

OFFICE COPY HOLD

THIRD-ORDER LEVELS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

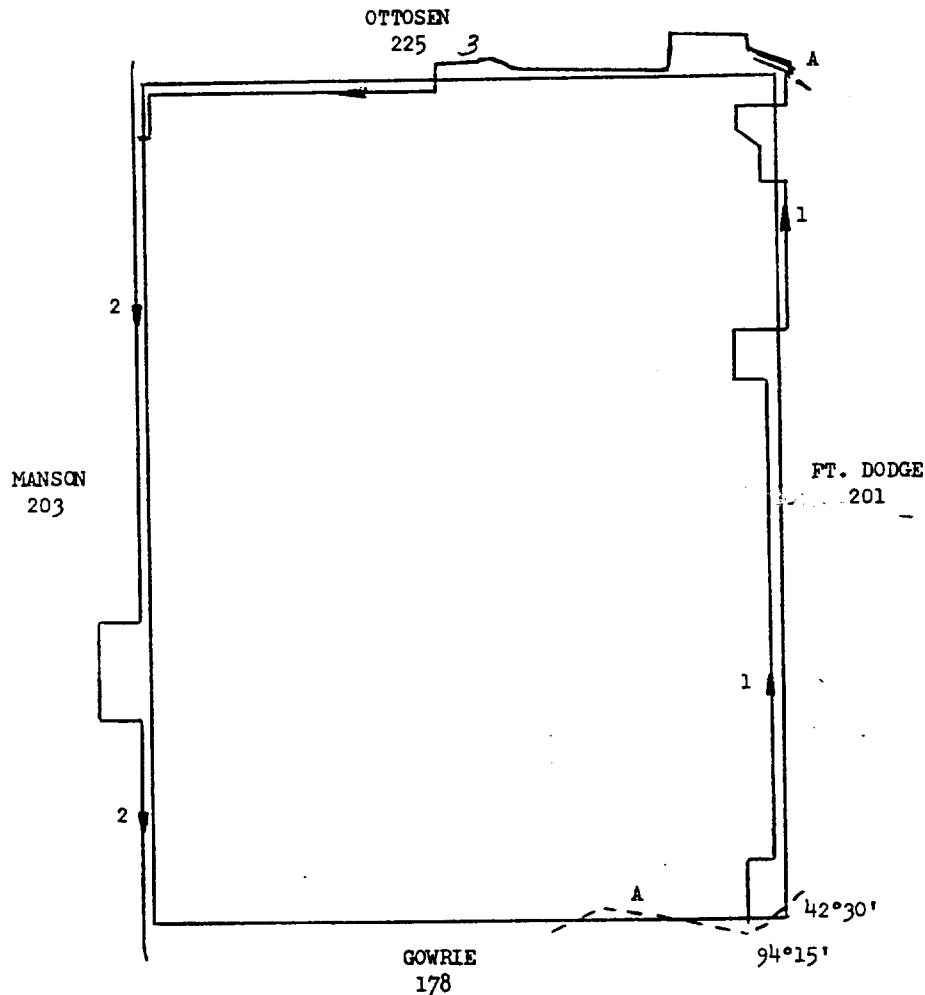
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

42-094-13
GILMORE CITY QUADRANGLE
202 - IOWA
N4230-W9415/15
DIAGRAM NK 15-4
FT. DODGE

Pocahontas, Humboldt and Webster Counties

Edition of: 3-10-75

PR:ADP/eb



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

A. Quadrangle No. 420941

202-A

LINE 1

FEET

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

OTTOSEN QUAD. - 225

- | | | | | |
|---|-----|-------------------|---|----------|
| 2 | 4 | 0.0 | BM, 2.0 mi SE. along the Chicago & North Western RR. from the station at Rutland, Humboldt County; 110 yards NW. of culvert 2551, 75 ft NW. of a county-road crossing, 44.2 ft NE. of the NE. rail, and 4.5 ft SW. of a right-of-way fence corner, a standard USC&GS disk stamped "T 27 1934" and set in the top of a concrete post projecting about 4-in. above ground | 1128.452 |
| 6 | 0.8 | UE T 27 A, 0.7 mi | SE. along road from tablet, 48 ft E., 13 ft S. and normal to field road crossing RR. track on the S. stone headwall of a RR. culvert, a chiseled pentagon | 1124.48 |
| 8 | 1.0 | UE T 27 B, 1 mi | S. and E. along roads from tablet, 25 ft S., and 26 ft E. from centerline of road at E.-W. fence on the S. end of a culvert, under a field entrance E. near the top of a hill; a chiseled square | 1140.29 |

