Necessary Assets For An Inland Port:
A Case Study Of The City Of Prince George (BC)

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Abstract

The 2004 announcement by the Prince Rupert Port Authority of their intention to construct a container facility has created a lot of discussion in Western Canada about the establishment of an inland port to service this container facility. The development of an inland port facility in the City of Prince George has been identified as a priority by the City Council of Prince George. This paper reviews the current literature on the development of inland ports and identifies the assets that are important to different stake holders in inland port development. This list of assets is then prioritized, with the eleven common assets reviewed in greater detail. These same assets are then researched and then evaluated for the City of Prince George. From this evaluation, a list of recommendations is presented to further the development of an inland port in Prince George.

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Introduction

In a 2004 press release, the Prince Rupert Port Authority and Maher terminals announced a major expansion of the Prince Rupert port, taking the terminal to a capacity of 1.2 Million TEU (twenty foot equivalent units). It was announced that the expansion would occur in two phases, the first costing between $140 and $200 million dollars and creating 500 direct and indirect jobs. This phase was to be completed in 2006. The second stage, to be completed by 2009, was estimated to cost between $250 and $300 million, creating another 150 direct and indirect jobs.

In the British Columbia Progress Board annual report (2004, p.ii) it is mentioned that "....over time, as port volumes increase, consideration should be given to establishing an inland (or inter-modal) container handling facility – for example, in Prince George, Kamloops or the Fraser Valley – given the shortage of lands available near some tidewater ports."

Classification of Inland Ports

Inland ports serve many different functions and are located geographically in very diverse areas. It is by these features that they can be distinguished from one another. From the available literature on inland ports, it is apparent that there are generally 4 different types; inland waterway ports, air cargo ports, inland feeder ports and trade and distribution centres.

1. Inland Waterway ports

Inland waterways ports are those located on navigable waters, but are not traditional sea ports. An example of these in Canada would be ports located on the great lakes, used to move cargo up and down the lakes. According to the Iowa Department of Transportation, moving freight by barge is the most fuel efficient means of moving cargo.

2. Air Cargo Ports

According to the Air Transport Association in the US, air cargo has gone from around 22 billion revenue ton miles in 2001 to more than 28 billion revenue ton miles in 2004. This is going to increase as firms continue to rely upon just in time deliveries and consumers demand shorter delivery times on their purchases.

In the US, a number of dedicated air cargo ports have been developed, most on vacated US Air Force sites. These sites, with their pre-built airfields and warehouses, offer shippers customs and distribution facilities in centralized locations.

3. Inland Feeder Ports

As the globalization of trade has risen in recent years, so has the volume of cargo shipped in and out of North American ports. This is going to continue for the foreseeable future. In the Vancouver Port Authorities 2004 annual report, the president, Captain Gordon Houston predicts that "Container traffic on the west coast of North America is set to at least triple over the next 15 years..."

This growth is going to be very difficult for coastal ports to accommodate, as they are already located in areas where there is not a lot of land space available for them to expand. This is where inland feeder ports come into play. Inland feeder ports help to

alleviate port congestion by serving itself as the container stuffing and unloading facility, as well as the customs clearance area. This frees up warehouse space at the port that the port can then turn into container storage and transportation. Inland feeder ports are located within 250 miles of the coastal port and have a direct link to the port, typically a double stack rail line or major highway (Harrington, 1999).

4. Trade and Distribution Centers

The last general port type is that of a trade and distribution centre. Its function is in line with that of an inland feeder port, but due to its location and assets, it offers more to the shipper. These ports have access to multiple modes of transportation. They are typically located in a geographically centralized location, and offer extensive warehousing and logistics facilities.

A great example of a trade and distribution port is Columbus Ohio (Ness, 1993). It is located on an east-west interstate highway, as well as north-south interstate highway, Three rail roads serve the city, as well as two commercial airports (McKee, 1995). It is also located "within 500 miles of New York, Atlanta, St Louis and Chicago – all major distribution centers in the North East. Within this trade area is about half of the population, employment and retail purchasing power in the nation. Furthermore, within a 250 mile radius is approximately one-tenth of the nation's population and productive resources." Also according to McKee (1995) Columbus has over 100 million square feet of public and private warehousing and distribution facilities that is forecasted to increase to 134 million square feet by 2010.

Prince George (BC) – A Candidate as an Inland Port

As early as 2002, the Northwest Corridor Development Corporation identified the need for an inland container facility, although at that time the corporation was thinking about the possibility of somewhere in northern Alberta.

Since the 2004 announcement in Prince Rupert, the term "Inland port" has become a favoured buzz word for politicians as they've come through Prince George. As such, Initiatives Prince George has taken on the task of evaluating the feasibility of an inland port in Prince George. This was learned by the author during a meeting with Kathie Scouten of Initiatives Prince George in September 2005.

Ben Meisner (2005) mentioned in an article about a businessman in Prince George who has plans to lease 30 -40 acres of land in the BCR industrial site with hopes to build an inland container port.

Prince George, along with two or three other cities in Western Canada, is considered a potential candidate for an inland port servicing the port of Prince Rupert. As such, the author has chosen to evaluate the assets of the City of Prince George to determine if the city is a good candidate for an inland port.

While there are a number of cities in Western Canada vying to become an inland port servicing the Port of Prince Rupert, this may not be a realistic undertaking. There is a very telling quote by E. Hunter Harrison, President and CEO of Canadian National Railway talking about the terminal facility in Prince Rupert in the Prince Rupert Port Authorities (2005) press release announcing development plans. He says "CN will be ready. It has the capacity, service, and transit times to make Prince Rupert a true success.

CN's network will offer fast access from Prince Rupert to the key markets of Toronto, Montreal, Chicago and Memphis." Basically, he is saying that CN feels the new port in Prince Rupert will help CN serve large Eastern Canadian Markets as well as the Midwest United States. There is no mention of Western Canadian markets at all.

In the first part of this project the literature is reviewed to underline the factors that should be considered for identification of a city to be considered as an inland port. In the second part of the report, the City of Prince George (BC) will be evaluated on the basis of the critical factors to see whether the city has the potential to become a strong candidate as an inland port for the Prince Rupert sea port.

Literature Review

Traditionally, international trade occurs at a nation's border, by air, land or sea. In recent decades there has been a remarkable increase in international trade due to many factors, including advances in technology and decreases in trade barriers. As the volume of goods has increased, so has the congestion in these trade zones. In order to help alleviate some of this, inland ports are being developed.

In Texas Department of Transportation commissioned report, Leitner (2001, p.43) describes "An inland port is a location where the processing of trade can be shifted from the national borders and where multiple modes of transportation and a wide variety of services are offered at a common location. International operations are supported at an inland port when customs clearance and Foreign-Trade Zone capabilities are available." By foreign trade zone, Leitner was referring to an area where products could enter a country and subsequently leave that country without being subject to duties and taxes, basically a free trade zone.

The use of inland ports help traditional ports, which are overly congested due to land and other restrictions, move some of their trade processing to other locations. Containers that were traditionally processed through customs and distributed from the sea port, are now loaded onto rail or truck and sent to the inland port. It is here that they pass through customs, get broken down into smaller deliverables and distributed. The reverse process occurs for items being exported.

This does a number of things for the sea port.

