

412 British Columbia 3A, Nelson, British Columbia, Canada
Address is approximate

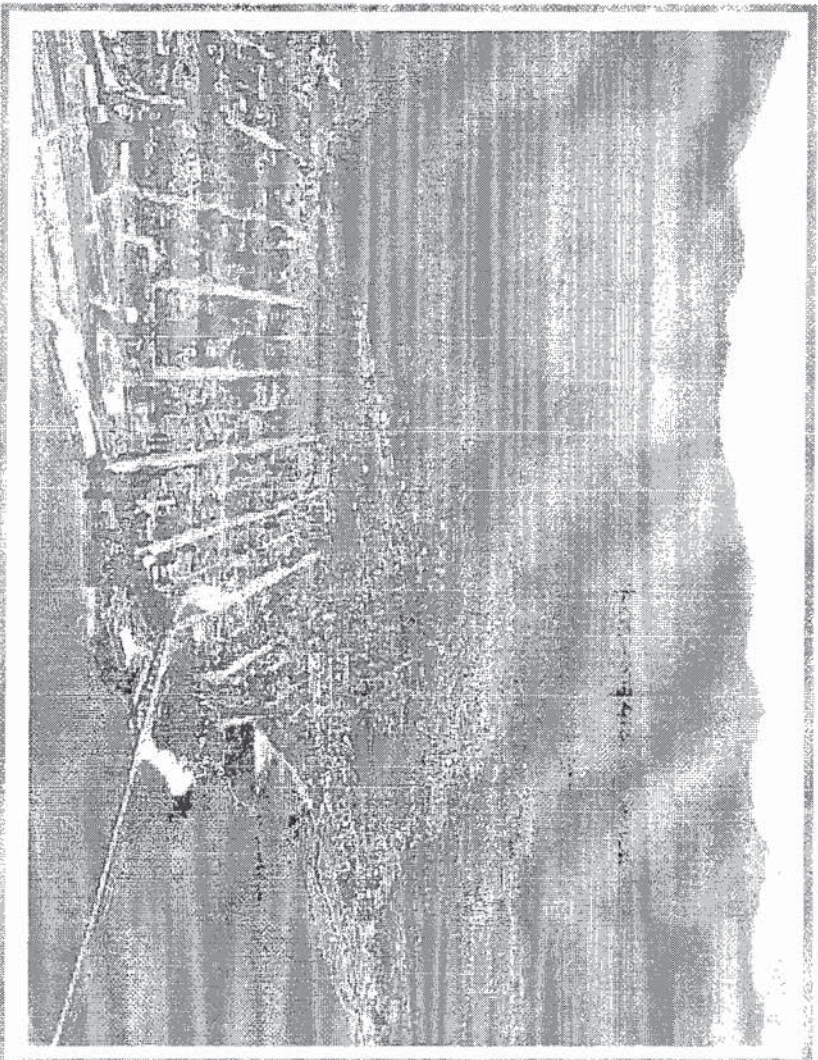
Photos

2014-00068
2



NELSON HIGHWAY 3A ROADWAY NETWORK STUDY

FINAL REPORT



URBANSYSTEMS®
#500 – 1708 Dolphin Ave
Kelowna, BC V1Y 9S4
Phone: (250) 762-2517
Fax: (250) 763-5266



TABLE OF CONTENTS

1.0	BACKGROUND	1
1.1	CONTEXT	1
1.1.1	Ministry of Transportation - Highway 3A	1
1.1.2	City of Nelson Major Roadway Network	2
1.2	OBJECTIVES	4
1.3	APPROACH	4
2.0	EXISTING CONDITIONS ASSESSMENT	6
2.1	DATA COLLECTION EXERCISE	6
2.2	HIGHWAY 3A	7
2.2.1	Study Area	7
2.2.2	Highway 3A Travel Characteristics	8
2.2.3	Corridor Performance Targets	12
2.2.4	Intersection Capacity Analysis	12
2.2.5	Average Travel Speed	14
2.2.6	Safety Analysis	15
2.3	CITY OF NELSON MAJOR ROADWAY NETWORK	28
2.3.1	City of Nelson Roadway Classification	28
2.3.2	City of Nelson Travel Characteristics	31
2.3.3	Major Roadway Network Issues	33
3.0	GROWTH AND DEVELOPMENT FORECASTS	34
3.1	HIGHWAY 3A TRAFFIC VOLUME GROWTH	34
3.2	CITY OF NELSON TRAFFIC VOLUME GROWTH	35
3.3	KNOWN DEVELOPMENT SCENARIOS	35
3.3.1	KFP site	36
3.3.2	Health Campus	37
3.3.3	Maglio Property	38
3.3.4	CP Lands	39
3.3.5	Real Canadian Wholesale Club	39
3.3.6	BCBC Waterfront Lands	40
3.3.7	Civic Complex	40
4.0	MITIGATION STRATEGY	41
4.1	HIGHWAY 3A	41
4.1.1	Intersection Capacity Analysis	41
4.1.2	Average Travel Speed	42
4.1.3	Baker Street & Vernon Street Intersection	43
4.1.4	Vernon Street Corridor	44
4.1.5	Vernon Street & Stanley Street Intersection	45
4.1.6	Vernon Street & Ward Street Intersection	46
4.1.7	Front Street (West) Corridor	47
4.1.8	Front Street & Hall Street Intersection	49
4.1.9	Front Street & Cedar Street Intersection	50
4.1.10	Front Street (East) Corridor	51
4.1.11	Anderson Street Corridor	52
4.1.12	Anderson Street & Nelson Avenue Intersection	53
4.1.13	Nelson Avenue Corridor	54



Nelson – Hwy 3A Roadway Network Study
Final Report

4.1.14	<i>Nelson Avenue & Davies Street Intersection</i>	55
4.1.15	<i>Nelson Avenue & Kokanee Street Intersection</i>	56
4.2	ICBC INVESTMENT ANALYSIS	57
4.3	CITY OF NELSON MAJOR ROADWAY NETWORK	59
4.3.1	<i>Waterfront Area (Lakeside Drive) Access</i>	59
4.3.2	<i>Downtown East-West Connectivity</i>	60
4.3.3	<i>Government Road Industrial Area Access</i>	61
4.3.4	<i>Rosemont Neighbourhood Major Roadway Network</i>	62



EXECUTIVE SUMMARY

The purpose of this study is threefold:

- To review, reconfirm and adjust, if necessary, the City of Nelson Major Roadway Network Plan to ensure that it is consistent with current and future community needs, giving consideration and providing development review guidance on a number of identified land development scenarios.
- To review and document the existing operational characteristics of the Highway 3A corridor through the City of Nelson, seeking short-term improvement opportunities that could be considered in conjunction with the anticipated corridor re-paving project in 2004-5.
- To review and document the existing safety characteristics of the Highway 3A corridor through the City of Nelson, seeking short-term improvement investment opportunities to be considered by the Insurance Corporation of BC.

The existing Highway 3A corridor operational and safety characteristics were evaluated and compared to established performance targets. The historic safety data was further stratified and evaluated for investment potential by ICBC. Summarized results of this analysis, at specified intersections, are offered below in Tables ES-1 & ES-2. Overall, the Highway 3A corridor is operating reasonably well, with strong mobility attributes for through traffic and only a few noted issues where performance targets, both mobility and safety, are not being met.

TABLE ES-1 – Existing Hwy 3A Mobility Performance

INTERSECTION	EXISTING (2001) CONDITIONS LOS	Critical Approach
Baker/Vernon 4 Way Stop	C	D NB
Stanley/Vernon 2 Way Stop	-	C NB,SB
Ward/Vernon Traffic Control Signal	B	D NB
Hall/Front Traffic Control Signal	B	C NB
Cedar/Front 2 Way Stop	-	F SB
Poplar/Front Traffic Control Signal	B	B EB,SB
Anderson/Nelson Modified 2 Way Stop	-	B NB
Davies/Nelson 2 Way Stop	-	E WB
Kokanee/Nelson 2 Way Stop	-	D WB



TABLE ES-2 – Existing Hwy 3A Safety Performance

INTERSECTION	Crash Rate A/MEV	Provincial Average	Severity Index	Provincial Average
Baker/Vernon	0.2	0.7	5	5.2
Stanley/Vernon	0.4	0.7	3.4	5.2
Ward/Vernon	0.3	0.4	2.8	5.2
Hall/Front	0.4	0.4	4.8	5.2
Cedar/Front	0.2	0.4	2.9	5.2
Poplar/Front	0.1	0.4	7.4	5.2
Anderson/Nelson	0.1	0.4	1	5.2
Davies/Nelson	0.1	0.4	4.1	5.2
Kokanee/Nelson	0.1	0.4	7.4	5.2

Further analysis on the historic intersection collision patterns was undertaken to support an economic analysis of ICBC investment potential. The results of this analysis are summarized in Table ES-3 & ES-4.

TABLE ES-3 – Intersection Collision Trend and Contributing Factor Summary

Intersection	Historic Trend	Contributing Factors	Other Field Notes
Baker/Vernon	NB Angle	Poor Visibility Due to Horizontal Curve on NB Approach	Lacking Delineation on E-W Approaches Lane Alignment for SB Curb Lane
Stanley/Vernon	NB Rear End	Steep Approach Grade	Unnecessarily Wide Cross Section on Vernon
Ward/Vernon	SB RT Rear End WB Read End	Winter Conditions High Pedestrian Volumes Parking Proximity to Intersection	High Pedestrian Exposure Traffic Signal Controller Limits Pedestrian Accessibility During Non-Conflicting Phase (Crossing South Leg) Highway 3A Guide Signage Hidden by Vegetation EB
Hall/Front	EB & WB LT Angle NB & SB Rear End	Visibility (Skewed Intersection) Parking Proximity to Intersection	Traffic Signal Controller Limits Pedestrian Accessibility During Non-Conflicting Phase (Crossing South Leg)
Cedar/Front	SB Angle	Visibility (Buildings and Utility Poles)	Lacking Delineation on All Approaches Poor and Hazardous Driveway Configuration on SE Corner
Poplar/Front	None	None	WB RT Lane Not Properly Developed (Property Impacts)
Anderson/Nelson	None	None	Odd and Confusing Configuration Poor and Hazardous Driveway Configurations on NW Corner
Davies/Nelson	WB Angle	Wide Cross-Section (Nelson Ave.) Vertical Curve (Nelson Ave.)	High Pedestrian Exposure
Kokanee/Nelson	Pedestrian	Wide Cross-Section (Nelson Ave.)	Odd and Confusing Configuration (5 Legs)



TABLE ES-4 – ICBC Investment Analysis Summary

Location	Proposed Improvements	Annual ICBC Cost Savings
Corridor Wide	Resurfacing & Delineation	\$ 77,087
Vernon & Stanley	Delineation & Skid Resistant Pavement	\$3,300
Vernon & Ward	Delineation & Guidance	\$4,926
Front & Hall	Signal Head Visibility	\$27,864
Front & Cedar	Traffic Control Signals & Delineation	\$9,506
Nelson Ave Corridor	X-Section Refinement	\$7,279
Total		\$129,962

Overall, the results of the safety based investment analysis suggest that a total collision annual claim reduction of \$129,962 could be realized if the Hwy 3A improvement scenario identified in this report is implemented. With a 3:1 return on investment required over a two year period, ICBC can contribute a total of \$86,641 to the overall resurfacing project. Further details are provided in Section 4.1.

The City of Nelson's major roadway network is functioning satisfactorily for existing conditions. Network traffic volumes are all at moderate to low levels and no instances of inappropriately high traffic levels were detected.

To estimate the impact of growth and development in the City of Nelson, two future network scenarios were developed; one at the five (5) year horizon and one at the twenty (20) horizon. The scenarios were developed based upon an estimated annual traffic volume growth rate of 1% and the specific impacts identified as a result of the known development scenarios. Intersection capacity analysis results of this future conditions analysis are offered in Table ES-4.

TABLE ES-4 – Future Hwy 3A Intersection Mobility Performance

INTERSECTION	Existing LOS	Critical Approach	Future (+5 Years) LOS	Critical Approach	Future (+20 Years) LOS	Critical Approach
Baker/Vernon	C	D NB	F	F EB, WB, NB	F	F EB, WB, NB
Stanley/Vernon	n/a	C NB, SB	n/a	D NB, SB	n/a	E NB, SB
Ward/Vernon	B	D NB	B	D NB	C	E NB, WB
Hall/Front	B	C	C	C	C	C
Cedar/Front	n/a	NB	n/a	NB	n/a	NB, EB, WB
Poplar/Front	B	F SB	B	F SB	C	F NB, SB
Davies/Nelson	n/a	EB, SB	n/a	EB, SB	n/a	D EB
Kokanee/Nelson	n/a	E WB	n/a	E WB	n/a	F WB
	n/a	D WB	n/a	D WB	n/a	F WB



As noted, performance indicators begin to demonstrate signs of strain as growth continues within the Community, however, through traffic along Hwy 3A continues to be well served.

Mitigating strategies were developed in response to the identified deficiencies and the ICBC safety analysis, which are summarized in Table ES-5. The strategies are broken down into those that would be associated with a short term improvement opportunity (ie. the repaving project) and those required to support longer term community growth. More specific details relating to the nature and value of the improvement strategy are offered in Section 4.0.

TABLE ES-5 – Proposed Mitigating Strategy

Location	Upgrade & Timeframe Repaving Project	Long Term
Baker/Vernon	Delineation & LT Bays Pre-Duct for TCS	Install TCS
Vernon Corridor	Delineation & LT Bays Curb Extensions	
Vernon/Stanley	Skid Resistant Asphalt (South Leg)	Access Restrictions
Vernon/Ward	Upgrade Controller Pavement Markings Parking Clearance	
Front West Corridor	Pavement Marking Upgrade Parking Clearance	
Front/Hall	Close Lake Intersection Upgrade Signal Heads Parking Clearance	
Front/Cedar	Upgrade Controller Delineation & LT Bays Install TCS Skid Resistant Asphalt (South Leg)	
Front East Corridor	Pavement Marking and Signage Upgrade Curb Extensions	
Front/Anderson Anderson/Nelson Nelson Corridor Nelson/Davies Nelson/Kokanee	Channelize Intersection Define X-Section Pre-Duct for TCS Curb Extensions Close On-Ramp	Install TCS Access Restrictions
Waterfront Area		Formalize Poplar Access Formalize Cedar Access Formalize & Develop East- West Connection Formalize & Develop Link to Lakeside
Downtown		Formalize & Develop Internal Collector
Government Industrial Area		Formalize & Develop Government Road Formalize Lakeview/McQuarrie Link
Rosemont Area		



In addition to the core conclusions that the study developed, several relevant ancillary conclusions also were also determined, as follows:

- 75%-80% of all traffic approaching the City of Nelson from the three area Highway links (Hwy 3A to the west, Hwy 3A to the east and Hwy 6 to the south) is destined to the City of Nelson;
- The existing Highway 3A corridor through the City of Nelson can accommodate the identified traffic volume growth to the 20 year horizon (under the assumed growth scenario), with relatively minor improvements to the corridor itself and the development of supporting City of Nelson roadway network elements.

As a result, a City By-Pass route or 4 laning of the current Highway 3A alignment is not deemed to be a necessary consideration at this point in time. Achieving a 4 lane cross-section along the urban component of the Highway 3A corridor in the City of Nelson will be a very difficult undertaking. In order to achieve desired performance and safety levels at major intersections, the roadway cross-section will invariably be required to be 5 lanes wide to accommodate left turns. Also, given the amount of access that is currently provided along the corridor, substantial mid-block sections will also require a fifth turning lane. A roadway of this size is difficult to envision in the urban environment of Nelson, and would require substantial property acquisition and alteration to the surrounding environment. A commitment to further investigating and developing supporting municipal roadway network elements is thus seen to be a more robust solution to planning for future mobility requirements and should be a very important element of all future land use and infrastructure planning initiatives in the City.

1.0 BACKGROUND

The City of Nelson roadway network, including Highway 3A which is managed by the British Columbia Ministry of Transportation, is subject to increasing pressures related to growth and limited financial resources for upgrades and maintenance. While the local population has remained relatively stable over recent years, the desire and need for more intense land uses has raised concerns relating to the future mobility requirements of the major roadways within community. Intensified land uses, particularly in commercial and industrial areas, tend to increase the automobile mobility requirements of the roadway network as both the frequency of vehicle trips increases along with the geographical draw (i.e. more traffic entering the community from outside).



The purpose of this study is to evaluate the major roadway network in the City of Nelson, in the context of current conditions and future needs based on known development scenarios and growth rates. A particular heavy focus is placed on the Highway 3A corridor in recognition of its role as the single primary artery through the community, and due to a pending repaving project in 2004-5, creating an opportunity for mitigating the costs associated with short-term improvement options. The BC Ministry of Transportation, the City of Nelson, and the Insurance Corporation of British Columbia have jointly funded this cooperative effort.

1.1 Context

Context is a critical consideration when contemplating analysis and recommendations on a system which is multi-jurisdictional in nature, as is the roadway network in the City of Nelson. Inevitably, frames of reference will vary at decision points, requiring reconfirmation of the guiding principles for the task. In this regard, a synopsis of known contextual information is provided below to introduce the 'baseline' for the analysis.

1.1.1 Ministry of Transportation - Highway 3A

Highway 3A is a 152 km long Secondary Highway extending between Castlegar and Highway 3 at its western end and Creston and Highway 3 again at its eastern terminus. It passes through and directly interacts with the City of Nelson and its roadway network. Similar to many circumstances throughout British Columbia, it also functions as the primary arterial through the City of Nelson, and as a result serves an important local function in addition to the Regional role it plays.

From a Provincial perspective, Highway 3A serves primarily a regional function, linking communities and providing opportunities for goods movement in the area. The draft *British Columbia Highway Strategy*

offers some strategic framework for the overall Highway 3A corridor upon which to draw for the development of guiding principles. Excerpts from this document are noted in *italics* as follows:

- *To provide a route with limited delay in urban areas between Castlegar and Nelson, and between Nelson and Creston*
- *To service resource areas and development adjacent to and accessing the route*
- *To link communities along the route*
- *To provide a link in goods movement between Castlegar and Nelson and an alternate between Castlegar and Creston*
- *To form part of a complementary system with Highway #3 and #6 between Castlegar, Nelson and Creston*

This framework is further stratified into potential short and long-term objectives and strategies, with relevant urban context excerpts noted below:

Short Term Objective for Highway 3A

- *Maintain speed and traffic flow at current levels and address identified accident prone locations*

Short Term Strategy for Highway 3A

- *Intersection improvements identified to maintain capacity and improve safety*
- *Resurfacing to current engineering standards*
- *Urban Sections – Limit extent of urban arterial standard and require/provide service roads beyond existing section limits*
- *Municipal Networks – Encourage development of alternate routes in urban areas and follow traffic management recommendations developed for Nelson*

Long Term Objective for Highway 3A

- *Maintain traffic movement effectiveness at current levels and address safety concerns*
- *Prepare for possible traffic volume increases of up to 60% over the next 25 years*

Long Term Strategy for Highway 3A

- *Corridor preservation by acquiring additional right-of-way for eventual 4 laning where adjacent land is Crown owner, or being developed*
- *Facilitate development of parallel alternative routes through urban areas*
- *Apply access management principals as development occurs and when reconstructing or resurfacing*
- *Additional passing lanes and 4-laning to provide capacity required to service traffic growth and maintain traffic movement effectiveness*
- *Continued programs of rehabilitation and maintenance to provide a safe, reliable facility*

1.1.2 City of Nelson Major Roadway Network

From a local perspective, mobility in general is considered to be a critical component of the overall strategy to support, maintain and foster a desired quality of life within the City of Nelson. Relevant excerpts from the City of Nelson *Official Community Plan* which demonstrate this commitment are offered in *italics*.

City OCP Policy #12

The City intends to improve circulation by:

- (i) *improving the capacity of the existing street system;*
- (ii) *providing for efficient access and local circulation for the Waterfront area;*
- (iii) *providing for alternate forms of transportation such as buses, bicycles and pedestrians within the local circulation system;*
- (iv) *promoting the use of roads in accordance with the City's hierarchy of roads as portrayed on Schedule H – Road Network Plan, that being to encourage local traffic to not use Highway 3A where possible.*

In the local context of transportation planning, however, the *Official Community Plan* does continue to recognize the impact of major arterial routes upon land use and the potential severance effect than can result. Many small communities are struggling with the desire and need for increased economic growth, and the ensuing negative side effects such as escalating traffic volumes. A number of pertinent references are made to this effect and a select few offered below for information:

City OCP Policy #11

The City will encourage the Ministry of Transportation to consider a new alignment for Highway 3A in order to minimize the impacts of truck and through traffic on the City's roads and neighbourhoods.

City OCP Downtown Area Plan Policy #18 – Discussion Section

... The present alignment for the highway acts as a barrier between the Waterfront and the Downtown. Maintaining the existing status of the Highway (with Front and Vernon streets functioning similarly to municipal arterials) is more in keeping with the City's goal to integrate the Downtown and the 'Central Waterfront' areas as a major amenity area and shopping destination for residents and tourists. Upgrading the Highway to four lanes would increase high-speed traffic along Vernon/Front Street, and maintaining this route as a truck route would further exacerbate the alienation of the Waterfront lands, and the safety concerns along this central area of the City. According, it better complies with future land use in this area to maintain this route as a major road, but at it's current two-lane status, and to reduce truck traffic and through-traffic on this route..

The *City of Nelson Integrated Transportation Strategy (1995)* further outlines the objectives of local transportation planning, with relevant excerpts noted in *italics* as follows:

Maintain and Enhance Accessibility

- *Provide direct, convenient access to all major destinations and all residential areas in the City.*
- *Ensure that access is possible by all modes of travel – on foot, by bicycle, bus and automobile.*

Create a Balanced Transportation System

- *Ensure that all components of the system (pedestrians, automobiles, transit, parking facilities, bicycles and goods movement) complement and support one another, rather than detract from each other.*
- *Increase transit use, bicycling, walking and ridesharing.*
- *Minimize drive-alone motor vehicle use.*
- *Maintain efficient goods movement, to ensure that the City's economy remains healthy.*

Support and Enhance Land Use Plans

- *Minimize impacts to existing development, particularly the historic Downtown.*

- *Ensure that transportation facilities and services enhance livability and the quality of life in the Community.*

Allocate Funds Cost-Effectively

- *Assign priority to facilities and programs which provide the greatest ratio of benefits to costs.*
- *Make maximum use of the existing transportation facilities before constructing new facilities.*
- *Minimize and defer the need for capital expenditures.*

Involve the Community

- *Ensure that the strategy is compatible with community needs and desires.*
- *Provide for on-going community involvement when the strategy is being implemented.*

Develop Practical, Realistic Plans

- *Plan for staged, step-by-step implementation as the City grows.*
- *Ensure that the strategy is flexible, and can be modified as required to respond to changing conditions.*
- *Keep costs within the City's available resources.*
- *Identify additional funding opportunities and mechanisms.*

1.2 Objectives

In order to arrive at a concise and defined final document that meets with the expectations of all stakeholders, a set of objectives have been developed, considering the background and context noted above. The objectives of this study are as follows:

- Ensure and maximize the useful potential of existing infrastructure
- Coordinate transportation planning, road safety planning and land use planning
- Minimize costs and balance the benefits between the highway system and the municipal street network
- Support the policies of the City of Nelson *Official Community Plan* and *Integrated Transportation Strategy*, with due consideration to the role that Highway 3A plays in the Provincial context
- Develop clear, practical and realistic short and long-term improvement priorities for the major roadway network

1.3 Approach

The planning and analysis process is divided into four (4) distinct phases as noted below:

Phase I – Project Initiation

This portion included undertaking a traffic data collection exercise in the summer of 2001, and assembling all of the background information. The synopsis of this phase of the work program forms the baseline for all analysis to be undertaken.

Phase II – Existing Conditions Assessment

This phase includes the review of existing Highway 3A and the City of Nelson major corridor characteristics. For Highway 3A, the definition of desired targets for mobility and safety along the Highway 3A corridor and an assessment of current mobility and safety conditions were undertaken. For the City of Nelson major roadway network, overall neighbourhood travel patterns were examined, and

compared to the connections offered in the major network plan, with deficiencies noted for future consideration.

Phase III – Future Conditions Assessment

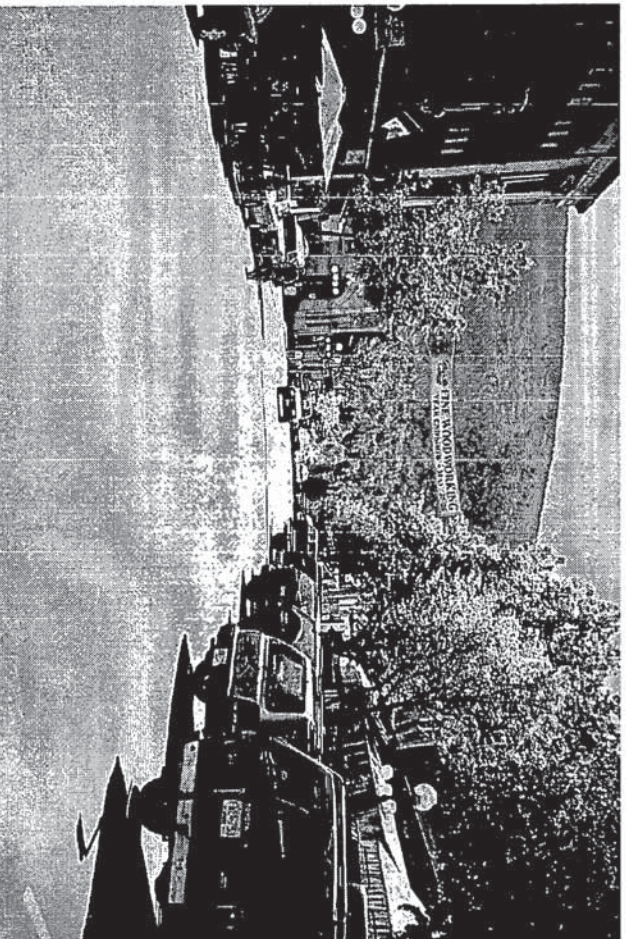
This phase includes an assessment of the impact of population and development based growth on the major roadway network, resulting in a future conditions problem statement being defined for resolution.

Phase IV – Mitigation Strategies

This phase include the development of mitigating strategies to the problems identified, including a preliminary assessment of funding responsibilities.

As the Ministry of Transportation, the City of Nelson and the Insurance Corporation of BC are all jointly sponsoring the study, a Steering Committee comprised of representatives from each of these agencies guided the process. No specific requirement for public or political consultation has been identified as being necessary to generate this document, however, it is deemed to be a critical step which will be required following the completion of the technical analysis to achieve 'buy-in' to the identified improvement strategies.

The major roadway network in Nelson provides for a multitude of activities, including parking, dining, socializing, walking and cycling, in addition to driving.



Downtown Nelson (Baker Between Kootenay and Stanley)

2.0 EXISTING CONDITIONS ASSESSMENT

2.1 Data Collection Exercise

In order to support the analysis, and to initiate a process of routine traffic data collection within the City of Nelson, a traffic count program was undertaken in the summer of 2001. Manual intersection PM peak hour turning movement counts (including pedestrians and trucks) were undertaken along with automatic 24 hour traffic volume counts, at the locations identified in Figure 2.1. Also, a license plate trace study was undertaken to ascertain and reconfirm the regional travel patterns as they relate to the City of Nelson. The raw data results are contained under a separate cover, entitled *City of Nelson 2001 Traffic Data Collection Program*. Note that the data collection program was not influenced by the 2001 rehabilitation project undertaken on the Kootenay Lake Bridge.

Figure 2.1 – Data Collection Locations



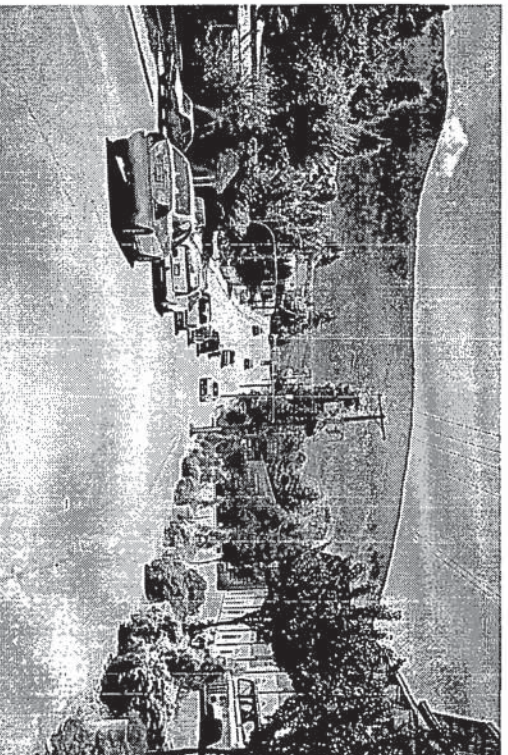
2.2 Highway 3A

Given the nature and role of Highway 3A as it progresses through the City of Nelson, both existing and future conditions analysis for this corridor have been separated from the remaining City of Nelson roadway network. The needs for the ICBC investment analysis (limited to Highway 3A) as well as the short-term needs related to the Ministry of Transportation re-paving project suggest that the analysis for Highway 3A will need to achieve a level of planning detail in excess of what is required for the remaining network.

2.2.1 Study Area

To contain and focus the assessment of Highway 3A through the City of Nelson, study limits were set at the Baker/Vernon intersection at the western end of the City, and the Nelson/Kokanee intersection at the eastern end of the City. The major intersections which were analyzed in detail include:

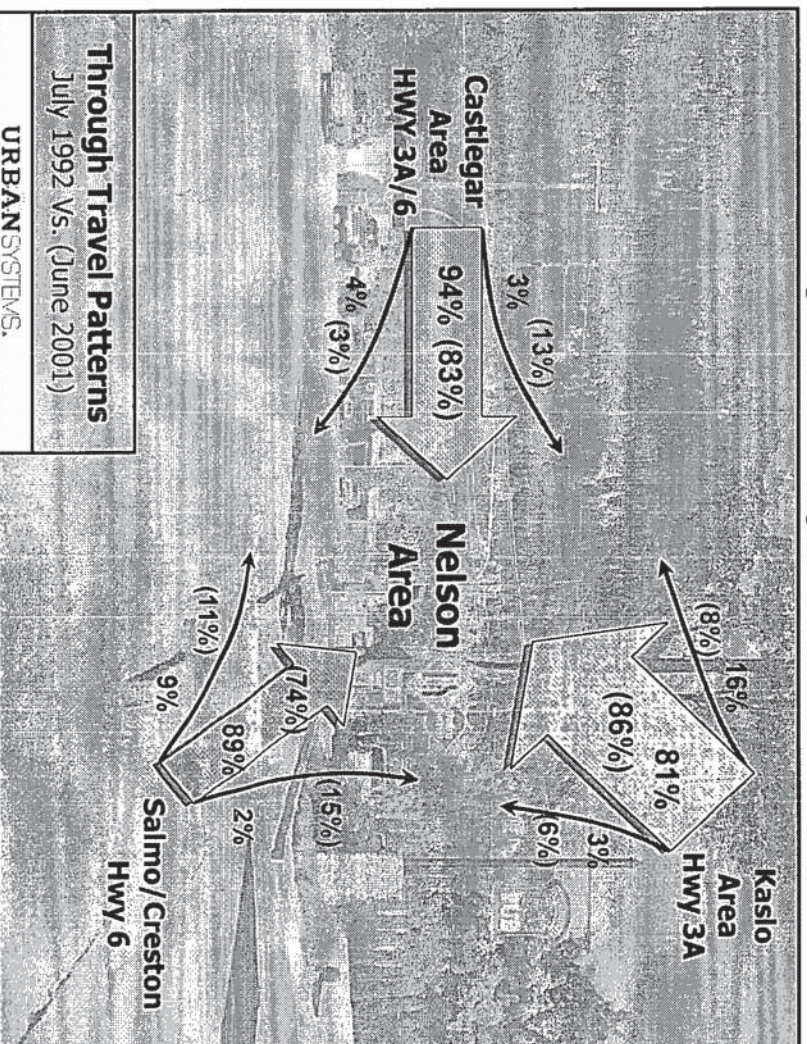
- Baker Street & Vernon Street
- Vernon Street & Ward Street
- Front Street & Hall Street
- Front Street & Cedar Street
- Front Street & Poplar Street
- Anderson Street & Nelson Avenue
- Nelson Avenue & Davies Street
- Nelson Street & Kokanee Avenue



*Occasional, and Relatively
Minor Traffic Congestion is
Apparent along the Hwy 3A
corridor in the City of Nelson*

Hwy 3A Looking West at the Poplar Intersection

Figure 2.2.2.1 – Origin-Destination Travel Patterns



2.2.2 Highway 3A Travel Characteristics

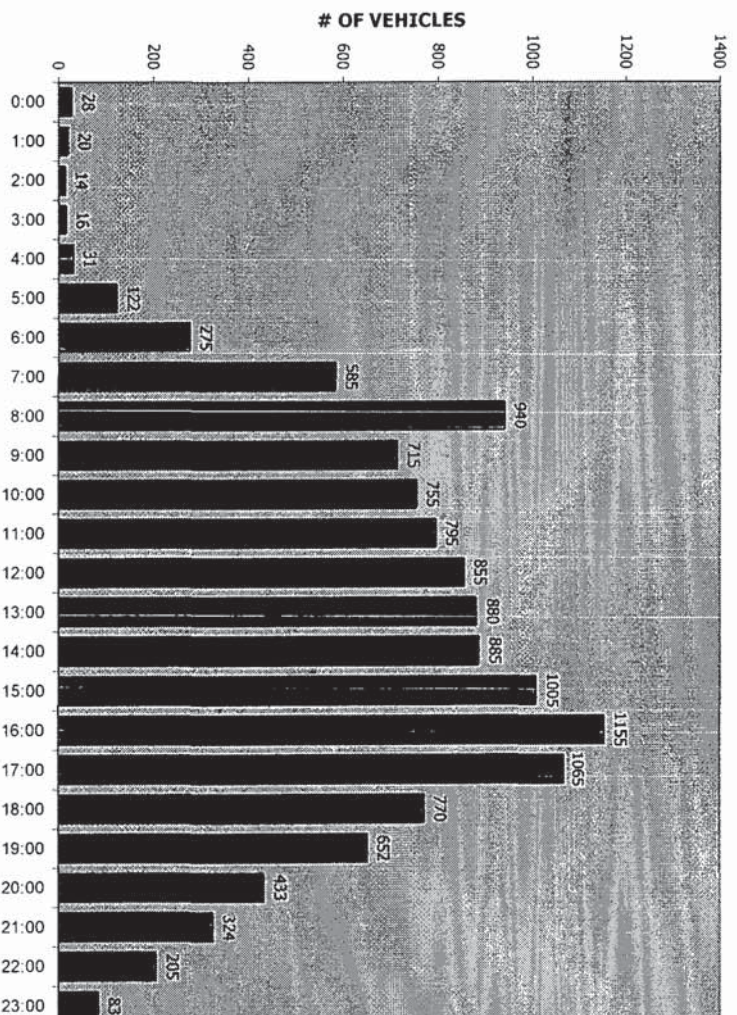
Existing corridor travel characteristics were tabulated from the traffic data collection efforts (Section 2.1) and the existing Ministry of Transportation traffic control signal at the intersection of Front Street and Poplar Street.

The license plate trace study data were tabulated and used to determine origin-destination patterns of the Highway 3A users (ie. how many trips originate inside and outside of the study area). These data were compared to similar data gathered in 1992 in order to assess whether any significant change in travel patterns has occurred since then. The origin-destination patterns are summarized in Figure 2.2.2.1.

Similar trends can be observed when the 2001 results are compared to the 1992 results, and the same conclusion can be assumed. Essentially, the majority of the typical traffic load experienced on the urban portion of Highway 3A within the study area originates within or is destined to the City of Nelson. A relatively low percentage of traffic is utilizing the corridor for through travel, effectively confirming Highway 3A's role as an urban arterial roadway within the City of Nelson, and re-establishing than a City bypass route for Highway 3A offers little benefit in terms of traffic diversion (this conclusion was originally established in the 1992 *Nelson Arterial Planning Study* by McElhanney Engineering Services Ltd.). No additional cost-benefit analysis has been undertaken or is deemed to be necessary to further support this conclusion.

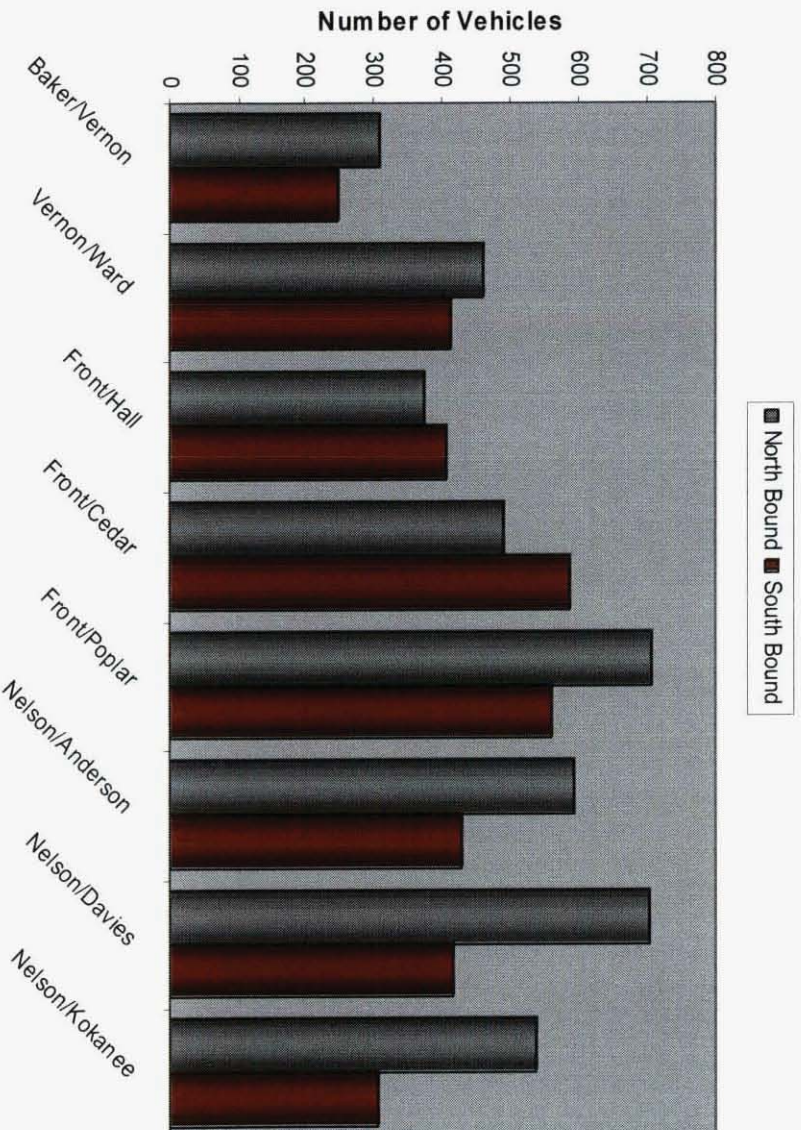
Twenty-four (24) hour travel flow characteristics are summarized in Figure 2.2.2.2. Note that the curve of the peak flows follows a typical profile for a central artery in a small urban Municipality. Important characteristics to note include the presence of a significant AM peak hour 'spike' as well as a relatively wide afternoon peak hour period. This latter characteristic would suggest that PM peak single hour conditions used in the ensuing capacity analysis approximates the conditions being experienced along Highway 3A for nearly three hours on a typical weekday afternoon (3:00 PM – 6:00 PM). This denotes that the peak hour conditions may be spreading, which affects how improvement options are considered (ie, an investment to address a noted peak hour deficiency actually offers significant benefits in a number of other hours as well).

Figure 2.2.2.2 – Highway 3A 24 Hour Traffic Volume Characteristics (@ Poplar)



Weekday afternoon (PM) peak hour characteristics across the corridor within the study area are summarized in Figure 2.2.2.3. Note that highest traffic flows on the Highway 3A corridor are experienced in the vicinity of the Front Street/Poplar Street and the Front Street/Cedar Street intersections. Also, note a 'jump' in traffic volumes (northbound) along the Nelson Avenue corridor, indicating the demand for mobility to the Fairview neighbourhood and across the lake.

Figure 2.2.2.3 – Highway 3A Weekday PM Peak Hour Traffic Volume Characteristics



Traffic control at key intersections of Highway 3A through the City of Nelson is primarily characterized by side street STOP control. A few notable exceptions include the existing traffic control signals at Vernon/Ward, Front/Hall and Front/Poplar, as well as a 4-way STOP control at the Baker/Vernon intersection. The corridor is primarily a two-lane urban cross-section within the study limits, with turning bays added at key intersections and a wide 4-lane urban cross-section along the Nelson Avenue segment. The existing traffic control and laning arrangements are outlined in Figure 2.2.2.4.

Commercial and residential property access to the Highway 3A corridor appears to have been provided in an unrestricted fashion. As with most urban highway sections across the Province, access management will play an increasingly necessary role in the future as cost-effective opportunities to improve corridor performance are sought.



FIGURE 2.2.2.4 – Highway 3A Traffic Control and Lining Arrangements



2.2.3 Corridor Performance Targets

a) Mobility Targets

Mobility performance targets for the urban portion of the Highway 3A corridor are based on intersection level of service. The desired mobility performance targets for the Highway 3A corridor are defined as follows:

Minimum Intersection LOS D, with a Minimum LOS E for any movement

A secondary mobility performance indicator is the calculated travel speed along the Highway 3A corridor is also offered for reference.

b) Safety Targets

The referenced safety performance measures are intersection accident rates (accidents per million entering vehicles) and corridor accident rates (accidents per million vehicle kilometres). In addition, the severity indices have been calculated to determine the relative severity of the accidents which are occurring. The desired safety performance target is as follows:

Accident Rates and Severity Indices below the Provincial Average

It should be noted, however, that this performance target is to be utilized to offer a general level of guidance when considering the performance of Highway 3A from the perspective of the Ministry of Transportation. A second component of the safety analysis, the individual intersection assessment for investment opportunities by the Insurance Corporation of BC, does not require the identification of such specific performance targets. It instead offers an analysis of collision trends and an assessment the collision reduction potential of the identified mitigating measures, to determine what level of investment ICBC can offer to achieve a 3:1 return.

2.2.4 Intersection Capacity Analysis

Intersection capacity analysis was undertaken for the PM peak hour of highway activity at the locations identified in Section 2.2.1. The analysis was undertaken using Synchro V5.0 software, which is based upon the Transportation Research Boards' (TRB) Highway Capacity Manual (2000) methodology. This analysis methodology utilizes traffic volumes, lane configurations and assigned traffic control criteria to determine the level of service (LOS) for the intersection being analyzed.

For reference, this methodology for intersection capacity analysis is based upon assessing the average delay encountered by vehicles passing through the intersection, in this case during the PM peak hour. The measure of delay is deemed to be the most reliable measure of driver discomfort and frustration, fuel consumption and travel time. A reference letter A through F is assigned to the entire intersection at a signalized location or to the controlled approach at a stop controlled intersection which denotes the delay condition being experienced. Generally, LOS levels A and B indicate good intersection operating conditions, C and D indicate fair operating conditions, E indicates marginal operating conditions, while F denotes an intersection failure. Details pertaining to the LOS reference criteria is offered in Tables 2.2.4.1 and 2.2.4.2, and the results of this analysis for existing conditions is offered in Table 2.2.4.3.

TABLE 2.2.4.1 – Level of Service and Delay Criteria - Unsignalized

Level of Service (LOS)	Average Total Delay (seconds per vehicle)
A	<10
B	>10 and <15
C	>15 and <25
D	>25 and <35
E	>35 and <50
F	> 50

TABLE 2.2.4.2 – Level of Service and Delay Criteria – Signalized

Level of Service (LOS)	Control Delay Per Vehicle (s)	Description
A	<10	This LOS occurs when traffic progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all.
B	>10 and <20	This LOS generally occurs with good traffic progression, short cycle lengths or both. More vehicles stop than LOS A, causing a higher level of average delay.
C	>20 and <35	This LOS generally occurs with fair traffic progression, longer cycle lengths or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	>35 and <55	At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable traffic progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	>55 and <80	LOS E is considered by many to be the limit of acceptable delay. These high delay values generally indicate poor traffic congestion, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences.
F	>80	LOS F is considered to be unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.0 with many individual cycle failures. Poor traffic progression and long cycle lengths may also be major contributing causes to such delay levels.

TABLE 2.2.4.3 – Highway 3A Intersection Capacity Analysis (PM Peak Hour)

INTERSECTION	EXISTING (2001) CONDITIONS	
	LOS	Critical Approach
Baker/Vernon 4 Way Stop	C	D NB
Stanley/Vernon 2 Way Stop	n/a	C NB,SB
Ward/Vernon Traffic Control Signal	B	D NB
Hall/Front Traffic Control Signal	B	C NB
Cedar/Front 2 Way Stop	n/a	F SB
Poplar/Front Traffic Control Signal	B	B EB,SB
Anderson/Nelson Modified 2 Way Stop	n/a	B NB
Davies/Nelson 2 Way Stop	n/a	E WB
Kokanee/Nelson 2 Way Stop	n/a	D WB

Note that the 'Critical Approach' column identifies the worst overall approach to the intersection, illustrating where the major delay condition is likely being experienced. Overall, the corridor is operating reasonably well during the PM peak hour of activity (and thus is operating better during other time periods), with most intersection mobility performance measures above the identified targets, particularly for the through traffic along Highway 3A. The noted deficiencies along the corridor are related to side street access to the Highway 3A corridor as noted along Nelson Avenue, primarily from the east side of the corridor (side street LOS D at Kokanee and LOS E at Davies), and at Front Street at Cedar Street (side street LOS F).

The calculations for the Anderson/Nelson intersection are based upon a modified intersection configuration, essentially ignoring the east leg of the intersections. This was necessary as a result of the irregular traffic control and alignment configuration of this intersection, resulting in difficult comparisons to the known methodology for evaluation.

2.2.5 Average Travel Speed

The average peak hour travel speed across the Highway 3A corridor, between the Baker/Vernon intersection and the Kokanee/Nelson intersection) has been calculated to be 39 km/h. This figure represents the travel distance divided by the travel time to go from one end of the study area to the other, incorporating all of the delay incurred as a result of existing traffic volume and control conditions. Note that this value is considered reasonable for urban operating conditions.

2.2.6 Safety Analysis

Intersection and segment safety levels were calculated and compared to published Ministry of Transportation averages for similar facilities (urban arterials). The safety level calculations are based on ICBC collision claims data (1996-2000), which have been reduced by appropriate factors to allow for a comparison to the Ministry of Transportation averages. As exact incident occurrence and location details are often difficult to determine from ICBC claims data, the limitations of this comparison should be noted, and it is best utilized for general order of magnitude purposes only. Standard HAS (MoT Highway Accident System) data for the same corridor is inconsistent and has not been utilized. The results of these calculations are offered and compared in Tables 2.2.6.1 & 2.2.6.2.

TABLE 2.2.6.1 – Highway 3A Intersection Safety Performance

INTERSECTION	Crash Rate A/MEV	Provincial Average	Severity Index	Provincial Average
Baker/Vernon	0.2	0.7	5	5.2
Stanley/Vernon	0.4	0.7	3.4	5.2
Ward/Vernon	0.3	0.4	2.8	5.2
Hall/Front	0.4	0.4	4.8	5.2
Cedar/Front	0.2	0.4	2.9	5.2
Poplar/Front	0.1	0.4	7.4	5.2
Anderson/Nelson	0.1	0.4	1	5.2
Davies/Nelson	0.1	0.4	4.1	5.2
Kokanee/Nelson	0.1	0.4	7.4	5.2

Intersection collision rates are at or below Provincial averages for similar facilities. Severity indices are also at or below Provincial averages, except for the intersection of Poplar and Front (7.4) and the intersection of Kokanee and Nelson (7.4), both of which are highlighted in red. In both cases, recent improvements to these intersections (i.e. a full traffic control signal at Front & Poplar and delineation at Nelson & Kokanee) may be serving to reduce the severity experience.

To further stratify the safety characteristics for comparison, the corridor has been divided into four segments. The segment boundaries are primarily based upon corridor characteristics with each segment containing similar features which enable distinct comparisons to the other segments. The Highway 3A corridor within the study area is divided as follows:

- The Baker/Vernon intersection up to and including the Ward/Vernon intersection
- North of the Ward/Vernon intersection up to and including the Front/Cedar intersection
- East of the Front/Cedar intersection up to and including the Anderson/Nelson intersection
- North of the Nelson/Anderson intersection up to and including the Nelson/Kokanee intersection

TABLE 2.2.6.2 – Highway 3A Segment Safety Performance

SEGMENT	Collision Rate A/MVK	Provincial Average	Severity Index	Provincial Average
Vernon from Baker to Ward	2.9	1.8	3.4	5.2
Front from Ward to Cedar	2	2.1	4.4	5.2
Front/Anderson from Cedar to Nelson	0.8	2.1	4.6	5.2
Nelson from Anderson to Kokanee	0.6	2.1	5.4	5.2

The Provincial average segment collision rate is exceeded within the segment of Highway 3A on Vernon between Baker and Ward (2.9, in red). All other segment performance measures are below the Provincial averages for similar facilities. All severity indices are below Provincial averages except in the section on Nelson between Anderson and Kokanee, which is slightly above average (5.4, in red).

A more detailed examination of the collision experience (collision diagrams) at each intersection is offered in order to determine the ICBC investment potential in the corridor. Generally, ICBC has expressed an interest in investing in improvement or mitigating strategies for the identified collision experiences and trends, where a 3:1 return can be achieved. Note that the exact details (ie. primarily direction of travel) of some of the incidents noted in the ICBC claims data are not determinable, and are consequently left as 'Unassigned' in the diagrams. Also, mid-block collisions have not been examined in detail as location references are vague to non-existent. Overall, a total of 376 insurance claims were received by ICBC during the identified time period of 1996-2000, from which 204 incidents were extracted for inclusion in the analysis. This initial stratification of the database was required as numerous incidents were either outside of the identified study area, they did not contain specific references to any traceable locations or they were duplicates incidents already included. A summary of the observed intersection collision trends is offered in Table 2.2.6.3.

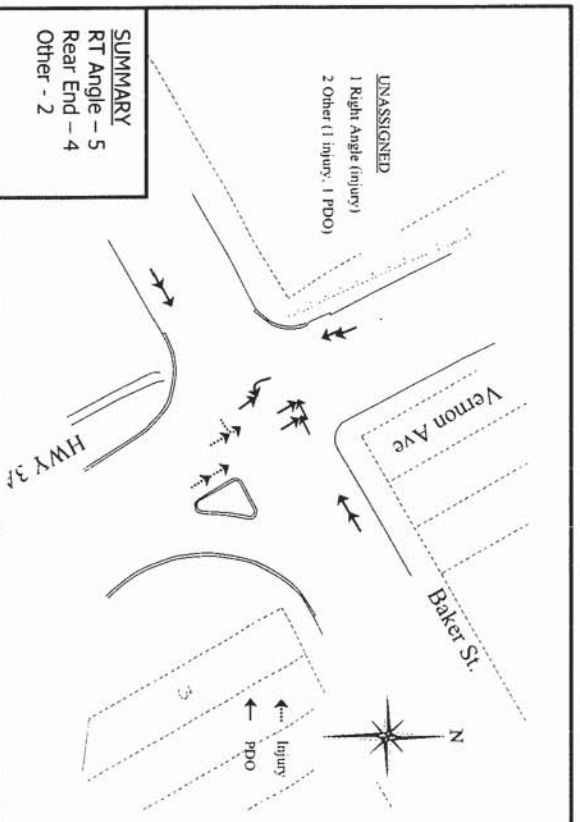
TABLE 2.2.6.3 – Observed Intersection Collision Trend Summary (1996-2000)

Intersection	Right Angle	Other Angle	Rear End	Loss Control	Parking	Ped	Other	Total
Baker/Vernon	5		4				2	11
Stanley/Vernon	1		11					13
Ward/Vernon	2	3	12	1			1	20
Hall/Front	9	5	8	1			2	29
Cedar/Front	8		5					14
Poplar/Front	2		3					5
Anderson/Nelson			3	1		1		5
Davies/Nelson	5	1	2					8
Kokanee/Nelson	1		2				2	5
Total	33	9	50	3		8	5	110

Overall, the results indicate a trend consistent with expectations along a relatively busy urban arterial highway, as the primary observable trend noted in Table 2.2.6.3 is associated with rear end and right angle collisions. In general, occurrence rates are low, which is consistent with the comparison to Provincial averages undertaken, and the number of incidents tends to increase along the busier sections of the corridor. Detailed intersection analysis is offered in the ensuing sub-sections and is summarized in Table 2.2.6.4.

.1 Baker/Vernon Intersection

Baker/Vernon Intersection Collision Diagram (1996 – 2000)



offered in the collision diagram.

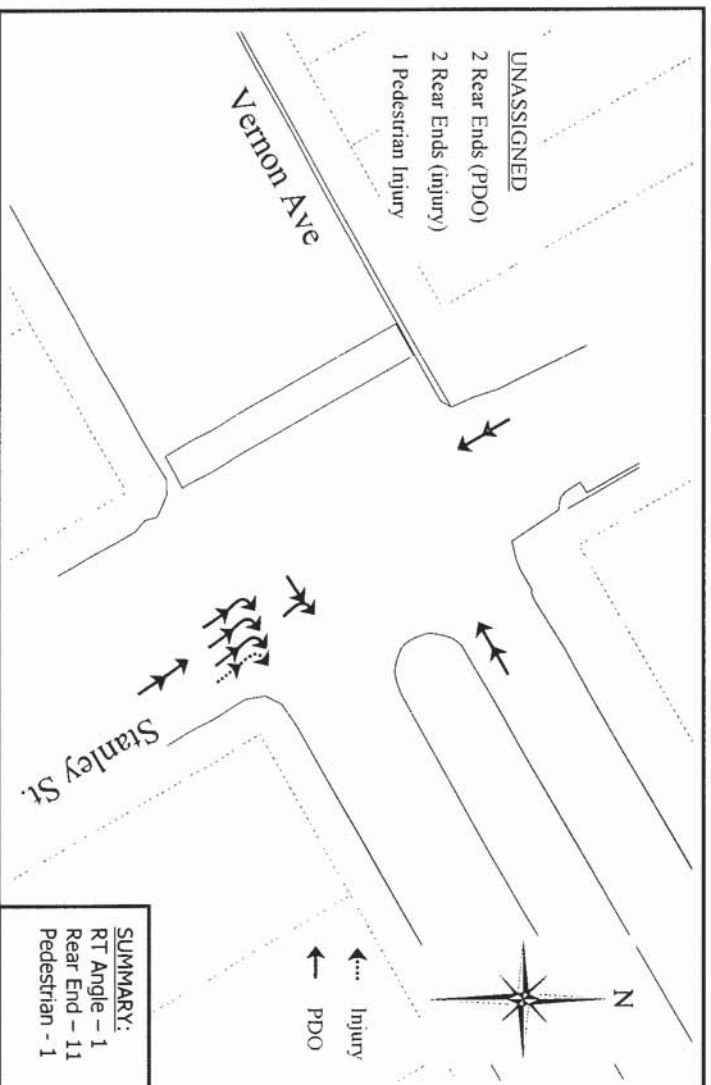
Overall, the number of incidents occurring at this location is relatively low considering the volume of traffic utilizing the intersection and the four year period for which data were reviewed. As noted, a total 11 collision claims were recorded within the intersection over a four year period, 8 of which possessed a sufficient incident description to be included in the collision diagram. This translates to less than three incidents per year on average. No trends in seasonal variation and/or daytime/nighttime conditions were detected as the majority of the incidents occurred during daylight summer hours.

The intersection collision type distribution is consistent with expectation for a 4 way stop controlled location; with 4 rear-end incidents (one on each approach) and 5 right-angle incidents over a four year period. Of note, the majority of the right-angle incidents involved a northbound vehicle on Highway 3A, which is likely due to poor visibility around the approach horizontal curve. This curve is adequately signed on the approach to the intersection, and 'advance stop' warning is provided clearly on an overhead sign structure. Visibility of the approaching vehicles from the east leg is somewhat hindered by vegetation growth and grade.

This intersection is the 'gateway' intersection for the urban portion of Highway 3A through Nelson for motorists approaching from the west. It is a 4 way stop controlled intersection, with the north and south legs representing Highway 3A, the east leg (Baker Street) connecting to the Downtown area and the west leg connecting to an industrial park. Approach grades are relatively flat on Highway 3A, with Baker Street approaching on a 4-5% down grade across the intersection from east to west. Both the south and north legs (Highway 3A) curve horizontally to the east beyond the mapping

2. Vernon/Stanley Intersection

Vernon/Stanley Intersection Collision Diagram (1996-2000)



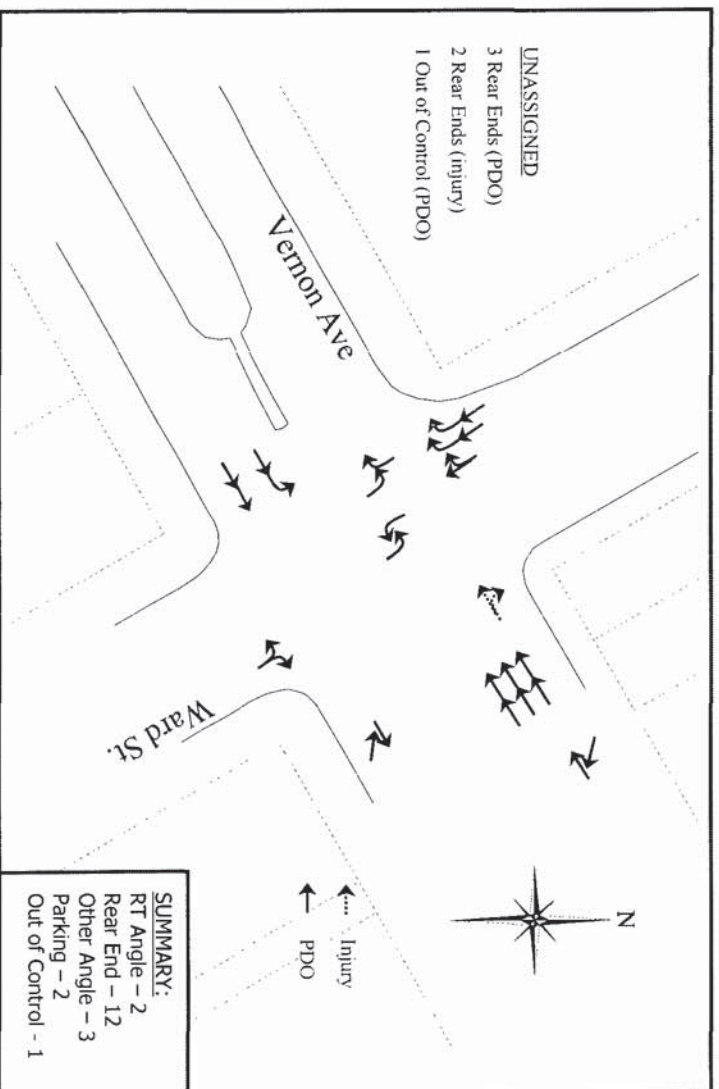
The Vernon Avenue and Stanley Street intersection is a two-way stop controlled intersection, with Stanley Street giving right-of-way to Vernon Avenue (it is Highway 3A at this location). Both approaches are straight, and the Highway 3A approach to the intersection is relatively flat, while Stanley Street approaches the intersection on a relatively steep downgrade (8%) when proceeding from south to north. Ultimately, the south leg of Stanley Street links to the Downtown core of the City and beyond into the Uphill neighbourhood, while the north leg links only to the Provincial Government Building parking lot.

As noted, a total 13 collision claims were recorded within the intersection over a four year period, 8 of which possessed a sufficient incident description to be included in the collision diagram. This translates to slightly over three incidents per year, on average. While no trend in daytime/nighttime incidents was detected, all of the northbound read-end incidents occurred during winter months.

A clear trend in rear end collisions is evident on the Stanley Street approach (northbound) to the two-way stop controlled intersection. The steep (-8%) approach grade, combined with the effects of winter, snow and ice conditions are the major contributing factors to this trend.

.3 Ward/Vernon Intersection

Ward/Vernon Intersection Collision Diagram (1996 – 2000)



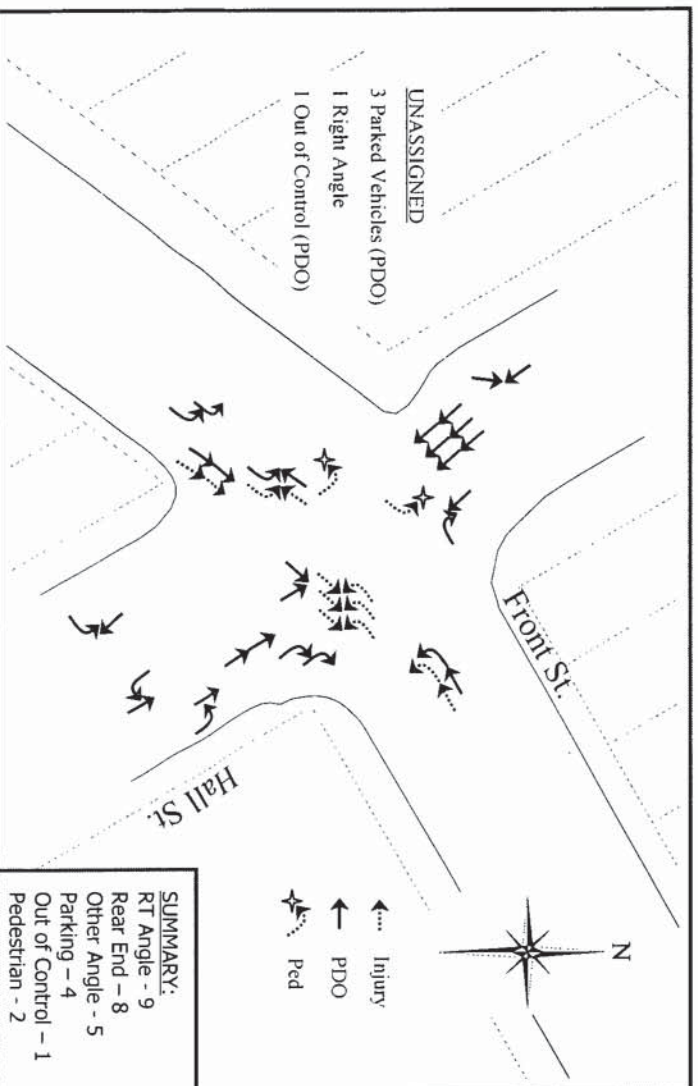
The Vernon Avenue and Ward Street intersection is the first signalized intersection experienced by motorists approaching from the west, and the Highway 3A corridor goes through a right-angle turn at this location, moving between the west leg and the north leg. All approaches are straight, and the east and west legs are relatively flat, with the north and south legs approach the intersection on a downgrade of approximately 4% when moving from south to north.

As noted, a total 20 collision claims were recorded within the intersection over a four year period, 14 of which possessed a sufficient incident description to be included in the collision diagram. This translates to slightly under seven incidents per year on average. No trends in seasonal variation and/or daytime/nighttime conditions were detected as the majority of the incidents occurred during daylight summer hours.

While no clear trend in collision type distribution is observed, pedestrian demand at this intersection is significant, and is likely to be a contributing factor to the read-end incidents, particularly for the southbound to westbound right turn. Side-street parking exists on both the south and west legs, also likely acting as a contributing factor at those locations, particularly on the east leg where three rear end incidents are noted, and the parking extends to within close proximity of the intersection.

.4 Hall/Front Intersection

Hall/Front Intersection Collision Diagram (1996 – 2000)



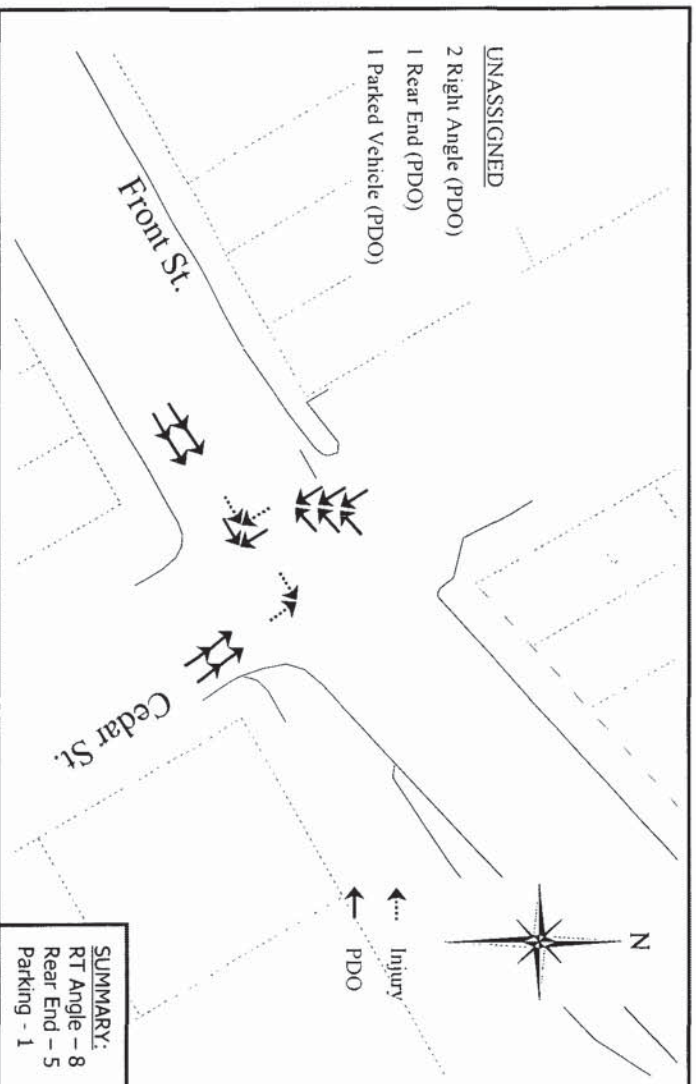
The Front Street and Hall Street intersection is one of the busiest intersections within the City of Nelson. The Highway 3A corridor extends approximately east-west through this intersection, and the north and east legs are relatively flat while the west leg approaches on a 4-5% downgrade and the south leg approaches on a steeper 7-8% downgrade. Of particular note at this location, is the skewed angle at which the west leg enters the intersection.

A total of 29 collision claims were recorded within the intersection over a four year period, 24 of which possessed a sufficient incident description to be included in the collision diagram. This translates to slightly over seven incidents per year on average. No trends in daytime/evening conditions were detected as the majority of the incidents occurred during daytime hours. Seasonally, the collision history is split, almost evenly between the summer and winter months.

The majority of the incidents detected at this intersection are typical for a busy signalized intersection. However, a trend in angle incidents with a relatively high severity level are noted with left turning vehicles on Highway 3A and Hall Street. The skew in the Highway at this location is the likely contributing factor as visibility is poor through the intersection in the east-west direction. Visibility is further restricted by the proximity of the building to the property line on the southwest corner of the intersection. Driveway access points are in close proximity to the intersection on the south leg, pedestrian flows are significant, and side street parking exists on both the north and south and legs.

5. Cedar/Front Intersection

Cedar/Front Intersection Collision Diagram (1996 – 2000)



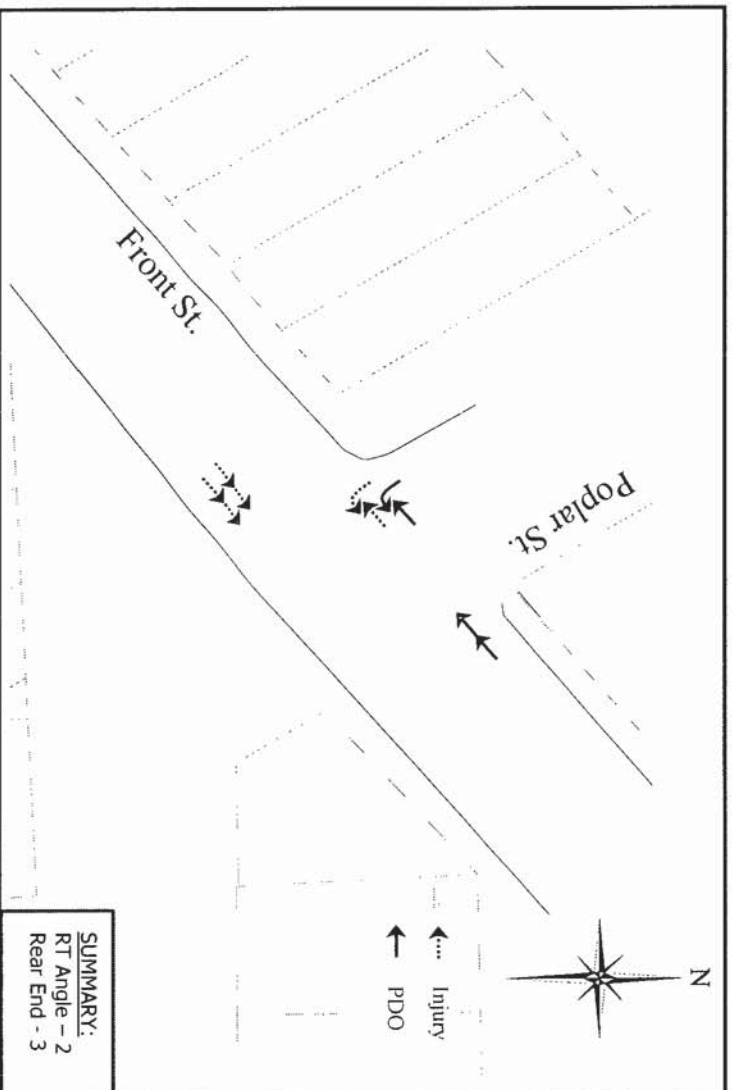
The Front Street and Cedar Street intersection is a two-way stop controlled intersection, with Cedar Street giving right-of-way to Front Street (Highway 3A). The Cedar Street approach is straight, and the Highway 3A approach to the intersection is skewed somewhat. The north and west legs of the intersection are relatively flat, while the south leg approaches the intersection on a relatively steep downgrade (8%) when proceeding from south to north and the east leg approaches the intersection on a 4-5% downgrade. Ultimately, the south leg on Cedar Street links to the Downtown core of the City and beyond into the Uphill neighbourhood, while the north leg links to Waterfront Area and the west end of the Chako Mika Mall.

As noted, a total 13 collision claims were recorded within the intersection over a four year period, 9 of which possessed a sufficient incident description to be included in the collision diagram. This translates to slightly over three incidents per year on average. No trends in daytime/nighttime conditions were detected as the majority of the incidents occurred during daytime hours. Seasonally, the collision history is split, almost evenly between the summer and winter months.

A clear trend in incidents involving vehicles emerging from the north leg of the intersection is evident, with 5 of the 9 collision claims being southbound right angle incidents. Visibility to and from the north leg of the intersection is somewhat constrained by the skew in the intersection, adjacent buildings with little or no setback and utility poles. The steep approach grade and visibility limitations due to utility poles are the likely contributing factors to incidents on the south leg.

.6 Poplar/Front Intersection

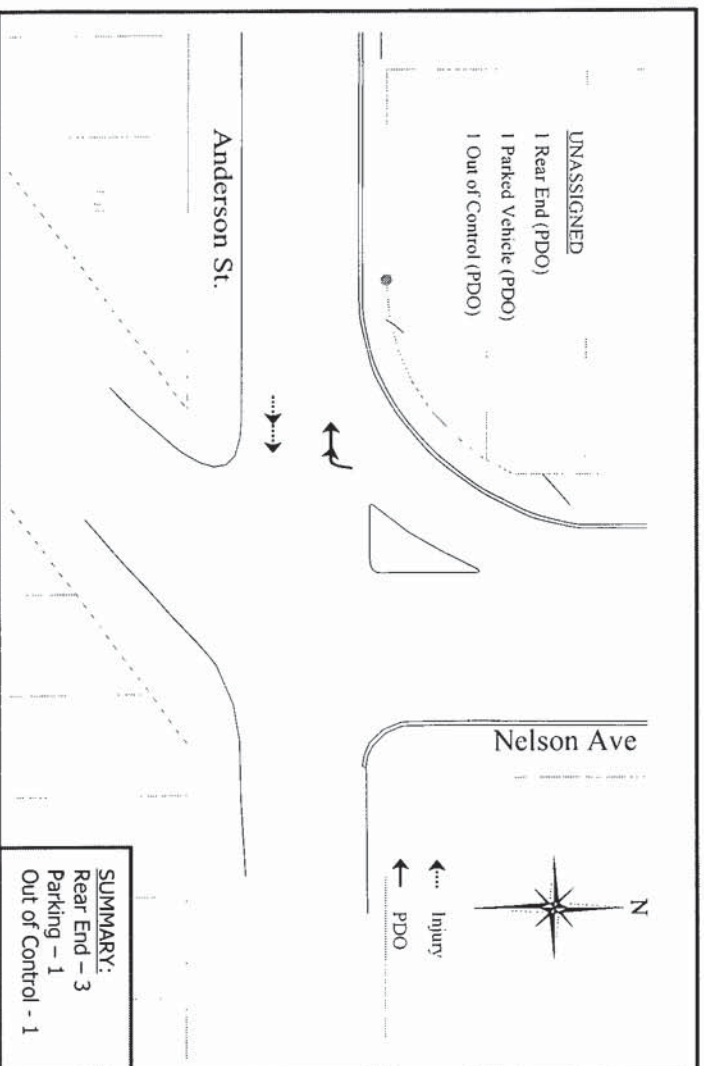
Poplar/Front Intersection Collision Diagram (1996 – 2000)



The intersection of Front Street and Poplar Drive is a signalized T-intersection, accessing the Waterfront area through the Chako Mika Mall on the north leg. Approaches to the intersection are straight and relatively flat except on the west leg that descends at an approximate grade of 6%. This intersection was signalized after most of the noted incidents occurred, and consequently the distribution of collision types is likely to be substantially different. As a result, no specific trends are noted at this location.

7 Anderson/Nelson Intersection

Anderson/Nelson Intersection Collision Diagram (1996 – 2000)

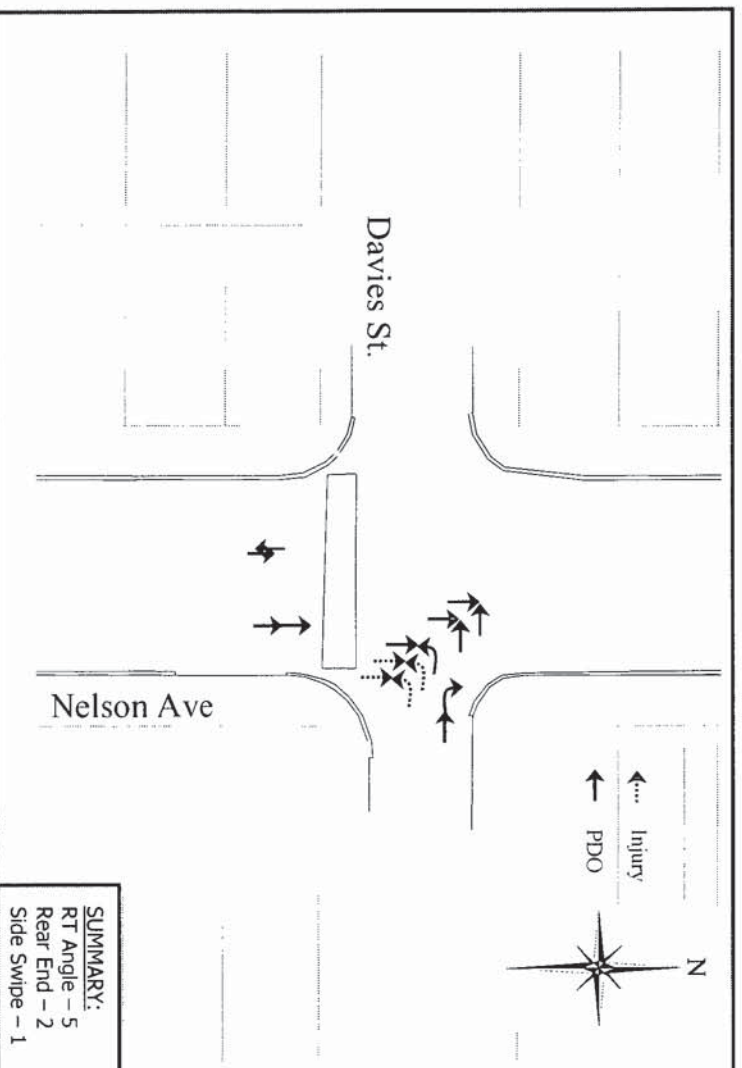


The intersection of Anderson Street and Nelson Avenue is an irregularly shaped unsignalized intersection, with stop control in the northbound and westbound directions and for the southbound through movement. Highway 3A undergoes a right angle change in direction at this location, from the west leg on Anderson Street onto the north leg on Nelson Avenue. All approach legs are relatively straight and flat.

The historic collision distribution pattern is relatively insignificant, in that only 4 incidents are noted over the 4 year time horizon, 2 of which possessed a sufficient incident description to be included in the collision diagram. As such, no collision trends are identified. All of the noted incidents occurred during summer daytime hours, except one of the unassigned incidents which occurred during the winter evening hours.

8. Davies/Nelson Intersection

Davies/Nelson Intersection Collision Diagram (1996 - 2000)



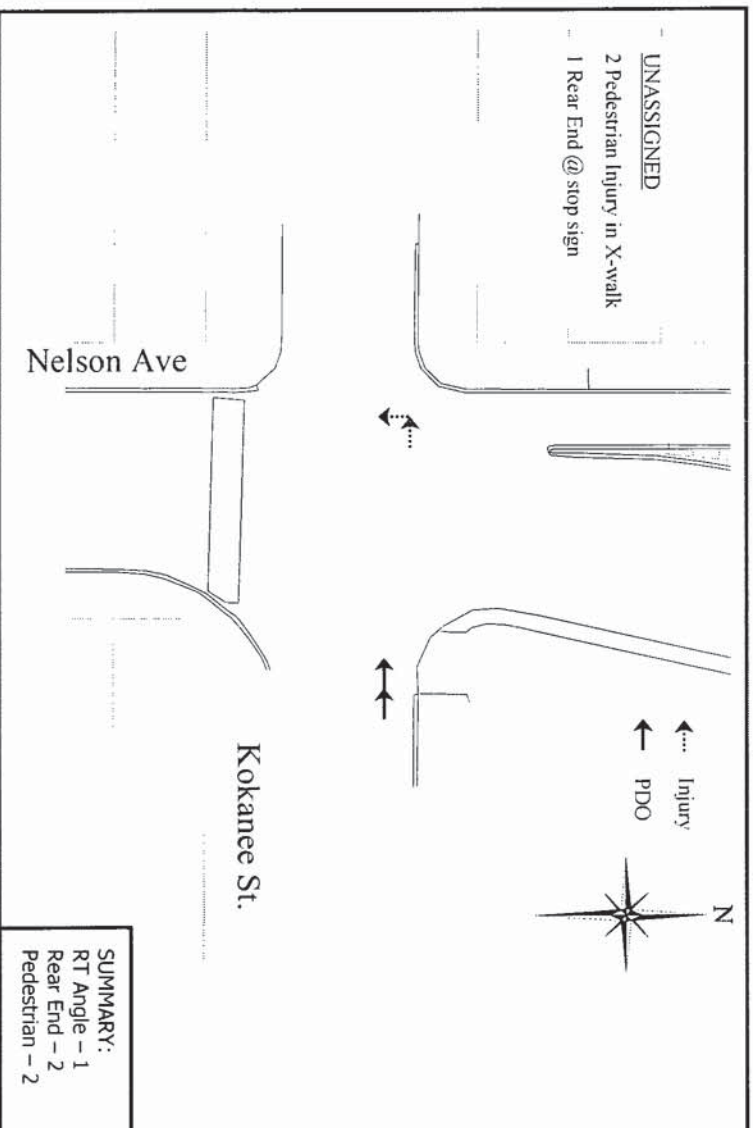
The Nelson Avenue and Davies Street intersection is a two-way stop controlled intersection, with Davies Street giving right-of-way to Nelson Avenue (Highway 3A). All approaches to the intersection are straight and relatively flat, although a slight vertical curve was detected in the Nelson Avenue alignment which peaks at the Davies Street intersection. Ultimately, the east leg on Davies Street links to the Fairview neighbourhood and developable lands in that area, while the west leg links to a residential neighbourhood with limited growth potential.

As noted, a total 8 collision claims were recorded within the intersection over a four year period. This translates to slightly over two incidents per year on average. No trends in daytime/evening conditions were detected as all of the incidents occurred during daytime hours. Seasonally, the collision history is split between the summer and winter months.

The historic collision distribution demonstrates a clear trend involving the east leg of the intersection and northbound traffic along Highway 3A, resulting in five right angle incidents over the time horizon. Contributing factors to this trend include the lack of side street visibility due to the aforementioned vertical curve, landscaped boulevards and the wide Nelson Avenue cross-section resulting in driver judgment errors.

9. Kokanee/Nelson Intersection

Kokanee/Nelson Intersection Collision Diagram (1996 – 2000)



This is an irregular 5 legged unsignalized intersection, with stop control in the east and west directions on Kokanee Street, as well as the southbound on-ramp. All approach legs are straight and relatively flat, although the 5th leg (the on-ramp in the northwest quadrant) does approach the intersection on an incline. The Highway 3A corridor approaches the Kootenay Lake Bridge to the north of this point.

The historic collision distribution pattern is relatively insignificant, in that only five incidents are noted over a 4 year time horizon, 2 of which possessed a sufficient incident description to be included in the collision diagram. Of note, however, is that two of the unassigned incidents involved pedestrians during winter evening conditions. These incidents occurred in advance of the installation of a signed overhead pedestrian crosswalk in 2001.

TABLE 2.2.6.4 – Intersection Collision Trend & Contributing Factor Summary

Intersection	Historic Trend	Contributing Factors	Other Field Notes
Baker/Vernon	NB Angle	Poor Visibility Due to Horizontal Curve on NB Approach	Lacking Delineation on E-W Approaches
Stanley/Vernon	NB Rear End	Steep Approach Grade	Lane Alignment for SB Curb Lane
Ward/Vernon	SB RT Rear End WB Read End	Winter Conditions High Pedestrian Volumes Parking Proximity to Intersection	Unnecessarily Wide Cross Section on Vernon High Pedestrian Exposure Traffic Signal Controller Limits Pedestrian Accessibility During Non-Conflicting Phase (Crossing South Leg) Highway 3A Guide Signage Hidden by Vegetation EB Traffic Signal Controller Limits Pedestrian Accessibility During Non-Conflicting Phase (Crossing East Leg) Lacking Delineation on All Approaches Poor and Hazardous Driveway Configuration on SE Corner WB RT Lane Not Properly Developed (Property Impacts) Odd and Confusing Configuration Poor and Hazardous Driveway Configurations on NW Corner High Pedestrian Exposure
Hall/Front	EB & WB LT Angle NB & SB Rear End	Visibility (Skewed Intersection) Parking proximity to Intersection	
Cedar/Front	SB Angle	Visibility (Buildings and Utility Poles)	
Poplar/Front	None	None	
Anderson/Nelson	None	None	
Davies/Nelson	WB Angles	Wide Cross-Section (Nelson Ave.) Vertical Curve (Nelson Ave.)	
Kokanee/Nelson	Pedestrian	Wide Cross-Section (Nelson Ave.)	Odd and Confusing Configuration (5 Legs)

Note that the column entitled 'Other Field Notes' offers noted safety concerns detected at the identified intersections during a visual inspection in the Fall of 2001. These concerns may not specifically contribute to the noted historic collision trend, and are instead offered for general information and consideration as budget and scheduling opportunities arise.

In addition to the concerns noted specifically at the intersections in Table 2.2.6.4, a number of other specific safety concerns were noted during the field observations which do not directly influence the intersection collision histories. While beyond the scope of this analysis to review any of these issues in detail, they are noted for general information and consideration, and should perhaps be considered in advanced levels of detail as resources become available. These concerns are noted at specific locations in Table 2.2.6.5 and across the overall corridor in general in Table 2.2.6.6.

TABLE 2.2.6.5 – Specific ‘Other’ Corridor Safety Concerns

Item	Commentary
Vernon Avenue Cross-Section	Roadway is too wide for given conditions, contributing to reduced pedestrian crossing opportunities and safety, higher vehicle speeds, sidestreet visibility limitations and sidestreet driver judgement errors
Lake Avenue Intersection Front Street Cross-Section	Limited/poor visibility Rounding curve past Lake Avenue (EB) leads driver into the left turn lane for Hall Street, forcing unnecessary weaving Utility pole proximity to travel lanes
Driveway Accesses – Front @ Provincial Government Building Front Street/Anderson Street Intersection Front Street Access to Hotel Nelson Avenue Cross-Section	Poor Access Conditions Hidden driveway location due to vertical curve when driving WB Undefined intersection with poor guidance around curve Confusing and hazardous driveway access point Roadway is too wide for given conditions, contributing to reduced pedestrian crossing opportunities and safety, higher vehicle speeds, sidestreet visibility limitations and sidestreet driver judgement errors

TABLE 2.2.6.6 – Corridor Wide Safety Commentary

Item	Commentary
Sign Condition, Placement and Retroreflectivity	An audit of traffic control signage along the urban component of the Highway 3A corridor should occur, as budgets and scheduling permit, irrespective of the re-paving program. A number of examples exist of signs which would appear to be invisible during low light conditions, are placed too low on standards within sidewalks in busy pedestrian areas, are obscured due to foliage or other signs, or are altogether absent based upon current standards.
Lane Delineation and Continuity	A review of standard lane delineation and continuity across intersections should be considered along the corridor, as budgets and scheduling permit. Consistent with the re-paving project, an upgrade to current engineering standards is readily achieved. Consideration should be given to the practice of applying stop bars at all pedestrian crossing locations, as it is inconsistent with National and Provincial standards and may lead to confusion.
Streetlighting	While no direction measurements and/or calculations have yet been undertaken, a number of ‘darkspots’ were observed along the Highway 3A corridor during the evening field corridor reviews. This is an obvious safety concern which could be addressed through a more detailed assessment of current lighting conditions along the corridor as budgets and scheduling permit, to ensure consistency with the MoT urban arterial standards.
Curb Drops at Intersections	The majority of intersections which are bordered by sidewalks do not possess curb drops for visually and mobility impaired citizens as well as children and strollers, etc. The provision of such facilities is consistent with current TAC design standards in an urban environment and should be considered within the context of a re-paving project.
Curb Height	The height of the curb (typically monolithic sidewalk) along the Highway 3A corridor through Nelson is notably shallow in many locations. This ultimately affects pedestrian safety as well as motorist safety as adequate protection is not being provided. A minimum depth of 150 mm is typical, and should be considered in the design of the re-paving project.
Parking Proximity to Intersections	Generally, where parking is provided along the Highway 3A corridor, opportunities to introduce a clear zone should be considered to allow for improved visibility of both pedestrians and motorists. This occurs primarily around intersections but can also be an issue around driveways as well. In most cases, this would not impact more than one parking stall on each side of each leg of intersections and driveways, and would only be considered where parking currently occurs within 30 m of these intersections.

2.3 City of Nelson Major Roadway Network

While it would be desirable to begin to shift the focus of urban transportation within the City of Nelson away from the single occupant automobile, it is recognized that this will be the predominant mode of local transportation within the next 20 year period. As such, the movement of people and goods will continue to be reliant on an efficient and safe major roadway network.

Approximately 78 kilometers of roadway currently exist within the City limits (8.9 km of which is Highway 3A, under the responsibility of the Ministry of Transportation), which generally provide for all basic modes of transportation including walking, cycling, transit and the automobile. The majority of this network is comprised of two lane roadways, and the network is maintained cooperatively with the BC Ministry of Transportation.

The City of Nelson *Official Community Plan* defines the major roadway network, which is identified in Figure 2.3.1.

In general, the major roadway network in Nelson is constrained somewhat by the challenging topographical conditions for which the City is well known. As a result, neighbourhoods have tended to develop independently and are generally not well connected. The unique hillside setting has also fostered the growth of commercial and industrial areas in the flatter and lower part of the City, resulting in predominantly residential land uses on the hillsides. In these circumstances, the need for strong inter-neighbourhood connections on the hillsides is not always readily apparent, as the predominant direction of travel from the residential areas is into the core of the City and back, and not necessarily through other neighbourhoods.

As the City densifies and more amenities are located away from the central core (ie. hospital, college), the need to maintain and foster major roadway network connections within and between the neighbourhoods will continue to increase. This fact is particularly relevant in light of the City's stated opposition to expansion or widening of Highway 3A, which suggests that more 'internal' or City originated/City bound travel will occur on alternate (to Hwy 3A) network elements.

2.3.1 City of Nelson Roadway Classification

The concept of 'classifying' major roadways is intended to reflect the differences between the relative importance of providing for traffic movement (truck, transit, pedestrian, cycling and auto) transit, pedestrian and cycling facilities, parking and/or property access for each roadway. It denotes an expected level of activity on such roadways and assists the public agencies involved when considering development applications (ie. frontage improvements, access issues, etc.).

For reference the following general definitions apply to the roadway classifications utilized in this report. It should be noted that the Ministry of Transportation refers to the Highway 3A corridor as 'the' arterial roadway in Nelson. While this is the case presently, it is entirely possible for existing municipal corridors to develop into arterial status facilities in the future.

Arterial Roadways – This category of roadway is generally focused on the safe and efficient movement of all forms of traffic. Direct property access to such a facility is generally limited when new development is being considered, or in retrofit or existing 'built-up' areas, access management plans are being considered to deal with existing access issues. Posted speeds of up to 60 km/h are typically experienced in the urban context, with medians, boulevards, separate sidewalks, pull-out transit stops and separate

cycling lanes all being desirable on this order of facility. Due to the intended function of these facilities, parking is generally prohibited, with the exception of town centre areas. Traffic volumes of up to 25,000 vehicles per day are typical on this order of facility.

Collector Roadways – Collector roadways provide for both the movement of all modes of traffic and access to adjacent land uses. These roadways typically gather neighbourhood local and commercial traffic and deliver it to an arterial roadway system through appropriately spaced intersections. Posted speeds of 50 km/h are typical in the urban context. At least one sidewalk is desirable for pedestrian mobility on such facilities. In most cases, cyclists can be accommodated without the creation of special facilities on this order of roadway. Parking is generally acceptable within residential areas, but may be restricted in commercial and industrial areas due to heavier traffic volumes. Traffic volumes of 5,000 vehicles per day are typical in residential areas, with up to 10,000 vehicles per day being expected in commercial areas.

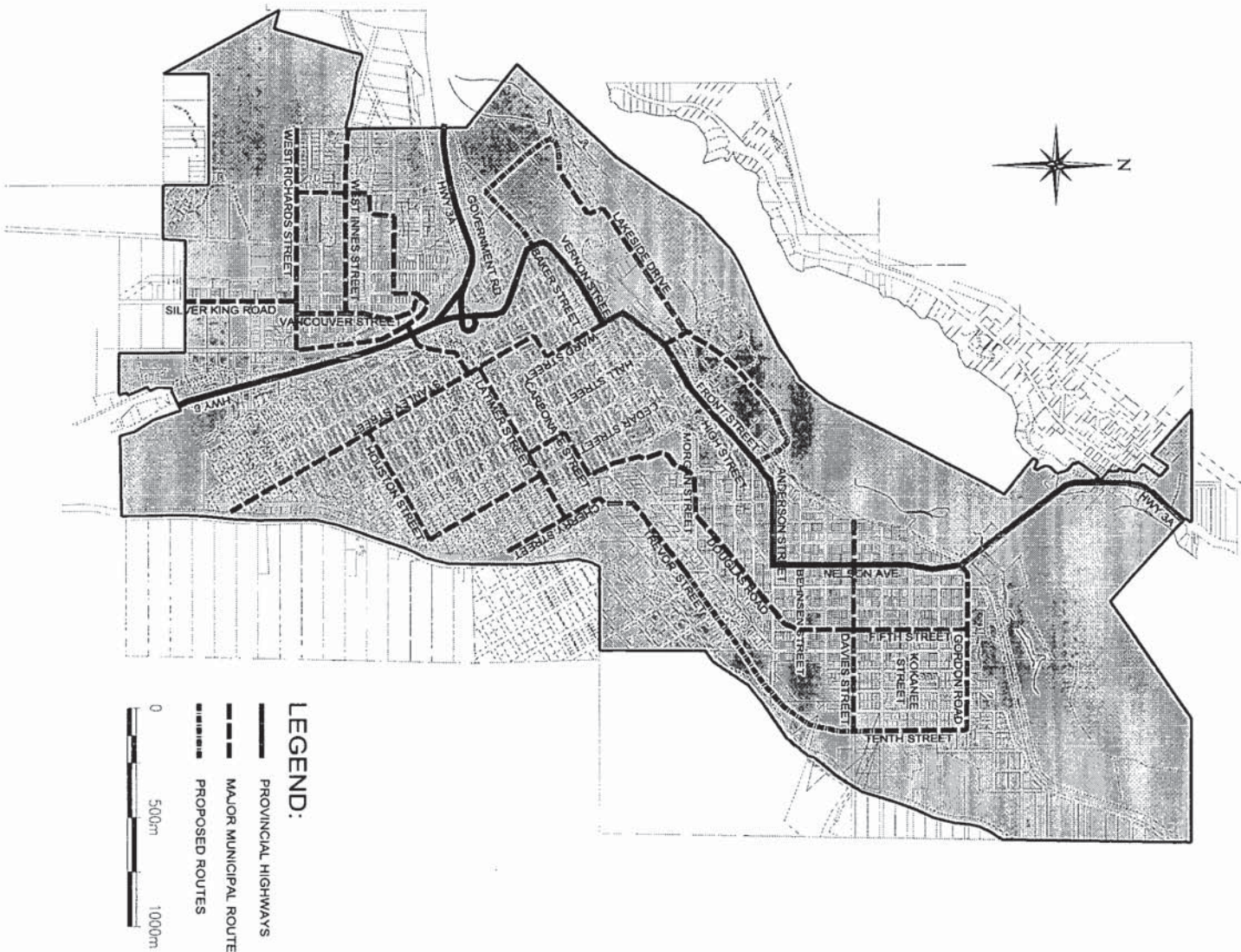
Local Roadways – Local roadways represent all other roadways not specifically designated as collector or arterial. These roadways provide for land access and the movement of traffic from residential and industrial development to the collector and arterial street system. One sidewalk is generally desirable with no separate facilities for cyclists being deemed necessary. Parking is generally acceptable. Traffic volumes of up to 3,000 vehicles per day are typical in residential areas, although 1,000 vehicles per day is a generally accepted target for neighbourhood 'liveability'.



Hwy 3A Looking East at Cedar Avenue

The Hwy 3A corridor is the only true arterial roadway within the Community at present

Figure 2.3.1 – Existing Nelson OCP Major Roadway Network Plan



2.3.2 City of Nelson Travel Characteristics

As noted in Section 2.1, screenline traffic data was collected at a number of key locations in the City of Nelson. These data are summarized in Figures 2.3.2.1, 2.3.2.2 & 2.3.2.3. For information, a screenline is a term used to describe an imaginary line that separates distinct areas within the City, in order to assess travel patterns to and from a certain area. For example, screenline #1 from Figure 2.3.2.1 separates the 'Fairview' area from the rest of the City, and the traffic data collected across this screenline represents the travel characteristics generated by this area in relation to the rest of the City. Some general commentary is offered below relating to the data collected.

Fairview Neighbourhood – Travel characteristics to and from the Fairview neighbourhood are represented by the traffic volume data collected across screenline #1 in Figure 2.3.2.1. The grid style network of roadways in the neighbourhood is dispersing the existing traffic volumes well, as is evidenced by the rather even distribution of the load. Traffic volumes are generally below what would be expected on these roadways, suggesting that major network level problems do not exist within this neighbourhood at this point in time. As development and growth occur, however, efforts will need to focus on concentrating more traffic on the collector network, namely Davies Street, Fifth Street and to a lesser extent Tenth Street to ensure that what are now classified as local roadways (ie. Elewyn, Behnsen, etc) do not begin to carry the burden of higher volumes of through traffic. This can be accomplished by introducing traffic calming measures, reducing or restricting access, or by reassigning traffic control priority at key intersections to favour the collector routes over the local roadways.

Gyro Neighbourhood – Travel characteristics to, from and through the Gyro neighbourhood are represented by the traffic volume data collected across screenline #2 in Figure 2.3.2.1. The collector roadway network in this neighbourhood is functioning, with the concentration of through traffic centralized on the Douglas Road corridor, as is intended in the current OCP. Traffic volumes are generally low and below any significant threshold levels, suggesting that major network level problems do not exist in this neighbourhood at this point in time, from a roadway capacity perspective. Network connectivity, however, is an issue which should be considered in the future, as formalized and improved connections between the Gyro and Fairview neighbourhood collector roadway networks is desirable from both a roadway and land use perspective. While Trevor Street (see Figure 2.3.1) offers a future new connection between these neighbourhoods, it is somewhat too far uphill to offer a real benefit in the short to medium timeframe and is better left protected as a future corridor. Increasing mobility through this potential future 'bottleneck' area in the shorter term will become an important consideration as capacity deficiencies become more apparent along the Highway 3A corridor, advancing the need to seek alternate alignments.

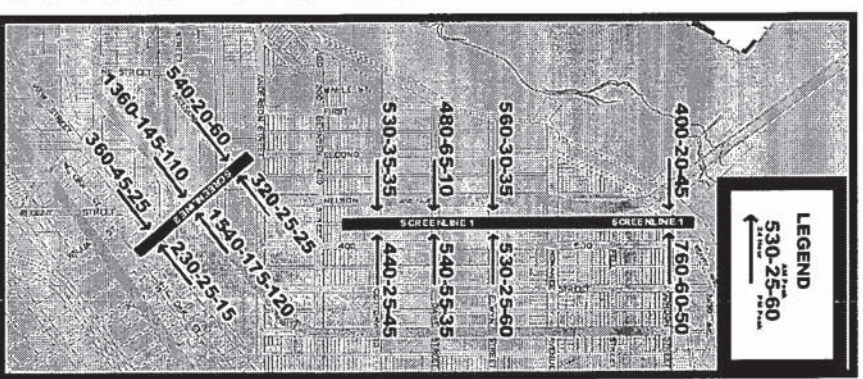
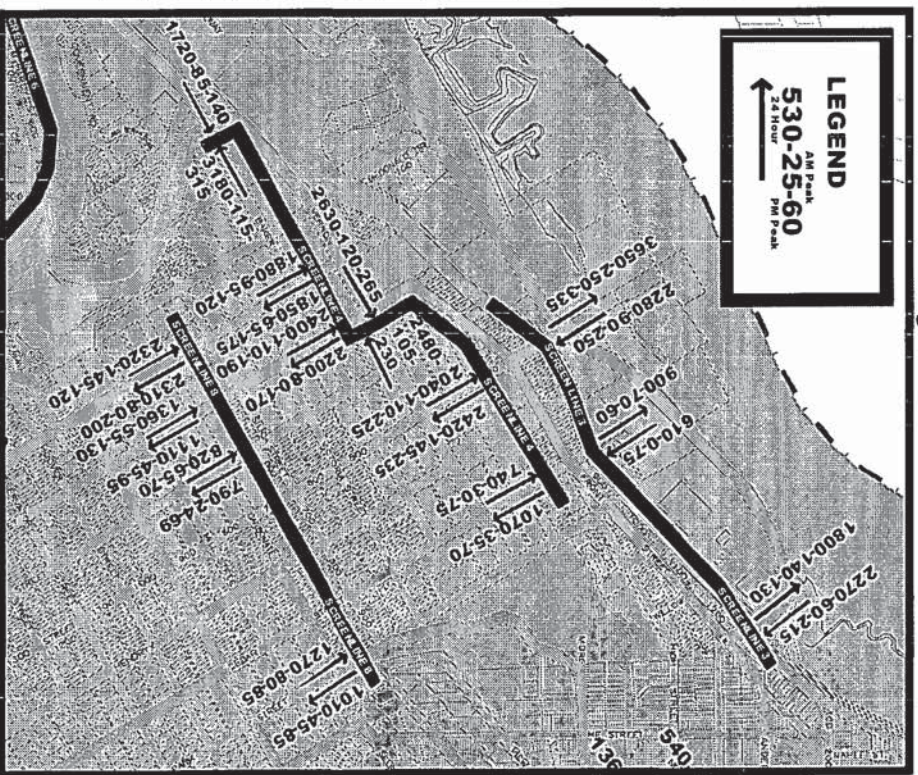


Figure 2.3.2.1

Figure 2.3.3.2.2



Uphill Neighbourhood – Travel characteristics to, from and through the Uphill neighbourhood are represented by the traffic volume data collected across screenline #8 in Figure 2.3.2.2. Some focus of traffic volumes along the collector roadway network (Stanley Street) is evident with relatively high traffic volumes of ~4600 vehicles per day, however, local roadways such as Ward Street also are carrying a relatively high traffic volume of ~2500 vehicles per day. While the traffic volumes are manageable at this point, some consideration should be given to focusing through traffic on the collector roadway network in the future as growth and development begin to exacerbate this issue and expose local roadways to increasing and undesirable traffic volumes. This can be accomplished by introducing traffic calming measures, reducing or restricting access, or by reassigning traffic control priority at key intersections to favour the collector routes over the local roadways.

Downtown - Travel characteristics to, from and through the Downtown are represented by the traffic volume data collected across screenline #4 in Figure 2.3.2.2. Some of the more substantial traffic volumes within the major roadway network are experienced in this area, with ~4600 vehicles per day on Ward Street, ~5100 vehicles per day on Vernon Street, ~4400 on Hall Street and ~4900 vehicles per day at the western end of Baker Street. All of the traffic volumes appear reasonable considering the land uses in the area, and should only require attention in the form of periodic operational support at individual intersections (ie. regularly review and amend traffic control signal timing and perhaps modify laning as patterns change). It should be noted that some consideration was given to the alignment of the main north-south collector road through this area; namely Stanley/Ward, in that it is disappointed at Silica. The empirical evidence indicates that the alignment functions as it currently exists and discussions with City staff indicated a preference for maintaining the status quo for the time being. Efforts to ensure that the alignment is recognized (ie. assigning traffic control right-of way, etc.) should be investigated.

Waterfront - Travel characteristics to and from the Waterfront area are represented by the traffic volume data collected across screenline #3 in Figure 2.3.2.2. Traffic volumes across this screenline are generally on the high side, due primarily to the limited number of access point to the remaining roadway network. While the traffic volumes being measured do not suggest that chronic problems exist at present, efforts should be focused upon opportunities to improve the existing connections to the network

or creating new connections, particularly considering the significant potential for development pressure in the area. Hall Street takes the bulk of the traffic load at present, servicing approximately ~5900 vehicles per day.

Rosemont Neighbourhood - Travel characteristics to, and from the Rosemont neighbourhood are represented by the traffic volume data collected across screenlines #6 and #7 in Figure 2.3.2.3. While traffic volumes are generally reasonable, some elements of the collector roadway network are lacking in this area, namely a collector roadway connection to the Hwy 3A intersection with Lakeview Crescent/McQuarrie Avenue. Traffic volumes across the Hwy 6 overpass (~2300 vehicles per day) suggests a substantial exchange of traffic volumes between the two adjacent neighbourhoods.

2.3.3 Major Roadway Network Issues

The following overall roadway issues have been expressed in conversations with City of Nelson and Ministry of Transportation staff as items which should be considered in the development of this plan.

- The increasing volume of traffic on City streets and the need to develop an improved and better connected major roadway system
- The over-dependence and over-use of Highway 3A by local traffic
- The impact of major and minor development concepts and proposals on the roadway network
- The high cost of constructing new roadways and maintaining existing ones

While holistic resolution to all of these issues is beyond the scope of this study, they have been considered as guiding principles in it's development.

A number of different roadway cross-sections exist within the City of Nelson, each offering unique mobility and safety challenges



Vernon Street at Cedar Street

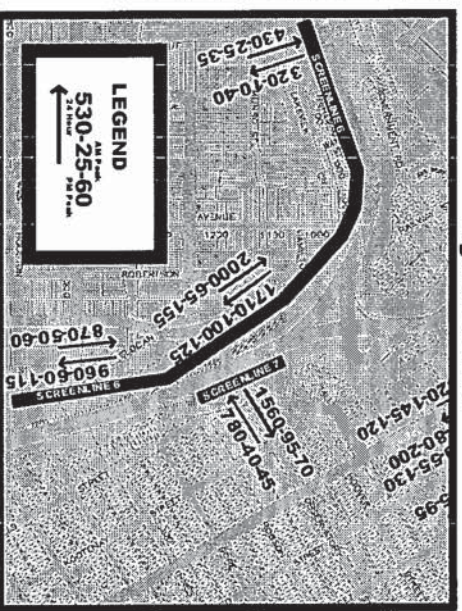


Figure 2.3.2.3

3.0 GROWTH AND DEVELOPMENT FORECASTS

In order to assess and be aware of the potential future issues surrounding mobility on the City of Nelson Major Roadway Network, two growth scenarios have been developed, to the five (5) year (short term) and twenty (20) year (long term) horizons, which are later applied to the major roadway network. The five (5) year scenario is of particular interest as it relates to the pending Highway 3A re-paving project, and it offers some level of guidance as to what improvements might be considered in conjunction with the project. In addition to straight-line growth projections for the Highway 3A corridor and the City of Nelson, the traffic impact of known development scenarios has been calculated and added to the future base conditions, to arrive at what is thought to be a reasonable representation of future roadway conditions.

3.1 Highway 3A Traffic Volume Growth

Baseline traffic volume growth forecasts for the Highway 3A corridor were developed based on a review of available historic traffic volume growth rates observed at the Ministry of Transportation permanent count stations in the vicinity, and a review of historic intersection turning movement counts along the corridor. In addition, a comparison was made to the growth forecasts considered in the 1992 *Nelson Arterial Planning Study* undertaken by McElhanney Engineering Services Ltd.

The BC Ministry of Transportation maintains three (3) permanent count stations of significance when assessing traffic growth rates in and around the City of Nelson. The locations, the counter reference numbers and associated linear growth rates are illustrated Table 3.2. This information is referenced from *Traffic Volumes – Kootenays Region (1996-2000)* published by the Planning Section of the Thompson-Okanagan Region of the Ministry of Transportation. The observed linear traffic growth rates indicate modest annual growth in traffic volumes from the west of the City and very little growth in traffic volumes from the bridge and areas to the north/east.

TABLE 3.2 – Highway 3A Linear Traffic Growth Rates (1996-2000)

Station	Location	Linear Growth Rate
31-004	3.6 km West of Route 6	1.8 %
31-023	Just East of Route 6 (Interchange)	1.1 %
31-025	East End of Nelson/Kootenay Lake Bridge	0.2 %

The *Nelson Arterial Planning Study (1992)* based it's linear growth projections on demonstrated traffic volumes growth observed at the count station on the east end of the Kootenay Lake Bridge (1988-1992), as the majority of the traffic using the Highway 3A corridor was determined, at that time, to have originated on the north side of the bridge. The resulting linear growth rate that was applied to the forecast conditions was 3.5%, which is considerably higher than the rates observed more recently at the same permanent count station over the last four (4) year period (0.2%).

Finally, peak hour intersection turning movement counts tabulated during the data collection exercise were reviewed and compared to the data collected in 1992 as part of the *Nelson Arterial Planning Study*. While there are numerous external variables which could affect the observed traffic volumes (i.e. time of year when the data was collected, different peak hours, etc) the trend appears to demonstrate a net overall reduction in traffic volumes over the nine (9) year period since those data were collected. This is consistent with the BC Stats data for the Nelson area which also shows a small decrease in population over the last 5 years.

Based on a review of this data, and discussions with Ministry of Transportation and City of Nelson staff, an overall corridor annual growth rate of 1% was assumed for Highway 3A in the analysis.

3.2 City of Nelson Traffic Volume Growth

For the purpose of this exercise, traffic volume growth rates for the City of Nelson are assumed to be directly proportional to the growth projected for the City's population. *BC Statistics* indicate a general declining population trend in the City of Nelson over the last five (5) year period, as noted in Table 3.3. These statistics are consistent with the noted declining traffic volumes discussed previously.

TABLE 3.3 – City of Nelson Population Growth Estimates (1996-2000)

Year	Population (Estimated)	Growth (% Change From Previous Year)
1996	9,968	-0.1
1997	9,956	-2.6
1998	9,702	-0.1
1999	9,691	-0.2
2000	9,670	1.9

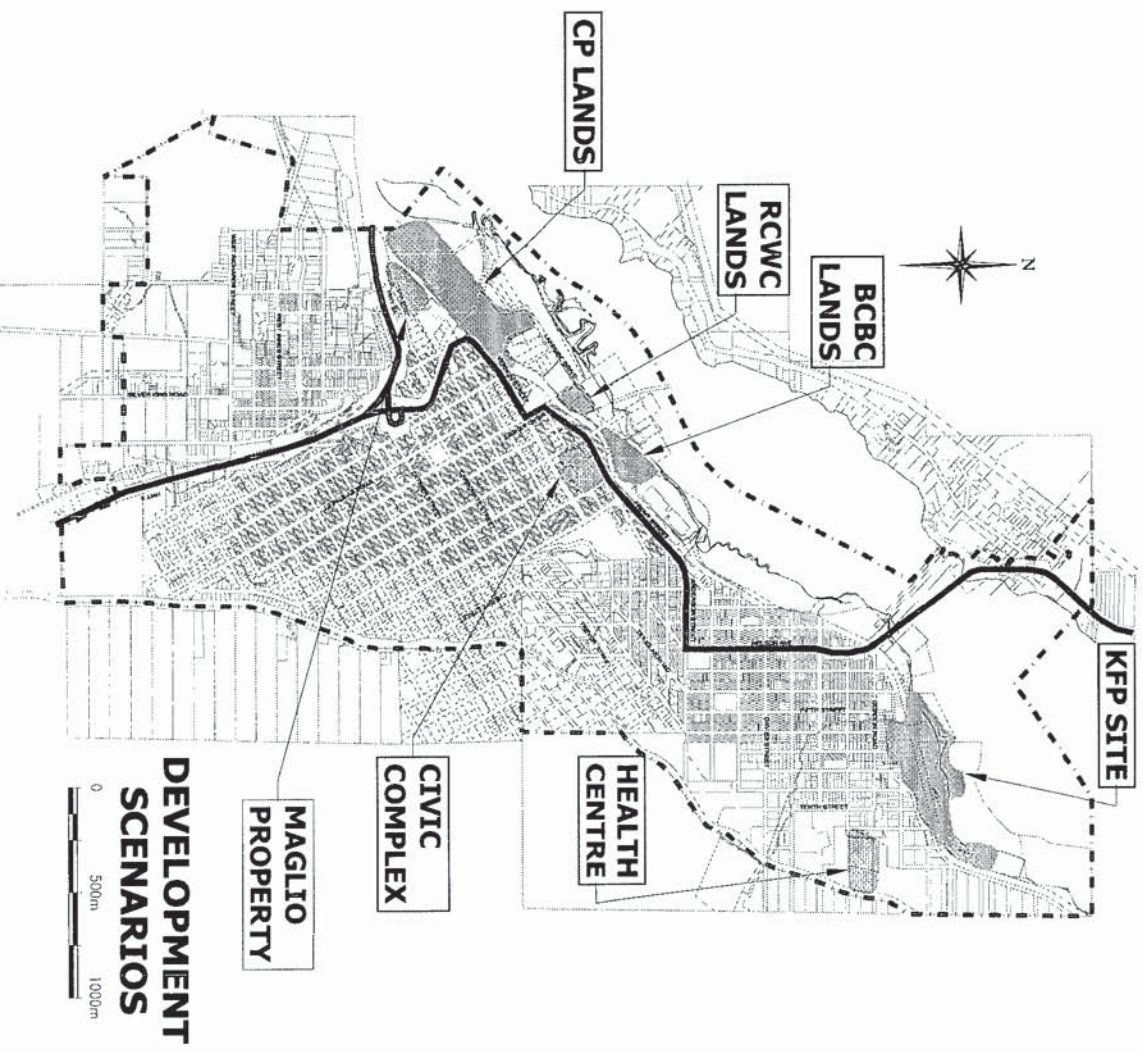
The City of Nelson *Official Community Plan* (1993) offers a range of annual population growth scenarios to consider, varying between 1% and 4%. It notes that, based on the City's historical population stability and the increasing proportion of the local population in the rural fringes and outside of the political boundaries of the City, growth rates are likely to remain at a modest 1% to 2% over the planning horizon.

Despite the noted decline in population in recent years, a traffic growth rate of 1% was assumed for the City of Nelson Major Roadway Network in an effort to develop robust future scenarios that are flexible enough to accommodate a change in the current trends.

3.3 Known Development Scenarios

In addition to the application of the traffic volume growth rates as noted above, the impact of several known development scenarios has also been considered and applied to the future growth scenarios. Pertinent elements and descriptions of each are offered in Figure 3.4, along with some relevant guidance when considering the development applications. In general, note that a concentration of higher impact development opportunities exist in the Waterfront area.

Figure 3.4 – Known Development Sites



3.3.1 KFP site

Details pertaining to the ultimate development and build out of the former Kootenay Forest Products Sawmill Site, located in the northeast quadrant of the City (see Figure 3.4.1), are based upon the information provided in a March 1997 *Nelson Waterfront Development Site Impact Analysis Study* undertaken by Reid Crowther & Partners Ltd. This report outlines the following land use details which are assumed in the traffic analysis:

- Water Front Hotel (100 units)
- Waterfront Residential (35 units)
- Lakeview Condominiums (135 units)

- Lakeshore Condominiums (43 units)
- Waterfront Marina (78 berths)
- RV park (70 sites)
- Lakeshore Townhouses (48 units)
- Lakeview Townhouses (64 units)
- Neighbourhood Retail (862 m²)

The site was assumed to build out in the long-term (20 year) scenario, with no traffic impact anticipated in the short-term (5 year) scenario. Standard ITE Trip Generation rates were applied and the impact of this land use is included in the Future Conditions Assessment.

DEVELOPMENT APPLICATION REVIEW

Assuming that the development of this site occurs incrementally over time and that the proposed land uses remain consistent, the area roadway network should be able to accommodate this development from the perspective of roadway capacity. The impact that such development will have on the surrounding residential land uses may, on the other hand, prove to be a challenge for the community to accept. In any event, from a technical perspective, early development application phases should not need to go through a formal traffic impact study process, but instead a quick assessment of the isolated effects on the Nelson Ave/Kokanee Street intersection, the Nelson Ave/Davies Street intersection and the 2nd Street/Anderson Street intersection should be considered, as these intersections are particularly sensitive to growth in sidestreet traffic volumes.

3.3.2 Health Campus

Details pertaining to the development of a Regional Health Campus in the northeast quadrant of the City (see Figure 3.4.1), are based upon the information provided in a February 14th, 2001 report to the BC Ministry of Health from the Nelson and Area Health Council, entitled *Development of a Health Campus*. This report outlines the following land use details which are assumed in the traffic analysis:

- A 60 bed acute care facility (replacing the existing 45 at Kootenay Lake Regional Hospital)
- An 86 bed multi-level care facility
- An adult day care centre
- 60 assisted living units
- And a health care professionals centre

The site was assumed to build out in the long-term (20 year) scenario, with no additional traffic impact anticipated in the short-term (5 year) scenario. Standard ITE Trip Generation rates were applied and the impact of this land use is included in the Future Conditions Assessment.

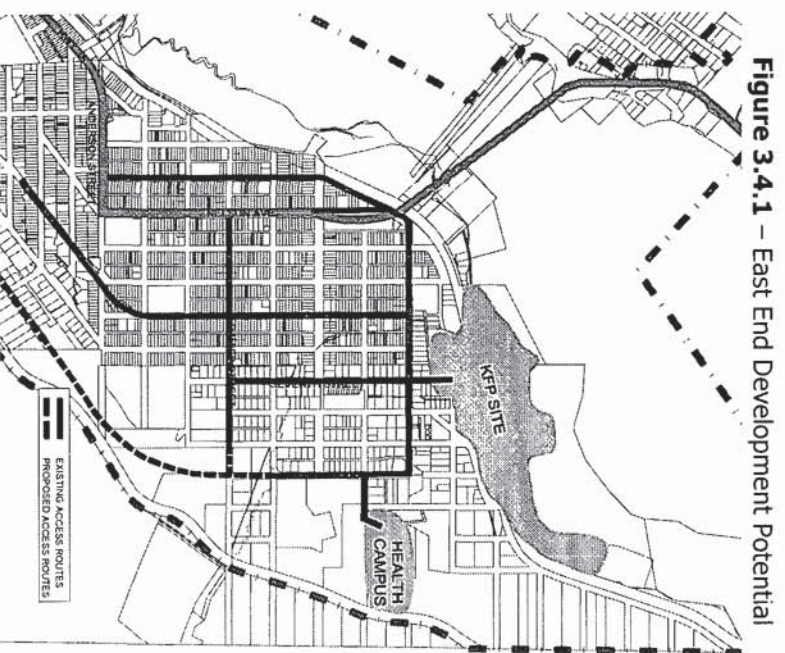


Figure 3.4.1 – East End Development Potential

DEVELOPMENT APPLICATION REVIEW

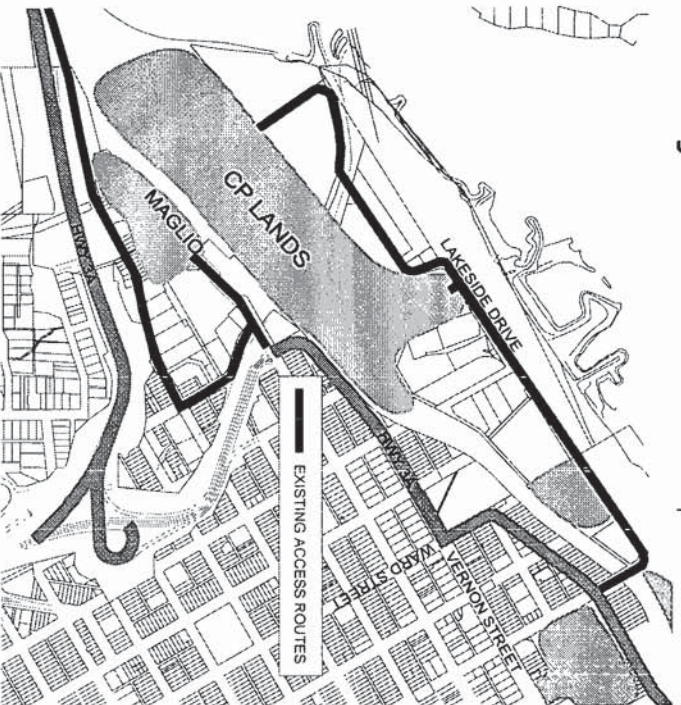
Assuming that the development of this site occurs incrementally over time and that the proposed land uses remain consistent, the area roadway network should be able to accommodate the introduction of components of this development from the perspective of roadway capacity. The impact that such development will have on the surrounding residential land uses may, on the other hand, prove to be a challenge for the community to accept. In any event, from a technical perspective, early development application phases should not need to go through a formal traffic impact study process, but instead a quick assessment of the isolated effects on the Nelson Ave/Kokanee Street intersection, the Nelson Ave/Davies Street intersection and the 2nd Street/Anderson Street intersection should be considered, as these intersections are particularly sensitive to growth in side street traffic volumes. The Nelson Avenue intersection with Elewyn Street may also need to be considered, although, the City's major road network plan would not support the use of this link by substantial volumes of transient traffic. Instead, it should be directed to Davies Street. (i.e. access restrictions may become necessary for Elewyn Street at Nelson Avenue).

3.3.3 Maglio Property

Details pertaining to the redevelopment of this property on Government Road, commonly referred to as the Maglio Property, in the western quadrant of the City (see Figure 3.4.2), are based upon the information provided in conversations with City staff, who confirm that a short-term larger scale commercial 'box' type development opportunity exists at this location, and it would be prudent to consider its implications on the road network at this point in time. This following land use details are assumed in the traffic analysis:

- 9290 m² (100,000 ft²) of commercial space

Figure 3.4.2 – West End Development Potential



The site was assumed to build out in the short-term (5 year) scenario and standard MOT trip generation rates (for Community Commercial) were applied, and the impact of this land use is included in both scenarios in the Future Conditions Assessment

DEVELOPMENT APPLICATION REVIEW

Access to this site is limited to the Baker/Vernon/Hwy 3A intersection to the east and the Hwy 3A/Government intersection to the west. Given the general magnitude of the commercial land use being considered and the very limited details available at this point in time, a formal traffic impact study should be considered in the circumstance of a development application on this property. Such an analysis should consider the impact to the above-noted intersections and perhaps a few more downstream, as well as assess the need for the creation of alternate network connections

(ie. depending upon the size being proposed, a connection to Lakeside Drive may be required or appropriate). Note that the Baker/Vernon/Hwy 3A intersection is particularly sensitive to increases in traffic volumes (it operates as a 4-way stop at present).

3.3.4 CP Lands

Details pertaining to the redevelopment of this property, located in the western quadrant of the City between Lakeside Drive on the north and the CP mainline on the south (see Figure 3.4.2), are based on a site assessment and layout review currently being undertaken. The site offers larger tracts of land available to supplement the City's industrial land base. The following land use details are assumed in the traffic analysis:

- 7.6 acres of light industrial land

The site was assumed to build out in the long-term (20 year) scenario and standard MoT trip generation rates (for light industrial land uses) were applied. The impact of this land use is included in the Future Conditions Assessment

DEVELOPMENT APPLICATION REVIEW

At this point, access to this site is limited to Lakeside Drive. Given the general magnitude of the light industrial land use being considered and the very limited details available at this point in time, a formal traffic impact study should be considered in the circumstance of a development application on this property. Such an analysis should consider the impact to the above-noted intersections and perhaps a few more downstream, as well as assess the need for the creation of alternate network connections (ie. a connection through the site, linking Lakeside Drive to the Government Road area should be considered). In the event of incremental or partitioned applications, it is possible that such a formal analysis will not be required, however, the City's ultimate goal (from a roadway network perspective) for the area should be well-defined.

3.3.5 Real Canadian Wholesale Club

Details pertaining to the redevelopment of this property, centrally located in the City's industrial waterfront area (see Figure 3.4.3), are based on the July 2000 *Real Canadian Wholesale Club Traffic Impact Study* undertaken by Bunt & Associates for Westfair Properties Ltd. The report outlines the following land use details which are assumed in the traffic analysis:

- 4831 m² (52,000 ft²) of commercial space

The site was assumed to build out in the short-term (5 year) scenario and typical trip generation relationships from other similar facilities in BC were applied. The impact of this land use is included in both scenarios in the Future Conditions Assessment.

DEVELOPMENT APPLICATION REVIEW

Direct or formal public access to this site is limited to the Front/Hall intersection to the south, and indirectly through the Front/Poplar and Front/Cedar intersections. As a detailed site traffic impact study has already been undertaken, no additional assessment from a roadway network perspective should be required, assuming that the study has been accepted by the City of Nelson. As the site is presently under construction, this is assumed to be the case. Particular care will need to be given to the Lakeside/Hall,

the Front/Hall intersection and their interaction with the CP mainline, located roughly in the middle of these two intersections.

3.3.6 BCBC Waterfront Lands

Details pertaining to the redevelopment of this property, centrally located in the City's waterfront commercial area (see Figure 3.4.3), are based upon the information provided in conversations with City staff, who confirm that a long-term mixed use type development (commercial w/seniors housing) opportunity exists and will be promoted at this location. While site ownership has changed to a community focused interest group in recent months, the assumed land use scenario has remained consistently vague to this point and, as a result, no additional traffic load has been placed upon the network as a result of this development. The traffic generated is expected to be modest (i.e. seniors housing and local commercial have been discussed) and the ensuing impact of this land use is assumed to be incorporated in the background traffic growth noted in previous sections.

DEVELOPMENT APPLICATION REVIEW

Direct or formal public access to this site is limited to the Front/Hall intersection to the south, and is provided indirectly through the Front/Poplar and Front/Cedar intersections. All of these intersections are sensitive to growth in traffic volumes from the north legs, and as a result the effect of any proposed development (of any size) should be considered at these locations. This can be done informally and it need not be undertaken in a formal impact assessment.

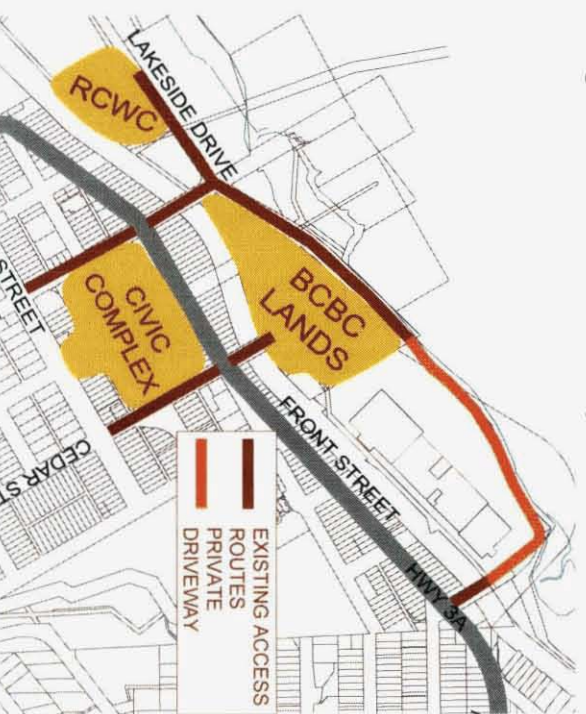
3.3.7 Civic Complex

The specific development details surrounding an upgraded Civic Complex are limited at present, and it consequently has not been specifically included in the analysis. The original concept has been rejected and will be revised, perhaps at another location.

DEVELOPMENT APPLICATION REVIEW

It is important to note that the site's proposed central location and off-peak operating times will not generate the need for substantial roadway modifications. In this regard, assessing the impact of such a facility can be limited to minor operational analysis on the nearby intersections and determining it's needs from a parking perspective.

Figure 3.4.3 – Central Development Potential



4.0 MITIGATION STRATEGY

The aforementioned growth statistics and development scenarios have been considered and applied to the major roadway network in order to develop two (2) future scenarios: one at the five (5) year horizon and one at the twenty (20) year horizon. Once again, given the differing levels of detail required in the review, the results are stratified first by Highway 3A and then by the overall major roadway network within the City.

4.1 Highway 3A

4.1.1 Intersection Capacity Analysis

Similar to Section 2.2.4, intersection capacity analysis was undertaken at the same intersection under the five and twenty year growth scenarios. The results are offered in Table 4.1.

TABLE 4.1- Highway 3A Intersection Capacity Analysis (PM Peak Hour)
Existing and Future Conditions

INTERSECTION	Existing		Future (+5 Years)		Future (+20 Years)	
	LOS	Critical Approach	LOS	Critical Approach	LOS	Critical Approach
Baker/Vernon	C	D NB	F	EB, WB, NB	F	EB, WB, NB
Stanley/Vernon	n/a	C NB, SB	n/a	D NB, SB	n/a	E NB, SB
Ward/Vernon	B	D NB	B	D NB	C	E NB, WB
Hall/Front	B	C NB	C	C NB	C	C NB, EB, WB
Cedar/Front	n/a	F SB	n/a	F SB	n/a	F NB, EB, WB
Poplar/Front	B	B EB, SB	B	B EB, SB	C	D NB, SB
Davies/Nelson	n/a	E WB	n/a	E WB	n/a	F EB
Kokanee/Nelson	n/a	D WB	n/a	D WB	n/a	F WB

As might be expected, the application of the noted growth assumptions begins to degrade the performance of Highway 3A. Short-term intersection failures are noted at the Baker/Vernon intersection (4-way stop), as well as on the side streets (southbound) at the Cedar/Front intersection.

The long-term scenario identifies an additional side street failure at the Kokanee/Nelson intersection. The side street level of service at most other intersections is showing signs of substantial degradation.

While these comments would suggest difficult future circumstances, it is important to note that the Highway 3A 'through' traffic performance remains relatively strong, even in the twenty year scenario.

This further supports the conclusion that a City bypass route or even a 4 lane expansion of Highway 3A is not a necessary consideration at this point in time, under the assumed growth scenarios.

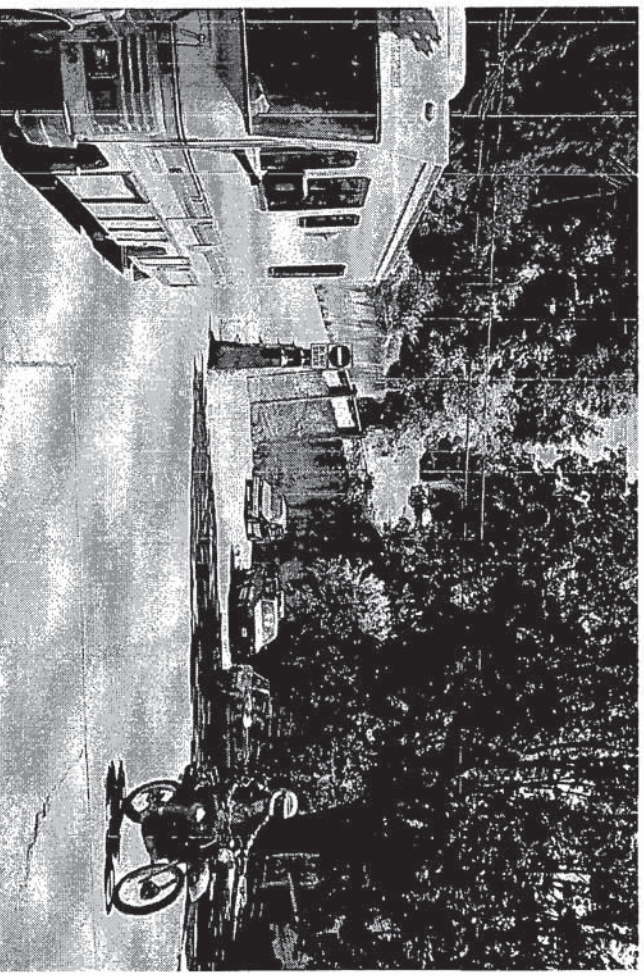
A cursory level sensitivity analysis on these calculations would suggest that similar conclusions would be reached in the event that a higher growth rate was assumed (say 2%). Some of the side street intersections which experience a marginal LOS in Table 4.1 would drop, however, these impacts could be managed and corridor mobility could generally be maintained.

4.1.2 Average Travel Speed

The average peak hour travel speed across the Highway 3A corridor, within the study limits, has been calculated to be 38 km/h in the five (5) year scenario and 37 km/h in the twenty (20) year scenario. This incorporates all of the delay incurred as a result of existing traffic volume and control conditions.

Compared to the initial average travel speed calculation of 39 km/h, these figures further support the conclusion reached in Section 4.1.1, that Highway 3A mobility continues to remain reasonable given the circumstances and the considerable growth horizon.

The unique hillside setting and environmental features have guided the development of an interesting roadway network over the years



Cedar Street Looking South at Baker Street

4.1.3 Baker Street & Vernon Street Intersection



Overall, this intersection is operating reasonably well as a 4-way stop under the current conditions (LOS C w/ collision rate & severity index < provincial averages). The intersection is, however, very sensitive to growth, particularly from the side streets (Baker) and performance will degrade with time, particularly with any development in the industrial area to the west. The noted Improvement Strategy identifies both mobility and safety based improvements required to support the assumed community growth.

Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
RePaving Project	EB & WB LT Bays SB Curb Lane Alignment Across Intersection Pre-Duct for Traffic Control Signal Install Traffic Control Signal	Negligible \$20,000 \$80,000	MoT 50% MoT 50% CoFN 50% MoT 50% CoFN	Current Design Practices Future LOS and Safety Performance Issues Future LOS and Safety Performance Issues
Long Term or w/Development				

DISCUSSION

The concept of introducing a future traffic control signal at this location acknowledges that some higher form traffic control will be required, irrespective of whether additional network connections (ie. a link back to Lakeside) are achieved or not. Note that a modern roundabout could also be considered at this location, but has not been identified as the 'preferred strategy' as additional design elements would need to be considered, which are beyond the scope of this assessment. In this location, a modern roundabout could also function as a significant 'gateway' to the City of Nelson, and be appropriately treated with a significant aesthetic element.

4.1.4 Vernon Street Corridor



The Vernon Street corridor, between the Hwy 3A/Baker intersection and the Ward/Vernon intersection, operates satisfactorily from a roadway capacity perspective. It does, however, possess some urban design challenges which contribute to safety concerns (corridor collision rate > provincial average). In particular, the wide and undefined cross-section contributes to increased pedestrian exposure and driver judgement errors. This type of design issue could be easily considered within the context of the

Ministry of Transportation repaving project.

Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
Repaving Project	Delineation LT Bays Curb Extensions (at Ped X-Walks)	Negligible \$20,000 (4x\$5000)	MoT 50% MoT 50% CoFN	Current Design Practices Current Design Practices

DISCUSSION

The introduction of lane delineation will result in some residual space in the centre of the roadway, which can either be left as painted asphalt or a raised concrete or asphalt median could be introduced. A raised median offers the ancillary benefit of introducing a potential beautification opportunity, although even a low-cost painted median will provide a similar safety benefit. Other considerations include the uncontrolled parking along the north side of the corridor, which, theoretically, should be removed (although the political challenges are noted), as well as individual property access effects.

Curb extensions are recommended at all crosswalk locations to reduce the pedestrian crossing distance and exposure, along with designated and painted left turn bays at all intersections.

4.1.5 Vernon Street & Stanley Street Intersection

This intersection is operating reasonably well from a capacity perspective under current conditions (side street LOS C w/ collision rate & severity index < provincial averages). The intersection approaches are steep, however, and there is a trend of rear-end collisions on the south (Stanley) leg which possesses an ~8% downgrade. Over time, the sidestreet level of service fails due to increasing traffic volumes. Note that a number of comments noted in Section 4.1.4 overlap with this section.



Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
RePaving Project	High Friction Asphalt on South Leg	\$10,000*	50% CoRN 50% MoT	Existing Safety Issue
Long Term	Access Restriction Extend Median Through Intersection	Varies With Length	MoT	Future LOS Issues

* ICBC Investment Potential of \$2,200 in This Improvement

DISCUSSION

As noted, the short-term upgrade concept overlaps with Section 4.1.4. The introduction of high friction or skid resistant asphalt is proposed to offset the approach grade on the south leg. It is recognized that such a treatment may not solve the problem during periods of heavy snow accumulation, however, it will be of benefit during all other circumstances including ice. Long term, access restrictions in the form of an extended median are proposed to offset level of service failures and the ensuing capacity and safety issues that this will generate. No consideration was given to increasing the level of traffic control at this intersection in the long-term due to the number of network alternatives and it's proximity to the more critical Vernon/Ward intersection.

4.1.6 Vernon Street & Ward Street Intersection



One of the pivotal intersections along the Highway 3A corridor through the City of Nelson, this intersection is operating well (particularly for the Highway 3A movements) with a full traffic control signal in place (LOS B w/ collision rate & severity index < provincial averages). Future growth and development continue to be well served at this location (LOS C in the 20 year scenario, although non-Hwy 3A approaches degrade to LOS E). As capacity at this location does not appear to an issue in the long-term,

only safety and design related issues are noted. Note that heavy pedestrian activity exists at this intersection.

Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
RePaving Project	Upgrade Guide Signage Parking Clearance Zone (East Leg) Pavement Marking Upgrades Upgrade Traffic Signal Controller	Negligible Negligible* Negligible*	MoT CoFN MoT 50% MoT 50% CoFN	Current Design Practice Existing Safety Issue Current Design Practice Existing Ped LOS Issue

* ICBC Investment Potential of \$3,284 in These Improvements

DISCUSSION

While this is, and will continue to be a busy area, performance analysis suggests that the current intersection configuration does possess some flexibility and can accommodate the assumed growth scenario with modifications to the signal timing program. A future requirement for a double left-turn (from Vernon onto Ward) may surface at this location, which can be accommodated. Note that this is likely to be required as a result of the left turn queue length interfering with the Vernon/Stanley intersection as opposed to left turn capacity at the intersection. An upgrade to the approach guide signage is recommended to ensure that current design standards are being met (it was noted that the signage was obscured due to foliage and general background distraction in the urban environment during the summer months). Parked vehicles along the east leg of the intersections suffer from poor visibility and a 30 m – 50 m clearance zone should be introduced. Pavement marking upgrades are recommended in the form of tracking for eastbound through traffic to direct them away from parked vehicles, along with the definition of two separate approach lanes on the south leg. An upgrade to the traffic signal controller is recommended to allow for improved pedestrian access to the intersection during the eastbound advance left turn phase.

4.1.7 Front Street (West) Corridor

The Front Street corridor, between the Ward/Vernon intersection and the Front Hall intersection, is a busy stretch of urban arterial roadway, possessing horizontal and vertical grades, on-street parking, bus stops and commercial property and side street access points. Similar to the Vernon Street corridor, some urban design challenges exist which contribute to safety concerns (corridor collision rate \approx provincial average). The problems identified below fall into the category of safety and design improvements, which can be reasonably dealt with through the MoT repaving project.

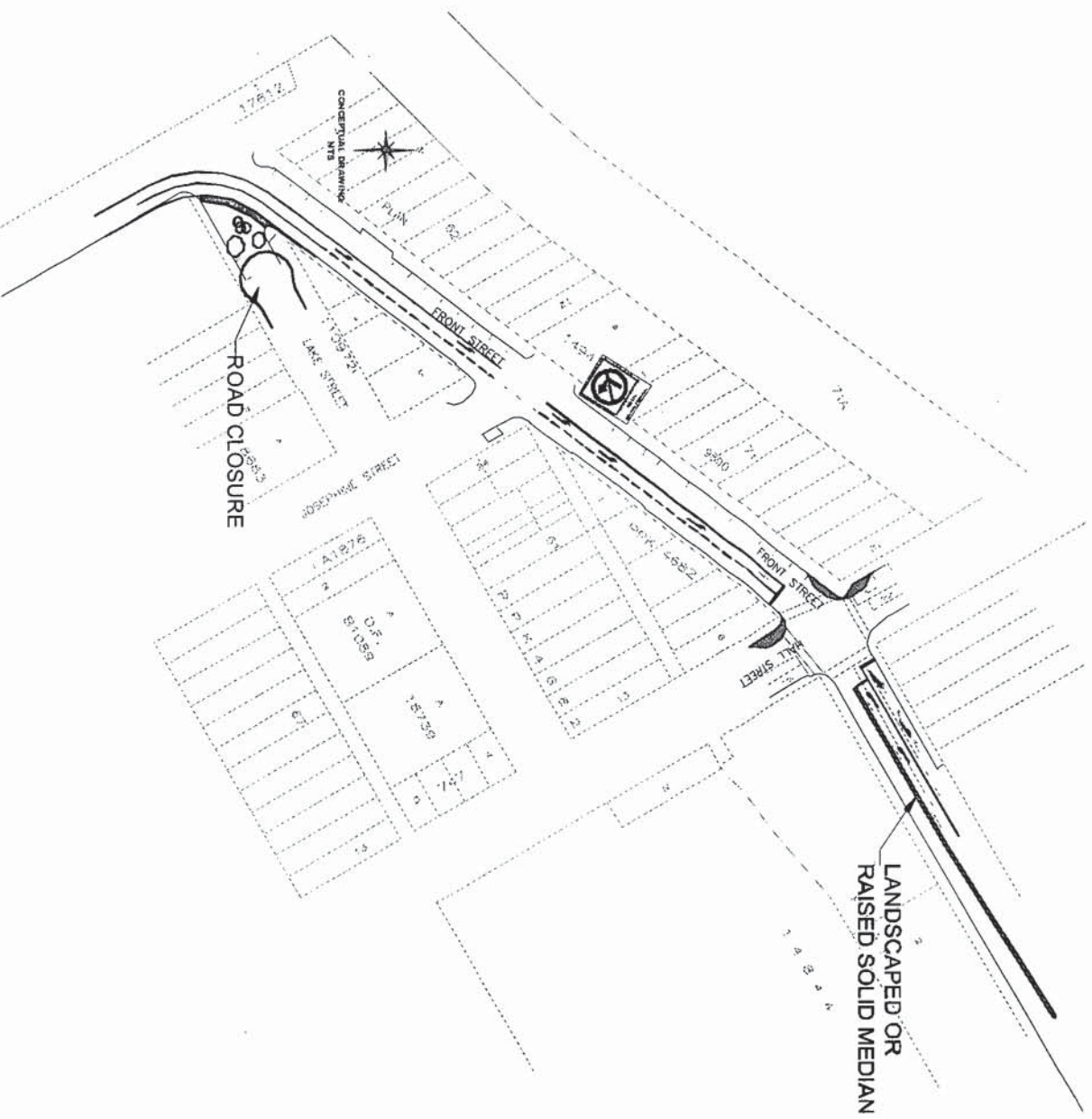


Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
Repaving Project	Upgrade Pavement Markings Parking Clearance Zone-Driveways Roadway Closure at Lake Street	Negligible \$20,000	MoT CoRN 50% MoT 50% CoRN	Current Design Practice Existing Safety Issue Existing Safety Issue

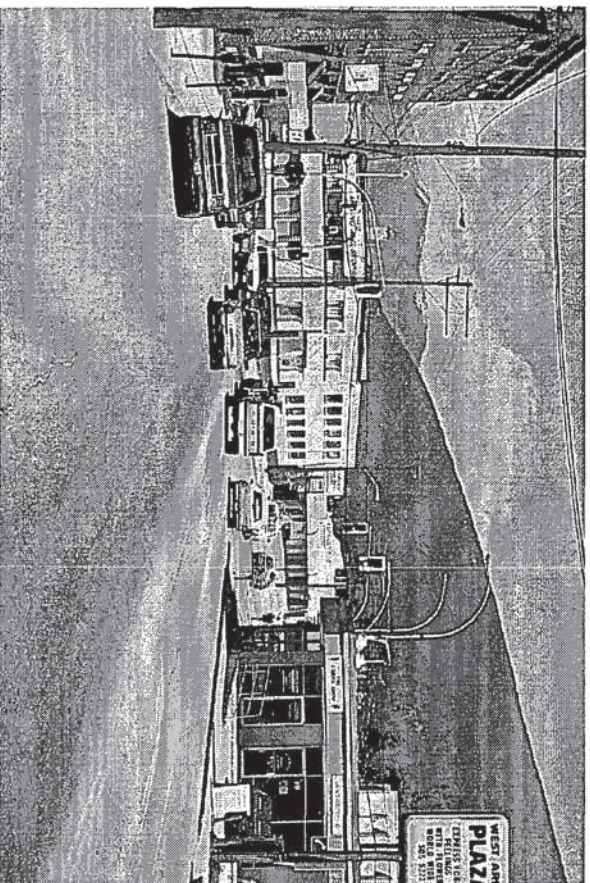
DISCUSSION

The focus of the short-term improvement strategy is to achieve a series of minor upgrades along the corridor, which, when combined, generate a significant mobility and safety benefit. Currently 'through' traffic proceeding north around the Front Street curve arrive in the left-turn lane at the Hall Street intersection. The proposed modification keeps through traffic on Highway 3A in the appropriate lane, while generating a separate left-turn lane for commercial property access. Parking clearance zones are recommended around driveway access point to allow for improved visibility and safety performance along the corridor. A complete roadway closure at Lake Street is proposed in an effort to eliminate a poor design with very limited visibility. The closure introduces an opportunity to develop a small parkette or other form of urban design element. This concept is illustrated graphically in Figure 4.1.7. Curb extensions at the Hall intersection are drawn in concept only, and would need to be considered further in a design context to determine turning radius requirements, etc. Also, a median extending to the east of the Front/Hall intersection is illustrated as a desirable concept as frequent turning movements across the intersection turning lanes cause safety and mobility concerns, however, space limitations would need to be considered further in a design context to determine feasibility.

