

THIRD-ORDER LEVELS
SEA LEVEL DATUM OF 1929

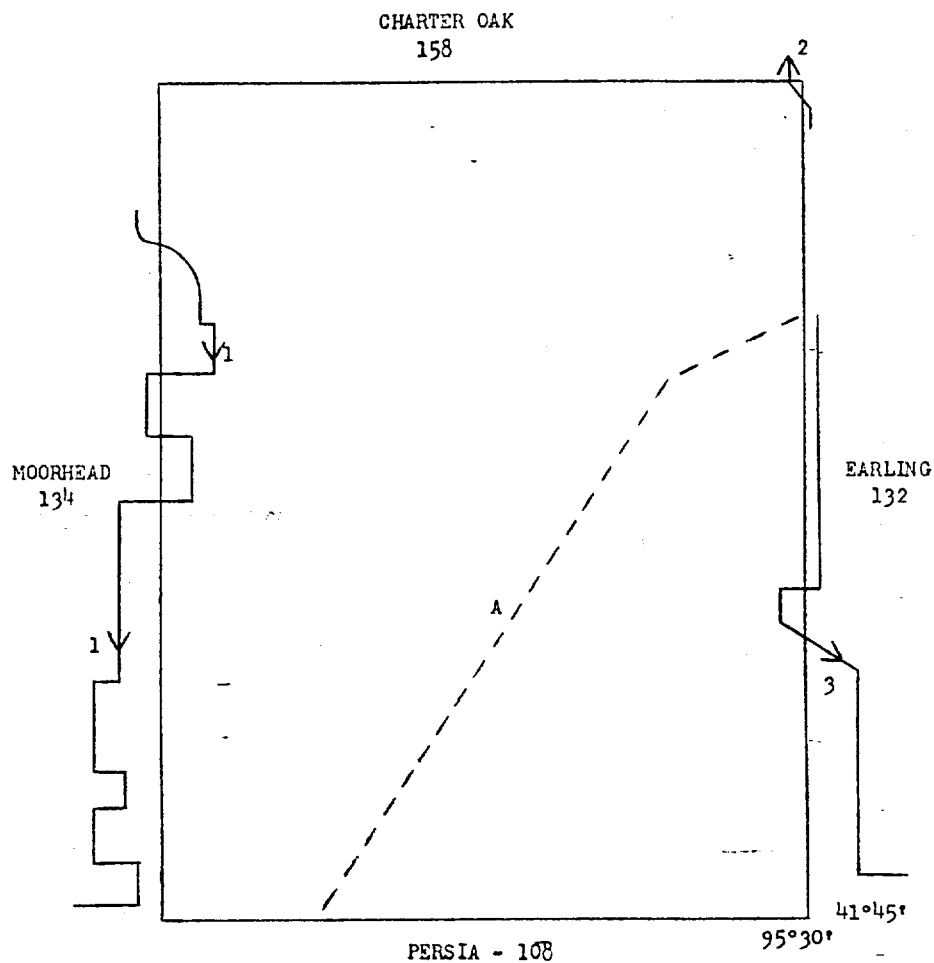
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUNLAP QUADRANGLE
133 - IOWA
N4145-W9530/15
DIAGRAM NK 15-7
OMAHA

Monona, Crawford, Harrison
and Shelby Counties

Final Adjustment of 1971,
except as noted

Edition of: 11-18-71



N.G.S. VERTICAL CONTROL DATA

A. Quadrangle No. 410954

133-2

LINE 1

R.M. Brown, 1971; Book CV-2670

MOORHEAD QUAD. - 134

LINE LEVELED TWICE.

Unadjusted mean elevations published here.

