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THE PORT OF NEW YORK AUTHORITY

Created by Compact Between the States of
New York and New Jersey and Ratified by Congress



THIRTEENTH ANNUAL REPORT

DECEMBER 31, 1933

COMMISSIONERS

NEW YORK

GEN. GEORGE R. DYER

Chairman

HOWARD S. CULLMAN

JOHN F. MURRAY

JOHN J. PULLEYN

A. J. SHAMBERG

RUDOLPH REIMER

NEW JERSEY

FRANK C. FERGUSON

Vice-Chairman

JOSEPH G. WRIGHT

GEORGE deB. KEIM

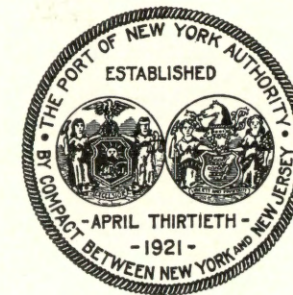
IRA R. CROUSE

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IN MEMORY

of

WILLIAM C. HEPPENHEIMER

At a regular meeting of the Commissioners of The Port of New York Authority held in the City of New York on the fifth day of October, nineteen hundred thirty-three, the following tribute to the memory of the Honorable William C. Heppenheimer was offered and unanimously adopted:

The passing of the Hon. William C. Heppenheimer, for the last five years a commissioner of The Port of New York Authority, came as a great shock to his colleagues on this Board. As a man of unusual qualities, and of widespread experience in both public and business life, his active participation in Port Authority undertakings and in the formation of policies was of lasting and incalculable value. Personally, he was a devoted friend with whom association was at all times most wholesome and inspiring.

General Heppenheimer became a commissioner of the Port Authority on July 1, 1928. The intervening years marked the progressing of the Port Authority to a full stage of recognition and responsibility in the development and protection of the interests of the vast port district. To the success of the Port Authority in these years and in the laying of the foundation for still greater achievements, General Heppenheimer's contribution was of monumental importance. His lifelong familiarity with the affairs of State, his prominence in movements designed to advance the civic welfare, his keen knowledge of financial matters, made him a commissioner than whom there was none more outstanding since the creation of the Port Authority.

He was deeply interested in every phase of Port Authority activity. His knowledge gained by personal contact with the governmental and business affairs of the New Jersey portion of the Port District made him an invaluable representative of the commonwealth from which he was appointed. The principles underlying the agreement between the States of New York and New Jersey, whereby the Port Authority came into existence were thoroughly understood by him and they had his warmest support.

Among his many manful and admirable characteristics, was his unswerving loyalty to his friends. This was evidenced nowhere more strikingly than in his relationships with his fellow-commissioners. He was warmhearted, generous, and most sympathetic in his impulses. The commissioners of The Port of New York Authority have lost one not only for whose opinions and capabilities they had the highest respect but they have lost a true friend and councilor. His membership in this Board will long be remembered with respect, affection and appreciation.

IN MEMORY

of

DeWITT VAN BUSKIRK

At a regular meeting of the Commissioners of The Port of New York Authority held in the City of New York on the thirtieth day of March, nineteen hundred thirty-three, the following tribute to the memory of the Honorable DeWitt Van Buskirk was offered and unanimously adopted:

The Commissioners of The Port of New York Authority have learned with deep regret of the death of the Hon. DeWitt Van Buskirk, a former Chairman of this Board. He was one of the first to recognize the imperative necessity of reorganizing the freight and transportation facilities of the Port of New York in the interest of commerce and industry and therefore of the people themselves. He served as a member of the New York-New Jersey Port and Harbor Development Commission, the predecessor of the Port Authority, throughout its entire life from 1917 to 1921. In all of the activities of the bi-State Commission; in the negotiating of the Compact between the two States of New York and New Jersey; in the drafting of the enabling acts passed by the respective Legislatures; in the ratification by Congress of the creation of the Port Authority, Mr. Van Buskirk was unsparing of his time and the contribution of his rich fund of business knowledge was of incalculable value in the success of the undertaking.

Subsequently, he was appointed one of the first three commissioners of The Port of New York Authority as a representative of the State of New Jersey. First as Vice-Chairman and then as Chairman, he continued to give without stint of himself and of his great ability in the carrying out of the agreement between the two States. From 1921 to 1924, inclusive, in the formative days of the Port Authority, he took a leading part in placing the organization on a firm foundation and in attracting that public confidence which was indispensable to the later accomplishments of the Port Authority. We express to the family of Mr. Van Buskirk our heartfelt sympathy in his loss and we here again voice our earnest appreciation of the service he gave to the Port of New York.

THE PORT OF NEW YORK AUTHORITY

111 EIGHTH AVENUE, NEW YORK CITY

EXECUTIVE

JOHN E. RAMSEY, General Manager

JOHN J. MULCAHY, Assistant General Manager

L. J. KEEFE,
Secretary

MORRIS M. FROHLICH,
Assistant Secretary

H. S. QUIGEL,
Real Estate Agent

P. L. GERHARDT,
Industrial Consultant

MEYLERT BRUNER, Jr.,
Chief Clerk

JAMES CLARK McGUIRE,
Purchasing Agent

WILLIAM LEARY,
Treasurer

E. E. MENZER,
Assistant Treasurer

MARION RODGERS,
Auditor

DR. EDWARD LEVY,
Medical Director

EDWARD J. TSCHIMBKE,
Librarian

E. TRACY LANTERMAN,
General Claim Agent

LAW

JULIUS HENRY COHEN, General Counsel

WILBUR La ROE,
Associate Counsel, Washington

LEANDER I. SHELLEY,
Attorney

RUSSELL E. WATSON,
Associate Counsel, New Jersey

A. J. TOBIN,
Real Estate Attorney

DEVELOPMENT AND OPERATION

BILLINGS WILSON, Assistant General Manager

W. P. HEDDEN,
Chief, Bureau of Commerce

GLENN S. REEVES,
Engineer, Port Development

E. MORGAN BARRADALE,
Superintendent of Tunnel Operation

SYDNEY CUMBERLEDGE,
General Superintendent of Bridges

CORNELIUS F. CAHALANE, Police Consultant

CONSULTANT

JOHN F. GALVIN, Director of Port Development

ENGINEERING

O. H. AMMANN, Chief Engineer
EDW. W. STEARNS,
Assistant Chief Engineer

J. C. EVANS,
Terminal Engineer

RALPH SMILLIE,
Engineer of Design

CHAS. S. GLEIM,
Engineer of Construction

ALLSTON DANA,
Engineer of Design

W. E. THOMPSON,
Tunnel Engineer

GEO. L. LUCAS,
Engineer of Inspection

JAMES H. DUGAN,
Assistant Engineer of
Design

W. A. CUENOT,
Chief Draftsman

E. W. BOWDEN,
Assistant to Chief Engineer

CHAS. W. MURDOCK,
Mechanical Engineer

J. N. DODD,
Electrical Engineer

JACOB MECHANIC,
Resident Engineer

CHARLES L. CRANDALL,
Resident Engineer

CONSULTING ENGINEERS

JAMES FORGIE,
Consulting Engineer

OLE SINGSTAD,
Chief Consulting
Engineer on Tunnels

DANIEL E. MORAN,
Consulting Engineer on
Foundations

MORGAN F. LARSON,
Consulting Engineer

ROBERT RIDGWAY,
Consulting Engineer

PROF. G. H. BROWN,
Consulting Ceramic Engineer

ARCHITECT

AYMAR EMBURY II

CONSULTING GEOLOGIST

PROF. CHAS. P. BERKEY

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LAWRENCE SCUDDER & CO.

ACCOUNTANTS AND AUDITORS

February 15, 1934

The Port of New York Authority,
111 Eighth Avenue,
New York, N. Y.

GENTLEMEN:

We have made an examination of the books of account and records of The Port of New York Authority for the year ended December 31, 1933.

The cash on hand and investment securities in the vaults were verified by count. Sinking Funds and General Reserve Fund investments were similarly verified. The cash on deposit in the various banks, together with the collateral pledged to secure these deposits were verified by certificates received from the depositaries.

All vouchers supporting disbursements from the funds of The Port of New York Authority were audited by us. Expenditures from the funds in custody of the State Treasurers of the States of New York and New Jersey are made by them after the Comptrollers of the respective States have audited the vouchers.

Discount on bonds sold to December 31, 1933 has been charged to investment account in accordance with the policy adopted by the Commissioners.

Interest on bonds of the George Washington Bridge for the year ended December 31, 1933 was charged in the ratio of 85% to operations and 15% to investment account, based on completed and uncompleted construction work.

During the year 1933, the following amounts were set aside or reserved for sinking fund purposes: Series A bonds, \$245,866.70 from the General Reserve Fund; Series B bonds, \$100,000.00 from earnings; Series E bonds, \$1,500,000.00, of which \$1,350,000.00 was reserved from earnings and \$150,000.00 from unexpended bond proceeds.

The Series A bond indenture provides for a sinking fund payment of \$800,000.00 for the year 1933. The sinking fund provision for the first issue of Series B bonds is \$100,000.00 for 1933, while the Series E bond indenture requires a sinking fund payment of \$1,500,000.00 for the current year. The sinking fund reservations for the Series B and E bonds during the current year have been made in accordance with the requirements of the bond agreements covering these two series of bonds.

The balance of amounts made available by the State of New Jersey to aid in construction of bridges, amounting to \$500,000.00, together with the unexpended balance of advances to the New Jersey Highway Commission, amounting to \$213,217.96, are the subject of a pending settlement. A bill has been introduced in the New Jersey State Legislature providing for this settlement.

We hereby certify that, in our opinion, the accompanying General Balance Sheet, subject to the foregoing comments thereon, correctly reflects the financial condition of The Port of New York Authority as at December 31, 1933.

Respectfully submitted,

LAWRENCE SCUDDER & CO.

LETTER OF TRANSMITTAL—ANNUAL REPORT FOR YEAR 1933

NEW YORK, *March 5, 1934.*

To the Governor and Legislature of the State of New York:

To the Governor and Legislature of the State of New Jersey:

Continuing its efforts to improve transportation facilities within the Port District as rapidly as practicable, the Port Authority, during 1933, completed construction of its Inland Terminal No. 1 and Commerce Building situated in Manhattan at 15th and 16th Streets and Eighth and Ninth Avenues. Work on the Midtown Hudson Vehicular Tunnel, which had been delayed due to the continuance of adverse economic conditions, was resumed. Resumption of this important project, which will carry traffic under the Hudson River to and from the vicinity of 38th Street and Tenth Avenue, Manhattan, and Weehawken, New Jersey, was made possible through a credit of \$37,500,000 arranged with the Federal Administration of Public Works and covered by contract dated September 1, 1933.

This contract provides for the Port Authority completing in 1938, the first "operating unit" of the tunnel project. That is to say, one tube only will be constructed with a two lane roadway for the movement of one lane of vehicular traffic in each direction. Contracts for the casting of the tunnel segments and for the manufacture of nuts and bolts were awarded immediately credit arrangements were completed. The main tunnel contract for the boring of the tunnel was awarded in March of this year. The

work is being progressed with all possible speed in order to alleviate as much as possible the unemployment problem. It is expected that during the course of this work, employment will be given, directly or indirectly, to eight thousand employees. The resumption of this work permitted the Port Authority to re-employ many of its engineers who had been furloughed during the early part of 1932.

The total vehicular traffic for the year 1933 was 18,035,689 compared with a total of 18,389,553 in 1932, a decrease of 353,864, or 1.9 per cent. The tolls and other revenues from all operated vehicular facilities in 1933 amounted to \$9,755,245.91, as compared with \$9,898,495.98 in 1932, a decrease of \$143,250.07, or 1.4 per cent. This showing, considering the adverse conditons experienced, is encouraging inasmuch as it was felt at the beginning of the year that a decrease in revenues of \$1,000,000 was quite within the realm of possibility. Fortunately, however, the rate of decrease on the Holland Tunnel slowed up considerably during the year and traffic increased on the George Washington Bridge to such an extent that there resulted an increase in revenues of \$273,692.48, or 9.3 per cent over 1932; so that, despite a material decrease in revenues on the Staten Island bridges, the net total result was gratifying. The gross income from operations of all operated vehicular facilities, totalled \$10,134,638.21, and after deducting operating expenses, interest on funded debt and other income charges, there remained a net income from operations of \$3,112,953.78, as compared with net income during 1932 of \$3,659,006.26, a decrease of \$546,152.48, or fourteen per cent. This decrease was due mostly to an increase in interest charges included in income account. The interest accrued in 1933 amounted to \$4,998,583.34 as compared with accrual of \$4,474,375.02 in 1932, an increase of \$524,208.32. The decrease in gross income was somewhat offset by a decrease in operating expenses of \$107,279.04. Total income, including the income from capital assets, amounted to \$3,349,689.65. The net income from capital assets declined from a total of \$374,002.85 in 1932, to \$236,735.87 in 1933, a decrease of

\$37,266.98, or nine per cent, due wholly to less interest received on bank balances.

Satisfactory progress has been made in bringing about full use of Inland Terminal No. 1 and the Port Authority Commerce Building. At this time over fifty per cent of the available space has been taken and several prospective important leases are under negotiation. The Port Authority moved its entire general offices to the fifteenth floor in the new building in April, 1933. The remodeling of the second floor of the building to provide large space for trade exhibitions will undoubtedly prove of benefit. Heretofore, due to the lack of proper facilities, many large trade shows and exhibitions which have been held in other parts of the country were unable to come to New York. After much study of the problem, it was decided, late in the summer, to meet this demand by the establishment of Commerce Hall. The Hall was opened officially on December 8th, coincident with the entrance of the Ford Exposition of Progress, and in the nineteen days that the show was open it was visited by 2,298,023 people.

Last year the Port Authority reduced its annual request for funds to carry on port development studies, Interstate Commerce Commission cases, etc., from \$200,000 to \$100,000—\$50,000 from each State. No request for appropriations for the next fiscal year will be made, as it is felt that the Port Authority is now in a position to carry on whatever work of this character is necessary, save in certain special cases, when it may be called upon to make studies of an unusual nature.

The Port Authority is in a strong financial condition. At the end of the year, the cash on hand totalled \$10,134,004. Securities held, at cost, amounted to \$10,547,395, composed of Port Authority bonds, and New York and New Jersey municipals. The total debt of the Port Authority was decreased \$1,400,000 during the year

through the payment of bonds maturing. Surplus revenues from the Holland tunnel permitted the addition of \$1,090,987 to the General Reserve Fund during 1933, and at the end of the year the fund totalled \$3,093,343.

Respectfully submitted,

THE PORT OF
NEW YORK AUTHORITY

GEORGE R. DYER,
Chairman,
FRANK C. FERGUSON,
Vice Chairman,
HOWARD S. CULLMAN,
JOHN F. MURRAY,
JOHN J. PULLEYN,
A. J. SHAMBERG,
RUDOLPH REIMER,
JOSEPH G. WRIGHT,
GEORGE DEB. KEIM,
IRA R. CROUSE,
JOHN J. QUINN,
JOHN MILTON,
Commissioners.

SECTION I—DEVELOPMENT AND PROTECTION OF THE PORT

Part 1—Port Development

Coordination of Railroad Freight Facilities and Operation— Cooperation With Federal Coordinator

The passage of the Emergency Transportation Act of June, 1933, coupled with the appointment of Hon. Joseph B. Eastman as Federal Coordinator of Transportation inaugurated a new phase in the consolidation of railroad freight terminals and operations throughout the United States. The Transportation Act specifically directs the new Federal Coordinator to encourage or require action on the part of the carriers to avoid waste, preventable expense, unnecessary duplication of service and facilities; and to promote joint use of terminals.

Immediately upon the appointment of the Federal Coordinator, the Port Authority took steps to place before him and his cooperating railroad committees its factual studies of potential economies to be secured through coordination of freight facilities within the Port District. On July 5th, a letter was sent to the Eastern Regional Coordinating Committee, composed of railroad executives, outlining a six-point terminal coordination program:

1. Gradual closing down of pier stations in Manhattan and Brooklyn and replacing same with consolidated store-door delivery and union freight stations. The ownership and operation of such common facilities and services to be vested in the carriers themselves.

2. Unified operation, similar to Terminal Association of St. Louis, of existing belt line trackage, including new belt line tunnel from Greenville to Bay Ridge and greater use of New York Connecting Railroad; for interchange of freight between trunk line carriers and

to and from steamship piers and industrial sidings located on the rails of other carriers.

3. Consolidation of railroad marine equipment (excluding ferries) into a union boat holding corporation that will arrange for the operation of such equipment, under one head, for the handling of all harbor traffic of all carriers on a uniform basis.

4. Consolidation of railroad lighterage piers where freight is transferred from railroad cars to marine equipment, for the purpose of securing more efficient use of the terminals themselves and heavier loading of marine equipment.

5. Produce terminals of individual carriers in Manhattan and New Jersey to be coordinated into union perishable food terminals, open to all carriers on equal terms and operated by a union produce terminal company.

6. Consolidation of local merchandise freight stations of Northern New Jersey into a number of strategically located union stations, supplemented by some system of store-door delivery.

This was followed up by the filing of a memorandum with the Eastern Regional Coordinator on August 18th developing the program in more detail and showed an estimated saving of approximately \$7,500,000 per annum. Detailed data covering the several phases were subsequently furnished to the Coordinator.

Working in cooperation with the Coordinator, the railroads serving the Port of New York made progress during 1933 in at least two directions in achieving coordination of their activities. In July, the Railroad Marine Service was established to unify certain of the harbor lighterage operations. On November 19, 1933, the Marine Service established a central tug dispatching office at 21 West Street, connected by private wire telephone system with all of the railroad lighterage terminals. The railroad

tug dispatchers are now concentrated in this office and are effecting economies by performing tows for each other by making available a tug of one railroad when it is conveniently located to a barge or carfloat of another railroad requiring towing or shifting.

