

**Improving the Flow of People, Goods, and Services
Across International Boundaries**

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Paper prepared for presentation

at the Geometric Design for Better Border Crossings Session

of the 2006 Annual Conference of the
Transportation Association of Canada
Charlottetown, Prince Edward Island

ABSTRACT

The United States (U.S.) and Canada have long maintained the world's largest bilateral trading relationship, with an estimated US\$1.5 billion in trade per day in 2005. Trade between the U.S. and Canada creates over 5.2 million jobs in the U.S. In addition, by these border crossings merely functioning, employment opportunities in tourism, shopping, real estate, customs, immigration, and construction are created. Almost all of this trade takes place at surface crossings, with trucks (versus rail) carrying the predominant share (83% by trade value), particularly in the eastern U.S. and Canada. An increase in truck traffic, combined with passenger traffic, an aging border infrastructure, and changing policies and practices, has raised concerns that border crossings impede this trade and result in loss of jobs, particularly after the tragic events of 9/11.

This paper explores many new programs that have been implemented, or are envisioned, to expedite the safe and secure flow of goods and persons crossing the border. It looks at the function of the border crossing and the impact technology will have on its infrastructure. It also provides an overview for planning border crossings as a system rather than just an isolated Port Of Entry. The purpose of technology is to inform the public of travel conditions and delays, to protect traveler safety on the approaches, and to implement new inspection programs to address security issues while separating low-risk goods and persons from those that pose higher risks. This document also identifies how these changing processes and use of technology affect the Port Of Entry design, size, and layout, as well as the additional infrastructure needs on the approaches to these Ports Of Entry to implement many of these practices. The information and recommendations found within this paper are based on Stantec Consulting Services' experiences over the past 17 years in conducting border crossing studies, preparing Port Of Entry designs, and continuous involvement with various border crossing organizations and agencies that are responsible for the operations at the border, as well as those responsible for the approaches or systems that serve them in both the U.S. and Canada. Finally, this paper provides the basic principles and measurements necessary to understand and address the various issues for design professionals working to improve operations or to design new border crossings.

INTRODUCTION

Trade between the U.S. and Canada was over US\$1.2 billion a day in 2004 [1] and was estimated to support over 5.2 million jobs in the U.S. alone [2]. Other jobs supported by border crossings include jobs related to tourism, shopping, real estate, customs, immigration, and construction. However, both commerce and travel are inspected or regulated in many different ways requiring different facilities and security procedures. Travel by land (highway and rail), sea and air (North American and International), as well as power lines and pipelines (natural gas and oil) related to the border crossings, all have varying forms of regulations.

