4485c
4485d

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: District of Columbia

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~ } Sheet No. 4485C
4485d

LOCALITY

D.C.

N.W. Washington

Bureau of Standards

1930-1931

CHIEF OF PARTY

L.C. Wilder

U. S. GOVERNMENT PRINTING OFFICE: 1928

4485c
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Note: Survey Work by C. M. Thomas in 1931 consisted of running line of Tilden St. location of Styd. Lab. These were applied to the traverse of surveys in 1930 & 1931 — no smooth sheet or other record of the work.

Form 537a
11—5813

T4485

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. Not registered nor numbered

State . . District of Columbia . . . . . .

General locality . . . . . Bureau of Standards . . . . . .

Locality . . . . . Do . . . . . .

Chief of party . . . . . Chief, Division of Hyd. & Top'y . . . . . .

Surveyed by . . . . . L.O. Stewart . . . . . .

Date of survey . . . . . December 1922 and January 1923 . . . . . .

Scale . . . . . one inch equals eighty feet . . . . . .

Heights in feet above . . . . . ---------- . . . . . .

Contour interval . . . . ---------- feet.

Inked by . . . . . L.O.S. . . . . Lettered by . . . . . L.O.S. . . . . .

Records accompanying sheet (check those forwarded): Photographs, Descriptive report, Horizontal angle books, Field computations, Data from other sources affecting sheet . . . . . .

Remarks:

Sheet already forwarded. See letter transmitting Field Records dated January 10,1923

The original sheet was sent to Bureau of Standards by H. & T. on Jan. 17, 1923

ORIGINAL

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R.S.PATTON ——DIRECTOR

DESCRIPTIVE REPORT

to

ACCOMPANY

TOPOGRAPHIC SHEET NORTH OF BUREAU OF STANDARDS

WASHINGTON D.C.

L.C.Wilder

Chief of Party

Note - See Special Report No 11 - 1931 for description of work by C.M.Thomas in 1931.

DESCRIPTIVE REPORT

to Accompany

TOPOGRAPHIC SHEET NO.

Bureau of Standards Washington,D.C.

L.C.Wilder;Chief of Party.

February 4 to February 27,1930.

INSTRUCTIONS;

The instructions for the work on this sheet are dated January 30,1930 . The work was proformed following a request for same by the Bureau of Sandards of the Director of the Coast & Geodetic Survey.

Date of Survey; Field Work- Feb.4 to Feb.27,1930 .
Office Work- Feb.28 to March 10,1930.

EXTENT;

The topography covered by this sheet includes the area north of the Bureau of Standards, bounded on the east by Conn. Ave. on the north by Yuma St. projected, on the west by 36th St. and on the south by Van Ness St. A small area was also surveyed at the west side of Bureau of Standards property.

The south border of the work in the vicinity of Van Ness St. joins the work of Lt. C.D.Meany of May 1928.

Total area surveyed is approximately _____ sq. miles.(stat)

GENERAL DESCRIPTION:

This parcel of land as described above is for the most part wooded, except for a portion near Conn. Ave. which is an open area.

The contour of the ground is somewhat irregular due to hills and valleys,fills and cuts. The wooded area contains, chiefly, oak trees with scattered pines and underbrush. The open areas are covered with grass and in some places low underbrush. Buildings, houses and shacks are scattered at intervals over the survey, principally on the western side. The area, except to the north, is bounded by paved or undeveloped streets.

CONTROL:

The survey was controlled by a closed traverse which was started and also ended at triangulation station East Base and which followed the borders of the area surveyed. An auxiliary traverse of equal accuracy was also run approximately north and south along the east edage of the property of Alfred T.Thom through the middle of the area, joining the main traverse at each end.

Levels were run around the traverse and elevations established on all traversestations. One circuit stated from B.M. 1 (1928) at the Industrial Building and ran around the east side of the area, across the north side to an iron pipe and then down the middle along the woods road to tie in with B.M. 1 again. Another line of levels started at B.M. 2 (1928) at the Dynamometer Building, ran around the west side and across the north side to the iron pipe of the first circuit. This iron pipe was used as a common check point for adjusting the two lines. A line of levels and return levels were also run to the southwest corner of the Bureau of Standards property from a T.P. in the main line of levels at Van Ness St. and Reno Road.

SURVEY METHODS:

The traverse stations were located at points which were considered most advantageous for planetable setups, about the edges oand thru the middle of the area surveyed. The distances around the traverse

were measured with a 300 foot tape. It was necessary to break tape many times because of differences in elevation. The interior angles of the traverse at each station were measured with a 4½ inch theodolite by one direct and one reverse measurement. Azimuth of the traverse lines was obtained by measuring the angle at triangulation sattion Standards from triangulation station Monument to traverse station B. Then setting up at B and measuring the angle from C to Standards. Thus obtaining the azimuth of the line B-C . This azimuth was then checked in the same manner except that a point B' (on the projection of the line c-b) was used instead of the station B as the line Standards to B was partly obscured by trees. The two determinations differed slightly and the second determination was used as the sightes were unobstructed. The co-ordinates of traverse stations were then computed and plotted on the projection from Lat. 38-56-30 N. and Long. 77-04 as an origin.