In the first twelve days of the new central dispatching operation, approximately 1,415 operations were performed by tugs of owning railroads for barges or lighters of other railroads. Since the total number of towing operations during this period amounted to about 11,000, the reciprocal towing constituted 12 per cent, a rough measure of the resulting economies.

A beginning was also made in the reciprocal use of barges, in instances where the barge of one railroad has been made light conveniently near a harbor point where another railroad needs a barge for loading. Through the operations of the Railroad Marine Service the chartering of outside tugs and barges has been completely eliminated, and the supply of the tug power more nearly adjusted to total current demand of all carriers.

The railroads made progress in another direction by consolidating certain station facilities in Manhattan and Brooklyn. On May 1, 1933, the Pennsylvania Railroad joined with the Baltimore & Ohio in a joint station at Pier 21, East River, the Pennsylvania abandoning its adjacent Pier 22. Effective January 1, 1934, the Baltimore & Ohio, Lehigh Valley and the New York Central and Pennsylvania Railroads combined their stations at Wallabout Terminal, Brooklyn, into a Union Freight Station jointly operated under a single agent. This joint station utilizes two piers (Nos. 2 and 3 Wallabout) in place of three piers and a bulkhead previously occupied and permits the release of Pier 5 formerly occupied by the Lehigh Valley, and the bulkhead occupied by the Baltimore & Ohio.

Mainly by reason of consolidation and establishment of union stations, the railroads have been able to give up four and a half piers on Manhattan Island and one pier and a bulkhead in Brooklyn at an aggregate annual saving in rental charges of approximately \$340,000.

For making both these forward steps in the unification of lighterage and the consolidation of stations the railroads are to be commended.

Union Inland Freight Station No. 1

The year 1933 marked the first complete year of operation of Union Inland Station No. 1, located in the Port Authority Commerce Building, the initial step in carrying out that portion of the statutory plan designed to afford relief to Manhattan Island. Previous reports outlined the negotiations with the eight New York railroads which resulted in the agreement under which the Port Authority constructed Union Terminal No. 1 and leased the ground floor and basement to the carriers for operation under joint management of a union less-carload freight terminal.

The station opened on October 3, 1932 and in the first twelve months handled over 40,000 tons of freight. While the station is by no means as yet used to capacity, the growth in tonnage handled during the first year has demonstrated its popularity with shippers. The October, 1933 volume amounted to 5,008 tons, 310 per cent of the 1,567 tons handled in the corresponding month of 1932. Reports received from important shippers and receivers of less-carload freight fulfill expectations with regard to the usefulness of the station in reducing street traffic and cartage costs and expediting the handling of freight to and from merchants' stores and warehouses.

Approximately 2,000 shippers and receivers made repeated use of the Union Inland Freight Station in 1933.

Steps have been taken to encourage the carriers to promote the use of the station more actively.

The small percentage of inbound freight passing through the station appears to be attributable largely to the failure on the part of the carriers to issue instructions that inbound freight consigned to street addresses in the vicinity of the Union Inland Station shall be automatically routed to and offered for delivery at that station. As yet no delivery territory has been assigned to the railroad tariffs and billing books to the new station and so far as the tariffs

are concerned the station is not yet on a parity with the carriers' other Manhattan station.

Late in 1933 the trunk line carriers filed tariff supplements with the Interstate Commerce Commission restricting the use of Union Inland Freight Station No. 1 on deliveries of eastbound freight consigned to water carriers for forwarding beyond the Port of New York. Since the routing of railroad consignments to Union Inland Freight Station No. 1 for concentrated trans-shipment by truck to intercoastal and overseas ships had resulted in reduction of transfer charges at the port from an average of approximately 15 cents per hundred pounds to 5 cents per hundred pounds, the Port Authority joined with interested shippers and steamship companies in a protest to the carriers and to the Interstate Commerce Commission. The restrictive tariff went into effect on December 1st, despite the protests. The matter is being taken up with individual carriers for review.

In August, the carriers, with the approval of the Port Authority, subleased 5,000 square feet of space in the Union Inland Freight Station to the Railway Express Agency. This space is being used by the Express Agency to assemble shipments for dispatch to rail-head loading terminals in much the same way as the carriers assemble less-carload freight on the same platform.

Store Door Delivery

On December 1, 1933, the Erie and Pennsylvania Railroads began a system wide experimental store door collection delivery of less-carload freight in the territory served by their respective lines. Since this service is complementary to the Port Authority's union station and pier consolidation plans in substituting terminal motor trucking for the carfloat and pier station delivery of merchandise to the easterly side of the port, the Port Authority staff appeared at a hearing before the Interstate Commerce Commission in support of the proposed service.

If the experimental store door delivery service is a success, and is also extended to carload traffic, together with

the more intensive use of Union Inland Freight Station No. 1, it will "dry up" the pier stations and permit their release for ocean shipping, with consequent large economies to the rail carriers in their terminal operating costs.

Under the present tariffs, collection and delivery service is included in any freight rate over 35 cents per hundred pounds for hauls up to 260 miles, this being the zone of most intense motor truck competition. Beyond 260 miles a graded scale of charges, ranging from 1 cent to 6 cents per hundred pounds is assessed above the freight rate.

Belt Line No. 1

Belt Line No. 1, the most important section of which is the Greenville-Bay Ridge Tunnel under New York Bay, when constructed, will provide an all-rail route connecting the New Jersey and New York sides of the port. Actual construction of this project can not be undertaken until agreements with the railroads have been arrived at covering the use of the proposed tunnel and its connections.

Early in the year a thorough study of revised plans was made by representatives of the Brooklyn Chamber of Commerce, the Long Island Ten-Year Plan Committee and the Port Authority and submitted to the Chairman of the Eastern Railroad Presidents Conference Committee on April 28, 1933. At that time, due to unsettled conditions such as pending railroad legislation, railroad consolidations, sub-normal business conditions and railroad finances in general, it was not possible for the railroads to make a final determination as to the immediate timeliness of the project.

On several occasions between August and December, 1933, the plans for the tunnel and its connections were laid before the representatives of the Federal Coordinator of Transportation. Although the tunnel as a self-liquidating project cannot be carried forward until financial agreements are reached with user railroads, the Port Authority has urged that the improvement be recommended by the Coordinator as a desirable joint undertaking by the car-

riers, with possible financial aid from the Federal Government.

Northern New Jersey Freight Transportation Survey

The 1932 Report noted that a survey of the freight transportation needs of the New Jersey section west of the Hackensack River was undertaken on February 1st of that year with headquarters at a field office in Newark. By the end of June, 1933, the field work of canvassing approximately 3,000 shippers in the whole of Essex County and Elizabeth, Union, Hillside, Lyndhurst, North Arlington, Kearney and Harrison had been completed, and records assembled from 113 railroad stations. In this survey the Port Authority had the cooperation of the chambers of commerce, shippers' organizations and railroads in each community.

It was originally intended to canvass the whole of New Jersey within the Port District. The failure of the New Jersey Legislature, however, to contribute New Jersey's share of the annual appropriation which enabled the Port Authority heretofore to conduct its planning and development activities under the Port Compact, necessitated the discontinuance of the Newark office and the field work. With the exception of some preliminary surveys at Carteret, Clifton and Lodi, the Paterson, Bergen County, Amboy, Rahway and New Brunswick territories were not reached.

Upon the closing of the Newark office, the compilation and analysis of field data already collected was transferred to the main office. A map, the first of its kind, making a complete inventory of railroad freight station facilities in the Essex County area was prepared, and copies distributed to the railroads and large shippers. An advisory committee of shippers' representatives kept in touch with the progress of the field survey and the compilation of results and made valuable suggestions. Some of the preliminary findings were discussed before the Newark Traffic Club on October 3, 1933. The material relating to

rail freight traffic is being prepared in report form for use by the Federal Coordinator and for future negotiations with the railroads. The data on motor vehicle and waterborne tonnage will be useful in connection with studies of new interstate crossings and economic surveys of river and harbor projects.

Federal Aid to the New York State Barge Canal

The Annual Report for 1932 called attention to the importance of the New York State Barge Canal as a link between the Port of New York and the vast hinterland of the United States tributary to the Great Lakes. This canal places the Port of New York in a position to compete for low cost inland transport with the ports of New Orleans and Montreal, which are served by the Federally maintained Mississippi and St. Lawrence waterways.

During 1933 the Port Authority continued its efforts, in cooperation with the Department of Public Works of the State of New York, the Albany Port Commission and various civic and trade bodies, to advance the project for improving the canal by deepening to 14 feet between locks and raising bridges to a minimum vertical clearance of 20 feet. On July 31, 1933, a Port Authority representative appeared before the Board of Engineers for rivers and harbors of the United States War Department in support of a recommendation that the Federal Government undertake the improvement of the canal at a cost of \$27,500,000, leaving the title, control, maintenance and operation in the hands of the State of New York. On August 11th a supplemental brief was filed elaborating the economic justification for the Federal contribution.

On September 28th the Chief of Engineers of the War Department transmitted a report of the Board of Engineers recommending to Congress the adoption of the project. The matter now waits favorable action by Congress or an allotment by the Executive Department from the funds set aside for rivers and harbors improvement under the National Recovery Act, or both.

Channel Improvements

Since Congress refrained from enacting a rivers and harbors bill during the past year, no new examinations or surveys for channel improvements in the Port District were authorized. The National Industrial Recovery Act made up in part for the lack of a regular river and harbor bill. Title II, Section 202 (b), of the Act permitted the construction of river and harbor improvements heretofore or hereafter adopted by the Congress or recommended by the Chief of Engineers of the United States Army.

Under authority of this section the full amount of estimated cost was allotted to the Perth Amboy Quarantine Anchorage and Perth Amboy Cut-Off Channel projects, both of which the Port Authority had recommended.

Projects already under construction which received additional funds by allotment under the Public Works section of the Recovery Act were:

Hudson River Channel, N. Y.
Bay Ridge and Red Hook Channels, N. Y.
East River, N. Y.
East Rockaway Inlet, N. Y.
Buttermilk Channel, N. Y.

The total funds allotted to the above-mentioned channels aggregated \$3,435,000. The Buttermilk Channel project was progressed by letting of contract for relaying of obstructing cables and water mains between Brooklyn and Governors Island, as well as for rock dredging in the channel. This is the beginning of actual work on a long deferred project.

The Port Authority also made many investigations and recommendations to the United States Engineers relative to applications for harbor line modifications, laying of submarine pipes and cables, and other matters pertaining to the protection of navigable channels and regulation of commerce thereon.

57th Street Bridge

At a hearing before Secretary of War Dern on September 13, 1933, the Port Authority opposed the granting of a permit to the North River Bridge Company for the construction of a bridge across the Hudson River at 57th Street.

On November 8th, the Secretary of War advised the bridge company as follows:

"I find that the bridge as you propose will interfere with the navigation in the North River. That interference is not unreasonable if the bridge is a necessity to the immense cross-river traffic between New Jersey and New York, and were such necessity a fact, a permit would at once issue. Any interference with navigation in New York Harbor is unreasonable when not necessary.

Your proposed bridge is opposed by local public authorities, especially the Port Authority, in which appears to be vested the special care of important bridges and tunnels.

The Port Authority has planned a tunnel at 38th Street, and has borrowed a large sum of money from the Federal Government on a self-liquidating basis. Your bridge, if built, would come into direct and powerful competition with that enterprise, and threaten the security of the loan made by the Federal Government.

At present the proposed tunnel at 38th Street appears sufficient to meet traffic demands. Additional facilities appear of doubtful necessity now or in the near future.

With these considerations in view in the meeting of my duty in the interpretation of the law requiring no unreasonable interference with navigation, as well as the futility of issuing a permit, I inform you that no permit for a bridge over the North River at or in the vicinity of 57th Street, New York City, will be issued by the War Department, now or in the near future."

Supervision of traffic Surveys—Emergency Works Bureau and Civil Works Administration

At the request of the Unemployment Relief Committee (so-called Gibson Committee), the Port Authority provided a limited amount of technical supervision for traffic surveys made by so-called "white collar" groups.

The Emergency Works Bureau was provided with field headquarters by the management of the County Trust Building, 14th Street and Eighth Avenue. The work was carried on continuously from November 16, 1931 to October 1, 1933 by a force built up from 30 men to approximately 800 and then tapered off as the funds were depleted. Both New York and New Jersey residents were employed in approximately equal ratio.

Among the surveys completed were an origin and destination study of freight received and delivered at Manhattan, Brooklyn and Bronx waterfront railroad freight stations; a canvass of the origin and destination and mode of conveyance of freight handled at 45 steamship piers in New York harbor for a period of four months in 1932; typical hourly, daily and seasonal variations of interstate highway traffic; compilation of detailed origin and destination and trend data for vehicular traffic.

Many of these compilations and analyses were graphed and constitute valuable records for future planning of port facilities, which the Port Authority could not have assembled without the assistance of the Emergency Works Bureau. In order to complete the compilation and graphing of field data gathered in these surveys the Port Authority has arranged to house and supervise 50 engineers and draftsmen assigned by the New York City Branch of the Federal Civil Works Administration beginning January, 1934.

Highway Traffic Studies

Throughout the year a small force of expert traffic analysts continued studies of the trend, destination, directional flow, and periodic variations in vehicular traffic over the Port Authority's facilities. With the aid of forces

furnished by the Emergency Works Bureau, mentioned elsewhere in this report, numerous field clockings were completed. The facts developed from these studies were necessary to decisions in respect to operating, engineering and financial problems.

Numerous statistical records were assembled and analyzed as traffic barometers with which to compare results of the operations of the Port Authority crossings. These records included a complete picture of the interstate vehicular traffic from Tarrytown to Perth Amboy via all ferries, bridges and tunnels; motor vehicle registrations for the Metropolitan counties in New York and New Jersey; traffic over nine bridges and tunnels in outside Metropolitan areas such as Philadelphia, Buffalo, Detroit and San Francisco; motor vehicle production and sales; and significant New York business indexes. Information was also exchanged with various Federal, State and Municipal departments, administering highway traffic programs.

Numerous studies of traffic and revenues, including a revision of estimates to the basis of the first-stage, one-tube project, were prepared to be used in the financial negotiations with the Reconstruction Finance Corporation and the Public Works Administration in connection with the construction of the Midtown Hudson Tunnel. Data on the estimated volume and distribution of peak hour tunnel traffic in comparison with the Midtown Manhattan street capacity were prepared for discussion with municipal officials and civic associations. Clockings and analytical studies were made of the per lane capacity of a tunnel under varying minimum truck speeds.

SECTION I—DEVELOPMENT AND PROTECTION OF THE PORT

Part 2—Port Protection

As in prior years the Port Authority has been active in protecting the commerce of the port. Trade restrictions and transportation rates play a powerful part in determining the flow of commerce. Competitor ports, particularly on the Atlantic and Gulf Coasts, enjoy lower transportation rates to and from the highly competitive central territory. The Port Authority, in cooperation with the railroads, civic and trade bodies of the port, is constantly resisting attempts to increase these out-port differentials. The activities during 1933 centered on three fronts:—

1. Maintaining or bettering the relationship of the Port of New York to other North Atlantic ports; Boston, Philadelphia, Baltimore and Norfolk.
2. Resisting efforts to increase the advantage of the gulf and South Atlantic ports, particularly New Orleans.
3. Removing restrictions against handling Canadian grain through the United States to the United Kingdom, by clarifying the British Customs regulations.

In connection with this program the Port Authority has participated in five cases before the Interstate Commerce Commission involving the North Atlantic port relationships and two cases involving the Gulf Ports. Decisions have been handed down in three of the seven cases which preserve or re-establish the customary relationship of the Port of New York to other ports. The decisions in the remaining cases have not yet been rendered.

In connection with the movement of Canadian grain to the United Kingdom via New York and other United States ports, restrictive British Customs regulations have been clarified in such a way as will permit the re-establishment of this important transit trade.

In another field, the physical protection of the port from the hazard of explosions or fires in dangerous cargoes, progress has been achieved in advancing the long delayed regulations by the Interstate Commerce Commission.

Each of these matters is summarized below.

Boston Differential Case—I. C. C. Docket 23327

In the Twelfth Annual Report reference was made to a complaint filed in April, 1930, by the City of Boston and the Boston Port Authority which requested the Interstate Commerce Commission

1. To prescribe differentially lower rates to Boston in place of the present rates which are on an equality with New York, and
2. To order publication of separately established rates and charges for terminal services such as lighterage, car floatage, motor truck service to off-track stations, etc.

The Port Authority intervened in this proceeding in opposition to the complaint, contending that Boston is not entitled to lower rates than New York by reason of any geographical or transportation condition or legal precedent. In January, 1933, the examiner for the Interstate Commerce Commission filed a proposed report finding that lighterage, or floating or trucking in lieu thereof at the Port of New York on export, import, coastwise and intercoastal traffic from and to points in New England were unduly prejudicial to Boston and recommending separate charges for these services. On April 15th the Port Authority filed exceptions to the examiner's report, pointing out how the examiner's recommendations would place the Port of New York at a disadvantage in competition with other ports, and emphasizing the deficiencies in his reasoning on the facts and the law. Counsel for the Port Authority also participated in oral argument before the full Commission on May 24th. The final decision from the Interstate Commerce Commission in this proceeding has not yet been rendered.

North Atlantic Port Relationships—Import, Export, Intercoastal and Coastwise Rates: F. S. A. 14570 et al.:

Prior to 1931 practically all of the import, export, and intercoastal business of the North Atlantic ports moved on the same rates as domestic business. The readjustment of domestic rates to a mileage basis by the Interstate Commerce Commission in the Eastern Class Rate Decision disrupted the long-standing port relationships. As described in the Eleventh Annual Report, the Port Authority supported the carriers' proposal in 1931 to publish a separate scale of import, export, intercoastal and coastwise rates to maintain the usual port differentials. Temporary authority so to do was granted by the Interstate Commerce Commission at that time.

