

THIRD-ORDER LEVELS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

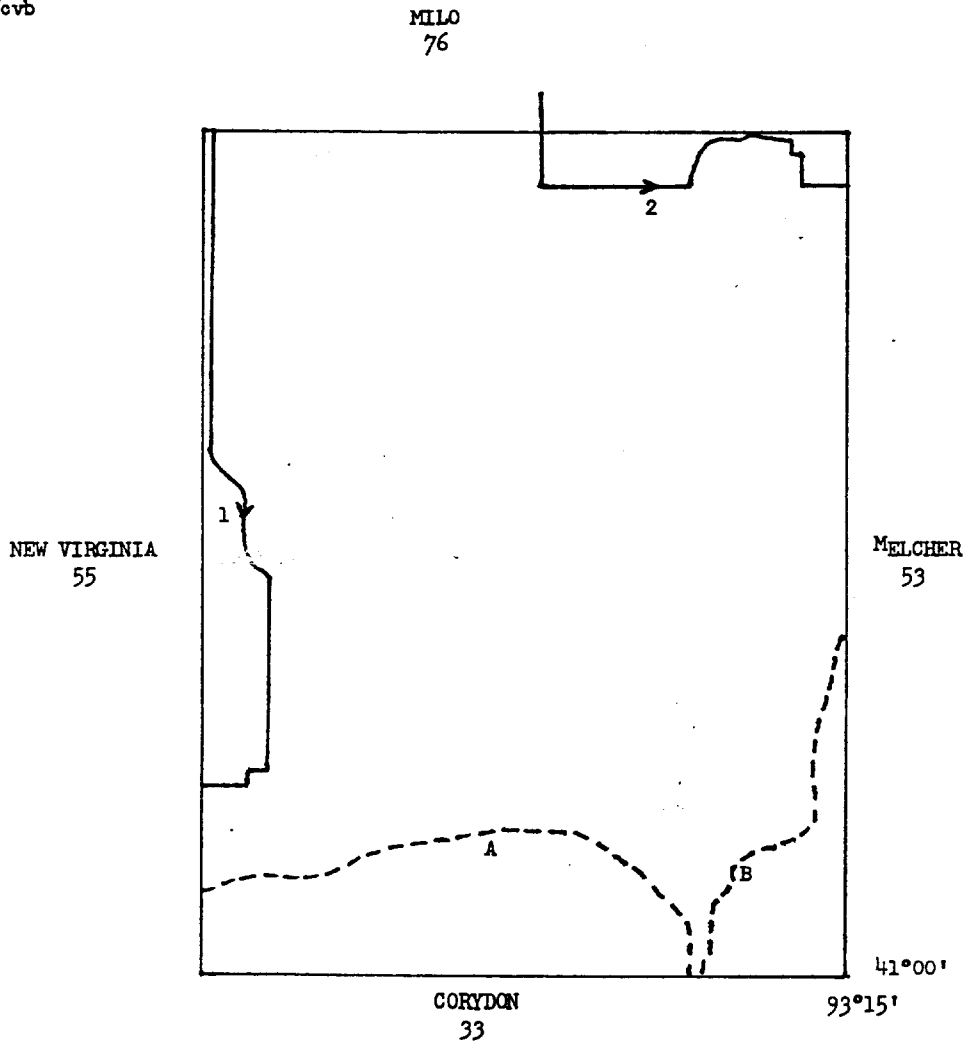
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

41-093-23
CHARITON QUADRANGLE
54 - IOWA
N4100-W9315/15
DIAGRAM NK 15-8
DES MOINES

Lucas and Warren Counties

Edition of: 7-26-78

PR: ADP/LAR/cvb



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

Quadrangle No. 410932

54 D

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CHARITON QUADRANGLE
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LINE 1

