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WINTER 2025

PROJECT PROPOSAL

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INFO 4680

Topic Civic Emergencies
Focus Communication on Winter Driving Safety

Introduction

The severe winter conditions Calgary experiences contribute to a significant number of car accidents every year. Despite existing efforts from the local and provincial government to reduce risk through winter road maintenance, there is a lack of accessible, engaging, and comprehensive resources on safe winter driving practices. Many drivers in Calgary, particularly newcomers to the city and inexperienced drivers who are unfamiliar with driving in these harsh conditions are not well equipped to drive during the winter months, leading to increased anxiety and risk of getting into an accident.

The project aims to develop a digital information package designed to improve winter driving preparedness of drivers in the city. This project will include conducting research on the current challenges and users, prototyping and user testing potential solutions, and creating an accessible solution to help prepare inexperienced winter drivers in Calgary for the winter. The goal is to provide drivers with the necessary knowledge and awareness to navigate the harsh road conditions safely.

Executive Summary

Calgary's long winters pose a challenge for the city's drivers with its icy roads and heavy snowfalls. This project addresses the need to improve the city's access to an informative digital resource for inexperienced winter drivers. The proposed solution should provide guidance on vehicle preparedness, driving techniques, and emergency response strategies. To avoid potential risks of misinforming the audience or creating further distractions to drivers, the project will focus on accuracy, clarity, and optimized user engagement. The expected outcome is to increase awareness and local winter driving knowledge to ultimately improve the road safety in Calgary.

The project timeline spans from February 2, 2025 to March 31, 2025. Research will include desk research, a review of best practices of other municipalities, and SME interviews. This will be followed by a synthesis and ideation phase which will inform the construction of the initial prototype. The prototype will then be user tested and the insights gathered from the tests will be used to create a higher fidelity final prototype. Key deliverables include a research and analysis report, initial prototype, user test, user test report, final solution, and presentation.

This civic project will also serve as a valuable learning experience in which I will practice and develop my skills which will contribute to my professional growth. Skills in project management, UX design, and effective communication are expected during the duration of this project and collaboration with studio peers will serve to ensure the quality of the final product.

Project Description

Calgary experiences long and harsh winters that can be characterized by heavy snowfall, icy roads, and low temperatures that typically last anywhere from 4 to 7 months (Weatherspark, n.d.). On average, the city receives over 120 centimeters of snowfall per year and experiences a blizzard every 5 years which often results in dangerous driving conditions (City of Calgary, 2022). In November 2024, in which the city received around 15 centimetres of snowfall overnight, there were 282 car crashes in which 24 of those accidents led to people sustaining injuries (Heintz, 2024). Although the municipal and provincial government have systems for snow removal, road maintenance, and early warning systems, Calgary's number of winter-related car accidents remains an issue (The City of Calgary, n.d.).

A contributing factor to this issue is the lack of effective communication on safe winter driving practices. The existing winter driving resources from the City of Calgary and the Government of Alberta are available, but fail to reach drivers in a useful and efficient way. The online resources are difficult to find, provide limited information, and lack engagement. With this being the case, many drivers residing in Calgary likely are unaware of things such as vehicle preparedness and defensive driving techniques. The high risk of a collision in the winter can instill stress and anxiety, so for experienced and inexperienced winter drivers alike, it is important that as many people on the road are better equipped to avoid an accident.

Those most affected by this issue would be drivers who are inexperienced for driving in Calgary's harsh winter conditions. This may include newcomers to Calgary or new drivers that do not have much knowledge or experience driving in the winter. With the Calgary Metropolitan Area seeing a population growth of 96,000 people from 2023 to 2024, there is an inevitable increase in drivers who are unfamiliar with driving in harsh winter conditions (Ranger, 2024). Calgary residents need increased guidance and communication regarding winter driving preparedness and safe driving practices that are easily accessible and provide relevant information to the user.