1. First of all, it frees up real estate that has been used for warehousing in the past, to be used for container storage and coordination.
2. It reduces the volume and type of traffic entering and leaving the port area, creating less traffic congestion.
3. It allows the customers of the sea ports to better plan their distribution of products; an inland port will offer many more options for warehousing and distribution than a traditional sea port.

Gooley (1998, p.82) describes "Multimodal freight centers" as locations that "offer shippers a variety of transport options, distribution facilities, and support services at a single site; the logistics equivalent of the shopping mall." As per Gooley (1998) successful freight distribution sites offer a wide variety of services, not just one or two. Gooley uses the term multimodal freight centre to refer to the combination of assets that a trade and distribution inland port would provide. Multimodal indicates that there is more than one mode of freight transportation, be it rail, truck, boat or airplane.

Inland Port Defined

There are many different terms used to identify locations in which international trade is processed. They are called freight gateways, freight hubs, multimodal freight centers and many others. La Londe (1999) defined an inland port in terms of information. He postulated "Traditionally, a port is located on navigable waters. Now it is information, used to coordinate transportation and distribution, instead of water, that allows an inland area to operate as a port."

Gooley (1997) defined a Freight Gateway as "....regional hubs that offer shippers a complete range of domestic and international transportation and distribution services". Freight Gateways bring together in one location all the modes of transportation; along with warehousing, freight forwarding and customs brokers, and logistics management services. This is very similar to the trade and distribution type of inland port discussed earlier.

There are three main features of an inland port that have to be recognized when defining it. First of all, an inland port moves trade away from congested sea ports. Secondly it serves as a distribution and logistics centre. Lastly, it is a place where international trade is processed.

In today's global economy, companies gain a competitive advantage through the efficient use of their supply chain. As per Gooley (1998) "...for shippers that use more than one mode of transportation, whether it be for inbound or outbound shipments, multimodal distribution centers can make their operations simpler, faster, more efficient, and less costly." It is for these reasons that inland ports are successful.

In addition, an inland port can be an important economic development tool for a region. Leitner (2001) remarks "Local and regional development is a key benefactor in the formation of an inland port. Local employment opportunities may also be created at an inland port, especially when a wide range of value-added services are provided." Gooley (1998b) talks about the impact of becoming a "distribution heartland" on the economy of the Midwest United States. The Midwest United States has become a central shipping and distribution point for many very large companies. Gooley (1998b, p.63) states "the Midwest today has bounced back, boasting unemployment rates as low as 2 percent in some areas and regaining its rightful place as the nation's manufacturing-and distribution-heartland." This is important as it shows the impact that trade and distribution can have on the local economy.

A definition proposed by Trade Point USA (1999) defines an inland port as "a combination of assets which make a region an attractive distribution hub, consolidation point, or destination for imported and exported goods." This definition identifies that assets, both primary and secondary, are vital to the success of an inland port.

The definition given by Leitner (2001, p.43) in her paper for the Texas Department of Transportation is very similar to that definition by Trade Point USA (1999) but she defines an inland port as "... a site located away from traditional land, air, and coastal borders containing a set of transportation assets (normally multimodal) and with the ability to allow international trade to be processed and altered by value-added services at the site as goods move through the supply chain."

While these two definitions are similar, there are two distinct differences between Leitner's (2001) definition and that provided by Trade Point USA (1999).

1. As per Leitner (2001) an inland port is located away from traditional points of entry.

2. More importantly for this paper, Leitner (2001) states that "transportation assets" are important to an inland port. Leitner (2001) feels that transportation assets, not just assets are important to an inland port.

Objectives

There are three objectives to this paper.

1. Develop the Inland port location model on the basis of information available in literature. The model will help identify the basic infrastructure assets / facilities that are required for an inland port.
2. Identify the important assets that are vital for the success of an inland port.
3. Evaluation of Prince George's infrastructure in the light of the model parameters

Research Methodology

To complete this project the case study method will be used. The case in question is the city of Prince George (BC), as an inland port for Prince Rupert sea port. To complete the case study the information and data has been collected from secondary sources.

One source of secondary information is the available literature on the inland ports. The relevant literature has been reviewed to identify the important factors that have been used or recommended by experts in the field to determine the choice of a location for an inland port.

To evaluate the city of Prince George (BC) as a potential candidate for an inland port, the secondary data related to the city and its adjoining areas has been collected from the City of Prince George and various other agencies located in and around the city. In addition, the data and information has also been collected from the British Columbia Provincial Government, and Statistics Canada.

In a systematic manner, the following steps were performed to conduct the case study;

1. Determine the assets required for an inland port. This was done by reviewing the contemporary literature related to inland ports.
2. Collect Prince George asset information. The information & data on Prince George assets has been collected mainly from secondary sources such as The City of Prince George, the Government of British Columbia, and Statistics Canada.
3. Analysis of Data & information.

   Once the data has been collected from the different sources, it will be analyzed using appropriate techniques, depending on the nature of data available.

4. The analyzed data is synthesized in the form of information and then information generated has been evaluated keeping in view the factors identified through the literature review.

5. In the end, the prepared report underlines the strengths and weaknesses of the city of Prince George as a possible inland port to Prince Rupert sea port.

Analysis

Critical factors for an inland port

Harder (1999) discussed the factors that private businesses use to locate new intermodal terminals and how sites are selected. As per Harder (1999), for the most part, the private sector is investing in large metropolitan areas due to the higher market potential of these locations.

Harder (1999) did identify four critical needs or factors for smaller communities considering inland port developments. These are:

1. Sufficient demand for intermodal freight transportation:
    - There needs to be sufficient existing demand for intermodal freight transportation to support development of the port
2. Local supply of competitive motor carrier service:
    - More than one capable carrier creates price and service competition, improving both for potential shippers. Local carriers must also be price competitive with similar services in other locations.
3. Practical basis for successful community relationships:
    - There needs to be some reason for the community to support the development of the port, be it jobs, taxes, or economic development.
4. Adequate public/private sector capital to fund development: capital is needed to start up and market the inland port.

- There needs to be a public and private interest in development, ideally a partnership between the two.

Underlying Harder's critical factors is the idea that there really needs to be a focus placed on the development of the port, there needs to be a local champion of the cause, someone that pushes for both public and private development. Harder (1999) notes that metropolitan planning organizations (MPO's) can help influence private sector development by forming partnerships with shippers, state and local governments or by indirect action in improving highways, changing zoning and land use and creating economic development agencies.

Richardson (1991) identifies 15 factors that a shipper should take into consideration when selecting a port to ship through. These are:

1. **Location**: the most obvious choice is the port that is closest geographically. However, it may not be the closest port considering transit time. As well, it may not offer the services you need.
2. **Cost:** The actual cost of moving goods through the port is only a portion of the total cost of the move, including time, insurance, and other legs of the move.
3. **Services**: Which ocean shipping lines or feeder vessels serve the port? If you are a large shipper, are there enough carriers to spread your business around? Do enough shipping lines, railroads, and motor carriers serve the port to offer competition?
4. **Reliability:** Consistent transit time may be a critical factor in your operation, especially if you use the ship as a moving warehouse for just-in-time delivery.