1	3	0.0	Soldier; about 1.2 mi SW. of, along hwy. 183; in NE. quarter sec. 25, T. 83 N., R. 43 W., 14 ft S. of, 60 ft E. of and 0.2 ft higher than centerline of hwy. bridge, stamped "F 95 1935" (Drain 27.4 ft lower)	1129.296
	3	1.1	UE, 1.1 mi NE. of tablet near village of Soldier centerline junction of State Hwys. 183 and 37	1140.352
	4	1.4	Reference mark, 28.3 ft NE. of tablet, in center of concrete bridge curb, a chiseled square	1139.652
	5	1.4	Soldier, about 0.3 mi SE. of along State Hwy. 37; at Hwy. bridge over the Soldier River, 14.2 ft SE. of (normal) and 0.7 ft higher than centerline of bridge; in center of SW. concrete curb, a standard tablet, stamped "1 RB 1971"	1139.652
	7	2.7	UE, 1.3 mi SE. of tablet, near the W. sixteenth cor. between secs. 29 and 32, T. 83 N., R. 42 W., 68 ft S. of, 35.5 ft W. of, and 3.3 ft lower than crossroads; in concrete sign base, flush with ground; a chiseled square	1320.779
	9	3.7	Reference mark, 30 ft NE. of tablet, in center of concrete bridge curb, a chiseled square	1165.605
	10	3.7	Soldier, about 2.6 mi SE. of along State Hwy. 37, in SE $\frac{1}{4}$ sec. 32, T. 83 N., R. 42 W., 15 ft SW. of (normal) and 0.8 ft higher than centerline of hwy. bridge; in center of SW. concrete bridge curb, a standard tablet stamped "2 RB 1971" (Drain 35.8 ft lower)	1165.583

DUNLAP QUAD. - 133

	12	4.8	UE, 1.1 mi S. and E. of tablet, along State Hwy. 37; in sec. 4, T. 82 N., R. 43 W.; 44 ft NE. of (normal) and 2.5 ft lower than hwy. at a rd. fork W., on the SE. end of concrete tube culvert; a painted square	1332.444
	13	5.4	UE, 1.7 mi SE. of tablet, near SE. cor. sec. 4, and NE. cor. sec. 9, T. 82 N., R. 43 W., centerline of crossroads; (Hwy. 37 and E.-W. rd.)	1370.313
	16	6.7	UE, 3.0 mi S. of tablet, near cor. secs. 9, 10, 15 and 16, T. 82 N., R. 42 W., 34 ft N. of, 38 ft W. of and 0.6 ft lower than T-rd. W. in N. side of telephone pole, a lag bolt	1372.043
	18	7.3	Dunlap, about 4.0 mi N. and 0.5 mi W. of the SE $\frac{1}{4}$ of sec. 16, T. 82 N., R. 42 W., 44 ft SE. of, 35 ft NE. of and 2.5 ft lower than a T-rd. NE.; county rd. E-54 and gravel rd. N.; 13 ft SE. of and 1.0 ft SW. of a fence cor., on rod support, a standard tablet, stamped "3 RB 1971"	1385.363
	19	7.4	Reference mark, 51.5 ft W. of tablet, in centerline of T-rd.; a chiseled square	1387.844

MOORHEAD QUAD. - 134

	20	8.3	UE, 1.0 mi W. of tablet, near quarter cor. between secs. 16 and 17, T. 82 N., R. 42 W., centerline of T-rd. S.	1372.636
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LINE 1 (Cont'd)

