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THIRD-ORDER LEVELS
SEA LEVEL DATUM OF 1929

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

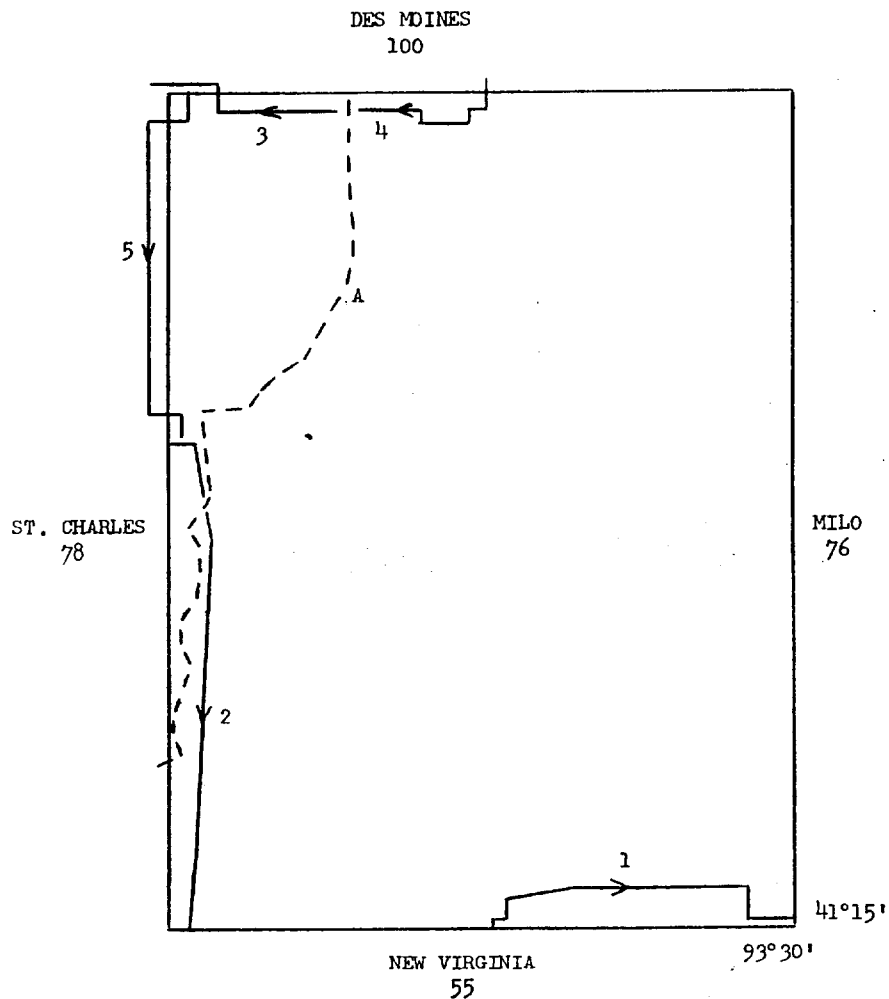
INDIANOLA QUADRANGLE
77 - IOWA
N4515-W9330/15
DIAGRAM NK 15-8
DES MOINES

Final Adjustment of 1972

Indianola and Warren Counties

Edition of: 5/21/74

PR: AKH/JN/cb



N.G.S. VERTICAL CONTROL DATA
Quadrangle No. 410933

77-C

LINE 1

FEET

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

INDIANOLA QUAD. - 77

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|------|---|---------|
| 5.5 | New Virginia Post Office, 5.3 mi N. along County Rd. "K", near quarter cor. secs. 33 and 34, T. 75 N., R. 25 W., 43 ft S., and 46 ft W. from center of cross-roads, in concrete post; standard tablet stamped "JAS 2 1928 RESET 1950" | 982.635 |
| 5.6 | Reference mark, 181 ft E. of tablet, 32 ft S. of center of rd., on S. end of concrete culvert headwall; chiseled square | 973.25 |
| 12.7 | New Virginia, 5.2 mi N. and 5.8 mi E. from, at "Hewitt Cemetery", near N. sixteenth cor. secs. 33 and 34, T. 75 N., R. 24 W., 48 ft N. and 32 ft E. from point of intersection of curve in rd., 15 ft N. of entrance to cemetery, 2 ft W. of woven wire fence, in concrete post; standard tablet stamped "3 RDS 1950" | 973.504 |
| 12.7 | Reference mark, 80 ft SW. of tablet, in W. side of 15-in. tree; rail spike | 970.53 |
| 14.9 | T. 75 N., R. 24 W., near cor. secs. 25, 26, 35 and 36, 30 ft S. and 55 ft W. from cross-roads, 60 ft N. of schoolhouse, on concrete post; standard tablet stamped "PRIM TRAV STA KC 7 LS 1924 IA" | 994.307 |
| 14.9 | Reference mark, 54 ft S. of tablet, on NE. cor. of concrete foundation of schoolhouse; chiseled square | 994.71 |
| 16.8 | Liberty Center, 4.0 mi N. and 2.0 mi W. from, near cor. secs. 29, 30, 31 and 32, T. 75 N., R. 23 W., 44 ft S. of center of rd., 43 ft W. of 18-in. oak tree at NE. cor. of schoolyard, 40 ft W. of extended tangent of T-rd. N., 5 ft E. of NE. cor. of coal shed, in concrete post; standard tablet stamped "TT 3 MT 1950" | 948.462 |
