoid height was determined by GEOID96.

AA6218;	North	East	Units	Scale	Converg.
AA6218;SPC OH N	- 64,505.854	611,934.343	MT	1.00004080	+0 05 31.7
AA6218;UTM 17	- 4,456,110.372	384,351.119	MT	0.99976464	-0 52 43.0

SUPERSEDED SURVEY CONTROL

AA6218  
AA6218 NAD 83(1986)- 40 14 50.86842(N) 082 21 35.07272(W) AD( ) 1  
AA6218

# The NGS Data Sheet

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.71

Starting Datasheet Retrieval...

1 National Geodetic Survey, Retrieval Date = JANUARY 5, 1999

AA5313 \*\*\*\*\*

AA5313 DESIGNATION - GPS 80

AA5313 PID - AA5313

AA5313 STATE/COUNTY- OH/MUSKINGUM

AA5313 USGS QUAD - GRATIOT (1973)

AA5313

AA5313 \*CURRENT SURVEY CONTROL

AA5313\* NAD 83(1995)- 39 56 59.52775(N) 082 12 50.46574(W) ADJUSTED

AA5313\* NAVD 88 - 300.7 (meters) 987. (feet) GPS OBS

AA5313

AA5313 X - 663,342.762 (meters) COMP

AA5313 Y - -4,851,347.534 (meters) COMP

AA5313 Z - 4,073,891.299 (meters) COMP

AA5313 LAPLACE CORR- 1.82 (seconds) DEFLEC96

AA5313 ELLIP HEIGHT- 266.78 (meters) GPS OBS

AA5313 GEOID HEIGHT- -33.88 (meters) GEOID96

AA5313

AA5313 HORZ ORDER - FIRST

AA5313 ELLP ORDER - FOURTH CLASS I

AA5313

AA5313.The horizontal coordinates were established by GPS observations

AA5313.and adjusted by the National Geodetic Survey in April 1998.

AA5313

AA5313.The orthometric height was determined by GPS observations.

AA5313

AA5313.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AA5313

AA5313.The Laplace correction was computed from DEFLEC96 derived deflections.

AA5313

AA5313.The ellipsoidal height was determined by GPS observations

AA5313.and is referenced to NAD 83.

AA5313

AA5313.The geoid height was determined by GEOID96.

AA5313

AA5313; North East Units Scale Converg.

AA5313;SPC OH S - 216,505.400 624,438.515 MT 0.99998455 +0 10 53.3

AA5313;UTM 17 - 4,422,898.715 396,294.646 MT 0.99973240 -0 46 46.6

AA5313

AA5313 SUPERSEDED SURVEY CONTROL

AA5313 NAD 83(1986)- 39 56 59.53247(N) 082 12 50.47466(W) AD( ) 1

AA5313

AA5313.Superseded values are not recommended for survey control.

AA5313.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA5313.See file format.dat to determine how the superseded data were derived.

AA5313

AA5313\_MARKER: DD = SURVEY DISK

AA5313\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)

AA5313\_STAMPING: GPS 80

AA5313\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AA5313+STABILITY: SURFACE MOTION

AA5313\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA5313+SATELLITE: SATELLITE OBSERVATIONS - 1992

AA5313

AA5313 HISTORY - Date Condition Recov. By

AA5313 HISTORY - 1992 MONUMENTED OH-119

AA5313

AA5313

AA5313

STATION DESCRIPTION

AA5313'DESCRIBED BY MUSKINGUM COUNTY OHIO 1992 (LCC)

AA5313'THE STATION IS NEAR THE NE CORNER OF SECTION 6, TWP 18, RANGE 15,  
AA5313'HOPEWELL TWP ABOUT 11 MILES (17.7 KM) W OF ZANESVILLE AND AT THE S  
AA5313'EDGE OF THE TOWN OF GRATIOT.

AA5313'

AA5313'TO REACH FROM THE POST OFFICE IN GRATIOT LOCATED ON MAIN STREET, GO  
AA5313'0.08 MI (0.13 KM) E ON MAIN STREET TO THE JUNCTION OF EAST ST, TURN  
AA5313'RIGHT ONTO EAST STREET S FOR 0.10 MI (0.16 KM) TO THE JUNCTION OF S.R.  
AA5313'40, TURN RIGHT ONTO S.R. 40 W FOR 200 FT (61.0 M) TO THE STATION ON  
AA5313'THE LEFT.