FEET

R.D. Searcy, 1950; Book CV-352

- 22.6 Liberty Station, Reference Mark 2, is about 63 ft NW. of the NW. corner of a house, 44 ft S. of the SE. corner of the Hwy. Maintenance yard, in a concrete post; standard USC&GS disk, stamped "REFERENCE MARK NO. 2 1928" 1023.264
- 22.6 USC&GS triangulation station Liberty, Liberty Center at, station is in a small pasture about 175 ft SE. of the Iowa State Hwy. Commission maintenance shed, 17 ft N. of an E.-W. fence line, 41 ft E. of a N.-S. fence line, 46.5 ft SE. of the SE. corner of the State Hwy. maintenance lot, in concrete post a cut 1 ft below surface of ground; a standard USC&GS disk stamped "LIBERTY 1928" 1022.386
- 24.9 Liberty Center, 2 mi S. of, along U.S. Hwy. 65, at the Hawkeye School, near cor. secs. 27, 28, 33 and 34, T. 74 N., R. 23 W., 261 ft S. and 43 ft W. of center of crossroads, 186 ft SE. of SE. corner of the schoolhouse, 2 ft N. and 2 ft W. of the SE. corner of schoolyard, in concrete post; standard tablet stamped "4 RDS 1950" (Not found 7-77, J.L.K.) 1029.839
- 24.9 Reference mark, 157 ft N. of tablet, 43 ft W. of center of the Hwy. on SE. corner of pump base; chiseled square 1030.66
- 27.2 Liberty Center, 4.3 mi S. of, along U.S. Hwy. 65, near E. sixteenth cor. secs. 3 and 10, T. 73 N., R. 23 W., 378 ft N. of center of crossroads, 54 ft E. of center of U.S. Hwy. 65, 81 ft SE. of a windmill, in concrete post; standard tablet stamped "5 RDS 1950" (Not found 7-77, J.L.K.) 1030.513
- Reference mark, 665 ft NW. of tablet, 18 ft W. of center of U.S. Hwy. 65, on center of W. head-wall; a chiseled square 1023.88
- 29.5 Norwood, at Liberty Center, 6.6 mi S. along U.S. Hwy. 65, from, near quarter cor. secs. 14 and 23, T. 73 N., R. 23 W., 30 ft S. and 109 ft W. of center of U.S. Hwy. 65, at E.-W. section line road, 158 ft SW. of the SW. corner of small store and Filling Station in concrete post; standard tablet stamped "6 RDS 1950" (Not found 7-77, J.L.K.) 1035.973
- 29.5 Reference mark, 233 ft E. of tablet, on S. end of gasoline pump base; chiseled square 1038.22
- 32.0 Norwood, 2.5 mi S. of along U.S. Hwy. 65, 3.5 mi N. along U.S. Hwy. 65, from the junction of U.S. Hwys. 34 and 65, near center sec. 35, T. 73 N., R. 23 W., 240 ft N. and 51 ft W. of center of U.S. Hwy. 65, at a T.-rd. W., 9 ft S. of a telephone pole, in concrete post; standard tablet stamped "7 RDS 1950" (Not found 7-77, J.L.K.) 1025.817
- 32.1 Reference mark, for "7 RDS 1950" is 890 ft S. of tablet, 18 ft W. of center of Hwy. on center of W. concrete headwall, chiseled square 1007.50
- 34.0 Norwood, 4.5 mi S. of along U.S. Hwy. 65, thence 0.5 mi W., 2 mi N. along U.S. Hwy. 65, from junction of U.S. Hwys. 65 and 34, thence 0.5 mi W., near cor. secs. 2, 3, 10 and 11, T. 72 N., R. 23 W., 32 ft S. of center of road, 509 ft E. of center of road at T.-rd. E., 2 ft E. of a telephone pole, in concrete post; standard tablet stamped "8 RDS 1950" 1062.191
- 34.1 Reference mark, 485 ft W. of tablet, 15 ft S. center of road, on S. end of concrete headwall; chiseled square and about level with T.-rd. E. 1049.72
- 35.7 UE 8 C, near N. sixteenth cor. sec. 9, T. 72 N., R. 23 W., at a drain on center of S. concrete headwall; chiseled square. Center of bridge - -0.8 ft Water level - 12 ft 984.05

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LINE 2

FEET

J.L. Kirk, 1977; Book CV-3408

MILO QUAD. - 76

ELEV. IN THIS LINE ARE PRELIMINARY PENDING ADDITIONAL LEVELING.