On April 4, 1933, the Port Authority appeared before the Interstate Commerce Commission in support of applications of the railroads for permanent authority from the Interstate Commerce Commission to re-establish the port relationships on import, export, intercoastal and coastwise rates. On May 23rd, the Interstate Commerce Commission granted a continuation of the temporary authority. No final decision on the request for permanent authority has yet been rendered.

Intercoastal Wood Pulp—I. C. C. Docket 24914

On January 3, 1933, the Interstate Commerce Commission issued its decision in Puget Sound Pulp and Timber Company, et al., versus Baltimore and Ohio Railroad, et al., I. C. C. Docket No. 24914. This case involved rates on wood pulp in carloads from New York, Philadelphia, Baltimore, Norfolk and Newport News, Virginia, to destinations in Ohio, Indiana, Michigan and Illinois, applicable on intercoastal traffic originating in the State of Washington. The Port Authority intervened in this proceeding to protect the competitive relationship of the Port of New York to other ports by preventing the widening of the port differentials. The examiner's report had recommended a rate adjustment which would have doubled the port differentials to the disadvantage of the Port of New York. The

final report of the Commission required the preservation of the port differential relationships on the usual basis.

Railroad Warehousing and Storage Practices—I. C. C. Ex parte 104—Part 6

Reference was made in the Twelfth Annual Report to a petition filed by the Port Authority with the Interstate Commerce Commission to broaden the scope of its inquiry in this proceeding to cover all of the North Atlantic ports, because of the competitive character of the traffic influenced by railroad storage practices.

In its decision rendered December 12, 1933, the Interstate Commerce Commission decided for the present against extending the scope of its investigations but made it clear to the carriers that practices at all ports must be adjusted uniformly. The decision of the Commission read in part as follows:

“For the present, the pending motion to extend this investigation to cover other ports and terminals, is denied. All carriers subject to the act are hereby admonished that their practices and charges should be adjusted in conformity with the principles announced in this report. Failure of the carriers so to adjust their practices and charges should be deemed sufficient reason for the institution of further investigations in conformity with the pending motion.”

Rates to Atlantic Seaboard on Iron and Steel Articles for Trans-shipment via Panama Canal

In February, 1933, joint conferences were held in Pittsburgh between shippers' representatives and the carriers operating in trunk line and Central Freight Association territory. The shippers sought a rate basis on iron and steel articles from Central territory to Atlantic Seaboard ports on shipments destined for movement via the Panama Canal to Pacific Coast ports which would be comparable to rates applying on export traffic. At present the rates on intercoastal iron and steel are on the same basis as apply to local shipments to points in the Eastern territory.

The Port Authority participated in these conferences, urging that the port relationships on intercoastal iron and steel be restored to the basis already in effect on export, import and intercoastal merchandise moving on class rates. This basis is the long standing North Atlantic port differential adjustment under which rates via New York are 3 cents per 100 pounds over Baltimore, 2 cents per 100 pounds over Philadelphia, and on a parity with Boston. The adverse rate differences under the domestic mileage basis against New York range from 4 cents to 6 cents per 100 pounds as compared to Baltimore.

No decision has yet been announced by the carriers in this matter.

Gulf Import and Export Rates—I. & S. Docket 3718

In previous annual reports reference has been made to a protracted litigation before the Interstate Commerce Commission involving the relationship of New York and other North Atlantic ports to Gulf and South Atlantic ports on import and export traffic to and from Midwestern territory. The first phase of the litigation, known as F. S. A. 2040 et al., was terminated by a decision of the Interstate Commerce Commission in 1931 which in effect denied to the Gulf and South Atlantic ports the right to establish the very low rates proposed for the purpose of diverting traffic from New York and other North Atlantic ports.

In 1932 the Southern carriers, with the support of their port interests, again filed tariffs proposing low rates but this time avoided any violation of the Fourth Section by maintaining the low basis of rates at intermediate points south of the Ohio River as well as in the Central competitive territory. Upon protest to the Eastern Trunk Lines, the Port Authority, and other North Atlantic port interests, the Interstate Commerce Commission suspended the proposed rates pending investigation.

At hearings, and upon brief, in 1932, the Port Authority pointed out the wasteful and uneconomical character of the proposals of the Southern carriers, and the lack of

necessity for artificial or discriminatory advantages to help the Port of New Orleans; which now enjoys ocean rates as low as any North Atlantic port, lies at the mouth of the vast inland waterway system of the Mississippi Valley, and has rapidly growing commerce and shipping.

On September 25, 1933, the Examiner in charge of the case issued a proposed report which, in effect, would permit the Southern carriers to maintain the low rates which they proposed. The Examiner's report proposes to permit import and export rates as low as fifty per cent of the contemporaneous rates for domestic movement.

In brief filed January 15, 1934, the Port Authority joined with other interests in the Port of New York in taking exception to the Examiner's report. The final decision will not be handed down until after an oral argument before the Interstate Commerce Commission on March 19, 1934.

Rates on Sugar from Gulf and South Atlantic Ports—I. & S. Docket 3814

The Southern carriers supplemented their attempt to put in a low basis of import and export rates, above mentioned, by a proposal to reduce drastically the rates on sugar refined at Southern ports and moved into midwestern territory. The Interstate Commerce Commission suspended these schedules upon petition of the Eastern railroads, the Port Authority, and other North Atlantic port interests. During the course of the Commission's investigation, the Eastern Trunk Lines filed rates which substantially met those proposed by the Southern carriers. These were also suspended. After consideration of the entire situation the Commission, in a report dated July 3, 1933, permitted both the Southern and Eastern rates to go into effect insofar as they applied to carloads with a minimum weight of 60,000 pounds. The Southern carriers' proposal to establish a still lower basis for 80,000 pounds carload shipments was referred back for modification. To meet the latter situation the Eastern carriers have filed rates referred to under the heading—*Rates on Sugar from*

North Atlantic Ports, F. S. A. 15339, elsewhere in this report. These latter rates, if approved, will maintain the competitive position of the Port of New York.

Rates on Sugar from North Atlantic Ports—F. S. A. 15339

In order to meet competition in the movement of refined sugar from the seaboard to the middle west, the Eastern railroads filed application with the Interstate Commerce Commission to establish a basis of rates which would substantially equalize the North Atlantic ports with the Gulf ports and at the same time restore the North Atlantic port relationships, which had been disrupted on domestic rates by the Commission's decision in the Eastern Class Rate, Docket 15394. The carriers application provides that on carloads having a minimum weight of 80,000 pounds, the rate from New York to Central territory will be 3 cents per 100 pounds over Baltimore, the long standing Atlantic port differential, in place of differences in favor of Baltimore of as high as 5 cents or 6 cents per 100 pounds created by the mileage scales governing the domestic basis.

At a hearing before the Interstate Commerce Commission, held in Washington on January 11, 1934, the Port Authority appeared in support of the railroads' application, contending that sugar, while moving on the domestic rates, was in fact an imported commodity merely refined in transit at seaboard for ultimate movement to the consumer markets in the interior. The matter is still pending before the Interstate Commerce Commission.

Canadian Grain to United Kingdom

The Twelfth Annual Report referred to the diversion of Canadian grain from the Port of New York by enactment of the British imperial preference tariff and a ruling of the British Customs that *through consignment* from a point in Canada to a point in the United Kingdom must be established to secure the preference.

Two test shipments in the early part of 1933 of Canadian wheat via the Port of New York were rejected as not properly consigned and were assessed a duty of two shillings

per quarter (6 cents per bushel at par). This resulted in a complete stoppage of the flow through the United States of Canadian wheat consigned to the United Kingdom and resulted in serious loss to the elevator, port and transportation lines which had been handling about 20,000,000 bushels per annum of this commodity.

The Port Authority acted promptly to meet this situation by inviting all interested parties to cooperate in a conference committee for discussion with the Federal Government of steps to be taken to re-establish the movement of Canadian grain via the United States. A delegation conferred with officials of the State, Commerce, and Agricultural Departments, resulting in an exchange of notes between the State Department and the British Foreign Office.

On May 17th two representatives of the conference committee were dispatched to London to discuss the exact character of the documents required by the British Customs. One of the delegates was a member of the staff of the Port Authority. The British officials received the delegation with every courtesy, and an understanding was arrived at within ten days as to the documents required.

A test shipment of wheat was forwarded from Fort William via Buffalo to the Port of New York and thence via the steamship *Ausonia* on December 7th. The *Ausonia* shipment was accompanied by documents prepared in accordance with the understanding reached in London. In January the British Customs accepted the *Ausonia* shipment for free entry, stipulating that certain changes would be made in one of the documents in connection with future consignments. These changes have been worked out by the grain trade and the United States Customs. It is believed that the regular flow of Canadian grain to the United Kingdom via the Port of New York and other American ports can now be re-established.

Regulations for the Handling of Explosives—I. C. C. Docket 3666

Reference was made in the Twelfth Annual Report to the activity of the Port Authority in precipitating issuance

of regulations covering the transportation of dangerous articles by water on the part of the Interstate Commerce Commission.

The Port Authority appeared at a public hearing held by the Interstate Commerce Commission on January 4, 1933, pointing out the large number of subaqueous tunnels and extent of waterfront property which had been subjected to actual hazard, both to life and property, in connection with fire and explosion of dangerous cargoes. Numerous amendments were suggested to the preliminary draft regulations which had been prepared by the Interstate Commerce Commission.

After informal conferences on September 26th and 27th, and another hearing on September 28th, the Interstate Commerce Commission issued a second draft of proposed regulations under date of October 31st.

This draft failed to include two important features which had been urged by the Port Authority; namely, a procedure for policing the regulations by inspection of vessels at time of entry, and regulations covering the handling of bulk cargoes of inflammable liquids such as gasoline. Accordingly the Port Authority filed, on December 1, 1933, a brief of exceptions urging the inclusion of these sections. This brief was concurred in by a committee of waterfront property owners in New York harbor, by the American Association of Port Authorities, and by various official port bodies in other sections of the United States.

SECTION II—CONSTRUCTION

Part 1—George Washington Bridge

Early in the year the number of bus passengers using this bridge had grown to such an extent that it became desirable to provide shelters near the plazas for persons awaiting buses. Tenders for the erection of suitable buildings of steel and glass construction were invited. On May 25th a contract was executed covering the construction of one building on the New York plaza at Fort Washington Avenue and one on the New Jersey plaza adjacent to the field office building. The shelters were completed ready for use by September 1st.

The ultimate arrangement of the New York approach has been made the subject of further study and, while the plans are not yet definite, considerable progress has been made toward a final solution of this difficult problem.

SECTION II—CONSTRUCTION

Part 2—Port Authority Commerce Building

Construction of the superstructure of the Port Authority Commerce Building, which was started in October of 1931, was substantially completed in 1933. While some minor construction has gone on since that time, it has been confined to the preparation of floors for occupancy by tenants. Included in this work was the construction of a staircase to the second floor from a lobby at the 15th Street and Eighth Avenue corner of the building, and alteration of the second and third floors for exhibition purposes.

SECTION II—CONSTRUCTION

Part 3—Midtown Hudson Tunnel

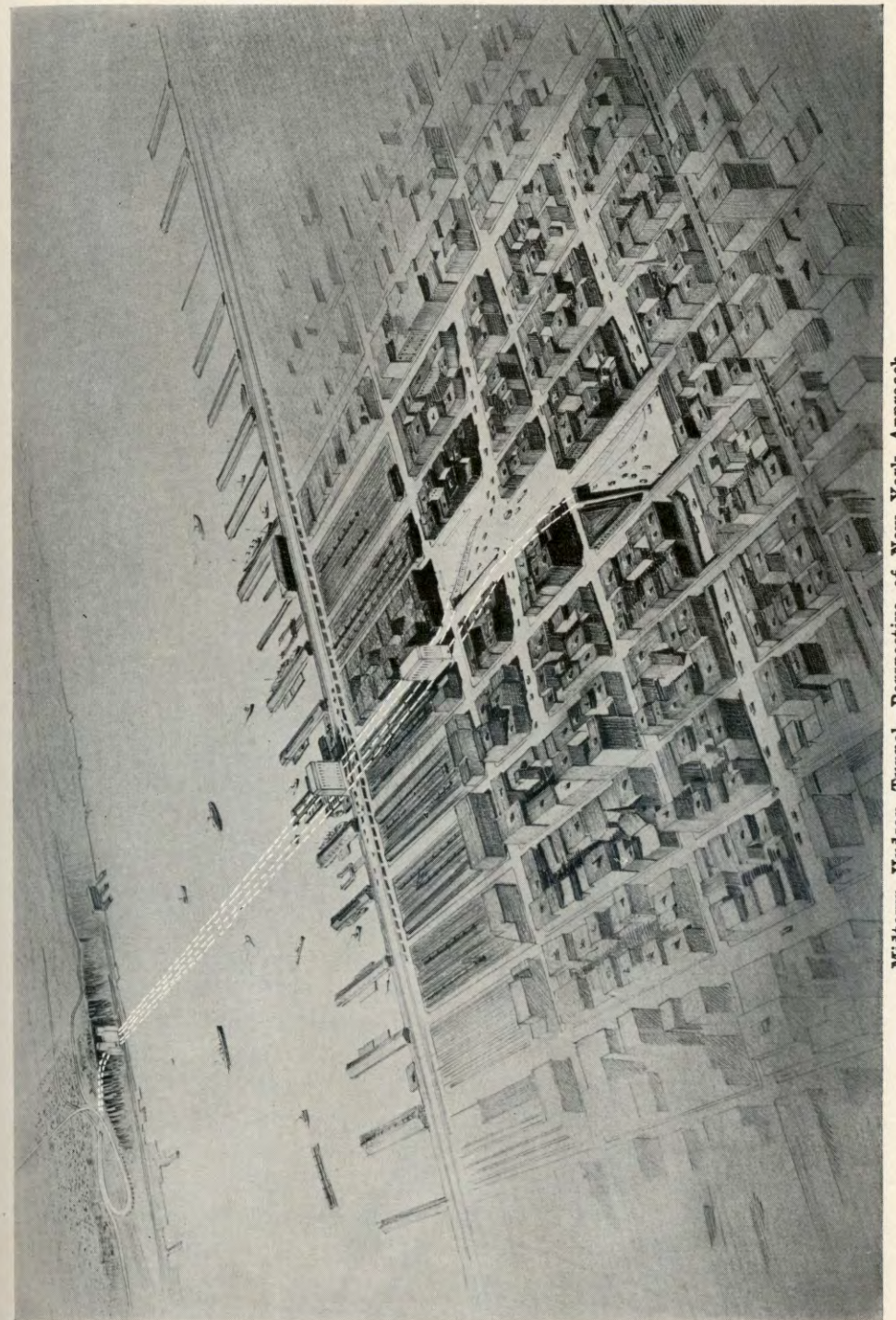
During the year the decision was made to construct the Midtown Hudson Tunnel project in two stages. The first stage will consist of a single tube with a two lane roadway for the accommodation of one lane of vehicular traffic in each direction. It will have suitable plazas, highway connections and facilities to fit it for operation as a self-contained operating unit. It is planned to construct the second tube and other portions of the complete project at a later date when financing of the balance of the project becomes feasible.

Arrangements for financing the First Operating Unit, estimated to cost \$37,500,000, were made through the Federal Emergency Administration of Public Works and a loan agreement for this purpose was executed with the Federal Government under date of September 1, 1933.

The main tunnel of this first unit will consist of a single tube about 8,000 feet in length between portals, and will be located on an alignment somewhat south of 39th Street in Manhattan. This tube is the southerly one of the two tubes of the completed projects. It is designed to have an outside diameter of 31 feet and will be built for the greater part in silt by the shield driven method. Sections near the portals at either end will be in rock and will be built by the usual rock tunneling methods.

In method of ventilation and interior arrangement, the tunnel will be similar to the Holland Tunnel, except that the roadway will be 21 feet 6 inches between curbs or 1 foot 6 inches wider than the roadway of the Holland Tunnel. The ventilation buildings, located in New York and New Jersey, are designed so that they can be enlarged to provide for the ventilation of the second tube.

The New York plaza will be located east of Tenth Avenue and south of 39th Street. It will have direct connection



Midtown Hudson Tunnel—Perspective of New York Approach

with six crosstown streets by means of new north and south streets which extend from the tunnel to 34th Street on the south and to 42nd Street on the north, approximately parallel to and midway between Ninth and Tenth Avenues. While planned to be used ultimately for exit traffic only in the complete project, the New York plaza is so laid out as to be suitable for both entrance and exit and the traffic to and from it will be diffused over such a large area as to cause no serious congestion in the city streets.