In terms of the solution's modality and medium, a digital solution would work best so users could access the solution through their mobile device or computer. The solution may include information on preparation, practice, and emergency response for winter driving situations. It is important that the content is accessible and convenient, while still providing an adequate amount of information that would allow a driver to become more confident and aware when driving. Other places that experience similar conditions and concerns offer different solutions to this problem. Some solutions include billboards and road signage, winter driving workshops, educational videos, articles that act as a winter driving guide, and navigational apps that contain live updates on traffic conditions.

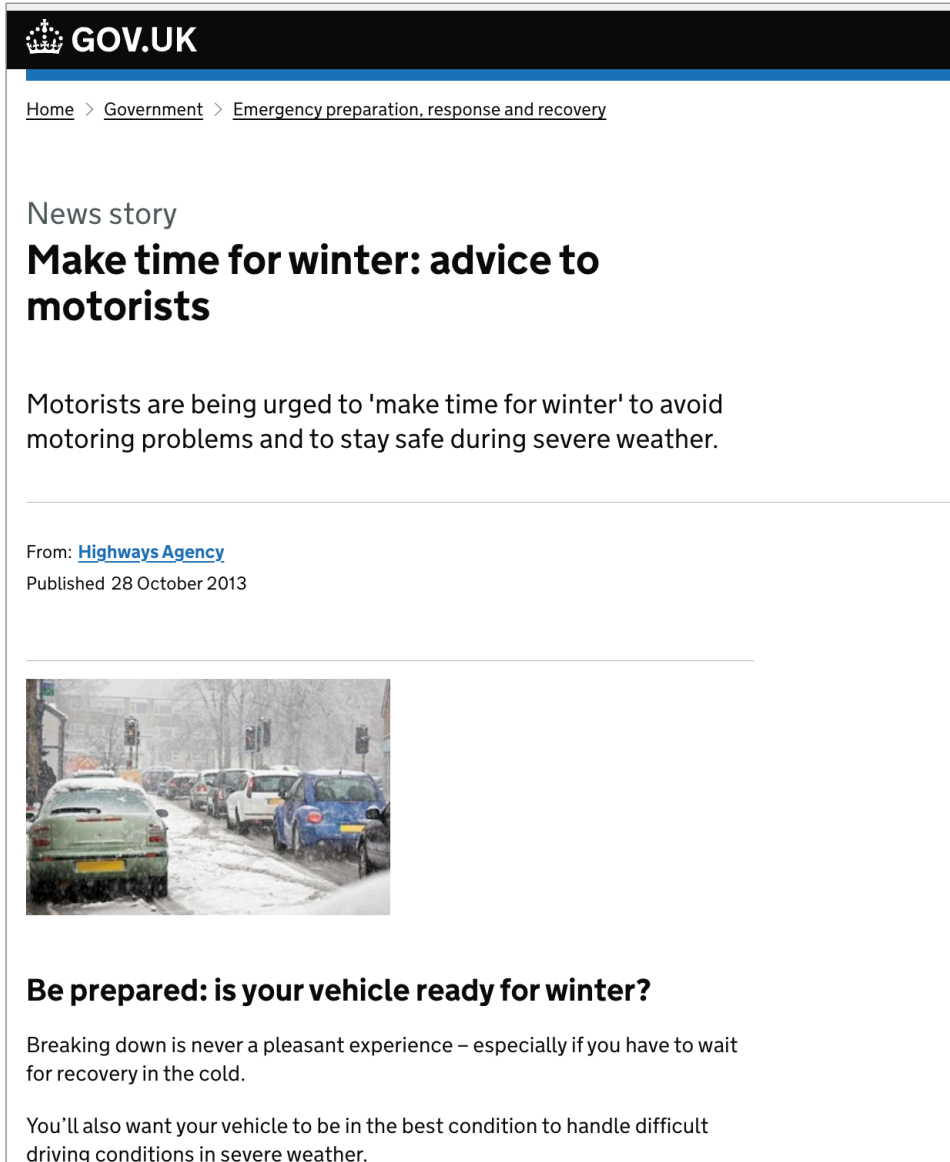
Design Precedents

Winter Driving Workshop - Immigrant Services Calgary

The flyer features a red maple leaf logo with the text 'IMMIGRANT SERVICES CALGARY' in the top left corner. A teal banner at the top right contains the website 'www.immigrantservicescalgary.ca'. The main title is 'Winter Driving Safety for Newcomers' in bold black text, followed by the question 'Do you want to learn about driving in winter?' in red. A horizontal line separates this from the event details: a calendar icon with a checkmark, 'THURSDAY, OCTOBER 31, 2024', '11:30 AM - 1:30 PM', a location pin icon, and 'Online : Microsoft Teams (Link provided after registration)'. Another horizontal line follows. The presenter is 'Jason Hall, Instructor, Alberta Motor Association'. A speech bubble icon indicates the 'Language: English'. A light beige box lists partners: 'In partnership with: AMA' (with a logo) and 'gateway PROUD PARTNER' (with a logo). Below this, the funding source is listed in both English and French: 'Funded by: Immigration, Refugees and Citizenship Canada' and 'Financé par : Immigration, Réfugiés et Citoyenneté Canada'. On the right side, there is a stylized illustration of a blue car covered in snow on a yellow background with white snowflakes.

IMG1: Digital flyer for a winter driving safety workshop hosted by Immigrant Services Calgary.

Immigrant Services Calgary hosts a free Winter Driving Safety Workshop for Newcomers before the winter season starts. The workshop is online and is taught by an instructor from AMA. From the research, there is only one workshop hosted a year. Other winter driving courses and workshops are often costly.



The screenshot shows a GOV.UK webpage. At the top is the GOV.UK logo. Below it is a breadcrumb trail: Home > Government > Emergency preparation, response and recovery. The main heading is 'News story' followed by 'Make time for winter: advice to motorists'. A sub-heading reads: 'Motorists are being urged to 'make time for winter' to avoid motoring problems and to stay safe during severe weather.' Below this, it says 'From: Highways Agency' and 'Published 28 October 2013'. There is a photograph of a snowy street with cars. Below the photo is the section 'Be prepared: is your vehicle ready for winter?' with text: 'Breaking down is never a pleasant experience – especially if you have to wait for recovery in the cold.' and 'You'll also want your vehicle to be in the best condition to handle difficult driving conditions in severe weather.'