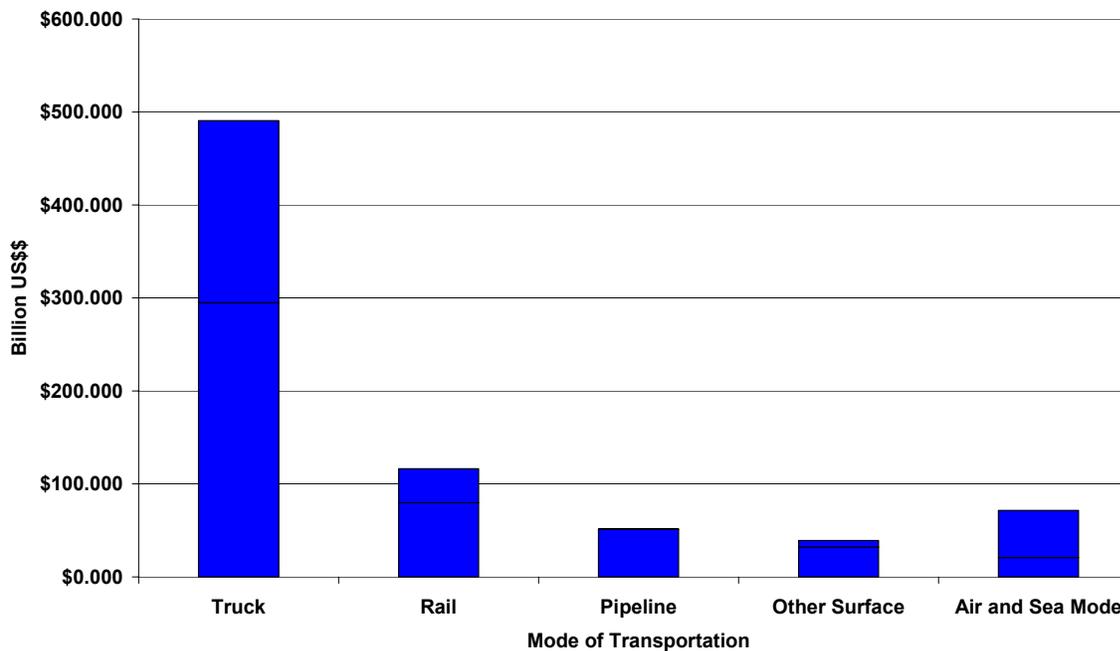
This paper concentrates on what most people associate with highway border crossings. Highway border crossings are generally the most complex since they are the most visible and handle a variety of different types of travel; other than airports, they have been most impacted by changes in security needs since the tragic events of 9/11. At most of these crossings, the infrastructure is aged and many do not have sufficient land area to expand in order to process the increasing volume of travel without having a significant impact on the communities that have developed around them. In many places, they also do not have the space to address the changing policies and practices that are and will be evolving at these crossings. Thus, there is concern that the border crossings are and/or will become “choke points” that can impede the flow of trade, travel, and services. Recognizing this, both the U.S. and Canadian Governments, as well as the many other agencies that operate, maintain, or are responsible for the highway approaches and other features that make up a border crossing, have been working together over the past 15 years to address both current and future needs at these crossings, including security, enforcement, and travel to facilitate safe travel and trade while improving the security of each nation. This paper addresses the key items of border planning for those things that have not changed and those that most likely will.

IMPORTANCE OF HIGHWAY BORDER CROSSINGS

In 2005, North American trade between the U.S., Canada, and Mexico represented 1/3 of the U.S. total worldwide trade (by value) and nearly 75% of Canadian trade worldwide. The majority of this \$2.1 billion daily volume of trade crosses the U.S./Canada/Mexican borders by truck (64%). Figure 1 shows the various modes of transportation used in 2005 to transact this trade by value in U.S. dollars [3].

In 2004 (latest year available), these goods were carried into the U.S. on 11.4 million trucks (6.9 million from Canada) competing with nearly 122 million passenger vehicles attempting to cross into the U.S. (30.6 million from Canada) [4]. Averaged over 365 days, these two modes of transportation resulted in a simple trip total of 365,000 cars and trucks attempting to enter the U.S. through the international highway crossings daily. Assuming an equal volume of these vehicles entered both Canada and Mexico from the U.S., this number doubles to 730,000.

Figure 1
Value of North American Trade By Mode – 2005



WHAT IS A HIGHWAY BORDER CROSSING?

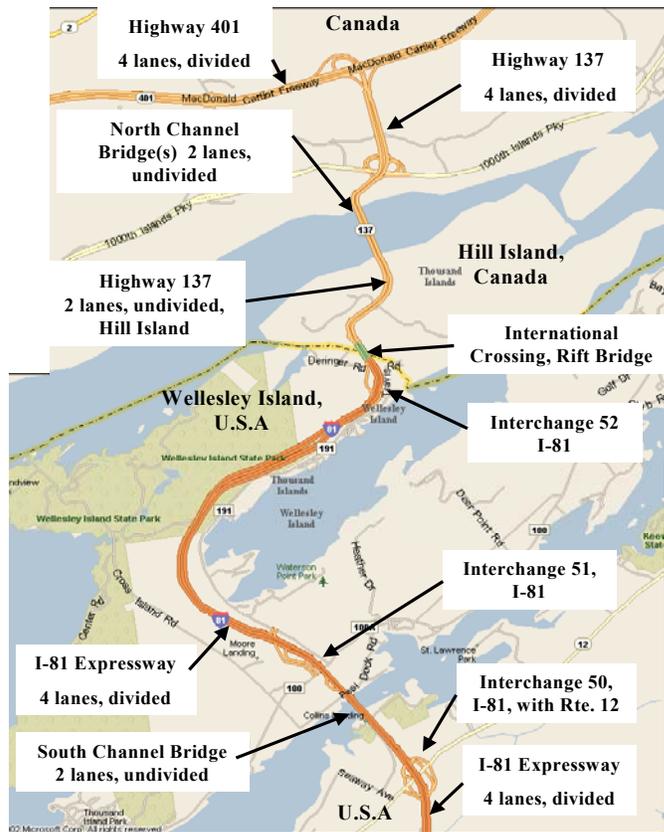
A border crossing is not just a Port of Entry into the neighbouring country; it is a series of facilities a traveler may use to leave one country and enter another. It can consist of a simple surface Port of Entry (primary and secondary inspection areas and facilities), with an approach and exiting road, to a very complex crossing that includes Duty Free, Currency Exchanges, toll collection facilities, bridges, etc. Some of the longer crossings can actually span for kilometres. Because each crossing has unique features, they must all be reviewed and planned to meet their individual needs and constraints, as well as the capacity of each crossing component. For example, there would be little need to expand a Port of Entry to provide more primary inspection lanes if the highway facility or bridge on the approach could not be expanded to provide for more traffic processing.

