

Project Management (LCLM5003_LON)

A Project Portfolio

Part A (Poster)

Part B (Reflection on Feedback)

Part C (project management plan)

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POSTER PRESENTATION

Student Name: Slawomir Gora
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Project Management [LCLM5003]
Lecture name: Matieni Xavier

Rebuilding the principal corridor for transportation of goods and people

The 2022 flooding in British Columbia caused severe damage to the region's main transportation corridor, cutting off the movement of goods and people between communities. This project focuses on rebuilding the corridor to restore safe, efficient, and resilient transport infrastructure essential for economic recovery and regional connectivity.



The project focuses on rebuilding British Columbia's main transport corridor, heavily damaged by the 2022 floods. It involves repairing highways and bridges, reinforcing slopes, and upgrading drainage to ensure safe and reliable movement of goods and people across the region..

To restore and modernise the main transportation corridor, ensuring safe travel, efficient movement of goods, and long-term resilience against future natural disasters.

Purpose: Rebuild the main corridor to restore safe and efficient transport for people and goods Customers / Stakeholders: Provincial and federal governments, transport companies, and local communities.	Desired End Results: Reliable infrastructure, reduced disruption, and improved safety standards. Measures of Success: Project completed on time, within budget and compliant with environmental regulations.
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graph TD
    A[REBUILDING THE PRINCIPAL CORRIDOR] --> B[INITIATION]
    A --> C[PLANNING]
    A --> D[CLOSURE]
    B --> B1[1.1 DEFINE PROJECT SCOPE]
    C --> C1[2.1 DEVELOP RISK AND RESOURCE PLAN]
    C --> C2[3.1 CONDUCT FINAL INSPECTIONS]
    D --> D1[3.1 CONDUCT FINAL INSPECTIONS]
  
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REBUILDING THE PRINCIPAL CORRIDOR

- INITIATION**
 - 1.1 DEFINE PROJECT SCOPE
- PLANNING**
 - 2.1 DEVELOP RISK AND RESOURCE PLAN
 - 3.1 CONDUCT FINAL INSPECTIONS
- CLOSURE**
 - 3.1 CONDUCT FINAL INSPECTIONS

Task	P.g	F.g	Residents	Contractors
Damage Assessment	A	c	i	R
Corridor Reconstruction	A	i	i	R
Drainage and Safety Upgrades	c	i	i	R
Community Communication	R	i	A	I

ID	Cause	Effect	Type	P (Probability)	I (Impact)	Score (P x I)	Owner	Response
001	Unstable soil due to rain	Sliding or toppling	Threat	4	5	20	Geotech Lead	Conduct soil stabilization before storm
002	Availability of critical officer	Feature completion	Opportunity	3	4	12	HR	Recruit standby and offer incentives
003	Weather disruptions	Hard construction	Threat	5	4	20	Site Manager	Review work during the rain season
004	Legal disputes over land	Longer landing lead	Threat	2	5	10	Procurement	Review land use materials on site
005	Regulatory delay	Project hold up	Opportunity	3	4	12	Legal Advisor	Early engagement with authorities
006	Bridge design changes	Structural failure	Threat	2	5	10	Engineering Lead	Plan review and structural changes
007	Partner funding sources	Available financial resources	Opportunity	4	5	20	Finance Lead	Secure strong financial ties early
008	Roadside chain collapse	Material obstructions	Threat	4	4	16	Logistics	Identify supports and diversify routes
009	Community support	Local labor and expertise	Opportunity	3	4	12	Project Manager	Form team bonds and engage early
010	Environmental impact	Legal challenges	Threat	5	5	25	Environmental Officer	Conduct full impact assessment

