6489ab

6489ab

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

Topographic / *Hydrographic* } *Sheet No.* T-6489ab

State New York

LOCALITY

New York City

Triborough Bridge

1936

CHIEF OF PARTY

C. A. Egner

U.S. GOVERNMENT PRINTING OFFICE: 1934

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. A,B

REGISTER NO. T6489a b

State New York.

General locality New York City.

Locality Triborough Bridge

Scale 1/5000 Date of survey August, 1936

Vessel New York Field Station

Chief of party C. A. Egner.

Surveyed by C. A. Egner.

Inked by C. A. Egner.

Heights in feet above ----- to ground to tops of trees

Contour, Approximate contour, Form line interval ____ feet

Instructions dated July 16, 1936

Remarks: Supplemented by photo-compilation.

D E S C R I P T I V E R E P O R T

TOPOGRAPHIC SHEETS A. and B.

TRIBOROUGH BRIDGE

NEW YORK.

Authority

The work on these two sheets was executed under Instructions of July 16, 1936.

Scope

The area surveyed was air photographed prior to the construction of the Triborough Bridge. This important municipal development, involving bridges and viaducts joining the three city boroughs - Queens, Manhattan and Bronx - spans the waterways separating those city divisions, and involves considerable alteration of the approach areas as well as on Randalls and Wards Islands which support major portions of the roadway.

The air photo compilations of the area, therefore, do not show the bridge nor the roadways by which the bridge system is united with the city street layouts in Manhattan and the Bronx nor with the Long Island parkway system extending through Queens toward Flushing Bay.

It was the purpose of the field work on these two sheets to tie down this bridge construction by topographic means; also, to provide field inspection for the air photo compilations to show where these have now to be revised.

Preparation of sheets and control

Two sides of a double-backed aluminum sheet were prepared in the Washington Office on a scale of 1:5000. Two were necessary as the bridge and approaches involved a little too much area to be covered completely by one sheet on this scale. "B" sheet takes in only that area which reaches beyond "A" in the vicinity of the Queens approach.

On these sheets were plotted all available topo signals as taken from the air photo compilations. Also, there were included the numerous topographic locations of U. S. Engineer stations. These were not available as triangulation but depend for their accuracy upon scaled locations from the photo compilation sheets. In addition, there were plotted in the New York Field Station, upon receipt of these sheets, all available triangulation.

This control proved to be sufficient for executing the field work. It was believed before the work was undertaken that additional triangulation would be necessary; while it would have been useful, the work was not held up by its absence.

Field methods.

The roadway was first completely surveyed and located by three point fixes with the planetable, using numerous triangulation and topographic (air-photo compilation) signals. From these setups sufficient rodding was done to obtain the detail - ramps, toll gates, sidewalks, stairs, etc.

Following this, setups were made on the ground level for a detailed location of the abutments, piers at the water crossings, etc.

The detail of the approaches on Manhattan, The Bronx and Queens was rodded in from similar three point fixes and by short topographic traverses.

When the sheet was inked, the shape of the abutments, and other detail, was checked against the plans of the bridge furnished this office by the Triborough Bridge Authority.

The resulting inked picture is, therefore, primarily a field survey and only secondarily dependent upon the bridge plans.

The location of the bridge depends in no case upon the photo compilation sheet except in so far as the topographic signals were taken therefrom.

Area under development.

At this writing, much of the general area is still under construction.

(1) The Manhattan approach is to be tied to the boulevard (to be known as East River Drive) southward from 125th Street along the East River. The ramp furnishing this connection caused some alterations in the property lines, bulkhead lines and buildings immediately west and south of the Harlem River crossing. Numerous buildings were razed on both sides of 125th Street as far west as Second Avenue. Side walks are being built and grass plots sown flanking 125th Street between First and Second Avenues.

(2) The Bronx approach has changed the street layout, including some razing of parts of residential blocks flanking the bridge approahces. No alterations were necessary in the railway track areas south of 132nd Street.

