



U. S. COAST AND GEODETIC SURVEY.

J. M. Thorn, Superintendent.

State: *Dist. Columbia.*

DESCRIPTIVE REPORT.

Topographic Sheet No. *1717*

LOCALITY:

District of Columbia.

1888.

CHIEF OF PARTY:

John W. Dunn.

Mr. Donu's

62.

Give here full address to which reply should be sent:

21 W. Third Street Baltimore Md
Description Report

U. S. Coast and Geodetic Survey,



Baltimore Md

May 23^d, 1888.

Mr B. F. Colonna

Asst in Charge Coast & Geodetic Survey Office

Dear Sir,

I enclose herewith my report on Sheet No 7 Rejected 1717, Topog Survey of the District of Columbia. I will send a short supplementary note in relation to the general subjects of parts of the work shortly.

I am still without advice as to whether my sheets forwarded last Wednesday have been received or not.

Yours respectfully

John W. Donu

ANALYST.

Report upon Topographical Sheet
 No. of West- Register 1717, Survey of the Dist. of Columbia.

The general relief of Country shown upon this Sheet has an excess of complex area - broken, abrupt, indented by deep valleys, with hillsides roughened by outcropping ledges and fragments of gneiss and quartz and small boulders. Adjacent to Rock Creek and Piney Branch large masses of gneiss are visible, and the general surface of the country is based upon this rock formation.

East of the Piney Branch road ledges are not found and the characteristics of drift are found, considerable beds of gravel occurring. Two plateaus appear, one upon the Eastern border at Mt Pleasant and the other at Maiden, lying in the angle of Piney Branch and Rock Creek. The water shed of the whole area covered by the sheet is complicated by numerous streams and the tortuous course of the deep valley of Rock Creek.

The vegetation is generally abundant. The greater part of the area is covered with trees of forest growth; oak of several varieties, Hickory, Elm, black and yellow pine, gum, ash, Sycamore, Cedar, Chestnut and beech. The hill slopes of North and ~~west~~ exposure are generally, in addition to forest trees, thickly covered with Laurel, and their gnarled and intolant stems and branches formed serious obstacles to the progress of the Survey, especially as belonging to the ~~congen~~ genus they present a common interference with

instrumental work winter and summer alike. In many places, the original forest trees having been cut away they were succeeded by scrub oak and pine and a wilderness of briars that formed obstacles to the enterpriser, more greater than the laurel thickets. The larger part of the valley of Rock Creek, shown upon the sheet, is the property of one man and he has intentionally fostered its wild character. The average height of forest trees is about seventy five feet but there are old oaks and chestnuts of much greater height. The ornamental and fruit trees are not numerous. There are ^{no} large orchards and the only considerable amount of ornamental trees is found at Ingleside and Mt Pleasant. The fruit trees are mostly, apple, pear and cherry.

The only village is that of Mt Pleasant, a suburb of Washington, on the Piney Branch and Pierci's Mill roads. Two flour or grist mills for neighborhood trade are on Rock Creek; Pierci's and Blagden's. The water power is ample at all seasons. - The means of communication is solely by public roads. Two only can be considered as tolerably good, but even these become heavy and bad in wet weather. The character of all other roads, during the large portion of the year, is bad. Steep grades make transportation in freezing weather difficult and dangerous for animals. Grades of 7/8 exist on the Pierci's Mill and Blagden's Mill roads, and the Broad Branch road is so narrow

that in places two teams cannot pass freely. The topography of this tract is of so critical a character that ~~that~~ further explanations seem to be unnecessary. Every feature prominent to the scale is clearly shown and the contours indicate the reach lines that would be formed by cutting planes.

The following statistics define the details of the tract of W.