GILMORE CITY QUAD. - 202

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|----|-----|--|---|----------|
| 12 | 2.0 | UE T 27 C, 1.9 mi | S. along roads from tablet at a bridge over the W. branch of the bridge on the N. edge of the SW. wingwall, a chiseled square | 1086.43 |
| 16 | 3.3 | EM, Humboldt, at the junction of hwy. 169 and 3, 1.6 mi | W. along hwy. 3 from, in the NW. quarter of sec. 3, T. 91 N., R. 29 W., 87 ft S., 29 ft E. and normal to hwy. at T-rd. SSE. in the SW. corner of a concrete base for the sign for Joe Sheldon Park, a standard tablet embedded in concrete, stamped "5 MK 1974" | 1120.209 |
| 17 | 3.4 | Reference mark, 108 ft SSE. from tablet in the N. end of a concrete culvert under the drive to the park, a chiseled square | | 1117.85 |
| 19 | 4.5 | UE 5 MK A, 1.15 mi | S. along road from tablet near the N $\frac{1}{4}$ cor. of sec. 10, T. 91 N., R. 29 W., 37 ft S. and 7 ft E. of centerline of T-rd. N. on the E. end of a concrete culvert; a chiseled square | 1138.93 |

FORT DODGE QUAD. - 201

- | | | | | |
|------|-----|---|---|----------|
| 22 | 6.0 | UE 5 MK B, 2.65 mi | S. along road from tablet near the cor. of secs. 10, 11, 14 and 15, T. 91 N., R. 29 W., 56 ft E. and 22 ft S. of centerline of crossroads on S. end of concrete culvert; a chiseled square | 1128.05 |
| + 24 | 7.0 | Humboldt, at the intersection of hwy. 169 and 3, 3 mi | S. and 1 mi W. from, near the cor. common to secs. 14, 15, 22 and 23, T. 91 N., R. 29 W., 45 ft N., 32 ft E. and 4.1 ft lower than crossroads, 2.2 ft W. of utility pole, a standard rod supported tablet stamped "6 MK 1974" | 1130.771 |
| 25 | 7.0 | Reference mark 9.5 ft SSW. from tablet, iron post leaning (post is believed to have been Iowa level post) | | 1131.53 |
| 27 | 8.0 | UE 6 MK A, 1 mi | S. along road from tablet near the cor. of secs. 22, 23, 26 and 27, T. 91 N., R. 29 W., 26 ft N. and 22 ft E. of centerline of T-rd. N. on the E. end of a concrete culvert; a chiseled square | 1102.49 |

GILMORE CITY QUAD. - 202

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|----|-----|--|--|----------|
| 29 | 8.6 | UE 6 MK B, 1 mi | S. and 0.6 mi W. along roads from tablet, 18 ft N. of road on N. headwall of a culvert, a chiseled square | 1115.83 |
| 32 | 9.3 | BM, Humboldt, at the intersection of hwy. 3 and 169, 4.25 mi | S. and 2 mi W. from near the N. sixteenth cor. between secs. 27 and 28, T. 91 N., R. 29 W., 16 ft N. and 16 ft W. of the centerline of a small bridge, on the NW. wing wall, 3 ft from the SE. end, a standard tablet embedded in concrete stamped "7 MK 1974" | 1117.879 |

GILMORE CITY QUADRANGLE - 202

FEET

LINE 1 (Cont'd)