5. **Time:** If getting your freight to its destination in the shortest possible total transit time is your goal, look beyond travel between the port and your facility. How rapidly does the cargo travel through the port? Does it go directly to the optimum destination port or are there interim stops or feeder lines? Then look at the transit time from the destination port to the ultimate destination. A port some distance from your point or origin might offer more direct and timelier delivery at the other end of the move. Part of transit time is spent sitting on the dock. How frequently do vessels call at the port of choice? When do they depart? Do these departure times mesh with your shipping times or do you frequently miss the boat? Another port might have sailings that are a better match.
6. **Security:** The obvious point here is protection from theft, especially if your goods are high value. But also consider protection from damage. Is cargo handled properly and carefully by well trained, reliable workers? Are facilities adequate to assure protection from harsh elements if necessary?
7. **Labor:** Is the port's labour environment stable? You don't want critical shipments held up by labour disputes.
8. **Infrastructure:** How does the freight move from your location to the port of choice? Do you have access to rail lines? Is that connection direct or does it involve multiple handoffs between competing railroads?
9. **Market:** Consider the consumer market which the port operates. A large consumer market may mean greater opportunity from matching backhaul.
10. **Electronic Date Interchange (EDI):** Cargo can only move as fast as the accompanying paperwork. Ports are developing highly sophisticated systems to

move the paperwork electronically. Customs clearance, drayage (pick up or delivery of a container), and location in the yard can be arranged electronically before the ship reaches the dock.

11. **Customs:** Is staffing of the customs office adequate to handle the volume?
12. **Equipment**: Is the port equipped to handle your commodity? Do you have special needs such as heavy lift or freezer storage?
13. **Facility:** Can the port handle your cargo volume? Can it process, in a timely manner, the cargo volume passing through it? Does the port accommodate the largest (most economical) vessels?
14. **Environmental Issues:** In general, ports must continually dredge channels to accommodate large ships. Increasingly, ports clash with environmental groups seeking protection for endangered species. And dredged materials create a disposal problem if those materials are found to be contaminated.
15. **Foreign Trade Zone (FTZ):** More and more, ports are designating foreign or free trade zones where companies may bring domestic goods into zones for a variety of purposes, including storage, testing, re-labeling, display and manufacturing. Imported components can be added to domestic parts in the manufacturing steps to reduce duty obligations.

According to Richardson(1991), all of these factors are very important to shippers. With inland ports, many of these factors can be accommodated more easily than at traditional sea ports. The land available to inland ports gives them greater flexibility than traditional seaside ports.

Robinson (1999) derived a list of assets for inland port development from a list created by Trade Point USA. The following is the 9 assets presented by Robinson:

1. **Intermodal transportation capacity:** air, rail, highway, port access
2. **Demographic advantage:** close to large population
3. **Geographic advantage:** access to markets
4. **Presence of shippers:** existing demand
5. **Information Technology Infrastructure:** is the infrastructure in place
6. **Public/Private cooperation:** is there an established working relationship
7. **Councils:** address concerns of interested parties
8. **Aggressive marketing:** gathers community support and attracts business
9. **Capable Program Management:** Leadership to move the inland port forward

A project undertaken by Walter (2003, p.44) to determine the feasibility of an inland port for central Iowa tried to evaluate the current market based on twelve attributes. This list of attributes was developed "based upon the aforementioned definition and results of focus groups and field interviews, as well as literature and internet reviews." The following is the list:

1. **Transportation center** (licensing & compliance activities)
2. **Multi-purpose business centre** (temporary office space, seminar and trade show facilities)
3. **Port of entry for customs clearance & inspection**
4. **Public warehouse services** (general and special commodities)
5. **Bonded warehouse services** (tariff and tax postponement)
6. **Intermodal transfer facility for containers**

7. **Foreign trade zone** (e.g. tariff shelter, light assembly and distribution)
8. **Travel Plaza** (food service, fueling & rest areas)
9. **Single source for federal and state transportation agencies** (US Department Of Transportation)
10. **Single source for federal and state trade support agencies.**
11. **Information clearinghouse** or library for transportation & trade publications
12. **Internet Web site(s) providing transportation & trade information**

The shippers that responded to Walter's survey felt that an internet web site providing transportation and trade information was the most important item to them, followed by a transportation centre. Following those two items were; a point of entry for customs clearance, a single source for federal and state trade agencies and intermodal transfer facility.

As per Gooley (1998), the choice by companies for location of a manufacturing or distribution centre is looked at from a businesses point of view. Gooley (1998) says that while companies will have differing needs based on the products they make and to whom they sell, they will still have some common requirements when it comes to shipping their product. These include:

- **Physical infrastructure:** When it comes to site selection, infrastructure is likely to be the first consideration for logistics managers. Infrastructure can include both natural and man-made features.
- **Proximity to suppliers and customers:** In an ideal world, facilities will be close to both the source of raw materials and the destination of the finished products. That rarely is the case, though, so shippers must weigh the cost of moving raw

materials to manufacturing plants against the cost of shipping finished goods to customers from candidate locations. Analysts expected that it would be cheaper to package products close to the customer but in some places it was cheaper to package in remote locations and deliver packaged goods to the customer.

- **Political and tax considerations:** Every local newspaper includes stories about state and local governments offering special tax breaks to businesses to entice them to locate in a particular city or town. The attraction for governments is jobs for their citizens and tax money for their treasuries. Sometimes, the long term tax incentives offered are so great that they substantially reduce the total cost of building and operating a plant, warehouse, or distribution facility.
- **International trade conditions**: Border crossing procedures, availability of international transportation services and equipment, the quality of roads, rails, and other transportation facilities are all important factors to consider.

The reason for identifying these needs is that an integral part of an inland port is value added services, such as logistics and distribution. With regards to distribution in Canada, Gooley (1998, p.64) adds "...the vast majority of Canada's citizens live within 150 miles of the US – Canada border. Although there are major metropolitan areas located outside of that border strip today, product distribution is concentrated within that population belt – thus, any domestic distribution systems must be designed with that fact in mind." In addition to that, Gooley (1998) also mentioned other important factors that lead to the site selection for an inland port. As per Gooley (1998, p.63), it is "important to think in terms of supply chain, recognizing that an entire, organic system is involved. Each of the many

factors that must be considered in the site selection process is interconnected with others and cannot be treated in isolation."

It is important for inland ports to consolidate supply chain components into one location. When private sector businesses are selecting a site for their distribution, they look at all these factors. If a location has most of the facilities and resources (factors) in place then those locations become strong candidates for inland ports.

Upon completion of her literature review, Leitner (2001) identified five critical needs that she felt an inland port required to be successful. She called them preliminary critical needs as she felt that they were most useful for sites that are beginning operations or governments to use for evaluation of investment in these sites. Leitner (2001) suggested that sites that have all of these critical needs have a chance to be successful, with further development. These needs are:

1. **Modal Capabilities:** An integral need at an inland port is transportation assets. Transportation specialists, when evaluation potential sites, start by evaluating these assets. The need for modal capabilities in the form of highway connectivity and availability or proximity to rail, air or waterway transport is necessary.

2. **Existing Demand:** For an inland port to survive, there must be existing demand for cargo to be shipped, logistics firms and/or freight forwarders. A location that does not have these base assets, it will be difficult for it to operate successfully over the long term.

