

**GPS SURVEY MARK DESCRIPTION**

**GIS MAPPING BY:**  
**THE SIDWELL COMPANY**  
 WEST CHICAGO, ILLINOIS

**THE OFFICE OF THE**  
**COUNTY ENGINEER**  
 DICKINSON COUNTY, IOWA

**DESIGNATION** 993813.2 **GPS NO.** 8016 **COUNTY** DICKINSON **STATE** IOWA  
**LOCATED IN SECTION** 13 **TWP** 99 N **RANGE** 38 W **USGS QUAD MAP** LAKE PARK  
**THE STATION IS** \_\_\_\_\_  
**AT THE NORTHWEST CORNER OF THE INTERSECTION BETWEEN 180TH STREET AND 160TH AVENUE.**

**MARK** BERNTSEN MONUMENT WITH 2-1/2" ALUMINUM DISK ON ROD WITH 6" ACCESS COVER  
 MARK EXISTING  VALUES AS PUBLISHED BY \_\_\_\_\_ **DATE** August, 2002  
 MARK SET  VALUES ESTABLISHED BY Patrick Engineering Inc.

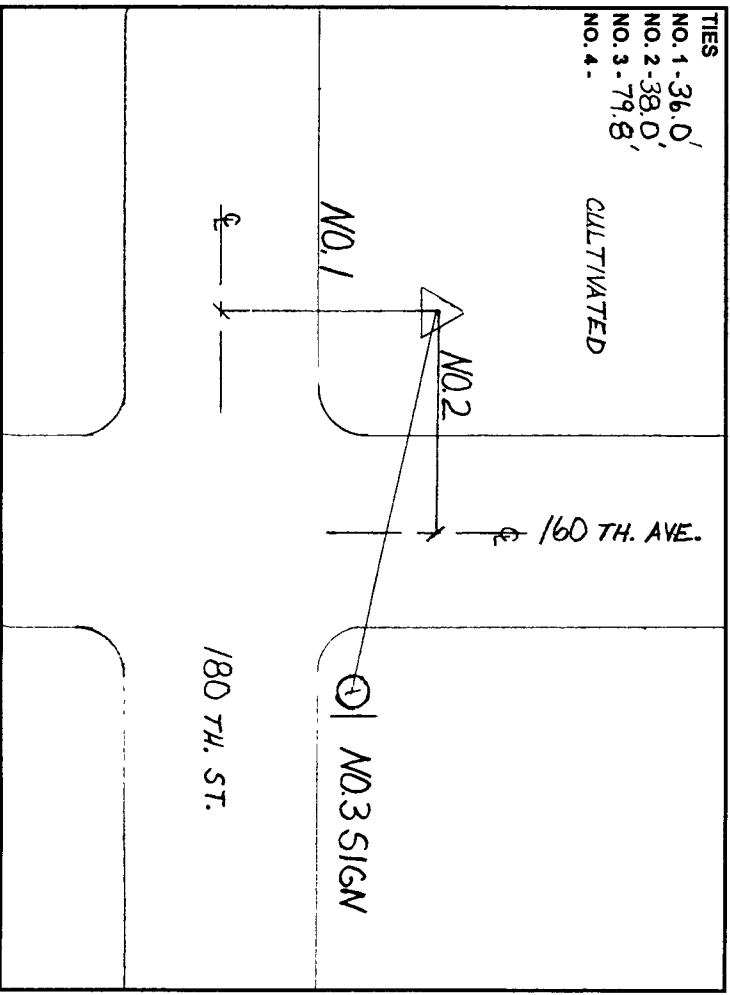
**HORIZONTAL VALUES ORIGINATED ON ORDER "B" IOWA HIGH ACCURACY REFERENCE NETWORK (HARN) CONTROL ESTABLISHED BY THE NATIONAL GEODETIC SURVEY AND BASED ON THE NORTH AMERICAN DATUM OF 1983, 1996 ADJUSTMENT.**

**LATITUDE NORTH** 43° 23' 09.858607"  
**LONGITUDE WEST** 95° 16' 09.605662"  
**ELLIPSOID HEIGHT (meter)** 422.737 \* (Based on GEOID99 Model)

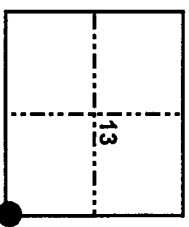
**IOWA COORDINATE SYSTEM, NORTH ZONE** **CONVERGENCE ANGLE** -1° 11' 56.97"  
**COORDINATES (US FEET)** **SCALE FACTOR** 0.999968  
**NORTHING (Y)** 3973116.25 **COORDINATES (METERS)** **NORTHING (Y)** 1211008.255  
**EASTING (X)** 4450910.77 **EASTING (X)** 1356640.316

**VERTICAL VALUES ORIGINATED ON VERTICAL CONTROL ESTABLISHED BY THE NATIONAL GEODETIC SURVEY AND/OR THE U.S. GEOLOGICAL SURVEY AND BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.**

**ELEVATION (US FEET)** 1477.91 **ELEVATION (METERS)** 450.468



**TIES**  
 NO. 1 - 36.0'  
 NO. 2 - 38.0'  
 NO. 3 - 79.8'  
 NO. 4 - \_\_\_\_\_



**SECTION MAP**

**SKETCH**  
 BY CCS

**PATRICK 09-2002**