

OFFICE COPY HOLD

THIRD-ORDER LEVELS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

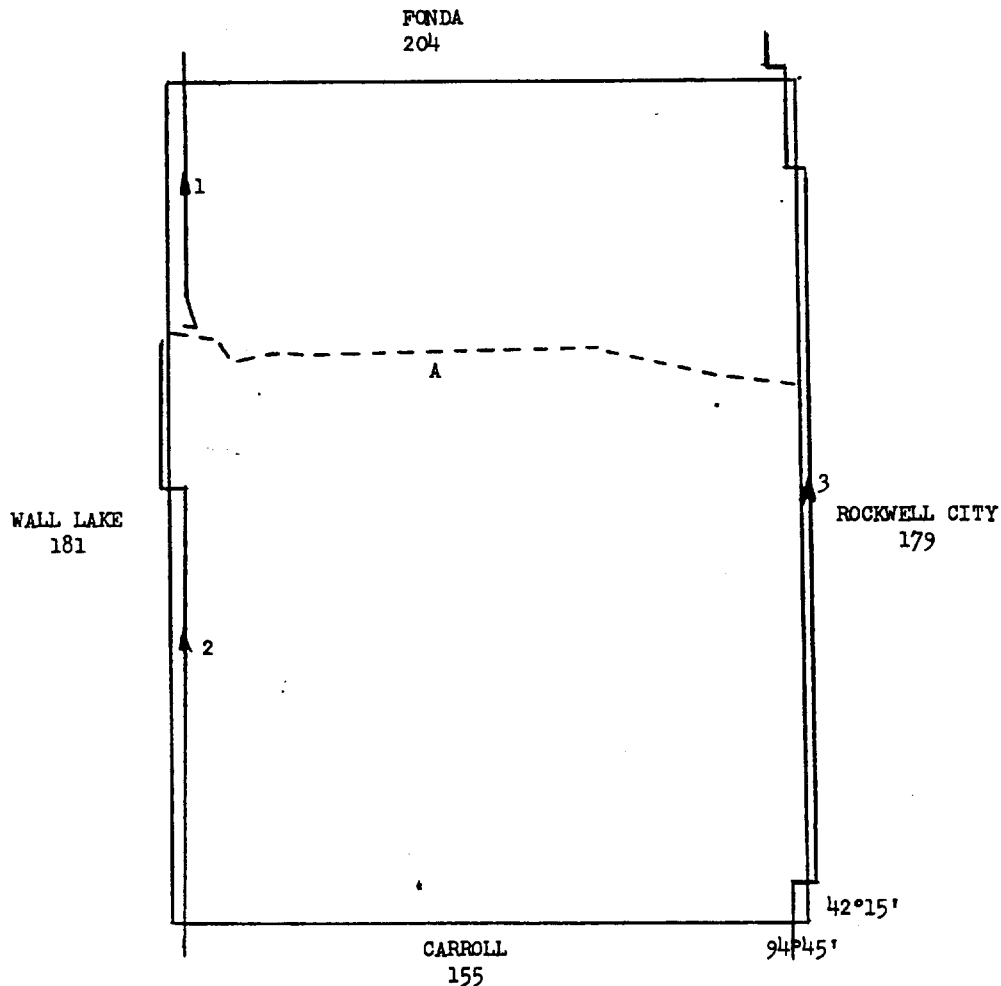
42-094-34
SAC CITY QUADRANGLE
180 - IOWA
N4215-W9445/15
DIAGRAM NK 15-4
FT. DODGE

Sac and Calhoun Counties

Final Adjustment of 1976

Edition of: 3-30-76

PR: ADP/LB/cvb



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

A. Quadrangle No. 420943

180A

LINE 1

FEET

K.E. Daly, 1974; Book CV-3132

SAC CITY QUAD. - 180 LA.