3. **Locational Advantages:** Sites that are located near large populations will be able to provide workers and buyers for the companies locating their operations at the

inland port. A large population provides various levels of workers for work at the inland port. As well, investments in metropolitan areas have a higher expected financial return, creating a greater chance of success for inland ports located near these areas.

4. **International Trade Facilitation:** It is critical for inland ports to have Foreign Trade Zone status and customs clearance on site. As well, Electronic Data Interchange is rapidly becoming a necessary component of the international trade facilitation.

5. **Management Plan:** There must be adequate capital funding, marketing and public/private cooperation to assist in the development of the port. There needs to be a financial plan with capital funding ensured to sustain the inland port before tenants locate and begin paying rent.

Determination of Assets

Six lists of assets important to inland ports have been presented. These lists are from varying perspectives; three of the lists are based upon what it is thought that shippers look for when choosing an inland port to ship their product through, two of the lists are assets believed to be important for development of an inland port and one list provides a list of critical assets that smaller communities must possess when pursuing inland port business.

Richardson's (1991) fifteen items, Walter's (2003) twelve items and Gooley's (1998) four items all propose assets that are important to businesses that are contemplating shipping through an inland port. Richardson (1991) basically provides a list of assets that shippers should consider when selecting a port for their shipping business. Walter (2003) on the other hand developed a list in consultation with shippers and other local businesses. He then used a survey to determine the importance of each item on the list. Gooley's (1998) list is based on interviews and his experience studying the industry.

Robinson's (1999) list of nine items critical to development was derived from a previous list provided by Trade Point USA. Leitner's (2001) list was derived from a review of the literature on inland port development.

Harder's (1999) list is almost a side note in his paper discussing the factors that the private sector uses to determine where to invest in intermodal terminals. Important to this paper though, Harder (1999) lists assets he feels smaller communities need to investigate when proposing inland port developments.

Between these six lists of assets, there are 24 assets that are proposed to be important to inland ports. The list of assets can be seen in table 1 below.

Table 1

	Richardson	Walter	Gooley	Robinson	Leitner	Harder	Total
Infrastructure (modes of transportation)	✓	✓	✓	✓	✓		5
Services (railroads, motor carriers)	✓	✓		✓		✓	4
Market (local market size)	✓		✓	✓	✓		4
Foreign Trade Zone (free)	✓	✓	✓		✓		4
Electronic Data Interchange	✓	✓		✓			3
Demand (intermodal freight transportation)					✓	✓	3
Public/Private partnerships				✓	✓	✓	3
Location (geographically or time)	✓			✓			2
Customs (staffing levels)	✓	✓					2
Facility (capacity)	✓	✓					2
Public/Private capital					✓	✓	2
Environmental Issues (regulations)	✓						1
Cost (actual cost plus time)	✓						1
Reliability (consistent)	✓						1
Time (move cargo through port)	✓						1
Security (theft, damage)	✓						1
Labor (environment)	✓						1
Equipment (special needs)	✓						1
Councils (address concerns)				✓			1
Aggressive Marketing				✓			1
Program management (leadership)				✓			1
Business Centre		✓					1
Travel Plaza		✓					1
Political and Tax considerations			✓				1

The combination of the assets lists shows that Infrastructure is the most consistently mentioned asset. This is followed closely by Services, Market and Foreign Trade Zone. Prince George will be evaluated against each asset that is mentioned more than once. This will provide eleven different criteria with which to assess Prince George.

Infrastructure

When shipping coordinators are evaluating sites for potential use, the first thing they look at is the physical infrastructure in place, as this is the most important factor. Shippers are looking for various modes of transportation available to them, and easy access to those modes. Access to highways, air, rail and potentially sea are all taken into consideration.

Services

An important consideration for shippers deciding upon shipping venue is that of services. For example; are there enough carriers to handle the volume at the inland port, is there competition among carriers to reduce costs and improve service, and is there access to more than one shipping line or vessel through the port? With just in time deliveries and contracts, it is very important for shippers that product flow through ports seamlessly and quickly. Congestion or poor service can have a significant impact on contracts.

Foreign Trade Zone

There are a number of different parts to a foreign trade zone. Leitner (2001) remarks that having customs officials onsite is integral to the philosophy of inland ports. Having customs officials on site allows containers to be unloaded from the sea port and shipped directly to the inland port where they will clear customs. This reduces the volume of containers that have to clear customs at the container facility, thus reducing processing time. This also works in reverse order. Customs officials can clear containers for export at the inland facility, again reducing the volume for clearance at the sea port. Having the customs officials located where the containers are being filled is a necessity.

Walter (2003) finds that tariff shelters and light assembly areas in foreign trade zones of inland ports are a powerful attractant to business. The basic idea is that products can be shipped in bulk into the foreign trade zone where they can have some further minor manufacturing applied to them prior to passing through customs, thereby reducing the customs that will be applicable to the product.

Market

The size of the local market is a large attraction for companies when deciding to choose a point of distribution. It is much more efficient to send large bulk containers to a central location for distribution than it is to send a bunch of small shipments to different locations. It is even more beneficial if that central location is also a large market; the shipping company will not have to further ship their product as it will be sold in the local market. As well, having a large population base will provide better access to labour.

When Robinson (1999) talked about market or demographic advantage, he suggested that an ideal location is one which is situated close to a large percentage of the national population. According to Leitner (2001), Hillwood, a developer of major inland ports in the southern US, requires a local population in excess of 3 million for a site to be considered for development.

Electronic Data Interchange

Cargo movement through a port can only be as fast as the accompanying paper work associated with that cargo. Current inland ports have developed extensive electronic infrastructure to help process the paperwork faster. In cooperation with Customs officials and brokerage companies, these EDI's are helping to ensure that products are not held up due to the shuffling of paperwork. Shippers today are demanding that their product move as quickly and seamlessly as possible through ports. Companies are using just in time delivery strategies and are using their shipping time as almost a moving storage facility.

Demand

There needs to be existing demand for intermodal traffic to support an inland port. Long term, the attraction of large shippers will maintain and grow an inland port, but there needs to some existing demand for an inland port to be developed in the first place. Existing demand does a number of things. First and foremost, it provides the fledgling inland port with some much needed business during the initial start up phase. It also ensures that there is some local expertise with regards to shipping or intermodal traffic. Lastly, it will have created some local trucking companies that have experience with intermodal products. All of these will help the development of the inland port facility.

Public/Private Partnerships

Public/private partnerships are extremely important to the initial development of an inland port. Without involvement from either party it will be very difficult for an inland port to get off the ground and succeed. Public interest is needed to help promote the idea to local authorities, to influence policy makers to allow the development to proceed, to potentially create tax incentives or development initiatives to attract private investment. Tax incentives, agreeable land sales, and zoning changes are all very important when one site is competing against another for private investment. Public interests will also help to market the site and it's attributes to potential customers.

Private interest is required as well, to help promote the idea, to supply much needed seed and operating capital in the initial stages of development, and to provide business for the port. Private interests can bring operating expertise and management to the project. By

partnering together, the two parties can develop a port that works for both interests, rather than being a special interest project for one or the other.

Location

There are two criteria to look at when evaluating the location of an inland port, the physical location as well as the time it takes products to get to and from the sea port. The physical location is important as the sea port and logistics coordinators will not want the inland port to be too far from the actual sea port. Ideally, the inland port is located within 500 miles of the sea port. While distance to the sea port is important, just as important is transit time to the port. Connecting highways that are routed through mountain ranges that are frequently closed during winter months, or rail lines that only move traffic once or twice a week are just as important considerations as actual geographic location.

