

Decision No. 23312.**ORIGINAL**

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of
 the City of Burlingame for an Order
 on the Railroad Commission of the
 State of California installing gates
 at the crossings of Oak Grove Avenue
 and Broadway, with the tracks of the
 Southern Pacific Company in said City.

Application No. 17013.

John F. Davis, City Attorney, for
 Applicant.

H. W. Hobbs, for Southern Pacific
 Company.

WHITSELL, COMMISSIONER:

O P I N I O N

The City of Burlingame, on November 15th, 1930, filed an application with the Commission requesting an order authorizing the installation of crossing gates at the crossings of Oak Grove Avenue and Broadway with the tracks of Southern Pacific Company in said city. On December 12th, 1930, an amendment was filed, asking that gates also be installed at Bayswater Avenue and Peninsula Avenue. This application also sought the retention of the existing left-hand crossing gates at Howard Avenue.

Public hearings were held at Burlingame December 20th and 26th, 1930, at which time it was stipulated that the record in Application No. 16563, hereinafter discussed, be considered in evidence in this proceeding.

Southern Pacific Company's double track main coast line traverses the City of Burlingame in a northwesterly and southeasterly

direction, crossing seven streets at grade. Sidings and spur tracks also cross certain of the streets. At the time the instant application was filed, these seven grade crossings were protected as follows:

Broadway, two wigwags, each equipped with second-train indicators;
Oak Grove Avenue, one wigwag and human flagman for twelve hours;
North Lane, human flagman for twelve hours;
South Lane, gates twenty-four hour operation;
Howard Avenue, gates twenty-four hour operation;
Bayswater Avenue, one wigwag;
Peninsula Avenue (center line of which marks the boundary between the Cities of Burlingame and San Mateo), one wigwag and human flagman for twelve hours.

The question of protection of the Oak Grove and North Lane crossings has recently been before the Commission in connection with Application No. 16563, which was filed by the City of Burlingame May 20th, 1930, seeking an order requiring the installation of crossing gates. By Decision No. 22857 in that proceeding, the Commission approved an agreement between Southern Pacific Company and the City of Burlingame, providing for Southern Pacific Company to install and maintain, at its own expense, manually operated crossing gates, for twenty-four hours daily, at North Lane and two rotating stop-flash light signals at Oak Grove Avenue, replacing the existing crossing protection at these two locations.¹

The city now asks that crossing gates, that is, the right-hand gates on each side of the track, be installed at each crossing through the city, except at Howard Avenue, where it is desired that the complete installation, both right-hand and left-hand gates, remain.

¹ This agreement between the city and the railroad also provided for the removal of the left-hand gates at both South Lane and Howard Avenue. These changes have been carried to completion, except as to the Howard Avenue crossing. The City of Burlingame also agreed to maintain, at its own expense, uniformed police officers at North Lane and Oak Grove Avenue during the time when students are going to and from the Burlingame High School, located to the east of the tracks between Oak Grove Avenue and North Lane, at about 9:00 A.M., noon and 4:00 P.M. each school day.

In support of the city's instant application, the Mayor and other city officials testified that in their opinion the installation and maintenance of crossing gates, as applied for in this application, would reduce the hazard to the vehicular traffic, as well as to the pedestrians crossing the tracks at these locations. It was pointed out by these witnesses that the motorists do not heed the warning of the wigwag signals and that Section 114 of the "California Vehicle Act"² was generally disregarded.

The city presented a report (Exhibit No. 2) of traffic conditions at the various crossings. The traffic at the several crossings, as shown by this exhibit, is briefly summarized as follows:

<u>Crossing No.</u>	<u>Name of Street</u>	<u>Date & Time of Check</u>	<u>Traffic over Railroad</u>	
			<u>Vehicles</u>	<u>Pedestrians</u>
E-15.2	Broadway	Monday, Nov. 18, 1929 7 AM to 7 PM	2,732	(Not counted)
E-15.9	Oak Grove Ave.	Friday, Dec. 13, 1929 7 AM to 7 PM	1,314	822
E-16.2	North Lane	Monday, Dec. 9, 1929 7 AM to 7 PM	1,355	1,708
E-16.3	South Lane	Wednesday, Apr. 2, 1930 7 AM to 7 PM	392	286
E-16.4	Howard Avenue	Tuesday, Nov. 26, 1929 7 AM to 7 PM	1,730	763
E-16.5	Bayswater Ave.	Wednesday, Mar. 12, 1929 7 AM to 7 PM	670	371
E-16.6	Peninsula Ave.	Tuesday, Mar. 25, 1930 7 AM to 7 PM	967	188

² Section 114 of the California Vehicle Act, as amended in 1929, makes it a misdemeanor for a driver of a vehicle to fail to bring the vehicle to a complete stop within fifty (50) feet but not less than ten (10) feet from the nearest railway track before traversing such grade crossing when a signal is being displayed indicating the immediate approach of a train or car.

