

THIRD-ORDER LEVELS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Pocahontas and Calhoun Counties

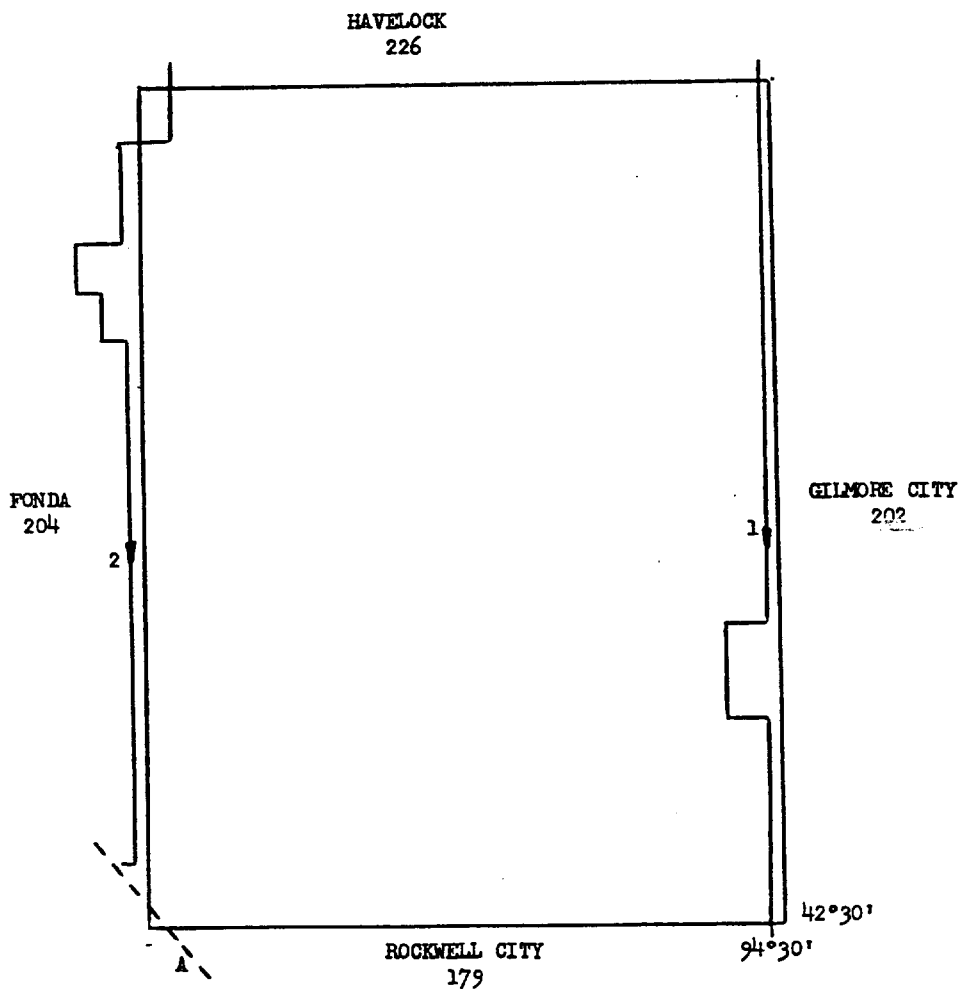
Final Adjustment of 1974

Edition of: 3-10-75

PR:ADP/cb

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

42-094-42
MANSON QUADRANGLE
203 - IOWA
N4230-W9430/15
DIAGRAM NK 15-4
FT. DODGE



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

A. Quadrangle No. 420944

203A

LINE 1

FEET

M.L. Kennedy, 1974; Book CV-3134

HAVELOCK QUAD. - 226

3 12 3.5 BM, Gilmore City, 3 mi N. and 3 mi W. along roads from the cor. of secs. 15, 16, 21 and 22, T. 92 N., R. 31 W., 23 ft W. of centerline of road on the W. end of the N. one of two large concrete culverts, a standard tablet embedded in concrete stamped "11 MK 1974" 1181.883