- | | | | | |
|----|-----|-----|--|----------|
| 2 | 9 | 0.0 | At Sac City, Sac County, at the Chicago & North Western RR. station, in the W. brick wall, 27.6 ft S. of the NW. cor., 31.5 ft N. of the center of the bay window, 21.6 ft E. of the centerline of the track, and about 4 ft above the platform, a standard USCGS disk stamped "1279.801 U 13 1933" and set vertically | 1279.801 |
| 9 | 0.7 | | UE U 13 A, 0.7 mi NE. of disk, at concrete bridge on county hwy. M 54, at N. edge of Sac City, 22 ft W. of centerline of hwy., 1.5 ft W. of W. edge of sidewalk, SW. cor. of W. wingwall of S. abutment; chiseled square | 1199.73 |
| 11 | 2.0 | | UE U 13 B, 2 mi N. of disk along county hwy. M 54, at road E.; 205 ft S., 30 ft E. and 6.4 ft lower than hwy. at road E., E. end of 3 ft concrete pipe culvert, a chiseled square | 1238.67 |
| 14 | 3.4 | | Reference mark is 41 ft E. of tablet, 19.5 ft E. of centerline of hwy., N. end of E. headwall of 3.5 ft concrete box culvert; a chiseled square | 1229.82 |
| 15 | 3.4 | | Sac City, 2.5 mi N. of along county hwy. M 54, approx. 0.3 mi N. of cor. secs. 1, 2, 11 and 12, T. 88 N., R. 36 W., 21.5 ft W. of centerline of hwy., center of W. headwall of 3.5 ft concrete box culvert, a standard tablet stamped "9 KED 1974" | 1229.890 |
| 17 | 4.5 | | UE 9 A, 1 mi N. of tablet, approx. 1190 ft N. of crossroads; 24.5 ft W. and 7.7 ft lower than crossroads; 20 ft N. of fence W., W. end of 2 ft concrete pipe culvert, a chiseled square | 1248.93 |
| 19 | 5.4 | | UE 9 B, 2 mi N. of tablet, at T-rd. E., 40 ft N., 19.5 ft W. and 2.2 ft lower than T-rd. E., W. end of 3 ft concrete pipe culvert; chiseled square | 1251.73 |
| 21 | 6.4 | | Sac City, 5.5 mi N. of along county hwy. M 54 at, crossroads; near cor. secs. 20, 21, 23 and 29, T. 89 N., R. 35 W., 32 ft S., 64.8 ft W. and 1.4 ft lower than crossroads, 15.5 ft W. of fence corner and 1 ft W. of metal witness post, attached to a driven copper coated steel rod centered in a 6-in. gravel filled tile a standard tablet stamped "10 KED 1974" and set 1-in. below ground surface | 1271.380 |
| 22 | 6.4 | | Reference mark is 190 ft NNE. of tablet, 153 ft N. and 25 ft W. of crossroads, W. end of 3 ft concrete pipe culvert; chiseled square | 1269.13 |
| 24 | 7.5 | | UE 10 A, 1 mi N. of tablet at cross hwy., 50.5 ft N., 50 ft W. and 1.9 ft lower than crossroads, 9.5 ft N. of fence corner and in right-of-way fence line, top of T-iron fence post; projecting 0.6 ft | 1265.04 |

LINE 2

D.D. Bolin, 1975; Book CV-3206

CARROLL QUAD. - 155

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|----|-----|-----|---|---------|
| 2 | 40 | 1.4 | UE P B, 1 mi N. and 0.35 mi E. of the disk, T. 86 N., R. 36 W., near the cor. of secs. 23, 24, 25 and 26; 23 ft S., 31 ft E. and 2.3 ft lower than the centerline of the crossroads on top and at the S. end of the round concrete culvert; a chiseled square | 1319.77 |
| | | | <u>SAC LAKE QUAD. - 180</u> | |
| 42 | 2.4 | | UE P C, 2 mi N. and 0.35 mi E. of the disk; T. 86 N., R. 36 W., near the cor. of secs. 13, 14, 23 and 24; 50 ft S., 39 ft W. and 0.9 ft lower than the centerline of the crossroads; at the NE. cor. fence post of a wire mesh fence around an L.P. Gas Storage Lot; on the top of a painted copper coated rod projecting 0.2 ft above the ground | 1253.69 |
| 45 | 3.5 | | Reference mark, 24 ft NW. of the tablet; 23 ft N. and 25 ft E., centerline of the T-rd. W. on top and at the N. end of the round concrete culvert; a chiseled square | 1228.51 |

LINE 2 (Cont'd)

