

Transload Feasibility Study

City of Lloydminster

November 2020



Davies Transportation Consulting Inc.

Project Scope

Davies Transportation Consulting Inc. was engaged by the City of Lloydminster to assess the economic feasibility and potential options for construction of a transload facility at one of three sites identified by the City. The scope of the project included:

- Assessment of regional freight demand.
- Identification of regional transportation service providers and shippers.
- Consultation and interviews with industrial and commercial businesses.
- Rail facility site selection analysis.
- Assessment of the feasibility and costs for development of a transload facility, including capital costs of the rail spur and associated logistics infrastructure.
- Recommendations.

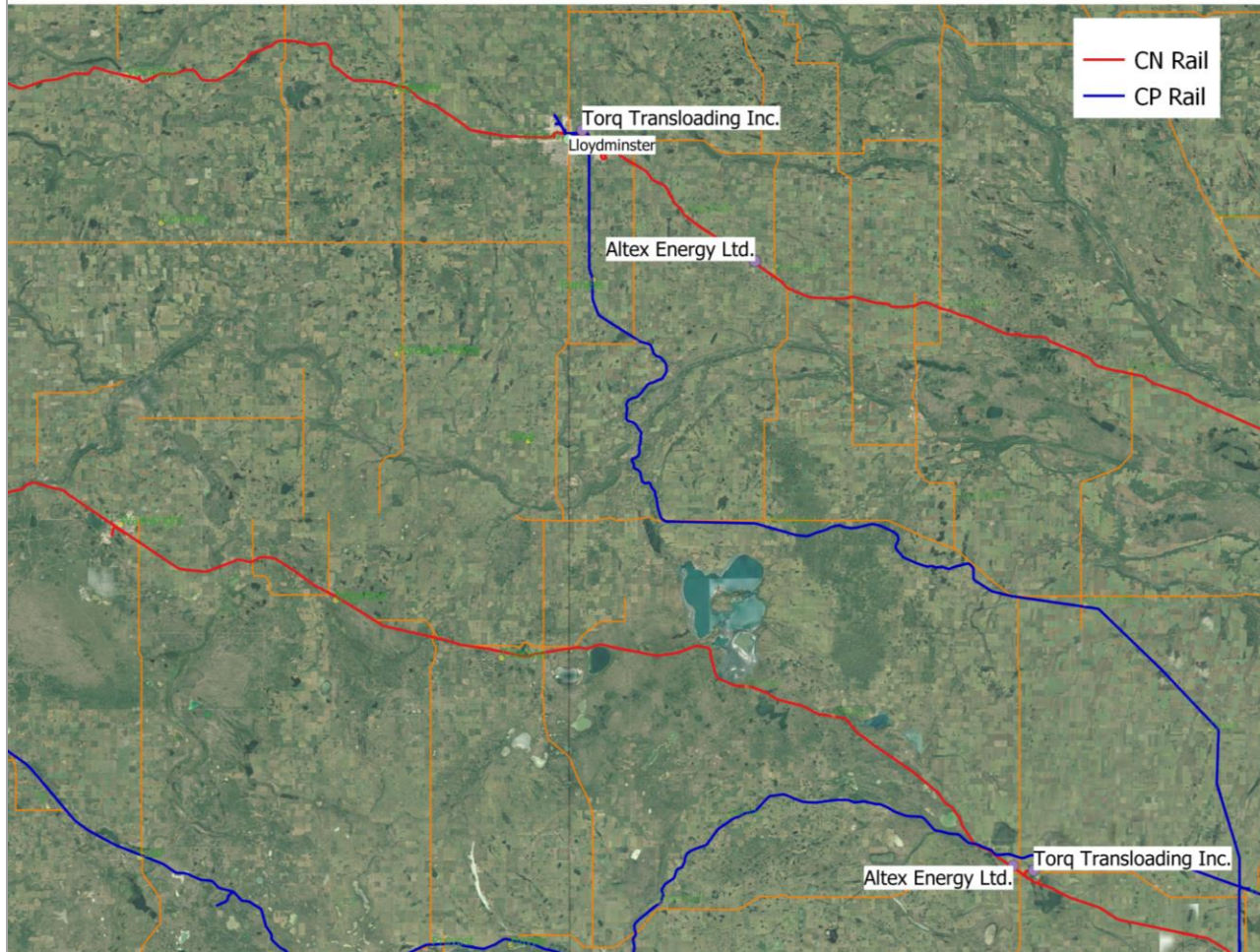
The study was carried out by a consulting team members Philip Davies; Norm Hooper P.Eng.; and Darryl Anderson.

