

Emergency Response Data Analysis

Between January 1, 2019 and January 18, 2021, Edmonton Fire Rescue Services (EFRS) responded to 98 events in the Maple neighbourhood. Of these 98 events, 51 were medical calls and 47 were fire responses. Over this two year period EFRS is only aware of two events in which the first-arriving unit was delayed by a train blocking the crossing on Maple Road.

In 2020, the train delayed the first-arriving unit by approximately two minutes. The latest delay in January 2021 resulted in a delay of approximately three minutes for the first arriving unit. In these events, the first-arriving units had total travel times of 9.8 minutes and 9.0 minutes, respectively, placing them in the 94th and 91st percentile of all responses to the neighbourhood over this period.

There were five responses to this neighbourhood over the same period that resulted in travel times greater than 9.8 minutes which were a result of delays other than from a blocked rail crossing. Had there been no delays due to blocked rail crossings over this period, average response times to this neighbourhood would have improved by about 1 percent. Taken into context with other delays which affect emergency response to Maple, the rail crossing blockages do not appear to significantly impact response time to the neighbourhood, when the emergency response times are reviewed as a whole.

Based on discussions with the Senior Officer of CN Public Works for CN Rail, there are approximately seven trains per day running through this area, operating at a maximum 60 km/hr, and reaching up to two kilometers in overall length. There are no nearby sidings or intermodal yards which would encourage trains to intentionally stop near this area. If trains operate at half the expected speed limit (30 km/hr), the period over which any particular rail crossing would be blocked is approximately four minutes. On average, this data also implies that the rail crossings are blocked for about 28 minutes per day, or about 2 percent of the time. This correlates well with the impact measured through EFRS response data, in which 2 percent of initial response units were delayed by a blocked crossing.

Alternative routes for emergency access are unlikely to significantly affect emergency response times, given the expected delays from blocked rail crossings. Future permanent access to Maple from 23 Avenue will have very similar travel times compared to the existing routes (both routes are roughly 5km from Fire Station 26 - the nearest existing fire station), and re-routing from one blocked crossing to a secondary access incurs a greater delay than waiting for a train to pass.