Customs

Having customs processing facilities on site is a very important asset from the shipper's point of view. Sea ports tend to be very space constricted and it can be very time consuming to get product through customs. A vital need of inland ports is the ability to handle customs processing, to reduce the time that shipments need to spend dockside. One important consideration for shippers is that of staffing levels. The inland port needs to do it's best to ensure that there are enough customs clearance officials on site to allow product to quickly flow through the site.

Facilities

One of the major reasons for the development of inland ports is that sea side ports tend to be restricted with land space. Due to this restriction, they are not able to expand their

warehousing and container processing facilities. This is causing large congestion problems as the port's volumes continue to grow. It is important, therefore, for inland ports to have sufficient warehouse and container stuffing facilities to handle demand efficiently.

Public/Private Capital

The initial development of an inland port can be very costly and capital requirements to maintain operations in the initial stages as well can be expensive. Capital is required to both start up and market the port. Harder (1999) suggests that the capital come from a public private partnership, as both have a vested interest in the development.

Prince George's Assets

Infrastructure

Prince George is located at the intersection of two major highways. Highway #16 (The Yellowhead) runs in an east-west direction and crosses much of Western Canada. It is connected to major north-south highways in all western Canadian provinces. Highway #97 is the major north-south highway in British Columbia. It connects to the Trans-Canada highway in the south and to the Alaskan Highway in the north. The British Columbia government has announced a major upgrade to highway #97, calling it the Caribou Connector. The entire length between Prince George and Cache Creek will be expanded to 4 lanes over time, with the first 200 million dollar phase beginning shortly.

The Prince George Regional Airport is located off highway #16, a short distance from its intersection with highway #97. The airport has undergone a major expansion in recent

years, with new departures and arrivals areas created. As well, the airport can now accommodate international flights. Future plans are to lengthen the main runway to more than ten thousand feet, to allow for take off and landing of heavy cargo planes, such as those used by courier companies.

The Canadian National Railway line runs through Prince George in an east west direction. It is a direct route to Prince Rupert in the West and Edmonton in the East. Due to market demand, CN has trains leaving Prince George and traveling basically non stop to Chicago. As well, there is a north-south rail line passing through Prince George also operated by CN. CN has announced plans to construct a container terminal at the Port of Prince Rupert, as well as improvements to their line west of Prince George to accommodate double stacked containers.

Services

Due to the sale of British Columbia Railway's (BCR) assets to Canadian National Railway (CN) by the Government of British Columbia in 2004, Prince George now has only one Rail Company servicing the community. Prior to the sale, BCR handled most rail traffic moving in a north-south direction and CN handled most moving in an east-west direction. This gave shippers some flexibility if there were labour disruptions with one company or the other; they could theoretically still ship their product. Now with only one Rail Company, if there is any type of labour disruption, there is no way for a shipper to ship their product. Another consideration is that due to CN being the only rail company, they have a monopoly on the business in northern British Columbia and can dictate shipping rates to potential customers without having to compete for the business. A map showing the location of CN's Western Canadian rail lines is shown below.

Figure 1. CN's Western Canadian Rail lines

There are sixty three trucking operations in Prince George according to the 2005 Info Pages Directory, with operations ranging from single vehicle local hauling up to divisions of national carriers. The existence of these companies is fostered by the large manufacturing industry in the area. There is not a lot of intermodal container experience as the closest intermodal facility to Prince George is currently Edmonton.

The Prince George airport currently can not handle large cargo aircraft. The runway is not long enough to allow these planes to land and take off. The airport has recently completed a new arrivals area and can process international shipments; it just requires lengthening of its runway before it can start taking large cargo aircraft. According to the Prince George Airport Authorities' website (2006), lengthening the runway is the third and final phase of their current expansion. The plan is to lengthen the main runway from 7,400 feet to 10,000 or 12,000 feet, at a cost of $4.7 million to $7.5 million dollars.

The container facility at the Port of Prince Rupert is not yet complete and is not expected to be in operation until the third quarter of 2007 according the Prince Rupert Port Authority (2006). As such, it is not yet known which shipping lines will use the port as a container facility.

Foreign Trade Zone

According to the Canada Border Service Association website Prince George currently has two customs services: there is an interport sufferance warehouse which is a "highway sufferance warehouse or special warehouse for perishable goods" and an airport of entry which is "solely for the clearance of persons arriving by general aviation traffic where the flights are unscheduled and the passenger capacity, including crew, does not exceed 30 people."

There are no locations in Prince George that have foreign trade zone or free trade zone status of any kind. It would be critical to any inland port development that they seek and are provided with this designation. As well, customs officials would need to be assigned to the inland port to provide clearance at that location, rather than at the sea port.

In fact, there are no Free Trade Zones located in Canada. According to Ryan (2004), the idea of establishing free trade zones at Canadian ports was a main topic of discussion at the 2004 annual meeting and conference of the Association of Canadian Port Authorities. The Canadian ports feel that free trade zones are required in Canada to help cut red tape and attract investment as a means of staying competitive with United States ports. According to Ryan (2004) there are 240 foreign trade zones in the United States, typically located in or near a customs point of entry.

Market

According to Statistics BC, the population in Prince George was 77,721 in 2004 according to Initiatives Prince George (2006), an increase of just over one thousand from 2003. As well, Statistics BC (2004) found that the Fraser-Fort George Regional District, which Prince George is a part of, had a population of 95,317 in 2001 according to census data; this is 2.4% of the population in British Columbia.

Electronic Data Interchange

As there is no inland port in Prince George, obviously there is no EDI established. The development of an EDI must be a priority though for any inland port development. According to Initiatives Prince George (2006) website, British Columbia has state of the art telecommunications with BC having the highest internet usage in North America. They also say that Prince George has invested in leading edge telecommunications infrastructure, to be connected and competitive with the world. So while there currently no EDI in Prince George, the infrastructure necessary to support such an endeavor is in place.

Demand

The size of the current demand in Prince George is beyond the scope of this project. That being said, there currently is some shipment of pulp and wood products through the Port of Vancouver. These products are shipped by truck or rail down to container stuffing facilities in Vancouver where they are placed into containers for placement on vessels for overseas travel. According to its website, the largest manufacturing company in the area,

Canadian Forest Products has its own container facility located in Vancouver where it stuffs containers with its export products.

Public/Private Partnerships

There are a number of parties within Prince George that are interested in the development of an inland port. The city of Prince George itself is very interested, and as such has asked Initiative Prince George to work on a feasibility study to determine if Prince George is a good site for an inland port. According to its website, Initiatives Prince George is a "Municipally-owned corporation mandated to undertake programs and projects designed to grow and diversify the local economy." As part of their investigation, Initiatives Prince George has talked to a number of public and private entities. During the most recent provincial election, a number of local politicians talked about the development of an inland port in Prince George. Prince George City Council (2006) identified the development of inland port facilities as one of their sixteen priorities to be addressed during their current term in office.