| 16.8 | Reference mark, 45 ft SW. of tablet, on NE. cor. of bottom concrete step to schoolhouse; chiseled square | 949.79 |

LINE 2

A.D. Pretzer, 1950; Book CV-372

INDIANOLA QUAD. - 77

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|-----|---|----------|
| 1.7 | Saint Marys, 1.7 mi S. of along County Hwy. "K", near quarter cor. between secs. 21 and 22, T. 75 N., R. 25 W., 480 ft N. of T-rd. E., 240 ft S. of farm entrance W., 33 ft E. of and level with hwy., in concrete post; standard tablet stamped "1 ADP 1950" | 926.953 |
| 1.7 | Reference mark, 46 ft S. of tablet, 34 ft E. of hwy. in W. side of telephone pole; rail spike | 923.61 |
| 0.0 | USC&GS standard disk stamped "T 116 1935" | 963.495 |
| 1.1 | Churchville, 0.2 mi N. of along gravel rd., near S. sixteenth cor. secs. 8 and 9, T. 76 N., R. 25 W., 365 ft E. along T-rd. E., 33 ft S. and level with rd., 1 ft N. of fence line, in concrete post; standard tablet stamped "2 ADP 1950" | 956.055 |
| 1.1 | Reference mark, 343 ft W. of tablet, 32 ft N. and 28 ft E. from T-rd. E., on N. end of concrete culvert; chiseled square | 949.37 |
| 1.6 | St. Marys, 1.6 mi N. along County Hwy. "K", near quarter cor. secs. 3 and 4, T. 75 N., R. 25 W., 16 ft S., 34 ft W. and 2 ft higher than rd. at farm entrance W., in concrete post; projecting 1.5 ft; standard disk stamped "STA 125" | 1006.240 |

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INDIANOLA QUADRANGLE
77 - IOWA

LINE 2 (Cont'd)

INDIANOLA QUAD. - 77

FEET

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| 1.8 St. Marys, 1.8 mi N. of, 52 ft S. and 30 ft E. from T-rd. E., near N. sixteenth cor. secs. 3 and 4, T. 75 N., R. 25 W., 28 ft S. of fence corner, 8 ft N. of telephone pole, 1 ft W. of fence, in concrete post; standard tablet stamped "TT 48 MT 1950" | 999.542 |
| 3.8 USC&GS and State Survey standard disk stamped "EM 91 123" (Elev. by USGS) | 831.074 |

