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**FORT DODGE AND WAVERLY LOOPS
SUPPLEMENTARY ADJUSTMENT**

**SECOND-ORDER LEVELS
IOWA GEODETIC SURVEY**

Iowa

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Work Projects Administration

IOWA GEODETIC SURVEY

WPA Project No. 165-1-72-118

Des Moines, Iowa

1942

This report has been prepared by the Iowa Geodetic Survey, a state-wide project of the Work Projects Administration, under the sponsorship of the United States Coast and Geodetic Survey and the Engineering Experiment Station of Iowa State College.

All computations and results were prepared by W P A Project #5650, and were checked and approved by the United States Coast and Geodetic Survey.

IOWA GEODETIC SURVEY

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Leveling in Iowa

FORT DODGE & WAVERLY LOOPS

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This publication contains the descriptions and elevations of bench marks in the following counties of the State of Iowa:

Allamakee	Clayton	Hardin	Story
Blackhawk	Dallas	Howard	Tama
Boone	Fayette	Humboldt	Webster
Bremer	Floyd	Jasper	Winnebago
Buchanan	Franklin	Kossuth	Winneshiek
Butler	Grundy	Marshall	Worth
Cerro Gordo	Hamilton	Mitchell	Wright
Chickasaw	Hancock	Polk	

In the State of Minnesota:

Faribault	Fillmore	Freeborn	Houston	Mower
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In the State of Wisconsin:

Crawford	La Crosse	Vernon
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The elevations have been determined by First- or Second-order Leveling by the U. S. Coast & Geodetic Survey. The elevations on Line 1 were determined by First-order Leveling run by the Corps of Engineers, U. S. Army. All of the necessary re-leveling in the Fort Dodge-Waverly Loops were run by the Iowa Geodetic Survey under the direction of the U. S. Coast & Geodetic Survey.

The several lines are listed below, together with the years in which the original work was done.

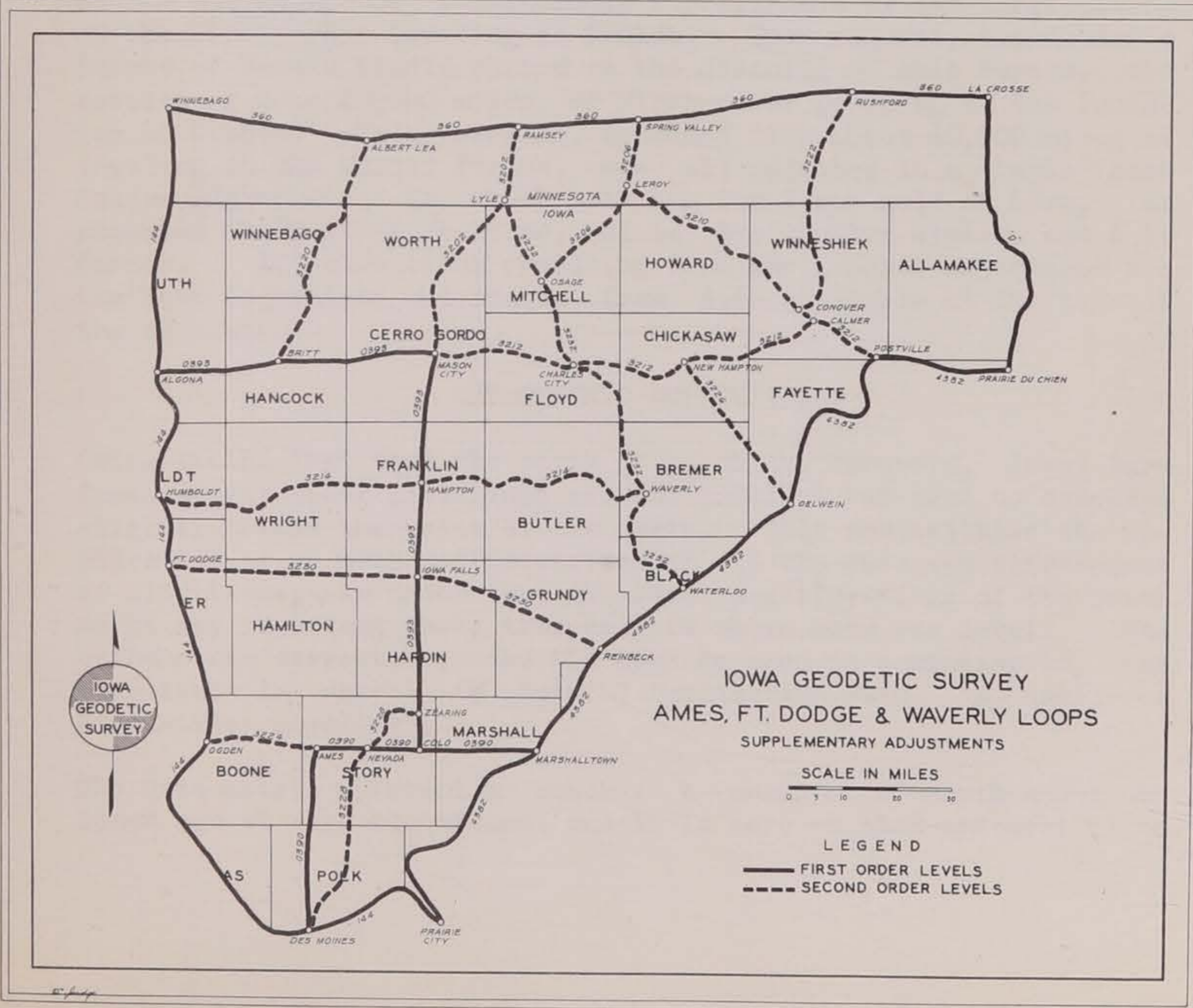
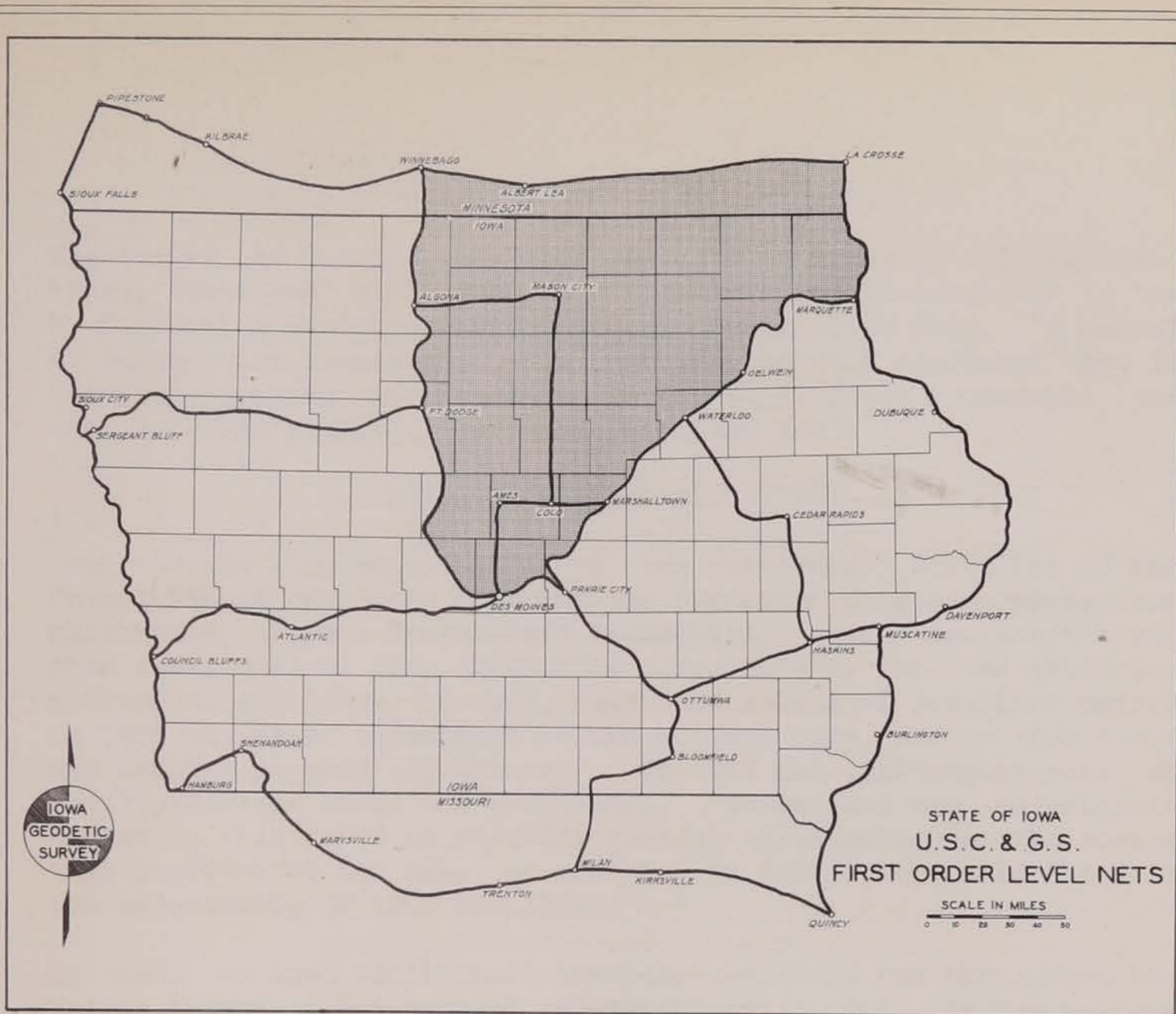
First-order Lines

Line 1	(Part) St. Paul, Minn., to Prairie du Chien, Wis. . .	1892
Line 144	(Part) Minneapolis, Minn., to Glasgow, Mo.	1930
Line 360	(Part) Sioux Falls Jct., S.D. to LaCrosse, Wis.	1931
Line 391	Colo to Des Moines, Iowa	1935
Line 393	Algona to Marshalltown, Iowa	1934
Line 4382	Prairie City, Iowa to Prairie du Chien, Wis..	1934

Second-order Lines

Line 3202	Mason City, Iowa to Ramsey, Minn.	1934
Line 3206	Osage, Iowa to Spring Valley, Minn.	1934
Line 3210	Leroy, Minn., to Calmar, Iowa	1934
Line 3212	Mason City to Postville, Iowa	1934
Line 3214 (Part)	Marathon to Waverly, Iowa	1934
Line 3220	Albert Lea, Minn., to Britt, Iowa	1934
Line 3222	Conover, Iowa to Rushford, Minn.	1934
Line 3224	Ogden to Nevada, Iowa	1941
Line 3226	Oelwein to New Hampton, Iowa	1934
Line 3228	Des Moines to Zearing, Iowa	1941
Line 3230	Reinbeck to Fort Dodge, Iowa	1934
Line 3232	Waterloo, Iowa to Lyle, Minn.	1934

At the beginning of each line will be found a short description of the route followed, the Chief of Party, and the year in which the work was performed.



INSTRUMENTS AND FIELD METHODS

The First- and Second-order Leveling done in Iowa, by all organizations, conforms with the specifications and instructions in the U. S. Coast & Geodetic Survey Special Publication #140, "A Manual of First-order Leveling". All the instrumental equipment used in the Iowa leveling is described in the U. S. Coast & Geodetic Special Publication #129, "Geodetic Level and Rod".

THE 1929 GENERAL ADJUSTMENT

From time to time adjustments of the First-order Level Net of the United States have been made for the purpose of obtaining elevations which were, from a theoretical standpoint, nearer the exact truth than those derived from unadjusted observations, or the arbitrary fitting of new lines to old, adjusted values of junction points. In 1898 the first adjustment of the net was made, and in 1903 there was another general adjustment. In 1907 and 1912 adjustments of the First-order level net were made. These last two adjustments cannot be considered as strictly general adjustments for the reason that portions of the net, as adjusted in 1903, were held fixed in the adjustments of 1907 and 1912.

By 1929, so much additional leveling had been run throughout the United States, a new general adjustment was needed. It was believed the net would be considerably strengthened by the introduction of the First-order Leveling of Canada. Upon request, the Geodetic Survey of Canada kindly placed at the disposal of this Bureau, the results of some 20,000 miles of First-order Leveling in the Dominion of Canada. This leveling, combined with about 40,000 miles of leveling in the United States, was all adjusted in a single Least Square Adjustment, in which mean sea level was held at zero, as observed at 26 tidal stations, 21 in the United States and 5 in Canada. The elevations resulting from the general adjustment are the best elevations obtainable from data available at the time of the adjustment.

ORTHOMETRIC CORRECTION

Owing to the fact that the earth is an oblate spheroid, level surfaces at different elevations are not parallel but tend to converge slightly toward the poles of the earth. This necessitates the application of an orthometric correction to the observed differences of elevations, in order that the resulting elevations of the bench marks may represent their true heights above mean sea level. The orthometric correction, and the methods used in computing it, are discussed in detail in Special Publication #140, "A Manual of First-order Leveling".

The Orthometric correction reaches a maximum of north-and-south lines run at high elevations, and it is zero on east-and-west lines.

The orthometric correction has been applied to the leveling included in this publication. In order that persons using this publication may form an idea as to the order of size of the orthometric correction, the following example is cited:

The difference in elevation between two bench marks, at about the latitude of Hampton, Iowa, in such locations that the geographic latitudes would differ by two minutes (approximately 12,000 feet), and the average elevation of the line of levels connecting them would be 1140 feet, would require an orthometric correction of 0.0364 foot. This correction varies directly with the average elevation, and with the difference in latitude between the marks, and depends slightly upon the latitude. Tables for use in computing the orthometric correction are given in the Special Publication #140.

COMPUTATIONS AND ADJUSTMENTS

The entire First-order Level Net covering the State of Iowa was included in the 1929 General Adjustment, as computed by the U. S. Coast & Geodetic Survey. (See Figure 1).

This report covers the Fort Dodge-Waverly Loops (See Figure 2) and has been computed and adjusted by the Iowa Geodetic Survey, in accordance with the specifications and instructions set up in the U.S. Coast & Geodetic Survey, Special Publication #140. The elevations of the bench marks on the First-order Lines were fixed by the 1929 General Adjustment; the elevations of the bench marks of the Second-order Lines within the Fort Dodge-Waverly Loops were computed by Least Square Adjustment. The computations and final elevations have been checked and approved by the Washington Office of the U. S. Coast & Geodetic Survey.

RAIL ELEVATIONS


Interspersed throughout the descriptions and elevations of the bench marks will be found the descriptions and elevations, in tenths of feet, of tops of rails opposite railroad stations, or at railroad and highway crossings. These elevations are approximate only, since the track does not accurately maintain a constant elevation for any great length of time.

COOPERATION IN THE PRESERVATION OF BENCH MARKS

A bench mark is useful only as long as it is recoverable. When changes occur, as they often do, in the surrounding natural and cultural features with relation to which the mark is described, it becomes increasingly difficult to find the mark by means of the published description. Engineers, and others, who have occasion to visit any bench marks established by this Bureau or other Government organizations, will be doing a public service if they will report the condition of the marks and make suggestions as to needed changes in the descriptions.

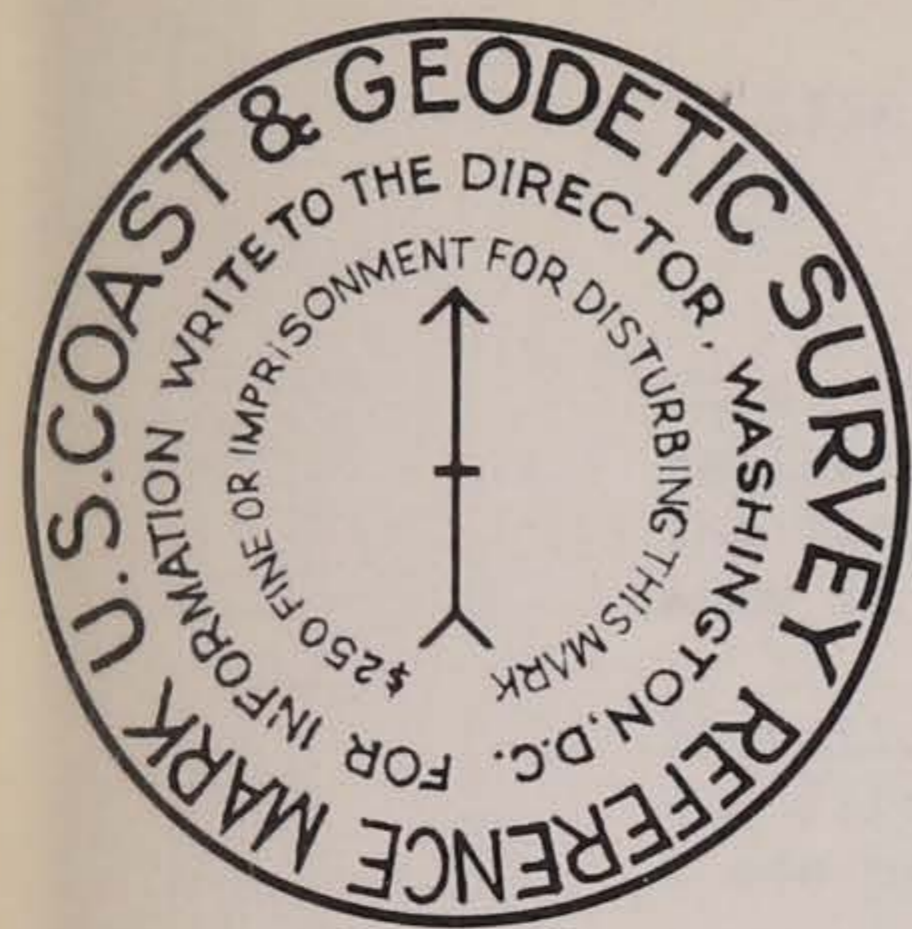
The following motion was adopted by the Committee on Control of the Federal Board of Surveys and Maps (H.S. Hemple, Chairman) on March 14, 1939:

"The Committee on Control has made a thorough study of the proposed use of supplemental wooden or steel posts in connection with federal control concrete survey monuments. As a result of this study the Committee recommends that, insofar as practicable, such supplemental posts be used for control survey monuments where the marks are set flush with the surface, or project but a few inches above the ground. The supplemental posts are especially recommended for monuments established along public highways in rural districts or along the rights-of-way of railroads, in wooded areas, and along the shore lines of rivers, lakes or oceans. Supplemental posts are not recommended for monuments established along any business streets, or in residential districts of cities, on the grounds of schools or churches, in cemeteries, in cultivated farm lands or on bare mountain tops. For horizontal control monuments established in cultivated fields, and set below the surface of the ground, the use of supplemental posts is advocated at the concrete reference mark sites.

"The supplemental post recommended for use should be decay resistant, or special-treated wood, not less than 4" x 4" in cross-section, set at least 3 feet in the ground, projecting at least 18" above the surface, painted white, and with the legend "U.S.B.M." or "U.S.  " stenciled thereon in black letters. It should be set at least three feet distant from the monument, in a location where it will not affect subsequent survey operations.

"The field parties establishing the supplemental posts should direct the attention of highway, county, and local engineers to the monuments and enlist their cooperation in the preservation and maintenance of the markers.

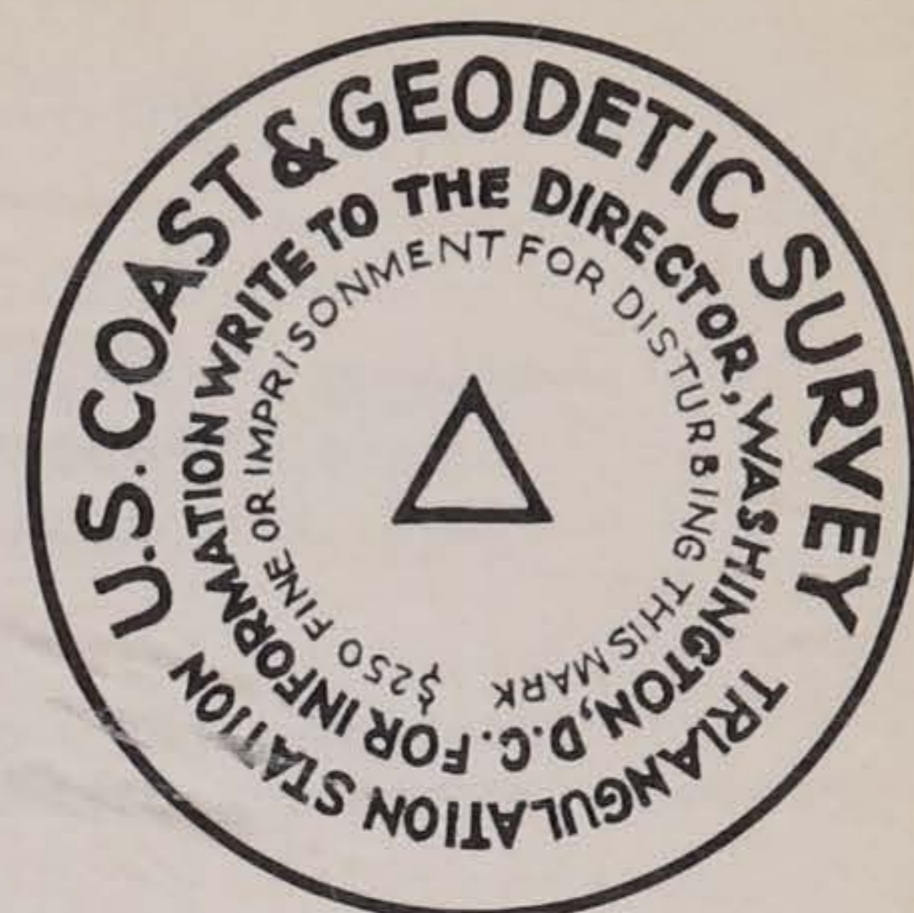
"These supplemental posts, where established along highways subject to improvement, will aid in the preservation of control monuments in that the attention of the highway contractor will be directed to the presence of the markers before construction operations disturb their location. Many control monuments will thus be protected and perpetuated which otherwise would be thoughtlessly disturbed and rendered useless. The supplemental posts will also be an aid to easy recovery of the station mark, resulting in a saving of time and money to many users."



A



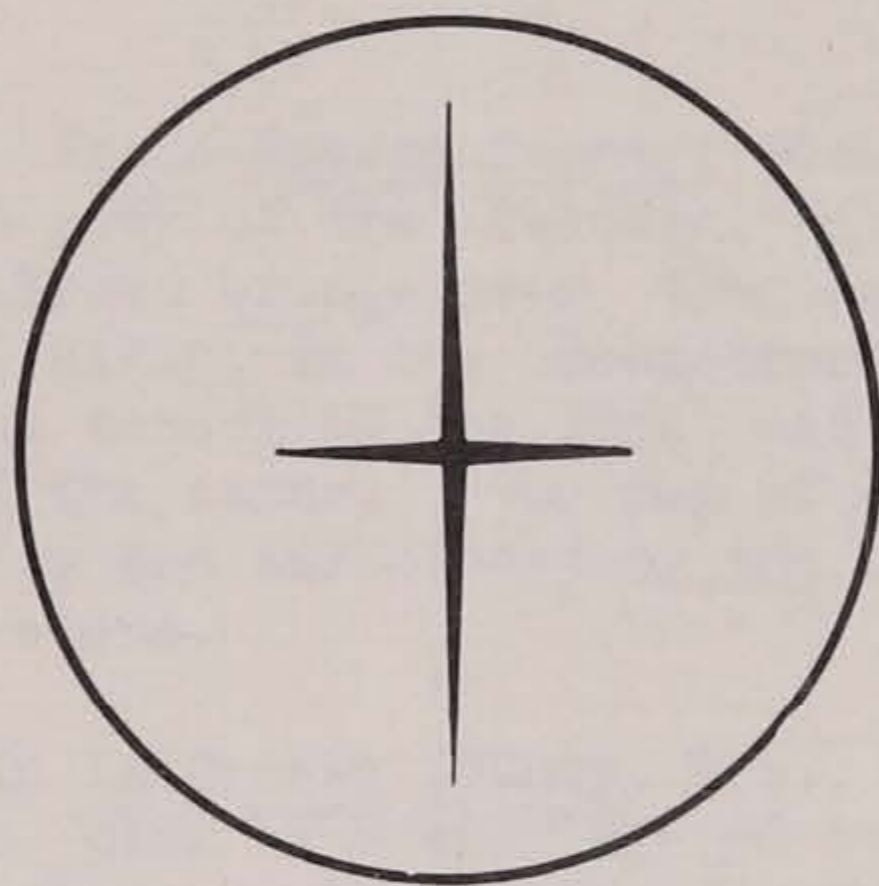
B



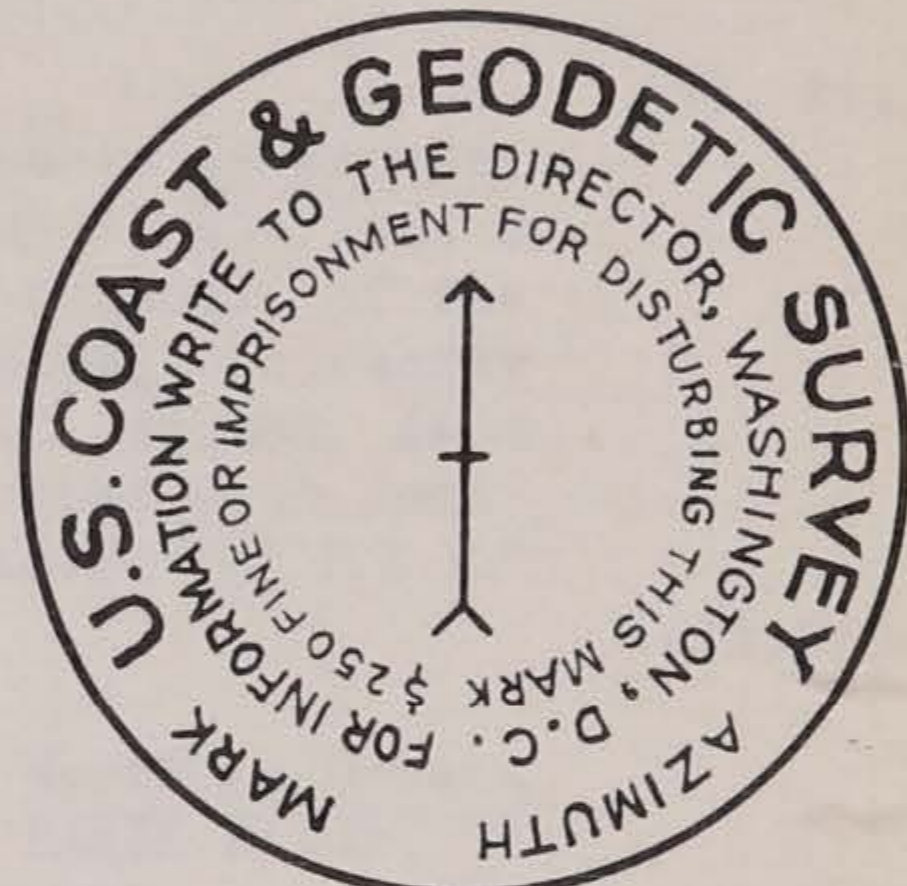
C



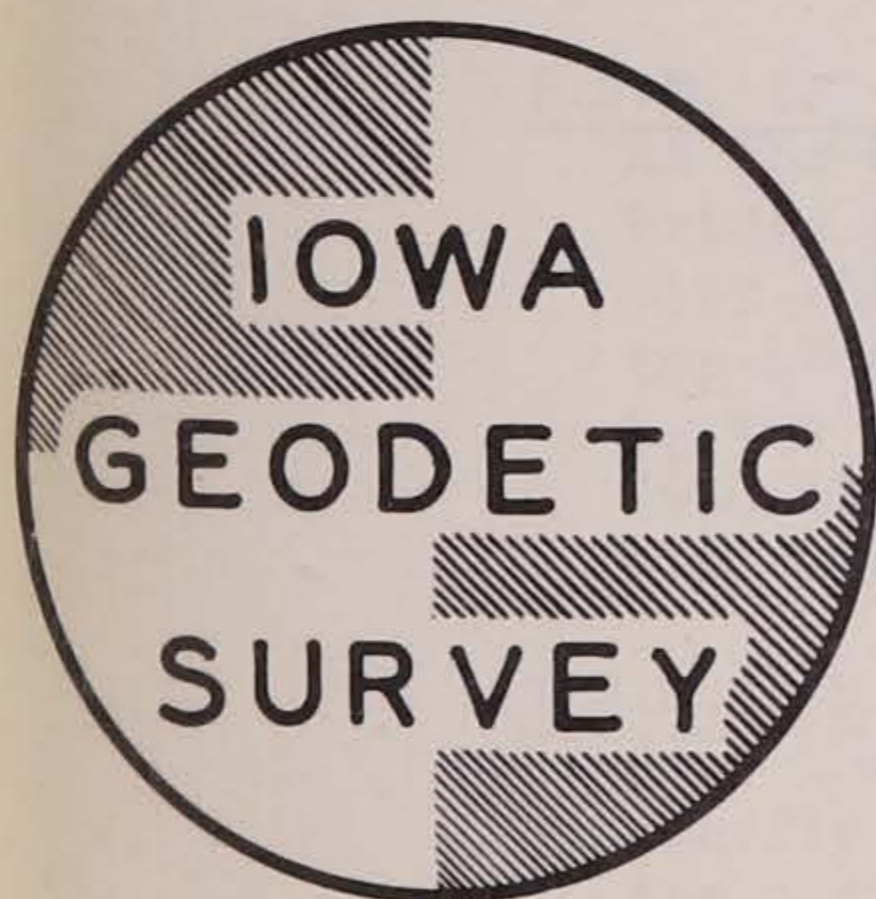
D



E



F



G

NOTE—

A-U.S.C. & G.S. standard Reference Mark disc.

B-U.S.C. & G.S. standard B.M. disc. (Used by precise level parties.)

C-U.S.C. & G.S. standard Triangulation station disc.

D-U.S.C. & G.S. and I.G.S. standard Traverse station disc.

E-I.G.S. standard corner stone disc.

F-U.S.C. & G.S. standard Azimuth mark disc.

G-Standard symbol for I.G.S.

STANDARD MARKERS

LINE I. ST. PAUL, MINN., to PRAIRIE DU CHIEN, WIS.
(First-order Leveling)

This Line follows the Chicago, Burlington & Quincy Railroad from La Crosse to Prairie du Chien, Wisconsin. The field work was done by the Corps of Engineers, U.S. Army in the year 1892.

Elevations are based on the 1929 General Adjustment of the First-order Level Net. These elevations supersede those previously published.

For descriptions of additional bench marks in this vicinity, see page 59.

-
- | | El. Ft. |
|---|---------|
| <u>P.B.M. 190</u> In La Crosse County, Wis., above <u>La Crosse</u> , in the east pier of the Chicago, Milwaukee, St. Paul & Pacific Railroad bridge over the east channel of the Mississippi River, in the downstream side, directly south of the center of the shoe and 9.0 inches from the face of the stone. The top of a copper bolt leaded vertically and surrounded by the letters "U.S.P.B.M." cut in the stone. | 652.768 |
| <u>T.B.M. 157</u> In La Crosse County, Wis., at North La Crosse, in the west pier of drawbridge #0 over Black River, in the coping stone at the north end of the pier. The highest point in a square cut in the stone. In 1930 it was reported that the bridge had been rebuilt and the mark destroyed. | 648.864 |
| <u>P.B.M. 191</u> In La Crosse County, Wis., at North La Crosse, at the Chicago, Milwaukee, St. Paul & Pacific Railroad bridge #0 over Black River, in the south side of east pier and 15.0 inches from the southwest corner. The top of a copper bolt leaded vertically and surrounded by the letters "U.S.P.B.M." cut in the stone. In 1930 it was reported that the bridge had been rebuilt and the mark destroyed. | 646.521 |
| <u>T.B.M. 158</u> In La Crosse County, Wis., at North La Crosse, near the entrance of the Chicago, Milwaukee, St. Paul & Pacific Railroad roundhouse, in the foundation stone of the northwest pier of the water tank and in the beveled edge of the top stone. The highest point in a broken square flanked by the letters "U.S." cut in the stone. In 1930 it was reported that the tank had been torn down and the mark destroyed. | 645.415 |

ST. PAUL, MINN., to PRAIRIE DU CHIEN, WIS.

El. Ft.

- CITY B.M. In La Crosse County, Wis., at La Crosse, on the west side of Front Street, between Main and Pearl Streets, in the southeast corner of an old building occupied by "S. Becker, Commission and Produce" and joined to the south side of a stone building, in the top surface of the water table and 0.7 foot above the lower corner. The highest point in a square cut in the stone. In 1930 it was reported that this building had been torn down and the mark destroyed. 651.003
- P.B.M. 192 In La Crosse County, Wis., at La Crosse, at the northeast corner of Fourth and State Streets, at the Post Office building and in the doorstep at the south side of the south one of three doors on the Fourth Street side. The top of a copper bolt leaded vertically in the step and surrounded by the letters "U.S.P.B.M." cut in the stone. 679.159
- T.B.M. 160 In La Crosse County, Wis., at La Crosse, in the west side of the Chicago, Burlington & Quincy Railroad station, in the Second Street side, and at the south side of the second door above the south end of the main building. The highest point in a square flanked by the letters "U.S." cut in the stone. In 1930 it was reported that a new station had been constructed on this site and the mark destroyed when the old station was torn down. 657.102
- CITY B.M. In La Crosse County, Wis., at La Crosse, just north of the land pier of the wagon bridge across the Mississippi River, in the southwest corner of a small brick building, 1.0 foot above the south corner and 0.8 foot above the ground. The bottom of a notch cut in the brick. In 1930 it was reported that several bricks had fallen from the corner of the building and that measurements show the brick holding the mark is missing. 640.550
- P.B.M. 193 In La Crosse County, Wis., at La Crosse, in the west face of the land pier of the highway bridge across the Mississippi River, 5.0 feet from its north end and 3.5 feet above the ground. The center of a copper bolt leaded horizontally in the pier and surrounded by the letters "U.S.P.B.M." cut in the stone. The elevation of this mark is based on leveling in 1930 which indicated the mark had settled. 643.522

LEVELING IN IOWA

El. Ft.

- T.B.M. 161 In La Crosse County, Wis., at La Crosse, 0.5 mile below the highway bridge across the Mississippi River, at the southeast corner of First & Market Streets, in the First Street front of the brick building of the La Crosse Soap Company and in the south end of a stone doorstep. The highest point in a square flanked by the letters "U.S." cut in the stone. This mark was searched for, but not recovered, in 1930. 659.979
- T.B.M. 162 In La Crosse County, Wis., at the south end of La Crosse, 60.0 feet south of the center of the track, in the sloping water table of Mr. John Gund's stone brewery and 8.4 feet west of the east corner. The highest point in a square flanked by the letters "U.S." cut in the stone. In 1930 it was reported the building was abandoned and rapidly deteriorating. 673.778
- P.B.M. 194 In La Crosse County, Wis., about 3.5 miles south of the Chicago, Burlington & Quincy Railroad station at La Crosse, 20.0 yards south of the station at Harrington Junction (formerly South Junction), 60.0 feet southwest of the intersection of the Chicago, Burlington & Quincy Railroad and the La Crosse and Southeastern Railway and the west right-of-way fence of the Chicago, Burlington & Quincy Railroad. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 649.208
- P.B.M. 195 In La Crosse County, Wis., about 3.5 miles south of the Chicago, Burlington & Quincy Railroad station at La Crosse, 20.0 yards south of the station at Harrington Junction (formerly South Junction), 60.0 feet southwest of the intersection of the Chicago, Burlington & Quincy Railroad and the La Crosse and Southeastern Railway, at the west right-of-way fence of the Chicago, Burlington & Quincy Railroad. The top of the cap on the iron pipe over P.B.M. 194. 653.204
- P.B.M. 196 In Vernon County, Wis., about 3.75 miles above Stoddard, on the Chicago, Burlington & Quincy Railroad, about 0.5 mile below Mr. Jack Branak's house and saloon, 0.20 mile above Mr. Carl Bay's house, 870 feet above milepost #140; 21.0 feet below the gate to farm road crossing and on the right-of-way, 2.0 feet from the

ST. PAUL, MINN., to PRAIRIE DU CHIEN, WIS.

- El. Ft.
- east fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 642.879
- P.B.M. 197 In Vernon County, Wis., about 3.75 miles above Stoddard, on the Chicago, Burlington & Quincy Railroad, about 0.5 mile below Mr. Jack Branak's house and saloon, 0.20 mile above Mr. Carl Bay's house, 870 feet above milepost #140; 21.0 feet below the gate to a farmroad crossing and on the right-of-way, 2.0 feet from the east fence. The top of the cap on the iron pipe over P.B.M. 196. 646.862
- T.B.M. 170 In Vernon County, Wis., about 2.25 miles above Stoddard, about 0.5 mile below milepost #141, about half way through a large cut and 15.0 feet east of the center of the track. The highest point in a square flanked by the letters "U. S." cut in an embedded boulder. 642.509
- T.B.M. 172 In Vernon County, Wis., about 0.6 mile above Stoddard, near the upper end of the first tangent above the Chicago, Burlington & Quincy Railroad station, 853 feet below milepost #143; 328 feet below a farm-road crossing and 25.0 feet east of the center of the track. The highest point in a square flanked by the letters "US." cut in an embedded boulder. 640.619
- P.B.M. 198 In Vernon County, Wis., at Stoddard, in the northeast corner of the northeast footing of the water tank. The top of a copper bolt leaded vertically, and surrounded by the letters "U.S.P.B.M." cut in the stone. 645.136
- P.B.M. 199 In Vernon County, Wis., at Warner's Landing, on the Chicago, Burlington & Quincy Railroad, 280 feet up the track from Mr. O. Warner's house, 60.0 feet above bridge #342, and 29.2 feet east of the center of track, at the east right-of-way fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 636.383
- P.B.M. 200 In Vernon County, Wis., at Warner's Landing, on the Chicago, Burlington & Quincy Railroad, 280 feet up the track from Mr. O. Warner's house, 60.0 feet above bridge #342, and 29.2 feet east of the center of track,

LEVELING IN IOWA

	El. Ft.
at the east right-of-way fence. The top of the cap on the iron pipe over P. B. M. 199.	640.383
<u>T.B.M. 175</u> In <u>Vernon County</u> , Wis., at <u>Britts Landing</u> , 75.0 feet above milepost #147 and on the east side of the track. The highest point in a square flanked by the letters "U.S." cut in a rock.	643.312
<u>P.B.M. 201</u> In <u>Vernon County</u> , Wis., about 1.62 miles above <u>Genoa</u> , on the Chicago, Burlington & Quincy Railroad, about 0.3 mile above milepost #148; 351 feet below bridge #333, in front of Mr. Frank Riley's property, and at the east right-of-way fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap.	637.942
<u>P.B.M. 202</u> In <u>Vernon County</u> , Wis., about 1.62 miles above <u>Genoa</u> , on the Chicago, Burlington & Quincy Railroad, about 0.3 mile above milepost #148; 351 feet below bridge #333, in front of Mr. Frank Riley's property and at the east right-of-way fence. The top of the cap on the iron pipe over P. B. M. 201.	641.957
<u>T.B.M. 177</u> In <u>Vernon County</u> , Wis., about 1.5 miles above the station at <u>Genoa</u> , on the Chicago, Burlington & Quincy Railroad, about 0.5 mile below milepost 148 and 12.0 feet east of the center of the track. The highest point in a square flanked by the letters "U.S." cut in a large rock.	639.802
<u>T.B.M. 178</u> In <u>Vernon County</u> , Wis., about 0.5 mile above <u>Genoa</u> , about 0.4 mile below milepost #149, in front of the large stone house of Mr. John Franzini, in a rough boulder on the east side of the highway which runs along east of the railroad. The highest point in a square flanked by the letters "U.S." cut in the boulder.	641.695
<u>P.B.M. 203</u> In <u>Vernon County</u> , Wis., at <u>Genoa</u> , on the west side of the main street, in front of Mr. Albert Zabolio's store, in the stone doorstep of the upstream door and near the southeast corner of the step. The top of a copper bolt leaded vertically in the step and surrounded by the letters "U.S.P.B.M." cut in the stone.	656.367

ST. PAUL, MINN., to PRAIRIE DU CHIEN, WIS.

- El. Ft.
- Old U.S.B.M-1 - Old P.B.M.-21 In Vernon County, Wis.,
at Genoa, in the last stone building in the town going
south, in the second floor of the river side of build-
ing and in the upstream corner of the stone doorsill.
The highest point is a square cut in the stone. 639.592
- T.B.M. 180 In Vernon County, Wis., about 1.0 mile be-
low Genoa, 187 feet below bridge #327; 174 feet above
milepost #151 and 19.0 feet east of the center of the
track. A large spike in an oak stump. 641.406
- P.B.M. 204 In Vernon County, Wis., about 2.75 miles
below Genoa, on the Chicago, Burlington & Quincy Rail-
road, 147 feet above bridge #322; 93.5 feet below Mr.
John T. Elger's house and 34.5 feet east of the cen-
ter of the track. The top of a copper bolt leaded in
a tile, 18.0 inches square and set about 3.0 feet un-
derground, access to which is had through an iron pipe
bearing a Mississippi River Commission standard cap. 634.018
- P.B.M. 205 In Vernon County, Wis., about 2.75 miles
below Genoa, on the Chicago, Burlington & Quincy Rail-
road, 147 feet above bridge #322; 93.5 feet below Mr.
John T. Elger's house and 34.5 feet east of the center
of the Chicago, Burlington & Quincy Railroad track.
The top of the cap on the iron pipe over P.B.M. 204. 638.017
- T.B.M. 186 In Vernon County, Wis., at Tippets Landing,
about 1.0 mile above Victory, on the Chicago, Burling-
ton & Quincy Railroad, about 0.3 mile below Mr. Tip-
pet's house, about 0.2 mile below the warehouse on the
river bank and 12.0 feet west of the center of the
track. The highest point in a square flanked by the
letters "U.S." cut in an embedded rock. 640.619
- P.B.M. 206 In Vernon County, Wis., at Tippets Landing,
about 1.0 mile above Victory, on the Chicago, Burling-
ton & Quincy Railroad, about 0.25 mile below the old
warehouse, 33.5 feet east of the center of the track
and in the bed of an old wagon road used before the
railroad was built. The top of a copper bolt leaded
in a tile, 18.0 inches square and set about 3.0 feet
underground, access to which is had through an iron
pipe bearing a Mississippi River Commission standard
cap. 642.276
- P.B.M. 207 In Vernon County, Wis., at Tippets Landing,
about 1.0 mile above Victory, on the Chicago, Burling-
ton & Quincy Railroad, about 0.25 mile below the old

LEVELING IN IOWA

- | | El. Ft. |
|---|---------|
| warehouse, 33.5 feet east of the center of the track and in the bed of an old wagon road used before the railroad was built. The top of the cap on the iron pipe over P. B. M. 206. | 646.288 |
| <u>P. B. M. 208</u> In <u>Vernon County, Wis.</u> , at <u>Victory</u> , at the northeast corner of Terhune and Rice Streets, in the southeast corner of Block 17, in the west side of the south abutment of a wagon bridge, and in the corner top stone, 3.0 inches from the end of the wall. The top of a copper bolt leaded vertically in the wall and surrounded by the letters "U.S.P.B.M." cut in the stone. | 639.979 |
| <u>T. B. M. 188</u> In <u>Vernon County, Wis.</u> , about 1.0 mile below the Chicago, Burlington & Quincy Railroad station at <u>Victory</u> , about 0.4 mile above milepost #158; 197 feet above bridge #309 and 30.0 feet east of the track. The highest point in a square flanked by the letters "U. S." cut in an embedded boulder. | 638.014 |
| <u>P.B.M. 209</u> In <u>Vernon County, Wis.</u> , about 2.5 miles above <u>De Soto</u> , 164 feet east of bridge #307 over Battle Creek, 36.0 feet east of a wagon road and at the north side of the north wire fence of a lane leading from Mr. Richard Valliant's house. The top of a copper bolt leaded in a tile, 18.0 inches square and set 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. | 632.873 |
| <u>P.B.M. 210</u> In <u>Vernon County, Wis.</u> , about 2.5 miles above <u>De Soto</u> , 164 feet east of bridge #307 over Battle Creek, 36.0 feet east of a wagon road and at the north side of the north wire fence of a lane leading from Mr. Richard Valliant's house. The top of the cap on the iron pipe over P. B. M. 209. | 636.882 |
| <u>T. B. M. 192</u> In <u>Vernon County, Wis.</u> , about 1.0 mile above <u>De Soto</u> , on the Chicago, Burlington & Quincy Railroad, about 0.2 mile above milepost #160, at a cut and 12.0 feet east of the center of the track. The highest point in a square, flanked by the letters "U. S." cut in an embedded boulder. | 637.604 |
| <u>T. B. M. 193</u> In <u>Vernon County, Wis.</u> , at the upper end of <u>De Soto</u> , at the De Soto Lumber Company warehouse, formerly owned by C. Lytel & Co., in the south end of | |

ST. PAUL, MINN., to PRAIRIE DU CHIEN, WIS.

El. Ft.

the south top stone of a pier supporting a runway over the Chicago, Burlington & Quincy Railroad track and 7.2 feet east of the center of the track. The highest point in a square flanked by the letters "U.S." cut in the stone.

641.728

P. B. M. 211 In Vernon County, Wis., at the upper end of De Soto, in the north side of the Diamond Joe Warehouse, 5.3 feet above the ground and 9.0 inches from the west side. The center mark in a copper bolt leaded horizontally in the wall and surrounded by the letters "U.S.P.B.M." cut in the stone.

626.111

P. B. M. 212 In Vernon County, Wis., at De Soto, at the Chicago, Burlington & Quincy Railroad water tank and in the top stone of the southwest footing. The top of a copper bolt leaded vertically and surrounded by the letters "U.S.P.B.M." cut in the stone.

636.085

T. B. M. 195 In Crawford County, Wis., about 1.75 miles below De Soto (Vernon County), 860 feet below bridge #298; 360 feet below milepost #163 and 15.0 feet west of the center of the track. The highest point in a square flanked by the letters "U. S." cut in a rock.

636.127

P. B. M. 213 In Crawford County, Wis., about 1.75 miles below De Soto (Vernon County), on the Chicago, Burlington & Quincy Railroad, 394 feet below milepost #163, at the upper end of the stretch where the Winneshiek Slough comes back to the railroad, at the lower end of a rock cut, 26.0 feet west of the center of the track and at the west right-of-way fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had thru an iron pipe bearing a Mississippi River Commission standard cap.

631.255

P. B. M. 214 In Crawford County, Wis., about 1.75 miles below De Soto (Vernon County), on the Chicago, Burlington & Quincy Railroad, 394 feet below milepost #163, at the upper end of the stretch where the Winneshiek Slough comes back to the railroad, at the lower end of a rock cut, 26.0 feet west of the center of the track and at the west right-of-way fence. The top of the cap on iron pipe over P. B. M. 213.

635.225

T. B. M. 196 In Crawford County, Wis., about 2.0 miles

LEVELING IN IOWA

- El. Ft.
- below De Soto (Vernon County), on the Chicago, Burlington & Quincy Railroad, about 0.25 mile above milepost #164, 361 feet above bridge #294, at a small cut, 90.0 feet above a very large rock at the east railroad fence, at the foot of the east slope and 12.0 feet from the center of the track. The highest point in a square flanked by the letters "U.S." cut in an embedded boulder. 635.255
- T. B. M. 197 In Crawford County, Wis., about 1.5 miles above Rush Creek, on the Chicago, Burlington & Quincy Railroad, about 0.5 mile below milepost #164, about 200 feet above the small waterway under bridge #291, directly under a very prominent point of a bluff on the east side of the track, 20.0 feet from the center of the track and in a large, flat, embedded rock inclined toward the south. The highest point in a square flanked by the letters "U.S." cut in the rock. 635.993
- T. B. M. 198 In Crawford County, Wis., about 2.5 miles above the Chicago, Burlington & Quincy Railroad station at Ferryville, 290 feet below milepost #166; 377 feet below the south end of a long trestle over Rush Creek and 17.0 feet east of the center of the track, at the right-of-way fence. The highest point in a square flanked by the letters "U. S." cut in a large embedded rock. 633.106
- P. B. M. 215 In Crawford County, Wis., about 2.5 miles above the Chicago, Burlington & Quincy Railroad station at Ferryville, 394 feet below the lower end of a long trestle over Rush Creek, about 310 feet below milepost #166; 328 feet below a blazed elm tree near the south end of the trestle and opposite a blazed elm tree standing on the east side of a wagon road. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had thru an iron pipe bearing a Mississippi River Commission standard cap. 631.826
- P. B. M. 216 In Crawford County, Wis., about 2.5 miles above the Chicago, Burlington & Quincy Railroad station at Ferryville, 394 feet below the lower end of a long trestle over Rush Creek, about 310 feet below milepost #166; 328 feet below a blazed elm tree near the south end of the trestle and opposite a blazed elm tree standing on the east side of a wagon road. The top of the cap on the iron pipe over P. B. M. 215. 635.832

- | | El. Ft. |
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| <u>T. B. M. 200</u> In <u>Crawford County</u> , Wis., about 0.9 mile above <u>Ferryville</u> , on the Chicago, Burlington & Quincy Railroad near the upper end of the first cut above Ferryville, about 0.25 mile above milepost #168; 213 feet above bridge #282 and 10.0 feet east of the center of the track. The highest point in a square flanked by the letters "U. S." cut in a large, flat, embedded rock. | 632.440 |
| <u>P. B. M. 217</u> In <u>Crawford County</u> , Wis., at <u>Ferryville</u> , 164 feet above the Chicago, Burlington & Quincy Railroad station, at the upper side of a road crossing, 39.0 feet from the southeast corner of Mr. J. S. Oleson's house and store and 29.5 feet east of the center of the track. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. | 628.444 |
| <u>P. B. M. 218</u> In <u>Crawford County</u> , Wis., at <u>Ferryville</u> , 164 feet above the Chicago, Burlington & Quincy Railroad station, at the upper side of a road crossing, 39 feet from the southeast corner of Mr. J. S. Oleson's house and store and 29.5 feet east of the center of the track. The top of the cap on the iron pipe over P. B. M. 217. | 632.450 |
| <u>T. B. M. 202</u> In <u>Crawford County</u> , Wis., about 1.5 miles below <u>Ferryville</u> , on the Chicago, Burlington & Quincy Railroad, at the lower end of a light cut, 256 feet below milepost #170 and 12.0 feet west of track. The highest point in a square flanked by the letters "U.S." cut in a hard, gray, embedded sandstone. | 634.943 |
| <u>T. B. M. 204</u> In <u>Crawford County</u> , Wis., about 4.0 miles below <u>Ferryville</u> , at the place where the Winneshiek Slough comes in to the railroad, about 0.25 mile below milepost #172, at the north side of bridge #273, east of the track and at a fence corner. The highest point in a square flanked by the letters "U.S." cut in an embedded boulder. | 629.392 |
| <u>P. B. M. 219</u> In <u>Crawford County</u> , Wis., about 4.0 miles below <u>Ferryville</u> , at the place where the Winneshiek Slough comes in to the railroad, opposite the south end of bridge #273; 46.0 feet east of the center of the | |

LEVELING IN IOWA

- El. Feet
- track, 15.0 feet west of a wagon road and 15.0 feet south of the center of a bridge or cattle pass in a fence corner. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 624.074
- P. B. M. 220 In Crawford County, Wis., about 4.0 miles below Ferryville, at the place where the Winneshek Slough comes in to the railroad, opposite south end of bridge #273; 46.0 feet east of the center of the track, 15.0 feet west of a wagon road and 15 feet south of the center of a bridge or cattle pass, in a fence corner. The top of the cap on the iron pipe over P. B. M. 219. 628.070
- P. B. M. 221 In Crawford County, Wis., about 1.25 miles above Lynxville, on the Chicago, Burlington & Quincy Railroad, at Cooper's Coulee, 731 feet above bridge #269; 56.0 feet above milepost #175; 35.0 feet west of the center of the track, 25.0 feet east of a forked oak tree, outside the right-of-way and about 1.5 feet from a fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 629.251
- P. B. M. 222 In Crawford County, Wis., about 1.25 miles above Lynxville, on the Chicago, Burlington & Quincy Railroad, at Cooper's Coulee, 731 feet above bridge #269; 56.0 feet above milepost #175; 35.0 feet west of the center of the track, 25.0 feet east of a forked oak tree, outside the right-of-way and about 1.5 feet from a fence. The top of the cap on the iron pipe over P. B. M. 221. 633.253
- T. B. M. 206 In Crawford County, Wis., about 1.25 miles above Lynxville, on the Chicago, Burlington & Quincy Railroad, at the upper side of Cooper's Coulee, 722 feet above bridge #269; 46.0 feet above milepost #175 and 12.0 feet west of the center of the track. The highest point in a square flanked by the letters "U. S." cut in an embedded rock. 632.282
- T. B. M. 207 In Crawford County, Wis., at the north end of Lynxville, at the Chicago, Burlington & Quin-

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- | | El. Ft. |
|---|---------|
| cy Railroad station and in the southwest footing of the water tank. The top of a copper bolt leaded vertically and surrounded by the letters "U. S. P. B. M." cut in the stone. | 634.658 |
| <u>Old U. S. B. M.</u> In <u>Crawford County</u> , Wis., at <u>Lynxville</u> , 984 feet below the <u>Chicago, Burlington & Quincy Railroad</u> station and in the top of the foundation at the north-east corner of Mr. Bright's warehouse. The highest point in a circle flanked by the letters "B.M." cut in the stone. | 637.450 |
| <u>P. B. M. 223</u> In <u>Crawford County</u> , Wis., at <u>Lynxville</u> , on the north side of the principal street running back from the river, in the south front of Mr. King's brick store and in the east end of the doorsill. The top of a copper bolt leaded vertically in the sill and surrounded by the letters "U.S.P.B.M." cut in the stone. | 638.053 |
| <u>T.B.M. 209</u> In <u>Crawford County</u> , Wis., about 0.75 mile below <u>Lynxville</u> , on the <u>Chicago, Burlington & Quincy Railroad</u> , 623 feet below bridge #266, in the middle of a light cut, 66.0 feet below milepost #177 and 12.0 feet west of the track. The highest point in a square flanked by the letters "U. S." cut in a large embedded boulder. | 632.226 |
| <u>P. B. M. 224</u> In <u>Crawford County</u> , Wis., about 3.12 miles below <u>Lynxville</u> , at <u>Viola</u> , about 900 feet below bridge #261, in the southwest corner of Mr. Caya's dooryard, 95.0 feet from the southwest corner of his red frame house, 50.0 feet southeast of the track and 1.0 foot north of a fence line. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. | 629.549 |
| <u>P. B. M. 225</u> In <u>Crawford County</u> , Wis., about 3.12 miles below <u>Lynxville</u> , at <u>Viola</u> , about 900 feet below bridge #261, in the southwest corner of Mr. Caya's dooryard, 95.0 feet from the southwest corner of his red frame house, 50.0 feet southeast of the track and 1.0 foot north of a fence line. The top of the cap on the iron pipe over P. B. M. 224. | 633.545 |
| <u>T. B. M. 211</u> In <u>Crawford County</u> , Wis., about 3.25 miles below <u>Lynxville</u> , at <u>Viola</u> , on the <u>Chicago, Burlington & Quincy Railroad</u> , about 0.25 mile below bridge #261, | |

LEVELING IN IOWA

- El. Ft.
- near the upper end of a cut, 525 feet below Mr. Caya's house, just above a large cubical rock lying at the water's edge and 12.0 feet east of the center of the track. The highest point in a square flanked by the letters "U. S." cut in a rock. 632.069
- T. B. M. 212 In Crawford County, Wis., about 0.50 mile below Viola, on the Chicago, Burlington & Quincy Railroad, 702 feet above milepost #180 and 9.3 feet east of the center of the track. The highest point in a square flanked by the letters "U. S." cut in a natural ledge of rock. 634.402
- T. B. M. 213 In Crawford County, Wis., about 1.5 miles below Viola, about 0.3 mile above milepost #181, about in the center of the first cut below bridge #260; 639 feet from the bridge and in a natural ledge of rocks 3.0 feet higher than the grade. The highest point in a square flanked by the letters "U. S." cut in the rock. 634.917
- T. B. M. 215 In Crawford County, Wis., about 1.0 mile above Charme, on the Chicago, Burlington & Quincy Railroad, about 0.4 mile above milepost #183; 689 feet below the large flat piece of ledge 16.0 feet high, standing on edge between the railroad and the river, at the lower end of a wooded point of land at the shore, 180 feet below bridge #256 and 30.0 feet from the center of the track. The highest point in a square flanked by the letters "U. S." cut in an embedded boulder. 628.700
- P. B. M. 226 In Crawford County, Wis., about 1.0 mile above Charme, on the Chicago, Burlington & Quincy Railroad, about 0.4 mile above milepost #183; 689 feet below the large flat piece of ledge 16.0 feet high, standing on edge between the railroad and the river, at the lower end of a wooded point of land at the shore, 180 feet below bridge #256 and at the east railroad fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 630.307
- P. B. M. 227 In Crawford County, Wis., about 1.0 mile above Charme, on the Chicago, Burlington & Quincy Railroad, about 0.4 mile above milepost #183; 689 feet below the large flat piece of ledge 16.0 feet high, standing on edge between the railroad and the river, at the

ST. PAUL, MINN., to PRAIRIE DU CHIEN, WIS.

- El. Ft.
- lower end of a wooded point of land at the shore, 180 feet below bridge #256 and at the east railroad fence. The top of the cap on the iron pipe over P. B. M. 226. 634.310
- P. B. M. 228 In Crawford County, Wis., at Charme, about 980 feet below the railroad station, 0.5 mile above Mr. Valley's house, 656 feet above the lower end of a siding behind the center of Island #164; 10.0 feet east of the center of the track and 4.0 feet higher than the grade, in the face of a natural ledge of rock. The center of a copper bolt leaded horizontally in the ledge and surrounded by the letters "U. S. P. B. M." cut in the rock. 634.982
- T. B. M. 216 In Crawford County, Wis., at Charme, about 990 feet below the railroad station, 0.5 mile above Mr. Valley's house, 15.0 or 20.0 feet below P. B. M. 228; about 10.0 feet east of the center of the track and in a natural ledge of rock. The highest point in a square flanked by the letters "U. S." cut in the rock. 633.306
- T. B. M. 218 In Crawford County, Wis., about 1.5 miles below Charme, on the Chicago, Burlington & Quincy Railroad, 518 feet below milepost #185; 492 feet above bridge #246, at the north edge of a farm-road crossing and 25.0 feet east of the center of the track. The highest point in a square flanked by the letters "U.S." cut in an embedded boulder. 631.478
- P. B. M. 229 In Crawford County, Wis., about 3.0 miles below Charme, on the right-of-way of the Chicago, Burlington & Quincy Railroad, 257 feet below section post 30-29, at Mr. G. L. Miller's place, occupied by Mr. M. Sage, 127 feet from the southwest corner of the house, 95.0 feet from the northeast corner of the barn, 72.0 feet above bridge #243 and 18.0 inches east of west right-of-way fence. The top of a copper bolt leaded in a tile, 18.0 inches square and set about 3.0 feet underground, access to which is had through an iron pipe bearing a Mississippi River Commission standard cap. 630.002
- P. B. M. 230 In Crawford County, Wis., about 3.0 miles below Charme, on the right-of-way of the Chicago, Burlington & Quincy Railroad, 257 feet below section post 30-29, at Mr. G. L. Miller's place, occupied by Mr. M. Sage, 127 feet from the southwest corner of the house, 95.0 feet from the northeast corner of the barn, 72.0

LEVELING IN IOWA

	El. Ft.
feet above bridge #243 and 18.0 inches east of the west right-of-way fence. The top of the cap on the iron pipe over P. B. M. 229.	634.001
<u>P. B. M. 231</u> In Crawford County, Wis., in the north-eastern part of <u>Prairie du Chien</u> , in the west end of St. Gabriel's Catholic Church, 4.0 feet above ground and 19.0 inches from the north side. The center of a copper bolt leaded horizontally in the masonry and surrounded by the letters "U.S.P.B.M." cut in the stone.	643.011
<u>T. B. M. 225</u> In Crawford County, Wis., in the north-eastern part of <u>Prairie du Chien</u> , about 75.0 feet south of St. Gabriel's Catholic Church, on the east side of the street, at the street entrance to Father Kramer's residence and in the southeast corner of the large stone step. The highest point in a square flanked by the letters "U. S." cut in the stone.	638.759
<u>P. B. M. 232 (U.S.E.) - W.1</u> In Crawford County, at <u>Prairie du Chien</u> , at the front of the Cooperative Chemical Company building (formerly known as the "Dousman House"), at the first window below the upstream entrance and on the upper end of the sill. A copper bolt, flanked by the letters "U.S.P.B.M."	630.612

For descriptions of additional bench marks in this vicinity, see page 242.

LINE 144. MINNEAPOLIS, MINN., to GLASGOW, MO. (Part)
(First-order Leveling)

This Line follows the Chicago, St. Paul, Minneapolis & Omaha Railway from Winnebago to Elmore, Minn. From Elmore, Minn., to Luverne, Iowa, the Line follows the Chicago & North Western Railway; from Luverne to Des Moines, Iowa, the Line follows the Minneapolis & St. Louis Railroad; from Des Moines to Prairie City, Iowa the Line follows the Chicago, Rock Island & Pacific Railway.

The field work was done in 1930 by a party under the direction of J. D. Thurmond. Elevations are based on the 1929 General Adjustment of the First-order Level Net. These elevations supersede those previously published.

For descriptions of additional bench marks in this vicinity, see page 48.