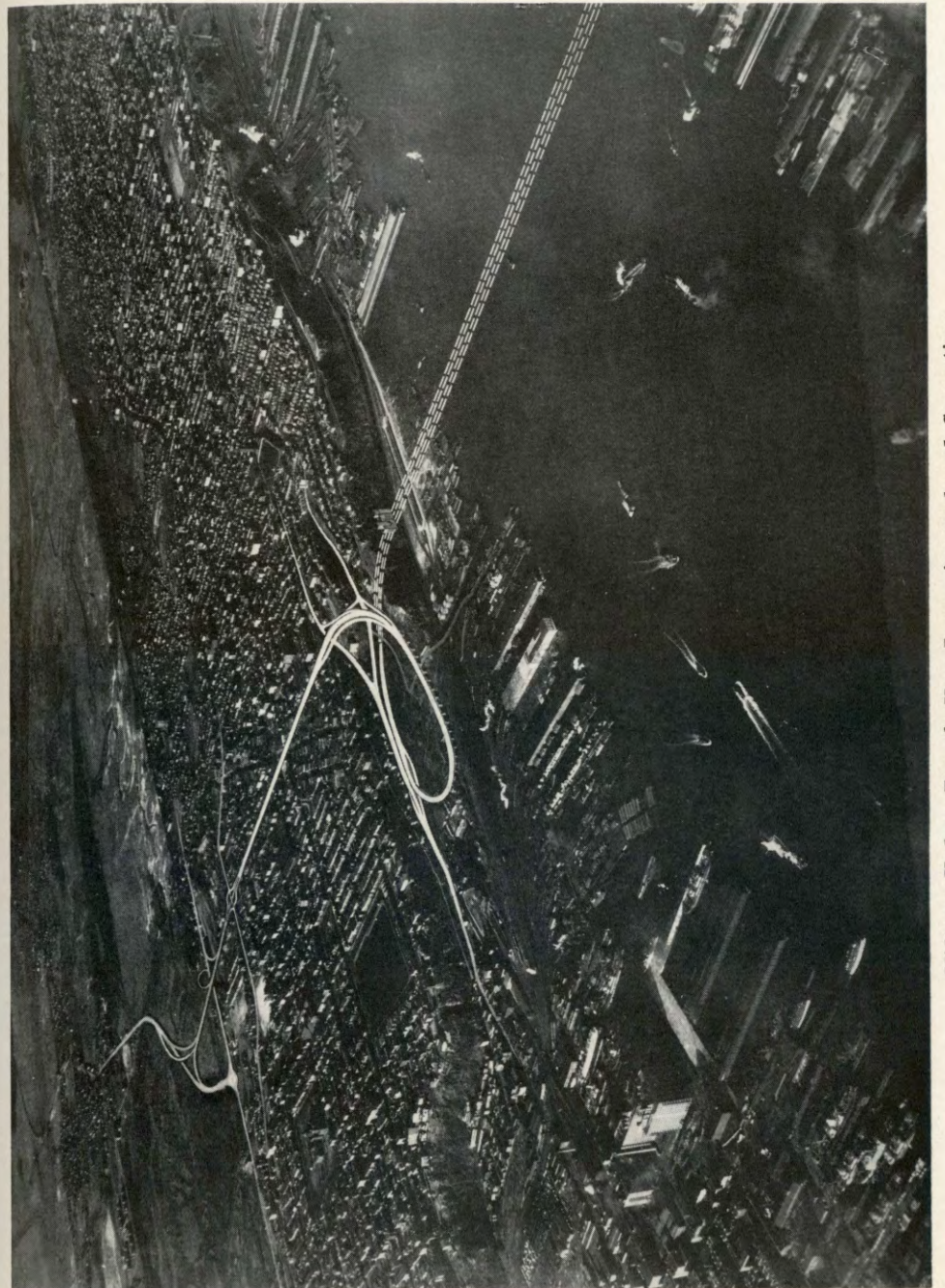
Ample plaza facilities will be provided in Weehawken where direct connections will be made with Willow and Park Avenues to the south and with Hudson County Boulevard East and Park Avenue to the north. Direct access to the communities on top of the Palisades and to the west, in the initial stage, will be by means of a new highway from Hudson County Boulevard East and Park Avenue to its intersection with 32nd Street in the vicinity of Bergenline Avenue. In the completed facility the Express Highway will be continued across the plateau of the Palisades as a depressed roadway which will pass under all north and south streets and will make connection with Hudson County Boulevard and with the State highway arteries west of the Palisades. Marginal surface streets will be provided on either side of this Express Highway.

The general plans for the approaches have received the approval of the Municipalities and in New Jersey also of Hudson County and Hudson County Boulevard Commission. Engineering representatives have been appointed by these bodies both in New York and in New Jersey and have cooperated with the Port Authority in the development of the plans.

Substantial areas of property for the New York Approach were acquired in 1931 and will be added to as required by the construction schedule. Negotiations leading to agreements with the railroad companies relative to properties to be occupied by the tunnel and approaches, in both New York and New Jersey, have been well advanced.

Since the completion of arrangements for financing the project, intensive efforts have been made to initiate early active construction operations. Within thirty days of the signing of the agreement with the Government, bids for the manufacture of the cast iron and cast steel segments for the tunnel lining had been received and the contract for this work was executed with the Bethlehem Steel Company on October 19, 1933, at an estimated contract price of \$2,358,150. The contract for the manufacture of steel bolts, nuts and washers for the lining was executed with the Oliver Iron and Steel Company on December 5, 1933 at an estimated contract price of approximately \$177,700. Work on both of these contracts is in progress. During October and November, borings to determine rock conditions at the site of the New York River Ventilation Building and the character of the silt at intervals across the river were made by the Kennedy-Riegger Drilling Company, Inc. Meantime, contract drawings and specifications for the most important contract of the project, the construction of the shield driven tunnel and ventilating shafts, have been completed. The contract was advertised on December 21st and bids are to be opened February 21, 1934.

The construction schedule for the First Operating Unit contemplates completion of the project within four years so that the tunnel is expected to be open for traffic early in 1938.



Midtown Hudson Tunnel—New Jersey Approach and Connections

SECTION III—OPERATION OF INTERSTATE VEHICULAR CROSSINGS

Part 1—Holland Tunnel

From April 21, 1930 to March 1, 1931 the Holland Tunnel was operated by the Port Authority as agent for the two states. Effective March 1, 1931 the control, maintenance, operation, tolls and other revenue of the Holland Tunnel was vested in The Port of New York Authority.

Traffic

A total of 10,860,645 revenue vehicles used the Holland Tunnel during the year 1933 as compared with a total of 11,403,863 in 1932, a decrease of 543,218 or 4.8 per cent. The decrease is attributable entirely to continued adverse business conditions.

During the early months of the year the trend of decrease was much more severe—the month of March showing a decrease of almost twelve per cent. However, during the latter part of the year the downward trend became less so that the resultant decline for the twelve months was only 4.8 per cent.

Revenues and Expenses

The gross income of the Holland Tunnel for the year 1933 was \$5,999,187.41 as compared with a gross income in 1932 of \$6,276,147.40, a decrease of \$276,959.99 or 4.4 per cent. There was a decrease in operating expenses of \$78,066.95. This decrease was brought about by operating economies including certain reductions in the wage scale. The net income from operations was \$2,440,987.15, a decrease of \$164,089.81 as compared with 1932.

Improvements and Changes

An experimental traffic counting treadle was installed in Lane No. 5 on the New Jersey plaza with counters located in Toll Booth No. 8.

Designs were made for the installation of overhead tariff indicating signs over each operating toll lane on both the New York and New Jersey plazas. Fabrication and erection of these signs is in progress.

A special vacuum cleaning system was developed and installed in the exhaust ducts of both tunnels in order to allow the cleaning of these ducts without the hazard of explosion on account of dust. The vacuum cleaner is portable and all electrical connections and the motor are explosion-proof.

Checkers' indicator boards and toll transaction counters were installed in the New York Plaza office.

SECTION III—OPERATION OF INTERSTATE VEHICULAR CROSSINGS

Part 2—George Washington Bridge

The George Washington Bridge has been in operation since October 25, 1931.

Personnel

At the close of 1932 the operating force consisted of eighty-four men, but, through efficient rearrangement, it was found possible to reduce this number by fourteen on week days. On Saturdays, Sundays and holidays, during periods of peak traffic, extra men were employed as toll collectors, equivalent to approximately one additional man per day from June 18th to October 29th, inclusive. This arrangement permitted a net payroll saving of \$25,000. The men released were transferred to the Port Authority Commerce Building.

Traffic

A total of 5,910,240 revenue vehicles used the bridge during 1933 compared with 5,509,946 in 1932, an increase of 400,294, or 7.3 per cent. Pedestrian traffic declined from 245,268 in 1932 to 106,067 in 1933. Of the vehicles handled, 88 per cent were pleasure cars, 6.2 per cent buses and 5.8 per cent other commercial vehicles.

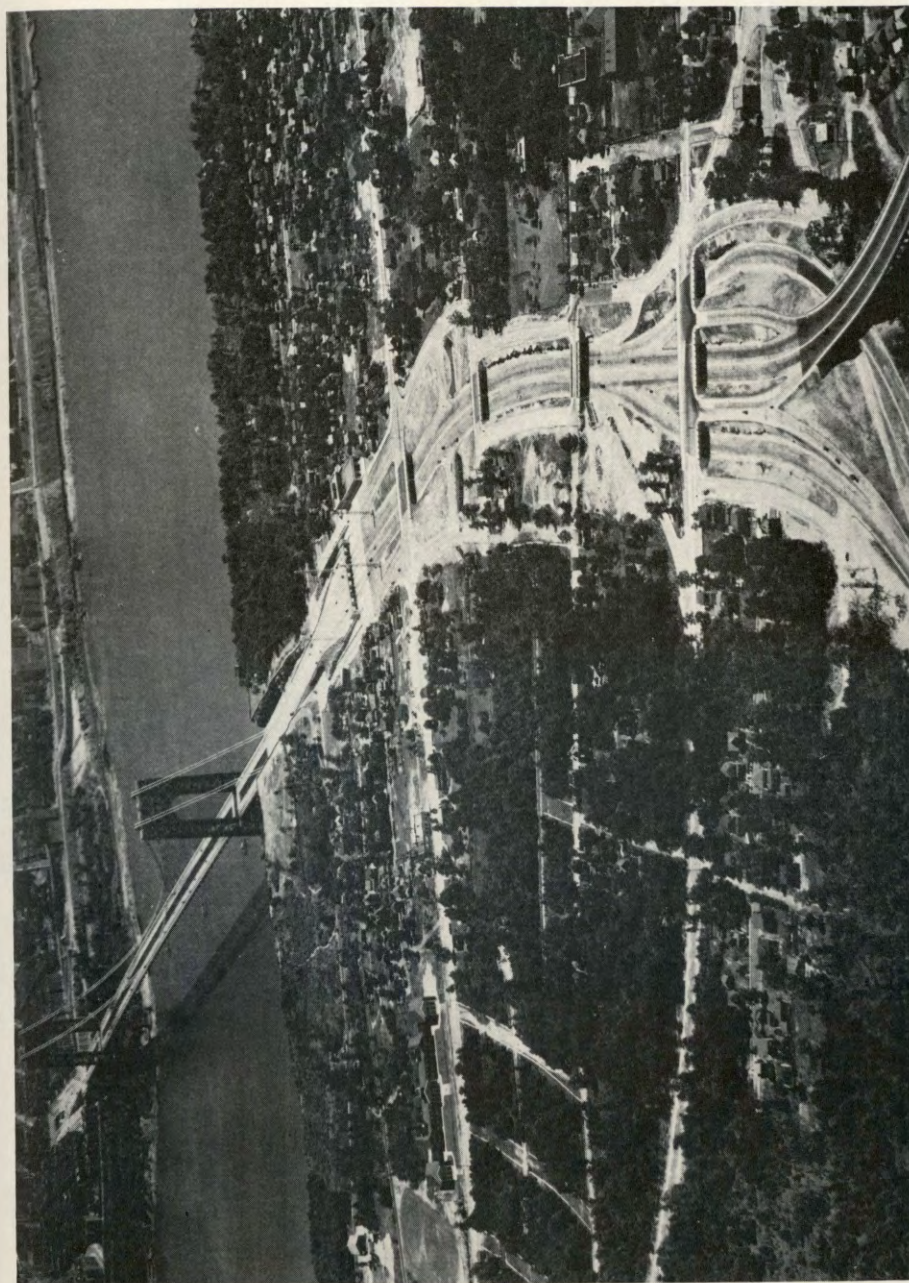
The peak day was Sunday, August 13th, when 40,468 vehicles passed over the bridge, seven per cent more than was handled on peak day in 1932.

Bus and truck traffic has continued to increase, the former primarily due to increased popularity of the bridge route to commuters who formerly used the railroads. The large increase in the number of bus passengers has necessitated improved bus terminal facilities on both bridge plazas including the construction of waiting rooms equipped with benches, telephones, etc.

In order to facilitate the handling of bus patrons during the evening rush hours, westbound, and to minimize the hazard from fast moving traffic driving onto the bridge, the loading of buses was transferred from the north to the south side of the dividing island between the bridge approach and 179th Street. Formerly, this operation took place on the city street with accommodation for only three buses at one time. Under the new arrangement provision has been made for the loading of five buses at a time and other traffic, which formerly moved on both sides of the bus stop, has been limited to the north side only. To further facilitate the movement of traffic, trucks and buses are now generally confined at the main toll booths to one lane in each direction.

Revenues and Expenses

The gross income of the George Washington Bridge for the year 1933 was \$3,329,163.23 as compared with a gross income in 1932 of \$3,044,880.14, an increase of \$284,283.09 or 9.3 per cent. There was a decrease in operating expenses of \$2,809.19. This decrease was brought about by operating economies including certain reductions in the wage scale. Interest charges to operations in 1933 were \$1,827,500 as compared with \$1,370,625.02 in 1932, an increase of \$456,874.98. The net income from operations was \$1,142,770.42, a decrease of \$161,806.12 as compared with 1932.



New Jersey Highway Approach System to the George Washington Bridge

SECTION III—OPERATION OF INTERSTATE VEHICULAR CROSSINGS

Part 3—Bayonne Bridge

The Bayonne Bridge has been opened to traffic since November 15, 1931.

Personnel

At the close of 1932, the operating force consisted of eleven men. Without reducing efficiency, two men were transferred to the Goethals Bridge, one for operating convenience and the other to fill a vacancy.

On Sundays and holidays from May 14th to July 30th, additional men were provided at this bridge to take care of peak traffic.

Tolls

On November 1st, modification was made in motor truck commutation with the hope of increasing revenues and benefiting the public. Tickets comprising fifty coupons formerly offered for sale were good only for the calendar month in which purchased. These were discontinued and in place thereof tickets comprising twenty-five coupons were made available good for six months after the month in which purchased. These tickets are also good over all Staten Island bridges the same as formerly. No other changes were made.

Traffic

A total of 444,393 vehicles used the bridge during 1933 compared with 462,859 in 1932, a decrease of 18,466 vehicles or 4.0 per cent. Pedestrian traffic decreased from 20,136 in 1932 to 8,465 in 1933. Of the vehicles handled, 78.4 per cent were pleasure cars, 7.7 per cent buses and 13.9 per cent trucks.

The peak day was July 30th, when 4,201 vehicles were handled, ten per cent more than was handled on peak day 1932.

Truck traffic has shown a healthy increase, 27.2 per cent over 1932 primarily due to the modified truck commutation rules, together with the fact that truck operators have become more familiar with the advantages of the bridge route over competitive ferries. The general depression has continued to be responsible for the decline in passenger car traffic primarily on Sundays and holidays.

Revenues and Expenses

The gross income of the Bayonne Bridge for the year 1933 was \$305,292 as compared with a gross income in 1932 of \$304,953.58, an increase of \$338.42 or 0.1 per cent. There was a decrease in operating expenses of \$9,437.81. This decrease was brought about by operating economies including certain reductions in the wage scale. The net deficit as a result of operations was \$240,890.18, an increase over the deficit in 1932 of \$110,677.02.

SECTION III—OPERATION OF INTERSTATE VEHICULAR CROSSINGS

Part 4—Arthur Kill Bridges

Goethals Bridge and Outerbridge Crossing, known as the Arthur Kill Bridges, have been opened since June 29, 1928.

Personnel

The total operating personnel on these two bridges comprises twenty-five men, the same as in previous years except for one electrician who was transferred from the Bayonne to the Goethals Bridge to insure better supervision.

Tolls

The same toll schedule has prevailed at all Staten Island bridges throughout the year except the modification made in truck commutation rules as referred to under the Bayonne Bridge report.

Traffic

The general business depression continued seriously to affect traffic over these two bridges. A total of 820,410 vehicles used these two bridges compared with 1,012,885 in 1932, a decrease of 192,475 vehicles or 19 per cent.

Of the total traffic crossing the Arthur Kills these two bridges handled 67.6 per cent which is slightly less than during 1932 due to the reduction in ferry rates that took effect during April and June, 1932.

Revenues and Expenses

The gross income of the Arthur Kill Bridges for the year 1933 was \$435,374.72 as compared with a gross income in 1932 of \$577,880.61, a decrease of \$142,505.89 or 24.7 per cent. There was a decrease in operating expenses of \$16,965.09. This decrease was brought about by operating

economies including certain reductions in the wage scale. The net deficit as a result of operations was \$295,534.46, an increase over the deficit in 1932 of \$108,262.29.

Goethals Bridge—Bus Line

Bus operation by the Port Authority over Goethals Bridge between Port Richmond, S. I. and Elizabeth, N. J. was inaugurated on April 1, 1931. In addition to satisfying public demand, the object was to build this service up to a point where it would become attractive to private operators after which additional revenues would accrue to the Port Authority in the form of bus tolls.

Record of performance since the inauguration of this service has been as follows:

	1931 (9 mos.)	1932	1933
Passengers Carried . . .	197,137	214,769	195,096
Gross Revenue	\$19,873.55	\$24,369.40	\$22,430.05
Operating Expenses . . .	28,873.80	28,117.00	24,179.86
Net Operating Revenue (Deficit)	9,000.25	3,747.60	1,749.81

Heavy Maintenance

Resumed painting of Goethals Bridge on April 3rd, with an authorized force of one Rigger Foreman, two Pushers, twenty-five Painters, one Helper and two Watchmen. One gang started on the incompleated underside of the main span, the other gang started on the east end of the east approach. Painting was completed on June 8th. All paint materials and equipment were moved to the Outerbridge Crossing.

On June 9th, the painting of the main span—top, bottom and handrails of the Outerbridge Crossing was started. All steel was thoroughly cleaned, given a first spot coat of red lead, a second spot coat of blued aluminum paint and a third and final coat of aluminum paint. This was completed on November 13th.

SECTION IV—GENERAL

Part I—Financial

General

The Port Authority continued its conservative investment policy, and maintained a strong cash position throughout the year.

Gross income from operations (excluding Inland Terminal No. 1) for the year was \$10,134,638.21. Operating expenses and miscellaneous charges amounted to \$2,023,101.09, and interest chargeable to operations totalled \$4,998,583.34. The total deductions from gross income were \$7,021,684.43, leaving a net income, after interest, of \$3,112,953.78. There also accrued, from capital assets, net income totalling \$236,735.87, which, added to the foregoing, results in a grand total of \$3,349,689.65. Disposition of this income was as follows:

Reserves for Sinking Funds	\$1,450,000.00
Operating Reserves	506,345.78
General Reserve	1,156,608.00
Capital Accounts	236,735.87

While \$322,500 or fifteen per cent of the total annual interest on the George Washington Bridge Bonds was charged to Construction, the income from investment of funds held in reserve for future construction was credited to investment account.

