NEW YORK STATE BRIDGE & TUNNEL COMMISSION

NEW JERSEY HOLLAND TUNNEL COMMISSION

Proposed Weehawken-Midtown Tunnel

HUDSON RIVER VEHICULAR TRAFFIC

Preliminary Plans
and
Estimate of Cost
and
Method of Financing

Submitted to the
Governors and Joint Legislative Conference Committee
of the
State of New York
and the
State of New Jersey
on Interstate Highway Facilities
at the
Hotel Roosevelt, New York City
March 6, 1930

COMPLIMENTS OF
OLE SINGSTAD

NEW YORK STATE BRIDGE & TUNNEL COMMISSION

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NEW YORK STATE BRIDGE & TUNNEL COMMISSION

NEW JERSEY HOLLAND TUNNEL COMMISSION

Canal and Varick Streets

NEW YORK CITY

March 6, 1930

To

Hon. Morgan F. Larson,
Governor of the State of New Jersey,

Hon. Franklin D. Roosevelt,
Governor of the State of New York,

and

Members of the Joint Legislative Conference Committee of the
States of New York and New Jersey.

Your Excellencies and Gentlemen:-

You have asked us to present to you the results of the studies we have made of the characteristics, growth and probable future trend of development of vehicular traffic between the Borough of Manhattan and New Jersey together with our plans for a second vehicular tunnel to meet the immediate requirements of this traffic, our estimates of cost and our recommendations as to a method of financing construction.

We have the honor to present to you herewith the detailed information which you request. It represents the best judgment of the members of the commissions and technical staff, based not only on the experience gained in the construction of The Holland Tunnel but also an intimate study of its actual operation for a period of more than two years.

We consider it our duty to the public and to you to place particular emphasis at this time on certain aspects of this discussion because an opportunity is here presented to the Joint Conference Committee

to establish certain broad principles in relation to the treatment of this problem which will result not only in the timely provision of future crossings as rapidly as future needs develop but will also insure a method of financing construction which will, commencing with the third tunnel, completely eliminate the interest charge for both states and remove the burden entirely from either state budget. To the extent that total costs are reduced, the states will advance the date when the burden of tolls can be reduced or removed. If the plan of financing which we suggest is adopted, this will be the last vehicular tunnel which the states will have to finance by bonds or appropriations. Future crossings can be built by the states entirely out of the earnings of existing structures.

State Highway Extensions:

We believe that every consideration of sound public policy requires that interstate highway crossings should always be deemed to be integral parts and vitally important links in the vehicular highway systems of the two states. Their location, construction and operation is a vehicular traffic problem. Nothing more and nothing less. The construction and maintenance of highways is one of the primary functions of government. It is also a vitally important public function . It should not be delegated to other than direct governmental agencies and even then not to such as will, by the specialized nature and purposes of their organization be required to make it an incident to the performance of other unrelated duties. It should be undertaken by state highway agencies which have in mind the requirements, not of a particular class of traffic but rather of all classifications of traffic.

In this connection we suggest that so far as the needs of truck traffic are concerned, involving as it does the transportation of freight, all of the requirements of the comprehensive plan of The Port of New York Authority for the solution of the freight transportation problem can be met by consulting with it with respect to the proposed locations of vehicular tunnels. As to location, we understand there is no difference of opinion with respect to the existing or proposed second crossing. The Port Authority should also be consulted with regard to the location of all future crossings. Its views as to the best route for truck traffic should have weight in the determination of locations.

That, however, is not the entire problem. The truck traffic through The Holland Tunnel comprises but 18% of the total. This is at the very centre of gravity of cross river truck movement. It is probable that the percentage will not be any greater in the proposed Weehawken-Midtown Tunnel. To the extent of that traffic The Port of New York Authority has a right to be heard on the subject of the location of vehicular crossings as pertaining to the easiest, most natural and most direct movement of that particular classification of traffic. The rest of the problem can in our judgment best be handled by the interstate vehicular highway agencies of the two states having in mind the requirements of all classes of vehicular traffic.

Unification:

It is obvious that the policy and program of the states should be directed toward a unification of ownership and operation of all interstate highway connections. We believe this policy should have, as its ultimate aim, the direct ownership of all these highway crossings by the states and their operation by the Highway Departments or Interstate Highway or Bridge and Tunnel Commissions of the two states. No program of unification should be adopted which moves away from rather than in the direction of direct interstate ownership with operating control by highway agencies.

A program of unification cannot, in our opinion, be successfully or advantageously consummated at this time for certain very practical reasons. They spring from obvious factors in the situation which are all compelling now but will be eliminated in about seven years. They are as follows: the fact that two of the four Port Authority bridges are still in process of construction; the Goethals and Outerbridge crossings were financed under one bond issue, the 178th Street - Fort Lee Bridge under a second and the Bayonne Bridge under a third. New Jersey's share of the income of The Holland Tunnel is interwoven in pledge with the bonds issued to pay for its interest not only in The Holland Tunnel but also the Camden-Philadelphia bridge. That structure is on a toll basis under special agreement with the State of Pennsylvania and the City of Philadelphia.

A program of unification and pooling of revenues, such as has been proposed by The Port Authority, could not even be effectuated at this time among its own bridges since the bondholders of any one issue could very properly object to and prevent a diversion of income of its particular bridge to support any other bond issue. An attempt to pool Holland Tunnel income would require a complicated arrangement to segregate it from the lien of Camden-Philadelphia Bridge bonds and tolls, if indeed that is legally possible. It would mean refunding the debt by Port Authority bonds with its consequent heavy financing costs. It would also require changes in the agreements of New Jersey with both Philadelphia and Pennsylvania. This would seem to carry the states pretty far afield.

In about seven years these difficulties will have largely disappeared and the two states will be in a dominant position with respect to the factors involved. Then the second tunnel will have been completed and producing income if authorized this year, all Port Authority bridges will be completed and in operation sufficiently long to show clearly the trend of their earning power. New Jersey Bridge and Tunnel bonds will be completely amortized and New Jersey will be free to deal with The Holland Tunnel and its income separate and apart from the Camden-Philadelphia Bridge. Port Authority bonds will have reached the period when they are callable and the states will be in a position to refund this debt, if necessary, to complete a unification plan. It will then be possible, after providing adequate protection for all Port Authority bridge bond issues, to develop a plan for a joint, unified interstate ownership, control and operation of all of the existing and future highway crossings as integral parts of the interstate highway system.

The problem of unification of ownership and operation should be further studied by a joint conference committee and in the meantime the Weehawken-Midtown Tunnel authorized and constructed.

Method of Financing:

To finance the cost it is recommended, as the least expensive and most desirable method, that the states adopt the same procedure as was used to finance the construction of The Holland Tunnel; i.e., by state highway bonds in New Jersey and direct appropriation in New York. This is the method of financing which each state now uses within its own borders for financing the construction of all other parts of their respective highway systems. Since New Jersey will use bonds under any circumstances, state bonds with low interest rates and selling at par or a premium will avoid excessive financing costs which result from high interest rate bonds sold at a discount. It is true that a popular referendum would be required to approve the bond issue. There is, however, no record of the voters of New Jersey ever having failed to approve a bond issue for an improvement of this character even when interest and amortization were to come out of taxes. Tunnel bonds would be paid out of ample earnings and would impose no burden on the taxpayers. The financial success of The Holland Tunnel would make a second bond issue certain of popular approval.

New York's share of the cost could be made available without increasing the budget one dollar. Its unencumbered share of the earnings of The Holland Tunnel during the period of construction of the second tunnel will provide over half the required amount. The balance could be temporarily advanced from the Highway fund. This fund, which comes from the revenues of the gasoline and automobile license taxes will amount to $52,000,000 this year. It will amount to approximately $350,000,000 during the period of construction of the second tunnel. The law requires that it be allocated to state highway construction. Not less than 60% of it comes from automobilists in New York City. None of it would otherwise be spent on highways in New York City since the city provides its own street highways.

We suggest that it would be a fair and reasonable act to adjust temporarily the highway construction program so as to make it possible to advance to the tunnel project about $18,000,000 for a few years. This will completely eliminate not only excessive costs of financing but so far as New York is concerned the entire interest burden amounting to millions of dollars. Annexed tables show that within two or three years after the opening of the second tunnel, the entire loan or advance can be returned to the highway fund and New York will then be the owner of an undivided interest in two highways producing a net revenue to it of $6,500,000 a year without a dollar of indebtedness or a dollar of interest burden.

The use of this method of financing in each state has two other very important advantages. In the first place the disbursement

of the monies will be subject to the direct audit and control of the state comptrollers of both states and will be paid out subject to all the legal protection which surround the disbursement of state funds as provided by the statutes of each state.

The states will be relieved also of the necessity of creating legal monopolies of the waterfront against other structures such as characterize the legal monopolies granted to sustain the sale of Port Authority bridge bonds and which now cover the entire stretch of the Arthur Kill and Kill van Kull and the Hudson River from 60th Street north to the city limits. While these monopolies against other structures may have been necessary to support the sale of Port Authority bridge bonds, they certainly do not help solve the traffic problem. Its solution is difficult enough as it is without adding laws and contractual agreements prohibiting the construction of crossings where traffic requirements may in the future be found to exist. The existing complications in this respect can be corrected when a unification program is effectuated and adequate protection is afforded to Port Authority bridge bondholders. The states should not, however, adopt a method of financing for further crossings which will add further legal monopolies and further complicate the traffic problem.

Program of Future Development:

Over a year ago we addressed a communication to the Governors and legislative leaders of New York and New Jersey stating that the rate of growth of traffic over the Hudson River for the previous years indicated a total volume of cross-river traffic by the year 1955 which would require in that period the construction by the states of five vehicular tunnels between the Borough of Manhattan and New Jersey in addition to The Holland Tunnel; that the order in which they should be provided would depend upon future developments as to local concentrations of traffic but that the immediate emergency was in the midtown section and would have to be met there first. The next few years will indicate clearly where the third tunnel should be constructed. We stated then and we are now more than ever convinced that the proper way to finance the cost of the structures is by using the net income earned by existing structures as a revolving fund to provide further facilities for the automobilists who contribute this income to the two states. For the time being it is necessary and desirable for various reasons to maintain crossings of the Hudson River on a toll basis. This is the good fortune of the two states as it provides a source of revenue for the provision of additional interstate crossings. Because these structures are income producing is not, however, a reason why the states should penalize this particular portion of vehicular traffic with excessive basic costs of any sort which are otherwise avoidable, since to that extent is postponed the date when the tolls can be reduced or the structures made free. This should not be done until all crossings are under a common control and adequate provision has been made for the protection of Port Authority bridge bondholders. That day, however, will come. It will be advanced to the extent that the states by the adoption of conservative

policies of financing keep the cost of financing and the interest burden to the lowest possible minimum. The fact that this particular section of interstate vehicular traffic is burdened with a toll charge is a reason why the states, in good faith, should do everything possible to keep the costs down and reduce or eliminate the toll burden just as soon as the entire series of interstate crossings is completed and paid for. Then the tolls can be reduced to an amount merely sufficient to pay operating costs on all structures or else be kept at existing schedules until a capital fund is created the income of which will be sufficient to maintain them in perpetuity in which event the structures could be made free to public use.

There are annexed the details of our plans and estimates together with charts and tables containing in full the information which you have requested.

These are the conclusions of the members of the Tunnel Commissions.

Respectfully submitted,

Joseph G. Wright
Chairman, New Jersey Holland Tunnel Commission.

A. S. Grant Eng
Acting-Chairman, New York State Bridge & Tunnel Commission.

STATEMENT SUBMITTED TO THE JOINT CONFERENCE on the PROPOSED WEEHAWKEN-MIDTOWN VEHICULAR TUNNEL

by

Ole Singstad
Chief Engineer and Superintendent
New York State Bridge & Tunnel Commission
and New Jersey Holland Tunnel Commission

The New York and New Jersey Tunnel Commissions, in joint communications to the Governors and the legislative leaders of the two States more than a year ago, pointed out the necessity for the early construction of a second vehicular tunnel under the Hudson River in the vicinity of 38th Street, Manhattan. Since that time the Commissions' engineering staff has continued studies and investigations in connection with the proposed tunnel.

Traffic and Location:

The traffic through The Holland Tunnel for the year 1929 was approximately 11,000,000 vehicles, showing an increase of more than 25% over the previous year. The traffic on the ferries, particularly those in the midtown and uptown sections, also showed an increase, so that the total vehicular traffic between Manhattan and New Jersey in 1929 was about 23,000,000 vehicles. Three years previous, in 1926, the total Hudson River traffic was 13,600,000. There has, therefore, been an increase of 69% in three years. The Holland Tunnel has already been operated to capacity for periods of several hours in succession on many occasions and traffic studies show that the tunnel will reach the point of traffic saturation by 1932, at which time there will be urgent need for traffic relief in the midtown section. Our traffic studies lead to the conclusion that the 178th Street Bridge, when completed, will have but very slight effect on the cross-river traffic below Central Park. The greatest concentration of ferry traffic is now in the midtown section. Of a total ferry traffic in 1929 of 11,852,000, the ferries having their New York terminals at 42nd Street and at 23rd Street carried 5,397,000 vehicles, which is 45-1/2% of the total and 67-1/2% of all ferry traffic between Central Park and the Battery. This ferry traffic is increasing at a rapid rate. When The Holland Tunnel was opened, its traffic, in addition to the newly-created traffic, was drawn principally from the group of ferries in the immediate vicinity of the tunnel. Little traffic was taken from the midtown ferries and none was diverted from the ferries above Central Park. The traffic on the midtown ferries increased from 5,000,000 vehicles in 1926 to more than 5,500,000 in 1929, and on the two uptown ferries from 3,000,000 in 1926 to almost 4,000,000 in 1929.

In the last full year before The Holland Tunnel was opened, the group of ferries in its immediate vicinity carried 4,670,000 vehicles. The group of ferries similarly located with respect to the Weehawken-Midtown Tunnel during 1929 carried 5,514,000 vehicles. This number, which is already nearly 1,000,000 greater than on the ferries near The Holland Tunnel the year before its opening, will increase to a much greater figure before the proposed tunnel is ready for traffic. We estimate that when the tunnel is opened in 1936 it will, during its first year of operation, carry 10,000,000 vehicles, or a greater traffic than that of The Holland Tunnel during its first year of operation. The traffic studies also show that the increase in traffic will be fully as rapid as in The Holland Tunnel and that it will reach capacity in 1940.

The Weehawken-Midtown Tunnel, when opened, will have but little effect on the 178th Street Bridge traffic as the two structures will be 7-1/2 miles apart. The Holland Tunnel by that time will have been turning away traffic for more than four years, and the traffic diverted from The Holland Tunnel to the midtown tunnel will be more than made up by the traffic obliged to use the ferries in the vicinity of The Holland Tunnel because of lack of capacity in the tunnel.

The heavy concentration and rapid growth of ferry traffic in the midtown section points definitely to that location as the most advantageous one for the next tunnel. This is the section which is now in greatest need of modern traffic facilities across the Hudson River. The exact location must be such as best to fit in with the main traffic arteries on both sides of the river, thereby providing for the most expeditious travel and a minimum of congestion and interference between the tunnel traffic and other traffic. The City of New York has authorized the construction of a vehicular tunnel across Manhattan beginning at 10th Avenue and 38th Street, running under 38th Street and the East River to Queens, with approaches at 3rd Avenue and an extension under Newtown Creek from Queens to Brooklyn.

The Hudson River tunnel should be so located as to offer easy connection with the City's tunnel. The Elevated Express Highway along 12th Avenue, now under construction by the City of New York, will become one of the most important traffic arteries in the City. It has ramps about every 20 blocks, one of which is located between 38th and 42nd Streets. The entrance and exit of the tunnel must be located so as to afford easy interchange of traffic between the tunnel and the Elevated Highway. Tenth and Eleventh Avenues will be the most important north and south surface traffic arteries in this part of the City when the removal of the New York Central Railroad tracks from these avenues is completed, and the plazas should be located conveniently for access to both of these avenues.

On the New Jersey side of the river, the topography is particularly advantageous for a tunnel at this location

as compared with other locations. It permits bringing the tunnel to the surface near the waterfront, in addition to extending it through the Palisades to form a direct connection on the easterly edge of the Hackensack Meadows with the main highway system of the State. In this manner the important industries, railroad and steamship terminals at the waterfront can be served without serious interference with the main line of through traffic.

The Plan:

The Weehawken-Midtown Tunnel as proposed by the Tunnel Commissions runs from the vicinity of 10th Avenue and 38th Street, Manhattan, to Weehawken, with entrances and exits at Willow Avenue at the foot of the easterly slope of the Palisades, and continues through Bergen Hill to a junction with the new State highway system on the Meadows at North Bergen, New Jersey. It consists of twin tubes, with traffic facilities and ventilation system similar to those of The Holland Tunnel. The entrance plaza in New York is on the west side of 11th Avenue between 41st and 42nd Streets, and the exit plaza is on the west side of 10th Avenue between 38th and 39th Streets. These locations are subject to modifications to be worked out in detail in co-operation with the City of New York so as to provide the most direct means of access, either on the surface, underground or overhead, with the City's 38th Street crosstown tunnel when the plans for the City's tunnel are sufficiently advanced. The tunnel plazas will also afford easy access to the elevated express highway and 10th and 11th Avenues. The proposed Bergen Hill tunnel will form an essential part of the tunnel as it will serve as the main approach for the largest part of the traffic using the river tunnel.

Borings and Surveys:

The first contract to be awarded, following authorization for building the tunnel, will be for the making of borings to determine the sub-surface and subaqueous conditions along the proposed route of the tunnel. This information is essential for the final design and estimate of cost of the tunnel.

In preparing the preliminary design and estimate of cost of the proposed tunnel, we have been very fortunate in having available more than the usual amount of such information prior to the making of borings for the project itself. The Pennsylvania R.R. tunnels under the Hudson River and through Bergen Hill are only a few hundred feet distant. The borings made by their engineers and the character of the ground as actually encountered in driving the tunnels are available. The Dock Department of the City of New York has made borings along the waterfront at the location of the tunnel, and this information has been made available to us.

Borings and explorations made by other City departments and corporations have also been studied and, on the basis of this considerable volume of information now available, a profile

has been plotted showing the probable ground conditions to be encountered in building the tunnel. Information on surface conditions to be encountered has been studied from maps and records and a limited amount of field surveys.

Estimate of Cost:

On the basis of the preliminary plans and such information on sub-surface conditions as is now available, a detailed estimate of cost has been prepared. The completed project as above described and shown on the plans, fully equipped including real estate, engineering, administration and a liberal allowance for contingencies, is estimated to cost $66,928,000. The estimate does not allow for interest during construction as it has been assumed that the tunnel would be financed by the two States in the same manner as The Holland Tunnel; nor does it include any allowance for a physical connection with New York City's tunnel.

Schedule of Contracts
and Time of Completion:

If the tunnel project is authorized by the present sessions of the Legislatures and approved by the Governors of the two States, and sufficient money is made available at once for the first year's requirements, about $200,000. by each State, for the making of borings and the preparation of contract plans and specifications, the controlling part of the work, namely, the river tunnels and shafts, can be placed under contract by July 1, 1931. The succeeding contracts can then be let so that work under them will proceed as rapidly as the work on the river tunnels will permit, and all contracts can be scheduled to be completed on or before December 31, 1935. Allowing a period of six months for possible delays, the tunnel can be opened to traffic on July 1, 1936.

Operating Revenue and Expenses:

We estimate that the Weehawken-Midtown Tunnel will carry 10,000,000 vehicles during the first year of operation and that the traffic will increase to the estimated capacity of 15,000,000 by 1940. Using the same toll rates as those charged at The Holland Tunnel and making allowance for the increased operating costs, due to the greater length of tunnel, there will result a net income of $3,200,000. during the first year of operation. The net income will increase to $7,000,000. in 1940.

The net income from The Holland Tunnel in 1929 amounted to $4,636,776.60 and by 1932 this will reach $7,250,000. per year.

New Jersey's bonded indebtedness for The Holland Tunnel will be fully paid off in 1937, one year after the opening of the Weehawken-Midtown Tunnel, from which time New Jersey's share of the net earnings from both tunnels can be applied to paying

off that State's half of the cost of the Weehawken-Midtown Tunnel. New Jersey's share of this cost will be completely repaid by October 1, 1943, after which date New Jersey's unobligated share of the net earnings from both tunnels will amount to $6,500,000. per year.

A large part of New York's one half share of the cost of the Weehawken-Midtown Tunnel can be paid out of its share of the net unobligated earnings of The Holland Tunnel. In addition, there will be required an amount of $13,500,000. to $18,000,000. depending on the form of construction contracts adopted. This amount, however, will be fully repaid out of earnings from The Holland Tunnel and the Weehawken-Midtown Tunnel by 1939. Subsequent to that year, New York's share of the net income from both tunnels will be unobligated and if accumulated will amount to $36,000,000. by 1944, or sufficient to fully pay its share of a third tunnel.

Program of Future Crossings:

The proposed tunnel will be the third fixed crossing for vehicles of the Hudson River between New Jersey and Manhattan. It is already apparent that many more of these highway crossings will be necessary within a few years.

The program cannot be considered complete until a total of seven such crossings have been provided between the Battery and Spuyten Duyvil. These crossings may all be required within the next twenty-five years, and must be located so as to fit into the highway systems of the two States and at points where traffic relief is most needed.

The Holland Tunnel will be fully paid for by about the time the Weehawken-Midtown Tunnel is opened, and the cost of the second tunnel will be repaid in a much shorter time than The Holland Tunnel as the net earnings from both tunnels can be used for that purpose.

The third tunnel can be financed out of the net earnings of the first two tunnels without additional financial aid.

Similarly, succeeding tunnels can be financed from the earnings of the previously constructed tunnels.

Preparation of Preliminary Plans and Estimates:

The preparation of the preliminary plans for the proposed Weehawken-Midtown Tunnel is naturally based upon the experience gained in the planning, constructing and operation of The Holland Tunnel, as this was the pioneer subaqueous tunnel for the use of gasoline propelled vehicles. This tunnel has served as a standard for all subsequent vehicular tunnels, especially as regards the plan of ventilation. The estimates

cover all items of construction and equipment, which the construction and operation of The Holland Tunnel have shown to be necessary for a completed project ready for operation.

The plans and estimates of cost have been prepared by the Commissions' engineering staff, all of whom have been on the Commissions' staff during the entire period of planning, constructing and operating The Holland Tunnel. The preliminary plan was evolved after having made a number of detailed study layouts of the arrangements on both sides of the river. The estimates have been made in detail on the basis of estimated quantities of the various materials and equipment and taking into consideration the changes in prices of labor and material since The Holland Tunnel was built. The cost of all classes of labor has increased since the construction of The Holland Tunnel and the cost of some materials has increased and that of others has decreased since that time. The estimated cost of real estate has been obtained by a careful study of the character of the land and structures taken and of their assessed valuation. The estimate of real estate to be acquired in New York has been reviewed and approved by the Commissions' real estate expert.

The preliminary plan and estimate of cost of construction have been reviewed by three consulting engineers, all of them members of the Commissions' consulting staff during the planning and construction of The Holland Tunnel. Copies of their letters of endorsement of the plan and estimates are attached as follows:

Letter from Col. William J. Wilgus, dated February 28, 1930;
" " Frederick C. Noble, " March 6, 1930;
" " Col. George L. Watson, " March 3, 1930.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate

for

Weehawken-Midtown Tunnel 2-20-30

Cont. No.	Title	
1	Borings	$ 45,000.00
2	Under River Tunnel & Shafts, New York	11,153,000.00
3	" " " " " New Jersey	9,770,000.00
4	Bergen Hill Tunnels, Complete	11,822,000.00
5	Subway & Open Cut, New York	3,542,000.00
6	" " " " New Jersey	4,839,000.00
7	Fans, Motors & Controls	630,000.00
8	Ventilation Buildings, New York	1,600,000.00
9	" " New Jersey	2,000,000.00
10	Transformers & Switches	308,000.00
11	Tunnel Paving	298,000.00
12	Electrical Work	1,000,000.00
13	Cables (Power)	140,000.00
14	Tunnel Finish	932,000.00
15	Plazas, New York	226,000.00
16	" New Jersey	166,000.00
17	Pumps	40,000.00
18	Approaches, New York (Finish)	400,000.00
19	" New Jersey (Finish)	179,000.00
20	Administration & Service Bldg., New York	411,000.00
21	Equipment Bldg., New Jersey	230,000.00
22	Plaza Office & Toll Booths	110,000.00
23	Emergency Equipment	74,000.00
	Total	$49,915,000.00
	Contingencies 10%	5,000,000.00
		$54,915,000.00
	Engineering & Administration 8%	4,393,000.00
		$59,308,000.00
	Real Estate, New York	6,370,000.00
	" " New Jersey	1,250,000.00
	Total Cost of Project	$66,928,000.00

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate of Cost

for

Bergen Hill Tunnels

2-20-30

Item	Summary	Price
1	Main Tunnel Construction	$ 6,762,748
2	Willow Road Approach Tunnels Construction	1,307,146
3	Approaches	308,220
4	Shafts	231,546
5	Roadway Pavement, Main Tunnel	342,749
6	" " Approach Tunnels	51,998
7	Miscellaneous Tunnel Details, Main Tunnel	208,302
8	" " " Approach Tunnels	50,724
9	Tunnel Finish, Main Tunnel	632,492
10	" " Approach Tunnels	151,070
11	Electrical Work in Tunnels, including Cables	130,000
12	Ventilation Building	900,000
13	" Fans & Chains	120,000
14	Electrical Equipment in Ventilation Building	475,000
15	Emergency Trucks & Tractors	50,000
16	" Equipment Building	100,000
	Total	$11,821,995
	Say	$11,822,000

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate
for
Weehawken-Midtown Tunnel 2-20-30.

