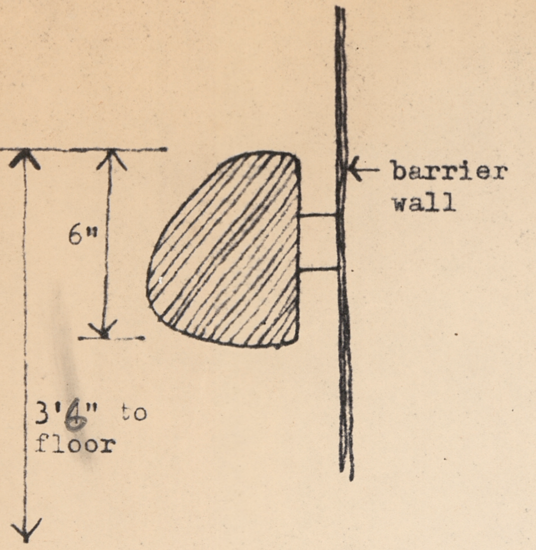
SYSTEM 65

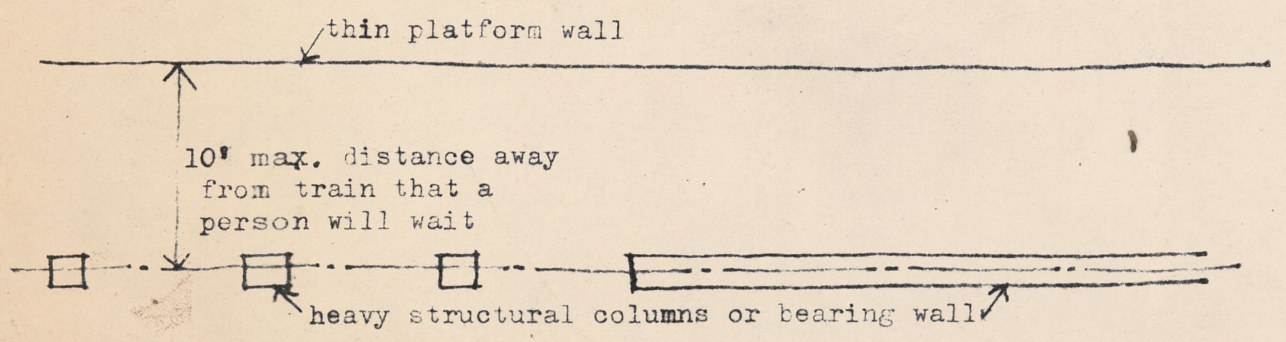
TRAIN VISIBILITY FROM PLATFORM

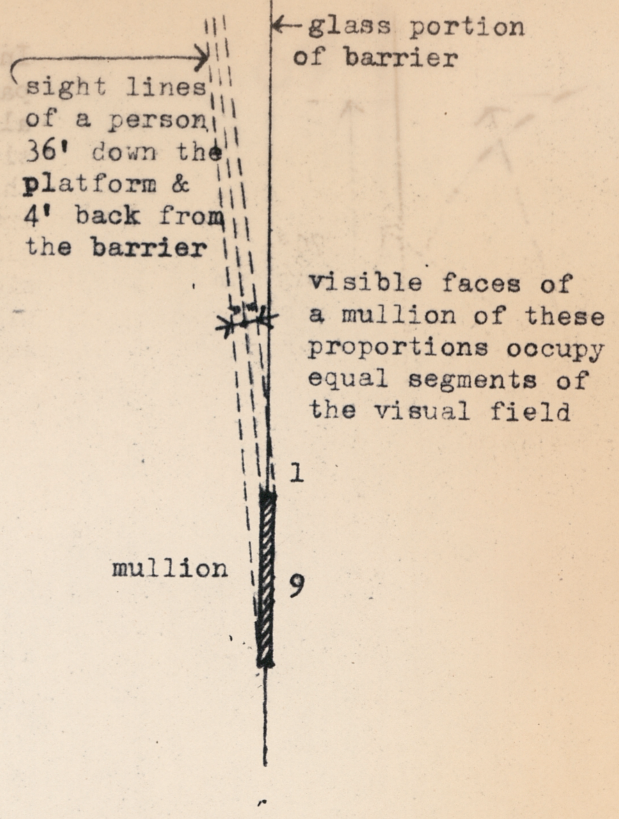
This system specifies that from all anticipated waiting areas on the platform waiting passengers will be guaranteed a certain minimum view into their incoming train so that they may choose the car and door through which they wish to board the train.



With the anticipated intense use of the platform area immediately next to the barrier wall, especially along those portions of its length which are glazed, a continuous hand-rail suitable for leaning and resting elbows is required (108).