FEET

MOORHEAD QUAD. - 134

1	21	8.8	UE, 1.0 mi W. and 0.5 mi S. of tablet, near cor. secs. 16, 17, 20 and 21, T. 82 N., R. 42 W., 25 ft N. of, 15 ft W. of and 1.6 ft lower than crossroads; on W. end of an iron pipe culvert; a punch mark	1346.953
	23	9.6	UE, 1.0 mi W. and 1.2 mi S. of tablet, near the S. sixteenth cor. between secs. 20 and 21, T. 82 N., R. 42 W., 92 ft N. of, 22 ft E. of and 6.1 ft lower than a T-rd. E. on E. end of an iron pipe culvert; a punch mark	1306.787
			<u>DUNLAP QUAD. - 133</u>	
	25	10.5	UE, 3.2 mi S. and W. of tablet, in sec. 28, T. 82 N., R. 42 W., 19 ft NW. of, 27 ft SW. of and 1.1 ft lower than private drive SW. to a white farm house, on NW. end of an iron pipe culvert, a painted square	1275.523
	26	10.8	UE, 3.5 mi S. and W. of tablet, near center of sec. 28, T. 82 N., R. 42 W., 31 ft N. of, 22 ft W. of and 0.8 ft higher than rd. at fence W.; in E. side of a telephone pole, a lag bolt	1268.578
	27	11.6	Reference mark, 35 ft SE. of tablet, on SE. end of an iron pipe culvert, a punch mark	1258.768
	28	11.6	Dunlap, about 1.0 mi N. and 7.0 mi W. of, in N. central portion of sec. 33, T. 82 N., R. 42 W., 28 ft NW. of, 32 ft SW. of and 0.2 ft higher than rd. at a private drive SW.; 9.6 ft NW. of and 1.0 ft NE. of a gate post, on rod support, standard tablet stamped "4 RB 1971"	1261.504
			<u>MOORHEAD QUAD. - 134</u>	
	30	12.5	UE, 1.0 mi W. of tablet, near quarter cor. between secs. 29 and 32, T. 82 N., R. 42 W.; 41 ft N. of, and 6.8 ft lower than rd. opposite in concrete culvert, headwall; a chiseled square (upstream, drain 6.5 ft lower)	1274.875
	31	13.3	UE, 1.7 mi W. of tablet, near cor. secs. 29, 30, 31 and 32, T. 82 N., R. 42 W., in centerline of bridge, copper nail and washer (Drain 26.4 ft lower)	1218.226
	34	14.4	UE, 2.8 mi S. and W. of tablet, near cor. secs. 5, 6, 31 and 32, Tps. 81 and 82 N., R. 42 W.; 37 ft S. of, 33 ft W. of and 1.2 ft higher than crossroads, in E. side of power pole, a lag bolt	1352.614
	37	15.4	Dunlap, about 0.5 mi S. and 9.0 mi W. of, near cor. secs. 5, 6, 7 and 8, T. 81 N., R. 42 W., 147 ft S. of (normal) and 7.0 ft higher than rd. at a private drive E., to a small white farm house; 1.6 ft S. of a power pole; on rod support a standard tablet, stamped "5 RB 1971"	1321.779
	38	15.4	Reference mark, 20.0 ft W. of tablet, on SW. end of iron pipe culvert, a punch mark	1318.946
	39	15.9	UE, 0.5 mi S. of tablet, near the quarter cor. between secs. 7 and 8, T. 81 N., R. 42 W.; in centerline of T-rd. E., driven flush with pavement, a RR. spike (not painted)	1398.726
	40	16.5	UE, 1.2 mi S. of tablet, near cor. secs. 7, 8, 17 and 18, T. 81 N., R. 42 W., in centerline of Y-rd. W.; driven flush with pavement, a RR. spike (not painted)	1371.654
	42	17.5	UE, 2.1 mi S. of tablet, near the W. sixteenth cor. between secs. 17 and 20, T. 81 N., R. 42 W., 89 ft N. of, 36 ft W. of and 0.6 ft lower than a T-rd. W.; in W. side of power pole, a lag bolt	1355.272

LINE 1 (Cont'd)