Similarly, the capacity of each crossing component (i.e., inspection, highway, toll collection) can be affected by different features. Inspections or toll collections not only require lanes and booths to perform the intended function, but staff will be necessary in these booths to process travel demand. Grade, volume of trucks, number of lanes, and adjacent driveways affect highway facilities, as does the type of area they are located (rural versus urban).

An example would be the Thousand Islands Crossing (Figure 2). This crossing extends from Highway 401 to I-81 on the U.S. Mainland and is approximately 8.5 miles long [5]. It consists of five bridges (one with over a 0.5 mile uphill grade). Parts of the crossing are a four-lane

grade-separated expressway type highway, while another section is a two-lane rural type highway with at-grade intersections and access to commercial properties. It includes not only a U.S. and Canadian Port of Entry and supporting facilities, but also toll collections, bridge maintenance, crossing operation facilities, and duty free stores.

Figure 2
Thousand Islands Crossing



When planning a new or expanded border crossing, all these components need to be considered in order to identify needs and then address the appropriate solutions to improve the flow of people, goods, and services across international boundaries and determine how these solutions should be staged.

Agency Involvement – When planning for either the expansion of an existing border crossing or the design of a new one, involvement of the various agencies that either operate or are responsible for a border crossing should be involved (on both sides of the border). These agencies include inspection agencies (i.e., customs, immigrations, agriculture, and others), along with the agency(ies) responsible for the highway and bridge system, which may also include a bridge operating agency and toll collection. First responders, such as police, fire, and ambulance service providers should also be included, since they play an active role at an international crossing.

WHAT WE HAVE NOW

Generally, what we have now is a driver who is not familiar with the crossing, its approaches, or its operations when attempting to cross the border. This driver has little awareness as to whether crossing the border will take a few minutes or a few hours. They may be confronted with many kilometres of stopped traffic waiting to cross the border, and be unclear if this waiting traffic intends to cross the border or if it is the result of some other incident. This is particularly true for many passenger vehicles, since many cross the border, at best, several times a year or less. The driver is now confronted with a variety of decisions, such as a duty free store, currency exchange, possibly the need to pay a toll, how much the actual toll will be, or whether they will be stopped for inspection prior to leaving the country. Then, as they finally reach the Port of Entry for inspection, they have to identify which lanes are opened and which lane they should enter.

The inspecting agent at the border will also have concerns, such as generally being unaware of who or what is arriving. Based on limited information, they must decide whether to allow the vehicle to proceed or to detain them for a secondary inspection. A more in-depth inspection may also require removing and physically inspecting the contents of the vehicle.

WHAT WE CAN EXPECT IN THE FUTURE

We can expect that a driver will be able to obtain accurate and timely information on the travel conditions before reaching their intended crossing that allows them to make an informed decision as to where to cross, if they decide to cross at all. The addition of highway signs on the approaches to warn drivers if traffic is stopped ahead. At the border itself, we can expect signage and information as to which lane to enter and the cost of the toll, if any.