1	1	0.0	BM, Milo, 2 mi S. and 4 mi E. of; Tp. 75 N., R. 22 W., cor. secs. 26, 27, 34 and 35; 466 ft N. and 39 ft E. of crossroad; at a field entrance 1 ft W. of fence and 10 ft N. of center of field entrance; a standard tablet stamped "32 JHB 1964 and set in top of concrete post	959.670
<u>CHARITON QUAD. - 54</u>				
6	1.1	UE 32 AA, about 1.1 mi S. of BM; T. 74 and 75 N., R. 22 W., near cor. secs. 2, 3, 34 and 35, 25 ft S., 31 ft W. and 5.2 ft lower than T-rd. W.; a chiseled square 1 ft N. of the S. end of a 2 ft concrete culvert	920.78	
8	2.1	UE 32 BB; about 2.2 mi S. of BM; T. 74 N., R. 22 W., near cor. secs. 2, 3, 10 and 11; 13 ft S., 47 ft E., and 0.15 ft lower than centerline of bridge; on the SE. concrete abutment; a chiseled square	824.67	
11	2.8	BM, Melcher, 0.5 mi N. and 5.75 mi W. of; T. 74 N., R. 22 W., near sixteenth cor. secs. 2 and 11; 0.34 mi W. of crossroad; 24 ft S. and 3.6 ft lower than road at culvert, on top in center of S. headwall of concrete culvert and animal pass, a standard tablet set in drill hole and stamped "1 JLK 1977"	826.117	
12	2.8	Reference mark, 44 ft N. of BM; 20 ft N. and 75 ft E. of road at fence N.; on top in center of N. concrete headwall; painted a chiseled square	827.10	
	3.2	UE 1 A, 0.45 mi E. of BM; T. 74 N., R. 22 W., near cor. secs. 1, 2, 11 and 12; 17 ft S. and 19 ft E. of road at field entrance S.; 17 ft S., 399 ft E., and 1.9 ft higher than crossroad; on S. end of a steel culvert, 0.9 ft from the end, within a painted square; a punched hole	896.23	
17	4.2	UE 1 B; 1.4 mi E. of BM; T. 74 N., R. 21 and 22 W., (Marion-Warren County line) near cor. secs. 1, 6, 7 and 12; 21 ft N., 83 ft W. and 2.7 ft lower than T-rd. S.; on the N. end of a steel culvert, 1.1 ft from end of culvert, within a painted square; a punched hole	913.52	
21	5.3	UE 1 C, 2.3 mi E. and 0.2 mi N. of BM, T. 74 N., R. 21 W., 0.17 mi N. of cor. secs. 5, 6, 7 and 8; 9 ft N., 20 ft E. and 1.9 ft lower than road at field entrance E.; on top of N. end, 0.9 ft from end, of a steel culvert; within a painted square; a punched hole	833.14	
25	6.0	UE 1 D; 2.3 mi E. and 0.8 mi N. of BM, T. 74 N., R. 21 W., in NW $\frac{1}{4}$ sec. 5; 8 ft S., 27 ft E. and 2.3 ft lower than road at field entrance E.; 70 ft S. of centerline of bridge; on top of S. end (0.7 ft from end) of steel culvert; within a painted square; a punched hole	791.38	
29	6.9	BM, Melcher, 1.5 mi N. and 2.5 mi W. of; T. 74 and 75 N., R. 21 W., near cor. secs. 4, 5, 32 and 33; 47 ft N., 30.5 ft W. and 2.8 ft lower than T-rd. N.; 10 ft N. and 1 ft E. of fence corner; copper-coated rod centered in a 6-in. diameter plastic pipe, 12-in. long and filled with crushed stone to within 1-in. of tablet; stamped "2 JLK 1977"	788.326	
30	6.9	Reference mark, 49.5 ft SE. of BM, 41 ft N. and 20 ft E. of T-rd. N.; on top of the E. end of a 3 ft concrete culvert; painted, a chiseled plus "+"	790.96	
33	8.3	UE 2 A, 1.3 mi E. of BM; T. 74 and 75 N., R. 21 W., near sixteenth cor. sec. 3 and 34; 123 ft N., 10 ft E. and 0.2 ft higher than centerline of bridge; 25.5 ft N. of catwalk to gaging station; on top of N. end of concrete curb; painted; a chiseled square	793.74	