IMG2: A screenshot of a United Kingdom Government article on advice for winter driving.

This UK government article contains information on vehicle preparedness, emergency kit preparation, and resources for checking traffic conditions and weather updates. Many municipalities provide similar information on a variety of platforms. Their information differs, but all have the goal of informing drivers and improving public safety.

Road Safety Billboards - Billboards New Zealand Limited



IMG3: Billboard in New Zealand promoting safe driving advice in the winter.

This company in New Zealand produces a variety of billboards that promote road safety for every season. Billboards are one of the most effective ways short messages are communicated to drivers that provide minimal distraction in comparison to mobile devices.

Project Plan

Project Scope

For this project, the final communicative deliverable will be in the form of a digital information package to better equip inexperienced winter drivers in Calgary for driving in harsh winter conditions. The project will span from February 2, 2025 to March 31, 2025, and will include the collaboration of studio peers, SMEs, instructors, and members of the relevant organizations. The final deliverable does not include the implementation or publication of the solution.

Core Deliverables

- **Project Proposal** - February 2, 2025
- **Research and Analysis Report** - February 29, 2025
- **Initial Prototype** - March 9, 2025
- **User Test Report** - March 11, 2025
- **Final solution** - March 23, 2025
- **Presentation** - March 31, 2025

Project Timeline

Task	Start Date	End Date
Project Proposal	January 26, 2025	February 2, 2025
Research Phase		
Desk Research	February 3, 2025	February 17, 2025
Interviews	February 3, 2025	February 20, 2025
Synthesis Phase		
Analysis	February 3, 2025	February 29, 2025
Research Report	February 20, 2025	February 29, 2025
Prototype & Test Phase		
Prototype Development	February 24, 2025	March 9, 2025
User Test	March 9, 2025	March 9, 2025
Analysis	March 9, 2025	March 11, 2025
Final Solution Development	March 12, 2025	March 23, 2025
Final Phase		
Presntation	March 23, 2025	March 31, 2025

Resources

During this project the resources used will primarily be digital. For research, the Mount Royal University Library Database will be the primary source for scholarly articles, interviews will be conducted with SMEs, and survey tools such as Google Forms may potentially be used to get insights on the best approaches to the problem. For design, Adobe products and Figma will be used to develop the prototypes and final solution.

