Calgary

The Calgary Advantage

Landed Transportation Costs to Calgary and Distribution Costs for Outbound Traffic

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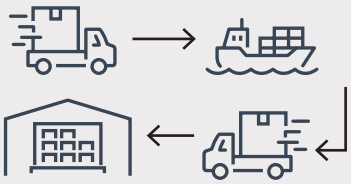
The Calgary advantage

For businesses looking for a new location, Calgary provides a competitive advantage. This study looks at the many transportation factors that go into setting up such an operation. Sourcing product from North American cities, supply chain costs from Asia, costs of warehousing and distribution are all considered. The results are clear. When compared to Vancouver, Calgary comes out on top.

Calgary is quickly becoming a preferred transportation hub. Forward-thinking companies such as Amazon, Walmart, Cisco, Canadian Tire, Home Depot and FedEx have all set up distribution centres. For companies wanting to experience the Calgary advantage, many more opportunities await.

Inbound costs

Truck/rail from supplier to ocean carrier port; ocean port to ocean port; truck/rail to warehouse



Calgary **$5 million**

Vancouver **$3.9 million**

Warehouse costs

A 20,000 sq ft building with lots of loading docks

Calgary **$3.7 million**

Vancouver **$7.2 million**

Distribution costs

Truck from warehouse to end customer.

Calgary **$1 million**

Vancouver **$1.7 million**

*Total landed cost scenario: 1000 containers as inbound traffic, 20,000 sq ft warehouse, 1000 trucks for outbound distribution.

Obviously it is less expensive to transport containerized product to Vancouver than to Calgary. But when you factor in warehousing and distribution costs, Calgary has a distinct advantage overall.

Introduction

Choosing the best location

There are many factors that go into choosing a location. The cost of moving the product to the specific location is the first issue to look at. The cost of buying or leasing property or a warehouse/distribution centre also needs to be considered. Other factors include the cost of final distribution to multiple locations, and the availability and ease of moving workers to the location. Finally, the time required from getting product from origin to destination should be examined. All these variables should be considered when a business is choosing the best location.

When an organization looks at their entire Supply Chain, there are many factors to consider.

Cost to bring product from origin to distribution or storage warehouse.

Includes transport costs to port or rail terminal from source

Includes cost of ocean vessel if applicable

Includes rail cost from port to inland port or rail terminal if applicable

Includes trucking cost to bring product to destination

Time to bring product from origin to destination (which can include all the transportation legs above)

Cost of warehouse or storage facility

Cost to pay warehouse or storage facility workers

Cost to distribute to final customers from warehouse or storage facility

Time to distribute to final customers from warehouse or storage facility

This report looks at these aspects with examples of each. It also analyzes the costs and estimated transportation times to each location from Asian markets as well as the costs to distribute within Western Canada.

Supply Chain Costs

Ocean shipping from Asia and Europe

FULL TRUCKLOAD (FTL)

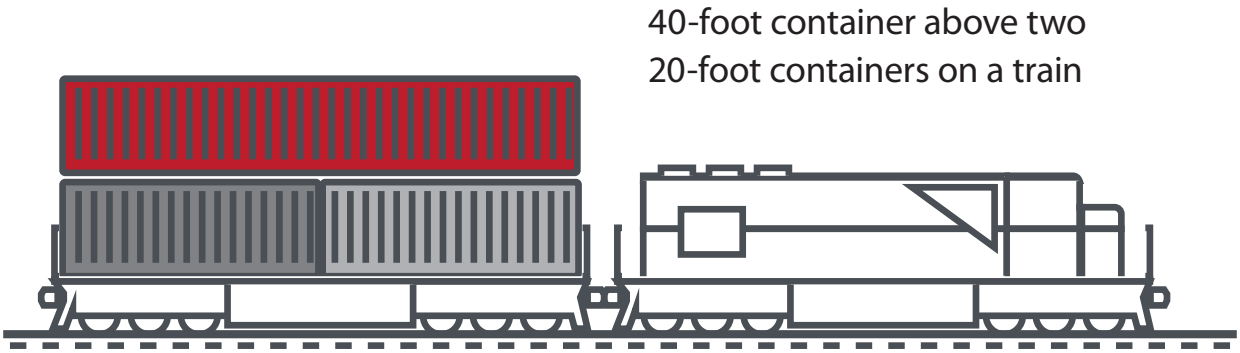
Many of the products for distribution in Canada originate in Asian markets. The United States is Canada's largest trading partner but many of the products are bulk. For products to enter Canada, they need to be transported by ocean vessels if they are shipped in large quantities (container loads or larger). Products can enter Canada in British Columbia through the Port of Vancouver or the Port of Prince Rupert, and in Eastern Canada from the Port of Halifax or the Port of Montreal. Products from foreign markets can also enter Canada via Ports in the United States. For this analysis, we will only be looking at ports within Canada.

Rates to Calgary

Research was conducted for rates to Calgary from a variety of Asian origins as well as one origin from Europe. These were compared with rates to Vancouver, and are listed in ***Figure 1.*** The rates were quoted directly from three logistics companies that provided the rates to both Vancouver and Calgary.[2] The rates do fluctuate based on the time of year and will rise at busier times such as the month of November and into December for the holiday rush of shipments. The rates above are also for dry containers. For temperature-controlled rates (for food products), the rates were, in general, 15-25% higher but were not provided by all parties for this study.

FIGURE 1 Quoted Rates from Logistics Broker Company

				Quoted Average Estimated Rates (US$)			
				20' Container		40' Container	
Origin City	Port City	Country	Via	Calgary	Vancouver	Calgary	Vancouver
Shanghai	Shanghai	China	Vancouver	$ 3,280	$ 2,095	$ 3,562	$ 2,597
Hong Kong	Hong Kong	China	Vancouver	$ 2,917	$ 2,054	$ 3,544	$ 2,492
Seoul	Busan	South Korea	Vancouver	$ 2,942	$ 2,432	$ 3,567	$ 2,584
Singapore	Singapore	Singapore	Vancouver	$ 2,945	$ 2,225	$ 3,569	$ 2,587
Kuala Lumpur	Port Klang	Malaysia	Vancouver	$ 3,335	$ 2,341	$ 3,697	$ 2,599
Kyoto	Osaka	Japan	Vancouver	$ 3,393	$ 2,481	$ 4,044	$ 2,655
Munster	Hamburg	Germany	Montreal	$ 3,398	$ 3,803	$ 4,411	$ 4,849



[2] These rates are in US$ and are based on a quote for shipments in October of 2018.

From actual origin to actual destination

These rates include the entire move from actual origin to actual destination. This means the container is picked up in the origin city by truck and then transported to port (which could also include rail). It also includes the ocean carrier rate, and then for the Vancouver destined products, includes a truck rate to place the container at a destination in Vancouver. For Calgary, it also includes a rail portion to transport the container from the Port of Vancouver to Calgary.

Obviously, it is less expensive to transport containerized product to Vancouver than to Calgary from Asian markets. The rail component adds an extra cost that Vancouver shipments do not have. This difference is an average of $864 US for 20-foot containers and $1078 US for 40-foot containers from each of the Asian markets above. On the other hand, it is more expensive for products from Europe that enter Canada in Montreal, as there is a larger rail cost to Vancouver than Calgary ($405 US for 20-foot containers and $438 US for 40-foot containers).

FTL RATES FROM NORTH AMERICA

FTL rates from North American cities can fluctuate based on the fuel rates and time of year. They tend to be more expensive around November and December due to the Christmas rush, weather and truck availability. Below is a list of rates from North American cities to both Calgary and Vancouver. These rates were sourced from Freightera and collected for shipments in November/December. The rates are in US$ from the US origins and CDN$ from the Canadian origins.

The rates are all less expensive to Calgary except for San Diego. Houston had the same rate to both cities. This is based on a full truckload of dry product consisting of 20 pallets.

FIGURE 2 **FTL rates from North American cities to Calgary and Vancouver**

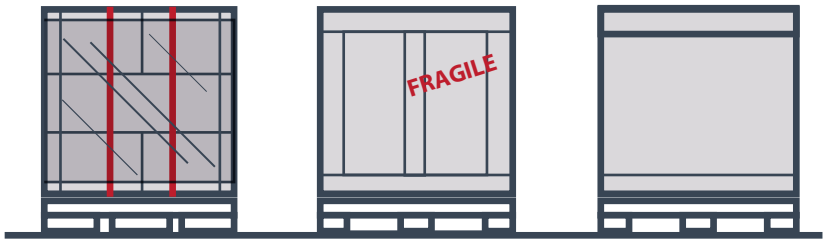
FTL Trucking Rates	Calgary	Vancouver
Chicago, IL	$ 4,425.00	$ 5,100.00
Pittsburgh, PA	$ 5,700.00	$ 6,600.00
Atlanta, GA	$ 6,350.00	$ 6,950.00
Norfolk, VA	$ 6,275.00	$ 7,850.00
Houston, TX	$ 6,150.00	$ 6,150.00
Allentown, PA	$ 6,285.00	$ 6,700.00
Louisville, KY	$ 5,985.00	$ 6,700.00
San Diego, CA	$ 5,450.00	$ 4,150.00
Toronto, ON	$ 4,005.00	$ 4,714.00
Montreal, PQ	$ 4,144.00	$ 4,707.00
Winnipeg, MB	$ 1,675.00	$ 3,400.00

LESS THAN LOAD (LTL)

When shipping less than container loads, there is another option to ship. These shipments can be moved by ocean liner, rail and truck from Asian markets but they can also be shipped by air. LTL's tend to cost more relative to FTL loads when comparing weight and volume, but the overall number is less than FTL shipments. These shipments are still shipped in containers but are sharing the space with other shipments. They must then be broken down or separated to be shipped to the destination. The separation can occur once the shipment arrives on land or can be completed closer to the destination. In the case of shipments to Calgary from Asia, the pallets or skids (see ***figure 3***) can be taken out of the container in Vancouver and then trucked to Calgary. Or it can be delivered to Calgary and then delivered by truck if all the product in the container was destined to the Calgary region.