Levels were run asexplained in paragraph "CONTROL". The elevation of each traverse station was established to one thousandths of a foot. The elevations of intermediate stations was established to the nearest hundredth of a foot. In adjusting the levels the circuit beginning and ending at B.M. 1 and the line fromBM.2 were treated as three lines from known bench marks to the iron pipe at the north boundry of the work. Adjustment was made by weighting the three lines in inverse ratio to the length of the respective lines.

Details of the topographic sheet with the exception of a few tape measurements were by planetable. A level rod heald perpendicular to the line of sight was used. Horizontal distances and differences of elevation were computed by natural cosines and tangents by a computer at the planetable. The majority of the setups were made at traverse stations.

ALL ELEVATIONS ON THE SHEET INCLUDING BENCH MARKS ARE REFERED TO MEAN HIGH WATER (1.5 feet above M.S.L.)

ERRORS OF CLOSURE:

From the computations of this eleven sided traverse, the angular closure was fifteen seconds too small. The latitudes closed within 49 hundreds feet and the departures within 10 hundreds feet. No adjustment of the latitude and departure of the traverse was made as the error of closure was considered too small to plot. The angular closure of 15 seconds was adjusted before the latitudes and departures were computed.

The extreme differences of elevation of all three lines of levels to the iron pipe at the north boundary of survey was 0.023 f et. The levels were adjusted in proportion to the lengths of their respective lines.

PERSONELL:

The work was executed entirely by deck officers attached to the training section, and under the direct supervision of chief of party, Lieut. L.C.Wilder. Lieut L.C.Wilder, E.L.Jones, and C.R.Reed made tape measurements and E.L.Jones made the traverse angle measurements. L.C.Wilder and C.R.Reed ran the levels. C.R.Reed and W.C.Russell did the planetable work with other officers rodding and computing. A hand was furnished by the Bureau of Standards for unskilled work.

RECOVERABLE STATIONS:

Traverse stations B,G',H and C^A have been described and their positions defined fro future surveys. From Sta. B to Sta. C substations were accurately established every 100 feet which may be of future use. These are along the center of the sidewalk along the west side of Connecticut Ave. They are chisel cuts in the cement thus ⊣⊢ The elevations of these points were also established. There follows a list of traverse and bench marks.

UNADJUSTED CO ORDINATES OF STATIONS - refered to Lat.38-56-30 and Long. 77-04 as an origin. (Traverse closed in azimuth 15"

which error was adjusted by correcting the angles at stations J and L - after this adjustment the traverse closed with an error of 0.49 feet in Lat. and 0.10 feet in Departure which was not

adjusted.)

Station	Latitude	Departure
East Base	130.50 N.	145.39 E.
A	385.18 N.	766.83 E
B	777.48 N	654.62 E
C	1663.93 N	452.94 E
C^A	1607.12 N	491.11 E
D	1674.34 N	278.80 W
G	1675.97 N	990.10 W.
G'	1676.58 N	1081.62 W
H	973.84 N	993.75 W
J	593.03 N	805.05 W
K	442.29 N	351.34 W
L	176.53 N	260.06 W
M	173.31 N	174.00 W
East Base	130.01 N	145.29 E

ADJUSTED ELEVATIONS to ~~mean~~ refered sea level as obtained by connection with bench marks Nos. 1 and 2 established by C D.Meany in 1928.

Station	Elevation.
B	259.064
B+1	256.127
B+2	253.112
B+3	250.171
B+4	247.154
B+5	244.166
B+6	240.985
B+7	238.584
B+8	236.552
B+9	235.219
C	234.625
C^A	234.898
H	314.776
C*	290.975

* Long level shot. possible error of .05 feet.

Comp. L.C.W
Checked C.R.R.
Copy Checked W.C.R.

Respectfully submitted,

L.C. Wilder

L.C.Wilder.

POST-OFFICE ADDRESS: U.S.Coast & Geodetic Survey,Washington D.C.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

File with descriptive report

MAR 10 1 46 PM 30

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Washington D.C.
March 10,1930.

To; The Director.

From; Lieut. L.C.Wilder.

Subject; Survey at the Bureau of Standards.

Your instructions of January 30 calling for a survey at the Bureau of Standards have been completed and the sheet will be forwarded to the office today, complete except for names of buildings and streets which have been places on the sheet in pencil.