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LINE 2 (Cont'd)

CHARITON QUAD. - 54

FEET

1 38 9.3 UE 2 B, 1 mi S. and 1.3 mi E. of EM; T. 74 N., R. 21 W., E. of sixteenth cor. sec. 3 and 10, 41 ft N., 12 ft E. and 1.1 ft lower than road at center entrance (of three) to cemetery on top of E. end of concrete culvert; painted, a chiseled square 925.29

MELCHER QUAD. - 53

41 10.4 UE K 113 B, Dallas, 61 ft N. and 28 ft E. of junction of State Hwy. 181 and T-rd. E. about 250 ft NW. of a wood bridge over the RR. tracks; a RR. spike in E. side of power pole; about 1.4 ft below center of T-rd. E. 947.990

ISOLATED BENCH MARKS

T. 74 N., R. 23 W., NW. cor. of sec. 3, 30 ft S. by 60 ft E. of crossroads, in limestone rock; aluminum tablet stamped "PRIM TRAV STA NO 6 937 ADJ" (Reported not found R.D.S.) 932.45

T. 74 N., R. 23 W., NE. cor. of sec. 1, SW. angle of crossroads; in limestone rock 8 x 8 x 33 in. set 32-in. in ground; aluminum tablet stamped "977 ADJ" (Not found 11-77, R.L.P.) 976.75

T. 75 N., R. 22 W., SW. cor. of sec. 35, at St. Mary's Catholic Church, 6 ft E. of cottonwood tree NE. angle of crossroads, in limestone rock; aluminum tablet stamped "PRIM TRAV STA NO 5 926 ADJ" (not found 7-77, J.L.K.) 924.52

T. 74 N., R. 23 W., at NE. cor. of sec. 3, in NW. cor. of crossroads, 2 ft W. of corner post; iron post stamped "IOWA 934, 1913" 933.94

T. 74 N., R. 22 W., at SE. cor. of sec. 6, in NW. cor. of crossroads, 3 ft E. of corner post; iron post stamped "IOWA 880, 1913" (Not found 7-77, J.L.K.) 880.54

T. 74 N., R. 22 W., at SW. cor. of sec. 3, in NE. cor. of crossroads, at SW. corner of schoolyard; iron post stamped "IOWA, 865, 1913" (Not found 7-77, J.L.K.) 864.68

T. 75 N., R. 22 W., at SW. cor. of sec. 35, at St. Mary's Catholic Church, 6 ft E. of stump of cottonwood tree, at NE. angle of crossroads, in sandstone post; aluminum tablet stamped "PRIM TRAV STA NO. 5, 926 (an old tablet reset in new stone same location but 0.265 ft lower (Old stone has been split) (described above) 924.52

T. 74 N., R. 22 W., sec. 12, at NE. corner of, at SW. corner of privated T-rd. S., 10 ft W. of fence corner; iron post stamped "Iowa 909 1913" (Not found 7-77, J.L.K.) 909.25

T. 74 N., R. 21 W., at NW. corner of sec. 16, opposite T-rd. W., 20 ft E., 2 ft S. of section corner stone; iron post stamped "IOWA 947, 1913" (Possible Moved - 75 ft E. of road now 11-77 J.L.K.) 946.66

