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

State: New York

DESCRIPITIVE REPORT

Topographic | Sheet No. 4611
Hydrographic | 4611

LOCALITY

Long Island
Shoreline of East Neck

1931

CHIEF OF PARTY
H.E. Finnegan
AUTHORITY:

Supplemental instructions from the Director dated June 26, 1931. The original instructions for the party are dated April 7, 1931.

SURVEY METHODS:

Standard planestable equipment and methods were used with third order triangulation control. No departure, worthy of note, was made from standard practice.

PROCEDURE:

The first traverse was begun at triangulation Station Shellheap 2 and proceeded northward along the beach, around Eaton Point, thence south eastward to Asharoken beach. The stadia rods had been carefully tested before work was begun and every opportunity was used to check the planestable position as the work progressed. The second traverse was begun at Station Shellheap 2 and proceeded southward to the limits of the sheet.

ERROR OF CLOSURE:

The traverse from Station Shellheap 2 southward was left unclosed. The long traverse to the eastward was checked several times by three point fixes and finally closed out on triangulation station Conical Tower (plain) 1916 on the eastern limit of the sheet with an error too small to measure in either distance of azimuth.

GENERAL DESCRIPTION:

South of Station Shellheap 2 the character of the shoreline is clearly indicated on the sheet except in the locality of signal "Bun" where there are several prominent eroded bluffs of yellow sand-clay formation. The photograph accompanying this report shows clearly the extent and appearance of this feature. The elevation (84 feet) at the top of the bluff about 60 meters South East by South from signal "Bun" is at the highest point.
Between Station Shellheap 2 and the south jetty at the harbor entrance the ordinary high water line is determined by a narrow sand ridge as shown. The area between this sand ridge and the tree line (shown as grassy) is from two to three feet lower than the top of the ridge and is sometimes flooded during winter storms when the waves break over the ridge.

The two jetties are similar in construction being merely piles of uncut stone held partly in place by piling and a rude crib work of logs which is partly rotted away. At high water the stones are covered except for the tops of a few of the larger rocks, but the tops of short piling project three or four feet above the surface and roughly outline the position of the rocks.

The low water line around the lagoon and sand spit is taken both from reduced soundings and actual rod readings at low water. The high water line around the sand spit and the inner edge of the lagoon was carefully rodded in as noted. The entire spit forming the north west limit of the harbor is bare about 2 feet at ordinary high water but is washed over during winter storms.

The salt marsh was carefully rodded in and is fully shown by symbol both in character and extent. The central drainage creek and the blind slough are of no importance being practically bare at low water.

It will be noted that eastward from Eaton Point two distinct high water lines are shown. The outer or seaward line is where ordinary high water extends along the clean sand and gravel beach which characterizes this section. The inner line, shown mostly in hachures, is the point where storm high water has undermined the bank forming low eroded bluffs as a definite limit. In several places where the bluffs are high they are indicated by broad hachures on the sheet.

JUNCTION WITH PREVIOUS SURVEYS:

At Latitude 40° 56' (70 meters), Longitude 73° 24' (390 meters) a perfect junction was made with a previous survey as shown on a photostat 1 : 10,000 now on hand. The limit of topography 525 meters south of this point does not quite check the old shoreline where it meets the north side of an old crib and rock retaining wall which is partially washed away at the high water line. The outer end of the cribwork is still intact and the high water line south of the wall appears to be unchanged.
At the eastern limit of the sheet near Station Conical Tower (plain) the ordinary high water line checks perfectly with the old survey. At points along the east shore, where the old and new surveys do not check, the error may not be due to actual change of beach line but more probably to the fact that it is almost impossible to determine ordinary high water along these flat sand beaches where a foot or two difference in tide level makes ten meters lateral displacement in the high water line.

Respectfully submitted;

Samuel E. Grenell,
Lieut. (j.g.), C. & G. Survey

Approved and forwarded:

Henry E. Finneghan,
Chief of Party
<table>
<thead>
<tr>
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<td>Abandoned derrick</td>
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<td>55</td>
<td>1366</td>
<td>73</td>
<td>24</td>
<td>250 Top of frame</td>
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<tr>
<td>Flagpole near small ho.</td>
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<td>55</td>
<td>1735</td>
<td>73</td>
<td>24</td>
<td>321 Bottom</td>
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<td>N.W. pile – ruined dock</td>
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<td>56</td>
<td>68</td>
<td>73</td>
<td>24</td>
<td>405 Top</td>
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<tr>
<td>S.W. tall pile on dock</td>
<td>40</td>
<td>56</td>
<td>959</td>
<td>73</td>
<td>24</td>
<td>411 3 m. from cor. dock</td>
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<tr>
<td>Cross banner</td>
<td>40</td>
<td>57</td>
<td>388</td>
<td>73</td>
<td>23</td>
<td>681  Straight slim tree 2' diameter, end of row.</td>
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<td>Cone roof, summer house</td>
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<td>56</td>
<td>1032</td>
<td>73</td>
<td>22</td>
<td>1149 Center white sea wall</td>
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<td>Flagpole</td>
<td>40</td>
<td>56</td>
<td>1029</td>
<td>73</td>
<td>22</td>
<td>1148 Alongside summer ho.</td>
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<tr>
<td>Chimney over 3 gables</td>
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<td>56</td>
<td>454</td>
<td>73</td>
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<td>791  N.W. house of row</td>
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<tr>
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<td>56</td>
<td>395</td>
<td>73</td>
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<td>692  in front of houses</td>
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<td>Tall center gable</td>
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<td>56</td>
<td>331</td>
<td>73</td>
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<td>1625</td>
<td>73</td>
<td>21</td>
<td>1364 in front of N.W. ho.</td>
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<td>&quot; large, white</td>
<td>40</td>
<td>55</td>
<td>1581</td>
<td>73</td>
<td>21</td>
<td>1204 W. end of low sea wall</td>
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</table>
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. A

REGISTER NO. 4611

State New York

General locality Long Island, Eaton Neck

Locality Eaton Point and vicinity Shoreline of Eaton Neck

Scale 1:5000 Date of survey July 14-16 1931

Vessel Wire Drag Party

Chief of Party Henry E. Finnegan

Surveyed by S. E. Greenell

Inked by S. E. Greenell

Heights in feet above M.S.L. to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated June 26 1931

Remarks Instructions supplemental to general instructions for seasons work.