

Coordinating Highway Incident Management

Traffic accidents on highways and roads in and around major urban centres often cause major gridlock. The cost of time and money to emergency services is no doubt high when those services complete legal investigation process at the scene of an accident, and attend to the personal and property needs of individuals directly affected. During these incidents the cost to many businesses and regional residents caught in the gridlock often for several hours, if measured, would no doubt prove to be many times higher. There is no single authority in British Columbia to oversee the processing of highway incidents and develop an integrated approach among emergency services. An incident management system under the coordinated direction of a single agency is needed. Such an agency needs to seek ways to reduce the overall costs related to highway incidents through an integrated emergency services approach.

Background

In the wake of even a relatively minor traffic accident, or stall, on primary traffic corridors in the Lower Mainland agencies responsible for reopening the roads following incidents assign little, or no, priority to this position of their task.

Necessary equipment to complete the task of clearing wreckage is often not available for a period in excess of two, and often many more, hours of the incident occurring. There appears to be no critical traffic incident management plan that is exercised during highway incident events. Traffic left paralysed for hours and hours is left to resolve itself during and after the incident.

During periods of heavy traffic, or if a major roadway, bridge or tunnel is involved in an incident, the entire road network in the Lower Mainland rapidly becomes paralysed. Traffic cascades to alternate routes with insufficient capacity to deal with the demand during what is often an inordinate amount of time to clear the incident.

The ensuing delays exasperate an already strained road network and contribute to significant losses to trade and commerce in the Lower Mainland, which is heavily dependent on road vehicles for the movement of goods, services and people.

President & CEO of the BC Trucking Association, Paul Landry, says, “*A robust incident management system is one element of a policy toolkit that would help to preserve priceless existing infrastructure capacity and reduce the demand for new investments. Other elements include managing/restricting on street parking during peak periods, enhanced left hand turning bays and truck-only lanes in key corridors.*”

Using information from the transportation industry it is not unreasonable to value the loss of productivity, created by inordinate delays in reopening roadways after an incident, across all industry sectors, into the hundreds of millions of dollars.

Among agencies involved in highway incident management none is charged with the responsibility to execute a coordinated and effective management system to address the entire impact of any incident.

The consequences resulting from the interruption of the free flow of traffic from accidents on roads throughout the Lower Mainland are rapidly becoming more serious. Suburban and industrial growth infrastructure development in border, sea and air ports contribute to the number of traffic units moving around the area. These units, in general, exceed the designed capacity of the existing route structure as it is without the further complication of traffic incidents.

Following one of several major gridlocks of many hours over the past year a top police official in the Lower Mainland indicated that not only was emergency response of paramedic, fire and police services a top priority, so was the investigation by police and other authorities. With little apparent regard for the chaos and massive expense of time and money in terms of commercial loss throughout the entire region, the police official added that he was far less concerned about whether a number of people caught in the gridlock were “home late for dinner”.

When somebody threatening to jump from a bridge causes similar gridlock the focus of emergency responses services is on saving life and limb of that one individual. The narrow systems focus in that case tends not to encompass the much higher risk of life and limb many times over amidst the traffic chaos throughout the region.

The point is not to be critical of emergency services, rather to indicate that simply handing the challenge over to existing authorities without direction is not sufficient. It would only deal with a portion of the problem. There needs to be a system of priorities and protocols developed, and direction given, to emergency service authorities which encompasses the full systems response to major traffic incidents.

Not only do agencies responsible for reopening the roads following serious traffic incidents in the Lower Mainland assign little or no priority to this portion of their task, it is a challenge to determine which of the range of federal, provincial, regional and municipal authorities, actually has the primary authority to effect control of an incident at any given point in the system.

Observed issues

Lack of reliable statistical information:

Reliable statistical information relating to the numbers of incidents that resulted in the interruption of free flowing traffic movement along arterial roads is difficult to obtain for the province. International research has demonstrated the significant costs to the economy of these incidents. In all likelihood there is little to no reliable or consistent information for recording incidents in a given location and correlating them with the time it took to reopen an affected roadways. Furthermore, there is no system now in place which measures the impact of an incident on adjacent components of a route system or larger area of the Lower Mainland.

Major route system disruption:

Even a minor incident can completely block an entire route system through a community and its adjacent municipalities, causing problems which can include:

- significant losses to commercial operations because material or people necessary for normal business activities are unable to reach their respective destinations;
- loss of emergency access to ambulance, fire/rescue/hazmat and police vehicles;
- environmental damage from idling vehicles;
- wasted fuel from idling vehicles;
- public transit schedules being disrupted.

Businesses and the economy suffer, and many personal lives are affected by the these gridlock traffic incidents. Collectively they are of sufficient severity to warrant a determined effort to address them.