		El. Ft.
<u>D-4</u>	In <u>Faribault County</u> , Minn., about 4.0 miles north of <u>Winnebago</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, about 0.3 mile north of milepost #21 and 45.0 feet west of the railroad, at the fence line. A standard disc, stamped "D-4, 1930" and set in the top of a concrete monument.	1065.838
	Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 21.	1066.4
	Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 22.	1074.3
<u>E-4</u>	In <u>Faribault County</u> , Minn., about 1.2 miles north of <u>Winnebago</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, about 3 rails south of milepost #23 and 45.0 feet east of the railroad, at the fence line. A standard disc, stamped "E-4, 1930" and set in the top of a concrete monument.	1069.555
	Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 23.	1068.3
	Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 24.	1092.0

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway station at Winnebago.	1095.1
<u>F-4</u> In <u>Faribault County</u> , Minn., about 800 feet south of the Chicago, St. Paul, Minneapolis & Omaha Railway station at <u>Winnebago</u> , 500 feet north of the railroad intersection, east of culvert #L-58; 56.0 feet north of a crossroad and 35.0 feet northeast of the railroad, at the fence line. A standard disc, stamped "F-4, 1930" and set in the top of a concrete monument.	1095.579
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 25.	1101.2
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 26.	1104.6
<u>G-4</u> In <u>Faribault County</u> , Minn., about 2.5 miles south of <u>Winnebago</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, 115 feet south of milepost # L. C.27; 45.0 feet southwest of the railroad and about 45.0 feet south of a crossroad. A standard disc, stamped "G-4, 1930" and set in the top of a concrete monument.	1096.084
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 27.	1098.4
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 28.	1090.4
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 29.	1089.9
<u>H-4</u> In <u>Faribault County</u> , Minn., about 5.0 miles south of <u>Winnebago</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, about 600 feet south of a crossroad, 250 feet north of culvert #L-74 and about 40 feet east of the railroad, at the fence line. A standard disc, stamped "H-4, 1930" and set in the top of a concrete monument.	1084.486
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 30.	1088.9
<u>J-4</u> In <u>Faribault County</u> , Minn., about 2.0 miles north of <u>Blue Earth</u> , on the Chicago, St. Paul, Minneapolis &	

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
Omaha Railway, about 120 yards southeast of a culvert #L-182, east of pole #1950, and at the fence line. A standard disc, stamped "J-4, 1930" and set in the top of a concrete monument.	1068.466
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 32.	1067.9
Top of rail at intersection of the Chicago, St. Paul, Minneapolis & Omaha Railway and the Chicago & North Western Railroad.	1079.3
<u>K-4</u> In <u>Faribault County</u> , Minn., at <u>Blue Earth</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, 6.0 yards east of the platform of the freight station and on the base of the water crane. A standard disc, stamped "K-4, 1930".	1083.705
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway station at Blue Earth.	1084.3
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 34.	1089.6
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 35.	1098.0
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 36.	1090.6
<u>L-4</u> In <u>Faribault County</u> , Minn., about 2.75 miles south of <u>Blue Earth</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, about 55.0 feet southwest of a deserted house, about 43.0 feet east of the railroad and 40.0 feet north of a crossroad. A standard disc, stamped "L-4, 1930" and set in the top of a concrete monument.	1095.923
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 37.	1111.0
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 38.	1110.5
<u>M-4</u> In <u>Faribault County</u> , Minn., about 5.5 miles south of the Chicago, St. Paul, Minneapolis & Omaha Railway station at <u>Blue Earth</u> , 48.0 feet west of the railroad and about 46.0 feet south of a crossroad. A standard disc, stamped "M-4, 1930" and set in the top of a concrete monument.	1104.886

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 39.	1105.5
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 40.	1115.6
<u>N-4</u> In <u>Faribault County</u> , Minn., about 3.5 miles north of <u>Elmore</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, about 0.5 mile south of milepost #L.C. 40, 75.0 yards south of a crossroad and in culvert #L-97. A standard disc, stamped "N-4, 1930".	1111.828
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 41.	1110.0
Top of rail opposite the Chicago, St. Paul, Minneapolis & Omaha Railway MP 42.	1116.6
<u>P-4</u> In <u>Faribault County</u> , Minn., about 0.5 mile north of <u>Elmore</u> , on the Chicago, St. Paul, Minneapolis & Omaha Railway, about 60.0 feet north of a crossroad and 40.0 feet east of the railroad, at the fence line. A standard disc, stamped "P-4, 1930" and set in the top of a concrete monument.	1124.450
The Line continues into Iowa.	
<u>A-1</u> In <u>Kossuth County</u> , Iowa, about 1.5 miles south of the Chicago & North Western Railway station at <u>Elmore</u> (<u>Faribault County</u>), Minn., 250 yards north of a bridge #876; 45.0 feet from the railroad, at the fence line. A standard disc, stamped "A-1, 1930" and set in the top of a concrete monument.	1125.129
<u>B-1</u> In <u>Kossuth County</u> , Iowa, about 1.5 miles north of <u>Ledyard</u> , on the Chicago & North Western Railway and 100 feet south of bridge #869; 48.0 feet east of the railroad and 40.0 feet north of a crossroad, in a fence corner. A standard disc, stamped "B-1, 1930" and set in the top of a concrete monument.	1130.355
<u>C-1</u> In <u>Kossuth County</u> , Iowa, at <u>Ledyard</u> , on the Chicago & North Western Railway, 16 rails south of station, near a corner of the fence around the F. Weyerhaeuser lumber yard and 48.0 feet west of the railroad. A standard disc, stamped "C-1, 1930" and set in the top of a concrete monument.	1144.663
Top of rail opposite the Chicago, North Western Railway station at Ledyard.	1149.1

MINNEAPOLIS, MINN., to GLASGOW, MO.

El. Ft.

- D-1 In Kossuth County, Iowa, about 0.9 mile north of Gerled, on the Chicago & North Western Railway, 800 feet southwest of bridge #854 and 45.0 feet west of the railroad. A standard disc, stamped "D-1, 1930" and set in the top of a concrete monument. 1145.595
- E-1 In Kossuth County, Iowa, at Gerled, about 100 feet southeast of the Chicago & North Western Railway station, at the crossing of the Chicago, Rock Island & Pacific Railway, in the east pier of the overhead bridge and northeast of the intersection of two railroads. A standard disc, stamped "E-1, 1930". 1156.028
- F-1 In Kossuth County, Iowa, about 2.2 miles south of Gerled, on the Chicago & North Western Railway, 370 yards south of a crossroad, and about 14.0 yards west of the railroad. A standard disc, stamped "F-1, 1930" and set in the top of a concrete monument. 1163.059
- G-1 In Kossuth County, Iowa, about 1.0 mile north of Bancroft, on the Chicago & North Western Railway, in the east end of the north abutment of a railroad bridge which is about 65.0 feet east of a highway bridge. A standard disc, stamped "G-1, 1930.". 1155.221
- Top of rail opposite the Chicago & North Western Railway station at Bancroft. 1173.1
- H-1 In Kossuth County, Iowa, about 0.5 mile south of Bancroft, on the Chicago & North Western Railway, 13.0 yards south of the first road crossing south of Bancroft and 15.0 yards west of the railroad, near the fence line. A standard disc, stamped "H-1, 1930" and set in the top of a concrete monument. 1175.880
- Top of rail opposite the Chicago & North Western Railway MP 147. 1172.4
- J-1 In Kossuth County, Iowa, about 2.5 miles south of Bancroft, on the Chicago & North Western Railway, 15.0 yards north of a crossroad and 14.0 yards west of the railroad at the fence line. A standard disc, stamped "J-1, 1930" and set in the top of a concrete monument. 1143.784
- K-1 In Kossuth County, Iowa, about 4.5 miles south of Bancroft, on the Chicago & North Western Railway, 700 feet south of bridge #285; 16.0 yards north of crossroad and 16.0 yards west of the railroad. A standard disc, stamped "K-1, 1930" and set in the top of a concrete monument. 1152.134

LEVELING IN IOWA

- | | El. Ft. |
|---|----------|
| <u>L-1</u> In <u>Kossuth County</u> , Iowa, about 0.25 mile north of the Chicago & North Western Railway station at <u>Burt</u> , in the southwest corner of the foundation of a coal chute. A standard disc, stamped "L-1, 1930". | 1178.849 |
| Top of rail opposite the Chicago & North Western Railway station at Burt. | 1177.3 |
| <u>M-1</u> In <u>Kossuth County</u> , Iowa, about 2.2 miles south of the Chicago & North Western Railway station at <u>Burt</u> , 300.0 feet south of a crossroad and 13.0 yards west of the railroad, at the fence line. A standard disc, stamped "M-1, 1930" and set in the top of a concrete monument. | 1168.124 |
| Top of rail opposite the Chicago & North Western Railway MP 139. | 1176.1 |
| <u>N-1</u> In <u>Kossuth County</u> , Iowa, about 3.9 miles south of the Chicago & North Western Railway station at <u>Burt</u> , 0.87 mile south of the crossing of a power-transmission line, about 13.0 yards south of the crossing of a farm road and 15.0 yards east of the railroad, at the fence line. A standard disc, stamped "N-1, 1930" and set in the top of a concrete monument. | 1171.543 |
| <u>P-1</u> In <u>Kossuth County</u> , Iowa, about 5.7 miles south of the Chicago & North Western Railway station at <u>Burt</u> , at bridge #809 and in the east end of the south abutment. A standard disc, stamped "P-1, 1930". | 1140.011 |
| <u>Q-1</u> In <u>Kossuth County</u> , Iowa, about 1.25 miles south of <u>Plum Creek</u> , on the Chicago & North Western Railway, 200.0 feet north of bridge #298 and about 11.5 yards west of the railroad, near the fence. A standard disc, stamped "Q-1, 1930" and set in the top of a concrete monument. | 1186.277 |
| Top of rail opposite the Chicago & North Western Railway MP 133. | 1194.4 |
| <u>R-1</u> In <u>Kossuth County</u> , Iowa, at <u>Algona</u> , 0.6 mile north of the Chicago & North Western Railway station, at bridge #793 and on the west end of the north abutment. A standard disc, stamped "R-1, 1930". | |
| Top of rail opposite the Chicago & North Western Railway station at Algona. | 1203.9 |

For descriptions of additional bench marks in this vicinity, see page 73.

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
<u>S-1</u> In <u>Kossuth County</u> , Iowa, at <u>Algona</u> , about 0.75 mile south of the Chicago & North Western Railway station, at the grade crossing opposite the Fair Grounds, about 35.0 feet north of the road and 35.0 feet east of the railroad, at the fence line. The mark is about 250 feet east of U. S. Highway #169. A standard disc, stamped "S-1, 1930" and set in the top of a concrete monument.	1194.755
<u>T-1</u> In <u>Kossuth County</u> , Iowa, about 1.5 miles north of <u>Irvington</u> , on the Chicago & North Western Railway and in the east end of culvert #771. A standard disc, stamped "T-1, 1930".	1119.043
Top of rail opposite the Chicago & North Western Railway station at Irvington.	1149.4
<u>U-1</u> In <u>Kossuth County</u> , Iowa, about 0.5 mile south of <u>Irvington</u> , on the Chicago & North Western Railway, at the first grade crossing south of Irvington, 45.0 feet west of the railroad and 50.0 feet north of the dirt road, at the fence line. A standard disc, stamped "U - 1, 1930" and set in the top of a concrete monument.	1142.311
<u>V-1</u> In <u>Kossuth County</u> , Iowa, at <u>Galbraith</u> , on the Chicago & North Western Railway, 90.0 feet east of the railroad, 75.0 feet northeast of the station and about 25.0 feet south of a dirt road, at a fence corner. A standard disc, stamped "V-1, 1930" and set in the top of a concrete monument.	1158.023
Top of rail opposite the Chicago & North Western Railway station at Galbraith.	1161.1
Top of rail opposite the Chicago & North Western Railway MP 124.	1160.5
Top of rail opposite the Chicago & North Western Railway MP 123.	1161.8
<u>W-1</u> In <u>Kossuth County</u> , about 3.0 miles north of <u>Luverne</u> , on the Chicago & North Western Railway, about 0.25 mile north of milepost #122; 30.0 feet south of culvert #754, about 6.0 feet west of a private road leading to a farmhouse and 45.0 feet east of the railroad, at the fence line. A standard disc, stamped "W-1, 1930" and set in the top of a concrete monument.	1157.284

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Chicago & North Western Railway MP 122.	1155.9
Top of rail opposite the Chicago & North Western Railway MP 121.	1156.0
Top of rail opposite the Chicago & North Western Railway MP 120.	1153.4
<u>X-1</u> In <u>Kossuth County</u> , Iowa, at <u>Luverne</u> , on the Chicago & North Western Railway, about <u>0.75</u> mile north of the crossing of the Minneapolis & St. Louis Railroad, 40.0 feet west of the railroad and 40.0 feet north of a dirt road which crosses the railroad. A standard disc, stamped "X-1, 1930" and set in the top of a concrete monument.	1164.476
Top of rail opposite the Chicago & North Western Railway MP 119.	1170.0
Top of rail opposite the Chicago & North Western Railway station at Luverne.	1167.3
<u>Y-1</u> In <u>Kossuth County</u> , Iowa, at <u>Luverne</u> , on the Minneapolis & St. Louis Railroad, about 5 rails west of the crossing of the Chicago & North Western Railway, in the south end of a culvert. A standard disc, stamped "Y-1, 1930".	1153.367
Top of rail opposite the Minneapolis & St. Louis Railroad station at Luverne.	1167.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 188.	1151.9
<u>Z-1</u> In <u>Humboldt County</u> , Iowa, about 1.3 miles southwest of <u>Luverne</u> (Kossuth County), on the Minneapolis & St. Louis Railroad, on the first hill west of Luverne, 6.0 poles west of the "Station One Mile" sign and 45.0 feet south of the railroad, at the fence line. A standard disc, stamped "Z-1, 1930" and set in the top of a concrete monument.	1168.131
Top of rail opposite the Minneapolis & St. Louis Railroad MP 189.	1164.7
Top of rail opposite the Minneapolis & St. Louis Railroad MP 190.	1139.4

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MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
<u>A-2</u> In <u>Humboldt County</u> , Iowa, about 3.0 miles northeast of <u>Livermore</u> , on the Minneapolis & St. Louis Railroad, 2 poles west of milepost #190 and in the north end of a stone culvert. A standard disc, stamped "A-2, 1930".	1139.397
Top of rail opposite the Minneapolis & St. Louis Railroad MP 191.	1124.4
Top of rail opposite the Minneapolis & St. Louis Railroad MP 192.	1095.6
<u>B-2</u> In <u>Humboldt County</u> , Iowa, at <u>Livermore</u> , on the Minneapolis & St. Louis Railroad, at a grade crossing located about 0.12 mile east of the station, 40.0 feet south of the railroad and 40.0 feet west of the road, under a telephone line. A standard disc, stamped "B-2, 1930" and set in the top of a concrete monument.	1126.976
Top of rail opposite the Minneapolis & St. Louis Railroad MP 193.	1132.1
Top of rail opposite the Minneapolis & St. Louis Railroad station at Livermore.	1132.5
<u>C-2</u> In <u>Humboldt County</u> , Iowa, at <u>Livermore</u> , at crossing of the Minneapolis & St. Louis Railroad and the Chicago, Rock Island & Pacific Railway, 15.0 feet east of the Minneapolis & St. Louis Railroad and in the north end of a culvert on the Chicago, Rock Island & Pacific Railway. A standard disc, stamped "C-2, 1930".	1129.109
Top of rail opposite the Minneapolis & St. Louis Railroad MP 194.	1144.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 195.	1130.6
<u>D-2</u> In <u>Humboldt County</u> , Iowa, about 1.5 miles north of <u>Arnold</u> , on the Minneapolis & St. Louis Railroad, about 0.5 mile north of milepost #196, at a grade crossing, 45.0 feet west of the railroad and 25.0 feet north of the road. A standard disc, stamped "D-2, 1930" and set in the top of a concrete monument.	1130.621
Top of rail opposite the Minneapolis & St. Louis Railroad MP 196.	1117.1
Top of rail opposite the Minneapolis & St. Louis Railroad station at Arnold.	1132.2

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Minneapolis & St. Louis Railroad MP 197.	1134.4
<u>E-2</u> In <u>Humboldt County</u> , Iowa, about 1.0 mile south of <u>Arnold</u> , on the Minneapolis & St. Louis Railroad, about 0.17 mile north of milepost #198, about 0.12 mile south of a road crossing, and in the west end of a culvert. A standard disc, stamped "E-2, 1930".	1143.010
Top of rail opposite the Minneapolis & St. Louis Railroad MP 198.	1144.2
Top of rail opposite the Minneapolis & St. Louis Railroad MP 199.	1134.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 200.	1123.1
<u>F-2</u> In <u>Humboldt County</u> , Iowa, about 3.0 miles south of <u>Arnold</u> , on the Minneapolis & St. Louis Railroad and 0.25 mile south of milepost #200, and 100 yards south of a crossing and in the east end of a stone culvert. A standard disc, stamped "F-2, 1930".	1120.224
<u>G-2</u> In <u>Humboldt County</u> , Iowa, about 1.0 mile north of <u>Humboldt</u> , on the Minneapolis & St. Louis Railroad, at a grade crossing near milepost #202; 150 feet south of the crossing and 40.0 feet west of the railroad. A standard disc, stamped "G-2, 1930" and set in the top of a concrete monument.	1123.275
Top of rail opposite the Minneapolis & St. Louis Railroad MP 202.	1122.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 203.	1088.2
<u>H-2</u> In <u>Humboldt County</u> , Iowa, at <u>Humboldt</u> , at the Minneapolis & St. Louis Railroad station and in the sill of the door to the express room. A standard disc, stamped "H-2, 1930".	1085.782
Top of rail opposite the Minneapolis & St. Louis Railroad station at Humboldt.	1085.8
Top of rail opposite the Minneapolis & St. Louis Railroad MP 204.	1084.1

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
Top of rail opposite the Minneapolis & St. Louis Railroad MP 205.	1065.3
For descriptions of additional bench marks in this vicinity, see page	
<u>J-2</u> In <u>Humboldt County</u> , Iowa, about 2.4 miles south of <u>Humboldt</u> , on the Minneapolis & St. Louis Railroad, 0.5 mile north of the Humboldt Tile Works, about 400 feet south of bridge #135, at the crossing of a private road and 10.0 feet west of the railroad. A standard disc, stamped "J-2, 1930" and set in the top of a concrete monument.	1067.586
Top of rail opposite the Minneapolis & St. Louis Railroad MP 206.	1080.1
Top of rail opposite the Minneapolis & St. Louis Railroad MP 208.	1113.2
<u>K-2</u> In <u>Humboldt County</u> , Iowa, about 3.0 miles north of <u>Badger</u> (<u>Webster County</u>), at Minneapolis & St. Louis Railroad bridge #140 over U. S. Highway #169 and in the east end of the north abutment. A standard disc, stamped "K-2, 1930".	1108.370
Top of rail opposite the Minneapolis & St. Louis Railroad MP 209.	1126.6
Top of rail opposite the Minneapolis & St. Louis Railroad MP 210.	1126.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 211.	1141.5
<u>L-2</u> In <u>Webster County</u> , about 1.0 mile north of <u>Badger</u> , on the Minneapolis & St. Louis Railroad, at a grade crossing near a white schoolhouse, about 80.0 yards southeast of the schoolhouse, 45.0 feet west of railroad and 45.0 feet south of the road. A standard disc, stamped "L-2, 1930" and set in the top of a concrete monument.	1134.761
Top of rail opposite the Minneapolis & St. Louis Railroad MP 212.	1138.2
Top of rail opposite the Minneapolis & St. Louis Railroad station at Badger.	1152.1

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Minneapolis & St. Louis Railroad MP 213.	1130.8
<u>M-2</u> In Webster County, Iowa, about 1.0 mile south of Badger, on the Minneapolis & St. Louis Railroad, at the first grade crossing south of Badger, about 250 yards west of a white schoolhouse, 60.0 feet north of the road and 45.0 feet east of the railroad, in a fence corner. A standard disc, stamped "M-2, 1930" and set in the top of a concrete monument.	1126.674
Top of rail opposite the Minneapolis & St. Louis Railroad MP 214.	1119.8
Top of rail opposite the Minneapolis & St. Louis Railroad MP 215.	1118.1
<u>N-2</u> In Webster County, Iowa, about 3.0 miles south of Badger, on the Minneapolis & St. Louis Railroad, about 0.2 mile south of milepost #216, in front of a small white schoolhouse and in the east end of a culvert. A standard disc, stamped "N-2, 1930".	1121.645
Top of rail opposite the Minneapolis & St. Louis Railroad MP 216.	1115.8
<u>P-2</u> In Webster County, Iowa, about 3.5 miles north of Fort Dodge, on the Minneapolis & St. Louis Railroad, at a grade crossing located about 0.3 mile south of milepost #218; 60.0 feet south of the road and 45.0 feet east of the railroad, in a fence corner. A standard disc, stamped "P-2, 1930" and set in the top of a concrete monument.	1117.583
Top of rail opposite the Minneapolis & St. Louis Railroad MP 218.	1105.0
Top of rail opposite the Minneapolis & St. Louis Railroad MP 219.	1067.7
<u>Q-2</u> In Webster County, Iowa, about 1.5 miles north of Fort Dodge, on the Minneapolis & St. Louis Railroad, about 0.12 mile north of milepost #220, at bridge #152, and in the west end of the north abutment. A standard disc, stamped "Q-2, 1930".	1039.972
Top of rail opposite the Minneapolis & St. Louis Railroad MP 220.	1033.3

MINNEAPOLIS, MINN. to GLASGOW, MO.

	El. Ft.
<u>R-2</u> In <u>Webster County</u> , Iowa, at <u>Fort Dodge</u> , at the plant of the Quaker Oats Company, in the northeast footing of the water tank and 25.0 feet west of the Minneapolis & St. Louis Railroad. A standard disc, stamped "R-2, 1930".	990.615
<u>S-2</u> In <u>Webster County</u> , Iowa, at <u>Fort Dodge</u> , in the Minneapolis & St. Louis Railroad yards, 300.0 yards south of the railroad shops, and in the northeast corner of the foundation of a coal chute. A standard disc, stamped "S-2, 1930".	995.234
For descriptions of additional bench marks in this vicinity, see page 214.	
<u>T-2</u> In <u>Webster County</u> , Iowa, about 4.0 miles south of <u>Fort Dodge</u> , on the Minneapolis & St. Louis Railroad, at the bridge carrying the Fort Dodge, Des Moines & Southern Electric Railway over the tracks of the Minneapolis & St. Louis Railroad and in the foundation of the south pier on the west side of the railroad. A standard disc, stamped "T-2, 1930".	982.003
Top of rail opposite the Minneapolis & St. Louis Railroad MP 227.	1038.8
<u>U-2</u> In <u>Webster County</u> , Iowa, about 7.0 miles south of <u>Fort Dodge</u> , on the Minneapolis & St. Louis Railroad, 7.0 poles south of milepost #228, 150.0 yards north of bridge #172 and in the west end of a culvert. A standard disc, stamped "U-2, 1930".	1098.443
<u>V-2</u> In <u>Webster County</u> , Iowa, about 0.25 mile north of the Minneapolis & St. Louis Railroad station at <u>Otho</u> , at a road crossing, 45.0 feet west of the railroad and 40.0 feet north of the road. A standard disc, stamped "V-2, 1930" and set in the top of a concrete monument.	1124.916
Top of rail opposite the Minneapolis & St. Louis Railroad station at Otho.	1126.1
<u>W-2</u> In <u>Webster County</u> , Iowa, about 2.25 miles south of <u>Otho</u> , on the Minneapolis & St. Louis Railroad, 25.0 feet north of a crossroad, 10.0 feet west of the railroad and in a culvert. A standard disc, stamped "W-2, 1930".	1111.619
Top of rail opposite the Minneapolis & St. Louis Railroad MP 233.	1117.8

LEVELING IN IOWA

	El. Ft.
<u>X-2</u> In <u>Webster County</u> , Iowa, about 4.0 miles south of <u>Otho</u> , on the Minneapolis & St. Louis Railroad, 13.0 yards south of the main road to Burnside and 13.0 yards east of the railroad, in a fence corner. A standard disc, stamped "X-2, 1930" and set in the top of a concrete monument.	1125.057
Top of rail opposite the Minneapolis & St. Louis Railroad MP 234.	1122.0
Top of rail opposite the Minneapolis & St. Louis Railroad MP 235.	1136.8
Top of rail opposite the Minneapolis & St. Louis Railroad station at Burnside.	1140.4
<u>Y-2</u> In <u>Webster County</u> , Iowa, about 0.25 mile south of <u>Burnside</u> , near the Minneapolis & St. Louis Railroad and in the south steps of the Burnside Consolidated School Building. A standard disc, stamped "Y-2, 1930".	1142.852
Top of rail opposite the Minneapolis & St. Louis Railroad MP 236.	1142.3
Top of rail opposite the Minneapolis & St. Louis Railroad MP 237.	1144.3
<u>Z-2</u> In <u>Webster County</u> , Iowa, about 2.25 miles south of <u>Burnside</u> , on the Minneapolis & St. Louis Railroad, 100.0 feet north of a crossroad and 40.0 feet west of the railroad. A standard disc, stamped "Z-2, 1930" and set in the top of a concrete monument.	1147.301
Top of rail opposite the Minneapolis & St. Louis Railroad MP 238.	1149.8
Top of rail opposite the Minneapolis & St. Louis Railroad MP 239.	1147.2
<u>A-3</u> In <u>Webster County</u> , Iowa, about 1.6 miles north of <u>Dayton</u> , on the Minneapolis & St. Louis Railroad, 11.0 yards south of a crossroad and 13.0 yards west of the railroad. A standard disc, stamped "A-3, 1930" and set in the top of a concrete monument.	1139.837
Top of rail opposite the Minneapolis & St. Louis Railroad MP 240.	1139.0
Top of rail opposite the Minneapolis & St. Louis Railroad MP 241.	1125.3

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
<u>B-3</u> In Webster County, Iowa, about 0.25 mile south of the Minneapolis & St. Louis Railroad station at Dayton, at the steel bridge over the Chicago & NorthWestern Railway, and in the east end of the north abutment. A standard disc, stamped "B-3, 1930".	1133.534
Top of rail opposite the Minneapolis & St. Louis Railroad MF 242	1134.8
Top of rail opposite the Minneapolis & St. Louis Railroad station at Dayton.	1126.1
<u>C-3</u> In Webster County, Iowa, about 1.0 mile south of Dayton, on the Minneapolis & St. Louis Railroad, 125 feet south of the "Station One Mile" sign and in the west end of the culvert. A standard disc, stamped "C-3, 1930" and set in the top of a concrete monument.	1145.824
Top of rail opposite the Minneapolis & St. Louis Railroad MF 243.	1148.0
<u>D-3</u> In Webster County, Iowa, about 100 yards south of South Dayton, on the Minneapolis & St. Louis Railroad, 13.0 yards east of the railroad and 7.0 yards northwest of a crossroad, in a fence corner. A standard disc stamped "D-3, 1930" and set in the top of a concrete monument.	1134.161
Top of rail opposite the Minneapolis & St. Louis Railroad MF 244	1142.7
Top of rail opposite the Minneapolis & St. Louis Railroad MF 245.	1118.3
<u>E-3</u> In Boone County, Iowa, about 1.75 miles south of South Dayton (Webster County), on the Minneapolis & St. Louis Railroad, 25.0 feet south of a crossroad and 40.0 feet east of the railroad, at a fence line. A standard disc, stamped "E-3, 1930" and set in the top of a concrete monument.	1121.815
Top of rail opposite the Minneapolis & St. Louis Railroad MF 246.	1120.0
Top of rail opposite the Minneapolis & St. Louis Railroad MF 247.	1109.4
Top of rail opposite the Minneapolis & St. Louis Railroad MF 248.	1104.1

LEVELING IN IOWA

	El. Ft.
<u>F-3</u> In <u>Boone County</u> , Iowa, about 0.25 mile north of <u>Pilot Mound</u> , on the Minneapolis & St. Louis Railroad, 40.0 feet north of a crossroad and 45.0 feet east of the railroad, at a fence line. A standard disc, stamped "F-3, 1930" and set in the top of a concrete monument.	1106.284
Top of rail opposite the Minneapolis & St. Louis Railroad MP 249.	1104.1
Top of rail opposite the Minneapolis & St. Louis Railroad station at Pilot Mound.	1103.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 250.	1094.0
<u>G-3</u> In <u>Boone County</u> , Iowa, about 2.0 miles south of <u>Pilot Mound</u> , at the crossing of the Minneapolis & St. Louis Railroad and the Fort Dodge, Des Moines & Southern Electric Railway, about 10.0 yards north of the electric line and about 8.0 yards east of the railroad. A standard disc, stamped "G-3, 1930" and set in the top of a concrete monument.	1086.530
Top of rail opposite the Minneapolis & St. Louis Railroad MP 251.	1087.4
Top of rail opposite the Minneapolis & St. Louis Railroad MP 252.	1116.0
<u>H-3</u> In <u>Boone County</u> , Iowa, about 2.0 miles south of <u>Wolf</u> , on the Minneapolis & St. Louis Railroad, about 2 poles north of milepost #253; 20.0 yards north of the crossroad and in the west end of a culvert. A standard disc, stamped "H-3, 1930".	1112.809
Top of rail opposite the Minneapolis & St. Louis Railroad MP 253.	1113.6
Top of rail opposite the Minneapolis & St. Louis Railroad MP 254.	1120.2
<u>J-3 (RESET)</u> In <u>Boone County</u> , Iowa, about 2.0 miles north of <u>Ogden</u> , on the Minneapolis & St. Louis Railroad, in the northeast corner of a road intersection, in the southwest corner of Section 17, T-84-N, R-27-W, 26.7 feet north of the fence corner post, 22.4 feet north of a telephone pole and 73.3 feet northeast of a telephone pole, 32.5 feet south of cross-spikes in a fence post.	

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
A bronze cap, stamped "J-3, Reset" and set in a concrete monument. (Reset July, 1938)	1116.514
Top of rail opposite the Minneapolis & St. Louis Railroad MP 255.	1112.4
<u>K-3</u> In <u>Boone County</u> , Iowa, about 2.0 miles north of Ogden, on the Minneapolis & St. Louis Railroad, about 200 yards south of the crossroad at milepost #256 and in the east end of a culvert. A standard disc, stamped "K-3, 1930".	1095.595
Top of rail opposite the Minneapolis & St. Louis Railroad MP 256.	1098.2
Top of rail opposite the Minneapolis & St. Louis Railroad MP 257.	1095.9
<u>L-3</u> In <u>Boone County</u> , Iowa, at Ogden, about 100 yards north of the main street of Ogden and 9.0 yards north west of the intersection of the Minneapolis & St. Louis Railroad and the Chicago & North Western Railway. A standard disc, stamped "L-3, 1930" and set in the top of a concrete monument.	1098.203
Top of rail opposite the Minneapolis & St. Louis Railroad MP 258.	1091.0
Top of rail opposite the Minneapolis & St. Louis Railroad MP 259.	1082.4
For descriptions of additional bench marks in this vicinity, see page 178.	
<u>M-3</u> In <u>Boone County</u> , Iowa, about 2.0 miles south of Ogden, on the Minneapolis & St. Louis Railroad, 40.0 feet north of a crossroad and 40.0 feet east of railroad at the fence line. A standard disc, stamped "M-3, 1930" and set in the top of a concrete monument.	1055.100
Top of rail opposite the Minneapolis & St. Louis Railroad MP 260.	1061.7
Top of rail opposite the Minneapolis & St. Louis Railroad MP 261.	1037.0
Top of rail opposite the Minneapolis & St. Louis Railroad MP 262.	1028.7

LEVELING IN IOWA

	El. Ft.
<u>N-3</u> In <u>Boone County</u> , Iowa, about 4.0 miles south of <u>Ogden</u> , on the <u>Minneapolis & St. Louis Railroad</u> , at a grade crossing about 0.5 mile south of milepost #262, 45.0 feet south of the road and 45.0 feet east of the railroad, in a fence corner. A standard disc, stamped "N-3, 1930" and set in the top of a concrete monument.	1019.355
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 263.	1018.0
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 264.	994.6
<u>P-3</u> In <u>Boone County</u> , Iowa, at <u>Berkley</u> , on the <u>Minneapolis & St. Louis Railroad</u> , at a grade crossing, 0.5 mile north of the station, 500 feet south of milepost #265; 60.0 feet south of the road and 45.0 feet west of the railroad, in a fence corner. A standard disc, stamped "P-3, 1930" and set in the top of a concrete monument.	972.531
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 265.	974.1
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> station at <u>Berkley</u> .	989.5
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 266.	998.6
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 267.	996.0
<u>Q-3</u> In <u>Boone County</u> , Iowa about 2.0 miles south of <u>Berkley</u> , on the <u>Minneapolis & St. Louis Railroad</u> , 0.5 mile south of milepost #267; 100 yards south of a grade crossing and in the west end of a culvert. A standard disc, stamped "Q-3, 1930".	998.102
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 268.	1008.8
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 269.	1016.3
<u>R-3</u> In <u>Boone County</u> , Iowa, at <u>Angus</u> , on the <u>Minneapolis & St. Louis Railroad</u> , about 0.5 mile north of the station, 0.5 mile south of milepost #269; 200 feet south of a grade crossing, 60.0 feet west of the road and in the east end of a culvert. A standard disc, stamped	

MINNEAPOLIS, MINN., to GLASGOW, MO.

	ed "R-3, 1930".	El. Ft. 1026.986
	Top of rail opposite the Minneapolis & St. Louis Railroad MP 270.	1027.5
	Top of rail opposite the Minneapolis & St. Louis Railroad station at Angus.	1024.5
<u>S-3</u>	In <u>Boone County</u> , Iowa, at <u>Angus</u> , on the Minneapolis & St. Louis Railroad, 0.6 mile south of the station, at a grade crossing near a small schoolhouse, 40.0 feet north of the road and about 20.0 feet west of the railroad. A standard disc, stamped "S-3, 1930" and set in the top of a concrete monument.	1013.253
	Top of rail opposite the Minneapolis & St. Louis Railroad MP 274.	996.3
<u>T-3</u>	In <u>Dallas County</u> , Iowa, about 1.5 miles north of <u>Perry</u> , on the Minneapolis & St. Louis Railroad, 0.5 mile south of milepost #274; 0.12 mile south of a grade crossing and 45.0 feet west of the railroad, at the fence line. A standard disc, stamped "T-3, 1930" and set in the top of a concrete monument.	989.119
	Base of rail opposite the Minneapolis & St. Louis Railroad MP 275.	968.8
	Top of rail opposite the Minneapolis & St. Louis Railroad station at Perry.	962.8
	Top of rail opposite the Minneapolis & St. Louis Railroad MP 276.	962.8
	Top of rail at intersection of the Minneapolis & St. Louis Railroad with State Highway #17.	962.7
<u>U-3</u>	In <u>Dallas County</u> , Iowa, at <u>Perry</u> , on the Warford Street side of the post office, under the grilled window, 10.0 feet from the northwest corner of the building, and 2.5 feet above the ground, in the water table. A standard disc, stamped "U-3, 1930".	969.129
<u>V-3</u>	In <u>Dallas County</u> , Iowa, at <u>Perry</u> , on the Minneapolis & St. Louis Railroad, 0.75 mile south of the station, 0.25 mile north of milepost #277, near the horse stables at the Fair Grounds, and on the east end of a culvert. A standard disc, stamped "V-3, 1930".	957.492

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Minneapolis & St. Louis Railroad MP 277.	961.3
Top of rail opposite the Minneapolis & St. Louis Railroad MP 278.	996.0
Top of rail opposite the Minneapolis & St. Louis Railroad MP 279.	1025.0
<u>W-3</u> In <u>Dallas County</u> , Iowa, about 3.25 miles north of <u>Minburn</u> , on the Minneapolis & St. Louis Railroad, 0.25 mile north of milepost #280, at a road crossing, 30.0 feet west of the railroad and about 30.0 feet south of a gravel road. A standard disc, stamped "W-3, 1930" and set in the top of a concrete monument.	1026.307
Top of rail opposite the Minneapolis & St. Louis Railroad MP 280.	1027.3
<u>X-3</u> In <u>Dallas County</u> , Iowa, about 2.0 miles northwest of <u>Minburn</u> , on the Minneapolis & St. Louis Railroad, at a grade crossing at milepost #281, 43.0 feet east of the road and 30.0 feet north of the railroad. A standard disc, stamped "X-3, 1930" and set in the top of a concrete monument.	1026.205
Top of rail opposite the Minneapolis & St. Louis Railroad station at Minburn.	1048.3
Top of rail opposite the Minneapolis & St. Louis Railroad MP 283.	1047.4
<u>Y-3</u> In <u>Dallas County</u> , Iowa, 0.75 mile south of Minburn, on the Minneapolis & St. Louis Railroad, 0.12 mile north of milepost #284, at a grade crossing, 10.0 feet south of the road and 30.0 feet west of the railroad at the fence line. A standard disc, stamped "Y-3, 1930" and set in the top of a concrete monument.	1047.209
Top of rail opposite the Minneapolis & St. Louis Railroad MP 284.	1047.3
<u>Z-3</u> In <u>Dallas County</u> , about 3.75 miles north of <u>Dallas Center</u> , on the Minneapolis & St. Louis Railroad, 0.25 mile south of milepost #286, 150.0 feet north of a crossing and 10.0 feet east of the railroad. A standard disc, stamped "Z-3, 1930" and set in a light gray rock, along the fill.	1035.611
Top of rail opposite the Minneapolis & St. Louis Railroad MP 286.	1040.5

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
<u>A-4</u> In <u>Dallas County</u> , Iowa, about 2.0 miles north of <u>Dallas Center</u> , on the Minneapolis & St. Louis Railroad, 100 yards south of milepost #287 and 40.0 feet west of the railroad, under the telephone line. A standard disc, stamped "A-4, 1930" and set in the top of a concrete monument.	1044.375
Top of rail opposite the Minneapolis & St. Louis Railroad MP 287.	1044.8
Top of rail opposite the Minneapolis & St. Louis Railroad MP 288.	1051.0
Top of rail at center line of crossing of the Minneapolis & St. Louis Railroad with State Highway #7.	1062.3
Top of rail opposite the Minneapolis & St. Louis Railroad MP 289.	1071.0
Top of rail opposite the Minneapolis & St. Louis Railroad station at Dallas Center.	1070.7
Top of rail opposite the Minneapolis & St. Louis Railroad MP 290.	1037.1
Top of rail opposite the Minneapolis & St. Louis Railroad MP 291.	1032.6
<u>B-4</u> In <u>Dallas County</u> , Iowa, about 2.7 miles south of <u>Dallas Center</u> , on the Minneapolis & St. Louis Railroad, 0.87 mile south of milepost #291, at a grade crossing, 30.0 feet west of the railroad and 20.0 feet north of the road, inside the fence line. A standard disc, stamped "B-4, 1930" and set in the top of a concrete monument.	1028.695
Top of rail opposite the Minneapolis & St. Louis Railroad MP 292.	1037.7
Top of rail opposite the Minneapolis & St. Louis Railroad MP 293.	1034.2
<u>C-4</u> In <u>Dallas County</u> , Iowa, about 1.0 mile north of <u>Waukee</u> , on the Minneapolis & St. Louis Railroad, about 0.25 mile south of milepost #294 and on the north end of a culvert. A standard disc, stamped "C-4, 1930".	1023.528
Top of rail opposite the Minneapolis & St. Louis Railroad MP 294.	1029.3

LEVELING IN IOWA

	El. Ft.
<p><u>1035 (U.S.G.S.)</u> In <u>Dallas County</u>, Iowa, at <u>Wauke</u>, 4 poles west of the crossing of the Chicago, Minneapolis, St. Paul & Pacific Railroad and the Minneapolis & St. Louis Railroad, 10.0 feet south of a road, at a fence corner. A United States Geological Survey standard cap, stamped "1035" and riveted on the top of a 3.5 inch iron pipe.</p>	1034.119
<p>Top of rail opposite the Minneapolis & St. Louis Railroad station at Wauke.</p>	1035.7
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 296.</p>	1035.0
<p><u>D-4</u> In <u>Dallas County</u>, Iowa, about 2.0 miles south of <u>Wauke</u>, on the Minneapolis & St. Louis Railroad, at a grade crossing at the northwest corner of a large grove of trees, 45.0 feet east of the railroad and 30.0 feet south of the road, under the telephone line. A standard disc, stamped "D-4, 1930" and set in the top of a concrete monument.</p>	1045.333
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 297.</p>	1040.8
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 298.</p>	1042.6
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 299.</p>	1011.6
<p><u>E-4</u> In <u>Dallas County</u>, Iowa, about 5.0 miles south of <u>Wauke</u>, on the Minneapolis & St. Louis Railroad, 30.0 rails north of milepost #300, at a road crossing, 45.0 feet east of the railroad and 30.0 feet south of road. A standard disc, stamped "E-4, 1930" and set in the top of a concrete monument.</p>	981.737
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 300.</p>	971.3
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 301.</p>	918.0
<p>Top of rail opposite the Minneapolis & St. Louis Railroad MP 302.</p>	891.8
<p><u>F-4</u> In <u>Polk County</u>, Iowa, at <u>Ashawa</u>, on the Minneapolis & St. Louis Railroad, 10.0 rails north of the</p>	

MINNEAPOLIS, MINN., to GLASGOW, MO.

	El. Ft.
station, 20.0 feet west of the railroad and 17.0 feet east of the siding. A standard disc, stamped "F-4, 1930" and set in the top of a concrete monument.	884.903
Top of rail opposite the Minneapolis & St. Louis Railroad station at Ashawa.	885.4
Top of rail opposite the Minneapolis & St. Louis Railroad MP 303.	879.5
Top of rail opposite the Minneapolis & St. Louis Railroad MP 304.	839.5
<u>G-4</u> In <u>Polk County</u> , Iowa, at <u>West Des Moines</u> (formerly Valley Junction), on the Minneapolis & St. Louis Railroad, about 0.3 mile west of the station, on south side of the railroad tracks, and in the southeast corner of the concrete base of signal tower #3627. A standard disc, stamped "G-4, 1930".	813.450
Top of rail opposite the Minneapolis & St. Louis Railroad station at West Des Moines (formerly Valley Junction).	813.7
<u>H-4</u> In <u>Polk County</u> , Iowa, about 1.5 miles east of <u>West Des Moines</u> (formerly Valley Junction), between the Minneapolis & St. Louis Railroad and the Chicago, Rock Island & Pacific Railway, on the west abutment of bridge #3611. A standard disc, stamped "H-4, 1930".	808.653
<u>J-4</u> In <u>Polk County</u> , Iowa, at <u>Des Moines</u> , on the Chicago, Rock Island & Pacific Railway, 2.5 miles west of the station, at a grade crossing at milepost #360, 20.0 feet north of the railroad, 10.0 feet east of the road, in a catch basin for a sewer. A standard disc, stamped "J-4, 1930".	805.943
<u>L-4</u> In <u>Polk County</u> , Iowa, at <u>Des Moines</u> , at the Chicago, Rock Island & Pacific Railway bridge over the Des Moines River, in the center pier of the bridge and between the track and the north girder. A standard disc, stamped "L-4, 1930".	797.010
Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Des Moines.	799.2
<u>K-4</u> In <u>Polk County</u> , Iowa, at Des Moines, at the post office and in the concrete foundation at the first base-	

LEVELING IN IOWA

- ment window north of southwest corner of the building.
A standard disc, stamped "K-4, 1930". El. Ft. 803.214
- 809 (U.S.G.S.) In Polk County, Iowa, at Des Moines, at the intersection of Court Avenue and Fifth Avenue, at the southwest corner of the Old Federal Building and Recruiting Station, in the south wall and about 2.0 feet above the sidewalk. A United States Geological Survey standard disc, stamped "807.449 Adj. 1929". 807.449
- M-4 In Polk County, Iowa, about 2.0 miles east of the river at Des Moines, at the railroad junction, at the switch-control house on the north side of the Chicago, Rock Island & Pacific Railway, in the foundation on the east side of the house and near the manhole. A standard disc, stamped "M-4, 1930". 801.934
- For descriptions of additional bench marks in this vicinity, see pages 72 and 194.
- N-4 In Polk County, Iowa, about 3.1 miles east of the river at Des Moines, on the Chicago, Rock Island & Pacific Railway, at the crossing of U. S. Highway #6, in a pier of the overhead bridge, between the tracks and on the west pier. A standard disc, stamped "N-4, 1930". 800.300
- P-4 In Polk County, Iowa, about 4.5 miles east of the river at Des Moines, at the Chicago, Rock Island & Pacific Railway bridge #3603, on the northeast abutment, and northwest of the south track. A standard disc, stamped "P-4, 1930". 796.462
- B.M. 57 (U.S.E.) In Polk County, Iowa, about 6.0 miles east of Des Moines, on the Chicago, Burlington & Quincy Railroad bridge and on the east end of the north abutment. 794.234
- Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 359. 817.3
- Q-4 In Polk County, Iowa, about 4.0 miles west of Altoona, on the Chicago, Rock Island & Pacific Railway, 150 yards east of a farmhouse, 100 yards south of a white farmhouse, at a crossing, 12.0 yards east of the railroad and 11.0 yards south of the road. A standard disc, stamped "Q-4, 1930" and set in the top of a concrete monument. 869.831
- R-4 In Polk County, Iowa, about 2.0 miles west of Altoona, on the Chicago, Rock Island & Pacific Railway,

MINNEAPOLIS, MINN., to GLASGOW, MO.

- 15.0 yards north of the crossing of the transcontinental telegraph cable, and on the south end of a culvert. A standard disc, stamped "R-4, 1930". El. Ft. 869.444
- S-4 In Polk County, Iowa, at Altoona, on the Chicago, Rock Island & Pacific Railway, 100 yards east of the station, 100 feet south of a crossing and 20.0 yards east of the road. A standard disc, stamped "S-4, 1930" and set in the top of a concrete monument. 956.448
- Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Altoona. 957.2
- Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 354. 957.7
- T-4 In Polk County, Iowa, about 2.1 miles southeast of Altoona, on the Chicago, Rock Island & Pacific Railway, 10.0 yards north of the north rail and 11.0 yards east of the center of a crossroad. A standard disc, stamped "T-4, 1930" and set in the top of a concrete monument. 938.440
- U-4 In Polk County, Iowa, about 0.9 mile northwest of Nobleton, on the Chicago, Rock Island & Pacific Railway, 150 yards east of the "Station One Mile" sign, 300 yards west of a crossroad and in the north end of the east abutment of a bridge. A standard disc, stamped "U-4, 1930". 941.885
- V-4 In Polk County, Iowa, about 0.6 mile east of Nobleton, on the Chicago, Rock Island & Pacific Railway near the county line, 16.0 yards west of the crossroad and 13.0 yards south of the railroad, at a fence corner. A standard disc, stamped "V-4, 1930" and set in the top of a concrete monument. 951.340
- W-4 In Jasper County, Iowa, about 2.6 miles southeast of Nobleton (Polk County), on the Chicago, Rock Island & Pacific Railway, 100 yards west of a crossroad and on the north end of a culvert. A standard disc, stamped "W-4, 1930". 942.308
- X-4 In Jasper County, Iowa, about 2.5 miles northwest of Prairie City, on the Chicago, Rock Island & Pacific Railway, 50.0 yards west of a crossroad, 45.0 yards west of the crossing of a pipe line and 13.0 yards south of the track. A standard disc, stamped "X-4, 1930" and set in the top of a concrete monument. 931.658
- Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Prairie City. 924.9

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	El. Ft.
<p><u>Y-4</u> In Jasper County, Iowa, about 0.4 miles east of <u>Prairie City</u>, on the Chicago, Rock Island & Pacific Railway, 100 yards west of a crossroad, and 13.0 yards north of the railroad, at the fence line. A standard disc, stamped "Y-4, 1930" and set in the top of a concrete monument.</p>	926.130
<p><u>Z-4</u> In Jasper County, Iowa, about 3.0 miles southeast of <u>Prairie City</u>, on the Chicago, Rock Island & Pacific Railway, 100 yards west of the crossing of a farm road and on the south end of a culvert. A standard disc, stamped "Z-4, 1930".</p>	917.426
<p>Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 338.</p>	926.5

For descriptions of additional bench marks in this vicinity, see page 227.

LINE 360. SIOUX FALLS JCT., S.D. to LA CROSSE, WIS. (Part)
(First-order Leveling)

This Line follows the Chicago, Milwaukee, St. Paul & Pacific Railroad from Winnebago, Minn., to La Crescent, Minn., then follows U.S. Highway #16 to La Crosse, Wis.

The field work was done by a party of the United States Coast & Geodetic Survey under the direction of A. J. Hoskinson, Chief of the Party and H. E. Breen, J. C. Bull, and A. L. Wardwell, observers on sub-parties, during the months of September, October and November, 1931.

Elevations are based on the 1929 General Adjustment of the First-order Level Net. These elevations supersede those previously published.

For descriptions of additional bench marks in this vicinity, see page 22.

- | | El. Ft. |
|---|----------|
| T-13 (City of Winnebago). In Faribault County, Minn., at <u>Winnebago</u> , in the north wall of the high school building, 1.0 foot west of the west side of the entrance and 3.8 feet above the steps. A standard disc, stamped "T-13, 1931" and set vertically in the brick wall. | 1114.210 |
| F-4 In Faribault County, Minn., about 800 feet south of the Chicago, St. Paul, Minneapolis & Omaha Railway station at <u>Winnebago</u> , about 500 feet north of the railroad intersection, east of culvert #L-58; 56.0 feet north of a crossroad and 35.0 feet northeast of railroad, at the fence line. A standard disc, stamped "F-4, 1930" and set in the top of a concrete monument. | 1095.579 |
| <u>U-13</u> In Faribault County, Minn., about 3.4 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from <u>Delavan</u> , at a road crossing, 40.0 feet west of the center line of the road, 43.0 feet north of the north rail, 2.0 feet south of the right-of-way fence, 1.0 foot west of the corner of the fence and about 1.0 foot below the level of the track. A standard disc, stamped "U-13, 1931" and set in the top of a concrete monument. | 1062.229 |
| <u>V-13</u> In Faribault County, Minn., at <u>Delavan</u> , about 200 feet west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 165 feet west of a road crossing, 20.0 feet north of the north rail and about level with | |

LEVELING IN IOWA

- the track. A standard disc, stamped "V-13, 1931" and set in the top of a concrete monument. El. Ft. 1033.131
- W-13 In Faribault County, Minn., about 3.25 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Delavan, about 250.0 feet west of milepost #156, 43.0 feet south of the south rail, 2.0 feet north of the right-of-way fence and about 1.0 foot below the level of the track. A standard disc, stamped "W-13, 1931" and set in the top of a concrete monument. 1057.098
- X-13 In Faribault County, Minn., at Easton, directly across the tracks from the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 165.0 feet east of a road crossing, 45.0 feet north of the north rail, 2.0 feet south of the right-of-way fence and about 3.0 feet below the level of the track. A standard disc, stamped "X-13, 1931" and set in the top of a concrete monument. 1050.323
- Y-13 In Faribault County, Minn., about 4.2 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Easton, at a grade crossing, 64.0 feet west of the center line of the road, 46.0 feet south of the south rail, 2.0 feet north of the right-of-way fence and 2.0 feet below the level of the track. A standard disc, stamped "Y-13, 1931" and set in the top of a concrete monument. 1083.462
- Z-13 In Faribault County, Minn., about 2.3 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Wells, at a crossing, 60.0 feet east of the center line of the road, 44.0 feet south of the south rail, 2.0 feet north of the right-of-way fence and about 1.0 foot below the level of the track. A standard disc, stamped "Z-13, 1931" and set in the top of a concrete monument. 1112.662
- A-14 In Faribault County, Minn., about 0.5 mile west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from the station at Wells, 51.0 feet south of the south rail, 20.0 feet north of the center line of a road leading west to a farm, 2.0 feet south of the right-of-way fence and about 3.0 feet below the level of the track. A standard disc, stamped "A-14, 1931" and set in the top of a concrete monument. 1147.849
- B-14 (City of Wells) In Faribault County, Minn., at Wells, in the City Park, 85.0 feet northwest of the center of

SIOUX FALLS JCT., S.D., to LA CROSSE, WISC.

- El.Ft.
- the water tower and 13.0 feet south of the park fence. A standard disc, stamped "B-14, 1931" and set in the top of a concrete monument. 1161.602
- C-14 In Faribault County, Minn., about 2.3 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Wells, at a road crossing, 43.0 feet south of the south rail, 38.0 feet east of the center line of the road, 2.0 feet north of the right-of-way fence and about 2.0 feet below the level of the track. A standard disc, stamped "C-14, 1931" and set in the top of a concrete monument. 1170.076
- D-14 In Freeborn County, Minn., about 3.5 miles west of Alden, along the Chicago, Milwaukee, St. Paul & Pacific Railroad, at a road crossing, 42.0 feet south of the south rail, 16.0 feet east of the center line of a road leading to a farmhouse, 2.0 feet north of the right-of-way fence and about 1.0 foot below the level of the track. A standard disc, stamped "D-14, 1931" and set in the top of a concrete monument. 1190.815
- E-14 In Freeborn County, Minn., at Alden, about 270.0 feet west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, across the tracks from the Speltz Grain & Coal Company elevator, 26.0 feet south of the south rail of the main track and about 1.0 foot above the level of the track. A standard disc, stamped "E-14, 1931" and set in the top of a concrete monument. 1270.345
- F-14 In Freeborn County, Minn., about 2.4 miles west of Armstrong, 18.0 feet west of milepost #132, 47.0 feet north of the north rail, 2.0 feet south of the right-of-way fence and about level with the track. A standard disc, stamped "F-14, 1931" and set in the top of a concrete monument. 1298.049
- G-14 In Freeborn County, Minn., at Armstrong, east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, at a road crossing, 92.0 feet west of the center of the road, 68.0 feet north of the Armstrong Mercantile Company store, 48.0 feet south of the south rail and about 1.0 foot below the level of the track. A standard disc, stamped "G-14, 1931" and set in the top of a concrete monument. 1279.650
- H-14 In Freeborn County, Minn., in the western edge of Albert Lea, on the right-of-way of the Chicago, Milwaukee, St. Paul & Pacific Railroad, across the road from a

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El. Ft.

cemetery, 31.0 feet south of the south rail, 28.0 feet north of the center line of the road located between the track and the cemetery, 2.0 feet north of the right-of-way fence and about 2.0 feet above the level of the track. A standard disc, stamped "H-14, 1931" and set in the top of a concrete monument.

1222.734

J-14 (City of Albert Lea) In Freeborn County, Minn., at Albert Lea, at the south side of the high school building, just south of the south entrance, 2.4 feet east of the east edge of the entrance, 0.5 foot south of the step and in the sidewalk. A standard disc, stamped "J-14, 1931".

1228.144

K-14 In Freeborn County, Minn., at Albert Lea, at the Chicago, Milwaukee, St. Paul & Pacific Railroad station, in the south wall, 23.8 feet north of the north rail of the main line, 4.5 feet above the top step and 1.0 foot west of the east entrance. A standard disc, stamped "K-14, 1931" and set vertically.

1228.777

For descriptions of additional bench marks in this vicinity, see page 163.

L-14 In Freeborn County, Minn., about 1.0 mile east of Albert Lea, along the Chicago, Milwaukee, St. Paul & Pacific Railroad, 46.6 feet northeast of a switch stand, 42.6 feet north of the north rail and about 1.5 feet above the level of the track. A standard disc, stamped "L-14, 1931" and set in the top of a concrete monument.

1224.056

M-14 In Freeborn County, Minn., about 3.5 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from the station at Hayward, 54.5 feet southwest of the intersection of the south rail and the center line of a dirt road, 38.3 feet south of the south rail, 11.0 feet west of the first pole west of the road, 9.0 feet northwest of a fence corner and about level with the track. A standard disc, stamped "M-14, 1931" and set in the top of a concrete monument.

1262.560

N-14 In Freeborn County, Minn., at Hayward, about 815 feet west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 45.0 feet north of the north rail of the main line, 2.0 feet south of the right-of-way fence line and about 3.0 feet above the level of the track. A standard disc, stamped "N-14, 1931" and set in the top of a concrete monument.

1251.225

SIOUX FALLS JCT., S. D. to LA CROSSE, WIS.

El. Ft.

- P-14 In Freeborn County, Minn., about 4.3 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Oakland, 66.0 feet southeast of intersection of the south rail and the center line of a dirt road, 44.0 feet south of the south rail, 6.0 feet northeast of a fence corner and about 1.0 foot below the level of the track. A standard disc, stamped "P-14, 1931", and set in the top of a concrete monument. 1271.303
- Q-14 In Freeborn County, Minn, at Oakland, about 670 feet west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 62.0 feet northeast of the intersection of the north rail and the center line of a dirt road leading to Oakland, 26.9 feet north of the north rail and about 3.0 feet below the level of the track. A standard disc, stamped "Q-14, 1931" and set in the top of a concrete monument. 1264.105
- R-14 In Mower County, Minn., about 4.5 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Oakland (Freeborn County), at a road crossing, 44.0 feet west of the center line of the road, 43.0 feet south of the south rail, 2.0 feet north of the right-of-way fence and about 1.0 foot below the level of the track. A standard disc, stamped "R-14, 1931" and set in the top of a concrete monument. 1246.152
- S-14 In Mower County, Minn., at Ramsey, at the junction of the two lines of the Chicago, Milwaukee, St. Paul & Pacific Railroad, 42.0 feet southeast of milepost #103; 56.0 feet west of the north-and-south line, 42.0 feet south of the south rail of the east-and-west line, level with the track. A standard disc, stamped "S-14, 1931" and set in the top of a concrete monument. 1220.870
- For descriptions of additional bench marks in this vicinity, see page 116.
- T-14 In Mower County, Minn., about 4.6 miles west, along the Chicago, Milwaukee, St. Paul & Pacific Railroad, from Brownsdale, 55.0 feet east of the first pole west of a crossing, 56.0 feet northwest of the intersection of the north rail and the center line of the dirt road, 47.0 feet north of the north rail, 14.5 feet west of a fence corner and about 3.0 feet below the level of the track. A standard disc, stamped "T-14, 1931" and set in the top of a concrete monument. 1227.068

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El. Ft.

- U-14 In Mower County, Minn., about 2.8 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Brownsdale, 50.5 feet northwest of the intersection of the north rail and the center line of a dirt road, 46.3 feet north of the north rail, 5.3 feet west of a fence corner and about level with the track. A standard disc, stamped "U-14, 1931" and set in the top of a concrete monument. 1251.592
- V-14 In Mower County, Minn., at Brownsdale, 112.8 feet southeast of the southeast corner of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 44.6 feet south of the south rail, 2.3 feet north of the right-of-way fence line and about 2.0 feet below the level of the track. A standard disc, stamped "V-14, 1931" and set in the top of a concrete monument. 1275.024
- W-14 In Mower County, Minn., about 4.3 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Brownsdale, 22 rails east of milepost #94; 97.5 feet southeast of the intersection of the south rail and the center line of a dirt road, 47.0 feet south of the south rail, 1.5 feet north of the right-of-way fence line and about 4.0 feet below the level of the track. A standard disc, stamped "W-14, 1931" and set in the top of a concrete monument. 1345.345
- X-14 In Mower County, Minn., about 2.8 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from the station at Dexter, in the south abutment of a railroad bridge, 28.4 feet south of the south rail, 10.4 feet east of the southwest edge of the abutment, 4.2 feet above the ground and about 1.0 foot above the level of the track. A standard disc, stamped "X-4, 1931" and set vertically. 1382.143
- Y-14 In Mower County, Minn., at Dexter, 130 feet southwest of the southwest corner of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 27.8 feet northeast of the northeast corner of the pump house on the south side of the track, 48.4 feet south of the south rail and about level with the track. A standard disc, stamped "Y-14, 1931" and set in the top of a concrete monument. 1418.386
- Z-14 In Mower County, Minn., about 3.2 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Grand Meadow, 57.0 feet southwest of the intersection of the south rail and the center line of a dirt road,

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46.2 feet south of the south rail, 5.2 feet west of the northeast fence corner, 2.0 feet north of the fence line and about level with the track. A standard disc, stamped "Z-14, 1931" and set in the top of a concrete monument.

1348.012

A-15 In Mower County, Minn., at Grand Meadow, east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, about 250 feet west of the center of a road crossing, - 17.0 feet north of the north rail, in a line with the poles and about level with the track. A standard disc, stamped "A-15, 1931" and set in the top of a concrete monument.

1341.283

B-15 In Mower County, Minn., about 3.1 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Grand Meadow, at a road crossing, 40.0 feet east of the center line of the road, 43.0 feet south of the south rail, 2.0 feet north of the right-of-way fence and about level with the track. A standard disc, stamped "B-15, 1931" and set in the top of a concrete monument.

1345.867

C-15 In Fillmore County, Minn., about 2.0 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Spring Valley, at a road crossing, 35.0 feet west of the center line of the road, 45.0 feet south of the south rail, 3.0 feet north of the right-of-way fence and about level with the track. A standard disc, stamped "C-15, 1931" and set in the top of a concrete monument.

1335.476

D-15 In Fillmore County, Minn., about 0.5 mile west of Chicago, Milwaukee, St. Paul & Pacific Railroad station at Spring Valley, 250 feet west of the overhead crossing of the Chicago-Great Western Railroad, 42.0 feet north of the north rail, 2.0 feet south of the right-of-way fence and about 2.0 feet below the level of the track. A standard disc, stamped "D-15, 1931" and set in the top of a concrete monument.

1290.736

E-15 In Fillmore County, Minn., at Spring Valley, at the corner of Broadway and Main Street, at the northwest corner of the library, 4.0 feet above the ground, 8.0 inches from the corner of the building and in the brick wall. A standard disc, stamped "E-15, 1931" and set vertically.

1278.774

For descriptions of additional bench marks in this vicinity, see page 123.