LINE 3

W.M. Voight, 1956; Book CV-716

INDIANOLA QUAD. - 77

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|---|---------|
| 0.0 Norwalk, 1.75 mi N. and 0.5 mi E. of; about 0.3 mi N. and 0.2 mi E. of crossroads near cor. secs. 1, 6, 7 and 12; T. 77 N., Rs. 24 and 25 W., 50 ft S. and 8 ft E. of cor. fence post, at E. edge of brush in drain, in W. headwall of concrete culvert; a standard USC&GS disk stamped "Z 116 1935" | 855.175 |
| 0.3 UE, 0.3 mi S. of disk, center of rd. at old RR. crossing; in rail tie; copper nail and washer | 888.45 |
| 0.5 Norwalk, 1.5 mi N. of; along State Hwy. 28; 305 ft N. of E.-W. rd., 49 ft W. of center of hwy. 28; at a crossroads near cor. secs. 1, 6, 7 and 12, T. 77 N., Rs. 24 and 25 W., 1 ft W. of a power pole, and 1 ft E. of the right-of-way fence, in concrete post; standard tablet stamped "TT 9 LB 1956 904" | 903.836 |
| 0.6 Reference mark, 270 ft SE. of tablet, 50 ft N. and 30 ft E. of center of T-rd. W. (Rd. E. offset); 5 ft N. of group of mail boxes; on steel culvert | 905.15 |
| 1.5 UE, 0.9 mi W. of tablet, 10 ft N. of center of rd. at NW. cor. of bridge; in top of bridge piling; copper nail and washer | 854.21 |
| 2.6 Cumming; 1.0 mi N. and 2.5 mi E. of; 430 ft N. and 33 ft W. of T-rd. E., near cor. secs. 2, 3, 10 and 11; T. 77 N., R. 25 W., 85 ft S. of a drive to farm yard; 3 ft N. of a fence cor., and under N.-S. right-of-way fence; in concrete post; standard tablet stamped "TT 8 LB 1956 869" | 868.979 |
| 2.5 Reference mark, 250 ft SE. of "TT 8 LB 1956", in bridge piling at NE. cor. of bridge; copper nail and washer | 864.72 |

DES MOINES QUAD. - 100

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|---|---------|
| 4.5 Cumming, 2.0 mi N. and 1.5 mi E. of; at N. edge of Ovilla, 40 ft N. and 30 ft W. of T-rd. E. (Ovilla Rd. and County Line); approximately 40 ft N. of Polk and Warren County line; near cor. secs. 3, 4, 33 and 34; Tps. 77 and 78 N., R. 25 W., 15 ft N. of Hi-line brace pole; 2 ft E. of fence, in concrete post; standard USC&GS and State Survey disk stamped "77 NO 588" (Elev. by USGS) | 971.417 |
|---|---------|

WAUKEE QUAD. - 101

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| 6.0 Cummings, 1.5 mi N. and 1.0 mi E. from; near quarter cor. between secs. 4 and 5; T. 77 N., R. 25 W., 330 ft S. along T-rd. S., 132 ft S., 21 ft W. of, and level with center of rd. at farm entrance W., 1 ft E. of fence line; in concrete post; standard tablet stamped "5 ADP 1950 971" (Reported disturbed) | 970.672 |
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LINE 4

W.M. Voight, 1956; Book CV-716

DES MOINES QUAD. - 100

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|---|---------|
| 3.8 Des Moines, 3.5 mi S. of Polk County courthouse at, about 0.8 mi S. of city limits of Des Moines, at junction of SW. 9th St. and SW. Kenyon St., 27 ft S. and 53 ft W. of crossroads, 24 ft W. of power pole, in a concrete post; standard tablet stamped "TT 13 WM 1956 900" | 900.363 |
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INDIANOLA QUADRANGLE
77 - IOWA

LINE 4 (Cont'd)

DES MOINES QUAD. - 100

FEET

- 5.0 UE, 1.2 mi S. of tablet, 12 ft S., 15 ft W. of; and 2 ft higher than center of bridge, on S. edge of W. guard rail, chiseled cross 887.04
- 5.4 UE, Tps. 77 and 78 N., R. 24 W., 20 ft S. and 83 ft E. and 3.1 ft lower than crossroads at quarter cor. between secs. 4 and 33 (junction SW. 9th St. and County Line Rd.), a rail spike in power pole 937.75

INDIANOLA QUAD. - 77

- 6.4 Des Moines, 6.0 mi S. of Polk County Courthouse, T. 77 N., R. 24 W., near quarter corner between secs. 4 and 9, 313 ft N. and 54 ft W. of T-rd. E., in concrete post; standard tablet stamped "TT 14 WM 1956 RESET 1973" (Horizontal position lost when reset) 831.832
- 6.6 Reference mark, 0.23 mi S. of tablet, in center of concrete bridge over "Middle South Creek", a chiseled square 815.15
- 7.9 UE, about 1.0 mi W. of "TT 14 WM 1956", 140 ft S. and 20 ft E. of center of T-rd. W., or N. end of concrete culvert at entrance to Civil Aeronautics Station, painted square 922.08
- 9.3 Copper nail and washer (Described in Line 3) 888.45