Estimated rates from Asia and Europe

Figure 3 shows estimated rates for LTL shipments from Asian and European markets to Calgary and Vancouver. The three best quotes were used for air rates but there were rates much higher than the average of the three best rates. These quotes were collected from interviews with logistics companies as well as some information from a rate comparison website2 as the rates for containers above. Two origins were only based on single rates, so it is not an average (Kuala Lumpur and Singapore). The size of the shipment quoted was two pallets totaling approximately 150 kg each.



Samples of LTL Shipments for Air or Ocean Shipping

FIGURE 3 LTL Rates to Calgary and Vancouver from Asian and European Markets

				LTL Rates (US$)			
				Ocean/Rail/Truck		Air LCL	
Origin City	**Port City**	**Country**	**Via (for ocean)**	**Calgary**	**Vancouver**	**Calgary**	**Vancouver**
Shanghai	Shanghai	China	Vancouver	$ 925	$ 745	$ 2,860	$ 3,025
Hong Kong	Hong Kong	China	Vancouver	$ 997	$ 756	$ 2,578	$ 2,765
Seoul	Busan	South Korea	Vancouver	$ 1,005	$ 770	$ 3,073	$ 3,121
Singapore	Singapore	Singapore	Vancouver	$ 779	$ 705	$ 3,174	$ 3,037
Kuala Lumpur	Port Klang	Malaysia	Vancouver	$ 1,024	$ 799	$ 3,205	$ 3,261
Kyoto	Hanshin Ports	Japan	Vancouver	$ 933	$ 740	$ 2,795	$ 2,884
Munster	Hamburg	Germany	Montreal	$ 1,641	$ 1,912	$ 5,210	$ 5,450

These rates are also from origin to destination and include delivery to the destination in either Calgary or Vancouver.

Ocean freight rates lower to Vancouver

Once again, the rates to Vancouver for the ocean freight is less expensive than Calgary. The rate, on average, is $191.33 more for shipments to Calgary and is explained by the extra trucking or rail cost to get the product to the Calgary region. Calgary is less expensive than Vancouver for European shipments due to the extra distance of rail or trucking from Montreal to Vancouver compared to Calgary ($271.00).

Air freight rates lower to Calgary

Surprisingly, the air freight rates to Calgary are, on average, lower than the rates to Vancouver despite being further from the origin cities in Asia.

The exception is Singapore. When excluding the Singapore rates, Calgary is, on average, $109.00 less expensive than Vancouver (Singapore to Vancouver is $137.00 cheaper than to Calgary). Calgary is also less expensive from Europe from the origin that was surveyed ($240.00).

[2] https://ship.freightos.com/search
[3] https://fitsmallbusiness.com/wp-content/uploads/2017/02/LTL-freight-examples.jpg

LTL RATES FROM NORTH AMERICA

Shipments from North America to Calgary and Vancouver can have highly fluctuating rates based on backhaul opportunities and other shipments originating in the same region. ***Figure 4*** has a list of rates sourced based on the average of the five best quotes from FreightCentre (sometimes there were not five quotes listed, so the average of the two or three were used). The rates are in US$ from the US origins and in CDN$ from the Canadian origins.

The rates from within Canada are less expensive to Calgary than Vancouver but the rates from US origins tend to be closer with some lanes less expensive to Vancouver. These shipments were based on two pallets (48"*40"*54" high) and weighing 650 pounds.

FIGURE 4 **LTL rates from North American cities to Calgary and Vancouver**

LTL Trucking Rates	Calgary	Vancouver
Chicago, IL	$455.20	$455.00
Pittsburgh, PA	$507.40	$463.20
Atlanta, GA	$492.00	$502.40
Norfolk, VA	$501.00	$514.60
Houston, TX	$522.20	$459.00
Allentown, PA	$487.60	$479.80
Louisville, KY	$465.60	$433.40
San Diego, CA	$469.20	$392.60
Toronto, ON	$485.00	$596.00
Montreal, PQ	$291.00	$410.00
Winnipeg, MB	$328.00	$477.00

Warehouse and Distribution Centre costs

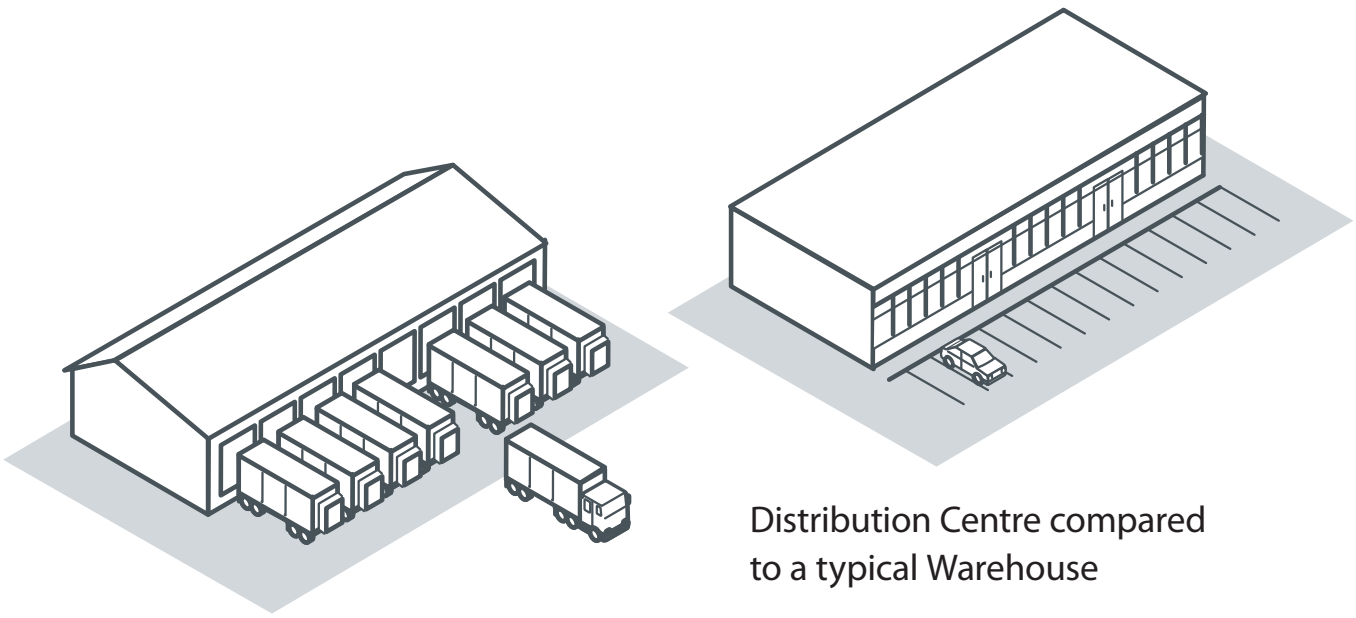
One of the costs associated with running your supply chain is a warehouse or a distribution centre. There are options to either rent or lease space or buy a building and land to run your business. There are benefits to both but buying the space is going to cost significantly more money up front. But you could save money in the long run as well as mitigate the risk of operational costs going up over time depending on the lease market. Vancouver currently has a 1.4 per cent vacancy rate, which is the lowest it has been in over ten years. Calgary currently sits at about 6 per cent which is down from 8 per cent in the first quarter of 2017 (the highest it had been in the last ten years). The Vancouver market has very tight supply characterized by low availability of industrial land and lease space. Calgary is balanced with a healthy supply of industrial construction ready lots and new lease space bought on by developers.

More opportunities in Calgary

Interviews with commercial real estate companies point towards more opportunities in the Calgary region than there are in the Vancouver region. Calgary is experiencing a trend of converting some warehouses to distribution centres with more bay doors for trucks. This is based on Calgary's location on the TransCanada Highway (east/west) as well as Highway #2 (north/south) connecting Northern Alberta and the US to the south.

Calgary is a leading distribution hub

Calgary is perceived as a distribution centre hub with many companies setting up distribution centres within the region (Walmart, Costco, Sears, Home Depot, Princess Auto, Amazon, FedEx, Purolator, GFS, Sysco, Sobeys/Safeway, Loblaws, Brookfield, The Brick, DHL, UPS, Canadian Tire). Vancouver is also used as a distribution centre but not to the same extent as the transformation in the Calgary region.



Distribution Centre compared to a typical Warehouse

You can rent for less in Calgary

When comparing rental rates between Calgary and Vancouver, there are many factors to consider. Location is one of the biggest factors as your business will want to select a location with easy access to major roads and highways as well as be close to intermodal rail yards and the airport. Both regions have several location options throughout the cities. When speaking with real estate agents that represent these regions, the following conclusions were reached:

- Vancouver is more expensive across the board for all types of warehouse or distribution centres.
- There are fewer options in Vancouver, especially for larger properties.
- The "additional rent" (which covers taxes, utilities etc.) is much larger in Vancouver than Calgary.
- The "base rent" (or net rent) is also much larger in Vancouver than Calgary but has large fluctuations based on location whereas they are more consistent in Calgary.
- The net rent for a ~20,000 square-foot warehouse in Calgary is usually $8–$12 per square foot, per year (lower for longer term leases and for older properties).
- The net rent for a ~20,000 square-foot warehouse in Vancouver is usually between $16–$30 per square foot, per year (lower for longer-term leases and for older properties).
- The additional rent for warehouses in Calgary runs $3–$5 per square foot, per year.
- The additional rent for warehouses in Vancouver runs $6–$10 per square foot, per year.
- The rents for regions just outside of Calgary (Balzac) are very similar to Calgary for net rent but tend to be lower for additional rent ($2–$3 per square foot per year).