On the inspector side, information on the traveler and/or goods prior to the vehicle reaching the inspection lanes will be available. For goods, this pre-arrival information will allow agents to determine whether a further in-depth inspection should be required at the border prior to the vehicle reaching the border. For passenger vehicles, accurate information on the individual(s) in the vehicles will prove they are who they say they are. Further, detection systems such as radiation detection, biometrics, and other equipment that will warn if something may not be right, and other equipment that allows an inspector to look inside a truck, car, or bus without having to enter it. The security of the Port itself will also be improved by using smart cameras that can detect things that are not right or different, without a small animal entering the area setting off alarms. All of this will improve travel safety, national security, and allow inspectors to concentrate on those vehicles that pose the highest threat, while minimizing delays and wait time for low-risk vehicles and goods crossing the international border.

Accomplishing this goal requires changes in how we design and layout our Ports of Entry and their approaches.

KEY PORT DESIGN FEATURES

There are a number of key features that must be considered in the design of a Port of Entry.

Primary Inspection Lanes – These lanes are used to do an initial inspection of the vehicle and driver. Current plans by enforcement agencies in both the U.S. and Canada involve spending more time inspecting the vehicles at primary inspection and sending fewer for secondary inspection. This lengthened inspection, coupled with increasing travel demand will result in the need for more primary inspection lanes and booths. In turn, this results in having to widen the existing or planned future plaza in order to install these lanes and booths.

These primary inspection booths generally have to be located in a straight line or at least in an arrangement where a supervisor(s) can observe changing conditions or an incident in one of these lanes. This arrangement also needs to consider the ability of the inspector to be able to clearly see approaching traffic in front and in back of the booth to ensure that a vehicle sent to secondary inspection is actually entering that area. Maintaining a clear line of sight is always one of the key design features in expanding or laying out any new Port of Entry.

The number of primary inspection lanes and their arrangement determines the minimum width of the Port, as does the number of lanes required for travelers entering the other country. Another consideration in determining this width is the distance inspectors have to walk in order to staff these lanes from either the main or commercial buildings. To minimize this distance at larger Ports of Entry, consideration needs to be given to locating at least one of these buildings in or near the centre of the primary inspection lanes, which again, results in a widened plaza area. This width also impacts the length of the Port, since sufficient room (pavement) needs to be provided to allow vehicles to fan out and then line up and wait to be inspected in each lane. After inspection, and upon being released, sufficient room (pavement) must also be provided to allow vehicles to safely merge together on the approach to the exiting highway.

Secondary Inspection Areas – With the intention to clear more vehicles at primary inspection and send fewer vehicles to secondary, the number of parking spaces required in the secondary area should decrease over time. The size of this area and the commercial warehouse inspection building is also expected to decrease as a result of changes in various inspection programs (pre-arrival notification, which means all commercial vehicles should arrive with their paperwork in order, and avoid parking in secondary to meet with their broker to get their paperwork corrected) and the use of technology, such as non-intrusive inspection systems, which allows an inspector to see inside the vehicle without having to open and unload the vehicle at the warehouse dock or in the passenger secondary inspection area.

Lighting – Adequate lighting of the entire plaza area has always been important both for security (to be able to view what is going on within the plaza) and for safety (for drivers to see pedestrian activity and inspector operations crossing within the Port). Lighting levels and types are also changing to address the needs of smart cameras, license plate readers, and providing accurate colour rendition, since the Inspector must be able to identify a variety of substances and materials.

Separation of Forces – Particularly at smaller Ports of Entry, consolidation of forces (enforcement personnel) in one or possibly two key locations needs to be addressed for Port security. By consolidating forces, inspectors are better placed to detect and respond to incidents within the Port.

Speed Control – Consideration of roadway features that will slow down traffic prior to reaching the primary inspection area can help protect the safety of both the vehicle operator and the inspector. These considerations include minimizing the downgrade approach to the facilities to improve stopping distance, reduce radius curves prior to entering the plaza area and advance signage. Consideration should also be given to the type of highway section on the approach. Narrower lanes and reduced shoulder widths can also help lower speeds and inform the driver that something is about to change.

Return to the Other Nation – Sometimes, people and goods being carried in a vehicle are rejected from entering the other nation and drivers are directed to return to the nation they came from (normally from the secondary inspection area). To do this, however, requires the vehicle to make a “U-turn” within the plaza to reach the opposing travel lanes. This return movement must be designed to minimize the inherent conflict of these returning vehicles and vehicles exiting the Port of Entry in the opposite direction.

Secured Areas – There is a need in any Port of Entry to provide a secure area where a vehicle can be impounded. These areas, while relatively small, need to be located where they can be observed, and any attempts by persons to enter these areas can be quickly responded to by enforcement personnel.

Emergency Vehicle Access – Ports Of Entry require the assistance of first responders to address medical or fire emergencies, hazardous material spills, and to assist in speed control and making arrests, when required. As with any facility, travel time to reach the incident within the Port needs to be considered, as do provisions for providing additional emergency vehicle access points to minimize response time and to provide an alternative when the primary means to enter or exit the Port is blocked.

IMPACT OF PROGRAMS ON PORT DESIGN

There have been a number of new programs created in recent years that can impact both the movement of goods and people, but also have an impact on space requirements and design (note: since the names of these programs continue to change, a more generic name and description has been used). There are generally two types of programs, one for passenger travel and the other for commercial vehicles and goods.

1. **Low-Risk Traveler Programs** – These are programs where travelers can request to be pre-screened for admissibility into another country. If acceptable, they are issued a card or other ID, which notifies the inspector that this person(s) has already been approved and most likely does not require a detailed inspection.

2. **Low-Risk Goods Programs** – This is a similar program for commercial vehicles, whereby not only is the driver pre-screened for admissibility, but also for the goods they are carrying. This enables inspectors to be certain that these goods are part of a secure supply chain.

While these programs may require some additional space to install technology to identify vehicles in this program, the major impact is the need for an additional approach lane(s) to separate high-risk persons or goods from low-risk through the use of priority lane(s). The current practice, as used at the Blue Water Bridge, is to provide a three-lane approach. The outside lanes are used for higher-risk trucks (to the right) and higher-risk passenger vehicles (to the left); while the middle lane is used for low-risk trucks, cars, and buses to bypass the others. Upon reaching the primary inspection area, these low-risk vehicles can be separated (i.e., trucks to primary inspection lanes to the right, and passenger vehicles to lanes to the left).

Directing vehicles to the correct lanes will also require improved signage on the approaches. This signage will need to be adaptable to every changed condition at the Port of Entry (i.e., late night when only a few inspection booths may be open to serve all traffic), or to identify the lanes that should be used for waiting trucks or cars to address variable changes in travel demand.

Pre-Arrival Notification – Currently this program has been active in the U.S. since January 2005 and is expected to be implemented in Canada in the coming year. The program requires that paperwork associated with the transmission of goods arrive at least 30 minutes to 1 hour (depending on the program) prior to the commercial vehicle arriving at the border for inspection. The impact of this requirement on facilities appears to be a significant reduction in the number of commercial vehicle parking spaces required at a Port. These spaces were previously required for unprepared commercial vehicles to park and meet with their broker and/or complete the required paperwork in order for the vehicle to be released. With this new requirement, the paperwork for all commercial vehicles arriving at the border will need to be completed and in Customs' hands prior to arrival. If it is not, that vehicle will simply have to be turned around and sent back until it is. Thus, parking spaces for most commercial vehicles arriving to meet with their Custom's broker is no longer necessary and, in the future, reduces the space needed for commercial vehicle parking in the secondary parking area.

Outbound Inspection – Outbound inspections occur when one nation stops traffic exiting that country and inspects them prior to entering the other country. While this occurred infrequently prior to 9/11 in the U.S., these types of checks have occurred much more frequently since then, and new designs of port facilities for inspection booth(s) and lanes, as well as a secondary inspection parking area and building are now under consideration.

“Western Hemisphere Travel Initiative” Secure ID Cards or Passports – This is a new U.S. initiative, which would require all travelers, including infants, to have a passport or a special ID card to cross the border and enter the U.S. At this time, it is uncertain whether Canada will require something similar. This requirement goes into effect in January 2008 at surface crossings and its impact on border crossing facilities is unclear at this time. Depending on how it is implemented, this requirement could result in either a large reduction or a major increase in the facilities' needs. As currently proposed, many people, because of the cost and

inconvenience, will simply choose not to cross the border at all, thus reducing demand for facilities at the border [7]. On the other hand, if issuance of this Secure ID Card occurred at the border, as some have suggested, it would have a major impact on the parking required and staff facilities to accommodate this new service.

IMPACT OF TECHNOLOGY ON THE CROSSINGS

Protecting the Public – Queue End Warning Systems and Driver Information – Inspection activities at a border crossing are unpredictable and can change quickly. The end result can, and has, caused major backups of waiting traffic many kilometres from the crossing itself. These backups have resulted in major traffic accidents where a moving vehicle that is not aware that a backup has occurred, runs into the rear of a stopped waiting vehicle. To address this safety issue, queue end warning systems have and are being installed at various border crossings, particular when these backups are on high-speed highways on, or near, the border crossings. These systems use various technology to detect vehicle backups, such as simple loop detectors, and then a means of informing oncoming drivers of possible stopped traffic ahead, such as flashing lights, variable message signs, and, in some cases, highway advisory radio systems.

Non-Intrusive Inspection Systems (VACIS) – This technology allows an inspector to see into a car, pallet, or truck without having to open the vehicle, providing the inspector with a picture that is similar to an X-ray. This type of technology is increasingly being used at most of the larger Ports of Entry, since it saves time for both the inspector and for the waiting driver (10 minutes versus around 4 hours to unload and inspect) to be released, provided nothing is found. This technology comes in many different forms (for car, pallet, commercial vehicles, and rail cars). The greatest impact on Port of Entry design, however, is associated with the use and installation of the commercial vehicle equipment. On the U.S. / Canada Border, the preference is to house this equipment within a building, which requires both a great deal of area for the building and to allow commercial vehicles to wait, enter, and then exit this building, all in a straight alignment. For a permanent installation, this building is specified to be 120m long, 40m wide, with the height of approximately two stories [6].

While the use of this particular technology requires additional space within the port, it reduces the time for those persons or vehicles sent for secondary inspection in order to proceed, if nothing is found. It is also expected that over time unloading docks and warehouse space within the Port of Entry can be reduced, since fewer vehicles will have to be unloaded for a more in-depth inspection.

Border Wait Time Information – Currently, the U.S. Customs Border Protection and the Canada Customs Border Services Agency estimate (hourly) the wait time for both passengers and commercial vehicles to cross the border at major border crossings. This information is posted on these agencies' Web sites. While this information is useful for a driver to make a decision as to whether to cross the border, the accuracy of this information is questionable, since in many cases, the inspector making this estimate cannot see the end of the queue of waiting vehicles in the other country. Further, it is difficult to obtain this information while traveling on the road, and in one hour, wait times can change quickly due to unexpected increase in traffic demand or by simply opening or closing a few inspection lanes.

To address this, a number of crossing operating authorities now have a telephone number that will provide wait time information by phone for their crossings. In addition, a number of ways to improve the accuracy and timeliness of wait time information are being explored. These include tracking individual vehicles from one side of the border to the other using detection equipment, such as a reading transponder that may be carried by truck and cars (such as those used for electronic toll collection), and satellite tracking systems that may improve on the accuracy and timeliness of the wait time information.

Smart Cameras – Use of video cameras to detect incidences has, in the past, been time intensive, since they need to be monitored using human intervention. Generally, the best they could do is document the incident that had happened. In the future, what are now commonly referred to as smart cameras will change this. Smart cameras are monitored by computers using evolving software, which can detect when something has changed, and then sound the alarm, or display the screen showing this change. One of the applications of this technology is at the Peace Bridge border crossing, where smart cameras monitor the use of the sidewalk on the bridge and alert inspectors of approaching pedestrians or bicyclist. Many new computer algorithms are also being written to be able to differentiate between a person walking versus a deer or other animal that may enter the monitored area. Future use of these smart cameras at border crossings, as the software evolves, could include security monitoring of the areas around the port, or monitoring the areas of impounded goods to ensure that the goods are not removed.

RFID / Biometrics – The expanding development of Radio Frequency Identification (RFID), as well as biometrics technology, is also expected to play an important role in future border travel and operations. These technologies are expected to be incorporated into passports, traveler ID's and possibly even into drivers' licenses. Many goods being carried across the border may also contain this identification information. The use of these technologies in inspection practices will assist the inspector in determining that drivers are who they say they are and the goods they claim to be carrying are the actual goods being carried. Using this technology will not only improve the security of the nation, but it is hoped in the future that it may reduce the time to process people and goods in that nation.

Detection Technology – There are a variety of detection devices currently in use, including license plate readers and radiation detection portals to identify the vehicle and to detect for possible weapons of mass destruction. In the future, it is expected that other devices that can detect explosives and biological weapons will also be developed and installed. It may also be possible in the future that non-intrusive inspection devices will become smaller and safe enough to allow them to be used in every primary inspection lane.

The major impact of installing these detection devices on port operations has been to reduce the amount of vehicles that can be stored while awaiting inspection within existing plazas. They also increase the time for a driver to travel to the inspection point (since greater space is required between the inspection point and the waiting vehicles). This added distance results in an additional two to four seconds for a vehicle to travel to be inspected.

While implementation of these detection technologies will improve the security of each country, it is difficult to speculate how refinement of existing detection technologies and the implementation of new detection technology will impact cross border travel and design features

of the Port of Entry. It will be highly dependent on the space they require, the speed at which a vehicle can pass through them, and how fast the resulting information can be transmitted to the inspector.

OTHER PORT DESIGN CONSIDERATIONS

Where Should They Be Located – An Unfriendly Neighbour

Most Ports of Entry operate 24 hours a day, 7 days a week. For safety and enforcement, they need to be well lit. Trucks and cars are continually starting and stopping, causing noise and air pollution. There is also the need to screen activities within the Port of Entry from those attempting to view these activities from the outside. As such, Ports of Entry are not considered to be neighbourhood-friendly.

While noise walls and lower level lighting standards can help to mitigate some of these impacts, the most desirable area for a Port of Entry is in industrial or commercial areas.

What Should A Port Of Entry Look Like – Welcoming Versus Institutional

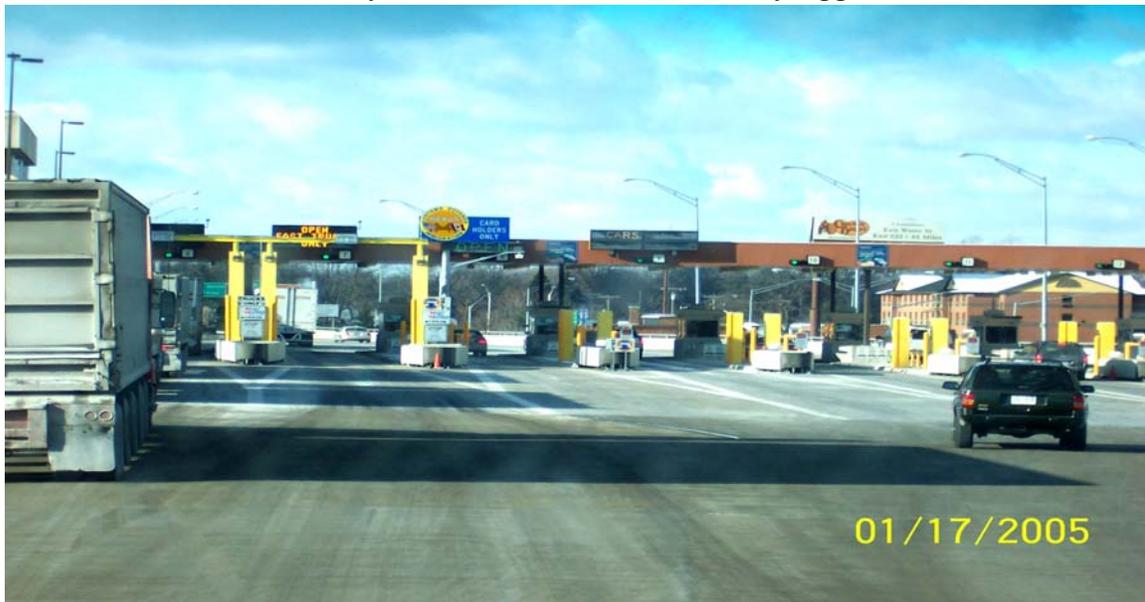
This is a difficult question and the answer depends on whether you are on the outside looking in or working inside the Port. Ports of Entry are the first gateways into a country. Many people would like to provide a good first impression, and, as such, would like them to appear as pleasant and welcoming as possible (Figure 3). The primary function of a Port of Entry, however, is to detect unwanted persons or goods and prevent them from entering the country, and while making this determination, to make their ability to escape, dispose of, or pass goods to others as difficult as possible.