The number of trains during the 12-hour period on the several days' check vary from 60 to 70, many of which were the commutation trains serving the Peninsula.

Southern Pacific Company protested the granting of the application, citing that the protection provided at the present time, together with the carrying out of the agreed modifications shown in said Decision No. 22857, will afford adequate and reasonable protection for each of the crossings involved herein, provided the motorists respect the warning and observe the law requiring motorists to stop before crossing a railroad when a danger signal is displayed. Witnesses for the railroad presented evidence showing that both the double wigwag and flash light installations have been approved as standard types of grade crossing protection by various organizations throughout the country, including the National Conference on Street and Highway Safety, held at Washington, D.C. in May, 1930,³ and that the statistics of the Interstate Commerce Commission show the tendency is to remove crossing gates throughout the United States and substitute wigwag and flash light signals for the protection of grade crossings, rather than to increase the number of new gate installations. The company's witnesses also cited that the improvement in the control circuits of crossing signals has resulted in marked improvement in this type of protection, in the

3 Section 4 of the Report of Committee on Protection of Railway Grade Crossings and Highway Intersections, National Conference on Street and Highway Safety, held at Washington, D.C., in May, 1930.

"(a) Automatic Train Approach Signals. At crossings on heavy traveled highways where there are sufficient intervals between train movements, either of the following standard visible warning signals should be installed:

- (i) A wigwag signal with a swinging target and red light.
- (ii) A flashing light signal with two red lights in a horizontal line 30 inches apart flashing alternately.

As adjuncts to other train approach warning measures, but not as substitutes therefor, bells or other audible signals may be used."

way of eliminating excessive operation of the signals.

The railroad has, after some delay, completed the installation of a rotating stop-flash light signal, with second-train indicators, at the Oak Grove Avenue crossing, at a cost of \$3,665., in accordance with the above mentioned agreement with the city. It has also rearranged the signal control circuit so as to eliminate excessive periods of operation of the new signal. The protection thus provided at this crossing appears to be reasonable and the Commission will not lightly set aside the agreement entered into by the parties in good faith and with the approval of the Commission.

The removal of the left-hand gates at Howard Avenue was approved by Decision No. 22857. The city, however, now seeks to have the left-hand gates retained and the railroad does not object to this request. The record shows that there are advantages, in the way of providing protection to the motorists, in either the removal or the retention of these gates; therefore, it is concluded to grant the city's request that the gates be retained, at least for the time being, and an appropriate supplemental order in Application No. 16563 will be issued.

There still remains for consideration the three other crossings involved herein; i.e., Broadway, Bayswater Avenue and Peninsula Avenue.

From a traffic standpoint, the crossing at Broadway is the most important one involved herein. The record shows that since the installation of the two wigwags with second-train indicators over two years ago, there has never been an accident at this crossing. This record, however, does not afford a basis for the conclusion that the crossing is free from hazard. It is apparent that in

view of the double track and frequency of train operation, the hazard at the Bayswater Avenue crossing, now protected by one wig-wag, would be reduced if protected by the same type of installation as that at Broadway. It would follow that the Peninsula Avenue crossing, likewise, should be protected by this type of signal to bring it up to a recognized high standard type of protection.

Pursuant to the request of the Commission in this proceeding, the carrier has submitted a statement showing the net cost of present installation and estimated cost of different proposed forms of protection at the three crossings now under consideration. These estimates have been summarized as follows:

TABLE I

Crossing	Type	Present Protection : Net Cost	Additional : Cost of Providing Two Wigwags*	Additional : Cost of Providing Automatic Gates
Broadway	2 Wigwags*	\$5,026.	-	\$2,645.
Bayswater Ave.	1 Wigwag	1,294.	\$4,085.	5,780.
Peninsula Ave.	1 Wigwag	1,544.	4,085.	5,780.
Total		\$7,864.	\$8,170.	\$14,205.

*Each equipped with second-train indicator.

From this statement, it will be noted that it would cost \$6,035. more to install automatic gates at these three crossings than it would cost to install double wigwag signals, equipped with second-train indicators, at the two crossings not now so equipped.

Each of the crossings involved in this proceeding presents a very real and important public hazard. In this respect they are like many others located not only in neighboring communities of the Peninsula but, also, generally throughout the state.

These Burlingame crossings all carry a fairly substantial volume of traffic across a high-speed, double-track railroad with frequent trains. The Commission proposes to do its utmost in seeing

that such crossings are given entirely adequate protection so far as possible within reasonable limits of cost.

