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THIRD-ORDER LEVELS
SEA LEVEL DATUM OF 1929

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

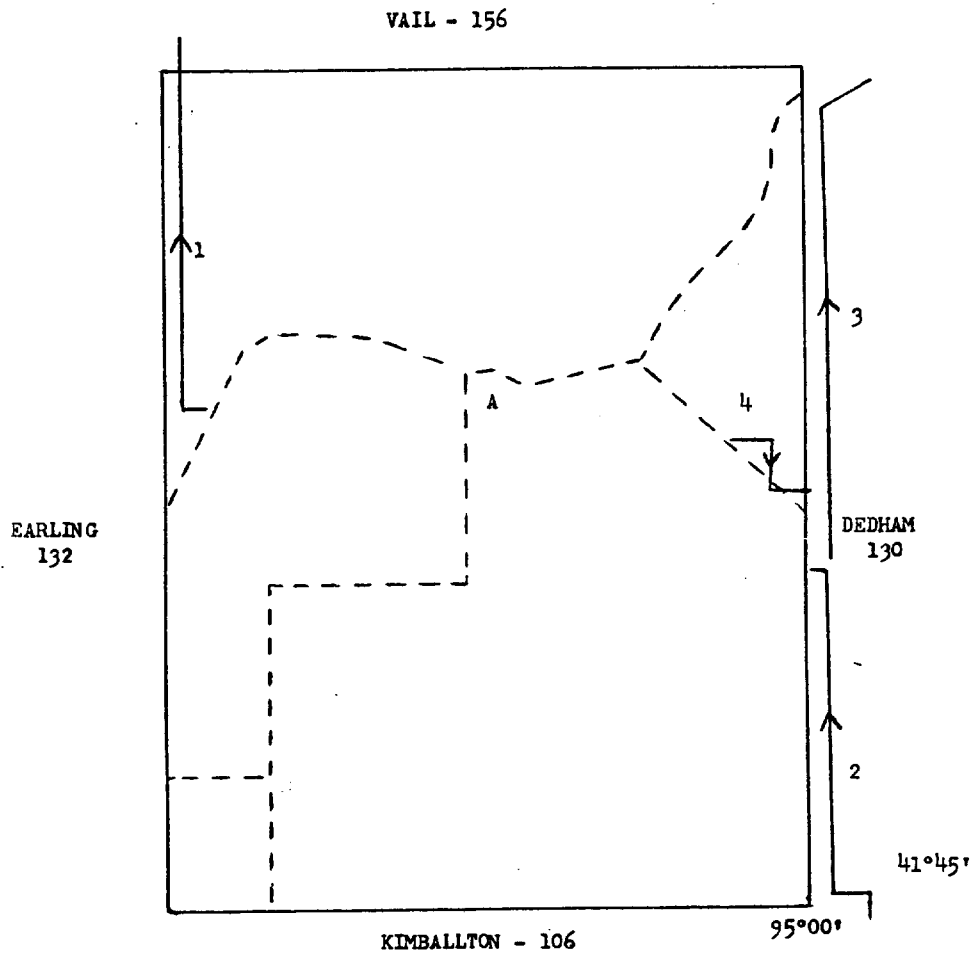
MANNING QUADRANGLE
131 - IOWA
N4145-W9500/15
DIAGRAM NK 15-7
OMAHA

Final Adjustment of 1975

Crawford, Carroll, Shelby and
Audubon Counties

Edition of: 9/10/75

PR: AKH/PH/eb



N.G.S. VERTICAL CONTROL DATA

A. Quadrangle 410951

131.-C

FEET

LINE 1

R.M. Brown, 1971; Book CV-2686

MANNING QUAD. - 131

1	3	0.0	At Manilla, Crawford County, on the Chicago Milwaukee, St. Paul and Pacific RR., 67 ft NW. of the SW. cor. of the depot, 12 ft NNW. of a power pole, in concrete post flush with ground, standard tablet, stamped "X 95 1935"	1316.547
4		0.8	UE, 0.8 mi N. and W. of tablet, near cor. secs. 22, 23, 26 and 27, T. 82 N., R. 38 W.; 33 ft N. of, 35 ft W. of and 0.1 ft lower than a T-rd. N., in N. side of power pole, a lag bolt	1376.49
6		1.8	UE, 1.8 mi N. and W. of tablet, near cor. secs. 14, 15, 22 and 23, T. 82 N., R. 38 W.; centerline of State Hwy. 141 at gravel rd. S. (offset T-rd. N.)	1415.5
8		2.8	Reference mark, 72 ft S. of tablet, in W. side of power pole, a lag bolt	1371.33
9		2.8	Manilla, about 2.5 mi N. of and 0.8 mi W. of, near cor. secs. 10, 11, 14 and 15, T. 82 N., R. 38 W., 41 ft N. and 31 ft E. of and 0.7 ft N. of and 1.5 ft W. of a fence cor., on rod support, standard tablet stamped "13 RB 1971"	1375.828
11		3.8	UE, 1.0 mi N. of tablet, near cor. secs. 2, 3, 10 and 11, T. 82 N., R. 38 W., 32 ft S. of, 31 ft E. of and 0.8 ft higher than crossroads, in NW. side of power pole, a lag bolt	1353.47