Lack of identified responsibility:

Ownership of the routes in question can include federal, provincial and municipal authorities, and responsibility for their management may include all of the above together with police forces, private contractors and, in the Lower Mainland, Translink. No one agency has the overall authority, and no protocols appear to be in place to govern situations where two or more agencies have conflicting jurisdictions. It certainly appears that no agency sees it as a priority to reopen roads in an expeditious manner following a traffic incident.

On scene control and traffic management;

For the most part, control at the scene is exercised by a police officer. Jurisdiction appears to be limited to the scene and its immediate surroundings. While most police vehicles are well equipped with communication and data

capture equipment, none of it appears equal to the task of implementing a route management plan or damage recovery task in a timely manner.

The accident scene also needs to be protected through coning off the area, in accordance with recognized engineering guidelines to protect those personnel attending to the scene of the accident, those involved in the accident, and those approaching the accident to ensure there are no secondary accidents to further exacerbate the situation.

Investigation:

Often the need for authorities to complete a full process of investigation at the scene of an incident is advanced as the reason for extended road closures. In the case of fatalities or serious injury, this may well be a valid explanation. In other cases, however, it would appear that the use of advances in technology such as air photographs, computerized measuring techniques and other data assessment devices have not been considered let alone used.

Equipment:

In the case of some incidents involving large vehicles, such as overturned dump trucks or semi-trailer trucks, one explanation given for time required to process an accident scene has been equipment of sufficient size not being readily available to move damaged vehicles or other obstructions from the roads. Efforts to insure that a proper inventory of suitable equipment is immediately available to clear scenes of traffic incidents and protocols are in place to obtain them on a priority call basis are more than overdue.

This also includes the necessary equipment to quickly restore the area to its original condition before reopening, such as restoring concrete barriers that might have moved, debris or hazardous materials left on the roadway, etc. If this is not done, the reopened roadway could contain new dangers to motorists as a result of the roadway and roadside damage caused by the accident.

Detour management:

A key technique to the maintenance of route systems is the identification of detours that divert traffic away from blocked roads for the duration of the incident. Effective initiation of alternative routing requires previously positioned advisory signage and a comprehensive manpower servicing plan, especially to facilitate the additional traffic movement on these routes through intersections.

This also entails a communications plan, whereby information on the accident and alternative routes is quickly and effectively communicated to the traveling public, supported by the use of air observation facilities. While techniques of this nature are not necessarily always available or practicable, the analysis of a route system to determine their potential for the elimination of locations subject to blockage will, at the very least, assist in the planning process for new facilities.

Objective

That all British Columbia highway administrators adopt as a principal objective, routes blocked for any reason be restored to fullest possible use in the shortest possible time as an incident management system.

These procedural issues are offered for consideration in addressing the recommendations of this resolution:

- the adoption of improved protocols covering the coordination of two or more agencies affected by any adverse situation affecting the use of the route in question;
- a review of investigation techniques employed in the analysis of vehicle accidents be reviewed and where possible altered to accommodate the requirement to reopen the route rapidly;
- the identification of legal or regulatory issues that prevent the timely reopening of a route and the initiation of any appropriate modifications;
- a review of inter-agency communications facilities to insure that information with respect to incidents occurring in one jurisdiction is rapidly passed to other affected areas for the purposes of generating route management action;
- the development and institution of regular training exercises to provide those charged with the responsibility of route and incident management with opportunities to practice their skills and refine the processes they employ; and
- a review of the use of existing and obtainable resources including signage, temporary and attached manpower, air observation assets and specialized lifting and removal equipment.

THE CHAMBER RECOMMENDS

That the Provincial Government:

1. request that the Minister of Transportation and Infrastructure direct an appropriate agency within the province to accept responsibility for the management of operation of its highway system.
2. ensure that protocols are developed which require agencies that respond in the management of highway and road incidents have definitive operational plans to rapidly clear incident areas or when appropriate

invoke alternate traffic management situation plans to effectively offset the effects of major roadway blockages.

3. ensure that major roadway incident management plans include the rapid deployment of suitable heavy rescue and recovery equipment to mitigate the term of the incident and the subsequent effects on regional traffic flows.
4. develop, through the responsible agency, highway and road incident management exercises, involving all appropriate agencies dedicated to implementing the management plan, to ensure a high standard of real life execution.

**SUBMITTED BY DELTA, ABBOTSFORD, CLOVERDALE, LANGLEY, NORHT
VANCOUVER, RICHMOND, SQUAMISH, TRI-CITIES, WHITE ROCK SOUTH
SURREY CHAMBERS OF COMMERCE.**

The policay Review Committee supports this resolution.