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- F-15 In Fillmore County, Minn., about 3.8 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Spring Valley, at a road crossing, 31.0 feet west of the center line of the road, 45.0 feet south of the south rail, 3.0 feet north of the right-of-way fence and about 4.0 feet below the level of the track. A standard disc, stamped "F-15, 1931" and set in the top of a concrete monument. 1328.632
- G-15 In Fillmore County, Minn., at Wykoff, across the tracks from the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 110 feet west of the station, 89.0 feet southwest of the center of the water tower, 43.0 feet north of the north rail of the main track and 3.0 feet above the level of the track. A standard disc, stamped "G-15, 1931" and set in the top of a concrete monument. 1321.877
- H-15 In Fillmore County, Minn., about 3.2 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Fountain, at a farm road crossing, 45.0 feet south of the south rail, 36.0 feet north of the center line of U. S. Highway #16 which is also State Highway #9 and about 3.0 feet north of the right-of-way fence. A standard disc, stamped "H-15, 1931" and set in the top of a concrete monument. 1303.416
- J-15 In Fillmore County, Minn., at Fountain, 8.5 rails east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 27.9 feet north-northeast of a fire plug at the foot of Pint Street, 47.0 feet south of the south rail, 3.0 feet north of the fence line and about level with the track. A standard disc, stamped "J-15, 1931" and set in the top of a concrete monument. 1304.978
- K-15 In Fillmore County, Minn., about 4.7 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Fountain, about 400 feet west of an under-grade road crossing, 5.5 feet south of the south rail and in the face of a ledge, 2.5 feet above the level of the track. A standard disc, stamped "K-15, 1931". 981.799
- L-15 In Fillmore County, Minn., about 0.75 mile east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from the station at Isinours, directly opposite the junction switch, 44.0 feet north of the north rail, 2.0 feet from the right-of-way fence and about 1.0 foot below the level of the track. A standard disc, stamped "L-15, 1931" and set in the top of a concrete monument. 891.819

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- | | El. Ft. |
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| <u>M-15</u> In <u>Fillmore County</u> , Minn., about 2.2 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from <u>Lanesboro</u> , 50.0 feet northwest of milepost #50, 8.0 feet east of the east rail and in a rock ledge, 2.0 feet above the level of the track. A standard disc, stamped "M-15, 1931". | 869.864 |
| <u>N-15</u> In <u>Fillmore County</u> , Minn., at <u>Lanesboro</u> , on the north abutment of the Chicago, Milwaukee, St. Paul & Pacific Railroad bridge, 7.0 feet east of the east rail, 1.3 feet from the edge of the abutment and about 1.0 foot below the level of the track. A standard disc, stamped "N-15, 1931". | 846.376 |
| <u>P-15</u> In <u>Fillmore County</u> , Minn., at <u>Whalen</u> , 12.0 rails west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 28.8 feet northeast of the northeast corner of a house owned by Mr. Adolph Olson, 17.2 feet south of the south rail and about level with the track. A standard disc, stamped "P-15, 1931" and set in the top of a concrete monument. | 792.574 |
| <u>Q-15</u> In <u>Fillmore County</u> , Minn., about 4.2 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from the station at <u>Whalen</u> , 29.0 rails south of milepost #39, 83.6 feet south of the pole just south of a road leading to a field, 12.2 feet west of the west rail and 1.0 foot above the level of the track. A standard disc, stamped "Q-15, 1931" and set in the top of a concrete monument. | 771.468 |
| <u>R-15</u> In <u>Fillmore County</u> , Minn., about 2.4 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from the station at <u>Peterson</u> , 35.5 feet northwest of the intersection of the north rail and the center line of dirt road, 25.9 feet north of the north rail, 12.5 feet south of a fence corner and about level with the track. A standard disc, stamped "R-15, 1931" and set in the top of a concrete monument. | 757.213 |
| <u>S-15</u> In <u>Fillmore County</u> , Minn., at <u>Peterson</u> , about 100 feet northeast of the northeast corner of the Chicago, Milwaukee, St. Paul & Pacific Railway station, 39.0 feet northwest of the center of a road crossing, 26.0 feet north of the north rail of the main track and 2.0 feet above the level of the track. A standard disc, stamped "S-15, 1931" and set in the top of a concrete monument. | 761.393 |

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- T-15 In Fillmore County, Minn., about 2.7 miles west along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Rushford, 49.0 feet northeast of the intersection of the north rail and the center line of road, 43.2 feet north of the north rail, 6.7 feet east of the east edge of a gate to a field, 2.5 feet south of the fence line and about level with the track. A standard disc, stamped "T-15, 1931" and set in the top of a concrete monument. 738.676
- U-15 In Fillmore County, Minn., at Rushford, east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 62.0 feet east of the center line of the main street which is also State Highway #43; 42.0 feet north of the north rail of the main track and about level with the track. A standard disc, stamped "U-15, 1931" and set in the top of a concrete monument. 726.170
- For descriptions of additional bench marks in this vicinity, see page 177.
- V-15 In Fillmore County, Minn., about 2.2 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Rushford, 33.5 feet northeast of a pole, 42.0 feet north of the north rail, 5.0 feet southeast of the east edge of a gate to a field and about level with the track. A standard disc, stamped "V-15, 1931" and set in the top of a concrete monument. 721.275
- W-15 In Houston County, Minn., at Perkins, 22.0 feet southwest of the southwest corner of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 41.0 feet south of the south rail and about level with the track. A standard disc, stamped "W-15, 1931" and set in the top of a concrete monument. 703.309
- X-15 In Houston County, Minn., at Houston, 50.0 feet northeast of the northeast corner of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 38.0 feet west of the center line of Sherman Street, 24.4 feet north of the north rail and about level with the track. A standard disc, stamped "X-15, 1931" and set in the top of a concrete monument. 683.824
- Y-15 In Houston County, Minn., about 3.8 miles east along the Chicago, Milwaukee, St. Paul & Pacific Railroad from Houston, 3.0 rails east of milepost #15; 24.0 feet north of the north rail, 7.0 feet northwest

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- of a fence corner, 3.0 feet north of the fence line and level with the track. A standard disc, stamped "Y-15, 1931" and set in the top of a concrete monument. 675.281
- Z-15 In Houston County, Minn., at Mound Prairie, 134 feet southeast of a road crossing, 88.5 feet south of the south rail of the main track of the Chicago, Milwaukee, St. Paul & Pacific Railroad, 6.0 feet north of the right-of-way fence and 2.0 feet below the level of the track. A standard disc, stamped "Z-15, 1931" and set in the top of a concrete monument. 662.141
- A-16 In Houston County, Minn., about 2.8 miles west of Hokah along the Chicago, Milwaukee, St. Paul & Pacific Railroad, at the point at which U. S. Highway #16 leads down a hill in approaching the track and 12.0 feet north of the north rail. A standard disc, stamped "A-16, 1931" and set in the top of a concrete monument. 672.059
- B-16 In Houston County, Minn., at Hokah, about 700 feet west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, at the overhead crossing of U. S. Highway #16 and in the east end of the south abutment. A standard disc, stamped "B-16, 1931". 653.332
- C-16 In Houston County, Minn., about 2.8 miles east of Hokah along the Chicago, Milwaukee, St. Paul & Pacific Railroad, 200 yards west of the junction of two branches of the railroad, at a road crossing near the point at which U. S. Highway #16 turns westward out of the Mississippi River Valley, 113 feet east of the dirt road, 17.5 feet south of the south rail and 3.0 feet below the level of the track. A standard disc, stamped "C-16, 1931" and set in the top of a concrete monument. 640.074
- D-16 In Houston County, Minn., about 1.25 miles south of La Crescent along the highway, 98.0 feet west of the west rail of the main track of the Chicago, Milwaukee, St. Paul & Pacific Railroad which parallels the highway, in the east end of the south abutment of a highway bridge. A standard disc, stamped "D-16, 1931". 646.908
- E-16 In Houston County, Minn., at La Crescent, about 0.25 mile south of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, about 200 feet south of the grade crossing of U. S. Highway #16 and 28.0 feet west of the west rail of the main track. A standard disc, stamped "E-16 1931" and set in the top of a concrete monument. 653.227

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| <u>F-16</u> In <u>Houston County</u> , Minn., about 1.5 miles west along U. S. Highway #16 from <u>La Crosse</u> (La Crosse County) Wisconsin, at the new five-span steel bridge over the "West Channel" of the Mississippi River which forms the boundary between Minnesota and Wisconsin, in south end of the west abutment and about the level of roadway. A standard disc, stamped "F-16, 1931". | 648.102 |
| <u>M-10</u> In <u>La Crosse County</u> , Minn., at <u>La Crosse</u> , opposite the <u>Court House</u> , at the Northern Engraving Company building and in the limestone facing at the south side of the southwest corner. A standard disc, stamped "M-10, 1930". | 670.635. |

For descriptions of additional bench marks in this vicinity, see page 7.

LINE 391. COLO to DES MOINES, IOWA
(First-order Leveling)

This Line follows U. S. Highway #30 from Colo to Ames, Iowa, then U. S. Highway #65 to Des Moines.

The field work was done during the months of February, March, April and May, 1935, by a party of the Iowa Geodetic Survey under the direction of George Havens.

The elevations are based on the 1938 adjustment of First-order Levels in Northeast Iowa.

For descriptions of additional bench marks in this vicinity, see page 104.

- | | El. Ft. |
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| <p><u>85-122 (1934)</u> In Story County, 0.9 mile west of Colo, in SE$\frac{1}{4}$ of Section 6, T-83-N, R-21-W, on U. S. Highway #30 opposite the Roy Morrel farm residence, 53.0 feet southeast of southeast corner of barn, 23.0 feet south east of a pump, 74.0 feet west of a 14-inch pine tree, 28.0 feet north of center line of highway, 5.0 feet south of the north fence line, marked by a white post 1.0 foot south. A standard disc, set in a concrete monument.</p> | 1007.170 |
| <p><u>85-121 (1936)</u> In Story County, 1.8 miles west of Colo on U. S. Highway #30, in the SE$\frac{1}{4}$ of Section 1, T-83-N and R-22-W, opposite pavement station #682 + 96 feet, 8.6 feet south of a witness post, 30.1 feet south of fence line, 25.2 feet north of center line of U. S. Highway #30; 58.2 feet southeast of telephone pole #3 and 81.0 feet southwest of telephone pole #4. A standard disc, set in a concrete monument.</p> | 1014.453 |
| <p><u>85-120 (1936)</u> In Story County, 2.7 miles west of Colo in Section 2, T-83-N, R-22-W, on U. S. Highway #30, opposite pavement station #636 + 46 feet, 94.0 feet southwest of the southwest corner of school house, 30.0 feet southeast of a corner fence post, 54.0 feet southeast of telephone pole #6; 40.5 feet north of the center line of U. S. Highway #30, marked by a white post 1.0 foot north. A standard disc, set in a concrete monument.</p> | 1009.125 |
| <p><u>85-119 (1934)</u> In Story County, 3.3 miles west of Colo, in Section 2, T-83-N, R-22-W, on U.S. Highway #30, opposite station #600 + 49 feet, 40.0 feet north of center</p> | |

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- line of U. S. Highway #30; 84.0 feet southwest of a 15-inch elm tree and 52.0 feet southeast of a 15-inch black oak tree, marked by a white post 1.0 foot north-east. A standard disc, set in a concrete monument. El. Ft. 1010.438
- 85-118 (1936) In Story County, 2.1 miles east of Nevada, in Section 10, T-83-N, R-22-W, on U. S. Highway #30; 19.5 feet south of the center line of U.S. Highway #30; 164 feet west of yard fence line of the east side of a farm residence, 92.0 feet east of a corner fence post on the south side of the road and marked by a white post 1.5 feet northeast, opposite the E. A. Vincent farm home. A standard disc, set in a concrete monument. 1 1007.340
- 85-117 (1936) In Story County, 1.1 miles east of Nevada, in Section 9, T-83-N, R-22-W, opposite pavement station #494 + 75 feet, on U. S. Highway #30, 24.7 feet south of center line of pavement, 8.0 feet north of fence line, 42.0 feet northwest of northwest corner of the Jake Myers farm residence, 29.0 feet northeast of a 16-inch scotch pine tree, marked by a white post 1.0 foot northwest. A standard disc, set in a concrete monument. 1008.804
- 85-116 (1934) In Story County, on the east edge of Nevada, in the SW $\frac{1}{4}$ of Section 5, T-83-N, R-22-W, on U.S. Highway #30 opposite pavement station, 21.5 feet north of the center line of pavement, 9.5 feet southeast of a 24-inch soft maple tree, 27.5 feet southwest of a 32-inch soft maple tree, 46.5 feet west of a corner fence post, on the north side of the road, opposite the Skelly Oil Station, marked by a white post, 1.0 foot north. A standard disc, set in a concrete monument. 994.440
- 85-115 (1936) In Story County, in Nevada, in the NW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 7, T-83-N, R-22-W, on the south side of U. S. Highway #30 at Nevada, 13.4 feet north of the northwest corner of northwest building of southeast corner of intersection of Main Street and U. S. Highway #30; 14.6 feet east of lamp post, 0.6 foot east of side walk and 0.5 foot south of the curb. A standard disc, set in a concrete monument. 1003.039
- 85-111 (1936) In Story County, on west edge of Nevada, in the southeast corner of Section 1, T-83-N, R-23-W, on U. S. Highway #30; 22.9 feet north of center line of pavement, 17.4 feet southwest of south iron gate

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- | | El. Ft. |
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| post to entrance of Catholic Cemetery, 9.6 feet south of east iron hand gate post of entrance of Catholic Cemetery, marked by white post, 1.0 foot north. A standard disc, set in a concrete monument. | 996.002 |
| For descriptions of additional bench marks in this vicinity, see pages 186 and 199. | |
| <u>85-110 (1936)</u> In <u>Story County</u> , 0.7 mile west of Nevada, in Section 1, T-83-N, R-23-W, on U. S. Highway #30, opposite pavement station #339 + 45 feet; 23.5 feet north of center line of pavement, 27.0 feet south of the north fence, 68.5 feet southwest of a 15-inch scotch pine tree, 200 feet approximately west of the Lapp Laboratories and marked by a white post, 1.0 foot northeast. A standard disc, set in a concrete monument. | 1002.121 |
| <u>85-109 (1936)</u> In <u>Story County</u> , 1.9 miles west of Nevada, in Section 2, T-83-N, R-23-W, on U. S. Highway #30, opposite pavement station #277 + 77 feet; 45.0 feet north of center line in pavement, 5.5 feet south of the north fence, 29.0 feet southeast of north fence line, marked by a white post, 1.0 foot north. A standard disc, set in a concrete monument. | 994.358 |
| <u>85-108 (1936)</u> In <u>Story County</u> , 2.2 miles west of Nevada, in Section 3, T-83-N, R-23-W, on U. S. Highway #30, opposite pavement station #255 + 48 feet; 49.0 feet north of center line of pavement, 30.0 feet northeast of telephone pole, 49.0 feet southeast of a 40-inch soft maple tree, 18.5 feet south of north fence, marked by a white post, 2.0 feet south. A standard disc, set in a concrete monument. | 984.115 |
| <u>85-107 (1936)</u> In <u>Story County</u> , 3.7 miles west of Nevada, in Section 4, T-83-N, R-23-W, on U. S. Highway #30, opposite pavement station #178 + 74 feet; 42.0 feet north of center line of pavement, 8.5 feet south of the north fence, 42.5 feet southwest of a telephone pole, marked by a white post 1.5 feet north. A standard disc, set in a concrete monument. | 973.758 |
| <u>85-106 (1936)</u> In <u>Story County</u> , 3.4 miles east of Ames, in Section 5, T-83-N, R-23-W, on U. S. Highway #30, opposite pavement station #140 + 0 feet, 44.0 feet north of center line of pavement, 5.5 feet south of north fence, 93.4 feet northwest of northeast corner post of the orchard on south side of road, 102 feet northeast of northwest corner post of orchard, marked by a white post, 1.5 feet south | |

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- east. A standard disc, set in a concrete monument. El. Ft.
983.699
- 85-105 (1936) In Story County, 2.5 miles east of the city limits of Ames, in Section 6, T-83-N, R-23-W, on U. S. Highway #30, directly south of the Alvin Banks farm residence, 53.5 feet southwest of the southeast corner of the house, 53.0 feet southeast of the southwest corner of the house, 30.0 feet southeast of a 36 inch elm tree, 31.0 feet north of the center line of pavement. A standard disc, set in a concrete monument. 956.104
- 85-104 (1936) In Story County, 1.0 mile east of city limits of Ames, in Section 12, T-83-N, R-24-W, 154 feet west of the center line of road running north, 36.5 feet north of center line of U. S. Highway #30, opposite pavement station #50 + 70 feet, on U. S. Highway #30; 11.0 feet south of a telephone pole and 8.0 feet south of a gas valve, 1.0 foot southwest of white marker post. A standard disc, set in a concrete monument. 929.499
- 85-103 (1936) In Story County, in Ames, in Section 11, T-83-N, R-24-W, in the northwest corner of the Ames Tourist Court, 1.0 foot south of south curb of U. S. Highway #30; 32.4 feet north of the northwest corner of the west wing of tourist court, 33.5 feet north of northeast corner of west wing of tourist court, 4.0 feet east of highline pole. A standard disc, set in a concrete monument. 918.509
- 85-102 (1936) In Story County, in Ames, in Section 2, T-83-N, R-24-W, on the northwest corner of the intersection of Clark Avenue and Lincoln Way, 13.5 feet southeast of a fire hydrant, 19.0 feet northeast of the center of sewer manhole, 11.0 feet northwest of center of Bell system manhole, 135 feet northeast of northeast corner of the Fall Oil Company Station, and 79.0 feet northwest of the northwest corner of Royal 400 Oil Station, 95.0 feet southwest of the southwest corner of a house, 87.5 feet southeast of the southwest corner of a house. A standard disc, set in a concrete monument. 911.790
- 85-101 (1934) In Story County, in Ames, southeast of St. Cecelia's Church, 1.5 feet north of north curb of Lincoln Way, 4.0 feet straight south of a concrete hitching post, 9.0 feet west of the west edge of con-

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- crete walk leading from curb to residence at 921 Lincoln Way, 63.0 feet southeast of southeast corner of a church, 46.0 feet south of southwest corner of a residence. A standard disc set in a concrete monument. El. Ft. 913.151
- 85-100 (1936) In Story County, in Ames, in the SE $\frac{1}{4}$ of Section 4, T-83-N, R-24-W, in the south-and-east part of Iowa State College Campus, south-of-west portion of Mary B. Welch Dormitory, 27.0 feet east of water control of shutoff pit, 37.0 feet east of fire hydrant #7 (blue in color) and 7.0 feet north of above hydrant, 37.6 feet north of north curb of Lincoln Way, 70.8 feet west of station #176 of U. S. Geodetic Survey Marker, 30.8 feet north of the above marker. A standard disc set in a concrete monument. 934.762
- 85-403 (1936) In Story County, in Ames, in the SE $\frac{1}{4}$ of Section 4, T-83-N, R-24-W, in the Iowa State College Campus, north of Agriculture Hall, south of Green House, west of Dairy Industry, east of Parade Grounds, 62.0 feet west of sidewalk on east side of Agriculture Hall (walk runs north and south), 93.0 feet north of northeast corner of Agriculture Hall, 24.0 feet west of the concrete post (metal plug) #2; 65.0 feet south of the concrete post (metal plug) #2; 25.0 feet east of pair of cedar trees. A standard disc, set in a concrete marker. 941.494
- 85-402 (1936) In Story County, In Ames, in the SE $\frac{1}{4}$ of Section 4, T-83-N, R-24-W, in the Central Parade Grounds north of the Campus flag pole of Iowa State College, 143 feet north of the Campus flag pole, 27.0 feet east of the Campus flag pole, 39.0 feet south of center line of the Heating tunnel. A standard disc set in a concrete marker. 945.474
- 85-401 (1936) In Story County, in the west part of the Parade Grounds at Ames, in the SE $\frac{1}{4}$ of Section 4, T-83-N, R-24-W, 6.5 feet east of east curb of a north-south road east of Central Building, 123 feet east of the northeast corner of Central Building, 100 feet north of the northeast corner of Central Building. A standard disc set in a concrete marker. 955.785
- 85-400 (1936) In Story County, in Ames, in the SE $\frac{1}{4}$ of Section 4, T-83-N, R-24-W, located directly in front of the Engineering Hall at Iowa State College, 15.0 feet south of sidewalk leading to the entrance of English Hall, 90.0 feet east of southeast corner of English Hall,

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- 87.0 feet north of the southeast corner of English Hall. A standard disc, set in a concrete marker. El. Ft. 958.682
- I.S.C.-147 (1936) In Story County, in Ames, southwest of the Isabel Bevier practice house, 17.0 feet southwest of the southwest corner of house, 9.5 feet northeast of a 12-inch elm tree, 31.6 feet east of the east edge of sidewalk, 38.5 feet south of the south edge of sidewalk. A standard disc set in a concrete monument. 946.944
- 85-405 (1936) In Story County, north edge of Ames, in the SW $\frac{1}{4}$ of Section 33, T-84-N, R-24-W, in the southeast corner of "North Woods", 146 feet west of the north-and-south fence line, 100 feet north of north rail of the Chicago & North Western Railroad, 25.7 feet northeast of bench in an oak tree, 52.0 feet southeast of a cluster of three elm trees. A standard disc set in a concrete marker. 945.707
- 85-406 (1936) In Story County, on north edge of Ames, in the SW $\frac{1}{4}$ of Section 33, T-84-N, R-24-W, 435 feet west of the north-and-south fence line of the east side of "North Woods", 87.0 feet north of north rail of Chicago & North Western Railroad track, 9.0 feet northwest of a 12-inch oak tree, 66.0 feet northeast of a 16-inch oak tree (tree is one nearest railroad track and break in hill), 62.0 feet north of north rail of railroad. A standard disc set in a concrete marker. 945.730
- 85-407 (1936) In Story County, in Ames, north of Iowa State College Campus, in SW $\frac{1}{4}$ of Section 33, T-84-N, R-24-W, 82.0 feet north of a temporary road running east and west from Clear Creek to apple orchard, 84.0 feet east of a 16-inch oak tree, 105 feet south of an 18-inch oak tree, 42.0 feet southwest of an 18-inch ironwood tree, 28.0 feet south of a 14-inch ironwood tree. Monument is located in peak on north side of road and west of Clear Creek. The open peak is surrounded by an ash and an oak tree on the west, an oak tree on the north, an oak and ironwood tree on the east and an ironwood tree on the south. A standard disc set in a concrete marker. 951.091
- For descriptions of additional bench marks in this vicinity, see page 183.
- 85-629 (1936) In Story County, about one mile south of Ames, in the northeast corner of NW $\frac{1}{4}$ of Section 14, T-

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El. Ft.

83-N, R-24-W, marked by a post and located one mile south of U.S. Highway #30 on U.S. Highway #65; 22.0 feet west of the center line of U.S. Highway #65; 13.0 feet north of pavement station #539 measured parallel to center line, 14.0 feet south of section line between Sections 14 and 11; 11.0 feet east of west right-of-way fence, 28.0 feet northeast of a 20-inch spruce tree, 28.0 feet east of a 15-inch spruce tree. A standard disc set in a concrete monument.

902.875

85-202 (1936) In Story County, 1.5 miles south of Ames, in the center of Section 14, T-83-N, R-24-W, marked by a white post located 1.5 miles south of U. S. Highway #30 on U. S. Highway #65; 31.0 feet east of the center line of U. S. Highway #65 at pavement station #512 + 60 feet; 13.0 feet south of quarter-section line running east and west, opposite intersection of U. S. Highway #65 & local county road where the Clearview school is located. A standard disc set in a concrete monument.

902.121

85-201 (1934) In Story County, 2.5 miles south of Ames, in Section 23, T-83-N, R-24-W, on the west side of U. S. Highway #65, opposite pavement station #457 + 1.5 feet, 17.8 feet west of the west edge of pavement, 1.5 feet southwest of witness post. A standard disc set in a concrete monument.

924.263

85-200 (1936) In Story County, 2.5 miles south of Ames, in Section 35, T-83-N, R-24-W, on the west side of U. S. Highway #65, witnessed by post 2.0 feet high and branded "U.S.B.M.", 40.3 feet west of center line of U. S. Highway #65; 10.4 feet east of west road fence, 54.0 feet south of highway station #389 (parallel to pavement), 261.7 feet south of corner post of fence west; fence marks the north line of Section 35. A standard disc set in a concrete monument.

957.029

85-672 (1936) In Story County, 4.4 miles south of Ames on U. S. Highway #65, in Section 35, T-83-N, R-24-W, 2.0 feet south of witness post, 9.5 feet east of west fence, 53.0 feet south of corner post of yard fence, 159.5 feet north-northwest of Iowa Highway Commission Bench Mark in center line of west head wall of culvert, 93.0 feet north of north gate post to farm drive, 110 feet north of south gate post to farm drive, 92.0 feet east-northeast of a 36-inch elm tree, 60.0 feet northwest of power station #375. A standard disc set in a concrete marker.

953.853

LEVELING IN IOWA

El. Ft.

85-199 (1936) In Story County, 2.25 miles west of Kelley, near the $E\frac{1}{4}$ corner of the $SW\frac{1}{4}$ of Section 25, T-83-N, R-24-W, on the west side of U. S. Highway #65 in the back slope, marked by a 2.0-foot post branded "U.S.B.M." 30.4 feet west of the center line of pavement, 86.1 feet south of corner post on the north side of a farm drive to the west, 169.5 feet south of station #342 (parallel to pavement), 127.8 feet northeast of the northeast corner of a house owned by A.K. Johnson. A standard disc set in a concrete monument. 975.936

85-198 (1936) In Story County, 2.25 miles east of Kelley, in Section 2, T-82-N, R-24-W, on the west side of U. S. Highway #65, marked by a 2-foot post branded "U.S.B.M." on two sides, 27.7 feet west of the center line of the pavement, 6.1 feet east of west road fence, 1160 feet south of the center line of County Road "K" west to Kelley, 80.5 feet north of Highway Station #310 (parallel to highway). A standard disc set in a concrete monument. 990.520

85-682 (1936) In Story County, 2.5 miles north of the north line of Huxley, in the northeast corner of NE of $NW\frac{1}{4}$ of Section 11, T-82-N, R-24-W, 1.2 feet north of a witness post, 23.4 feet east of the southwest corner post of intersection, 75.4 feet west of the southeast corner post of intersection, 64.5 feet south of the northwest corner post of intersection, in the southwest corner of intersection of County Road and U. S. Highway #65. A standard disc set in a concrete monument. 978.151

85-197 (1936) In Story County, 2.5 miles north of Huxley, in Section 11, T-82-N, R-24-W, near the $E\frac{1}{2}$ corner of the $NW\frac{1}{4}$, marked by a 2-foot post branded "U.S.B.M." on two sides, 41.6 feet west of the center line of pavement, 10.4 feet east of west road fence, 51.5 feet north of highway station #254 (parallel to highway). A standard disc set in a concrete monument. 989.342

85-196 (1936) In Story County, 0.75 mile north of Huxley, near the northeast corner of $NW\frac{1}{4}$ of Section 23, T-82-N, R-24-W, on the west side of U. S. Highway #65; 27.0 feet west of the center line of pavement, 9.8 feet east of west road fence, 94.5 feet north of highway station #179 (parallel to highway), 203.0 feet south of line of south fence of road to the east, on the north line of Section 23. A standard disc set in a concrete monument. 999.637

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El. Ft.

85-195 (1934) In Story County, in Huxley, 571.4 feet north of concrete corner post at west end of north road fence of road running past the north side of the Huxley School, on the east side of gravel road running north out of Huxley on the north-and-south quarter line of Section 23, T-82-N, R-24-W, 60.0 feet east of the center line of graveled road; at top of east back-slope, east of the fence line, 18.7 feet south of near point of large granite rock in fence line, (rock has arrow on the top and is lettered "U.S.B.M." on the west side), 119.8 feet southeast of the twelfth light pole north of Ft. Dodge, Des Moines & Southern railroad station. A standard disc set in a concrete monument.

1039.407

85-194 Reset In Story County, 0.1 mile north of the pavement near Huxley, on the east line of Section 23, T-82-N, R-24-W, on the west side of graveled road leading north out of Huxley, marked by a 2-foot post, 1.5 feet north of witness post, branded "U.S.B.M." on two sides, 40.3 feet east of center of slab, 33.8 feet northeast of slab station #122 + 0.0 feet, 42.5 feet southwest of the southwest corner of Mrs. Randy Larson's house. A standard disc set in a concrete monument.

1021.556

85-190 (1936) In Story County, 0.33 mile south of Huxley, in the southwest corner of Section 25, T-82-N, R-24-W, in the northeast corner of intersection of U. S. Highway #65 with Iowa Highway #210; 30.4 feet east of the center line of U. S. Highway #65; 4.65 feet southwest of a corrugated iron corner post at the southwest corner of the cemetery, 2.3 feet south of telephone pole #800 (toll line), 83.9 feet northwest of electric pole of the east-and-west line of southeast corner of intersection, marked by a white 2-foot post with "U.S.B.M." brand on two sides. A standard disc set in a concrete monument.

1026.215

77-2 (1934) In Polk County, 2.0 miles south of Huxley (Story County) on U. S. Highway #65, in Section 1, T-81-N, R-24-W, 31.0 feet east of U. S. Highway #65; 53.5 feet south of the center line of the County Road, 20.5 feet south of the highway right-of-way marker, 6.0 feet south and southwest of the telephone pole, 2.0 feet east of a white post branded "U.S.B.M." A standard disc set in a concrete monument.

1024.529

LEVELING IN IOWA

El. Ft.

- 77-3 (1934) In Polk County, 2.5 miles south of Huxley (Story County) on U. S. Highway #65, in Section 2, T-81-N, R-24-W, near $E\frac{1}{4}$ corner of $NE\frac{1}{4}$, 37.0 feet from center line of U. S. Highway #65; 13.5 feet northwest of a small telephone pole, 2.0 feet west of a white post branded "U.S.B.M.", 70.1 feet west of the face of a toll line pole on the east side of the highway painted white and branded with "U.S.B.M.". A standard disc, set in a concrete monument. 1030.444
- 77-4 (1934) In Polk County, in SE corner of $SE\frac{1}{4}$ of $SE\frac{1}{4}$ of Section 11, T-81-N, R-24-W, 0.5 mile east and 1.0 mile north of Alleman, on U. S. Highways #65 and #69; 2.0 miles south of the Polk-Story County Line, on west side of highway on road side of fence marked by a 6.0 inch cedar post 2.0 feet high painted white, near northwest corner of road intersection, 2.8 feet northeast of cross-spikes in corner fence post in northwest corner of intersection, 2.0 feet west of a 6.0 inch cedar post painted white, 99.8 feet southwest of cross-spikes in first telegraph pole north of section corner on east side of road, 85.4 feet northwest of cross-spikes in corner post in southeast corner of intersection, 44.8 feet southwest of pavement station #1159; 63.7 feet west of cross-spikes in telegraph pole at northeast corner of intersection, 44.5 feet northwest of lead plug in pavement marking section corner and 58.7 feet north of cross-spikes in corner post in southwest corner of intersection. A standard disc set in a concrete monument. 1010.903
- 77-5 (1934) In Polk County, 4.5 miles south of Huxley (Story County) on U. S. Highway #65, in Section 13, T-81-N, R-24-W, 25.4 feet north of the fifth toll line pole south of the $\frac{1}{4}$ -corner, 2.0 feet east of white witness post branded "U.S.B.M.", 31.0 feet east of the center line of U. S. Highway #65. A standard disc set in a concrete monument. 1016.691
- 77-6 (1934) In Polk County, 0.5 mile east and 1.0 mile south of Alleman, in Section 26, T-81-N, R-24-W, on the west side of U. S. Highway #65; 31.0 feet west of the center line of U. S. Highway #65; 80.0 feet north of the fence corner, 105.4 feet north of the east concrete post of the **Fox** Chemical Company sign, 2.5 feet east of the west road fence. A standard disc set in a concrete monument. 1000.454
- 77-7 (1934) In Polk County, 0.5 mile east and 2.0

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El. Ft.

miles south of Alleman, in Section 36, T-81-N, R-23-W, 6.5 feet north of face of a toll line pole in the southeast corner of intersection, 2.0 feet east of white post branded "U.S.B.M.", on the east side of U. S. Highway #65 at the southeast corner of U. S. Highway #65 and State Highway #87; 87.0 feet from center line of U. S. Highway #87; 27.0 feet from center line of State Highway #65; 25.7 feet northwest of corner canopy post of the Phillips Oil Station. A standard disc set in a concrete monument.

947.036

77-8 (1934) In Polk County, 3.0 miles north of Ankeny, in Section 36, T-81-N, R-23-W, in the northeast corner of the intersection of U. S. Highway #65 with County Road "C", 30.0 feet east of the center line of U. S. Highway #65, 32.0 feet north of the center line of the County Road "C", 140.0 feet northeast of the oil station, 2.0 feet from a telephone pole. A standard disc set in a concrete monument.

941.744

77-9 (1934) In Polk County, 2.5 miles north of Ankeny, in Section 2, T-80-N, R-24-W, on the west side of U. S. Highway #65; 110 feet north of the quarter-section line fence of Sections 1 and 2; 30.0 feet west of the center line of U. S. Highway #65; 105.0 feet north of a sign board on the west side of the road, 2.0 feet west of a white witness post branded "U.S.B.M." A standard disc set in a concrete monument.

944.513

77-10 (1934) In Polk County, at the northeast edge of Ankeny, in Section 13, T-80-N, R-23-W, in the southwest corner of the intersection of U. S. Highway #65 and County Road "H", 41.3 feet northwest of the corner of a porch on house owned by G. M. West, 9.0 feet east of a pipe at the northwest corner of Section 24; 5.8 feet southeast of the face of a toll line pole in the southeast corner of the intersection, and 2.0 feet east of a white witness post branded "U.S.B.M." A standard disc set in a concrete monument.

975.329

77-11 (1934) In Polk County, in Ankeny, in Section 23, T-80-N, R-24-W, 77.4 feet northeast of the northeast corner of main part of house owned by Ed. Nevlin, 90.6 feet west of the southwest corner of house owned by G. P. Ellis of Granger, and 2.0 feet south of a two-foot white witness post branded "U.S.B.M." A standard disc set in a concrete monument.

992.770

77-12 (1934) In Polk County, 1.5 miles south of Ank-

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El. Ft.

- ony, in Section 25, T-80-N, R-23-W, 27.7 feet east of center line of U. S. Highway #65; 80.0 feet north of the south side of fence of International Fox Company 63.5 feet east-northeast of fourth electric pole north of the southwest corner of Section 25, and 2.0 feet east of a white witness post branded "U.S.B.M.". A standard disc set in concrete monument. 960.156
- 77-13 (1934) In Polk County, 1.0 mile north of Carney in Section 36, T-80-N, R-23-W, 17.4 feet west of the west edge of the pavement on U. S. Highway #65; 57.4 feet east-northeast of the northeast corner of a farm house owned by Charles Howard, and 2.0 feet east of a white witness post branded "U.S.B.M." A standard disc set in a concrete monument. 959.047
- 77-14 (1934) In Polk County, 1.0 mile south of Carney, in Section 12, T-79-N, R-23-W, on the east side of U. S. Highway #65 opposite Woodside School, 56.5 feet east of the northeast corner walk. 186.0 feet east of the northeast corner of the building, 66.0 feet south of the road on the center line of Section 12, Saylor Township. Road is on the southeast edge of the County Farm. A standard disc set in a concrete monument. Reported in 1940 monument destroyed. 953.669
- 77-15 (1934) In Polk County, in Marquisville, in the southwest corner of Section 12, T-79-N, R-24-W, 3.3' north of Section line, 32.4' east by east north east of iron pin plug in pavement; 91.6' east by east south-east of southeast corner of foundation of E. Fiore's store and filling station, 17.9' west southwest of telegraph pole #6, and 17.9' west by west northwest of fence corner post. A standard disc set in a concrete monument. 934.417
- 77-16 (1934) In Polk County, in Marquisville, in Section 14, T-79-N, R-24-W, 78.7 feet east-northeast of northeast corner of a white bungalow of Gus. Carlson, 9.0 feet south of the south face of a 3-foot maple tree, 17.7 feet west of the west edge of pavement slab, and 1.5 feet west of a white witness post branded "U.S.B.M." A standard disc set in a concrete monument. 912.039
- 77-17 (1934) In Polk County, on the north edge of city limits of Des Moines, in Section 12, T-79-N, R-23-W, on the east side of U. S. Highway #65 opposite the west end of Canarey Street, 31.0 feet east of the

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- edge of the pavement, 200 feet north of the oil station, and 2.0 feet east of a white witness post branded "U.S.P.M.". A standard disc set in a concrete monument. El. Ft. 846.225
- 77-18 (1934) In Polk County, in Des Moines, in Section 23, T-79-N, R-24-W, 2.1 feet east of the 1.5 - foot brick post in a hedge row of the Cleaners Appliance Company, 54.0 feet southeast of the southeast corner of the building, 41.0 feet south of the south gate post, 47.1 feet north of the second telephone pole south of the corner of Shawnee Avenue and U. S. Highway #65. A standard disc set in a concrete monument. 836.957
- Traverse Station 8. (1936) In Polk County, in Des Moines, at the State Capitol, set in the Statute Platform of the West Entrance to the Iowa State Capitol Building, 9.0 steps above the sidewalk. A standard U. S. Geodetic Bronze Cap stamped "Traverse Station #8." 863.942
- 77-1 (1934) In Polk County, in Des Moines, on the west lawn of the State Capitol, 70.95 feet northwest of the water hydrant, 51.85 feet west-southwest of center of a line stone post, and 43.95 feet south-southeast of the lamp post. A standard disc set in a concrete monument. 890.372

For descriptions of additional bench marks in this vicinity, see pages 45 and 194.

LINE 0303. ALGONA to MARSHALLTOWN, IOWA
(First-order Leveling)

This Line follows U. S. Highway #18 from Algona to Mason City; U. S. Highway #65 from Mason City to three miles south of Iowa Falls, east along the east-west road between Sections 2 and 11 of Jackson Township, Hardin County, then south along a north and south road about the center of Section 5 (Jackson Township) through Owasa to another east - west road between Sections 29 and 32 of Jackson Township, west along this road to U. S. Highway #65 and south along U. S. Highway #65 to the junction of U. S. Highways #65 and #30 near Colo, and east on U. S. Highway #30 to Marshalltown.

The field work was done from June through October of 1934, by a party of the Iowa Geodetic Survey under the direction of George Havens.

The elevations are based on the 1938 General Adjustment of First-order Levels in Northeast Iowa.

For descriptions of additional bench marks in this vicinity, see page 27.

	El. Ft.
<p><u>55-1 (1934)</u> In <u>Kossuth County</u>, 0.25 mile north of <u>Algona</u> on the Chicago & North Western Railway tracks, in southeast corner of Section 36, T-96-N, R-29-W, on the limestone slab of the east culvert headwall of bridge #796 on the Chicago & North Western Railway, about 800 feet north of U. S. Highway #18. A standard disc, set in a concrete monument.</p>	1184.807
<p><u>55-2 (1934)</u> In <u>Kossuth County</u>, 2.0 miles east of <u>Algona</u>, on U. S. Highway #18, in the southeast corner of Section 32, T-96-N, R-28-W, in the north head wall of the 2 by 2 foot concrete box culvert on U. S. Highway #18, near highway station #890. A standard disc, set in a concrete monument.</p>	1191.044
<p><u>55-3 (1934)</u> In <u>Kossuth County</u>, 0.5 mile west of southeast corner of Section 36, T-96-N, R-28-W, 0.4 mile west of <u>Serton</u> on U. S. Highway #18, in the north head wall of the 2 by 2 foot box culvert on U. S. Highway #18, A standard disc, set in a concrete monument.</p>	1203.068
<p><u>55-4 (1934)</u> In <u>Kossuth County</u>, 0.1 mile west of SE corner of Section 33, T-96-N, R-27-W, 1.9 miles west of <u>Wesley</u>, on U. S. Highway #18, on the north headwall</p>	

ALGONA to MARSHALLTOWN, IOWA

	El. Ft.
of the concrete box culvert on U. S. Highway #18. A standard disc, set in a concrete monument.	1197.658
<u>55-5 (1934)</u> In <u>Kossuth County</u> , in <u>Wesley</u> , in the center of a circular flower bed in the front yard of the Wesley Fire station, 1.5 blocks south of the Chicago & Milwaukee depot. A standard disc, set in a concrete monument.	1254.266
<u>41-6 (1934)</u> In <u>Hancock County</u> , in $SE\frac{1}{4}$ of Section 30, T-96-N, R-26-W, 1.8 miles east of <u>Wesley</u> , (Kossuth County) on the north head wall of a 2 by 2 foot concrete box culvert, on U. S. Highway #18. A standard disc, set in a concrete monument.	1259.433
<u>41-7 (1934)</u> In <u>Hancock County</u> , in the $SW\frac{1}{4}$ of Section 28, T-96-N, R-26-W, 2.6 miles west of <u>Hutchins</u> , on the north head wall of an 18-inch tile culvert, on U. S. Highway #18. A standard disc, set in a concrete monument.	1264.961
<u>41-8 (1934)</u> In <u>Hancock County</u> , in the $NE\frac{1}{4}$ of Section 35, T-96-N, R-26-W, 0.2 mile east of <u>Hutchins</u> , on the north head wall of a 2 by 3 foot concrete box culvert, on U. S. Highway #18. A standard disc, set in a concrete monument.	1201.047
<u>41-9 (1934)</u> In <u>Hancock County</u> , in the $SE\frac{1}{4}$ of Section 30, T-96-N, R-25-W, 1.1 miles west of <u>Britt</u> , on the north head wall of a 2 by 4 foot concrete box culvert, on U. S. Highway #18. A standard disc, set in a concrete monument.	1209.505
<u>41-10 (1934)</u> In <u>Hancock County</u> , at the west city limits of <u>Britt</u> , on the north head wall of a 3 by 6 foot concrete box culvert on U. S. Highway #18. A standard disc, set in a concrete monument.	1205.765
<u>41-11 (1934)</u> In <u>Hancock County</u> , in <u>Britt</u> , in the concrete monument on the south side of the east entrance to the American Legion Hall, 1.0 feet from the building and flush with the building. The Legion Hall is near the center of Britt on the main street. A standard disc, set in a concrete monument.	1228.547
<u>41-12 (1934)</u> In <u>Hancock County</u> , in the $SW\frac{1}{4}$ of Section 27, T-96-N, R-25-W, 0.5 mile east of <u>Britt</u> , on the southwest wing wall of the concrete arch bridge on U. S. Highway #18. A standard disc, set in a concrete monument.	1207.005
<u>41-13 (1934)</u> In <u>Hancock County</u> , in Section 30, T-96-N, R-24-W, 2 miles east of <u>Britt</u> , on the north head wall of an 18-inch tile culvert on U. S. Highway #18. A standard disc, set in a concrete monument.	1209.030

LEVELING IN IOWA

- El. Ft.
- 41-14 (1934) In Hancock County, in Section 30, T-96-N, R-24-W, 1.3 miles west of Duncan, on the north head wall of a 5 by 10 foot box culvert on U. S. Highway #18. A standard disc, set in a concrete monument. 1223.597
- 41-157 (1934) In Hancock County, in Section 29, T-96-N, R-24-W, 4.8 miles west of Garner, 0.7 foot from fence, 216.5 feet southeast of the north gate post, 151.3 feet west of a telephone pole, 63.3 feet east of a blazed fence post, 1113.6 feet north of the center line at intersection of U. S. Highway #18. A standard disc set in a concrete monument. 1235.929
- (Copied from HG, Vol.3, p. 111: "A standard disc set in concrete monument 0.3 mile west and 0.3 mile north of Duncan, on a graveled county road, 30.0 feet east of the center line of road, 0.8 foot west of fence, and 86.6 feet north of the fifth telephone pole north of U. S. Highway #18, in the NW $\frac{1}{4}$ of Section 29."
- 41-15 (1934) In Hancock County, in Duncan, on the north head wall of a 2 by 2 foot box culvert, 400 feet east of a general store, on U. S. Highway #18. A standard disc, set in a concrete monument. 1240.040
- 41-16 (1934) In Hancock County, in the W $\frac{1}{4}$ of Section 28, T-96-N, R-24-W, 1.3 miles east of Duncan, on the north head wall of a 2 by 2 foot concrete box culvert, on U. S. Highway #18. A standard disc, set in a concrete monument. 1241.986
- 41-17 (1934) In Hancock County, in Section 27, T-96-N, R-24-W, 2.3 miles east of Duncan, on the north head wall of a 2 by 4 foot concrete box culvert, on U. S. Highway #18. A standard disc, set in a concrete monument. 1220.004
- 41-164 (1934) In Hancock County, in Section 25, T-96-N, R-24-W, 1.3 miles west of Garner, 62.4 feet southeast of a concrete R. O. W. marker, at the NW corner of intersection, 55.4 feet northwest of a concrete R. O. W. marker, at SE corner of intersection, 33.8 feet northeast of a lead plug in the W $\frac{1}{4}$ corner of Section 25. A standard disc set in concrete monument, on U. S. Highway #18, marked by white guard rail post. 1218.088
- 41-165 (1934) In Hancock County, in Section 36, T-96-N, R-24-W, 1.25 miles west of Garner, 1.0 foot west of east fence, 145.5 feet southeast of the southeast corner of the southeast wing of a concrete bridge, 129.2 feet southeast of the south gate post, 78.0 feet north-

ALGONA to MARSHALLTOWN, IOWA

	El. Ft.
east of a power pole, 681.0 feet north of the $W\frac{1}{4}$ of Section 36. A standard disc, set in a concrete monument.	1212.110
<u>41-16 (1934)</u> In <u>Hancock County</u> , in $W\frac{1}{4}$ corner of Section 36, T-96-N, R-24-W, 1.25 miles west of <u>Garner</u> , 306.7 feet northeast of the corner stone, 84.0 feet northeast and 152.4 feet northwest of a power pole. A standard disc, set in a concrete monument.	1215.086
<u>41-15 (1934)</u> In <u>Hancock County</u> , in Section 36, T-96-N, R-24-W, 0.25 mile west of <u>Garner</u> , 66.0 feet southeast of the southeast corner of a house, 34.0 feet southwest of the east evergreen tree, 344.4 feet northwest of a lead plug in center of paving intersection with primary road #15. A standard disc, set in a concrete monument.	1215.772
<u>41-14 (1934)</u> In <u>Hancock County</u> , In Section 31, T-96-N, R-23-W, 0.25 mile southwest of <u>Garner</u> , 1.0 foot north of fence, 157.3 feet southwest of the west evergreen in grove of trees, 531.4 feet east-southeast of lead plug in the center of paving intersection with County road. A standard disc, set in concrete monument.	1222.222
<u>41-13 (1934)</u> In <u>Hancock County</u> , in Section 31, T-96-N, R-23-W, in <u>Garner</u> , 250.3 feet southeast of the Otto Kramer house, at the corner of Lyon and State Streets, 138.9 feet west of a corner post and 1.6 feet from a fence. A standard disc, set in a concrete monument.	1211.566
<u>41-12 (1934)</u> In <u>Hancock County</u> , in Section 31, T-96-N, R-23-W, on the south edge of <u>Garner</u> , 194.7 feet northwest of the Ripley tombstone in the Concord Cemetery, 70.5 feet west of the inside flange of the west rail and 63.7 feet north of a power pole. A standard disc, set in a concrete monument.	1219.099
<u>41-11 (1934)</u> In <u>Hancock County</u> , In Section 32, T-96-N, R-23-W, 0.25 mile east of <u>Garner</u> , 1.1 feet north of south fence, 542.0 feet southwest of a corner stone at center of Section 32, 50.8 feet east of a steel gatepost, 17.2 feet to west 16-inch evergreen tree, 29.0 feet to 16-inch evergreen tree second from the west, and 142.8 feet northwest of northwest corner of house. A standard disc, set in a concrete monument.	1209.545

For descriptions of additional bench marks in this vicinity, see page 170.

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- 41-10 (1934) In Hancock County, in Section 32, T-96-N, R-23-W, 0.8 mile east of Garner, 2.0 feet south of the north fence, 118 feet northeast of a blazed phone pole, 170.9 feet northwest of blazed phone pole and 642 feet northwest of the corner stone at northwest corner. A standard disc, set in a concrete monument. 1214.085
- 41-9 (1934) In Hancock County, in Section 33, T-96-N, R-23-W, 1.5 mile east of Garner, 2.2 feet south of a fence, 37.8 feet northwest of mail box, 73.5 feet northwest of a steel corner post and 147.4 feet southeast of an 18-inch evergreen tree. A standard disc, set in a concrete monument. 1214.978
- 41-8 (1934) In Hancock County, in Section 34, T-96-N, R-23-W, 2.25 miles east of Garner, 2.2 feet south of the north fence, 274.2 feet northwest of the northwest corner of the house, 229.8 feet northeast of the west gate post. A standard disc, set in a concrete monument. 1234.965
- 41-7 (1934) In Hancock County, in Section 34, T-96-N, R-23-W, 2.8 miles east of Garner, 4.0 feet south of fence, 27.5 feet east of telephone pole and 211.5 feet southwest of corner post. A standard disc, set in a concrete monument. 1242.534
- 41-6 (1934) In Hancock County, in Section 35, T-96-N, R-23-W, 3.8 miles east of Garner, 206.5 feet north of the northwest corner of the J. H. Ingram house, 8.0 feet west of a telephone pole, 92.0 feet northeast of the east wood gate post, 1.4 feet south of a fence, 1146.4 feet north of the $W\frac{1}{4}$ corner of Section 36. A standard disc, set in a concrete monument. 1249.315
- 41-5 (1934) In Hancock County, in Section 25, T-96-N, R-23-W, 4.0 miles east of Garner, 117.2 feet southeast of the northeast corner of the E. Fenniger house, 62.7 feet northeast of a corner post, 39.8 feet south of a telephone pole and 304.9 feet northeast of the iron rod at the southwest corner of the Section. A standard disc, set in a concrete monument. 1248.898
- 41-4 (1934) In Hancock County, in $W\frac{1}{4}$ corner of Section 25, T-96-N, R-23-W, 4.0 miles east and 0.25 mile north of Garner, 294.7 feet southwest of the southwest corner of a hoghouse, 1.6 feet west of the fence, 64.5 feet east of a steel fence post and 1218.0 feet northeast of the center line of the Hancock County Local Road. A standard disc, set in concrete monument. 1245.549

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<p><u>41-3 (1934)</u> In <u>Hancock County</u>, in Section 23, T-96-N, R-23-W, 4.0 miles east and 0.7 mile north of <u>Garner</u>, 5.6 feet east of the fence, 59.0 feet north of a telephone pole and 66.0 feet south of a telephone pole, 637.3 feet southwest of the $W\frac{1}{4}$ corner of Section 24; 2261 feet to bench mark #51-2. A standard disc, set in a concrete monument.</p>	1257.507
<p><u>41-2 (1934)</u> In <u>Hancock County</u>, in Section 23, T-96-N, R-23-W, 4.0 miles east and 1.25 miles north of <u>Garner</u>, 105.2 feet southeast of a joint in the south rail of the Chicago, Milwaukee & St. Paul Railroad, 9.2 feet north of a telephone pole, 88.6 feet southwest of a telephone pole and 76.5 feet southeast of a telegraph pole. A standard disc, set in a concrete monument.</p>	1256.950
<p><u>41-1 (1934)</u> In <u>Hancock County</u>, in Section 13, T-96-N, R-23-W, 4.7 miles east and 1.8 miles north of <u>Garner</u>, 20.0 feet south of the pavement, 3.3 feet north of a fence, 1126.6 feet southwest of a copper plug in the pavement and 62.6 feet southeast of the Black Diamond telephone pole #5. A standard disc, set in a concrete monument.</p>	1265.926
<p><u>17-1 (1934)</u> In <u>Cerro Gordo County</u>, in Section 18, T-96-N, R-22-W, about 0.75 mile southwest of <u>Ventura</u>, on the north side of U. S. Highway #18; 418.5 feet east and 40.5 feet north of the northwest corner of Section 19, T-96-N, R-22-W. A standard disc, set in a concrete monument.</p>	1269.840
<p><u>17-2 (1934)</u> In <u>Cerro Gordo County</u>, on the north side of Section 19, T-96-N, R-22-W, about 0.25 mile west of <u>Ventura</u>, on U. S. Highway #18, 28.85 feet south of Station 37; 106.5 feet southwest of Station 38 (station numbers mark in the pavement). A standard disc, set in a concrete monument.</p>	1258.167
<p><u>17-3 (1934)</u> In <u>Cerro Gordo County</u>, on the south side of Section 17, T-96-N, R-22-W, in <u>Ventura</u>, on U. S. Highway #18; 55.7 feet east of Paving Station #60; 47.0 feet west of Paving Station #61. A standard disc, set in a concrete monument.</p>	1268.679
<p><u>17-4 (1934)</u> In <u>Cerro Gordo County</u>, on the south side of Section 17, T-96-N, R-22-W, on U. S. Highway #18, about 0.6 mile east of <u>Ventura</u>, 8.1 feet north of Paving Station #97; 98.6 feet west of Paving Station #98. A standard disc, set in a concrete monument.</p>	1240.814

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- 17-5 (1934) In Cerro Gordo County, on the south side of Section 16, T-96-N, R-22-W, on U. S. Highway #18 about 1.5 miles east of Ventura, 60.3 feet east of Paving Station #124; 44.3 feet west of Paving Station #125. A standard disc, set in a concrete monument. 1265.070
- 17-6 (1934) In Cerro Gordo County, on the east side of Section 16, T-96-N, R-22-W, on U. S. Highway #18 about 2.25 miles west of Clear Lake, 104 feet east of Paving Station #170; 24.3 feet north of Paving Station #171. A standard disc, set in a concrete monument. 1239.998
- 17-7 (1934) In Cerro Gordo County, in Section 15, T-96-N, R-22-W, on U. S. Highway #18, about 1.75 miles west of Clear Lake, 189.6 feet east of Paving Station #185; 32.4 feet southwest of Paving Station #187. A standard disc, set in a concrete monument. 1242.629
- 17-8 (1934) In Cerro Gordo County, in Section 15, T-96-N, R-22-W, on U. S. Highway #18, about 1.5 miles west of Clear Lake, 46.1 feet east of Paving Station #213; 55.8 feet west of Paving Station #214. A standard disc, set in a concrete monument. 1243.698
- 17-9 (1934) In Cerro Gordo County, in Section 9, T-96-N, R-22-W, about 1.25 miles west of Clear Lake, 122.5 feet west and 72.1 feet north of the Meander Corner between Sections 14 and 15 of T-96-N, R-22-W being measured north to the line from 17-9 to 17-10 and taking said line to be east and west. A standard disc, set in a concrete monument. 1252.307
- 17-10 (1934) In Cerro Gordo County, in the northeast corner of Section 15, T-96-N, R-22-W, on U. S. Highway #18, about 1.0 mile west of Clear Lake, 42.8 feet west of Paving Station #238; 78.0 feet east of Paving Station #237. A standard disc, set in a concrete monument. 1243.777
- 17-11 (1934) In Cerro Gordo County, on the north side of Section 14, T-96-N, R-22-W, on U. S. Highway #18 about 0.75 mile west of Clear Lake, 104.6 feet southeast of Paving Station #244; 30.5 feet south of Paving Station #245. A standard disc, set in a concrete monument. 1246.238
- 17-12 (1934) In Cerro Gordo County, in Section 14, T-96-N, R-22-W, on U. S. Highway #18, about 0.5 mile west of Clear Lake, 58.5 feet east of Paving Station

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- #253; 46.3 feet west of paving station #254. A standard disc, set in a concrete monument. El. Ft. 1238.068
- 17-13 (1934) In Cerro Gordo County, in Section 14, T-96-N, R-22-W, on U. S. Highway #18 about 0.25 mile west of Clear Lake, 74.9 feet southeast of paving station #259; 42.2 feet southwest of paving station #260. A standard disc, set in a concrete monument. 1255.020
- 17-14 (1934) In Cerro Gordo County, in northeast corner of Section 14, T-96-N, R-22-W, on U. S. Highway #18 at the west edge of Clear Lake, 80.0 feet northeast of paving station #271; 50.0 feet north of fire hydrant on the south side of U. S. Highway #18. A standard disc, set in a concrete monument. 1238.416
- 17-15 (1934) In Cerro Gordo County, in Section 13, T-96-N, R-22-W, in Clear Lake, 162.8 feet northwest of the end of the concrete walk on the south side of U. S. Highway #18; 37.1 feet east of a telephone pole, 12.7 feet west of a brace pole and 41.6 feet north of a power pole. A standard disc, set in a concrete monument. 1227.563
- 17-16 (1934) In Cerro Gordo County, on the south side of Section 12, T-96-N, R-22-W, in Clear Lake, 611.2 feet west of and 48.15 feet north of a point of the Chicago, Milwaukee, St. Paul & Pacific Railroad switch at station #1974-88.2 in Clear Lake. A standard disc, set in a concrete monument. 1241.195
- 17-17 (1934) In Cerro Gordo County, on the south side of Section 12, T-96-N, R-22-W, in Clear Lake, 102.9 feet west and 40.8 feet south of a point of the Chicago, Milwaukee, St. Paul & Pacific Railroad switch at station #1966-35.7 in Clear Lake. A standard disc, set in a concrete monument. 1245.782
- 17-18 (1934) In Cerro Gordo County, in the southeast corner of Section 12, T-96-N, R-22-W, in Clear Lake, 547.75 feet west and 64.8 feet north of the point of the Chicago, Milwaukee, St. Paul & Pacific Railroad switch at station #1947-16.7 in Clear Lake. A standard disc, set in a concrete monument. 1233.951
- 17-19 (1934) In Cerro Gordo County, in the southwest corner of Section 7, T-96-N, R-22-W, in Clear Lake, 250.7 feet east and 39.05 feet south of the point of the Chicago, Milwaukee, St. Paul & Pacific Railroad

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- switch at station #1942-46.9 in Clear Lake. A standard disc, set in a concrete monument. El. Ft. 1233.042
- 17-129 (1934) In Cerro Gordo County, on the south side of Section 7, T-96-N, R-21-W, in Clear Lake, 2439.4 feet east and 42.9 feet north of the point of the Chicago, Milwaukee, St. Paul & Pacific Railroad switch at station #1942-46.9 in Clear Lake. A standard disc, set in a concrete monument. 1228.974
- 17-128 (1934) In Cerro Gordo County, in Section 8, T-96-N, R-21-W, in Clear Lake, 0.2 mile west of the west section line on the north side of North Center Street, 4.0 feet west of a fence post and 13.0 feet east of a fence post. A standard disc, set in a concrete monument. 1223.584
- 17-127 (1934) In Cerro Gordo County, 0.25 mile northeast of Clear Lake, 55.9 feet north of a high-line pole, 1.9 feet south of a gate post, 25.4 feet east of a 28-inch maple tree, 0.4 mile northeast of a point where the Chicago, Milwaukee, St. Paul & Pacific Railroad crosses on the north side of U. S. Highway #18. A standard disc, set in a concrete monument. 1196.992
- 17-126 (1934) In Cerro Gordo County, in Section 8, T-96-N, R-21-W, on the south side of U. S. Highway #18, one mile northeast of Clear Lake, 15.0 feet north of a telephone pole, 3.3 feet north of a corner post, 25.0 feet south of the center line of pavement. A standard disc, set in a concrete monument. 1201.513
- 17-125 (1934) In Cerro Gordo County, in Section 9, T-96-N, R-21-W, 1.75 miles northeast of Clear Lake, 0.5 mile east of the west section line, on the north side of U. S. Highway #18; 60.4 feet east of a high-line pole #7361; 28.2 feet north of the center line of paving. A standard disc, set in a concrete monument. 1192.429
- 17-124 (1934) In Cerro Gordo County, in Section 10, T-96-N, R-21-W, 0.75 mile north and 2.0 miles west of Emery, 0.4 mile west of the west quarter corner, on the south side of U. S. Highway #18; 67.2 feet south of a brick pillar at the southeast corner of a farm yard, 36.3 feet east of telephone pole #270, and 10.0 feet east of a corner post. A standard disc, set in a concrete monument. 1189.381
- 17-123 (1934) In Cerro Gordo County, in Section 10,

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- El. Ft.
- T-96-N, R-21-W, 0.05 mile west of the west quarter corner, 0.75 mile north and 1.5 miles west of Emery, on the north side of U. S. Highway #18; 55.2 feet east of a telephone pole, 70.0 feet northeast of a telephone pole on the south side of the highway. A standard disc, set in a concrete monument. 1187.773
- 17-122 (1934) In Cerro Gordo County, 0.1 mile east of the west quarter corner of Section 10, T-96-N, R-21-W, on the south side of U. S. Highway #18, 0.75 mile north and 1.3 miles west of Emery, 22.0 feet east of a telephone pole, 22.5 feet south of the south edge of the paving and 10.5 feet northwest of a steel fence post. A standard disc, set in a concrete monument. 1183.862
- 17-121 (1934) In Cerro Gordo County, 0.3 mile east of the west quarter corner of Section 10, T-96-N, R-21-W, on the north side of U. S. Highway #18, 0.75 mile north and 1.1 mile west of Emery, 23.5 feet west of a telephone pole, 56.4 feet north of a telephone pole on the south side of the highway. A standard disc, set in a concrete monument. 1177.842
- 17-120 (1934) In Cerro Gordo County, 0.08 mile east of the west quarter corner of Section 11, T-96-N, R-21-W, on the south side of U. S. Highway #18, 0.75 mile north and 0.8 mile west of Emery, 59.9 feet east of a telephone pole and 25.9 feet south of the center line of the pavement. A standard disc, set in a concrete monument. 1193.269
- 17-117 (1934) In Cerro Gordo County, 0.83 mile east of the west quarter of Section 12, T-96-N, R-21-W, on the south side of U. S. Highway #18, 0.75 mile east and 0.5 mile north of Emery, 30.0 feet east of a telephone pole, 6.2 feet east of a concrete fence post. A standard disc, set in a concrete monument. 1169.699
- 17-157 (1934) In Cerro Gordo County, 0.25 mile east of the west quarter corner of Section 7, T-96-N, R-20-W, on the north side of U. S. Highway #18, 0.75 mile west of Mason City, 52.6 feet west of the east concrete gate post, 4.4 feet east of a concrete fence post. A standard disc, set in a concrete monument. 1173.885
- 17-158 (1934) In Cerro Gordo County, 0.65 mile east of the west quarter corner of Section 7, T-96-N, R-20-W, on the south side of U. S. Highway #18 in Mason City, 23.3 feet west of a toll line pole #113, 17.3

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- feet south of the south edge of the pavement. A standard disc, set in a concrete monument. El. Ft. 1172.727
- 17-177 (1934) In Cerro Gordo County, 0.1 mile east of the west quarter corner of Section 8, T-96-N, R-20-W, on the north side of U. S. Highway #18 in Mason City, 53.3 feet northwest of toll line pole #95; 7.3 feet north of the north edge of the pavement. A standard disc, set in a concrete monument. 1166.553
- 17-176 (1934) In Cerro Gordo County, 0.8 mile east of the west quarter corner of Section 8, T-96-N, R-20-W, on the south side of U. S. Highway #18 in Mason City, just west of the south hand rail of the concrete bridge, 14.8 feet northeast of a fence post and 13.2 feet northwest of a fence post. A standard disc, set in a concrete monument. 1130.103
- 17-175 (1934) In Cerro Gordo County, in Section 9, T-96-N, R-20-W, 50.0 feet west of South Taylor Avenue on the north side of Fourth Street Southwest, in Mason City, 19.2 feet west of the street marker. A standard disc, set in a concrete monument. 1148.626
- 17-174 (1934) In Cerro Gordo County, on the east side of Section 10, T-96-N, R-20-W, 150 feet east of South Jackson Avenue on the south side of Fourth Street Southwest, in Mason City, 21.5 feet west of the Chicago & Great Western Railway Automatic signal. A standard disc, set in a concrete monument. 1130.109
- 17-173 (1934) In Cerro Gordo County, in the northwest corner of Section 10, T-96-N, R-20-W, 4.0 feet south of fire hydrant, 21.0 feet north of Fourth Street Southwest, on the West side of Federal Avenue in Mason City. A standard disc, set in a concrete monument. 1112.734
- 17-172 (1934) In Cerro Gordo County, on the west side of Section 10, T-96-N, R-20-W, 110 feet north of Seventh Avenue Southeast, on the east side of Federal Avenue in Mason City, 22.0 feet south of a concrete lamp post. A standard disc, set in a concrete monument. 1114.204
- 17-171 (1934) In Cerro Gordo County, in the southwest corner of Section 10, T-96-N, R-20-W, 129 feet south of Tenth Street Southwest, on the west side of Federal Avenue in Mason City, 4.0 feet northwest of the highway sign. A standard disc, set in a concrete monument. 1122.691

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- 17-170 (1934) In Cerro Gordo County, in the northwest corner of Section 15, T-96-N, R-20-W, 55.0 feet north of 13th Street Southwest, on the west side of Federal Avenue in Mason City, 18.2 feet southeast of a power pole. A standard disc, set in a concrete monument. 1135.693
- 17-169 (1934) In Cerro Gordo County, in Section 15, T-96-N, R-20-W, 128 feet south of 18th Street Southeast, on the east side of Federal Avenue in Mason City, 8.5 feet northwest of a telephone pole. A standard disc, set in a concrete monument. 1155.788
- 17-168 (1934) In Cerro Gordo County, in Section 15, T-96-N, R-20-W, 50.0 feet south of 23rd Street Southwest, on the west side of Federal Avenue in Mason City, 21.5 feet southeast of a fire hydrant. A standard disc, set in a concrete monument. 1176.251
- 17-167 (1934) In Cerro Gordo County, 0.7 mile north of the northwest corner of Section 27, T-96-N, R-20-W, located in the southeast edge of Mason City, on the east side of U. S. Highway #65, 18.3 feet southwest of a fence post, 14.2 feet west of a fence post. A standard disc, set in a concrete monument. 1191.697
- For descriptions of additional bench marks in this vicinity, see pages 108 and 131.
- 17-166 (1934) In Cerro Gordo County, 0.3 mile north of the northwest corner of Section 27, T-96-N, R-20-W, on the west side of U. S. Highway #65, 0.25 mile south of Mason City, 10.8 feet north of a fence post and 4.5 feet south of a fence post. A standard disc, set in a concrete monument. 1208.570
- 17-165 (1934) In Cerro Gordo County, 0.8 mile north of the northwest corner of Section 34, T-96-N, R-20-W, on the east side of U. S. Highway #65, 0.75 mile south of Mason City, 18.4 feet south of a fence post, 7.1 feet north of a fence post. A standard disc, set in a concrete monument. 1219.076
- 17-164 (1934) In Cerro Gordo County, 0.35 mile north of the northwest corner of Section 34, T-96-N, R-20-W, on the east side of U. S. Highway #65, one mile south of Mason City, 1.8 feet west of a fence post and 6.5 feet south of a fence post. A standard disc, set in a concrete monument. 1218.019
- 17-178 (1934) In Cerro Gordo County, 0.15 mile south

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- El. Ft.
- of the northwest corner of Section 34, T-96-N, R-20-W, on the west side of U. S. Highway #65, 1.75 miles south of Mason City, 50.6 feet southeast of a toll line post #1876 and 17.5 feet northeast of a fence post. A standard disc, set in a concrete monument. 1217.422
- 17-179 (1934) In Cerro Gordo County, 0.7 mile south of the northwest corner of Section 34, T-96-N, R-20-W, on the east side of U. S. Highway #65; 2.25 miles south of Mason City, 64.0 feet southeast of a toll line pole #1841, 22.6 feet east of the east edge of the pavement. A standard disc, set in a concrete monument. 1220.378
- 17-500 (1934) In Cerro Gordo County, in the northwest corner of Section 3, T-95-N, R-20-W, on the west head wall of a 30-inch concrete culvert; on U. S. Highway #65, 2.5 miles south of Mason City. A standard disc, set in a concrete monument. 1211.392
- 17-501 (1934) In Cerro Gordo County, in the northwest corner of Section 10, T-95-N, R-20-W, on U. S. Highway #65, 3.5 miles south of Mason City, at a road intersection, on the southwest head wall of an 18-inch concrete culvert. A standard disc, set in a concrete monument. 1212.176
- 17-502 (1934) In Cerro Gordo County, in the northwest corner of Section 15, T-95-N, R-20-W, on U. S. Highway #65, 4.5 miles south of Mason City at an intersection of U. S. Highway #65 with a county road, on the east head wall of a 30-inch concrete culvert. A standard disc, set in a concrete monument. 1174.791
- 17-503 (1934) In Cerro Gordo County, in the northwest corner of Section 22, T-95-N, R-20-W, 5.5 miles south of Mason City, on the southwest head wall of a 6 by 2.5 foot concrete culvert, at an intersection of U. S. Highway #65 with a county road. A standard disc, set in a concrete monument. 1165.217
- 17-504 (1934) In Cerro Gordo County, in the northwest corner of Section 27, T-95-N, R-20-W, 6.6 miles south of Mason City, on the west head wall of a 2 by 2 foot concrete box culvert, on U. S. Highway #65. A standard disc, set in a concrete monument. 1174.191
- 17-201 (1934) In Cerro Gordo County, 0.35 mile west of the northwest corner of Section 35, T-95-N, R-20-W, 1.5 miles east of Hurley, 4.5 feet west of a corner

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- El. Rt.
- post, 9.6 feet east of a fence post, on the north side of the highway. A standard disc, set in a concrete monument. 1129.204
- 17-251 (1934) In Cerro Gordo County, in Section 3, T-94-N, R-20-W, 0.5 mile north of Rockwell, on the east side of the highway, midway between the two steel truss bridges north of Rockwell, 10.8 feet north of a fence post and 7.5 feet south of a fence post. A standard disc, set in a concrete monument. 1121.543
- 17-250 (1934) In Cerro Gordo County, 0.1 mile north of Rockwell, 0.05 mile north of the north quarter corner of Section 3, T-94-N, R-20-W, 37.9 feet south of toll line pole #1562, on the west side of the highway. A standard disc, set in a concrete monument. 1120.441
- 17-249 (1934) In Cerro Gordo County, 0.7 mile north of the north quarter corner of Section 10, T-94-N, R-20-W, on the east side of the highway in Rockwell, 13.7 feet south of a large stump, 67.0 feet south of a telephone pole. A standard disc, set in a concrete monument. 1131.179
- 17-248 (1934) In Cerro Gordo County, 0.3 mile north of the north quarter corner of Section 10, T-94-N, R-20-W, on the west side of the highway in Rockwell, 49.0 feet north of a toll line pole #1534, and 16.0 feet south of a power pole. A standard disc, set in a concrete monument. 1118.849
- 17-247 (1934) In Cerro Gordo County, 0.95 mile north of the north quarter corner of Section 15, T-94-N, R-20-W, on the east side of the highway at the cemetery in Rockwell, 68.7 feet north of a high-line pole (P&H) #1930. A standard disc, set in a concrete monument. 1125.231
- 17-246 (1934) In Cerro Gordo County, 0.75 mile north of the north quarter corner of Section 15, T-94-N, R-20-W, on the west side of the highway in Rockwell, 17.5 feet north of toll-line pole #1508, and 3.2 feet east of the corner post. A standard disc, set in a concrete monument. 1119.732
- 17-245 (1934) In Cerro Gordo County, 0.2 mile north of the north quarter corner of Section 15, T-94-N, R-20-W, on the east side of the highway in Rockwell, 17.4 feet northeast of the highway railway crossing sign. A standard disc, set in a concrete monument. 1111.664

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El. Ft.

- 17-243 (1934) In Cerro Gordo County, 0.25 mile north of the north quarter corner of Section 22, T-94-N, R-20-W, on the east side of the highway 0.75 mile south of Rockwell, 30.8 feet north of the north gate post, 9.0 feet south of a fence post. A standard disc, set in a concrete monument. 1093.833
- 17-242 (1934) In Cerro Gordo County, 0.1 mile east of the northwest corner of Section 22, T-94-N, R-20-W, 1.0 mile south and 0.1 mile east of Rockwell on the south side of the highway, 51.2 feet west of a telephone pole and 9.6 feet east of a fence post. A standard disc, set in a concrete monument. 1073.459
- 17-236 (1934) In Cerro Gordo County, 0.1 mile south of the northwest corner of Section 22, T-94-N, R-20-W, 1.1 miles south of Rockwell on the west side of U. S. Highway #65, 7.6 feet north of a steel fence post and 5.5 feet south of a steel fence post. A standard disc, set in a concrete monument. 1074.279
- 17-237 (1934) In Cerro Gordo County, 0.6 mile south of the northwest corner of Section 22, T-94-N, R-20-W, 1.7 miles south of Rockwell on the east side of U. S. Highway #65; 11.8 feet north of a fence post, 9.0 feet south of a fence post. A standard disc, set in a concrete monument. 1087.186
- 17-238 (1934) In Cerro Gordo County, 0.4 mile south of the northwest corner of Section 27, T-94-N, R-20-W, 2.3 miles south of Rockwell on the west side of U. S. Highway #65; 62.5 feet south of a corner post, 5.7 feet north of a fence post. A standard disc, set in a concrete monument. 1080.661
- 17-239 (1934) In Cerro Gordo County, in Section 27, T-94-N, R-20-W, 2.75 miles south of Rockwell, 0.75 mile north of toll-line pole #1342, 26.7 feet south of a fence post, on the east side of U. S. Highway #62. A standard disc, set in a concrete monument. 1090.661
- 17-240 (1934) In Cerro Gordo County, 0.2 mile south of the northwest corner of Section 34, T-94-N, R-20-W, 3.25 miles south of Rockwell, 7.3 feet north of a steel fence post, 9.3 feet south of a steel fence post, on the west side of U. S. Highway #65. A standard disc, set in a concrete monument. 1093.623
- 17-241 (1934) In Cerro Gordo County, 0.65 mile south

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of the northwest corner of Section 34, T-94-N, R-20-W, 3.5 miles south of Rockwell on the east side of U. S. Highway #65, 7.5 feet south of a steel fence post, 25.4 feet north of toll-line pole #1303. A standard disc, set in a concrete monument.

1094.922

35-198 (1934) In Franklin County, in Section 4, T-92-N, R-22-W, in Sheffield, in the west road ditch 13.4 feet east of the west right-of-way fence, 0.2 mile south of U. S. Highway #65 and the north line of Franklin County, 26.6 feet west of the center line of pavement station #1267 + 91 feet, 36.0 feet west-southwest of station mark #1268; 57.8 feet west-northwest of spike in the north base of a telephone pole on the east, 102.9 feet south of the south end of a 15-inch corrugated culvert under farm entrance on west. A reinforced concrete monument set 0.2 feet below the surface.

1101.199

35-199 (1934) In Franklin County, between Sections 4 and 9 of T-93-N, R-20-W, in the island at the Y-intersection of U. S. Highway #65 with the road west to Sheffield, 10.8 feet west of the center line in pavement station #1225 + 43 feet, 55.8 feet northeast of the southeast corner base of head wall at the south end of a 6 by 4 foot concrete box culvert across Sheffield Road, 50.3 feet southeast of the east corner of the northeast base of the head wall on the north. A reinforced concrete monument set 0.4 foot below the surface.

1072.977

35-200 (1934) In Franklin County, in Section 9, T-93-N, R-20-W, in Sheffield, in the west road ditch 22.8 feet west of the center line in pavement station #1170 + 96 feet, 1.9 miles south of cross road (U.S. Highway #65) with the north line of Franklin County, 31.7 feet west-southwest of pavement station mark #1171, 45.0 feet south of the line along the south side of main part of house on the east, 82.0 feet south of line along south side end posts of the Sheffield Brick and Tile Company sign on the west, 9.8 feet southwest of the spike in the south base of a telephone pole on the west. A reinforced concrete monument set flush with the surface.

1102.239

35-201 (1934) In Franklin County, in Section 15, T-93-N, R-20-W, 0.75 mile south of Sheffield, in the west road ditch 19.2 feet west of center line in pavement station #1127 + 19 feet; 2.75 miles south of cross road (U. S. Highway #65) with north line of

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Franklin County, 34.1 feet west-northwest of station mark #1127; 85.1 feet south-southwest of pavement station mark #1128; 45.0 feet south of tangent to $\frac{1}{4}$ section line fence through the south half of Section 15. A reinforced concrete monument set flush with the surface.

1111.697

35-202 (1934) In Franklin County, in Section 22, T-93-N, R-20-W, 1.5 miles south of Sheffield, at the toe of east back-slope, 6.1 feet west of the east right-of-way fence, 3.62 miles south of U. S. Highway #65 crossing north line of Franklin County, 26.2 feet east of center line of pavement station #1081 + 20.5 feet, 26.6 feet north-northeast of pavement station mark #1081; 13.2 feet north-northwest of spike in west base of electric pole with sub-base on the east, 588.3 feet south of tangent to quarter-section line fence east through Section 22. A reinforced concrete monument set 0.4 feet below the surface.

1136.038

35-203 (1934) In Franklin County, in Section 28, T-93-N, R-20-W, 2.7 miles south of Sheffield, at the toe of west backslope, 7.0 feet east of west right-of-way fence, 4.7 miles south of U. S. Highway #65 crossing north line of Franklin County, 24.6 feet west of center line of pavement station #1023 + 86 feet; 91.8 feet north-northwest of pavement station mark #1023; 35.6 feet southwest of pavement station mark #1024; 275 feet north of tangent to $\frac{1}{4}$ section fence line west through $S\frac{1}{2}$ of Section 28. A reinforced concrete monument set flush with the surface.

1139.679

35-204 (1934) In Franklin County, in Section 33, T-93-N, R-20-W, 3.3 miles south of Sheffield, 4.3 feet east of west right-of-way fence at toe of backslope, 5.35 miles south of U. S. Highway #65, crossing north line of Franklin County, 27.9 feet west of center line of pavement station #987 + 49 feet; 61.2 feet northwest of station mark #987; 62.3 feet southwest of station mark #988; 33.0 feet south of the spike through lower band on the east of stub to electric pole on the west. A reinforced concrete monument set flush with the surface.

1143.676

35-205 (1934) In Franklin County, in Section 33, T-93-N, R-20-W, 3.7 miles south of Sheffield, at the toe of west backslope, 5.0 feet east of west right-of-way fence, 5.8 miles south of U. S. Highway #65 crossing north line of Franklin County, 27.0 feet west of center line of pavement station #965 + 60 feet; 53.5 feet

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southwest of pavement station mark #966; 67.8 feet north-northwest of pavement station mark #965; 78.0 feet north of line along north side of a house on the east. A reinforced concrete monument set 0.2 foot below the surface.

1158.285

35-206 (1934) In Franklin County, in Section 3, T-92-N, R-20-W, 4.87 miles north of Hampton, halfway up east back slope just north of farm entrance drive, 3.2 feet west of front yard fence, 29.0 feet east of center line of pavement station #931 + 65.5 feet, 40.0 feet southeast of station mark #932; 68.2 feet north-northeast of station mark #931; 68.0 feet south of line along the north side of house on the east, 5.0 feet northwest of north steel gatepost to farm entrance on the east, 4.2 feet east-northeast of north end of a 21-inch corrugated culvert under same farm entrance. A reinforced concrete monument set flush with the surface.

1138.836

35-207 (1934) In Franklin County, in Section 10, T-92-N, R-20-W, 4.38 miles north of Hampton, at toe of east back slope, 8.5 feet west of east right-of-way fence, 24.9 feet east of center line of pavement station #899 + 73.5 feet, 31.0 feet southeast of station mark #900; 75.1 feet north-northeast of station mark #899; 82.5 feet south of line along south side of the house on the west, 171.4 feet north of steel rail right-of-way marker at northeast corner of road intersection. A reinforced concrete monument set 0.2 foot below surface.

1108.131

35-208 (1934) In Franklin County, in Section 15, T-92-N, R-20-W, 3.35 miles north of Hampton, in east road ditch, 10.2 feet west of east right-of-way fence, 20.8 feet west of center line of pavement station #851 + 51 feet, 52.1 feet north-northeast of station mark #851; 51.6 feet south-southeast of station mark #852; 27.0 feet south-southwest of spike in west base of an 8-inch cedar corner post on the east, 77.6 feet north of line along the north side of a house on the east. A reinforced concrete monument set flush with the surface.

1072.616

35-209 (1934) In Franklin County, in Section 15, T-92-N, R-20-W, 2.8 miles north of Hampton, at toe of east ditch slope, 46.1 feet west of east right-of-way fence, 20.6 feet east of center line of pavement station #823 + 45.5 feet, 46.8 feet north-northeast of station mark #823, 55.1 feet south-southeast of station

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- mark #824; 32.0 feet south of line along the north side of a house on the west. A reinforced concrete monument set flush with the surface. El. Ft. 1100.329
- 35-210 (1934) In Franklin County, in Section 22, T-92-N, R-20-W, 1.95 miles north of Hampton, in east road ditch, 7.6 feet west of east right-of-way fence, 21.3 feet east of center line of pavement station #775 + 17 feet; 21.3 feet northeast of station mark #775; 83.3 feet south-southeast of station mark #776; 16.4 feet north of north end of a 15-inch corrugated culvert under field entrance east, 15.5 feet west of a 7-inch evergreen tree nearest gate on the east. A reinforced concrete monument set flush with the surface. 1118.905
- 35-211 (1934) In Franklin County, in Section 22, T-92-N, R-20-W, 1.5 miles north of Hampton, in front yard of farmstead on the east, 26.7 feet east of center line of pavement, 28.0 feet south of line along north side of house, 9.7 feet south of spike in east root of a 15-inch burr oak in front yard, 18.4 feet north of spike on east root of a 30-inch twin-burr oak tree in front yard on the east. A reinforced concrete monument set flush with the surface. 1121.382
- 35-212 (1934) In Franklin County, in Section 27, T-92-N, R-20-W, in east parking near the end of concrete walk on the east at the north edge of Hampton, 0.75 mile north of intersection of U. S. Highway #65 with State Highway #10; 24.5 feet south of center line of a 24-foot apron to the east on the quarter-section line east through Section 27; 4.6 feet west of the west edge of sidewalk on the east, 24.3 feet east of center line of pavement, 11.1 feet south-southeast of manhole cover in pavement, 12.7 feet west-southwest of manhole cover east of sidewalk. A reinforced concrete monument set flush with the surface. 1133.653
- 35-213 (1934) In Franklin County, in Section 34, T-92-N, R-20-W, in Hampton, in east parking, 21.3 feet east of center line of pavement, 0.5 mile north of intersection of U. S. Highway #65 with State Highway #10; 189.1 feet south of south rail of Chicago & Great Western Railroad, 2.7 feet north of line along north side of house on the east. A reinforced concrete monument set flush with the surface. 1134.151
- 35-214 (1934) In Franklin County, in Section 34, T-92-N, R-20-W, in Hampton, in east parking about 0.5 block north of a schoolhouse block, 0.5 foot west of side-

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walk on the east, 5.0 feet north of line along the north side of second house north of school, 25.5 feet east of the center line of pavement, 178.0 feet south of southwest corner of brick corner post at southwest corner of the cemetery, on U. S. Highway #65. A reinforced concrete monument set flush with the surface.

1134.883

35-215 (1934) In Franklin County, in Section 34, T-92-N, R-20-W, in Hampton, at northeast corner of street crossing one block south of intersection of U. S. Highway #65 with State Highway #10; 2.6 feet south of the east-and-west walk, 0.8 foot east of north-and-south walk, 18.2 feet east of face of east curb on U. S. Highway #65; 13.0 feet north of face of north curb on street east. A reinforced concrete monument set flush the surface.

1144.151

35-216 (1934) In Franklin County, in Section 34, T-92-N, R-20-W, in Hampton, at east edge of street a little over four blocks south of intersection of U. S. Highway #65 with State Highway #10; 17.4 feet east of the center line of pavement, 52.3 feet south of center line of apron east, 3.7 feet north of north line of house on the southeast corner of intersection, 4.3 feet north of line along north side of house on southwest corner of intersection. A reinforced concrete monument set flush with the surface.

1139.220

For descriptions of additional bench marks in this vicinity, see page 155.

35-217 (1934) In Franklin County, in Section 33, T-92-N, R-20-W, 0.7 mile south of Hampton, at east edge of grade, 14.7 feet west of east right-of-way fence. 18.8 feet east of center line of pavement station #637 + 64 feet, 64.4 feet north-northeast of station mark #637; 9.7 feet north-northwest of spike in north base of a 16-inch elm tree on the east, 9.9 feet south-southwest of spike in south base of a 16-inch elm tree on the east, 356.4 feet north-northeast of a lead plug in the pavement at street corner of Section 33. A reinforced concrete monument set flush with the surface.

1141.520

35-218 (1934) In Franklin County, in Section 4, T-91-N, R-20-W, 1.3 miles south of Hampton, at toe of west back slope, 5.5 foot east of west right-of-way fence, 27.9 feet west of center line of pavement at station #602 + 87 feet, 38.6 feet west-southwest of station mark #603; 93.6 feet north-northwest of station mark #602; 3.7 feet north of line along south side of barn

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- on the east, 17.1 feet north-northeast of steel right-of-way rail marker at first corner on the west. A concrete monument set flush with the surface. El. Ft. 1139.949
- 35-219 (1934) In Franklin County, in Section 9, T-91-N, R-20-W, 2.25 miles south of Hampton, at toe of west back slope, 8.0 feet east of west right-of-way fence, 24.9 feet west of center line of pavement at station #552 + 95 feet, 34.0 feet west of station mark #553; 101.5 feet north-northwest of station mark #552; about 4.5 feet south of quarter-section fence lines east and west. A concrete monument set flush with the surface. 1152.862
- 35-220 (RESET) In Franklin County, in Section 16, T-91-N, R-20-W, 3.05 miles south of Hampton, 57.44 feet west of center line of pavement on U. S. Highway #65 at pavement station #510 + 75 feet, 18.54 feet west-northwest of a 14-inch ash tree, 81.1 feet southeast of the southeast corner of house, 1.5 feet east of a lawn fence, 49.68 feet east of spike in power pole. A standard disc, set in a concrete monument. 1168.495
- 35-221 (1934) In Franklin County, in Section 22, T-91-N, R-20-W, 3.7 miles south of Hampton, at toe of east ditch slope, 40.6 feet west of east right-of-way fence, 22.9 feet east of center line of pavement at station #476 + 45 feet, 47.2 feet north-northeast of station mark #476; 57.5 feet south-southeast of station mark #477; 138.4 feet north of line along north side of house on the west, 244.3 feet north of north end of a 15-inch corrugated culvert under road east. A concrete monument set flush with the surface. 1191.123
- 35-222 (1934) In Franklin County, in Section 28, T-91-N, R-20-W, 4.85 miles south of Hampton, in west road ditch, 39.9 feet east of west right-of-way fence, 28.3 feet west of center line of pavement at station #418 + 43 feet, 56.9 feet northwest of station mark #418; 68.0 feet south-southwest of station mark #449; 249.1 feet south of steel rail right-of-way marker, about 33.0 feet west of center line of pavement at jog in fence. A concrete monument set flush with the surface. 1168.400
- 35-223 (1934) In Franklin County, in Section 28, T-91-N, R-20-W, 5.23 miles south of Hampton, in west road ditch, 41.7 feet east of west right-of-way fence, 25.8 feet west of center line of pavement at station #395 + 63 feet; 72.1 feet northwest of station mark #395; 49.8 feet southwest of station mark #396; 88.9 feet north-west of steel rail right-of-way marker on the east,

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80.2 feet north-northeast of steel rail right-of-way marker by the corner post on the west. A standard disc, set in a concrete monument.

1201.694

35-224 (1934) In Franklin County, in Section 33, T-91-N, R-20-W, 6.35 miles south of Hampton, in west road ditch, 40.8 feet east of west right-of-way fence, 22.1 feet west of center line of pavement, 221.9 feet north of steel rail right-of-way marker, and about 33.0 feet west of center line of pavement by corner post, 97.8 feet south of line along north side of house on the east, opposite wide farm entrance drive on the east. A standard disc, set in a concrete monument.

1227.763

35-225 (RESET) In Franklin County, in Section 33, T-91-N, R-20-W, 6.75 miles south of Hampton, 58.4 feet west of center line of pavement on U. S. Highway #65, at pavement station #315 + 24 feet, 72.2 feet northwest of station #315; 1.5 feet east of west right-of-way fence and 32.0 feet northwest of old location. A standard disc, set in a concrete monument.

1232.327

35-226 (1934) In Franklin County, in Section 4, T-90-N, R-20-W, 7.25 miles south of Hampton, in west road ditch, 10.5 feet east of west right-of-way fence, 23.2 feet west of center line of pavement at station #290 + 90 feet, 58.0 feet west-northwest of rail right-of-way marker, 33.0 feet east of center line of pavement; 17.8 feet northeast of steel rail right-of-way marker, 33.0 feet west of center line of pavement, 16.0 feet north of tangent to quarter-section fence lines east and west. A standard disc, set in a concrete monument.

1244.322

35-145 (1934) In Franklin County, in Section 4, T-90-N, R-20-W, 2.1 miles east and 1.0 mile south of Bradford, in west road ditch, 28.3 feet east of west right-of-way fence, 5.2 miles north of intersection of U. S. Highway #65 with U. S. Highway #20, at south line of Franklin County, 66.4 feet northwest of pavement station marker #274; 35.4 feet west of center line of pavement at station #274 + 51 feet, 66.2 feet southwest of pavement station marker #275, 22.0 feet north of line along the north side of a barn on the east. A reinforced concrete monument set flush with the surface.

1239.715

35-144 (RESET) In Franklin County, in Section 9, T-90-N, R-20-W, 2.0 miles east and 0.75 mile south of Bradford, 4.76 miles north of intersection of U. S. Highway #20 with U. S. Highway #65, at the south line of

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county, 68.7 feet northwest of old location, 1.0 foot north of fence running along north side of the barn, 58.5 feet west of center line of pavement at station #251 + 98 feet, 83.2 feet east of northeast corner of barn, 21.7 feet south of spike in a 36-inch cottonwood tree. A standard disc, set in a concrete monument.

1227.173

35-143 (1934) In Franklin County, in Section 15, T-90-N, R-20-W, 2.0 miles east and 5.4 miles north of Iowa Falls (Hardin County), at toe of east back slope, 5.4 feet west of tangent to east right-of-way fence, 3.9 miles north of intersection of U. S. Highway #65 with U. S. Highway #20 at south line of Franklin County, 27.6 feet east of center line of pavement at station #204 + 36 feet, 40.3 feet northeast of station marker #204; 11.4 feet northwest of northwest corner of foot scraper base at end of concrete walk to house on the east, 3.5 feet south of line along the north side of house on the east. A reinforced concrete monument set flush with the surface.

1225.509

35-142 (RESET) In Franklin County, in Section 16, T-90-N, R-20-W, 2.0 miles east and 5.0 miles north of Iowa Falls (Hardin County), 3.47 miles north of intersection of U. S. Highways #65 with #20 at south line of county, 1.5 feet east of west right-of-way fence of U. S. Highway #65, 55.6 feet west of center line of pavement at station #183 + 89 feet, 4.4 feet northeast of corner post of fence. A standard disc, set in a concrete monument.

1205.234

35-141 (RESET) In Franklin County, in Section 21, T-90-N, R-20-W, 2.0 miles east and 4.1 miles north of Iowa Falls (Hardin County), 2.95 miles north of intersection of U. S. Highway #65 with U. S. Highway #20 at south line of county, 42.9 feet west of the center line of pavement at station #157 + 25 feet, 61.3 feet southeast of southeast corner of church, 27.5 feet east of sidewalk from parsonage to church, 41.0 feet northeast of northeast corner of parsonage, 1.5 feet north of fence between parsonage lawn and church lawn. A reinforced concrete monument set flush with the surface.

1200.778

35-139 (RESET) In Franklin County, in Section 33, T-90-N, R-20-W, 2.0 miles east and 2.25 miles north of Iowa Falls (Hardin County), 0.9 mile north of intersection of U. S. Highway #65 with south line of county, 55.8 feet southeast of a 20-inch ash tree, 58.0 feet southeast of a 20-inch ash tree, 58.0 feet west of center line of pavement at station #51 + 27 feet, 1.5

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- feet south of south school yard fence. A standard disc, set in a concrete monument. El. Ft. 1156.661
- 35-140 (1934) In Franklin County, in Section 28, T-90-N, R-20-W, 2.0 miles east and 3.0 miles north of Iowa Falls (Hardin County), in west road ditch, 48.7 feet east of west right-of-way fence, 1.85 miles north of intersection of U. S. Highway #65 with U. S. Highway #20 at the south line of Franklin County, 24.8 feet west of center line of pavement at station #99 + 82.5 feet, 59.2 feet westerly of a steel corner post on the east side of road, 109.4 feet northwest of northwest corner of the concrete base of the White Eagle sign on east side of the road. A reinforced concrete monument set flush with the surface. 1211.727
- 35-138 (1934) In Franklin County, in Section 33, T-90-N, R-20-W, 2.0 miles east and 1.4 miles north of Iowa Falls (Hardin County), in west road ditch, 8.4 feet east of west right-of-way fence, 0.2 mile north of intersection of U. S. Highway #65 with U. S. Highway #20, at south line of Franklin County, 19.8 feet west of center line of pavement at station #11 + 48 feet, 6.0 feet south of line along north side of house on the west, 69.7 feet south of spike in east base of south gate post near barn for farm entrance on west. A reinforced concrete monument set flush with the surface. 1162.271
- 42-43 (1934) In Hardin County, in Section 4, T-89-N, R-20-W, 2.0 miles east and 1.5 miles north of Iowa Falls, 1433 feet west of northeast corner of Section 4; 27.0 feet north of south road fence, 32.2 feet south of center line of pavement, 28.2 feet northwest of center line of east end of concrete culvert in drive, 41.8 feet northeast of center line of west end of concrete culvert in drive. A standard disc, set in a concrete monument. 1160.260
- 42-44 (1934) In Hardin County, in Section 5, T-89-N, R-20-W, 0.5 mile east and 1.5 miles north of Iowa Falls, 177 feet east of the northwest corner of the NE $\frac{1}{4}$ of Section 5; 2.0 feet north of the south road fence line, 134.1 feet east of east fence line running south, 55.8 feet south of the center line of pavement. A standard disc, set in a concrete monument. 1183.748
- 42-45 (1934) In Hardin County, in Section 6, T-89-N, R-20-W, 1.5 miles north of Iowa Falls, about 1000 feet east of northwest corner of Section 6; 130.0 feet south

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- El. Ft.
- of the south road fence line, 32.6 feet north of the south lot fence, 32.0 feet to large blaze on southeast side of an 18-inch soft maple tree northwest, 39.2 feet to southeast corner of a chicken house. A standard disc, set in a concrete monument. 1165.756
- 42-138 (1934) In Hardin County, in Section 13, T-89-N, R-21-W, in Iowa Falls, 5.0 feet east of street side of the west curb, monument located in a 6-inch lantern hole, 73.3 feet south of center line of manhole at intersection of Union and River Streets. A standard disc, set in a concrete monument. 1117.967
- 42-139 (1934) In Hardin County, in Section 13, T-89-N, R-21-W, in Iowa Falls, 129.7 feet east of inside corner of base of southeast handrail on river bridge, 53.7 feet south of center line of manhole at south end of pavement on River Street, 112.7 feet southeast of southeast corner of creamery. A standard disc, set in a concrete monument. 1068.433
- For descriptions of additional bench marks in this vicinity, see page 207.
- 42-140 (1934) In Hardin County, in Section 36, T-89-N, R-21-W, 2.0 miles south of Iowa Falls, 70.1 feet southwest of northeast corner of Section 36; 1.5 feet east of the west road fence line, 14.0 feet south of the south road fence running west, 48.5 feet west of center line of pavement, 92.8 feet south of a concrete road marker and 97.7 feet west of a concrete road marker. A standard disc, set in a concrete monument. 1127.786
- 42-141 (1934) In Hardin County, in Section 36, T-89-N, R-21-W, 3.0 miles south of Iowa Falls, 11.5 feet northwest of the southeast corner, 4.0 feet north of correction line fence west, 22.0 feet east of west road fence north, 26.5 feet southeast of concrete reference marker. A standard disc, set in a concrete monument. (Note: on correction line between T-88-N and T-89-N). 1134.463
- 42-61 (1934) In Hardin County, in Section 12, T-88-N, R-21-W, 1.5 miles north and 2.0 miles west of Owasa, 0.35 mile west of southeast corner of Section 1; 11.5 feet north of the south road fence going east, 54 feet northeast of east rail of Chicago & North Western Railroad, 43.4 feet southwest of east railroad right-of-way fence, 42.5 feet south of the north road fence going east. A standard disc, set in a concrete monument. 1114.279

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- 42-62 (1934) In Hardin County, in Section 12, T-88-N, R-21-W, 1.5 miles north and 1.5 miles west of Owasa, 39.0 feet southwest of the northeast corner of Section 12; 2.0 feet north of south road fence line and 12.0 feet west of the west road fence going south. A standard disc, set in a concrete monument. 1099.939
- 42-63 (1934) In Hardin County, in Section 17, T-88-N, R-20-W, 0.5 mile north of Owasa, 924 feet south of $N\frac{1}{4}$ corner of Section 17, 2.5 feet east of the west road fence line, 2.6 feet southwest of galvanized nail in south gate post, 14.7 feet northwest of galvanized nail in north gate post. A standard disc, set in a concrete monument. 1103.630
- 42-64 (1934) In Hardin County, in Section 17, T-88-N, R-20-W, in Owasa, about 0.25 mile south of center line of Section 17, 9.0 feet west of the east road fence line, 47.9 feet east of nail in power pole on the west side of the road, 20.6 feet southwest of corner post of fence running east, 58.9 feet northwest of corner post of fence running west. A standard disc, set in a concrete monument. 1134.735
- 42-65 (1934) In Hardin County, in Section 20, T-88-N, R-20-W, 1.5 miles south of Owasa, about 0.25 mile north of the south quarter-corner of Section 20; 7.0 feet west of east road fence line, 36.0 feet north of the north edge of a farm house on the W. Smith farm, 92.9 feet south of a nail in corner post of fence running east, 51.0 feet east of nail in first fence post south of center line of driveway on west side of the road, 96.7 feet north of nail in corner post of fence running east and south of the W. Smith house. A standard disc, set in a concrete monument. 1135.641
- 42-66 (1934) In Hardin County, in Section 29, T-88-N, R-20-W, 2.0 miles south of Owasa, about 0.25 mile north of the southeast corner of $SW\frac{1}{4}$ of Section 29; 10.0 feet west of east road fence line, 3.5 feet north of north lane fence going east, 10.45 feet northwest of north gate post in east side of the road. A standard disc, set in a concrete monument. 1137.714
- 42-104 (1934) In Hardin County, in Section 30, T-88-N, R-20-W, 2.5 miles south and 0.5 mile west of Owasa, about 360 feet west of entrance to farm of Charles Kusserow, on the east side of first field entrance west on the north side of the road, 4.7 feet from corner post northeast. A standard disc, set in a concrete monument.

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- monument. El. Ft.
1120.595
- 42-103 (1934) In Hardin County, in Section 31, T-88-N, R-20-W, 2.25 miles south and 1.0 mile west of Owasa, on the east side of the entrance to the Simon Gronner farm, 8.1 feet north-northeast of east gatepost on south side of the road. Ties to corner stone of northwest corner of Section 31, T-87-N, R-21-W. A standard disc, set in a concrete monument. 1125.195
- 42-102 (1934) In Hardin County, in Section 35, T-88-N, R-21-W, 5.5 miles north and 2.0 miles east of Hubbard, 775 feet west from northeast corner across the road southwest from farm buildings of farm of F. Mossman, in log of old foundation on south side of the road, 1.7 feet south of a 7/8-inch iron pin in fence line on the south side of right-of-way, 92.6 feet west of nail in brace post, 63.1 feet southeast of nail in corner post on north side of the road, 80.9 feet east of nail in corner post on south side of the road. A standard disc, set in a concrete monument. 1119.532
- 42-101 (1934) In Hardin County, in Section 35, T-88-N, R-21-W, 1302.9 feet south from the $N\frac{1}{4}$ corner on north shoulder of first field entrance, about 5.25 miles north and 1.5 miles east of Hubbard, 4.5 feet east of the north gate post at field entrance. A standard disc, set in a concrete monument. 1093.131
- 42-100 (1934) In Hardin County, in Section 11, T-87-N, R-21-W, about 1.5 miles north and 1.5 miles west of Point Pleasant, 68.0 feet west (slope measurement) at the top of steep cut west of plug in paving at $N\frac{1}{4}$ corner of the Section. Plug is 5.7 feet west of the center line of pavement at station #1106 + 20 feet, 2.0 feet south of a 7/8-inch iron pin, 7.8 feet north of railroad iron at southwest corner of the intersection. A standard disc, set in a concrete monument. 1092.750
- 42-99 (1934) In Hardin County, in Section 11, T-87-N, R-21-W, about 1.0 mile north and 1.5 miles west of Point Pleasant, 35.8 feet south-southeast from plug in the paving at center of Section, 20.7 feet north from railroad iron at jug of fence north and fence east, plug in paving is 1.2 feet north of south edge of pavement about on projected center line of pavement north, 78.8 feet west of a nail in an 18-inch elm tree, 20.7 feet north of railroad iron in fence corner south, 41.8 feet northwest of east concrete tie in monument on south side of the road, 40.3 feet east of west con-

ALGONA TO MARSHALLTOWN, IOWA

- El. Ft.
- crete tie in onument on south side of the road. A
standard disc, set in a concrete monument. 1125.214
- 42-98 (1934) In Hardin County, in Section 9, T-87-N,
R-21-W, about 1580 feet east from $W\frac{1}{2}$ corner, about 3.0
miles north of Hubbard, 56.8 feet south of the center
line of slab at station #567; 14.3 feet from railroad
iron pin in fence line south of slab. A standard disc,
set in a concrete monument. 1137.632
- 42-97 (1934) In Hardin County, in Section 8, T-87-N,
R-21-W, 22.0 feet west of the corner stone of the $E\frac{1}{4}$
corner, about 3.0 miles north of Hubbard, 29 feet east
of the railroad iron at quarter-corner fence line west
of right-of-way, 15.1 feet south of north concrete tie-
in monument on west side of road, 16.2 feet north of
the south concrete tie-in monument on west side of the
road, 49.7 feet northwest of concrete tie-in monument
on the east side of the road. A standard disc, set in
a concrete monument. 1137.239
- 42-105 (1934) In Hardin County, in Section 20, T-87-N,
R-21-W, in the north of east-west half section line at
 $E\frac{1}{4}$ corner, 1.0 mile north of Hubbard, 10.5 feet east
of first steel post north of corner post for fence line
west, 74.6 feet west of railroad iron at northeast cor-
ner of intersection, 95.7 feet northwest of railroad
iron at southeast corner of intersection. A standard
disc, set in a concrete monument. 1112.255
- 42-106 (1934) In Hardin County, in Section 29, T-87-N,
R-21-W, 890.9 feet south of plug in center line of
pavement at the northeast corner of Section 29 on the
west side of the right-of-way, 0.25 mile north of Hub-
bard, 13.1 feet from fence line, 37.7 feet from cen-
ter line of U. S. Highway #65, 77.7 feet northeast of
nail in telephone pole. A standard disc, set in a con-
crete monument. 1109.470
- 42-107 (1934) In Hardin County, in Section 32, T-87-N,
R-21-W, 1012 feet north of southeast corner of Section
32, on west edge of Hubbard, 6.7 feet east of the west
fence, 15.4 feet southeast of nail in north gate post,
74.7 feet southwest of station #927 on east side of
the pavement, at intersection of north-and-south tra-
verse with east-and-west traverse located in the $SE\frac{1}{2}$
of Section 32. A standard disc, set in a concrete mon-
ument. 1058.364
- 42-108 (1934) In Hardin County, in Section 5, T-86-N,

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- P-21-7, 1841.8 feet south from northeast corner of the section, 0.25 mile south of Hubbard, on west side of right-of-way, 4.5 feet east of west fence line, 45.6 feet west of center line of pavement. A standard disc, set in a concrete monument. 1084.588
- 42-109 (1934) In Hardin County, in Section 17, T-86-N, R-21-W, 1077.3 feet south from northeast corner of the section, 2.0 miles south of Hubbard, on the north side of the entrance to Albert Krueger farm, west of right-of-way, 6.3 feet south of corner post of fence on the north side of the drive. A standard disc, set in a concrete monument. 1082.983
- 42-110 (1934) In Hardin County, in Section 17, T-86-N, R-21-W, 408.7 feet south from the northeast corner of the section, 2.25 miles south of Hubbard, on the north side of the first farm entrance south of said corner owned by A. P. Hoelscher, in the northeast corner of $SE\frac{1}{4}$ of Section 17 is a plug in the center line of U. S. Highway #65, 19 7 feet east of nail in gate post, 40.0 feet west of the center line of pavement. A standard disc, set in a concrete monument. 1092.435
- 42-111 (1934) In Hardin County, in Section 29, T-86-N, R-21-W, 111.8 feet southwest from northeast corner of the section, 4.0 miles south of Hubbard, 2.8 feet from the fence at the west of right-of-way, in the northeast corner of Section 29 is a plug in the center line of U. S. Highway #65; 37.8 feet south of a railroad iron in the southwest corner of the intersection. A standard disc, set in a concrete monument. 1128.764
- 42-112 (1934) In Hardin County, in Section 29, T-86-N, R-21-W, 69.4 feet northwest from $E\frac{1}{4}$ corner of the section, 4.5 miles south of Hubbard, at the top of cut on west side of right-of-way, 2.5 feet east of fence line of west side of right-of-way, in the $E\frac{1}{4}$ corner of Section 29 is a plug in the pavement 1.1 feet east of the center line of U. S. Highway #65; 97.7 feet west of railroad iron in east fence line, 8.7 feet northeast of railroad iron in west fence line, 2.7 feet southeast of garden corner post. A standard disc, set in a concrete monument. 1115.523
- 42-113 (1934) In Hardin County, in Section 32, T-86-N, R-21-W, 1038.4 feet south from the $E\frac{1}{4}$ corner of the section, 6.0 miles south of Hubbard, on the west side of the right-of-way, 3.6 feet from fence line on west side of right-of-way, 25.0 feet north of line on north

ALGONA to MARSHALLTOWN, IOWA

- El. Ft.
- side of the farmhouse on southwest. A standard disc,
set in a concrete monument. 1130.129
- 85-5 (1934) In Story County, in the NW $\frac{1}{4}$ of Section 4,
T-85-N, R-21-W, on the east side of U. S. Highway #65,
2.6 miles north of Zearing, 20.0 feet south of pavement
station #669; 42.0 feet east of center line of U. S.
Highway #65 and 550.0 feet south of the $\frac{11}{4}$ line, 1.5
feet south of a 2.5-foot by 6-inch white witness post.
A standard disc, set in a concrete monument. 1142.061
- 85-6 (1936) In Story County, in SE $\frac{1}{4}$ of Section 5, T-
85-N, R-21-W, on the west side of U. S. Highway #65;
2.0 miles north of Zearing, 108 feet north of intersec-
tion of U. S. Highway #65 with a County Road "D", 47.0
feet west of center line of U. S. Highway #65 and 13.0
feet north of pavement station #636, 1.5 feet south of
a 2.5-foot by 6-inch white witness post. A standard
disc, set in a concrete monument. 1135.113
- 85-7 (1936) In Story County, in SW $\frac{1}{4}$ of Section 16, T-
85-N, R-21-W, on the east side of U. S. Highway #65
near northwest corner of Zearing, 242 feet north of
intersection of U. S. Highway #65 with County Road "D",
49.3 feet east of the center line of U. S. Highway #65,
39.0 feet south of pavement station #532 and across
the road from the Standard Oil Station, 1.5 feet south
of a 2.5-foot by 6-inch white witness post. A stand-
ard disc, set in a concrete monument. 1102.580
- 85-4 (1936) In Story County, in Zearing, "85-4 is lo-
cated in Zearing; in Section 16, T-85-N, R-21-W, 473
feet west of quarter-section line, 87.0 feet east of
intersection of County Road "D" with first street go-
ing south into Zearing, 29.0 feet north of center line
of County Road "D", 4.0 feet south of fence line." A
standard disc, set in the top of a concrete monument. 1100.273
- 85-8 (1936) In Story County, in SE $\frac{1}{4}$ of Section 20, T-
85-N, R-21-W, near the southwest corner of Zearing on
the west side of U. S. Highway #65; 128 feet north of
the south $\frac{11}{4}$ line, 41.8 feet west of center line oppo-
site pavement station #292, 1.9 feet southwest of a
2.5-foot by 6-inch white witness post. A standard
disc, set in a concrete monument. 1087.160

For descriptions of additional bench marks in this vi-
cinity, see page 201.

- 85-9 (1936) In Story County, in SE corner of Section

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- 32, T-85-N, R-21-W, 2.0 miles south of Zearing on the west side of U. S. Highway #65; 137 feet north of intersection of U. S. Highway #65 with County Road, 37.9 feet west of center line of U. S. Highway #65; 17.5 feet north of pavement station #372; 1.6 feet southwest of a 2-foot by 6-inch white witness post. A standard disc, set in a concrete monument. 1103.754
- 85-10 (1934) In Story County, in the $\frac{3}{4}$ of Section 5, T-84-N, R-21-W, 2.5 miles south of Zearing, on the west side of U. S. Highway #65; 7.0 feet north of the quarter-line, 32.0 feet west of center line of U. S. Highway #65; 53.5 feet north of pavement station #340; 1.5 feet east of a 2-foot by 6-inch white witness post. A standard disc, set in a concrete monument. 1109.614
- 85-11 (1936) In Story County, in $SE\frac{1}{4}$ of Section 8, T-84-N, R-21-W, 4.0 miles south of Zearing, on the west side of U. S. Highway #65; 75.0 feet south of pavement station #275; 27.0 feet west of center line of U. S. Highway #65; 118 feet southeast of southeast corner of barn on the Mureal Thorton farm, 1.5 feet southeast of a 2-foot by 6-inch white witness post. A standard disc, set in a concrete monument. 1115.175
- 85-12 (1936) In Story County, in $SE\frac{1}{4}$ of Section 17, T-84-N, R-21-W, 4.5 miles south of Zearing on the west side of U. S. Highway #65; 418.0 feet south of quarter-line, 34.3 feet west of center line of U. S. Highway #65; 7.5 feet south of pavement station #230; 1.5 feet southeast of a 2-foot by 6-inch white witness post. A standard disc, set in a concrete monument. 1106.802
- 85-126 (1934) In Story County, in $NW\frac{1}{4}$ of Section 33, T-84-N, R-21-W, 1.75 miles north of Colo on the east side of U. S. Highway #65; 94.0 feet north of the $N\frac{1}{4}$ line, 42.6 feet east of center line of U. S. Highway #65; 8.0 feet east of pavement station #89; 1.5 feet southwest of a 2-foot by 6-inch white witness post with "U.S.B.M." A standard disc, set in a concrete monument. 1062.472
- 85-125 (1934) In Story County, in $SW\frac{1}{4}$ of Section 4, T-84-N, R-21-W, 1.25 miles north of Colo on the east side of U. S. Highway #65; 352 feet south of quarter-line, 31.5 feet east of the center line of U. S. Highway #65; 32.0 feet north of pavement station #71; 2.4 feet west of a 2-foot by 6-inch white witness post with "U.S.B.M." marked on it. A standard disc, set in a concrete monument. 1059.096

ALGONA to MARSHALLTOWN, IOWA

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- 85-124 (1936) In Story County, in SW $\frac{1}{4}$ of Section 4, T-84-N, R-21-W, 0.5 mile north of Colo, on the east side of U. S. Highway #65; 11.0 feet south of pavement station #21; 32.1 feet east of center line of U. S. Highway #65; 220 feet north of south $\frac{11}{44}$ line; 1.5 feet east of a 2-foot by 6-inch white witness post with "U. S. B. M." marked on it. A standard disc, set in a concrete monument. 1049.840
- 85-123 (1936) In Story County, in SW $\frac{1}{4}$ of Section 4, T-83-N, R-21-W, 0.25 mile east of Colo on U. S. Highway #30 opposite pavement station #798 + 0.03 foot, about 450 feet east of U. S. Highway #65; 75.2 feet southwest of southwest corner of white farmhouse, 30.3 feet north of center line of U. S. Highway #30; 3.0 feet southwest of concrete Lincoln Highway marker, marked by a white post 1.0 foot northwest. A standard disc, set in a concrete monument. 1063.757
- For descriptions of additional bench marks in this vicinity, see page 60.
- 85-127 (1936) In Story County, in Section 4, T-83-N, R-21-W, 0.75 mile east of Colo, 18.0 feet north of north edge of pavement on U. S. Highway #30; 3.0 feet south of the north right-of-way fence, 6.0 feet southeast of an 18-inch sycamore tree, 18.5 feet southwest of an 18-inch sycamore tree, about 75.0 feet west of center line of drive leading into farmhouse of W. M. Harding. A standard disc, set in a concrete monument. 1071.116
- 85-128 (1936) In Story County, in Section 3, T-83-N, R-21-W, 1.5 miles east of Colo on U. S. Highway #30, opposite pavement station #880 + 93 feet; 36.0 feet south of north right-of-way fence, 18.5 feet north of north edge of curb, 61.0 feet north of south right-of-way fence, and 1.5 feet south of witness post. A standard disc, set in concrete monument. 1082.577
- 85-129 (1936) In Story County, in Section 2, T-83-N, R-21-W, 2.5 miles east of Colo on U. S. Highway #30, opposite pavement station #934 + 19.5 feet, 18.5 feet north of north edge of pavement, 37.0 feet south of north right-of-way fence, 61.5 feet north of south right-of-way fence, and 1.0 foot south of witness post. A standard disc, set in concrete monument. 1082.186
- 85-130 (1936) In Story County, in Section 1, T-83-N, R-21-W, 3.5 miles east of Colo on U. S. Highway #30, opposite pavement station #976 + 41 feet, 17.5 feet

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south of the south edge of pavement, 7.0 feet north of south right-of-way fence, 91.5 feet south of north right-of-way fence, about 125 feet west of drive leading to the G. W. Greiner residence, and 1.0 foot south-southeast of a witness post. A standard disc, set in a concrete monument.

1095.428

64-100 (1934) In Marshall County, in Section 7, T-83-N, R-20-W, 3.0 miles west of State Center, 0.3 miles east of the Marshall County Line on U. S. Highway #30; 12.8 feet south of edge of pavement, 66.6 feet northeast of the northwest corner of a barn, 62.3 feet northwest of the northeast corner of a barn, 64.5 feet southeast of a telephone pole #8 and 107.5 feet southwest of a telephone pole #9. A standard disc, set in a concrete monument.

1114.135

64-101 (1934) In Marshall County, 0.1 mile east of the northwest corner of Section 8, T-83-N, R-20-W, 2.0 miles west of State Center, 17.7 feet south of the edge of pavement, 7.9 feet north of south fence, 61.0 feet south of north fence, 33.6 feet east of northeast corner of farmyard on the south side of the road, 137.6 feet east of the east gate post of entrance to same yard. A standard disc, set in a concrete monument.

1131.468

64-98 (1934) In Marshall County, near $S\frac{1}{4}$ corner of Section 3, T-83-N, R-20-W, on road bounding the north side of State Center, 1.2 feet south of the north fence, 51.3 feet north of south fence, 60.6 feet north of southeast corner post of road junction to the south, 65.5 feet northwest of electric pole #607; 95.0 feet east of telephone pole #7 and 18.4 feet west of telephone pole #8. A standard disc, set in a concrete monument.

1059.981

64-99 (1934) In Marshall County, 0.25 mile east of $N\frac{1}{4}$ corner of Section 10, T-83-N, R-20-W, on road bounding north side of State Center, 4.8 feet north of the south fence, 48.0 feet south of the north fence, 70.9 feet east of electric pole #597; 21.5 feet west of electric pole #596; 124.8 feet southeast of southeast corner of house on north side of the road. A standard disc, set in a concrete monument.

1064.460

64-78 (1934) In Marshall County, in center of Section 12, T-83-N, R-20-W, 1.5 miles east of State Center on U. S. Highway #30; 19.8 feet south of edge of pavement, 62.7 feet south of railroad property pin on north side of the road in the southwest corner of the yard, 3.6

ALGONA to MARSHALLTOWN, IOWA

El. Ft.

feet north of iron pin marker in south fence line at junction of fence to south. A standard disc, set in a concrete monument.

1028.840

64-77 (1934) In Marshall County, in $W\frac{1}{2}$ corner of Section 7, T-83-N, R-19-W, 2.0 miles east of State Center at the junction of U. S. Highway #30 with township road to the south, 23.0 feet south of the edge of pavement, 66.8 feet south of north fence, 64.4 feet south of a concrete Lincoln Highway marker, 2.2 feet north of the south fence, 40.8 feet east of the southeast fence corner of intersection and 106.1 feet west of the southwest corner. A standard disc, set in a concrete monument.

1023.003

64-76 (1934) In Marshall County, in Section 8, T-83-N, R-19-W, 3.75 miles east of State Center, 0.75 mile east of junction of U. S. Highway #30 with County Road "J", 13.9 feet north of the edge of the pavement, 58.0 feet north of the south fence, 5.9 feet south of the corner post of fence north. A standard disc, set in a concrete monument.

1014.831

64-75 (1934) In Marshall County, in Section 9, T-83-N, R-19-W, 4.5 miles east of State Center, 1.3 miles east of junction of U. S. Highway #30 with County Road "J", 15.0 feet north of pavement, 8.8 feet south of the north fence, 120 feet north of northwest corner of the barn on the south side of the road, 96.4 feet east of the southwest corner post of yard fence to north, 51.0 feet west of the southeast corner post of same yard. A standard disc, set in a concrete monument.

1042.698

64-53 (1934) In Marshall County, about 0.25 mile north of center of Section 11, T-83-N, R-19-W, 0.5 mile east and 1.0 mile south of La Moile on U. S. Highway #30, at the southeast corner of the house yard, 14.7 feet from edge of pavement, 57.0 feet west of east fence, 7.2 feet east of corner post at southeast corner of house yard, 82.2 feet southeast of southeast corner of house. A standard disc, set in a concrete monument.

1002.495

64-52 (1934) In Marshall County, in Section 12, T-83-N, R-19-W, 1.0 mile east and 0.5 mile south of La Moile, 4.4 miles west of Marshalltown on U. S. Highway #30 and 700 feet south on dirt road bounding the west side of Section 12; 2.0 feet east of west fence, 63.6 feet west of east fence, 3.2 feet from corner post of fence west, 70.6 feet from corner post of fence east, 53.1 feet south of the face of a 12-inch oak in

LEVELING IN IOWA

El. Ft.

the right-of-way. A standard disc, set in a concrete monument.

982.042

For descriptions of additional bench marks in this vicinity, see page 230.

LINE 3202. MASON CITY, IOWA TO RAMSEY, MINN.
(Second-order Leveling)

This Line follows the Chicago & Great Western Railroad from Mason City, Iowa to Ramsey, Minnesota.

The field work was done in October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 131.

- | | El. Ft. |
|---|----------|
| <p><u>17-172</u> In <u>Cerro Gordo County</u>, Iowa, at <u>Mason City</u>, 0.5 block east and 7.0 blocks south of the <u>Court House</u>, 99.6 feet north of the north edge of Seventh Street, 3.3 feet west of the west edge of side walk paralleling South Federal Avenue, 16.9 feet north of the north edge of a drive leading to the Sinclair Service Station, 1.9 feet east of the east edge of South Federal Avenue. A standard disc, stamped "17-172" and set in the top of a concrete monument six inches high.</p> | 1114.204 |
| <p><u>17-173</u> In <u>Cerro Gordo County</u>, Iowa, at <u>Mason City</u>, 0.5 block east and 4.0 blocks south of the <u>Court House</u>, 41.0 yards southwest of the south end of the east guard wall of bridge over Lime Creek, 49.0 feet south of the southeast corner of the Rock Island Railroad freight station, 11.3 feet west of the west edge of South Federal Avenue, 4.2 feet southeast of a fire hydrant, 1.9 feet north of the north edge of Fourth Street Southwest. A standard disc, stamped "17-173" and set in the top of a concrete monument two inches above the surface.</p> | 1112.734 |
| <p><u>MASON CITY - 1934</u> In <u>Cerro Gordo County</u>, Iowa, at <u>Mason City</u>, 90.0 yards southeast of the southeast corner of the Court House, in northeast corner of Park at rest station, 59.2 feet south of the south edge of First Street Northwest, 44.4 feet west of the west edge of North Federal Avenue, 14.5 feet north of the north edge of a walk leading to ladies rest station, 2.9 feet south of the north end of the east guard wall around entrance to ladies rest station. A standard disc, stamped "MASON CITY-1934" and set in guard wall three inches above level of the walk.</p> | 1137.619 |
| <p><u>H-35</u> In <u>Cerro Gordo County</u>, Iowa, at <u>Mason City</u>, 1.5 blocks east and 1.0 block north of the <u>County Court</u></p> | |

LEVELING IN IOWA

El. Ft.

House, in the northwest corner of U. S. Post Office yard, 28.5 feet northwest of northwest corner of the Post Office, 21.6 feet south of south edge of Third Street Northeast, 18.6 feet east of the east edge of North Delaware Avenue, 4.0 feet south of the south edge of sidewalk, 3.8 feet east of the east edge of sidewalk parallel to North Delaware Avenue. A standard disc, stamped "H-35, 1934" and set in the top of a concrete monument level with the surface.

1128.820

G-35 In Cerro Gordo County, Iowa, at Mason City, 61.5 feet northwest of the northwest corner of the Chicago & North Western Railway passenger station, in the station park, 94.3 feet southeast of the southeast corner of the Chicago & Great Western Railroad station, 154.1 feet east of the east rail of the Chicago & Great Western Railroad main track, 41.0 feet south of the south edge of Second Street Northwest, 33.7 feet west of the west rail of the Chicago & North Western Railroad main track, 28.3 feet south of the north end of the park fence. A standard disc, stamped "G-35, 1934" and set in the top of a concrete post two inches high.

1119.791

J-35 In Cerro Gordo County, Iowa, 2.0 miles north of Mason City along the Chicago & Great Western Railroad, 7.5 feet southeast of northwest corner of the north abutment of bridge, 5.6 feet northwest of north end of the west girder, 5.0 feet northeast of southwest edge of second shoulder of abutment. A standard disc, stamped "J-35, 1934" and set in the edge of a slope of wing wall of bridge.

1133.594

Top of rail opposite the Chicago & Great Western Railroad MP 55.

1135.2

K-35 In Cerro Gordo County, Iowa, 3.8 miles north of Mason City, along the Chicago & Great Western Railroad, 357.0 yards south of milepost #54-15; 56.0 yards southeast of southeast corner of the schoolhouse; 128 feet southwest of center line of crossing of County Road with the railroad, 96.3 feet west of west rail of main track, 58.0 feet south of center line of the County Road, 25.5 feet south of fence corner, 1.0 feet east of the right-of-way fence. A standard disc, stamped "K-35, 1934" and set in the top of a concrete monument two inches high.

1145.473

Top of rail opposite the Chicago & Great Western Railroad MP 53.

1145.6

MASON CITY, IOWA to RANSEY, MINN.

El. Ft.

- L-35 In Cerro Gordo County, Iowa, 5.8 miles north of Mason City along the Chicago & Great Western Railroad, 449 yards south of milepost #52-15; 67.0 yards south of the crossing of railroad with County Road, 173 feet south of fence corner, 46.0 feet west of the west rail of main track, 1.5 feet east of right-of-way fence. A standard disc, stamped "L-35, 1934" and set in the top of a concrete monument five inches high. 1149.604
- Top of rail opposite the Chicago & Great Western Railroad MP 51. 1167.3
- M-35 In Worth County, Iowa, 1.6 miles south of the Rock Island, Milwaukee & St. Louis Railroad station at Manly, along the Chicago & Great Western Railroad, 238 yards north of milepost #51; 20.8 yards south of the crossing of County Road with the railroad, 45.3 feet west of the west rail of main track, 1.5 feet east of right-of-way fence. A standard disc, stamped "M-35, 1934" and set in the top of a concrete monument five inches high. 1168.295
- Top of rail opposite the Chicago & Great Western Railroad MP 50. 1192.0
- U.S.C. & G.S. & State Survey #46. In Worth County, Iowa 0.2 mile west of State Highway #9 crossing the Chicago & Great Western Railroad at Manly, 66.0 yards east of the center line of U. S. Highway #65, about 70.0 feet south of the south corner of Iowa State Highway Department Garage at Manly, 45.0 feet north of the center line of State Highway #9. A standard bronze disc, stamped "98-46" and set in the top of a concrete monument six inches high. 1193.971
- MANLEY- 1934 In Worth County, Iowa, at Manley, in the southeast corner of the west half of the City Park, 91.7 feet south of the south side of the band stand, 52.7 feet south of the south side of base of water fountain, 6.0 inches north of sidewalk paralleling the street, 5.0 inches west of walk leading to water fountain. A standard disc, stamped "MANLEY-1934" and set in the top of a concrete monument flush with the surface. 1198.072
- N-35 In Worth County, Iowa, 0.4 mile northeast of Manly, along the Chicago & Great Western Railroad, 170 yards northeast of milepost #49; 43.1 feet northwest of the northwest rail of the main track, 1.5 feet south-

LEVELING IN IOWA

	El. Ft.
east of the right-of-way fence. A standard disc, stamped "N-35, 1934" and set in the top of a concrete monument four inches high.	1174.072
Top of rail opposite the Chicago & Great Western Railroad MP 49.	1178.6
Top of rail opposite the Chicago & Great Western Railroad MP 48.	1198.5
<u>P-35</u> In <u>Worth County</u> , Iowa, 2.5 miles northeast of <u>Manly</u> , along the Chicago & Great Western Railroad, 0.4 mile southwest of the crossing of section road with railroad, 373 yards northeast of milepost #47; 446 feet southeast of southeast rail of main track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "P-35, 1934" and set in the top of a concrete monument four inches high.	1201.628
Top of rail opposite the Chicago & Great Western Railroad MP 46.	1187.5
<u>Q-35</u> In <u>Worth County</u> , Iowa, 4.4 miles northeast of <u>Manly</u> , along the Chicago & Great Western Railroad, 114 feet northeast of the crossing of a County Road and the railroad; 44.5 feet southeast of southeast rail of the main track, 35.0 feet north of the center line of the County Road, 4.5 feet northeast of end of right-of-way fence, 1.5 feet northwest of right-of-way fence. A standard disc, stamped "Q-35, 1934" and set in the top of a concrete monument four inches high.	1176.746
<u>R-35</u> In <u>Worth County</u> , Iowa, 6.5 miles northeast of <u>Manly</u> , along the Chicago & Great Western Railroad, 0.7 mile southwest of the station at Bolan, 250 yards southwest of the crossing of a County Road and railroad, 190 yards northeast of milepost #43; 45.1 feet northwest of the northwest rail of the main track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "R-35, 1934" and set in the top of a concrete monument four inches high.	1215.588
Top of rail opposite the Chicago & Great Western Railroad MP 43.	1215.6
<u>S-35</u> In <u>Worth County</u> , Iowa, 5.8 miles southwest of <u>Meltonville</u> , 1.8 miles northeast of station at Bolan, 150 yards northeast of milepost #41; 108 feet southeast of center line of crossing of the County Road and	

MASON CITY, IOWA to RAMSEY, MINN.