33	9.3	Reference mark, 144 ft SSE. of tablet, 28 ft E. of Road on N. end of concrete culvert; under field entrance, a chiseled square	1124.61
36	10.5	UE 7 MK A, 0.7 mi S. and 0.5 mi E. along road from tablet, 38 ft N., 20 ft E. and lower than centerline of T-rd. S. on E. end of concrete culvert, a chiseled square	1139.19
38	11.5	UE 7 MK B, 0.7 mi S. and 0.5 mi E. and 1 mi S. from tablet, 19 ft E. of centerline of road at culvert on the E. end of a concrete culvert, a chiseled square	1133.87
40	12.5	UE 7 C, 0.7 mi S., 0.5 mi E. and 2 mi S. from tablet, 27 ft W. and 10 ft N. and 2.5 ft lower than road at drive, on top of N. end of a concrete culvert, a chiseled square	1144.30
41	13.0	BM, Badger, 5.5 mi W. and 0.5 mi N. from near the center of sec. 10, T. 90 N., R. 29 W., 43 ft N., 39 ft E. and ft lower than centerline of crossroads, 1 ft S. of fence and 1.5 ft W. of witness post a standard rod supported tablet stamped "8 MK 1974"	1133.659
43	13.0	Reference mark, 84 ft S. from tablet, 40 ft S., and 20 ft E. from centerline of crossroads on E. end of a concrete culvert, a chiseled square	1135.11
46	13.8	UE 8 MK A, 0.8 mi S. along road from tablet, 31 ft E., 13 ft S. and 2.5 ft lower than road at drive E., to Melvin Schultze farm on the S. end of a concrete culvert, a chiseled square	1121.17
49	14.9	UE 8 MK B, 1.9 mi S. along road from tablet in the N $\frac{1}{2}$ of sec. 22, T. 90 N., R. 29 W., 18 ft S., 11 ft W. and ft higher than centerline of bridge near the S. end of the W. bridge curbing, a chiseled square	1096.26
51	15.6	UE 8 MK C, 2.5 mi S. along road from tablet near the quarter cor. between secs. 22 and 27, 141 ft E., 44 ft S. and 2.8 ft lower than centerline of hwy. at crossroads on W. end of concrete culvert under field entrance; a chiseled square	1154.64
54	16.6	Reference mark, 117 ft N. of tablet, 87 ft W. and 35 ft N. of centerline of crossroads, on the N. end of concrete culvert; a chiseled square	1140.22
55	16.6	BM, Badger, 5.5 mi W., 3 mi S. from near the quarter cor. between secs. 27 and 34, T. 90 N., R. 29 W., 75 ft S. and 50 ft W. of the centerline of a crossroads on the S. end of the first concrete step to the Deer Creek Township Hall, a standard tablet embedded in concrete stamped "9 MK 1974"	1140.254
57	17.6	UE 9 MK A, 1 mi S. along road from tablet, near the quarter cor. between secs. 3 and 34, T. 89 N. and 90 N., R. 29 W., 28 ft N. and 28 ft W. and 3.1 ft lower than centerline of T-rd. W. on the N. end of a concrete culvert; a chiseled square	1125.04
59	18.6	UE 9 MK B, 2 mi S. along road from tablet, near the quarter cor. between secs. 3 and 10, T. 89 N., R. 29 W., 37 ft N., 22 ft W., 2.9 ft lower than centerline of crossroads on the W. end of a concrete culvert; a chiseled square	1126.77
62	19.6	Reference mark, 138 ft N. of tablet, 9 ft W. of centerline of bridge on the NW. banister, a chiseled square	1046.52
63	19.7	BM, Fort Dodge, at the junction of hwy. 169 and 20, 3 mi N. and 2.5 mi W. from, near the quarter cor. between secs. 10 and 15, T. 89 N., R. 29 W., 59 ft S. and 9 ft W. from a painted cross near the centerline of the bridge, 3.3 ft from the S. end of the bridge on the S. bridge curb, a standard tablet embedded in concrete and stamped "10 MK 1974"	1047.139

GILMORE CITY QUAD. - 202

FEET

LINE 1 (Cont'd)