T. 74 N., R. 21 W., NW. of center of sec. 28, at N. side of road forks, 50 ft N. of mile board "Knoxville 19 miles;" iron post stamped "IOWA, 936, 1913" (Not found 7-77, J.L.K.) 936.50

T. 74 N., R. 21 W., about 250 ft E. of the SW. corner of sec. 34, opposite T-rd. S., 80 ft NE. of bridge over Long Branch Creek; iron post stamped "IOWA 904, 1913" (Not found 7-77, J.L.K.) 904.29

T. 73 N., R. 21 W., at SE. corner of sec. 16, in NW. angle of T-rd. W., in SE. corner of school yard (Renfrew School); iron post stamped "IOWA, 993, 1913" 993.63

T. 73 N., R. 22 W., at quarter corner on N. side of sec. 24, at SE. angle of T-rd. S., 6 ft E. of ner post; iron post stamped "IOWA, 933, 1913" 933.20

ISOLATED BENCH MARKS (Cont'd)

FEET

T. 73 N., R. 22 W., at quarter corner on E. side of sec. 17, in SW. angle at turn in road, just inside the fence, 3 ft SW. of corner post; iron post stamped "IOWA, 963, 1913" (Not found 7-77, J.L.K.)	962.97
T. 73 N., R. 23 W., at quarter cor. on S. side of sec. 14, 0.5 mi E. of Norwood, opposite center of T-rd. S., at SE. corner of school yard, 2 ft S. of corner post; iron post stamped "IOWA, 1037, 1913" (Not found 7-77, J.L.K.)	1037.60
T. 73 N., R. 23 W., at NE. cor. of sec. 10, in SW. angle of crossroads, opposite mile board, "Lucas 10, Indianola 19, Des Moines 35, 4 ft S. of telephone pole; iron post stamped "IOWA 1023. 1913" (Not found 7-77, J.L.K.)	1023.21
T. 74 N., R. 23 W., at quarter corner on E. side of sec. 27, at SW. corner of crossroads, 7 ft S. of telephone pole; iron post stamped "IOWA 1021, 1913" (Not found 7-77, J.L.K.)	1021.26
T. 74 N., R. 23 W., at SE. corner of sec. 3, in NW. corner of crossroads, 2 ft W. of corner post; iron post stamped "IOWA 934, 1913" (Not found 7-77 J.L.K.)	933.94
T. 73 N., R. 23 W., at center of sec. 35, opposite T-rd. W., 4 ft N. of gate post, on line with E.-W. fence on E. side of road; iron post stamped "IOWA, 1030, 1913" (Not found 7-77, J.L.K.)	1029.92
Lucas, near center of town, at SW. corner of Leahart's drug store; iron post stamped "IOWA, 895, 1913" Elev. by USC&GS	895.000
72 N., R. 22 W., near NE. corner of sec. 30, at NE. angle of crossroads, 2 ft N. of corner post; iron post stamped "IOWA 1044, 1913" (Not found 10-77, J.L.K.)	1043.835
72 N., R. 22 W., at NE. corner of sec. 27, at SW. corner of crossroads, 2 ft NE. of corner post; iron post stamped "IOWA 1046, 1913" (Not found 10-77, R.L.P.)	1046.55
Chariton, in SW. corner of courthouse yard; iron post stamped "IOWA, 1041, (Elev. by USC&GS) Dist. 10-74, Co. Engr.)	1041.166
Chariton, 3.2 mi N. of, in NW. angle of crossroads 3.5 ft N. of corner post; iron post stamped "IOWA 991, 1913" (Not found 10-77, R.L.P.)	991.18
T. 73 N., R. 21 W., at quarter cor. on S. side of sec. 28, opposite T-rd. S., 40 ft NE. of intersection, 3 ft S. of fence; iron post stamped "IOWA 974 1913" (Not found 10-77, R.L.P.)	974.42
T. 73 N., R. 21 W., at SE. corner of sec. 16, in NW. angle of T-rd. W., in SE. corner of yard of Renfrew School; iron post stamped "IOWA, 993, 1913"	993.64