	El. Ft.
railroad; 94.0 feet southwest of the fence corner, 44.5 feet northeast of the northeast rail of main track. A standard disc, stamped "S-35, 1934" and set in the top of a concrete monument five inches high.	1215.851
Top of rail opposite the Chicago & Great Western Railroad MP 41.	1219.4
Top of rail opposite the Chicago & Great Western Railroad MP 40.	1218.8
<u>T-35</u> In <u>Worth County</u> , Iowa, 3.9 miles southwest of <u>Meltonville</u> , 3.7 miles northeast of the station at <u>Bolan</u> , 83.0 feet northeast of milepost #39; 45.5 feet northwest of the northwest rail of main track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "T-35, 1934" and set in the top of a concrete monument five inches high.	1214.653
Top of rail opposite the Chicago & Great Western Railroad MP 38.	1200.5
<u>U-35</u> In <u>Worth County</u> , Iowa, 1.9 miles southwest of <u>Meltonville</u> , along the Chicago & Great Western Railroad, 325 yards southwest of crossing of State Highway #105 with the railroad, 158 feet southwest of milepost #37; 159 feet northeast of wooden trestle #A-16/84; 46.8 feet northwest of northwest rail of track, 3.0 feet southwest of fence corner, 2.0 feet southeast of the right-of-way fence. A standard disc, stamped "U-35, 1934" and set in the top of a concrete monument five inches high.	1179.059
Top of rail opposite the Chicago & Great Western Railroad MP 36.	1192.8
<u>V-35</u> In <u>Mitchell County</u> , Iowa, 0.35 mile northeast of <u>Meltonville</u> (<u>Worth County</u>), along the Chicago & Great Western Railroad, 122 feet southwest of milepost #35; 120 feet northwest of the center line of crossing of County Road with the railroad, 48.0 feet east of center line of County Road, 45.9 feet northwest of northwest rail of main track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "V-35, 1934" and set in the top of a concrete monument five inches high.	1203.921
Top of rail opposite the Chicago & Great Western Railroad MP 35.	1204.6

LEVELING IN IOWA

El. Ft.

W-35 In Mitchell County, Iowa, 2.8 miles southwest of Lyle (Mower County, Minnesota), 2.6 miles southwest of the Iowa State Line, 75.0 yards northeast of milepost #31-15; 49.0 feet southeast of the center line of crossing of railroad and section road, 45.3 feet southeast of the southeast rail of main track, 32.3 feet south of a 16-inch concrete culvert, 19.0 feet southwest of fence corner, 1.5 feet northwest of right-of-way fence. A standard disc, stamped "W-35, 1934" and set in the top of a concrete monument six inches high.

1167.786

Top of rail opposite the Chicago & Great Western Railroad MP 32.

1156.5

C-148 In Mower County, Minnesota, southwest of the Chicago & Great Western Railroad Station at Lyle, 82.0 feet northeast of the crossing of a County Road with the railroad, 80.0 feet north of the center line of the county road forming the Iowa and Minnesota State Line, 44.2 feet northwest of the northwest side of the switch, 34.4 feet northwest of the northwest rail of the main track. A standard disc, stamped "C-148, 1934" and set in the top of a concrete monument four inches high.

1198.131

For descriptions of additional bench marks in this vicinity, see page 226.

LYLE-1934 In Mower County, Minnesota, at Lyle, on the north side of the town in the southwest corner of the City Park, 117 yards east of the Chicago & Great Western Railroad tracks, 62.3 feet east of the center line of U. S. Highway #218; 56.0 feet north of the center line of the street, 15.2 feet southeast of the base of the southeast leg of the water tank, 11.1 feet northeast of the northeast side of the walk leading to the pump house under the water tank. A standard disc, stamped "LYLE-1934" and set in the top of a concrete monument two inches high.

1199.410

Top of rail opposite the Chicago & Great Western Railroad MP 29.

1205.2

D-148 In Mower County, Minnesota, 1.3 miles north of Lyle along the Chicago & Great Western Railroad, 0.4 mile south of section road crossing railroad, 200 yards south of milepost #28; 44.5 feet west of the west rail of the main track, 2.5 feet east of the right-of-way fence. A standard disc, stamped "D-148, 1934" and set in the top of a concrete monument six

MASON CITY, IOWA to RAMSEY, MINN.

	El. Ft.
inches high.	1193.465
Top of rail opposite the Chicago & Great Western Railroad MP 27.	1206.5
<u>E-148</u> In <u>Mower County</u> , Minnesota, 3.3 miles north of <u>Lyle</u> along the Chicago & Great Western Railroad, 210 yards south of milepost #26; 92.0 yards north of the farm road crossing with the railroad, 45.8 feet west of the west rail of main track. A standard disc, stamped "E-148, 1934" and set in the top of a concrete monument four inches high.	1200.447
Top of rail opposite the Chicago & Great Western Railroad MP 26.	1207.7
<u>F-148</u> In <u>Mower County</u> , Minnesota, 5.2 miles north of <u>Lyle</u> , along the Chicago & Great Western Railroad, 323 yards south of milepost #24; 93.0 yards south of the crossing of farm road and railroad, 90.0 yards south of the fence corner, 45.7 feet west of the west rail of the main track, 2.0 feet east of the right-of-way fence. A standard disc, stamped "F-148, 1934" and set in the top of a concrete monument five inches long.	1203.948
<u>G-148</u> In <u>Mower County</u> , Minnesota, 4.2 miles south of <u>Austin</u> , along the Chicago & Great Western Railroad, 102 yards south of milepost #22; 121 feet southwest of flag station post Varco; 35.3 feet west of the west rail of the main track, 61.0 feet east of the right-of-way fence. A standard disc, stamped "G-148, 1934" and set in the top of a concrete monument five inches high.	1201.526
<u>H-148</u> In <u>Mower County</u> , Minnesota, 2.6 miles south of <u>Austin</u> , along the Chicago & Great Western Railroad, 216 yards south of milepost #20-15; 170 yards south of the fence corner; 46.0 feet west of the west rail of the main track, 1.5 feet east of the right-of-way fence. A standard disc, stamped "H-148, 1934" and set in the top of a concrete monument five inches high.	1205.631
Top of rail opposite the Chicago & Great Western Railroad MP 21.	1210.4
<u>J-148</u> In <u>Mower County</u> , Minnesota, at <u>Austin</u> , 0.5 mile south of the Chicago & Great Western Railroad station, 135 feet south of the center line of crossing of U.S. Highway #218 with the railroad, 129 feet south of the	

LEVELING IN IOWA

El. Ft.

center line of U. S. Highway #218; 86.7 feet southwest of the west side of the switch, 34.4 feet west of the west rail of main track, 29.4 feet west of the west rail of the spur line track. A standard disc, stamped "J-148, 1934" and set in the top of a concrete monument four inches high.

1195.660

Top of rail opposite the Chicago & Great Western Railroad MP 19.

1196.1

AUSTIN-1934 In Mower County, Minnesota, at Austin, 2 blocks north and 3 blocks east of the Court House, in the center of the south side of the Municipal Power Plant yard, 128.5 feet south of the center of the south side of the plant, 91.2 feet southeast of the southeast corner of the office building, 23.5 feet north of the north edge of Water Street, 8.6 feet north of the north edge of the sidewalk, 6.2 feet east of the east edge of the west section of walk leading to power plant, 7.9 feet south of the flag pole. A standard disc, stamped "AUSTIN-1934" and set in the top of a concrete monument four inches high.

1197.809

Top of rail opposite the Chicago & Great Western Railroad MP 17.

1216.5

K-148 In Mower County, Minnesota, 1.5 miles northeast of Austin, along the Chicago & Great Western Railroad, 122 yards northeast of milepost #16-15; 110 yards northeast of signal light post, 44.9 feet northwest of northwest rail of the main street, 20.0 feet northeast of the fence corner, 2.0 feet southeast of the right-of-way fence. A standard disc, stamped "K-148, 1934" and set in the top of a concrete monument four inches high.

1225.198

L-148 In Mower County, Minnesota, 3.5 miles northeast of Austin, along the Chicago & Great Western Railroad, 0.5 mile southwest of the crossing of the Chicago, Milwaukee, St. Paul & Pacific Railway with the Chicago & Great Western Railroad, 80.0 yards southwest of milepost #14-15; 57.4 feet southeast of the center line of crossing of railroad and county road, 48.0 feet south of the center line of the county road, 45.2 feet southeast of the southeast rail of main track, 17.0 feet southwest of the fence corner, 2.0 feet northwest of the right-of-way fence. A standard disc, stamped "L-148, 1934" and set in the top of a concrete monument four inches high.

1232.258

MASON CITY, IOWA to RAMSEY, MINN.

	El. Ft.
Top of rail opposite the Chicago & Great Western Railroad MP 14.	1230.6

For descriptions of additional bench marks in this vicinity, see page 52.

LINE 3206. OSAGE, IOWA to SPRING VALLEY, MINN.
(Second-order Leveling)

This Line follows the Chicago & Great Western Railroad from Osage, Iowa to Spring Valley, Minnesota.

The field work was done in October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 223.

	El. Ft.
<u>V-40</u> In <u>Mitchell County</u> , Iowa, 0.5 mile northeast of the Chicago & Great Western Railroad station at <u>Osage</u> , 180 yards southwest of milepost #208; 43.7 feet northwest of northwest rail on northeast end of "Y" switch, 39.3 feet northwest of northwest rail of main track, 7.0 feet southeast of the snow fence. A standard disc, stamped "V-40, 1934" and set in the top of a concrete monument six inches high.	1166.169
<u>W-40</u> In <u>Mitchell County</u> , Iowa, 2.6 miles northeast of the Chicago & Great Western Railroad station at <u>Osage</u> , 280 yards northeast of milepost #206; 44.5 feet southeast of the southeast rail of main track, 20.0 feet southwest of the fence corner, 48.0 feet northwest of the right-of-way fence. A standard disc, stamped "W-40, 1934" and set in the top of a concrete monument five inches high.	1169.817
Top of rail opposite the Chicago & Great Western Railroad MP M-206.	1174.5
<u>X-40</u> In <u>Mitchell County</u> , Iowa, 4.6 miles northeast of the Chicago & Great Western Railroad station at <u>Osage</u> , 129 yards northeast of milepost #204; 120 feet southwest of the crossing of section road and railroad, 60.0 feet south of the center line of the section road, 45.3 feet northwest of the northwest rail of the main track, 36 feet southwest of the fence corner, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "X-40, 1934" and set in the top of a concrete monument four inches high.	1186.979
Top of rail opposite the Chicago & Great Western Railroad MP M-204.	1186.9
<u>Y-40</u> In <u>Mitchell County</u> , Iowa, 1.6 miles southwest of the Chicago & Great Western Railroad station at <u>Little</u>	

OSAGE, IOWA to SPRING VALLEY, MINN.

El. Ft.

- Cedar, 50.0 yards northeast of milepost #202; 59.0 feet northeast of the fence corner, 45.0 feet southeast of the southeast rail of main track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "Y-40, 1934" and set in the top of a concrete monument three inches high. 1205.250
- Top of rail opposite the Chicago & Great Western Railroad MP M-202. 1206.4
- Z-40 In Mitchell County, Iowa, 0.5 mile northeast of the Chicago & Great Western Railroad station at Little Cedar, 280 yards northeast of milepost #200; 72.0 feet southeast of the crossing of section road, 49.0 feet east of the center line of section road, 45.1 feet southeast of the southeast rail of the main track, 19.0 feet northeast of fence corner, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "Z-40, 1934" and set in the top of a concrete monument five inches high. 1177.045
- A-41 In Mitchell County, Iowa, 2.5 miles northeast of the Chicago & Great Western Railroad station at Little Cedar, 141 yards northeast of milepost #198; 125 feet northeast of the fence corner, 45.5 feet southeast of the southeast rail of the main track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "A-41, 1934" and set in the top of a concrete monument five inches high. 1235.923
- B-41 In Mitchell County, Iowa, 3.5 miles southwest of the Chicago & Great Western Railroad station at McIntire, 375 yards southwest of milepost #196; 54.0 feet southeast of crossing of section road, 49.0 feet east of the center line of road, 45.0 feet southeast of the southeast rail of the main track, 22.5 feet northeast of the fence corner. A standard disc, stamped "B-41, 1934" and set in the top of a concrete monument three inches high. 1247.885
- C-41 In Mitchell County, Iowa, 1.7 miles southwest of the Chicago & Great Western Railroad station at McIntire, 100 feet northeast of crossing of section line road, 90.0 feet east of the center line of the section road, 62.5 feet west of milepost #194; 45.2 feet north of the north rail of the main track, 48.0 feet east of the fence corner, 1.5 feet south of the right-of-way fence. A standard disc, stamped "C-41, 1934" and set in the top of a concrete monument four inches high. 1257.596

LEVELING IN IOWA

El. Ft.

D-41 In Mitchell County, Iowa 0.3 mile southwest of the Chicago & Great Western Railroad station at McIntire, 99.0 feet northwest of the crossing of the county road and the railroad, 73.6 feet northwest of the northwest rail of the main track, 60.0 feet west of the center line of the county road, 41.0 feet south of the center line of the street, 20.0 feet southwest of the fence corner, 2.0 feet southeast of the right-of-way fence. A standard disc, stamped "D-41, 1934" and set in the top of a concrete monument four inches high. 1268.642

E-41 In Mitchell County, Iowa, at McIntire, 142 yards south of the junction of Osage branch and the main line of the Chicago & Great Western Railroad that runs northwest and southeast, 109 feet south of the south end of the passenger station, 75.4 feet southwest of the southwest rail of the main track of the main line, 48.4 feet southeast of the northeast leg of the railroad water tank, 38.4 feet northeast of the northeast corner of the pump house. A standard disc, stamped "E-41, 1934" and set in the top of a concrete monument three inches high. 1280.378

Top of rail opposite the Chicago & Great Western Railroad station at McIntire. 1280.7

F-41 In Mitchell County, Iowa, 0.3 mile northeast of the Chicago & Great Western Railroad station at McIntire, 86.0 feet southwest of the center line of crossing of county road and the railroad, 45.7 feet northwest of the northwest rail of the main track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "F-41, 1934" and set in the top of a concrete monument four inches high. 1286.943

Top of rail opposite the Chicago & Great Western Railroad MP 191. 1319.5

G-41 In Mitchell County, Iowa, 2.1 miles northeast of the Chicago & Great Western Railroad station at McIntire, 59.5 yards southwest of milepost #190; 94.0 feet southwest of the crossing of section line road, 46.0 feet southeast of the southeast rail of the main track, 22.0 feet southwest of the fence corner, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "G-41, 1934" and set in the top of a concrete monument five inches high. 1334.620

Top of rail opposite the Chicago & Great Western Railroad MP 190. 1343.7

OSAGE, IOWA to SPRING VALLEY, MINN.

El. Ft.

H-41 In Howard County, Iowa, 3.7 miles northeast of the Chicago & Great Western Railroad station at McIntire (Mitchell County), 76.0 feet northwest of the center line of the crossing with highway, 58.0 feet north of the center line of farm road, 45.0 feet northwest of the northwest rail of the main track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "H-41, 1934" and set in the top of a concrete monument four inches high.

1402.186

Top of rail opposite the Chicago & Great Western Railroad MP 188.

1380.8

J-41 In Howard County, Iowa, 1.8 miles southwest of the Chicago & Great Western Railroad station at Le Roy, Minnesota, 324 yards northeast of milepost #187; 74.0 yards southwest of crossing of road forming the Iowa-Minnesota State Line, 44.7 feet northwest of the northwest rail of the main track, 39.0 feet northeast of the end of the snow fence, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "J-41, 1934" and set in the top of a concrete monument three inches high.

1345.726

M-148 In Mower County, Minnesota, at the crossing of the Chicago & Great Western Railroad and the Milwaukee Railroad at Le Roy, 121 yards southwest of the Chicago & Great Western Railroad station, 47.4 feet northwest of the northwest rail of the main track of the Chicago & Great Western Railroad, 70.4 feet northeast of the northeast rail of the main track of the Milwaukee Railroad, 22.0 feet northeast of the fence corner, 2.0 feet southeast of the right-of-way fence. A standard disc, stamped "M-148, 1934" and set in the top of a concrete monument four inches high.

1284.053

Top of rail at the crossing of the Chicago & Great Western Railroad with the Chicago, Milwaukee & St. Paul Railroad at Le Roy.

1286.7

Top of rail opposite the Chicago & Great Western Railroad station at Le Roy.

1282.9

N-148 In Mower County, Minnesota, 186 yards northeast of the Chicago & Great Western Railroad station at Le Roy, 32.0 yards southeast of milepost #185; 139 feet northeast of the crossing of railroad with the street, 93.0 feet north of the center line of the street, 93.0 feet southeast of the southeast end of wooden trestle

LEVELING IN IOWA

	El. Ft.
<u>M-184-95</u> ; 47.0 feet southeast of the southeast rail of the main track. A standard disc, stamped "N-148, 1934" and set in the top of a concrete monument five inches high.	1276.628
For descriptions of additional bench marks in this vicinity, see page 124.	
Top of rail opposite the Chicago & Great Western Railroad MP 185.	1277.2
<u>P-148</u> In <u>Mower County</u> , Minnesota, 1.1 miles northeast of the Chicago & Great Western Railroad Station at <u>Le Roy</u> , 138 yards southwest of milepost #184; 77.0 feet northeast of crossing of a farm road with the railroad, 52.3 feet northeast of the center of a gate across the farm road, 46.0 feet southeast of the southeast rail of the main track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "P-148, 1934" and set in the top of a concrete monument five inches high.	1291.753
Top of rail opposite the Chicago & Great Western Railroad MP 184.	1293.9
<u>Q-148</u> In <u>Mower County</u> , Minnesota, 3.0 miles northeast of the Chicago & Great Western Railroad station at <u>Le Roy</u> , 0.5 mile southwest of State Highway #56; 377 yards southwest of milepost #182; 44.8 feet southeast of the southeast rail of main track, 2.0 feet northwest of the right-of-way fence. A standard disc, stamped "Q-148, 1934" and set in the top of a concrete monument four inches high.	1326.352
Top of rail opposite the Chicago & Great Western Railroad MP 182.	1313.7
<u>R-148</u> In <u>Mower County</u> , Minnesota, 4.9 miles northeast of the Chicago & Great Western Railroad station at <u>Le Roy</u> , 136 feet northeast of the section road crossing, 96.0 feet north of the center line of the section road, 44.7 feet southeast of the southeast rail of the main track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "R-148, 1934" and set in the top of a concrete monument four inches high.	1331.073
Top of rail opposite the Chicago & Great Western Railroad MP 180.	1329.1
<u>S-148</u> In <u>Fillmore County</u> , Minnesota, 1.0 mile southwest of the Chicago & Great Western Railroad station	

OSAGE, IOWA to SPRING VALLEY, MINN.

El. Ft.

- at Ostrander, 196 yards southwest of milepost #178; 82.0 feet southwest of crossing of a farm road, 63.8 feet southwest of the center of the gate across farm road; 44.7 feet northwest of northwest rail of main track. A standard disc, stamped "S-148, 1934" and set in the top of a concrete monument four inches high. 1361.756
- Top of rail opposite the Chicago & Great Western Railroad MP 178. 1356.6
- Top of rail opposite the Chicago & Great Western Railroad station at Ostrander. 1342.4
- T-148 In Fillmore County, Minnesota, 0.2 mile northeast of the Chicago & Great Western Railroad station at Ostrander, 145 feet northeast of the crossing of State Highway #59; 81.0 feet east of the center line of Highway, 45.9 feet southeast of the southeast rail of the main track, 38.5 feet northeast of the fence corner, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "T-148, 1934" and set in the top of a concrete monument five inches high. 1335.070
- Top of rail opposite the Chicago & Great Western Railroad MP 176. 1313.8
- U-148 In Fillmore County, Minnesota, 3.2 miles southwest of the Chicago & Great Western Railroad station at Spring Valley, 441 yards northeast of milepost #175; 77.0 feet northwest of center line of crossing of county road, 62.0 feet north of the center line of county road, 44.6 feet northwest of the northwest rail of the main track, 33.0 feet northeast of fence corner, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "U-148, 1934" and set in the top of a concrete monument four inches high. 1343.331
- Top of rail opposite the Chicago & Great Western Railroad MP 174. 1356.1
- V-148 In Fillmore County, Minnesota, 1.2 miles southwest of the Chicago & Great Western Railroad station at Spring Valley, 0.8 mile southwest of crossing with the Chicago, Milwaukee, St. Paul & Pacific Railway, 536 yards northeast of milepost #173; 100 feet southwest of crossing of section line road, 58.0 feet south of the center line of section road, 43.8 feet northwest of northwest rail of main track, 2.0 feet southeast of the right-of-way fence. A standard disc, stamped

LEVELING IN IOWA

"V-148, 1934" and set in the top of a concrete monument five inches high.

El. Ft.

1335.417

For descriptions of additional bench marks in this vicinity, see page 54.

LIVE 3210. LEROY, MINN. TO CALMAR, IOWA
(Second-order Leveling)

This Line follows the Chicago, Milwaukee, St. Paul & Pacific Railroad from Le Roy, Minnesota to Calmar, Iowa.

The field work was done in October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 121.

	Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific station at Le Roy.	El. Ft. 1287.1
<u>W-148</u>	In <u>Lower County</u> , Minnesota, 1.1 miles southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Le Roy</u> , 149 feet northwest of the center line of the intersection of road and track, 0.6 mile northwest of milepost #41; 38.0 feet north of the center line of a gravel road which is also the Minnesota and Iowa State line; 25.4 feet southwest of southwest rail of the track, 10.3 feet north of a telegraph pole. A standard disc, stamped "W-148, 1934" and set in the top of a concrete monument three inches high.	1268.081
	Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP #40.	1251.7
<u>K-41</u>	In <u>Howard County</u> , Minnesota, 3.3 miles southeast of <u>Le Roy</u> (<u>Mower County</u>), 2.1 miles southeast of intersection of the railroad track with the Iowa-Minnesota State Line, 39.0 feet south of the south rail of the track, 8.0 feet west of the first telegraph pole east of the road crossing. A standard disc, stamped "K-41, 1934" and set in the top of a concrete monument four inches high.	1251.225
<u>L-41</u>	In <u>Howard County</u> , Minnesota, 5.3 miles southeast of <u>Le Roy</u> , 100 feet north of the east gate post leading into a cemetery, 46.5 feet north of the north rail of track, 22.0 feet east of center line of a farm trail crossing track, 2.0 feet south of the right-of-way fence. A standard disc, stamped "L-41, 1934" and set in the top of a concrete monument two inches high.	1245.204
	Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 38.	1243.3

LEVELING IN IOWA

El. Ft.

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 36.

1231.6

M-41 In Howard County, Iowa, 0.2 mile west of Chester, 78.0 feet west of the center line of a section line road crossing track, 46.4 feet south of the south rail of the main track, 33.0 feet west of the right-of-way fence corner post, 2.5 feet north of the right-of-way fence. A standard disc, stamped "M-41, 1934" and set in the top of a concrete monument three inches high.

1225.191

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Chester.

1231.4

M-41 In Howard County, Iowa, 3.1 miles northwest of Lime Spring, 1.9 miles southeast of the depot at Chester, 44.8 feet northeast of the northeast rail of the track, 38.0 feet southeast of the center line of a farm trail crossing track, 31.0 feet southeast of the gate corner post, 2.0 feet southwest of the right-of-way fence. A standard disc, stamped "M-41, 1934" and set in the top of a concrete monument six inches high.

1231.343

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 32.

1209.7

P-41 In Howard County, Iowa, 1.6 miles northwest of Lime Spring, in the southeast corner of the south head wall of concrete bridge #2-59 in State Highway #59; 15.9 feet northeast of the center line of State Highway #59; 8.0 inches west of the southeast corner of head wall set flush with the top of the wall in a concrete drill hole. A standard disc, stamped "P-41, 1934".

1210.906

Q-41 In Howard County, Iowa, at Lime Spring, 115 yards southeast of southeast edge of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 33.7 feet southwest of the southwest rail of the main track, 0.2 mile northwest of milepost #38; 27.7 feet northwest of the center line of a road crossing track, 14.0 feet northeast of a telegraph pole. A standard disc, stamped "Q-41, 1934" and set in the top of a concrete monument flush with the surface.

1244.965

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad Station at Lime Spring.

1246.2

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 29.

1270.5

LE ROY, MINN. to CALMAR, IOWA

El. Ft.

- R-41 In Howard County, Iowa, 2.1 miles southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Lime Spring, 95.0 feet north of milepost #28; 46.0 feet north of the north rail of the track, 2.0 feet south of the right-of-way fence. A standard disc, stamped "R-41, 1934" and set in the top of a concrete monument three inches high. 1291.717
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 27. 1271.6
- S-41 In Howard County, Iowa, 0.4 mile northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Bonair, 43.3 feet southwest of the southwest rail of track, 38.0 feet west of the center line of a section line road crossing track, 4.0 feet southwest of first telegraph pole west of road crossing, 3.0 feet northeast of the right-of-way fence. A standard disc, stamped "S-41, 1934" and set in the top of a concrete monument four inches high. 1304.262
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 25. 1305.9
- T-41 In Howard County, Iowa, 4.6 miles northwest of Cresco, 1.4 miles southeast of the depot at Bonair, 100 feet south of the center line of a farm trail crossing track, 44.4 feet west of west rail of track, 6.0 feet west of a telegraph pole, 2.5 feet east of right-of-way fence. A standard disc, stamped "T-41, 1934" and set in the top of a concrete monument three inches high. 1293.718
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 23. 1275.7
- U-41 In Howard County, Iowa, 2.2 miles northwest of Cresco, 220 yards west of the center line of a road crossing track, 37.0 yards west of a line fence corner, 45.0 feet north of the north rail of the track, 3.0 feet south of the right-of-way fence. A standard disc, stamped "U-41, 1934" and set in the top of a concrete monument four inches high. 1280.624
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 21. 1289.8
- V-41 In Howard County, Iowa, 0.5 mile west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Cresco, 135 yards west of the center line of the

LEVELING IN IOWA

El. Ft.

road crossing track, 118 feet southeast of a switch post, 31.8 feet south of the south rail of main track, 9.2 feet east of the third telegraph pole west of road crossing and in line with the poles. A standard disc, stamped "V-41, 1934" and set in the top of a concrete monument six inches high.

1290.135

W-41 In Howard County, Iowa, 129 feet west of the southwest corner of the Chicago, Milwaukee, St. Paul & Pacific station at Cresco, 41.0 feet east of the center line of Second Street West, 37.0 feet south of the center line of First Avenue West, 17.0 feet southeast of a telegraph pole, 15.5 feet north of the north rail of the main track, 2.0 feet north of the north edge of a concrete station platform. A standard disc, stamped "W-41, 1934" and set in the top of a concrete monument two inches high.

1299.335

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Cresco.

1299.0

CRESCO-1934 In Howard County, Iowa, in the northwest quadrant of the Court House yard at Cresco, 91.6 feet west of the northwest corner of the Court House, 69.0 feet east of the center line of Elm Street, 74.0 feet south of the center line of North Park Street, 30.6 feet north of the north edge of a concrete walk east and west leading to Court House. A standard disc, stamped "CRESCO-1934" and set in the top of a concrete monument six inches high.

1297.730

X-41 In Howard County, Iowa, 0.5 mile southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Cresco, 150 yards southeast of the center line of State Highway #9 where it intersects the center line of track, 42.7 feet southwest of the southwest rail of track, 16.0 feet east of the center line of the road that crosses the track, 6.2 feet north of corner fence post. A standard disc, stamped "X-41, 1934" and set in the top of a concrete monument four inches high.

1293.488

Top of rail opposite the Chicago, Milwaukee St. Paul & Pacific Railroad MP 18.

1285.7

Y-41 In Howard County, Iowa, 1.8 miles southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Cresco, 35.0 feet northwest of the center line of the road crossing track, 33.0 feet southwest

LE ROY, MINN. to CALMAR, IOWA

El. Ft.

of the southwest rail of track, 22.3 feet north of the corner fence post, in line with a row of telegraph poles. A standard disc, stamped "Y-41, 1934" and set in the top of a concrete monument three inches high.

1281.014

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 16.

1298.6

Z-41 In Winneshiek County, Iowa, 4.9 miles northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ridgeway, 3.5 miles southeast of the station at Cresco, 59.0 feet southwest of the center line of State Highway #9; 29.0 feet north of the center line of the road crossing track, 22.7 feet northeast of the northeast rail of track. A standard disc, stamped "Z-41, 1934" and set in the top of a concrete monument four inches high.

1286.493

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 15.

1271.8

A-42 In Winneshiek County, Iowa, 3.5 miles northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ridgeway, 33.5 feet northeast of the corner fence post, 21.0 feet southeast of the center line of the road crossing track, 15.5 feet southwest of southwest rail of track, 4.9 feet east of the crossing sign post. A standard disc, stamped "A-42, 1934" and set in the top of a concrete monument three inches high.

1262.622

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 13.

1248.2

B-42 In Winneshiek County, Iowa, 2.0 miles northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ridgeway, 52.0 feet southwest of the center line of State Highway #9; 42.8 feet northeast of the northeast rail of track, 26.0 feet north of center line of the road crossing track, 7.0 feet south of a telegraph pole. A standard disc, stamped "B-42, 1934" and set in the top of a concrete monument four inches high.

1252.652

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 12.

1235.2

C-42 In Winneshiek County, Iowa, 134 yards northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ridgeway, 82.0 feet east of the center line of road crossing track, 37.8 feet northeast of the northeast rail of the main track, 7.0 feet west of a

LEVELING IN IOWA

	El. Ft.
telegraph pole. A standard disc, stamped "C-42, 1934" and set in the top of a concrete monument three inches high.	1207.914
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ridgeway.	1209.4
<u>D-42</u> In <u>Winneshiek County</u> , Iowa, 1.9 miles southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Ridgeway</u> , 44.8 feet northeast of the north-east rail of track, 38.0 feet east of the center line of road crossing track, 11.3 feet southeast of corner fence post, 2.5 feet south of board railroad fence. A standard disc, stamped "D-42, 1934" and set in the top of a concrete monument four inches high.	1219.013
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 7.	1214.2
<u>E-42</u> In <u>Winneshiek County</u> , Iowa, 3.9 miles northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Conover</u> , 54.0 feet southeast of the intersection of road crossing track, 21.4 feet southwest of the southwest rail of track, 21.0 feet east of center line of road crossing track, 17.1 feet southeast of the crossing sign. A standard disc, stamped "E-42, 1934" and set in the top of a concrete monument six inches high.	1218.859
<u>F-42</u> In <u>Winneshiek County</u> , Iowa, 2.4 miles northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Conover</u> , eight telegraph poles north-west of milepost #5; 42.8 feet northeast of the north-east rail of track, 31.0 feet northwest of the center line of road crossing track, 2.6 feet west of the corner fence post. A standard disc, stamped "F-42, 1934" and set in the top of a concrete monument three inches high.	1222.071
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 4.	1224.5
<u>G-42</u> In <u>Winneshiek County</u> , Iowa, 0.4 mile northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Conover</u> , 98.0 yards northwest of road crossing track, 82.0 feet east of side track switch at north-west of railroad "wye", 34.5 feet northeast of north-east rail of main track, 3.4 feet west of the corner fence post. A standard disc, stamped "G-42, 1934" and set in the top of a concrete monument two inches	

LE ROY, MINN. to CALMAR, IOWA

El. Ft.
1235.765

high.

H-42 In Winneshiek County, Iowa, at Conover, 145 yards northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 108 yards northwest of the southeast railroad "wye"; 63.0 yards south of the railroad crossing, 21.5 feet north of the north rail of the main track, 10.0 feet northwest of the railroad whistle post. A standard disc, stamped "H-42, 1934" and set in the top of a concrete monument one inch high.

1234.994

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Conover.

1239.3

J-42 In Winneshiek County, Iowa, 1.2 miles northwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar, 45.8 feet west of the west rail of the track, 28.0 feet north of the center line of the road crossing track, 4.5 feet northeast of the corner fence post, and 2.0 feet east of the fence. A standard disc, stamped "J-42, 1934" and set in the top of a concrete monument four inches high.

1280.332

For descriptions of additional bench marks in this vicinity, see page 141.

LINE 3212. MASON CITY TO POSTVILLE, IOWA
(Second-order Leveling)

This Line follows the Chicago, Milwaukee, St. Paul & Pacific Railroad from Mason City to Postville, Iowa.

The field work was done in October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see pages 84 and 108.

- | | El. Ft. |
|---|----------|
| <p><u>X-35</u> In <u>Cerro Gordo County</u>, Iowa, 0.4 mile southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Mason City</u>, 84.5 feet northwest of the center line of <u>South Carolina Avenue</u>, 24.8 feet west of the switch and southeast end of the side track, 13.5 feet northeast of the northeast rail of west side track; 78.0 feet southwest of the southwest rail of the main track. A standard disc, stamped "X-35, 1934" and set in the top of a concrete monument five inches high.</p> | 1133.387 |
| <p>Top of rail at the intersection of the Chicago, Milwaukee, St. Paul & Pacific Railroad with the Minneapolis & St. Louis Railroad.</p> | 1128.5 |
| <p><u>Y-35</u> In <u>Cerro Gordo County</u>, Iowa, 1.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Mason City</u>, 46.6 feet north of the north rail of the track, 43.0 feet east of the center line of the section road, 16.3 feet east of the corner of the fence, 1.7 feet south of the right-of-way. A standard disc, stamped "Y-35, 1934" and set in the top of a concrete monument seven inches high. (Reported destroyed in December, 1939.)</p> | 1093.042 |
| <p>Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 114.</p> | 1076.1 |
| <p><u>Z-35</u> In <u>Cerro Gordo County</u>, Iowa, 3.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Mason City</u>, 117 yards east of the station at <u>Portland</u>, 26.0 yards west of the intersection of the railroad and section road, 30.0 feet south of the south rail of the north side track, 15.5 feet south of the south rail of the main track. A standard disc, stamped "Z-35, 1934" and set in the top of a concrete</p> | |

MASON CITY to POSTVILLE, IOWA

	El. Ft.
monument four inches high.	1078.220
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 112.	1100.5
<u>A-36</u> In <u>Cerro Gordo County</u> , Iowa, 5.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Mason City</u> , 2.0 miles east of Portland, 145 yards east of trestle #R-366; 40.5 feet south of the south rail of the track, 7.4 feet north of the right-of-way fence. A standard disc, stamped "A-36, 1934" and set in the top of a concrete monument three inches high.	1098.266
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 110.	1115.2
<u>B-36</u> In <u>Cerro Gordo County</u> , Iowa, 7.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Mason City</u> , 67.0 feet southeast of the intersection with section road, 47.0 feet south of the south rail of the track, 1.0 foot north of the right-of-way fence. A standard disc, stamped "B-36, 1934" and set in the top of a concrete monument four inches high.	1118.646
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 108.	1100.8
Top of rail at the crossing of the Chicago, Milwaukee, St. Paul & Pacific Railroad with the Chicago, Rock Island Railroad.	1067.4
<u>C-36</u> In <u>Floyd County</u> , Iowa, at <u>Nora Springs</u> , 185 yards west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station, 130 yards west of the intersection of Main Street and the railroad track, 35.0 feet northeast of a switch and the west end of the side-track; 32.5 feet north of the north rail of the south side-track, 36.5 feet north of the north rail of the main track. A standard disc, stamped "C-36, 1934" and set in the top of a concrete monument one inch high.	1056.041
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 107.	1056.9
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Nora Springs.	1061.0
<u>D-36</u> In <u>Floyd County</u> , Iowa, 1.0 mile east of the Chi-	

LEVELING IN IOWA

El. Ft.

cago, Milwaukee, St. Paul & Pacific Railroad Station at Nora Springs, 51.0 feet south of the center line of U. S. Highway #18; 29.5 feet north of the north rail of the track. A standard disc, stamped "D-36, 1934" and set in the top of a concrete monument three inches high.

1093.000

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 105.

1106.4

E-36 In Floyd County, Iowa, 2.7 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Nora Springs, 2.0 miles west of Rudd, 70.0 yards west of the highway crossing, 42.3 feet south of the south rail of the track, 5.0 feet north of the right-of-way fence. A standard disc, stamped "E-36, 1934" and set in the top of a concrete monument two inches high.

1115.201

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 103.

1117.8

F-36 In Floyd County, Iowa, 125 yards west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Rudd, 66.0 feet southeast of the intersection of the street and railroad track, 43.0 feet southeast of switch on the west end of the side track, 27.0 feet south of the south rail of the track, 25.4 feet northwest of northwest rail of the side track. A standard disc, stamped "F-36, 1934" and set in the top of a concrete monument four inches high.

1115.736

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Rudd.

1115.0

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 101.

1124.7

G-36 In Floyd County, Iowa, 2.0 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Rudd, 118 yards east of the intersection of the railroad with the section road, 39.3 feet north of the north rail of the track, 6.7 feet south of the right-of-way fence. A standard disc, stamped "G-36, 1934" and set in the top of a concrete monument five inches high.

1128.485

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 99.

1132.0

H-36 In Floyd County, Iowa, 4.0 miles east of the Chi-

MASON CITY to POSTVILLE, IOWA

	El. Ft.
cago, Milwaukee, St. Paul & Pacific Railroad station at <u>Rudd</u> , 25.0 yards northwest of the intersection with section cross road, 44.4 feet north of the north rail of the track, 1.5 feet south of the right-of-way fence. A standard disc, stamped "H-36, 1934" and set in the top of a concrete monument three inches high.	1103.144
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 97.	1094.6
<u>J-36</u> In <u>Floyd County</u> , Iowa, 6.1 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Rudd</u> , 92.0 feet southeast of the road crossing, 43.0 feet south of the south rail of the track, 4.0 feet north of the right-of-way fence. A standard disc, stamped "J-36, 1934" and set in the top of a concrete monument six inches high.	1075.894
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 95.	1082.9
<u>K-36</u> In <u>Floyd County</u> , Iowa, 8.1 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Rudd</u> , 0.5 mile west of the depot at Floyd Crossing, 48.0 yards west of the switch on west end of the side track, 47.4 feet south of the south rail of the track, 1.8 feet north of the right-of-way fence. A standard disc, stamped "K-36, 1934" and set in the top of a concrete monument seven inches high.	1066.212
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 93.	1069.3
<u>L-36</u> In <u>Floyd County</u> , Iowa, 2.3 miles west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Charles City</u> , 45.4 feet south of the south rail of the track, 3.5 feet north of the right-of-way fence. A standard disc, stamped "L-36, 1934" and set in the top of a concrete monument four inches high.	1044.998
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 91.	1039.2
<u>M-36</u> In <u>Floyd County</u> , Iowa, 0.5 mile west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Charles City</u> , 23.0 feet north of the north rail of the main track, 33.5 feet south of the center line of the street running parallel to the railroad track. A standard disc, stamped "M-36, 1934" and set in the top of a concrete monument two inches high.	1013.787

LEVELING IN IOWA

	El. Ft.
<u>N-36</u> In <u>Floyd County</u> , Iowa, 77.0 yards east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Charles City</u> , 78.5 feet north of the north rail of the main track, 14.3 feet north of the north rail of the north side track, 42.0 yards east of the water tank. A standard disc, stamped "N-36, 1934" and set in the top of a concrete monument six inches high.	1010.602
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 89.	1010.2
Top of rail at intersection of the Chicago, Milwaukee, St. Paul & Pacific Railroad with the Illinois Central Railroad.	1008.8
For descriptions of additional bench marks in this vicinity, see page 221.	
<u>P-36</u> In <u>Floyd County</u> , Iowa, 1.2 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Charles City</u> , 58.0 yards east of the overhead bridge for electric railway, 45.7 feet south of the south rail of track, 1.5 feet north of the right-of-way fence. A standard disc, stamped "P-36, 1934" and set in the top of a concrete monument six inches high.	1045.086
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 87.	1079.4
<u>Q-36</u> In <u>Floyd County</u> , Iowa, 3.2 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Charles City</u> , 44.0 feet southeast of the switch and west end of the side track, 40.6 feet south of the south rail of main track, 4.0 feet north of the right-of-way fence. A standard disc, stamped "Q-36, 1934" and set in the top of a concrete monument four inches high.	1130.693
<u>R-36</u> In <u>Floyd County</u> , Iowa, 5.2 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Charles City</u> , 26.0 yards west of the center line of the section cross road, 45.0 feet north of the north rail of the track, 1.5 feet south of the right-of-way fence. A standard disc, stamped "R-36, 1934" and set in the top of a concrete monument five inches high.	1047.954
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 84.	1060.3

MASON CITY to POSTVILLE, IOWA

El. Ft.

- S-36 In Floyd County, Iowa, 7.2 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Charles City, 58.0 feet southwest of the intersection of section road and the railroad, 43.6 feet south of the south rail of tracks, 22.5 feet west of the corner of fence, 3.5 feet north of the right-of-way fence. A standard disc, stamped "S-36, 1934" and set in the top of a concrete monument six inches high. 1020.162
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 82. 1024.4
- T-36 In Chickasaw County, Iowa, 57.0 yards west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Bassett, 56.0 feet south of the south rail of the main track, 13.6 feet south of the south rail of the south side track, in line with the telegraph poles. A standard disc, stamped "T-36, 1934" and set in the top of a concrete monument one inch high. 1023.315
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 81. 1019.6
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 79. 1081.8
- U-36 In Chickasaw County, Iowa, 2.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Bassett, 30.0 yards west of the intersection of the section road crossing track, 42.4 feet north of the north rail of track, 19.1 feet west of corner of fence, 4.5 feet south of the right-of-way fence. A standard disc, stamped "U-36, 1934" and set in the top of a concrete monument two inches high. 1123.364
- V-36 In Chickasaw County, Iowa, 220 yards east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ionia, 38.0 yards east of the intersection of street and railroad, 62.0 feet southwest of switch, on east end of the side track, 48.0 feet south of south rail of the north side track, 33.8 feet south of south rail of main track. A standard disc, stamped "V-36, 1934" and set in the top of a concrete monument four inches high. 1145.742
- Top of S rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ionia. 1145.9
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 76. 1097.6

LEVELING IN IOWA

- El. Ft.
- W-36 In Chickasaw County, Iowa, 2.0 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ionia, 28.0 yards west of bridge #R-262; 5.0 feet north of the north rail of the track, 2.3 feet south of the north end of the concrete wing wall, 1.5 feet east of the steel wing, level with the concrete. A standard disc, stamped "W-36, 1934" and set in the east head wall of the steel trestle #R-264. 1070.959
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 74. 1098.4
- X-36 In Chickasaw County, Iowa, 4.0 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ionia, 4 telephone poles east of milepost #73; 45.3 feet south of the south rail of the track, 2.2 feet north of the right-of-way fence. A standard disc, stamped "X-36, 1934" and set in the top of a concrete monument six inches high. 1069.224
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 72. 1107.3
- Y-36 In Chickasaw County, Iowa, 1.4 miles west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at New Hampton, 7 telegraph poles east of milepost #11; 37.3 feet north of the north rail of the track, 6.5 feet south of the right-of-way fence. A standard disc, stamped "Y-36, 1934" and set in the top of a concrete monument six inches high. 1153.046
- Z-36 In Chickasaw County, Iowa, at the junction of the Chicago & Great Western Railroad with the Chicago, Milwaukee, St. Paul & Pacific Railroad, 0.2 mile east of the Milwaukee Railroad station, at New Hampton, 71.6 feet west of the west rail of the Chicago & Great Western Railroad track, 23.0 feet south of the south rail of the Milwaukee Railroad track. A standard disc, stamped "Z-36, 1934" and set in the top of a concrete monument one inch high. 1158.118
- Top of S rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at New Hampton. 1164.7
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 69. 1158.1

For descriptions of additional bench marks in this vicinity, see page 193.

MASON CITY to POSTVILLE, IOWA

El. Ft.

- A-37 In Chickasaw County, Iowa, 0.8 mile east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at New Hampton, 0.6 mile east of the intersection with the Chicago & Great Western Railroad, 38.8 feet north of the north rail of the track, 33.0 feet south of the center line of the road parallel to track. A standard disc, stamped "A-37, 1934" and set in the top of a concrete monument five inches high. 1160.378
- B-37 In Chickasaw County, Iowa, 2.8 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at New Hampton, 48.0 feet north of the center line of State Highway #24; 32.5 feet south of the south rail of track. A standard disc, stamped "B-37, 1934" and set in the top of a concrete monument four inches high. 1124.338
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 67. 1122.5
- C-37 In Chickasaw County, Iowa, 4.8 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at New Hampton, 12 telephone poles east of milepost #65; 46.0 feet north of the north rail of the track, 2.0 feet south of the right-of-way fence. A standard disc, stamped "C-37, 1934" and set in the top of a concrete monument six inches high. 1154.092
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 65. 1133.6
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 63. 1193.4
- D-37 In Chickasaw County, Iowa, 6.8 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at New Hampton, 66.0 feet west of the center line of the section road crossing track, 46.0 feet south of the south rail of track, 2.5 feet north of the right-of-way fence. A standard disc, stamped "D-37, 1934" and set in the top of a concrete monument five inches high. 1188.659
- E-37 In Chickasaw County, Iowa, 3 blocks west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Lawlor, 30.0 feet east of the center line of the street crossing track, 33.7 feet north of the north rail of the main track, 18.4 feet north of the north rail of the north side track. A standard disc, stamped "E-37, 1934" and set in the top of a concrete monument six inches high. 1090.611

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 61.	1112.2
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 60.	1079.7
<u>F-37</u> In Chickasaw County, Iowa, 1.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Lawler, 52.0 feet north of the center line of State Highway #24; 47.5 feet south of the south rail of the track, 2.5 feet north of the right-of-way fence. A standard disc, stamped "F-37, 1934" and set in the top of a concrete monument four inches high.	1116.277
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 59.	1109.8
<u>G-37</u> In Chickasaw County, Iowa, 3.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Lawler, 55.0 feet north of the center line of State Highway #24; 42.8 feet south of the south rail of the main track, 4.7 feet north of the right-of-way fence. A standard disc, stamped "G-37, 1934" and set in the top of a concrete monument four inches high.	1121.805
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 57.	1123.7
<u>H-37</u> In Chickasaw County, Iowa, 5.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Lawler, 1.4 miles west of Jackson Junction (Winneshiek County), 26.2 feet north of the north rail of the track, 20.7 feet south of the right-of-way fence. A standard disc, stamped "H-37, 1934" and set in the top of a concrete monument six inches high.	1111.615
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 55.	1099.6
<u>J-37</u> In Winneshiek County, Iowa, 60.0 yards southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Jackson Junction, 39.5 feet northwest of the northwest rail of the main track, 25.4 feet northwest of the northwest side track. A standard disc, stamped "J-37, 1934" and set in the top of a concrete monument four inches high.	1161.901
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Jackson Junction.	1162.8

MASON CITY to POSTVILLE, IOWA

	El. Ft.
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 53.	1180.9
<u>K-37</u> In <u>Winneshiek County</u> , Iowa, 1.6 miles northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Jackson Junction</u> , 61.0 feet northwest of the center line of State Highway #24; 41.0 feet southeast of the southeast rail of the track, 6.0 feet northwest of the right-of-way fence. A standard disc, stamped "K-37, 1934" and set in the top of a concrete monument four inches high.	1132.357
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 51.	1085.9
<u>L-37</u> In <u>Winneshiek County</u> , Iowa, 3.6 miles northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Jackson Junction</u> , 109 yards northeast of the wooden trestle, 25.5 feet northwest of the northwest rail of the track, 21.0 feet southeast of the right-of-way fence. A standard disc, stamped "L-37, 1934" and set in the top of a concrete monument five inches high.	1044.211
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 49.	1043.8
<u>U.S.G.S.-1019</u> In <u>Winneshiek County</u> , Iowa, in the northwest corner of the Methodist Church yard at <u>Ft. Atkinson</u> , 80.0 yards southeast of the southeast rail of the main track, 38.0 feet southeast of the center line of the road on the north side of the church, 17.0 feet north of the northwest corner of the church. A standard cap on an iron post stamped "1019".	1019.443
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Ft. Atkinson.	1017.1
<u>M-37</u> In <u>Winneshiek County</u> , Iowa, 0.9 mile northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Ft. Atkinson</u> , 60.0 yards southwest of the concrete culvert, 54.0 feet west of the intersection of road crossing track, 46.5 feet northwest of the northwest rail of track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "M-37, 1934" and set in the top of a concrete monument two inches high.	1017.019
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 47.	1029.3

LEVELING IN IOWA

- El. Ft.
- N-37 In Winneshiek County, Iowa, 1.9 miles southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar, 23.0 feet southeast of the southeast rail of track, 15.0 feet northwest of the right-of-way fence. A standard disc, stamped "N-37, 1934" and set in the top of a concrete monument five inches high. 1179.072
- 37 In Winneshiek County, Iowa, 0.7 mile southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar, 0.5 mile southwest of the intersection with the Chicago, Milwaukee, St. Paul & Pacific Railroad from Le Roy, 28.5 feet northwest of the northwest rail of the track, 20.4 feet southeast of the right-of-way fence. A standard disc, stamped "P-37, 1934" and set in the top of a concrete monument seven inches high. 1252.645
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 43. 1250.7
- Q-37 In Winneshiek County, Iowa, 0.2 mile southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar, 70.7 feet southeast of the southeast rail of the Chicago, Milwaukee, St. Paul & Pacific Railroad track to Le Roy, and 53.0 feet southeast of the southeast rail of the track to Mason City; 48.0 feet east of the switch and southwest end of the side track. A standard disc, stamped "Q-37, 1934" and set in the top of a concrete monument four inches high. 1264.279
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar. 1259.3
- For descriptions of additional bench marks in this vicinity, see page 130.
- R-37 In Winneshiek County, Iowa, 1.2 miles northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar, 40.0 yards northwest of the center line of U. S. Highway #52 (formerly U. S. Highway #55); 43.0 feet northwest of the northwest rail of the track. A standard disc, stamped "R-37, 1934" and set in the top of a concrete monument four inches high. 1261.808
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 40. 1264.8
- S-37 In Winneshiek County, Iowa, 3.3 miles northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Calmar, 54.0 feet northwest of the center

MASON CITY to POSTVILLE, IOWA

	El. Ft.
line of U. S. Highway #52 (formerly U. S. Highway #55); 26.5 feet southeast of the southeast rail of the track. A standard disc, stamped "S-37, 1934" and set in the top of a concrete monument seven inches high.	1265.155
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 38.	1274.7
<u>T-37</u> In <u>Winneshiek County</u> , Iowa, 1.3 miles west of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Ossian</u> , 58.5 feet south of the south rail of a north side track, 51.0 feet north of the center line of U. S. Highway #52 (formerly U.S. Highway #55); 34.5 feet south of the south rail of the main track. A standard disc, stamped "T-37, 1934" and set in the top of a concrete monument three inches high.	1266.933
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 36.	1271.2
<u>U.S.G.S.-1263.</u> In <u>Winneshiek County</u> , Iowa, at <u>Ossian</u> , 115 yards southeast of the southeast rail of the main track, 40.0 yards east of the east corner of the Catholic Church, 44.0 feet southeast of the center line of U. S. Highway #52 (formerly U. S. Highway #55). A standard iron cap on post set in the southeast edge of sidewalk on southeast side of U. S. Highway #52.	1263.994
<u>U-37</u> In <u>Winneshiek County</u> , Iowa, 0.7 mile east of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Ossian</u> , 45.0 yards north of the center line of U. S. Highway #52 (formerly U. S. Highway #55), 71.0 feet north of the north rail of the south side track, 35.0 feet north of the north rail of the main track, 13.0 feet south of the right-of-way fence. A standard disc, stamped "U-37, 1934" and set in the top of a concrete monument five inches high.	1264.230
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 34.	1263.1
<u>V-37</u> In <u>Winneshiek County</u> , Iowa, 2.7 miles southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Ossian</u> , 79.0 feet northeast of the center line of U. S. Highway #52 (formerly U. S. Highway #55). 23.5 feet southwest of the southwest rail of the main track, 7.5 feet northeast of the northeast rail of the southwest railroad track. A standard disc, stamped "V-37, 1934" and set in the top of a concrete monument	

LEVELING IN IOWA

one inch high.	El. Ft. 1247.153
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 33.	1252.1
<u>U.S.G.S.-1251</u> In <u>Winneshiek County</u> , Iowa, in the southwest corner of the school yard at <u>Castilia</u> , 15.8 feet west of the west corner of the school, 8.0 feet northeast of the northeast edge of the side walk on the south side of the school. A standard iron pipe and cap stamped "1251" and set in the ground, standing about 10.0 inches high.	1251.851
<u>W-37</u> In <u>Winneshiek County</u> , Iowa, in front of the Rock Island Railroad station and about 100 yards southeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Castilia</u> , 67.7 feet southwest of the switch on the northwest end of the side track, 41.1 feet southwest of the southwest rail of the Milwaukee track, 29.0 feet northeast of the northeast rail of the Rock Island track. A standard disc, stamped "W-37, 1934" and set in the top of a concrete monument six inches high.	1241.910
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Castalia</u> .	1243.1
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 30.	1237.5
<u>X-37</u> In <u>Winneshiek County</u> , Iowa, 1.3 miles east of the Chicago, Milwaukee, St. Paul & Pacific Railroad Station at <u>Castilia</u> , 43.2 feet north of the north rail of the track, 5.1 feet south of the right-of-way fence. A standard disc, stamped "X-37, 1934" and set in the top of a concrete monument four inches high.	1228.918
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 28.	1212.9
<u>Y-37</u> In <u>Allamakee County</u> , Iowa, 2.2 miles southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at <u>Postville</u> , 46.0 feet northwest of the center line of U. S. Highway #52 (formerly U. S. Highway #55), 34.0 feet southeast of the southeast rail of the track by milepost #27. A standard disc, stamped "Y-37, 1934" and set in the top of a concrete monument three inches high.	1205.086
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 26.	1205.9

MASON CITY TO POSTVILLE, IOWA

	El. Ft.
<u>Z-37</u> In <u>Allamakee County</u> , Iowa, at <u>Postville</u> , 32.7 feet north of the north rail of the Great Western Railroad, 24.5 feet south of the south rail of the main track of the Chicago, Milwaukee, St. Paul & Pacific Railroad, 2 telegraph poles east of milepost #25, and in line with telegraph poles. A standard disc, stamped "Z-37, 1934" and set in the top of a concrete monument two inches high.	1200.270
Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Postville.	1197.7
For descriptions of additional bench marks in this vicinity, see page 240.	

LINE 3214. MARATHON TO WAVERLY, IOWA
(Second-order Leveling)

The section of this line from Marathon to Dakota City is not included in this report. From Dakota City to Eagle Grove the Line follows the Chicago & North Western Railway; from Eagle Grove to Waverly it follows the Chicago & Great Western Railroad.

The work was done during the last part of September and the first part of October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 29.

	El. Ft.
V-27 In <u>Humboldt County</u> , Iowa, 0.2 mile southeast of the Chicago & North Western Railway station at <u>Dakota City</u> , 85.0 yards southeast of the east end of the switch, 111 feet southeast of intersection with county cross road, north and south; 44.2 feet southwest of the southwest rail of the track, 16.5 feet southeast of the right-of-way fence corner, 2.0 feet northeast of the right-of-way fence. A standard disc, stamped "V-27, 1934" and set in the top of a concrete monument four inches high.	1122.114
Top of rail opposite the Chicago & North Western Railway station at <u>Dakota City</u> .	1123.1
R.V. 2540. In <u>Humboldt County</u> , Iowa, 0.4 mile southeast of the Chicago & North Western Railway station at <u>Dakota City</u> , on the north end of the west back wall of bridge #2540, 9.4 feet northeast of the northeast rail of the track, 0.7 foot southwest of the northeast edge of the top course of the wall. A standard monel-metal rivet, not stamped.	1109.486
W-27 In <u>Humboldt County</u> , Iowa, 1.5 miles southeast of the Chicago & North Western Railway station at <u>Dakota City</u> , 35.0 yards north of culvert #2533; 86.0 feet north of the center line of farm cross road, 46.4 feet west of the west rail of the track, 1.5 feet east of the right-of-way fence, opposite milepost #114. A standard disc, stamped "W-27, 1934" and set in the top of a concrete monument six inches high.	1084.273
Top of rail opposite the Chicago & North Western Railway MP 114.	1089.6

MARATHON to WAVERLY, IOWA

El. Ft.

R.V.-2533 In Humboldt County, Iowa, 1.5 miles south-east of the Chicago & North Western Railway station at Dakota City, on the north end of the west stone head wall of culvert #2533; 9.9 feet west of the west rail of the track, 40.0 yards south of milepost #114. A standard monel-metal rivet, not stamped. 1087.616

Top of rail opposite the Chicago & North Western Railway MP 113. 1124.5

R.V.-2526 In Humboldt County, Iowa, 3.0 miles south-east of the Chicago & North Western Railway station at Dakota City, on the west end of the south stone head wall of culvert #2526; 9.9 feet south of the south rail of the track. A standard monel-metal rivet, not stamped, set below level of track. 1121.051

X-27 In Humboldt County, Iowa, 3.5 miles southeast of the Chicago & North Western Railway station at Dakota City, 0.1 mile west of the crossing of a county road, 30.0 yards west of milepost #112; 45.6 feet north of the north rail of the track, 1.9 feet south of the right-of-way fence. A standard disc, stamped "X-27, 1934" and set in the top of a concrete monument six inches high. 1128.945

Top of rail opposite the Chicago & North Western Railway MP 112. 1129.3

R.V.-2524 In Humboldt County, Iowa, 4.3 miles west of the Chicago & North Western Railway station at Thor, on the east end of stone head wall of concrete culvert #2524; 9.7 feet south of the south rail of the track. A standard monel-metal rivet, not stamped. 1126.970

Y-27 In Humboldt County, Iowa, 4.0 miles west of the Chicago & North Western Railway station at Thor, 290 yards west of the west end of bridge #2523; 59.0 feet southwest of the intersection of the railroad with the section line cross road, 46.1 feet south of the south rail of the track, 6.5 feet west of right-of-way fence corner, 1.7 feet north of the right-of-way fence. A standard disc, stamped "Y-27, 1934" and set in the top of a concrete monument six inches high. 1127.373

Top of rail opposite the Chicago & North Western Railway MP 110. 1125.3

U.S.G.S.-Iowa-1921 In Humboldt County, Iowa, 3.0 miles

LEVELING IN IOWA

El. Ft.

west of the Chicago & North Western Railway station at Thor, in the corner of the school yard on County Highway "S", 67.5 feet east of the north and south section line road, 37.0 feet north of the center line of the highway. A standard iron post and cap, ten inches high and stamped "Iowa-1921".

1126.271

R.V.-2519 In Humboldt County, Iowa, 2.1 miles west of the Chicago & North Western Railway station at Thor, on the east end of the north stone head wall of culvert #2519; 12.2 feet north of the north rail of the track. A standard monel-metal rivet, not stamped.

1128.101

Z-27 In Humboldt County, Iowa, 2.0 miles west of the Chicago & North Western Railway station at Thor, 200 yards east of culvert #2519; 67.0 feet northwest of the intersection with section-crossroad; 45.0 feet north of the north rail of track, 9.0 feet west of the right-of-way fence corner, 2.0 feet south of the right-of-way fence. A standard disc, stamped "Z-27, 1934" and set in the top of a concrete monument five inches high.

1132.737

Top of rail opposite the Chicago & North Western Railway MP 108.

1139.4

A-28 In Humboldt County, Iowa, at Thor, along the right-of-way of the Chicago & North Western Railway, 0.2 mile west of the station, 110 yards east of the west end of the side track, 64.9 feet south of the south rail of passing track, 45.8 feet south of the south rail of the main track, 1.7 feet north of the right-of-way fence. A standard disc, stamped "A-28, 1934" and set in the top of a concrete monument six inches high.

1146.828

R.V. THOR In Humboldt County, Iowa, 38.0 yards west of the northwest corner of the Chicago & North Western Railway station at Thor; 35.7 feet north of the north rail of the main track, 16.8 feet north of the north rail of passing track, on west end of the stone step. A standard monel-metal rivet, about thirteen inches high, not stamped, set in top of stone well platform.

1149.958

U.S.G.S.-Iowa In Humboldt County, Iowa, in the southwest corner of the school yard at Thor, 45.0 feet north of the center line of County Road "S", 79.4 feet southwest of the southwest corner of the school house; 4.8 feet north of the north edge of the sidewalk. A standard iron pipe and cap ten inches high, stamped "Iowa".

1142.718

MARATHON to WAVERLY, IOWA

- | | El. Ft. |
|---|----------|
| Top of rail opposite the Chicago & North Western Railway station at Thor. | 1149.6 |
| <u>B-28</u> In Humboldt County, Iowa, 1.1 miles east of the Chicago & North Western Railway station at Thor, 165 yards east of the "Station One-mile" post, 61.0 feet northwest of the intersection with section-line cross road, 44.8 feet north of the north rail of the track, 6.0 feet west of the right-of-way fence corner, 2.0 feet south of the fence. A standard disc, stamped "B-28, 1934" and set in the top of a concrete monument four inches high. | 1135.227 |
| <u>R.V.-2511</u> In Humboldt County, Iowa, 3.1 miles east of the Chicago & North Western Railway station at Thor, on the east end of the north stone head wall of culvert #2511; 31.5 feet west of the intersection of section-line road and railroad, 10.2 feet north of the north rail of the track. A standard monel-metal rivet, not stamped. | 1134.128 |
| Top of rail opposite the Chicago & North Western Railway MP 104. | 1148.2 |
| <u>C-28</u> In Humboldt County, Iowa, 3.1 miles east of the Chicago & North Western Railway station at Thor, 77.0 feet southeast of the south end of culvert #2571; 62.0 feet southeast of the intersection of railroad and section-line road north and south; 46.2 feet south of south rail of track, 5.1 feet east of the right-of-way fence corner, 2.0 feet north of the fence. A standard disc, stamped "C-28, 1934" and set in the top of a concrete monument four inches high. | 1131.904 |
| Top of rail opposite the Chicago & North Western Railway MP 103. | 1136.7 |
| <u>R.V.-2509</u> In Humboldt County, Iowa, 4.0 miles west of the Chicago & North Western Railway station at Eagle Grove (Wright County), on the east end of the north concrete head wall of culvert #2509; 8.6 feet north of the north rail of track. A standard monel-metal rivet set below the level of the track, not stamped. | 1133.613 |
| <u>R.V.-2508</u> In Wright County, Iowa, 3.5 miles northwest of the Chicago & North Western Railway station at Eagle Grove, 110 yards east of the county road crossing, on the east end of the north stone head wall of culvert #2508, 14.3 feet north of the north rail of the track. A standard monel-metal rivet set below level of the | |

LEVELING IN IOWA

El. Ft.
1132.534

track, not stamped.

