

THIRD-ORDER LEVELS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Final Adjustment of 1976

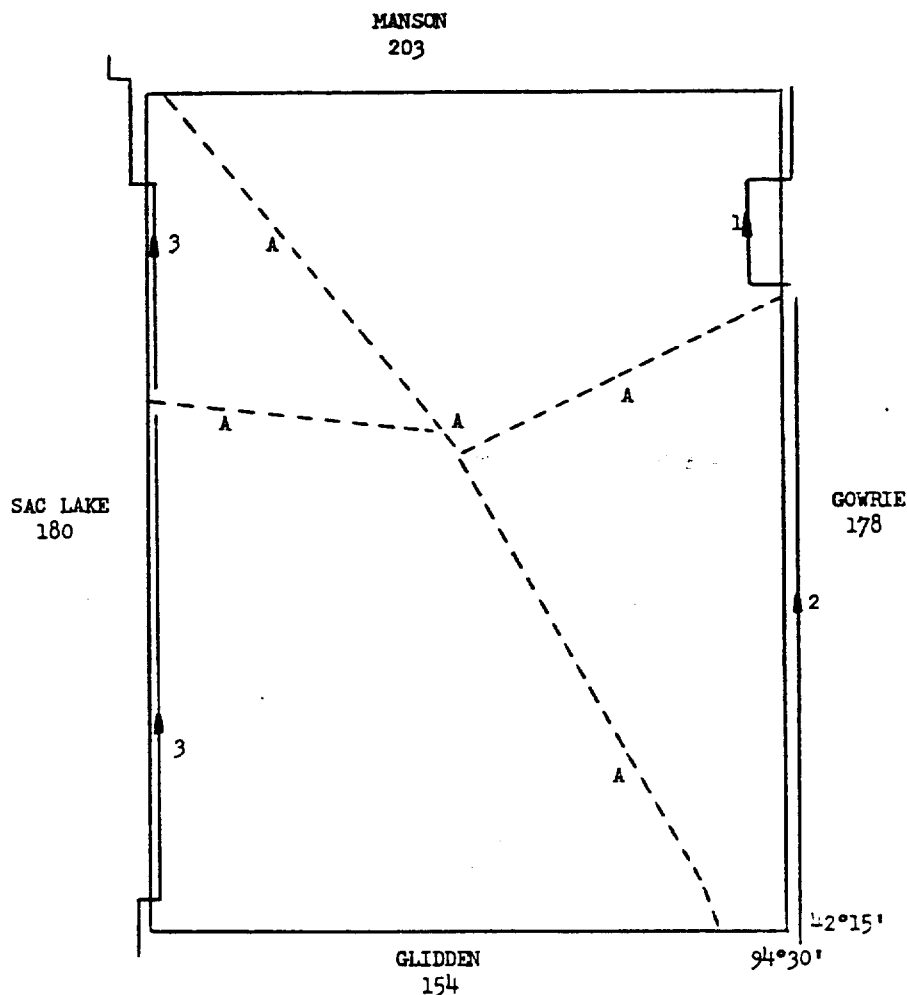
Calhoun County

Edition of: 3-30-76

PR: AKH/LB/ob

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

42-094-31
ROCKWELL CITY QUADRANGLE
179 - IOWA
N4215-W9430/15
DIAGRAM NK 15-4
FORT DODGE



N.G.S. (USC&GS) VERTICAL CONTROL DATA

A. Quadrangle No. 420943

179A

LINE 1

FEET

W.K. McCurley, 1964; Book CV-1770

GOWRIE QUAD. - 178

- 0.0 Richards, 2.5 mi NE. along the I.C. R.R. from; 12 yards NE. of bridge over the Chicago, Rock Island and Pacific R.R., 30 yards N. of pole 440+10 on the C. R.I. & P. R.R., in the top of the SW. concrete abutment of cattlepass WA 391.7, 37 ft NE. of the center of C.R.I. & P. R.R. and 10.7 ft SE. of the center of main track of the I.C. R.R., a USC&GS standard disk stamped "G 13 1933" 1202.547
- 1.0 UE G 13 A, T. 88 N., R. 31 W., near SE. cor. of sec. 7, in center of bridge over drainage ditch; copper nail and washer 1178.92