  → Additional rent is lower in regions outside of Calgary due to a lower tax base but Calgary properties have additional benefits for the extra costs

  - Fire and ambulance services are closer
  - Proximity to workforce populations
  - Public transportation is accessible for industrial parks within Calgary
  - Estimates are that warehouse workers in Balzac make approximately $3/hr. more than warehouse workers in Calgary to compensate for having to drive further to get to work which is an additional cost to the organization

[4] https://static1.squarespace.com/static/52fa4b13e4b02e9b111e5429/t/5b733cda0e2e7265594530aa/1534278879907/IND_AUG+2018.pdf
[5] https://www.spacelist.ca/listings/r/5/c2b2r58jcf/industrial

Figure 5 shows some rental properties within Calgary that were listed at the end of August 2018 along with the address and square footage.

Base rents are much lower, the larger the property as well as the age of the property. The two least expensive base rents are a 65,600 square-foot property and an older property in SE Calgary.

Figure 6 is a chart showing some rental properties within Vancouver that were listed at the end of August 2018 along with the address and square footage.

FIGURE 5 - **Sample of rental locations in Calgary in August of 2018 in CDN$** [4]

Calgary Rental Opportunities August 2018				
Address	**Square Feet**	**Base Rent**	**Additional Rent**	**Monthly Rate**
5655 - 10th Street NE	7,900	$ 12.50 SF/Yr	$ 3.16 SF/Yr	$ 10,310.00
5525 - 1st Street SE	15,000	$ 5.75 SF/Yr	$ 4.30 SF/Yr	$ 12,563.00
911 - 46th Avenue SE	19,117	$ 10.00 SF/Yr	$ 3.89 SF/Yr	$ 22,128.00
5025 - 51st Street SE	5,823	$ 12.00 SF/Yr	$ 6.93 SF/Yr	$ 9,186.00
19 Aero Drive NE	65,600	$ 3.95 SF/Yr	$ 3.49 SF/Yr	$ 40,672.00

FIGURE 6 - **Sample of rental locations in Vancouver in October of 2018 in CDN$** [5]

Vancouver Rental Opportunities October 2018				
Address	**Square Feet**	**Base Rent**	**Additional Rent**	**Monthly Rate**
100 - 430 Railway St	8775	$ 30.00 sf/yr	$ 8.00 sf/yr	$ 27,787.00
530 E. Kent Ave S	24000	$ 18.00 sf/yr	$ 6.50 sf/yr	$ 49,000.00
200 - 1350 E 3rd Ave	12,500	$ 14.00 sf/yr	$ 5.15 sf/yr	$ 19,948.00
520 Alexander St	5000	$ 20.00 sf/yr	$ 6.15 sf/yr	$ 10,895.00
1937 Triumph St	10000	$ 25.00 sf/yr	$ 5.00 sf/yr	$ 25,000.00
618 East Kent Ave S	72400	$ 20.00 sf/yr	$ 6.00 sf/yr	$ 156,867.00

[4] https://static1.squarespace.com/static/52fa4b13e4b02e9b111e5429/t/5b733cda0e2e7265594530aa/1534278879907/IND_UG+2018.pdf
[5] https://www.spacelist.ca/listings/r/5/c2b2r58jcf/industrial

Purchasing will cost you more in Vancouver

A company that purchases their warehouse space will also find the cost very different between Calgary and Vancouver. Information provided by real estate agents indicate that Calgary rates for a warehouse in the 15,000 to 20,000 square-foot range would be around $170–195 per square foot. Conversely, in Vancouver the same size warehouse would cost $320–400 per square foot. In the month of November 2018, there were almost no properties of that size available in Vancouver whereas Calgary had about ten properties in that range.

Figure 7 shows properties that were sold in the Vancouver region during the second quarter of 2018. The price per square foot is much higher for the smaller property in Vancouver with the rates becoming less farther away. The lowest rate is in Langley, about 57 kilometers from downtown Vancouver and close to one hour of driving time.

Figure 8 shows sample properties within Calgary that were listed for sale during the fourth quarter of 2018. Please note that these rates can fluctuate based on time frame and may no longer be on the market. The rate for smaller warehouses is more per square foot than larger properties, much like base rent rates are larger for smaller properties while decreasing for larger warehouses.

FIGURE 7 **List of Warehouses that were sold in the Vancouver region during Q2 2018** [6]

Location	Square Feet	Address	Price	Price/S.F.
Vancouver	1,875	370 East Esplanade - Unit 101	$ 921,200.00	$ 491.31
Burnaby	12,496	8288 North Fraser Way, Unit 102	$ 3,944,941.00	$ 315.70
Coquitlam	15,663	1501 Hartley	$ 5,850,000.00	$ 373.49
Richmond	51,958	12051 Riverside Way	$ 16,100,000.00	$ 309.87
Delta	9,048	1600 Derwent Way, Unit 3,4,5	$ 2,900,000.00	$ 320.51
Langley	32,402	27222 58th Crescent	$ 7,300,000.00	$ 225.29

FIGURE 8 **List of Sample Properties that were listed for sale in Calgary during Q4 of 2018** [7]

Location	Square Feet	Address	Price	Price/S.F.
Calgary	21,137	2025 41st Ave NE	$ 3,200,000.00	$ 151.39
Calgary	10,750	3904 1st St NE	$ 1,790,000.00	$ 166.51
Calgary	23,674	2620 22nd St NE	$ 3,800,000.00	$ 160.51
Calgary	29,192	1439 17 Ave SE	$ 4,000,000.00	$ 137.02

[6] http://www.collierscanada.com/en/commercial-property-research/2018/metro-vancouver-industrial-market- report-q2-2018#.XBRDnmhKiUk
[7] https://www.loopnet.com/for-sale/calgary-ab/industrial/?sk=63c11b29875a2de5de3d66116b1047c5

Calgary land — more choice, less cost

Land costs are also higher in Vancouver for serviced land ready for new development. Currently, the rates in the Calgary region can range from $400,000 to $1,400,000 per acre. The higher priced land tends to be within the city limits and closer to major roads and highways. There is very little fully-serviced land in the Vancouver region. There is one example in Richmond that is listed for $2,400,000 per acre (and only a total of 2.31 acres for the entire plot of land). As there are very few examples for properties right in Vancouver, we have provided rates for land outside the city, with samples less per acre the further away from Vancouver. The rates in Calgary are more consistent and the fluctuations are more based on the size of the property (larger plots are less expensive).

Figure 9 shows some properties that were sold in the Vancouver region during the second quarter of 2018. The highest price per acre is for a smaller property right in Vancouver while the lowest price per acre is in Langley. This property is also about 57 kilometers from downtown Vancouver and close to an hour of driving time.

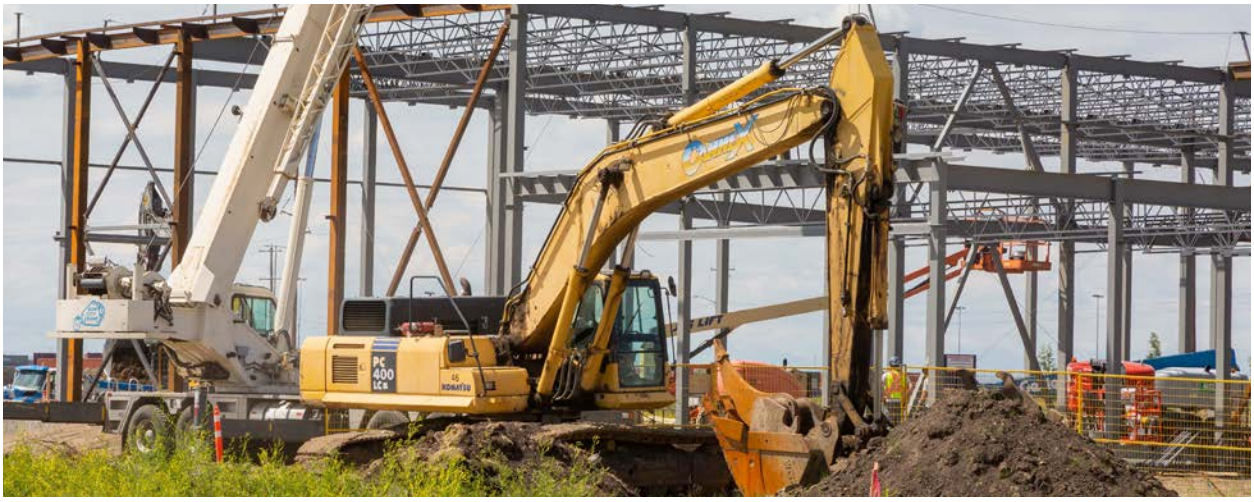
Figure 10 shows land that is currently for sale during the fourth quarter in Calgary. Each of these listings are within the city limits and the price per acre is consistent but does get lower for the land that is larger.