AA5313'

AA5313'THE DISK IS SET IN A 0.7 FT (21.3 CM) DIAMETER FLUSH CONCRETE

AA5313'MONUMENT.

AA5313'

AA5313'IT IS 32.3 FT (9.8 M) S OF THE CENTERLINE OF THE CONCRETE MEDIAN ON SR  
AA5313'40, 30.5 FT (9.3 M) W OF A CONCRETE CULVERT UNDER SR 40, 235.0 FT  
AA5313'(71.6 M) W OF THE ONE MILE MARKER SIGN ON SR 40, 6.0 FT (1.8 M) N OF A  
AA5313'WOODEN BRACE POST ON THE INTERSTATE 70 RIGHT-OF-WAY FENCE, AND 4.0 FT  
AA5313'(1.2 M) N OF A WITNESS POST.

Elapsed Time = 00:00:06



7006  
7044

National Geodetic Survey, Retrieval Date = JANUARY 5, 1998

JY0822 \*\*\*\*\*

JY0822 DESIGNATION - F 191  
JY0822 PID - JY0822  
JY0822 STATE/COUNTY- OH/FAIRFIELD  
JY0822 USGS QUAD - REYNOLDSBURG (1985)

\*CURRENT SURVEY CONTROL

JY0822\* NAD 83(1986)- 39 53 01. (N) 082 45 02. (W) SCALED  
JY0822\* NAVD 88 - 256.095 (meters) 840.21 (feet) ADJUSTED

JY0822 GEOID HEIGHT- -34.08 (meters) GEOID96  
JY0822 DYNAMIC HT - 255.949 (meters) 839.73 (feet) COMP  
JY0822 MODELED GRAV- 980,050.8 (mgal) NAVD 88

JY0822 VERT ORDER - FIRST CLASS II

JY0822.The horizontal coordinates were scaled from a topographic map and have  
JY0822.an estimated accuracy of +/- 6 seconds.

JY0822.The orthometric height was determined by differential leveling  
JY0822.and adjusted by the National Geodetic Survey in June 1991.

JY0822.The geoid height was determined by GEOID96.

JY0822.The dynamic height is computed by dividing the NAVD 88  
JY0822.geopotential number by the normal gravity value computed on the  
JY0822.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
JY0822.degrees latitude (G = 980.6199 gals.).

JY0822.The modeled gravity was interpolated from observed gravity values.

JY0822;  
JY0822;SPC OH S - North East Units Estimated Accuracy  
209,140. 578,570. MT (+/- 180 meters Scaled)

SUPERSEDED SURVEY CONTROL

JY0822 NGVD 29 - 256.287 (meters) 840.83 (feet) ADJ UNCH

JY0822.Superseded values are not recommended for survey control.  
JY0822.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
JY0822.See file format.dat to determine how the superseded data were derived.

JY0822\_MARKER: DB = BENCH MARK DISK  
JY0822\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)  
JY0822\_STAMPING: F 191 1954  
JY0822\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
JY0822+STABILITY: SURFACE MOTION

JY0822 HISTORY - Date Condition Recov. By  
JY0822 HISTORY - 1954 MONUMENTED CGS

STATION DESCRIPTION

JY0822

JY0822'DESCRIBED BY COAST AND GEODETIC SURVEY 1954

JY0822'AT PICKERINGTON.

JY0822'AT PICKERINGTON, ABOUT 0.2 MILE SOUTHEAST ALONG THE NEW YORK  
JY0822'CENTRAL RAILROAD FROM THE STATION, AT CROSSING OF STATE HIGHWAY  
JY0822'256 (EAST-WEST), 33 1/2 FEET SOUTH-SOUTHEAST OF CENTER OF  
JY0822'CROSSING, 23 FEET SOUTHWEST OF SOUTHWEST RAIL OF MAIN TRACK,  
JY0822'29 FEET NORTHWEST OF TELEPHONE POLE NO. 149/10, 15.2 FEET SOUTH  
JY0822'OF CROSSING WARNING SIGNAL, 1 FOOT NORTH OF A FENCE LINE,  
JY0822'6 1/2 FEET WEST OF A FENCE CORNER, ABOUT 1/2 FOOT BELOW LEVEL  
JY0822'OF TRACK AND SET IN THE TOP OF A CONCRETE POST PROJECTING 4  
JY0822'INCHES.