13		4.9	UE, 2.0 mi N. of tablet, near cor. secs. 2, 3, 34 and 35, Tps. 82 and 83 N., R. 38 W.; 41 ft N. of, 21 ft W. of and 3.9 ft lower than crossroads, on W. end of concrete tube culvert, a chiseled plus	1417.04
15		5.9	Reference mark, 100 ft SW. of tablet, in NE. side of cor. fence post, a RR. spike	1409.32
16		5.9	Manilla, about 5.2 mi N. of and 0.8 mi W. of, near cor. secs. 26, 27, 34 and 35, T. 83 N., R. 38 W., 46 ft N. of, 28 ft E. of and 2.2 ft higher than crossroads, 5.7 ft N. of a telephone pole and 1.5 ft W. of a fence, on rod support, standard tablet stamped "19 RB 1971"	1413.067
17		6.4	UE, 0.5 mi N. of tablet, near the quarter cor. between secs. 26 and 27, T. 83 N., R. 38 W., 30 ft N. of, 28 ft W. of and 1.6 ft higher than T-rd. W., in E. side of telephone pole, a lag bolt	1441.57
18		6.9	UE, 1.0 mi N. of tablet, near cor. secs. 22, 23, 26 and 27, T. 83 N., R. 38 W., 29 ft S. of, 29.5 ft W. of and 2.1 ft higher than a T-rd. E. in N. side of power pole, a lag bolt	1494.57
20		7.4	UE, 2.0 mi N. of tablet, near cor. secs. 14, 15, 22 and 23, T. 83 N., R. 38 W., 31 ft N. of, 30 ft W. of and 2.6 ft higher than crossroads; in E. side of power pole, a lag bolt	1382.80

VAIL QUAD. - 156

22		8.9	Reference mark, 2.40 ft SW. of tablet, in W. side of power pole, a lag bolt	1411.49
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LINE 1 (Cont'd)

VAIL QUAD. - 156

FEET

- 1 23 8.9 Dennison, about 1.0 mi S. of and 5.0 mi E. of, near cor. secs. 10, 11, 14 and 15, T. 83 N., R. 38 W., 9 ft S. of 34 ft E. of and 1.1 ft lower than a T-rd. W.; 6.7 ft S. of and 1.0 ft W. of a cor. fence post; on rod support, standard tablet stamped "20 RB 1971" 1411.690