15 4.7 UE 11 MK A, 1.14 mi S. along road from tablet near the cor. of secs. 21, 22, 27 and 28, T. 92 N., R. 31 W., 44 ft W. and 32 ft S. of centerline of crossroads atop a copper coated steel rod painted white 1 ft NE. of a fence post, 3 ft SE. of a utility pole 1195.70

MANSON QUAD. - 203

17 5.7 UE 11 MK B, 2.2 mi S. along road from tablet near the cor. of secs. 27, 28, 33 and 34, T. 92 N., R. 31 W., 164 ft E. and 29 ft N. of centerline of crossroads on the E. end of a concrete culvert under a driveway; a chiseled square 1204.44

19 6.7 BM, Gilmore City, 3 mi W. along road from near the cor. of secs. 33 and 34, T. 92 N., R. 31 W., and secs. 3 and 4, T. 91 N., R. 31 W., 87 ft E., 49 ft N. and 4 ft lower than centerline crossroads on the SW. portion of a concrete catch basin, a standard tablet embedded in concrete stamped "12 MK 1974" 1187.040

20 6.7 Reference mark, 141 ft E. from tablet, 43 ft N. and 10 ft W. of centerline of road at drive on W. end of concrete culvert; a chiseled square 1188.89

22 7.8 UE 12 MK A, 1.2 mi S. along road from tablet near the cor. of secs. 3, 4, 9 and 10, T. 91 N., R. 31 W., 45 ft N., 20 ft E. and 2.7 ft lower than centerline of crossroads on the E. end of a concrete culvert; a chiseled square 1199.04

24 8.8 UE 12 MK B, 2.1 mi S. along road from tablet near the corner of secs. 9, 10, 15 and 16, T. 91 N., R. 31 W., 54 ft E., 22 ft N. and 1.3 ft lower than centerline of crossroads on N. end of large concrete culvert, a chiseled square 1188.74

25 9.5 Reference mark, 36 ft N. of tablet, 25 ft E. and 15 ft N. from centerline of road at field entrance E. on the N. end of a corrugated metal pipe culvert, a punched hole 1169.15

26 9.6 Gilmore City, 3 mi W. and 2.75 mi S. from near the S. sixteenth cor. between secs. 15 and 16, T. 91 N., R. 31 W., 32 ft N. and 13 ft E. of centerline of bridge on the NE. wingwall, 0.5 ft NE. from NE. end of steel guard rail, a standard tablet embedded in concrete stamped "13 MK 1974" 1174.078

30 10.6 UE 13 MK A, 1 mi S. along road from tablet, 25 ft S., 24 ft E. and ft lower than centerline of T-rd. E., to Lizard Lake, on the S. end of a corrugated metal pipe culvert, a punched hole 1191.43

32 11.8 UE 13 MK B, 2.3 mi S. along road from tablet near the cor. of secs. 27, 28, 33 and 34, T. 91 N., R. 31 W., 34 ft S., 34 ft E. and ft lower than centerline of crossroads, on the S. end of a concrete culvert, a chiseled square 1204.42

33 12.9 RM (no description available) 1179.75

35 12.9 Clare, 8 mi W. and 4 mi N. from in the NE¹/₄ of sec. 4, T. 90 N., R. 31 W., 34 ft S. and 11 ft W. of centerline of bridge, on the S. end of the W. bridge curb, a standard tablet embedded in concrete stamped "14 MK 1974" 1179.719

38 13.8 UE 14 MK A, 0.85 mi S. along road from tablet, 38 ft S., 32 ft E., and 3.5 ft lower than centerline of crossroads, atop a copperweld rod projecting about 6-in.; painted white 1230.02

LINE 1 (Cont'd)