Facility	Income from Investments	
	1933	1932
Holland Tunnel	\$80,137.92	\$64,179.10
George Washington Bridge	255,795.25	159,715.57
Bayonne Bridge	92,361.38	96,473.70
Arthur Kill Bridges	14,762.10	43,789.89
Inland Terminal No 1	38,021.72	87,472.66
General Reserve Fund	62,680.73	64,836.63
	<hr/>	<hr/>
	\$543,759.10	\$516,467.55

The operating results of the Inland Terminal are not set up or reported in standard form, because the provisions of the bond resolution require the charging of all expenses and crediting of all income to the investment account for six months (considered a promotion period) after completion of building, which was September 1, 1933.

On March 1, 1933, \$400,000 par value of Series A bonds and \$1,000,000 par value of Series E bonds were retired, reducing the outstanding bonds of these issues to \$13,300,000 and \$49,000,000 respectively. The outstanding indebtedness covering operated facilities totalled, at December 31, 1933, \$140,300,000. During the year \$2,500,000 Midtown Hudson Tunnel Notes were issued and the proceeds used to pay off a prior loan of \$2,300,000 which had been incurred to carry on preliminary studies, purchase real estate, etc. As of December 31, 1933 there had been issued to the Federal Government \$3,100,000 par value of Midtown Hudson Tunnel Notes to cover advances made for engineering and construction.

General Reserve Fund

The General Reserve Fund was established by legislation enacted in 1931 to provide greater security for bondholders. The statutes provide that the general reserve is to be built up and currently maintained in an amount equal to ten per cent of the par value of the currently outstanding bonds and notes.

At the end of the year there was added to this fund the sum of \$1,156,608.00, bringing the balance to \$3,114,644.24, made up of \$1,521,116.17 investments, \$1,572,238.91 cash and \$21,289.16 accrued interest. On December 31, 1933 the sum of \$245,866.70 was transferred from this fund to the Series A Sinking Fund to meet a deficiency of that amount in connection with the payment of \$500,000 par value Arthur Kill Bridges' Bonds, due March 1, 1934. This left a balance in the fund of \$3,093,343.

Sinking Funds

All Sinking Fund assets are separately maintained and set aside in safe deposit boxes.

Series A

The New York-New Jersey Interstate Bridge, Series A Sinking Fund was established as at December 31, 1930. As at December 31, 1933 this fund contained \$500,000 which will mature a like amount of bonds on March 1, 1934.

Series B

The New York-New Jersey Interstate Bridge, Series B Sinking Fund will be established during the year 1934 in accordance with bond resolution, by the payment of \$100,000 into the fund. Reserves more than sufficient to meet this obligation already exist.

Series C

The Series C bond resolution provides that bond interest shall be paid from the Sinking Fund provided that tolls and revenues remaining after the payment of operating expenses and maintenance charges are not sufficient to provide for the payment of bond interest. Because insufficient revenue remained to pay the entire amount of the bond interest, it became necessary to withdraw from the Sinking Fund the sum of \$280,000 to complete interest payments during the past year and one-half. As at December 31, 1933 the fund contained \$720,000 and consisted of cash in the amount of \$286,750.35 and securities amounting to \$433,249.65.

Series E

The New York-New Jersey Interstate Tunnel Series E Sinking Fund was established prior to March 1, 1932. As at December 31, 1933 this fund amounted to \$1,003,347.11

and consisted of cash in the amount of \$37,529.21 and securities amounting to \$965,817.90. Before March 1, 1934 there will be added to this fund \$1,500,000, in accordance with the bond resolution, and on that day a maturity of \$1,000,000 will be paid from this fund.

Midtown Hudson Tunnel

In April, 1930, the Legislatures of the States of New York and New Jersey directed the Port Authority to study and report upon the proposed Midtown Hudson Tunnel. The sum of \$200,000 was appropriated by the State of New York in May, 1930, and a similar amount by the State of New Jersey in June, 1930, for this purpose. These funds were sufficient to carry on preliminary studies until the latter part of June, 1931.

On January 1, 1931, a preliminary report was submitted to the Legislatures of the two states and by Chapter 4 of the Laws of New Jersey of 1931 and Chapter 47 of the Laws of New York of 1931, the Port Authority was authorized to proceed with this project.

When the funds advanced by the two states were exhausted unfavorable market conditions prohibited the flotation of a bond issue, and it therefore became necessary to negotiate with banking institutions for additional funds to carry on the work.

An agreement for a \$5,000,000 credit was entered into with a banking syndicate headed by The National City Bank of New York on June 29, 1931, to provide the funds. On that day \$500,000 was advanced by the syndicate against this credit and a note bearing interest at the rate of three per cent per annum, and due December 31, 1931, was executed.

During the month of September, 1931, it was decided to acquire certain parcels of real estate necessary for this project, and the first contract for the acquisition of such real estate was signed on September 19, 1931.

On December 1, 1931 it became necessary to obtain an additional \$1,000,000 to further the work for this enter-

prise. A note in the amount of \$1,000,000 bearing interest at the rate of three per cent per annum, and becoming due on December 31, 1931, the date of the expiration of the loan agreement, was given to the syndicate. The total loan of \$1,500,000 was renewed to January 30, 1932, one note being executed, and bearing interest at the rate of five per cent per annum. This note was again renewed to April 29, 1932 and on that day was again renewed to July 29, 1932.

When the note expired on July 29, 1932 it became necessary to increase the loan by \$300,000. On October 29, 1932 the loan totaling \$1,800,000 was increased to \$2,300,000 for a period of six months, and this loan was subsequently renewed to October 30, 1933.

On August 5, 1932, the Port Authority filed a notice of its intention to apply for a loan from the Reconstruction Finance Corporation in accordance with the Emergency Relief and Construction Act of 1932. Before conferring with officials of the Reconstruction Finance Corporation, the Port Authority deemed it advisable to furnish the corporation with detailed reports, statements and exhibits. Such information was compiled and filed on September 8, 1932, in conformity with Circular No. 3 of the Corporation, prior to the filing of a formal application for a loan. Thereafter, negotiations were carried on between members of the staff and members of the Corporation, but no definite conclusions were achieved.

During the summer of 1933 the Reconstruction Finance Corporation referred the matter to the Federal Emergency Administration of Public Works, which organization was formed after appropriate Congressional legislation was passed on June 16, 1933. The subject was then pressed actively with the new organization.

Eventually it became apparent that it was not practicable to secure the sum of \$75,000,000 originally estimated to construct a twin-tube tunnel. Therefore, in order to secure a loan so that work could be resumed, the Port Authority negotiated for an amount of \$40,000,000 to construct a two-way one-tube tunnel. All through the summer

of 1933, conferences were carried on with officials of the Public Works Administration, and these resulted finally in the making of the loan agreement, on September 1, 1933, between the United States of America and The Port of New York Authority.

The loan agreement provides that the Government will purchase, out of an authorized issue of \$40,000,000, not to exceed \$37,500,000 Midtown Hudson Tunnel Notes at par, plus accrued interest. The notes are to be issued, from time to time, in accordance with requirements and are to be dated as of the date of issue. They bear interest at the rate of four per cent per annum and are due on July 1, 1943.

In order to pay off the prior loan of \$2,300,000, the banking syndicate, in an agreement dated October 23, 1933, agreed to purchase \$2,500,000 par value, Midtown Hudson Tunnel Notes at a discount of \$200,000. The notes are dated October 30, 1933, bear interest at the rate of four per cent per annum, and mature on July 1, 1943. They are direct and general obligations of the Port Authority, secured by a lien upon revenues arising out of use of Midtown Hudson Tunnel and remaining after payment of expenses and operation.

The Port Authority agreed with the United States Government to sell long term Midtown Hudson Tunnel bonds as soon as market conditions permit, at prices to yield not in excess of four and one-half per cent per annum. Proceeds of the sale of such bonds are to be applied, *first*, to construction purposes, in the event that the first operating unit has not been completed, and *second*, to the redemption of Midtown Hudson Tunnel Notes. In the event the Port Authority is unable to market bonds, prior to July 1, 1943 (the due date of the notes), the Government is to accept long-term bonds in payment of the notes which it then holds.

As of December 31, 1933, there were \$5,600,000 par value Midtown Hudson Tunnel Notes outstanding, of which \$3,100,000 par value were issued to the Federal Administrator of Public Works, and \$2,500,000 par value were issued to the banking syndicate.

Depositories

Funds amounting to \$10,134,000.30 were distributed among 137 banks as of December 31, 1933. The increase over last year's cash balance is due largely to proceeds from sale of notes to the United States Government for Midtown Hudson Tunnel purposes.

A physical check of the collateral placed with trust departments of banking institutions, as security for the funds on deposit, was made by independent certified public accountants, without giving prior notice to the banks, and no exceptions were found.

Appropriate legislation was secured in New York and New Jersey removing any question concerning the power of state banks to give security for the payment of sums which the Port Authority had on deposit in New York and New Jersey banks. (Chapter 442 of the Laws of New York, adopted April 26, 1933 and Chapter 150 of the Laws of New Jersey of 1933, adopted May 3, 1933.)

During the past three and one-half years, twenty-seven banks, in which Port Authority funds were deposited, suspended payment. Funds on deposit in these institutions totalled more than \$700,000, and due to the policy of securing all deposits, the funds were, without exception, repaid in their entirety.

Investments

The Sinking Fund, Construction, Operating and other reserve accounts, of the various facilities, held as of December 31, 1933, investment securities at a cost of \$10,547,395.99. Of this amount \$6,194,656.38 are investments in Port Authority bonds, equivalent to fifty-nine per cent of the total. The balance, forty-one per cent, is in New York and New Jersey municipal securities. The total investments are allocated as follows:

<i>Account</i>	<i>Amount</i>
George Washington Bridge.....	\$5,329,560.37
Bayonne Bridge	2,270,058.35
Holland Tunnel	1,424,655.40
Inland Terminal No. 1.....	2,005.70
General Reserve Fund.....	1,521,116.17
Total	\$10,547,395.99

Like state and municipal obligations, the obligations of the Port Authority are exempt from control and supervision by the Federal Trade Commission under the Federal Securities Act of 1933.

SECTION IV—GENERAL

Part 2—Real Estate

Port Authority Commerce Building

This building, now completed for occupancy, houses Union Inland Freight Station No. 1, a less-than-carload railroad freight station jointly operated by all the railroads entering the Port District. The popularity of the station is attested by the constantly increasing volume of traffic. During the year the Railway Express Agency established a depot in the building. The building also houses a Post Office Station for the handling of parcel post as well as ordinary mail matter. A complete transportation service—freight, express and parcel post—is thus available to tenants in the building, as well as the general public.

Notwithstanding the generally uncertain conditions prevailing throughout the year, tending to deter business from incurring obligations beyond immediately pressing needs, the building's special and unique advantages have been quickly recognized by prospective lessees and the amount of space taken during the year has been most gratifying.

Some of the special features which the building offers are: The ability to ship or receive less-than-carload railroad freight by elevators directly connected with the freight handling platforms of the railroads, thus eliminating all cartage expense on freight of this kind; the ability to load or unload motor trucks on the upper floors adjacent to tenants' shipping and receiving rooms by reason of the installation in the building of four large truck elevators, capable of lifting twenty-ton trucks, and two truck pits on each floor, each pit accommodating a maximum of twelve motor trucks at one time, which minimizes labor expense in handling merchandise; high ceilings (fifteen feet, floor

to floor); excellent natural light; an incinerator for disposing of burnable refuse; high-grade office space adjacent to areas for manufacturing or distribution; a location unsurpassed for rapid transit facilities from all parts of the Metropolitan district.

The total area taken during the year was 656,605 gross square feet—approximately thirty-six per cent of the total rentable area, exclusive of the second floor, which has been definitely set aside for exhibition purposes, and the railroad freight station area. Generally, the leases were for relatively short terms. With the area taken during the preceding year, the building was more than fifty per cent rented at the end of the year.

Indicative of the type and variety of tenants which the building attracts may be mentioned the following well-known firms: Borg Warner Service Parts Company, Fred Butterfield & Co., Inc., H. A. Caesar & Co., Emerson Radio and Phonograph Corp., R. H. Macy & Co., Inc., Malina Company, Inc., The Nestle LeMur Company, Rand, McNally & Company, Regal Shoe Co., and F. W. Woolworth Co.

In November the Port Authority made available to the local Civil Works Administration the tenth floor for use as administrative offices in connection with Federal relief to the unemployed. This use of the space was permitted rent free.

The need in New York City for conveniently located and readily accessible exhibition facilities, providing accommodation on a single floor for large trade exhibitions, influenced the decision to transform the second floor of the building into an exhibition floor. This is known as Commerce Hall. It contains approximately 165,000 gross square feet—slightly less than four acres. Work on structural changes necessary to prepare the floor for exhibition purposes had barely been commenced when the Ford Motor Company concluded arrangements for its use by the Ford Exposition of Progress. This exhibition was held between December 9th and 30th, with a total attendance of 2,298,023, an average daily attendance of 120,948, and a maximum of



Entrance to Commerce Hall, 111 Eighth Avenue, New York, N. Y.

189,435 for one day, December 16th. This unprecedented number of visitors was handled promptly and without confusion. Access to the floor is via a specially designed stairway at the Eighth Avenue end of the building, adjacent to a subway entrance serving the Eighth Avenue Independent System, the Seventh Avenue Interborough Rapid Transit System, the B.M.T.-14th Street Line—and ramps leading from the street level to the Ninth Avenue end. There is direct elevator connection between the freight platforms of Union Inland Freight Station No. 1 and the exhibition floor. This enables exhibitors to save all cartage expense on exhibits moving to and from the building by railroad in less than carload lots. Exhibits or equipment moving to and from the building by motor truck are handled not only directly to the floor via ramps, but also to their ultimate location on the exhibition floor. Rigging expense is eliminated. The favorable impression which the facilities and advantages of Commerce Hall have made upon those sponsoring or promoting exhibitions is evidenced in the many inquiries received, particularly from those who heretofore have been prevented from exhibiting in New York City by reason of lack of proper facilities.

Midtown Hudson Tunnel

Acquisition of property for the Midtown Hudson Tunnel was resumed during the latter part of the year. In order that it might have the benefit of information relative to changes in value since 1931, when a portion of the property required for this project was purchased, the Port Authority arranged for reappraisal of property required, both in New York and New Jersey, by Real Estate Advisory Committees. These Committees consisted, as heretofore, of men familiar with values in the areas affected. These reappraisals indicated generally a lower level of values.

Condemnation proceedings were instituted for the acquisition of sixteen parcels for the New York approach. Thereafter, agreement was reached with the owners of three of these parcels prior to the end of the year, and condemnation proceedings as to such parcels were discontinued.

Five additional parcels were acquired through negotiation with owners. At the end of the year, approximately fifty-eight per cent in area of property required in fee on the New York side had been purchased. The aggregate purchase price of property acquired on the New York side to the end of the year was \$3,273,250.

Due to uncertainty as to precise location of the tunnel approach on the New Jersey side, only two parcels of New Jersey property, at an aggregate purchase price of \$138,000, had been acquired to the end of the year.

SECTION IV—GENERAL

Part 3—Insurance

The Port Authority, consistent with its established practice, has continued to cover its various risks incident to ownership, construction and operations with adequate insurance in carefully selected and reliable companies.

The largest volume of insurance is multi-risk on the five vehicular crossings. This multi-risk insurance covers some thirty to forty enumerated risks, including acts of God, acts of violence, sabotage, failure of the structure, or neglect of third persons. This insurance also provides against loss for cost of removing the debris from bed of waterway in case of a collapse, and is extended by means of a "war risk" rider to cover against direct loss or damage resulting from measures or operations incident to war.

The amount of insurance carried is sufficient, in case of damage or total loss, when proved, to restore the insured property to its condition immediately prior to the occurrence of such damage or loss.

Consideration having been given to the possible suspension of operations due to accident and resultant loss of revenue in connection with the operation of the Holland Tunnel, through which catastrophe revenues from this operation would be seriously affected, it was deemed desirable, in order to meet all financial requirements and protect the interest of the holders of Holland Tunnel bonds, that the anticipated revenue from this operation be insured. A form of contract which insures estimated gross revenue was evolved and finally negotiated. This contract was written in a form which provides that should any emergency arise causing suspension of operations and resultant loss of revenue for any period in excess of two days, the insuring companies will adjust claims based upon computed loss

of revenue occurring during the period of inoperation, on the basis of 1/365ths of the insured sum for each day thereof.

Upon the opening of the Inland Terminal to the occupancy of the railroads for Union Inland Freight Station No. 1, the Port Authority insured against its liability for personal injuries resulting from its operation of the building, which coverage has been extended as increased occupancy occurred.

Upon completion of Inland Terminal No. 1, the rating of it for insurance purposes, by the New York Fire Insurance Exchange, for the fire risk, was promulgated and was found to be the lowest rate for comparable buildings in the Metropolitan area.

SECTION IV—GENERAL

Part 4—Medical

The policy of supervising the general health of all employees was continued during the year, particular attention being given to the Tunnel operating personnel exposed to carbon monoxide gas. A total of 3,243 visits were made by employees to the daily clinics at the Holland Tunnel and the main office for physical examination, consultation and medical advice. In addition, the staff made 213 visits to homes of employees and to hospitals.

Studies were continued on the preliminary ventilating and lighting plans for the Midtown Hudson Tunnel, and on compressed air work embodied in Contract MHT-4.

Courses in first aid treatment have been conducted with selected employees so that there is now available at each facility an employee capable of administering first aid.

The operation of the Commerce Building has required several new classes of labor, increasing the scope of activities in the industrial accident field.