Location

Prince George is located approximately 700 kilometers along highway #16 from the Port of Prince Rupert. It is approximately 800 kilometers from Prince George to Vancouver in the south and just over 700 kilometers to Edmonton in the east. The CN rail line follows this highway for the most part, starting in Prince Rupert, routed through Prince George and on through Edmonton and further east. A map showing the location of Prince George in the Province of British Columbia is shown below. Prince George is highlighted near the middle of the map.

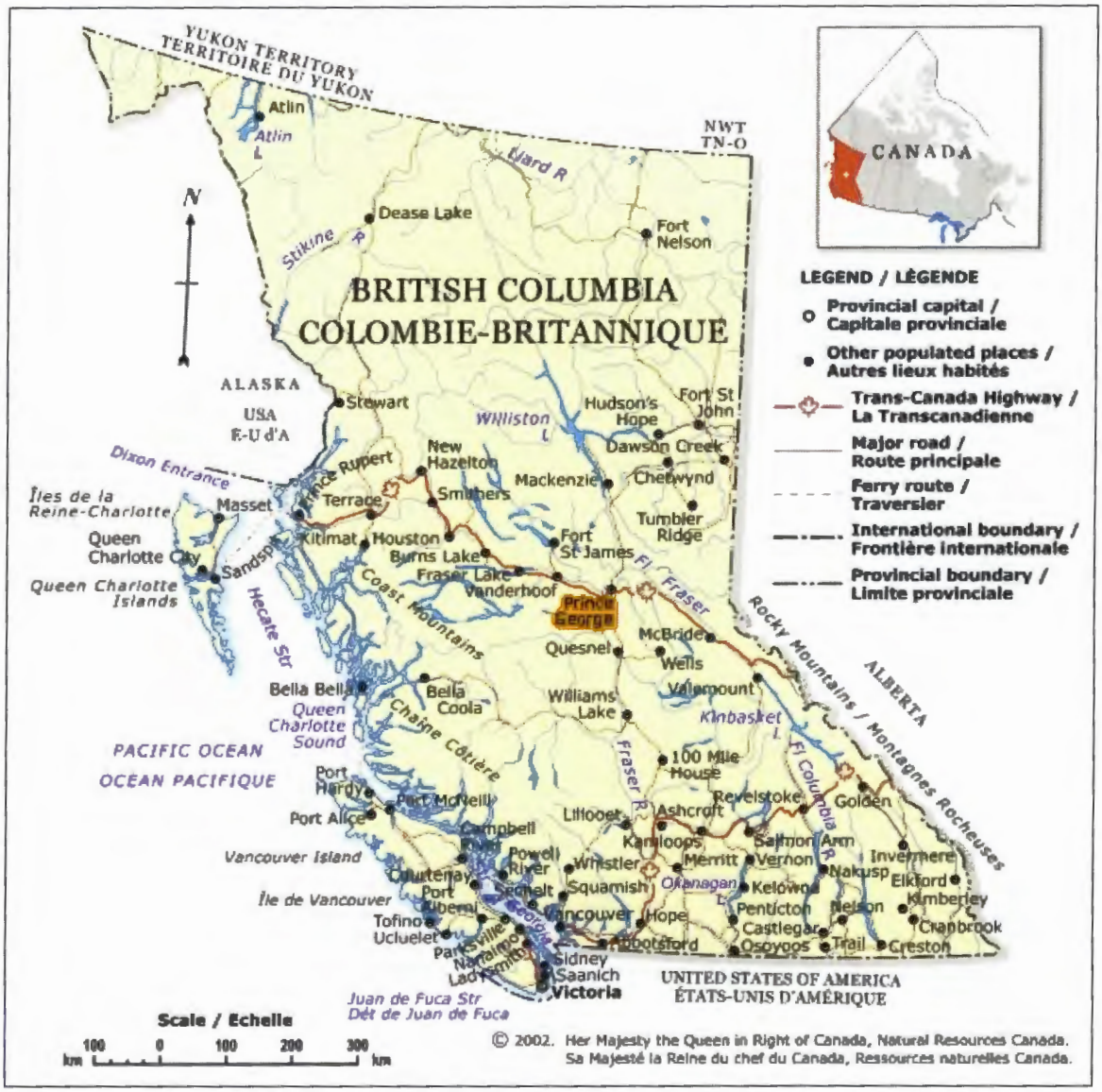

Figure 2. Province of British Columbia highlighting Prince George

According to the Initiatives Prince George website (2006), Prince George is part of the Northwest Transportation Corridor, which is an "uncongested and well-connected network of highways, railways, airports and marine port facilities. The Northwest Corridor provides access to 8 million people with $25 billion of spending power residing in adjacent provincial and territorial regions." The Northwest transportation corridor markets itself as the shortest land/sea connection between the United States Midwest and

Asian/Pacific markets. A map of the Northwest Transportation Corridor from the corporation's website is shown below.

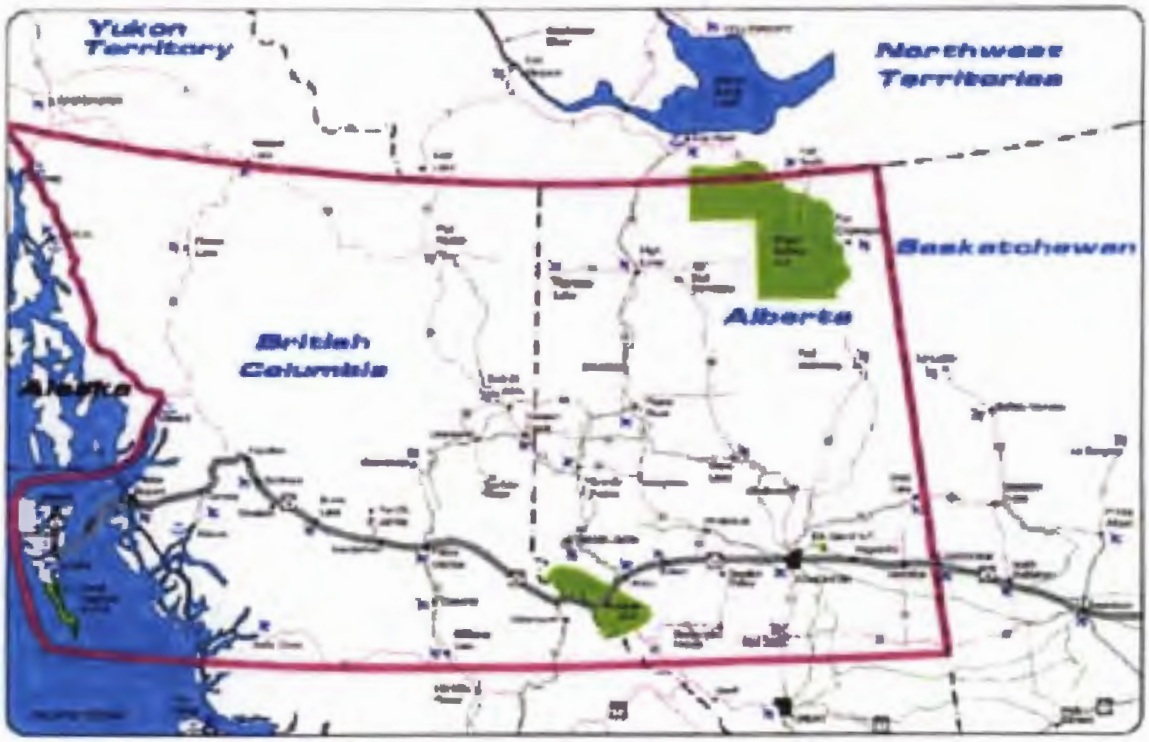

Figure 3. Northwest Transportation Corridor

Customs

As mentioned earlier in the discussion in Foreign Trade Zones in Prince George, there are currently only two customs facilities in Prince George, neither of which is designated to handle large container shipments. That being said, to this point in time there has not been a need in Prince George for this type of service.

There is only one sufferance warehouse located in Prince George. According to their website, Revenue Canada customs offices will consider licensing additional warehouses when the following criteria are met.

1. The volume of commercial highway traffic processed at the customs office exceeds 40,000 shipments per year over a sustained period.
2. Revenue Canada is able to provide service to the newly proposed facility.
3. The applicant demonstrates the ability to attract sufficient volume of shipments to justify the provision of a customs inspector on a full time basis.
4. The applicant is prepared to fund the installation and maintenance of computer terminals and transmission lines as required by Revenue Canada.

Facilities

As there is no inland port development in the city of Prince George, there is very little in the way of facilities available to a potential shipper. Opinion 250 (2006) had an article on their website that CN is expected to announce the construction of a container stuffing facility on their existing grounds within the city. The article is careful to mention that this is not a "full fledged inland container port" but rather will allow CN an area to stuff empty containers on their route back to the container port in Prince Rupert.

The Initiatives Prince George website mentions that the City of Prince George has identified major industrial sites outside the city for development. These areas have site conditions, access and air quality restrictions that would allow easy development for major industry without conflict with other users.

Public/Private Capital

To date, there has been no formal announcement of development of an inland port in Prince George. As mentioned earlier in the report, Initiative Prince George is conducting

a feasibility study for the City of Prince George. As well, there is mention in the Opinion 250 article (2006) of a major inland port in the early stages of development, to be located near the Prince George airport. According to the article, a private company located in the lower mainland of British Columbia is buying up property to be used in the development.

Evaluation

Infrastructure

Prince George has a solid infrastructure in place. There are major highways moving in both and east-west and north-south direction, it is located on a major rail line, and has an international airport. As well, the highway system will be experiencing major capital investment in the coming years. A key future development is the expansion of the airport runway to accommodate cargo aircraft. Prince George currently has the variety of infrastructure to support an inland port.

Services

There is only one Rail Company that services the area in and around Prince George, Canadian National Railway. There are tracks in both directions, both east-west and north-south. There are large trucking firms within Prince George but very little intermodal experience. There are no major air cargo services in Prince George as the airport infrastructure can not support their existence. There are no logistics firms in Prince George. Prince George does not currently have the variety of services demanded of an inland port. There is no competition for rail service, there are no local experienced intermodal trucking firms, there are no air cargo services and there are no logistics firms.

Market

Based on either criteria, located near a large percentage of the national population or have a local population of at least three million people, Prince George does not meet the market size requirement. This is a large issue that can't be easily resolved. A company that is distributing its product throughout Western Canada is going to choose to distribute from a larger market, where a greater portion of the imports are going to remain, rather than from a small market where very little of the actual product will be sold.

Foreign Trade Zone

Prince George does not have an area that is designated as a foreign trade zone. As there has never been a need for this designation, it has never been pursued. The City of Prince George does not currently meet this required asset.

There is very little that an inland port in Prince George could do in this regard, as there are no free trade zones in Canada. The best they could do would be to help the Port Authorities pressure Revenue Canada in establishing free trade zones in Canada.

Electronic Data Interchange

There is no inland port in Prince George; therefore there is no Electronic Data Interchange. Prince George does not have this asset.

Electronic Data Interchanges are not new, but they way they are structured today compared to 20 years ago is significantly different. According to Hooper (1997), EDI's used to be developed to run through a mainframe computer, but compared to current technology, this is very expense and rather restrictive. It can be very difficult to get access to a mainframe computer, and typically there are a wide variety of protocols.

Current web based EDI's offer comparable service at a greatly reduced cost, as well as providing access to anyone that has a link to the internet. There are a number of software and web development firms that specialize in the development of Electronic Data Interchanges, as they have become a standard way of conducting business. EDI standards are governed by the American National Standards Institute, which has developed the X12 standard to facilitate the communication and exchange of trade data between computers.

Development of an EDI for an inland port in Prince George would not be a significant undertaking. A current developer would need to be selected, ensuring that they use common protocol in their package. Then it is simply a matter of customizing the software to meet the port's specific requirements.

Demand

There is some current local demand for intermodal shipments overseas. Wood product manufacturers currently send their products down to container facilities in Vancouver where they are stuffed and then forwarded onto the sea port for loading. With the container facility in Prince Rupert operational, this is potential business for an inland port. Prince George may have this asset.

Public/Private Partnerships

There have been no formal announcements of public/private partnerships in the development of an inland port facility in Prince George, although City Council has identified it as a priority.

Location

Prince George is located within 700 kilometers of the Port of Prince Rupert. The rail line follows the highway to Prince Rupert and is being improved to allow for double stacking of containers. Prince George has the geographic asset to be an inland port for Prince Rupert.

Customs

Prince George does have two small customs offices, but no provision or capacity to handle large freight operations. There has not been a need for this in the past and therefore it has not been developed. Prince George does not currently have this asset.

The process for establishment of further customs facilities is quite onerous and time consuming. According to the Canadian Border Services Association (2006) website, the process is basically as follows:

- An application to operate a warehouse must be made in writing. The forms are available from a Revenue Canada office.
- The application must be made by either the person running a sole proprietorship or by a director of an association or corporation wishing to operate the facility.
- The completed application must be forwarded in triplicate the local Revenue Canada office and must include
    - A blue print or facsimile of the entire building
    - Information on fire safety equipment
    - A site plan of the property

- Revenue Canada will date stamp the application and forward an acknowledgement of receipt
- Revenue Canada will examine the proposed warehouse to ensure the facility meets customs requirements
- Revenue Canada will post a Notice of Application for License to Operate a Customs Office Warehouse for a period of 10 working days in the local customs office. This notice provides the public with 14 calendar days to submit comments.
- The chief officer of customs will forward the warehouse applications with supporting documents to the appropriate district manager for review, recommendation and approval
- District Managers will review and make a recommendation for approval or rejection.
- Once Revenue Canada approves the application, a license will be forwarded through the District Manager.

The CBSA website is careful to point out a number of times that applicant should not commit to lease or expend capital resources for renovations or construction prior to receiving approval.

Facilities

There are no intermodal facilities in Prince George, nor are there container stuffing facilities. As well, there are no large warehouse developments. Land has been identified

by the City of Prince George that may be suitable for these developments, and there are hints of some developments, but currently no announced projects. Prince George does not have this asset.

Public/Private Capital

As there have been no announced formal public/private partnerships, there is no public/private capital. Prince George does not have this asset.

Discussion

This paper evaluated 11 assets that were identified as being important to an inland port. Upon analysis, Prince George currently only satisfies three of these requirements, those being Infrastructure, Demand and Geographic Location. An argument could be made that Prince George also has the Services to support an inland port; there is some variety of services, just not as much competition or experience as required.