Yearly Distribution - Actual Expenditures

		FISCAL YEARS							
		1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	Total
1	Borings	45							$ 45,000
2	N.Y.R.Tun.& Sh.		1500	3000	3000	2500	1153		11,153,000
3	N.J.R.Tun.& Sh.		1500	2000	2500	2500	1270		9,770,000
4	Bergen Hill Tunnel		500	3000	2500	2500	2000	1322	11,822,000
5	N.Y.Subway			1500	1500	542			3,542,000
6	N.J.Subway			2000	2000	639			4,839,000
7	Fans & Motors				200	300	130		630,000
8	N.Y.Vent.Bldgs.				500	900	200		1,600,000
9	N.J.Vent.Bldgs.				700	900	400		2,000,000
10	Trans.& Oil Swts.				100	150	58		308,000
11	Roadway Paving				48	150	100		298,000
12	Elec. Work					400	500	100	1,000,000
13	Power Cables					100	40		140,000
14	Tile & Tun. Fin.					400	400	132	932,000
15	N.Y.Plaza Pav.					100	100	26	226,000
16	N.J.Plaza Pav.					75	75	16	166,000
17	Pumps, etc.					20	20		40,000
18	N.Y.Arch.Work					150	200	50	400,000
19	N.J.Arch.Work					80	80	19	179,000
20	N.Y.Adm.& Ser.Bldg.					100	250	61	411,000
21	N.J.Adm.Bldg.					75	125	30	230,000
22	Toll Coll.Booths						100	10	110,000
23	Equipment						60	14	74,000
	Real Estate N.Y.	1870	4000	500					6,370,000
	" " N.J.	250	500	500					1,250,000
	Eng.& Adm.	500	700	700	700	700	600	493	4,393,000
	Contingencies	200	500	600	600	700	900	1500	5,000,000
	Actual Expenditures Each Year	2865	9200	13800	14348	14181	8761	3773	$66,928,000
	One-half share of each State	1432.5	4600	6900	7174	7090.5	4380.5	1886.5	$33,464,000

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate

2-20-30

for

Weehawken-Midtown Tunnel

Yearly Distribution - Contract Appropriations

	FISCAL YEARS							
	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	Total
1 Borings	45							$ 45,000
2 N.Y.R.Tun.& Sh.		11153						11,153,000
3 N.J.R.Tun.& Sh.		9770						9,770,000
4 Bergen Hill Tunnel		6994	1735	1502	1441	150		11,822,000
5 N.Y.Subway			3542					3,542,000
6 N.J.Subway			4839					4,839,000
7 Fans & Motors			630					630,000
8 N.Y.Vent.Bldgs.				1600				1,600,000
9 N.J.Vent.Bldgs.				2000				2,000,000
10 Trans.& Oil Swts.				308				308,000
11 Roadway Paving				298				298,000
12 Elec. Work				1000				1,000,000
13 Power Cables				140				140,000
14 Tile & Tun. Fin.					932			932,000
15 N.Y.Plaza Pav.					226			226,000
16 N.J.Plaza Pav.					166			166,000
17 Pumps, etc.					40			40,000
18 N.Y.Arch. Work					400			400,000
19 N.J.Arch. Work					179			179,000
20 N.Y.Adm. & Ser.Bldg.					411			411,000
21 N.J.Adm.Bldg.					230			230,000
22 Toll Coll.Booths						110		110,000
23 Equipment						74		74,000
Real Estate, N.Y.	1870	4500						6,370,000
" " N.J.	250	1000						1,250,000
Eng. & Adm.	500	700	700	700	700	600	493	4,393,000
Contingencies	200	500	600	600	700	900	1500	5,000,000
Money set aside each year	2865	34617	12046	8148	5425	1834	1993	$66,928,000
One-half share to each State	1432.5	17308.5	6025	4074	2712.5	917	996.5	$33,464,000

The totals in each column for money set aside each year are arrived at on the basis of the full amount of each construction contract being set aside at the time of awarding the contract.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Feb. 20, 1930.

ESTIMATE OF REVENUE FROM TOLLS, NET INCOME, ETC., OF THE HOLLAND TUNNEL

Fiscal Year	Estimated Traffic, Vehicles	Estimated Revenue Per Veh.	Estimated Revenue Total from Tolls	Estimated Operating Expenses	Net Income	1/2 Net Income = Share of State N.Y.	Commitments to Port of N.Y.Authority	Remainder for State of N.Y.
		$	$	$	$	$	$	$
1927-1928 (231 days)	4,916,490		2,713,246. (from all sources)	935,632.	*1,777,614.	788,807.	400,000.	388,807.
1928-1929	9,754,376		5,412,232. (from all sources)	1,472,716.	3,939,516.	1,969,758.	1,800,000.	169,758.
1929-1930	11,720,000	.55	6,446,000.	1,500,000.	4,946,000.	2,473,000.	1,800,000.	673,000.
1930-1931	13,480,000	.56	7,548,800.	1,600,000.	5,948,800.	2,974,400.	1,400,000.	1,574,400.
1931-1932	15,000,000 (Capacity)	.57	8,550,000.	1,600,000.	6,950,000.	3,475,000.	1,400,000.	2,075,000.
1932-1933	15,000,000	.58	8,700,000.	1,600,000.	7,100,000.	3,550,000.	400,000.	3,150,000.
1933-1934	15,000,000	.59	8,850,000.	1,600,000.	7,250,000.	3,625,000.		3,625,000.
1934-1935	15,000,000	.60	9,000,000.	1,600,000.	7,400,000.	3,700,000.		3,700,000.
1935-1936	15,000,000	.60	9,000,000.	1,700,000.	7,300,000.	3,650,000.		3,650,000.
1936-1937	15,000,000	.60	9,000,000.	1,700,000.	7,300,000.	3,650,000.		3,650,000.
						$29,855,965.	$7,200,000.	$22,655,965.

*From this is deducted $200,000. in expenses for training Operating Organization prior to opening of tunnel.

The total shown in the last column representing New York's unobligated share of the net earnings of The Holland Tunnel to the time of completion of the Weehawken-Midtown Tunnel amounting to $22,655,965. is available toward paying New York's share of the cost of constructing the Weehawken-Midtown Tunnel.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate

for

Weehawken-Midtown Tunnel 2-20-30

Financial Plan - Appropriations to Cover Full Value of Contracts as Let

New York's One-Half Share

Year	Estimated Balance of H.T.Earnings Available	For Purposes this Estimate	State Appropriation	Expenditures Each State	Balance
1927-28	$ 388,807.	$ 388,000.			$ 388,000.
1928-29	169,758.	169,000.			557,000.
1929-30	673,000.	673,000.			1,230,000.
1930-31	1,574,400.	1,500,000.	$ 2,000,000.	$ 1,432,500.	3,297,500.
1931-32	2,075,000.	2,000,000.	12,500,000.	17,308,500.	469,000.
1932-33	3,150,000.	3,000,000.	3,000,000.	6,023,000.	466,000.
1933-34	3,625,000.	3,500,000.	500,000.	4,074,000.	392,000.
1934-35	3,700,000.	3,500,000.		2,712,500.	1,179,500.
1935-36	3,650,000.	3,500,000.		917,000.	3,762,500.
1936-37	3,650,000.	3,500,000.		996,500.	6,266,000.
		$21,730,000.	$18,000,000.	$33,464,000.	

The amounts in the column headed Expenditures Each State are arrived at on the basis of the full amount of each construction contract being set aside at the time of awarding the contract.

This method of financing requires the State to make available to the Commission for the years in which the various contracts are let, New York's half of the total value of the contracts to be let in such year. Under this system of financing the contracts, the State will have to make available the total cost of the project, less Holland Tunnel earnings, in four appropriations in the early stages of the work. On the other hand, commencing with the fiscal year 1934-35, the Commission will be able to return sums of money to the State which, by the end of the work in the fiscal year 1936-37, will amount to a total of $6,266,000.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate

2-20-30

for

Weehawken-Midtown Tunnel

Financial Plan

Executory Contracts

Year	Estimated Balance of H.T.Earnings Available	For Purposes this Estimate	State Appropriation	Actual Expenditures Each State	Balance
1927-28	$ 388,807	$ 388,000			$ 388,000
1928-29	169,758	169,000			557,000
1929-30	673,000	673,000			1,230,000
1930-31	1,574,400	1,500,000	$2,000,000	$1,432,500	3,297,500
1931-32	2,075,000	2,000,000	2,000,000	4,600,000	2,697,500
1932-33	3,150,000	3,000,000	2,000,000	6,900,000	797,500
1933-34	3,625,000	3,500,000	3,000,000	7,174,000	123,500
1934-35	3,700,000	3,500,000	3,500,000	7,090,500	33,000
1935-36	3,650,000	3,500,000	1,000,000	4,380,500	152,500
1936-37	3,650,000	3,500,000		1,886,500	1,766,000
		$21,730,000	$13,500,000	$33,464,000	

This is a possible method of financing the contracts but is not recommended by the Commissions.

The amounts in the column headed Actual Expenditures Each State are arrived at on the basis of the amounts of money actually paid out each year.

By this method of financing the State of New York will be required to appropriate each year only the sum of money which, together with the available net earnings of The Holland Tunnel, the Commission will be able actually to spend for construction during the fiscal year for which the appropriation is made. This method of financing (executory contracts) will spread the required appropriations over a period of six years and reduce the annual requirements in any one year to a minimum. It shows a net balance returnable to the State at the completion of construction of $1,766,000.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate

for

Weehawken-Midtown Tunnel 2-20-30

Financial Plan - Repayments to New York State

Based on Contract Appropriations

Year	Holland Tunnel Earnings Available	Midtown Tunnel Earnings Available	Total Available including Balance	Repay to New York Account Funds Advanced	Expenditures for Construction Weehawken-Midtown Tunnel Each State	Balance
1933-34						$ 392,000
1934-35	$3,500,000		$3,892,000	$1,000,000	$2,712,500	179,500
1935-36	3,500,000		3,679,500	2,500,000	917,000	262,500
1936-37	3,500,000	$1,600,000	5,362,500	4,000,000	996,500	366,000
1937-38	3,500,000	1,900,000	5,766,000	5,500,000		266,000
1938-39	3,500,000	2,400,000	6,166,000	5,000,000		1,166,000
				$18,000,000		

On the basis of the form of construction contracts requiring the full amount of the contract to be set aside at the time of awarding the contract, New York State will be required, in addition to The Holland Tunnel net earnings, to advance a total of $18,000,000 over a period of four (4) years to pay for its one half share of the cost of the Weehawken-Midtown Tunnel. This table shows that the full amount of $18,000,000 can be repaid to the State of New York by July, 1939, out of the net earnings of The Holland Tunnel and the Weehawken-Midtown Tunnel, leaving a net balance of $1,166,000.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Preliminary Estimate

3-5-30.

for

Weehawken-Midtown Tunnel

Fund Created for State of New York
From Earnings of Tunnels

Time	Earnings Available from Holland Tunnel =1/2 Net Income	Earnings Available from Midtown Tunnel =1/2 Net Income	Fund on Hand	Interest on Fund in Hand at 4%	Total Available
	$	$	$	$	$
Jun.1939			1,166,000.		
1939-40	3,500,000	2,800,000.		46,000.	
Jun.1940			7,512,000.		7,512,000.
1940-41	3,500,000.	3,100,000.		300,000.	
Jun.1941			14,412,000.		14,412,000.
1941-42	3,400,000.	3,100,000.		576,000.	
Jun.1942			21,488,000.		21,488,000.
1942-43	3,400,000.	3,000,000.		860,000.	
Jun.1943			28,748,000.		28,748,000.
1943-44	3,300,000.	3,000,000.		1,150,000.	
Jun.1944					36,198,000.

This table shows that New York's share of the unobligated net earnings from The Holland Tunnel and the Weehawken-Midtown Tunnel, after the money advanced by New York in addition to Holland Tunnel earnings for the construction of the Weehawken-Midtown Tunnel has been fully paid off, if accumulated will amount to $36,198,000. by June, 1944. This amount is sufficient fully to pay for New York's one-half share of the third tunnel.

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

Amortization of New Jersey State Highway Extension Bonds issued for Construction of The Holland Tunnel

1920 Issue	$28,000,000.	30 years	due 1951.
1924 "	8,000,000.	30 "	" 1955.
Total,	$36,000,000.		
Allotted to Camden Bridge	15,500,000.		
" " Holland Tunnel	$20,500,000.		

Annual Interest Charge on	$20,500,000. =		$ 890,000.00
" Amortization	$20,500,000.	30 years 3½% Basis	397,111.65
Total Annual Charge on	$20,500,000.	" " " " & Int.	$1,287,111.65

(A)	$397,111.65 (1921 to 1936, incl.)	on 3½%	= 16 years	$8,327,840.21
(B)	529,752.46 (1929 " 1936, ")	" "	= 8 "	4,795,153.35
(C)	380,650.97 (1930 " 1936, ")	" "	= 7 "	2,961,239.11
(D)	525,000.00 (1931 " 1936, ")	" "	= 6 "	3,438,829.90
(E)	200,000.00 (1932 " 1936, ")	" "	= 5 "	1,020,201.00

Total Amortization Jan. 1, 1937 = $20,543,263.57

Note:
(A)=Amortization figure required - see above - and is assumed to run only to Jan.1,1937
(B)=Excess 1928 dedicated to sinking fund and if income does not decrease, " " " " " " "
(C)= " 1929 " " " " " if income does not decrease, " " " " " " "
(D)= " 1930 estimated by O.S., dedicated to sinking fund and if income does not decrease, " " " " " " "
(E)= " 1931 estimated by O.S., dedicated to sinking fund and if income does not decrease, " " " " " " "

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY HOLLAND TUNNEL COMMISSION

WEEHAWKEN-MIDTOWN TUNNEL

REDEMPTION OF NEW JERSEY BONDS

Time	New Jersey Share of Net Earnings of Both Tunnels =1/2 Net Income	Weehawken-Midtown Tunnel Bonds for N.J. Share of Constr. Outstanding	Interest at 4-1/4% on Bonds Outstanding	Available for Redemption of Bonds
	$	$	$	$
Jul.1,1936		33,464,000.		
1936-37	*1,600,000.		1,422,000.	178,000.
Jul.1,1937		33,286,000.		
1937-38	5,400,000.		1,415,000.	3,985,000.
Jul.1,1938		29,301,000.		
1938-39	5,900,000.		1,245,000.	4,655,000.
Jul.1,1939		24,646,000.		
1939-40	6,300,000.		1,048,000.	5,252,000.
Jul.1,1940		19,394,000.		
1940-41	6,600,000.		824,000.	5,776,000.
Jul.1,1941		13,618,000.		
1941-42	6,500,000.		578,000.	5,922,000.
Jul.1,1942		7,696,000.		
1942-43	6,400,000.		327,000.	6,073,000.
Jul.1,1943		1,623,000.		
Jul.to Sep.1943 (3 months)	1,641,000.		18,000. (for 3 months)	1,623,000.
Oct.1,1943		0.		

*Note: Net earnings for fiscal year 1936-37 shown are New Jersey's share of net earnings of the Weehawken-Midtown Tunnel only. The $3,500,000. New Jersey's share of the net earnings of The Holland Tunnel during fiscal year 1936-37 are used to complete the redemption of The Holland Tunnel bonds. This redemption is to be completed on July 1, 1937 and thereafter New Jersey's share of the net income of both tunnels is applied to the redemption of Weehawken-Midtown Tunnel bonds.

The bonded indebtedness of New Jersey's one half share for the Weehawken-Midtown Tunnel will be fully paid off by October 1, 1943 on the basis of 4-1/4% interest charge, and thereafter New Jersey's share of the unobligated net earnings from The Holland Tunnel and the Weehawken-Midtown Tunnel will amount to $6,500,000. each year.

C O P Y

WILLIAM J. WILGUS
20 West 43rd Street
New York

February 28, 1930.

Mr. Ole Singstad,
Chief Engineer & Superintendent,
The Holland Tunnel,
Canal & Varick Sts., New York.

Dear Mr. Singstad;-

In response to your recent request I have examined the plans that you have prepared for the proposed Weehawken-Midtown Tunnel; and I have also had the benefit of the reasoning that has guided you in their preparation. This, together with my general knowledge of the territory in question, has led me to the conclusion that the construction of the tunnel is necessary in the public interest, that its location as planned by you is admirably suited to the conditions that obtain on both sides of the Hudson River, and that the project offers every promise of financial success.

As to its estimated cost, which you place at $67,000,000., I have not had sufficient time to go exhaustively into its details with you; but knowing the care with which you have prepared the estimate, and the wealth of experience that you have had with similar problems encountered in the construction, maintenance and operation of the Holland Tunnel, I have no hesitancy in saying that your figure appears to me, in the light of the information now at my command, to be a fair one. It is, of course, understood that it does not include interest on money during construction, nor a discount on bond issues, nor the initial cost of preparing for operation at the close of the construction period. Nor does it include, as I understand it, any share of the cost of creating an underground or overhead link between this project and the City's proposed cross-town vehicular tunnel.

Believe me, my dear Mr. Singstad,

Very truly yours,

(signed) W. J. Wilgus.

C O P Y

FREDERICK C. NOBLE
Civil Engineer
149 Broadway
New York, N.Y.

March 6, 1930.

Mr. Ole Singstad, Chief Engr. & Superintendent,
N.Y.State Bridge & Tunnel Commission and
N.J.Holland Tunnel Commission,
Canal & Varick Streets, New York, N. Y.

Dear Sir:-

I have examined carefully the preliminary plans of the proposed Weehawken-Midtown Tunnel, and the preliminary estimate of its cost, in summary form, copies of which you furnished me, and I have already discussed with you the main features of the plans and certain of the more important elements of cost.

In regard to the plans, the discussions at your office have brought out quite fully the reasons which have controlled your choice of the particular line to be followed by the tunnel, its grades, dimensions and sections, the arrangements for access, ventilation, and so forth; and I am convinced that your plans represent the working out of the problem of meeting these conditions in a way that is entirely suitable and sufficient for the purposes of preliminary design and estimate.

As to the estimate of cost, you are aware that I have not had the opportunity of checking it by an independent computation of the items. Notwithstanding this, I think that I may safely express an opinion on the subject, partly because the known costs of the Holland Tunnel, of similar design, offer a very good, and probably the best possible, guide, and partly because of your clear explanations of the methods used in arriving at the costs you have assumed, with due allowance for the changes in labor and material prices that have taken place since the Holland Tunnel contracts were let.

Basing my opinion principally upon such a comparison, I believe that your figure of $66,928,000. for the estimated cost of the entire project, is a reasonable and proper one, and, furthermore, that it is liberal without being excessively so. It is understood that this figure does not include any allowance for interest, prior to completion, upon moneys expended during construction, and does not include any allowance for a physical connection with the proposed crosstown tunnel in Manhattan.

Very truly yours,

(signed) Frederick C. Noble.

C O P Y

GEORGE L. WATSON, C.E., D.Eng.,
One Hundred and Fifty Nassau Street
New York City

March 3, 1930.

Mr. Ole Singstad, Chief Engineer,
New York State Bridge & Tunnel Commission
and
New Jersey Holland Tunnel Commission,
Administration Building,
Canal & Varick Streets,
New York, N. Y.

My dear Sir:-

I have carefully reviewed the various studies that have been made by you, as well as the detail estimates thereon, for the proposed Weehawken-Midtown Tunnel, and agree that of the many studies prepared, that the plan as prepared for submission to the legislative committees of the States of New York and New Jersey on March 6, 1930 is the best workable plan of the many examined and studied.

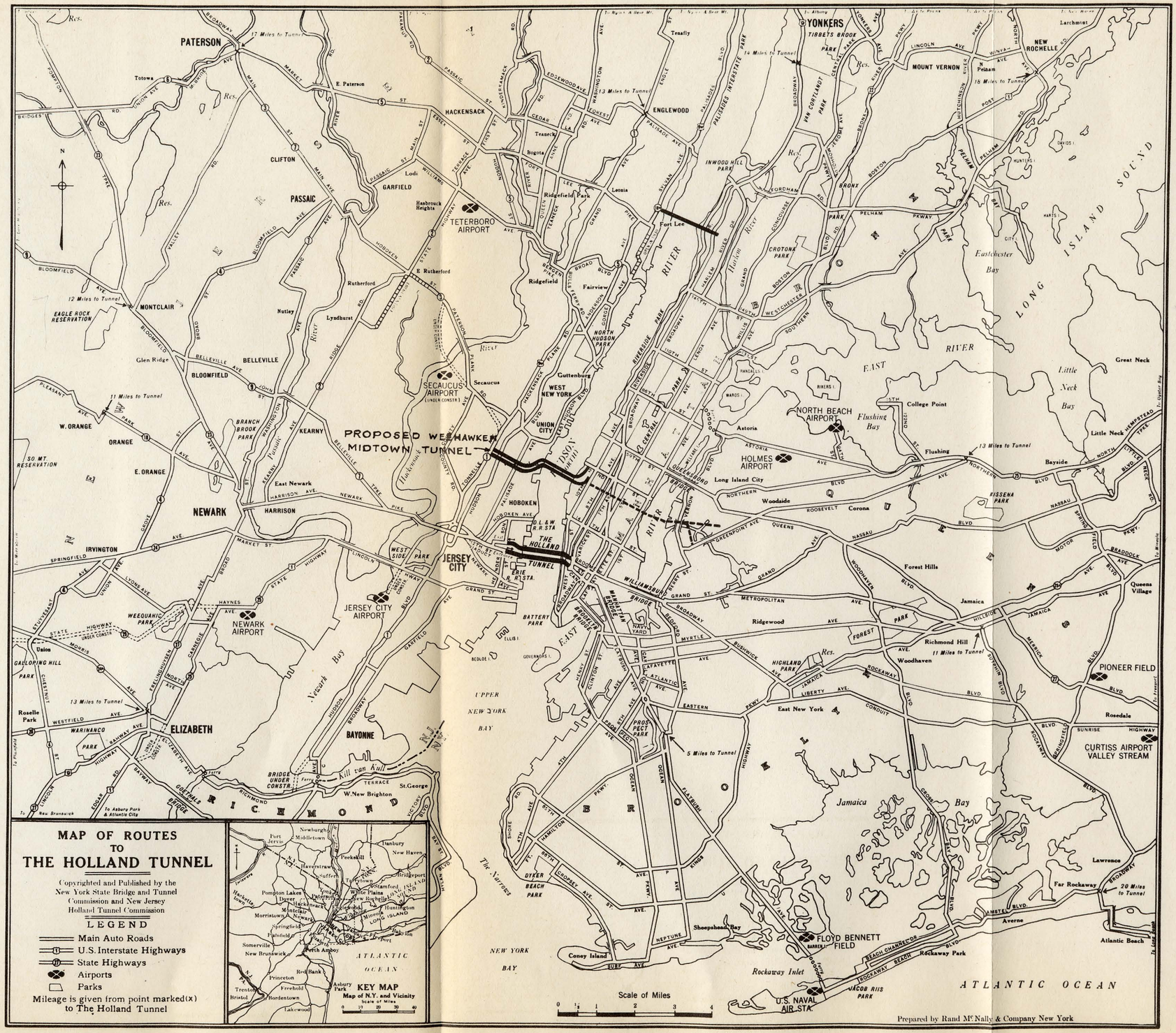
The adopted plan is a sound, workable, and most economical scheme, containing features for caring for traffic on the New Jersey side that are admirable, and in addition solves the New York plaza, and cross connection to the proposed new improvements of New York City in the cheapest and most advantageous manner.

The estimates were prepared with the greatest care and I do endorse the scheme as submitted as being sound and workable, and the estimates of $66,928,000. as conservative, though ample, and consider the entire the best general plan that I have studied for this purpose.

Very truly yours,

(signed) George L. Watson.

PLATE No. 1



MAP OF ROUTES TO THE HOLLAND TUNNEL

Copyrighted and Published by the
New York State Bridge and Tunnel
Commission and New Jersey
Holland Tunnel Commission

LEGEND

- Main Auto Roads
- U.S. Interstate Highways
- State Highways
- Airports
- Parks

Mileage is given from point marked(x) to The Holland Tunnel

KEY MAP
Map of N.Y. and Vicinity
Scale of Miles
0 10 20 30 40

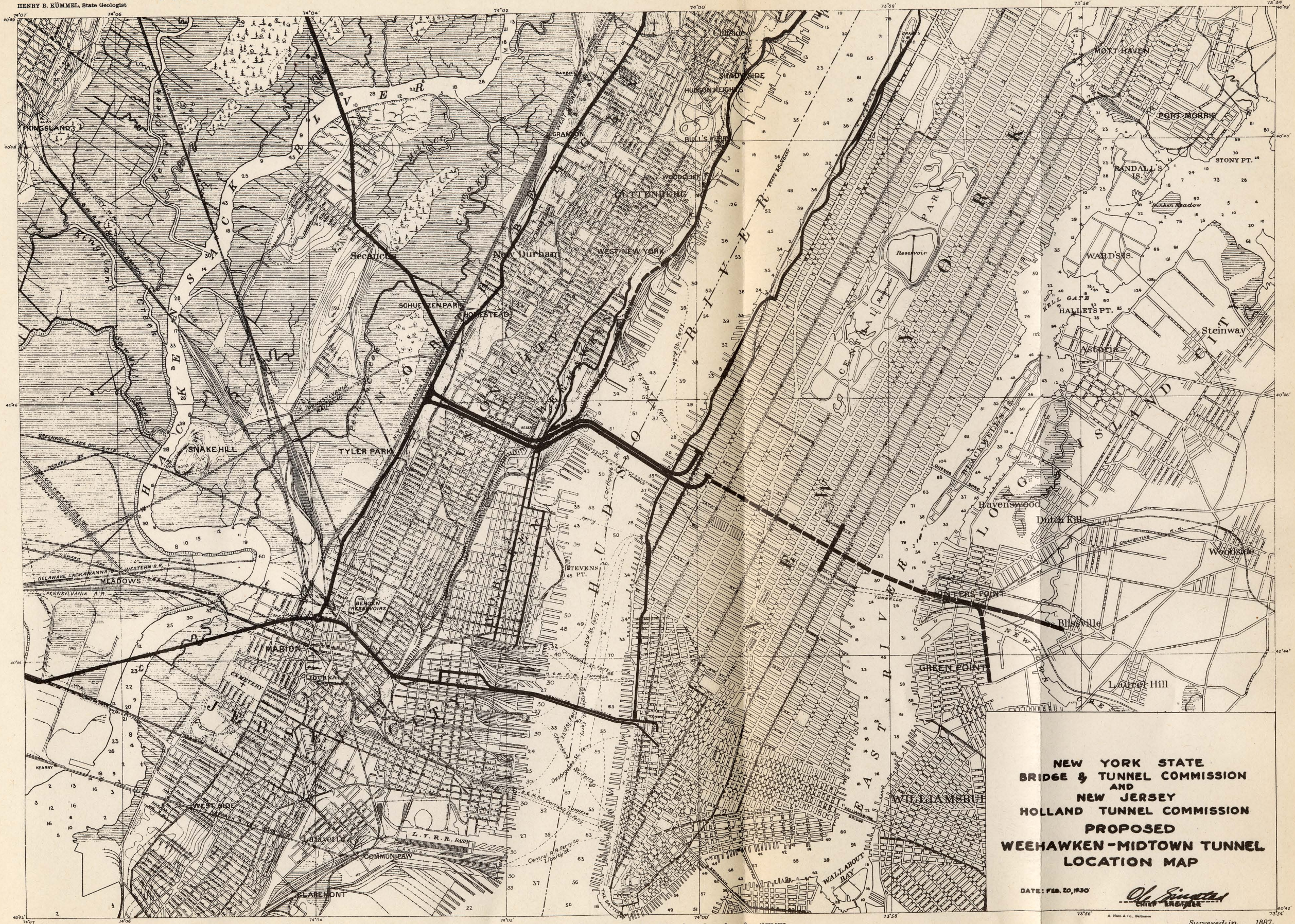
Prepared by Rand McNally & Company New York

Division of Geology and Topography
HENRY B. KÜMMEL, State Geologist

STATE OF NEW JERSEY
DEPARTMENT OF CONSERVATION AND DEVELOPMENT

PLATE No. 2

JERSEY CITY SHEET



PATERSON	HACKENSACK
NEWARK	JERSEY CITY
ELIZABETH	NEW YORK BAY

Key to adjoining Sheets.

1000 500 0 1,000 2 3 4 5,000 6 7 8 9 10,000 FEET
1000 500 0 1,000 2,000 3,000 METERS

Contour lines and figures on land show elevation above mean sea level. Figures on water show depth at mean low tide. Elevations and depths are in feet.

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL
LOCATION MAP

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

A. Horn & Co., Baltimore

Surveyed in ..... 1887.
by C.C. Vermeule, Topographer
Resurveyed in ... 1927.
by L.P. Plummer, Topographic Engr.
Edition of 1928

NEW YORK STATE BRIDGE & TUNNE
AND NEW JERSEY HOLLAND TUNNEL

ANNUAL VEHICULAR T

ACROSS THE

HUDSON RIVER

BETWEEN

MANHATTAN & NEW JERS

February 20, 1930

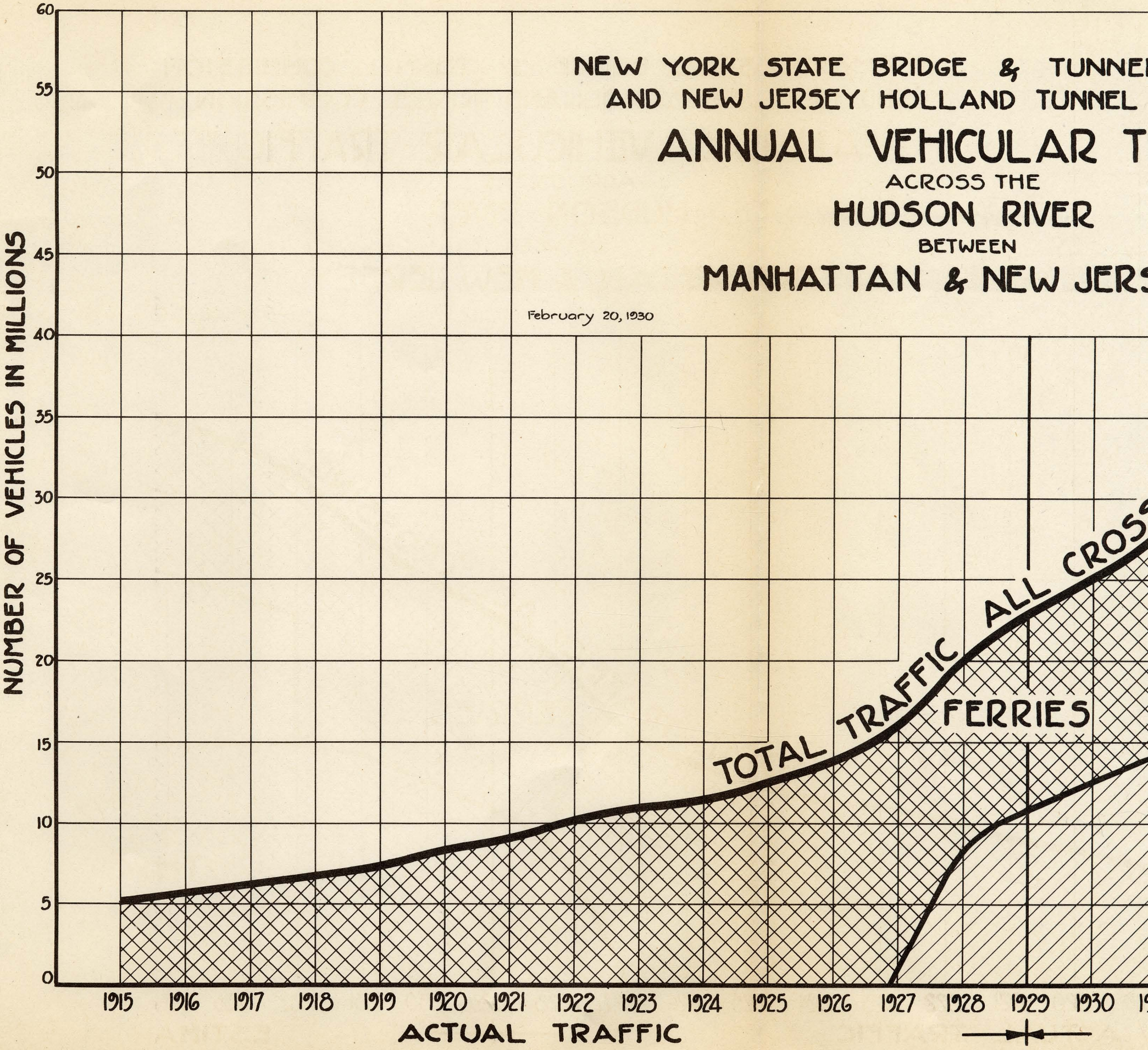


PLATE Nº. 3

STATE BRIDGE & TUNNEL COMMISSION
JERSEY HOLLAND TUNNEL COMMISSION

UAL VEHICULAR TRAFFIC

ACROSS THE

HUDSON RIVER

BETWEEN

HATTAN & NEW JERSEY

Ole Singstad
CHIEF ENGINEER

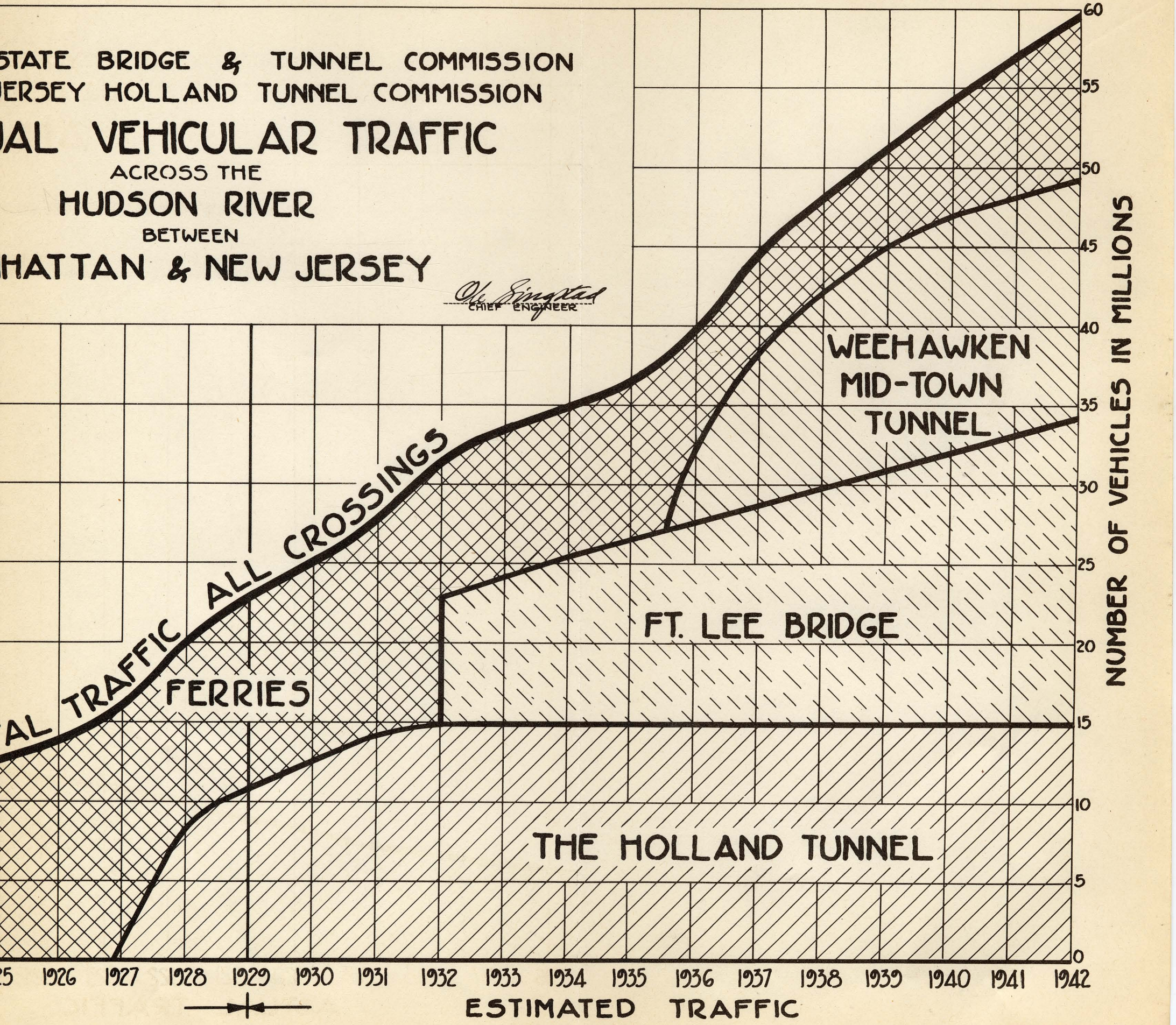


PLATE No. 3

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
AND NEW JERSEY HOLLAND TUNNEL COMMISSION

ANNUAL VEHICULAR TRAFFIC

ACROSS THE

HUDSON RIVER

BETWEEN

MANHATTAN & NEW JERSEY

February 20, 1930

O. H. Ingstad
CHIEF ENGINEER

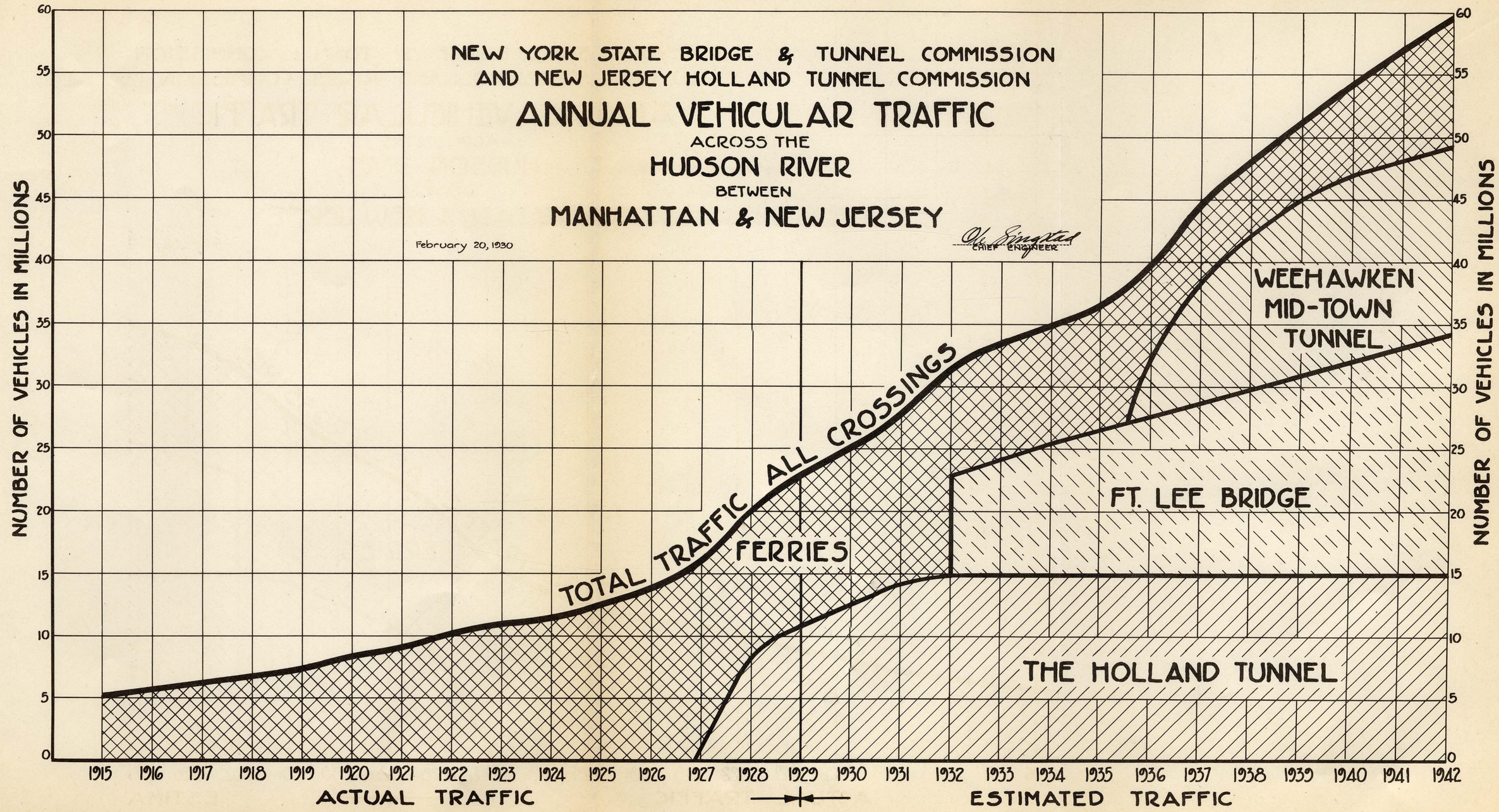


PLATE Nº4

ANNUAL VEHICULAR TRAFFIC

CARRIED BY

GROUPS OF FERRIES TRIBUTARY TO

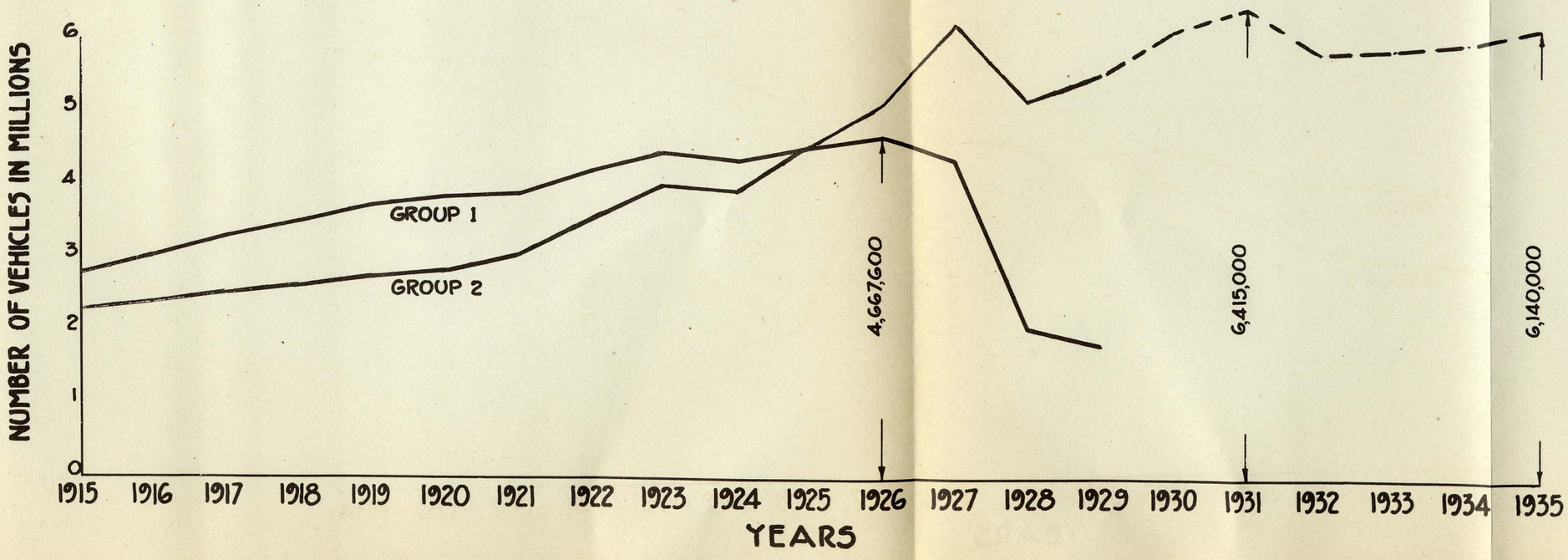
THE HOLLAND TUNNEL AND WEEHAWKEN MID-TOWN TUNNEL

GROUP 1 OF FERRIES
WITH TERMINALS NEAR THE HOLLAND TUNNEL

CORTLAND ST. FERRY	PRR
BARCLAY ST. FERRY	DL & WRR
CHAMBER ST. FERRY	ERIE
DESBROSSES ST. FERRY	PRR
CHRISTOPHER ST. FERRY	DL & W

GROUP 2 OF FERRIES
WITH TERMINALS NEAR WEEHAWKEN MID-TOWN TUNNEL

CORTLAND ST. FERRY	WS RR
WEST 23 ST. FERRY	CRR. OF NJ.
WEST 23 ST. FERRY	ERIE
WEST 23 ST. FERRY	DL & W
WEST 23 ST. TO 14 ST. HOBOKEN	DL & W
WEST 23 ST. FERRY	ELECTRIC
WEST 42 ST. FERRY	WS RR



NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL

VEHICULAR TRAFFIC
FERRY GROUPS Nos 1 & 2

DATE:- FEB. 20, 1930

O. Singstad
CHIEF ENGINEER

$ 900,000
850,000
800,000
750,000
700,000
650,000
600,000
550,000
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0

$222,638.25 | 304,545.85 | 301,002.65 | 299,677.12 | 343,037.11 | 391,302.38 | 418,597.29 | 431,645.45 | 469,611.75 | 451,506.57 | 447,043.32 | 458,197.90 | 408,766.38 | 421,813.40 | 367,621.83 | 358,900.67 | 454,077.83 | 486,061.83 | 534,406.30 | 554,224.84 | 587,008.36 | 607,167.49 | 588,502.24 | 560,005.88 | 525,393.24 | 496,634.10 | 449,853.79 | 446,527.82

$89,880.00 | 131,129.00 | 132,586.79 | 136,347.38 | 115,705.80 | 121,820.13 | 123,608.93 | 115,943.05 | 121,641.53 | 113,106.49 | 125,489.91 | 136,878.09 | 123,075.78 | 119,452.51 | 120,625.49 | 118,979.67 | 127,335.40 | 119,690.31 | 126,228.29 | 120,213.01 | 129,002.75 | 124,867.30 | 122,094.01 | 123,893.31 | 125,649.80 | 124,648.67 | 127,167.31 | 128,296.55

NET INCOME

SALARIES | POWER | SUPPLIES | LIGHT | EQUIP. | HEAT | REPLACEMENTS | ETC.

TOTAL EXPENSES TO DATE $3,413,969

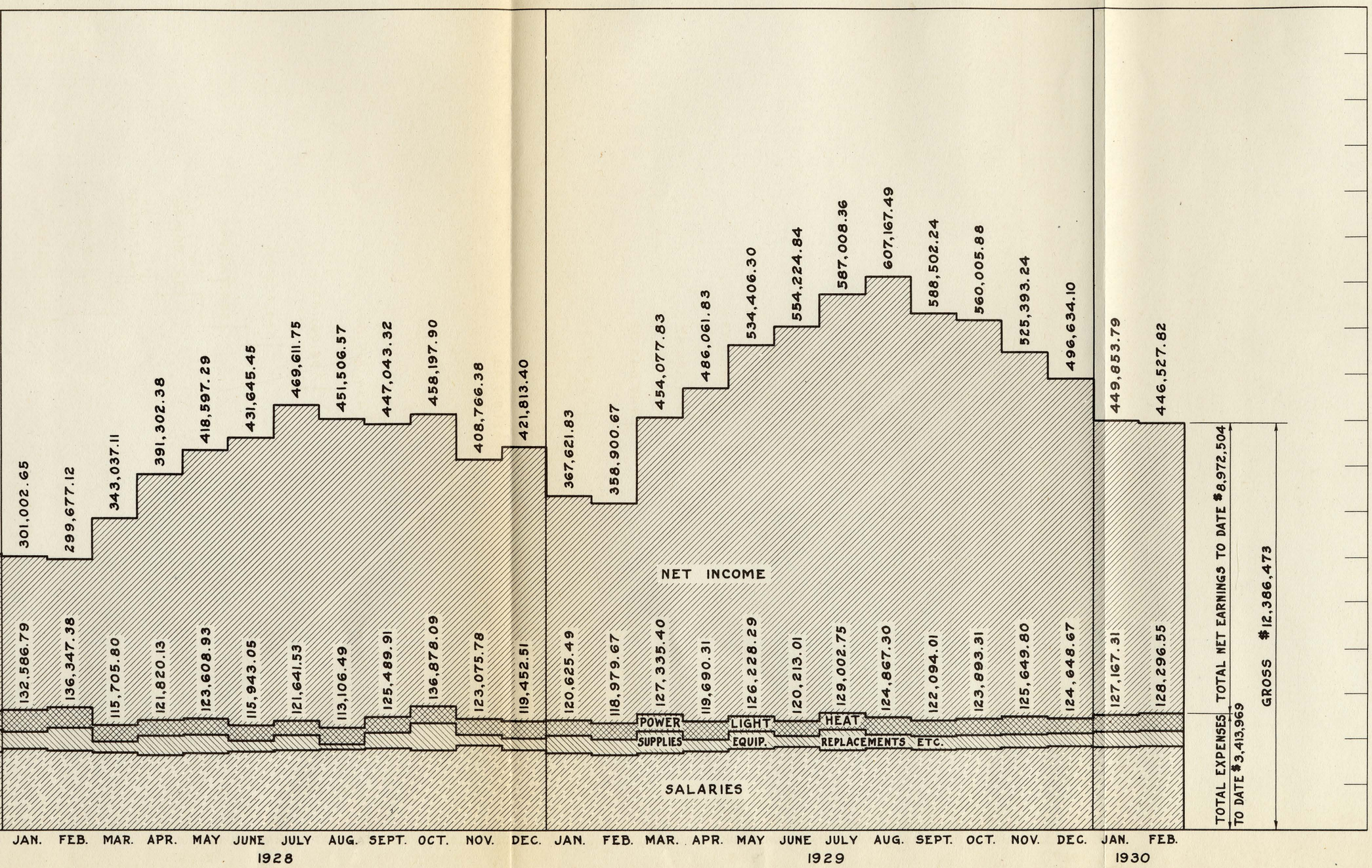
TOTAL NET EARNINGS TO DATE $8,972,504

GROSS $12,386,473

DATE NOV. 13 DEC. JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC. JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC. JAN. FEB.

1927 1928 1929 1930

PLATE Nº 5



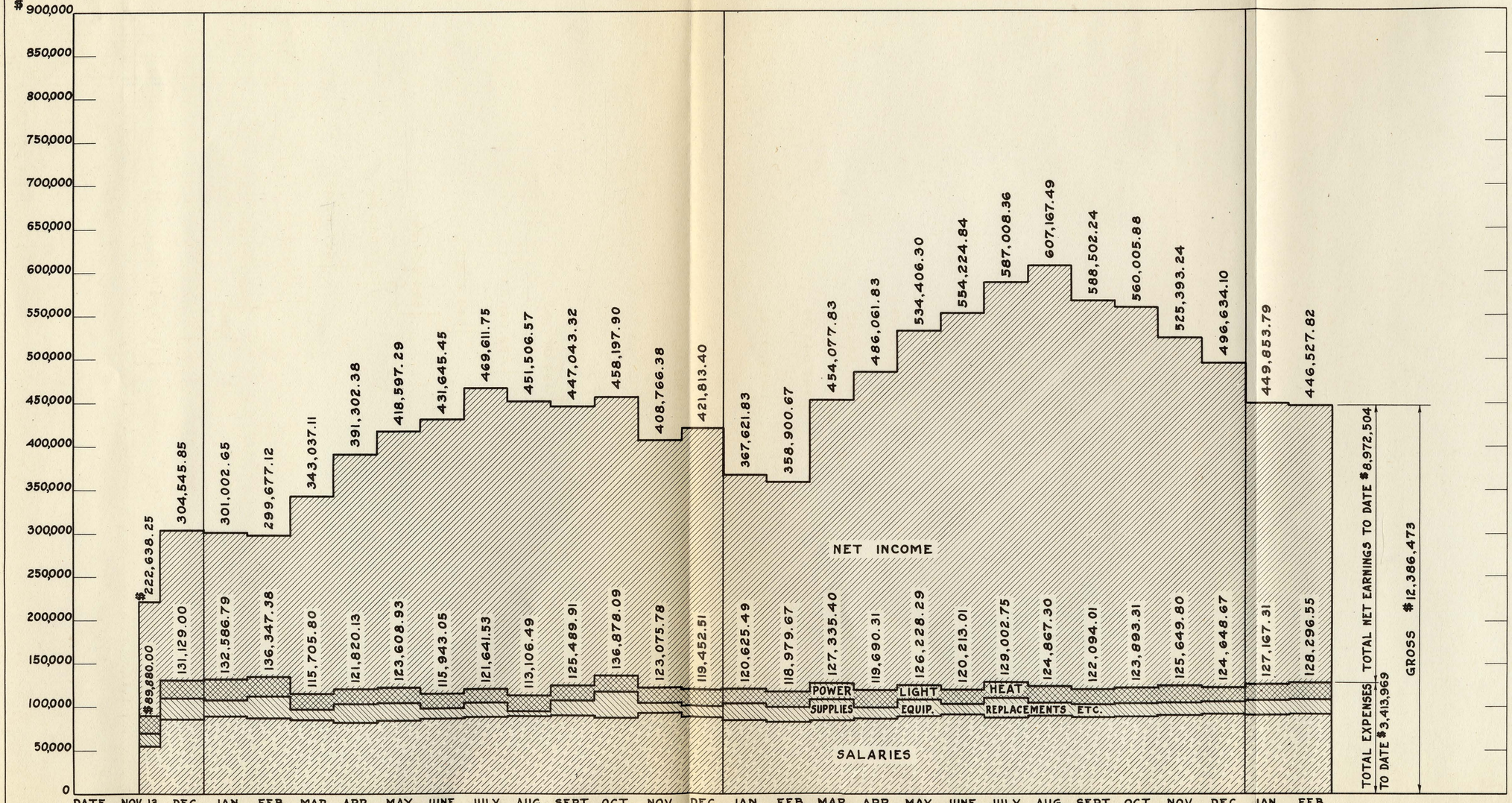
NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

MONTHLY INCOME & EXPENSE OF
THE HOLLAND TUNNEL

DATE:- MARCH 6, 1930

Ole Singstad
CHIEF ENGINEER

PLATE No. 5



NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

MONTHLY INCOME & EXPENSE OF
THE HOLLAND TUNNEL

DATE:- MARCH 6, 1930

CHIEF ENGINEER

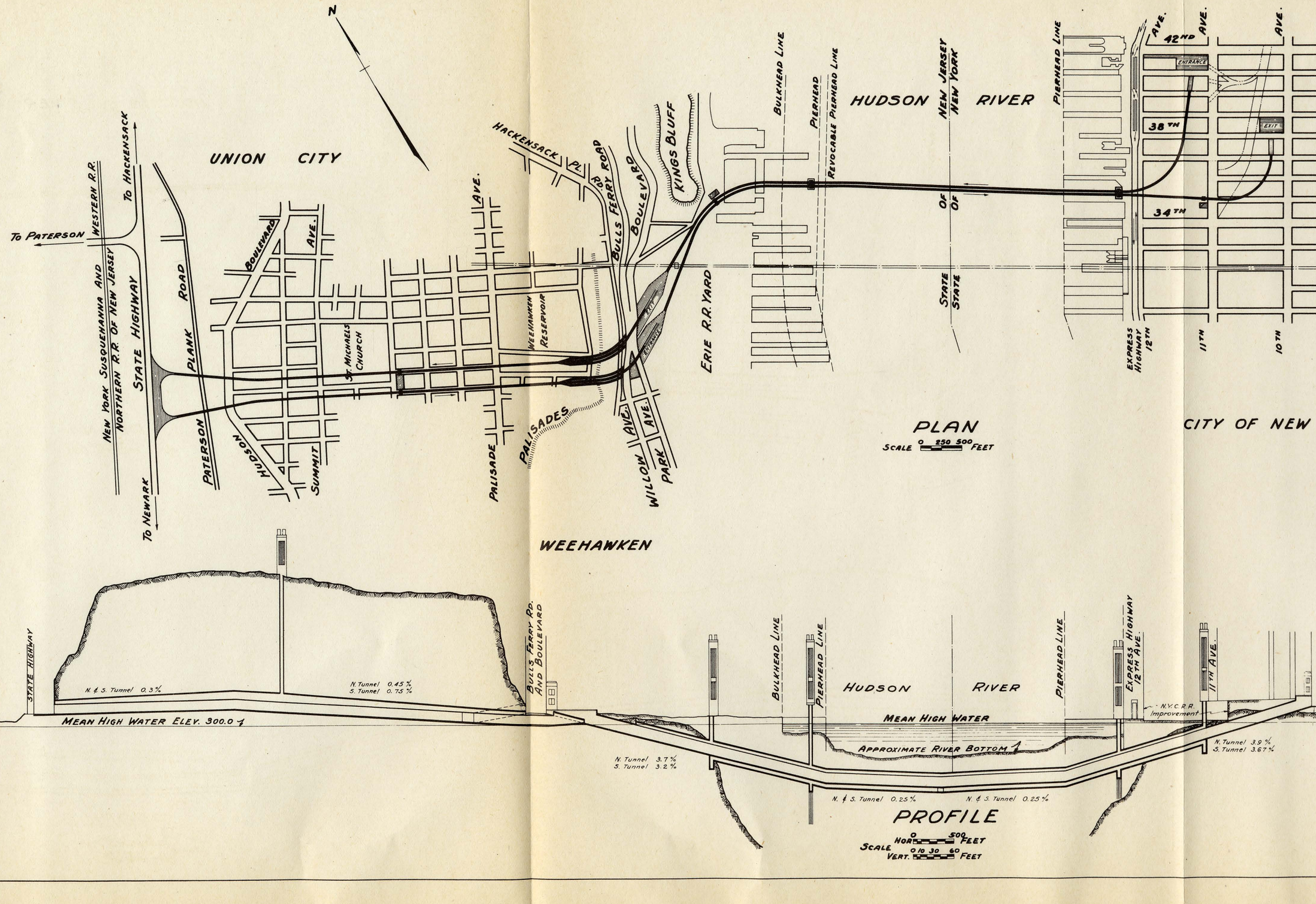
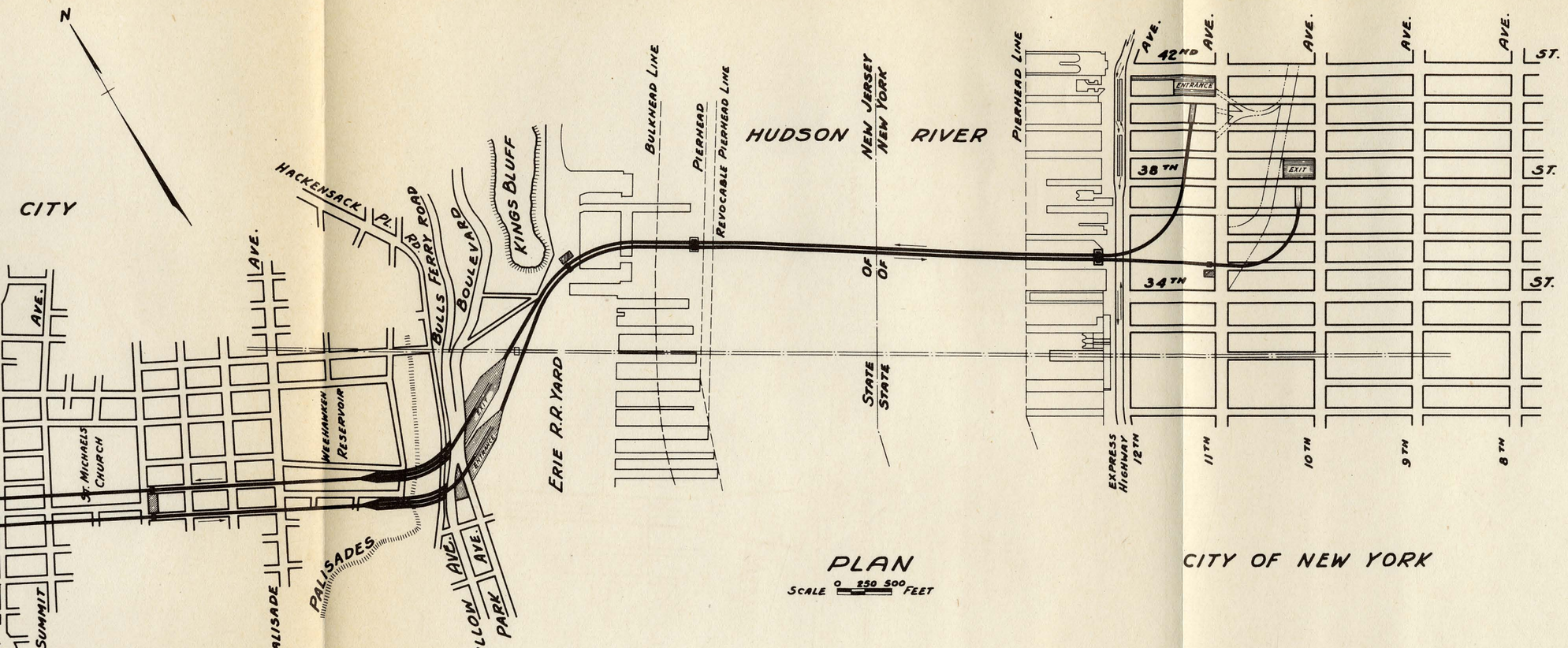
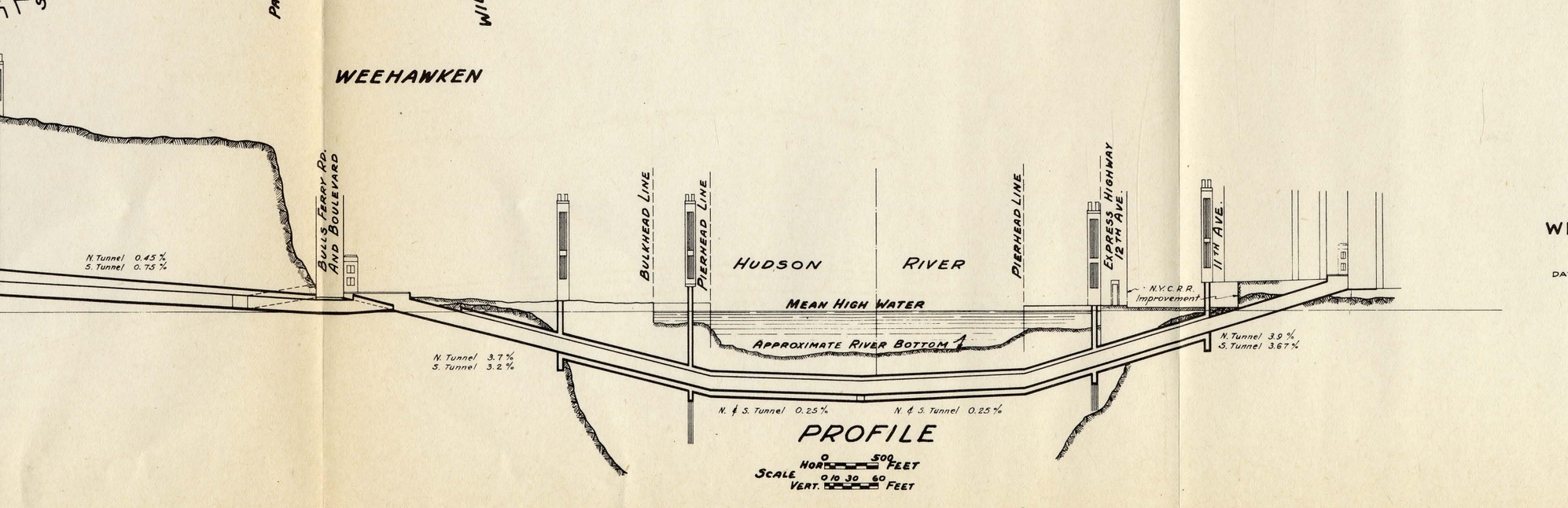

N
UNION CITY
WEEHAWKEN
HUDSON RIVER
NEW JERSEY
NEW YORK
To Paterson
To Hackensack
To Newark
New York Susquehanna and Western R.R.
Northern R.R. of New Jersey
State Highway
Plank Road
Paterson Plank Road
Hudson Boulevard
Summit Ave.
Boulevard Ave.
St. Michaels Church
Weehawken Reservoir
Hackensack Pl.
Bulls Ferry Road
Boulevard
Kings Bluff
Palisade Ave.
Palisades
Willow Ave.
Park Ave.
Erie R.R. Yard
Bulkhead Line
Pierhead
Revocable Pierhead Line
Pierhead Line
State of New York
State of New York
Entrance
Exit
42nd Ave.
38th
34th
Express Highway
12th Ave.
11th
10th
PLAN
Scale 0 250 500 Feet
CITY OF NEW
Bulls Ferry Rd. And Boulevard
State Highway
N. & S. Tunnel 0.3%
N. Tunnel 0.45%
S. Tunnel 0.75%
Mean High Water Elev. 300.0
Bulkhead Line
Pierhead Line
Hudson River
Pierhead Line
Express Highway
12th Ave.
11th Ave.
N.Y.C.R.R. Improvement
Mean High Water
Approximate River Bottom
N. Tunnel 3.7%
S. Tunnel 3.2%
N. & S. Tunnel 0.25%
N. & S. Tunnel 0.25%
N. Tunnel 3.9%
S. Tunnel 3.67%
PROFILE
Scale Hor. 0 500 Feet
Vert. 0 10 30 60 Feet

PLATE No. 6



PLAN

SCALE 0 250 500 FEET



PROFILE

SCALE HOR. 0 500 FEET
VERT. 0 10 30 60 FEET

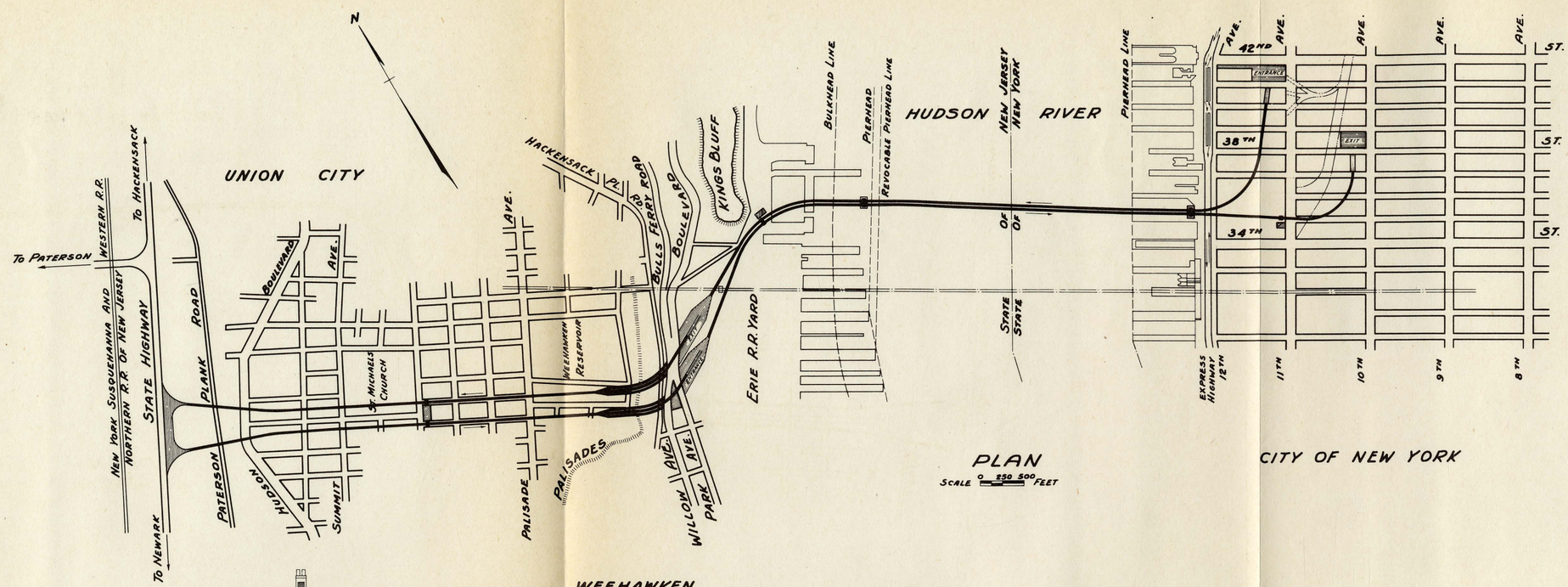
NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL

DATE: FEB. 20, 1930

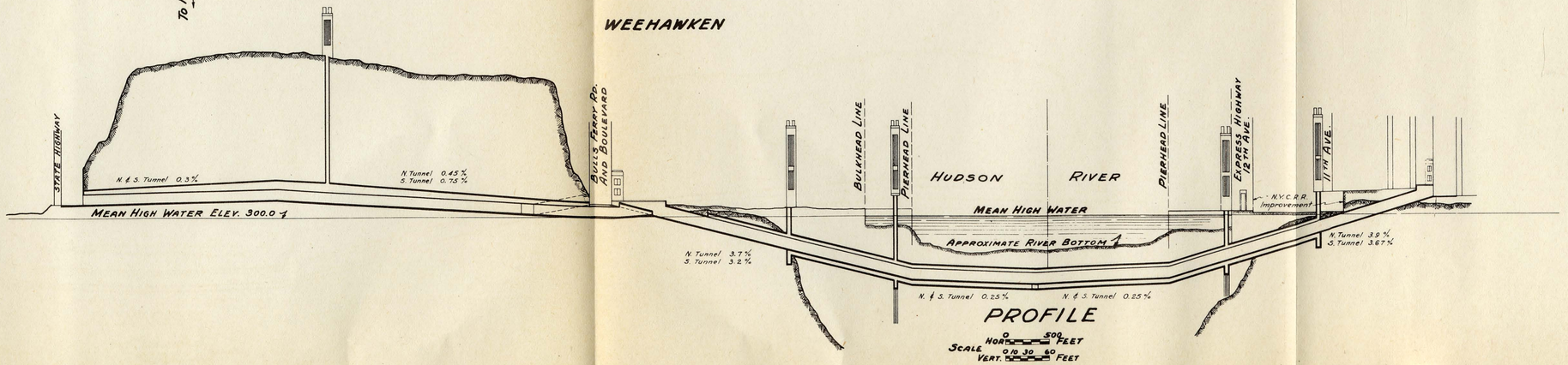
Ole Singstad
CHIEF ENGINEER

PLATE No. 6



PLAN

SCALE 0 250 500 FEET



PROFILE

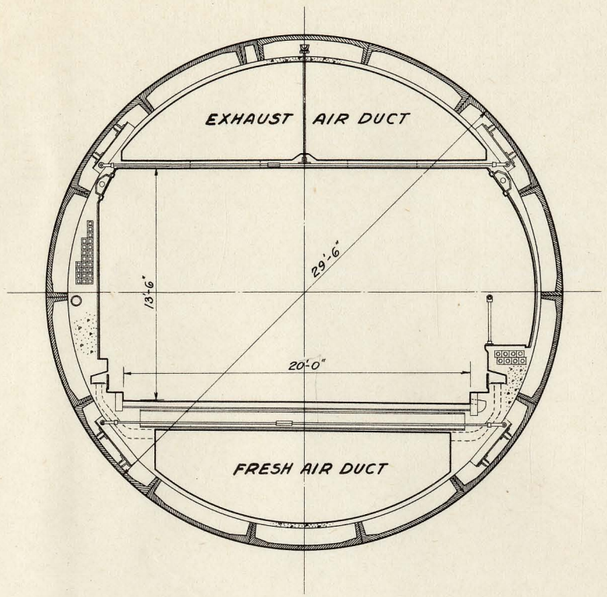
SCALE HOR. 0 500 FEET
VERT. 0 10 30 60 FEET

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL

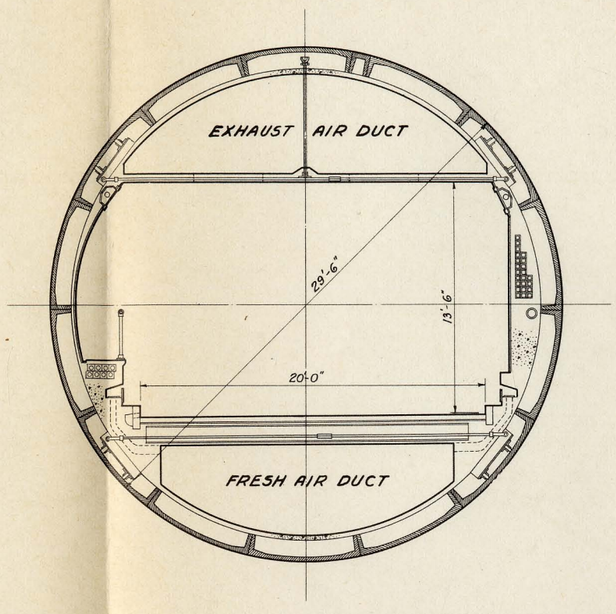
DATE: FEB. 20, 1930

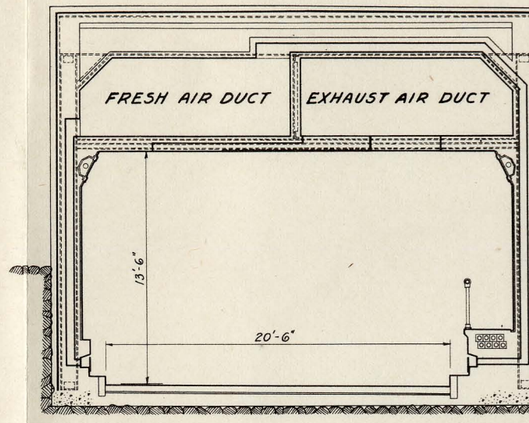
CHIEF ENGINEER



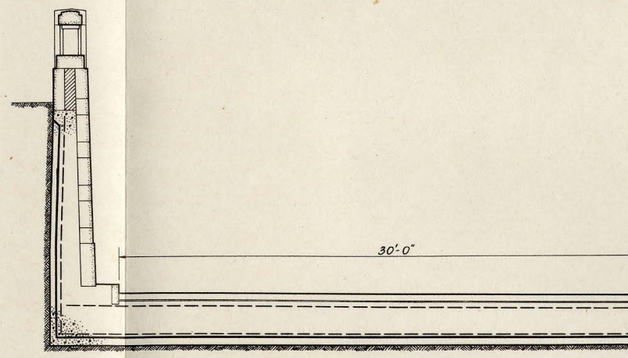
RIVER TUNNEL

BERGEN HILL TUNNEL





LAND TUNNEL



OPEN APPROACH

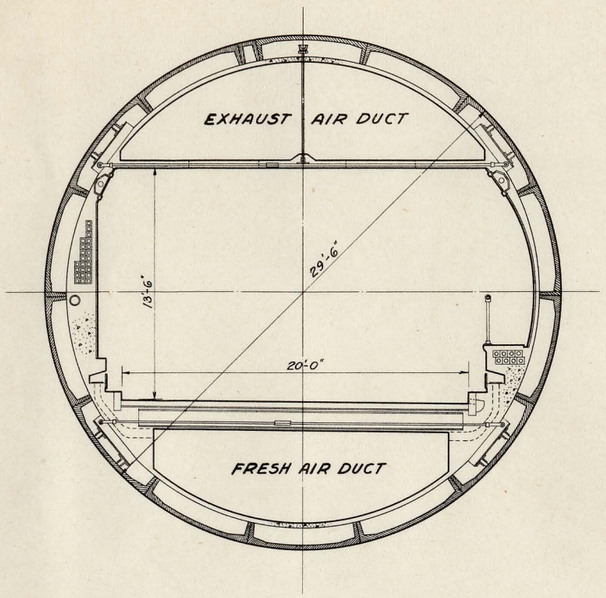
NEW YORK STA
BRIDGE & TUNNEL CO
AND
NEW JERSEY
HOLLAND TUNNEL CO

PROPOSED
WEEHAWKEN - MIDTOW
TYPICAL SECTIO

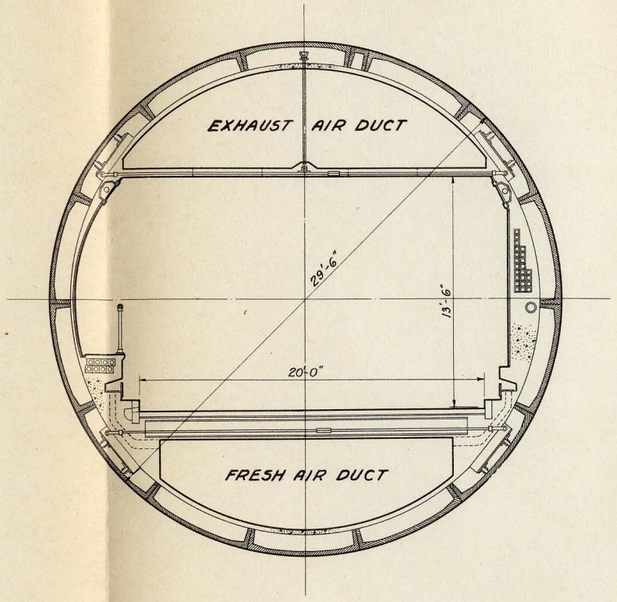
0 1 2 3 4 5 FEET

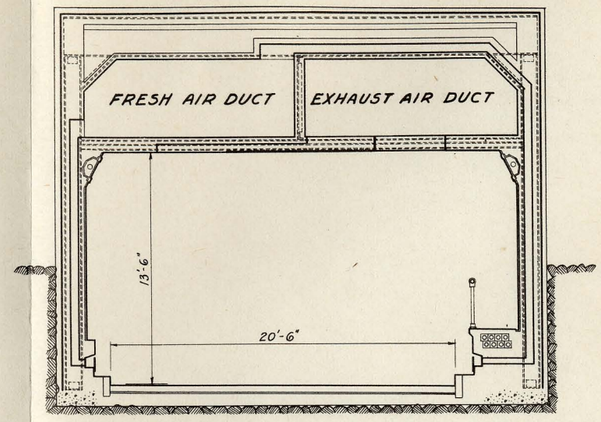
DATE: FEB. 20, 1930

CHIEF ENGI

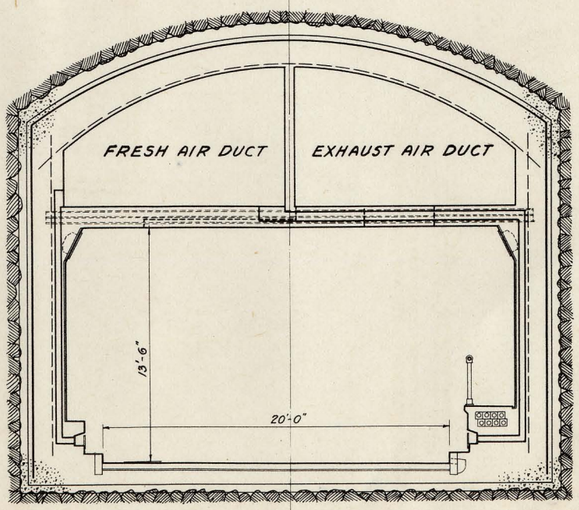


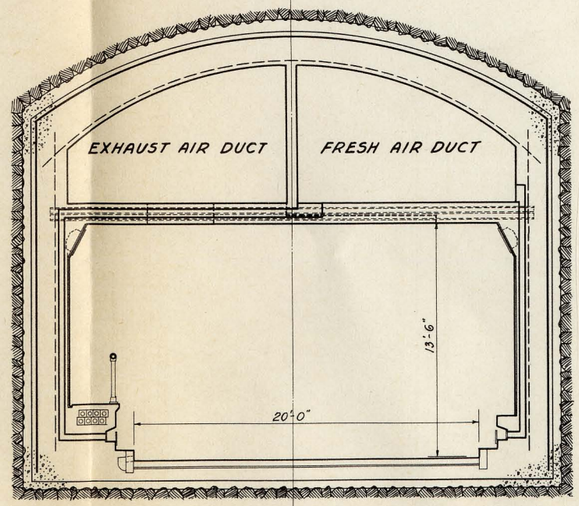
RIVER TUNNEL



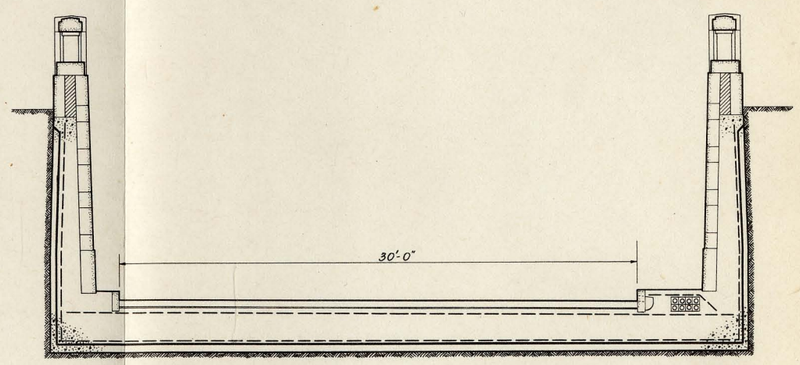


LAND TUNNEL





BERGEN HILL TUNNEL



OPEN APPROACH

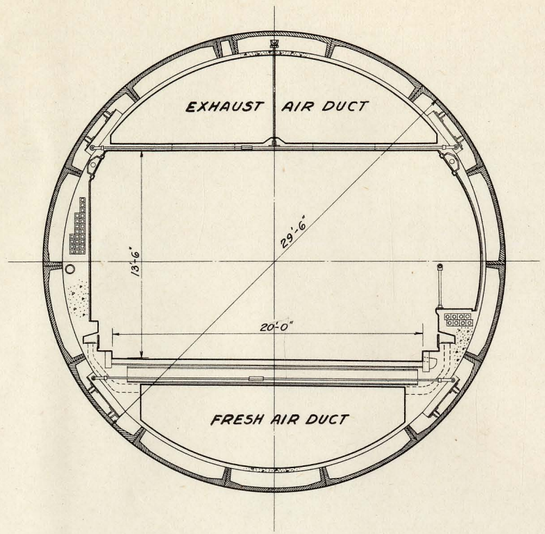
NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL
TYPICAL SECTIONS

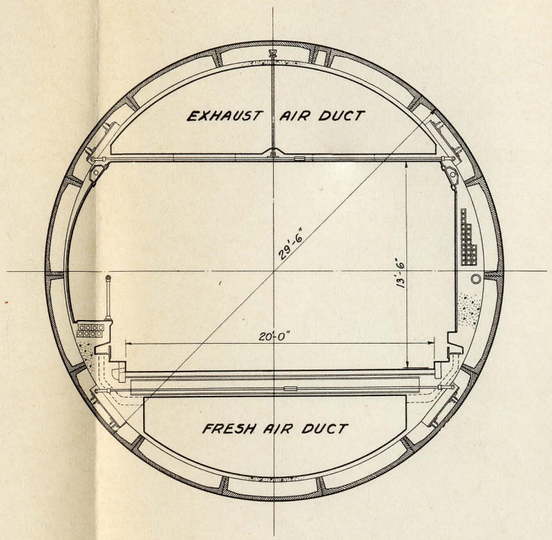
0 1 2 3 4 5 FEET

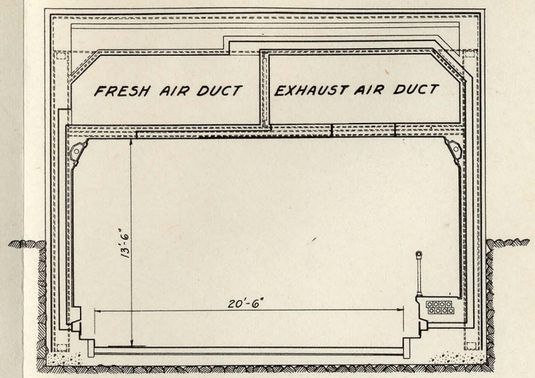
DATE: FEB. 20, 1930

O. H. Singstad
CHIEF ENGINEER

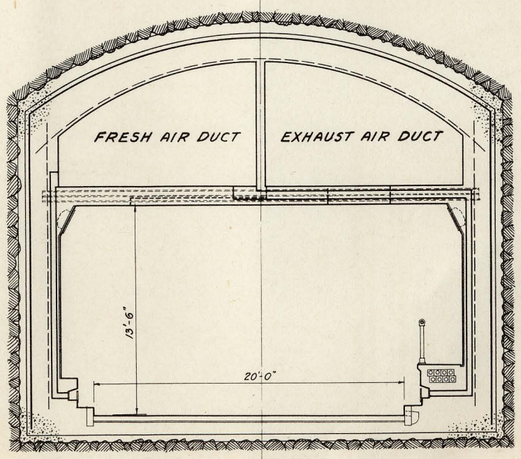


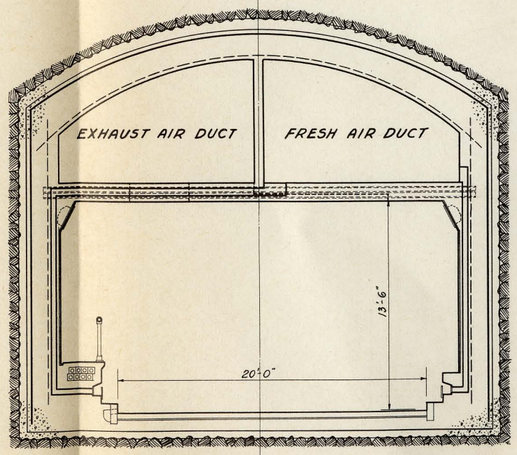
RIVER TUNNEL





LAND TUNNEL





BERGEN HILL TUNNEL

OPEN APPROACH

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL
TYPICAL SECTIONS

0 1 2 3 4 5 FEET

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

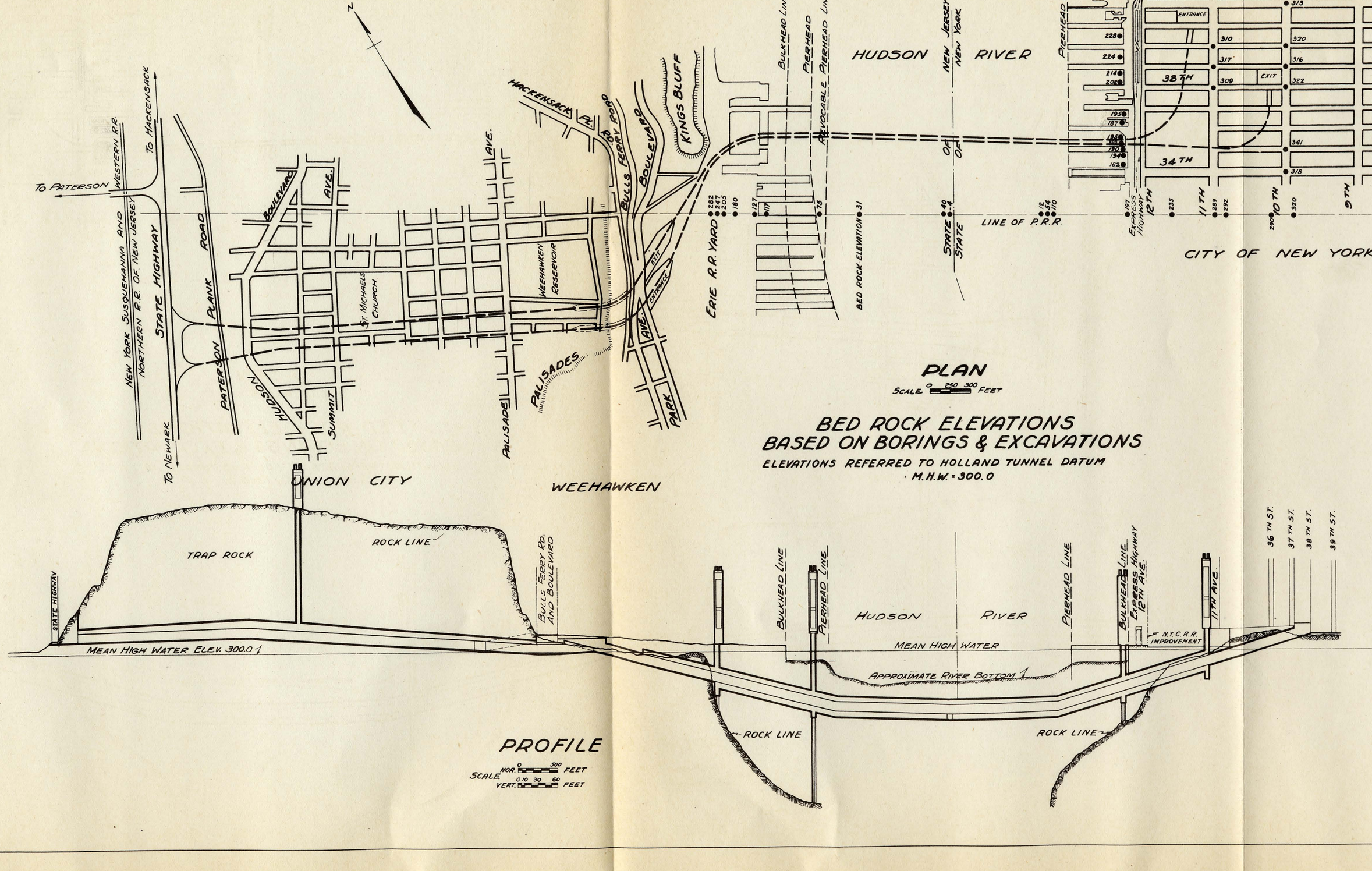
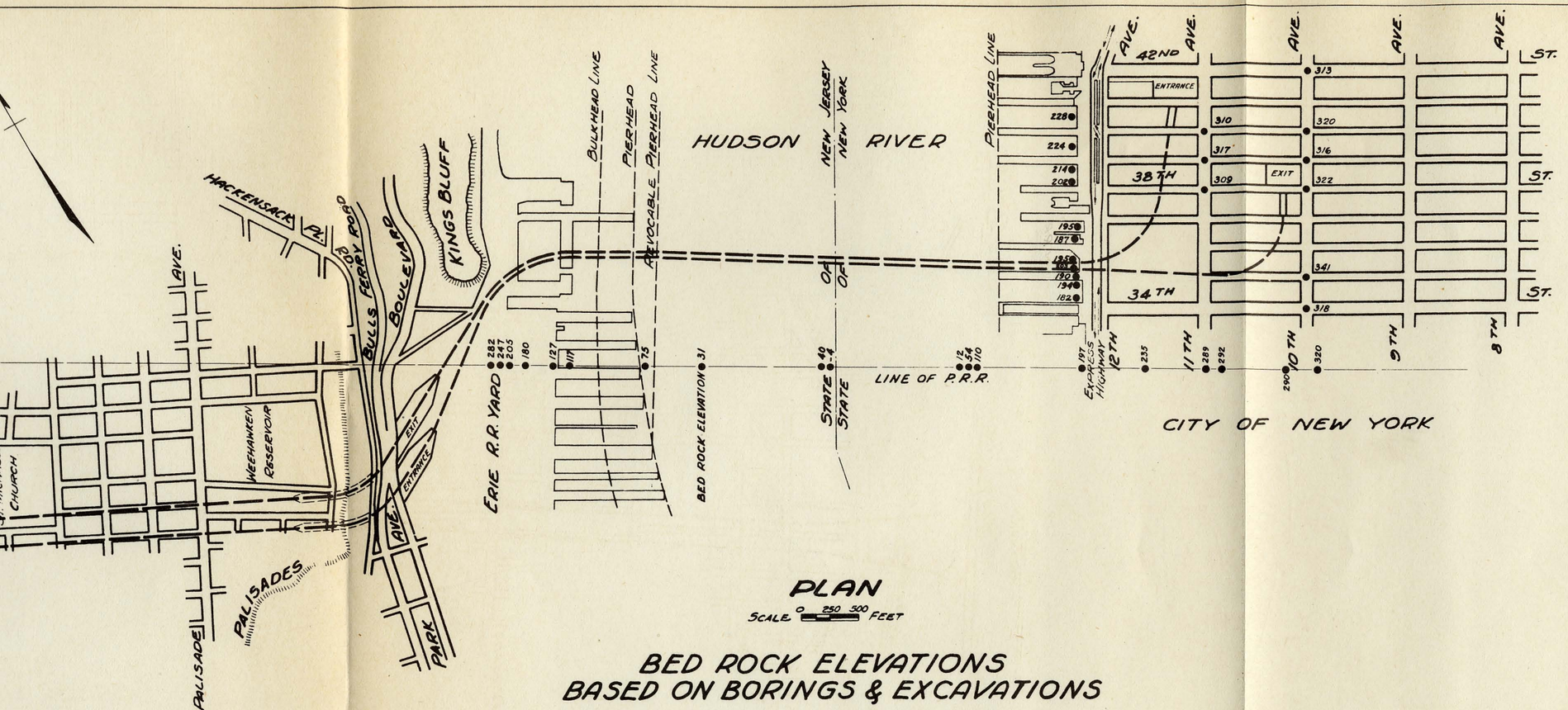

TO PATERSON
NEW YORK SUSQUEHANNA AND WESTERN R.R.
NORTHERN R.R. OF NEW JERSEY
TO HACKENSACK
STATE HIGHWAY
PLANK ROAD
PATERSON
TO NEWARK
HUDSON BOULEVARD
SUMMIT AVE.
ST. MICHAELS CHURCH
WEEHAWKEN RESERVOIR
PALISADE AVE.
PALISADES
HACKENSACK PL.
BULLS FERRY ROAD
BOULEVARD
KINGS BLUFF
EXIT
ENTRANCE
AVE.
PARK
N
ERIE R.R. YARD
BULKHEAD LINE
PIERHEAD
AVOCABLE PIERHEAD LINE
HUDSON
RIVER
NEW JERSEY
NEW YORK
PIERHEAD LINE
42ND AVE.
ENTRANCE
38TH
EXIT
34TH
12TH
11TH
10TH
9TH
282
247
205
180
127
111
75
BED ROCK ELEVATION
31
40
4
STATE
STATE
LINE OF P.R.R.
12
34
110
228
224
214
208
195
187
182
197
EXPRESS HIGHWAY
235
289
292
290
320
313
310
317
309
316
322
341
318
CITY OF NEW YORK
PLAN
SCALE 0 250 500 FEET
BED ROCK ELEVATIONS
BASED ON BORINGS & EXCAVATIONS
ELEVATIONS REFERRED TO HOLLAND TUNNEL DATUM
M.H.W. = 300.0
UNION CITY
WEEHAWKEN
STATE HIGHWAY
TRAP ROCK
ROCK LINE
BULLS FERRY RD. AND BOULEVARD
MEAN HIGH WATER ELEV. 300.0
BULKHEAD LINE
PIERHEAD LINE
HUDSON
RIVER
PIERHEAD LINE
BULKHEAD LINE
EXPRESS HIGHWAY
12TH AVE.
11TH AVE.
N.Y.C.R.R. IMPROVEMENT
MEAN HIGH WATER
APPROXIMATE RIVER BOTTOM
ROCK LINE
ROCK LINE
36TH ST.
37TH ST.
38TH ST.
39TH ST.
PROFILE
SCALE HOR. 0 300 FEET
VERT. 0 10 30 60 FEET

PLATE No. 8

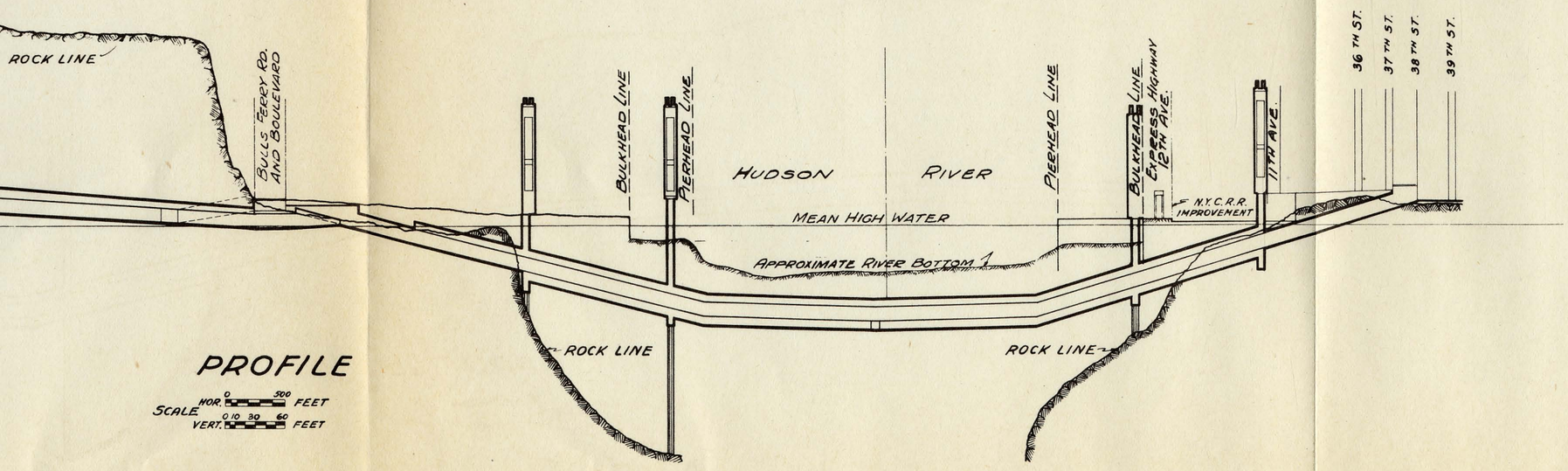


PLAN

SCALE 0 250 500 FEET

BED ROCK ELEVATIONS
BASED ON BORINGS & EXCAVATIONS

ELEVATIONS REFERRED TO HOLLAND TUNNEL DATUM
M.H.W. = 300.0



PROFILE

SCALE HOR. 0 500 FEET
VERT. 0 10 30 60 FEET

LEGEND

● 214: BED ROCK ELEVATION REFERRED TO HOLLAND TUNNEL DATUM EL. 300.0

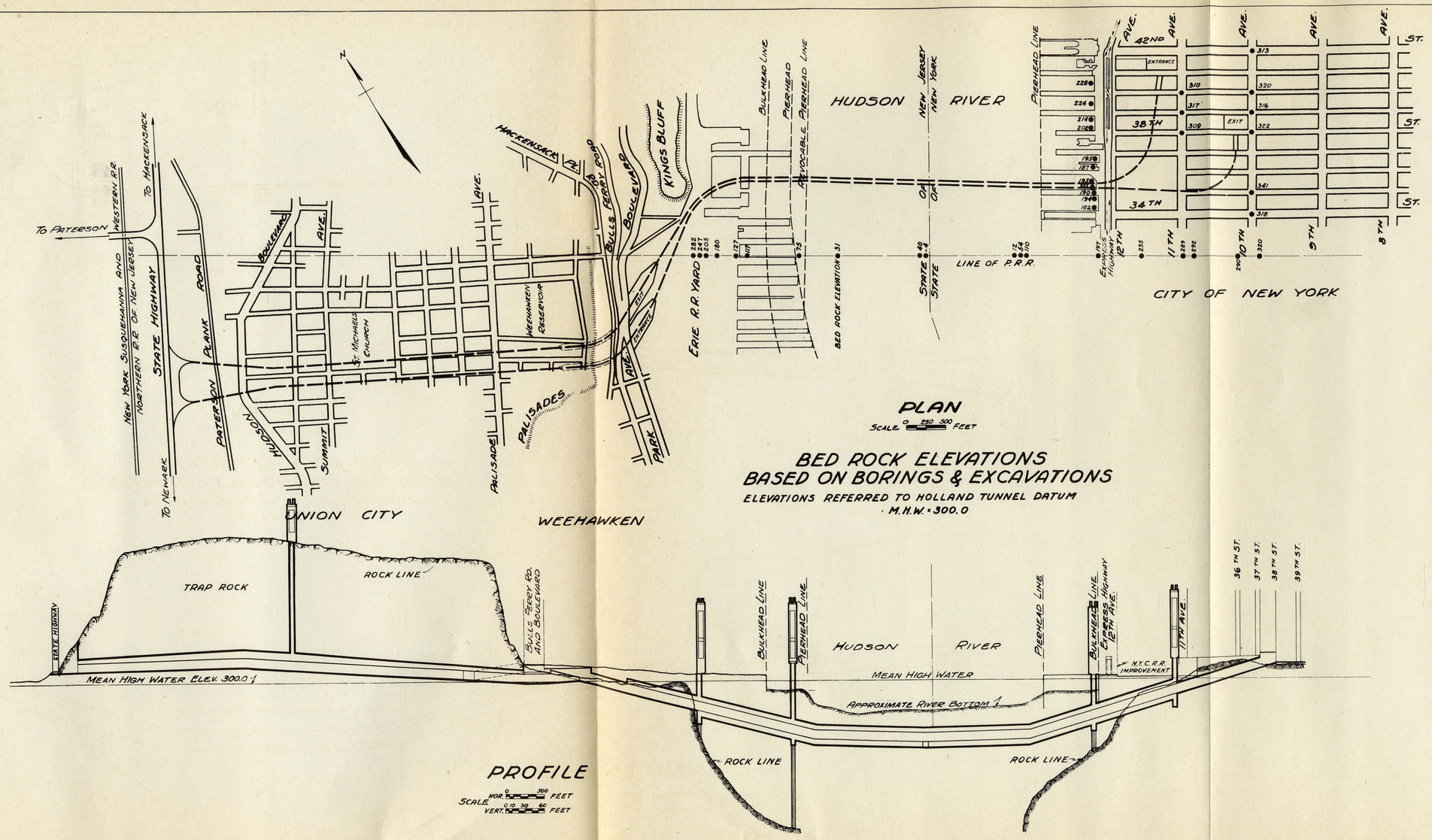
NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL
BORINGS

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

PLATE No. 8



LEGEND

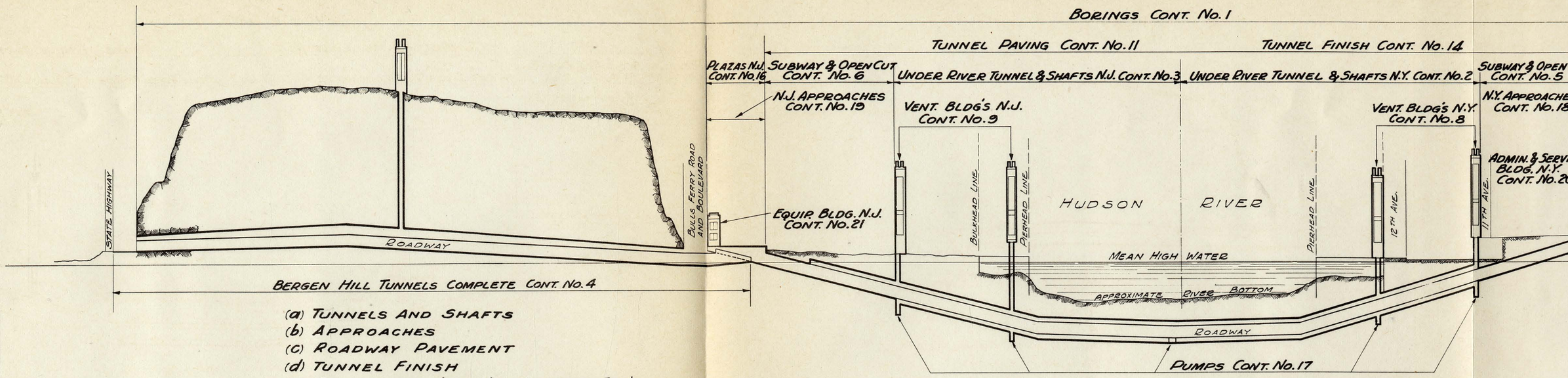
• 214 · BED ROCK ELEVATION REFERRED TO HOLLAND TUNNEL DATUM EL. 300.0

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED WEEHAWKEN - MIDTOWN TUNNEL BORINGS

DATE: FEB. 20, 1930

CHIEF ENGINEER

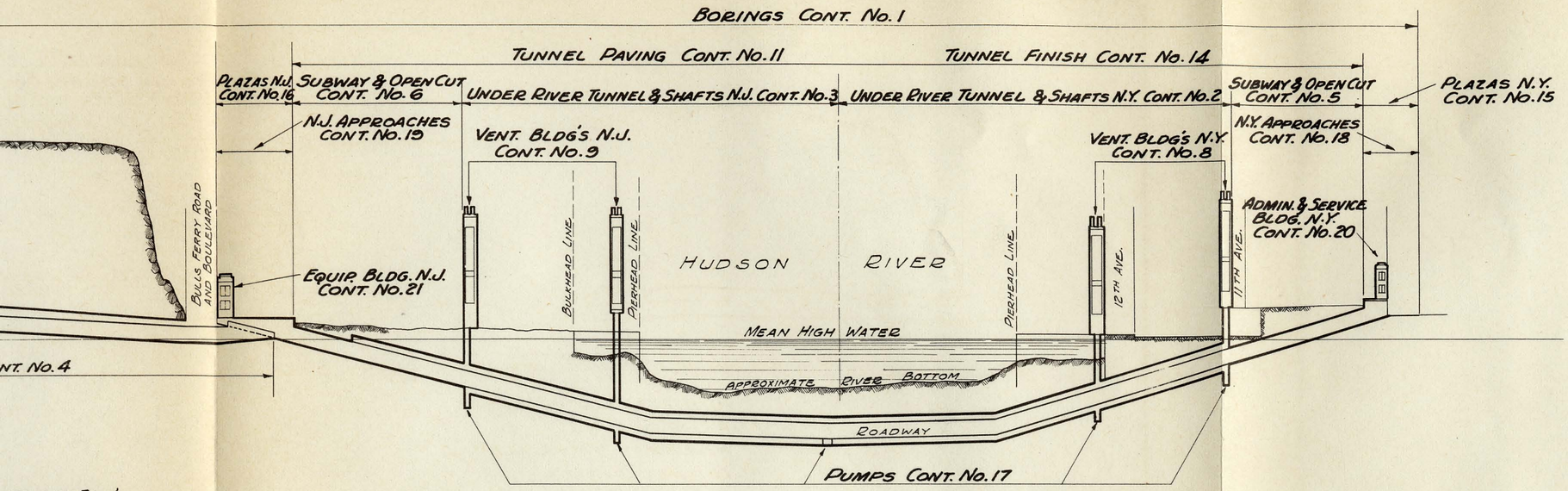


(a) TUNNELS AND SHAFTS
(b) APPROACHES
(c) ROADWAY PAVEMENT
(d) TUNNEL FINISH
(e) EQUIPMENT AND VENTILATION BLD'G.
(f) MISCELLANEOUS

SCHEDULE OF CONTRACTS

No.	TITLE
1	BORINGS
2	UNDER RIVER TUNNEL AND SHAFTS N.Y.
3	" " " " " N.J.
4	BERGEN HILL TUNNEL COMPLETE
5	SUBWAY AND OPEN CUT N.Y.
6	" " " " N.J.
7	FANS, MOTORS AND CONTROLS
8	VENTILATION BUILDINGS N.Y.
9	" " N.J.
10	TRANSFORMERS AND SWITCHES
11	TUNNEL PAVING
12	ELECTRICAL WORK
13	CABLES
14	TUNNEL FINISH

No.	TITLE
15	PLAZAS N.Y.
16	" N.J.
17	PUMPS
18	N.Y. APPROACHES (FINISH)
19	N.J. " "
20	ADMINISTRATION AND SERVICE BUILDING N
21	EQUIPMENT BUILDING N.J.
22	PLAZA OFFICE BUILDING AND TOLL BOOTH
23	EMERGENCY EQUIPMENT



SCHEDULE OF CONTRACTS

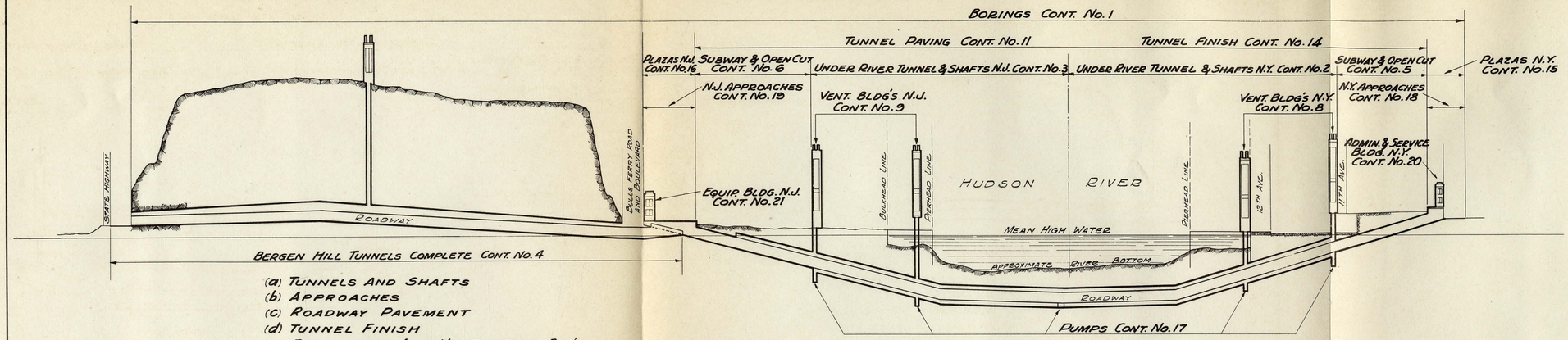
	No.	Title
T		
D SHAFTS N.Y.	15	PLAZAS N.Y.
" N.J.	16	" N.J.
OMPLETE	17	PUMPS
N.Y.	18	N.Y. APPROACHES (FINISH)
N.J.	19	N.J. " "
ONTROLS	20	ADMINISTRATION AND SERVICE BUILDING N.Y.
GS N.Y.	21	EQUIPMENT BUILDING N.J.
N.J.	22	PLAZA OFFICE BUILDING AND TOLL BOOTHS
SWITCHES	23	EMERGENCY EQUIPMENT

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER



(a) TUNNELS AND SHAFTS
(b) APPROACHES
(c) ROADWAY PAVEMENT
(d) TUNNEL FINISH
(e) EQUIPMENT AND VENTILATION BLD'G.
(f) MISCELLANEOUS

SCHEDULE OF CONTRACTS

No.	TITLE
1	BORINGS
2	UNDER RIVER TUNNEL AND SHAFTS N.Y.
3	" " " " " N.J.
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5	SUBWAY AND OPEN CUT N.Y.
6	" " " " N.J.
7	FANS, MOTORS AND CONTROLS
8	VENTILATION BUILDINGS N.Y.
9	" " N.J.
10	TRANSFORMERS AND SWITCHES
11	TUNNEL PAVING
12	ELECTRICAL WORK
13	CABLES
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No.	TITLE
15	PLAZAS N.Y.
16	" N.J.
17	PUMPS
18	N.Y. APPROACHES (FINISH)
19	N.J. " "
20	ADMINISTRATION AND SERVICE BUILDING N.Y.
21	EQUIPMENT BUILDING N.J.
22	PLAZA OFFICE BUILDING AND TOLL BOOTHS
23	EMERGENCY EQUIPMENT

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS

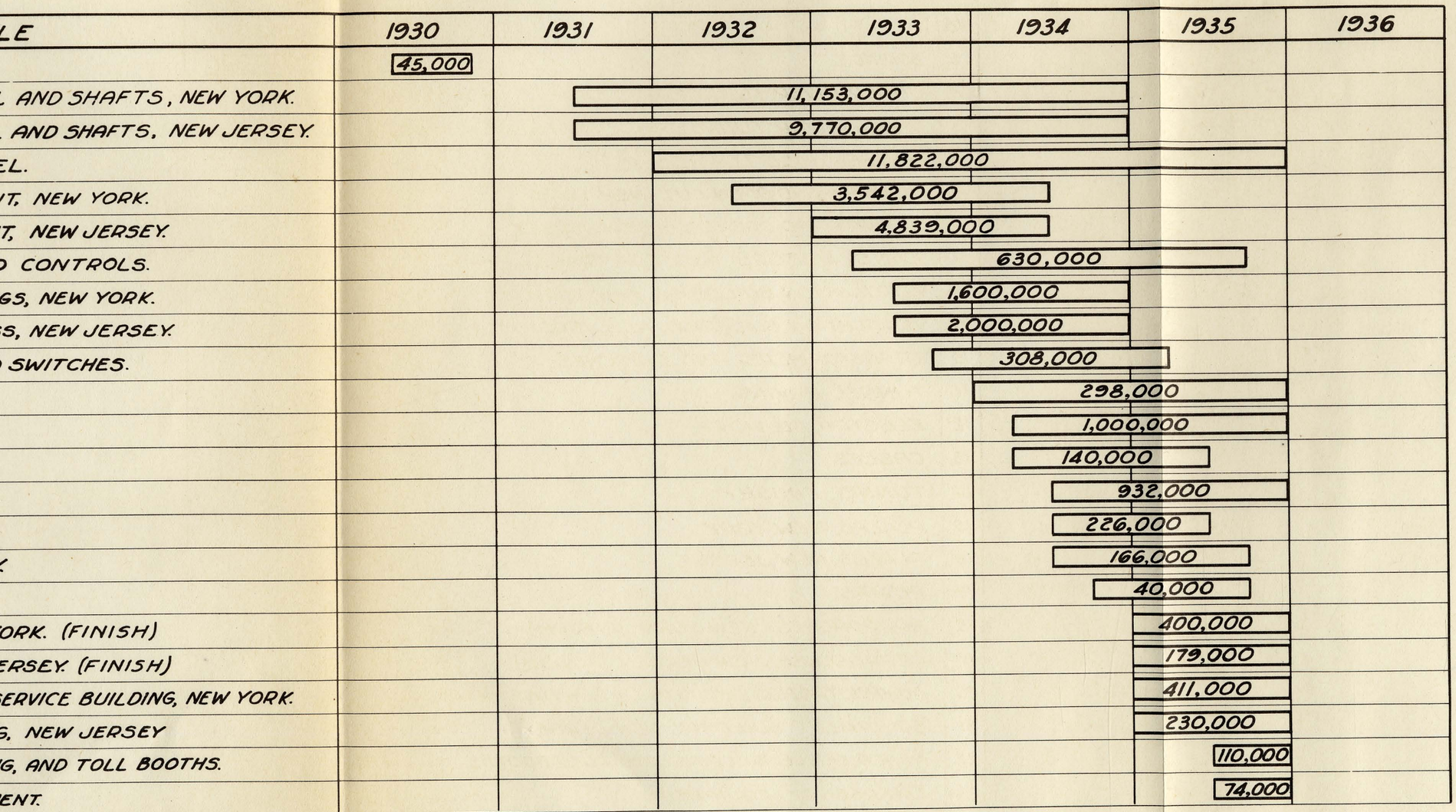
No.	TITLE	1930	1931	1932	1933	1934	1935
1	BORINGS.	45,000					
2	UNDER RIVER TUNNEL AND SHAFTS, NEW YORK.		11,153,000				
3	UNDER RIVER TUNNEL AND SHAFTS, NEW JERSEY.		9,770,000				
4	BERGEN HILL TUNNEL.			11,822,000			
5	SUBWAY AND OPEN CUT, NEW YORK.			3,542,000			
6	SUBWAY AND OPEN CUT, NEW JERSEY.			4,839,000			
7	FANS, MOTORS AND CONTROLS.			630,000			
8	VENTILATION BUILDINGS, NEW YORK.			1,600,000			
9	VENTILATION BUILDINGS, NEW JERSEY.			2,000,000			
10	TRANSFORMERS AND SWITCHES.			308,000			
11	TUNNEL PAVING.			298,000			
12	ELECTRICAL WORK.			1,000,000			
13	CABLES.			140,000			
14	TUNNEL FINISH.			932,000			
15	PLAZAS, NEW YORK.			226,000			
16	PLAZAS, NEW JERSEY.			166,000			
17	PUMPS.			40,000			
18	APPROACHES, NEW YORK. (FINISH)				400,000		
19	APPROACHES, NEW JERSEY. (FINISH)				179,000		
20	ADMINISTRATION AND SERVICE BUILDING, NEW YORK.				411,000		
21	EQUIPMENT BUILDING, NEW JERSEY				230,000		
22	PLAZA OFFICE BUILDING, AND TOLL BOOTHS.					110,000	
23	EMERGENCY EQUIPMENT.					74,000	

GRAPHS SHOW DURATION OF CONTRACT TIME FOR EACH CONSTRUCTION AND EQUIPMENT CONTRACT.

FIGURES SHOW AMOUNT IN DOLLARS OF EACH CONTRACT.

PLATE No. 10

WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS



GRAPHS SHOW DURATION OF CONTRACT TIME FOR EACH CONSTRUCTION AND EQUIPMENT CONTRACT.

FIGURES SHOW AMOUNT IN DOLLARS OF EACH CONTRACT.

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION
PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS

DATE: FEB. 20, 1930

O. H. Ernst
CHIEF ENGINEER

WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS

No.	TITLE	1930	1931	1932	1933	1934	1935	1936
1	BORINGS.	45,000						
2	UNDER RIVER TUNNEL AND SHAFTS, NEW YORK.		11,153,000					
3	UNDER RIVER TUNNEL AND SHAFTS, NEW JERSEY.		9,770,000					
4	BERGEN HILL TUNNEL.			11,822,000				
5	SUBWAY AND OPEN CUT, NEW YORK.			3,542,000				
6	SUBWAY AND OPEN CUT, NEW JERSEY.				4,839,000			
7	FANS, MOTORS AND CONTROLS.				630,000			
8	VENTILATION BUILDINGS, NEW YORK.				1,600,000			
9	VENTILATION BUILDINGS, NEW JERSEY.				2,000,000			
10	TRANSFORMERS AND SWITCHES.				308,000			
11	TUNNEL PAVING.					298,000		
12	ELECTRICAL WORK.					1,000,000		
13	CABLES.					140,000		
14	TUNNEL FINISH.					932,000		
15	PLAZAS, NEW YORK.					226,000		
16	PLAZAS, NEW JERSEY.					166,000		
17	PUMPS.					40,000		
18	APPROACHES, NEW YORK. (FINISH)						400,000	
19	APPROACHES, NEW JERSEY. (FINISH)						179,000	
20	ADMINISTRATION AND SERVICE BUILDING, NEW YORK.						411,000	
21	EQUIPMENT BUILDING, NEW JERSEY						230,000	
22	PLAZA OFFICE BUILDING, AND TOLL BOOTHS.						110,000	
23	EMERGENCY EQUIPMENT.						74,000	

GRAPHS SHOW DURATION OF CONTRACT TIME FOR EACH CONSTRUCTION AND EQUIPMENT CONTRACT.

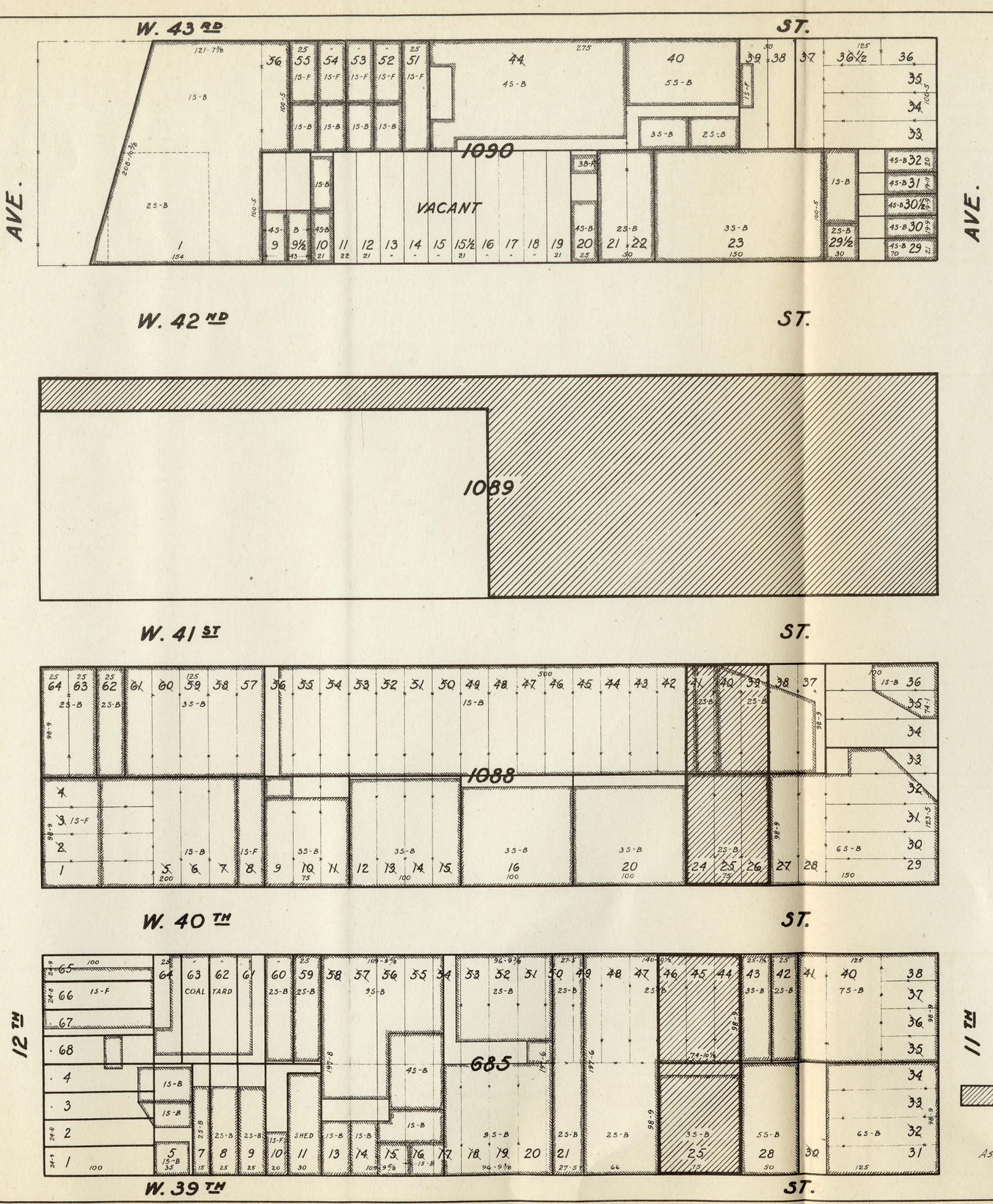
FIGURES SHOW AMOUNT IN DOLLARS OF EACH CONTRACT.

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION
PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL
SCHEDULE OF CONTRACTS

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

PLATE No. 11



PROPERTY DATA

BLOCK No 685

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG CLASS	OWNER OR OCCUPANT	REMARKS
1		12TH AVE	24,000		24,000		CHAS. E. APPLEBY EST.	
2		"	15,500		15,500		"	
3		"	15,500		15,500		"	
4		"	15,500		15,500		"	
68		"	15,500		15,500	10	"	
67		"	15,500		15,500	10	"	
66		"	15,500	4,000	19,500	10	"	
65		"	24,000	2,000	26,000	10	"	
5		39TH ST.	23,000	5,000	28,000	10	"	
7		"	9,000	2,000	11,000	5	"	
8		"	15,000	4,000	19,000	5	"	
9		"	15,000	4,000	19,000	5	"	
10		"	13,000	2,500	15,500	5	"	
11		"	17,000	1,500	18,500	5	"	
13	13,14,15,16,17, 34,35,36,37,38.	"	145,000	360,000	505,000	5	"	
20	18,19,20,51,52,53	"	125,000	220,000	345,000	5	"	
21	21,49,50,	"	34,000	20,000	54,000	5	"	
25		"	49,000	156,000	205,000	5	N.Y. BUTCHERS D.M. CO.	
28		"	33,000	97,000	130,000	5	"	
31	30,31,32,33,34	11TH AVE.	110,000	275,000	385,000	10	"	
38	35,36,37,38,40,41.	"	110,000	325,000	435,000	10	"	
42		40TH ST.	15,000	5,000	20,000	8	CHAS. E. APPLEBY EST.	
43		"	15,000	5,000	20,000	8	"	
44	44,45,46,47,48,	"	135,000	40,000	175,000	10	JOS. STERN & SON	
59		"	15,000	3,000	18,000	10	CHAS. E. APPLEBY EST.	
60		"	15,000	3,000	18,000	10	"	
61		"	15,000	1,000	16,000	8	"	
62		"	15,000	1,000	16,000	10	"	
63		"	15,000	1,000	16,000	10	"	
64		"	15,000	1,000	16,000	10	"	
TOTAL			1,094,000	1538,000	2632,000			

BLOCK No 1088

1	1708 INCL.	12TH AVE	155,000	15,000	170,000	5	CHAS. E. APPLEBY EST.	
9	9,10,11,	40TH ST.	49,500	28,500	78,000	5	"	
12	12,13,14,15,	"	66,000	124,000	190,000	5	"	
16		"	66,000	44,000	110,000	5	"	
20		"	66,000	44,000	110,000	5	"	
24	24,25,26,	"	49,500	42,500	92,000	5	"	
29	27 TO 33 IN.	11TH AVE	155,000	485,000	640,000	10	"	
36	34,35,36,	"	77,000	17,000	94,000	5	"	
37	37 TO 56 IN.	41ST ST.	375,000	400,000	775,000	10	"	
57	57,58,59,60,61	"	93,000	67,000	160,000	8	"	
62		"	17,000	500	17,500	1	"	
63		"	17,000		17,000		"	
64		"	25,500		25,500		"	
TOTAL			1,211,500	1267,500	2479,000			

BLOCK No 1089

TOTAL			1,600,000	40,000	1,640,000	10	N.Y. STATE REALTY TERM. CO.	

BLOCK No 1090

1	1.56	12TH AVE.	255,000	220,000	475,000	10	MET. TRACT CO.	
9		42ND ST.	20,000	3,500	23,500	4	ANNA M. SCHLOSSER	
9½		"	19,000	3,500	22,500	4	"	
10		"	19,000	3,500	22,500	3	ANNIE E. WHELAN	
11		"	20,000		20,000		CHIGWELL RLTY CO.	
12		"	19,000		19,000		"	
13		"	19,000		19,000		"	
14		"	19,000		19,000		"	
15		"	19,000		19,000		"	
15½		"	19,000		19,000		"	
16		"	19,000		19,000		"	
17		"	19,000		19,000		"	
18		"	19,000		19,000		"	
19		"	19,000		19,000		"	
20		"	23,000	2,000	25,000	3	SAMUEL WANK	
21	21,22.	"	50,000	5,000	55,000	5	EUGENE HIGGINS	
23		"	150,000	160,000	310,000	5-8	N.Y. TRANST. CO.	
29½		"	27,500	1,500	29,000	5	HUGH MURRAY EST.	
29		11TH AVE.	30,000	6,000	36,000	3	THOMAS MURRAY EST.	
30		"	19,000	4,000	23,000	3	FORD MURRAY & ANC.	
30½		"	19,000	4,000	23,000	3	THORNTON B. BARNES	
31		"	19,000	3,000	22,000	3	CHAS. Mc CREDY	
32		"	19,000	3,000	22,000	3	"	
36	32 TO 39 IN.	"	125,000	162,000	287,000	5	JABEZ BURNS & SONS	
38		43RD ST.	37,000	1,000	38,000	10	EUGENE HIGGINS	
40	40,44.	"	205,000	105,000	310,000	7	ELIAS S. HIGGINS EST.	
51		"	17,000	1,000	18,000	1	KNICKERBOCKER ICE CO.	
52		"	17,000	1,000	18,000	1	"	
53		"	17,000	1,000	18,000	1	"	
54		"	17,000	1,000	18,000	1	"	
55		"	17,000	1,000	18,000	1	"	
TOTAL								

Property to be acquired in fee

ASSESSED VALUATIONS OF 1930

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

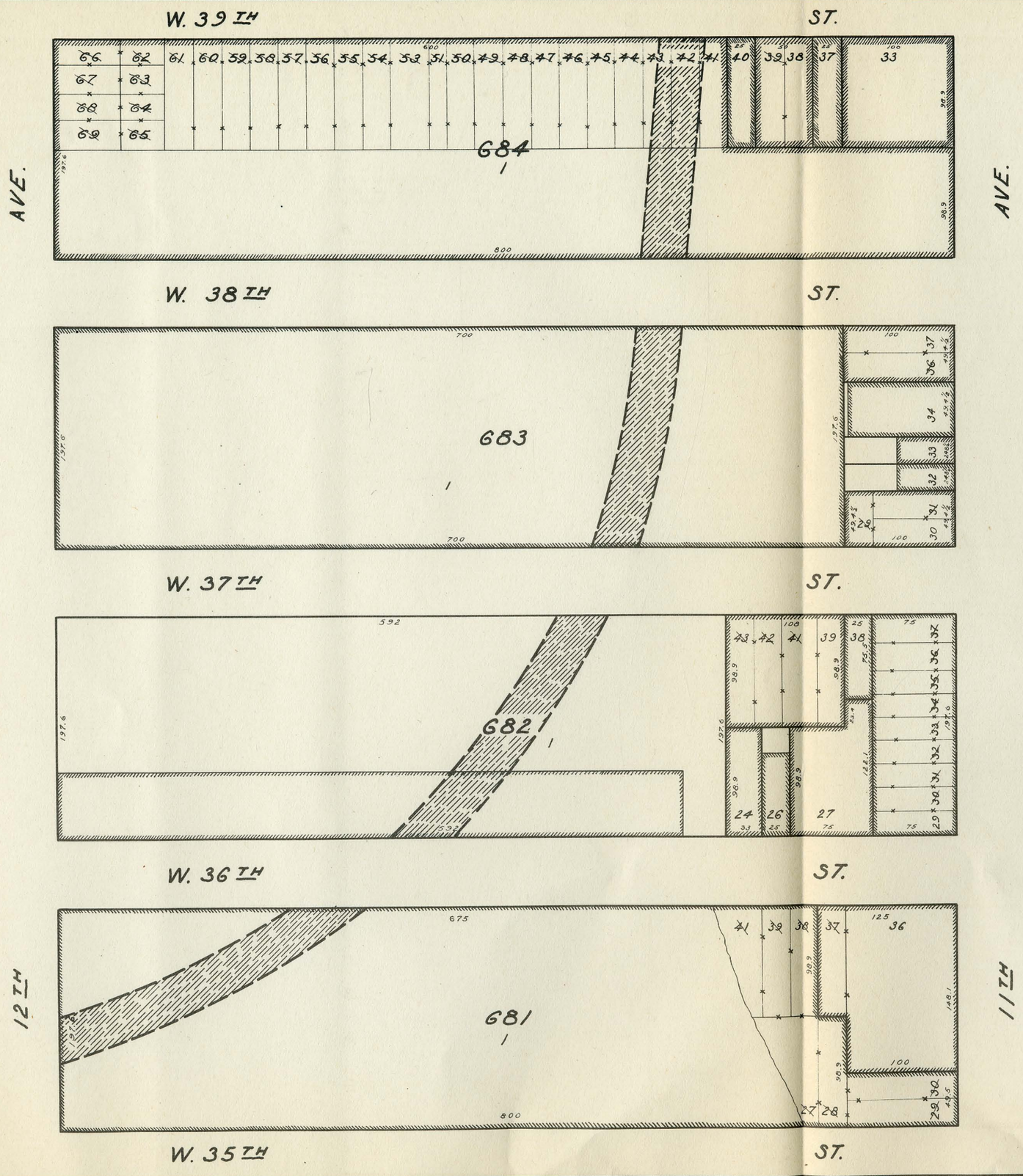
PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL
REAL ESTATE - NEW YORK

SCALE 0 50 FEET

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

PLATE No. 12



PROPERTY DATA

BLOCK No 681

PLOT	OLD LOT NUMBER	FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG. CLASS	OWNER OR OCCUPANT	REMARKS
1		W. 35 TH ST.	900,000	45,000	945,000		WEST SHORE R.R. Co.	
36	31 to 36 Inc.	11 TH AVE.	155,000	220,000	375,000		ANHEUSER BUSCH BREW Co.	
TOTAL								

BLOCK No 682

1		W. 36 TH ST.	175,000	100,000	875,000		WEST SHORE R.R. Co.	
24		"	19,500	21,500	41,000		CHA. H. MORTON	
26		"	14,500	11,500	26,000		"	
27	27, 28	"	50,500	61,500	112,000		N.Y. STATE RLTY & TR. CORP.	
29	29 to 37 Inc.	11 TH AVE	165,000	455,000	620,000		"	
38		W. 37 TH ST.	12,000	44,500	56,500		"	
39	39, 40, 41, 42, A	"	76,500	182,500	259,000		WEST VIR. PULP & PAPER Co.	
TOTAL								

BLOCK No 683

1		W. 37 TH ST.	915,000	20,000	935,000		PENN. R. R.	
30	30, 31	11 TH AVE	51,000	59,000	110,000		PETER Mc GIRR	
32		"	18,500	26,000	44,500		"	
33		"	18,500	26,000	44,500		"	
34	34, 35	"	40,500	19,500	60,000		BEAR LITHIA SP.	
37	36, 37	"	51,000	99,000	150,000		STD. SAN. MFG. Co.	
TOTAL								

BLOCK No 684

1	17 to 22 INCL. & 76 to 85 INCL.	W. 38 TH ST.	950,000	73,000	1,023,000		PENN T & T R.R. Co.	
33	33, 34, 35, 36	11 TH AVE	90,000	10,000	100,000		N.Y. BUTCHERS D.M. Co.	
37		W. 39 TH ST.	15,000	7,000	22,000		"	
38	38, 39	"	33,000	20,000	53,000		JACOB MAYERS	
40		"	15,000	3,000	18,000		EMANUEL FRANK	
TOTAL								

ASSESSED VALUATIONS OF 1930

Permanent Subsurface Easement to be acquired

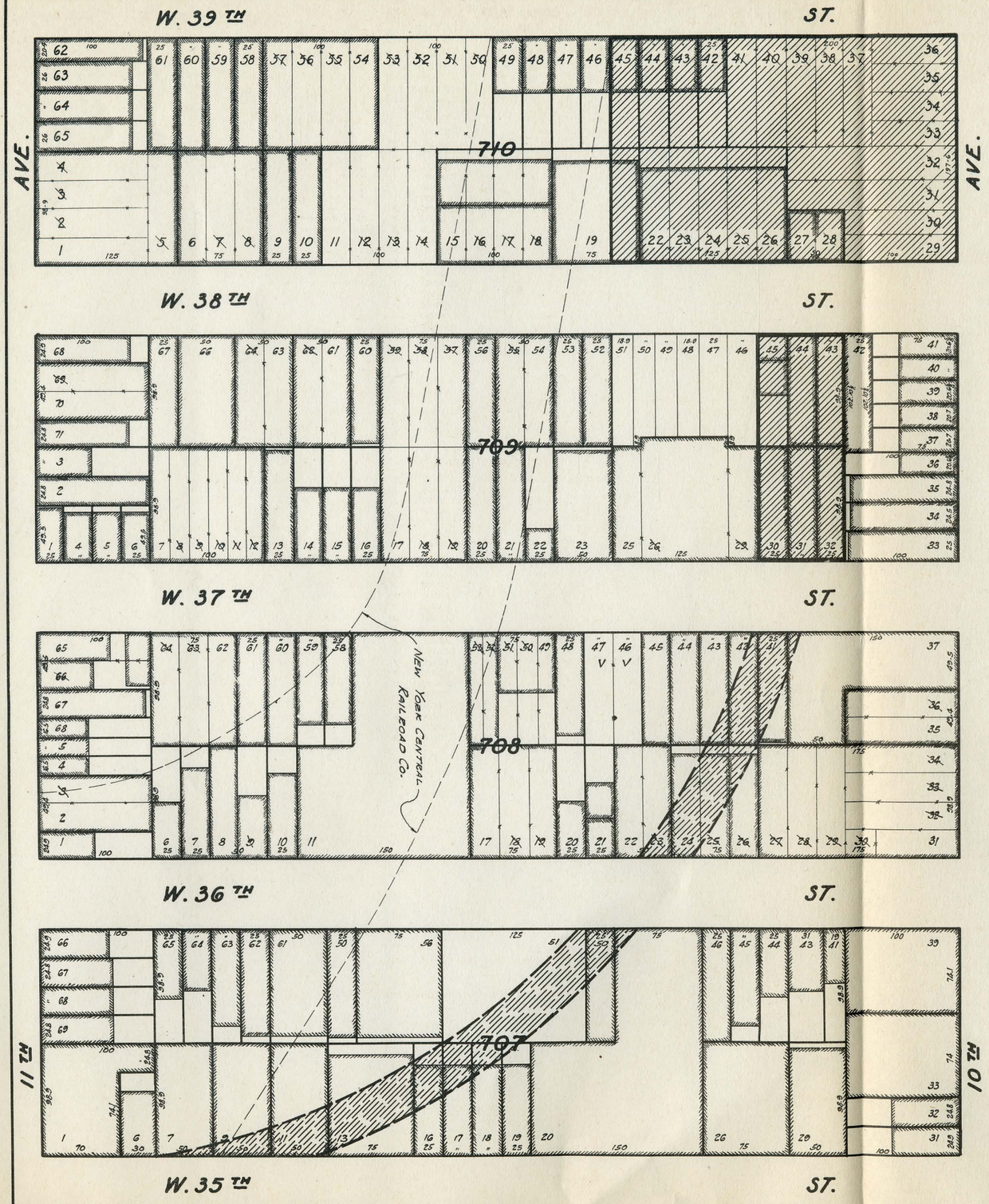
NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN-MIDTOWN TUNNEL
REAL ESTATE - NEW YORK

SCALE 0 50 FEET

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER



PROPERTY DATA

BLOCK No. 707

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG. CLASS.	OWNER OR OCCUPANT	REMARKS
1		11TH AVE.	77000		435000	7	R. H. MACY & Co.	
69		"	18000		24500	5	"	
68		"	18000		26500	5	"	
67		"	18000		24000	5	"	
66		"	27000		34000	3	"	
6		W. 35TH ST.	15000		23500	5	THOMAS WATSON	
7		"	33000		54000	5	"	
9		"	33000		49000	5	CHAS ROHE	
11		"	33000		44000	8	SAM L BOOTH EST.	
13		"	49500		65500	5	H.J. BAUN EST.	
16		"	15000		25000	3	KEMPNER RLTY CORP.	
17		"	15000		25000	3	"	
18		"	15000		25000	3	"	
19		"	15000		25000	3	"	
20		"	148500		370000	5	LOUIS A JONAS	
26		"	49500		67500	8	BENJ. I. MENDELSHON	
29		"	33000		71000	5	ELLEN DOWNEY	
31		10TH AVE.	41000		49000	3	HY BECKHARDT	
32		"	27000		33000	3	BOEMAN RLTY CO.	
33		"	90000		110000	10	BNAI TABERNACLE SOC.	EXEMPT
39		"	105000		220000	5	36TH & 38TH STS. RLTY. CO.,	
41		W. 36TH ST.	11500		14000	3	NAWVACK RLTY CO.	
43		"	18500		22500	3	"	
44		"	15000		19500	3	IDA LEVINSKY	
45		"	15000		30000	5	JAMES CURREN EST.	
46		"	15000		21000	5	LUDEN RLTY CO.	
50		"	15000		19000	5	"	
51		"	82500		105000	8	"	
56		"	49500		180000	5	THORNET RLTY. CORP.	
59		"	15000		20000	5	"	
61		"	33000		88000	5	SAM'L BOOTH EST.	
62		"	15000		18000	5	"	
63		"	15000		22000	8	CHAS ROHE.	
64		"	15000		23000	3	R. H. MACY CO.	
65		"	15000		22000	5	"	
TOTAL								

BLOCK No. 708

1		11TH AVE.	27000		37000	3	MARLBROUGH TRAD'G CO.
2		"	40000		58000	5	"
4		"	12000		15000	3	"
5		"	12000		15000	3	"
68		"	12000		15000	3	"
67		"	18000		23000	8	JAS. ROZELL EST.
65		"	50000		56500	3	MARY F. JOYCE
6		W. 36TH ST.	15000		25000	5	CHAS A. MAHER
7		"	15000		21000	5	THOS. F. HICKEY
8		"	33000		45000	5	H.F. JIVINTY
10		"	15000		20000	3	EDW. REEDEL
11		"	165000		295000	7	CHAS. ROHE.
17		"	49500		68000	7	A.M. ROHE.
20		"	15000		23000	5	CHAS. ROHE.
21		"	15000		22000	5	LUDEN RLTY Co.
22		"	33000		44000	8	A. ALLEZRA
24		"	49500		120000	5	LUDEN RLTY Co.
31		10TH AVE.	185000		1110000	3	McGRAW HILL PUB. Co
35		"	60000		105000	7	R.E. THIBAUT
37		"	108000		195000	7	"
41		W. 37TH ST.	15000		26000	8	"
42		"	15000		17000	8	"
43		"	15000		18000	8	PETER WHITE EST.
44		"	15000		18000	8	"
45		"	15000		17500	8	"
46		"	15000		15000	V	DORYAN RLTY CORP.
47		"	15000		15000	V	"
48		"	49500		20000	8	C. DALY
49		"	49500		65000	5/3	A.M. ROHE.
58		"	15000		18500	3	CHAS. A. BAUERDORF EST.
59		"	15000		18500	3	"
60		"	15000		15500	8	EOYAL RLTY CORP.
61		"	15000		20000	8	JOHN P. McENROE EST.
62		"	49500		53000	8	ALICE E. PRINCE
TOTAL							

ASSESSED VALUATIONS OF 1930

BLOCK No. 709

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG. CLASS.
2		11TH AVE	18000		20000	5
3		"	18000		24000	8
71		"	18000		27000	3
70		"	40000		60000	8
68		"	28000		40000	5
1		W. 37TH ST.	20000		24000	5
4		"	10000		13000	3
5		"	9500		12500	3
6		"	9200		12500	3
7		"	68000		89000	5
13		"	15000		25000	3
14		"	15000		18500	3
15		"	15000		18000	3
16		"	15000		18000	3
17		"	102500		350000	5
20		"	15000		18500	3
21		"	15000		24000	3
22		"	15000		16000	3
23		"	33000		41500	3
25		"	85000		185000	10
30		"	15000		17000	3
31		"	15000		17000	3
32		"	15000		17000	3
33		10TH AVE.	41000		55000	3
34		"	29000		41000	3
35		"	27000		38000	3
36		"	22500		28000	3
37		"	19000		23000	3
38		"	19000		23000	3
39		"	19000		23000	3
40		"	20500		24500	3
41		"	28500		33500	3
42		W. 38TH ST.	17000		38500	3
43		"	16000		25000	3
44		"	16000		25000	3
45		"	16000		17000	3
46		"	16000		16000	3
47		"	15000		15000	3
48		"	11000		11000	3
49		"	11000		11000	3
50		"	11500		11500	3
51		"	12000		12000	3
52		"	16000		16500	3
53		"	16000		16500	3
54		"	35000		38500	3
56		"	16000		18000	3
60		"	16000		20000	3
61		"	35000		70000	10
63		"	35000		105000	10
66		"	35000		60000	8
67		"	16000		28000	3
TOTAL						

BLOCK No. 710

1	11TH AVE.	105000		190000	5
65	"	20000		56000	3
64	"	19000		28000	3
63	"	19000		28000	3
62	"	23000		34000	3
6	W. 38TH ST	52800		75000	5
9	"	16000		17000	3
10	"	16000		17000	3
11	"	145000		360000	5
15	"	70000		105000	5
19	"	52800		140000	5
22	"	88000		165000	5
27	"	22000		29000	3
29	10TH AVE.	370000		370000	5
42	W. 39TH ST.	17000		22000	3
43	"	17000		22500	3
44	"	17000		22000	3
45	"	17000		22000	3
46	"	17000		23000	3
47	"	17000		23000	3
48	"	17000		22000	3
49	"	17000		22000	3
54	"	75000		78000	7
58	"	18000		18000	3
59	"	18000		18000	3
60	"	18000		18000	3
61	"	18000		18000	3
TOTAL					

Property to be acquired in fee.

Permanent Subsurface Easement to be acquired.

NEW YORK ST
BRIDGE & TUNNEL C
AND
NEW JERSEY
HOLLAND TUNNEL C

PROPOSED
WEEHAWKEN - MIDTOW
REAL ESTATE - N

SCALE 0 50 FEE

DATE: FEB. 20, 1930

CHIEF EN

PROPERTY DATA

BLOCK No. 707

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG CLASS.	OWNER OR OCCUPANT	REMARKS
1		11TH AVE.	77000		435000	7	E.H. MACY & Co.	
69		"	18000		24500	5	"	
68		"	18000		26500	5	"	
67		"	18000		24000	5	"	
66		"	27000		34000	3	"	
6		W. 35TH ST.	15000		23500	5	THOMAS WATSON	
7		"	33000		54000	5	"	
9		"	33000		49000	5	CHAS. ROHE	
11		"	33000		44000	8	SAM'L BOOTH EST.	
13		"	49500		65500	5	H.J. BAUN EST.	
16		"	15000		25000	3	KEMPNER RLTY CORP.	
17		"	15000		25000	3	"	
18		"	15000		25000	3	"	
19		"	15000		25000	3	"	
20		"	148500		370000	5	LOUIS A JONAS	
26		"	49500		67500	8	BENJ I MENDELSHON	
29		"	33000		71000	5	ELLEN DOWNEY	
31		10TH AVE.	41000		49000	3	HY REICKHARDT	
32		"	27000		33000	3	BOERMAN RLTY Co.	
33		"	90000		110000	10	BWAY TABERNACLE Soc.	EXEMPT
39		"	105000		220000	5	36TH & 38TH STS. RLTY. Co.,	
41		W. 36TH ST.	11500		14000	3	NAWECK RLTY Co.	
43		"	18500		22500	3	"	
44		"	15000		19500	3	IDA LEVINSKY	
45		"	15000		30000	5	JAMES CURREN EST.	
46		"	15000		21000	5	LUDEN RLTY Co.	
50		"	15000		19000	5	"	
51		"	82500		105000	8	"	
56		"	49500		180000	5	THORNET RLTY. CORP.	
59		"	15000		20000	5	"	
61		"	33000		88000	5	SAM'L BOOTH EST.	
62		"	15000		18000	5	"	
63		"	15000		22000	8	CHAS ROHE.	
64		"	15000		23000	3	E.H. MACY Co.	
65		"	15000		22000	5	"	
TOTAL								

BLOCK No. 708

1		11TH AVE.	27000		37000	3	MAELBROUGH TRAD'G Co.	
2		"	40000		58000	5	"	
4		"	12000		15000	3	"	
5		"	12000		15000	3	"	
68		"	12000		15000	3	"	
67		"	18000		23000	8	JAS. ROZELL EST.	
65		"	50000		56500	3	MARY F. JOYCE	
6		W. 36TH ST.	15000		25000	5	CHAS A. MAHER	
7		"	15000		21000	5	THOS. F. HICKEY	
8		"	33000		45000	3	H.F. JIVINTY	
10		"	15000		20000	3	EDW. REBOEL	
11		"	165000		295000	7	CHAS. ROHE	
17		"	49500		68000	7	A.M. ROHE	
20		"	15000		25000	5	CHAS. ROHE	
21		"	15000		22000	5	LUDEN RLTY Co.	
22		"	33000		44000	8	A. ALLEZRA	
24		"	49500		120000	5	LUDEN RLTY Co.	
31		10TH AVE.	185000		1110000	5	McGRAW HILL PUB. Co	
35		"	60000		105000	7	R.E. THIBAUT	
37		"	108000		195000	7	"	
41		W. 37TH ST.	15000		26000	8	"	
42		"	15000		17000	8	"	
43		"	15000		18000	8	PETER WHITE EST.	
44		"	15000		18000	8	"	
45		"	15000		17500	8	"	
46		"	15000		15000	V	DORYAN RLTY CORP.	
47		"	15000		15000	V	"	
48		"	49500		20000	8	C. DALY	
49		"	49500		65000	5/3	A.M. ROHE	
58		"	15000		18500	3	CHAS. A. BAUERDORF EST.	
59		"	15000		18500	3	"	
60		"	15000		15500	8	ROYAL RLTY CORP.	
61		"	15000		20000	8	JOHN R. McENROE EST.	
62		"	49500		63000	8	ALICE B. PRINCE	
TOTAL								

ASSESSED VALUATIONS OF 1930

Property to be acquired in fee.

Permanent Subsurface Easement to be acquired.

PLATE No. 13

BLOCK No. 709

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG CLASS	OWNER OR OCCUPANT	REMARKS
2		11TH AVE	18000		20000	5	WM KIEL	
3		"	18000		24000	8	A.O. JENNINGS	
71		"	18000		27000	3	GEO. LANDES	
70		"	40000		60000	8	A. SNITOW	
68		"	28000		40000	5	LA BERT RLTY CORP.	
1		W. 37TH ST.	20000		24000	3	E.M. SCHACHTEL	
4		"	10000		13000	3	"	
5		"	9500		12500	3	"	
6		"	9500		12500	3	"	
7		"	66000		89000	5	A.T. ROHE	
13		"	15000		25000	5	GEO. WHITESIDE	
14		"	15000		18500	3	ROSE McCABE	
15		"	15000		18000	8	EDW. T. THOMPSON	
16		"	15000		18000	8	"	
17		"	102500		350000	5	JACQUES KAHN RLTY Co	
20		"	15000		18500	8	W.H. CALLAHAN	
21		"	15000		24000	7	A.J. BAGSA	
22		"	15000		16000	8	PETER WHITE EST.	
23		"	33000		41500	5	JOHN W. SULLIVAN	
25		"	85000		185000	10	CITY OF N.Y.	
30		"	15000		17000	8	EMKE HOLD'G CORP	
31		"	15000		17000	8	"	
32		"	15000		17000	8	"	
33		10TH AVE.	41000		55000	3	ELIZ. WIENER EST.	
34		"	29000		41000	3	EMKE HOLD'G CORP.	
35		"	27000		39000	3	"	
36		"	22500		28000	3	KARL SIEBERT	
37		"	19000		23000	3	OWEN DOOLEY	
38		"	19000		23000	3	"	
39		"	19000		23000	3	"	
40		"	20500		24500	3	MILDRED EINSEL	
41		"	28500		33500	3	OWEN DOOLEY	
42		W. 38TH ST.	17000		36500	7	ROSE HYMAN EST	
43		"	16000		25000	8	JOHN SINNOTT	
44		"	16000		25000	6	"	
45		"	18000		17000	8	PETER WHITE	
46		"	16000		16000	V	MARY C. WHITE	
47		"	15000		15000	V	"	
48		"	11000		11000	V	"	
49		"	11000		11000	V	PETER WHITE EST.	
50		"	11500		11500	V	HUGH H. WARD	
51		"	12000		12000	V	"	
52		"	16000		16500	10	P. COLEMAN	
53		"	16000		16500	10	"	
54		"	36000		38500	5	W.H. CALLAHAN	
56		"	16000		18000	7	"	
60		"	18000		20000	8	MICH. J. LEONARD	
61		"	35000		70000	5	JAS. KENNEDY EST.	
63		"	35000		105000	5	544 W. 38TH ST. CORP.	
66		"	35000		60000	5	JOHN J. MURRAY	
67		"	16000		28000	8	GEO. LANDES	
TOTAL								

BLOCK No. 710

1		11TH AVE.	105000		190000	5	MORGAN STEAM LAU Co.	
65		"	20000		56000	5	WENDELL TOWL. SUP. Co.	
64		"	19000		28000	3	NOON RLTY CORP.	
63		"	19000		23000	3	ELIE W. GIBSON	
62		"	23000		34000	3	"	
6		W. 38TH ST	52800		75000	8	WEIBRIMER Co	
9		"	16000		17000	10	CONRAD N. PITCHER	
10		"	16000		17000	10	"	
11		"	145000		360000	8	R.H. MACY & Co.	
15		"	70000		105000	8	McDERMOTT DAIRY	
19		"	52800		140000	5	W.H. CALLEHAN	
22		"	88000		165000	7	FRANCIS M. BABING Co.	
27		"	22000		29000	8	"	
29		10TH AVE.	370000		370000		MALEE RLTY. CORP	
42		W. 39TH ST.	17000		22000	3	A.A. CLEAR	
43		"	17000		22500	3	MARG. BARLOTIUS	
44		"	17000		22000	3	"	
45		"	17000		22000	3	H.M. LANSING	
46		"	17000		23000	3	"	
47		"	17000		23000	3	"	
48		"	17000		22000	3	H.S. STRAUCH EST.	
49		"	17000		22000	3	A. BERDENBERGH EST.	
54		"	75000		78000	10	C.N. PITCHER	
58		"	18000		18000	V	SOREN RLTY. CORP.	
59		"	18000		18000	V	"	
60		"	18000		18000	V	"	
61		"	18000		18000	V	"	
TOTAL								

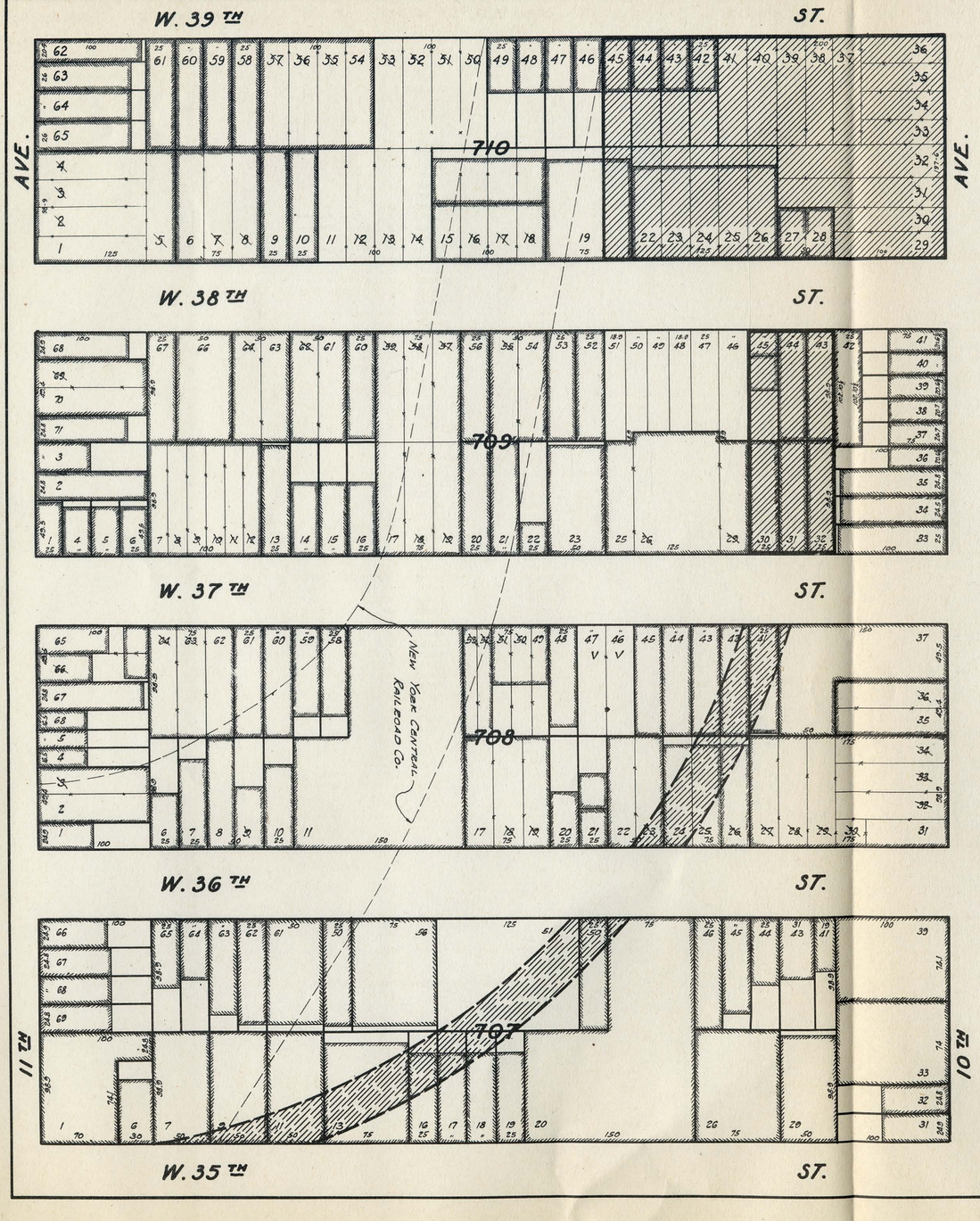
NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL
REAL ESTATE - NEW YORK

SCALE 0 50 FEET

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER



PROPERTY DATA

BLOCK No. 707

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG CLASS.	OWNER OR OCCUPANT	REMARKS
1		11TH AVE.	27000		435000	7	R. H. MACY & Co.	
69		"	18000		24500	5	"	
68		"	18000		26500	5	"	
67		"	18000		24000	5	"	
66		"	27000		34000	3	"	
6		W. 35TH ST.	15000		23500	5	THOMAS WATSON	
7		"	33000		58000	5		
9		"	33000		49000	5	CHAS. ROHE.	
11		"	33000		44000	8	SAM'L BOOTH EST.	
13		"	49500		65500	5	H. J. BAUN EST.	
16		"	15000		25000	3	KEMPNER RLTY CORP.	
17		"	15000		25000	3	"	
18		"	15000		25000	3	"	
19		"	15000		25000	3	"	
20		"	148500		370000	5	LOUIS A JONAS	
26		"	49500		67500	8	BENJ I MENDELSHON	
29		"	33000		71000	5	ELLEN DOWNEY	
31		10TH AVE.	41000		49000	3	HY BECKHARDT	
32		"	27000		33000	3	BOEHMAN RLTY Co.	
33		"	90000		110000	10	BNAI TABERNACLE SOC.	EXEMPT
39		"	165000		220000	5	36TH & 38TH STS. RLTY. Co.	
41		W. 36TH ST.	11300		140000	3	NANVECK RLTY Co.	
43		"	18500		22500	3	"	
44		"	15000		19500	3	IDA LEVINSKY	
45		"	15000		30000	5	JAMES CURREN EST.	
46		"	15000		21000	5	LUDEN RLTY Co.	
50		"	15000		19000	5	"	
51		"	82500		105000	8		
56		"	49500		180000	5	THORNET RLTY. CORP.	
59		"	15000		20000	5	"	
61		"	33000		88000	5	SAM'L BOOTH EST.	
62		"	15000		18000	5	"	
63		"	15000		22000	8	CHAS ROHE.	
64		"	15000		23000	3	E.H. MACY Co.	
65		"	15000		22000	5	"	
TOTAL								

BLOCK No. 708

1		11TH AVE.	27000		37000	3	MARLBROUGH TRADG Co.	
2		"	40000		58000	5	"	
4		"	12000		15000	3	"	
5		"	12000		15000	3	"	
68		"	12000		15000	3	"	
67		"	18000		23000	8	JAS. ROZELL EST.	
65		"	50000		56500	3	MARY F. JOYCE	
6		W. 36TH ST.	15000		25000	5	CHAS A. MAHER	
7		"	15000		21000	5	THOS. F. HICKEY	
8		"	33000		45000	5	H.F. JIVINTY	
10		"	15000		20000	3	EDW. BERDEL	
11		"	165000		295000	7	CHAS. ROHE.	
17		"	49500		68000	7	A.M. ROHE.	
20		"	15000		25000	5	CHAS. ROHE.	
21		"	15000		22000	5	LUDEN RLTY Co.	
22		"	33000		44000	8	A. ALLEERA	
24		"	49500		120000	5	LUDEN RLTY Co.	
31		10TH AVE.	185000		1110000	5	MCGRAW HILL PUB. Co	
35		"	60000		105000	7	E.E. THIBAUT	
37		"	103000		195000	7	"	
41		W. 37TH ST.	15000		26000	8	"	
42		"	15000		17000	8	"	
43		"	15000		18000	8	PETER WHITE EST.	
44		"	15000		18000	8	"	
45		"	15000		17500	8	"	
46		"	15000		15000	V	DORYAN RLTY CORP.	
49		"	15000		15000	V	"	
48		"	49500		20000	8	C. DALY	
49		"	49500		65000	5/3	A.M. ROHE.	
58		"	15000		18500	3	CHAS. A. BAUSERDORF EST.	
59		"	15000		18500	3	"	
60		"	15000		15500	8	ROYAL RLTY CORP.	
61		"	15000		20000	8	JOHN P. MCENROE EST.	
62		"	49500		63000	8	ALICE E. PRINCE	
TOTAL								

ASSESSED VALUATIONS OF 1930

Property to be acquired in fee.

Permanent Subsurface Easement to be acquired.

BLOCK No. 709

PLOT	OLD LOT NUMBER	LOT FACES ON	VALUE OF LAND	VALUE OF IMPROVEMENT	TOTAL	BLDG CLASS	OWNER OR OCCUPANT	REMARKS
2		11TH AVE	18000		20000	5	WM KIEL	
3		"	18000		24000	8	A.O. JENNINGS	
71		"	18000		27000	3	GEO. LANDES	
70		"	40000		60000	8	A. SMITOW	
68		"	28000		40000	5	LA BERT RLTY CORP.	
1		W. 37TH ST.	20000		24000	3	E.M. SCHACHTEL	
4		"	10000		13000	3	"	
5		"	9500		12500	3	"	
6		"	9000		13500	3	"	
7		"	66000		89000	5	A.T. ROHE	
13		"	15000		25000	5	GEO. WHITESIDE	
14		"	15000		18500	3	ROSE MCCABE	
15		"	15000		18000	8	EDW. T. THOMPSON	
16		"	15000		18000	8	"	
17		"	102500		350000	5	JACQUES KAHN RLTY Co.	
20		"	15000		18500	8	W.H. CALLAHAN	
21		"	15000		24000	7	A.J. BAGSA	
22		"	15000		16000	8	PETER WHITE EST.	
23		"	33000		41500	5	JOHN W. SULLIVAN	
25		"	85000		185000	10	CITY OF N.Y.	
30		"	15000		17000	8	EMKE HOLD'G CORP	
31		"	15000		17000	8	"	
32		"	15000		17000	8	"	
33		10TH AVE.	41000		55000	3	ELIZ. WIENER EST.	
34		"	29000		41000	3	EMKE HOLD'G CORP.	
35		"	27000		89000	3	"	
36		"	22500		28000	3	KARL SIEBERT	
37		"	19000		23000	3	OWEN DOOLEY	
38		"	19000		23000	3	"	
39		"	19000		23000	3	"	
40		"	20500		24500	3	MILDRED EINSEL	
41		"	28500		33500	3	OWEN DOOLEY	
42		W. 38TH ST.	17000		38500	7	ROSE HYMAN EST	
43		"	16000		25000	5	JOHN SINNOTT	
44		"	16000		25000	5	"	
45		"	18000		17000	8	PETER WHITE	
46		"	16000		16000	V	MARY C. WHITE	
47		"	15000		15000	V	"	
48		"	11000		11000	V	"	
49		"	11000		11000	V	PETER WHITE EST.	
50		"	11500		11500	V	HUGH H. WARD	
51		"	12000		12000	V	"	
52		"	16000		18500	10	P. COLEMAN	
53		"	16000		16500	10	"	
54		"	35000		38500	5	W.H. CALLAHAN	
56		"	16000		18000	7	"	
60		"	18000		20000	8	MICH. J. LEONARD	
61		"	35000		70000	5	JAS. KENNEDY EST.	
63		"	35000		105000	5	543 W. 38TH ST. CORP.	
66		"	35000		60000	5	JOHN J. MURRAY	
67		"	16000		28000	8	GEO. LANDES	
TOTAL								

BLOCK No. 710

1		11TH AVE.	105000		180000	5	MORGAN STEAM LDY Co.	
65		"	20000		56000	5	WENDELL TOWL. SUP. Co.	
64		"	19000		28000	3	NOON RLTY CORP.	
63		"	19000		28000	3	ELIE W. GIBSON	
62		"	23000		34000	3	"	
6		W. 38TH ST.	52300		75000	8	WEIBRIMER Co	
9		"	16000		17000	10	CONRAD N. PITCHER	
10		"	16000		17000	10	"	
11		"	145000		360000	8	R.H. MACY & Co.	
15		"	70000		105000	8	MC DERMOTT DAIRY	
19		"	52300		140000	5	W.H. CALLERMAN	
22		"	88000		165000	7	FRANCO AM. BADING Co.	
27		"	22000		29000	8	"	
29		10TH AVE.	270000		370000		MALEK RLTY. CORP	
42		W. 39TH ST.	17000		22000	3	A.A. CLEAR	
43		"	17000		22500	3	MAEG. BARLOTINUS	
44		"	17000		22000	3	"	
45		"	17000		22000	3	H.M. LANSING	
46		"	17000		23000	3	"	
47		"	17000		23000	3	"	
48		"	17000		22000	3	HS. STRAUCH EST.	
49		"	17000		22000	3	A. BREDEN BEREN EST.	
54		"	75000		78000	10	C.N. PITCHER	
58		"	18000		18000	V	SOBEN RLTY. CORP.	
59		"	18000		18000	V	"	
60		"	18000		18000	V	"	
61		"	18000		18000	V	"	
TOTAL								

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

PROPOSED
WEEHAWKEN - MIDTOWN TUNNEL
REAL ESTATE - NEW YORK

SCALE 0 50 FEET

DATE: FEB. 20, 1930

Ole Singstad
CHIEF ENGINEER

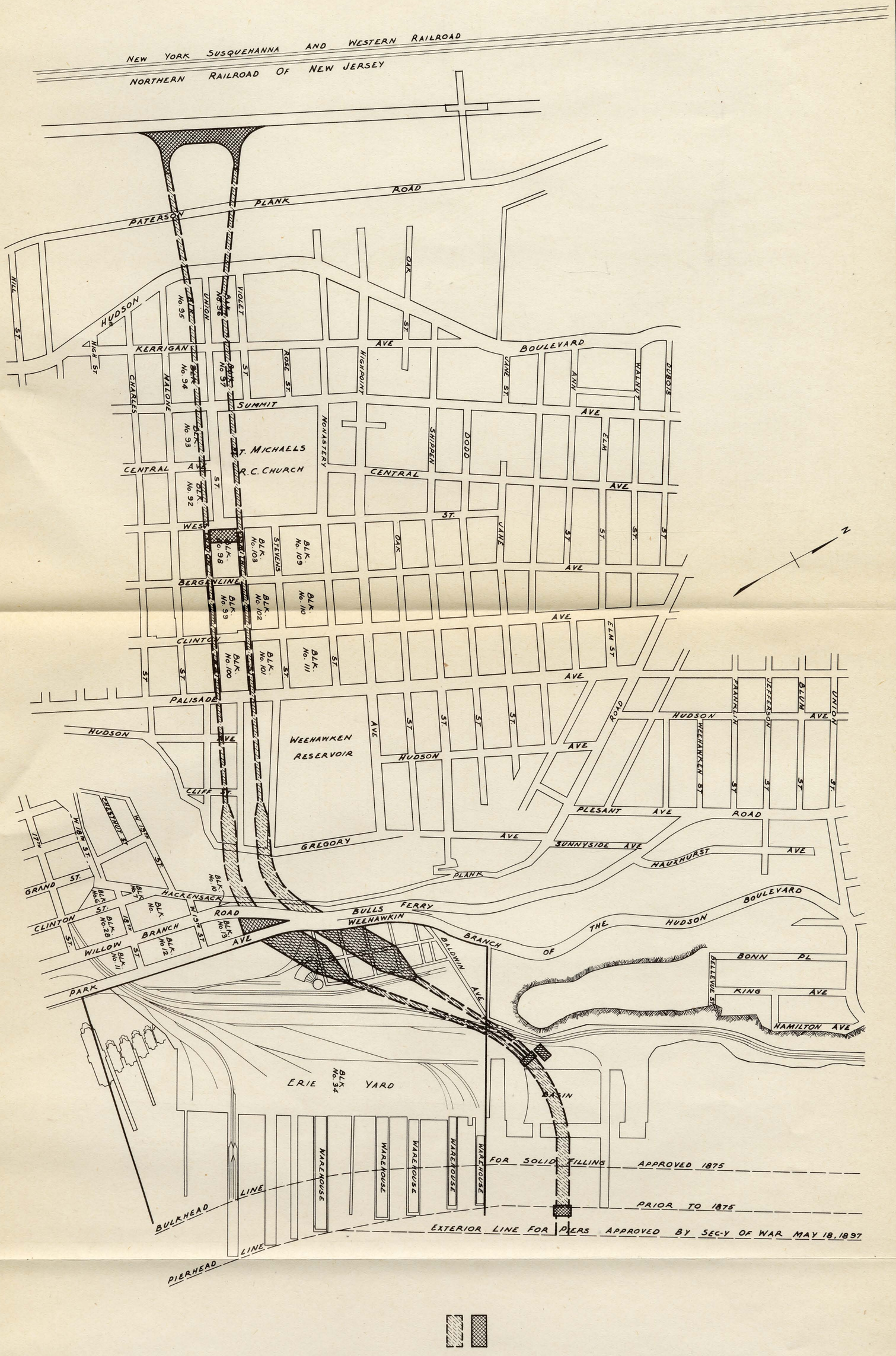

NEW YORK SUSQUEHANNA AND WESTERN RAILROAD
NORTHERN RAILROAD OF NEW JERSEY
PATERSON PLANK ROAD
HILL ST.
HUDSON
HIGH ST.
KERRIGAN
CHARLES
MALONE
VIOLET
UNION
OAK
ROSE ST.
HIGHPOINT
JANE ST.
BOULEVARD
AVE
WALNUT
DUBOIS
SUMMIT
ST. MICHAELS R.C. CHURCH
MONASTERY
SHIPPEN
DODD
ELM
CENTRAL
WEST
BERGEN LINE
CLINTON
PALISADE
HUDSON
CLIFF
GREGORY
WEEHAWKEN RESERVOIR
FRANKLIN
JEFFERSON
BLUM
UNION
PLEASANT
ROAD
SUNNYSIDE AVE
MAXHURST AVE
PLANK
GRAND ST.
HACKENSACK
BULLS FERRY
WEEHAWKIN
BOULEVARD
THE HUDSON
BRANCH
BRANCH OF
BALDWIN AVE
BONN PL
KING AVE
STEELE ST.
HAMILTON AVE
PARK
ERIE YARD
BASIN
WAREHOUSE
FOR SOLID FILLING APPROVED 1875
BULKHEAD LINE
PRIOR TO 1875
EXTERIOR LINE FOR PIERS APPROVED BY SEC-Y OF WAR MAY 18, 1897
PIERHEAD LINE
PERMANENT
PROPOSED
N

PLATE Nº. 14

BLOCK No.	PLOT No.	ASSESSED VALUATIONS LAND	BLDGS	TOTAL
6		1250	2000	3250
7		800	800	1600
8		17250	31500	48750
9		29200	56800	86000
10		5400	8100	13500
11		39200	15000	54200
12		45400	104000	149400
13		10800	28200	39000
34		402600	105700	508300
92		71700	147600	219300
93		81700	230600	312300
94		79300	136500	215800
95		92200	141700	233900
96		80200	144500	224700
97		58800	123900	182700
98		66500	142400	208900
99		69400	119700	189100
102		75800	137000	212800
111		87700	200100	287800

ASSESSED VALUATIONS OF 1930

Property to be acquired in fee.

Permanent Subsurface Easement to be acquired.

NEW YORK STATE
BRIDGE & TUNNEL COMMISSION
AND
NEW JERSEY
HOLLAND TUNNEL COMMISSION

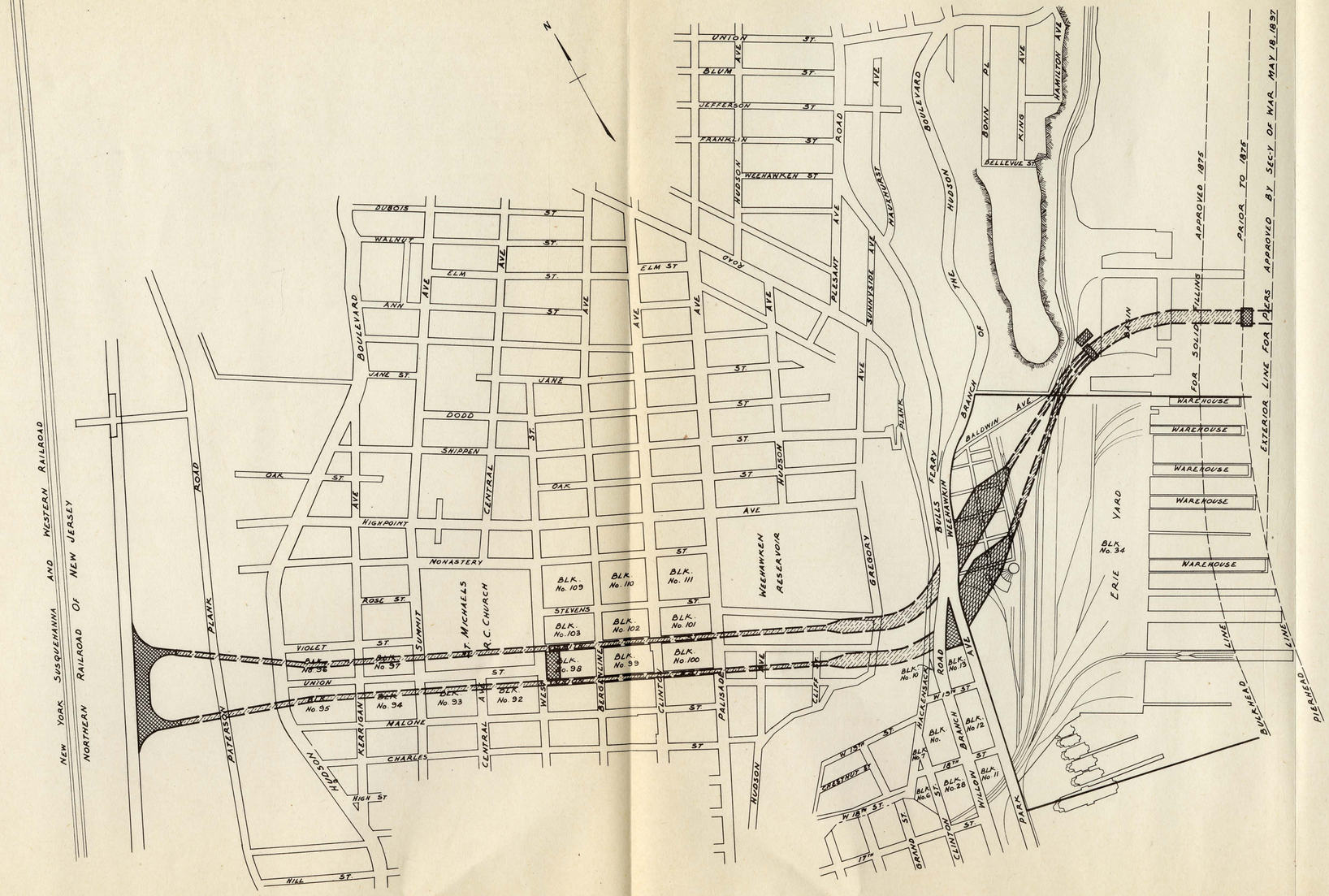
PROPOSED
WEEHAWKEN–MIDTOWN TUNNEL
REAL ESTATE NEW JERSEY

SCALE 0 100 200 300 FEET

DATE: FEB. 20, 1930

CHIEF ENGINEER

PLATE No. 14



BLOCK No.	PLOT No.	ASSESSED VALUATIONS LAND	BLDGS	TOTAL
6		1250	2000	3250
7		800	800	1600
8		17250	31500	48750
9		29200	56800	86000
10		5400	8100	13500
11		39200	15000	54200
12		45400	104000	149400
13		10800	28200	39000
34		402600	105700	508300
92		71700	147600	219300
93		81700	230800	312500
94		79300	136500	215800
95		92200	161700	253900
96		80100	144500	224700
97		53800	129000	182700
98		64500	142400	206900
99		69200	119700	188700
102		75800	137000	212800
111		87700	200100	287800

ASSESSED VALUATIONS OF 1930

Property to be acquired in fee.

Permanent Subsurface Easement to be acquired.

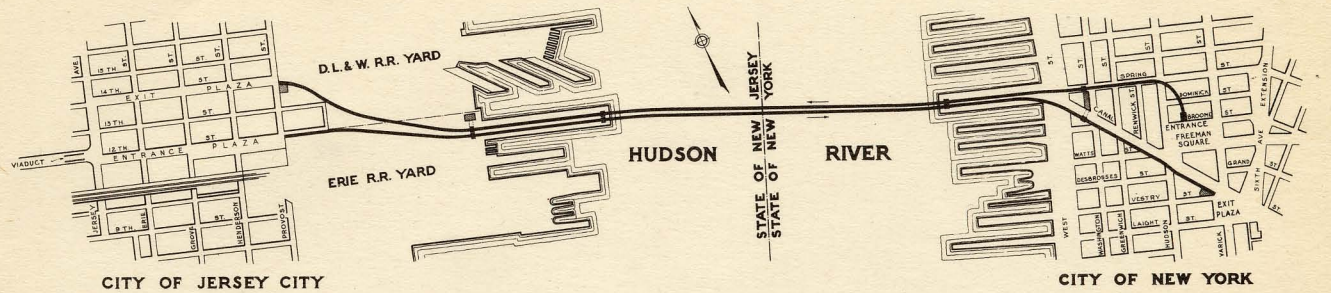
NEW YORK STATE BRIDGE & TUNNEL COMMISSION AND NEW JERSEY HOLLAND TUNNEL COMMISSION

PROPOSED WEEHAWKEN-MIDTOWN TUNNEL REAL ESTATE NEW JERSEY

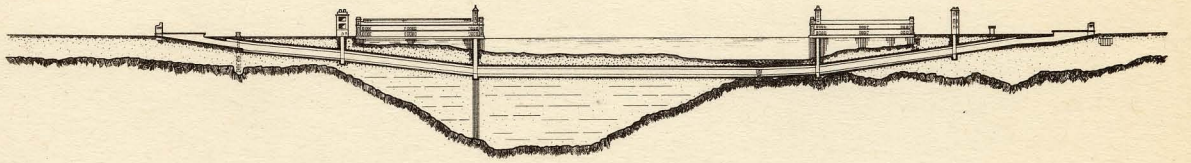
SCALE 0 100 200 300 FEET

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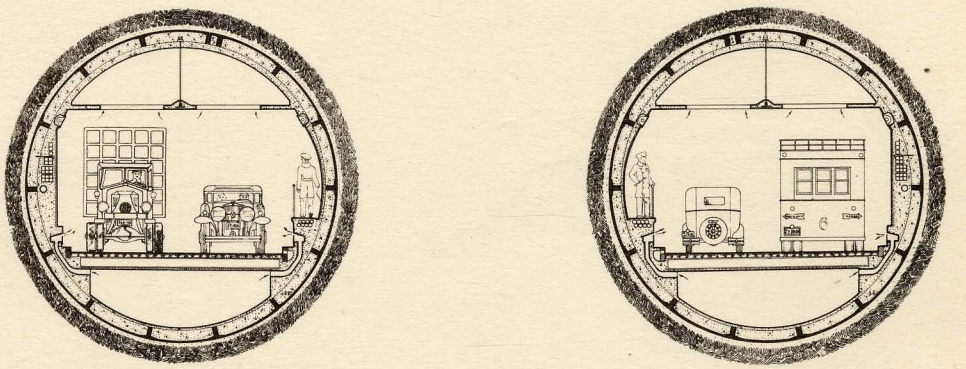
CHIEF ENGINEER.



PLAN



PROFILE



CROSS SECTION

THE HOLLAND TUNNEL

CONSTRUCTED UNDER THE JOINT SUPERVISION OF NEW YORK STATE BRIDGE AND TUNNEL COMMISSION AND NEW JERSEY INTERSTATE BRIDGE AND TUNNEL COMMISSION · GROUND BROKEN OCTOBER 12, 1920 TUNNEL OPENED NOVEMBER 12, 1927 · TUNNEL COMPLETED 1929

TUNNEL DATA

NORTH TUNNEL WESTBOUND TRAFFIC	SOUTH TUNNEL EASTBOUND TRAFFIC
LENGTH OF TUNNEL 9180 FEET	LENGTH OF TUNNEL 9277 FEET
DISTANCE BETWEEN PORTALS 8557 FEET	DISTANCE BETWEEN PORTALS 8371 FEET

LENGTH OF UNDER RIVER PORTION 5480 FEET
DISTANCE BETWEEN RIVER SHAFTS 3374 FEET
MINIMUM WIDTH OF ROADWAYS 20 FEET · HEADROOM 13 FEET 6 INCHES
EXTERNAL DIAMETER OF TUNNEL 29 FEET 6 INCHES AND 30 FEET 4 INCHES
MAXIMUM UP GRADE 3.64 PER CENT · MAXIMUM DOWN GRADE 4.06 PER CENT
MAXIMUM DEPTH FROM MEAN HIGH WATER TO TOP OF TUNNEL 72 FEET
MAXIMUM DEPTH FROM MEAN HIGH WATER TO ROADWAY 93 FEET
CAST IRON AND STEEL TUNNEL LINING 114,000 TONS
TUNNEL VENTILATED BY 84 FANS · IN FOUR VENTILATION BUILDINGS
NORMAL MAXIMUM VENTILATION 3,760,000 CUBIC FEET OF FRESH AIR PER MINUTE
TOTAL COST 48.4 MILLION DOLLARS

March 15, 1930.

STATEMENT SUBMITTED TO THE GOVERNORS AND JOINT LEGISLATIVE CONFERENCE COMMITTEE OF THE STATE OF NEW YORK AND THE STATE OF NEW JERSEY ON THE PROPOSED WEEHAWKEN-MIDTOWN TUNNEL

by

Ole Singstad
Chief Engineer and Superintendent
New York State Bridge & Tunnel Commission
and New Jersey Holland Tunnel Commission

COMPARISON OF ESTIMATES OF COST SUBMITTED BY THE TUNNEL COMMISSIONS AND BY THE PORT OF NEW YORK AUTHORITY

At the conference on March 6, 1930, the New York and New Jersey Tunnel Commissions submitted an estimate of cost of the proposed Weehawken-Midtown Tunnel amounting to $66,928,000. On the same day, The Port of New York Authority submitted a plan for a tunnel in the same vicinity and an estimate of cost, based on their plan, amounting to $95,500,000.

The Port of New York Authority's estimate is $28,572,000. higher than that of the Tunnel Commissions. In an attempt to account for this great difference in cost, The Port Authority's estimate has been analyzed, and the principal items of each estimate, when brought to a comparable basis, are as follows:

Comparison of Estimate

	Tunnel Commissions' Estimate	Port Authority's Estimate	Amount by which Port Authority Estimate Differs from Tunnel Commissions' Estimate	
			Higher	Lower
Construction & Equipment Contracts	$49,915,000	$59,700,000	$9,785,000	
Contingencies	5,000,000	3,660,000		$1,340,000
Engineering & Administration	4,393,000	6,100,000	1,707,000	
Real Estate - New York	6,370,000	8,900,000	2,530,000	
Real Estate - New Jersey	1,250,000	1,050,000		200,000
Total	$66,928,000	$79,410,000	$14,022,000	$1,540,000
			1,540,000	
			$12,482,000	
Items included in Port Authority's Estimate with no Corresponding Items in Tunnel Commissions' Estimate.				
Interest during Construction		10,230,000	10,230,000	
Cost of Financing and Development Reserve		5,860,000	5,860,000	
Total	$66,928,000	$95,500,000	$28,572,000	

This setup follows that of the Tunnel Commissions' estimate and a modification has been made of The Port Authority's estimate so as to make the figures comparable by reducing their construction costs by $1,300,000. and increasing their real estate cost by the same amount. This figure represents The Port Authority's estimated cost of the items for rental of piers and provision of protective piers over the tunnel, which items are included in the Tunnel Commissions' real estate estimate.

The plan of the tunnel submitted by The Port Authority differs materially from the plan submitted by the Tunnel Commissions, and it is therefore not possible to make direct comparisons of cost, contract for contract or section for section. The best basis for making a comparison is to compare the two plans and to account for the reasons why the estimated costs should differ. If both estimates of cost are correctly prepared, they are still bound to differ if the plans differ. There are material differences in the two plans which are bound to affect the estimates of cost.

Differences in Plans Affecting Costs:

If the two estimates are brought to a comparable basis as already outlined, the principal item of each estimate, namely, that for the construction and equipment contracts, is as follows:

Tunnel Commissions	$49,915,000.
Port Authority	59,700,000.
Difference	$ 9,785,000.

by which The Port Authority's estimate exceeds that of the Tunnel Commissions. The Port Authority's plan is merely an outline plan and profile and is much lacking in detail. It is therefore not possible, with the information available, to make a detailed estimate. A reasonable basis for comparison is provided, however, by comparing the total length of roadway under each plan. Under The Port Authority's plan, the total length of roadway for the tunnel and approaches is 43,400 feet or 8.2 miles. Under the Tunnel Commissions' plan, the total length of roadway for the tunnel and approaches is 33,528 feet or 6.3 miles.

The Port Authority's plan calls for 9,872 lineal feet or nearly two miles of roadway in excess of that called for on the Tunnel Commissions' plan. If the total cost of construction and equipment contracts is divided by the number of lineal feet of roadway, we get under The Port Authority's plan and estimate $1,375 per lineal foot and under the Tunnel Commissions' plan $1,492 per lineal foot. This shows that the Tunnel Commissions' estimate is $117 higher per lineal foot of tunnel and approach roadway than The Port Authority's estimate.

Difference in Estimated Cost of
Construction & Equipment Contracts:

After making due allowance for the differences in the two plans, it appears that for the Bergen Hill Tunnel and the river section, the Tunnel Commissions' estimate is slightly lower than that of The Port Authority, but, on the other hand, for the Weehawken approaches and the Manhattan approaches, it appears that the Tunnel Commissions' estimate is higher than that of The Port Authority.

At the New York waterfront, The Port Authority's plan calls for driving the tunnel under present Pier 78, while the Tunnel Commissions' plan calls for driving the tunnel through an existing slip and building a new pier over it. This latter method was followed in the construction of The Holland Tunnel and is by far the more economical method.

On the whole, it appears that the higher cost of construction and equipment contracts under The Port Authority's plan can be accounted for by their more expensive plan, and it is considered that the total cost of this item in their estimate is approximately correct, based on their plan.

Real Estate - New York:

On the basis of the setup, bringing the two estimates on a comparable basis, the Tunnel Commissions' estimate for real estate in New York is $6,370,000 and that of The Port Authority $8,900,000. This can readily be accounted for by the greater area of real estate to be acquired under The Port Authority's plan. The real estate required under the Tunnel Commissions' plan is sufficient for all needs on the basis of the experience which has been gained in the construction and operation of The Holland Tunnel. The basis for making the Tunnel Commissions' estimate is the 1930 assessed valuation of land and structures plus 100% and that of The Port Authority, the 1930 assessed valuation plus 75%. The Tunnel Commissions' estimate is therefore made on a more liberal basis.

Real Estate - New Jersey:

The Tunnel Commissions' estimate for real estate in New Jersey is $1,250,000 and that of The Port Authority, $1,050,000. This difference can readily be accounted for by the fact that the Tunnel Commissions acquire more property in fee at Weehawken.

Contingencies:

Tunnel Commissions' estimate	$5,000,000
Port Authority's estimate	3,660,000

This merely shows that in the Tunnel Commissions' estimate a more liberal allowance for contingencies was made than in The Port Authority's estimate.

Engineering & Administration:

Tunnel Commissions' estimate	$4,393,000
Port Authority's estimate	6,100,000

The Tunnel Commissions' estimate is based on their past experience in the construction of The Holland Tunnel and The Port Authority's estimate is no doubt based on their own experience.

Interest During Construction:

The Tunnel Commissions' estimate made no allowance for this item.

Port Authority's estimate $10,230,000.

If all the money needed for the construction of the Weehawken-Midtown Tunnel under the Tunnel Commissions' plan were paid for at an interest rate of 4-1/4%, the interest during construction would amount to $7,400,000.

Cost of Financing and Development Reserve:

Tunnel Commissions' estimate, no allowance.
Port Authority's estimate $5,860,000.

The largest part of this item in The Port Authority's estimate is made up of discount on Port Authority bonds. The State of New Jersey sold its Holland Tunnel bonds at a premium.

In this item of The Port Authority's estimate is included a sum of about $1,000,000 for training personnel, working capital and operating reserve at the outset. There will be no corresponding expense under the Commissions' plan except a nominal cost for training the personnel. In view of the experienced staff which the Tunnel Commissions have in operating The Holland Tunnel, this item would be negligible under the Commissions' plan.

Physical Connection with City's Crosstown Tunnel:

In the Tunnel Commissions' estimate, no allowance is made for the cost of a possible physical connection with the City's crosstown tunnel. The plans for the City's tunnel have not yet been developed, but on the basis of the information now available and on the detailed studies made by the Commissions' staff for such a connection, the cost of the Tunnel Commissions' share of such a connection is estimated at $3,000,000.

Comparison of Total Cost:

The Port Authority's estimate for the cost of the tunnel exceeds that of the Tunnel Commissions by $28,572,000. If to the Tunnel Commissions' estimate there were added the cost of interest during construction and the cost of a physical connection with the City's tunnel, The Port Authority's estimate would still be $18,172,000 higher than the Commissions' estimate. After a careful comparison of the plans and estimates, it appears that this big difference can be accounted for by The Port Authority's uneconomical plan and their more expensive method of financing.

Differences in Plans Affecting
Traffic Facilities:

At first glance it appears that The Port Authority's plan has a straight alignment. This, however, is not the case. At the Manhattan terminal of the tunnel one roadway is more than 80 feet underground at the plaza, and access to the surface is had by means of spiral roadways, with steep grades and sharp curves. Access to the New Jersey waterfront at Weehawken is by means of branch tunnels, with numerous sharp curves and steep grades, so that the only traffic that will get the benefit of the straight alignment is the comparatively small percentage of through traffic from the New Jersey Meadows continuing through the crosstown tunnel to Queens or the east side. The bulk of the traffic, namely, all traffic bound to or from Manhattan and to or from the New Jersey waterfront, will be burdened with much more curvature, sharper curves and steeper grades than under the Tunnel Commissions' plan.

In addition to being needlessly expensive, The Port Authority's plan is fundamentally defective from a traffic and operating point of view. One illustration will serve to show this. Under both plans, the entrance in Weehawken is at Willow Avenue and the exit in Manhattan at 10th Avenue and 38th Street. The distance from the Weehawken entrance to the Manhattan exit under the Tunnel Commissions' plan is 1.75 miles, or the same length as The Holland Tunnel. Under The Port Authority's plan, the length of the tunnel from the Weehawken entrance to the Manhattan exit is 2.45 miles, or an excess length under The Port Authority's plan of 0.7 miles to go from the same point in Weehawken to the same point in Manhattan, all the distance below the surface of the ground. This excess length is all on tunnel approaches with steep grades and sharp curves, and in addition on this run, there are two points of traffic junction in the tunnel at which the traffic will be exposed to delay, collisions and other accidents.

At the New York terminal The Port Authority's plan concentrates in one large underground chamber, all traffic from both eastbound and westbound tunnels as well as all traffic from the City's crosstown tunnel, both eastbound and westbound. This is a highly undesirable arrangement and will create a traffic congestion on Manhattan streets in the vicinity of the plazas, which will result in serious delay to traffic. The plan does not provide for the separation of the plazas as was done in the case of The Holland Tunnel and which has proved very effective in avoiding traffic congestion on the City streets. A similar situation is created at the point of junction with the main tunnel of the four branch tunnels near the New Jersey waterfront.

Under The Port Authority's plan, the approaches of the tunnel on both sides of the river are deeper underground than under the Tunnel Commissions' plan, thus requiring a longer tunnel without serving any traffic purpose, steeper grades and sharper curves, resulting in increased cost of construction, operation and maintenance and inconvenience to traffic.

In Manhattan, there are four important traffic arteries that should be made readily accessible for tunnel traffic, namely, the Elevated Express Highway on 12th Avenue, 10th and 11th Avenues and the City's crosstown tunnel. The Port Authority's plan provides for immediate access to only two of these, and their plazas abut on 9th Avenue, which is very inferior for traffic purposes due to the presence of the Elevated Railway columns.

The Tunnel Commissions' plan calls for the shortest possible tunnel for the river crossing, as well as through the Palisades, and at the same time makes provision for easy connection to all of the four important traffic arteries in New York City. It brings the tunnel to the surface at Weehawken, thereby serving important industries, railroad and steamship terminals near the waterfront. By bringing the tunnel to the surface at this point, the local traffic can leave and enter the tunnel with a minimum of interference and delay to the through traffic using the Bergen Hill and the river tunnels.

None of the upgrades under the Tunnel Commissions' plan exceeds 3-1/2%, while under The Port Authority's plan there is a stretch of a half mile near the New Jersey waterfront with an upgrade of 4%, which experience in the operation of The Holland Tunnel shows to be too steep for truck traffic and will result in curtailing the capacity of the tunnel by slowing up traffic.

Under The Port Authority's plan, the tunnel has nearly two miles of excessive roadway, which adds to the cost of construction, operation and maintenance without adding to the traffic facilities. The plan also has many serious defects from an operating point of view, which will materially reduce the capacity of the tunnel and will endanger the safety of the public using the tunnel.