MOORHEAD QUAD. - 134

FEET

1 44	18.2	UE, 2.1 mi S. and 0.8 mi W. of tablet, near the quarter cor. between secs. 18 and 19, T. 81 N., R. 42 W., 19 ft N. of, 11 ft W. of and 3.8 ft lower than T-rd. S., on N. end of an iron pipe culvert; a punch mark	1253.952
46	19.2	Woodbine, about 4.5 mi N. of and 4.0 mi W. of, near the quarter cor. between secs. 19 and 20, T. 81 N., R. 42 W., 34 ft N. of, 18 ft W. of and 0.9 ft lower than a T-rd. W.; in concrete culvert, headwall, a standard tablet, stamped "6 RB 1971"	1242.988
47	19.3	Reference mark, 84.3 ft SW. of tablet, in W. side of power pole, a lag bolt	1242.955
48	20.2	UE, 0.9 mi SE. of tablet, in SE $\frac{1}{4}$ sec. 30, T. 81 N., R. 42 W., 18 ft S. of, 106 ft E. and 4.8 ft lower than a T-rd. S., in W. side of power pole, a lag bolt	1167.003
49	21.0	UE, 1.7 mi generally S. of tablet, near the quarter cor. between secs. 31 and 32, T. 81 N., R. 42 W., centerline of T-rd. N. (not painted)	1146.103
51	21.5	UE, 2.2 mi S. and W. of tablet, near center sec. 31, T. 81 N., R. 42 W., 36 ft N. of (normal) and 1.6 ft higher than a T-rd. S., in W. side of a power pole, a lag bolt	1251.192
53	22.6	Reference mark, 25 ft N. of tablet in center of concrete bridge curb, a chiseled square	1132.458
54	22.6	Woodbine, about 2.0 mi N. and 4.0 mi W. of, near center sec. 6, T. 80 N., R. 42 W., 12.5 ft S. of (normal) and 0.8 ft higher than centerline of hwy. bridge; in center of S. concrete bridge curb, a standard tablet, stamped "7 RB 1971" (Drain 43.0 ft lower)	1132.472
56	23.8	UE, 1.1 mi SE. of tablet, in sec. 6, T. 80 N., R. 42 W., in centerline of Y-rd. N., a chiseled square	1297.334
57	24.1	UE, 1.5 mi SE. of tablet, in sec. 6, T. 80 N., R. 42 W., in centerline of T-rd. SW., a chiseled square	1231.046
60	25.2	Woodbine, about 1.0 mi N. and 4.0 mi W. of, T. 80 N., R. 42 W., near center of sec. 7, 74 ft S., 30 ft E. and 0.7 ft higher than T-rd. S., 4.3 ft E. of right-of-way fence, 3.0 ft S. of a standard metal witness post; in top of a concrete post; a standard tablet stamped "11 GDS 1965"	1251.066

ESTAB. ELEV.	1251.459
THIS ELEV.	1251.066
- CLOSURE	- .393

LINE 2

R.M. Brown, 1971; Book CV-2670

NOTE: Field elevations are published here pending additional checks.

EARLING QUAD. - 132

1 61	0.0	Arion, about 3.0 mi N. and 2.0 mi W. of, near cor. secs. 15, 16, 21 and 22, T. 83 N., R. 40 W., 85 ft SE. of, 17 ft SW. of and 2.1 ft lower than a T-rd. N., in a concrete culvert headwall, a standard tablet stamped "D 91 1935"	1149.315
61	0.4	Reference mark, 230 ft W. of tablet, in NE. cor. of RR. trestle, a copper nail and washer	1196.646
62	1.2	UE, 1.3 mi N. along RR. from tablet, in centerline of E.-W. rd., at a RR. crossing a copper nail and washer	1238.751

LINE 2 (Cont'd)

EARLING QUAD. - 132

FEET

- 1 63 1.7 Charter Oak, about 3.5 mi S. of and 4.0 mi E. of, in general vicinity of Kenwood, in sec. 9, T. 83 N., R. 40 W., 99 ft SE. of, 28 ft SW. of and 9.4 ft lower than rd. at private drive NE. to a white farm house; in concrete culvert, headwall, a standard disk stamped "E 91 1935" 1243.473
- THIS ELEV. 1243.473
PREV. ELEV. 1243.088
CLOSURE +.385