SAC LAKE QUAD. - 180

FEET

- | | | | |
|------|------|--|----------|
| 2 46 | 3.5 | BM, Carnavon; 1 mi N. and 1.3 mi E. of; 1 mi S. and 2.3 mi W. of Ulmer; T. 86 N., R. 36 W., near the cor. of secs. 11, 12, 13 and 14, 1 ft S., 32 ft E. and 1.3 ft than the centerline of the T-rd. W., 1 ft W. of the corner fence post, set inside of a 8-in. concrete drain tile, and 0.2 ft under the ground, a standard tablet stamped "4 DDB 1975" | 1230.240 |
| 51 | 4.5 | UE 4 A, 1 mi N. along road from the tablet, T. 86 N., R. 36 W., near the cor. of secs. 1, 2, 11 and 12; 37 ft N., 37 ft E. and 1.2 ft lower than the centerline of the crossroads, 2.5 ft SE. of the cor. fence post; on top of a painted copper coated rod, projecting 0.2 ft above the ground | 1244.73 |
| 55 | 5.5 | UE 4 B, 2 mi N. along road from the tablet; T. 86 and 87 N., R. 36 W., near the cor. of secs. 1, 2, 35 and 36; 28 ft S., 26 ft W. and 2.9 ft lower than the centerline of crossroads on top and at the S. end of the round concrete culvert; a chiseled square | 1229.23 |
| 58 | 6.6 | Reference mark, 85 ft W. of the tablet, 59 ft S. and 43 ft W. of the centerline of the crossroads on top of the rebar and in the 4-in. by 4-in. concrete hwy. right-of-way marker | 1215.10 |
| 59 | 6.6 | BM, Ulmer, 3 mi N. and 2.3 mi W. of; T. 87 N., R. 36 W., near the cor. of secs. 25, 26, 35 and 36; 62 ft S., 42 ft E. and 1.5 ft lower than the centerline of the crossroads, 5 ft E. of the cor. fence post; 1 ft S. of the S. right-of-way fence; set in side of a 8-in. concrete drain tile, a standard tablet stamped "5 DDB 1975" | 1213.126 |
| 61 | 7.6 | UE 5 A, 1 mi N. along road from the tablet, T. 87 N., R. 36 W., near the cor. of secs. 23, 24, 25 and 26; 30 ft N., 25 ft W., 3 ft lower than the centerline of the crossroads; on top and at the W. end of the round concrete culvert; a chiseled square | 1210.06 |
| 65 | 8.6 | UE 5 B, 2 mi N. along road from the tablet; T. 87 N., R. 36 W., near the cor. of secs. 13, 14, 23 and 24; 83 ft N., 29 ft W. and 2.3 ft lower than the centerline of the crossroads, on top and at the N. end of the round concrete culvert; a chiseled square | 1195.22 |
| 66 | 9.5 | BM, Sac City, 4 mi S. of; T. 87 N., R. 36 W., near the cor. of secs. 11, 12, 13 and 14, 419 ft S., 10 ft W. and 4.5 ft lower than the centerline of the crossroads; on top and at the N. end of the W. concrete railing of a small iron and concrete bridge, a standard tablet stamped "6 DDB 1975" | 1169.167 |
| 67 | 9.6 | Reference mark, 500 ft N. of the tablet, 81 ft N. and 27 ft E. of the centerline of the crossroads; on top and at the S. end of the round concrete culvert; a chiseled square | 1169.28 |
| 70 | 10.7 | UE 6 A, 1.1 mi N. along road from the tablet; T. 87 N., R. 36 W., near the cor. at secs. 1, 2, 11 and 12, 38 ft S., 28 ft W. and 1.9 ft lower than the centerline of the crossroads; on top and at the N. end of the round metal culvert; a chiseled square | 1194.75 |

WALL LAKE QUAD. - 181

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|----|------|---|----------|
| 73 | 11.9 | Reference mark, 38 ft NW. of the tablet, 56 ft S. and 1 ft E. of the centerline of the road at curve, on top and at the SE. end of the round concrete culvert, a chiseled square | 1270.74 |
| 74 | 11.9 | BM, Sac City, 3 mi S. and 0.5 mi W. of; T. 87 N., R. 36 W., near the center of the N ₂ of sec. 2, 85 ft S., 29 ft E. and 5.1 ft lower than the centerline of the road at curve, 37 ft E. of the NE. cor. of a small wooden shed; 22 ft E. of the E. gate post; 1 ft N. of the S. right-of-way fence, set inside of a 8-in. concrete drain tile and 0.5 ft below ground level, a standard tablet stamped "7 DDB 1975" | 1268.650 |

LINE 2 (Cont'd)

WALL LAKE QUAD. - 181

FEET

- 2 75 12.3 UE 7 A, .37 mi N. along road from the tablet; T. 87 N., R. 36 W., near the quarter cor. between secs. 2 and 35; 21 ft S., 112 ft W. and 7.5 ft lower than the centerline of the Y-rd. S. on top and at the S. end of the round concrete culvert; a chiseled square 1282.15
- 77 13.3 UE 7 B, 1.36 mi N. along road and hwy. M-54 from the tablet, T. 87 and 88 N., R. 36 W., near the quarter cor. between secs. 26 and 35, 216 ft S., 34 ft E. and 4.7 ft lower than the centerline of the crossroads, on top and at the S. end of the round concrete culvert; a chiseled square 1279.79
- 3 2 15.1 BM, at Sac City, Sac County, at the Chicago & North Western R.R. station, in the W. brick wall, 27.6 ft S. of the NW. corner, 31.5 ft N. of the center of the bay window, 21.6 ft E. of the centerline of the track, and about 4 ft above the platform, a standard USC&GS disk stamped "1279.801 UE 13 1933" and set vertically 1279.801

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. rd., 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 jot. 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

LINE 3 (Cont'd)

ROCKWELL CITY QUAD. - 179

FEET

1	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
	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 counter-sunk; 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

LINE 3 (Cont'd)

ROCKWELL CITY QUAD. - 179

FEET

2 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

SAC CITY QUAD. - 180

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, 2.0 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 1213.63

FONDA QUAD. - 204

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 power-line 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