People

Throughout the project, collaborations and discussions with different parties will be had for research purposes, testing, and feedback. For SME interviews, I will be contacting the potential interviewees through email or text. They will be selected through random methods such as going to the International Student Centre, reaching out to colleagues for contacts, and more. The goal for the interviews is to get a better understanding of their winter driving knowledge, their experiences, and identifying pain points or opportunities. For usertesting and feedback, this will be conducted through class with studio peers and instructors.

Potential SMEs

- Newcomers to Calgary (inexperienced winter drivers)
- New drivers (Inexperienced winter drivers)
- Calgary drivers with over 10+ years experience with winter driving
- Immigrant Services Calgary

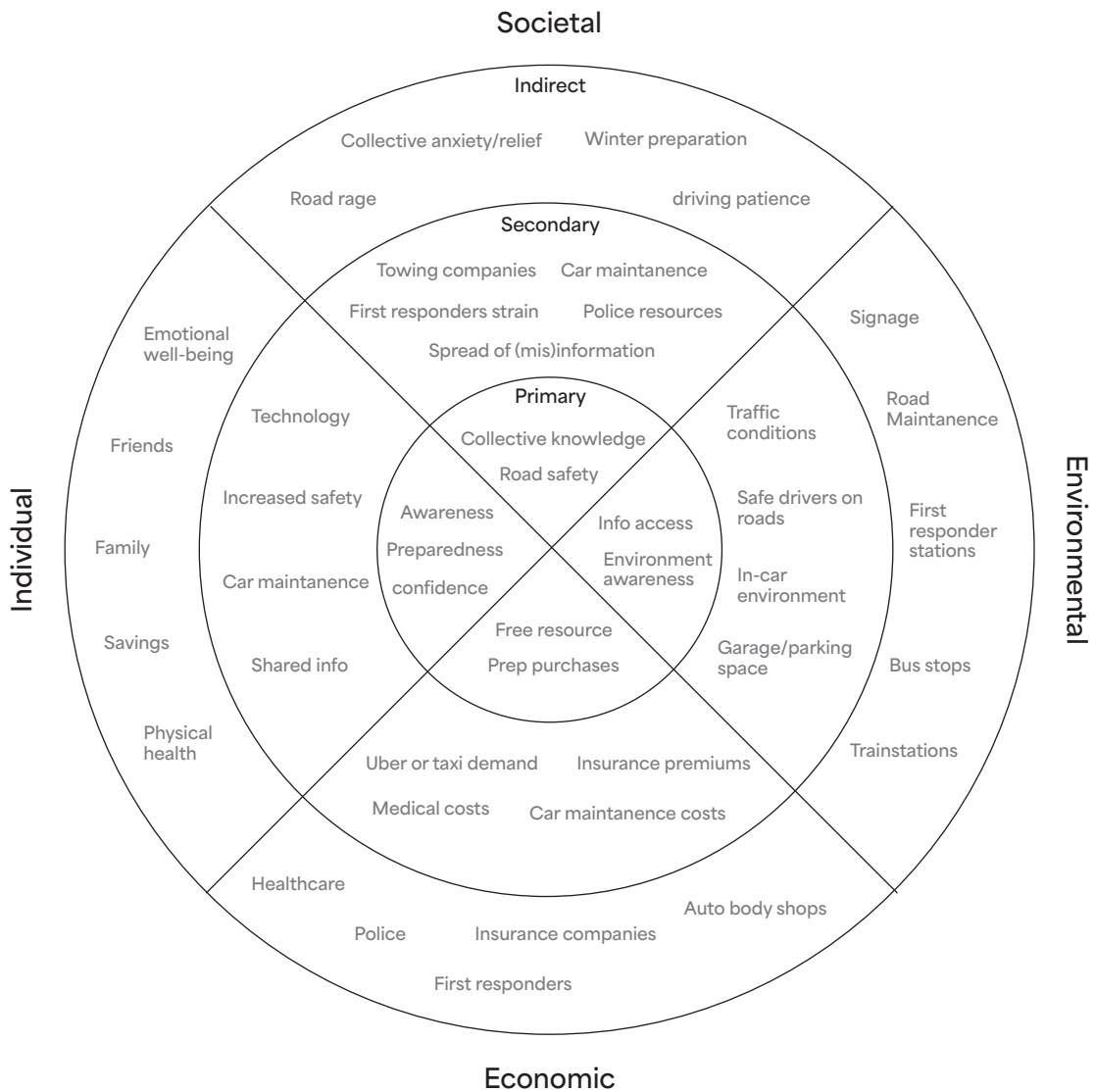
Risk & Impact

The largest risk for this project is to misinform the audience with the inaccurate content which will not prepare them for winter driving or may also increase their chances of getting into a car accident. Another risk could be making a deliverable that distracts drivers encouraging unsafe driving practices.

To assess further risks and manage them, I will implement a risk management strategy dependant on the other potential hazards I find in during the research. As the exact content and exact medium of the solution are currently undecided, the detailed assessment of risk and impact will be determined during the creation of the prototypes. Thinking generally on communication deliverables for winter driving safety, I produced a circle of impact diagram.

Circle of Impact

The diagram below presents the primary, secondary, and indirect impacts of a digital communication deliverable that aims to inform users of winter driving safety. The areas of impact are societal, environmental, economic, and individual.



Personal Reflection

Car accidents are extremely common and most, if not all, times end negatively for those involved. At best, the passengers and vehicles come out uninjured and insurance premiums potentially increase. At worst, people get long-term injuries or die from car accidents and people have to face emotional loss alongside financial, mental, and physical recovery. The general risk of getting into a car accident is concerning enough and the increased risk during the winter adds additional worries for drivers, passengers, and loved ones. For this problem, prevention and preparation is the best tool Calgary residents have to stay safe during the winter. The goal of this project is to better equip residents for winter driving by creating a communicative deliverable that will increase driver awareness on safe driving practices, ease driver anxiety, and inspire confidence.