ROCKWELL CITY QUAD. - 179

- 1.9 UE G 13 B, 1.87 mi WSW. of tablet; T. 88 N., Rs. 31 and 32 W., near cor. secs. 7, 12, 13 and 18; 170 ft N., 33 ft W. of and 1.3 ft lower than crossroads; in W. side of power pole; a lag bolt 1185.83
- 2.8 UE G 13 C, 1.87 mi W. thence 0.98 mi N. of tablet; T. 88 N., Rs. 31 and 32 W., near cor. secs. 1, 6, 7 and 12; 39 ft N., 32 ft W. and 3.5 ft lower than center of crossroads; in a brace pole for power line pole; on E. side of pole; a lag bolt 1190.04
- 4.0 Reference mark, 120 ft W. of tablet; at SW. corner of T-rd. S.; in power pole, a lag bolt 1200.93
- 4.0 Knierim, 1 mi N. and 3 mi W. of; T. 88 N., R. 31 W., near NW. cor. of sec. 6, 59 ft S., 7 ft E. of and 0.5 ft lower than T-rd. S.; in top of concrete post; standard tablet stamped "1 WMC 1964 1201" 1201.23

GOWRIE QUAD. - 178

- 4.7 UE 1 WMC A, 0.6 mi E. of tablet; T. 89 N., R. 31 W., near SE. cor. of sec. 33, 42 ft N., 25 ft W. of and 2.3 ft lower than T-rd. N.; on top of round concrete culvert; a chiseled square 1189.30
- 5.6 UE 1 WMC B, 0.6 mi E. thence 1 mi N. of tablet; T. 89 N., R. 31 W., near cor. secs. 27, 28, 33 and 34; 33 ft S., 29 ft E. of and 3.6 ft lower than crossroads; on top of round concrete culvert; a chiseled square 1193.66
- 6.3 UE 1 WMC C, 0.6 mi E. thence 1.6 mi N. of tablet; T. 89 N., R. 31 W., near quarter cor. between secs. 27 and 28, at SW. corner of bridge on top of bolt which is in the steel frame of bridge; painted square around bolt, and 1.0 ft lower than bridge 1194.42
- 6.7 Reference mark, 90 ft WNW. of tablet; painted square on top of steel corrugated culvert 1201.89
- 6.7 Knierim, 3 mi N., 2.5 mi W. of; T. 89 N., R. 31 W., near cor. sec. 21, 22, 27 and 28; 43 ft S., 41 ft E. of and 2.1 ft lower than center of road at T-rd. E. at offset crossroads; 5 ft E. of and 1 ft N. of fence corner; in top of concrete post; standard tablet stamped "2 WMC 1964 1201" 1201.462

LINE 2

W.K. McCurley, 1964; Book CV-1770

JEFFERSON QUAD. - 153

- 0.0 Lohrville, about 2 mi S. and 2 mi E. of, 33 ft S., 70 ft W. of crossroads; at cor. secs. 19, 20, 29 and 30; T. 86 N., R. 31 W., 42 ft W. of fence corner; in concrete post standard tablet stamped "TT 9 C 1956 1144" 1143.662

GOWRIE QUAD. - 178

- 1.0 UE TT 9 C A, 1 mi N. of tablet; T. 86 N., R. 31 W., cor. secs. 17, 18, 19 and 20; 69 ft N., 32 ft E. of and 3.2 ft lower than T-rd. E.; in power pole; a lag bolt 1145.98

LINE 2 (Cont'd)