D-28 In Wright County, Iowa, 3.0 miles northwest of the Chicago & North Western Railway station at Eagle Grove, 90.0 yards east of the intersection of the rail-road with a county cross road, 41.9 feet northeast of the northeast rail of track, 40.1 feet south of the center line of the county road, 2.0 feet south of the right-of-way fence, 7.5 feet west of the fence corner. A standard disc, stamped "D-28, 1934" and set in the top of a concrete monument four inches high.

1122.117

Top of rail opposite the Chicago & North Western Railway MP 101.

1105.2

R.V.-2505 In Wright County, Iowa, 2.5 miles northwest of the Chicago & North Western Railway station at Eagle Grove, on the east end of the south wing wall of bridge #2505; 7.1 feet north of the north rail of the track, 12.8 feet east of the north end of the abutment. A standard monel-metal rivet set below level of the track, not stamped.

1104.233

R.V.-2502 In Wright County, Iowa, 2.2 miles northwest of the Chicago & North Western Railway station at Eagle Grove, 0.1 mile southeast of milepost #100, on the east end of the north stone head wall of culvert #2502; 13.3 feet northeast of the northeast rail of the track. A standard monel-metal rivet set below the level of the track, not stamped.

1112.750

E-28 In Wright County, Iowa, 1.2 miles northwest of the Chicago & North Western Railway station at Eagle Grove, 0.2 mile northwest of the "Station One-mile" sign, 89.5 feet west of the northwest end of the switch, 45.5 feet southwest of the southwest rail of the track, 1.7 feet northeast of the right-of-way fence. A standard disc, stamped "E-28, 1934" and set in the top of a concrete monument six inches high.

1109.571

Top of rail opposite the Chicago & North Western Railway MP 99.

1115.8

R.V.-EAGLE GROVE In Wright County, Iowa; in the southeast portion of the Chicago & North Western Railway roundhouse at Eagle Grove, in the southwest corner of the valve pit coal chute, 74.2 feet northwest of the northwest rail of the main track, 0.2 mile north of the station. A standard monel-metal rivet, not stamped.

1120.044

MARATHON to WAVERLY, IOWA

El. Ft.

- F-28 In Wright County, Iowa, in the southeast corner of the school grounds at Eagle Grove, 105 feet east of the southeast corner of the High School building, 67.0 feet north of the center line of the east and west street, 26.0 feet west of the center line of the north and south street, 5.9 feet west of the west edge of the east walk on the grounds. A standard disc, stamped "F-28, 1934" and set in the top of a concrete monument flush with the surface. 1117.973
- G-28 In Wright County, Iowa, 1.0 mile northeast of the Chicago & Great Western Railway station at Eagle Grove, 0.2 mile southwest of milepost #353; 46.2 feet southeast of the southeast rail of the track, 1.4 feet northwest of the right-of-way fence, along a shallow cut. A standard disc, stamped "G-28, 1934" and set in the top of a concrete monument six inches high. 1123.403
- Top of rail opposite the Chicago & Great Western Railway MP 353. 1119.6
- H-28 In Wright County, Iowa, 3.0 miles northeast of the Chicago & Great Western Railway station at Eagle Grove, 0.2 mile southwest of milepost #351; 120 yards northeast of the section-line road intersection with the railroad, 45.3 feet southeast of the southeast rail of the track, 1.7 feet northwest of the right-of-way fence. A standard disc, stamped "H-28, 1934" and set in the top of a concrete monument four inches high. 1129.824
- Top of rail opposite the Chicago & Great Western Railway MP 351. 1130.4
- J-28 In Wright County, Iowa, 4.7 miles southwest of the Chicago & Great Western Railway station at Clarion, 0.4 mile southwest of the Florence elevator, 285 yards northeast of the intersection of the railroad with the east-and-west county road, 135 yards southwest of the southwest end of the side track switch, 44.9 feet northwest of the northwest rail of the track, 0.8 foot southeast of the right-of-way fence. A standard disc, stamped "J-28, 1934" and set in the top of a concrete monument four inches high. 1129.046
- Top of rail opposite the Chicago & Great Western Railway MP 348. 1123.6
- K-28 In Wright County, Iowa, 2.7 miles southwest of the Chicago & Great Western Railway station at Clarion,

LEVELING IN IOWA

El. Ft.

1.6 miles northeast of the elevator at Florence, 380 yards northeast of the intersection of the railroad with the north and south county road, 8 poles southwest of milepost #347; 45.1 feet northwest of the northwest rail of the track, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "K-28, 1934" and set in the top of a concrete monument five inches high. 1128.721

Top of rail opposite the Chicago & Great Western Railway MP 346. 1145.7

L-28 In Wright County, Iowa, 0.75 mile southwest of the Chicago & Great Western Railway station at Clarion, 275 yards southwest of the county road crossing, 7 poles northeast of milepost #345-15; 101 feet north of the north rail of the first side track, 44.9 feet north of the north rail of the main track, 1.7 feet south of the right-of-way fence. A standard disc, stamped "L-28, 1934" and set in the top of a concrete monument four inches high. 1160.332

M-28 In Wright County, Iowa, 0.3 mile northeast of the Chicago & Great Western Railway station at Clarion, in a corner plot formed by two street intersections north-and-south and east-and-west; 63.1 feet northwest of the northwest rail of the passing track, 33.6 feet northwest of the northwest rail of the main track, 52.3 feet south of the center line of the east-and-west street, 44.0 feet east of the center line of the north and south street, about 150 yards north of the grain elevator. A standard disc, stamped "M-28, 1934" and set in the top of a concrete monument two inches high. 1173.780

Top of rail opposite the Chicago & Great Western Railway station at Clarion. 1168.2

N-28 In Wright County, Iowa, 1.2 miles east of the Chicago & Great Western Railway station at Clarion, 0.4 mile east of the township road and street crossing track, 0.1 mile west of the section-line intersection, 2 poles east of milepost #343-15, 63.1 feet north of the north rail of the track, 1.2 feet south of the right-of-way fence. A standard disc, stamped "N-28, 1934" and set in the top of a concrete monument five inches high. 1177.941

Top of rail opposite the Chicago & Great Western Railway MP 343. 1187.9

BATHON to WAVERLY, IOWA

El. Ft.

P-28 In Wright County, Iowa, 2.4 miles east of the Chicago & North Western Railway at Clarion, 125 yards east of the intersection with section-line north-and south road, at east end of a long fill, 45.7 feet south of the south rail of the track, 1.4 feet north of the right-of-way fence. A standard disc, stamped "P-28, 1934" and set in the top of a concrete monument five inches high. 1209.617

Q-28 In Wright County, Iowa, 4.3 miles east of the Chicago & Great Western Railway station at Clarion, 2.1 miles west of Solberg, 0.1 mile west of milepost #340-15, 45.7 feet south of the south rail of the track, 1.5 feet north of the right-of-way fence. A standard disc, stamped "Q-28, 1934" and set in the top of a concrete monument four inches high. 1240.575

Top of rail opposite the Chicago & Great Western Railway MP 340. 1250.4

R-28 In Wright County, Iowa, 3.2 miles west of the Chicago & Great Western Railway station at Rowan, 132 yards west of the intersection of the State Highway #10 with the railroad, 90.0 yards east of milepost #338-15; opposite the Solberg elevator, 50.7 feet north of the north rail of the main track, 1.2 feet south of the right-of-way fence. A standard disc, stamped "R-28, 1934" and set in the top of a concrete monument five inches high. 1212.206

Top of rail opposite the Chicago & Great Western Railway MP 337. 1176.3

S-28 In Wright County, Iowa, 0.8 mile west of the Chicago & Great Western Railway station at Rowan, 0.2 mile east of the county highway overpass, 69.3 feet south of the south rail of the track, 1.5 feet north of the right-of-way fence. A standard disc, stamped "S-28, 1934" and set in the top of a concrete monument six inches high. 1185.805

Top of rail at the intersection of the Rock Island Railway with the Chicago & Great Western Railway. 1202.5

T-28 In Wright County, Iowa, 0.6 mile east of the Chicago & Great Western Railway station at Rowan, 107 yards east of the east end of the side track, 81.5 feet northwest of the intersection with a county road running north and south, 66.1 feet north of the north rail

LEVELING IN IOWA

71. Ft.

of the track, 15.0 feet west of the right-of-way fence corner, 1.2 feet south of the right-of-way fence. A standard disc, stamped "T-28, 1934" and set in the top of a concrete monument four inches high.

1207.881

Top of rail opposite the Chicago & Great Western Railway MP 334.

1220.0

U-28 In Franklin County, Iowa, 2.7 miles east of the Chicago & Great Western Railway station at Rowan, (Wright County), 185 yards east of the intersection of the section-line north-and-south road, 150 yards west of milepost #332; 44.7 feet south of the south rail of the track, 1.5 feet north of the right-of-way fence. A standard disc, stamped "U-28, 1934" and set in the top of a concrete monument five inches high.

1238.501

V-28 In Franklin County, Iowa, 4.4 miles west of the Chicago & Great Western Railway station at Coulter, 15.0 miles west of milepost #330; 135 feet northeast of the intersection of the railroad and the section-line road north-and-south, 87.0 feet east of the right-of-way fence corner, 52.4 feet north of the north rail of the track, 1.7 feet south of the right-of-way fence. A standard disc, stamped "V-28, 1934" and set in the top of a concrete monument four inches high.

1250.713

Top of rail opposite the Chicago & Great Western Railway MP 330.

1253.0

W-28 In Franklin County, Iowa, 2.4 miles west of the Chicago & Great Western Railway station at Coulter, 137 yards west of the intersection with the section-line road, 45.7 feet south of the south rail of the track, 1.7 feet north of the right-of-way fence. A standard disc, stamped "W-28, 1934" and set in the top of a concrete monument four inches high.

1261.225

Top of rail opposite the Chicago & Great Western Railway MP 327.

1240.6

X-28 In Franklin County, Iowa, 0.4 mile west of the Chicago & Great Western Railway station at Coulter, 160 yards west of milepost #326; 125 feet northeast of the west end of passing track, 56.5 feet north of the north rail of track, 24.5 feet east of the center line of the farm gate, 1.5 feet south of the right-of-way fence. A standard disc, stamped "X-28, 1934" and set in the top of a concrete monument four inches high.

1231.179

MARATHON to WAVERLY, IOWA

El. Ft.

- Y-28 In Franklin County, Iowa, 42.0 yards northeast of the northeast corner of the Chicago & Great Western Railway station at Coulter, 77.5 feet north of the north rail of passing track, 57.6 feet north of the north rail of the main track, 30.7 feet east of the northeast corner of the pump house, 7.0 feet west of the right-of-way fence corner, 1.2 feet south of the right-of-way fence. A standard disc, stamped "Y-28, 1934" and set in the top of a concrete monument three inches high. 1237.360
- Top of rail opposite the Chicago & Great Western Railway station at Coulter. 1240.4
- Top of rail opposite the Chicago & Great Western Railway MP 325. 1237.7
- Z-28 In Franklin County, Iowa, 1.5 miles east of the Chicago & Great Western Railway station at Coulter, at the west end of a deep cut, 61.0 feet southeast of the intersection of the railroad with a county road running north and south, 44.7 feet south of the south rail of the track, 7.5 feet east of the right-of-way fence. A standard disc, stamped "Z-28, 1934" and set in the top of a concrete monument six inches high. 1252.619
- Top of rail opposite the Chicago & Great Western Railway MP 323. 1236.3
- A-29 In Franklin County, Iowa, 3.5 miles east of the Chicago & Great Western Railway station at Coulter, 73.0 feet northeast of the intersection of railroad with section-line road running north and south; 46.0 feet north of the north rail of the track, 16.5 feet east of the right-of-way fence corner, 1.3 feet south of the fence. A standard disc, stamped "A-29, 1934" and set in the top of a concrete monument four inches high. 1210.480
- Top of rail opposite the Chicago & Great Western Railway MP 321. 1206.8
- B-29 In Franklin County, Iowa, 2.7 miles west of the Chicago & Great Western Railway station at Hampton, 45.0 yards northwest of the intersection with section-line road, 40.0 yards west of the right-of-way fence corner, 44.7 feet north of the north rail of the track, 2.0 feet south of the right-of-way fence. A standard disc, stamped "B-29, 1934" and set in the top of a

LEVELING IN IOWA

- concrete monument five inches high. El. Ft.
1195.296
- Top of rail opposite the Chicago & Great Western Rail-
way MP 320. 1192.8
- C-29 In Franklin County, Iowa, 0.7 mile west of the
Chicago & Great Western Railway station at Hampton,
55.0 yards southwest of the crossing with the Rock Is-
land Railroad, 70.5 feet south of the south rail of
the main track, 50.5 feet west of the right-of-way
fence corner, 32.7 feet south of the south rail of the
switch track, 1.7 feet north of the right-of-way fence.
A standard disc, stamped "C-29, 1934" and set in the
top of a concrete monument two inches high. 1147.704
- Top of rail at the crossing of the Chicago, Milwaukee,
Rock Island & St. Paul Railroad with the Chicago &
Great Western Railway. 1142.4
- D-29 In Franklin County, Iowa, at Hampton, in the
east side of the County Court House yard, 77.9 feet
east of the east side of the building, 26.9 feet west
of the west curb of the street along the east side of
the square, 6.1 feet south of the south edge of a cin-
der drive from street, 5.8 feet west of the west edge
of the sidewalk, 6.4 feet northeast of a 2-inch maple
tree. A standard disc, stamped "D-29, 1934" and set
in the top of a concrete monument flush with the sur-
face. 1147.888
- For descriptions of additional bench marks in this vi-
cinity, see page 92.
- U.S.C. & G.S. & State Survey - 35-213 In Franklin Coun-
ty, Iowa, at Hampton, along U. S. Highway #65 and the
Chicago & Great Western Railway, 60.0 yards south of
the south rail of the main track, 21.5 feet east of
the center line of the highway, 1.1 feet west of the
white wood post, 1.7 feet high. A standard State Sur-
vey tablet, stamped "35-213" and set in the top of a
concrete monument five inches high. 1134.151
- Top of rail opposite the Chicago & Great Western Rail-
way MP 316. 1102.1
- E-29 In Franklin County, Iowa, 2.1 miles east of the
Chicago & Great Western Railway station at Hampton,
0.2 mile west of the intersection of the railroad with
the section-line road, west of a cut at the crossing,

MARATHON to WAVERLY, IOWA

	El. Ft.
46.7 feet south of the south rail of track, 1.7 feet north of the right-of-way fence. A standard disc, stamped "E-29, 1934" and set in the top of a concrete monument four inches high.	1081.907
Top of rail opposite the Chicago & Great Western Railway MP 314.	1045.1
<u>F-29</u> In Franklin County, Iowa, 4.3 miles east of the Chicago & Great Western Railway station at Hampton, 1.1 miles west of the station at Hansell, 0.1 mile west of milepost #313; 71.0 feet northwest of the intersection with section-line north and south road, 46.4 feet north of the north rail of track, 21.0 feet west of the right-of-way fence corner, 1.5 feet south of the fence. A standard disc, stamped "F-29, 1934" and set in the top of a concrete monument four inches high.	1029.758
Top of rail opposite the Chicago & Great Western Railway MP 313.	1032.2
<u>G-29</u> In Franklin County, Iowa, at Hansell, on the right-of-way of the Chicago & Great Western Railway, 88.6 feet south of the southeast corner of the station, 160 yards east of the county highway crossing track, 46.2 feet south of the south rail of the main track, 5.7 feet behind milepost #312. A standard disc, stamped "G-29, 1934" and set in the top of a concrete monument three inches high.	1030.641
Top of rail opposite the Chicago & Great Western Railway MP 311.	1016.5
<u>H-29</u> In Franklin County, Iowa, 2.0 miles east of the Chicago & Great Western Railway station at Hansell, 2 poles west of milepost #310; 50.0 feet east of the section line fence running north and south, 45.1 feet north of the north rail of the track, 1.2 feet south of the right-of-way fence. A standard disc, stamped "H-29, 1934" and set in the top of a concrete monument four inches high.	1006.809
Top of rail opposite the Chicago & Great Western Railway MP 309.	999.4
<u>J-29</u> In Butler County, Iowa, 2.7 miles west of the Chicago & Great Western Railway station at Dumont, 38.0 yards west of milepost #308; 120 feet southeast of the intersection of the railroad with the north and south	

LEVELING IN IOWA

El. Ft.

county line road, 61.5 feet east of the right-of-way fence corner, 44.3 feet south of the south rail of the track, 2.0 feet north of the right-of-way fence. A standard disc, stamped "J-29, 1934" and set in the top of a concrete monument one inch high.

990.651

Top of rail opposite the Chicago & Great Western Railway MP 307.

994.8

K-29 In Butler County, Iowa, 0.8 mile west of the Chicago & Great Western Railway station at Dumont, 110 yards east of bridge #306; 53.0 feet northeast of farm crossing, 43.7 feet north of the north rail of the track, 16.0 feet east of the right-of-way fence corner at a farm gate, 1.5 feet south of the right-of-way fence. A standard disc, stamped "K-29, 1934" and set in the top of a concrete monument four inches high.

990.480

Top of rail opposite the Chicago & Great Western Railway MP 306.

993.5

I-29 In Butler County, Iowa, at Dumont, at the intersection of the Chicago & Great Western Railway with the Chicago & North Western Railway, 0.15 mile west of the station, 100 yards west of the west bound distant signal, 56.0 feet northeast of the center line of the intersection of the two railroads, 45.2 feet north of the north rail of the track, 13.0 feet east of the right-of-way fence corner, 1.5 feet south of the right-of-way fence. A standard disc, stamped "L-29, 1934" and set in the top of a concrete monument five inches high.

977.042

Top of rail opposite the Chicago & Great Western Railway MP 305.

979.1

M-29 In Butler County, Iowa, 1.8 miles northeast of the Chicago & Great Western station at Dumont, 90.0 yards southwest of milepost #303-15; 59.8 feet northwest of the northwest rail of the track, 8.4 feet southeast of the right-of-way fence at the south end of a cut, on inside of curve, to the left. A standard disc, stamped "M-29, 1934" and set in the top of a concrete monument five inches high.

989.831

Top of rail opposite the Chicago & Great Western Railway MP 302.

1013.3

N-29 In Butler County, Iowa, 0.3 mile west of the Chicago & Great Western Railway station at Bristow,

MARATHON to WAVERLY, IOWA

El. Ft.

120 yards west of milepost #301-15; 50.0 yards west of the west end of the switch on passing track, 61.0 feet northeast of the intersection of main track with the public road, 36.3 feet north of the north rail of the main track, 22.2 feet north of the north rail of passing track, 11.0 feet east of the right-of-way fence corner and 1.2 feet south of the right-of-way fence. A standard disc, stamped "N-29, 1934" and set in the top of a concrete monument five inches high.

1027.718

P-29 In Butler County, Iowa, 1.8 miles east of the Chicago & Great Western Railway station at Bristow, 0.15 mile west of the intersection of the section line road with the railroad, south of the third telegraph pole east of milepost #299-15; 45.6 feet south of the south rail of track, 1.5 feet north of the right-of-way fence. A standard disc, stamped "P-29, 1934" and set in the top of a concrete monument five inches high.

1001.845

Top of rail opposite the Chicago & Great Western Railway MP 299.

994.5

Q-29 In Butler County, Iowa, 2.2 miles west of the Chicago & Great Western Railway station at Allison, 0.3 mile west of overpass crossing north and south section road, opposite first pole west of milepost #297-15; 45.4 feet north of the north rail of track, 34.0 feet east of the farm fence corner, 1.2 feet south of the right-of-way fence. A standard disc, stamped "Q-29, 1934" and set in the top of a concrete monument five inches high.

1023.525

R-29 In Butler County, Iowa, at Allison, on the right-of-way of the Chicago & Great Western Railway, 138.5 feet southeast of the southeast corner of the station, 64.4 feet west of the center line of State Highway #14; 51.3 feet south of the south rail of passing track, 31.2 feet south of the south rail of main track, 19.2 feet west of the west edge of sidewalk. A standard disc, stamped "R-29, 1934" and set in the top of a concrete monument four inches high.

1046.504

Top of rail opposite the Chicago & Great Western Railway station at Allison.

1046.4

Top of rail opposite the Chicago & Great Western Railway MP 295.

1045.8

S-29 In Butler County, Iowa, 1.4 miles east of the

LEVELING IN IOWA

El. Ft.

Chicago & Great Western Railway station at Allison, 55.5 feet south of the intersection of the railway with section line road running east and west, 45.8 feet south of the south rail of track, 9.0 feet west of pole #293-20; 1.5 feet north of the right-of-way fence. A standard disc, stamped "S-29, 1934" and set in the top of a concrete monument six inches high.

1054.381

T-29 In Butler County, Iowa, 3.4 miles east of the Chicago & Great Western Railway station at Allison, 70.0 yards west of milepost #291-20; 60.0 feet southeast of the intersection with north-and-south road, 45.6 feet south of the south rail of the track, 28.5 feet east of the right-of-way fence corner, 2.0 feet north of fence. A standard disc, stamped "T-29, 1934" and set in the top of a concrete monument four inches high.

1011.035

U-29 In Butler County, Iowa, 1.1 miles west of the Chicago & Great Western Railway station at Clarksville, on the north end of the west abutment of the Shell Rock River bridge, set in the course on which the west end of the bridge rests, 3.8 feet north of the north rail of the track, 4.7 feet below the top of the rail, 0.8 foot south of the north edge of the abutment. A standard disc, stamped "U-29, 1934" and set horizontally.

936.271

Top of rail opposite the Chicago & Great Western Railway MP 290.

951.1

V-29 In Butler County, Iowa, 165 yards east of the southeast corner of the Chicago & Great Western Railway station at Clarksville, 30.0 yards northwest of the northwest corner of the stock yards, 34.5 feet east of the center line of the north-and-south street crossing tracks, 33.6 feet north of the north rail of the passing track, 18.5 feet north of the north rail of the main track, 7.5 feet east of the right-of-way fence corner, 2.5 feet south of the fence. A standard disc, stamped "V-29, 1934" and set in the top of a concrete monument six inches high.

933.299

Top of rail at the intersection of the Rock Island and Chicago & Great Western Railroads.

933.5

W-29 In Butler County, Iowa, 1.6 miles east of the Chicago & Great Western Railway station at Clarksville, 60.0 yards northeast of milepost #286-25; 61.0 feet northwest of a farm crossing with railroad, 45.7 feet north of the north rail of the track, 22.0 feet west

MARATHON to WAVERLY, IOWA

El. Ft.

- of the center line of a farm gate, 1.5 feet south of the right-of-way fence. A standard disc, stamped "W-29, 1934" and set in the top of a concrete monument five inches high. 933.571
- Top of rail opposite the Chicago & Great Western Railway MP 287. 930.4
- Top of rail opposite the Chicago & Great Western Railway MP 286. 930.0
- X-29 In Butler County, Iowa, 2.9 miles southeast of the Chicago & Great Western Railway station at Clarks-ville, southwest of the second pole northwest of milepost #285-15; 105 yards northwest of the center line of the north-and-south road crossing, 45.3 feet southwest of the southwest rail of the track, 1.4 feet northeast of the right-of-way fence. A standard disc, stamped "X-29, 1934" and set in the top of a concrete monument four inches high. 928.377
- Top of rail opposite the Chicago & Great Western Railway MP 284. 939.7
- Y-29 In Butler County, Iowa, 1.8 miles northwest of the Chicago & Great Western Railway station at Shell Rock, 410 yards southeast of the southeast end of bridge underpass opposite the second pole southeast of milepost #283-10; 120 yards northwest of farm crossing, 46.2 feet northeast of the northeast rail of the track, 1.6 feet southwest of the right-of-way fence. A standard disc, stamped "Y-29, 1934" and set in the top of a concrete monument six inches high. 918.420
- Top of rail opposite the Chicago & Great Western Railway MP 283. 920.5
- Z-29 In Butler County, Iowa, on the right-of-way of the Chicago & Great Western Railway 124 feet north of the northwest corner of the station at Shell Rock, 49.8 feet northeast of the northeast rail of passing track, 29.5 feet northeast of the northeast rail of the main track, 35.0 feet east of the center line of the north and south county highway, 5.5 feet north of the right-of-way fence corner, 1.5 feet west of the right-of-way fence. A standard disc, stamped "Z-29, 1934" and set in the top of a concrete monument five inches high. 911.422

LEVELING IN IOWA

El. Ft.

Top of rail opposite the Chicago & Great Western Railway station at Shell Rock.

911.3

A-30 In Butler County, Iowa, 1.1 miles northeast of the Chicago & Great Western Railway station at Shell Rock, 500 yards west of the intersection of the Railroad and the county-line road, 45.3 feet northwest of the northwest rail, 2.2 feet southeast of the right-of-way fence. A standard disc, stamped "A-30, 1934" and set in the top of a concrete monument four inches high.

927.938

B-30 In Bremor County, Iowa 2.4 miles northeast of the Chicago & Great Western Railway station at Shell Rock (Butler County), 96.0 feet southwest of the intersection of the railroad with the county road, 46.1 feet northwest of the northwest rail of the track, 9.5 feet southwest of the right-of-way fence corner, 1.3 feet southeast of the right-of-way fence. A standard disc, stamped "B-30, 1934" and set in the top of a concrete monument three inches high.

936.681

C-30 In Bremor County, Iowa, 2.9 miles west of the Chicago & Great Western Railway station at Waverly, 0.4 mile east of an overpass crossing of U. S. Highway #218, 40.5 feet south of the south rail of the track, 16.0 feet west of milepost #277-30; 1.7 feet north of the right-of-way fence. A standard disc, stamped "C-30, 1934" and set in the top of a concrete monument six inches high.

961.517

Top of rail opposite the Chicago & Great Western Railway MP 277.

962.3

D-30 In Bremor County, Iowa, 1.75 miles north of the Chicago & Great Western Railway station at Waverly, at the intersection with the Illinois Central Railroad, 168 feet northwest of the intersection of the two railroads, 70.0 feet northwest of the northwest corner of the signal house, 52.2 feet northeast of the northeast rail of the Chicago & Great Western Railway, 48.5 feet southwest of the southwest rail of the Illinois Central Railroad, 8.0 feet northwest of the right-of-way fence corner. A standard disc, stamped "D-30, 1934" and set in the top of a concrete monument six inches high.

933.732

E-30 In Bremor County, Iowa, 1.1 miles northwest of the Chicago & Great Western Railway station at Waverly, 66.0 feet northwest of the intersection of the railroad and cross road, 43.3 feet north of the north rail of

MARATHON to WAVERLY, IOWA

El. Ft.

the track, 36.0 feet north of the west bound signal tower, 11.5 feet west of the right-of-way fence corner, 1.3 feet south of the right-of-way fence. A standard disc, stamped "E-30, 1934" and set in the top of a concrete monument two inches high.

920.116

WAVERLY-1934 In Bremer County, Iowa, 110 yards northwest of the northwest corner of the Chicago & Great Western Railway station at Waverly, at the corner of Third Street NE and First Avenue NE, 35.0 feet south of the center line of First Avenue NE, 32.0 feet west of the center line of Third Street NE, 17.2 feet east of the northeast corner of the water reservoir. A standard disc, stamped "Waverly, 1934" and set in the top of a concrete monument two inches high.

918.522

For descriptions of additional bench marks in this vicinity, see page 218.

LINE 3220. ALBERT LEA, MINN., TO BRITT, IOWA
(Second-order Leveling)

This Line follows the Minneapolis & St. Louis Railroad from Albert Lea, Minn., to Britt, Iowa.

The field work was done in October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 51.

El. Ft.

V-147 In Freeborn County, Minn., 0.3 mile south of the Minneapolis & St. Louis Railroad station at Albert Lea, 0.3 mile south of milepost #119; 45.8 feet east of the east rail of the track, 20.0 feet north of the center line of Front Street, 1.5 feet north of the north edge of the sidewalk curb of Front Street. A standard disc, stamped "V-147, 1934" and set in the top of a concrete monument three inches high.
(NOTE: This bench mark set but was not tied into the net by the observing parties.)

W-147 In Freeborn County, Minn., 1.3 miles southwest of the Minneapolis & St. Louis Railroad station at Albert Lea, 0.3 mile southwest of milepost #120; 43.0 feet south of the center line of the gravel road crossing the track, 31.7 feet west of the west rail of the track, 6.0 feet south of the first telegraph pole south of the road crossing and in line with the poles. A standard disc, stamped "W-147, 1934" and set in the top of a concrete monument four inches high.

1248.577

X-147 In Freeborn County, Minn., 4.0 miles southwest of the Minneapolis & St. Louis Railroad station at Albert Lea, 35.0 yards east of milepost #123; 85.0 feet northeast of the station post at Konsota, 45.0 feet east of the east rail of the track, 65.0 feet north of the center line of a farm trail crossing track, 59.0 feet east of the switch post, 1.7 feet west of the right-of-way fence. A standard disc, stamped "X-147, 1934" and set in the top of a concrete monument four inches high.

1275.752

Top of rail opposite the Minneapolis & St. Louis Railroad MP 123.

1275.3

Top of rail opposite the Minneapolis & St. Louis Rail-

ALBERT LEA, MINN., to BRITT, IOWA

	El. Ft.
road MP 124.	1284.2
<u>Y-147</u> In <u>Freeborn County</u> , Minn., 0.5 mile northeast of the <u>Minneapolis & St. Louis Railroad</u> station at <u>Twin Lakes</u> , 49.0 feet south of the center line of a gravel road crossing track, 33.0 feet northwest of the northwest rail of the track, 30.0 feet southwest of the first telegraph pole west of the road crossing and in line with poles. A standard disc, stamped "Y-147, 1934" and set in the top of a concrete monument six inches high.	1271.054
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> station at <u>Twin Lakes</u> .	1258.6
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 128.	1278.8
<u>Z-147</u> In <u>Freeborn County</u> , Minn., 4.1 miles northeast of the <u>Minneapolis & St. Louis Railroad</u> station at <u>Emons</u> , 1.9 miles southwest of the station at <u>Twin Lakes</u> , 58.0 feet south of the center line of a gravel road crossing track, 26.0 feet east of the east rail of the track, 18.0 feet west of the right-of-way fence. A standard disc, stamped "Z-147, 1934" and set in the top of a concrete monument four inches high.	1280.890
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 129.	1283.3
<u>A-148</u> In <u>Freeborn County</u> , Minn., 2.2 miles northeast of the <u>Minneapolis & St. Louis Railroad</u> station at <u>Emons</u> , 0.1 mile north of milepost #130; 105 feet north of fourth telegraph pole north of milepost #130; 56.0 feet north of a center line of farm trail crossing track, 38.0 feet northwest of the northwest rail of track. A standard disc, stamped "A-148, 1934" and set in the top of a concrete monument four inches high.	1274.669
Top of rail opposite the <u>Minneapolis & St. Louis Railroad</u> MP 131.	1287.2
<u>B-148</u> In <u>Freeborn County</u> , Minn., 160 feet northeast of the <u>Minneapolis & St. Louis Railroad</u> station at <u>Emons</u> , 0.1 mile southwest of milepost #132; 54.0 feet northeast of switch post, 43.0 feet north of the center line of <u>Minnesota State Highway</u> #13; 23.4 feet southeast of the southeast rail of the main track. A standard disc, stamped "B-148, 1934" and set in the top of a concrete monument six inches high.	1273.364

LEVELING IN IOWA

El. Ft.

Top of rail opposite the Minneapolis & St. Louis Railroad Station at Emmons.

1272.0

K-34 In Winnebago County, Iowa, 4.4 miles northeast of the Minneapolis & St. Louis Railroad station at Lake Mills, 2.1 miles southwest of Emmons, 0.1 mile south of milepost #134; 46.3 feet east of the east rail of the track, 29.0 feet north of the center line of a farm trail crossing track. A standard disc, stamped "K-34, 1934" and set in the top of a concrete monument six inches high.

1318.633

Top of rail opposite the Minneapolis & St. Louis Railroad MP 134.

1315.6

L-34 In Winnebago County, Iowa, 2.2 miles northeast of the Minneapolis & St. Louis Railroad station at Lake Mills, 69.0 feet north of the first telegraph pole south of the road crossing and in line with a row of poles, 0.2 mile south of milepost #36; 41.0 feet west of the west rail of track, 40.0 feet south of the center line of a road crossing track. A standard disc, stamped "L-34, 1934" and set in the top of a concrete monument six inches high.

1310.388

Rop of rail opposite the Minneapolis & St. Louis Railroad MP 136.

1308.9

M-34 In Winnebago County, Iowa, 200 feet west of the center line of a road crossing track, 35.0 feet north of the north rail of the track, 12.0 feet southeast of a telegraph pole, 0.4 mile west of milepost #138. A standard disc, stamped "M-34, 1934" and set in the top of a concrete monument six inches high.

1269.620

Top of rail opposite the Minneapolis & St. Louis Railroad station at Lake Mills.

1269.5

N-34 In Winnebago County, Iowa, 0.5 mile west of the Minneapolis & St. Louis Railroad station at Lake Mills, at the junction of the railroad with the Chicago and North Western Railroad tracks, 130 feet southeast of the center line of the intersection of the two tracks, 29.6 feet south of the south rail of the Minneapolis & St. Louis Railroad track, 28.0 feet northwest of a power line pole, 0.1 mile east of milepost #139. A standard disc, stamped "N-34, 1934" and set in the top of a concrete monument six inches high.

1261.697

Top of rail opposite the Minneapolis & St. Louis Rail-

ALBERT LEA, MINN., to BRITT, IOWA

- road MP 141. El. Ft.
1262.5
- P-34 In Winnebago County, Iowa, 2.7 miles southwest of the Minneapolis & St. Louis Railroad station at Lake Mills, 0.1 mile southwest of milepost #141; 120 feet south of the center line of State Highway #15; 44.0 feet southeast of the southeast rail of the track, 3.9 feet northwest of the right-of-way fence. A standard disc, stamped "P-34, 1934" and set in the top of a concrete monument two inches high. 1243.488
- Q-34 In Winnebago County, Iowa, 4.0 miles southwest of the Minneapolis & St. Louis Railroad station at Lake Mills, 78.0 feet south of the center line of a gravel road crossing track, 44.0 feet southeast of the south east rail of the track, 43.0 feet southeast of the right-of-way fence corner, 2.0 feet northwest of the right-of-way fence. A standard disc, stamped "Q-34, 1934" and set in the top of a concrete monument four inches high. 1227.212
- Top of rail opposite the Minneapolis & St. Louis Railroad MP 142. 1225.1
- R-34 In Winnebago County, Iowa, 2.6 miles northeast of the Minneapolis & St. Louis Railroad station at Leland, 75.0 feet south of the center line of a section road crossing track, 58.0 feet southwest of the southwest corner of the head wall of a 2-foot diameter culvert, 44.0 feet northwest of the west rail of the track, 13.3 feet west of the first telegraph pole south of crossing, 1.7 feet southeast of the right-of-way fence. A standard disc, stamped "R-34, 1934" and set in the top of a concrete monument four inches high. 1224.355
- Top of rail opposite the Minneapolis & St. Louis Railroad MP 144. 1223.2
- Top of rail opposite the Minneapolis & St. Louis Railroad MP 145. 1226.4
- S-34 In Winnebago County, Iowa, 0.5 mile northeast of the Minneapolis & St. Louis Railroad station at Leland, 288 feet northwest of the intersection of State Highway #15; 54.0 feet northeast of the center line of the highway, 30.3 feet west of the west rail of the track, 7.0 feet south of the second telegraph pole north of the crossing, and in line with poles. A standard disc, stamped "S-34, 1934" and set in the top of a concrete

LEVELING IN IOWA

	El. Ft.
monument six inches high.	1217.990
<u>T-34</u> In <u>Winnebago County</u> , Iowa, 45.5 feet northeast of the northeast corner of the Minneapolis & St. Louis Railroad station at <u>Leland</u> , 45.0 feet west of a power line pole, 37.0 feet south of the center line of a road crossing track and 27.2 feet east of the east rail of the track, 3.6 feet north of the north edge of the street curb. A standard disc, stamped "T-34, 1934" and set in the top of a concrete monument two inches high.	1220.621
<u>U-34</u> In <u>Winnebago County</u> , Iowa, 2.4 miles southwest of the Minneapolis & St. Louis Railroad station at <u>Leland</u> , 0.15 mile south of milepost #149; 49.0 feet south of fence corner, also corner post of gate leading into right-of-way; 44.9 feet west of the west rail of track, 15.0 feet east of the first telegraph pole north of gate, 1.0 foot east of the right-of-way fence. A standard disc, stamped "U-34, 1934" and set in the top of a concrete monument four inches high.	1213.177
Top of rail opposite the Minneapolis & St. Louis Railroad MP 149.	1214.9
Top of rail opposite the Minneapolis & St. Louis Railroad MP 150.	1210.4
Top of rail opposite the Minneapolis & St. Louis Railroad MP 151.	1207.6
<u>V-34</u> In <u>Winnebago County</u> , Iowa, 1.8 miles northeast of the Minneapolis & St. Louis Railroad station at <u>Forest City</u> , 0.1 mile southeast of milepost #151; 450 feet southeast of the south end of a wood trestle, 41.2 feet northeast of the northeast rail of the track, 32.3 feet southeast of the south corner fence post, 8.0 feet southeast of a power-line pole, 6.0 feet southwest of the right-of-way fence. A standard disc, stamped "V-34, 1934" and set in the top of a concrete monument two inches high.	1205.145
<u>W-34</u> In <u>Winnebago County</u> , Iowa, 42.0 feet northeast of the northeast corner of the Minneapolis & St. Louis Railroad station at <u>Forest City</u> , 0.1 mile north of milepost #153; 62.0 feet south of the center line of a road crossing track, 36.0 feet east of the east rail of the main track, 33.0 feet northwest of a power-line pole. A standard disc, stamped "W-34, 1934" and set in the top of a concrete monument two inches high.	1223.918

ALBERT LEA, MINN., to BRITT, IOWA

El. Ft.

- FOREST CITY-134 In Hancock County, Iowa, at Forest City, 6.0 inches west of the southeast corner of the concrete base of cannon in the southeast corner of the Court House square, 83.0 feet north of the center line of West First Street, 48.0 feet west of the center line of South Clark Street. A standard disc, stamped "FOREST CITY-1934". 1280.440
- Top of rail opposite the Minneapolis & St. Louis Railroad station at Forest City. 1224.8
- X-34 In Hancock County, Iowa, 0.7 mile southwest of the Minneapolis & St. Louis Railroad station at Forest City, 0.1 mile north of the Chicago, Rock Island & Pacific Railway overpass, 75.0 feet southwest of the center line of State Highway #15; 42.0 feet west of the west rail of the main track, 37.0 feet southwest of a telegraph pole, 7.0 feet east of the right-of-way fence. A standard disc, stamped "X-34, 1934" and set in the top of a concrete monument six inches high. 1229.309
- Top of rail opposite the Minneapolis & St. Louis Railway MP 155. 1213.8
- Y-34 In Hancock County, Iowa, 3.1 miles southwest of the Minneapolis & St. Louis Railroad station at Forest City, 33.0 feet north of the center line of a gravel road crossing track, 45.0 feet southeast of the southeast rail of track, 32.0 feet northeast of milepost #156; 18.0 feet northeast of the right-of-way fence corner, 1.1 foot northwest of fence. A standard disc, stamped "Y-34, 1934" and set in the top of a concrete monument six inches high. 1214.893
- Top of rail opposite the Minneapolis & St. Louis Railroad MP 157. 1222.2
- Z-34 In Hancock County, Iowa, 5.0 miles southwest of the Minneapolis & St. Louis Railroad station at Forest City, 0.9 mile northeast of Hawley, 0.1 mile northeast of milepost #158; 69.0 feet northeast of the center line of a farm trail crossing track, 57.0 feet north of the first telegraph pole north of road crossing, 1.7 feet southeast of the right-of-way fence. A standard disc, stamped "Z-34, 1934" and set in the top of a concrete monument six inches high. 1217.317
- A-35 In Hancock County, Iowa, 6.6 miles southwest of the Minneapolis & St. Louis Railroad station at Forest

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El. Ft.

City, at the junction with the Chicago, Rock Island & Pacific Railroad, 0.5 mile south of milepost #159; 129 feet northeast of the northeast rail of the Chicago, Rock Island & Pacific Railroad track, 34.0 feet northwest of the northwest rail of the Minneapolis & St. Louis Railroad track, 21.5 feet southwest of a telegraph pole, 3.0 feet southeast of the right-of-way fence. A standard disc, stamped "A-35, 1934" and set in the top of a concrete monument six inches high.

1217.373

Top of rail opposite the Minneapolis & St. Louis Railway MP 160.

1216.5

B-35 In Hancock County, Iowa, 5.8 miles northeast of the Minneapolis & St. Louis Railroad station at Britt, 0.3 mile northeast of milepost #162; 435 feet north of the center line of a section line road crossing track, 46.0 feet southeast of the southeast rail of the track, 26.0 feet northeast of the center line of a farm trail crossing track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "B-35, 1934" and set in the top of a concrete monument six inches high.

1226.120

Top of rail opposite the Minneapolis & St. Louis Railroad MP 162.

1227.3

C-35 In Hancock County, Iowa, 3.5 miles northeast of the Minneapolis & St. Louis Railroad station at Britt, 44.4 feet west of the west rail of the track, 90.0 feet northwest of a stone culvert under the track, 19.3 feet west of the first telegraph pole south of milepost #164; 2.3 feet east of the right-of-way fence. A standard disc, stamped "C-35, 1934" and set in the top of a concrete monument three inches high.

1216.809

Top of rail opposite the Minneapolis & St. Louis Railroad MP 165.

1238.7

D-35 In Hancock County, Iowa, 1.7 miles northeast of the Minneapolis & St. Louis Railroad station at Britt, 0.2 miles northeast of milepost #166, 250 yards southwest of the intersection of road crossing track, 100 yards southwest of a culvert 2.0 feet in diameter, 46.0 feet northwest of the northwest rail of the track, 32.0 feet southwest of the fence corner, 2.0 feet southeast of the right-of-way fence. A standard disc, stamped "D-35, 1934" and set in the top of a concrete monument two inches high.

1208.597

E-35 In Hancock County, Iowa, 0.9 mile northeast of

ALVERT LEA, MINN., to BRITT, IOWA

El. Ft.

the Minneapolis & St. Louis Railroad station at Britt, 130 yards northeast of the northeast edge of a wood trestle, 120 yards southwest of the intersection with the Chicago, Milwaukee & St. Paul Railway, 39.0 feet northwest of the northwest rail of the track and 13.6 feet northeast of a telegraph pole. A standard disc, stamped "E-35, 1934" and set in the top of a concrete monument four inches high.

1204.617

Top of rail at intersection of the Minneapolis & St. Louis Railroad with the Chicago, Milwaukee, St. Paul & Pacific Railway.

1209.3

F-35 In Hancock County, Iowa, 64.6 feet northwest of the northeast corner of the Minneapolis & St. Louis Railroad station at Britt, 139 feet northeast of the center line of the road crossing track, 45.7 feet northwest of the northwest rail of the track, 12.0 feet northeast of the right-of-way fence corner, 1.5 feet southeast of the right-of-way fence. A standard disc, stamped "F-35, 1934" and set in the top of a concrete monument three inches high.

1229.266

Top of rail opposite the Minneapolis & St. Paul Railway MP 167.

1221.3

U.S.C. & G.S. & S.S. 41-11 In Hancock County, Iowa, on the south side of the east entrance to the American Legion Hall at Britt, 1.0 foot from the building and flush with the building which is approximately in the center of Britt and on the Main Street. A standard State Survey disc, stamped "41-11" and set in a concrete monument.

1228.547

U.S.C. & G.S. & S.S. 41-10 In Hancock County, Iowa, at the west city limits of Britt, on U. S. Highway #18 on the north head wall of a 3- by 6-foot concrete culvert. A standard disc, stamped "41-10".

1205.765

For additional descriptions of bench marks in this vicinity, see page 74.

LINE 3222. CONOVER, IOWA to RUSHFORD, MINNESOTA
(Second-order Leveling)

This Line follows the Chicago, Milwaukee, St. Paul & Pacific Railroad from Conover to Decorah, Iowa. From Decorah, Iowa to the vicinity of Prosper, Minn. the Line follows U. S. Highway #52. From Prosper to Mabel the Line follows Minnesota State Highway #44; from Mabel to Rushford the Line follows Minnesota State Highway #43.

The field work was done during October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 130.

El. Ft.

K-42 In Winneshiek County, Iowa, 1.3 miles northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Conover, 60.0 yards northeast of the north end of bridge #S-602; 100 feet northeast of the intersection of the railroad with township road running east and west, 53.3 feet southeast of the southeast rail of the track, 37.0 feet north of the northwest corner of the small plank bridge across the creek, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "K-42, 1934" and set in the top of a concrete monument three inches high.

1133.029

L-42 In Winneshiek County, Iowa, 3.3 miles northeast of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Conover, 0.3 mile northeast of milepost #3; 140 yards northeast of the north end of bridge #S-620, 75.0 yards northeast of the center line of farm gate into railroad right-of-way, 44.3 feet southeast of the southeast rail of track, 1.5 feet northwest of the right-of-way fence. A standard disc, stamped "L-42, 1934" and set in the top of a concrete monument three inches high.

1046.396

Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 3.

1054.6

M-42 In Winneshiek County, Iowa, 4.0 miles southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Decorah, at the Haugendale County Home, 158 yards southwest of the south end of bridge #S-644; 60.0

CONOVER, IOWA to RUSHFORD, MINN.

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- yards north of the front wall from the back of the County Home entrance, 47.5 feet west of the west rail of track, 1.0 foot east of the right-of-way fence. A standard disc, stamped "M-43, 1934" and set in the top of a concrete monument five inches high. 996.543
- N-42 In Winneshiek County, Iowa, 2.1 miles southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Decorah, 0.3 mile northeast of milepost #7; 18.9 feet southeast of the southeast rail of the track and 2.0 feet northwest of the right-of-way fence. A standard disc, stamped "N-42, 1934" and set in the top of a concrete monument six inches high. 936.337
- Top of rail opposite the Chicago, Milwaukee, St. Paul & Pacific Railroad MP 7. 944.5
- P-42 In Winneshiek County, Iowa, 0.6 mile southwest of the Chicago, Milwaukee, St. Paul & Pacific Railroad station at Decorah, 0.2 mile southwest of milepost #9; 60.0 yards southwest of culvert #S-719; 18.2 feet northwest of the northwest rail of track, 55.6 feet southeast of the center line of U. S. Highway #52 (formerly U. S. Highway #55), 7.8 feet south of telegraph pole. A standard disc, stamped "P-42, 1934" and set in the top of a concrete monument six inches high. 887.941
- DECORAH-1934 In Winneshiek County, Iowa, 102 feet northwest of the northwest corner of the County Court House at Decorah, 29.6 feet southeast of the inside corner of sidewalk intersection, 23.2 feet south of the south edge of concrete retaining wall around the grounds, 18.6 feet east of east edge of concrete retaining wall. A standard disc, stamped "DECORAH-1934" and set horizontally in the west corner of an old World War gun concrete base. 897.465
- U.S.G.S.-904 In Winneshiek County, Iowa, at Decorah, in the northeast corner of the foundation of the County Jail, 2.7 feet above the ground. A standard geological disc, stamped "904" and set vertically. 904.368
- Q-42 In Winneshiek County, Iowa, 1.0 mile northwest of the County Court House at Decorah, along U. S. Highway #52 (formerly U. S. Highway #55), 100 yards northwest of the curve in the highway, 50.0 yards southeast of a private drive to the west, 42.0 yards north of a fire hydrant, 32.3 feet northeast of the center line of the highway, 2.5 feet southwest of a high fence. A

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standard disc, stamped "Q-42, 1934" and set in the top of a concrete monument six inches high.

913.190

R-42 In Winneshiek County, Iowa, 2.7 miles northwest of the Court House at Decorah, along U. S. Highway #52 (formerly U. S. Highway #55), on the inside of a curve in the highway from north to northwest, 48.1 feet west of the center line of the highway, 1.8 feet east of the highway fence, and about 10.0 feet north of the fence corner. A standard disc, stamped "R-42, 1934" and set in the top of a concrete monument five inches high.

956.878

S-42 In Winneshiek County, Iowa, 5.0 miles north of the Court House at Decorah, along U. S. Highway #52 (formerly U. S. Highway #55), 100 yards northwest of the intersection of the highway with a section line road, 46.4 feet southwest of the center line of the highway, 1.6 feet northeast of the right-of-way fence, 0.5 mile southeast of a school house and 0.1 mile southeast of a farm entrance. A standard disc, stamped "S-42, 1934" and set in the top of a concrete monument four inches high.

1180.834

T-42 In Winneshiek County, Iowa, 5.6 miles south of the Post Office at Burr Oak, along U. S. Highway #52 (formerly U. S. Highway #55), 0.2 miles northwest of a junction with a township road running north, 80.0 yards southeast of a farm entrance, 38.6 feet northeast of the highway, 1.5 feet southwest of the highway fence, 0.15 mile south of the school house. A standard disc, stamped "T-42, 1934" and set in the top of a concrete monument six inches high.

1150.460

U-42 In Winneshiek County, Iowa, 3.6 miles south of the Post Office at Burr Oak, along U. S. Highway #52 (formerly U. S. Highway #55), 175 yards south of a farm entrance to the east, 50.0 yards north of a curve in the highway from south to southeast, 31.3 feet west of the center line of the highway, 1.3 feet east of the highway fence. A standard disc, stamped "U-42, 1934" and set in the top of a concrete monument four inches high.

1186.497

V-42 In Winneshiek County, Iowa, 1.6 miles south of the Post Office at Burr Oak, along U. S. Highway #52 (formerly U. S. Highway #55), 4.8 miles south of the Iowa-Minnesota State Line, 150 yards south of the farm entrance to the west, 100 yards south of the curve in the highway from northwest to north, 39.5 feet south-

CONOVER, IOWA to RUSHFORD, MINN.

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west of center line of the highway, 1.5 feet northeast of the highway fence, 3.8 feet northwest of the fence corner. A standard disc, stamped "V-42, 1934" and set in the top of a concrete monument six inches high.

1254.781

W-42 In Winneshiek County, Iowa, 0.25 mile south of the Post Office at Burr Oak, along U. S. Highway #52 (formerly U. S. Highway #55), 3.4 miles south of the Iowa-Minnesota State Line, 125 yards south of the crest of a hill in the highway, 47.5 feet west of the center line of the highway, 38.5 feet south of the center line of the street running west, 9.0 feet west of the fence corner, and 1.2 feet south of the fence. A standard disc, stamped "W-42, 1934" and set in the top of a concrete monument five inches high.

1258.521

X-42 In Winneshiek County, Iowa, 2.2 miles north of the Post Office at Burr Oak, along U. S. Highway #52 (formerly U. S. Highway #55), 1.0 mile south of the Iowa-Minnesota State Line, in the northwest corner of a school yard, 55.0 yards north of the center line of the east-and-west section-line road, 80.5 feet northwest of the northwest corner of the school house, 36.5 feet east of the center line of the highway, 1.3 feet south of the north school yard fence. A standard disc, stamped "X-42, 1934" and set in the top of a concrete monument six inches high.

1304.266

X-148 In Fillmore County, Minn., 0.4 mile north of the Post Office at Prosper, 0.9 mile north of the Iowa-Minnesota State Line, 150 yards north of the junction of U. S. Highway #52 with Minnesota State Highway #44; 138 yards south of the intersection of State Highway #44 with the road west of U. S. Highway #52; 49.0 feet east of the center line of State Highway #44; 32.5 feet south of the fence corner, 1.0 foot west of fence line. A standard disc, stamped "X-148, 1934" and set in the top of a concrete monument four inches high.

1319.528

Y-148 In Fillmore County, Minn., 2.4 miles east of the Post Office at Prosper, along Minnesota State Highway #44, 195 yards west of the northwest corner of the school yard, 35.0 feet south of the center line of the highway, 1.0 foot north of the fence along the road. A standard disc, stamped "Y-148, 1934" and set in the top of a concrete monument five inches high.

1244.735

Z-148 In Fillmore County, Minn., 1.2 miles west of the Post Office at Mabel, along Minnesota State High-

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way #44, 105 yards west of the center line of the township road south of the highway, 31.5 feet north of the center line of State Highway #44, 1.2 feet south of the fence along the highway. A standard disc, stamped "Z-148, 1934" and set in the top of a concrete monument four inches high.

1136.887

A-149 In Fillmore County, Minn., in the town park at Mabel, two blocks west of Main north-and-south street, 50.0 yards west of the street corner, in the southeast corner of the park, 43.7 feet south of the southeast corner of the masonry stone foundation of rest room, 38.0 feet north of the center line of State Highway #44; 2.0 feet north of the north edge of the sidewalk. A standard disc, stamped "A-149, 1934" and set in the top of a concrete monument one inch high.

1133.790

B-149 In Fillmore County, Minn., 2.1 miles north of the Post Office at Mabel, along Minnesota State Highway #43, 100 yards north of a farm entrance, 95.0 yards north of a culvert in the highway, 29.0 feet west of the center line of the highway, 1.5 feet east of the fence along the road. A standard disc, stamped "B-149, 1934" and set in the top of a concrete monument eight inches high.

1159.873

C-149 In Fillmore County, Minn., 3.8 miles north of the Post Office at Mabel, along Minnesota State Highway #43, 200 yards north of the junction of the road to Lenoria, 25.0 feet east of the center line of the highway, 46.0 feet north of the center line of the township road running east, 15.0 feet north of the fence corner, 1.5 feet west of the fence along the road. A standard disc, stamped "C-149, 1934" and set in the top of a concrete monument five inches high.

1190.995

D-149 In Fillmore County, Minn., 5.8 miles north of the Post Office at Mabel, along Minnesota State Highway #43, 2.0 miles south of Tawney, 60.0 yards west of a curve in the highway, 22.0 feet north of the center line of the highway, 1.0 foot north of the fence along the road, 50.0 yards west of the fence corner. A standard disc, stamped "D-149, 1934" and set in the top of a concrete monument five inches high.

1232.996

E-149 In Fillmore County, Minn., 7.8 miles north of the Post Office at Mabel, along Minnesota State Highway #43, at the Tawney corner, 30.0 feet west of the center line of the highway, 33.0 feet north of the

CONOVER, IOWA to RUSHFORD, MINN.

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township road running west, 8.0 feet northwest of the fence corner post. A standard disc, stamped "E-149, 1934" and set in the top of a concrete monument six inches high.

1169.105

F-149 In Fillmore County, Minn., 1.8 miles south of Choice, along State Highway #43; at the top of a hill sloping into a deep draw to the north, 150 yards south of a farm entrance drive to the west, 34.0 feet east of the center line of State Highway #43; 18.0 feet southeast of the south end of a 12-inch corrugated iron culvert, 6.5 feet east of the fence corner, 1.0 foot north of the fence line. A standard disc, stamped "F-149, 1934" and set in the top of a concrete monument four inches high.

1179.948

G-149 In Fillmore County, Minn., at Choice, 12.0 miles south of Rushford, 75.0 yards north of the corner in State Highway #43 around the General Store, 150 yards south of the south end of the bridge across the South Fork River, 28.0 feet east of the center line of State Highway #43; 12.0 feet south of the center line of a farm entrance drive to the east, 3.5 feet east of the highway fence, 1.8 feet north of the fence line to the farm house. A standard disc, stamped "G-149, 1934" and set in the top of a concrete monument four inches high.

817.784

H-149 In Fillmore County, Minn., 10.3 miles south of the Post Office at Rushford, along State Highway #43; 1.8 miles north of Choice, in a narrow valley between two hills, 0.1 mile south of the concrete culvert in the road, 29.0 feet west of the center line of the highway and 11.0 feet west of the fence along highway, 1.5 feet south of the fence line running west from the highway. A standard disc, stamped "H-149, 1934" and set in the top of a concrete monument five inches high.

889.900

J-149 In Fillmore County, Minn., 8.2 miles south of the Post Office at Rushford, along State Highway #43; 50.0 yards north of the west end of a 3-foot corrugated iron culvert, 68.0 feet west of the center line of the highway, 38.0 feet west of the highway fence corner, 13.0 feet north of the center line of the section-line road leading west, 1.2 feet south of the fence line west. A standard disc, stamped "J-149, 1934" and set in the top of a concrete monument six inches high.

1165.969

K-149 In Fillmore County, Minn., 6.1 miles south of

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- the Post Office at Rushford, along State Highway #43; 0.2 mile south of Bratsberg, in the opposite corner across from a school house, 30.0 feet east of the center line of the highway, 38.0 feet north of the east-and-west county road, 12.0 feet north of the fence corner, 1.5 feet east of the fence along the highway. A standard disc, stamped "K-149, 1934" and set in the top of a concrete monument five inches high. El. Ft. 1179.348
- L-149 In Fillmore County, Minn., 4.0 miles south of the Post Office at Rushford, along State Highway #43; 1.9 miles north of Bratsberg, near the foot of a long slope to the north, 50.0 yards south of the concrete culvert in the road, near the curve in road to the east, 29.0 feet northwest of the center line of the highway, 7.0 feet southeast of the fence along the road. A standard disc, stamped "L-149, 1934" and set in the top of a concrete monument four inches high. 1006.255
- M-149 In Fillmore County, Minn., 2.0 miles south of the Post Office at Rushford, 100 yards north of the side road junction in the northwest corner of a school yard, 77.1 feet northwest of the northwest corner of the school house, 39.0 feet east of the center line of the highway, 2.5 feet southeast of the school yard fence corner. A standard disc, stamped "M-149, 1934" and set in the top of a concrete monument six inches high. 753.945
- N-149 In Fillmore County, Minn., 0.5 mile south of the Post Office at Rushford, along State Highway #43; 0.15 mile south of the south end of the bridge across Root River, on the west end of the north abutment of a bridge across a dry run, 19.0 feet west of the center line of the highway, 1.8 feet east of the west end of the north abutment. A standard disc, stamped "N-149, 1934" and set horizontally. 730.330

For additional descriptions of bench marks in this vicinity, see page 57.

LINE §224. OGDEN to NEVADA, IOWA

This Line follows the Chicago & North Western Railway from Ogden to Nevada, Iowa.

The field work was done during October, 1934, by a party under the direction of W. R. Tucker. The Line was releveled in March and April, 1940 by a party of the Iowa Geodetic Survey under the direction of H. Van De Ven.

For descriptions of additional bench marks in this vicinity, see page 38.

For rail elevations on this Line see page 187.

- | | El.Ft. |
|--|----------|
| <u>K-32</u> In <u>Boone County</u> , Iowa, in <u>Ogden</u> , 11 telegraph poles east of the Minneapolis & St. Louis Railroad crossing with the Chicago & North Western Railway, along the Chicago & North Western Railway right-of-way, 50.0 feet east of the center line of the road crossing the track, 44.5 feet north of the north rail of the main track, 22.6 feet southeast of the corner fence post, 18.4 feet north of the north rail of the main track. A standard disc, stamped "K-32, 1934" and set in the top of a concrete monument two inches high. | 1098.393 |
| <u>R.V.623</u> In <u>Boone County</u> , Iowa, 1.2 miles east of the Chicago & North Western Railway depot at <u>Ogden</u> , 85.0 yards east of the signal control box, 15.0 feet north of the north rail of the north track. A standard monel-metal rivet not stamped, set in the middle of the west head wall of culvert #625. | 1089.289 |
| <u>R.V.622</u> In <u>Boone County</u> , Iowa, 2.0 miles east of the Chicago & North Western Railway station at <u>Ogden</u> , 50.0 yards east of the signal control box, 12.0 feet south of the south rail of the south track. A standard monal-metal rivet, not stamped, set in the stone head wall of culvert #B-622. | 1090.195 |
| <u>L-32</u> In <u>Boone County</u> , Iowa, 2.5 miles east of the Chicago & North Western Railway station at <u>Ogden</u> , along the Chicago & North Western Railway, 40.0 yards east of the highway bridge, 34.0 yards north of the center line of the road, 21.8 feet south of the south rail of the track, 6.4 feet west of a telegraph pole. A standard disc, stamped "L-32, 1934" and set in the top of a concrete monument four inches high. | 1070.844 |

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- R.V. #B-621 In Boone County, Iowa, 2.9 miles east of the Chicago & North Western Railway station at Ogden, 20.0 yards east of milepost C.L. 209, on the northwest corner of the north stone head-wall of culvert #B-621. A standard monel-metal rivet, not stamped, set 10.0 feet north of the north rail of the north track. 1074.598
- R.V. #B-617 In Boone County, Iowa, 3.7 miles east of the Chicago & North Western Railway station at Ogden, 0.3 mile west of the west end of the steel trestle bridge #615 over the Des Moines River, 7.0 feet south of the south rail of the south track. A standard monel-metal rivet, not stamped, set in the southwest corner of the south stone head-wall of culvert #B-617. 1054.686
- M-32 In Boone County, Iowa, 3.8 miles east of the Chicago & North Western Railway station at Ogden, on the south end of the east abutment of the railroad bridge over the Des Moines River, 4.0 feet above the rail, 3.9 feet north of the south side of the abutment and 5.5 feet west of the east side. A standard disc, stamped "M-32, 1934". 1052.928
- R.V. #B-613 In Boone County, Iowa, 3.2 miles west of the Chicago & North Western Railway station at Boone, on the southwest corner of the north stone pier of a road overpass bridge #B-613. A standard monel-metal rivet, not stamped, set 12.0 feet north of the north rail of the north track. 1052.629
- N-32 In Boone County, Iowa, 2.1 miles west of the Chicago & North Western Railway station at Boone, 79.0 yards east of trestle #607, 30.0 feet west of the center line of the road crossing track, 13.7 feet south of the south rail of the side track, 7.0 feet southwest of the post nearest track and 3.0 feet west of the fence. A standard disc, stamped "N-32, 1934" and set in the top of a concrete monument two inches high. 1082.783
- R.V. #B-606 In Boone County, Iowa, 1.7 miles west of the Chicago & North Western Railway station at Boone, 10.0 yards west of the road intersection, 10.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the northwest corner of the north stone head-wall of culvert #B-606. 1092.957
- R.V. #B-605 In Boone County, Iowa, 1.6 miles west of the Chicago & North Western Railway station at Boone, 12.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the west end of the north stone head-wall of culvert B-605. 1096.487

OGDEN to NEVADA, IOWA

El. Ft.

