

ORGANIZATION.

The Construction Department will have charge of all surveys and construction of New Lines and Extensions, as well as Line and Grade Improvements of existing lines.

The Organization of Construction Department from Division Engineers will be as follows,—

Division Engineers with authority as assigned.

Asst. Engineers in charge of several sections of construction, location parties, or other important work, reporting to Division Engineers.

Resident Engineers in direct charge of a section of construction, reporting to Asst. Engineers.

The following rules are intended for the guidance of Engineers on location and construction, and are to be carefully and systematically followed. Suggestions for improvements or alterations are requested, these must in all cases be approved by the Chief Engineer before being used.

LOCATION.

GENERAL.

Before deciding upon the general location of any railway, the factors which go to make up its commercial effectiveness should be carefully considered. These are (1) Gross Earnings, (2) Operating Expenses, and (3) Fixed Charges. From an engineering standpoint, and as affected by location, they may be stated as (1) Traffic, (2) Cost of Transportation and Maintenance of Way, and (3) Cost of Construction.

Their relative importance, if amount of profitable traffic is dependent on location, may be considered in the order named. The most serious errors in location, occur in keeping away from present or probable traffic centres.

For heavy traffic, line should be located so as to reduce ton mile cost in transportation, while for light traffic, line should be located to reduce train mile cost.