FIGURE 9 - List of Properties that were sold in the Vancouver region during Q2 2018[8]

Location	Acres	Address	Price	Price/Acre
Vancouver	0.66	2055 Boundary Road	$ 12,100,000.00	$ 18,333,333.33
Surrey	4.49	3030 190 Street	$ 5,700,000.00	$ 1,269,487.75
Surrey	5.6	19370 36th Avenue - Cedar Coast	$ 5,607,500.00	$ 1,001,339.29
Langley	2.135	Lot 2, 20400 Block 102B Avenue	$ 3,914,000.00	$ 1,833,255.27
Langley	5.51	5052 272nd Street	$ 4,979,796.00	$ 903,774.23

FIGURE 10 List of properties listed during Q4 2018 in Calgary[9]

Location	Acres	Address	Price	Price/Acre
Calgary	2.25	5495 61st Ave SE	$ 1,800,000.00	$ 800,000.00
Calgary	3.0	4103 80 Ave NE	$ 2,490,000.00	$ 830,000.00
Calgary	1.82	10455 SE 74 St	$ 1,301,300.00	$ 715,000.00
Calgary	2.32	10755 74th St SE	$ 1,658,800.00	$ 715,000.00
Calgary	4.57	6922 107th Ave SE	$ 3,199,000.00	$ 700,000.00
Calgary	2.35	Barlow Tr & 128 Ave NE	$ 1,821,250.00	$ 775,000.00
Calgary	5.26	6921 107th Ave SE	$ 3,682,000.00	$ 700,000.00

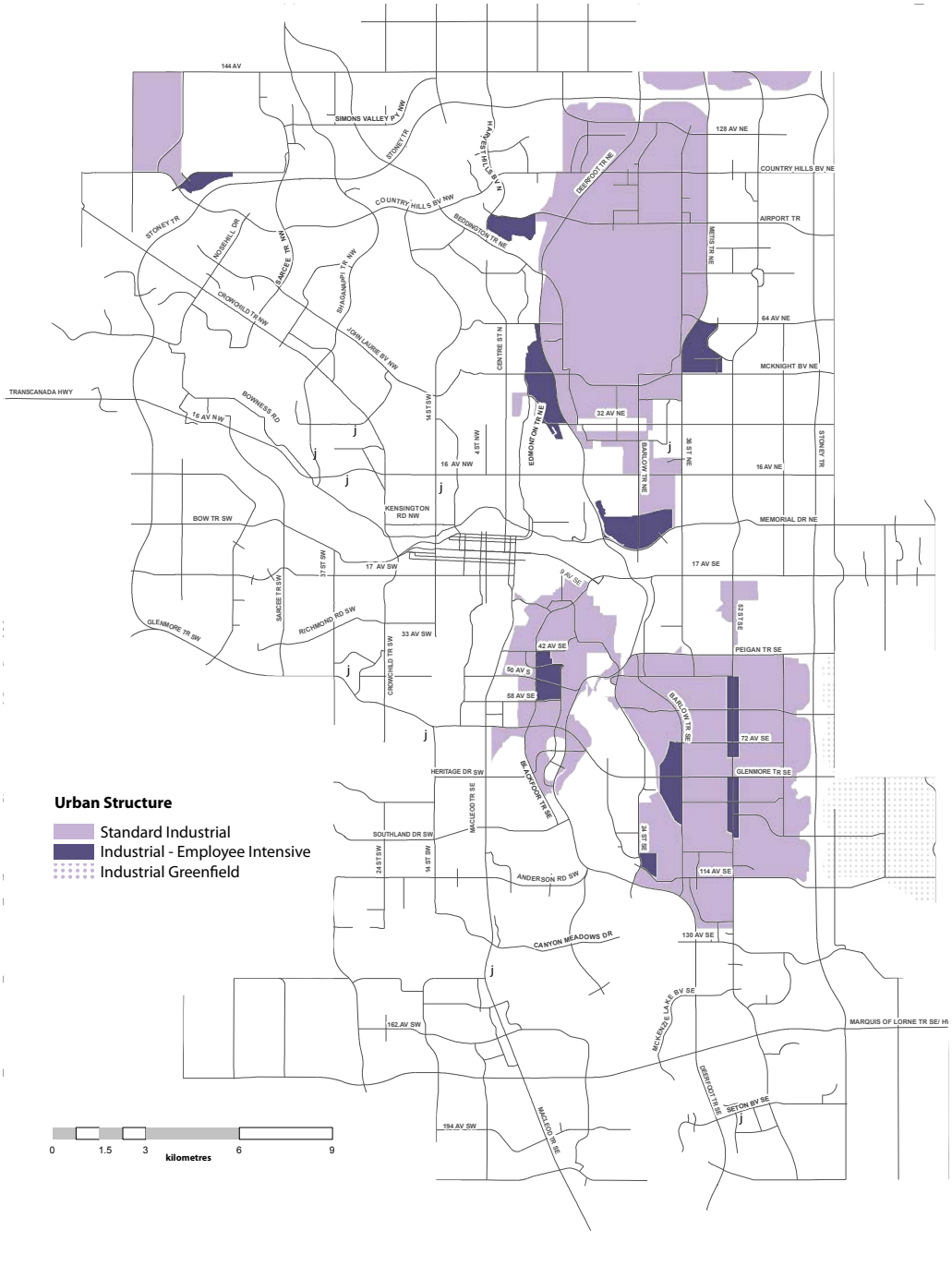


[8] http://www.collierscanada.com/en/commercial-property-research/2018/metro-vancouver-industrial-market- report-q2-2018#.XBRDnmhKiUk
[9] https://www.loopnet.com/intl/canada/alberta/calgary_land/4/

More projects underway

Both Calgary and Vancouver have many projects under construction to help with the demand for more warehouse and distribution centre inventory. Currently, Metro Vancouver has approximately 5.3 million square feet planned and under construction while the Greater Calgary region has about 3.2 million square feet. While this new inventory will help ease Vancouver's chronic landlord market, the overall supply of industrial land in the lower mainland is limited due to geographic constraints. In Calgary, the large supply of industrial land means industrial real estate is better positioned for equilibrium.

FIGURE 11 - Map of Industrial Locations in Calgary



Distribution Costs

Once the product has arrived at a distribution centre or warehouse, it gets delivered or distributed to customers or stores within its region. Distribution costs can vary depending on the range of distribution or delivery and the volume of product that is transported. The range for this study is Western Canada: Manitoba, Saskatchewan, Alberta and British Columbia. Most cities included are larger than 60,000 people.

The cities included for distribution are:

- Greater Vancouver, BC (2,463,431)
- Greater Kelowna, BC (194,882)
- Kamloops, BC (90,280)
- Prince George, BC (74,003)
- Cranbrook/Kimberley, BC (27,472)
- Calgary Region, AB (1,498,778)
- Edmonton Region, AB (1,366,050)
- Red Deer, AB (100,418)
- Lethbridge, AB (92,729)
- Medicine Hat, AB (68,860)
- Grande Prairie, AB (63,166)
- Fort McMurray, AB (71,589)
- Saskatoon, SK (246,376)
- Regina, SK (215,106)
- Winnipeg, MB (708,823)
- Brandon, MB (48,859)

When combining each of these cities/regions of Western Canada, we have a total population of 7,330,822 for the four provinces based on the 2016 Canadian Census.[10] These sixteen cities or regions account for 66.1% of the total population for Western Canada.

Figure 13 shows the average rates provided by interviewing five different logistics or shipping companies for each region. The average did not deviate much from the lowest to highest quotes in either region. Some rates may seem higher than expected, due to the shipper also paying for the return trip. The carrier may not have the opportunity to get a paid return trip with cargo from the destination city and therefore must pay for the truck to go both directions. In some cases, the rates could also incorporate a repositioning of the truck asset for the carrier company.

FIGURE 12 Population from the cities and regions used for rates from Calgary and Vancouver for distribution

	Total Population 2016 Census	16 Cities in Study	Population % Covered in Study
British Columbia	4,648,055	2,850,068	61.3%
Alberta	4,067,175	3,261,590	80.2%
Saskatchewan	1,098,352	461,482	42.0%
Manitoba	1,278,365	757,682	59.3%
Western Canada	11,091,947	7,330,822	66.1%

FIGURE 13 Dry full truck load rates to Western Canada with origin of Calgary and Vancouver

Average Rates Table for Dry Shipments	Origin	
	Calgary	Vancouver
Calgary (area)	$ 204.00	$ 2,041.00
Edmonton, AB	$ 740.00	$ 2,498.00
Red Deer, AB	$ 245.00	$ 2,271.00
Lethbridge, AB	$ 333.00	$ 2,371.00
Grande Prairie, AB	$ 1,142.00	$ 3,299.00
Medicine Hat, AB	$ 586.00	$ 2,586.00
Fort McMurray, AB	$ 1,192.00	$ 3,264.00
Saskatoon, SK	$ 1,285.00	$ 3,280.00
Regina, SK	$ 1,298.00	$ 3,302.00
Winnipeg, MB	$ 1,508.00	$ 3,607.00
Brandon, MB	$ 1,431.00	$ 3,430.00
Vancouver (area)	$ 1,397.00	$ 260.00
Kamloops, BC	$ 1,076.00	$ 570.00
Kelowna, BC	$ 1,053.00	$ 626.00
Cranbrook/Kimberley, BC	$ 637.00	$ 1,402.00
Prince George, BC	$ 1,905.00	$ 1,230.00

[10] https://www12.statcan.gc.ca/census-recensement/2016/geo/geosearch-georecherche/index-eng.cfm

Full truck loads delivered from Calgary or Vancouver

The rates provided in ***figure 13*** are for full truck loads being delivered from either the origin city of Calgary or Vancouver to each of the cities in this study. The rates for Calgary to Calgary are based on an average distance of 15 kilometres while for Vancouver the average distance is 20 kilometres.