It is recognized that the ideal method of eliminating hazard and delay at grade crossings is by means of grade separations. This method of treatment, however, requires the outlay of large sums of money which, under present conditions, cannot reasonably be financed on a wholesale program, either by the carriers or the communities. The record, by reference to the Grade Crossing Accident Report of 1929 of the Transportation Division of the Commission, shows that of 12,311 grade crossings in the state, over main and branch line railroads, there are only about 21 per cent protected with some special protective device.

In dealing with the question of additional grade crossing protection, consideration must be given to the entire problem throughout the state. The problem resolves itself in improving the grade crossing situation by spending the available money where the public will get the greatest benefit. It has been the policy of this Commission to require the railroads to bear the expense of installing wigwags at existing crossings where conditions appear to justify additional protection. If the railroad is required to provide special protective devices, costing more than standard devices, such as wigwags, naturally with the same amount of money fewer crossings can be safeguarded.

While the Commission is desirous of keeping abreast of improvements in grade crossing protective devices, it must not allow the influence of agents desiring to sell new special types of crossing protective devices to effect the replacing, on a large scale, of types of crossing signals of proven effectiveness by other devices

which are more or less in an experimental stage.⁴ The Commission, however, is agreeable to giving all new forms of protective devices, that appear to be promising, a trial. Such trial installations should be under various conditions, in order that we may judge the limitations of such devices. In those instances where conditions are such that new or different information may be secured from an experimental installation of a new form of signal or device, that has promise of bettering the grade crossing protection situation, it appears reasonable to require the railroads to share in the additional expense of such trial installations. This was the case at Alameda Street in the City of Burbank, where a trial installation of a yielding automatic gate was approved by the Commission, and likewise, in the City of Palo Alto, where a trial installation of a different type of yielding automatic gate has been approved for the protection of the Churchill Avenue crossing. In both of these cases, due to the fact that they were considered as experimental installations, the railroad was required to pay the major part of the cost and the respective cities were assessed \$1,000. to cover a portion of the added cost of installing automatic gates over that of two wigwags with second-train indicators. This division of cost is not to be taken as precedent in determining the proper apportionment of cost in other installations where it does not appear that any special information is to be gained from such a test. Each case will be determined in the light of the actual conditions found to exist at each location.

⁴ The record in Case No. 2649, wherein the City of Palo Alto asked for automatic crossing gates for Churchill Avenue, indicates that representatives of competing gate manufacturers are very active in urging the merits of their respective devices and this controversy actually contributed to a delay in affording that crossing adequate protection.

In addition to these trial installations of automatic gates, the Commission has under consideration other types of crossing protection, such as the rotating stop-flash light signal, installed at the Oak Grove Avenue crossing involved in this proceeding; also, different types of flashing light signals are being tried out without the rotating stop banner.⁵

When an installation does not give promise of furnishing new and different information as to the art of crossing protection, we do not believe we are justified in requiring the carrier to pay more than would be required if a proven type of installation were made. It does not seem proper to urge the spending of larger sums of money to be assessed to either the political subdivision or the railroad to carry out a program of duplicating experiments that may or may not result in an improvement over the present method of protecting grade crossings; however, if a city desires to assume the entire added expense for a special or different type of protection, the Commission feels it should not be prevented from doing so, provided it is reasonably probable that the special device will not result in increasing hazard to the traffic on the highway or the railroad. The railroad should, however, in such cases, participate to the extent of contributing an amount equivalent to the cost of providing a reasonably adequate standard protective device at such crossings.

The record in this proceeding shows that Section 114 of the California Vehicle Act is not generally enforced at grade crossings in the City of Burlingame, as is the case in many other cities in this state. I feel it is my duty to strongly urge an enforcement

⁵ East of the Mississippi, the predominating automatic crossing signal is the flashing light, while in the West the wigwag signal prevails.

of this law, as I firmly believe it would result in a material reduction in grade crossing accidents. It is appreciated that the city possibly cannot afford to keep an officer at each grade crossing continuously throughout the day but at least periodic checks by a traffic officer should be made to see that the public using the crossing observes the law, which, in turn, should materially reduce grade crossing accidents. The sacrifice of a few seconds required to comply with this law, by coming to a stop when a danger signal is displayed at a grade crossing, is a duty a driver owes not only to himself and those accompanying him, but also to others, having in mind the possibility of a train derailment. The Commission's Grade Crossing Accident Report of 1929 shows that approximately 85 per cent of all the accidents for the year occurred at grade crossings within municipalities. This emphasizes the importance of cities stressing the enforcement of laws such as Section 114 of the California Vehicle Act, looking toward a reduction in the number of grade crossing accidents.

