

OPMA411 | CN Rail Winter 2017

Executive Summary

CN Rail has recently moved many of their employees from downtown Calgary offices to a new location in Conrich, Alberta. The management at CN Rail is concerned with both the inconvenience and the environmental implications of all employees driving themselves to work, and has tasked the project group with finding viable alternative commuting solutions for their employees. The objective of this report is to outline the process, tools and data used in the completion of this project. At the conclusion of the report, a recommendation is made based on the data collected and the analysis conducted.

The project group began by conducting a survey to judge employee perspective on a potential shuttle that could take them from a nearby LRT station to work, and then back to the LRT station after work. Perspectives on a ridesharing arrangement were also found. The survey results showed that the idea of a shuttle was not popular among the employees, and that the employees were more in favour of a potential rideshare. Therefore, the shuttle alternative was dropped and the group focused on the logistics behind, as well as implementation of, a ridesharing process.

By using an Excel matrix that included each given employee's street distance to each other and to work, the project group was able to create a model that heuristically chose a set of advantageous pairings for ridesharing. These pairings were then used to form a cost-benefit analysis as well as an environmental impact analysis. The results showed that much could be gained from implementing a ridesharing arrangement in terms of both fuel cost savings and environmental impact, across many levels of participation.

Following the analysis, the project group conducted research on third party platforms that could assist CN Rail in implementing a ridesharing arrangement among their employees. The results of this research and the project group's optimal choice are included in the recommendations section of the report.