SECTION IV—GENERAL

Part 5—Litigation

During the year, title was taken to numerous parcels for which contracts were entered into during this and the preceding year. In one case the seller refused to convey title under the contract and legal steps were taken to enforce compliance with the provisions of the contract of sale. The reason assigned for the refusal to consummate the transaction was that the Port Authority acted through the medium of a subsidiary corporation without revealing the fact that the property was being acquired for a public improvement. This defense was overruled by the Court who ordered the seller to comply with the terms of his agreement.

In his opinion, Mr. Justice Cohn, of the Supreme Court of the State of New York, said:

“There was adduced no proof to establish defendant’s claim that in the sale of defendant’s property fraud was practiced by the plaintiff by The Port of New York Authority, by any of its officers or by the real estate brokerage corporation which negotiated the sale. Certain it is that those connected with The Port of New York Authority acted fairly and honorably throughout. Furthermore, there were no misrepresentations made by the broker. Though the latter knew that the plaintiff corporation was used as a cloak to conceal the identity of The Port of New York Authority, it was under no duty to disclose that fact to the vendor. So long as it acted in good faith its agreement to withhold the identity of the real principal is not against public policy or void. (*Foss v. New York Central and Hudson River Railroad Co.*, 161 App. Div. 181; affirmed 217 N. Y. 727.) A broker is obliged to disclose the buyer’s name where there might be any question as to the latter’s financial responsibility. (*Ostrov v. Doctor*, 238 N. Y. 264.) Here no such question arose. Nor was the plaintiff under a duty to reveal to the defendant the fact of The Port of New York Authority’s connection with the prospective purchase.

The Port of New York Authority, a corporation created by the States of New York and New Jersey in the year 1921, acquires land for the building of bridges, tunnels, approaches and terminals in the district of the Port of New York. Its policy is to secure its property for these public improvements by direct negotiation with the owners rather than by a resort to condemnation proceedings. The location of a project is determined upon long in advance of the time when actual construction is commenced. Functioning with informality and usually with secrecy, it endeavors to purchase property required, not at exaggerated and exorbitant values, but at prices which are fair and reasonable. * * * This policy of The Port of New York Authority is a praiseworthy one and is in the public interest. A public agency should be compelled to pay no more than reasonable value for property acquired for public improvements. So long as there is no fraud or deception practiced upon the vendor, sales consummated by public bodies under the guise of subsidiary corporations are not rendered invalid.”

The Appellate Division of the New York Supreme Court, First Department, affirmed the awards made to owners of property acquired for the Inland Terminal site in the case of *The Port of New York Authority v. Benjamin James Realty Corp.* (N. Y. Law Journal, May 27, 1933), a case in which the appellant claimed that the award was less than a fair amount of the value of the property taken. One other appeal involving substantially the same questions is still pending on the Appellate Division Calendar. In all other cases, the award of the Commissioners in Condemnation was affirmed by the Supreme Court and the owners have accepted payment in accordance with that award and affirmance.

SECTION V—REPORTS AND STATISTICS

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Bridges

Table No. 1
General Balance Sheet as at December 31, 1933

ASSETS	
INVESTMENT IN PHYSICAL PROPERTY:	
Arthur Kill Bridges:	
Tottenville—Perth Amboy.....	\$9,891,442 22
Howland Hook—Elizabeth.....	7,347,718 97
Total Arthur Kill Bridges.....	\$17,239,161 19
Bayonne Bridge.....	13,163,590 55
George Washington Bridge.....	56,204,730 84
Holland Tunnel.....	50,588,688 44
Midtown Hudson Tunnel.....	5,004,229 40
Inland Terminal No. 1.....	15,789,150 03
Total investment in physical property.....	\$157,989,550 45
CURRENT ASSETS:	
Cash in banks and on hand.....	\$7,786,218 34
Investments in marketable bonds (at cost).....	7,627,212 27
Accrued interest receivable on investments.....	108,012 21
Bills collectible and reimbursements in transit.....	66,728 93
General reserve fund:	
Cash in banks.....	\$1,572,238 91
Investments in marketable bonds (at cost) and accrued interest thereon.....	1,542,405 33
Unexpended balances of amounts made available for comprehensive plan in hands of State Treasurers:	
State of New York.....	\$31,639 70
State of New Jersey.....	600 00
Total.....	3,114,644 24
Total current assets.....	18,735,055 69
BALANCE OF AMOUNTS MADE AVAILABLE TO AID IN CONSTRUCTION OF BRIDGES:	
State of New Jersey.....	500,000 00
INVESTMENT IN SUBSIDIARY COMPANIES:	
Capital stock.....	5,000 00
SINKING FUND—SERIES A BONDS:	
Cash.....	500,000 00
SINKING FUND—SERIES C BONDS:	
Cash.....	\$286,750 35
Investments in marketable bonds (at cost).....	433,249 65
Total.....	720,000 00
SINKING FUND—SERIES E BONDS:	
Cash.....	\$37,529 21
Investments in marketable bonds (at cost).....	965,817 90
Total.....	1,003,347 11
CASH ON DEPOSIT WITH PAYING AGENTS FOR UNREDEEMED INTEREST COUPONS.....	
	64,378 75
OTHER ASSETS:	
Unexpired insurance premiums.....	\$54,761 47
Unexpended balance of advance to New Jersey Highway Commission.....	213,217 96
Mortgages on real property receivable.....	10,000 00
Securities held as surety.....	5,000 00
Sundry unadjusted debits.....	34,695 01
Total other assets.....	317,674 44
Total assets.....	\$179,835,006 44

Table No. 1—Continued

LIABILITIES AND RESERVES	
BONDED INDEBTEDNESS:	
New York-New Jersey Interstate Bridge bonds:	
Arthur Kill Bridges—Series A, 4½%, 1934-1946:	
Authorized.....	\$14,000,000 00
Retired.....	700,000 00
Outstanding.....	\$13,300,000 00
George Washington Bridge—Series B bonds:	
Authorized.....	\$60,000,000 00
Issued and outstanding:	
4% Series, 1936-1950.....	\$20,000,000 00
4½% Series, 1939-1953.....	30,000,000 00
Bayonne Bridge—Series C, 4%, 1938-1953 authorized and outstanding.....	50,000,000 00
New York-New Jersey Interstate Tunnel bonds:	12,000,000 00
Holland Tunnel—Series E, 4¼%, 1934-1960:	
Authorized.....	\$50,000,000 00
Retired.....	1,000,000 00
Outstanding.....	49,000,000 00
New York-New Jersey Terminal bonds:	
Inland Terminal No. 1—Series D, 4¼%, 1936-1960 authorized and outstanding.....	16,000,000 00
Midtown Hudson Tunnel Notes, 4%, 1943, Issued.....	5,600,000 00
Total bonded indebtedness.....	\$145,900,000 00
CURRENT LIABILITIES:	
Audited vouchers payable.....	\$65,855 33
Mortgages payable and accrued interest.....	2,209,517 67
Accrued interest on bonds.....	1,686,015 97
Unredeemed tickets.....	47,293 19
Accrued insurance premiums.....	5,809 32
Surety and other deposits.....	8,540 00
Total current liabilities.....	4,023,031 48
SUBORDINATED LIABILITY FOR ADVANCES TO AID IN CONSTRUCTION OF BRIDGES AND FOR PRELIMINARY STUDIES AND SURVEYS:	
State of New York.....	\$9,299,840 17
State of New Jersey.....	9,300,000 00
Total.....	18,599,840 17
UNPAID BOND INTEREST COUPONS.....	
UNEXPENDED BALANCES OF APPROPRIATIONS—COMPREHENSIVE PLAN:	70,511 25
State of New York.....	\$31,639 70
State of New Jersey.....	600 00
Total.....	32,239 70
DEFERRED CREDITS:	
Accrued depreciation.....	\$74,801 59
Sundry unadjusted credits.....	38,566 62
Total.....	113,368 21
APPROPRIATED RESERVE—MIDTOWN HUDSON TUNNEL.....	400,000 00
RESERVE (DEFICIT)—ARTHUR KILL BRIDGES.....	400,000 00
RESERVE (DEFICIT)—BAYONNE BRIDGE.....	*120,403 30
RESERVE—GEORGE WASHINGTON BRIDGE.....	*345,703 05
RESERVE—GEORGE WASHINGTON BRIDGE.....	2,851,611 04
OPERATING AND INSURANCE RESERVES—HOLLAND TUNNEL.....	600,000 00
GENERAL RESERVE.....	3,114,644 24
SINKING FUND RESERVE—SERIES A BONDS.....	245,866 70
SINKING FUND RESERVE—SERIES B BONDS.....	100,000 00
SINKING FUND RESERVE—SERIES E BONDS.....	2,353,347 11
INCOME APPLIED IN REDUCTION OF DEBT.....	1,896,652 89
Total liabilities and reserves.....	\$179,835,006 44
Contracts awarded but not completed at December 31, 1933, as submitted to us, aggregated.....	\$2,543,252 74

* Denotes deficit.

CERTIFICATE OF AUDIT

We have made an examination of the books of account and records of The Port of New York Authority for the year ended December 31, 1933.

We *Hereby Certify* that, in our opinion, the above General Balance Sheet, subject to the Comments in our accompanying letter, correctly reflects the financial condition of The Port of New York Authority as at December 31, 1933.

New York, N. Y.
February 15, 1934.

LAWRENCE SCUDDER & CO.,
Accountants and Auditors.

Table No. 2
ANALYSIS OF CURRENT ASSETS AND SINKING FUNDS
As at DECEMBER 31, 1933

PROJECT	Total	Cash	Securities (at cost)	Interest receivable	Sinking funds	Other current assets
Holland Tunnel.....	\$3,940,059 50	\$2,435,002 13	\$458,837 50	\$22,355 80	\$1,003,347 11	\$20,516 96
George Washington Bridge.....	7,334,540 50	1,919,186 49	5,329,560 37	57,646 42	.....	28,147 22
Arthur Kill Bridges.....	598,291 25	96,912 74	.....	112 50	500,000 00	1,266 01
Bayonne Bridge.....	2,833,370 05	247,247 84	1,836,808 70	27,867 49	720,000 00	1,446 02
Inland Terminal No. 1.....	492,062 71	452,311 26	2,005 70	30 00	.....	37,715 75
Midtown Hudson Tunnel.....	2,567,490 21	2,552,510 96	.....	.....	.....	14,979 25
General Reserve Fund.....	3,114,644 24	1,572,238 91	1,521,116 17	21,289 16	.....	.....
Miscellaneous.....	96,871 91	83,046 92	.....	.....	.....	13,824 99
Grand total.....	\$20,977,330 37	\$9,358,457 25	\$9,148,328 44	\$129,301 37	\$2,223,347 11	\$117,896 20

Table No. 3
CONSOLIDATED INCOME ACCOUNT
CALENDAR YEAR, 1933

INCOME FROM OPERATIONS:	
I. <i>Gross income</i>	
	Amount
Tolls and other revenue.....	\$9,755,245 91
Other income	379,392 30
Gross income	<u>\$10,134,638 21</u>
II. <i>Deductions from gross income</i>	
Operating expenses	\$1,975,782 10
Interest on funded debt.....	4,998,583 34
Other income charges.....	47,318 99
Total deductions	<u>\$7,021,684 43</u>
Net income from operations.....	<u>\$3,112,953 78</u>
NET INCOME FROM CAPITAL ASSETS †:	
Interest on bank balances.....	\$8,498 80
Interest on securities owned.....	205,800 57
Other income	22,436 50
Total	<u>\$236,735 87</u>
Grand total	<u>\$3,349,689 65</u>
DISPOSITION OF NET INCOME:	
Reserve for sinking fund.....	\$1,450,000 00
Operating reserve	506,345 78
General reserve	1,156,608 00
Capital accounts	236,735 87
Total	<u>\$3,349,689 65</u>

† The net income reported under this heading was earned upon cash and other capital assets held to meet cost of construction and other purposes and the amounts reported have been appropriately credited to capital accounts.

**Table No. 4
HOLLAND TUNNEL**

Income Account		Calendar year,
INCOME FROM OPERATIONS:		
I. <i>Gross income</i>		
Tolls and other revenue.....		1933
Other income	\$5,913,487 76	
	85,699 65	
Gross income	<u>\$5,999,187 41</u>	
II. <i>Deductions from gross income</i>		
Operating expenses	\$1,464,019 11	
Interest on funded debt.....	2,089,583 34	
Other income charges.....	4,597 81	
Total deductions	<u>\$3,558,200 26</u>	
Net income from operations.....	<u>\$2,440,987 15</u>	
DISPOSITION OF NET INCOME:		
Reserve for sinking fund.....	\$1,350,000 00	
General reserve	1,090,987 15	
Total	<u>\$2,440,987 15</u>	

**Table No. 5
GEORGE WASHINGTON BRIDGE**

Income Account		Calendar year,
INCOME FROM OPERATIONS:		
I. <i>Gross income</i>		
Tolls and other revenue.....		1933
Other income	\$3,210,629 88	
	118,533 35	
Gross income	<u>\$3,329,163 23</u>	
II. <i>Deductions from gross income</i>		
Operating expenses	\$317,651 48	
Interest on funded debt.....	1,827,500 00	
Other income charges.....	41,241 33	
Total deductions	<u>\$2,186,392 81</u>	
Net income from operations.....	<u>\$1,142,770 42</u>	
NET INCOME FROM CAPITAL ASSETS †:		
Interest on bank balances.....	\$2,938 63	
Interest on securities owned.....	167,630 57	
Other income	22,584 78	
Total	<u>\$193,153 98</u>	
Grand total	<u>\$1,335,924 40</u>	
DISPOSITION OF NET INCOME:		
Reserve for sinking fund.....	\$100,000 00	
Operating reserve	1,042,770 42	
Capital account	193,153 98	
Total	<u>\$1,335,924 40</u>	

† The net income reported under this heading was earned upon cash and other capital assets held to meet cost of construction and other purposes and the amounts reported have been appropriately credited to capital accounts.

**Table No. 6
ARTHUR KILL BRIDGES**

Income Account		Calendar year,
INCOME FROM OPERATIONS:		
I. <i>Gross income</i>		
Tolls and other revenue.....		1933
Other income	\$419,735 08	
	15,639 64	
Gross income	<u>\$435,374 72</u>	
II. <i>Deductions from gross income</i>		
Operating expenses	128,549 15	
Interest on funded debt.....	601,500 00	
Other income charges.....	860 03	
Total deductions	<u>\$730,909 18</u>	
Net income from operations.....	<u>*\$295,534 46</u>	
DISPOSITION OF NET INCOME:		
Operating reserve	*\$295,534 46	
Total	<u>*\$295,534 46</u>	

* Denotes deficit.

**Table No. 7
BAYONNE BRIDGE**

Income Account		Calendar year,
INCOME FROM OPERATIONS:		
I. <i>Gross income</i>		
Tolls and other revenue.....		1933
Other income	\$211,393 19	
	93,898 81	
Gross income	<u>\$305,292 00</u>	
II. <i>Deductions from gross income</i>		
Operating expenses	\$65,562 36	
Interest on funded debt.....	480,000 00	
Other income charges.....	619 82	
Total deductions	<u>\$546,182 18</u>	
Net income from operations.....	<u>*\$240,890 18</u>	
DISPOSITION OF NET INCOME:		
Operating reserve	*\$240,890 18	
Total	<u>*\$240,890 18</u>	

* Denotes deficit.

Table No. 8
COMPARISON OF OPERATING REVENUE

PROJECT	Calendar year, 1933	Calendar year, 1932	Increase or *Decrease	
			Amount	Per cent
Holland Tunnel	\$5,913,487.76	\$6,197,799.49	\$284,311.73	4.6
George Washington Bridge	3,210,629.88	2,936,937.40	273,692.48	9.3
Arthur Kill Bridges..	419,735.08	531,422.69	111,687.61	21.0
Bayonne Bridge	211,393.19	232,336.40	20,943.21	9.0
Total	\$9,755,245.91	\$9,898,495.98	\$143,250.07	1.4

* Decrease shown in italics.

Table No. 9
COMPARISON OF OPERATING EXPENSES

PROJECT	Calendar year, 1933	Calendar year, 1932	Decrease	
			Amount	Per cent
Holland Tunnel.....	\$1,464,019 11	\$1,542,086 06	\$78,066 95	5.1
George Washington Bridge	317,651 48	320,460 67	2,809 19	.9
Arthur Kill Bridges.....	128,549 15	145,514 24	16,965 09	11.7
Bayonne Bridge.....	65,562 36	75,000 17	9,437 81	12.6
Total	\$1,975,782 10	\$2,083,061 14	\$107,279 04	5.2

Table No. 10
HOLLAND TUNNEL

CLASS	Calendar year, 1933	Calendar year, 1932	Increase or *Decrease	
			Number	Per cent
Motorcycles	15,787	15,192	595	3.9
Automobiles	8,634,064	9,063,803	429,739	4.7
Buses	379,927	389,980	10,053	2.6
Trucks—up to 2 tons....	1,015,299	1,072,437	57,138	5.3
Trucks—2 tons to 5 tons.	502,608	540,961	38,353	7.1
Trucks—5 tons to 10 tons	236,941	264,770	27,829	10.5
Semi-trailers—5 tons to 10 tons	60,599	39,863	20,736	52.0
Semi-trailers—10 tons to 15 tons	15,375	16,779	1,404	8.4
Special	45	78	33	42.3
Total traffic	10,860,645	11,403,863	543,218	4.8

* Decrease shown in italics.

Table No. 11
GEORGE WASHINGTON BRIDGE

CLASS	Calendar year, 1933	Calendar year, 1932	Increase or *Decrease	
			Number	Per cent
Passenger automobiles ..	5,202,537	5,011,380	191,157	3.8
Motorcycles and bicycles..	12,899	12,683	216	1.7
Trucks—up to 2 tons....	186,750	151,912	34,838	22.9
Trucks—2 tons to 5 tons.	62,633	49,414	13,219	26.7
Trucks—over 5 tons....	43,614	27,295	16,319	59.8
Tractors and semi-trailers and 6 wheel trucks....	31,813	17,343	14,470	83.4
Tractors and trallers or trucks and trallers....	1,933	1,510	423	28.0
Buses	368,061	238,409	129,652	54.4
Total vehicles	5,910,240	5,509,946	400,294	7.3
Pedestrians	106,067	245,268	139,201	56.8

* Decrease shown in italics.