GOWRIE QUAD. - 178

FEET

- | | | |
|------|---|----------|
| 2.0 | UE TT 9 C B, 2 mi N. of tablet; T. 86 N., R. 31 W., cor. secs. 7, 8, 17 and 18; 30 ft N., 50 ft E. of and 3.9 ft lower than center of crossroads; on top of round concrete culvert; a chiseled square | 1139.21 |
| 3.0 | Reference mark, 105 ft S. of tablet; 22 ft S., 64 ft W. of crossroads; on top of steel corrugated culvert | 1139.13 |
| 3.0 | Lohrville, 1 mi N. and 3 mi E. of; T. 86 N., R. 31 W., near cor. secs. 5, 6, 7 and 8, 77 ft N., 38 ft W. of and 2.7 ft lower than crossroads; 2.0 ft E. of power pole with guy line; in top of concrete post; standard tablet stamped "5 WMC 1964 1140" (Dest. 6-75, GS) | 1140.182 |
| 4.0 | UE 5 WMC A, 1 mi N. of tablet; Ts. 86 and 87 N., R. 31 W., cor. secs. 5, 6, 31 and 32; 100 ft S., 20 ft E. of and 3.8 ft lower than crossroads; on top of steel corrugated culvert | 1141.96 |
| 5.0 | UE 5 WMC B, 2 mi N. of tablet; T. 87 N., R. 31 W., cor. secs. 29, 30, 31 and 32; 60 ft S., 51 ft W. of and 3.2 ft lower than crossroads; on NW. end of round concrete culvert; a field entrance SW.; a chiseled square | 1138.78 |
| 6.0 | UE 5 WMC C, 3 mi N. of tablet; T. 87 N., R. 31 W., cor. sec. 19, 20, 29 and 30; 10 ft N., 41 ft E. of and 0.5 ft lower than crossroads; on N. end of W. steel abutment plate of bridge; and 1.1 ft lower than center of bridge; on top of 0.5-in. bolt head | 1129.84 |
| 6.3 | Rinard, 0.7 mi S. and 0.5 mi W. of; T. 87 N., R. 31 W., near S. sixteenth cor. between secs. 19 and 20, 29 ft N., 41 ft W. of and 0.7 ft lower than center of road at R.R. crossing; 2.5 ft N. of telegraph pole; 1.5 ft E. of a fence corner in top of concrete post; standard tablet stamped "6 WMC 1964 1156" | 1156.107 |
| 7.0 | Reference mark, 305 ft NNE. of tablet; 30 ft E. of center of road, in W. side of telephone pole; a lag bolt | 1155.74 |
| 7.0 | UE 6 WMC A, 0.7 mi N. of tablet; T. 87 N., R. 31 W., cor. secs. 17, 18, 19 and 20; in center of paved crossroads; a chiseled square | 1165.98 |
| 8.0 | UE 6 WMC B, 1.7 mi N. of tablet; T. 87 N., R. 31 W., cor. secs. 7, 8, 17 and 18; at bridge over West Cedar Creek; 35 ft N., 19 ft W. of and 0.4 ft higher than crossroad; on top of concrete wingwall; a chiseled square | 1150.97 |
| 9.0 | Reference mark, 145 ft SSW. of tablet; 69 ft S. and 129 ft W. of crossroads; in NW. side of power pole; a lag bolt | 1160.91 |
| 9.0 | Rinard, 2 mi N. and 0.5 mi W. of; T. 87 N., R. 31 W., near cor. secs. 5, 6, 7 and 8, 57 ft N., 47 ft W. and 0.9 ft lower than crossroad; 4 ft N. of a telephone pole; 1.5 ft E. of W. right-of-way fence, in top of concrete post; standard tablet stamped "7 WMC 1964 1160" | 1160.052 |
| 10.1 | UE 7 WMC A, 1 mi N. of tablet, Ts. 87 and 88 N., R. 31 W., cor. secs. 5, 6, 31 and 32; in center of crossroads; a chiseled square | 1176.90 |
| 10.1 | Rinard, 2.8 mi N. and 0.5 mi W. of; about 1200 ft S. of cor. secs. 5, 6, 31 and 32, T. 87 and 88 N., R. 31 W., 48.4 ft E. of center of road 170 ft S. of driveway W. to farmhouse; 4 ft S. of power pole; and 2 ft W. of right-of-way fence; in concrete post; standard tablet stamped "ET 8 HK 1964 1178" | 1177.748 |
| 11.1 | UE 7 WMC B, 2 mi N. of tablet; T. 88 N., R. 31 W., cor. secs. 29, 30, 31 and 32; 39 ft N., 40 ft W. of and 2.3 ft lower than crossroads; on top of round concrete culvert; a chiseled square | 1170.65 |
| 12.1 | Somers, 2.5 mi N., 3.25 mi W. of; Knierim, 3 mi S. and 2 mi W. of; T. 88 N., R. 31 W., near cor. secs. 19, 20, 29 and 30; 173 ft N., 28 ft E. of and 2.6 ft lower than crossroads; 1.5 ft WNW. of a power pole; in top of concrete post; standard tablet stamped "8 WMC 1964 1183" (Not found, probably destroyed 6-75, GS) | 1183.235 |