LINE 2

P. J. Hohenberger, 1969; Book CV-2338

DEDHAM QUAD. - 130

- 5.8 USC&GS Triangulation Station AUDUBON 2 1968; 11.0 mi NE. of Kimballton; 4.0 mi NW. of Audubon, and on property owned by Mr. Glen Christensen; 97.5 ft S. of the SE. cor. of a storage shed, 82 ft W. of the SW. cor. of a barn and 51 ft NW. of the NW. cor. of a small building; USC&GS standard disk stamped "AUDUBON 2 1968", set in the top of a 12 in. round concrete monument flush with the ground 1494.244
- 5.8 Reference Mark 5; 51 ft NNE. of the NE. cor. of a small building and 1.5 ft W. of the SW. cor. of the barn; a USC&GS standard disk stamped "AUDUBON 2 NO 5 1968" and set in the top of a 12 in. round concrete monument that is flush with the ground surface 1497.864
- 5.8 Reference Mark 4; 82 ft NW. of the NW. cor. of the barn and 1 ft SW. of the SE. cor. of a storage shed; USC&GS standard disk stamped "AUDUBON 2 NO 4 1968", set in the top of a 12 in. round concrete monument that is flush with the ground surface 1498.168
- 6.2 UE Audubon 1968 A; about 0.25 mi W. along gravel rd. from BM; T. 80 N., R. 36 W., at cor. secs. 1, 2, 11 and 12, at center of crossroads (gravel) 1442.5
- 6.6 UE Audubon 1968 B; about 0.25 mi W., thence 0.5 mi N. along gravel rd. from BM; 37 ft E. and 1.3 ft lower than rd., in W. base of a T-fence cor. post projecting 0.3 ft; a rail spike 1479.67
- 7.6 UE Audubon 1968 C; 0.25 mi W., thence 1.5 mi N. along gravel rd. from BM; 26 ft N., 13 ft E., and 0.2 ft lower than center of small wooden bridge, set flush with top of a out-off power pole used as bridge piling; a rail spike 1326.06
- 8.1 Manning, Carroll County, 8.0 mi S. and 3.5 mi E. of center of; T. 81 N., R. 36 W., near the NE. cor. sec. 35; 457 ft S., 35 ft W., and 10.5 ft lower than crossroads, 59 ft N. of a private drive W. to farmhouse, 19 ft N. and 6.0 ft E. of a 2.0 ft diameter yellow pine tree, 27 ft N. and 1.0 ft E. of a fence cor. N.-W., 10 ft S. and 6.0 ft W. of a power pole, 2.5 ft N. of a witness sign; a standard tablet crimped to the top of a copper rod stamped "36 PJH 1969" 1382.440
- 8.8 UE 36 PJH A; about 0.65 mi N. along gravel rd. from BM; 8.0 ft S., 8.0 ft E., and 0.3 ft higher than center of a steel and wooden bridge; top of N. one of two bolts 1322.72
- 9.2 UE 36 PJH B; about 1.1 mi N. along gravel rd. from BM; at center of crossroads (gravel) 1386.7
- 10.0 UE 36 PJH C; about 1.8 mi N. along gravel rd. from BM; 21 ft W. and 3.2 ft lower than rd., on top of W. end of a 2.5 ft corrugated pipe culvert; a punch mark and painted square 1420.21
- 10.2 UE 36 PJH D; about 2.1 mi N. along gravel rd. from BM; at center of crossroads (gravel) 1416.0
- 11.1 Manning, Carroll County; 5.0 mi S. and 3.5 mi E. of center of; T. 81 N., R. 36 W., near NW. cor. sec. 13; 0.15 mi S. of T-rd. W., 47 ft S., 34 ft E., and 3.5 ft lower than rd. at drive E. to farmhouse; 10 ft N. of extended center of a drive W. to farmhouse; 59.5 ft N. and 1.0 ft W. of a T-fence E., 32 ft S. of a fence cor., 3.5 ft N. of a power pole, 2.0 ft S. of a witness sign; a standard tablet crimped to the top of a copper rod stamped "37 PJH 1969" 1483.192

LINE 2 (Cont'd)

FEET

DEDHAM QUAD. - 130

- 11.6 UE 37 PJH A; about 0.5 mi N. along gravel rd. from EM; at center of T-rd. E. (gravel), set flush with rd.; a rail spike (NOTE: Spike was set 5.0 ft S. and 13.0 ft E. of S. fence post of a rd. sign denoting a double headed arrow) 1402.27
- 12.4 UE 37 PJH B; about 1.3 mi N. along gravel rd. from EM; 24 ft N., 14 ft E., and 0.2 ft lower than center of wooden bridge; set flush with top of a cut-off power pole used as a bridge piling; a rail spike 1374.22
- 13.2 UE 37 PJH C; about 2.1 mi N. along gravel rd. from EM; 41 ft S., 41 ft E., and 2.2 ft lower than crossroads; in W. base of a fence cor. post (1.3 ft in diameter) and projecting 0.3 ft; a rail spike 1439.04