(3) Randalls Island is completely changed and almost all buildings torn down. This island will be landscaped throughout for recreation purposes supplementing the stadium, which already has become a prominent municipal athletic and operatic center. Since this island is in the midst of this vast change, no attempt was made to make a survey of it. The stadium was not put on the sheet as it is still under construction and the straight-away being extended to the desired 220 yards some distance beyond the bowl. In a years time this perhaps will be ready for an accurate survey.

(4) Wards Island, which contains the Insane Hospital, remains as compiled except where the bridge viaduct piers and Hell Gate suspension bridge towers and anchors have necessitated minor alterations.

(5) The Queens approach involved extensive changes. The main roadway is to proceed from the bridge toward Flushing Bay to hook up with the Long Island parkway system. This is now in course of construction and involves considerable alteration in the street layout. This will be completed late this fall. Likewise, the area around the bridge on the east side of Hell Gate is being extensively landscaped. A municipal swimming pool flanks the bridge in Astoria (This was the site of the final tryouts for the Woman's Olympic Aquatic team) and will be the focus of a recreational development. Street layouts are altered somewhat.

In general, it is expected that the Triborough Bridge will cause a vast shift in population and transporation. It should cause a rapid residential development around the approaches as it affords access among three city boroughs with a maximum saving in time. The bridge will relieve the Queensborough Bridge bottleneck. The recreational facilities afforded by the Randalls Island development will undoubtedly increase the attractiveness of this area for residential purposes. The 1938 World's Fair in the Flushing Creek area will be helped by the easy access afforded its connection with the Long Island parkway system.

These trends are noted in order to point out that many of the details shown on the air photo compilations in this area are likely to be much altered in the next few years.

Signals located.

The bridge towers of the suspension span across the East River, the two towers at the toll gate leading from Manhattan and the lights on top the four supports to the lift span across the Harlem River, were the only definite points located by topography.

Marking of stations.

No new marking was done.

Recovered stations.

No attempt was made at a systematic recovery of stations. Stations were recovered only where necessary.

Vertical control.

None.

Magnetic Meridian.

None was taken as it appeared the area is well tied down in this respect; also, the presence of such massive steelwork in the structure made any such attempt on the bridge itself quite futile.

Landmarks.

No new ones except the bridge itself.

Respectfully submitted,

C. A. Egner

C. A. Egner, Inspector,
New York Field Station.

Blueprints: Numerous blueprints obtained from the Triborough Bridge Authority are forwarded with the sheet. These show details of the bridge and other information used in a check up on the field survey.

M-189

REVIEW OF GRAPHIC CONTROL SURVEY T-6489a, SCALE 1/5,000

Date of Review Sept 3, 1936.

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5458, ~~T5452~~, with particular attention to the following details:

(a) Projection has been checked in ~~the Field.~~ this office ✓

(b) Accuracy of location of plane table control points. ✓

(c) Discrepancies between detail on this survey and the air photo compilations listed above. (see review T-5458)

(d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above. ✓ none submitted

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5458, , , for a more complete discussion of any errors or discrepancies found. none

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section. none ✓

Notes and corrections resulting from the review are shown on this survey in green. Note in green at mouth ~~none~~ ✓ end of words Inland. See Review of T 5458 for discussion

Leonard A. Nelsen

V B.G. Jones

BGJ

M-189

REVIEW OF GRAPHIC CONTROL SURVEY T- 6489½ SCALE 1/5000.

Date of Review Sept. 3, 1936.

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T- 5458 , , with particular attention to the following details:

(a) Projection has been checked in ~~the Field.~~ this office /

(b) Accuracy of location of plane table control points. /

(c) Discrepancies between detail on this survey and the air photo compilations listed above. see review T-5458

(d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above. none submitted -

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T- 5458 , , for a more complete discussion of any errors or discrepancies found. none -

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section. none -

Notes and corrections resulting from the review are shown on this survey in green. none

Leonard A. McGann

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
[illegible]

No. T 6489 ab

received Aug 29, 1936
registered Nov. 10, 1936.
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	C. K. Green