MANSON QUAD. - 203

FEET

3	40	14.9	UE 14 MK B, 1.9 mi S. along road from tablet, 225 ft S. along road from sec. line fence, 21 ft W. of centerline of road on W. end of 30-in. concrete culvert, a chiseled square	1226.69
42	15.8		Reference mark, 64.4 ft E. from tablet, 27 ft E. of centerline of road at dirt T-rd.; atop a copper clad rod; painted white	1233.21
44	15.8		Clare, 8 mi W. and 1 mi N. from near the cor. of secs. 15, 16, 21 and 22, T. 90 N., R. 31 W., 33 ft W. and 24 ft S. from centerline of road at dirt T-rd. W., 1 ft N. of witness sign, 2 ft E. of a steel angle iron fence post, a standard rod supported tablet, stamped "15 MK 1974"	1234.383
46	16.8		UE 15 MK A, 1 mi S. along road from tablet, 74 ft N. and 19 ft W. and 3.2 ft lower than centerline of crossroads on the W. end of a concrete culvert, a chiseled square	1225.80
48	17.9		UE 15 MK B, 1 mi S. and 1 mi W. along road from tablet near the cor. of secs. 20, 21, 28 and 29, T. 90 N., R. 31 W., 34 ft N., 29.5 ft E. and 1.7 ft lower than centerline of crossroads on the W. end of a concrete culvert, a chiseled square	1202.77
51	18.5		Reference mark, 124 ft N. from tablet, 15 ft E. and 66 ft N. of centerline of bridge, on the N. end of the E. br. curb, a chiseled square	1208.39
52	18.5		Clare, 9 mi W. from and .63 mi S. along roads from, in the SE $\frac{1}{4}$ of sec. 29, T. 90 N., R. 31 W., 58 ft S., 15 ft W. from the centerline of the bridge in the S. end of the W. br. curb, a standard tablet embedded in concrete stamped "16 MK 1974"	1207.566
55	19.9		UE 16 MK A, 1.4 mi S. along road from tablet, near the cor. of secs. 4, 5, 32 and 33, Ts. 89 and 90 N., R. 31 W., 59 ft E., 36 ft N. and 3.4 ft lower than centerline of crossroads on the E. end of a concrete culvert, a chiseled square	1242.17
57	20.9		UE 16 MK B, 1.4 mi S. and 1 mi E. along roads from tablet in the NE. cor. of sec. 4, T. 89 N., R. 31 W., 53 ft W., 21 ft S. and 2.2 ft lower than centerline of T-rd. S., on the S. end of a concrete culvert; a chiseled square	1211.54
59	21.8		Reference mark, 67 ft N. of tablet, 35 ft W. and 32 ft S. of centerline of crossroads atop a copperweld rod, painted white, projecting about 6-in.	1231.18
60	21.8		Manson, 2 mi E. and 1 mi N. from, near the cor. of secs. 3, 4, 9 and 10, T. 89 N., R. 31 W., 34 ft S., and 32 ft E. from centerline of crossroads, 1 ft W. of utility pole, 2 ft N. of fence corner post, a standard rod supported tablet stamped "17 MK 1974"	1229.950
62	22.8		UE 17 MK A, 1 mi S. along road from tablet, in the SE. cor. of sec. 9, T. 89 N., R. 31 W., 45 ft N., 40 ft W. and 1.4 ft lower than centerline of crossroads, 1 ft SE. of fence atop a copperweld rod; painted white	1246.56
64	23.8		UE 17 MK B, centerline of crossroads painted x, 2 mi S. along road from tablet at the centerline of an E.-W. concrete road and a gravel N.-S. road, a painted X	1231.24

GOWRIE QUAD. - 178

66	24.8		Knierim, 3 mi N., 2.5 mi W. of; T. 89 N., R. 31 W., near cor. secs. 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 a fence corner; in top of concrete post; standard tablet stamped "2 WMC 1964 1201" painted "EM 1201.4"	1201.462
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LINE 2

FEET

M.L. Kennedy, 1974; Book CV-3194

HAVELOCK QUAD. - 226

4 2 0.0 Pocahontas, 1 mi N. and 3.5 mi W. of; 32 ft N., 159 ft E. and 4.7 ft lower than crossroad, cor. secs. 27, 28, 33 and 34, T. 92 N., R. 33 W., 1 ft S. of N. right-of-way fence; on 5 ft copper coated steel rod inside 6-in. concrete tile; standard tablet stamped "86 T 1968 1271" 1270.742

MANSON QUAD. - 203

4 1.1 UE 86 T A, 1 mi S. along road from tablet in the NW. cor. of sec. 3, T. 91 N., R. 33 W., 75 ft S., 24 ft E. and 3 ft lower than centerline of crossroads on E. end of fantail concrete culvert; a chiseled square 1263.87

PONDA QUAD. - 204

6 2.1 UE 86 T B, 1 mi S. and 1 mi W. along roads from tablet, 43 ft S., 25 ft W. and 3.7 ft lower than centerline of crossroad at hwy. No. 3, on the W. end of concrete culvert; a chiseled square 1257.83

8 3.1 Pocahontas, 4 mi W. and 1 mi S. from near the cor. of secs. 4, 5, 8 and 9, T. 91 N., R. 33 W., 26 ft E. and 13 ft N. from centerline of crossroads on the NW. wingwall, 0.5 ft NW. of NW. end of guard rail, a standard tablet embedded in concrete stamped "18 MK 1974" 1248.255

9 3.2 Reference mark, approximately 236 ft SSE. down drain from tablet on the N. end of a large (6 ft) oval corrugated metal pipe culvert, a punched-painted hole 1244.70

10 4.1 UE 18 MK A, 1 mi S. along road from tablet, 300 ft N., 28 ft E. and 10.7 ft lower than centerline of T-rd. N. on S. end of concrete culvert under farmyard drive; a chiseled square 1252.53

13 5.1 UE 18 MK B, 1 mi S. and 1 mi W. along roads from tablet near the cor. of secs. 7, 8, 17 and 18, T. 91 N., R. 33 W., 35 ft E., 33 ft N. and 2.2 ft lower than centerline of crossroads, in a utility pole stub, a rail spike, approx. 5-in. above ground, painted white, 1 ft S. of utility pole 1253.41

15 6.2 UE 18 MK C, 1 mi S., 1 mi W. and 1 mi S. from tablet, 213 ft E., 23 ft N. and 2.7 ft lower than centerline of T-rd. N. on E. end of concrete culvert under entrance to grain bins, a chiseled square 1252.41

17 6.6 BM, Pocahontas, 3 mi S. and 4.5 mi W. from near the quarter cor. between secs. 17 and 20, T. 91 N., R. 33 W., 32 ft N. of centerline of T-rd. S.; 1.4 ft S. of fence post, 1 ft N. of center between two posts supporting a T-rd. sign, a standard rod supported tablet stamped "19 MK 1974" 1262.573

18 6.7 Reference mark, 63 ft SSE. from tablet, 26 ft S., 21 ft E. and 0.7 ft lower than centerline of T-rd. S. on E. end of concrete culvert; a chiseled square 1263.30

20 7.7 UE 19 MK A, 0.9 mi S. along road from tablet, approx. .05 mi N. from T-rd. N., 8 ft S., 30 ft W. and 6.1 ft lower than road at field entrance on S. end of concrete culvert under field entrance; a chiseled square 1261.59

22 8.3 UE 19 MK B, 1 mi S. and 0.6 mi E. from tablet, 49 ft E., 21 ft N. and 3.6 ft lower than centerline of T-rd. S. on N. end of concrete culvert; a chiseled square 1260.03

24 9.3 UE 19 MK C, 1 mi S., 0.6 mi E. and 1 mi S. along roads from tablet, 135 ft E., 33 ft N., and 3.3 ft lower than centerline of crossroads on the E. end of a concrete culvert; under a field entrance, a chiseled square 1281.39

LINE 2 (Cont'd)