Some of the skills I hope to practice and develop include project management, report writing and documentation, and UX design through Figma. Being able to practice my project management would cover the bases for organization, problem solving, and adaptability which I believe are key to working in a variety of projects, which I hope to do in my career. I would like to try and proceed with this project as if I were working with a client which also entails updates and transparency which I believe includes documenting all of my work in the form of a report. Lastly, I would like to practice using Figma as it's currently the industry standard and I have not had much experience using it. I anticipate that other skills will develop, but these are the ones I'm anticipating the most.

Being a civic project, there is an emphasis on the importance of effective and accessible communication, inclusivity and responsibility, along with collaboration and critique to ensure that the final solution truly addresses the user problem. The greatest impact of this deliverable will be its success in effectively being able to communicate this important information to inexperienced winter drivers, but should be able to serve all Calgary drivers who face dangerous traffic conditions. This includes a comprehensive understanding of the audience and the ways they receive and interact with information. To create a solution, the collaboration and critique ensures that the content and the experience of the users is suitable across the large variety of users.

In regard to strategic problem solving, applying design principles, and thinking critically about my own design, I believe the methods and deliverables will allow me to complete the project in a practical and systematic manner while still providing opportunities for creativity. Each design decision will be made with intention and backed by research, and receiving external opinions and critiques will further help develop the final product. Through this project, my process and deliverables will display my soft and hard skills that encompass my learnings from the program.

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