2 66 21.1 UE 10 MK A, 0.9 mi S. and 0.5 mi W. along roads from tablet, 53 ft S. and 34 ft W. from centerline of T-rd. S. atop a railroad rail; painted white 1139.39

GOWRIE QUAD. - 178

68 22.5 BM, 1.5 mi E. along the Illinois Central RR. from Tara, Webster County, 0.5 mi W. of mile-post 379, 70 ft E. of the centerline of a county road, 41.5 ft E. of the first power-transmission line pole N. of the track, 39.9 ft N. of the centerline of track, and 10 ft S. of a fence, a standard USC&GS disk stamped "1120.815 B 13 1933" and set in the top of a concrete post 1120.815

LINE 2

HAVELOCK QUAD. - 226

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

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 of 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 guardrail, 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

MANSON QUAD. - 203

FEET

LINE 2 (Cont'd)

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 NE $\frac{1}{4}$ 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
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 the 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, T. 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 copper weld 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

FEET

MANSON QUAD. - 203

LINE 2 (Cont'd)

- 3 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 "WMC 1964 1201"; painted "EM 1201.4" 1201.462

LINE 3

OTTOSEN QUAD. - 225

C.D. Lien. 1976; Book CV-3330

- 6 14 0.0 BM, 2 mi SE. along the C. and N.W. R.R. from the station at Rutland, Humboldt county, 110 yards NW. of culvert 2551, 60 ft N., 34 ft W. of road at R.R. crossing, and 4.5 ft SW. of a right-of-way fence corner set on top of a concrete post which projects 0.2 ft above ground, a standard USC&GS disk stamped "T 27 1934" 1128.452
- 14 0.9 UE 27 A, 0.8 mi NW. along road from tablet, a copper nail and washer centerline of crossroads 1130.4
- 16 1.9 UE T 27 B, 0.8 mi NW. and 1 mi W. along road from tablet, a copper nail and washer centerline of road at T-rd. N. 1124.8
- 19 2.8 Rutland, 0.8 mi S. of; T. 92 N., R. 29 W., near the SE. cor. of sec. 29, 300 ft S., 84 ft E. of and 3.9 ft higher than centerline of bridge over the W. branch of the Des Moines River, 72 ft S., 84 ft E. of a T-rd. W. and 11 ft N., 15 ft W. of the NW. cor. of an old abandoned weight station cemented in the NW. cor. of a concrete drive to old weight station, a standard tablet stamped "34 CDL 1976" 1103.961
- 20 2.8 Reference mark, 18 ft S., 36 ft W. of a T-rd. W., 228 ft S., 36 ft W. of centerline of bridge, and 54 ft N., 120 ft W. of tablet, a chiseled square on a concrete culvert 1101.66
- 21 3.5 UE 34 A, 0.75 mi W. along road from tablet, a R.R. spike in the centerline of road at N.-S. fence lines 1106.0
- 23 4.6 BM, Rutland, 0.8 mi S., 1.8 mi W. of; T. 92 N., R. 29 and 30 W., near the quarter cor. between secs. 25 and 30, 25 ft N., 70 ft W. of; and 0.5 ft lower than crossroads and 0.6 ft N., 40 ft W. of a fence corner set in the top of a concrete post which projects 0.2 ft, a standard tablet stamped "TT 6 C 1936" 1109.08
- 24 4.6 Reference mark, 41 ft S., 130 ft W. of tablet and 16 ft S., 18 ft W. of centerline of road at a private drive N., a chiseled square on a rock 1109.37
- 27 5.6 UE TT 6 C A, 1 mi W. along road from tablet, T. 92 N., R. 30 W. near the quarter cor. between secs. 25 and 26, 95 ft S., 18 ft W. of; and 2.9 ft lower than T-rd. S., a chiseled square on a concrete culvert 1137.48
- 29 6.6 UE TT 6 C B, 2 mi W. along road from tablet, T. 92 N., R. 30 W., near the quarter cor. between secs. 26 and 27, 33 ft S., 45 ft E. of; and 2 ft lower than crossroads and 0.8 ft N. of a power pole, on top of a 0.5-in. steel rod which projects 0.2 ft 1145.32
- 31 7.6 UE TT 6 C C, 3 mi W. along road from tablet, T. 92 N., R. 30 W., near the quarter cor. between secs. 27 and 28, 24 ft N., 36 ft E. of; and 2.8 ft lower than T-rd. E., a chiseled square on a concrete culvert 1155.09