- P-32 In Boone County, Iowa, 0.7 mile west of the Chicago & North Western Railway station at Boone, 20.1 feet east of the east curb of Division Street, 14.1 feet south of the south rail of the side track. A standard disc, stamped "P-32, 1934" and set in the top of a concrete monument three inches high. 1123.220
- R.V. #B-602 In Boone County, Iowa, 0.25 mile west of the Chicago & North Western Railway station at Boone, 10.0 feet north of the north rail of the north track, opposite the switch stand on the south track. A standard monel-metal rivet, not stamped, set in the northwest corner of the north stone head-wall of culvert #B-602. 1130.742
- BOONE-1934 In Boone County, Iowa, at Boone, in the southwest leg of the Boone city water supply tank. A standard disc, stamped "BOONE - 1934" and set horizontally. A tall fence surrounds the water tank. 1141.992
- U.S.G.S. 1134 In Boone County, Iowa, 70.9 feet north of the north curb of Eighth Street in Boone, 17.0 feet west of the west curb of Ardeen Street, 13.0 feet north of the center line of the east entrance to Post Office. A standard iron pipe cap about five inches high stamped "1134". 1133.534
- Q-32 In Boone County, Iowa, 0.6 mile east of the Chicago & North Western Railway station at Boone, on the north end of the west abutment of an overhead bridge, 8.5 feet north of the north rail of the north track. A standard disc, stamped "Q-32, 1934" and set in the concrete bridge abutment about 1.0 foot below the level of the track. 1133.311
- R.V. #596 In Boone County, Iowa, 1.8 miles east of the Chicago & North Western Railway station at Boone, 0.2 mile west of milepost C.L. 201; 24.0 feet south of the south rail of passing track, 36.0 feet south of the south rail of the south main track. A standard rivet, not stamped, set in the east end of the south concrete head-wall of culvert #596. 1154.030
- R.V. #593 In Boone County, Iowa, 2.6 miles east of the Chicago & North Western Railway station at Boone, 0.2 mile west of an overpass railroad crossing, 10.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the northwest corner of the north head-wall of culvert #593. 1159.407

LEVELING IN IOWA

El. Ft.

- R-32 In Boone County, Iowa, 2.8 miles east of the Chicago & North Western Railway station at Boone, 106.0 yards west of the overhead bridge, 62.0 feet north of the center line of U. S. Highway #30, 33.6 feet south of the south rail of the main track, 8.2 feet northwest of the telegraph pole. A standard disc, stamped "R-32, 1934" and set in the top of a concrete monument six inches high. 1157.882
- S-32 In Boone County, Iowa, 4.8 miles east of the Chicago & North Western Railway station at Boone, 0.5 mile west of Jordan, 56.0 feet east of the center line of State Highway #60, north of track, 44.7 feet north of the north rail of the track, 4.9 feet southeast of the corner fence post. A standard disc, stamped "S-32, 1934" and set in the top of a concrete monument two inches high. 1126.776
- R.V. #587 In Boone County, Iowa, 4.8 miles east of the Chicago & North Western Railway station at Boone, 0.4 mile west of the station at Jordan, 0.2 mile west of milepost C.L. 198, 7.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the north end of the top of the east abutment of bridge #587. 1126.287
- R.V. #585 In Boone County, Iowa, 6.2 miles east of the Chicago & North Western Railway station at Boone, 1.0 mile east of Jordan, 12.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the west end of the top course of the north head-wall of bridge #585. 1066.215
- T-32 In Boone County, Iowa, 6.8 miles east of the Chicago & North Western Railway station at Boone, 1.5 miles east of Jordan, 40.0 feet west of the center line of the road crossing track, 31.0 feet south of the south rail of the side track, 13.5 feet west of the right-of-way fence, 5.4 feet southeast of the corner fence post. A standard disc, stamped "T-32, 1934" and set in the top of a concrete monument four inches high. 1063.190
- R.V. #581 In Boone County, Iowa, 5.5 miles west of the Chicago & North Western Railway station at Ames, (Story County) 2.8 miles east of Jordan, 70.0 yards west of milepost C.L. 195, 7.0 feet south of the south rail of the south track. A standard monel-metal rivet, not stamped, set in the top of the east end of the south stone head-wall of culvert #581. 1035.369
- U-32 In Boone County, Iowa, 4.9 miles west of the Chicago & North Western Railway station at Ames (Story County), 3.6 miles east of the station at Jordan, 114

OGDEN to NEVADA, IOWA

- El. Ft.
- yards west of overhead bridge #578, 35.7 feet north of the north rail of the north track, 11.5 feet west of a telegraph pole, 10.9 feet south of the right-of-way fence. A standard disc, stamped "U-32, 1934" and set in the top of a concrete monument four inches high. 1030.897
- R.V. #578 In Boone County, Iowa, 4.8 miles west of the Chicago & North Western Railway station at Ames (Story County), 1.8 miles west of the Ontario elevators, 10.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the top of the north end of the top course of stone of the west abutment of overhead bridge #578. 1029.171
- R.V. #574 In Story County, Iowa, 4.0 miles west of Ames, along the Chicago & North Western Railway, 0.8 mile west of the elevator at Ontario, 7.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the top of the north end of the top concrete of east abutment of the overpass bridge #574. 1010.976
- V-32 In Story County, Iowa, at Ontario, 2.9 miles west of the Chicago & North Western Railway station at Ames, 42.0 yards west of trestle #571, 34.0 feet east of the center line of road crossing track, 23.8 feet south of the corner fence post, 23.0 feet north of the north rail of the main track. A standard disc, stamped "V-32, 1934" and set in the top of a concrete monument four inches high. 999.962
- R.V. #571 In Story County, Iowa, 2.9 miles west of the Chicago & North Western Railway station at Ames, 0.2 mile east of the Ontario elevator, 10.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the west end of the north stone head-wall of culvert #571. 998.276
- R.V. #569 In Story County, Iowa, 2.1 miles west of the Chicago & North Western Railway station at Ames, 240.0 yards east of an overpass, 12.0 feet south of the south rail of south track. A standard monel-metal rivet, not stamped, set in the west end of the south head-wall of culvert #569. 966.944
- W-32 In Story County, Iowa, 1.2 miles west of the Chicago & North Western Railway station at Ames, north of Iowa State Agricultural College, on the north end of the east abutment of railroad overhead bridge #566 $\frac{1}{2}$, 4.2 feet north of the north rail of the north track,

LEVELING IN IOWA

- 0.9 foot west of the east side of the abutment. A standard disc, stamped "W-32, 1934" and set in the concrete bridge abutment. El. Ft. 937.718
- For descriptions of additional bench marks in this vicinity, see page 65.
- R.V. #564 In Story County, Iowa, 0.9 mile west of the Chicago & North Western Railway station at Ames, 9.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set on the north end of the top stone of the west abutment of bridge #564. 915.202
- R.V. #214 In Story County, Iowa, 0.4 mile west of the Chicago & North Western Railway station at Ames, 5.0 feet north of the north rail of the north main track. A standard monel-metal rivet, not stamped, set in the southwest corner of the northwest concrete pedestal of signal bridge #214. 917.150
- X-32 In Story County, Iowa, 0.3 mile west of the Chicago & North Western Railway station at Ames, five telegraph poles west of the track switch tower, three telegraph poles east of the signal tower, 41.6 feet south of the south rail of the south main track, 6.2 feet northeast of telegraph pole. A standard disc, stamped "X-32, 1934" and set in the top of a concrete monument five inches high. 916.596
- IOWA STATE COLLEGE - 1934 In Story County, Iowa, at Ames, about 120.0 yards east of Engineering Hall, 178.3 feet southwest of the southwest corner of Morrill Hall, 64.4 feet northwest of the northeast corner of Central Building, 21.5 feet east of the center line of the sidewalk running north of the north entrance to Central Building. A standard disc, stamped "IOWA STATE COLLEGE, 1934" and set in the top of a concrete monument level with the surface. 958.476
- IOWA STATE COLLEGE B.M. In Story County, Iowa, on the campus of the Iowa State College at Ames, 8.4 feet southeast of the southeast corner of Engineering Hall, just northwest of the intersection of two sidewalks, 5.5 feet west of the center line of the north and south sidewalk. A brass plug, cemented in tile, set six inches above the surface. 960.188
- U.S.G.S. #952 In Story County, Iowa, 87.0 yards southeast of the southeast corner of steps to the east en-

OGDEN to NEVADA, IOWA

- El. Ft.
- trance to Central Building at Iowa State College, Ames, 159.2 feet south of the center line of the sidewalk between Central Building and Agricultural Hall, 71.3 feet southwest of the Dr. William M. Beardshear rock monument. A standard disc, stamped "952" and set in the top of an iron post level with the surface. 950.516
- R.V. - AMES In Story County, Iowa, 150.0 yards east of the east end of the Chicago & North Western Railway station at Ames, 3.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set on the southeast corner of the concrete base of the east-bound signal stand. 917.081
- AMES - 1934 In Story County, Iowa, 0.5 mile east of the Chicago & North Western Railway station at Ames, 78.0 yards north of the tracks, in the northwest corner of the yard of the water-softening tank, 10.4 feet south of the south curb of Fifth Street. A standard disc, stamped "AMES - 1934" and set in the top of a concrete monument one inch high. 927.649
- R.V. #559 In Story County, Iowa, 0.9 mile east of the Chicago & North Western Railway station at Ames, 9.0 feet south of the south rail of the south track. A standard monel-metal rivet, not stamped, set in the south end of the top stone of the east abutment of bridge #559. 908.128
- Y-32 In Story County, Iowa, 1.7 miles east of the Chicago & North Western Railway station at Ames, 118.0 feet west of trestle #555, 52.0 feet east of the center line of road crossing the track, 25.5 feet north of the north rail of the track, 13.2 feet southeast of a corner fence post. A standard disc, stamped "Y-32, 1934" and set in the top of a concrete monument five inches high. 939.329
- R.V. #555 In Story County, Iowa, 1.6 miles east of the Chicago & North Western Railway station at Ames, 0.2 mile west of milepost #C.L. 187, 60.0 yards east of the intersection with road, 6.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set on the north end of the east back-wall of bridge #555. 938.148
- R.V. #552 In Story County, Iowa, 2.5 miles east of the Chicago & North Western Railway station at Ames, 0.2 mile west of milepost #C.L. 186, 10.0 feet north

LEVELING IN IOWA

- of the north rail of north track. A standard monel-metal rivet, not stamped, set in the top of the west end of the north stone head-wall of culvert #552. El. Ft. 972.229
- R.V. #551 In Story County, Iowa, 3.1 miles west of the Chicago & North Western Railway station at Ames, 0.4 mile east of milepost #C.L. 186, 12.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped, set in the west end of the north head-wall of culvert #551. 974.427
- Z-32 In Story County, Iowa, 3.7 miles east of the Chicago & North Western Railway station at Ames, 4.3 miles west of the station at Nevada, 40.0 feet west of the center line of the road crossing tracks, 29.0 feet north of the north rail of the track, 30.9 feet southwest of the corner fence post, 6.9 feet west of a telegraph pole. A standard disc, stamped "Z-32, 1934" and set in the top of a concrete monument five inches high. 973.761
- R.V. #548 In Story County, Iowa, 4.0 miles west of the Chicago & North Western Railway station at Nevada, about 10.0 feet south of the south rail of the south track, on the south end of the east abutment of bridge #548. A standard monel-metal rivet, not stamped, set in stone. 977.019
- U.S.G.S. #967 In Story County, Iowa, 3.5 miles west of the Chicago & North Western Railway station in Nevada, 39.7 feet north of the center line of U. S. Highway #30, 28.1 feet west of the center line of the gravel road, 12.0 feet south of the corner post in the southeast corner of a cultivated field, 7.5 feet south of an 8-inch gas pipe-line. A standard cap, stamped "967" and set on an iron post about 1.8 feet high. 966.294
- R.V. #545 In Story County, Iowa, 2.8 miles west of the Chicago & North Western Railway station at Nevada, 0.3 mile west of milepost #C.L. #183, 0.2 mile west of the crossing of road, in the west end of the north stone head-wall of culvert #545, 9.0 feet north of the north rail of the north track. A standard monel-metal rivet not stamped. 988.364
- A-33 In Story County, Iowa, 2.3 miles west of the Chicago & North Western Railway station at Nevada, 132.0 yards west of milepost #183, 45.0 feet east of the center line of road crossing track, 28.5 feet south of the south rail of track, 23.0 feet northeast of the corner fence post. A standard disc, stamped "A-33, 1934"

OGDEN to NEVADA, IOWA

	El. Ft.
and set in the top of a concrete monument four inches high.	992.403
<u>R.V. #541</u> In <u>Story County</u> , Iowa, 0.8 mile west of the Chicago & North Western Railway station at <u>Nevada</u> , on the west end of the north stone head-wall of bridge #541, 12.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped.	991.399
<u>R.V. #539</u> In <u>Story County</u> , Iowa, 0.4 mile west of the Chicago & North Western Railway station at <u>Nevada</u> , on the west end of the south head-wall of bridge #539, 60.0 yards east of milepost #C.L. 181, 15.0 feet south of the south rail of the south track. A standard monel-metal rivet, not stamped.	992.252
<u>B-33</u> In <u>Story County</u> , Iowa, 117.0 yards west of the west end of the Chicago & North Western Railway station at <u>Nevada</u> , 84.5 feet northwest of the Standard Oil Company bulk station office, 22.7 feet south of the south rail of the main track, 8.0 feet west of a telegraph pole. A standard disc, stamped "B-33, 1933" and set in the top of a concrete monument two inches high.	1000.615
<u>RIVET-NEVADA</u> In <u>Story County</u> , Iowa, at <u>Nevada</u> , on the southeast corner of the steps to the Chicago & North Western Railway station basement, 32.0 feet west of the southeast corner of the station, 25.0 feet north of the north rail of the north track. A standard monel-metal rivet, not stamped.	1003.928
<u>C -33</u> In <u>Story County</u> , Iowa, in the northeast corner of the city park at <u>Nevada</u> , 31.0 feet south of the south curb of C Avenue, 19.1 feet west of the west curb of Sixth Street, 11.6 feet north of the northeast corner of the water fountain concrete foundation. A standard disc, stamped "C-33, 1934" and set in the top of a concrete monument one inch below the surface.	997.029

For descriptions of additional bench marks in this vicinity, see page 199.

Rail Elevations - Odgen to Nevada

	El. Ft.
Top of rail opposite the Chicago & North Western Railway MP #CL 210.	1095.4
Top of rail opposite the Chicago & North Western Railway MP 207.	1049.9
Top of rail opposite the Chicago & North Western Railway MP #CL 204.	1115.0
Top of rail opposite the Chicago & North Western Railway MP 202.	1144.6
Top of rail opposite the Chicago & North Western Railway MP 200.	1158.8
Top of rail opposite the Chicago & North Western Railway MP 198.	1117.4
Top of rail opposite the Chicago & North Western Railway MP #CL 197.	1086.2
Top of rail opposite the Chicago & North Western Railway MP CL 195.	1039.5
Top of rail opposite the Chicago & North Western Railway MP #CL 193.	1011.7
Top of rail opposite the Chicago & North Western Railway MP 191.	958.4
Top of rail opposite the Chicago & North Western Railway MP #CL 186.	975.5
Top of rail opposite the Chicago & North Western Railway MP #CL 183.	992.1

LINE 3226. OELWEIN to NEW HAMPTON, IOWA
(Second-order Leveling)

This Line follows the Chicago-Great Western Railroad from Oelwein to New Hampton, Iowa.

The field work was done during October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 237.

- | | El. Ft. |
|---|----------|
| A-38 In <u>Fayette County</u> , 40.6 feet northwest of the northeast corner of the Chicago-Great Western Railroad station park at <u>Oelwein</u> , 110.9 feet south of the south curve of <u>Charles Street</u> , 25.0 feet north of the center line of a walk through the park, 1.0 foot northeast of a hedge row. A standard disc, stamped "A-38, 1934" and set in the top of a concrete monument one inch high. | 1038.922 |
| B-38 In <u>Fayette County</u> , 1.2 miles northwest of the Chicago-Great Western Railroad station at <u>Oelwein</u> , 64.0 feet south of the center line of a section road crossing the track, 45.0 feet northeast of the northeast rail of the northeast main track, 40.0 feet southeast of the right-of-way fence, 19.0 feet southeast of the first telephone pole southeast of the crossing. A standard disc, stamped "B-38, 1934" and set in the top of a concrete monument six inches high. | 1044.056 |
| Top of rail of the Chicago-Great Western Railroad MP 247. | 1045.7 |
| C-38 In <u>Fayette County</u> , 1.9 miles northwest of the Chicago-Great Western Railroad station at <u>Oelwein</u> , at the Junction of the railroad and the branch line to <u>Waverly</u> , 0.3 mile southeast of milepost #177; 155 feet south of the center of a graded-road crossing, 34.3 feet northeast of the northeast rail of the tracks to New Hampton, 28.9 feet southeast of the first telegraph pole southeast of the road crossing, 13.7 feet southwest of the right-of-way fence. A standard disc, stamped "C-38, 1934" and set in the top of a concrete monument two inches high. | 1044.726 |
| D-38 In <u>Fayette County</u> , 3.2 miles northwest of the Chicago-Great Western Railroad station at <u>Oelwein</u> , 180 feet south of the center line of <u>State Highway #10</u> , | |

LEVELING IN IOWA

El. Ft.

105 feet southwest of milepost #176; 45.8 feet southwest of the southwest rail of the track, 45.3 feet north of a fence corner, 1.5 feet northeast of the right-of-way fence. A standard disc, stamped "D-38, 1934" and set in the top of a concrete monument one inch high.

1044.788

Top of rail at intersection of State Highway #10 with Chicago - Great Western Railroad, 3.2 miles northwest of Oelwein.

1048.7

E-38 In Fayette County, 1.7 miles southeast of the Chicago - Great Western Railroad station at Westgate, 0.4 mile northwest of milepost #174; 54.0 feet north of the center line of a section-line road crossing tracks and 45.3 feet northeast of the northeast rail of the tracks, 25.7 feet northwest of the right-of-way fence, 2.0 feet southwest of the right-of-way fence. A standard disc, stamped "E-38, 1934" and set in the top of a concrete monument four inches high.

1079.335

Top of rail opposite the Chicago - Great Western Railroad MP 252.

1080.3

F-38 In Fayette County, 0.2 mile northwest of the Chicago - Great Western Railroad station at Westgate, 77.0 feet south of the northwest corner of Spahn & Rose Lumber Company shed, 57.0 feet south of the center line of a road crossing the track, 36.3 feet northeast of the northeast rail of the main track, 33.0 feet southwest of the first telephone pole south of the road crossing and in line with poles. A standard disc, stamped "F-38, 1934" and set in the top of a concrete monument four inches high.

1092.111

Top of rail opposite the Chicago - Great Western Railroad station at Westgate.

1093.7

G-38 In Fayette County, 1.9 miles northwest of the Chicago - Great Western Railroad station at Westgate, 49.0 feet south of the center line of a section-line road crossing the tracks, 45.0 feet southwest of the southwest rail of track, 31.5 feet southwest of the steel railroad crossing sign, 63.0 feet west of milepost #170; 3.0 feet northeast of the right-of-way fence. A standard disc, stamped "G-38, 1934" and set in the top of a concrete monument seven inches high.

1073.400

Top of rail opposite the Chicago - Great Western Railroad MP 256.

1067.9

OELWEIN to NEW HAMPTON, IOWA

El. Ft.

H-38 In Fayette County, 3.3 miles southeast of the Chicago - Great Western Railroad station at Sumner (Bremer County), 50.0 feet east of the center line of a graded road crossing the tracks, 45.4 feet southwest of the southwest rail of the track, 41.5 feet southeast of the right-of-way fence and 2.0 feet northeast of the right-of-way fence, 0.3 mile northwest of milepost #168. A standard disc, stamped "H-38, 1934" and set in the top of a concrete monument six inches high. 1109.027

J-38 In Fayette County, 1.8 miles southeast of the Chicago - Great Western Railroad station at Sumner (Bremer County), 0.2 mile northwest of milepost #166; 58.0 feet north of a center line of a road crossing the tracks, 45.5 feet southwest of the southwest rail, 45.0 feet northwest of the right-of-way fence, 1.5 feet northeast of the right-of-way fence. A standard disc, stamped "J-38, 1934" and set in the top of a concrete monument four inches high. 1074.640

Top of rail opposite the Chicago - Great Western Railroad MP 259. 1082.3

Top of rail opposite the Chicago - Great Western Railroad MP 260. 1062.8

K-38 In Bremer County, 83.5 feet southeast of the southeast corner of the Chicago-Great Western Railroad station at Sumner, 0.2 mile southeast of milepost #164, 21.0 feet northwest of the northeast leg of the water tank, 13.5 feet southwest of the southwest rail of the main track, 0.7 feet southwest of the southwest edge of the station platform. A standard disc, stamped "K-38, 1934" and set in the top of a concrete monument one inch below the surface. 1063.918

Top of S rail opposite the Chicago-Great Western Railroad station at Sumner. 1064.3

L-38 In Bremer County, 1.1 miles northwest of the Chicago - Great Western Railroad station at Sumner, 44.0 feet northeast of milepost #163; 37.5 feet northeast of the northeast rail of the tracks, 48.0 feet southeast of the center line of the farm road crossing tracks, 11.0 feet southeast of a telephone pole, 9.0 feet southwest of the right-of-way fence. A standard disc, stamped "L-38, 1934" and set in the top of a concrete monument six inches high. 1089.607

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Chicago - Great Western Railroad MP 262.	1090.5
Top of rail opposite the Chicago - Great Western Railroad MP 263.	1120.2
<u>M-38</u> In <u>Bremer County</u> , 2.5 miles northwest of the Chicago - Great Western Railroad station at <u>Sumner</u> , 0.5 mile northwest of milepost #162; 150 feet northwest of the center line of the intersection of the track and road crossing, 45.0 feet southwest of the southwest rail, 44.0 feet northwest of the right-of-way fence corner and 2.0 feet northeast of the right-of-way fence. A standard disc, stamped "M-38, 1934" and set in the top of a concrete monument six inches high.	1127.455
<u>N-38</u> In <u>Bremer County</u> , 4.8 miles southeast of the Chicago - Great Western Railroad station at <u>Fredericksburg</u> (<u>Chickasaw County</u>), 0.1 mile northwest of milepost #159; 169 yards southeast of the center line of the intersection of the track with graded cross road, 46.0 feet northeast of the northeast rail of the track and 1.5 feet southwest of the right-of-way fence. A standard disc, stamped "N-38, 1934" and set in the top of a concrete monument three inches high.	1099.748
Top of rail opposite the Chicago - Great Western Railroad MP 266.	1100.6
<u>P-38</u> In <u>Chickasaw County</u> , 2.5 miles southeast of the Chicago - Great Western Railroad station at <u>Fredericksburg</u> , 0.6 mile southeast of milepost #156; 187 feet southwest of the intersection of the track and a cross road, 45.4 feet southwest of the southwest rail of the track, 1.4 feet northeast of the right-of-way fence. A standard disc, stamped "P-38, 1934" and set in the top of a concrete monument four inches high.	1111.409
Top of rail opposite the Chicago - Great Western Railroad MP 268.	1129.4
Top of rail opposite the Chicago - Great Western Railroad MP 270.	1090.2
<u>Q-38</u> In <u>Chickasaw County</u> , 180 feet southeast of the southeast corner of the Chicago - Great Western Railroad station at <u>Fredericksburg</u> , 130 yards south of the center line of U. S. Highway #18; 78.4 feet east of the east rail of passing track, 64.3 feet east of the	

OELWEIN to NEW HAMPTON, IOWA

El. Ft.

east rail of the main track, 13.0 feet north of the second telegraph pole south of the station. A standard disc, stamped "Q-38, 1934" and set in the top of a concrete monument three inches high.

1074.224

Top of rail opposite the Chicago - Great Western Railroad MP 272.

1119.3

R-38 In Chickasaw County, 1.7 miles northwest of the Chicago-Great Western Railroad station at Fredericksburg, 0.4 mile south of milepost #152; 43.2 feet east of the east rail of the track, 10.0 feet southeast of the fence corner formed by a right angle offset in the fence. 6.8 feet east of a telephone pole. A standard disc, stamped "R-38, 1934" and set in the top of a concrete monument six inches high.

1134.174

Top of rail opposite the Chicago - Great Western Railroad MP 274.

1127.5

S-38 In Chickasaw County, 0.5 mile southeast of the Chicago - Great Western Railroad station at Boyd, 0.1 mile southeast of milepost #150; 411 feet southeast of the intersection of a grade crossing with the track and 42.6 feet northeast of the northeast rail of the track, 7.0 feet east of a telegraph pole, 4.6 feet southwest of the right-of-way fence. A standard disc, stamped "S-38, 1934" and set in the top of a concrete monument two inches high.

1120.191

Top of rail opposite the Chicago - Great Western Railroad MP 276.

1145.7

T-38 In Chickasaw County, 1.3 miles northwest of the Chicago - Great Western Railroad station at Boyd, 0.2 mile southeast of milepost #148; 67.0 feet northeast of the center line of a farm road crossing the tracks, 44.8 feet northeast of the northeast rail of the track and 7.4 feet northeast of a telegraph pole, 2.2 feet southwest of the right-of-way fence. A standard disc, stamped "T-38, 1934" and set in the top of a concrete monument four inches high.

1151.504

Top of rail opposite the Chicago - Great Western Railroad MP 278.

1136.1

U-38 In Chickasaw County, 0.6 mile southeast of the Chicago - Great Western Railroad station at New Hampton, 0.2 mile southeast of milepost #146; 260 yards

LEVELING IN IOWA

El. Ft.

northwest of a highway overpass, 170 yards southeast of the center of a 3-foot concrete culvert under the railroad and 52.4 feet southwest of the southwest rail, 27.0 feet northeast of the center line of a graded cross-road, 2.0 feet northeast of the right-of-way fence. A standard disc, stamped "V-38, 1934" and set in the top of a concrete monument six inches high.

1138.131

V-38 In Chickasaw County, at New Hampton, 64.7 feet northeast of the northeast corner of the Chicago-Great Western Railroad station, 54.0 feet south of the center line of State Highway #24 which is also the main street of the town, 42.5 feet northwest of the northwest corner of the Phillips Oil Company filling station, 13.0 feet east of the east rail of the main track, 8.3 feet south of the first telegraph pole south of the road crossing and in line with poles. A standard disc, stamped "V-38, 1934" and set in the top of a concrete monument one inch high.

1150.323

For descriptions of additional bench marks in this vicinity, see page 137.

LINE 3228. DES MOINES to ZEARING, IOWA
(Second-order Leveling)

This Line follows the Chicago, Rock Island & Pacific Railroad from Des Moines to McCallsburg; from McCallsburg to Zearing, Iowa, the Line follows the Minneapolis & St. Louis Railroad.

The field work was done during October, 1934, by a party under the direction of W. R. Tucker, of the U.S. Coast & Geodetic Survey; the Line was releveled in March and April, 1939, by a party of the Iowa Geodetic Survey under the direction of Glen C. Powers, and in October 1939 and March, 1940 by a party of the Iowa Geodetic Survey under the direction of George Havens.

For descriptions of additional bench marks in this vicinity, see pages 45 and 72.

For rail elevations on this Line see page 201a.

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D-33 In Polk County, Iowa, 2.0 miles north of the Chicago, Rock Island & Pacific Railway station at Des Moines, 13 telegraph poles north of milepost #75, 84.0 feet south of the center line of the road crossing the track, 19.3 feet east of the east rail of the track, 42.4 feet west of the west rail of the Chicago & Great Western Railroad track, 3.8 feet northeast of a telegraph pole #13. A standard disc, stamped "D-33, 1934" and set in the top of a concrete monument four inches high.

El. Ft.

816.616

E-33 In Polk County, Iowa, 2.9 miles north of the Chicago, Rock Island & Pacific Railway junction at Des Moines, on the east side of the north abutment of the bridge over U. S. Highway #6, 30.2 feet south of the north end of the northeast wing of the bridge, 4.6 feet east of the east rail of the track, and 3.0 feet west of the east side of the north abutment. A standard disc stamped "E-33, 1934" and set flush with the surface.

842.367

F-33 In Polk County, Iowa, 5.2 miles north of the Chicago, Rock Island & Pacific Railway junction at Des Moines, 44.9 feet southeast of the southeast rail of the track and 12.0 feet southwest of the center line of road crossing the track, 5.4 feet southwest of a

LEVELING IN IOWA

	El. Ft.
gate post, and 3.0 feet northwest of the right-of-way fence. A standard disc, stamped "F-33, 1934" and set in the top of a concrete monument two inches high.	961.819
<u>G-33</u> In <u>Polk County</u> , Iowa, 7.2 miles northeast of the Chicago, Rock Island & Pacific Railway junction at <u>Des Moines</u> , 46.2 feet south of the south rail of the track and 34.0 feet east of the center line of road crossing track, 7.0 feet northeast of the corner fence post, 3.0 feet north of the right-of-way fence. A standard disc, stamped "G-33, 1934" and set in the top of a concrete monument six inches high.	875.589
<u>H-33</u> In <u>Polk County</u> , Iowa, 8.6 miles northeast of the Chicago, Rock Island & Pacific Railway junction at <u>Des Moines</u> , 43.0 feet northwest of the northwest rail of the track, 30.0 feet north of the center line of the road crossing track, 2.7 feet east of a telephonic pole and 4.0 feet southeast of the corner fence post. A standard disc, stamped "H-33, 1934" and set in the top of a concrete monument four inches high.	948.128
<u>J-33</u> In <u>Polk County</u> , Iowa, 1.9 miles south of the Chicago, Rock Island & Pacific Railway station at <u>Enterprise</u> , 9.6 miles northeast of Des Moines, on the southeast corner of the railroad concrete culvert, across the tracks from telegraph pole #83-5, 11.3 feet east of the east rail of the track and 1.1 feet north of side of culvert. A standard disc, stamped "J-33, 1934" and set in the top of a concrete monument.	938.856
<u>K-33</u> In <u>Polk County</u> , Iowa, $3\frac{1}{2}$ telegraph poles south of the Chicago, Rock Island & Pacific Railway station at <u>Enterprise</u> , 70.0 feet southeast of the southeast rail of the main track, across the road from the stockyards, 43.0 feet south of the center line of the road crossing the track, 16.0 feet southwest of the corner fence post, and 2.0 feet west of the fence. A standard disc, stamped "K-33, 1934" and set in the top of a concrete monument two inches high.	1002.632
<u>U.S.G.S. 9807</u> In <u>Polk County</u> , Iowa, 1.0 mile north of <u>Enterprise</u> , along the Chicago, Rock Island & Pacific Railway, in the southeast corner of the J. Wohlwinds farm, 21.0 feet north of the center line of the road crossing the Chicago, Rock Island & Pacific Railway tracks and 50.0 feet west of the west rail of the track. A standard iron post and cap stamped "9807".	981.071

DES MOINES to ZEARING, IOWA

El. Ft.

- L-33 In Polk County, Iowa, 2.0 miles north of the Chicago, Rock Island & Pacific Railway station at Enterprise, 31.0 feet south of the center line of the road crossing the track, 25.5 feet southeast of the corner fence post, 22.0 feet west of the west rail of the track. A standard disc, stamped "L-33, 1934" and set in the top of a concrete monument four inches high. 980.297
- M-33 In Polk County, Iowa, 232.0 yards south of the Chicago, Rock Island & Pacific Railway station at Elkhart, 45.3 feet west of the west rail of the track, 29.0 feet south of the center line of State Highway #67, 6.2 feet southeast of the corner fence post, 2.0 feet east of the fence. A standard disc, stamped "M-33, 1934" and set in the top of a concrete monument three inches high. 979.519
- N-33 In Polk County, Iowa, 1.7 miles north of the Chicago, Rock Island & Pacific Railway station at Elkhart, 39.0 feet south of the center line of the road crossing the track, 30.3 feet southwest of the corner fence post, 20.8 feet east of the east rail of the track. A standard disc, stamped "N-33, 1934" and set in the top of a concrete monument five inches high. 937.816
- U.S.G.S. 986 In Polk County, Iowa, in T-81-N, R-23-W, in the northwest corner of Section 28, 2.0 miles northwest of Elkhart, 31.0 feet south of the center line of the east-and-west section road, 27.0 feet east of the center line of the north-and-south section road, 3.3 feet south of the corner fence post. A standard iron post and cap stamped "986". 984.781
- P-33 In Polk County, Iowa, 3.9 miles north of the Chicago, Rock Island & Pacific Railway station at Elkhart, 3.2 miles south of Cambridge, at Lees Siding, 49.2 feet east of the east rail of the track, 32.0 feet north of the center line of the road crossing track, 12.6 feet north of the corner fence post and 2.0 feet west of the fence. A standard disc, stamped "P-33, 1934" and set in the top of a concrete monument four inches high. 869.152
- U.S.G.S. 910 In Polk County, Iowa, in T-81-N, R-25-W, in the northwest corner of NE $\frac{1}{4}$ of Section 9, about 3.0 miles south of Cambridge (Story County), 32.0 feet south of the center line of the east-west section road, 22.0 feet east of the center line of the north-south section road, 2.3 feet southwest of the corner fence

LEVELING IN IOWA

- post. A standard cap and iron post stamped "910". El. Ft.
908.965
- Q-33 853.709
- Q-33 "RESET 1939" In Story County, Iowa, 1.3 miles south of the Chicago, Rock Island & Pacific Railway station at Cambridge, 63.3 feet northeast of the cross on face of the east pillar of an overhead bridge at the railroad crossing, 45.9 feet east of the east rail of the Chicago, Rock Island & Pacific Railway, 3.3 feet northwest of the power pole. A standard disc, stamped "Q-33, RESET 1939". 856.685
- R-33 In Story County, Iowa, 79.0 feet northeast of the northeast corner of the Chicago, Rock Island & Pacific Railway station at Cambridge, 71.5 feet northwest of the northwest corner of a small garage, 33.0 feet east of the east rail of the track. A standard disc, stamped "R-33, 1934" and set in the top of a concrete monument two inches high. 854.703
- U.S.G.S. #872 In Story County, Iowa, at Cambridge, in the old brick State Bank Building, 29.0 feet west of the center line of State Highway #211, 1.4 feet north of the southeast corner and 2.9 feet above the surface. A standard disc, stamped "872" and set vertically. 870.579
- S-33 In Story County, Iowa, 1.7 miles north of the Chicago, Rock Island & Pacific Railway station at Cambridge, 44.5 feet west of the west rail of the track, 31.0 feet northwest of the northwest corner of a wooden culvert, on the road crossing the track, 27.0 feet north of the center line of the road crossing the track, 5.1 feet northeast of the corner fence post in the railroad fence and 2.9 feet east of the fence. A standard disc, stamped "S-33, 1934" and set in the top of a concrete monument three inches high. 850.527
- T-33 In Story County, Iowa, 3.5 miles north of the Chicago, Rock Island & Pacific Railway station at Cambridge, 45.8 feet east of the east rail of the track, 34.0 feet south of the center line of the road crossing the track, 5.6 feet southwest of the corner fence post. A standard disc, stamped "T-33, 1934" and set in the top of a concrete monument four inches high. 892.416
- U-33 In Story County, Iowa, 3.9 miles southwest of the Chicago, Rock Island & Pacific Railway station at Nevada, 7 telegraph poles southwest of the station at Shipley, 42.2 feet southeast of the southeast rail of the track and 40.0 feet west of the center line of the

DES MOINES to ZEARING, IOWA

El. Ft.

section-road crossing the track, 8.0 feet northwest of the corner fence post. A standard disc, stamped "U-33, 1934" and set in the top of a concrete monument five inches high.

955.595

U.S.G.S. 958 In Story County, Iowa, at Shipley, in T-83-N, R-23-W, in the northeast corner of NW $\frac{1}{4}$ of Section 27, 3.9 miles southwest of the Chicago, Rock Island & Pacific station at Nevada, 140.0 yards southwest of the High School, 28.0 feet west of the center line of the north-and-south section road, 27.0 feet south of the center line of the east-and-west road, 9.2 feet northeast of the corner fence post. A standard cap and disc.

957.469

V-33 In Story County, Iowa, 2.4 miles southwest of the Chicago, Rock Island & Pacific Railway station at Nevada, 1.5 miles northeast of Shipley, 46.0 feet south of the center line of the road crossing the track, 27.1 feet northwest of the northwest rail of the track, 24.5 feet east of the corner fence post and 3.2 feet southeast of a telegraph pole. A standard disc, stamped "V-33, 1934" and set in the top of a concrete monument three inches high.

967.108

85-635 (State U.S.G.S. 958) In Story County, Iowa, 1.2 miles west of the Chicago, Rock Island & Pacific Railway station at Nevada, along the right-of-way, by milepost # 105.8, 22.0 feet north of the center line of the section road running east and west, 6.8 feet east of the track. A standard disc, stamped "85-635" and set in the top of a concrete monument flush with the surface.

993.213

W-33 In Story County, Iowa, 0.7 mile southwest of the Chicago, Rock Island & Pacific Railway station at Nevada, 5 telegraph poles northeast of the road crossing, 30.1 feet northwest of the northwest rail of the track, 19.8 feet southeast of the east gatepost and 2.6 feet east of the telegraph pole. A standard disc, stamped "W-33, 1934" and set in the top of a concrete monument five inches high.

982.757

X-33 In Story County, Iowa, 7 telegraph poles east of the Chicago, Rock Island & Pacific Railway station at Nevada, 84.0 feet northwest of the northwest corner of the section motor-car house, 46.4 feet north of the north rail of the north track, 23.0 feet east of the center line of the road crossing the track, 6.1 feet

LEVELING IN IOWA

El. Ft.

southeast of the corner fence post. A standard disc, stamped "X-33, 1934" and set in the top of a concrete monument four inches high.

1003.837

For descriptions of additional bench marks in this vicinity, see page 186.

Y-33 In Story County, Iowa, 2.2 miles east of the Chicago, Rock Island & Pacific Railway station at Nevada, 0.7 mile southwest of the crossing with the Chicago & North Western Railroad, 49.0 feet northwest of the center line of the road crossing the track, 32.1 feet north of the north rail of the track, 19.1 feet southwest of the corner fence post. A standard disc, stamped "Y-33, 1934" and set in the top of a concrete monument four inches high.

986.730

Z-33 In Story County, Iowa, 2.9 miles northeast of the Chicago, Rock Island & Pacific Railway station at Nevada, on the west end of the south abutment of the bridge over the Indian River, 6.5 feet west of the west rail of the track, 1.0 foot north of the south side of the abutment. A standard disc, stamped "Z-33, 1934".

956.291

A-34 In Story County, Iowa, 4.9 miles northeast of the Chicago, Rock Island & Pacific Railway station at Nevada, 1.5 miles south of Fernald, 33.1 feet west of the corner fence post, 32.0 feet north of the center line of the road crossing track, 14.4 feet east of the east rail of the track, 3.2 feet northeast of a telegraph pole. A standard disc, stamped "A-34, 1934" and set in the top of a concrete monument two inches high.

1009.923

B-34 In Story County, Iowa, 6.4 miles northeast of the Chicago, Rock Island & Pacific Railway station at Nevada, 5 telegraph poles south of the station at Fernald, 42.0 yards northwest of the section motor-car house, 46.1 feet west of the west rail of the main track, 42.0 feet southwest of the sidetrack switch, 3.0 feet southeast of the quarter section corner fence post. A standard disc, stamped "B-34, 1934" and set in the top of a concrete monument five inches high.

1034.630

C-34 In Story County, Iowa, 7.9 miles north of the Chicago, Rock Island & Pacific Railway station at Nevada, 46.1 feet east of the east rail of the track, 32.0 feet north of the center line of the road crossing

DES MOINES to ZEARING, IOWA

- El. Ft.
- track, 2.9 feet northwest of the corner fence post. A standard disc, stamped "C-34, 1934" and set in the top of a concrete monument four inches high. 1044.394
- D-34 In Story County, Iowa, 3.4 miles south of the Chicago, Rock Island & Pacific Railway station at McCallsburg, 45.0 feet east of the east rail of the track, 31.0 feet north of the center line of the road crossing track, 7.2 feet north of the corner fence post, 1.5 feet west of the fence. A standard disc, stamped "D-34, 1934" and set in the top of a concrete monument six inches high. 1057.275
- E-34 In Story County, Iowa, 2.0 miles south of the Chicago, Rock Island & Pacific Railway station at McCallsburg, 42.6 feet east of the east rail of the track, 40.0 feet north of the center line of the road crossing the track, 8.2 feet northwest of the corner fence post, 4.6 feet east of milepost #118, 3.4 feet west of the fence. A standard disc, stamped "E-34, 1934" and set in the top of a concrete monument five inches high. 1048.141
- F-34 In Story County, Iowa, 0.2 mile north of the Chicago, Rock Island & Pacific Railway station at McCallsburg, 52.3 feet east of the east rail of the track, 15.4 feet south of the south rail of the Minneapolis & St. Louis Railroad track, 3.9 feet northwest of milepost #120. A standard disc, stamped "F-34, 1934" and set in the top of a concrete monument two inches high. 1082.649
- G-34 In Story County, Iowa, 0.5 mile east of the crossing of the Minneapolis & St. Louis Railroad with the Chicago, Rock Island & Pacific Railway, 0.2 mile north of the station at McCallsburg, 46.0 feet west of the center line of the road crossing the track, 44.0 feet south of the south rail of the track, and 15.0 feet west of the corner fence post, 2.0 feet north of the fence. A standard disc, stamped "G-34, 1934" and set in the top of a concrete monument three inches high. 1087.800
- H-34 In Story County, Iowa, 2.5 miles east of the crossing of the Minneapolis & St. Louis Railroad with the Chicago, Rock Island & Pacific Railway, 0.2 mile north of McCallsburg, 34.6 feet north of the corner fence post, 33.0 feet east of the center line of the section cross road, 15.6 feet south of the south rail

LEVELING IN IOWA

of the track, across the track from the highway. A standard disc, stamped "H-34, 1934" and set in the top of a concrete monument two inches high.

El. Ft.

1081.146

J-34 In Story County, Iowa, 0.5 mile west of the Minneapolis & St. Louis Railroad station at Zearing, 69.9 feet east of the center line of U.S. Highway #65, 22.9 feet north of the north rail of the track, 21.3 feet east of the corner fence post, 2.5 feet west of a telegraph pole. A standard disc, stamped "J-34, 1934" and set in the top of a concrete monument two inches high.

1049.634

For descriptions of additional bench marks in this vicinity, see page 102.

Rail Elevations - Des Moines to Zearing

	El.Ft.
Top of rail opposite C.R.I. & P. Railway MP 75.	813.4
Top of rail opposite C.R.I. & P. Railway MP 77.	882.8
Top of rail opposite C.R.I. & P. Railway MP 79.	949.4
Top of rail opposite C.R.I. & P. Railway MP 82.	947.7
Top of rail opposite C.R.I. & P. Railway MP 83.	943.3
Top of rail opposite C.R.I. & P. Railway MP 85.	1003.2
Top of rail opposite C.R.I. & P. Railway MP 86.	979.9
Top of rail opposite C.R.I. & P. Railway MP 89.	979.9
Top of rail opposite C.R.I. & P. Railway MP 91.	947.9
Top of rail opposite C.R.I. & P. Railway MP 95.	848.7
Top of rail opposite C.R.I. & P. Railway MP 98.	859.6
Top of rail opposite C.R.I. & P. Railway MP 100.	883.6
Top of rail opposite C.R.I. & P. Railway MP 101.	904.3
Top of rail opposite C.R.I. & P. Railway MP 105.	975.7
Top of rail opposite C.R.I. & P. Railway station at Nevada.	994.5
Top of rail opposite C.R.I. & P. Railway MP 109.	995.6
Top of rail opposite C.R.I. & P. Railway MP 110.	958.8
Top of rail opposite C.R.I. & P. Railway MP 112.	1012.0
Top of rail opposite C.R.I. & P. Railway MP 114.	1024.1
Top of rail opposite C.R.I. & P. Railway MP 115.	1046.7
Top of rail opposite C.R.I. & P. Railway MP 116.	1059.1
Top of rail opposite C.R.I. & P. Railway MP 118.	1048.3
Top of rail opposite C.R.I. & P. Railway MP 264.	1089.1
Top of rail opposite C.R.I. & P. Railway MP 262.	1080.3

LINE 3230. REINBECK to FORT DODGE, IOWA
(Second-order Leveling)

This Line follows the Chicago, Rock Island & Pacific Railway from Reinbeck to Iowa Falls, Iowa. From Iowa Falls to Fort Dodge the Line follows the Illinois Central Railway.

The field work was done during September and October, 1934, by a party under the direction of W. R. Tucker.

For descriptions of additional bench marks in this vicinity, see page 233.

H-30 In Grundy County, Iowa, 117 yards east of the El. Ft.
Chicago, Rock Island & Pacific Railway station at Reinbeck, 29.0 feet south of the south rail of the main track, 27.0 feet south of the south rail of the side track, 15.5 feet north of the center line of State Highway #58. A standard disc, stamped "H-30, 1934" and set in the top of a concrete monument six inches high.

Note: This bench mark was set but not tied in by level party.

J-30 In Grundy County, Iowa, 1.5 miles west of the Chicago, Rock Island & Pacific Railway station at Reinbeck, 78.0 feet northeast of the intersection of the section road and railroad, 43.0 feet north of the north rail of the track, 1.6 feet south of the right-of-way fence. A standard disc, stamped "J-30, 1934" and set in the top of a concrete monument seven inches high. 928.420

K-30 In Grundy County, Iowa, 257 yards east of the Chicago, Rock Island & Pacific Railway station at Morrison, 80.0 feet northwest of the intersection of the road with the railroad, 28.8 feet north of the north rail of the side track, 15.0 feet north of the north rail of the main track. A standard disc, stamped "K-30, 1934" and set in the top of a concrete monument six inches high. 948.945

L-30 In Grundy County, Iowa, 2.0 miles west of the Chicago, Rock Island & Pacific Railway station at Morrison, 45.0 feet south of the center line of State Highway #58; 32.0 feet south of the south rail of the tracks. A standard disc, stamped "L-30, 1934" and set in the top of a concrete monument eight inches high. 968.167

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 65.	968.3
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 67.	983.1
<u>M-30</u> In <u>Grundy County</u> , Iowa, 1.1 miles east of the Chicago, Rock Island & Pacific Railway station at <u>Grundy Center</u> , 3.7 feet north of the north rail of the track on the northeast wing wall of the bridge. 1.6 feet south of a point where the wall starts slanting, 1.0 foot west of the south edge of the concrete. A standard disc, stamped "M-30, 1934" and set level with the surface.	971.766
<u>N-30</u> In <u>Grundy County</u> , Iowa, 181 yards east of the Chicago, Rock Island & Pacific Railway station at <u>Grundy Center</u> , 23.0 feet north of the north rail of the track, 8.6 feet north of the north rail of the north side track, in line with a row of telephone poles. A standard disc, stamped "N-30, 1934" and set in the top of a concrete monument two inches high.	981.983
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 69.	980.7
Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Grundy Center.	982.6
<u>P-30</u> In <u>Grundy County</u> , Iowa, 1.0 mile southeast of the Chicago, Rock Island & Pacific Railway station at <u>Holland</u> , 28.8 feet northeast of the northeast rail of the track, 19.0 feet southwest of the right-of-way fence. A standard disc, stamped "P-30, 1934" and set in the top of a concrete monument eight inches high.	986.717
<u>Q-30</u> In <u>Grundy County</u> , Iowa, 113 yards northwest of the Chicago, Rock Island & Pacific Railway station at <u>Holland</u> , 32.0 feet southwest of the southwest rail of the northeast side track, 18.3 feet northeast of the northeast rail of the main track, in line with the telephone poles. A standard disc, stamped "Q-30, 1934" and set in the top of a concrete monument one inch high.	999.594
Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Holland.	1000.5

REINBECK to FORT DODGE, IOWA

	El. Ft.
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 71.	994.2
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 73.	1017.0
<u>R-30</u> In Grundy County, Iowa, 2.0 miles northwest of the Chicago, Rock Island & Pacific Railway station at Holland, 44.0 feet northeast of the northeast rail of the track, 2.0 feet southwest of the right-of-way fence. A standard disc, stamped "R-30, 1934" and set in the top of a concrete monument six inches high.	1031.054
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 75.	1041.2
<u>S-30</u> In Grundy County, Iowa, 4.0 miles northwest of the Chicago, Rock Island & Pacific Railway station at Holland, 43.0 feet southwest of the southwest rail of the track, 3.8 feet northeast of the right-of-way fence. A standard disc, stamped "S-30, 1934" and set in the top of a concrete monument five inches high.	1037.511
<u>T-30</u> In Grundy County, Iowa, 1.5 miles southeast of the Chicago, Rock Island & Pacific Railway station at Wellsburg, 41.0 feet northeast of the northeast rail of the track, 6.4 feet southwest of the right-of-way fence, 27.0 yards southeast of the intersection of a section road with the railroad. A standard disc, stamped "T-30, 1934" and set in the top of a concrete monument six inches high.	1099.903
<u>U-30</u> In Grundy County, Iowa, 257 yards northwest of the Chicago, Rock Island & Pacific Railway station at Wellsburg, 57.7 feet northeast of the northeast rail of the southwest side track, 45.0 feet northeast of the northeast rail of the main track, 41.0 feet east of a switch on the northwest end of the side track. A standard disc, stamped "U-30, 1934" and set in the top of a concrete monument four inches high.	1063.869
Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Wellsburg.	1066.7
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 80.	1034.6
<u>V-30</u> In Grundy County, Iowa, 2.0 miles northwest of the Chicago, Rock Island & Pacific Railway station at	

LEVELING IN IOWA

	El. Ft.
<p><u>Wellsburg</u>, 33.0 yards southeast of the intersection of the railroad and section road, 43.0 feet southwest of a southwest rail of the track, 4.0 feet northeast of the right-of-way fence. A standard disc, stamped "V-30, 1934" and set in the top of a concrete monument four inches high.</p>	1036.484
<p>Top of Rail opposite the Chicago, Rock Island & Pacific Railway MP 81.</p>	1029.4
<p><u>W-30</u> In <u>Hardin County</u>, Iowa, 4.2 miles northwest of the Chicago, Rock Island & Pacific Railway station at <u>Wellsburg</u> (Grundy County), 37.0 feet north of the intersection of section road with railroad, 45.7 feet northeast of the northeast rail of the track, 1.5 feet southwest of the right-of-way fence. A standard disc, stamped "W-30, 1934" and set in the top of a concrete monument three inches high.</p>	1040.513
<p>Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 84.</p>	1058.8
<p><u>X-30</u> In <u>Hardin County</u>, Iowa, 0.2 mile southeast of the Chicago, Rock Island & Pacific Railway station at <u>Cleves</u>, 50.0 feet southwest of the southwest rail of the northeast sidetrack, 44.8 feet southwest of the southwest rail of the main track, 18.5 feet northwest of a corner of the fence, 16.0 feet northeast of the right-of-way fence. A standard disc, stamped "X-30, 1934" and set in the top of a concrete monument five inches high.</p>	1065.431
<p>Top of rail opposite the Chicago, Rock Island & Pacific Railway station at Cleves.</p>	1073.7
<p><u>Y-30</u> In <u>Hardin County</u>, Iowa, 1.8 miles northwest of the Chicago, Rock Island & Pacific Railway station at <u>Cleves</u>, 135 yards southeast of the intersection of the Iowa - Cedar Rapids Railroad and the Rock Island Railway, 46.0 feet southwest of the southwest rail of the tracks, 2.0 feet northeast of the right-of-way fence, at Abbott's crossing. A standard disc, stamped "Y-30, 1934" and set in the top of a concrete monument five inches high.</p>	1105.273
<p>Top of rail opposite the Chicago, Rock Island & Pacific Railway crossing at Abbott.</p>	1103.9
<p><u>Z-30</u> In <u>Hardin County</u>, Iowa, 4.1 miles northwest of</p>	

REINBECK to FORT DODGE, IOWA

El. Ft.

the Chicago, Rock Island & Pacific Railway station at Cleves, 178 yards southwest of the stone trestle #890; 42.5 feet southwest of the southwest rail of the track, 5.0 feet northeast of the right-of-way fence. A standard disc, stamped "Z-30, 1934" and set in the top of a concrete monument five inches high.

1138.262

A-31 In Hardin County, Iowa, 6.1 miles northwest of the Chicago, Rock Island & Pacific Railway station at Cleves, 115 feet north of the intersection of the section road with the railroad, 44.0 feet northeast of the northeast rail of the track, 3.0 feet southwest of the right-of-way fence. A standard disc, stamped "A-31, 1934" and set in the top of a concrete monument four inches high.

1143.616

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 91.

1153.1

B-31 In Hardin County, Iowa, 3.7 miles southeast of the Chicago, Rock Island & Pacific Railway station at Iowa Falls, 44.2 feet southwest of the southwest rail of the tracks, 2.0 feet northeast of the right-of-way fence. A standard disc, stamped "B-31, 1934" and set in the top of a concrete monument three inches high.

1124.922

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 93.

1129.9

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 94.

1124.3

C-31 In Hardin County, Iowa, 1.5 miles southeast of the Chicago, Rock Island & Pacific Railway station at Iowa Falls, 80.0 feet east of the intersection of a road with the railroad, 57.5 feet southwest of the southwest rail of the Illinois Central Railroad, 37.0 feet northeast of the northeast rail of the Chicago, Rock Island & Pacific Railway. A standard disc, stamped "C-31, 1934" and set in the top of a concrete monument five inches high.

1123.052

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 96.

1122.4

E-31 In Hardin County, Iowa, 0.5 mile south of the Illinois Central Railroad station at Iowa Falls, 108 yards south of the Iowa River Railroad trestles, 32.0 yards south of the intersection of Park Street and the

LEVELING IN IOWA

El. Ft.

railroad, 22.7 feet east of the east rail of the track. A standard disc, stamped "E-31, 1934" and set in the top of a concrete monument four inches high.

1103.866

D-31 In Hardin County, Iowa, 0.2 mile east of the Illinois Central Railroad at Iowa Falls, 82.0 yards northwest of the northwest rail of the Chicago, Rock Island & Pacific Railway, 47.5 feet south of the south rail of the main track of the Illinois Central Railroad, 38.0 feet north of the north rail of the Chicago, Rock Island & Pacific Railway. A standard disc, stamped "D-31, 1934" and set in the top of a concrete monument three inches high.

1108.475

U.S.C. & G.S. & State Survey 42-139 In Hardin County, Iowa, in the vicinity of Iowa Falls, in Section 13, T-89-N, R-21-W, 129.7 feet east of the inside corner of the base of the southeast handrail of the river bridge, 53.7 feet south of the center line of a manhole at the south end of the pavement of River Street, 112.7 feet southeast of the southeast corner of the creamery. A standard state survey tablet, stamped "42-139" and set in the top of a concrete monument with white reference post about two feet from said mark.

1068.433

IOWA FALLS-1934 In Hardin County, Iowa, in the north corner of the City Office yard at Iowa Falls, 18.9 feet northeast of the northeast corner of the city building, 15.0 feet west of the east curb of Stevens Street, 15.0 feet south of the north curb of Estes Street and 1.1 feet northeast of the base of a monument in memory of the Founders of Iowa Falls. A standard disc, stamped "IOWA FALLS-1934" and set in the top of a concrete monument one inch high.

1113.072

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 328.

1107.0

For descriptions of additional bench marks in this vicinity, see page 97.

F-31 In Hardin County, Iowa, 1.5 miles west of the Illinois Central Railroad station at Iowa Falls, 50.0 west of the center line of the section-line road, 31.8 feet south of the south rail of the tracks, 21.0 feet north of the right-of-way fence, two telephone poles west of milepost #328. A standard disc, stamped "F-31, 1934" and set in the top of a concrete monument three

REINBECK to FORT DODGE, IOWA

	El. Ft.
inches high.	1133.580
Top of rail opposite the Illinois Central Railroad MP #329.	1152.6
<u>G-31</u> In <u>Hardin County</u> , Iowa, 3.5 miles west of the Illinois Central Railroad station at <u>Iowa Falls</u> , 272 yards east of milepost #330; 41.5 feet north of the north rail of the tracks, 6.2 feet south of the right-of-way fence. A standard disc, stamped "G-31, 1934" and set in the top of a concrete monument five inches high.	1142.658
Top of rail opposite the Illinois Central Railroad MP 330.	1149.5
<u>H-31</u> In <u>Hardin County</u> , Iowa, 4.3 miles west of the Illinois Central Railroad station at <u>Iowa Falls</u> , 1.7 miles east of the station at <u>Alden</u> , 41.0 feet south of the south rail of the tracks, 6.0 feet north of the right-of-way fence. A standard disc, stamped "H-31, 1934" and set in the top of a concrete monument four inches high.	1161.097
Top of rail opposite the Illinois Central Railroad MP 331.	1170.0
<u>J-31</u> In <u>Hardin County</u> , Iowa, 221 yards east of the Illinois Central Railroad station at <u>Alden</u> , 28.0 yards east of the intersection of U. S. Highway #20 with the railroad, 42.0 feet southeast of the switch on the west end of a sidetrack, 36.5 feet south of the south rail of the track. A standard disc, stamped "J-31, 1934" and set in the top of a concrete monument three inches high.	1168.672
Top of rail opposite the Illinois Central Railroad station at <u>Alden</u> .	1172.1
Top of rail opposite the Illinois Central Railroad MP C-333.	1166.7
<u>K-31</u> In <u>Hardin County</u> , Iowa, 6.1 miles east of the Illinois Central Railroad station at <u>Williams</u> (Hamilton County), 69.5 feet northeast of the intersection of the section-line road and the railroad, 36.0 feet north of the north rail of the track, 11.0 feet south of the right-of-way fence. A standard disc, stamped "K-31, 1934" and set in the top of a concrete monument three	

LEVELING IN IOWA

inches high.	El. Ft. 1158.216
Top of rail opposite the Illinois Central Railroad MP 335.	1164.1
<u>L-31</u> In <u>Hardin County</u> , Iowa, at <u>Wilke</u> , 4.1 miles east of the Illinois Central Railroad station at Williams (Hamilton County), 273 yards east of the Illinois Central Railroad station, 32.0 yards east of the intersection of the section line road with the railroad, 43.8 feet south of the south rail of the main track, 25.0 feet south of the south rail of the side track, 3.2 feet north of the right-of-way fence. A standard disc, stamped "L-31, 1934" and set in the top of a concrete monument five inches high.	1148.702
Top of rail opposite the Illinois Central Railroad MP 337.	1151.5
<u>M-31</u> In <u>Hardin County</u> , Iowa, 2.1 miles east of the Illinois Central Railroad at Williams (Hamilton County), 230 yards east of milepost #339; 58.0 yards west of the intersection of the railroad with the section road, 29.3 feet north of the north rail of the tracks. A standard disc, stamped "M-31, 1934" and set in the top of a concrete monument three inches high.	1148.787
Top of rail opposite the Illinois Central Railroad MP 339.	1151.9
Top of rail opposite the Illinois Central Railroad MP 340.	1176.3
<u>N-31</u> In <u>Hamilton County</u> , Iowa, 170 yards east of the Illinois Central Railroad station at Williams, 170 yards west of milepost #341; 57.6 feet south of the south rail of the north side track, 21.4 feet south of the south rail of the main track. A standard disc, stamped "N-31, 1934" and set in the top of a concrete monument six inches high.	1205.053
<u>P-31</u> In <u>Hamilton County</u> , Iowa, 0.9 mile west of the Illinois Central Railroad station at Williams, 45.2 feet south of the south rail of the track, 2.4 feet north of the right-of-way fence. A standard disc, stamped "P-31, 1934" and set in the top of a concrete monument four inches high.	1189.906
Top of rail opposite the Illinois Central Railroad MP 342.	1203.4

REINBECK to FORT DODGE, IOWA

El. Ft.

Q-31 In Hamilton County, Iowa, 2.6 miles east of the Illinois Central Railroad station at Blairsburg, 86.0 feet northeast of the intersection of the road with the railroad, 46.0 feet north of the north rail of the track, 1.9 feet south of the right-of-way fence. A standard disc, stamped "Q-31, 1934" and set in the top of a concrete monument four inches high. 1190.926

Top of rail opposite the Illinois Central Railroad MP 344. 1199.3

R-31 In Hamilton County, Iowa, 1.1 miles east of the Illinois Central Railroad station at Blairsburg, 72.0 feet west of the center line of the section road, 45.2 feet north of the north rail of the track, 2.8 feet south of the right-of-way fence. A standard disc, stamped "R-31, 1934" and set in the top of a concrete monument three inches high. 1222.543

Top of rail opposite the Illinois Central Railroad MP 345. 1223.8

S-31 In Hamilton County, Iowa, 78.0 yards west of the Illinois Central Railroad station at Blairsburg, 33.5 feet south of the south rail of the side track, 19.5 feet south of the south rail of the main track. A standard disc, stamped "S-31, 1934" and set in the top of a concrete monument two inches high. 1227.852

T-31 In Hamilton County, Iowa, 0.9 mile west of the Illinois Central Railroad station at Blairsburg, 370 yards west of milepost #347; 37.5 feet north of the north rail of the track, 9.8 feet south of the right-of-way fence. A standard disc, stamped "T-31, 1934" and set in the top of a concrete monument two inches high. 1228.390

Top of rail opposite the Illinois Central Railroad MP 347. 1229.4

U-31 In Hamilton County, Iowa, 1.7 miles west of the Illinois Central Railroad station at Blairsburg, 45.0 feet west of the center line of the section road, 44.2 feet north of the north rail of the track, 2.0 feet south of the right-of-way fence. A standard disc, stamped "U-31, 1934" and set in the top of a concrete monument five inches high. 1215.463

Top of rail opposite the Illinois Central Railroad MP 349. 1198.6

LEVELING IN IOWA

- El. Ft.
- V-31 In Hamilton County, Iowa, 3.8 miles west of the Illinois Central Railroad station at Blairsburg, 110 yards west of milepost #350; 42.2 feet south of the south rail of the north side track, 28.2 feet south of the south rail of the main track, 19.0 feet north of the right-of-way fence. A standard disc, stamped "V-31, 1934" and set in the top of a concrete monument eight inches high. 1165.982
- W-31 In Hamilton County, Iowa, 3.2 miles east of the Illinois Central Railroad station at Webster City, two telephone poles east of milepost #352; 47.5 feet south of the south rail of the track, 2.0 feet north of the right-of-way fence. A standard disc, stamped "W-31, 1934" and set in the top of a concrete monument six inches high. 1120.611
- Top of rail opposite the Illinois Central Railroad MP 352. 1120.7
- X-31 In Hamilton County, Iowa, 1.2 miles east of the Illinois Central Railroad station at Webster City, 59.0 feet southwest of the intersection of a road going to the packing house and the railroad, 39.0 feet south of the south rail of the tracks. A standard disc, stamped "X-31, 1934" and set in the top of a concrete monument five inches high. 1075.995
- Top of rail opposite the Illinois Central Railroad MP 354. 1069.0
- Y-31 In Hamilton County, Iowa, 44.0 yards east of the east end of the Illinois Central Railroad station at Webster City, 22.2 feet north of the north rail of the track, 15.8 feet north of the switch on the west end of a side track, 61.0 feet northeast of the intersection of the railroad and Des Moines Street. A standard disc, stamped "Y-31, 1934" and set in the top of a concrete monument two inches high. 1050.762
- WEBSTER CITY-1934 (Fire Station). In Hamilton County, Iowa, in the northwest corner of the No. 1 Fire Station in Webster City, 1.0 foot from the sidewalk. A standard disc, stamped "WEBSTER CITY-1934" and set vertically in the face of the Fire Station building. 1047.967
- WEBSTER CITY-1934 In Hamilton County, Iowa, on the east side of the Court House in Webster City, 107 feet northeast of the northeast corner of the Court House, 70.5 feet south of the north curb of Bank Street, 5.9

REINBECK to FORT DODGE, IOWA

El. Ft.

feet west of the west curb of Des Moines Street in front of the High School. A standard disc, stamped "WEBSTER CITY-1934" and set in the top of a concrete monument one inch high.