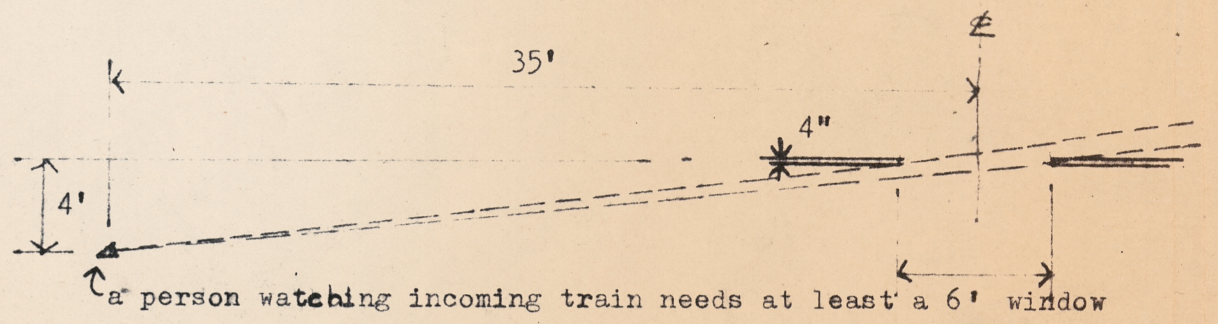
(108) states that people waiting for a train must be able to sit, lean or rest and in a way which affords them a clear view of trains as they come into the station (265). While columns and walls are especially attractive to people who want to lean momentarily while waiting for a train, structural columns and bearing walls because of their relatively large widths need to be kept completely back from platform edge as shown (343), while the apparent thickness of the barrier wall as outlined below should approach zero inches

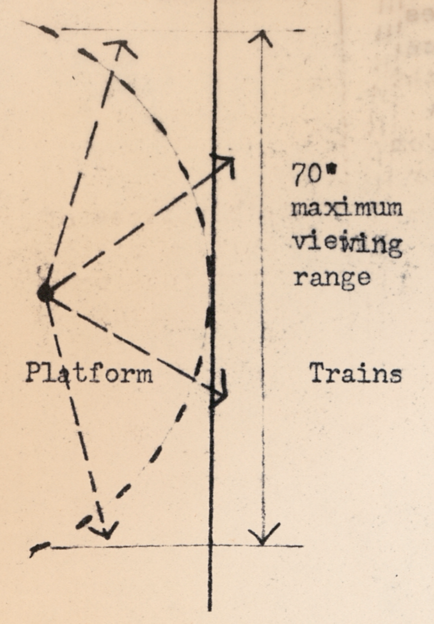




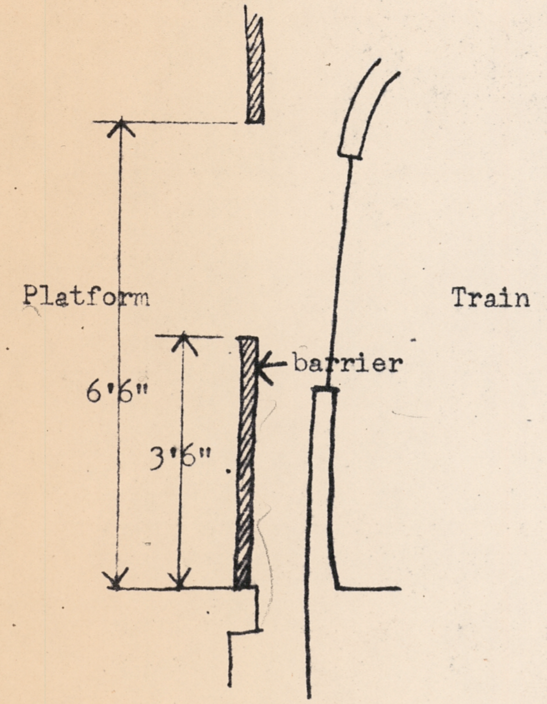
In order to maximize visibility when looking through the barrier at an oblique angle, it is necessary to minimize the thickness of the millions in the barrier wall. (343). The width of the mullion (flush with the plane of the barrier glass) is not critical and in fact can be relatively large since this apparent width decreases with the increase in distance from the observer. Therefore from the standpoint of visibility into the train mullions need be thin (in thickness) straps.

Calculations were made to determine horizontal widths of glass and mullion depths for minimum visibility. Hypothetically, a person 4' from the barrier should be able to see obliquely through a window 35' along the wall from where he is standing. Assuming for now, that windows were placed at intervals in the barrier wall and not as a continuous band along the entire 700' length, the window width needed to provide a coherent view under the conditions cited is 6'. This figure is based on the obstruction resulting from a 4" thick barrier wall. With each inch increase in wall thickness the window width increases 9". As the observer moves away from the barrier wall the required window width will decrease proportionally. The 4' distance between observer and barrier wall was selected as a reasonable minimum distance from which a person would want to see into a slowly moving train car 35 feet away. Final conclusions about window widths and mullion depths remain dependent upon those systems which will determine the exact limits of required visibility through the barrier along its length.





In order to reduce further the width of glass panels used in the barrier (window width will also be a function of economical fabrication sizes and maintenance-replacement requirements) the entire barrier wall should curve concave inward toward the observer between doors, so that glass panels are more normal to the lines of sight from a central point. This possibility will have interesting implications when considered in light of system 52.



In order to satisfy the conditions specified in (108), (265) and (58) which specifies the need for visibility from inside the train, into the station as well as visa versa, minimum limits need to set on the vertical dimension of windows in the barrier. The minimum height for good visibility should be 3' extending from 3'-6" to 6'-6" above the platform. This clear vertical dimension will give persons in the car and on the platform, whether sitting or standing, a clear view into station and train respectively.

PRELIMINARY

B A R T
PUBLIC STRUCTURES, INC.
WURSTER BERNARDI & EMMONS
ARCHITECTS SAN FRANCISCO

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cc:
system no.: 65
drawing no.: 1