Table No. 12
ARTHUR KILL BRIDGES

CLASS	Calendar year, 1933	Calendar year, 1932	Increase or *Decrease	
			Number	Per cent
Passenger automobiles . . .	703,703	888,092	184,389	20.8
Motorcycles and bicycles . .	1,535	2,910	1,375	47.2
Trucks—up to 2 tons . . .	65,821	74,308	8,487	11.4
Trucks—2 tons to 5 tons . . .	24,407	25,601	1,194	4.7
Trucks—over 5 tons . . .	19,527	17,829	1,698	9.5
Tractors and semi-trailers and 6 wheel trucks . . .	3,737	3,216	521	16.2
Tractors and trailers or trucks and trailers . . .	169	212	43	20.5
Buses	1,511	717	794	110.7
Total vehicles	820,410	1,012,885	192,475	19.0
Pedestrians	5,599	7,096	1,497	21.1

* Decrease shown in italics.

Table No. 13
BAYONNE BRIDGE

CLASS	Calendar year, 1933	Calendar year, 1932	Increase or *Decrease	
			Number	Per cent
Passenger automobiles . . .	348,565	377,285	28,720	7.6
Motorcycles and bicycles . .	467	1,121	654	58.3
Trucks—up to 2 tons . . .	48,668	37,263	11,405	30.6
Trucks—2 tons to 5 tons . . .	6,059	6,671	612	9.2
Trucks—over 5 tons . . .	5,150	3,028	2,122	70.1
Tractors and semi-trailers and 6 wheel trucks . . .	914	895	19	2.1
Tractors and trailers or trucks and trailers . . .	198	82	116	141.4
Buses	34,372	36,514	2,142	5.9
Total vehicles	444,393	462,859	18,466	4.0
Pedestrians	8,465	20,136	11,671	57.9

* Decrease shown in italics.

Table No. 14
INVESTMENT IN PHYSICAL PROPERTY
To DECEMBER 31, 1933

GENERAL ACCOUNTS	Total	George Washington Bridge	Bayonne Bridge	Arthur Kill Bridges	Inland Terminal	Midtown Hudson Tunnel	Holland Tunnel*
Engineering	\$6,902,535 85	\$3,307,597 20	\$1,086,801 97	\$1,127,146 66	\$559,572 14	\$821,417 88	.....
Investment in land	21,421,588 68	10,041,714 05	2,969,561 66	1,294,954 92	3,749,637 36	3,365,690 69	.....
Construction	63,450,015 18	33,575,149 35	7,636,441 06	13,095,304 35	9,106,772 00	36,348 42	.....
General expenditures	2,541,168 72	1,107,907 47	329,561 33	238,759 35	572,485 67	292,454 90	.....
Interest and income during construction	13,085,553 58	8,172,362 77	1,141,224 53	1,482,965 91	1,800,682 86	488,317 51	.....
Unclassified	50,588,688 44	.....	.....	.....	.....	.....	\$50,588,688 44
Grand total	\$157,989,550 45	\$56,204,730 84	\$13,163,590 55	\$17,239,161 19	\$15,789,150 03	\$5,004,229 40	\$50,588,688 44

* The Holland Tunnel was acquired from the States of New York and New Jersey upon the basis of terms specified in laws enacted and it is not possible to classify the amount to the General Accounts.

Table No. 15
INLAND TERMINAL NO. 1
Expenditures Under Construction Contracts
JULY, 1930 TO DECEMBER, 1933, INCLUSIVE

Contract reference	DESCRIPTION	BIDS RECEIVED			Engineer's estimate of contract items	EXPENDITURES			Remarks	
		Number	High bid	Low bid		Accepted bid	Contract items	Contingent work		Contract items plus contingent work
IT 1-3.....	Test borings.....	7	Bids made on	unit price basis.	Low bid	\$4,000 00	\$3,190 07	.....	\$3,190 07	Complete
IT 1-4.....	Demolition.....	19	\$114,200 00	\$64,000 00	\$64,000 00	75,000 00	64,000 00	\$708 82	64,708 82	Complete
IT 1-5.....	Excavation and foundation.....	7	1,398,200 00	855,000 00	855,000 00	1,350,000 00	851,228 67	150,000 00	1,001,228 67	Complete
IT 1-6.....	Construction above foundation.....	4	8,911,000 00	7,591,000 00	7,591,000 00	7,887,250 00	7,390,568 00	371,307 31	7,761,875 31	Complete
IT 1-7.....	Grand staircase to Commerce Hall.	4	45,500 00	39,793 00	39,793 00	53,800 00	32,132 84	14,273 00	46,405 84	99% complete

NOTE — Engineer's estimate of contract items is arrived at on basis of estimated quantities at an assumed unit price for each contract item. Contractors' bids represent an aggregate estimated cost, based on fixed unit prices bid by the contractor and the engineer's estimate of quantities.

Table No. 16
MIDTOWN HUDSON TUNNEL
Expenditures Under Construction Contracts
NOVEMBER, 1930 TO DECEMBER, 1933, INCLUSIVE

Contract reference	DESCRIPTION	BIDS RECEIVED			Engineer's estimate of contract items	EXPENDITURES			Remarks	
		Number	High bid	Low bid		Accepted bid	Contract items	Contingent work		Contract items plus contingent work
MHT 1.....	Test borings.....	6	\$23,938 50	\$16,707 50	\$16,707 50	\$22,810 00	\$18,336 82	\$120 00	\$18,456 82	Complete
MHT 1-A.....	Test borings.....	7	8,206 00	4,654 00	4,654 00	.....	6,337 90	.....	6,337 90	Complete
MHT 2.....	Cast iron and cast steel tunnel lining.....	4	2,636,750 00	2,358,150 00	2,358,150 00	2,140,600 00	.....	.....	.....	.....
MHT 3.....	Bolts, nuts and washers for tunnel lining.....	2	215,940 00	177,664 08	177,664 08	251,000 00	.....	.....	.....	.....

NOTE — Engineer's estimate of contract items is arrived at on basis of estimated quantities at an assumed unit price for each contract item. Contractors' bids represent an aggregate estimated cost, based on fixed unit prices bid by the contractor and the engineer's estimate of quantities.

Table No. 17
EXPENDITURES FOR EFFECTUATION OF COMPREHENSIVE PLAN YEAR ENDED DECEMBER 31, 1933

PROJECT	Amount
Belt Lines—General	\$682 73
Belt Line No. 1	1,962 02
Belt Line No. 13	1,671 66
Channels, Bridges and Anchorage	7,179 47
Consolidated Lighterage and Carriage Operations	998 45
Food Receiving Terminals and Food Distribution	908 44
Development Work—Port District	74,652 85
I. C. C. and State Commission Cases	11,574 51
Inland Terminals and Movement of Freight by Motor Trucks	24,206 27
Suburban Transit	1,393 32
Terminal Operations—General	4,819 56
Traffic Rates and Regulations	8,561 47
Total	\$138,610 75

Table No. 18
FUNDED DEBT
DECEMBER 31, 1933

DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>New York-New Jersey Interstate Bridge Bonds</i> Construction of bridges across the Arthur Kill between Perth Amboy, N. J., and Tottenville, Staten Island, N. Y., Elizabeth, N. J., and Howland Hook, Staten Island, N. Y.	"A"	3/1/1926	\$14,000,000	\$14,000,000	4½%	March 1 and Sept. 1	National City Bank of New York	March 1 1932	*\$300,000	Legal for investment of funds of the States of New York and New Jersey and their municipal subdivisions; also insurance companies and associations, savings banks, executors, administrators, guardians, trustees and all other fiduciaries of the two States.
								1933	*400,000	
								1934	500,000	
								1935	600,000	
								1936	700,000	
								1937	800,000	
								1938	900,000	
								1939	1,000,000	
								1940	1,000,000	
								1941	1,100,000	
								1942	1,200,000	
								1943	1,300,000	
								1944	1,300,000	
								1945	1,400,000	
1946	1,500,000									
<i>New York-New Jersey Interstate Bridge Bonds</i> Construction of a bridge over the Hudson River between Fort Lee, N. J., and 178th Street, Manhattan, New York City.	"B"	12/1/1926	60,000,000	20,000,000	4%	June 1 and Dec. 1	National City Bank of New York	Dec. 1 1936	1,000,000	Legal for investment of funds of the States of New York and New Jersey and their municipal subdivisions; also insurance companies and associations, savings banks, executors, administrators, guardians, trustees and all other fiduciaries of the two States.
								1937	1,000,000	
								1938	1,000,000	
								1939	1,000,000	
								1940	1,000,000	
								1941	1,000,000	
								1942	1,000,000	
								1943	1,500,000	
								1944	1,500,000	
								1945	1,500,000	
								1946	1,500,000	
								1947	1,500,000	
								1948	1,500,000	
								1949	2,000,000	
1950	2,000,000									

* Paid.

Table No. 18
FUNDED DEBT (Continued)
DECEMBER 31, 1933

DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>New York-New Jersey Interstate Bridge Bonds</i> Construction of a bridge over the Kill van Kull connecting Bayonne, N. J., and Port Richmond, Staten Island, N. Y.	" C "	1/3/1928	\$12,000,000	\$12,000,000	4%	Jan. 3 and July 3	Guaranty Trust Company	Jan. 3 1938	\$300,000	Legal for all state and municipal officers and bodies, all banks, bankers, trust companies, savings banks, savings and loan associations, investment companies, insurance associations, administrators, executors, guardians, trustees and other fiduciaries, and may properly and legally be deposited with and received by any state or municipal officers or agencies for any purpose for which bonds or other obligations of the two States may be deposited. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after January 3, 1938, at 103 and accrued interest.
								1939	400,000	
								1940	400,000	
								1941	400,000	
								1942	500,000	
								1943	600,000	
								1944	700,000	
								1945	800,000	
								1946	900,000	
								1947	1,000,000	
								1948	1,000,000	
								1949	1,000,000	
								1950	1,000,000	
								1951	1,000,000	
								1952	1,000,000	
1953	1,000,000									
<i>New York-New Jersey Interstate Bridge Bonds</i> Construction of a bridge over the Hudson River between Fort Lee, N. J., and 178th Street, Manhattan, New York City.	" B "	11/1/1929	60,000,000	30,000,000	4½%	May 1 and Nov. 1	National City Bank of New York	Nov. 1 1939	1,500,000	Legal for investment of funds of the States of New York and New Jersey and their municipal subdivisions; also insurance companies and associations, savings banks, executors, administrators, guardians, trustees, and all other fiduciaries of the two States. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after November 1, 1939, at 105 and accrued interest.
								1940	1,500,000	
								1941	1,500,000	
								1942	1,500,000	
								1943	1,500,000	
								1944	1,500,000	
								1945	1,500,000	
								1946	2,250,000	
								1947	2,250,000	
								1948	2,250,000	
								1949	2,250,000	
								1950	2,250,000	
								1951	2,250,000	
								1952	3,000,000	
								1953	3,000,000	

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Table No. 18
FUNDED DEBT (Continued)
DECEMBER 31, 1933

DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>New York-New Jersey Terminal Bonds</i> Construction of a union freight terminal at West 15th Street, West 16th Street, Eighth Avenue and Ninth Avenue, New York City, N. Y.	" D "	3/1/1931	\$16,000,000	\$16,000,000	4¼%	March 1 and Sept. 1	City Bank Farmers Trust Company	March 1 1936	\$300,000	Legal for all state and municipal officers and bodies, all banks, bankers, trust companies, savings banks, savings associations, and building and loan associations, investment companies, insurance companies and associations, administrators, executors, guardians, trustees and other fiduciaries in New York and New Jersey, and may properly and legally be deposited with and received by any state or municipal officer or agency in New Jersey and by any municipal officer or agency in New York, for any purpose for which the deposit of state bonds or other state obligations is now or may hereafter be authorized. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after March 1, 1941, at 105 and accrued interest.
								1937	300,000	
								1938	300,000	
								1939	300,000	
								1940	300,000	
								1941	400,000	
								1942	400,000	
								1943	400,000	
								1944	400,000	
								1945	400,000	
								1946	400,000	
								1947	500,000	
								1948	500,000	
								1949	500,000	
								1950	500,000	
								1951	500,000	
								1952	500,000	
								1953	500,000	
								1954	600,000	
								1955	600,000	
1956	600,000									
1957	600,000									
1958	600,000									
1959	600,000									
1960	5,000,000									

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Table No. 18
FUNDED DEBT (Continued)
DECEMBER 31, 1933

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DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>New York-New Jersey Interstate Tunnel Bonds</i> For repayment to the State of New York and the State of New Jersey of amounts expended in the construction of the Holland Tunnel.	" E "	3/1/1931	\$50,000,000	\$50,000,000	4¼%	March 1 and Sept. 1	City Bank Farmers Trust Company	March 1	\$1,000,000	Legal for all state and municipal officers and bodies, all banks, bankers, trust companies, savings banks, savings and loan associations, investment companies, insurance companies and associations, administrators, executors, guardians, trustees and other fiduciaries in New York and New Jersey, and may properly and legally be deposited with and received by municipal officers or agencies in the States of New York and New Jersey for any purpose for which the deposit of state bonds or other state obligations is now or may hereafter be authorized. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after March 1, 1941, at 105 and accrued interest.
								1933	1,000,000	
								1934	1,000,000	
								1935	1,000,000	
								1936	1,000,000	
								1937	1,000,000	
								1938	1,000,000	
								1939	1,000,000	
								1940	1,000,000	
								1941	1,000,000	
								1942	1,000,000	
								1943	2,000,000	
								1944	2,000,000	
								1945	2,000,000	
								1946	2,000,000	
								1947	2,000,000	
								1948	2,000,000	
								1949	2,000,000	
								1950	2,000,000	
								1951	2,000,000	
1952	2,000,000									
1953	2,500,000									
1954	2,500,000									
1955	2,500,000									
1956	2,500,000									
1957	2,500,000									
1958	2,500,000									
1959	2,500,000									
1960	2,500,000									

* Paid.

Table No. 18
FUNDED DEBT (Continued)
DECEMBER 31, 1933

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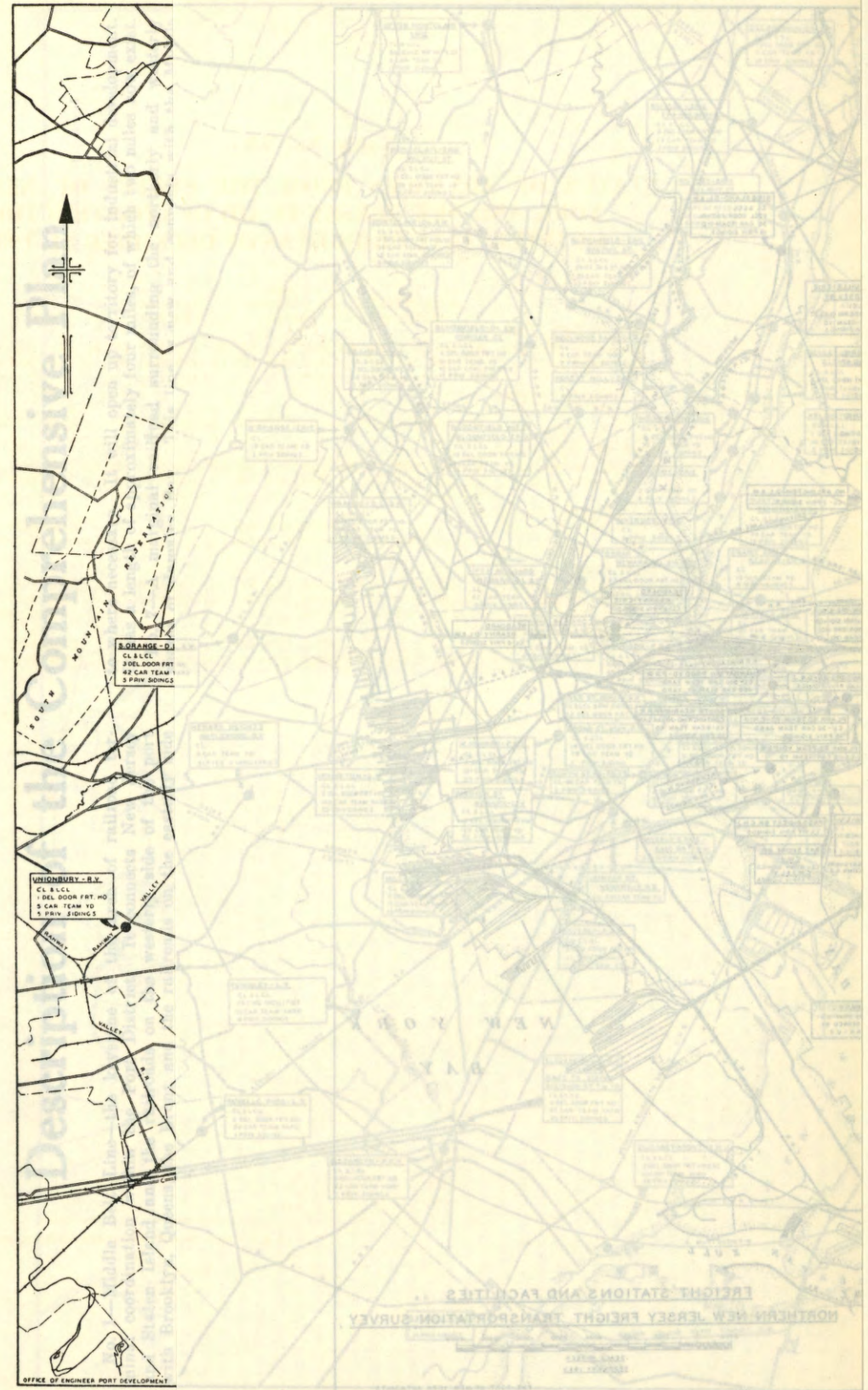
DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>Midtown Hudson Tunnel Notes</i> Construction of the first operating unit of the Midtown Hudson Tunnel under the Hudson River between Union City, Hudson County, New Jersey and 39th Street, Manhattan, New York City.	MTN	10/30/1933	\$40,000,000	*\$5,600,000	4%	Jan. 1 and July 1	City Bank Farmers Trust Company	July 1	\$5,600,000	Legal for all state and municipal officers and bodies, all banks, bankers, trust companies, savings banks, savings and loan associations, investment companies, insurance companies and associations, administrators, executors, guardians, trustees and other fiduciaries in New York and New Jersey, and may properly and legally be deposited with and received by municipal officers or agencies in the States of New York and New Jersey for any purpose for which the deposit of state bonds or other state obligations is now or may hereafter be authorized. Free from New York and New Jersey taxes. Exempt from Federal Income Tax.
								1943	5,600,000	

* Of this total, \$2,500,000 was sold to bankers for public distribution; the balance of this issue was sold to the Federal Administration of Public Works under the terms of a loan agreement with the United States Government.