Regional Freight Demand

Lloydminster Area Non-Local Freight Demand				
Agriculture				
Products	Primary Destination	Mode	Train Type	Facilities Examples
Wheat, Canola, Pulses	Offshore export	Rail	Unit Train	Viterra
Inputs	Origin	Mode	Train Type	Facilities Examples
Fertilizer	US & Offshore	Truck; Rail	Manifest	Lloydminster Agro Centre
Oil and Gas				
Products	Primary Destination	Mode	Train Type	Facilities Examples
Crude Oil	US	Rail	Unit/Manifest	Altex Energy Torq Transloading
Inputs	Origin	Mode	Train Type	Facilities Examples
Frac Sand	US	Rail-Truck Transload	Unit/Manifest	Torq Transloading (Cutknife)
OCTG (pipe)	Multiple	Truck; Rail-Truck Transload	Manifest	B&R Eckels; Tbar-1 Trucking
Other steel	Multiple	Truck		Foremost

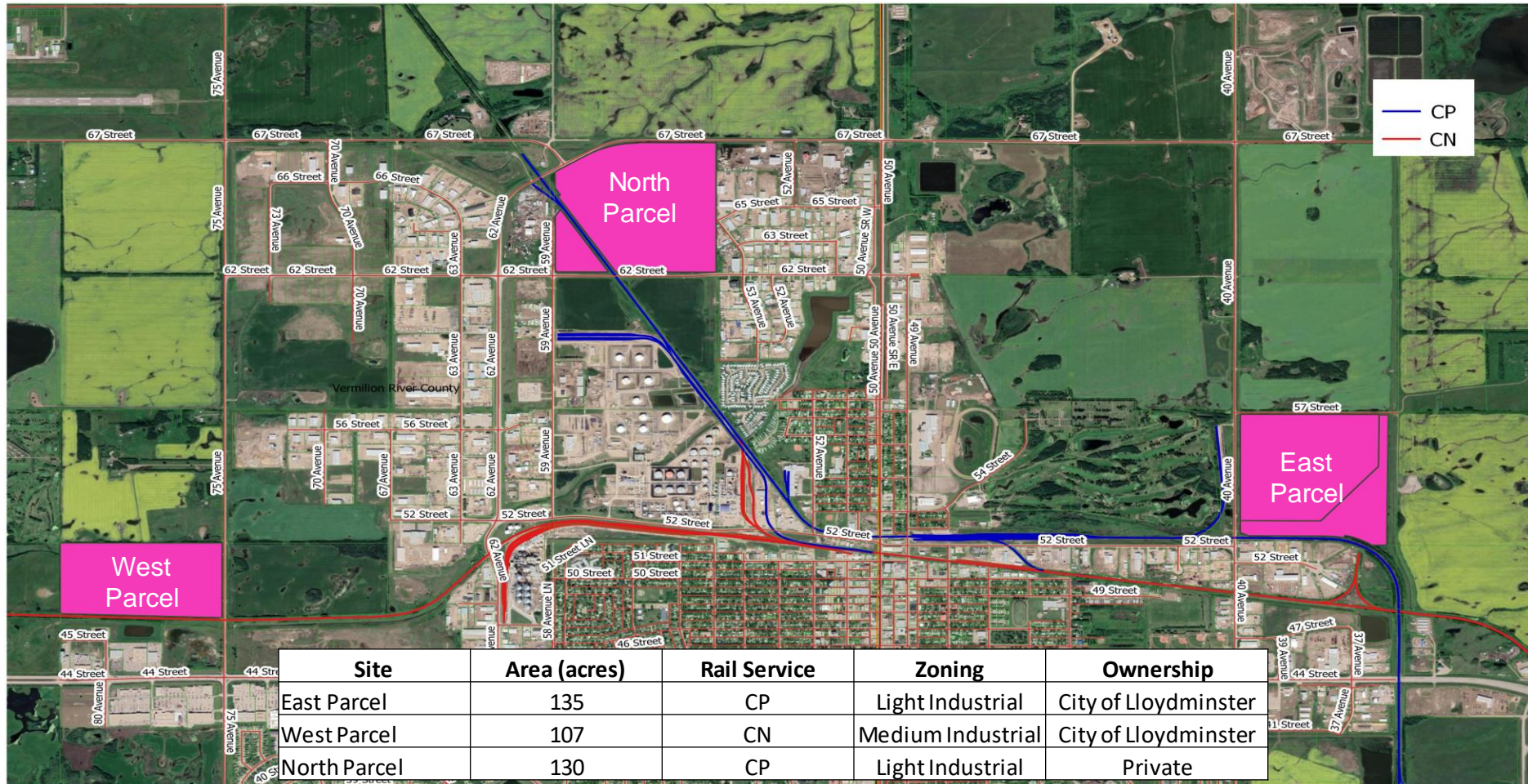
Existing Transloads

Lloydminster Area Crude Oil Transload Terminals



Potential Sites

Lloydminster Transload Parcels



Unit Train vs Manifest Train Facilities

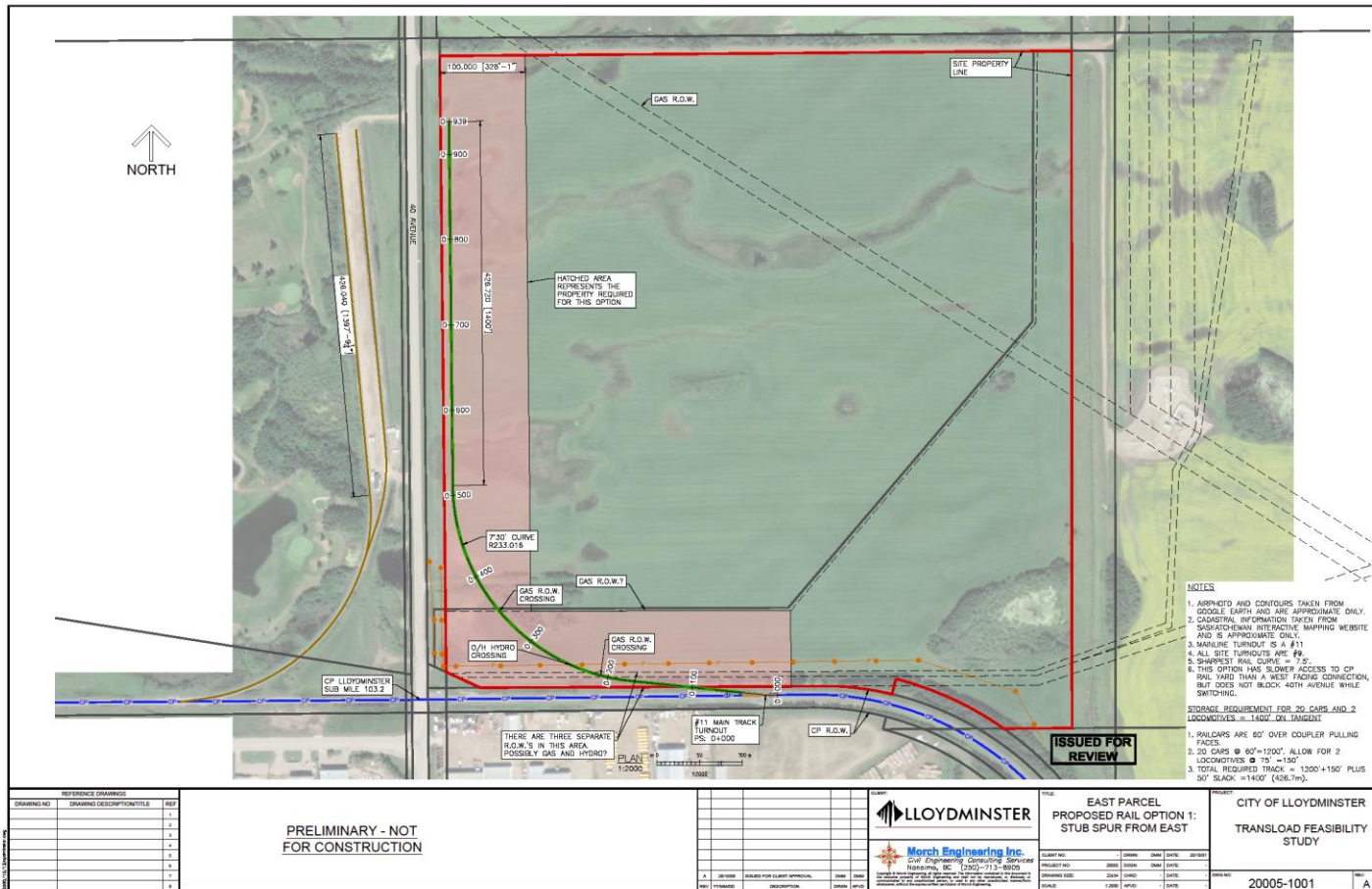
Manifest Trains: A manifest train is comprised of small blocks of mixed car types and multiple commodities, origins and destinations. These car blocks must be marshalled from multiple origins into trains for transit, and the trains split into car blocks for delivery to specific terminals at destination.

- Transload facility can be sized to accommodate anticipated traffic – flexible capacity.
- Freight example: Single or multiple car shipments of steel, fertilizer, etc.

Unit Trains: a train in which all cars carry the same commodity and are shipped from the same origin to the same destination.

- Transload facility must have sufficient track to accommodate a full train (industry standard 8500 feet) – requires a large land parcel.
- Frequent, high volume shipments.
- Freight example: grain unit trains at high throughput grain elevators.

Manifest Train Transload – East Site



- Manifest train service.
- 20 Car Capacity.
- Served by CPR from the East (avoids traffic disruption on 40th Avenue).
- Estimated Cost: \$1.7 to \$2.3 million.

Feasibility Analysis

- Potential freight: Oil Country Tubular Goods (drilling pipe and well casing) and other steel products.



Feasibility Analysis Assumptions

- Oil Country Tubular Good (OCTG) demand consumption for a well in the Lloydminster area estimated at 90 tonnes.
- 50% market share for the transload facility.
- Additional 25% for other steel products related to manufacturing (also oil & gas-linked).
- Analysis shows potential cost savings over current shipments by truck.

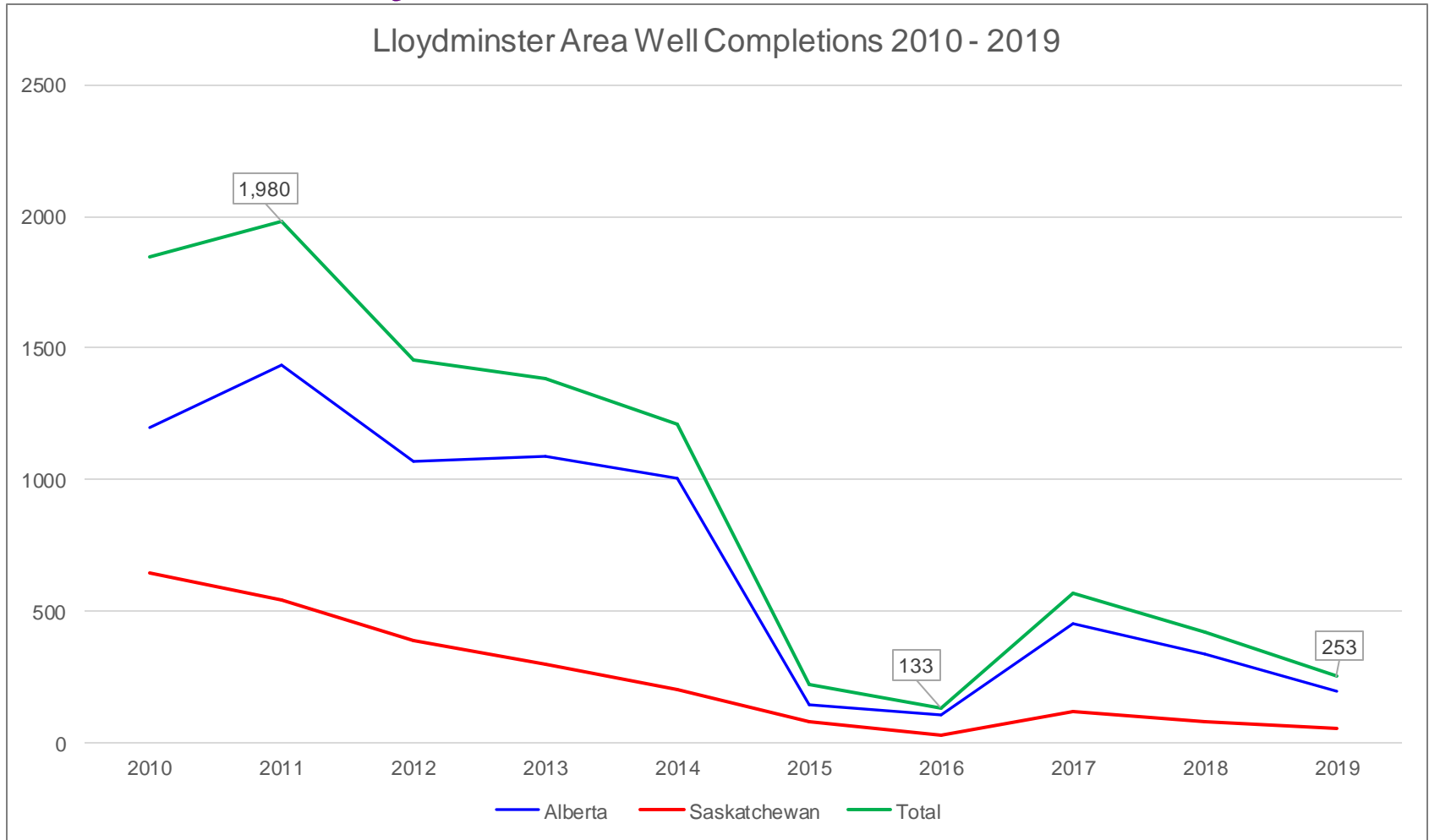
Feasibility Analysis Assumptions

- Land cost estimated at \$10,000 per acre based on competitive alternatives.
- Bare-bones 20-car manifest train transload facility with rail infrastructure cost \$2.3 million.
- Variable costs (labour and handling equipment rental) \$100 - \$150 per car.