LINE 5

K.E. Daly, 1971; Book CV-2752

DES MOINES QUAD. - 100

- 2 8 0.0 US&GS EM "77 NO 588" Cumming, 2.0 mi N. and 1.5 mi E. of; at N. edge of Ovilla, 40 ft N. and 30 ft W. of T-rd. E. (Ovilla Rd. and County Line); approximately 40 ft N. of Polk and Warren County Line; near cor. secs. 3, 4, 33 and 34; Tps. 77 and 78 N., R. 25 W., 15 ft N. of Hi-line pole; 2 ft E. of fence, in concrete post; standard US&GS and State Survey disk stamped "77 NO 588" (Elev. by USGS) 971.417

INDIANOLA QUAD. - 77

- 8 0.5 UE 77 A, 0.5 mi S. of disk at crossroads; 33 ft S., 83 ft W. and 0.8 ft higher than crossroads; N. side of fence cor. post, head of RR. spike; painted 972.46
- 9 1.6 Cummings, 1.5 mi N. and 1.0 mi E. from; near quarter cor. between secs. 4 and 5, T. 77 N., R. 25 W., 330 ft S. along T-rd. S.; 132 ft S., 21 ft W. and level with center of rd. at farm entrance W., 1 ft E. of fence line, in concrete post; standard tablet stamped "5 ADP 1950" (loose in ground 5-64, WKM) 971.335
- 10 1.7 Reference mark, is 733 ft S. of tablet, 37 ft N., 27 ft W. and ft lower than rd. at RR.; W. end of 2.6 ft metal culvert punched hole, in painted square, painted 957.78

ST. CHARLES QUAD. - 78

- 11 2.3 UE 5 A, 0.5 mi S. of tablet at a small wood bridge, 12 ft W. and 1.3 ft lower than rd. at bridge, top of inside wood piling of W. wingwall of S. abutment, copper nail and washer; painted 915.86
- 13 3.3 UE 5 B, 1.5 mi S. of tablet at crossroads, 375 ft S., 25 ft W., and 15.7 ft lower than crossroads; S. end of W. headwall of 6 ft concrete box culvert, chiseled square; painted 932.76
- 14 3.7 UE 5 C, 2.0 mi S. of tablet, at crossroads, 24 ft N., 24 ft W. and 3.0 ft lower than crossroads, W. end of 2 ft metal culvert; punched hole in painted square; painted 979.44

LINE 5 (Cont'd)

ST. CHARLES QUAD. - 78

FEET

2	15	4.3	Cumming, 1.0 mi S. and 0.5 mi E. of, near cor. secs. 16, 17, 20 and 21, T. 77 N., R. 25 W., 17 ft W. and 1.1 ft lower than rd. at drain, N. end of W. head-wall of 8 ft concrete box culvert, a standard tablet stamped "12 KED 1971"; painted	910.411
16		4.7	UE 12 A, centerline, 0.4 mi S. of tablet at T-rd. W., centerline of T-rd. W. head of RR. spike slightly below rd. surface; painted	963.87
17		5.5	UE 12 B, 0.9 mi S. and 0.2 mi E. of tablet at rd. fork; 24 ft N., 209 ft E. and 11.0 ft lower than rd. fork; W. end 1.4 ft metal culvert, under field entrance punch hole in painted square; painted	929.81
19		6.5	UE 12 C, 1.9 mi S. and 0.2 mi E. of a iron bridge across North River, 11.5 ft E. and 2.5 ft lower than rd. at bridge; 1.0 ft E. of E. railing, top of NE. most; bolt on E. end of a N. I-beam pier, at NE. cor. of iron bridge; chiseled cross; painted	833.57
21		7.5	Reference mark is 114 ft NE. of tablet, 69 ft N. and 13.5 ft E. of rd. at drive W. to farm, 6-in. N. of S. end of E. concrete headwall of culvert; chiseled square; painted	856.84
22		7.5	Churchville, 2.3 mi N. of along gravel rd., near quarter cor. between secs. 32 and 33, T. 77 N., R. 25 W., 328 ft N. of T-rd. E., 30 ft S., 25 ft W. and level with center of rd. at farm entrance W., 2 ft E. of fence line, in concrete post; standard tablet stamped "3 ADP 1950" (BM has been hit by grader, leaning at 15° angle and in bank of ditch, and exposed on one side)	859.282
23		8.3	UE 3A Centerline, 0.8 mi S. of tablet at a small wood bridge; centerline rd. at surface; painted	878.96
24		9.1	UE 3 B Centerline; 1.6 mi S. of tablet, at T-rd. N., centerline T-rd. head of RR. spike slightly below rd. surface; painted	907.1
25		9.7	Reference mark is 343 ft WNW. of tablet, 29 ft N. and 33 ft E. of centerline of T-rd. E., N. end of 1.5 ft metal culvert, punch hole, in painted square; painted	949.09
26		9.7	Churchville, 0.2 mi N. of gravel rd., near S. sixteenth cor. secs. 8 and 9, T. 76 N., R. 25 W., 365 ft E. along T-rd. E., 33 ft S. and level with rd., 1 ft N. of fence line, in concrete post; standard tablet stamped "2 ADP 1950"	956.055