LINE 2 (Cont'd)

GOWRIE QUAD. - 178

FEET

- 13.1 UE 8 WMC A, 1 mi N. of tablet; T. 88 N., R. 31 W., cor. secs. 17, 18, 19 and 20; 84 ft N., 23 ft E. of and 5.9 ft lower than crossroads; on top of steel corrugated culvert 1168.42
- 14.1 "UE G 13 A" (Described in Line 1) 1178.92

LINE 3

F.W. Krueger, 1975; Book CV-3234

CARROLL QUAD. - 155

- 1 7 13.2 UE 4 A, 0.7 mi N. from tablet; T. 86 N., R. 34 W., near quarter cor. between secs. 24 and 25, 22 ft N., 34 ft E. and 0.3 ft lower than T-rd. E.; on N. end of a N.-S. 24-in. iron pipe culvert; a punched hole 1120.82

SAC CITY QUAD. - 180

- 9 14.2 UE 4 B, 1.7 mi N. from tablet; T. 86 N., R. 34 W., near quarter cor. between secs. 13 and 24; 16 ft S., 27 ft W. and 0.8 ft lower than N.-S. road, at fence E.; on S. end of N.-S. concrete culvert under entrance W., a chiseled square 1188.82

ROCKWELL CITY QUAD. - 179

- 10 15.0 UE 4 C, 2.2 mi N. and 0.4 mi E. from tablet; T. 86 N., R. 34 W., about 0.2 mi W. of cor. secs. 13, 18, 19 and 24; 62 ft N. and 173 ft E. of jct. of roads, E.-W. and NE.; 14 ft NW. of road at a culvert 3.3 ft higher than road at culvert; center of N. concrete rail of culvert; a previously established chiseled cross in a yellow painted circle 1219.41
- 13 15.6 UE 4 D, 2.7 mi N. and 0.5 mi E. from tablet, T. 86 N., Rs. 33 and 34 W., near cor. secs. 7, 12, 13 and 18; 42 ft S., 39 ft E. and 0.5 ft higher than State Hwy. 175 at N.-S. road; on NW. cor. of concrete base from a co-op sign; a chiseled cross 1223.72
- 16 16.7 BM, Glidden, 16.5 mi N. and 1 mi W. of; 1 mi N. and 1 mi W. of Lake City; T. 86 N., Rs. 33 and 34 W., near cor. secs. 1, 6, 7 and 12; 10 ft E., 0.7 ft higher than bridge at Lake Creek; 11 ft above water 06-27-75, center of E. concrete curb of bridge; standard tablet stamped "5 FWK 1975" 1134.810
- 17 16.7 Reference mark, 20 ft W. and 70 ft S. from tablet; 10 ft W. of centerline of bridge on S. end of W. concrete curb of bridge; a chiseled square 1134.58
- 20 17.8 UE 5 A, 1 mi N. from tablet; Ts. 86 and 87 N., Rs. 33 and 34 W. near cor. secs. 1, 6, 31 and 36; 18 ft N., 50 ft E. and 3.4 ft lower than crossroads; on N. end of a N.-S. iron pipe culvert; punched hole 1202.72
- 22 18.8 UE 5 B, 2 mi N. from tablet; T. 87 N., Rs. 33 and 34 W., near cor. secs. 25, 30, 31 and 36, 18 ft N., 37 ft W. and 2.7 ft lower than crossroad; on N. end of a N.-S. concrete pipe culvert, a chiseled square 1199.92
- 24 19.8 BM, Lake City, 4 mi N. and 1 mi W. of, T. 87 N., Rs. 33 and 34 W. near cor. secs. 19, 24, 25 and 30; 31 ft S., 45 ft W. and 3.4 ft lower than crossroads; 1 ft N. and 4 ft W. of a fence corner; top of a 15 ft copper weld rod; in a gravel filled 6-in. concrete tile; standard tablet stamped "6 FWK 1975" 1185.935
- 25 19.8 Reference mark, 15 ft S. and 84 ft E. of tablet; 46 ft S. and 39 ft E. of crossroads; on W. side of center of brace post; a spike 1188.56
- 27 20.9 UE 6 A, 19 mi N. from tablet; T. 87 N., Rs. 33 and 34 W., near cor. secs. 13, 18, 19 and 24; 25 ft S., 29 ft E. and 2.4 ft lower than crossroads on S. end of a 48-in. concrete pipe culvert; a chiseled square near a round hole 1198.79

LINE 3 (Cont'd)

