

in other words to make it subservient to a union of rail and oceanic traffic with warehouse facilities, in addition to the peculiar mission it was originally designed to serve.

I have accordingly given the subject of your application the consideration which its great importance demands, and beg to refer you to the accompanying plans, in which a new project is developed, that will, it is hoped, with a few modifications to be mentioned at the close of this report, answer all the requirements demanded.

On examining the plan you will perceive that in place of the three lines of rails being placed contiguous to Mill street, they have been moved out a distance of one hundred and ten feet, increased in number to four tracks, and carried in a direct line, parallel with the continuation of that street to the foot of the Lachine Canal, where by means of a single turn table so arranged as to communicate with three tracks, they turn at right angles and approach for a distance of four hundred feet in the direction of the city—the line to McGill street diverging from the main one some distance up, with an easy curve, and crossing the guard Lock in the same manner as before. The rail tracks will in all cases be twenty-five feet above summer water level in the harbor, and occupy a space of fifty feet exterior to that of one hundred and ten feet before adverted to, which will furnish sites for warehouses of one hundred feet in depth, leaving the balance of ten feet for widening Mill street from forty to fifty feet.

Immediately adjoining the tracks and running parallel with them, but at a lower level, is a wharf fifty feet wide bordering on a dock three hundred feet in width, excavated to twenty-five feet in depth at the lowest stage of the river, and three thousand one hundred feet in length, extending from opposite Grant, Hall & Co.'s Warehouse, to a point opposite the foot of the Canal, where it strikes deep water connecting with the existing channel leading up the harbor in front of the city. On the south side of the dock is an embankment connecting with the main land at the upper end and from thence running the entire length of the dock, the width on top being one hundred and twenty feet, furnishing space for three lines of tracks for railway purposes, and a large amount of space of great value for the erection of temporary flour or goods sheds, or for piling deals or lumber on for shipment, which may for this purpose be brought either by railway, or by means of rafts through the Lachine Canal.

This wharf, as well as its neighbour on the opposite or warehouse side of the Dock, will be raised to the height of ten and one-half feet above summer level, or two feet higher than the existing wharves in the harbor, and therefore above the level of the late spring floods, should they ever arise to the height of last season. In the winter they will of course be under the level of the water, but will be protected against its cutting and wearing action as well as of the ice, in the most approved manner, as will be seen on reference to the various drawings.

Mill street and its continuation to the foot of the Canal will have connection with the Dock

on the north side by means of ten streets, thirty feet wide each, placed at regular intervals, and leading out onto the wharf—these streets will be bridged for the purpose of carrying the railways across, with a clear headway between the crown of the street, and the under side of the iron girded bridges, of ten feet for cart traffic.

Passage ways from the level of the wharf will also be provided through the embankment, into the lower story of the warehouses,—they will be bridged over with iron girders of twenty-four feet span, and so placed that every opening or passage-way will accommodate two buildings—each warehouse will therefore be provided with two wide outlets underneath the railways, leading out onto the level of the dock wharf, and available during the entire season of navigation.

A convenient and expeditious mode of moving freight, destined for temporary storage, will be to transfer it from the vessel to light portable trollies, traversing the distance between the vessels and the lower story of the warehouses, on tramways of say three feet gauge, through the openings provided for that purpose in the railway embankment, and from thence elevated to the story above by means of revolving inclined planes, where being on the level of Mill street in rear, carts can convey it into the city; and to other points as required; or if necessary, the freight can be taken by carts or trucks immediately from the vessels gangways, by means of the streets leading down from Mill street underneath the railway.

Cars arriving with freight destined for shipment will discharge their loads on the second story, where during the winter season, it will remain, being above the high water line of spring floods, and on the opening of navigation can easily be transferred by sideways to the lower story, and from thence by the tramways to the receiving vessel.

Wheat will also be readily transferred from cars on either of the two sidings adjoining the warehouses, by means of conveying spouts leading from the lower story up through the embankment to the centre of the rails on each track, placed about thirty or thirty-five feet apart, so that the mouth of one will come under the centre of every car—short moveable spouts connecting them with apertures suitably arranged with sliding valves in the bottoms of the cars will allow a large proportion of the wheat to transfer itself directly into the warehouses, the balance being moved by hand shovelling [if the cars are not provided with hopper bottoms] to the discharging spout, will also follow into the warehouse. The spouts will all discharge into a conveyor, made water tight, which will transfer the wheat to elevators and by them be conveyed to the upper weighing, storage or shipping garners, and from thence be spouted directly into vessels when ever required.

The various details for accomplishing this important work with economy and facility need not at this time be pointed out, indeed the great practical experience many of you are in possession of, renders it an unnecessary duty on my

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