1055.054

WEBSTER CITY STANDARD In Hamilton County, Iowa, 3.0 feet north of the Bench Mark "WEBSTER CITY-1934" which is on the east side of the Court House at Webster City, 107 feet northeast of the northeast corner of the Court House, 70.5 feet south of the north curb of Bank Street, 5.9 feet west of the west curb of Des Moines Street in front of the High School. A monel-metal rivet, not stamped, surmounted by an iron pipe.

1051.727

Top of rail at the intersection of the Chicago & North Western Railroad with the Illinois Central Railroad.

1052.5

Z-31 In Hamilton County, Iowa, 0.6 mile west of the Illinois Central Railroad station at Webster City, 125 yards west of the street crossing the railroad, 27.5 feet north of the north rail of the tracks. A standard disc, stamped "Z-31, 1934" and set in the top of a concrete monument four inches high.

1060.848

A-32 In Hamilton County, Iowa, 2.8 miles west of the Illinois Central Railroad station at Webster City, 41.5 feet north of the north rail of the track, 38.0 feet south of the center line of U. S. Highway #20, opposite milepost #358. A standard disc, stamped "A-32, 1934" and set in the top of a concrete monument five inches high.

1102.531

Top of rail opposite the Illinois Central Railroad Mp 359.

1113.4

B-32 In Hamilton County, Iowa, 4.0 miles east of the Illinois Central Railroad station at Duncombe (Webster County), 130 yards west of the switch on the west end of the side track, 46.0 feet south of the south rail of the track, 32.0 feet north of the center line of a road parallel to the tracks. A standard disc, stamped "B-32, 1934" and set in the top of a concrete monument five inches high.

1130.641

Top of rail opposite the Illinois Central Railroad MP 361.

1117.9

C-32 In Hamilton County, Iowa, 2.0 miles east of the Illinois Central Railroad station at Duncombe (Webster

LEVELING IN IOWA

	El. Ft.
County), 36.0 feet south of the center line of U. S. Highway #20; 44.5 feet north of the north rail of the tracks. A standard disc, stamped "C-32, 1934" and set in the top of a concrete monument six inches high.	1116.149
<u>D-32</u> In Webster County, Iowa, 303 yards east of the Illinois Central Railroad station at <u>Duncombe</u> , 40.0 yards east of the intersection of the road with the railroad, 44.0 feet south of the south rail of the tracks, 2.5 feet north of the right-of-way fence. A standard disc, stamped "D-32, 1934" and set in the top of a concrete monument four inches high, opposite mile-post #364.	1105.995
Top of rail opposite the Illinois Central Railroad MP 364.	1108.9
<u>U.S.G.S. Iowa-1919-1113</u> In Webster County, Iowa, in the Savings Bank at <u>Duncombe</u> , 14.6 feet east of the west curb of Main Street, 7.3 feet northwest of the west end of the south wall, 2.0 feet above the sidewalk, 0.7 foot northeast of the pillar at the southwest corner of the bank. A standard disc, stamped "IOWA, 1919-1113" and set in the tiling of the bank building.	1112.819
<u>E-32</u> In Webster County, Iowa, 1.0 mile west of the Illinois Central Railroad station at <u>Duncombe</u> , 28.0 yards southeast of the intersection of the section road with the railroad, 45.5 feet south of the south rail of the track, 1.8 feet north of the right-of-way fence. A standard disc, stamped "E-32, 1934" and set in the top of a concrete monument five inches high.	1099.955
Top of rail opposite the Illinois Central Railroad MP 366.	1104.9
<u>F-32</u> In Webster County, Iowa, 2.7 miles west of the Illinois Central Railroad station at <u>Duncombe</u> , 78.0 yards west of the station at <u>Judd</u> , 61.6 feet north of the north rail of the track, 4.0 feet north of the north rail of the main track, 1.0 foot south of the right-of-way fence. A standard disc, stamped "F-32, 1934" and set in the top of a concrete monument three inches high.	1112.462
Top of rail opposite the Illinois Central Railroad MP 367.	1114.2

REINBECK to FORT DODGE, IOWA

El. Ft.

U.S.G.S. 1919-1110. In Webster County, Iowa, 5.4 miles east of the Illinois Central Railroad station at Fort Dodge, 58.0 feet northwest of the intersection of the railroad and the section road, 48.0 feet north of the north rail of the track, 29.5 feet west of the center line of the section road at the corner of the section fence. A United States Geological Survey standard disc, stamped "IOWA-1919-1110" and set on the top of an iron pipe. 1109.620

Top of rail opposite the Illinois Central Railroad MP 369. 1113.8

G-32 In Webster County, Iowa, 3.4 miles east of the Illinois Central Railroad station at Fort Dodge, 40.0 yards west of the intersection of the railroad and the section road, 62.0 feet south of the south rail of the north sidetrack, 46.5 feet south of the south rail of the main track, 1.2 feet north of the right-of-way fence. A standard disc, stamped "G-32, 1934" and set in the top of a concrete monument six inches high. 1109.617

Top of rail opposite the Illinois Central Railroad station at Gypsum. 1117.5

Top of rail opposite the Illinois Central Railroad MP 372. 1117.4

H-32 In Webster County, Iowa, 1.4 miles southeast of the Illinois Central Railroad station at Fort Dodge, 42.0 yards northwest of the wooden overhead bridge, 21.8 feet northeast of the northeast rail of the main Illinois Central Railroad track, 19.0 feet southwest of the southwest rail of the sidetrack. A standard disc, stamped "H-32, 1934" and set in the top of a concrete monument four inches high. 1106.231

Top of rail opposite the Illinois Central Railroad MP 374. 1066.6

J-32 In Webster County, Iowa, 260 yards northeast of the Illinois Central Railroad station at Fort Dodge, level with the concrete head wall of a steel bridge over the street, 8.2 feet east of the east rail of the east track, 2.2 feet east of the steel sidewalk, 1.7 feet west of the east end of the concrete head wall. A standard disc, stamped "J-32, 1934". 1029.519

For descriptions of additional bench marks in this vicinity, see page 34.

LINE 3232. WATERLOO, IOWA, to LYLE, MINNESOTA
(Second-order Leveling)

This Line follows the Chicago, Rock Island & Pacific Railway from Waterloo to Waverly, and the Illinois Central Railroad from Waverly, Iowa, to Lyle, Minn.

The field work was done by a party under the direction of W. R. Tucker during the month of October, 1934.

For descriptions of additional bench marks in this vicinity, see page 235.

	El. Ft.
<p><u>W-38</u> In <u>Blackhawk County</u>, Iowa, five blocks northwest of the Chicago, Rock Island & Pacific Railway station at <u>Waterloo</u>, 21.0 yards southeast of the center line of <u>West First Street</u>, 36.5 feet southwest of the southwest rail of the northeast side track, 23.5 feet southwest of the southwest rail of the main track. A standard disc, stamped "W-38, 1934" and set in the top of a concrete monument three inches high.</p>	846.944
<p><u>X-38</u> In <u>Blackhawk County</u>, Iowa, 1.5 miles northwest of the Chicago, Rock Island & Pacific Railway station at <u>Waterloo</u>, 72.0 yards northwest of the northwest end of a wooden trestle over Shell Rock River, 55.0 yards northwest of the center line of <u>Duryea Street</u>, 19.5 feet southwest of the southwest rail of the main track. A standard disc, stamped "X-38, 1934" and set in the top of a concrete monument three inches high.</p>	852.151
<p><u>Y-38</u> In <u>Blackhawk County</u>, Iowa, 3.6 miles northwest of the Chicago, Rock Island & Pacific Railway station at <u>Waterloo</u>, 46.0 feet southwest of the southwest rail of the track, 1.8 feet northeast of the right-of-way fence. A standard disc, stamped "Y-38, 1934" and set in the top of a concrete monument four inches high.</p>	849.854
<p>Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 155.</p>	860.7
<p><u>Z-38</u> In <u>Blackhawk County</u>, Iowa, 0.8 mile southeast of the Chicago, Rock Island & Pacific Railway station at <u>Cedar Falls</u>, 4.8 feet southwest of the southwest rail of the track, 3.5 feet northeast of the southwest end of a stone headwall of trestle #1512, set level with the surface of the stone. A standard disc, stamped "Z-38, 1934"</p>	857.403

WATERLOO, IOWA to LYLE, MINN.

El. Ft.

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 156.

858.1

A-39 In Blackhawk County, Iowa, 248 yards southeast of the Chicago, Rock Island & Pacific Railway station at Cedar Falls, 22.0 feet northeast of the northeast rail of the main track, 20.8 feet northeast of the switch, on the southeast end of the sidetrack, in line with a row of telegraph poles. A standard disc, stamped "A-39, 1934" and set in the top of a concrete monument four inches high.

858.476

CEDAR FALLS-1934. In Blackhawk County, Iowa, in the southeast corner of the City Park at Cedar Falls, 125 feet west of the center line of Third Avenue, 50.0 feet north of the center line of the street running at right angles to Third Avenue, 100 feet west of and 70.0 feet north of the concrete wall around the park. A standard disc, stamped "CEDAR FALLS-1934" and set in the top of a concrete monument.

876.836

B-39 In Blackhawk County, Iowa, 0.5 mile northwest of the Chicago, Rock Island & Pacific Railway station at Cedar Falls, 59.0 feet northwest of the street crossing the tracks, 17.8 feet west of the west rail of the track, opposite milepost #157. A standard disc, stamped "B-39, 1934" and set in the top of a concrete monument four inches high.

884.263

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 158.

877.4

C-39 In Blackhawk County, Iowa, 3.1 miles northwest of the Chicago, Rock Island & Pacific Railway station at Cedar Falls, 45.6 feet northeast of the northeast rail of the track, 1.8 feet southwest of the right-of-way fence. A standard disc, stamped "C-39, 1934" and set in the top of a concrete monument six inches high.

867.295

Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 161.

869.4

D-39 In Blackhawk County, Iowa, 5.1 miles northwest of the Chicago, Rock Island & Pacific Railway station at Cedar Falls, 45.0 feet southwest of the southwest rail of the track, 59.0 feet southwest of the southwest rail of the northeast side track, 1.6 feet northeast of the right-of-way fence. A standard disc, stamped "D-39, 1934" and set in the top of a concrete

LEVELING IN IOWA

	El. Ft.
monument six inches high.	868.955
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 163.	888.8
<u>E-39</u> In <u>Blackhawk County</u> , Iowa, 7.1 miles northwest of the Chicago, Rock Island & Pacific Railway station at <u>Cedar Falls</u> , 1.0 mile southeast of <u>Winslow</u> , 33.0 yards southeast of the intersection with section cross road, 32.2 feet northeast of the northeast rail of the track and 15.5 feet southwest of the right-of-way fence. A standard disc, stamped "E-39, 1934" and set in the top of a concrete monument five inches high.	906.350
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 165.	884.4
<u>F-39</u> In <u>Bremer County</u> , Iowa, 9.1 miles northwest of the Chicago, Rock Island & Pacific Railway station at <u>Cedar Falls</u> , (Blackhawk County), 75.0 feet west of the intersection with a crossroad, 45.0 feet southwest of the southwest rail of the track, 15.0 feet northwest of the fence corner, and 2.0 feet northeast of the right-of-way fence. A standard disc, stamped "F-39, 1934" and set in the top of a concrete monument five inches high.	881.855
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 167.	910.5
<u>G-39</u> In <u>Bremer County</u> , Iowa, 5.8 miles southeast of the Chicago, Rock Island & Pacific Railway junction with the Illinois Central Railroad, 48.0 yards northeast of the northeast rail of the track that goes to <u>Shellrock</u> , 36.0 feet northeast of the northeast rail of the track to <u>Waverly</u> , 11.5 feet southwest of the right-of-way fence. A standard disc, stamped "G-39, 1934" and set in the top of a concrete monument three inches high.	899.883
Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 169.	895.5
<u>H-39</u> In <u>Bremer County</u> , Iowa, 4.0 miles south of the crossing of the Chicago, Rock Island & Pacific Railway with the Illinois Central Railroad at <u>Waverly</u> , 45.0 feet west of the west rail of the track, 2.0 feet east of the right-of-way fence. A standard disc, stamped "H-39, 1934" and set in the top of a concrete monument	

WATERLOO, IOWA to LYLE, MINN.

- | | El. Ft. |
|--|---------|
| three inches high. | 912.088 |
| Top of rail opposite the Chicago, Rock Island & Pacific Railway MP 171. | 957.2 |
| <u>J-39</u> In Bremer County, Iowa, 1.9 miles south of the Chicago, Rock Island & Pacific Railway station at Waverly, 0.6 mile south of the crossing with the Illinois Central Railroad, 55.0 yards east of the center line of U. S. Highway #10; 428 feet east of the east rail of the tracks, 2.3 feet west of the right-of-way fence. A standard disc, stamped "J-39, 1934" and set in the top of a concrete monument two inches high. | 982.616 |
| Top of rail opposite the Illinois Central Railroad MP G-79; CF-15. | 947.3 |
| For descriptions of additional bench marks in this vicinity, see page 162. | |
| <u>K-39</u> In Bremer County, Iowa, 2.7 miles northwest of the Illinois Central Railroad station at Waverly, 3.4 miles northwest of the intersection with the Chicago, Rock Island & Pacific Railway, 2.0 miles northwest of the intersection with the Chicago & North Western Railroad, 98.0 yards southeast of wooden trestle # C-16-3; 40.0 feet northeast of the northeast rail of track, 5.8 feet southwest of the right-of-way fence. A standard disc, stamped "K-39, 1934" and set in the top of a concrete monument two inches high. | 939.834 |
| Top of rail opposite the Illinois Central Railroad MP G-77; CF-17. | 933.9 |
| <u>L-39</u> In Bremer County, Iowa, 4.8 miles northwest of the Illinois Central Railroad station at Waverly, 69.0 feet northeast of the northeast rail of the track, 63.0 feet northeast of the switch on the southeast end of the sidetrack. A standard disc, stamped "L-39, 1934" and set in the top of a concrete monument four inches high. | 922.708 |
| Top of rail opposite the Illinois Central Railroad MP G-75; CF-19. | 935.4 |
| <u>M-39</u> In Bremer County, Iowa, 6.8 miles north of the Illinois Central Railroad station at Waverly, 46.0 feet east of the east rail of the track, 1.3 feet west of the right-of-way fence. A standard disc, stamped | |

LEVELING IN IOWA

	El. Ft.
"M-39, 1934" and set in the top of a concrete monument six inches high.	964.637
Top of rail opposite the Illinois Central Railroad MP G-73; CF-21.	949.9
<u>N-39</u> In Bremer County, Iowa, 342 yards north of the Illinois Central Railroad station at Plainfield, 35.0 yards south of the switch on the south end of the side-track, 39.5 feet east of the east rail of the main track. A standard disc, stamped "N-39, 1934" and set in the top of a concrete monument three inches high.	942.065
Top of rail opposite the Illinois Central Railroad station at Plainfield.	942.1
<u>P-39</u> In Bremer County, Iowa, 2.0 miles north of the Illinois Central Railroad station at Plainfield, 45.0 feet west of the west rail of the track, 1.7 feet east of the right-of-way fence. A standard disc, stamped "P-39, 1934" and set in the top of a concrete monument four inches high.	957.419
Top of rail opposite the Illinois Central Railroad MP CF-26.	951.6
<u>Q-39</u> In Bremer County, Iowa, 4.0 miles north of the Illinois Central Railroad station at Plainfield, 52.0 yards east of the center line of U. S. Highway #218; 46.0 feet east of the east rail of the track, 1.4 feet east of the right-of-way fence. A standard disc, stamped "Q-39, 1934" and set in the top of a concrete monument six inches high.	958.098
Top of rail opposite the Illinois Central Railroad MP CF-27.	959.8
<u>R-39</u> In Chickasaw County, Iowa, 1.2 miles south of the Illinois Central Railroad station at Nashua, 45.0 feet west of the west rail of the track, 3.3 feet east of the right-of-way fence, about 80.0 yards south of a wooden bridge #C-28-8. A standard disc, stamped "R-39, 1934" and set in the top of a concrete monument three inches high.	962.160
Top of rail opposite the Illinois Central Railroad MP CF-29.	962.2
<u>S-39</u> In Chickasaw County, Iowa, 142 yards north of	

WATERLOO, IOWA to LYLE, MINN.

El. Ft.

- the Illinois Central Railroad station at Nashua, along the right-of-way of the Illinois Central Railroad, 22.4 feet west of the west rail of the main track, 8.0 feet west of the west rail of the west sidetrack. A standard disc, stamped "S-39, 1934" and set in the top of a concrete monument five inches high. 969.033
- Top of rail opposite the Illinois Central Railroad MP CF-31. 975.0
- T-39 In Chickasaw County, Iowa, 2.2 miles north of the Illinois Central Railroad station at Nashua, 70.0 feet northwest of the intersection with the section line crossroad, 43.3 feet west of the west rail of the track, 3.9 feet east of the right-of-way fence. A standard disc, stamped "T-39, 1934" and set in the top of a concrete monument six inches high. 981.819
- Top of rail opposite the Illinois Central Railroad MP CF-33. 983.2
- U-39 In Chickasaw County, Iowa, 3.9 miles north of the Illinois Central Railroad station at Nashua, two telegraph poles south of milepost #34; 46.4 feet west of the west rail of track, 2.4 feet east of the right-of-way fence. A standard disc, stamped "U-39, 1934" and set in the top of a concrete monument six inches high. 988.837
- Top of rail opposite the Illinois Central Railroad MP G-60; CF-34. 991.0
- Top of rail opposite the Illinois Central Railroad MP G-58; CF-36. 1021.4
- V-39 In Chickasaw County, Iowa, 6.1 miles north of the Illinois Central Railroad station at Nashua, 256 yards north of the wooden trestle #C-36-1; 45.5 feet east of the east rail of the track, 2.3 feet west of the right-of-way fence. A standard disc, stamped "V-39, 1934" and set in the top of a concrete monument six inches high. 1013.584
- W-39 In Floyd County, Iowa, 4.0 miles south of the Illinois Central Railroad station at Charles City, 45.0 feet west of the west rail of the track, 1.7 feet east of the right-of-way fence, opposite milepost #38. A standard disc, stamped "W-39, 1934" and set in the top of a concrete monument five inches high. 1040.592

LEVELING IN IOWA

	El. Ft.
Top of rail opposite the Illinois Central Railroad MP G-56; CF-38.	1042.3
<u>X-39</u> In <u>Floyd County</u> , Iowa, 2.0 miles south of the Illinois Central Railroad station at <u>Charles City</u> , 41.4 feet west of the west rail of the track, 3.8 feet east of the right-of-way fence, by milepost #40. A standard disc, stamped "X-39, 1934" and set in the top of a concrete monument five inches high.	1062.623
Top of rail opposite the Illinois Central Railroad MP G-54; CF-40.	1062.4
Top of rail opposite the Illinois Central Railroad MP G-51; CF-43.	1019.1
Top of rail opposite the Illinois Central Railroad station at Charles City.	1010.5
For descriptions of additional bench marks in this vi- cinity, see page 135.	
<u>Y-39</u> In <u>Floyd County</u> , Iowa, 1.7 miles northwest of the Illinois Central Railroad station at <u>Charles City</u> , 105 yards southeast of a wooden trestle #43.9; 46.0 feet northeast of the northeast rail of the track, 1.5 feet southwest of the right-of-way fence. A standard disc, stamped "Y-39, 1934" and set in the top of a con- crete monument four inches high.	1026.415
Top of rail opposite the Illinois Central Railroad MP G-49; CF-45.	1047.6
<u>Z-39</u> In <u>Floyd County</u> , Iowa, 3.9 miles northwest of the Illinois Central Railroad station at <u>Charles City</u> , 125 yards southeast of a wooden trestle #C-46-9; 45.5 feet northeast of the northeast rail of the track, 2.0 feet southwest of the right-of-way fence. A standard disc, stamped "Z-39, 1934" and set in the top of a con- crete monument seven inches high.	1044.77
Top of rail opposite the Illinois Central Railroad MP G-47; CF-47.	1077.2
<u>A-40</u> In <u>Floyd County</u> , Iowa, 55.0 yards northwest of the Illinois Central Railroad station at <u>Floyd</u> , 23.0 yards southeast of the crossing of the U. S. Highway #218; 17.3 feet northeast of the northeast rail of the main track, 24.7 feet southwest of the southwest rail	

WATERLOO, IOWA to LYLE, MINN.

	El. Ft.
of the northeast sidetrack. A standard disc, stamped "A-40, 1934" and set in the top of a concrete monument one inch high.	1103.243
Top of rail opposite the Illinois Central Railroad station at Floyd.	1103.5
<u>B-40</u> In <u>Floyd County</u> , Iowa, 2.0 miles north of the Illinois Central Railroad station at <u>Floyd</u> , 21.0 yards north of the intersection with the section-line cross-road, 32.0 feet west of the west rail of the track, 15.3 feet east of the right-of-way fence. A standard disc, stamped "B-40, 1934" and set in the top of a concrete monument four inches high.	1128.275
Top of rail opposite the Illinois Central Railroad MP G-45; CF-49.	1115.6
Top of rail opposite the Illinois Central Railroad MP CF-50.	1124.8
<u>C-40</u> In <u>Floyd County</u> , Iowa, 4.0 miles north of the Illinois Central Railroad station at <u>Floyd</u> , 45.0 feet south of the center line of the section cross-road, 44.5 feet east of the east rail of the track, 11.5 feet south of the fence corner, 3.2 feet west of the right-of-way fence. A standard disc, stamped "C-40, 1934" and set in the top of a concrete monument four inches high.	1121.494
Top of rail opposite the Illinois Central Railroad MP CF-52.	1118.4
<u>D-40</u> In <u>Mitchell County</u> , Iowa, 1.2 miles southeast of the Illinois Central Railroad station at <u>Orchard</u> , 130 yards southeast of wooden trestle #C-52-9; 41.5 feet southwest of the southwest rail of the track, 4.9 feet northeast of the right-of-way fence. A standard disc, stamped "D-40, 1934" and set in the top of a concrete monument five inches high.	1084.919
Top of rail opposite the Illinois Central Railroad MP CF-53.	1089.2
<u>E-40</u> In <u>Mitchell County</u> , Iowa, 250 yards southeast of the Illinois Central Railroad station at <u>Orchard</u> , 46.3 feet southwest of the southwest rail of the main track and 30.2 feet southwest of the southwest rail of the southwest sidetrack, 2.0 feet northeast of the right-	

LEVELING IN IOWA

	El. Ft.
of-way fence. A standard disc, stamped "E-40, 1934" and set in the top of a concrete monument eight inches high.	1091.290
Top of rail opposite the Illinois Central Railroad station at Orchard.	1091.6
<u>F-40</u> In <u>Mitchell County</u> , Iowa, 2.0 miles northwest of the Illinois Central Railroad station at <u>Orchard</u> , 40.0 yards east of the intersection with section line cross road, 45.0 feet northeast of the northeast rail of the track, 2.1 feet southwest of the right-of-way fence. A standard disc, stamped "F-40, 1934" and set in the top of a concrete monument six inches high.	1149.948
Top of rail opposite the Illinois Central Railroad MP CF-56.	1150.4
<u>G-40</u> In <u>Mitchell County</u> , Iowa, 1.5 miles southeast of the Illinois Central Railroad station at <u>Osage</u> , two telegraph poles southeast of milepost #57; 46.3 feet northeast of the northeast rail of the track, 2.4 feet southwest of the right-of-way fence. A standard disc, stamped "G-40, 1934" and set in the top of a concrete monument four inches high.	1180.188
<u>H-40</u> In <u>Mitchell County</u> , Iowa, 0.6 mile southeast of the Illinois Central Railroad station at <u>Osage</u> , 190 yards northwest of milepost #58; 55.0 feet northeast of the center line of the street crossing the track, 46.3 feet northeast of the northeast rail of the main track and 23.3 feet northwest of the fence corner. A standard disc, stamped "H-40, 1934" and set in the top of a concrete monument five inches high.	1168.134
Top of rail opposite the Illinois Central Railroad MP CF-58.	1167.0
For descriptions of additional bench marks in this vicinity, see page 137.	
<u>J-40</u> In <u>Mitchell County</u> , Iowa, in the southwest corner of the Court House yard at <u>Osage</u> , 25.0 feet east of the east curb of the street running north and south, 33.4 feet north of the north curb of the street running east and west, 21.8 feet northeast of the northeast corner of the intersection of sidewalks, 13.3 feet northwest of the northwest edge of the walk leading to the Court House. A standard disc, stamped "J-40, 1934"	

WATERLOO, IOWA to LYLE, MINN.

El. Ft.

and set in the top of a concrete monument three inches high.

1167.717

K-40 In Mitchell County, Iowa, 49.8 feet southeast of the southeast corner of the Illinois Central Railroad station at Osage, in the southeast corner of the station park, 30.0 feet north of the north edge of Main Street, 16.6 feet northeast of the northeast rail of the main track of the Illinois Central Railroad, and 1.0 foot northeast of the park fence. A standard disc, stamped "K-40, 1934" and set in the top of a concrete monument two inches high.

1170.532

L-40 In Mitchell County, Iowa, 1.1 miles northwest of the Illinois Central Railroad station at Osage, 250 yards southeast of milepost #60; 150 yards northwest of a steel and concrete bridge; 99.0 feet southeast of the center line of crossing of the county road, 54.0 feet south of the center line of the county road, 46.3 feet northeast of the northeast rail of the main track and 23.5 feet southeast of the fence corner. A standard disc, stamped "L-40, 1934" and set in the top of a concrete monument five inches high.

1134.161

M-40 In Mitchell County, Iowa, 0.8 mile southeast of the Illinois Central Railroad station at Mitchell, 0.5 mile southeast of milepost #62; 220 yards northwest of wooden trestle #61-4; 79.0 feet east of the center line of the section road, 53.0 feet southeast of the fence corner, 46.5 feet southwest of the southwest rail of the main track. A standard disc, stamped "M-40, 1934" and set in the top of a concrete monument six inches high.

1200.716

Top of rail opposite the Illinois Central Railroad MP CF-61.

1191.1

Top of rail opposite the Illinois Central Railroad station at Mitchell.

1193.3

N-40 In Mitchell County, Iowa, 1.1 miles northwest of the Illinois Central Railroad station at Mitchell, 108 feet southeast of the crossing of the section road and the railroad, 63.0 feet south of the center line of the section crossroad, 44.7 feet northeast of the northeast rail of the main track, 27.0 feet southeast of the fence corner, 2.0 feet northwest of right-of-way fence. A standard disc, stamped "N-40, 1934" and set in the top of a concrete monument four inches high.

1192.412

LEVELING IN IOWA

- Top of rail opposite the Illinois Central Railroad
MP CF-64. El. Ft.
1191.4
- P-40 In Mitchell County, Iowa, 2.0 miles southeast of
the Illinois Central Railroad station at St. Ansgar,
0.2 mile southeast of the crossing of the section road
and the railroad, 62.4 feet northeast of milepost #65;
46.4 feet northeast of the northeast rail of the main
track, 17.5 feet northwest of the fence intersection,
and 1.0 foot southwest of the right-of-way fence. A
standard disc, stamped "P-40, 1934" and set in the top
of a concrete monument four inches high. 1194.745
- Top of rail opposite the Illinois Central Railroad
MP CF-65. 1196.3
- Q-40 In Mitchell County, Iowa, 0.3 mile southeast of
the Illinois Central Railroad station at St. Ansgar,
47.6 feet southwest of the southwest side of a switch,
45.3 feet east of the center line of the section road
paralleling the railroad, 33.9 feet southwest of the
southwest rail of the main track, 19.8 feet southwest
of the southwest rail of the sidetrack. A standard
disc, stamped "Q-40, 1934" and set in the top of a
concrete monument four inches high. 1179.443
- ST. ANSGAR-1934. In Mitchell County, Iowa, 124 feet
northwest of the northwest corner of the Illinois Cen-
tral Railroad station at St. Ansgar, 71.6 feet east of
the northeast corner of the Klindt Hotel, 27.0 feet
south of the center line of the Main Street, in the
northwest corner of the fire station yard, 16.3 feet
northwest of the northwest corner of the fire station.
A standard disc, stamped "ST. ANSGAR-1934" and set in
the top of a 12 x 12-inch concrete monument 18.0 inches
high. 1171.257
- Top of rail opposite the Illinois Central Railroad
MP G-26; CF-68. 1132.6
- R-40 In Mitchell County, Iowa, 2.1 miles northwest of
the Illinois Central Railroad station at St. Ansgar,
267.0 yards northwest of milepost #69; 62.0 feet north-
west of the crossing of the section-road with the rail-
road, 45.6 feet southwest of the southwest rail of the
track and 19.5 feet northwest of the fence corner. A
standard disc, stamped "R-40, 1934" and set in the top
of a concrete monument six inches high. 1170.063
- Top of rail opposite the Illinois Central Railroad

WATERLOC, IOWA to LYLE, MINN.

El. Ft.
1173.8

MP G-24; CF-70.

S-40 In Mitchell County, Iowa, 5.0 miles southeast of the Illinois Central Railroad station at Lyle (Mower County) Minnesota, 340 yards southeast of milepost #71; 260 yards southeast of wooden culvert #C-70-90; 59.0 feet southeast of the center line of the crossing of a farm road and the railroad, 45.8 feet northeast of the northeast rail of the main track, 31.0 feet southeast of the center of a gate across the farm road, 1.5 feet southwest of the right-of-way fence. A standard disc, stamped "S-40, 1934" and set in the top of a concrete monument four inches high.

1192.370

Top of rail opposite the Illinois Central Railroad
MP G-22; CF-72.

1171.4

T-40 In Mitchell County, Iowa, 3.1 miles southeast of the Illinois Central Railroad station at Lyle (Mower County) Minnesota, 0.3 mile southeast of milepost #73; 112 yards northwest of the crossing of section road and the railroad, 45.7 feet northeast of the northeast rail of the main track, 27.0 feet west of the center line of the section road paralleling the railroad, 1.5 feet southwest of the right-of-way fence. A standard disc, stamped "T-40, 1934" and set in the top of a concrete monument five inches high.

1176.507

Top of rail opposite the Illinois Central Railroad
MP G-20; CF-74.

1162.3

U-40 In Mitchell County, Iowa, 1.1 miles southeast of the Illinois Central Railroad station at Lyle (Mower County) Minnesota, 0.8 mile southeast of the Iowa-Minnesota State Line, 0.3 mile southeast of milepost #75; 79.0 feet northwest of the crossing of the section road and the sidetrack of the railroad, 92.3 feet southwest of the southwest rail of the main track, 20.5 feet north of the fence corner, 2.0 feet east of the right-of-way fence. A standard disc, stamped "U-40, 1934" and set in the top of a concrete monument five inches high.

1172.081

For additional descriptions of bench marks in this vicinity, see page 113.

LINE 4382. PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.
(First-order Leveling)

El. Ft.

This Line follows the Chicago - Great Western Railroad from Prairie City to Oelwein, Iowa; the Chicago, Rock Island & Pacific Railway from Oelwein to Postville, Iowa; and the Chicago, Milwaukee, St. Paul & Pacific Railroad from Postville, Iowa, to Prairie du Chien, Wisconsin. The field work was done during November and December, 1934, by a party in charge of E.E. Stohsner. The elevations are based on the 1938 Adjustment of First-order Levels in Northeast Iowa.

For descriptions of additional bench marks in this vicinity, see page 47.

- A-10 In Jasper County, Iowa, 2 miles south of the intersection of U. S. Highway #6 and State Highway #64, just east of Colfax, 21.0 feet east of center line of Highway #64; 80.0 feet southwest of southwest corner of farm house owned by J. B. Ryan, and 500 feet south of road to Colfax mine #9. A standard disc, set in a concrete monument. 908.417
- B-10 In Jasper County, Iowa, in Colfax, 235 feet east of intersection of U. S. Highway #6 and South Walnut Street, 26.0 feet south of center line of U. S. Highway #6; 110 feet east of east gasoline pump at Skelly Oil Company station, and 88.0 feet southwest of an 18-inch elm tree. A standard disc, set in a concrete monument. 856.357
- C-10 In Jasper County, Iowa, at Colfax, 100 feet northeast of northeast corner of railroad station, 57.0 feet north of center line of main track, 42.0 feet west of center of Highway #64, and 5.0 feet west of west edge of sidewalk. A standard disc, set in a concrete monument. 791.678
- D-10 In Jasper County, Iowa, about 1.3 miles north of Colfax, on State Highway #64, 55.0 feet west of intersection of county roads, and 94.0 feet east of southeast corner of Poweshiek #1 school house. A standard disc, set in a concrete monument. 808.073
- E-10 In Jasper County, Iowa, 5.0 miles north of Colfax, 29.0 feet east of center line of Highway #64; 153 feet northeast of Phillip's Service Station, 2.0 feet

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

El. Ft.

west of southwest corner of yard fence, and 40 feet southwest of southwest corner of house owned by Walter Ellis. A standard disc, set in a concrete monument. 936.160

G-10 In Jasper County, Iowa, at Mingo, 75.0 feet west of Chicago-Great Western Railroad station, 50.0 feet south of center line of main track, 40.0 feet west of center line of road crossing, and 35.0 feet northeast of the northeast corner of the Clark Brown Grain Company Building. A standard disc, set in a concrete monument. 827.328

F-10 In Jasper County, Iowa, at Mingo, on right-of-way of Chicago-Great Western Railroad, 260 yards east of station, 25.0 feet west of center line of Highway #64; 114 feet north of center line of Railroad Street, 15.0 feet northwest of milepost #351-10; 156 feet north of northwest corner of Mobilgas Filling Station owned by A. H. Hutson, and 37.5 feet south of center line of main track. A standard disc, set in a concrete monument. 819.155

Top of N Rail opposite Chicago-Great Western Railroad MP 351. 817.9

Top of N rail opposite Chicago-Great Western Railroad MP 348. 833.4

H-10 In Jasper County, Iowa, at Ira, about 120 feet east of the Chicago-Great Western Railroad station, 33 feet north of the center line of the main track, 22.3 feet west of the west side of water tank, and at milepost #347-5. A standard disc, set in a concrete monument. 832.971

Top of S rail opposite Chicago-Great Western Railroad MP 346. 854.1

Top of E rail opposite Chicago-Great Western Railroad MP 345. 869.1

Top of W rail opposite Chicago-Great Western Railroad MP 343. 972.4

J-10 In Jasper County, Iowa, at Baxter, about 30.0 feet north of the center line of main track of the Chicago-Great Western Railroad, 59.0 feet west of center line of street crossing railroad, 12.0 feet south of milepost #342-15, and 8.0 feet west of west edge of

LEVELING IN IOWA

sidewalk. A standard disc, set in a concrete monument.	El. Ft. 1003.823
Top of W rail opposite Chicago-Great Western Railroad station at Baxter.	1004.0
Top of W rail opposite Chicago-Great Western Railroad MP 342.	1004.6
<u>K-10</u> In <u>Marshall County</u> , Iowa, about 3.0 miles north-east of <u>Baxter</u> (<u>Jasper County</u>), by rail, on the right-of-way of the Chicago-Great Western Railroad, 70.0 yards west of Semaphore #339.4; 27.0 feet north of the center line of the track, and 27.0 feet west of the center line of a dirt road. A standard disc, set in a concrete monument.	933.463
Top of E rail opposite Chicago-Great Western Railroad MP 340.	949.0
Top of E rail opposite Chicago-Great Western Railroad MP 338.	966.1
<u>L-10</u> In <u>Marshall County</u> , Iowa, about 3.0 miles south of <u>Melbourne</u> , by rail, on the right-of-way of the Chicago-Great Western Railroad, 1.5 rails south of milepost #336-5; 24.42 feet west of center line of track, and 37.0 feet northwest of center line of farm road crossing. A standard disc, set in a concrete monument.	1007.144
<u>M-10</u> In <u>Marshall County</u> , Iowa, at <u>Melbourne</u> , on the right-of-way of the Chicago-Great Western Railroad, 124 feet northeast of the northeast corner of the station, 44.0 feet north of center line of road crossing, 16.0 feet east of the center line of track, and 31.0 feet south of milepost #333-02. A standard disc, set in a concrete monument.	1044.926
<u>N-10</u> In <u>Marshall County</u> , Iowa, at <u>Melbourne</u> , in the northwest corner of Melbourne School yard, 78.0 feet northwest of northwest corner of school building, 44.0 feet south of the center line of street, and 141 yards west of northeast corner of the Chicago-Great Western station. A standard disc, set in a concrete monument.	1038.604
<u>P-10</u> In <u>Marshall County</u> , Iowa, about 0.5 mile north of <u>Melbourne</u> , by rail, on the right-of-way of the Chicago-Great Western Railroad, 57.0 feet west of milepost #332-15; 20.0 feet west of center line of track, and 27.0 feet south of the center line of the road crossing. A standard disc, set in a concrete monument.	1042.593

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

El. Ft.

- Q-10 In Marshall County, Iowa, about 2.5 miles north-east of Melbourne, by rail, on the right-of-way of the Chicago-Great Western Railroad, 59.0 feet southwest of southwest fence corner of Maple Grove Cemetery, 13.0 feet east of the center line of track, 26.0 feet south of the center line of the road crossing, and 33.0 feet northwest of milepost #330-15. A standard disc, set in a concrete monument. 1034.604
- Top of E rail opposite Chicago-Great Western Railroad MP 330. 1013.9
- R-10 In Marshall County, Iowa, about 6.0 miles southwest of Marshalltown, by rail, on the right-of-way of the Chicago-Great Western Railroad, 165 feet east of the station at Luray flag stop; 57.0 feet northeast of milepost #326-09; 22.0 feet south of the center line of the track, and 24.0 feet east of the center line of the road crossing. A standard disc, set in a concrete monument. 940.241
- S-10 In Marshall County, Iowa, about 3.0 miles southwest of Marshalltown, by rail, on the right-of-way of the Chicago-Great Western Railroad, 21.0 feet north of milepost #323-12; 17.0 feet south of the center line of the track, and 9.0 feet east of the center line of the road crossing. A standard disc, set in a concrete monument. 934.624
- Top of NE rail opposite Chicago-Great Western Railroad MP 322. 900.6
- Top of E rail opposite Chicago-Great Western Railroad MP 321. 891.7
- T-10 In Marshall County, Iowa, at Marshalltown, on the right-of-way of the Chicago-Great Western Railroad, 123 feet northwest of the northwest corner of the interlocking tower in Marshalltown yards, 31.5 feet north of the center line of the east bound track of the Chicago & North Western Railroad, 49.0 feet west of the center line of South Third Street, and 109 feet southwest of the southeast corner of the Empire Sand & Gravel Company office on South Third Street. A standard disc, set in a concrete monument. 894.293

For descriptions of additional bench marks in this vicinity, see page 107.

LEVELING IN IOWA

	El. Ft.
<u>MARSHALLTOWN</u> In <u>Marshall County</u> , Iowa, at <u>Marshalltown City Hall</u> on Center Street, 13.7 feet north of the center of the east entrance, 40.0 feet west of the center line of Center Street, and 4.3 feet west of the west edge of the sidewalk. Mark set by city officials. A standard disc, set in a concrete monument.	938.345
Top of N rail opposite Chicago-Great Western Railroad station at Marshalltown.	898.2
<u>U-10</u> In <u>Marshall County</u> , Iowa, about 1.0 mile north of <u>Marshalltown</u> , 118 feet southwest of milepost #318-25; 87.0 feet east of the center line of the main track, 30.0 feet north of the center line of 12th Avenue South, 3.0 feet north of north edge of sidewalk along 12th Avenue South, and 50.0 feet south of the south entrance of the Lennox Furnace Company. A standard disc, set in a concrete monument.	874.765
Top of E rail opposite Chicago-Great Western Railroad MP 316.	864.7
<u>V-10</u> In <u>Marshall County</u> , Iowa, about 3.0 miles south of <u>Green Mountain</u> , at milepost #314-17 of the Chicago-Great Western Railroad, 56.0 feet north of the center line of the road crossing, and 40.0 feet east of the center line of the track. A standard disc, set in a concrete monument.	885.874
<u>W-10</u> In <u>Marshall County</u> , Iowa, at <u>Green Mountain</u> , 375 feet north of the north end of the Chicago-Great Western station, at milepost #311-28; 26.0 feet east of the center line of the main track, 72.0 feet east of the east end of the Farmers' Elevator Company building, and 35.0 feet south of the road crossing. A standard disc, set in a concrete monument.	999.358
Top of E rail opposite Chicago-Great Western Railroad station at Green Mountain.	997.8
<u>X-10</u> In <u>Tama County</u> , Iowa, about 3.0 miles south of <u>Gladbrook</u> , by rail, at milepost #306-22 on the Chicago-Great Western Railroad, 19.0 feet north of the center line of the road crossing, 28.0 feet east of the center line of the track, and 24.7 feet north of milepost #306-22. A standard disc, set in a concrete monument.	1049.998
<u>Y-10</u> In <u>Tama County</u> , Iowa, at <u>Gladbrook</u> , at milepost #303-23, 0.6 mile south of the Chicago-Great Western	

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

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Railroad station, 45.5 feet east of the main track, and 40.0 feet north of the center line of the road crossing. A standard disc, set in a concrete monument. 957.022

Top of E rail opposite Chicago-Great Western Railroad MP 304. 957.6

Z-10 In Tama County, Iowa, at Gladbrook, 27.0 feet northeast of the northeast corner of the Chicago-Great Western Railroad station, 88.0 feet east of the center line of the main track, 24.0 feet northeast of milepost #303-3, and 60.0 feet west of the center line of graveled street. A standard disc, set in a concrete monument. 950.215

Top of E rail at the crossing of the Chicago & North Western Railroad with Chicago-Great Western Railroad at Gladbrook. 950.0

A-11 In Tama County, Iowa, about 0.8 mile north of Gladbrook, 37.0 feet north of the center line of the road crossing, 45.0 feet west of the center line of the track, and at milepost #302-13 on the Chicago-Great Western Railroad. A standard disc, set in a concrete monument. 971.104

B-11 In Tama County, Iowa, about 2.75 miles south of Lincoln, at Chicago-Great Western Railroad station, 35 feet north of the center line of county road crossing, 32.6 feet west of the center line of track, and at milepost #300-3. A standard disc, set in a concrete monument. 1041.412

C-11 In Tama County, Iowa, at Lincoln, at milepost #297-19, 93.0 feet north of the north end of the Chicago-Great Western Railroad station, 44.0 feet east of the center line of main track, 57.0 feet south of the center line of the street crossing railroad, and 20.0 feet south of the south edge of the sidewalk. A standard disc, set in a concrete monument. 1060.500

D-11 In Tama County, Iowa, about 3.5 miles north of Lincoln, 22.0 feet west of the center line of the track, at milepost #294-2 of the Chicago-Great Western Railroad, and 32.0 feet north of the center line of the road crossing. A standard disc, set in a concrete monument. 969.283

Top of E rail opposite Chicago-Great Western Railroad MP 293. 966.7

LEVELING IN IOWA

- Top of W rail opposite Chicago-Great Western Railroad
MP 292. El. Ft.
942.3
- E-11 In Grundy County, Iowa, at Reinbeck, 15.0 feet
north of milepost #291 - 0; 0.25 mile south of the in-
tersection of the Chicago-Great Western Railroad and
the Chicago, Rock Island & Pacific Railway; 0.5 mile
south of the Chicago-Great Western Railroad station,
40.0 feet east of the center line of the track, and
39.0 feet west of the center line of Highway #58. A
standard disc, set in a concrete monument. 929.509
- Top of E rail at the Chicago-Great Western Railroad
crossing with C. R. I. & P. Railroad at Reinbeck. 929.1
- For descriptions of additional bench marks in this vi-
cinity, see page 202.
- F-11 In Grundy County, Iowa, at Reinbeck, at mile-
post #290 - 17, 92.0 feet northeast of the northeast
corner of Chicago-Great Western Railroad station, 24.3
feet west of center line of side track; 115 feet east
of center line of main track, and 47.0 feet south of
center line of street running east and west. A stand-
ard disc, set in a concrete monument. 925.907
- G-11 In Grundy County, Iowa, about 1.3 miles south
of Hicks, (Black Hawk County), 18.0 feet north of mile-
post #287 - 13, 34.0 feet south of road crossing, 49.0
feet east of center line of track, and 6.0 feet south
of power pole and fence corner. A standard disc, set
in a concrete monument. 912.173
- H-11 In Black Hawk County, Iowa, at Hicks, at the in-
tersection of Chicago-Great Western Railroad and Chica-
go & North Western Railway, 6.0 feet south of milepost
#286 - 5, 37.0 feet east of center line of main track
of the Chicago-Great Western Railroad, 71.6 feet north
of center line of main track of Chicago & North West-
ern Railway and 83.0 feet north of switch tower. A
standard disc, set in a concrete monument. 906.671
- Top of S rail opposite Chicago-Great Western Railroad
station at Hicks. 908.0
- J-11 In Black Hawk County, Iowa, 0.25 mile north of
intersection of tracks at Hicks, 9.0 feet south of
milepost #285 - 27; 49.0 feet north of center line of
road crossing, 44.0 feet east of center line of main

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

El. Ft.

track, 60.0 feet east of signal tower, and 4.5 feet west of fence corner. A standard disc, set in a concrete monument.

899.263

Top of E rail opposite Chicago-Great Western Railroad MP 284.

895.9

K-11 In Black Hawk County, Iowa, at Hudson, 58.0 yards south of the Chicago-Great Western Railroad station, 17.0 feet south of milepost #281-11; 62.0 feet east of center line of main track, 40.0 feet north of road crossing, and 4.0 feet north of power line pole. A standard disc, set in a concrete monument.

888.834

Top of E rail opposite Chicago-Great Western Railroad MP 281.

885.0

Top of E rail opposite Chicago-Great Western Railroad MP 280.

881.2

L-11 In Black Hawk County, Iowa, about 0.25 mile south of Cedar Falls Junction, along the Chicago-Great Western Railroad right-of-way, 8.0 feet north of milepost #278-4, 46.0 feet east of center line of main track, 5.0 feet west of fence corner, and 37.4 feet north of center line of a county road crossing with railroad. A standard disc, set in a concrete monument.

871.534

M-11 In Black Hawk County, Iowa, about 3.5 miles south of Waterloo, along the Chicago-Great Western Railroad right-of-way, 17.0 feet east of milepost #275-23; 46.6 feet east of center line of track, 36.0 feet north of center line of road crossing, and 3.0 feet west of fence corner. A standard disc, set in a concrete monument.

860.110

WATERLOO #2 In Black Hawk County, Iowa, at Waterloo, 3.2 feet east of east corner of Public Library, at corner of South Street and 4th Street, 5.6 feet northeast of the concrete retaining wall, 30.3 feet northeast of the northeast curb of South Street; and 48.8 feet northwest of the northwest curb of 4th Street. This mark was set by city officials. A standard disc, set in a concrete monument.

866.547

WATERLOO #1 In Black Hawk County, Iowa, at Waterloo, 3.0 feet east of the east corner of Public Library, located at Mulberry Street and East 5th Street; 22.8 feet southwest of southwest curb on Mulberry Street,

LEVELING IN IOWA

	El. Ft.
and 23.0 feet northwest of northwest curb on East 5th Street. This mark was set by city officials. A standard disc, set in a concrete monument.	845.943
For descriptions of additional bench marks in this vicinity, see page 215.	
<u>City BM</u> In <u>Black Hawk County</u> , Iowa, at <u>Waterloo</u> , at intersection of west corner of Washington School and west corner of Fourth Street.	855.297
<u>City BM</u> In <u>Black Hawk County</u> , Iowa, at <u>Waterloo</u> , at intersection of South Street and Fourth Street.	863.788
Top of W rail opposite Chicago-Great Western Railroad station at Waterloo.	844.7
Top of W rail at the Chicago-Great Western Railroad crossing with Highway #20.	847.6
<u>N-11</u> In <u>Black Hawk County</u> , Iowa, at <u>Waterloo</u> , along right-of-way of Chicago-Great Western Railroad, 600 feet east of water tank in Waterloo yards, 38.0 feet south of center line of track, and 23.0 feet west of center line of road (City Limits). A standard disc, set in a concrete monument.	869.011
<u>P-11</u> In <u>Black Hawk County</u> , Iowa, about 2.1 miles southwest of <u>Dewar</u> , by rail, along right-of-way of the Chicago-Great Western Railroad, 500 feet southeast of East Waterloo Township School #6; 41.58 feet southwest of milepost #267-19; 46.0 feet south of center line of track, and 31.0 feet east of center line of road crossing. A standard disc, set in a concrete monument.	876.652
<u>Q-11</u> In <u>Black Hawk County</u> , Iowa, at <u>Dewar</u> , along the right-of-way of the Chicago-Great Western Railroad, 142 feet east of station, 11 rails west of center line of county road crossing, 38.0 feet south of center line of track, and 5.0 feet southwest of milepost #265-13. A standard disc, set in a concrete monument.	890.133
Top of E rail opposite Chicago-Great Western Railroad MP 262.	989.4
<u>R-11</u> In <u>Black Hawk County</u> , Iowa, at <u>Dunkerton</u> , on the right-of-way of the Chicago-Great Western Railroad, 573 yards southwest of station, 35.0 feet east of center line of track, 36.0 feet south of center line of	

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

	El. Ft.
County Highway "H", and 36.58 feet northeast of milepost #261-13. A standard disc, set in a concrete monument.	954.670
Top of E rail opposite Chicago-Great Western Railroad station at Dunkerton.	948.2
Top of E rail opposite Chicago-Great Western Railroad MP 259.	949.2
<u>S-11</u> In <u>Black Hawk County</u> , Iowa, about 3.75 miles southwest of <u>Fairbanks</u> (Buchanan County), by rail, on right-of-way of the Chicago-Great Western Railroad, 28.0 feet west of center line of road crossing, 34.42 feet south of center line of track, and 5.0 feet northwest of milepost #256-36. A standard disc, set in a concrete monument.	1000.090
<u>T-11</u> In <u>Buchanan County</u> , Iowa, at <u>Fairbanks</u> , on right-of-way of the Chicago-Great Western Railroad, 6.25 rails west of station, 25.0 feet north of center line of track, 46.0 feet west of County Highway crossing, and 81.0 feet northeast of milepost #253-13. A standard disc, set in a concrete monument.	994.801
Top of N rail opposite Chicago-Great Western Railroad station at Fairbanks.	997.1
<u>U-11</u> In <u>Fayette County</u> , Iowa, about 3.0 miles north of <u>Fairbanks</u> (Buchanan County), along the Chicago-Great Western Railroad, 28.5 feet north of milepost #250-7; 22.5 feet east of center line of track, and 38.0 feet west of center line of county road crossing. A standard disc, set in a concrete monument.	1068.285
Top of E rail opposite Chicago-Great Western Railroad MP 248.	1044.4
<u>V-11</u> In <u>Fayette County</u> , Iowa, at <u>Oelwein</u> , at intersection of the Chicago-Great Western Railroad and South Frederick Street (Highway #11), 40.0 feet east of center line of South Frederick Street, 44.0 feet north of center line of main track, 8.0 feet east of east edge of sidewalk along South Frederick Street, 28.0 feet southwest of southwest corner of house, and 12.0 feet southwest of a 14-inch red oak tree. A standard disc, set in a concrete monument.	1039.079
<u>DBQ-1044</u> In <u>Fayette County</u> , Iowa, at <u>Oelwein</u> , in east wall of the Janison & Martin Building, located at cor-	

LEVELING IN IOWA

- El. Ft.
- ner of Frederick and Charles Streets, 11.5 feet west of west curb of South Frederick Street, 24.7 feet south of south curb of West Charles Street, 12.4 feet south of northeast corner, and at entrance to building. A U.S.G.S. tablet, set vertically. 1045.388
- OELWEIN In Fayette County, Iowa, at Oelwein, in lawn of City Hall on First Avenue, N.E., 7.5 feet north of center line of east entrance, 34.0 feet west of west curb of First Avenue, N.E., 3.5 feet east of first step of an entrance, and 2.2 feet north of north edge of sidewalk to entrance. This mark set by city officials. A standard disc, set in a concrete monument. 1046.628
- For descriptions of additional bench marks in this vicinity, see pages 188.
- W-11 In Fayette County, Iowa, about 0.5 mile north of the Chicago, Rock Island & Pacific Railway station at Oelwein, along the right-of-way, 60.0 feet south of milepost #54; 38.0 feet east of center line of track, 28.0 feet north of county road crossing, and 2.5 feet west of fence corner. A standard disc, set in a concrete monument. 1071.665
- X-11 In Fayette County, Iowa, about 2.0 miles southwest of Maynard, by rail, on the Chicago, Rock Island & Pacific Railway right-of-way, 344 yards north of milepost #58; 45.0 feet east of center line of track, and 37.0 feet north of center line of road crossing. A standard disc, set in a concrete monument. 1106.707
- Y-11 In Fayette County, Iowa, at Maynard, on the Chicago, Rock Island & Pacific Railway right-of-way, 416 yards north of milepost #60; 79.0 feet southeast of southeast corner of station at Maynard, 54.0 feet southwest of southwest corner of the Merchants Hotel, 44.0 feet north of center line of State Highway #11; 42.0 feet east of center line of track. A standard disc, set in a concrete monument. 1101.274
- Z-11 In Fayette County, Iowa, about 3.0 miles north of Maynard, by rail, along the Chicago, Rock Island & Pacific Railway right-of-way, 483 yards north of milepost #63; 47.0 feet east of center line of track, and 34.0 feet south of center line of road crossing. A standard disc, set in a concrete monument. 1065.411
- Top of E rail opposite Chicago, Rock Island & Pacific Railway MP 63. 1067.4

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

El. Ft.

Top of E rail opposite Chicago, Rock Island & Pacific Railway MP 64.

1081.4

Top of E rail at the Chicago, Rock Island & Pacific Railway Crossing with Highway #93.

1107.5

A-12 In Fayette County, Iowa, at Randalia, on the Chicago, Rock Island & Pacific Railway right-of-way, 549 yards north of milepost #66; 619 feet south of station at Randalia, 45.0 feet west of center line of track, and 34.0 feet south of center line of State Highway #93. A standard disc, set in a concrete monument.

1108.226

Top of E rail opposite Chicago, Rock Island & Pacific Railway MP 66.

1119.9

B-12 In Fayette County, Iowa, about 2.5 miles northeast of Randalia, by rail, on the Chicago, Rock Island & Pacific Railway right-of-way, 413 yards south of milepost #69; 139 feet northeast of northeast corner of Chicago, Milwaukee, St. Paul & Pacific Railroad station at Donnan, 117 feet northeast of crossing of Chicago, Rock Island & Pacific Railway and the Chicago, Milwaukee, St. Paul & Pacific Railroad, 43.0 feet east of center line of the Chicago, Rock Island & Pacific Railway track, and 37.0 feet west of center line of County Highway "E". A standard disc, set in a concrete monument.

1151.382

C-12 In Fayette County, Iowa, about 2.7 miles southwest of West Union, by rail, on the Chicago, Rock Island & Pacific Railway right-of-way, 257 yards south of milepost #72; 44.0 feet west of center line of track, and 39.0 feet north of center line of road crossing. A standard disc, set in a concrete monument.

1179.971

D-12 In Fayette County, Iowa, at West Union, on the Chicago, Rock Island & Pacific Railway right-of-way, 793 yards north of milepost #74; 76.0 feet northwest of southwest corner of station, 84.0 feet northeast of intersection of track and State Highway #11 (City route), 77.0 feet north of center line of track, and 38.0 feet east of center line of State Highway #11 (City route). A standard disc, set in a concrete monument.

1107.298

WEST UNION 1933 In Fayette County, Iowa, at West Union, in the northwest corner of step at east entrance to Fayette County Courthouse, 5.0 feet north of center

LEVELING IN IOWA

- line of east entrance, and 18.0 feet west of center line of driveway. This mark set by city officials. A standard disc, set in a drill hole. El. Ft.
1197.163
- Top of W rail opposite Chicago, Rock Island & Pacific Railway station at West Union.
1106.8
- E-12 In Fayette County, Iowa, about 1.4 miles southeast of West Union, by rail, on the right-of-way of Chicago, Rock Island & Pacific Railway, 194 yards south of milepost #76; 34.0 feet south of center line of track, and 26.0 feet east of center line of road crossing. A standard disc, set in a concrete monument.
1087.997
- F-12 In Fayette County, Iowa, about 4.5 miles southwest of Elgin, by rail, on the Chicago, Rock Island & Pacific Railway right-of-way, 491 yards south of milepost #81, approximately 0.25 miles northwest of Brainerd flag stop, 15.0 feet south of center line of county road, and 23.0 feet north of center line of track. A standard disc, set in a concrete monument.
912.229
- Top of E rail opposite Chicago, Rock Island & Pacific Railway MP 82.
886.3
- G-12 In Fayette County, Iowa, at Elgin, at intersection of the Chicago, Rock Island & Pacific Railway and street, (Highway #172), 78.0 feet northwest of northwest corner of the Chicago, Rock Island & Pacific Railway station, at milepost #85-2; 43.0 feet south of center line of street, and 70.0 feet west of center line of main track. A standard disc, set in a concrete monument.
835.139
- H-12 In Fayette County, Iowa, at Clermont, in the northeast corner of the city park, 70.0 feet west of center line of main track, 87.3 feet west of the northwest corner of Clermont railroad station, and 35.0 feet south of center line of main street (U.S. Highway #18). A standard disc, set in a concrete monument.
859.565
- J-12 In Fayette County, Iowa, about 2.5 miles north of Clermont, along the track, in cap stone of bridge #909, in east end of first pier north of abutment, 5.5 feet east of center line of track, 75.0 feet north of center line of road crossing. A standard disc, set in a concrete monument.
921.734
- K-12 In Fayette County, Iowa, about 3.5 miles south-

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

El. Ft.

west of Postville (Allamakee County), 400 feet south of junction, 24.0 feet north of center line of road crossing, and 31.0 feet east of center line of track. A standard disc, set in a concrete monument.

1058.971

L-12 In Allamakee County, Iowa, about 1.0 mile west of Postville (track measurement), along the Chicago, Rock Island & Pacific Railway right-of-way, 31.4 feet north of center line of the Chicago, Rock Island & Pacific Railway track, approximately 800 feet west of intersection of Chicago, Rock Island & Pacific Railway and Chicago, Milwaukee, St. Paul & Pacific Railroad, 120 feet south of center line of Chicago, Milwaukee, St. Paul & Pacific Railroad track, and 38.0 feet south of center line of U. S. Highway #55. A standard disc, set in a concrete monument.

1206.651

DBQ 1195 In Allamakee County, Iowa, at Postville, in north wall of the Commercial Hotel at corner of Green and Reynolds Streets, 4.4 feet from base line of building, 17.7 feet east of center line of north entrance, 15.2 feet east of southeast corner of building, and 18.0 feet south of south curb of Green Street. A U.S.G.S. tablet, set vertically in wall.

1194.102

M-12 In Allamakee County, Iowa, at Postville, at the intersection of the Chicago, Milwaukee, St. Paul & Pacific Railroad and Lawyer Street (U. S. Highway #51), 53.0 feet south of center line of main track, 16.7 feet east of east curb of Lawyer Street, 3.2 feet west of west edge of east sidewalk, and 12.3 feet southwest of northwest corner of Postville Lumber Yard. A standard disc, set in a concrete monument.

1190.562

N-12 In Clayton County, Iowa, about 3.0 miles west of Luana, along the Chicago, Milwaukee, St. Paul & Pacific Railroad, 250 feet west of Ridley siding, 55.5 feet south of the center line of main track, 34.0 feet north of center line of U. S. Highway #18; 85.0 feet northwest of northwest corner of Grand Meadow Cemetery, and 31.0 feet east of center line of road crossing. A standard disc, set in a concrete monument.

1191.175

P-12 In Clayton County, Iowa, at Luana, 140 feet west of the Luana Railroad station, 35.0 feet south of center line of U. S. Highway #18; 52.0 feet north of center line of track, and 16.5 feet east of center line of a road crossing. A standard disc, set in a concrete monument.

1132.202

LEVELING IN IOWA

	El. Ft.
<u>MONONA</u> In Clayton County, Iowa, at <u>Monona</u> , in west wall of City Hall, located on Page Street; 1.8 feet from base line of building, 12.6 feet east of east curb of Page Street, 2.1 feet south of south edge of steps to west entrance, and 17.8 feet north of southwest corner of building. A standard disc, set vertically.	1218.154
<u>Q-12</u> In Clayton County, Iowa, about 2.8 miles east of <u>Monona</u> , in south end of west abutment of the first railroad bridge west of Valdora siding, 71.0 feet east of road crossing, and 9.5 feet south of center line of track. A standard disc, set in a concrete monument.	1067.865
<u>R-12</u> In Clayton County, Iowa, 1.0 mile east of <u>Beulah</u> , at intersection of county road and Chicago, Milwaukee, St. Paul & Pacific Railroad, in the southwest wingwall of the concrete abutment of bridge on county road, and approximately 65.0 feet north of center line of track. A standard disc, set in a concrete monument.	921.078
Top of S rail opposite Chicago, Milwaukee, St. Paul & Pacific Railroad MP 6.	828.0
Top of S rail opposite Chicago, Milwaukee, St. Paul & Pacific Railroad MP 4.	757.0
<u>S-12</u> In Clayton County, Iowa, about 3.0 miles west of <u>Marquette</u> , along the track, 37.0 feet south of center line of track, 44.0 feet east of road crossing, and 6.0 feet north of fence corner. A standard disc, set in a concrete monument.	710.005
<u>T-12</u> In Clayton County, Iowa, about 1.0 mile west of <u>Marquette</u> , along the Chicago, Milwaukee, St. Paul & Pacific Railroad, in railroad yards, in center of north end of double 9 x 7 foot culvert, 10.4 feet north of center line of north track, and 110 feet south of center line of county road. A standard disc, set in a concrete monument.	631.629
<u>U-12</u> In Clayton County, Iowa, at <u>Marquette</u> , in the southeast corner of a small park, 800 feet east of Chicago, Milwaukee, St. Paul & Pacific Railroad station, 106 feet north of center line of track crossing Mississippi River, and 19.2 feet west of west curb of street (U. S. Highway #18). A standard disc, set in a concrete monument.	627.253
Top of S rail opposite Chicago, Milwaukee, St. Paul &	

PRAIRIE CITY, IOWA to PRAIRIE DU CHIEN, WIS.

Pacific Railroad station at Marquette.

El. Ft.
624.3

For descriptions of additional bench marks in this vicinity, see page 21.

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