LINE 3

R.M. Brown, 1971; Book CV-2670

EARLING QUAD. - 132

- 3 4 0.0 Dow City, about 1.2 mi N. of, in NW $\frac{1}{4}$ sec. 3, T. 82 N., R. 40 W., 27 ft E. of (normal) and 2.2 ft lower than a RR. crossing; 9.7 ft SSW. of a power pole; in concrete post, about 6-in. beneath surface, a standard disk stamped "B 91 1935" 1170.834
- 4 0.3 UE, 0.3 mi S. of tablet, near $\frac{1}{4}$ cor. between secs. 3 and 4, T. 82 N., R. 40 W.; 8 ft N. of, 33 ft E. of, and 0.8 ft lower than rd. at private drive E. (also rd. fork W.) on N. end of iron pipe culvert; a painted square 1137.72
- 5 1.1 UE, 1.1 mi S. of tablet, and near N. edge of Dow City, sec. 10, T. 82 N., R. 40 W., 28 ft SE. of, 58 ft NE. of and 1.8 ft lower than a RR. crossing; in W. side of a concrete battery box cover, a chiseled square 1131.26
- 6 1.6 Reference mark, 27.6 ft E. of tablet, in center of E. concrete culvert headwall, a square bolt head 1168.13
- 7 1.7 Dow City, at the S. edge of, in Sec. 10, T. 82 N., R. 40 W.; 13.8 ft W. of (normal) and 0.1 ft higher than centerline of rd. at a concrete box culvert, in center of W. headwall, a standard tablet, stamped "14 RB 1971" (upstream Drain 6.0 ft lower) 1168.690
- 8 2.1 UE, 0.5 mi S. of tablet, in sec. 15, T. 82 N., R. 40 W., 22 ft N. of, 25 ft W. of and 4.2 ft lower than a T-rd. W.; on N. end of a concrete tube culvert, a chiseled square 1269.21
- 10 3.0 UE, 1.3 mi S. of tablet, in sec. 22, T. 82 N., R. 40 W., 14 ft S. of, 33.5 ft E. of and 1.0 ft higher than rd. at a private drive E., to a farmhouse; in E. side of a leaning power pole, a lag bolt 1348.64
- 11 3.9 UE, 2.3 mi S. of tablet, near the W. sixteenth cor. between secs. 22 and 27, T. 82 N., R. 40 W.; 29 ft S. of, 37 ft W. and 3.4 ft higher than a T-rd. W.; in the E. side of a corner fence post; a RR. spike 1414.91
- 12 4.4 Reference mark, 25 ft SW. of a tablet, on N. end of a concrete tube culvert; a chiseled square 1348.39
- 13 4.4 Dow City, about 3.0 mi S. of, near the $\frac{1}{4}$ cor. between the NW $\frac{1}{4}$ and SW $\frac{1}{4}$ of sec. 27, T. 82 N., R. 40 W., 36 ft N. of, 49 ft E. of and 0.3 ft higher than crossroads; 6.2 ft E. of a power pole and 0.8 ft S. of a fence; on rod support, standard tablet stamped "15 RB 1971" 1351.487
- 14 5.0 UE, 0.5 mi S. of tablet, in sec. 34, T. 82 N., R. 40 W.; 104 ft S. of, 23 ft E. of and 1.8 ft lower than centerline of rd. at a fence E.; on S. end of a concrete tube culvert; a painted square 1287.78

LINE 3 (Cont'd)

EARLING QUAD. - 132

FEET

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|----|-----|-----|---|----------|
| 3 | 16 | 5.9 | UE, 1.5 mi S. of tablet, near W. sixteenth cor. between secs. 3 and 34, Tps. 81 and 82 N., R. 40 W., 40 ft N. of, 28 ft E. of and 1.5 ft lower than a T-rd. E., in W. side cor. fence post, a lag bolt | 1277.16 |
| 19 | 7.2 | | Reference mark, 24 ft NNE. of tablet, in center of concrete bridge curb, a chiseled square | 1209.67 |
| 20 | 7.2 | | Dow City, about 4.5 mi S. of near SE. cor. sec. 4 and NE. cor. sec. 9, T. 81 N., R. 40 W., 12.0 ft SSE. of (normal) and 0.9 ft higher than centerline of bridge in center of concrete curb, a standard tablet, stamped "16 RB 1971" (Drain 21.5 ft lower) | 1209.577 |