Of the other seven, at least three would be a natural part of any inland port development. The development would need to establish an Electronic Data Interchange, would need to work with Canada Borders Services Agency to establish customs services and would need to build facilities.

Market and Foreign Trade Zone were both referenced four times in the six lists presented, ranking second. Prince George does not have either of these. Part of an inland port development could be application for a foreign trade zone, but at this time this is not an option in Canada. Of greater concern though is the local market size. Prince George is a relatively small city located at least 700 kilometers from a major urban centre such as

Vancouver or Edmonton. Even when considering Edmonton, it does not have a population of three million, nor is it near a large percentage of the nation's population.

Harder (1999) presented a list of four items that a smaller community should consider when exploring the development of an inland port. Of these four items, Prince George currently only satisfies one, demand, and can make an argument for a second, services. Harder stresses public/private partnerships as being very important for smaller communities, as well as public/private capital. He feels that without public resources, private firms will locate near large urban centres where there is more potential revenue. A key item in Harder's paper is the need for a local champion, for someone in the community to really push, promote, market and organize the inland port idea and development. Prince George City Council has made development of an inland port a priority, but they have yet to designate a public figure as a champion of the cause. There have been no announced private developments either, so it is hard to find a private sector champion of the idea.

Robinson (1999) and Leitner (2001) presented lists that they felt were important to the development of an inland port. These two lists, in particular, are important as they really attempt to determine what is important to developers of inland ports. Six of Robinson's nine items were also mentioned by other researchers and thus made the list being evaluated. Of those six items, Prince George is only able to satisfy two, or potentially three when considering services as being satisfied.

Three items on Robinson's (1999) list that were not evaluated are Council's, Aggressive Marketing and Program Management. He feels that Councils are important to address any concerns that are raised by the development and can to help with any zoning or

bylaw changes that are required. Prince George City Council has identified development of an inland port as one of their priorities and thus should be considered as somewhat meeting this criteria. To Robinson (1999), Program Management is leadership. He is looking for someone to really take control of the development and push it forward, similar to Harder's (1999) champion of the cause.

Leitner (2001) presented five items, with the fifth item being split into two for this paper (public/private partnerships and capital). All of Leitner's assets were referenced by other researchers and thus were evaluated. Prince George currently only has two of Leitner's assets, Infrastructure and Demand. Both Robinson (1999) and Leitner (2001) felt that local market size is very important to the development of an inland port, which Prince George is not capable of satisfying. As well, they both listed public/private partnership on their list of assets, with Leitner (2001) taking it a step further and adding public/private capital. There are currently no announced public/private partnerships in Prince George with regards to the development of an inland port facility.

The last item on Leitner's (2001) list that Prince George is not able to satisfy is a foreign trade zone. As there is no development at this time, obviously there is no need of this designation. Attaining this designation would be an important part of any inland port development. The Canadian ports are going to continue to push Revenue Canada to establish free trade zones in Canada and it would be a large advantage for an inland port in Prince George to be one of the first to be established, if and when Revenue Canada allows for this.

There are a couple of items on Richardson's (1991) and Gooley's (1998) shipper's lists that weren't investigated but do deserve mentioning in light of what has been discovered

about the city of Prince George. Richardson's (1991) list included cost as a concern for shippers. The Initiatives Prince George website references KPMG's cost of doing business analysis which benchmarked the cost of doing business in Canadian locations against a baseline score of 100 for communities in the United States. Prince George scored an 86.4, indicating it is 13.6% less costly to conduct business in Prince George than in an average Unites States community. Presumably, this lower cost could be passed on to shippers, giving a Prince George inland port a competitive advantage over an inland port in the United States.

Gooley (1998) had political and tax considerations as part of his list. The municipal government has indicated that they are in favor of the development of an inland port, as has the provincial government. Presumably, this favor could be shown in the way of political or tax considerations for the fledgling development.

There were four different models of inland ports presented earlier in the paper; inland waterway port, air cargo port, inland feeder port and trade and distribution centre. Based on the assets identified for Prince George, and the requirements of each of these different types, it appears that the best fit for Prince George would be an inland feeder port.

Prince George is well positioned geographically to the Port of Prince Rupert, and has the infrastructure to move containers to the port. There is sufficient land base to establish such a facility, with some local demand for this type of service. These ports are smaller than the trade and distribution centers as they basically function as container stuffing and consolidation points. There may be some minor inbound cargo and distribution, but that is not the main focus.

Prince George can not serve as an inland waterway as it is not connected via water routes to the Port of Prince Rupert. Nor would Prince George be able to serve as an air cargo port as the Prince George Airport can not handle cargo aircraft as the runway is too short at the present time.

The last type of inland port is a trade and distribution centre. This is typically the type of port that is thought of when the term inland port is mentioned. By definition, for this paper and according to Leitner (2001), an inland port is a site located away from traditional land, air, and coastal borders containing a set of transportation assets (normally multimodal) and with the ability to allow international trade to be processed and altered by value-added services at the site as goods move through the supply chain.

There are two major requirements to this type of inland port that Prince George is not able to satisfy, market and foreign trade zone. First of all, these types of ports are located near very large populations to create a market for their goods as well as to supply sufficient labour for the operation. A foreign trade zone designation is also important, to allow for value added services to occur prior customs clearance.

Conclusion

It appears that Prince George does not currently have the required assets to support the development and success of a traditional inland port. Of the eleven assets that we evaluated, Prince George only has three and possibly a fourth. Prince George may be able to serve as an inland feeder port to the Port of Prince Rupert; there is some local demand for container export, Prince George is well situated geographically and has the infrastructure to move containers to the sea port. Initiatives Prince George is evaluating

the feasibility of an inland port for the City of Prince George. This is the start of public interest in the idea. To date, there have been no official announcements of private interest in the idea.

Recommendations

1. The City of Prince George has indicated that the development of in inland port is one of their priorities. As per the literature reviewed, one of the most important things the City of Prince George can do to help this development is to find and appoint a champion to the cause. Robinson (1999) and Harder (1999) both indicate that this is important for development, and in particular, Harder says that it is very important for smaller communities. This needs to be done quickly. The container terminal is set to begin operations in 2007 and there is competition from other communities to establish themselves as an inland port.

2. In line with the first recommendation, the City of Prince George needs to establish a public/private partnership. The champion from the first recommendation would be a great person to begin this process. Robinson (1999), Leitner (2001) and Harder (1999) all identified the importance of a public/private partnership to the development. This partnership needs to include at least municipal and provincial governments, as well as transportation (truck, rail, logistics) firms and possibly a development corporation.

3. Along the same line as recommendation number two, an inland port development requires some form of public/private capital to fund its establishment. There are not many reasons that a purely privately funded operation would be developed in

Prince George. In fact, there is one huge reason that a purely privately funded operation would not locate in Prince George, the lack of population. As well, a fully publicly funded operation may have a difficult time attracting investment and business. A partnership of funding will create buy in for both interests.

4. This partnership needs to define the type of inland port they are going to attempt to construct. Based on the literature reviewed and Prince George's current assets, it is believed that an inland feeder is port is the best option, at least in the beginning.

5. The inland port needs to be heavily marketed. Only Robinson (1999) mentioned aggressive marketing in his list, but it was also talked about by Harder (1999). Prince George is a smaller community and really needs to market the inland port to attract business.

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