After carefully considering the record in this proceeding, the following conclusions are reached:

1. With respect to said Decision No. 22857 and with particular reference to protection for the Oak Grove Avenue crossing, where the city agreed to a trial installation of a rotating stop-flash light signal and where the railroad, at its sole expense, has completed such an installation and where the city now asks that gates be installed, it does not seem reasonable that the Commission should change an order before the ink is dry except upon a clear showing that such a change should be made, which is not the case here. Decision No. 22857, therefore, should remain in full force and effect, except as specifically modified in that proceeding.

2. It appears reasonable that the railroad should be required to install and maintain, at its sole expense, the best demonstrated type of automatic protection at the Bayswater Avenue and Peninsula Avenue crossings; i.e., two wigwags with second-train indicators.

3. There appears to be no justification for an order requiring a trial installation of automatic gates at these crossings, to be borne largely at the expense of the carrier as was the case at crossings at Burbank and Palo Alto, as no new conditions are here encountered and the railroad should not be required to bear the expense of carrying on a duplication of experiments from which no different type of information can be expected.

4. If the City of Burlingame, for local reasons, desires to have trial installations of automatic crossing gates and is willing to bear the added cost over and above the cost of providing standard and proven protection, the Commission should permit such installations, provided a detailed study shows it is practical to install this type of crossing protection from a physical standpoint and, also, that the gates may be removed if they prove unsatisfactory.

5. If automatic gates are to be installed, the Commission should permit the carrier to select the type subject to the approval of the Commission, in order that the Commission will be in a position to require changes or the removal if conditions appear to justify.

6. The Commission should not show any favoritism to a party or parties controlling any patented device but must leave the field open to competition in order that the public will get

the benefit of the best product on the market.

The following form of order is recommended:

ORDER

Public hearings having been held on the above entitled proceeding, the matter being under submission and now ready for decision,

IT IS HEREBY ORDERED that

A. Southern Pacific Company shall provide yielding automatic gate protection at each or any of the following crossings in the City of Burlingame; Broadway, Bayswater Avenue and Peninsula Avenue, under the following conditions and not otherwise:

- (1) The City of Burlingame shall, within thirty (30) days from the date of this order, make available to Southern Pacific Company, or enter into a satisfactory agreement with that company for the payment of, the following sum or sums of money to cover the added cost of providing automatic gate protection over and above the cost of providing standard protection at the respective crossings where the city may elect to have automatic gate protection provided:

Broadway	\$2,650.
Bayswater Avenue	1,700.
Peninsula Avenue	1,700.

- (2) The City of Burlingame shall, if it elects to have automatic gate protection at the Peninsula Avenue crossing, secure the consent of the City of San Mateo for such protection on the southerly half of said street, lying within the City of San Mateo. Nothing herein contained shall prevent the City of San Mateo from contributing toward the cost of the gate protection herein assessed to the City of Burlingame, at said Peninsula Avenue crossing, in whole or in part.
- (3) Upon compliance with the above conditions, Southern Pacific Company shall:
 - (a) File with this Commission, for its approval, within sixty (60) days from the date of this order, plans for the installation of a particular type or types

of automatic gates at the respective crossings for which the city has selected gate protection.

- (b) Complete the installation of said automatic crossing gate or gates at the locations selected by the City of Burlingame within one hundred twenty (120) days from the date of this order.
- (c) Maintain, at its own expense, the automatic gate or gates constructed under this order.
- (d) Within thirty (30) days from the time the gates are placed in operation, file with the City of Burlingame and this Commission a detailed statement showing the actual expenditure at each location. In the event that the actual cost of installing such gates is less than \$2,645. at Broadway, \$5,780. at Bayswater Avenue or \$5,780. at Peninsula Avenue, the difference, as to the respective crossings, shall be returned to the city within a period of sixty (60) days from the time the gates are placed in service.

B. In the event the City of Burlingame does not comply with the requirements of Sub-sections (1) and/or (2) of Section A herein, with respect to the Bayswater Avenue crossing and/or the Peninsula Avenue crossing, Southern Pacific Company shall proceed forthwith, at its sole expense, with the installation of a signal, the details of which shall be approved by the Commission and the protection of which shall be comparable to that afforded by a double wigwag at each of these crossings, equipped with second-train indicators. The human flagman now maintained at Peninsula Avenue may be discontinued upon the completion and approval by the Commission of the installation directed herein for this grade crossing.

C. The Commission reserves the right to make such further orders in this proceeding as to it may seem right and proper.

and to revoke this order if, in its judgment, public convenience and necessity demand such action.

The effective date of this order shall be twenty (20) days from the date hereof.

The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of the State of California.

Dated at San Francisco, California, this 26th day of January, 1931.

C. S. Tracy
Leon Whitely
M. J. C.
M. B. Harris
Fred C. Stewart
Commissioners.