FONDA QUAD. - 204

FEET

4	26	10.4	Reference mark, 76 ft E. of tablet, 45 ft W., 29 ft S. and 2.7 ft lower from centerline of crossroads on N. end of concrete culvert; a chiseled square	1265.67
	27	10.4	BM, Palmer, 8 mi W. and 1 mi N. from, near the cor. of secs. 32, 33, 4 and 5, T. 91 and 90 N., R. 33 W., 45 ft W. and 29 ft S. of centerline of crossroad, a standard rod supported tablet, 2 ft NW. of a fence post, stamped "20 MK 1974"	1264.943
	29	11.3	UE 20 MK A, 1 mi S. of tablet along road, 33 ft S., 29 ft W. and 2.1 ft lower than centerline of crossroads, on the SW. end of a corrugated metal pipe culvert, a punched hole	1264.76
	31	12.3	UE 20 MK B, 2 mi S. along road from tablet, 38 ft W., 29 ft S., and 3.4 ft lower than centerline of crossroads, on the E. end of a corrugated metal pipe culvert, a punched; painted hole	1265.03
	33	13.3	Reference mark, 69.5 ft S. of tablet, 46 ft E., and 34 ft S. of centerline of crossroad, atop a 1.5-in. pipe, painted white	1262.30
	34	13.3	BM, Fonda, 4.5 mi E. and 1.5 mi N. from near the cor. of secs. 16, 17, 20 and 21, T. 90 N., R. 33 W., 47 ft E., and 35 ft N. of centerline of crossroads, 1.5 ft S. of wood post, with witness sign, a standard rod supported tablet stamped "21 MK 1974"	1261.513
	36	14.4	UE 21 MK A, 1 mi S. along road from tablet, 111 ft S., 48 ft E. and 2.1 ft lower than centerline of crossroads on the concrete approach ramp to a large white corn crib, on the NW. cor. of the ramp, a chiseled square	1258.95
	38	15.3	UE 21 MK B, 2 mi S. along road from tablet, 22 ft E., 8 ft S. and 1.2 ft lower than centerline of T-rd. W. on the N. end of a concrete culvert under a field entrance; a chiseled square	1242.83
	41	16.4	UE 21 MK C, 3 mi S. along roads from tablet, 123 ft E., 23 ft N. and 1.4 ft lower than centerline of crossroads, on the N. end of a large concrete culvert, a chiseled square	1228.46
	42	16.5	Reference mark, 148 ft N. of tablet, 16 ft W. of centerline of the road on the W. end of a corrugated metal pipe culvert, a punched hole	1224.23
	43	16.5	BM, Fonda, 4.5 mi E. and 1.6 mi S. along roads from approx. 700 ft S. from the cor. of secs. 32, 33, 4 and 5, T. 90 and 89 N., R. 33 W., 37 ft W. of centerline of road atop a low small concrete dam, 16 ft W. of the E. end of dam, a standard tablet embedded in concrete stamped "22 MK 1974"	1222.285
	45	17.3	UE 22 MK A, 0.8 mi S. along road from tablet, 30 ft S., 21 ft E. and 4 ft lower than centerline of crossroad on the E. end of a corrugated metal pipe culvert, a punched; painted hole	1219.63
	47	18.4	UE 22 MK B, 1.9 mi S. along road from tablet, 28 ft E., 12 ft S. and 3.5 ft lower than road at drive E. to farm occupied by the Eichners on the S. end of a concrete culvert; under drive, a chiseled square	1222.87
	49	19.3	UE 22 MK C, 2.8 mi S. along road from tablet, 30 ft N., 22 ft E. and 1.8 ft lower than centerline of T-rd. N., on the E. end of a concrete culvert; a chiseled square	1226.81
	50	19.6	BM, at Knoke, Calhoun County, 109 yards SE. of the Chicago, Milwaukee, St. Paul & Pacific RR. station, 73 ft W. of a hwy. crossing, 40.4 ft NW. of a switch on the SE. end of a side-track, and 25.9 ft NW. of the NW. rail, a standard USC&GS disk, stamped "B 23 1934" and set in the top of a concrete post projecting 6-in. above ground	1230.942