Most of the companies interviewed provided rates for LTL shipments but there were much larger variances from carrier to carrier. In general, the rates provided were relatively similar ratio-wise to the rates for FTL shipments, but the data was inconsistent. For our full cost analysis, FTL shipment costing was used.

Figure 14 shows the quotes for temperature controlled (refrigerated or frozen) product for distribution in Western Canada. The numbers are generally about 20 per cent higher than the rates for dry shipments.

FIGURE 14 Temperature Controlled full truck load rates to Western Canada with origin of Calgary and Vancouver

Average Rates Table for Refrigerated Product	Origin	
	Calgary	Vancouver
Calgary (area)	$ 248.00	$ 2,455.00
Edmonton, AB	$ 890.00	$ 3,008.00
Red Deer, AB	$ 295.00	$ 2,840.00
Lethbridge, AB	$ 407.00	$ 2,878.00
Grande Prairie, AB	$ 1,367.00	$ 3,990.00
Medicine Hat, AB	$ 700.00	$ 3,155.00
Fort McMurray, AB	$ 1,426.00	$ 4,000.00
Saskatoon, SK	$ 1,551.00	$ 3,975.00
Regina, SK	$ 1,565.00	$ 4,014.00
Winnipeg, MB	$ 1,831.00	$ 4,418.00
Brandon, MB	$ 1,725.00	$ 4,174.00
Vancouver (area)	$ 1,685.00	$ 315.00
Kamloops, BC	$ 1,288.00	$ 708.00
Kelowna, BC	$ 1,259.00	$ 772.00
Cranbrook/Kimberley, BC	$ 765.00	$ 1,723.00
Prince George, BC	$ 2,300.00	$ 1,501.00

Lower distribution costs from Calgary

Overall, the costs for distribution from Calgary are lower than they are from Vancouver based on the population base for each of the cities. We compiled four levels of data for companies that ship 5000, 1000, 500 and 100 FTL shipments annually to show the difference in cost for each level of volume. For this analysis, we will include data from a company that ships 1000 FTL shipments in one year from either Vancouver or Calgary. This does not include extra fees such as fuel surcharge or other accessorial charges.

FIGURE 15 Total Cost Estimate for 1000 dry shipments to Calgary and to Vancouver

From	Population	% of Pop.	1000 Shipments	Total cost to Calgary	Total cost to Vancouver
Calgary (area)	1498778	20.4%	204.4	$ 41,707.56	$ 417,280.07
Edmonton, AB	1366050	18.6%	186.3	$ 137,894.09	$ 465,485.71
Red Deer, AB	100418	1.4%	13.7	$ 3,356.02	$ 31,108.28
Lethbridge, AB	92729	1.3%	12.6	$ 4,212.18	$ 29,991.24
Grande Prairie, AB	63166	0.9%	8.6	$ 9,840.04	$ 28,425.82
Medicine Hat, AB	68860	0.9%	9.4	$ 5,504.43	$ 24,290.86
Fort McMurray, AB	71589	1.0%	9.8	$ 11,640.45	$ 31,874.53
Saskatoon, SK	246376	3.4%	33.6	$ 43,186.58	$ 110,235.02
Regina, SK	215106	2.9%	29.3	$ 38,086.80	$ 96,889.55
Winnipeg, MB	708823	9.7%	96.7	$ 145,809.72	$ 348,763.69
Brandon, MB	48859	0.7%	6.7	$ 9,537.43	$ 22,860.52
Vancouver (area)	2463431	33.6%	336.0	$ 469,444.37	$ 87,369.75
Kamloops, BC	90280	1.2%	12.3	$ 13,251.08	$ 7,019.62
Kelowna, BC	194882	2.7%	26.6	$ 27,992.87	$ 16,641.54
Cranbrook/Kimberley, BC	27472	0.4%	3.7	$ 2,387.14	$ 5,253.95
Prince George, BC	74003	1.0%	10.1	$ 19,230.55	$ 12,416.57
Total	**7330822**	**100%**	**1000.0**	**$ 983,081.31**	**$ 1,735,906.71**

Calgary distribution costs only 57 per cent of Vancouver's

The total estimated cost for dry shipments from Vancouver for 1000 total shipments is $1,735,906.71. The Calgary estimate is 57 per cent of the Vancouver estimate. That means the costs for a distribution centre in Calgary to the sixteen cities in ***figure 15*** is estimated to be 57 per cent of the distribution costs from Vancouver. When comparing a lower number of shipments, the ratio remains the same (Calgary is 57 per cent of Vancouver costs) but the actual dollar difference becomes lower.

FIGURE 16 **Estimated cost differences between Calgary and Vancouver based on varying volumes of annual shipments**

	Annual Shipments	Origin	Distribution Costs	% Less From Calgary	Calgary Advantage
Dry Shipments	100	Calgary	$ 98,308.13	56.63%	$ 75,282.54
	100	Vancouver	$ 173,590.67		
	500	Calgary	$ 491,540.65	56.63%	$ 376,412.70
	500	Vancouver	$ 867,953.35		
	1000	Calgary	$ 983,081.31	56.63%	$ 752,825.40
	1000	Vancouver	$ 1,735,906.71		
	5000	Calgary	$ 4,915,406.53	56.63%	$ 3,764,127.00
	5000	Vancouver	$ 8,679,533.53		
Temperature Controlled Shipments	100	Calgary	$ 118,624.21	56.38%	$ 91,766.11
	100	Vancouver	$ 210,390.31		
	500	Calgary	$ 593,121.03	56.38%	$ 458,830.54
	500	Vancouver	$ 1,051,951.57		
	1000	Calgary	$ 1,186,242.05	56.38%	$ 917,661.09
	1000	Vancouver	$ 2,103,903.14		
	5000	Calgary	$ 5,931,210.27	56.38%	$ 4,588,305.45
	5000	Vancouver	$ 10,519,515.71		

The bigger the company, the bigger the Calgary advantage. The biggest difference becomes more clear when there are 5000 annual shipments. The obvious conclusion is that the bigger the company or total volume, the more the differential favours setting up a warehouse or distribution centre in the Calgary region.

Contact us via calgary.ca/realestate to request additional data about the 100, 500 and 5000 shipments.

Transportation Time for Imports from Asia and Europe to Calgary and Vancouver

FTL Shipments

The time required to ship product from Asia to North America can vary greatly depending on all the different legs of the move. We are looking at shipments that enter Canada via either the Port of Vancouver or the Port of Prince Rupert. These are the fastest routes due to their distance to Asia as well as the rail portion (if required) being a one-line haul (either Canadian Pacific or Canadian National). If the North American port is used in the United States, there is an extra rail line required to bring the product to either CP or CN.

The sailing time advantage for Canadian ports increases the further north the Asian port is.

Prince Rupert is the closest port and has the shortest sailing time from Asia. It is a little further from Calgary as the rail travels through Edmonton before heading south to Calgary, as Prince Rupert is only served by CN. For shipments through Vancouver, both CP and CN serve the port. CP has a more direct route to Calgary as CN must travel through Edmonton but still moves product quickly to Calgary.

FIGURE 17 **Ocean Vessel Travel Times from Tokyo, Japan - advantage for Canadian ports**