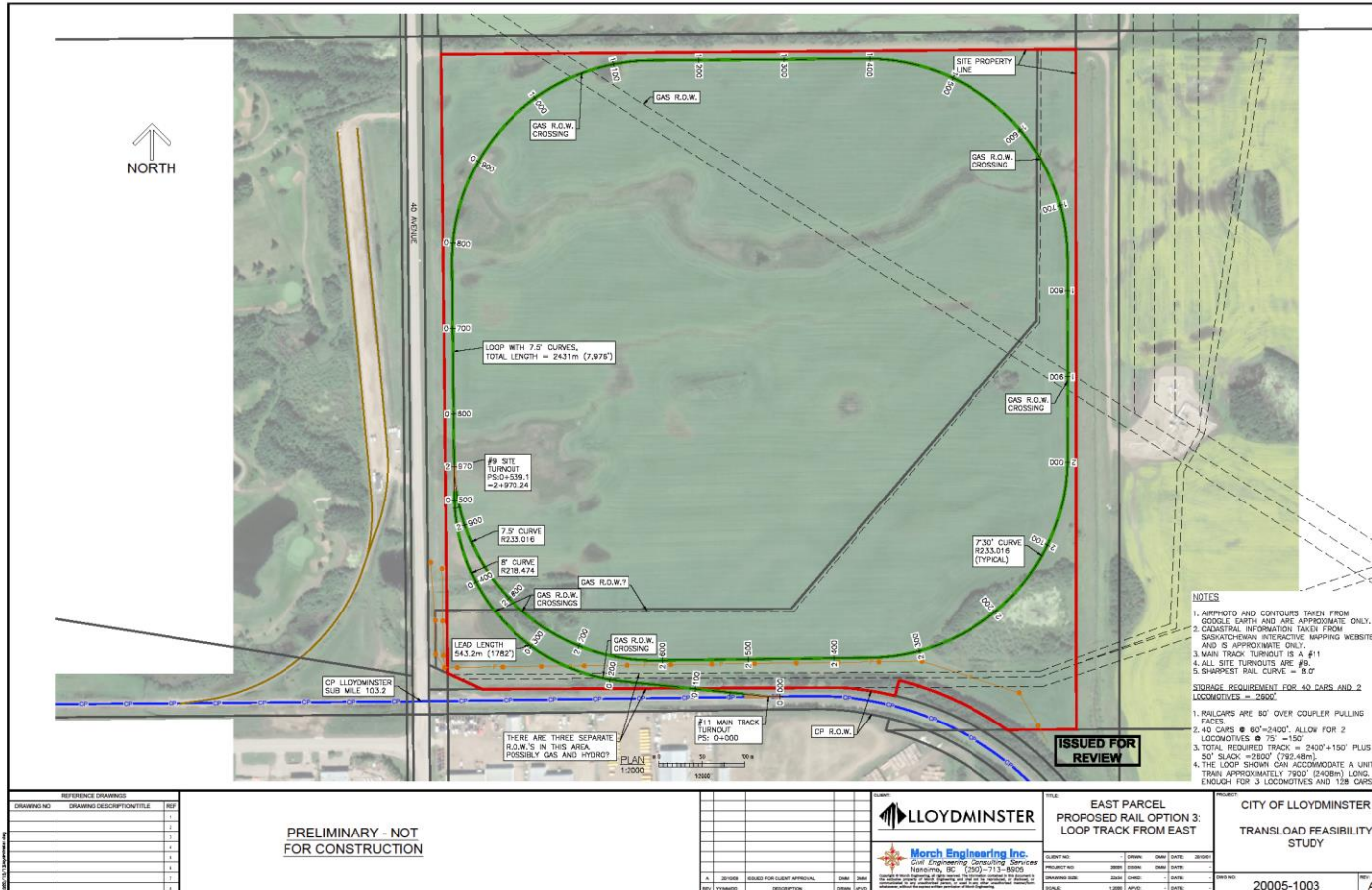
Feasibility Analysis Results

- Break-even revenue requirement would be \$855,893 based on a 12% cost of capital.
- Estimated freight volume insufficient to cover costs.
- High capital costs outweigh advantages of potentially lower transportation costs.

Limited Demand Due to Low Level of Activity in the Oil & Gas Sector



East Site With Loop Track Facility



- Track length 7800 feet
- Served by CP from the East.
- Estimated rail infrastructure costs \$6.1 million.
- No current identified freight demand.

Conclusions

- Currently there is insufficient identified demand to support construction of a transload facility in Lloydminster.
- Shippers may be able to transload at existing CN and CP team tracks in Lloydminster as an alternative to long-haul trucking.
- All three sites are suitable for development of a rail-served industrial facility.
- The availability of industrial sites close to the rail lines provides an economic development opportunity for the City of Lloydminster.
- The City could work with the railways to qualify sites accessible to their tracks by ensuring zoning etc. is in place to enable rapid development of the sites for rail-dependent uses.