MANNING QUAD. - 131

- 13.5 Gray, 1.9 mi N. along the C. & NW. RR. from the station at; 6 poles N. of MP C23; at the Audubon-Carroll County line and a rd. crossing; 48 ft E. of center of the track, 32 ft S. of the center of the rd.; 3.5 ft S. and 2 ft W. of a right-of-way fence cor. and level with the track; USC&GS standard disk stamped "F 100 1935" and set in the top of a concrete post 1391.257

LINE 3

P. J. Hohenberger, 1969; Book CV-2338

DEDHAM QUAD. - 130

- 0.0 UE 37 PJH C (Described in Line 2) 1437.04
- 1.0 UE F 100 A; about 0.25 mi E., thence 1.0 mi N. from EM along gravel rd.; T. 82 N., R. 37 W.; near SE. cor. sec. 26; 42 ft N., 54 ft W., and 2.0 ft higher than crossroads; 10 ft W. of right-of-way fence cor. N.-W.; in S. base of a RR. tie used as fence support and projecting 0.3 ft; a rail spike 1441.64
- 2.0 UE F 100 B; about 0.25 mi E., thence 2.0 mi N. along gravel rd. from EM; 20 ft N., 300 ft E., and 14.8 ft lower than crossroads, on top, in center of N. headwall of a concrete box culvert; a chiseled square 1430.76
- 2.9 Manning, Carroll County, 0.25 mi S. and 3.5 mi E. of center of; T. 82 N., R. 36 W., near N. sixteenth cor. between secs. 23 and 24; 69 ft N., 42 ft W., and 0.8 ft lower than rd. at line fence E.; 150 ft N. of center of gate, 5.0 ft N. of a power pole, 2.5 ft N. and 0.5 ft E. of a white wooden witness post, 1.0 ft E. of a right-of-way fence; a standard tablet crimped to the top of a copper rod, stamped "37 A PJH 1969" (located at the top of a hill) 1537.498
- 3.1 Reference Mark, 0.25 mi N. of EM; 15 ft N., 99 ft E., and 3.2 ft higher than crossroads (State Hwy. 141 and N.-S. gravel rd.), at a concrete run-off for hwy. water, on top, near N. end of curve in E. concrete curb; a chiseled square 1490.34
- 3.8 UE 37 PJH AA; about 1.0 mi N. along gravel rd. from EM; at SE. cor. of a rd. overpass; 10 ft E. and 0.9 ft higher than E. end of overpass; 1.5 ft N. of S. end of wooden railing; on top of screw stud projecting 0.2 ft 1481.67
- 4.1 UE 37 PJH BB; about 1.25 mi N. along gravel rd. from EM; at center of crossroads (gravel) 1505.2
- 4.8 UE 37 PJH CC; about 1.95 mi N. along gravel rd. from EM; 13 ft S., 14 ft E., and 1.3 ft lower than center of a small wooden bridge, set flush with top of a cut-off power pole used as bridge piling; a rail spike 1400.72
- 5.1 UE 37 PJH DD; about 2.25 mi N. along gravel rd. from EM; at center of crossroads (gravel) 1404.1

LINE 3 (Cont'd)