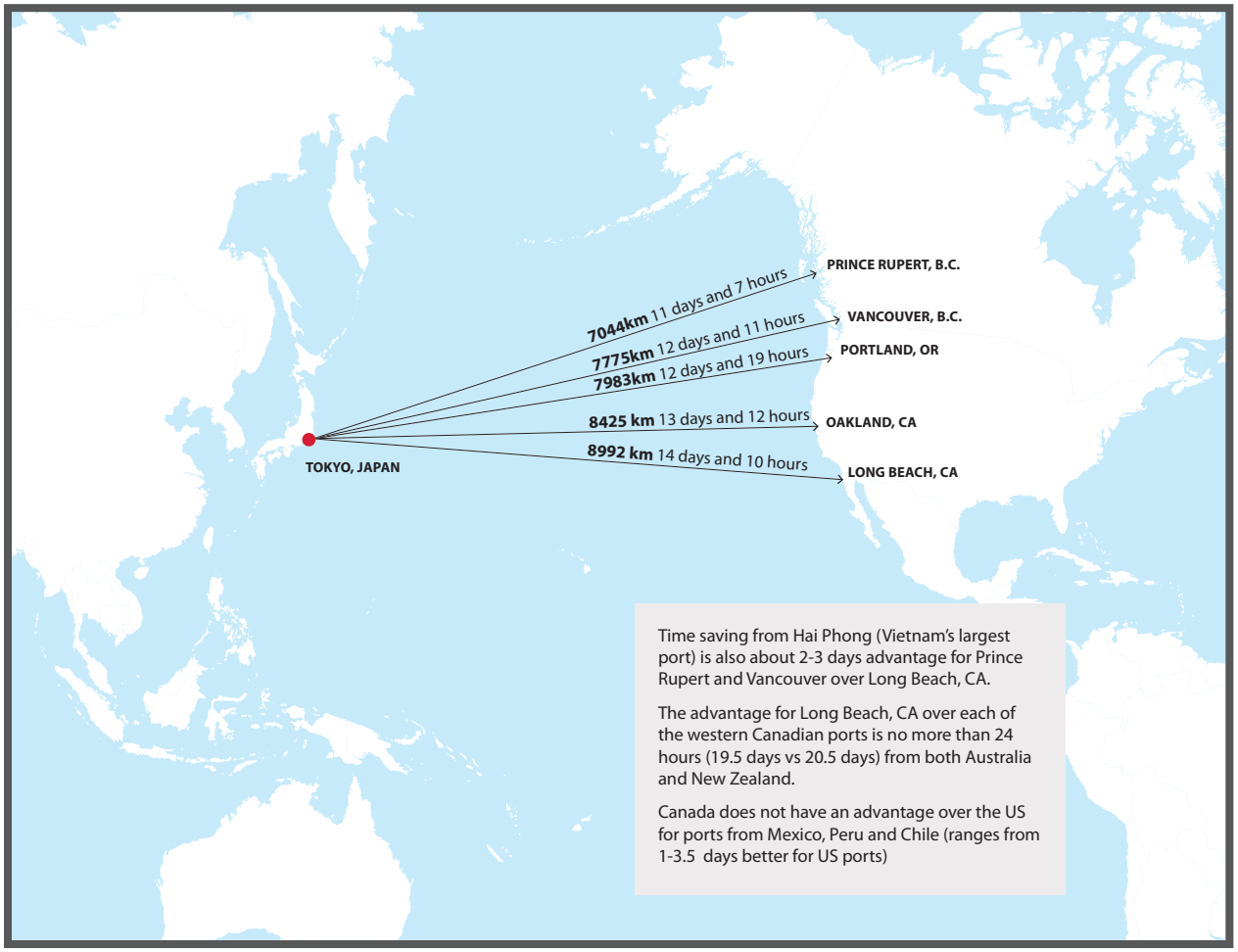


Figure 18 shows the estimated travel time for FTL shipments from Asian markets to both Vancouver and Calgary with all aspects included in the shipment.

The source shows the same transit time range to both Calgary and Vancouver. However, we know there will be extra time to get to Calgary based on an extra rail or truck component. The transit time to get to Calgary from Vancouver by rail can range from an extra day to four days depending on the port and railway.

Generally, for product originating in Asian markets, Calgary will take 36 to 84 hours longer than Vancouver due to the extra rail time (depending on the railway and the entry port). For products originating in Europe, Vancouver destinations will take 24 to 48 hours longer than Calgary for the extra rail time transportation. For North American origins, Calgary is closer for all destinations in the east and Vancouver is slightly closer for origins in western North America.

FIGURE 18 **Estimated FTL Transportation Times from Asian markets to Calgary and Vancouver** [11]

					Travel Time (Days)			
					20′		40′	
Origin City	**Port City**	**Country**	**Via**	**Via (to Calgary)**	**Calgary**	**Vancouver**	**Calgary**	**Vancouver**
Shanghai	Shanghai	China	Vancouver	Vancouver	22-26	22-26	22-26	22-26
Hong Kong	Hong Kong	China	Vancouver	Vancouver	22-27	22-27	22-27	22-27
Seoul	Busan	South Korea	Vancouver	Vancouver	24-28	24-28	24-28	24-28
Singapore	Singapore	Singapore	Vancouver	Vancouver	28-33	28-33	28-33	28-33
Kuala Lumpur	Port Klang	Malaysia	Vancouver	Vancouver	28-33	28-33	28-33	28-33
Kyoto	Osaka	Japan	Vancouver	Vancouver	19-26	19-26	19-26	19-26
Munster	Hamburg	Germany	Montreal		19-26	20-27	19-26	20-27

[11] https://www.freightos.com/freight-resources/transit-time-calculator-for-international-freight-free/
[12] https://www.cn.ca/en/customer-centre/prices-tariffs-transit-times/Intermodal – Port to Terminal Service Grid (PDF)
[13] hts://www.cpr.ca/en/customer-resources-site/Documents/intermodal-domestic-schedule-october-2018.pdf

FIGURE 19 - Map of Canadian Pacific Intermodal Locations with Vancouver, Calgary and Montreal [14]

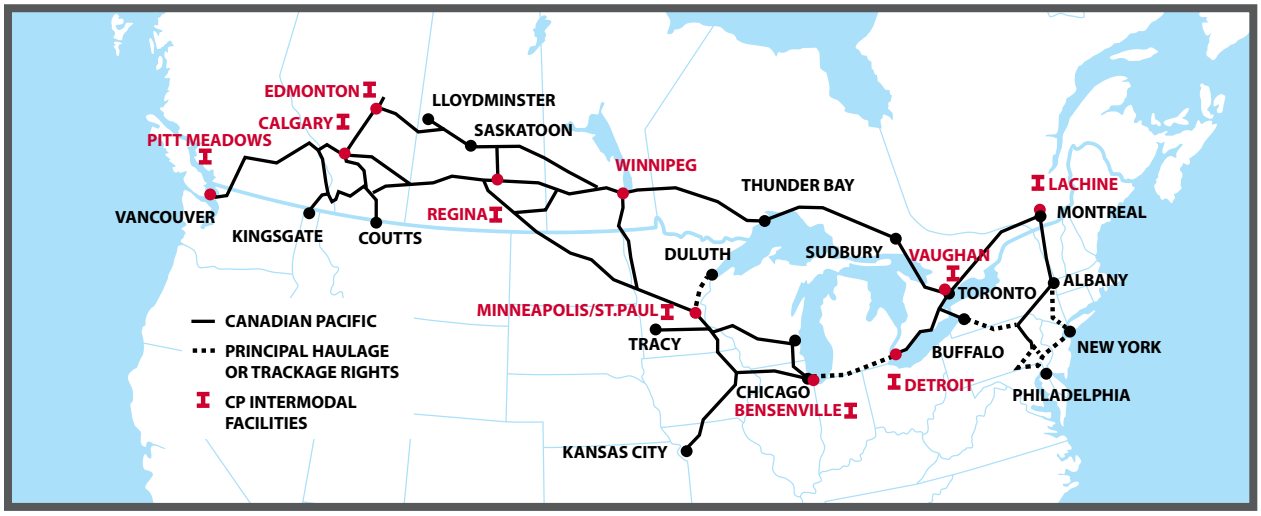


FIGURE 20 - Map of Canadian National Intermodal Locations with Vancouver, Calgary and Montreal [15]

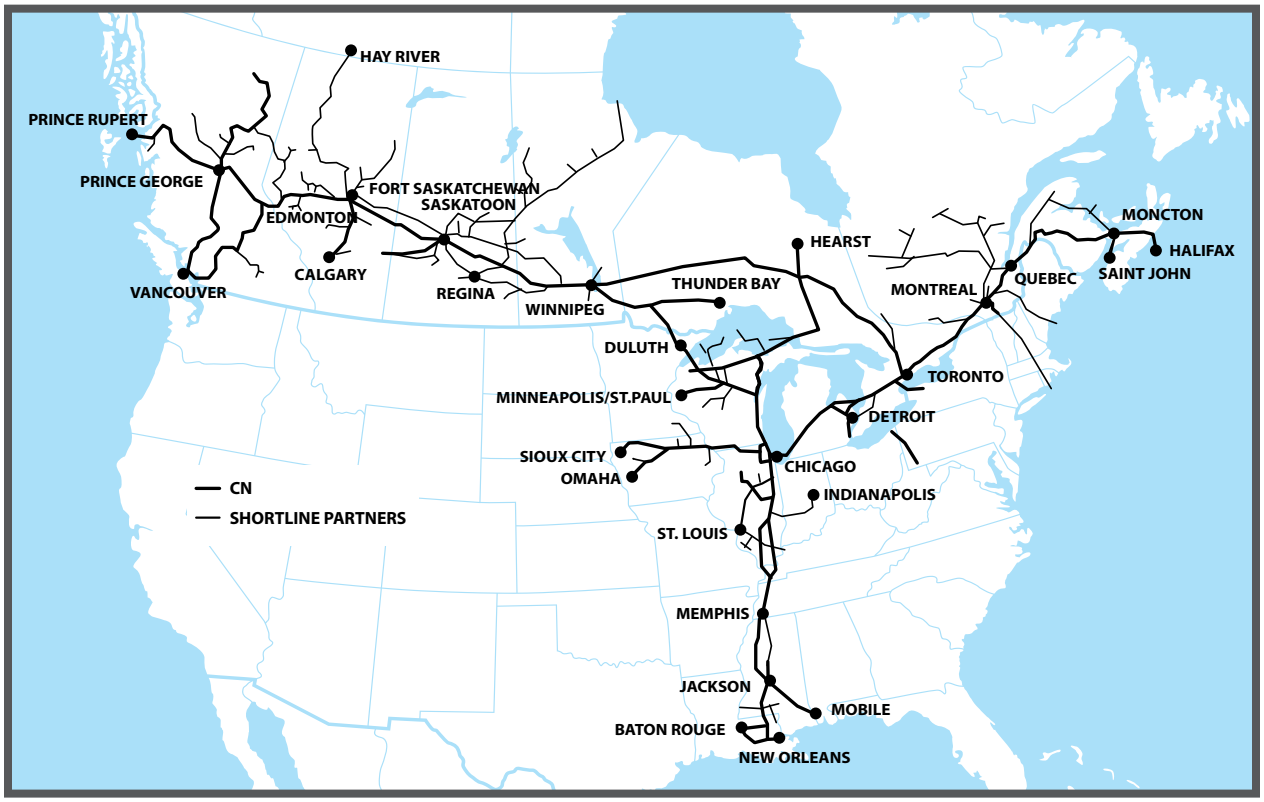


Figure 19 and 20 show the more direct route that CP has from Vancouver to Calgary than CN has from either Vancouver or Prince Rupert. However, actual times to transport the product are very similar.