Property boundry lines have been shown on the sheet in blue as taken from a survey furnished by the District Surveyor. These are not however complete on my topographic sheet as difficulty was experienced in making the two surveys agree and it is suggested that if the Bureau of Standards desire the complete boundry lines on the sheet that they take the matter up with the District Surveyor.

What changes found in the area surveyed in 1928 by Lieut. Meany have been indicated on his original sheet, by contours in red ink and other changes in blue ink. The changes were few . It is probable that the Bureau of Standards will wish a revised tracing of this sheet.

L.C.Wilder

L.C.Wilder.

Tracing of T. 4485C, made by V. E. Billings delivered to Bureau of Standards on April 17, 1930

E.P.Ellis

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 82-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 24, 1931.

Sheet No. T. 4485[d] is a compilation on vellum of the site of the National Bureau of Standards showing existing buildings and the present boundaries of the Bureau's grounds.

It was compiled from original surveys made by the U. S. Coast and Geodetic Survey:

1. T. 4485[a], L. O. Stewart, January 1923
2. T. 4485[b], C. D. Meaney, May 1928, with corrections and additions by L. C. Wilder and C. R. Reed in Feburary 1930.
3. T. 4485[c], L. C. Wilder, February 4-27, 1930,

together with information supplied by the District survey office and the Bureau of Standards. The drawing was made under the direct supervision of Dr. H. D. Hubbard and Mr. L. H. Lockwood of the Bureau of Standards, all suggestions for additions or changes being followed scrupulously.

H. E. MacEwen
Assistant Cartographic Engineer.

82-DRM

September 24, 1931.

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H. E. MacEwen
Assistant Cartographic Engineer.

DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS

ORDER BLANK

Get from Coast & Geodetic Survey Thursday
Room 401, 119 B St. N. E.

1 Tracing for Mr. Hubbard

J.A.R
4/16/30

Tracing of T. 4485C
delivered to Bureau of
Standards April 17, 1930
E.V.O'Leary

Form 11—b

11—5331

	MHW (on chart)	M.S.L. (on card)	
B.M.	248.219	249.719	1.500
"	277.070	278.570	1.500
"	313.3	314.776	1.476
"	233.1	234.625	1.325
" & Sta C[2]	233.398	234.898	1.500
" & Sta B	257.6	259.064	1.464
Sta H	313.3	314.776	1.476

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REVISION SURVEY.

4485b Add'l Work

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No: 4485b Add'l Work

State . . . . . District of Columbia. . . . . .

General locality . . . . . Washington D.C. . . . . .

Locality . . . . . Bureau of Standards. . . . . .

Chief of party . . Revision by L.C.Wilder . . . . . .

Surveyed by . . . Revision by C.R.Reed . . . . . .

Date of survey . . . February 27,1930. . . . . .

Scale . . . See sheet . . . . . .

Heights in feet above mean high water (1.5 feat above M.S.L.)

Contour interval . 5 . . feet.

Inked by . C.R.Reed . . . Lettered by . . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . . .

Remarks: The only revision work accomplished is shown on the sheet in red and blue ink.,contours in red and other features in blue.

GOVERNMENT PRINTING OFFICE

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4485C

TOPOGRAPHIC TITLE SHEET

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U. S. Coast and Geodetic Survey.

Register No. 4485C

State . . . . . District of Columbia . . . . . .

General locality . . . . . Washington D.C. . . . . .

Locality . . . . . Bureau of Standards. . . . . .

Chief of party . . . . . L.C.Wilder. . . . . .

Surveyed by L.C.Wilder, C.R.Reed, E.L.Jones and W.C.Russell

Date of survey . . . February 4 to 27 1930. . . . . .

Scale ~~approx.~~ 1 inch = 80 feet (see sheet) = 1:960

Heights in feet above mean high water (1.5 feet above M.S.L.)

Contour interval . 5 . . feet.

Inked by . C.R.Reed . . . Lettered by . C.R.Reed . . . . . .

Records accompanying sheet (check those forwarded): Photographs,
4 Desc. of Topo. Sta. 6 Desc. of B.M. 3 Recovery Notes.
Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet Property lines (shown in blue on the sheet) are from a survey by the District Surveyor in December 1929. (Property lines are not complete on the Topographic sheet for the reason that insufficient data was obtainable from the city survey.)
Remarks: were

Sheet completed except that names of streets and buildings have not been completely inked in.

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4485d

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. .....

REGISTER NO. 4485d

State D. C.

General locality N.W. Washington

Locality Site of the National Bureau of Standards

Scale 1 inch = 80 feet Date of survey Sept. 1, 1923

Vessel

Chief of Party

Surveyed by

Inked by H. E. MacEwen

Heights in feet above to ground to tops of trees

Contour, ~~Approximate contour~~, Form line interval 5 feet

Instructions dated , 192

Remarks: Compiled from surveys by U.S.C.&G.S. and other sources

GPO