DUNLAP QUAD. - 133

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| 21 | 7.6 | UE, 0.4 mi W. of tablet, near the quarter cor. between secs. 4 and 9, T. 81 N., R. 40 W., in centerline of T-rd. E., driven flush with pavement, a RR. spike | 1316.62 |
| 23 | 8.5 | UE, 1.3 mi S. and W. of tablet, near center of sec. 9, T. 81 N., R. 40 W., centerline bridge (drain 15.2 ft lower) | 1202.7 |

EARLING QUAD. - 132

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|----|------|---|----------|
| 24 | 8.9 | UE, 1.7 mi generally S. of tablet, in SW $\frac{1}{4}$ sec. 10, T. 81 N., R. 40 W., 27 ft W. of and 6.0 ft lower than a rd. fork; in NW. side of power pole, a lag bolt | 1221.63 |
| 25 | 10.1 | UE, 2.9 mi generally S. of tablet, in the SE $\frac{1}{4}$ sec. 15, T. 81 N., R. 40 W.; 41 ft S. of, 30 ft W. of and 6.3 ft lower than T-rd. S., in NE. side of a cor. fence post, a lag bolt | 1259.93 |
| 26 | 10.3 | Reference mark, 108 ft NW. of tablet, in E. side of power pole, a lag bolt | 1271.49 |
| 27 | 10.3 | Earling, about 3.0 mi N. of and 3.4 mi W. of, near the E. sixteenth cor. between secs. 15 and 22, T. 81 N., R. 40 W.; 37 ft S. of, 51 ft E. of and 3.0 ft higher than a T-rd. N., 4.0 ft S. of and 1.5 ft E. of a power pole, 1.0 ft N. of a fence, on rod support, standard tablet, stamped "17 RB 1971" | 1278.762 |
| 29 | 11.5 | UE, 1.2 mi S. of tablet, near cor. secs. 22, 23, 26 and 27, T. 81 N., R. 40 W., 29 ft S. of, 32 ft W. of and 1.4 ft lower than a T-rd. E., in E. side of power pole, a lag bolt | 1408.78 |
| 30 | 12.6 | UE, 2.2 mi S. of tablet, near cor. secs. 26, 27 34 and 35, T. 81 N., R. 40 W.; 40 ft N. of, 48 ft W. of and 8.6 ft lower than crossroads; on N. end of iron pipe culvert, a punch mark | 1404.45 |
| 32 | 13.6 | Earling, about 3.2 mi W. of, near cor. secs. 2, 3, 34 and 35, Tps. 80 and 81 N., R. 40 W., 42 ft N. of, 32 ft W. of and 0.1 ft lower than crossroads; 5.0 ft low-34 than crossroads; 5.0 ft SW. of a power pole; on rod support, a standard tablet stamped "18 RB 1971" | 1440.716 |
| 33 | 13.6 | Reference mark, 91 ft S. of tablet, in E. side of power pole, a lag bolt | 1438.54 |
| 35 | 14.5 | UE, 1.0 mi S. of tablet, near cor. secs. 2, 3, 10 and 11, T. 80 N., R. 40 W.; 40 ft S. of, 26 ft W. of and 4.6 ft lower than crossroads; in N. side of power pole, a lag bolt | 1367.22 |
| 38 | 16.0 | Earling, about 2.8 mi SW. of along the Chicago, Milwaukee, St. Paul and Pacific RR. in sec. 11, T. 80 N., R. 40 W.; 10 ft SE of (normal) and 3.3 ft lower than the SW. end of a RR. bridge; in SE. abutment, a standard disk stamped "G 96 1935" | 1263.141 |