	Jul				Aug				Sep				Oct						
	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	Response
Phase 1	INITIATION																		
Row 1	Define Scope & Objectives																		
Row 2	Stakeholder Identification																		
Row 4	Feasibility Study																		
																		Milestone 1	
Phase 2	Develop Engineering Design																		
Phase 2	EXECUTION																		
Row 1	Budget & Resource Allocation																		
Row 3	Site Preparation																		
																		Milestone 1, Project Charter Approved	
Phase 3	Infrastructure Control & Testing																		
Row 4	Final Inspections																		
																		Milestone 2, Section 1 Complete	
Phase 4	Project Review																		
																		Milestone 3, Project Completed	
Phase 4	Milestone 1, Project Completed																		

Rebuilding the main transport corridor is essential to reconnect communities and restore the flow of goods across British Columbia. The project enhances road safety, supports economic recovery, and strengthens resilience against future environmental challenges.

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Part B (Reflection on Feedback) Gibbs

1. Description

The task of creating the poster for the project *Rebuilding the Principal Corridor for Transportation of Goods and People* allowed me to apply project management concepts to a broader infrastructure context. The project focused on restoring a key transport route affected by the 2022 floods, which is essential for the movement of goods, people and emergency services. In my first version of the poster, I concentrated mainly on presenting the information clearly and creating a layout that was easy to understand. I felt comfortable with the written sections, including the introduction, project description, quad chart and conclusion, as these were based on my own understanding of the project scenario and its importance for regional connectivity and resilience.

2. Feelings

At the beginning, I felt confident and satisfied with my work because the poster looked organised and professional. I believed that clarity and visual structure were the most important aspects. However, after receiving feedback from my lecturer, my confidence decreased slightly, as it became clear that some technical elements were not meeting the expected standard. At the same time, I felt motivated to improve, as the feedback was specific and helped me understand where my approach needed to change.

3. Evaluation

One of the strengths of my work was the clarity of the written content and my understanding of the purpose of rebuilding the principal corridor. I successfully communicated why the project was important after the floods. However, weaknesses were identified in the technical tools, particularly the WBS, Gantt Chart and Risk Register. Although I created these myself, they lacked structure, realism and sufficient detail, which reduced their effectiveness as planning tools.

4. Analysis

This feedback highlighted that project management tools must accurately represent the complexity of real projects. My WBS did not clearly show a hierarchy of deliverables and tasks, and my Gantt Chart did not fully reflect realistic timelines or dependencies. The Risk Register also underestimated the range of risks associated with environmental conditions and supply

chain disruption. This showed me that applying theory requires careful analysis and not just surface-level understanding.

5. Conclusion

Through this process, I learned that effective project management requires both clear communication and technically accurate tools. Visual presentation alone is not enough if the underlying structure is weak.

6. Action Plan

In future projects, I will dedicate more time to developing project management tools that are realistic, structured and clearly justified. I will ensure that risks, schedules and task breakdowns are closely linked to the project context, particularly in complex infrastructure recovery scenarios.

Part C (project management plan)

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Introduction

The principal transportation corridor plays a central role in connecting communities, supporting the movement of goods, and maintaining regional economic stability across British Columbia. When the severe floods of 2022 caused major disruption along this corridor, the event exposed significant vulnerabilities in the region's infrastructure system. Roads were washed out, slopes became unstable, and access for residents, emergency services and commercial transport was heavily restricted. Rebuilding the corridor is therefore not only a matter of physical reconstruction but a critical step toward restoring normality, improving safety and strengthening the region's long-term resilience.

This Project Management Plan provides a structured framework for guiding the reconstruction of the principal corridor. It outlines the project's objectives, scope, stakeholders, risks and required resources, while applying project management tools to ensure that the rebuilding process is clear, coordinated and achievable. The plan emphasises efficiency, safety and resilience, focusing on repairing damaged components while also implementing improvements such as reinforced slopes, modernised drainage systems and stronger protective measures against future extreme weather events.

Throughout the plan, each section contributes to a comprehensive understanding of how the corridor will be restored. The WBS, Gantt Chart and Quad Chart provided as visual components support planning by illustrating deliverables, timelines and strategic goals. Meanwhile, the written analysis explores stakeholder involvement, resource allocation and potential risks, ensuring that the project is prepared for challenges that may arise.