ROCKWELL CITY QUAD. - 179

FEET

1	29	21.9	UE 6 B, 2 mi N. from tablet; T. 87 N., Rs. 33 and 34 W., near cor. secs. 7, 12, 13 and 18, 29 ft N., 29 ft W. and 3.3 ft lower than crossroads; on E. end of an E.-W. iron pipe culvert, under field entrance; punched hole	1207.22
31	22.9		BM, Lake City, 7 mi N. of; T. 87 N., Rs. 33 and 34 W., near cor. secs. 1, 6, 7 and 12; 40 ft S., 56 ft W. and 3.6 ft lower than crossroads, 2 ft N. and 11 ft W. of centerline gate; top of 15 ft copper weld rod, in a 6-in. gravel filled concrete tile; standard tablet stamped "7 FWK 1975"	1229.353
32	22.9		Reference mark, 57 ft N. and 102 ft E. of tablet; 17 ft N. and 46 ft E. of crossroads; on N. end of a N.-S. iron pipe culvert; a punched hole	1231.27
34	24.0		UE 7 A, 1 mi N. from tablet; Tps. 87 and 88 N., Rs. 33 and 34 W., near cor. secs. 1, 6, 31 and 36; 30 ft N., 40 ft W. and 2.2 ft lower than crossroads; on SE. side of a corner fence post; a spike	1229.76
36	25.2		UE 7 B, 2 mi N. from tablet; T. 88 N., Rs. 33 and 34; near cor. secs. 25, 30, 31 and 36, 70 ft N., 44 ft W. and 3.4 ft lower than U.S. Hwy. 20, at N.-S. road, 2 ft E. of a power pole; top of reinforcement rod in a 4 by 4 concrete right-of-way marker, marked by orange iron fence post	1213.12
38	26.2		UE 7 C, 3 mi N. from tablet; T. 88 N., Rs. 33 and 34; near cor. secs. 19, 24, 25 and 30; 34 ft N., 20 ft W. and 3.2 ft lower than crossroads; on W. end of a 30-in. concrete pipe culvert; a chiseled plus	1195.33
40	26.5		BM, Lake City, 10.25 mi N. and 1 mi W. of; T. 88 N., Rs. 33 and 34; near S. sixteenth cor. between secs. 19 and 24; 9 ft N., 8 ft E. and 0.7 ft lower than bridge at drain; 8 ft above drain; in the concrete deck of bridge at the base of E. rail of bridge countersunk; standard tablet stamped "8 FWK 1975"	1197.819
41	26.5		Reference mark, 17 ft S. and 16 ft W. of tablet, 8 ft S. and 8 ft W. of centerline of bridge at drain, center of W. concrete rail at bridge; top of re-rod projecting about 0.75-in.	1201.01
2	35	27.3	UE 8 A, 0.75 mi N. from tablet; T. 88 N., Rs. 33 and 34 W., near cor. secs. 13, 18, 19 and 24; 27 ft S., 68 ft W. and 3.9 ft lower than crossroads; on W. end of an E.-W. concrete culvert under an entrance; a chiseled square	1220.93