Miles of Public roads	12.3	
Miles of private roads	9.7	
Miles of flowing streams	23.4	(double banks)
Miles of " "	3.2	(no bank)
Miles of contour lines		
Area of wooded area	1026	
Acres of open area	345	- Arable or tilled land. about 1/10 meadow
Triangulation points	"Wayland"	Lower of Institute 2.7
	"Knox's Cup"	Private house 3.7
	"Mt Pleasant"	School Hs. Cup 3.7
	"French"	Hotel 2.7
	"Lettittinden"	Private h. Cup. 3.4

The scale of the work having been fixed by Capt C. P. Patterson, Lieut. H. C. Col. Inney and Major W. J. Winnig, Engineer Commissioners State of Cal. at 1/48000 for horizontal projection showing contours representing five feet vertical distance, that has been rigidly adhered to. The survey having for its chief object the establishment of a basis for the study of conditions incident to the necessary and proposed extension of

Street and Arrows of Washington, the work has been performed with due regard for the object in view, which implies that all data necessary for the full consideration of problems relating to drainage, street extensions and grades, for whatever purpose required, have been made ready for the hands of those who will be charged with the development of such public works.

If the conditions that subordinated the work shown upon Sheet No. 7 could be collated and properly stated it would be found that the actual cost per square mile of topography would very considerably exceed that of any equal area lying to the east of it. But these conditions can not be set apart so as to show the actual cost of the complex and difficult area represented upon this sheet. The work was not done as an entirety during a given period of time but was performed during intervals mostly selected from winter months, running through several years and while work was being advanced upon at least eight other sheets. One of the many incidents that formed the conditions suggested was, that the Klinge Ford road which lies partly upon Sheet No. 7 and partly upon Sheet No. 6 was opened after the topography of the Valley in which it lies had been nearly completed. The fact of its not having been entirely completed made it necessary to remove and readjust the contours along the whole length of the road.

The work having been carried on through all seasons of the year the average of working days per month was large. It was not discontinued

because of heat or cold; much work was done in snow falls and blizzards and the heavy growth of woods protected from the high and cold winds that frequently prevailed during the winter.

In estimating the cost per acre or square mile the aggregate expenditures of the Geographical Survey and the special appropriations made for the District of Columbia Survey during the period between the 1st of December 1886 and the 30th of June 1887 are considered.

1886 to 1887	Amount received as Subsistence allowances from Geol. Survey	\$ 7660.
" 1887	" " from Commr. D.C. for Current Expenses	\$ 30428.
	Total	\$ 38088.

The aggregate of the Appropriation made by Congress for the Survey (from July 1886 to June 1887) was \$34000.

Expenditure for A^{rs}, drawings, photoliths, &c. was \$572 = \$30428.

Assuming the sum of \$38088 to have been expended for field work the cost per square mile of area is \$1497. or \$2.³⁴ per acre.

From this however I claim a reduction of \$6750. as an equivalent of an expert draughtsman's services for the period of 4½ years at \$1500 per year which would reduce the cost of field work to \$31338. and increase the cost of drawings, &c. to \$10322.

The cost per square mile of topography therefrom is \$228.⁵⁰ or \$1.⁹² per acre. which is placed as the average cost of the Western Division extending from the line of Lincoln Av. and Adams Hill to the North West boundary.

John M. Down
Assistant Geol. Survey.

Mr. Martin

Fill this in an
Envelope as a Report
on the various Sheets &
the Survey of the D.C.
It can then be found
on reference, and explains
itself.

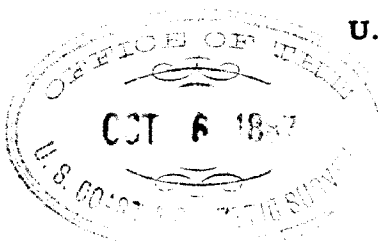
B. J. G.
(O. C. B.)

1887.

Wm. H. H. H. H. H.

Give here full address to which reply should be sent:

No 21 W. First Street



U. S. Coast and Geodetic Survey,

Baltimore Md

Oct 5, 1887.

Mr B. B. Colman

Asst in Charge U.S.C. & G. Office
New Br.

I have entered the
several topographical sheets of the District Survey into
the Office without the requisite descriptions, because
of their unfinished state. While all the data is
complete I have not had the opportunity to compare
their surveys, nor letter them which include numbering the
curves. As I expect to take them up in order and
complete these comparisons, tiller ~~is~~ makes it considered
desirable to have descriptions previously. I would prefer
to make them when they are complete.

Yours respectfully

John W. Brown

Asst. U.S. C. & G. Survey