FTL shipments to Calgary from Asia will have extra time of two to four days compared to Vancouver. FTL shipments from Europe to Vancouver will usually have an extra day compared to shipments to Calgary.

[14] https://www.cpr.ca/en/our-markets-site/PublishingImages/en/our-markets/intermodal-containers/intermodal- facilities.jpg
[15] https://www.cn.ca/en/our-services/maps-and-network/intermodal-terminals/

LTL Shipments take longer than FTL

LTL shipments tend to take longer from most Asian origins than FTL shipments. This is due to making sure that containers are filled at origin and it may take extra time to get the container filled with other shipments destined to the same region. LTL shipments can also be transported by air and this is obviously much faster than shipments by ocean (but also much more expensive).

Figure 21 shows the estimated transportation times for shipping LTL loads (again, two pallets with dimensions of 42" x 48" x43" high). Once again, the transportation times are very similar for Calgary and Vancouver for both ocean freight and air. There will be an additional day or two longer for shipments to Calgary by ocean, as they will have to either be trucked from Vancouver or railed in the container if the entire shipment is destined to Calgary. The air options show the same time frame as well, but there are more options to transport shipments into Vancouver than there are directly to Calgary.

FIGURE 21 Estimated LTL Transportation Times from Asian markets to Calgary and Vancouver [16]

					Travel Time (Days) LTL (2 skids 300kg)			
					Ocean Freight		Air	
Origin City	**Port City**	**Country**	**Via**	**Via (to Calgary)**	**Calgary**	**Vancouver**	**Calgary**	**Vancouver**
Shanghai	Shanghai	China	Vancouver	Vancouver	32-39	32-39	6-10	6-10
Hong Kong	Hong Kong	China	Vancouver	Vancouver	33-39	33-39	7-10	7-10
Seoul	Busan	South Korea	Vancouver	Vancouver	31-37	31-37	5-7	5-7
Singapore	Singapore	Singapore	Vancouver	Vancouver	36-48	36-48	6-10	6-10
Kuala Lumpur	Port Klang	Malaysia	Vancouver	Vancouver	36-48	36-48	8-10	8-10
Kyoto	Osaka	Japan	Vancouver	Vancouver	18-22	17-21	5-9	5-9
Munster	Hamburg	Germany	Montreal		21-27	21-27	5-7	5-7

[16] https://www.freightos.com/freight-resources/transit-time-calculator-for-international-freight-free/

Transportation Time for Distribution from Warehouse or Distribution Centre

Once the product has reached the warehouse or distribution centre, it must be transported to the end user or seller (retailer). We have assumed these shipments would be distributed by FTL, as LTL shipments would be very difficult to estimate but would likely fall along the same ratios presented here for FTL shipments.

Using the same destination cities across Western Canada, we have provided the estimated time for these shipments to be driven to destinations. We have used the centre of each city or region, as it is difficult to determine where the origin and destination points could be. For many of the distances shown here, any discrepancy would be minimal and likely even out over time. For shipments within Calgary, the distance provided is nine miles (15 kilometres) and the driving time for delivery is estimated at 30 minutes. For Vancouver, the distance is 12 miles (20 kilometres) and the driving time for delivery is estimated at 45 minutes. Vancouver is more congested and Greater Vancouver covers a very long and narrow region. Some shipments will take less time in both cities (and less distance) and some will take longer and be further away. The driving time and miles is from PC Miler (a trucking tool used to determine driving time and distance) and is subject to change based on averages, congestion and construction.

Figure 22 shows the estimated transit time and distance for Western Canadian destinations with Calgary as the origin.

We have used 1000 annual shipments for this example to show the difference between Calgary and Vancouver. Calgary has a total estimate of 6777.2 hours of driving time (does not include unloading time, as this should be the same for both origins). The total miles for 1000 shipments originating out of Calgary is estimated to be 386,340.2. This is shown to indicate the difference as some transportation companies charge a fuel surcharge on miles (most as a percentage of the total cost) as well as if a company does their own distribution. This shows there would be less wear and tear, not to mention fewer greenhouse gases on their trucking assets as they are not traveling as far as trucks from Vancouver.

FIGURE 22 **Estimated driving time and miles using Calgary as the origin to Western Canadian destination**

ORIGIN CALGARY	Population	% of Pop.	1000 Shipments	Estimated Transit Time (minutes)	Miles/KM's	Total Hours	Total Miles
Calgary (area)	1498778	20.4%	204.4	30	9/15	102.2	1840.0
Edmonton, AB	1366050	18.6%	186.3	180	186/299	559.0	34659.9
Red Deer, AB	100418	1.4%	13.7	92	93/149	21.0	1273.9
Lethbridge, AB	92729	1.3%	12.6	130	132/212	27.4	1669.7
Grande Prairie, AB	63166	0.9%	8.6	435	445/716	62.5	3834.3
Medicine Hat, AB	68860	0.9%	9.4	176	183/295	27.6	1719.0
Fort McMurray, AB	71589	1.0%	9.8	435	459/739	70.8	4482.4
Saskatoon, SK	246376	3.4%	33.6	380	383/617	212.9	12872.0
Regina, SK	215106	2.9%	29.3	440	505/813	215.2	14818.1
Winnipeg, MB	708823	9.7%	96.7	780	825/1327	1257.0	79769.9
Brandon, MB	48859	0.7%	6.7	650	694/1117	72.2	4625.4
Vancouver (area)	2463431	33.6%	336.0	665	604/972	3724.4	202966.6
Kamloops, BC	90280	1.2%	12.3	445	385/619	91.3	4741.3
Kelowna, BC	194882	2.7%	26.6	450	376/605	199.4	9995.6
Cranbrook/Kimberley, BC	27472	0.4%	3.7	265	244/392	16.6	914.4
Prince George, BC	74003	1.0%	10.1	700	610/982	117.8	6157.8
Totals	**7330822**	**100.0%**	**1000.0**			**6777.2**	**386340.2**

Figure 23 shows the estimated transit time and distance for Western Canadian destinations with Vancouver as the origin. The estimated transportation time for shipments originating in Vancouver is 9316.6 hours. Compared to Calgary, that is 1.37 times more driving time (a total of 2539.4 hours more). The total miles are also approximately 1.37 times further using Vancouver as the origin (a total of 144,444.5 more miles from Vancouver compared to Calgary). The ratios for these numbers would stay the same for more shipments as well as for less shipments. Like the cost differences, the actual numbers would decrease with less annual shipments and increase when there are more annual shipments for larger organizations.

FIGURE 23 **Estimated driving time and miles using Vancouver as the origin to Western Canadian destination**

ORIGIN VANCOUVER	Population	% of Pop.	1000 Shipments	Estimated Transit Time (minutes)	Miles/KM's	Total Hours	Total Miles
Calgary (area)	1498778	20.4%	204.4	648	603/970	2208.0	123282.6
Edmonton, AB	1366050	18.6%	186.3	743	721/1161	2307.6	134353.6
Red Deer, AB	100418	1.4%	13.7	721	690/1110	164.6	9451.7
Lethbridge, AB	92729	1.3%	12.6	770	733/1179	162.3	9271.9
Grande Prairie, AB	63166	0.9%	8.6	795	739/1190	114.2	6367.6
Medicine Hat, AB	68860	0.9%	9.4	812	784/1261	127.1	7364.3
Fort McMurray, AB	71589	1.0%	9.8	997	987/1589	162.3	9638.5
Saskatoon, SK	246376	3.4%	33.6	995	969/1560	557.3	32566.4
Regina, SK	215106	2.9%	29.3	1079	1071/1723	527.7	31426.0
Winnipeg, MB	708823	9.7%	96.7	1427	1425/2293	2299.6	137784.4
Brandon, MB	48859	0.7%	6.7	1293	1295/2084	143.6	8631.0
Vancouver (area)	2463431	33.6%	336.0	45	12/20	252.0	4032.4
Kamloops, BC	90280	1.2%	12.3	230	220/354	47.2	2709.3
Kelowna, BC	194882	2.7%	26.6	257	242/389	113.9	6433.3
Cranbrook/Kimberley, BC	27472	0.4%	3.7	596	523/842	37.2	1959.9
Prince George, BC	74003	1.0%	10.1	546	486/782	91.9	5511.7
Totals	**7330822**	**100.0%**	**1000.0**			**9316.6**	**530784.7**

Calgary and Vancouver distribution reaches

Within 1200 kilometres of Calgary in all directions, there are approximately 24,100,800 people.

Not all areas within this region would be accessible within a day of driving but this provides a representation of the reach from the region as a distribution centre.

Within 1200 kilometres of Vancouver in all directions, there are approximately 23,313,810 people. Again, there are regions that would not be accessible within a day of driving, but the two regions have comparable populations to serve as a distribution centre.