Overall, this introduction establishes the foundation for a detailed recovery strategy aimed at reconnecting communities, safeguarding mobility and ensuring that the principal corridor can withstand future disruptions.

Project Description

The project focuses on the reconstruction of the principal transportation corridor, a route that is essential for the daily movement of people, goods and emergency services across British Columbia. The 2022 floods caused extensive damage along this corridor, affecting not only the road surface but also the surrounding slopes, waterways and supporting infrastructure. Large sections of the route became unsafe or inaccessible, creating major disruptions for communities and industries that rely on continuous transport connections.

The aim of the project is to restore the corridor to full operational capacity through a structured and coordinated rebuilding effort. This includes repairing washed-out road segments, reinforcing unstable slopes, replacing damaged culverts, and upgrading drainage systems to ensure better water flow management. In addition to reconstruction, the project seeks to improve long-term resilience by integrating stronger materials, enhanced engineering designs and preventative safety measures that reduce the risk of future disruption.

Because the corridor is vital for freight movement, the project has significant economic implications. Transport delays affect supply chains, increase delivery costs and create inefficiencies for businesses. Rebuilding the corridor therefore supports economic recovery, ensures reliable mobility and reconnects communities that were isolated following the disaster.

The project requires close collaboration between government authorities, engineering teams, environmental specialists and local stakeholders. It also depends on precise planning, resource coordination and risk management to ensure that the reconstruction process is safe, timely and cost-effective. Overall, this project description establishes the technical, economic and social foundations for rebuilding one of the region's most important transportation routes.

Scope

The scope of this project defines the boundaries, expectations and specific components involved in rebuilding the principal transportation corridor. Establishing a clear scope is essential because the corridor stretches across multiple regions, contains complex environmental conditions and supports a wide range of daily activities. A well-defined scope ensures that everyone involved in the project understands exactly what work must be completed, what falls outside the project's responsibilities and how success will be measured.

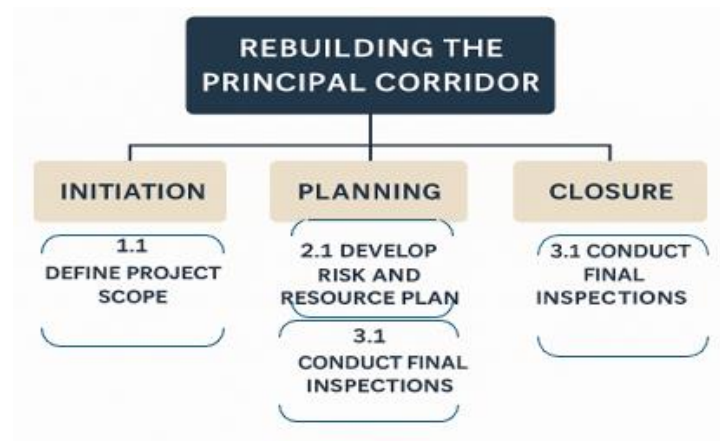
The project includes the **assessment, repair and enhancement** of all corridor sections affected by the 2022 floods. This involves stabilising weakened slopes, reconstructing damaged roadways, repairing or replacing culverts, improving drainage channels and restoring safe passage for vehicles and pedestrians. The scope also includes engineering surveys, environmental monitoring, temporary traffic management and coordination with emergency services to maintain essential access throughout construction.

An important aspect of the scope is the integration of **resilience-focused improvements**. Instead of rebuilding the corridor as it was, the project aims to strengthen it against future extreme weather events. This includes upgraded drainage systems, reinforced slope structures, stronger materials and improved water flow controls designed to reduce long-term risk. These elements are considered essential due to the increasing frequency of severe weather conditions in the region.

The scope does **not** include unrelated infrastructure upgrades, expansion of lane capacity or general maintenance activities that are not directly linked to flood damage. It also excludes any new transport developments not required for recovery.

By clearly outlining what is included and excluded, the scope provides a practical framework that guides planning, resource allocation and decision-making throughout the project, ensuring that the work remains focused, achievable and aligned with community needs.

Work Breakdown Structure



The Work Breakdown Structure (WBS) divides the project into clear phases and tasks, helping to organise the reconstruction of the principal transportation corridor in a structured and manageable way. The WBS for this project includes three main phases: **Initiation, Planning and Closure**, each containing a key task essential to the project's progression.

The **Initiation phase** focuses on defining the project scope, which involves identifying the damaged sections of the corridor, outlining project priorities and establishing the initial requirements for reconstruction.

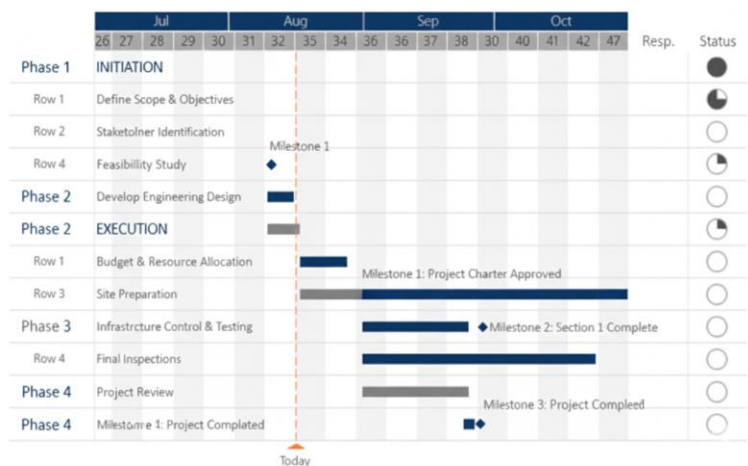
The **Planning phase** includes developing the risk and resource plan. This step ensures that the project has a clear understanding of potential risks, required materials, personnel needs and overall budget considerations before work progresses.

The **Closure phase** involves conducting the final inspections to ensure that all reconstructed elements meet safety, engineering and environmental standards before reopening the corridor.

Purpose: Rebuild the main corridor to restore safe and efficient transport for people and goods	Desired End Results: Reliable infrastructure, reduced disruption, and improved safety standards.
Customers / Stakeholders: Provincial and federal governments, transport companies, and local communities	Measures of Success: Project completed on time, within budget, and compliant with environmental regulations.

The Quad Chart summarises the project's key elements in a simple and visual format. It includes four main sections that provide a clear overview of the reconstruction strategy. The **Purpose** focuses on restoring the principal transportation corridor to ensure safe and efficient movement of people and goods. The **Customers/Stakeholders** section identifies the groups affected by or involved in the project, including government agencies, transport companies, contractors and local communities. The **Desired End Results** outline the expected outcomes, such as improved safety, enhanced resilience and reduced disruption. Finally, the **Measures of Success** highlight how project performance will be evaluated, including completion within time and budget, compliance with standards and restored transport reliability. The Quad Chart supports concise planning and communication.

Gantt Chart



The Gantt Chart provides a visual timeline of the activities required to rebuild the principal transportation corridor. It shows the project progressing through four main phases: Initiation, Planning, Execution and Closure. Each task is represented with start and end dates, allowing the project team to monitor progress and identify dependencies between activities. Key steps include defining the project objectives, conducting feasibility studies, completing engineering designs and carrying out site preparation. The Execution phase covers the main reconstruction activities, followed by inspections and project review in the final stages. Milestones are included to highlight major achievements, such as design approval and the completion of specific sections. Overall, the Gantt Chart supports clear scheduling and helps ensure the project remains on track.

Stakeholders' Involvement

The successful reconstruction of the principal transportation corridor depends heavily on the involvement, coordination and cooperation of a wide range of stakeholders. Because the project affects regional mobility, economic activity and community wellbeing, it requires a collaborative approach where the perspectives, responsibilities and expectations of different groups are recognised and integrated into the decision-making process. Each stakeholder contributes unique expertise and has specific interests that shape how the reconstruction is planned and carried out.

One of the most significant stakeholder groups is the **provincial government**, which leads the overall project, sets regulatory requirements and provides funding. The government is responsible for ensuring that the reconstruction aligns with safety standards, environmental legislation and long-term strategic transport plans. Their involvement is especially important when coordinating cross-regional work and approving key milestones such as design completion or final inspections.

The **federal government** also plays a supporting role, particularly in relation to disaster recovery funding, environmental protection guidelines and inter provincial transport considerations. Their contribution helps ensure that the corridor meets national standards and that the project is consistent with broader resilience and climate-adaptation objectives.

Engineering and construction contractors are central to the execution of the project. They carry out technical assessments, slope reinforcement, drainage upgrades, road reconstruction and quality control. Their expertise ensures that the infrastructure is rebuilt safely and efficiently. These stakeholders also manage on-site labour, machinery, materials and specialist equipment, making them critical to the project's progress.

Transport companies including freight carriers, logistics operations and commercial drivers are directly affected by disruptions along the corridor. Their involvement helps ensure that temporary access arrangements, diversions and reopening plans consider operational needs. Maintaining communication with this group helps reduce economic impact and supports a smoother transition when sections of the corridor are restored.

Local communities and residents form another key group. They depend on the corridor for daily travel, access to services and emergency mobility. Flood-affected communities may have concerns about noise, temporary closures or safety during construction. Open communication, transparency and updates on progress help build trust and ensure public support for the

project. Their feedback can also highlight practical issues that may not be visible to engineers or planners.

Environmental agencies and specialists are also essential stakeholders. Because the corridor passes through natural areas with drainage systems, rivers and wildlife habitats, these experts monitor environmental impacts, guide erosion control measures and ensure compliance with ecological standards.

Allocation of Resources

Effective resource allocation is essential for the successful reconstruction of the principal transportation corridor, especially given the scale of the flood damage and the complexity of restoring a major route used daily by residents, transport companies and emergency services. Resources in this project include labour, materials, equipment, finances and time. Managing these elements efficiently ensures that reconstruction progresses safely, remains within budget and avoids delays that could further disrupt mobility in the region.

The first major resource category is **labour**, which includes engineers, geotechnical specialists, construction workers, safety officers and environmental consultants. Each group contributes specialised expertise required at different stages of the project. During the Initiation and Planning phases, engineers and analysts conduct assessments, design solutions and prepare risk and resource plans. During the Execution phase, construction crews, machinery operators and quality-control teams take on most responsibilities. Allocating the right number of skilled workers to each task is crucial to avoiding bottlenecks and ensuring that reconstruction maintains a steady pace.

Materials and equipment form another significant resource set. Rebuilding the corridor requires reinforced concrete, asphalt, drainage components, steel supports, erosion-control materials and specialised machinery such as excavators, graders, compactors and slope-stabilisation equipment. To avoid supply chain disruptions especially common after large-scale flooding the project relies on multiple suppliers and orders materials in advance. Proper storage and delivery scheduling reduce the risk of shortages or delays that could interrupt construction timelines.

Financial resources are also a core component of the project. Funding comes primarily from the provincial government, with potential support from federal disaster-recovery programmes. Budget allocation must cover labour costs, material procurement, environmental assessments, traffic management systems, safety equipment and administrative activities. Maintaining strict financial oversight helps ensure that costs remain controlled and that any unexpected expenses such as additional slope reinforcement or emergency repairs can be addressed without jeopardising the overall budget.

Time is another critical resource. The Gantt Chart provides a structured timeline that distributes tasks across the project phases, ensuring that deadlines are realistic and aligned with construction capacity. Time allocation also considers external risks such as weather or access limitations, building flexibility into the schedule to reduce the impact of unforeseen events.

Finally, **communication tools and coordination systems** act as supporting resources. Regular meetings, progress reports, digital planning tools and stakeholder updates ensure that information flows smoothly between teams and that all parties remain aligned.

Risk Analysis

Rebuilding the principal transportation corridor after the 2022 floods involves a few significant risks that must be identified, assessed and managed carefully to ensure the project's success. Because the corridor crosses areas with complex geography, variable climate conditions and high transport demand, a strong risk management approach is essential throughout all stages of reconstruction. Understanding these risks allows the project team to prepare mitigation strategies that reduce disruptions, protect workers and ensure long-term infrastructure resilience.

One of the main risks is **extreme weather**, particularly heavy rainfall, early snow, or rapid temperature changes. These conditions may trigger new slope failures, make worksites unsafe or delay construction activities. The likelihood of severe weather is moderate to high, especially in the months following the flood event. To mitigate this risk, the project incorporates flexible scheduling, protective drainage measures and continuous monitoring of weather forecasts to anticipate necessary adjustments.

Another major risk is **sloping instability and geotechnical uncertainty**. Floods can weaken soil structures, making slopes prone to landslides or erosion even after initial assessments. Unexpected instability during excavation or reinforcement would cause delays and pose safety risks. Mitigation strategies include advanced geotechnical analyses, installation of retaining structures, erosion-control systems and regular inspections throughout the reconstruction period.

Supply chain disruptions represent an additional risk, particularly for materials such as reinforced concrete, steel beams, drainage pipes and heavy machinery. Post-disaster reconstruction often increases the demand for construction resources, creating competition among projects. Any delay in material delivery could significantly slow progress. To reduce this risk, the project uses multiple suppliers, orders materials early and establishes backup sourcing options.

Workforce limitations also pose a risk. Skilled engineers, machine operators and safety specialists may be in high demand across the region following widespread flooding. If labour becomes limited, key activities may be delayed. The project mitigates this risk through structured workforce planning, early recruitment and ensuring competitive working conditions.

Environmental and regulatory risks must also be considered. Because the corridor passes through natural areas and water systems, environmental non-compliance could halt work or

require redesigning parts of the project. Close collaboration with environmental agencies and adherence to regulations reduces this risk.

Finally, **community impact risks** include temporary road closures, noise, access restrictions and safety concerns for residents. Poor communication could lead to complaints or delays. To manage this, the project includes community updates, clear signage and coordination with emergency services.

Conclusion

The reconstruction of the principal transportation corridor is a crucial part of the region's recovery after the damaging floods of 2022. This Project Management Plan has outlined a clear and structured approach for restoring the corridor while ensuring safety, efficiency and long-term resilience. Using project management tools such as the WBS, Gantt Chart and Quad Chart, the plan breaks the work into organised phases and provides a practical framework for coordinating activities, allocating resources and monitoring progress.

One of the main lessons highlighted in this plan is the importance of **building resilience rather than simply repairing damage**. The corridor plays a vital role in connecting communities and supporting economic activity, so improvements such as reinforced slopes, upgraded drainage and stronger construction materials are essential for preventing similar failures in the future.

The project also depends heavily on **effective stakeholder collaboration**. Government authorities, engineering teams, environmental specialists, transport companies and local communities each contribute important perspectives. Their involvement supports safety, helps reduce disruptions and ensures that the reconstruction aligns with community needs and regulatory requirements.

Efficient **resource allocation** is another essential element. Skilled labour, specialised equipment, construction materials and financial resources must be coordinated carefully to avoid delays and unexpected costs. The planning tools included in this project particularly the Gantt Chart help maintain a realistic timeline and distribute resources according to project priorities.

Finally, the **risk analysis** recognises the uncertainties associated with rebuilding in a post-disaster environment. Weather conditions, slope instability, supply chain issues and community impacts remain major concerns, but identifying these risks early allows the project team to prepare appropriate mitigation strategies.

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