Table No. 19
STATUS OF ADVANCES FROM THE STATES OF NEW YORK AND NEW JERSEY IN AID OF CONSTRUCTION OF INTERSTATE BRIDGES AS OF DECEMBER 31, 1933

	Arthur Kill Bridges	George Washington Bridge	Bayonne Bridge	Total
State of New York:				
Amounts pledged.	\$2,000,000 00	\$5,000,000 00	\$2,000,000 00	\$9,000,000 00
Amounts paid ...	2,000,000 00	5,000,000 00	2,000,000 00	9,000,000 00
Balance, December 31, 1933..	.....	.....	.....	.....
State of New Jersey:				
Amounts pledged.	\$2,000,000 00	\$5,000,000 00	\$2,000,000 00	\$9,000,000 00
Amounts paid ...	2,000,000 00	4,500,000 00	2,000,000 00	8,500,000 00
Balance, December 31, 1933.	.....	\$500,000 00	.....	\$500,000 00
Both States:				
Amounts pledged	\$4,000,000 00	\$10,000,000 00	\$4,000,000 00	\$18,000,000 00
Amounts paid ..	4,000,000 00	9,500,000 00	4,000,000 00	17,500,000 00
Balance, December 31, 1933.	.....	\$500,000 00	.....	\$500,000 00

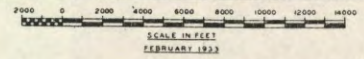
J. B. LYON COMPANY, PRINTERS, ALBANY, N. Y.





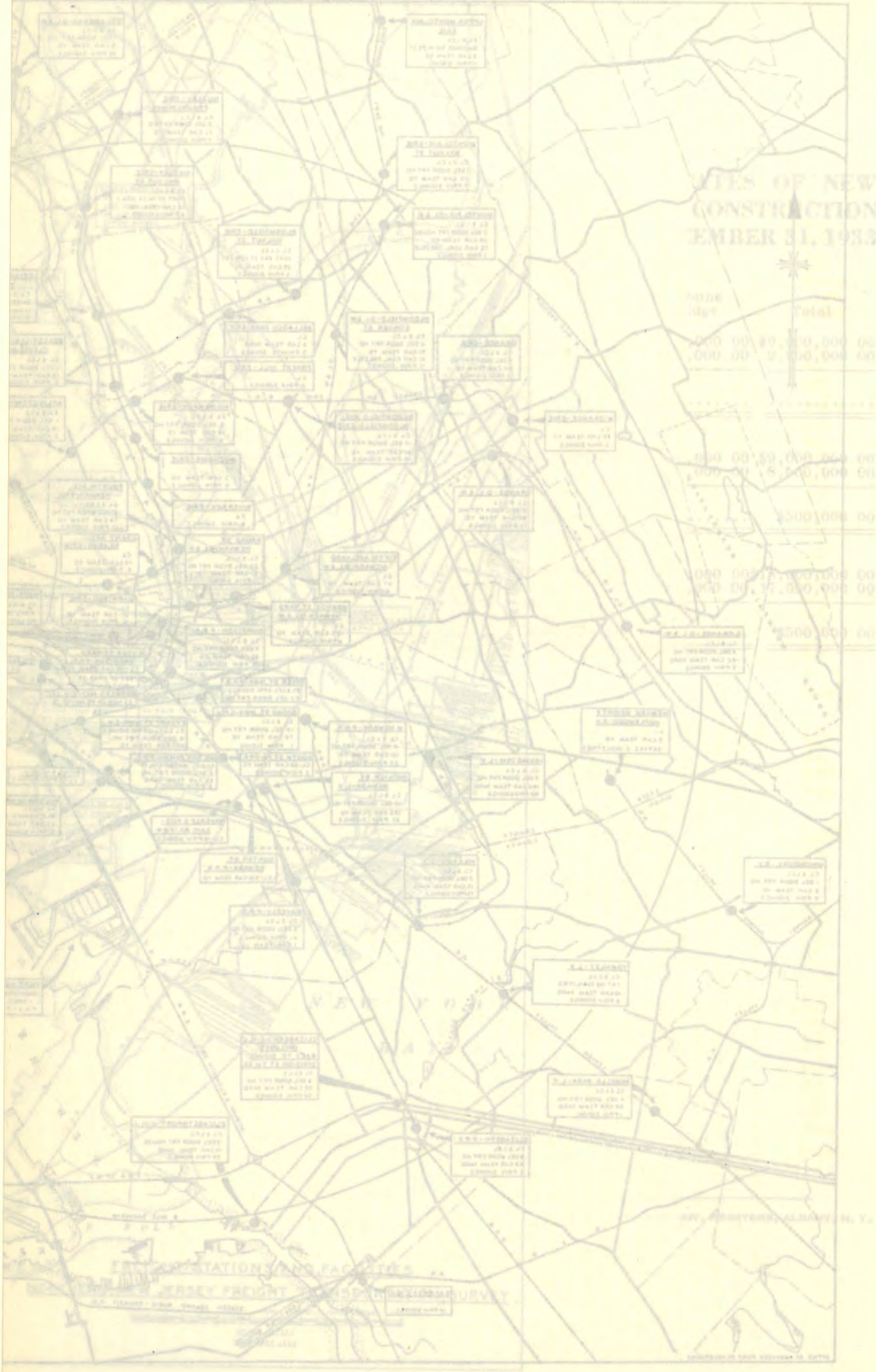
OFFICE OF ENGINEER PORT DEVELOPMENT

**FREIGHT STATIONS AND FACILITIES
NORTHERN NEW JERSEY FREIGHT TRANSPORTATION SURVEY**



FEBRUARY 1923

THE PORT OF NEW YORK AUTHORITY



Description of the Comprehensive Plan

No. 1—Middle Belt Line—the keystone of the arch of railroad terminal coordination within the Port District. It connects New Jersey and Staten Island and the railroads on the westerly side of the port with Brooklyn, Queens, the Bronx and the railroads on the easterly side of the port. This connection is the most direct, the shortest and the cheapest of any brought to the attention of the Commissioners for study or consideration. This line connects with the New York Central Railroad in the Bronx; with the New York, New Haven and Hartford Railroad in the Bronx; with the Long Island Railroad in Queens and Brooklyn; with the Baltimore and Ohio Railroad near Elizabethport and in Staten Island; with the Central Railroad Company of New Jersey at Elizabethport and at points in Newark and Jersey City; with the Pennsylvania Railroad in Newark and Jersey City; with the Lehigh Valley Railroad in Newark and Jersey City; with the Delaware, Lackawanna and Western Railroad in Jersey City and the Secaucus Meadows; with the Erie Railroad in Jersey City and the Secaucus Meadows; with the New York, Susquehanna and Western Railroad in North Bergen; with the New York, Ontario and Western and the West Shore Railroads on the Westerly side of the Palisades above the Weehawken tunnel.

Its length is approximately sixty-one and one-half miles, of which approximately fifty-one and one-half miles have already been built. Additional tracks to those already built will have to be added. There remains only approximately ten miles of entirely new line to be built. With the construction of the tunnel and approaches from Greenville to Bay Ridge freight can commence to flow without the necessity of building any other trackage except short connections at the tunnel ends. To handle the full traffic that should traverse the Middle Belt Line or utilize it for local service would require the improvement of existing tracks and additions to them.

The route to the Middle Belt Line is as follows: Connecting at the Hudson River at Spuyten Duyvel running easterly and southerly generally along the easterly side of the Harlem River, utilizing existing lines and improving and adding where necessary, to a connection with Hell Gate Bridge and the New Haven Railroad, a distance of approximately seven miles; thence continuing in a general southerly direction, utilizing existing lines and improving and adding where necessary to a point near Bay Ridge, a distance of approximately eighteen and one-half miles; thence by a new two-track tunnel under New York Bay in a westerly direction to a portal in the Greenville yard of the Pennsylvania Railroad in Jersey City, a distance of approximately five miles, to a connection with the

to where necessary. It will open up territory for industrial development. It has a length of approximately four miles, of which two miles now exist.

No. 7—A marginal railroad surrounding the northerly and westerly shores of Jamaica Bay. This line is new and connects with the Middle Belt Line (No. 1). It will open up territory for commercial and industrial development. It has a length of approximately twelve and one-half miles.

No. 8—An existing line, to be improved and added to where necessary. It extends along the southeasterly shore of Staten Island. It connects with Middle Belt Line (No. 1), and will open up territory for commercial and industrial development. It has a length of approximately twelve miles.

No. 9—A marginal railroad extending along the westerly shore of Staten Island and a branch connection with No. 8. This line is new and will open up territory for commercial and industrial development. It connects with the Middle Belt Line (No. 1), and with a branch from the Outer Belt Line (No. 15); with its branch it is about fifteen and one-quarter miles long.

No. 10—This line is made up mostly of existing lines, to be improved and added to where necessary. It connects with the Middle Belt Line (No. 1) by way of marginal railroad No. 11. It extends along the southerly shore of Raritan Bay and through the territory south of the Raritan River reaching New Brunswick. It will open up territory for commercial and industrial development. It has a length of approximately twenty-nine and one-half miles, of which practically the entire length exists.

No. 11—A marginal railroad extending from a connection with the proposed Outer Belt Line (No. 15) near New Brunswick along the northerly shore of the Raritan River to Perth Amboy, thence northerly along the westerly side of the Arthur Kill to a connection with the Middle Belt Line (No. 1) south of Elizabethport. The portion of this line which exists to be improved and added to where necessary. This line will open up territory for commercial and industrial development. It has a length of approximately fifteen and one-quarter miles, of which about nine and one-half miles now exist.

No. 12—A marginal railroad extending along the easterly shore of Newark Bay and the Hackensack River and connects with the Middle Belt Line (No. 1). This line which does not now exist will open up territory for commercial and industrial development. It has a length of approximately seven miles.



THE
COMPREHENSIVE PLAN
 FOR THE DEVELOPMENT OF
 THE PORT DISTRICT

SCALE
 MILES

Description of the Comprehensive Plan

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Its length is approximately sixty-one and one-half miles, of which approximately fifty-one and one-half miles have already been built. Additional tracks to those already built will have to be added. There remains only approximately ten miles of entirely new line to be built. With the construction of the tunnel and approaches from Greenville to Bay Ridge freight can commence to flow without the necessity of building any other trackage except short connections at the tunnel ends. To handle the full traffic that should traverse the Middle Belt Line or utilize it for local service would require the improvement of existing tracks and additions to them.

The route to the Middle Belt Line is as follows: Connecting at the Hudson River at Spuyten Duyvel running easterly and southerly generally along the easterly side of the Harlem River, utilizing existing lines and improving and adding where necessary, to a connection with Hell Gate Bridge and the New Haven Railroad, a distance of approximately seven miles; thence continuing in a general southerly direction, utilizing existing lines and improving and adding where necessary to a point near Bay Ridge, a distance of approximately eighteen and one-half miles; thence by a new two-track tunnel under New York Bay in a westerly direction to a portal in the Greenville yard of the Pennsylvania Railroad in Jersey City, a distance of approximately five miles, to a connection with the tracks of the Pennsylvania and Lehigh Valley Railroads; thence in a generally northerly direction along the easterly side of Newark Bay and the Hackensack River at the westerly foot of the Palisades, utilizing existing tracks and improving and adding where necessary, making connections with the Jersey Central, Pennsylvania, Lehigh Valley, Delaware, Lackawanna and Western, Erie, New York, Susquehanna and Western, New York, Ontario and Western, and West Shore railroads, a distance of approximately ten miles. From the Greenville portal of the Bay tunnel and from the line along the easterly side of Newark Bay by the bridges of the Central Railroad of New Jersey (crossing the Hackensack and Passaic Rivers) and of the Pennsylvania and Lehigh Valley Railroads (crossing Newark Bay) to the line of the Central Railroad of New Jersey running along the westerly side of Newark Bay and thence southerly along this line to a connection with the Baltimore and Ohio Railroad south of Elizabethport, utilizing existing lines and improving and adding where necessary, a distance of approximately 12 miles; thence in an easterly direction crossing the Arthur Kill, utilizing existing lines and improving and adding where necessary, along the northerly and easterly shores of Staten Island to the city piers and to a connection, if the City of New York consent thereto, with the tunnel under the Narrows to Brooklyn provided for under legislation as a municipal project—a distance of approximately nine miles.

No. 2—A marginal railroad in the Bronx extending along the shore of the East River and Westchester Creek connecting with the Middle Belt Line (No. 1), and with the New York, New Haven and Hartford Railroad in the vicinity of Westchester. This is a new line and will open up territory for commercial and industrial development. Its length is approximately eight miles.

No. 3—A marginal railroad in Queens and Brooklyn extending along Flushing Creek, Flushing Bay, the East River and upper New York Bay. It connects with the Middle Belt Line (No. 1), by lines No. 4, No. 5, No. 6 and directly at the southerly end at Bay Ridge. It utilizes certain existing lines of the Brooklyn Eastern District, Jay Street, New York Dock and Bush Terminal companies. Existing lines will be utilized and improved and added to and new lines will be built where lines do not now exist. This railroad will open up territory for commercial and industrial development. It has a length of approximately nineteen and one-half miles, of which approximately four miles now exist and about fifteen and one-half miles will be new.

No. 4—An existing line to be improved and added to where necessary. It connects the Middle Belt Line (No. 1) with the marginal railroad No. 3 near its northeasterly end. It has a length of approximately two and one-half miles.

No. 5—An existing line to be improved and added to where necessary. It connects the Middle Belt Line (No. 1), with the marginal railroad No. 3, in Long Island City. It has a length of approximately four miles.

No. 6—A portion of this line exists and a portion is new. It connects the Middle Belt Line (No. 1) with the marginal railroad No. 3 in the Greenpoint section of Brooklyn. The existing portion to be improved and added

to where necessary. It will open up territory for industrial development. It has a length of approximately four miles, of which two miles now exist.

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No. 13—A marginal railroad extending along the westerly side of the Hudson River and the Upper New York Bay, is made up mostly of existing lines—the Erie Terminals, New Jersey Junction, Hoboken Shore and National Docks Railroad. This line is now operated as a belt line approximately sixteen and one-half miles in length and, serving the New Jersey water front, has opened up territory for commercial and industrial development. It will be connected with the Middle Belt Line (No. 1).

No. 14—A marginal railroad connecting with the Middle Belt Line (No. 1), and extending through the Hackensack and Secaucus Meadows. It will open up territory for commercial and industrial development. It is a new line and has a length of approximately twenty-three miles.

No. 15—The Outer Belt Line, extending around the westerly limits of the Port District beyond the congested section. Its northerly terminus is on the Hudson River at Piermont above the harbor congestion and it connects by marginal railroads at the southerly end with the harbor waters below the congested section. By spurs it connects with the Middle Belt Line (No. 1), on the westerly shore of Newark Bay and with the marginal railroad on the westerly shore of Staten Island (No. 9). It will have great value in that it will afford military protection to the Port District. It will serve as an interchange between the railroads beyond the congestion and will open up territory for industrial development. It has a length of approximately seventy-one miles which is all new construction.

16—Union freight stations located at focal points throughout the Port District, as a solution of the problems of freight handling and distribution for L. C. L. shipments. The overhead rights of these terminals will be utilized as space for commercial purposes. The stations will be served by motorized equipment operating to and from railheads. The first unit, Port Authority, Inland Terminal No. 1, is located in the block bound by 15th and 16th Streets and 8th and 9th Avenues in Manhattan. In this unit there was opened by the railroads serving the Port of New York, on October 3, 1932, a joint station for L. C. L. freight.

No. 17—By authorization of the States of New York and New Jersey, the Port Authority has constructed four interstate bridges, has acquired the Holland Tunnel, and has begun construction of the Midtown Hudson Tunnel extending from 39th Street in Manhattan to Weehawken, New Jersey. Three of the four Port Authority bridges connect Staten Island with New Jersey, as follows: Outerbridge Crossing, between Perth Amboy, N. J., and Tottenville, S. I.; Goethals Bridge, between Elizabeth, N. J. and Howland Hook, S. I.; and the Bayonne Bridge, between Port Richmond, S. I. and Bayonne, N. J. The two former bridges were opened to traffic on June 29, 1928, and the Bayonne Bridge, November 15, 1931. The fourth bridge, George Washington Bridge, spanning the Hudson River between Fort Lee, N. J., and Fort Washington, New York City, was opened to traffic October 25, 1931. The Holland Tunnel, between Jersey City and Manhattan, has been in operation since November 13, 1927. It was acquired by the Port Authority March 1, 1931. It is expected that the first tube of the Midtown Hudson Tunnel, equipped to handle two-way traffic, will be opened in 1937.

TRACKS OF THE PENNSYLVANIA AND DELAWARE RAILROADS
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THE PORT OF NEW YORK AUTHORITY.