GILMORE CITY QUAD. - 202

FEET

LINE 3 (Cont'd)

6 34	8.1	BM, Rutland, 1.3 mi S., 4.75 mi W. of; and Gilmore City, 1 mi N., 3 mi E. of; T. 92 N., R. 30 W. sec. cors. 27, 28, 33 and 34, 22 ft N., 30 ft E. of; and 2.3 ft lower than T-rd. W., 0.8 ft S. of a power pole and 0.8 ft W. of a right-of-way fence set on top of a 0.5-in. copper coated steel rod set inside a 6-in. tile set flush with ground, a standard tablet stamped "35 CDL 1976"	1153.657
35	8.1	Reference mark, 127 ft S., 27 ft W. of T-rd. W., and 13 ft N., 27 ft W. of centerline of road at a private drive W., a chiseled square on a concrete culvert	1154.69
37	9.1	UE 35 A, 1 mi W. along road from tablet, T. 92 N., R. 30 W., sec. cors. 28, 29, 32 and 33, 21 ft S., 26 ft W. of; and 3 ft lower than crossroads, a chiseled square on a concrete culvert	1163.17
38	10.1	UE 35 B, 2 mi W. along road from tablet, T. 92 N., R. 30 W. sec. cors. 29, 30, 31 and 32, 21 ft S., 28 ft E. of; and 2.5 ft lower than crossroads, a chiseled square on a concrete culvert	1180.77
40	11.2	Reference mark, 15 ft N., 4 ft W. of tablet and 15 ft S., 53 ft E. of a T-rd. E., a chiseled square on a concrete culvert	1215.19
41	11.2	BM, Gilmore City, 1 mi N. of; T. 92 N., R. 30 and 31 W., sec. cors. 25, 30, 31 and 36, 30 ft S., 57 ft E. of; and 1.7 ft higher than T-rd. E. and 1 ft E. of a witness sign, set on top of a 0.5-in. copper coated steel rod set inside a 6-in. tile set flush with ground in the NW. cor. of a cemetery, a standard tablet stamped "36 CDL 1976"	1216.236
43	12.2	UE 36 A, 1 mi W. of tablet, a chiseled square in the centerline of crossroads	1184.0
45	13.2	UE 36 B, 2 mi W. of tablet, T. 92 N., R. 31 W. sec. cors. 26, 27, 34 and 35, 36 ft S., 30 ft W. of; and 2.2 ft lower than crossroad and 3.5 ft S. of a fence corner, a chiseled square on a rock	1209.82

MANSON QUAD. - 203

48	15.2	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 of crossroads on the SW. portion of a concrete catch basin, a standard tablet embedded in concrete stamped "12 MK 1974"	1187.040
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ISOLATED BENCH MARKS

T. 89 N., R. 29 W., cor. secs. 15, 16, 21 and 22, T-rd. S., 45 ft NW. of road fork; iron post stamped "IOWA 1919 PRIM TRAV STA NO 4 1138" (Possibly moved in 1931 by Hwy. Comm.)	1138.093
T. 89 N., R. 29 W., center of sec. 10, T-rd. N., 50 ft NE. of road fork; iron post stamped "IOWA 1919 1109"	1108.474
T. 90 N., R. 29 W., quarter cor. N. side of sec. 34, 40 ft SW. of crossroads, 2 ft N. of fence corner; iron post stamped "IOWA 1919 1141"	1141.307
T. 90 N., R. 29 W., center of sec. 10, 20 ft NE. of crossroads; iron post stamped "IOWA 1919 PRIM TRAV STA NO 9 1134"	1133.416