

Central Alberta Corridor Initiative Solutions

Transportation & Logistics

Summary Solution Brief

The Challenge

The Central Alberta Corridor faces a set of interrelated transportation and logistics constraints that limit its ability to function as a globally competitive hub for critical materials processing. Mineral resources are widely dispersed across Northern and Western Canada, while refining and conversion capacity is concentrated in a small number of industrial clusters, particularly Alberta's Industrial Heartland. Moving bulk materials efficiently between and within these locations can be difficult and costly.

Key barriers include constrained rail and road capacity from remote upstream regions into Alberta, aging and under maintained infrastructure, and a shortage of business ready industrial sites with direct rail access. Many available sites lack basic transportation connectivity, while those with rail access are largely occupied. At the same time, there is no consolidated, decision grade view of where constraints are occurring, what is driving them, or how infrastructure, site readiness, and market demand interact.

These challenges risk making transportation a structural ceiling on growth. Without coordination, value added activity may be delayed, stranded, or pushed offshore. Aging infrastructure is expected to create additional reliability and capacity constraints within the next three to five years, and simply adding new infrastructure will not resolve underlying deficiencies in existing roads, bridges, rail lines, and corridors. Addressing transportation and logistics is therefore foundational to market access, investment confidence, and Canada's ability to anchor midstream and downstream value creation.

The Initiative

This initiative positions the FMA as a catalyst for unlocking transportation and logistical constraints that limit the movement of critical materials into and within the Central Alberta Corridor. The objective is to enable affordable, reliable, and scalable connectivity between upstream resource regions and downstream industrial clusters, ensuring that transportation does not become a binding constraint on value added development.

Rather than advocating for isolated infrastructure projects, the initiative is designed to create system level understanding, prioritization, and sequencing through a coordinated set of third party led studies. Together, this work establishes a shared, evidence-based foundation that allows governments, industry, and investors to align around where interventions will unlock the greatest economic and industrial value.

At a high level, the initiative focuses on:

- Clarifying where transportation and logistics constraints are occurring across the Corridor and what is driving them;
- Integrating infrastructure condition, site readiness, and market demand into a single analytical framework;
- Prioritizing interventions based on economic impact, feasibility, and sequencing rather than isolated needs; and,
- Reducing the risk of fragmented or duplicative infrastructure investment.

Taken together, the initiative reframes transportation and logistics from a reactive constraint into a strategic enabler. It provides governments with credible evidence to prioritize funding, gives investors confidence that infrastructure will scale in step with demand, and allows project proponents to plan development pathways with greater certainty and lower risk.

Opening Moves

The initiative advances through three integrated opening moves that proceed in parallel and inform one another.

Infrastructure Prioritization Matrix: A corridor wide assessment of existing municipal, provincial, and federal transportation infrastructure to identify current and near term constraints in roads, bridges, rail lines, and corridors. The work distinguishes between condition related limitations and usage driven bottlenecks, integrates market context, and produces a prioritized matrix linking infrastructure condition, demand, and economic impact. The outcome is a decision grade tool to guide funding and investment prioritization.

Site Access Assessment: A systematic evaluation of transport capacity and site availability across Alberta's Industrial Heartland and other industrial clusters in the Corridor. This work moves from abstract land supply to actionable, investment ready site intelligence by identifying where targeted, lower cost interventions such as rail spurs or localized road upgrades could unlock the greatest number of sites. The focus is on opening the most sites for the lowest cost.

Market and Logistics Assessment: A demand driven analysis that quantifies inbound and outbound logistics requirements associated with current and potential critical materials activity. Using aggregated, confidential project level data, this work assesses

volumes, timing, transport modes, and commercial capacity needs. The results provide realistic demand signals that inform infrastructure and site level decisions and reduce the risk of stranded or underutilized assets.

Role of the FMA

The FMA acts as a neutral ecosystem orchestrator, not as an infrastructure owner, operator, or technical delivery body. Its role is to enable and align.

The Alliance identifies, recruits, and supports independent third party partners to lead the technical work, while ensuring the right participants are engaged. It serves as a trusted intermediary for aggregating confidential, project level data, integrates findings across workstreams, and ensures that insights both inform and are informed by the broader coalition and ecosystem. The FMA translates outputs into coherent, decision ready insights for governments and investors.

What Success Looks Like

Success is defined by clarity, coordination, and confidence. Decision makers have access to credible, shared data on logistics constraints, infrastructure condition, site readiness, and market demand. Governments and investors can clearly see where targeted interventions will unlock the most value.

Over time, more industrial sites become operationally viable, upstream projects gain predictable pathways to market, downstream processors gain confidence in feedstock delivery, and infrastructure investment proceeds in step with real demand rather than speculation.

Detailed Solution Brief

Barrier That Needs Addressing:

The Central Alberta Corridor faces a set of interrelated transportation and logistics constraints that limit its ability to function as a globally competitive hub for critical-materials processing. Mineral resources are widely dispersed across Northern and Western Canada, while refining and conversion capacity is concentrated in a small number of industrial clusters, particularly Alberta's Industrial Heartland. Moving bulk materials efficiently between and within these points is increasingly difficult and therefore costly.

Key challenges include constrained rail and road capacity from remote upstream regions into Alberta, aging and under-maintained infrastructure, congestion within existing industrial zones, and a shortage of business-ready industrial sites with direct rail access.

Many available sites within Alberta's Industrial Heartland and other industrial clusters in the central Alberta Corridor lack basic transport connectivity, while those with rail access are largely spoken for. This creates a material barrier for project proponents seeking to site new processing facilities, even where market demand and technical feasibility are strong. These challenges are intensified by the condition and configuration of existing infrastructure, where much of the region's public transportation network is aging and under-maintained.

Critically, there is also a lack of consolidated, decision-grade information. It remains unclear which constraints are driven by physical infrastructure condition, usage intensity, missing links, commercial capacity, or sequencing challenges between upstream production and downstream investment.

Why This Is Important:

Canada's geography is both a strength and a liability. While Northern and Western Canada host world-class mineral resources, long distances to processing centres and constrained logistics threaten to strand these assets or push value-added activity offshore. Without coordinated action, transportation bottlenecks risk becoming a structural ceiling on growth, regardless of upstream resource potential or downstream demand.

These challenges are compounded by a classic "chicken-and-egg" problem. Infrastructure investors hesitate without firm demand, while resource and processing projects cannot advance without credible infrastructure plans. Solving this coordination failure requires a mechanism to align public and private capital, sequence investments intelligently, and move multiple parts of the value chain forward together.

With aging and under-maintained infrastructure, significant capacity and reliability constraints are expected to emerge within the next three to five years without substantial investment. Importantly, pursuing new infrastructure alone will not resolve current bottlenecks: unresolved deficiencies in existing rail lines, roads, bridges, and corridors will continue to constrain movement even as new capacity is added. The limited availability of rail infrastructure in particular forces heavy, bulk materials onto road networks, accelerating wear and tear on municipal and provincial assets and increasing long-term maintenance costs.

Addressing transportation and logistics is therefore not just an infrastructure issue—it is foundational to market access, investment confidence, and the Corridor’s ability to anchor midstream and downstream value creation in Canada.

The Initiative:

This initiative positions the FMA as a catalyst for unlocking transportation and logistical constraints that limit the movement of critical materials into and within the Central Alberta Corridor. The objective is to enable affordable, reliable, and scalable connectivity between upstream resource regions and downstream industrial clusters, ensuring that transportation capacity does not become a binding constraint on value added development.

Rather than advocating for isolated infrastructure projects, the initiative focuses on system level understanding, prioritization, and sequencing. The FMA leads a coordinated effort to establish a shared, evidence-based foundation that clarifies where transportation constraints are occurring, what is driving them, and which interventions will unlock the greatest economic and industrial value. This approach supports better aligned decision making by governments, industry, and investors, and reduces the risk of fragmented or duplicative infrastructure investments.

Potential solutions include coordinated upgrades to existing infrastructure, strategic expansion of rail access within the Heartland and adjacent clusters, consolidation of upstream volumes to justify major transport investments, and exploration of transformative options such as a heavy-haul provincial rail corridor linking northern resource regions to Alberta’s industrial core.

Taken together, this initiative reframes transportation and logistics from a reactive constraint into a strategic enabler of ecosystem development. It provides governments with credible evidence to prioritize funding, gives investors confidence that infrastructure will scale in step with demand, and allows project proponents to plan development pathways with greater certainty and lower risk.

Success Looks Like:

Success is defined by clarity, coordination, and confidence. Decision-makers have access to credible, shared data on logistics constraints, infrastructure condition, market demand,

and investment priorities. Governments and investors can clearly see where targeted interventions will unlock the most value.

Over time, more industrial sites within the Corridor become operationally and commercially viable, with improved rail and road access. Upstream projects gain predictable pathways to market, downstream processors gain confidence in feedstock delivery, and infrastructure investment proceeds in step with real demand rather than speculation.

The Role of the FMA:

The FMA acts as a neutral ecosystem orchestrator, not as an infrastructure owner, operator, project proponent, technical delivery body, or stakeholder convener for this work. Its role is to enable and align, rather than to lead execution.

The Alliance would be responsible for identifying, recruiting, and supporting an independent third party entity with the technical credibility and mandate to lead transportation and logistics analysis. This third party would be responsible for convening the appropriate stakeholders, leading the technical work, and producing the underlying studies and recommendations. While the FMA does not convene stakeholders directly, it plays a critical role in ensuring the right parties are at the table. The Alliance leverages its network to help the third party identify relevant industry participants, infrastructure owners, logistics providers, Indigenous partners, investors, and governments whose input is necessary for credible analysis. In doing so, the FMA helps bridge silos and reduce participation gaps that would otherwise undermine system level understanding.

The FMA also plays a critical role in coordinating inputs into this third party work. Acting as a trusted intermediary, the Alliance aggregates confidential, project level data from industry participants, including anticipated volumes, timing, routing needs, and commercial constraints. This information is anonymized and integrated to inform third party analysis, ensuring that commissioned studies are grounded in realistic market demand without compromising competitive sensitivities.

The FMA also serves as a two way integration point between this work and the broader coalition and ecosystem. It ensures that the third party led analysis is informed by the priorities, constraints, and lived experience of coalition members, including upstream developers and downstream processors. At the same time, it translates findings back into

the ecosystem, ensuring that insights from the work directly inform other FMA initiatives, policy engagement, and investment discussions.

Finally, the FMA synthesizes outputs from the third party led work into coherent, decision ready insights for governments and investors. By stewarding alignment between analysis, ecosystem needs, and policy dialogue, the Alliance helps ensure that transportation and logistics planning evolves as an integrated enabler of the Central Alberta Corridor rather than as a standalone exercise.

Who Needs To Be Involved:

Addressing transportation and logistical constraints across the Central Alberta Corridor requires participation from a broad and coordinated set of actors whose decisions, assets, and investments shape how materials move through the system. No single organization controls the full transportation chain, making cross sector engagement essential.

- Upstream resource developers and project proponents: Mining and resource companies operating in Northern and Western Canada provide critical insight into expected volumes, timing, material characteristics, and routing requirements. Their participation is essential to grounding infrastructure planning in realistic demand and to identifying where transport constraints directly threaten project viability.
- Downstream processors and industrial operators: Refining, conversion, and manufacturing facilities within Alberta's Industrial Heartland and other Corridor clusters inform site specific access needs, inbound and outbound logistics requirements, and the operational implications of congestion, reliability, and cost. Their input helps ensure that infrastructure solutions support scalable industrial development rather than isolated projects.
- Rail, trucking, and logistics service providers: Transportation and logistics firms bring operational expertise on network capacity, equipment availability, service constraints, and commercial realities. Their involvement is critical to distinguishing between physical infrastructure gaps and limitations driven by market structure or service models.
- Infrastructure owners and system operators: Municipal, provincial, and federal authorities responsible for roads, bridges, rail corridors, and trade infrastructure provide insight into asset condition, maintenance backlogs, regulatory constraints, and planned investments. Their participation helps align proposed solutions with existing plans and funding mechanisms.

- Indigenous communities and rights holders: Indigenous Nations whose territories intersect key transportation corridors must be meaningfully involved. Their perspectives are essential for understanding local constraints, opportunities for partnership, and pathways to align infrastructure development with rights, interests, and long term regional benefits.
- Investors and potential project proponents: Institutional investors, infrastructure funds, and companies considering future processing or logistics intensive projects help articulate the transportation and logistics requirements needed to support investment decisions. Their input ensures that proposed solutions are not only technically feasible, but commercially viable and investable.
- Economic development organizations and regional partners: Economic development agencies, industrial land developers, and regional planning bodies provide local context on site readiness, land availability, and development timelines. They help connect transportation planning to real world industrial growth strategies.
- Provincial and federal policymakers and program administrators: Governments play a central role in funding, regulatory approval, and corridor level planning. Early and informed engagement supports alignment with trade corridor programs, infrastructure funding mechanisms, and broader industrial policy objectives tied to critical materials.

Opening Moves:

1. **Infrastructure Prioritization Matrix:**

This opening move establishes a corridor-wide Infrastructure Prioritization Matrix that provides a shared, decision grade understanding of how existing transportation infrastructure is constraining the movement of critical materials across the Central Alberta Corridor. While presented as a discrete workstream, this effort is designed to proceed in parallel with the site access assessment and market assessment, with findings from each continuously informing the others.

The focus is on existing infrastructure, not on proposing new greenfield projects. Many municipal, provincial, and federal transportation assets are aging or operating beyond their intended use, and without significant reinvestment, additional constraints are expected to emerge within the next three to five years. Addressing new infrastructure opportunities without first resolving these underlying constraints risks compounding inefficiencies rather than relieving them.

At a high level, this workstream:

- Assesses the current condition and capacity of roads, bridges, rail lines, and key corridors across municipal, provincial, and federal systems;
- Identifies current and near term constraints, distinguishing between condition related limitations and usage driven bottlenecks;
- Evaluates where missing or insufficient rail access is forcing heavy or bulk materials onto road networks, accelerating wear and increasing long term maintenance costs; and,
- Examines how infrastructure constraints vary by location, commodity type, and logistics intensity.

Crucially, the assessment integrates market context rather than treating infrastructure in isolation. Findings from the market and site access workstreams are used to identify specific niches where infrastructure constraints are directly preventing access to markets or limiting the viability of upstream and downstream projects. This includes understanding where inadequate roads, bridges, or rail connections within the Corridor restrict heavy or containerized loads.

The primary output is a prioritized infrastructure matrix that:

- Links infrastructure condition and usage patterns to critical materials demand;
- Identifies which constraints are most urgent and which upgrades would unlock the greatest economic value;
- Provides a practical basis for prioritizing public and private infrastructure funding; and,
- Supports alignment with existing infrastructure deficit programs and provincial and federal corridor funding mechanisms.

Together with the other opening moves, this matrix helps shift infrastructure planning from reactive maintenance toward a coordinated, market informed strategy that supports the long term competitiveness of the Central Alberta Corridor.

2. Site Access Assessment:

This opening move focuses on industrial site accessibility and readiness, translating corridor level infrastructure analysis into site specific, investment relevant intelligence. Proceeding in parallel with the infrastructure prioritization matrix and market assessment, the site access assessment ensures that transportation planning is grounded in the practical realities of where projects can actually locate and scale.

Building on the infrastructure baseline, this workstream undertakes a systematic assessment of transport capacity and site availability across Alberta's Industrial Heartland and other industrial clusters within the Central Alberta Corridor. The emphasis is not on abstract land supply, but on whether sites are genuinely accessible and operable given existing road, rail, and corridor constraints.

At a high level, this assessment:

- Evaluates transport access to existing and potential industrial sites, including road capacity, rail connectivity, and proximity to key corridors
- Identifies sites constrained by missing rail spurs, insufficient road access, weight limits, or localized bottlenecks
- Assesses site readiness in terms of the minimum infrastructure required to support logistics intensive, bulk material operations
- Differentiates between constraints that require major system level investment and those that could be resolved through targeted, lower cost interventions

A central objective is to identify how the greatest number of sites can be unlocked for the lowest total cost. In many cases, relatively modest investments, such as short rail extensions, spur connections, or localized road upgrades, may open multiple sites simultaneously. This approach challenges the assumption that new greenfield development or large scale infrastructure expansion is always the most efficient solution.

The output is a site access and readiness map that moves decision making from generalized land availability to actionable, investment ready intelligence. When integrated with the other opening moves, this workstream:

- Informs infrastructure prioritization by highlighting where site level constraints are most binding;
- Provides project proponents and investors with greater certainty about viable siting options; and,
- Helps governments and infrastructure planners target funding toward interventions that unlock the greatest industrial capacity per dollar invested.

Together, this opening move ensures that transportation and logistics planning is directly tied to real, near term opportunities for industrial development across the Corridor, rather than remaining at an abstract or purely strategic level.

3. **Market Assessment:**

This opening move establishes a market grounded understanding of logistics demand, ensuring that transportation and site level planning is anchored in realistic volumes, timing, and commercial requirements driven by critical materials projects. Proceeding in parallel with the infrastructure prioritization matrix and site access assessment, this workstream provides the demand side signal needed to sequence and justify investments.

The assessment focuses on quantifying inbound and outbound logistics requirements associated with current and potential critical materials activity across the Central Alberta Corridor. This includes understanding not only physical infrastructure needs, but also the commercial capacity required to move material at scale, such as availability of trucking services, rail capacity, equipment, and handling facilities.

At a high level, this workstream:

- Quantifies anticipated inbound and outbound material volumes by commodity, location, and time horizon;
- Assesses logistics intensity, including frequency of shipments, load sizes, and transport modes;
- Identifies where projected volumes exceed existing physical or commercial logistics capacity; and,
- Distinguishes between perceived logistics challenges and those that become binding only at higher volumes.

A critical insight underpinning this work is that small volumes rarely justify infrastructure investment, while large scale operations require orders of magnitude more capacity than many proponents initially anticipate. Understanding whether a project requires one truckload per day or dozens of truckloads per day fundamentally changes the infrastructure, service, and siting implications.

Given the commercial sensitivity of this information, the FMA enables the collection of confidential, project level data through a secure, third party led process. Data is aggregated and anonymized to generate system level insights without exposing individual company plans. This approach allows realistic demand to inform planning while maintaining trust across participants.

The primary outputs of this workstream include:

- A consolidated view of logistics demand driven by critical materials activity across the Corridor;
- Clear signals on where market demand supports near term infrastructure or site level investment;
- Inputs that directly inform infrastructure prioritization and site unlocking strategies; and,
- Reduced risk of stranded or underutilized infrastructure by aligning supply side investment with demand side reality.

Together with the other opening moves, the market and logistics assessment ensures that transportation planning is neither speculative nor reactive. Instead, it creates a feedback loop in which infrastructure condition, site readiness, and market demand continuously inform one another, enabling coordinated, investment ready decision making across the ecosystem.