FIGURE 24 - 1200-Kilometre radius of Calgary and Vancouver

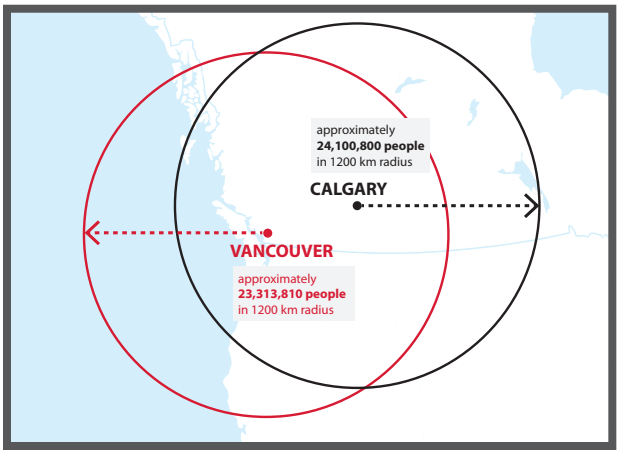
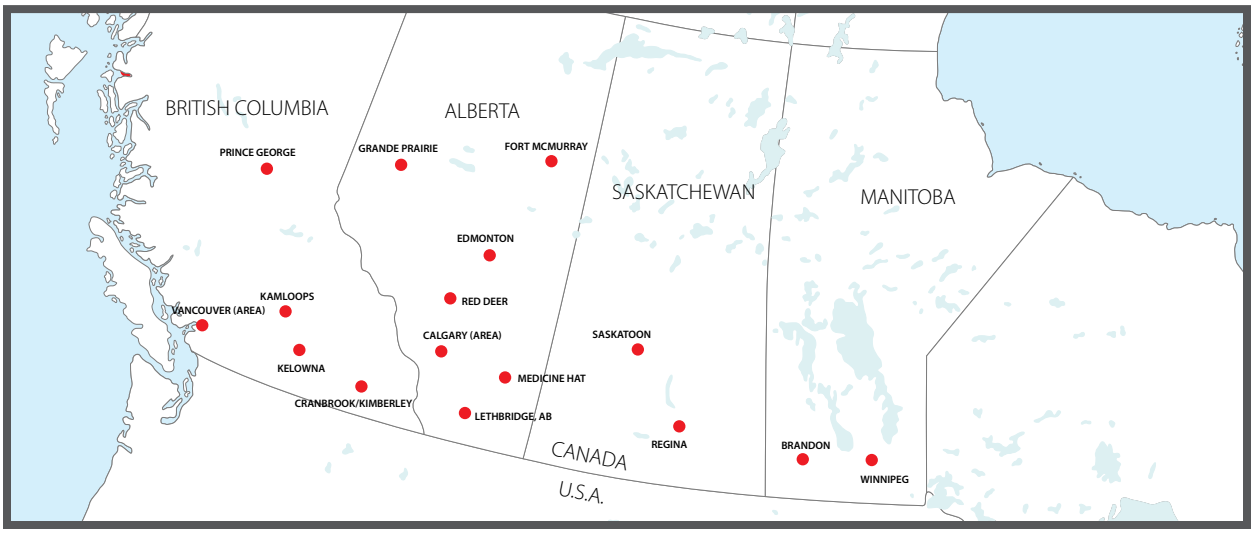


FIGURE 25 - Calgary is strategically located for transportation in all directions

FIGURE 26 - Map of Cities and Regions used for the distribution mode



Total Landed Cost Scenario

Based on all the previous information, this section will provide the total cost of all aspects of the supply chain including the transportation of containers from Asia to both Calgary and Vancouver, the cost of warehousing and finally the distribution costs to Western Canada. We will use 1000 containers as the inbound traffic, as well as 1000 trucks for outbound distribution, as well as the cost for a warehouse that is approximately 20,000 square feet. The origin of the containers will be spread out so that each Asian location has an equal number of containers as well as Münster, Germany (1000/7=142.85). For each location 143 forty-foot containers will be used.

Figure 27 is a chart showing the estimated inbound costs for product only originating in Asia and Europe with an even distribution from each origin.

These numbers are in US$ so they need to be converted to CDN$ to bring them in line with the other numbers in this analysis. We have used the exchange rate of $1.33 (current on November 29, 2018).

This results in totals of $5,014,024.63 for Calgary and $3,868,325.51 for Vancouver.

FIGURE 27 - **Estimated inbound costs for 1000 containers evenly spread from each of the 7 origins**

Inbound Cost		Destination		Total Cost (143 Containers)	
Origin City	**Country**	**Calgary**	**Vancouver**	**Calgary**	**Vancouver**
Shanghai	China	$ 3,562.00	$ 2,597.00	$ 509,366.00	$ 371,371.00
Hong Kong	China	$ 3,544.00	$ 2,492.00	$ 506,792.00	$ 356,356.00
Seoul	South Korea	$ 3,567.00	$ 2,584.00	$ 510,081.00	$ 369,512.00
Singapore	Singapore	$ 3,569.00	$ 2,587.00	$ 510,367.00	$ 369,941.00
Kuala Lumpur	Malaysia	$ 3,697.00	$ 2,599.00	$ 528,671.00	$ 371,657.00
Kyoto	Japan	$ 4,044.00	$ 2,655.00	$ 578,292.00	$ 379,665.00
Munster	Germany	$ 4,411.00	$ 4,849.00	$ 630,773.00	$ 693,407.00
			Total	**$ 3,774,342.00**	**$ 2,911,909.00**

Figure 28 shows the estimated costs for purchasing a warehouse. We have selected the mid- range based on our number ranges for warehouse costs in the Calgary and Vancouver markets. These rates are selected based on the interviews for estimated rates as there are currently no comparable properties close to the 20,000-square foot range.

Figure 29 shows the estimated distribution costs for 1000 truckloads to Western Canada from each of Calgary and Vancouver.

FIGURE 28 - **Estimated warehouse purchase costs for 20,000 SF location in Calgary and Vancouver**

	20,000 Square Foot Warehouse		
	Rate Range	**Mid-Rate**	**Estimated Rate**
Calgary	$170-195/sf	$182.5/sf	$ 3,650,000.00
Vancouver	$320-400/sf	$360/sf	$ 7,200,000.00

FIGURE 29 - **Estimated distribution costs from Calgary and Vancouver to Western Canadian locations**

Distribution Costs	
Calgary	$ 983,081.31
Vancouver	$ 1,735,906.71

And finally, ***Figure 30*** shows the total estimated costs for a supply chain including inbound costs, warehouse costs and distribution costs from each of Calgary and Vancouver for 1000 inbound shipments, 20,000 square-foot warehouse lease and 1000 outbound shipments for distribution in Western Canada.

FIGURE 30 - **Total Supply Chain cost estimates for Calgary and Vancouver**

	Calgary	**Vancouver**
Inbound Costs	$ 5,014,024.63	$ 3,868,325.51
Warehouse Costs	$ 3,650,000.00	$ 7,200,000.00
Distribution Costs	$ 983,081.31	$ 1,735,906.71
Total	**$ 9,647,105.94**	**$ 12,804,232.22**

Supply chain costs favour Calgary

The estimated cost for purchasing a warehouse for distribution is estimated to be more than $3M less in Calgary compared to Vancouver. One assumption that has been made here is that all inbound freight is coming from either Asia or Europe. There is likely to be some inbound freight from North America (and potentially other origins) as well. Because Calgary is located closer to the major industrial parts of North America, the freight costs would be less expensive for the product to be transported to Calgary than Vancouver. The more product that is sourced from North America, the more the costs will favour Calgary. Vancouver would only have an advantage over Calgary for product sourced in the lower mainland of British Columbia and the Pacific Northwest (Washington, Oregon and California). Calgary is closer to Ontario and Quebec as well as all the industrial parts of North East USA, which would have lower inbound costs than Vancouver.

Summary

Many factors go into choosing where to set up a business. We have looked at many of them in this study. Many other inputs need to be considered. Easy access to highways is difficult to quantify. Overall congestion within a region is also difficult to quantify. Driving time can quantify some congestion but there is also labour supply and supply of transportation companies and warehouse space.

Calgary now a transportation hub

A strong labour force combined with education programs in the Calgary region means there are many educated and experienced people for the workforce. Calgary is also quickly gaining a reputation as being a transportation hub. Many companies have moved their distribution centres into the Calgary region. One reason for that may not be represented in the supply chain rates presented in this study. The rates in this study are basic rates (could be considered tariff rates) and many of the organizations that have moved into the region have much better negotiated rates that have helped them to make the decision to either move their distribution centre to Calgary or to set up a new one.

Some of the companies that have moved into Calgary include Walmart, Loblaws (Real Canadian Superstore), Canadian Tire Group, Marks Work Warehouse, Forzani Group and Sysco. Several others have moved into the Calgary region away from the Vancouver region to optimize their supply chain.

Less expensive when sourcing from North American cities

When sourcing from North American cities, Calgary is generally less expensive than Vancouver based on the location closer to where most of the manufacturing takes place. Vancouver will have less expensive shipments from the west side of North America, but Calgary will be less expensive from anything in the east and most of central North America.

Supply chain costs favour Calgary

The supply chain costs comparison between Calgary and Vancouver only looked at sourcing product from outside of North America. The overall rates show that Calgary has an advantage over Vancouver based on just the estimated numbers. When shipments from North America are included, the inbound numbers will favour Calgary even further, the more shipments originate in North America.

Distribution centres moving to Calgary

Calgary has experienced massive growth over the last 20 years and much of it has been related to the growth in the supply chain sector. There are more education programs accepting more students related to supply chain. Many companies have moved their Western Canadian distribution centres to the Calgary region. The airport in Calgary has had massive improvements and has enhanced the ability to ship and receive more air freight. Calgary is very well positioned geographically for transportation and the improvements of highways in all directions has helped with the transportation of freight. The ring road in Calgary has also greatly enhanced the ability to move products throughout the city as well as to get product onto highways quicker. Once the ring road is fully completed in the SW, the transportation opportunities will increase further.

Get the Calgary advantage

Calgary is well suited for organizations looking to set up their business or grow their business in the future. Many have already arrived and there are opportunities for many more to experience the Calgary advantage.