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Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
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State: California.....	
DESCRIPTIVE REPORT	
<i>Topographic</i> <i>Hydrographic</i>	Sheet No. 4265
LOCALITY	
San Francisco	
Dumbarton Bridge	
1927	
CHIEF OF PARTY	
P.C. Whitney	

GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT TO ACCOMPANY SHEET No.1.

ORDERS:

The work shown on sheet No.1 is called for is called for under Instructions from the Director dated February 10th and March 2nd, 1927.

GENERAL DESCRIPTION:

The work done on Sheet No.1 shows the location of the Dumbarton Highway Bridge recently built across the lower end of San Francisco Bay from Palo Alto to what is known as Jarvis Landing.

LANDMARKS:

The bridge itself is the most important feature shown on the sheet. The bridge is actually 8 meters wide, while the approaches from both ends are 10 meters wide. For the sake of clarity this has been exaggerated on the sheet. The pencil line shown on the sheet shows the location of the centerline of the bridge and approaches.

Signals East and West are tall towers, which support the counterweights used for raising the lift span of the bridge. These towers are about 190 ft. high, and are sufficiently prominent landmarks to warrant their being shown on the chart.

SURVEY METHODS:

The control for this work was excellent, at least three triangulation stations being visible most of the time. At a point about 1½ miles from the eastern end of the work, a three point fix was taken, and from this point a traverse was run to Jarvis Landing, where a connection was made to the old road shown on the tracing of the survey of 1897. The connection at the western end of the work, at the point marked "B" on the portion of Chart No. 5531 attached, was good in both distance and azimuth, while at Jarvis Landing, the connection was good in distance, but shows a discrepancy of about 110 meters in azimuth, the new location being south of the old one. In view of the excellent control had on this work, there is little doubt but that the new location is correct.

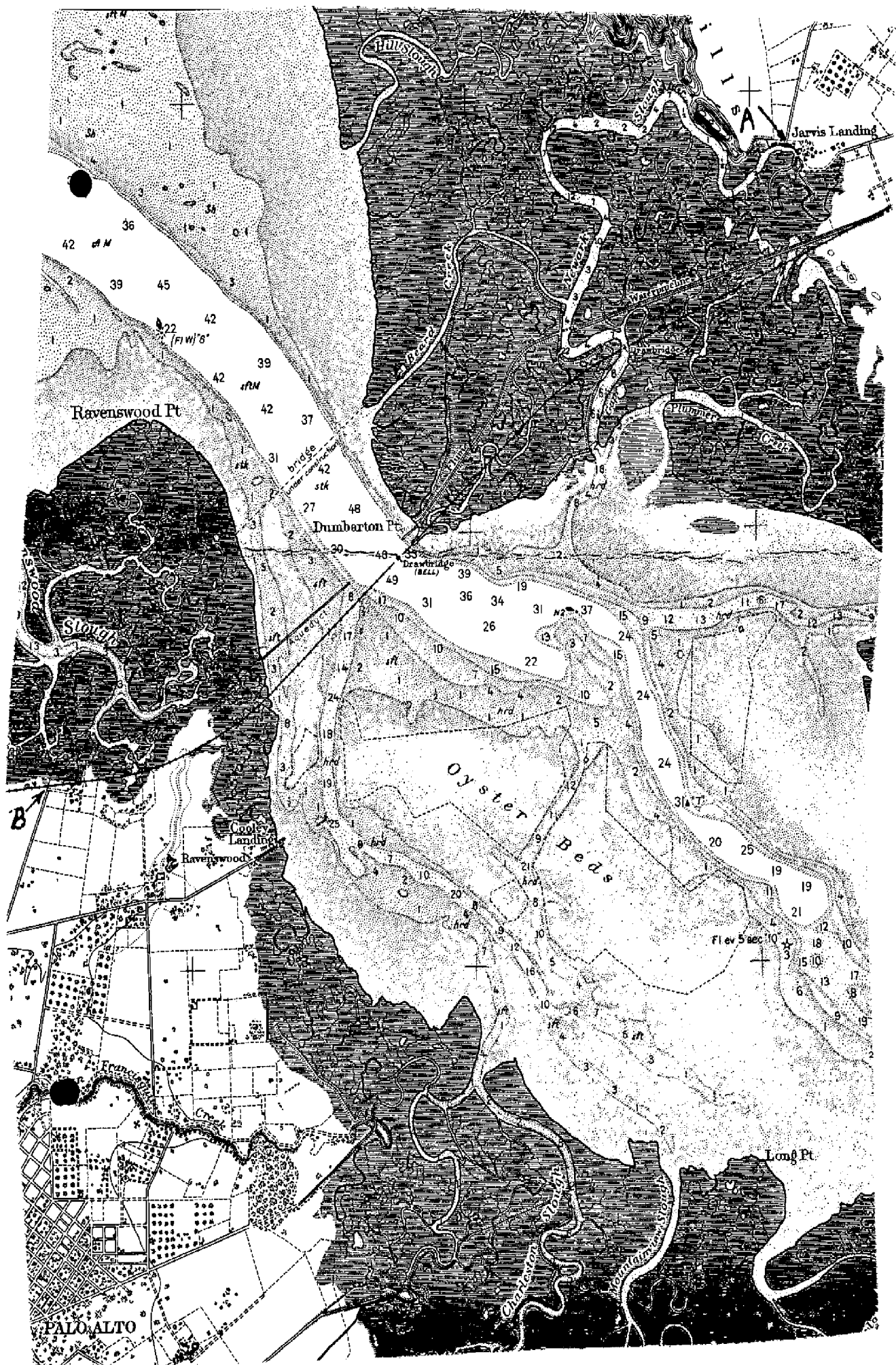
In transferring the locations of both ends of the road from the old tracing to the topographic sheet, the positions from the old tracing were corrected in latitude and longitude in order to reduce them to the North American datum. This was done by comparing the positions of triangulation stations shown on the tracing

with the positions of these same triangulation stations as determined in 1925 on the North American datum. This correction amounted to plus 207 meters in latitude and minus 86 meters in longitude applied to positions taken from the old tracing. In transferring the contour lines shown on the topographic sheet, this same correction as well as the 110 meter closure correction were applied.

At a point about 920 meters from the eastern end of the work where the road passes between two hills, the northern end of the hill to the southward of the road has been cut away to provide material for the fill on which the eastern approach to the bridge is built. This left the hill with a perpendicular slope at this point. The change in the 20, 40, and 60 ft. contours here, is shown on the sheet.



PAUL C. WHITNEY, INSPECTOR.
COAST & GEODETIC SURVEY.



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POSITIONS OF TOPOGRAPHIC SIGNALS

Station	Latitude	D.M. meters	Longitude	D.P. meters	Height feet	Remarks
Jarvis Landing	37°-31'	1302	122°-03'	1051		Center of road
House	37°-30'	601	122°-07'	172		West toll house
West	37°-30'	652	122°-07'	119	190	West tower
East	37°-30'	701	122°-07'	56	190	East tower
Toll	37°-30'	759	122°-06'	1462		East toll house

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
4265

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. 1

REGISTER NO. 4265

State California

General locality San Francisco, California

Locality Dumbarton Bridge

Scale 1-20000 Date of survey April 6-7, 1927

Vessel San Francisco Field Station

Chief of Party Paul C. Whitney

Surveyed by Isidor Rittenburg

Inked by Isidor Rittenburg

Heights in feet above to ground to tops of trees

Contour, ~~Approximate contour, Form 1111~~ interval 20 feet

Instructions dated February 10, March 2, 1927

Remarks: