

Upper—View from near north abutment of Golden Gate Bridge shows heavy grading work on Marin approach. Center—Constructing highway approach at north abutment of bridge. Lower—Placing of steel and form work at south portal of tunnel through hills. Inset—Ventilation precautions in wall drift.



### Golden Gate Bridge Ready For Dedication on May 28

Francisco harbor is formally opened.

The San Francisco-Oakland Bay Bridge was built by the State of California. The Golden Gate Bridge was financed by six coastal counties of northern California with the State Division of Highways cooperating by building the Marin approach highway which will cost about \$2,000,000, as monuments to engineering skill and progressive public spirit.

A five-day Fiesta eclipsing any civic celebration ever attempted in San Francisco will commemorate the dedication of the giant span arching the Golden Gate. Mexico and Canada and all the western States will join with the hostess city and the counties of the Redwood Empire of northern California in observing the occasion.

#### PEDESTRIANS TO HAVE DAY

For eleven days, San Francisco will indulge in revels, pageantry, parades and civic demonstrations—thrilling shows on land, on water and in the air.

Before the opening day of the Fiesta proper on May 27, there will be a preholiday program consisting of a ceremony of blessing the bridge on May 23, a Radio Stars Show in the Civic Auditorium Tuesday night, May 25; a city-wide luncheon at the Palace Hotel on May 26 and a Queen's Coronation ball that night at the Civic Auditorium.

Pedestrians will have their day on May 27, when no vehicular traffic will be permitted on the huge span. This will mark the opening of the Fiesta.

A highlight of the Fiesta will be the mobilization of cavalcades originating in Canada, in Mexico and western States and joining at the bridgehead on the Marin shore on May 28, the day of the bridge dedication.

FLEET WILL PARTICIPATE

On that date the United States Ba. tle Fleet will arrive from Pacific maneuvers with approximately 50,000 officers and men to participate in the celebration.

In Crissy Field in the Presidio a huge amphitheater is being created for the staging of an historical pageant, telling the story of the upbuilding of California, with a cast of 3000 actors and singers and an orchestra of 100 musicians. Seating accommodations will be provided for 25,000 persons.

Four of the greatest parades San Francisco has ever seen will brighten the Fiesta. Floats of rich and novel design will lend color to the spectacle, with entries scheduled from all the western States and from foreign countries. Bridge workers will be in the line of march. The Army and the Navy will lend to the parades the martial dignity of national participation. These parades are for Thursday, May 27, May 28, the night of May 29, and Memorial Day, May 31. Grandstands will be ready along the line of parade.

#### HONOR FOR BRIDGE HEROES

Those who lost their lives building the bridge will be remembered at a simple ceremony of religious nature on Memorial Day at the center of the bridge with the children of all the schools, public, private and parochial, dropping flowers into the bay. Of a more material nature will be the Labor Ball of May 29 at the Civic Auditorium, the net returns of which will be given to the families of those who lost their lives building the bridge.

A sports program of infinite variety will run all through the Fiesta period.

For many weeks preparations for the Fiesta have been in progress under the direction of a committee of which Supervisor Arthur M. Brown, Jr., is chairman, and Eric Cullenward general manager. Through them San Francisco invites the world to be her guests for eleven days beginning May 23. The main center span of the Golden Gate Bridge is the largest single span of any suspension bridge in the world. It is 4200 feet long, 700 feet longer than the George Washington Bridge over the Hudson River.

#### GIANT TOWERS

Its two giant towers, one off San Francisco's Presidio shore and the other on the Marin County bluff to the north, are 746 feet high, 313 feet taller than the Russ building on Montgomery Street in San Francisco.

The minimum vertical clearance at center is 220 feet above mean high water; the maximum clearance is 236 feet above mean low water—the greatest navigation clearance in the world, far above the mast height of any ship afloat or building.

The total bridge width is 90 feet, divided into a 60-foot roadway, with six lanes for vehicular traffic and two  $10\frac{1}{2}$ -foot clear width sidewalks.

The grand total length, including the two approach roads, or from Waldo Point in Marin County to the Marina Gate of the Presidio in San Francisco, all embraced in the project, is seven miles.

There are two side-spans—1125 feet each—and if these are added to the 4200 feet of the main center span, there is a total length of the bridge proper of 6450 feet, or one and one-fifth miles.

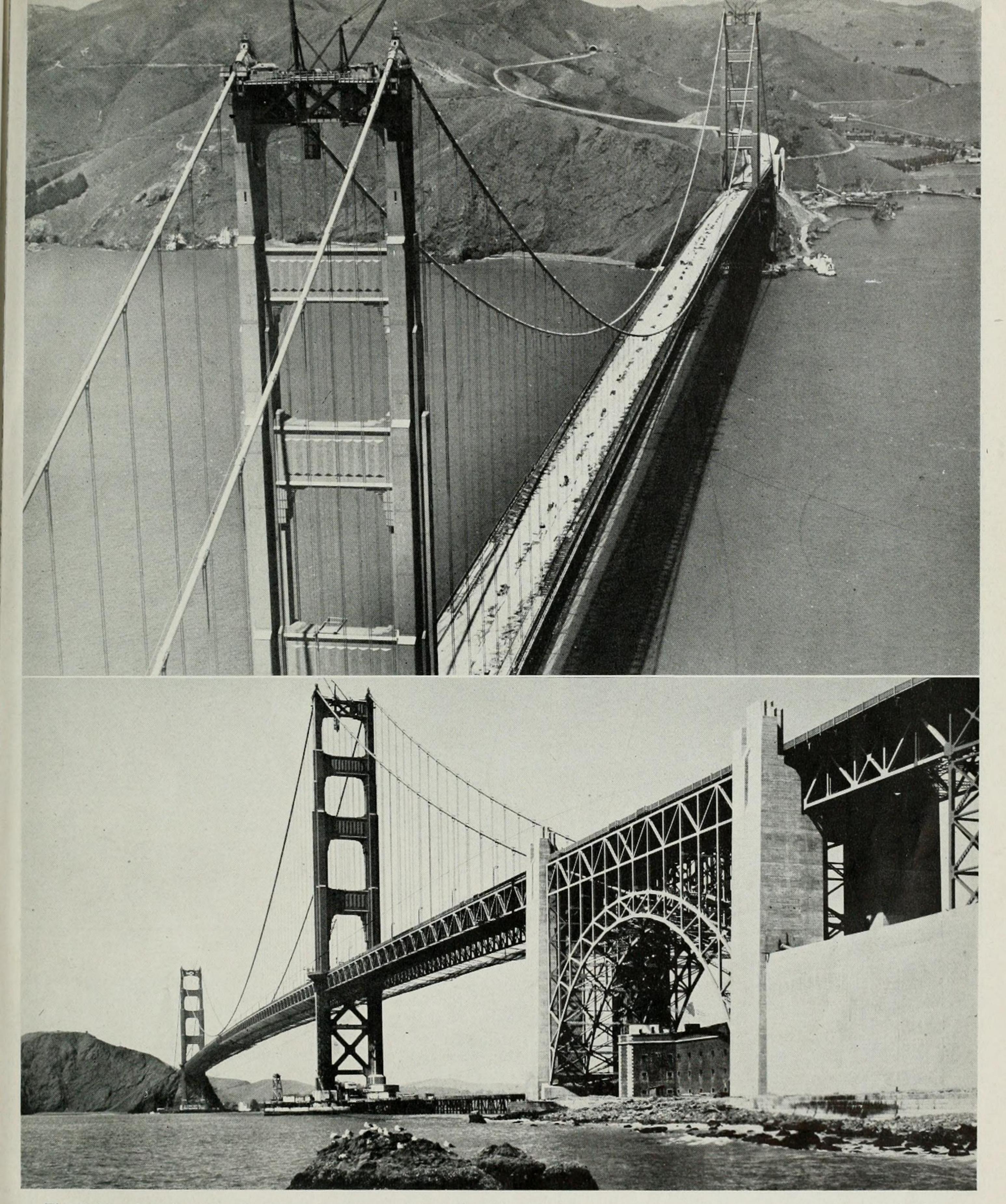
#### SIX COUNTIES BACK PROJECT

In the initial plans for the Golden Gate Bridge there were two features that aroused controversy.

First, the unprecedented length of span—4200 feet, or more than twice as long as that of any other bridge that had been erected up to the time when the plans were first made; and second, the problem presented in building the south pier, 1100 feet off shore, in water varying from 65 to 100 feet in depth and subject to extreme storm and tidal conditions.

Confident that the bridge could be built, six counties banded together to form the Golden Gate Bridge and

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The Golden Gate is bridged! Upper photo is an aerial view of world's longest suspension span showing Waldo approach on Marin side, built by State, winding from northern bridgehead over mountain and through tunnel leading down to Waldo Point. Lower photo shows sweep of bridge from San Francisco side. Historic Fort Mason appears under arch span in foreground.

# Marin Approach to Golden Gate Bridge Built by State

By EARL LEE KELLY, State Director of Public Works

TITH the completion of the Golden Gate Bridge, California motorists can view with justifiable pride their proprietary interest in this great undertaking.

They may drive on to the world's largest and longest over-water suspension span from the Marin shore over a highway approach they themselves built with the monies they contributed to the gasoline tax fund. And in doing so they will travel over one of the biggest single projects for road construction ever entered into by the Division of Highways.

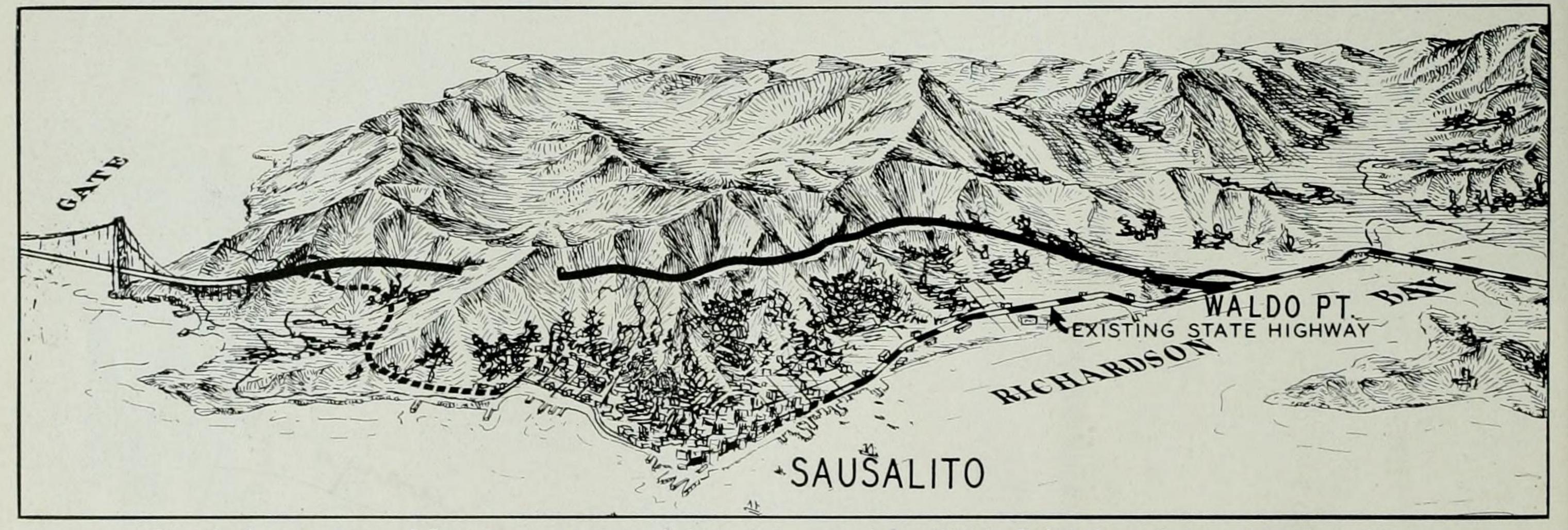
The State of California, through the Department of Public Works, will sion for eventual free tolls in the financing of the Golden Gate Bridge is in keeping with the purpose of the State to make all California highway bridges free for the use of the motoring public that pays for them through their gasoline taxes.

Final action providing for the construction of an adequate highway approach on the Marin side of the bridge was taken by the California Highway Commission on January 3, 1936, when that body allocated the sum of \$1,250,000 to supplement the \$500,000 budgeted for that purpose in the budget for the 87th–88th fiscal years.

000 cubic yards by more than 700,000 cubic yards has borne out the soundness of the engineer's original plan.

With this amount of \$1,750,000 available, the Department of Public Works awarded two contracts for the work.

One provided for grading a roadbed 46 feet and 66 feet wide and placing plant mix surfacing on crusher run base 42 feet and 62 feet wide on an alignment through the hills in back of Sausalito. The new road connects with the existing Redwood Highway at Waldo Point near the Richardson Bay Bridge and is about three and one-half miles long.



Sketch shows course of State's approach to Golden Gate span from Waldo Point through tunnel to the bridge.

have expended approximately \$2,000-000 for the Waldo approach to the Golden Gate Bridge. An outstanding engineering job, this northerly approach is the State's share of a monumental achievement.

#### TOLL FREE IN FUTURE

It will come to its complete fruition in the service of the people and the development of the great Redwood Empire of northern counties when this bridge becomes toll free at the expiration of the bond payment period. The inclusion of this provi-

Construction of this project was planned originally on the basis of a three-lane pavement, as it was felt that the potential slides were of such magnitude that the necessary excess excavation due to slide removal would develop sufficient material to provide for a four-lane width.

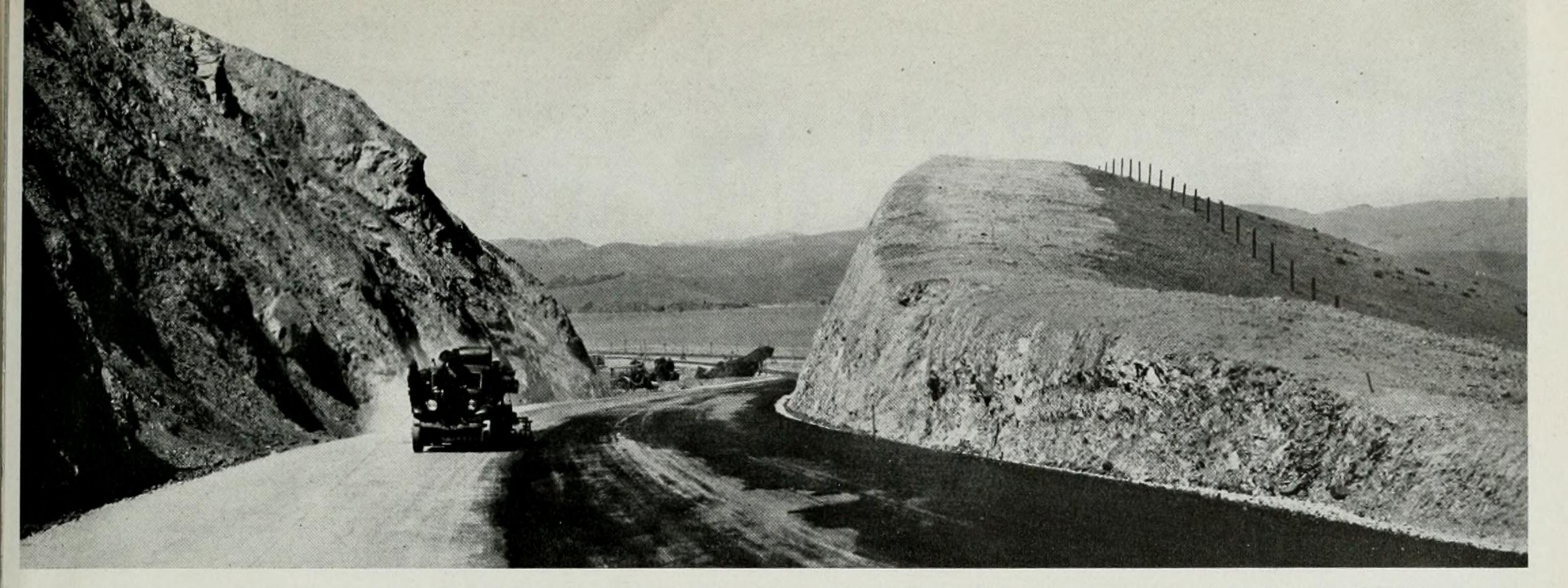
#### PLANS CHANGED

After much local discussion, however, plans were changed to provide for initial construction of a four-lane width. That slide excavation has increased the original estimate of 1,813,- The other contract provided for the boring and lining with reinforced concrete a tunnel about 1000 feet long and a bore 28 feet 9 inches high on the center line. The roadway width in the tunnel is 42 feet and one sidewalk, 42 inches wide, is provided.

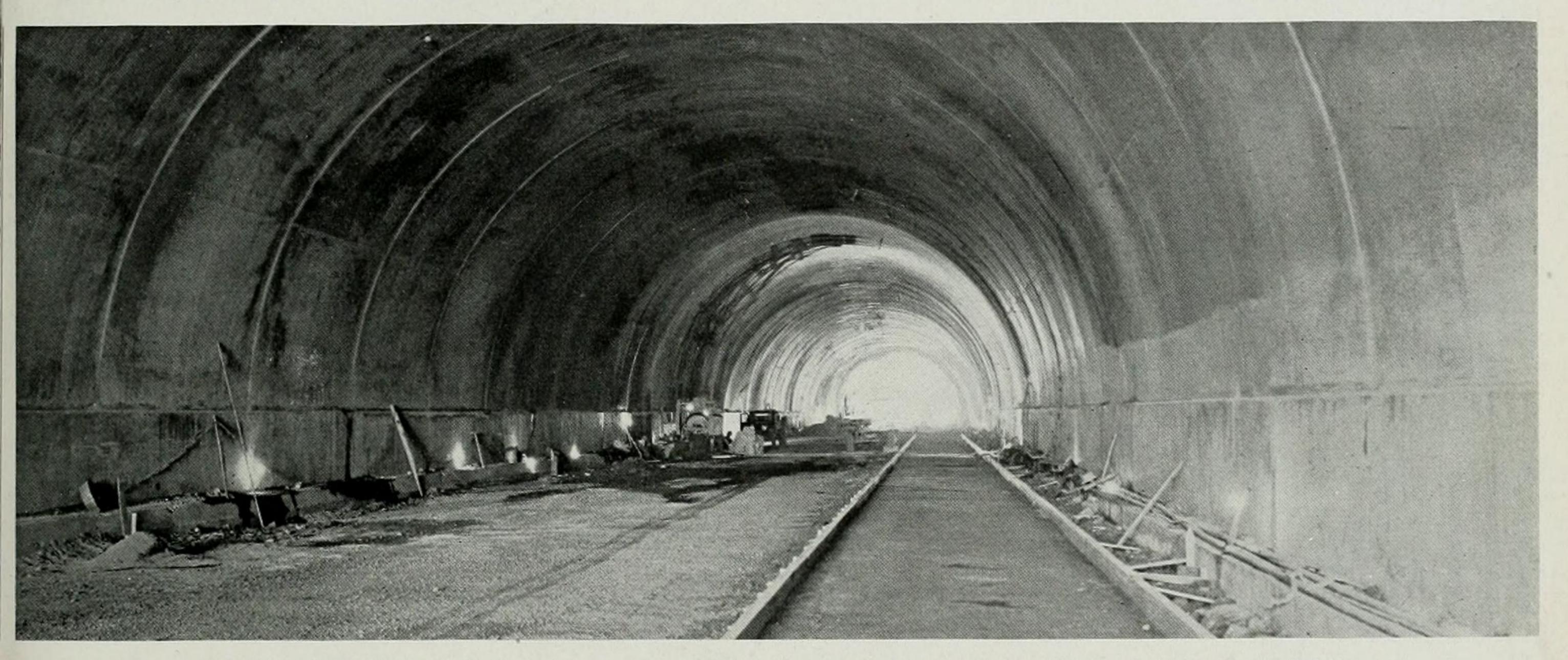
#### DIFFICULT CONSTRUCTION

The difficulties of construction of the four-lane Marin approach highway are not readily apparent. Mountainous highways have been built elsewhere, but have generally been limited

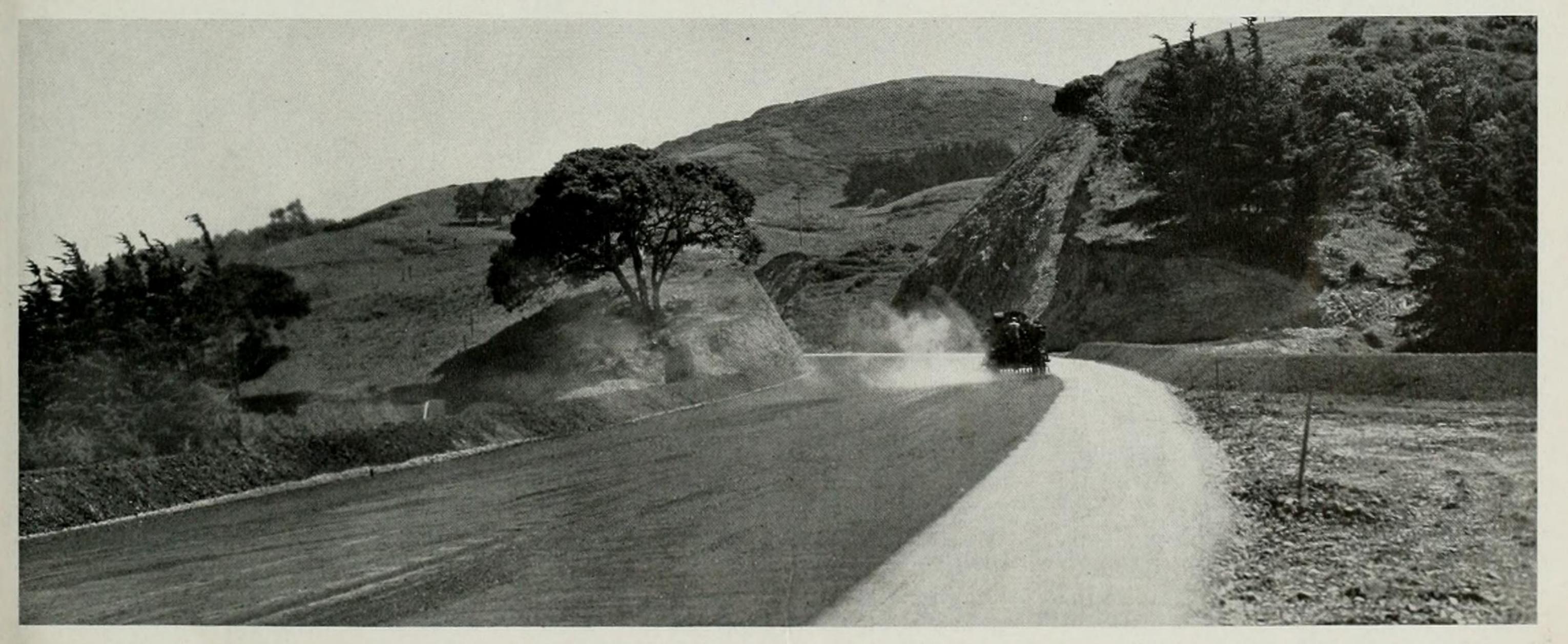
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Waldo Approach looking down grade toward Richardson's Bay and junction of new road with State Highway at Waldo Point.



Interior view of State-built tunnel on mountain stretch of Marin approach to Golden Gate Bridge.



Finishing touches being put on section of new \$2,000,000 State Highway leading to Golden Gate Bridge.

# Work on Presidio Approach to Golden Gate Bridge Speeds Up

By T. E. FERNEAU, Resident Engineer

ARLY in 1935 negotiations were started to obtain a permit for constructing an approach to the Golden Gate Bridge through the Presidio of San Francisco. The Golden Gate Bridge and Highway District and the city of San Francisco conducted these early negotiations, while the Division of Highways took no active part. Early in 1937 it was agreed that the work should be done by the Division of Highways and negotiations with the military authorities were assumed by the Division. The greater portion of the negotiations were carried on personally by Col. Jno. H. Skeggs, District Engineer of District IV.

Many major and minor difficulties had to be met and dealt with before the U. S. Army authorities issued a permit on July 27, 1938, allowing construction of the highway within the Presidio.

The new approach is to extend from the intersection of Lake Street

and Park-Presidio Boulevard on the south side of the Presidio to the Marina approach to the Golden Gate Bridge. The length of the main approach is 1.44 miles, but with the addition of two off ramps and two on ramps at the bridge connection the length will total 2.10 miles. Of this length 2.03 miles are located within the Presidio boundaries.

#### APPROACH IS FREEWAY

A requirement of the Army permit is that the approach be a freeway through the Presidio with no access except at the termini.

In two instances where Presidio roads cross the new alignment, relocations of the roads are to be made passing under the new viaducts. Right of way is limited to toe of slope in cuts, top of embankment in fill, exterior faces of retaining walls and outer railing of viaducts. However, the Division of Highways is required to plant and permanently

maintain all slopes outside the actual right of way lines. Title to ground underneath all viaducts and over a section of road in tunnel remains with the Army.

Distribution and segregation of traffic from the new highway to and from the Marina approach to the Golden Gate Bridge is to be handled by two on, and two off ramps, all of two-lane roadways. These distribution roads permit vehicles coming from any direction to turn towards their ultimate destination without crossing another traffic stream. No pedestrian facilities will be provided, although it is necessary to construct two pedestrian underpasses for relocations of the sidewalk on the existing Marina approach to the Golden Gate Bridge.

COST IS \$1,500,000

Financing is provided from gas tax funds and a PWA grant of \$800,000 accepted by the State on August 19, 1938.

General view of main Funston Avenue approach to Golden Gate bridge through Presidio looking south from intersection of all traffic distribution ramps.





Erecting steel form jumbo preparatory to pouring arch for tunnel under Presidio golf course and Washington Boulevard.

The cost of the entire project was originally estimated at \$1,789,100. Savings of nearly \$330,000 have been made in bids on four contracts to date, and it now appears that the completed project will cost less than \$1,500,000.

The various phases of construction have been divided into units as

follows:						
	Per cent					
		com- plete	Estim			
Type of		May 27,				
work	Contractor	1939	Dat	e		
Grading and 1300 ft. of tunnel	Macco Construc- tion Co.	31	Dec.,	1939		
Three via- ducts total- ing 1288 ft.	Union Paving Co. "A," "B" and "C"	20	Dec.,	1939		
Highway underpass— 2 pedestrian underpasses	M. J. Lynch "D," "G" and "H" and Viad. "E"	0	Dec.,	1939		
238 ft. viaduct	Union Paving Co. Viad. "F"	6	Nov.,	1939		
Paving entire project	Not under contract	0	Feb.,	1940		
Land- scaping	Not under contract	0	Mar.,	1940		

1300-FOOT TUNNEL

A unique feature of the work is a 1300-foot 4-lane tunnel being constructed by the open cut and backfill method. The material taken from the tunnel cut was used to overload a section of fill on marshy ground skirt-

ing the edge of Mountain Lake. The fill was built up nearly twenty feet above grade, resulting in displacement of the marsh mud until the highway fill now rests on firm foundation. The material thus stock piled as overload will later be used to back-

## Governor Olson Accomplishes a Reduction in Toll Rates on San Francisco-Oakland Bridge

(Continued from page 2)

bridge in May was 47,352 continuing the definite trend of increased truck travel noticeable during the past year. May also showed an increase over the previous month in the amount of freight transported over the bridge with 59,345 tons as against 54,830 tons for April.

Revenues for the month of May amount to \$439,738.42. The report also revealed that a total of 153,424 vehicles traveled to Treasure Island via the bridge. Traffic from San Francisco to the island totaled 80,606 and from the east bay 72,818. May traffic totals and comparative figures are as follows:

	April, 1939	May, 1939	Total, 1939	Total since opening
Passenger Autos and Auto Trailers	767,327	761,650	3,608,572	21,316,244
Motorcycles and Tricars	_ 3,467	3,759	15,906	102,805
Buses	_ 8,270	8,929	40,872	288,506
Trucks and Truck Trailers	_ 44,790	47,352	299,763	989,662
Toll vehicles	823,854	821,690	3,895,113	22,697,217
Passes	_ 25,463	26,235	124,825	383,910
Total vehicles	_ 849,317	847,925	4,019,938	23,081,127
Extra passengers	296,604	317,347	1,312,671	6,061,306
Freight tons	_ 54,830	59,345	303,823	1,214,953



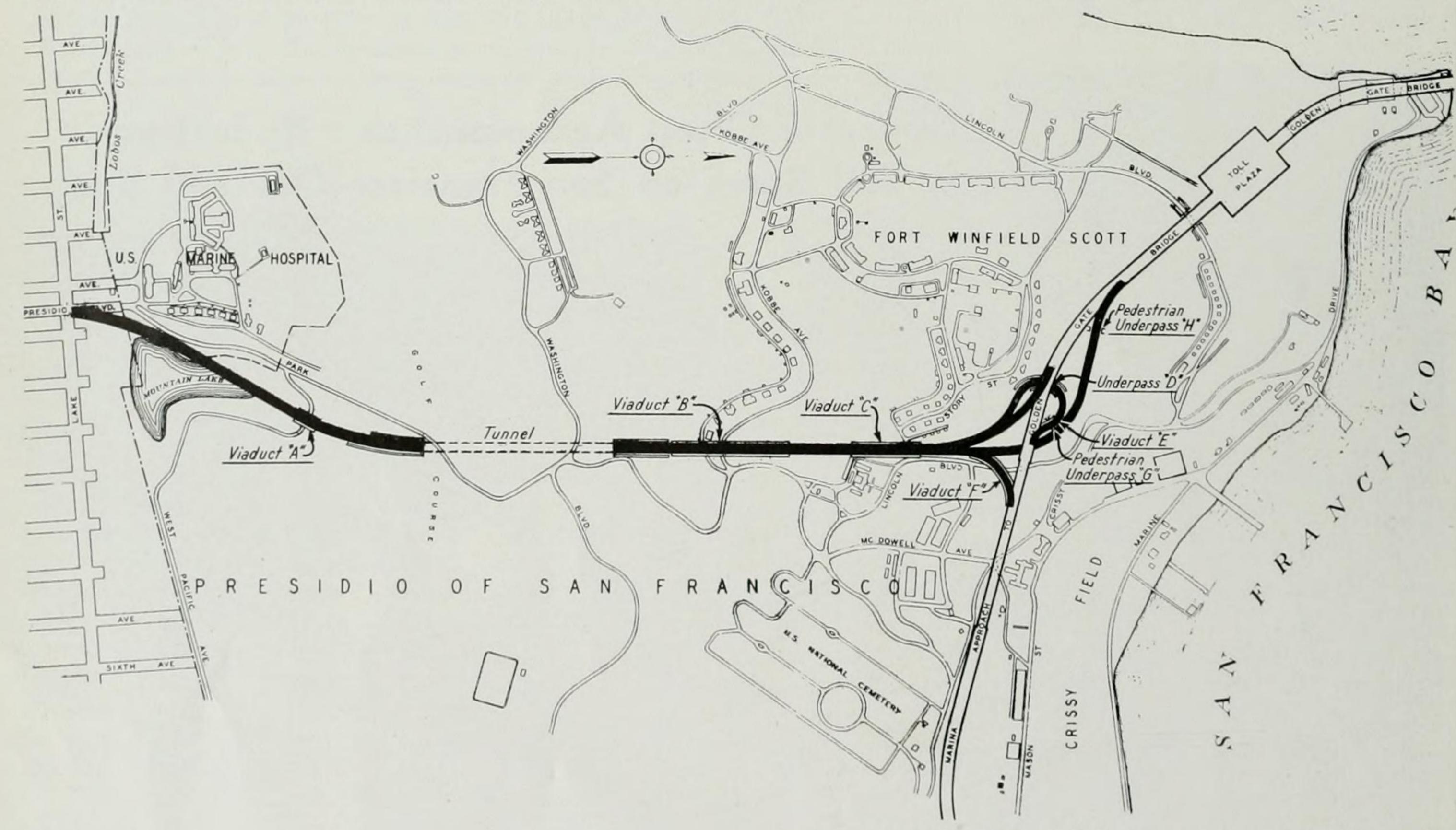
Pouring tunnel sidewall blocks. The tunnel, 1300 feet long, is being constructed by open cut and backfill method.

fill the tunnel and tunnel retaining walls.

The length of this tunnel, 1300 feet, approaches the practical limit of

length without requiring forced ventilation equipment. The odorless but noxious carbon monoxide gas from automobile exhaust can not be per-

mitted to exceed concentrations of 4 parts in 10,000 for any extended period of time. It is very doubtful if gases would ever be present in this



(June 1939) California Highways and Public Works

tunnel in dangerous concentrations, but ventilation is provided by a 24-foot by 24-foot shaft to the surface about midway of the length. If ever found necessary, exhaust fans will be placed in this shaft to provide forced ventilation by drawing fresh air in at both portals and exhausting it up the shaft.

NO DRAINAGE FROM HIGHWAY

Another unusual feature of the project is that no drainage from the highway can be permitted to flow onto the Presidio grounds or into any of the existing Presidio facilities.

This limitation necessitates construction of a master drain system which carries all drainage water to Mountain Lake at the south end of the project and to the San Francisco Bay at the north end. Across the various viaducts the drainage is carried in special pipes suspended beneath the deck.

Viaducts are of reinforced concrete construction. All are designed as rigid frame continuous girder types.

The roadway from the beginning of the project at Lake Street to the first viaduct, a distance of 1500 feet will have two 24-foot lanes separated by a center parting strip 6 feet wide. From there to the traffic distribution roadways the roadway, including viaducts, will have two 22-foot lanes separated by a center parting strip

### A Good Samaritan

May 13th, 1939

Mt. Hermon, California

The Division of Highways Sacramento, California My Dear Sirs:

Just a kindly word of commendation for the foreman of your San Lucas division who today found two elderly people in trouble with their car and unable to adjust themselves. He corrected the trouble and soon had them on their way, and flatly refused any compensation for the splendid help rendered. Therefore we desire again to thank a man whose name we do not have. Also the higher ups who select such men to service.

Sincerely yours,
MR. and MRS. A. R. TAYLOR
Mt. Hermon

18 inches wide. Except through the tunnel and across viaducts, shoulders 9 feet 6 inches wide will be provided.

The traffic distribution roadways including structures will have a road-

way width of 24 feet between curbs.

An interesting feature of the work is caring for golf course facilities near the tunnel cut. Two tees and one green were moved to temporary locations away from the work and a foot bridge for the golfers was constructed over the tunnel cut. These facilities must be returned to their original location after the tunnel backfill is completed.

Progress on the work has been good. Grading work is nearly completed. Foundation work for all viaducts is nearly completed and superstructure construction is in progress. At the tunnel, footings and sidewalks are completed and pouring of the concrete tunnel arch is scheduled to start immediately. The arch will be poured by using steel form jumbos, traveling on rails. These form jumbos are now being erected in preparation for the first arch pour.

At present, about 275 men are regularly employed at the site of the work and it is expected this force will be increased as additional units of work are placed under contract.

Approximate quantities of major items and materials which will be used for the entire project are:

Roadway Excavation \_\_310,000 cu. yds.

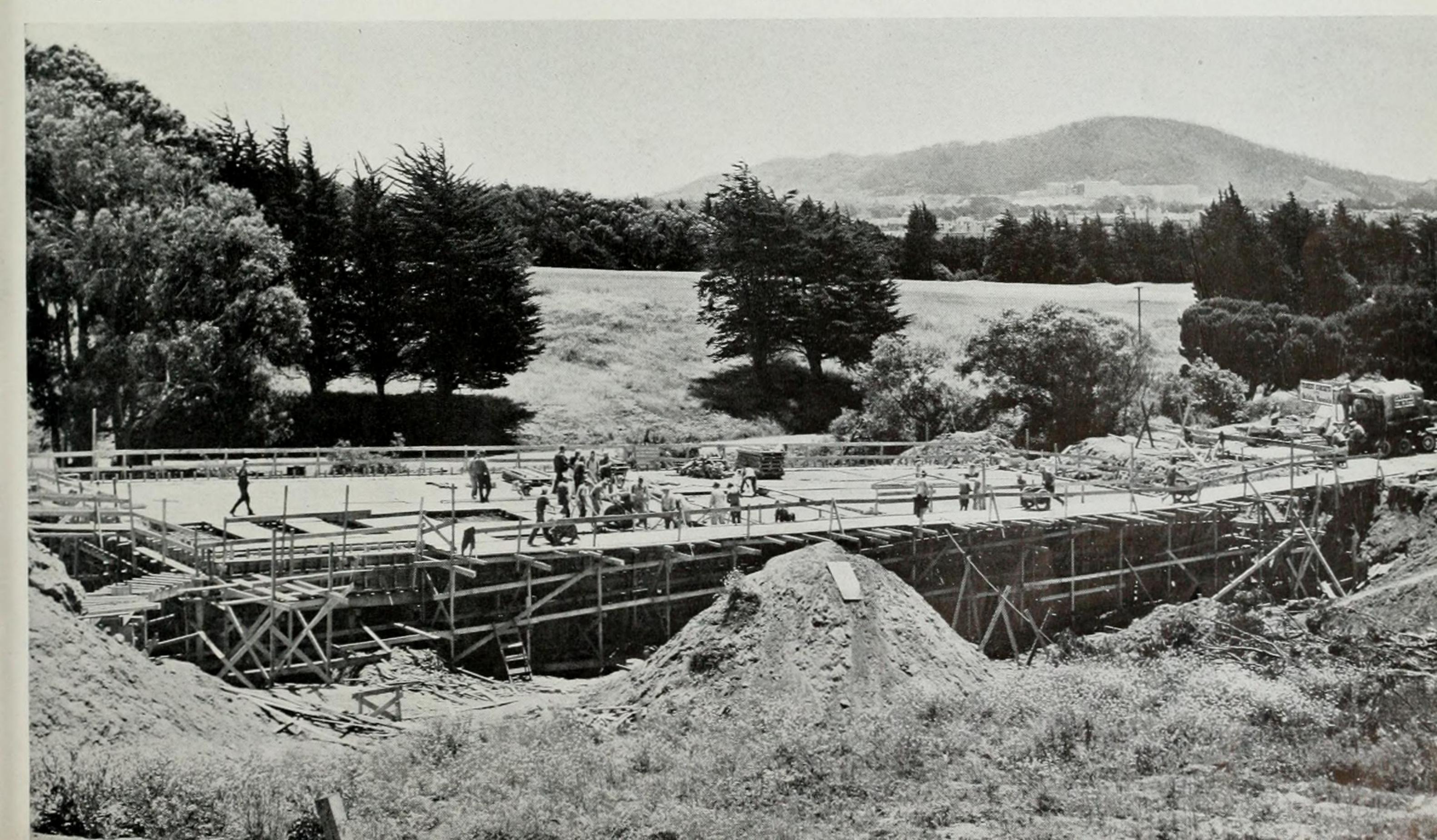
Concrete \_\_\_\_\_ 40,000 cu. yds.

Reinforcing Steel \_\_\_\_ 2,500 tons

Crusher Run Base\_\_\_\_ 10,000 tons

Drainage Pipes \_\_\_\_ 21,000 lineal feet

Pouring last section of the deck of Viaduct "A" which carries the approach highway over West Pacific arterial in the Presidio.



## Waldo Project Golden Gate Bridge Freeway Is Opened

WITH ALL branches of the armed services participating, the Redwood Empire Association staged a spectacular dedication of the new Golden Gate Bridge Freeway celebrating the opening on March 20 of the additional westerly freeway tunnel just to the north of the Golden Gate Bridge.

Many dignitaries from the Redwood Empire counties, federal and state officials, headed by Lieutenant Governor Harold J. Powers, Director of Public Works Frank B. Durkee, George T. McCoy, State Highway Engineer, B. W. Booker, Assistant State Highway Engineer, Secretary of State Frank M. Jordan and Chelso Maghetti, Secretary of the Highway Commission, participated in the dedication. Bands from the 6th Army with headquarters at San Francisco, and the Hamilton Air Force provided stirring music for the occasion. Jet bombers from the 349th Fighter Bomber Wing broke the barrier in the air above the tunnels while a 49ton army tank crashed through the barrier on the ground to the accompaniment of salutes from a battery of army cannon.

Vice President Dan E. London of the Golden Gate Bridge and Highway District acted as master of ceremonies, assisted by Committee Chairmen Thomas P. Ludcke and Ted Huggins. Among the speakers were Powers, Durkee, McCoy, Highway Commissioners James A. Guthrie, San Bernardino; H. Stephen Chase, San Francisco; Robert E. McClure, Santa Monica, and Robert L. Bishop, Santa Rosa, former Highway Commissioner Walter Sandelin, Ukiah; Reed W. Robinson, President of the Redwood Empire Association, George P. Anderson, President, and James Adam, General Manager, of the Golden Gate Bridge. Sydney Kesser represented Mayor George J. Christopher of San Fran-CISCO.



LT. GOV. HAROLD J. POWERS

At the conclusion of the celebration an auto caravan took officials and guests to Bermuda Palms in San Rafael for luncheon. State officials and highway commissioners went on to Santa Rosa where Commissioner Bishop was guest of honor at a civic dinner sponsored by the Chamber of Commerce. Bishop is the newest member of the highway commission, recently appointed by Governor Knight.

The very successful celebration was organized by Clyde Edmondson, general manager of the Redwood Empire Association and his staff.

Financing of the new unit of the Empire's \$400,000,000 system of all-year highways is being done largely by the Golden Gate Bridge and Highway District, which is participating to the extent of \$5,000,000. The remaining \$750,000 is from the State Highway Fund.

Some 2,000,000 cubic yards of earth were used for fills on the freeway. Engineers of the State Division of Highways estimate that it would require 300 trains, each with 100 cars, to transport that quantity of dirt.

#### **Huge Fills**

Earth for the fills was obtained from excavations of the widened free-way, the borings of the new tunnel and from the sizable mound that remained at the north end of the Golden Gate Bridge after the original approach was built. Earth and rock from the mound was also used, after a special treatment, as a new base for the reconditioned original approach.

The A. G. Raisch Co., San Rafael, which had a \$1,320,000 contract for relining the new tunnel, reconditioning the old tunnel and the final paving of the new and old approaches, subcontracted the tiling work to the Mills and Hinz Tile Co., San Francisco, and the Rigney Tile Co., Oakland.

Some 120,000 square feet of clincher-back tile was used in fully tiling the new 1,000-foot tunnel and partially tiling the original tunnel. Tile for the job was made by Gladding McBean and Co., San Francisco, the only firm on the Pacific Coast to make this type of tile.

#### Tiling of Tunnel

The subcontractors employed 21 tile setters and 21 helpers on the tunnel jobs which required three and a half months to complete and which cost \$150,000.

The tile setters worked from an especially-built scaffold on wheels which permitted them easy access to all points of the tunnel arches. Tiling on the old tunnel extends upward four and a half feet. Above this tiling is a network of pipes designed to take care of leakage. A strip of tiling 17 inches wide extends along the two strings of tunnel lights in the old tunnel to permit an easy tie-in if it is decided to complete the tiling at some future date.

#### Traffic No Longer Impeded

With the completion of the project, traffic over what was known as Waldo Grade no longer will be impeded

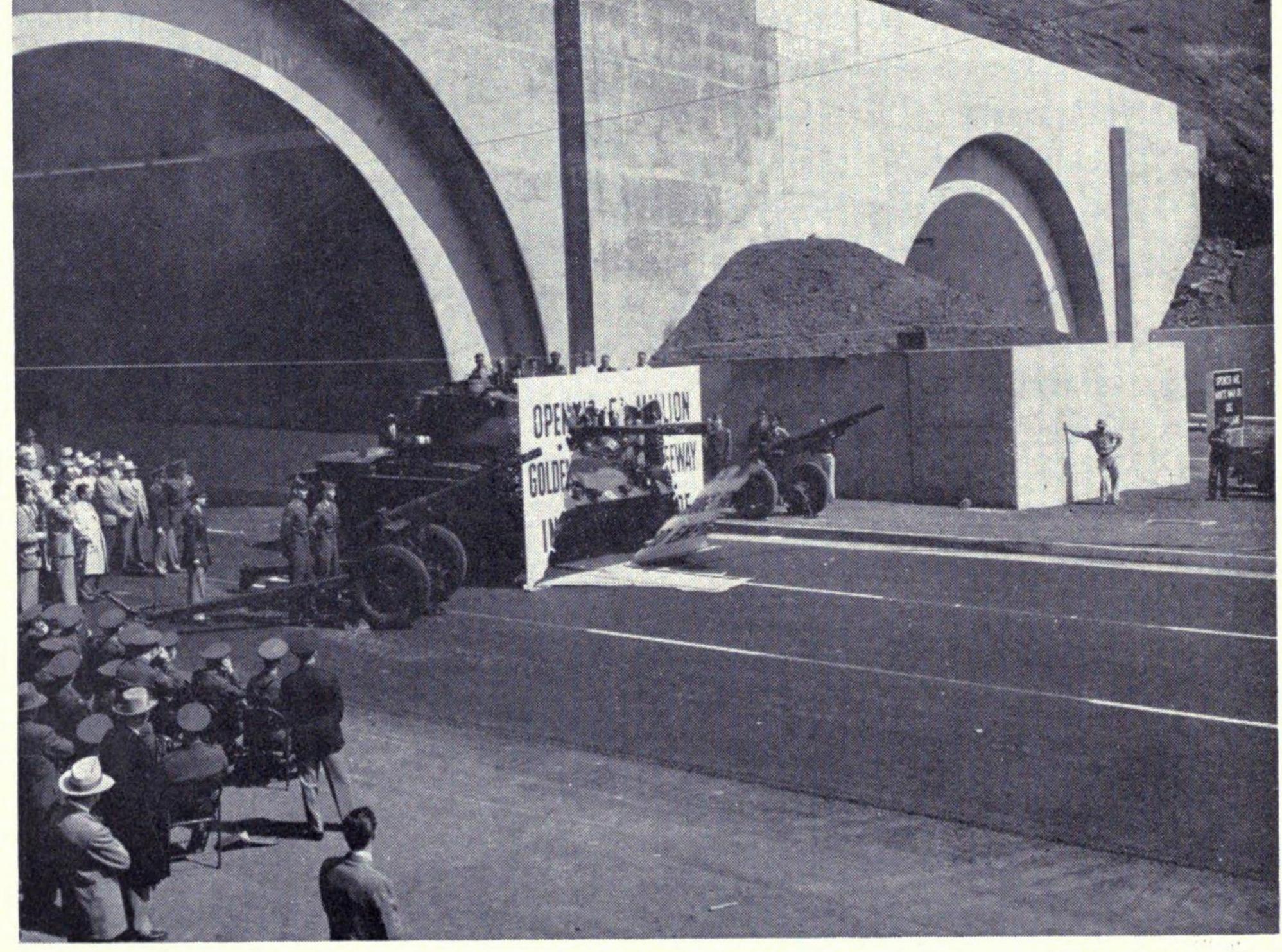
and Public Works



greatly by slow-moving vehicles. Engineers of the State Division of Highways say that the six-lane freeway will assure a much smoother flow of traffic up the grade and will, additionally, increase the safety factor for motorists.

The new tunnel, which cost \$1,-750,000 and which has been handling two-way traffic pending reconditioning of the old tunnel and approach, will accept only northbound traffic with the reopening of the old tunnel. However, the full capacity of traffic flow will not be immediately utilized, for the pavement in the easterly tunnel will be resurfaced lane by lane.

The original four-lane approach, which handled two-way traffic and which now is converted into a three-lane artery for southbound traffic, was opened in 1937. The original approach was built at a cost of \$1,226,-



UPPER—Aerial view of twin tunnels looking northerly, showing Golden Gate Bridge Freeway as it emerges from north portal. LOWER—Army tank crashes through barrier, signalizing freeway opening on March 20.

130, exclusive of the old tunnel which cost an additional \$630,346.

The old and new approaches which now combine to form the Golden Gate Freeway have a total cost of more than \$8,000,000. Thus the four miles of highways, including the twin tunnels, cost an average of \$2,000,000 per mile to build. The freeway extends from the northern end of Golden Gate Bridge to a point a short distance beyond the bottom of the Waldo Grade.

#### Two Viaducts Built

The greatest fill on the new free-way was made near the crest of the grade, where 500,000 cubic yards of earth were dumped to provide a foundation for the widened highway. As the fill was built upward, it was tamped repeatedly with sheeps-foot rollers to settle the earth. A 50-ton roller was used to pack solid the top few feet of the fill to make a firm base for the highway.

Another substantial chunk of earth, about 242,000 cubic yards, was needed for the fill in the canyon where the Fort Cronkhite tunnel was extended 108 feet in order that the added footage might be built up to accommodate the widened highway at this point.

Just to the north of the tunnel, it was necessary to construct two viaducts over which the northbound lanes of the freeway pass. Engineers pointed out the terrain at this point was too steep for a fill.

As a safety measure, the north and southbound traffic lanes have a median dividing strip extending from the northern end of the Golden Gate Bridge to the bottom of Waldo Grade. The strip ranges in width from 6 to 16 feet and is six inches high at the curb. Additionally, there are guard rails, made of metal plate, at points of potential danger.

Work on the most vital traffic link with the Redwood Empire—the \$35,-000,000 Golden Gate Bridge—began about 23 years ago, on January 4, 1933. The bridge was opened to pedestrian traffic on May 27, 1937, and a day later to vehicular traffic.

### Employees Receive Twenty-five-year Awards

Employees of the Division of Highways who became eligible for 25-year awards during December, 1955, and January-February, 1956, are:

Name		Total service Yrs. Mos. Days		Name		Total service Yrs. Mos. Days		
ELIGIBLE ON December 31, 1955				ELIGIBLE ON January 31, 1956				
District III Stout, William C	25	0	28	District VII Wakefield, Allen N	25	0	3	
District IV Dake, Fred	25	0	15	District VIII  Denny, Earl C  Lloyd, John J	25	0	6	
District VII Harris, Paul M	25	0	16	District X		0	000	
District IX Holt, Herman	25	0	9	Barber, Tom	25	0	16	
Central Office  Baumgart, Walter M  Kerri, Gurne R	25 25	0	21	District XI Ellis, Jack A	25	0	28	
Shop 2	25	0	9	Central Office Balfour, Frank C	25	0	00	
Young, Homer  Headquarters Shop	25	0	30	ELIGIBLE ON February 29, 1956				
Hamlin, Harold H., Sr  Department of Public Works	25	0	29	District I Snook, Earl V	25	0	14	
Division of Contracts & R/W Vance, Mable A	25	0	22	District IV Levier, Gilbert W		0	21 23	
ELIGIBLE ON January 31, 1956				District VI Miller, Scott	25 25	0	15 13	
District I Paul, Bertus Leroy	25	0	16	District VII Verges, Raymond August Walsh, Joseph F	25 25	0	28	
District IV Davis, Dewitt D	25 25	0	21 20	District X Daniels, James B	25		4	
District V Lessett, Theodore			9	District XI Elliott, James B	25	0	15	

The six-lane bridge, now meshing with the six-lane freeway, was designed to accommodate more than 283,000 automobiles for a 24-hour day, and an estimated 70,000,000 automobiles and 6,000,000 trucks annually.

In 1936, vehicular traffic between San Francisco and Marin County was 1,654,741; these vehicles were transported by ferryboat. In 1947, some 10 years after the Golden Gate Bridge was in operation, vehicular traffic had climbed to 7,816,147. In 1955, the vehicular count was 13,952,329.

An all-time high in Golden Gate Bridge traffic is anticipated in 1956 as the population of the Redwood Empire continues to mount and the influx of tourists increases. The growth of traffic over the bridge is reflected in the figures for January when 1,036,-594 vehicles crossed the span, an increase of 72,630 over the same month in 1955.

#### KIND WORDS FROM MRS. HYATT

3634 Brockway Court Sacramento 18, California

DEAR MR. ADAMS:

Your January-February, 1956, copy of Public Works magazine is a priceless document — wonderful reporting of a terrible tragedy. You and your assistants can be congratulated, as can the State of California, for the heroic work done by the Public Works men.

Sincerely,
Delta Garst Hyatt
(Mrs. Edward Hyatt)

During the 1954-55 Fiscal Year 20 grade crossings on state highways were closed or abandoned by changes in highway alignment, construction of grade separations or abandonment of railroad tracks, and three new grade crossings were opened, making a total of 832 such crossings on state highways on June 30, 1955.