37	28.3		UE 8 B, 1.75 mi N. from tablet; T. 88 N., Rs. 33 and 34 W., near cor. secs. 7, 12, 13 and 18; 36 ft E., 18 ft N. and 2.1 ft lower than N.-S. road at E.-W. fence; on N. end of a N.-S. concrete culvert under entrance; a chiseled square	1210.86
39	28.9		UE 8 C, 2.25 mi N. from tablet, T. 88 N., Rs. 33 and 34 W., near quarter cor. between secs. 7 and 12; 15 ft E. and 0.9 ft higher than centerline of bridge; 16 ft above drain; center of E. concrete curb of bridge; top of 0.75-in. square head of bolt	1218.79
41	29.4		UE 8 D, 3 mi N. from tablet; T. 88 N., Rs. 33 and 34 N., near cor. secs. 1, 6, 7 and 12, 35 ft S., 46 ft E. and 2.4 ft lower than T.-rd. E.; on N. side of a corner fence post; a spike	1214.77
42	30.5		Reference mark, 15 ft N. and 355 ft E. of tablet centerline of T.-rd. S., top of metal plug; chiseled cross	1211.88
43	30.6		BM, Lake City, 14 mi N. and 1 mi W. of, Ts. 88 and 89 N., Rs. 33 and 34 W., 355 ft W. of N. common cor. secs. 1 and 6, 15 ft S., 355 ft W. of T.-rd. S., 15 ft S. of bridge at drain; 10.7 ft above drain; center of S. concrete curb of bridge; counter sunk; standard tablet stamped "9 FWK 1975"	1212.53

<u>LINE 3 (Cont'd)</u>		<u>SAC CITY QUAD. - 180</u>	<u>FEET</u>
2 45	31.2	UE 9 A Centerline, 0.5 mi W. from tablet, T. 88 and 89 N., R. 34 W., near S. common corner secs. 32 and 33; centerline of T-rd. N., top of metal plug; a chiseled cross	1221.05
47	32.2	UE 9 B, 1 mi N. and 0.5 mi W. from tablet; T. 89 N., R. 34 W., near cor. secs. 28, 29, 32 and 33, 2 ft N., 31 ft W. and 2.2 ft lower than crossroads; on N. end of a N.-S. iron pipe culvert; a punched hole <u>FONDA QUAD. - 204</u>	1213.63
49	33.2	UE 9 C, 2 mi N. and 0.5 mi W. from tablet; T. 89 N., R. 34 W., near cor. secs. 20, 21, 28 and 29, 31 ft N., 29 ft E. and 0.3 ft higher than T-rd. S.; on E. side of a powerline brace post; a previously set lag bolt, possible UE from overedge leveling.	1238.73
52	34.5	BM, At Knoke, at the SE. cor. of the town, 34 ft N., 67 ft W. and 2.2 ft lower than E.-W. road at R.R. and projected T-rd. S.; 33 ft W. of the S. end of a switch and siding; 29 ft SW. (normal) of centerline of main track; 4 ft N. and 6 ft E. of a telephone pole; centered in an 8-in. ceramic tile about 6-in. below ground level; in a concrete post; standard USC&GS disk stamped "B 23 1934"	1230.942