FEET

DEDHAM QUAD. - 130

- 5.5 Manning, Carroll County; 2.5 mi N. and 3.5 mi E. of center of; T. 82 N., R. 36 W., at quarter cor. between secs. 1 and 2; 53 ft S., 38 ft E., and 4.0 ft lower than rd. at drive E. to farmhouse, 4.0 ft S. and 1.0 ft E. of a power pole, 3.5 ft S. and 1.5 ft W. of a T-fence E. leading to S. edge of a grain storage bin, 1.5 ft N. of a witness sign; a standard tablet crimped to the top of a copper rod stamped "38 PJH 1969" 1413.808
- 5.5 Reference Mark; 110 ft NE. of EM; 74 ft S. and 26 ft W. of SW. cor. of a farmhouse, at SW. cor. of a concrete foundation projecting 2.0 ft; a chiseled cross 1413.01
- 6.3 UE 38 PJH A; about 0.65 mi N. along gravel rd. from EM; 620 ft N., 14 ft E., and 1.1 ft lower than crossroads; 25 ft NE. of center of a small bridge; set flush with top of a cut-off power pole used as a bridge piling, a rail spike 1365.78
- 7.0 UE 38 PJH B; about 1.4 mi N. along gravel rd. from EM; 900 ft S., 18 ft E., and 14.4 ft lower than crossroads, on top of E. end of a 3.5 ft corrugated pipe culvert, a punch mark and painted square 1387.06
- 8.0 UE 38 PJH C; about 2.4 mi N. along gravel rd. from EM; 34 ft N., 39 ft W., and 1.5 ft higher than rd. at drive E. to farmhouse; at NE. cor. of a concrete base (projecting 2.0 ft), for a double stack grain bin; a chiseled square 1419.72
- 8.2 UE 38 PJH D; about 2.55 mi N. along gravel rd. from EM; at center of crossroads (gravel) 1403.24
- 8.4 Reference Mark, about 1050 ft S. of EM; 11 ft W. and 0.6 ft higher than rd., on top of N. end of W. concrete curb of a small bridge; a chiseled cross 1389.06
- 8.6 Manning, Carroll County; 5.45 mi N. and 3.5 mi E. of center of; T. 83 N., R. 36 W.; near quarter cor. between secs. 23 and 24; 293 ft S., 30 ft W., and 0.3 ft higher than rd. at quarter line fence W. (slightly offset with fence E.), 72.5 ft N. and 78 ft E. of NE. cor. of a farmhouse, 56 ft N. and 1.0 ft E. of a fence cor. N.-W.; 24 ft N. of center of gate, 3.5 ft S. and 1.0 ft E. of a fence post, 2.0 ft S. of a witness sign; a standard tablet crimped to the top of a copper rod stamped "39 PJH 1969" 1420.046
- 9.2 UE 39 PJH A; about 0.55 mi N. along gravel rd. from EM; 43 ft N., 101 ft E., and 9.7 ft lower than crossroads, in W. base of a 3.5 ft diameter oak tree and projecting 0.5 ft above ground; a rail spike (NOTE: The oak tree described above is the E. one of a pair of trees) 1427.65
- 10.1 UE 39 PJH B; about 0.55 mi N., thence 1.0 mi E. along gravel rd. from EM; at center of crossroads (gravel) 1404.8
- 10.8 UE 39 PJH C; about 0.55 mi N., thence 1.0 mi E., thence 0.65 mi N. along gravel rds. from EM; at a small concrete bridge near the SW. cor. of the town of Halbur; 14 ft E. and 0.6 ft higher than rd., on top of N. end of E. concrete curb; a chiseled square 1345.19

CARROLL QUAD. - 155

- 11.1 At Halbur, Carroll County, on the C. & NW. RR., 100 ft SW. of the station, at a rd. crossing; 30 ft SW. of the center of the rd., 25 ft NW. of the center of the track, and 7 ft SW. of a pole, a USC&GS standard disk stamped "E 90 1935" and set in the top of a concrete post 1337.514

LINE 4

FEET

P..J. Hohenberger, 1969; Book CV-2338

MANNING QUAD. - 131

- 0.0 Gray, Audubon County; 4.5 mi NW. along the C. & NW. RR. from the station at; in Carroll County, at pole 20+09, at an E.-W. rd. crossing, 47 ft SW. of the center of the track, 22 ft S. of the center of the rd., 47 ft SW. and 9 ft SE. of culvert 2510, 4 ft E. of a right-of-way fence cor., and level with the track; USC&GS standard disk stamped "G 100 1935" and set in the top of a concrete post 1357.035
- 0.7 UE G 100 A; about 0.7 mi E. along gravel rd. from HM; 32 ft N., 30 ft W., and 3.1 ft lower than crossroads, on top of E. end of a 2.0 ft cement pipe culvert; a chiseled square 1408.83
- 1.7 UE G 100 B; about 0.7 mi E., thence 1.0 mi S. along gravel rd. from HM; 85 ft S., 19 ft E., and 3.5 ft lower than crossroads, on top of E. end of a 2.0 ft cement pipe culvert; a chiseled square 1374.54
- 2.7 UE F 100 A (Described in Line 3) 1441.64