ISOLATED BENCH MARKS

T. 77 N., R. 25 W., near cor. secs. 20, 21, 28 and 29, 30 ft S. of T-rd. N., in concrete post; bronze tablet stamped "PRIM TRAV STA 1 LS 1924" (Destroyed 10-71, KED)	949.953
T. 76 N., R. 25 W., about 0.2 mi S. of quarter cor. between secs. 8 and 9, 30 ft S. and 20 ft E. from T-rd. E., 2 ft from corner post of wire fence, on concrete post; standard tablet stamped "PRIM TRAV STA 2 LS 1924 IA" (Reported not found 6-50, ADP)	952.524

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INDIANOLA QUADRANGLE
77 - IOWA

ISOLATED BENCH MARKS (Cont'd)

	FEET
Bronze tablet stamped "JAS 1 1928" (Reported destroyed 7-50)	879.381
T. 76 N., Rs. 24 and 25 W., near cor. secs. 25, 30, 31 and 36, 27 ft S. and 27 ft W. from crossroads, on concrete post; standard tablet stamped "PRIM TRAV STA NO 10 LS 1924 IA"	962.614
Jackoby School, 200 ft W. and 75 ft S. from, 25 ft N. and 25 ft E. from crossroads, on concrete post; standard tablet stamped "PRIM TRAV STA NO 9 LS 1924 IA"	968.188
Indianola, 68 ft N. and 37 ft E. from NE. cor. of courthouse, on concrete post; standard tablet stamped "PRIM TRAV STA NO 8 LS 1924 IA"	970.136
T. 76 N., R. 23 W., near SW. cor. sec. 16, NE. angle of crossroads, in limestone rock; aluminum tablet stamped "948 ADJ)(Not found 3/72 TCM)	946.917
T. 77 N., Rs. 24 and 25 W., near cor. secs. 1, 6, 7 and 12, 12 ft S. and 30 ft W. from crossroads, on concrete post; standard tablet stamped "PRIM TRAV STA NO 14 LS 1924 IA" (Not found - prob. dest. 3/72 TCM)	904.001
T. 77 N., R. 24 W., near cor. secs. 3, 4, 9 and 10, 20 ft S. and 20 ft E. from crossroads, on concrete post; standard tablet stamped "PRIM TRAV STA 13 LS 1924 IA" (Not found-prob. dest. 3/72 TCM)	865.236
T. 77 N., R. 24 W., near E. sixteenth cor. secs. 21 and 28, 25 ft N. of T-rd. S., on concrete post; standard tablet stamped "PRIM TRAV STA NO 12 LS 1924 IA" (Not found-prob. dest. 3/72 TCM)	904.016
E. Faust's house, 45 ft S. and 20 ft E. from SE. corner of front porch, on concrete post; standard tablet stamped "PRIM TRAV STA 11 LS 1924 IA" (Not found 3/72 TCM)	863.176
T. 75 N., R. 25 W., near cor. secs. 9, 10, 15 and 16, 30 ft N. and 30 ft E. from crossroads, on concrete post; standard tablet stamped "PRIM TRAV STA 4 LS 1924 IA"	1032.598
New Virginia Post Office, 5.3 mi N. of, along County Rd. "K", near quarter cor. secs. 33 and 34, T. 75 N., R. 25 W., 43 ft S. and 46 ft W. from center of crossroads, in concrete post; standard tablet stamped "JAS 2 1928" RESET 1950"	982.635