Figure 3
Welcoming Port of Entry



Thus, Ports of Entry are institutional by nature. Their function is to make sure persons and goods that, by law, should not enter the country, do not. The perimeter needs to be fenced to prevent persons or goods from leaving the area, prior to full inspection. Large areas of pavement are needed to move and inspect vehicles. Landscaping to break up this area of pavement, however, cannot normally be used, since it will interfere with the clear lines of sight required by personnel operating within the Port. They must also include containment areas, visible to enforcement personnel for impounded vehicles in secured areas (fenced). Much of the equipment used is difficult to make welcoming, as is much of the signage (Figure 4). In fact, it has been stated that by making the Ports as intimidating as possible, it may assist with identification of persons who may not have that country's best interest in mind. Thus, the more it looks like a prison, the better.

Figure 4
Ports Of Entry – What A Driver Sees As They Approach



Can we have both? That is a real challenge. This can only be done if the changes will not affect national security and the enforcement activities that must safely occur within these Ports of Entry.

CONCLUSIONS

People, goods, and services cross international boundaries in many forms (i.e., highway, air, rail, pipeline, power lines, and by sea). While inspection and regulation of these various types of crossings can be very different, all are important. This paper has concentrated on the highway crossing, however, many features and changes identified in this paper are also occurring at these other types of crossings.

To improve the flow of people, goods, and services across international boundaries, many different factors need to be understood and addressed. It is a balancing act of meeting national

security's needs and improving inspection efforts, while maintaining or improving swift, safe, and secure travel over these international boundaries. It requires that planning and implementation addresses all aspects of the crossing, not just the Port of Entry itself. It also requires the involvement of all agencies that operate at, or are responsible for, providing and maintaining various service components at a crossing.

At the current time, a driver crossing the border normally will know little about travel conditions and what to expect. In the same token, inspectors at the border know little about who is arriving or what goods they may be carrying. This is changing through the use of many new programs and the application of new and improving technology.

The implementation of these programs and installation of new technology will also have an effect on how crossings operate and how they are designed or expanded. This includes land area impacted, time spent being inspected, and the type of inspection that may occur. While traditional key port design features most likely will not change, such as clear line of sight for inspectors, others will change as a result of new programs and the use of technology. The most notable changes are the need for priority lanes for low-risk travelers and goods crossing programs as well as a reduction in the need for parking spaces in the secondary inspection areas as a result of both the pre-arrival notification programs and the use of non-intrusive inspection technology.

The use of technology is also being expanded to better inform drivers as to what to expect when crossing the border and to warn drivers of possible backups of stopped traffic ahead that are waiting to cross the border. Still other possible new national security programs may actually reduce travel across the border, such as the U.S. "Western Hemisphere Travel Initiative," particularly for same day trips, since some individuals may not wish to go through the expense and inconvenience of obtaining passports or other possible identification, if required.

So what can be concluded? Simply that the movements of people, goods, and services across international boundaries is changing. It will continue to change in the future as new programs and technologies are used to improve national security and provide information to the traveler while maintaining or improving the safe and secure flow of vehicles across international boundaries. These changes, in many cases, will impact how these crossings are designed or are expanded and what land area they will require (they may get bigger or smaller).

The overall goal of all transportation professionals, and for that matter, all agencies that operate or have responsibilities at international border crossing, however, will remain the same: to protect the safety and well being of the citizens of their respective country, while facilitating safe, secure trade, travel, and commerce across these boundaries.

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