Figure 4.1.7 – Front Street West Concept



4.1.8 Front Street & Hall Street Intersection



The second of the two main intersections along the Highway 3A corridor through the City of Nelson, this intersection is also operating reasonably well under existing conditions with a full traffic control signal in place (LOS B w/ collision rate & severity index ~ = provincial averages). Future growth and development, however, begin to have an effect on intersection functionality. While the mobility indicators suggest on-going reasonable performance in the future (LOS C), note that the land use scenario for the Waterfront area is not well defined at this point, and given the desire for new and revitalized activity, supportive alternate connections to the Waterfront should be considered. Note that the safety performance of this intersection approaches provincial average levels.

Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
RePaving Project	Upgrade Traffic Signal Head Visibility Parking Clearance Zone Upgrade Traffic Signal Controller	Negligible \$20,000	MoT 50% MoT 50% CoN	Existing Safety Issue Existing Safety Issue Existing Ped LOS Issue

*ICBC Investment Potential of \$18,576 in This Improvement

DISCUSSION

Short-Term efforts are focused upon minor intersection improvements which offer a substantial combined benefit. The intersection performance should be monitored with growth and development as additional land use details for the Waterfront area become available. Ultimately, alternate formal connections to the Waterfront area will be required to support growth. Traffic signal head visibility should be upgraded in recognition of the collision trends discussed previously and the skew in the intersection. Similar to the Ward/Vernon intersection, the traffic signal controller unit should be upgraded to allow for improved pedestrian access to the crossings, and parking clearance zones of 30 m – 50 m should be introduced on all approach legs.

*ICBC Investment Potential of \$3,261 in the Traffic Control Signal

The concept of installing a full traffic control signal at this point in time is based upon the existing performance failures noted at this intersection. If an opportunity exists to achieve this intersection upgrade through other means (ie. development), the addition of the intersection delineation in the short-term (ie. at the time of the repaving program) along with pre-ducting for future traffic control signals would also add a significant benefit at this location in the interim. Other strategies should then be employed to divert side street traffic away from this location until such time that the traffic control signal is in place, such as temporary access restrictions or improved accessibility at other locations. Pavement marking upgrades are proposed to be consistent with the traffic control signal, or with the addition of east and west left turn bays in it's absence. Also, high friction or skid resistant asphalt is proposed along the south leg to oppose the steep approach grade.

4.1.10 Front Street (East) Corridor



The Front Street corridor, between the Front/Hall intersection and the Front/Poplar intersection, is a relatively sound piece of the urban arterial portion of Highway 3A through the City of Nelson. It is characterized by well-spaced, low volume residential side street intersections, with some low turnover on-street-side along the north side. As properties are 'land-locked' to the Highway corridor along this north side, and do not possess driveways, the on-street parking activity seems likely to remain as it currently exists for some time to come. Heavily laden utility poles also line the north side, in very close proximity to the edge of the asphalt roadway, presenting an urban roadway 'clear zone' concern.

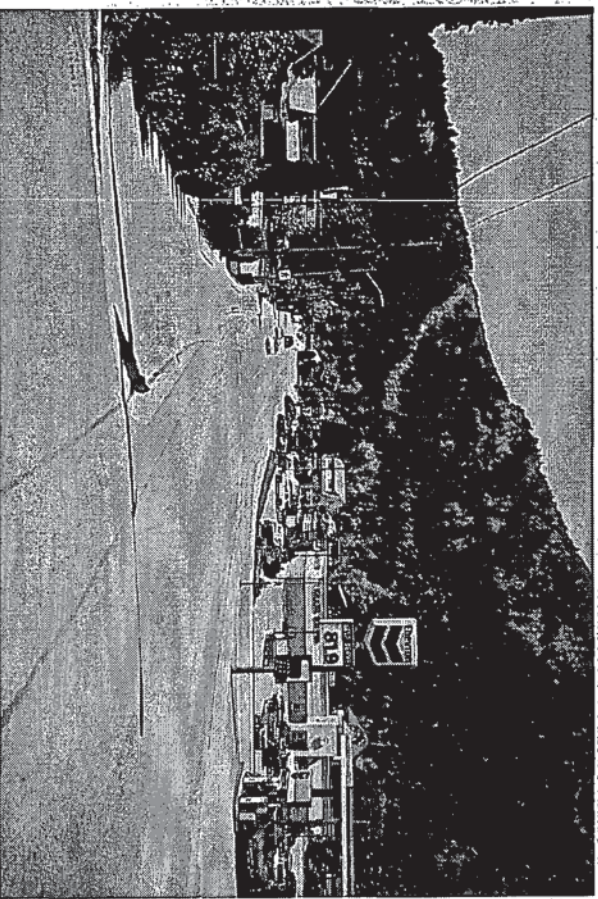
Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
RePaving Project	Upgrade Pavement Markings & Formalize Parking Lane	Negligible	MoT	Existing Safety Issue
	Install Hazard Markers On Poles (TAC WA-36R)	Negligible	MoT	Existing Safety Issue
	Install Nodes Around Open Utility Poles	\$20,000	MoT	Existing Safety Issue

DISCUSSION

As the cost of relocating the utility pole line is deemed to be beyond the scope of the Highway 3A repaving project, a methodology of protecting the through traffic from the hazard is recommended. In this case, by formalizing the parking lane, westbound traffic will be less likely to be driving close to the utility pole line. Where no parking activity exists, a curb extension is proposed around individual poles to again direct traffic away from the line and buffer the pole should a collision occur. Sufficient width exists in the roadway cross-section to deliver this scenario.



4.1.11 Anderson Street Corridor

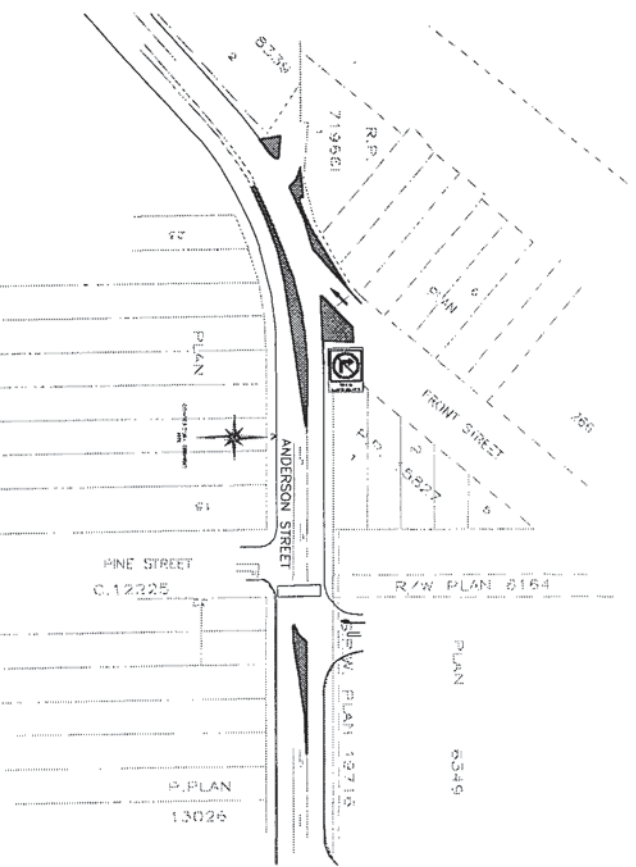


The Anderson Street corridor, between the Front/Anderson intersection and the Anderson/Nelson intersection, is also relatively sound piece of the urban arterial portion of Highway 3A through the City of Nelson. It is characterized by relatively new commercial frontage improvements (curb, gutter and sidewalk) and low volume residential side street intersections. Through the Front Street and Anderson Street intersection, however, an area poor definition and high collision potential and severity exists, as the Y-intersection occurs on a skewed horizontal curve with a commercial access driveway (the segment collision rate < provincial average).

Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
RePaving Project	Channelize Intersection	\$25,000	50% MoT 50% CoRN	Existing Safety Issue

DISCUSSION

Introducing channelization through this intersection can be accomplished with pavement markings, however, a raised asphalt or concrete median is preferred in this circumstance to also control access through this area. The existing commercial access points which are affected all possess reasonable alternatives. A concept plan is offered for consideration.





4.1.12 Anderson Street & Nelson Avenue Intersection



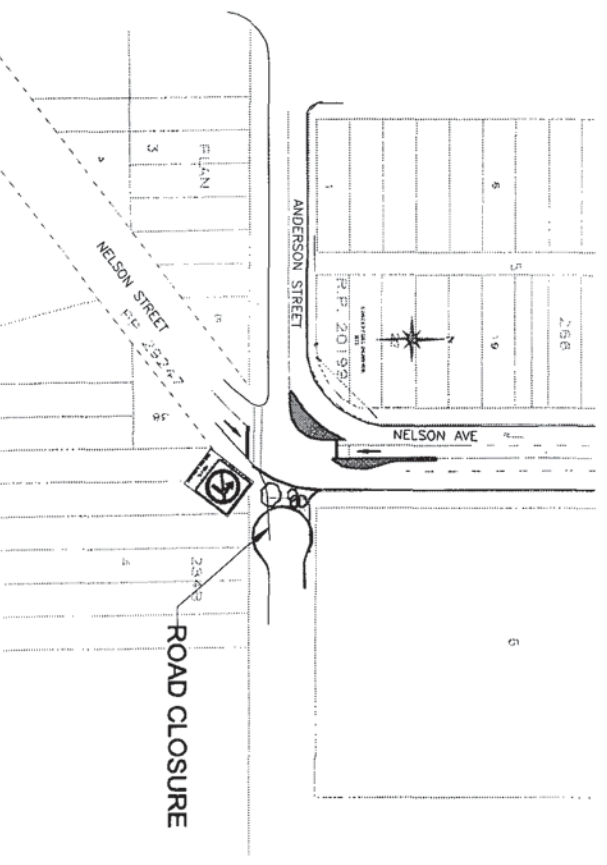
This oddly-configured intersection does not appear to be experiencing any capacity or safety based operational problems at present. The intersection essentially functions as a curve in Highway 3A with two stop controlled side street access points. These side street traffic volumes are noticeably light under existing conditions, and so the intersection functions acceptably. The configuration does suggest a high hazard potential for collision given the uncertain guidance and

high number of non-local motorists during the tourism season.

Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
Repaving Project	Channelize Intersection	\$30,000	50% MoT 50% CoN	Existing Design and Safety Issue

DISCUSSION

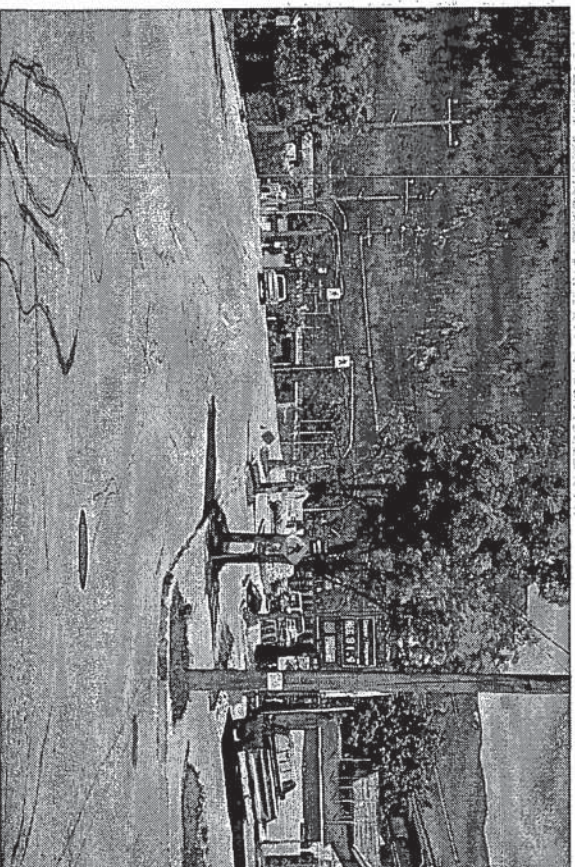
Introducing channelization to reduce the potential for conflicts through this intersection can be accomplished with pavement markings, however, a raised asphalt or concrete island is preferred in this circumstance to also control access and provide guidance through this area. Side street access restrictions are proposed, namely closing the extension of Anderson Street on the east side of the intersection (many reasonable access alternatives exist) and limiting the southern approach leg (Nelson Ave) to through movements only. Clear advance signing would be required on the Highway 3A approaches. A concept plan is offered for consideration.





4.1.13 Nelson Avenue Corridor

The Nelson Avenue corridor, between the Nelson/Anderson intersection and the Nelson/Kokanee intersection, is the only 4 lane portion of urban arterial on Highway 3A through the City of Nelson. It is characterized as a very wide section of roadway, with tree lined boulevards, few direct property access points and well-spaced grid-style intersections. A small amount of low-usage on-street parking exists along the southern portion of the west side of this roadway. While there are no issues with the mobility performance of this corridor, the excessive cross-section width, which is not required from a mobility perspective, contributes to higher travel speeds, low visibility and driver judgment errors from the side streets and long pedestrian crossing exposure times.

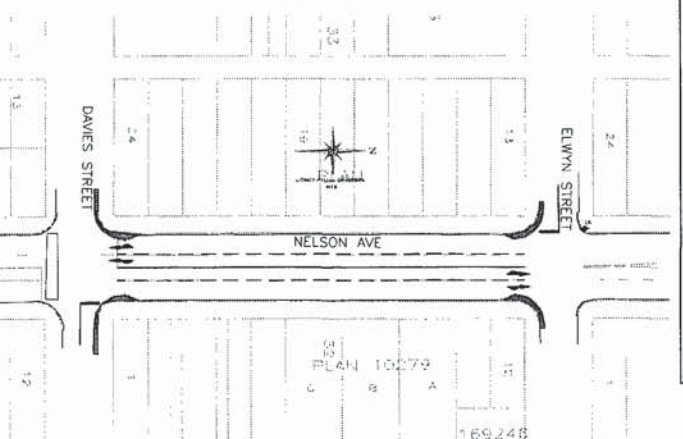


Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
Repaving Project	Modify/Define Cross-Section	Varies*	MOT	Current Design Practice

* ICBC Investment Potential of \$4,853 in This Improvement

DISCUSSION

Modifying the cross-section of Nelson Avenue can be accomplished in a number of ways. While the full four travel lanes are not necessarily required for mobility purposes, it has been indicated by the Ministry of Transportation that they are to be retained. In this context, lane narrowing and improved delineation should be considered in an effort to better define the travel lanes, reduce travel speeds, improve visibility for side street egress and improve upon pedestrian crossing conditions. In addition to clarifying the the preferred cross-section, pedestrian curb extensions should be considered to further improve the environment for pedestrian activity in this area, which is frequented by students of nearby schools. A cross-section concept is offered for consideration.



4.1.14 Nelson Avenue & Davies Street Intersection



This intersection is experiencing operational difficulties at present (side street LOS E w/ collision rate & severity index < provincial averages) as a two-way stop control. The intersection provides the main collector road access to the Fairview neighbourhood and will experience pressure in the future should development plans unfold in the area, as is proposed. Note that the collision trend for this intersection suggests a pattern of side street visibility issues, particularly from the east leg.

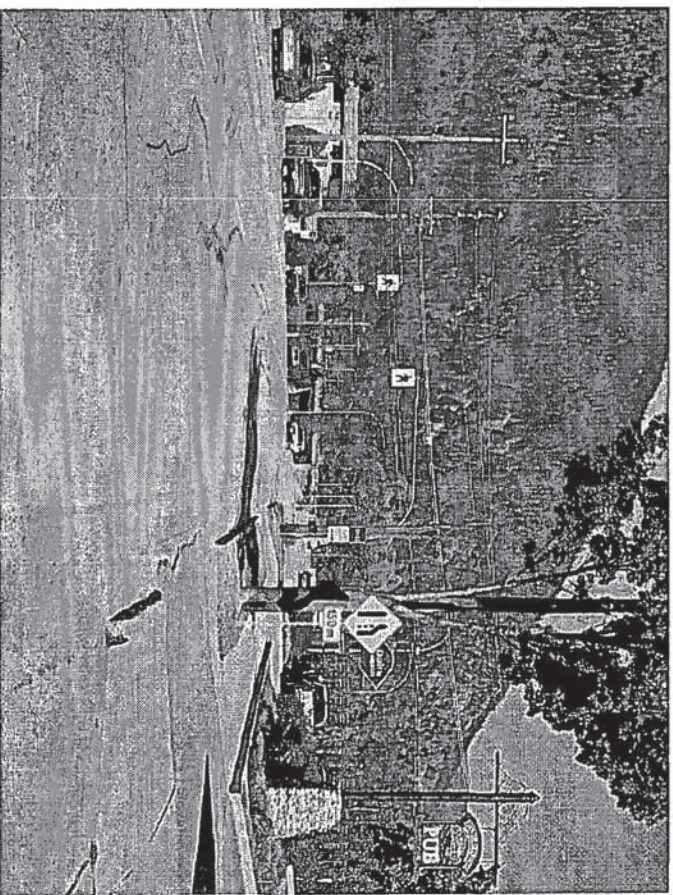
Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
Repeating Project Long Term or w/Development	Pre-Duct for Traffic Control Signal Install Traffic Control Signal	\$20,000 \$80,000	50% MoT 50% CoN 50% CoN	Future LOS and Safety Performance Issues Future LOS and Safety Performance Issues

DISCUSSION

The notion of installing a full traffic control signal at this intersection is based on the designation of Davies Street as the major network link for the Fairview neighbourhood. It would also offer controlled mid-block crossing opportunities for pedestrians. Until a traffic control signal is warranted, curb extensions could offer improved side street visibility without affecting the boulevard trees, while also offering to reduce pedestrian exposure to the through traffic on Nelson Avenue. Note that the ultimate solution to this intersection is tied to the direction taken on the overall Nelson Avenue cross-section as discussed in Section 4.1.13. Note that a modern roundabout could also be considered at this location, but has not been identified as the 'preferred strategy' as additional design elements would need to be considered, which are beyond the scope of this assessment. In this location, a modern roundabout could also function as a significant 'gateway' to the City of Nelson, and be appropriately treated with a significant aesthetic element.

4.1.15 Nelson Avenue & Kokanee Street Intersection

This intersection is experiencing relatively minor operational difficulties at present (side street LOS D w/ collision rate < provincial averages & severity index > provincial averages) as a two-way stop control. A relatively high volume of pedestrians cross Nelson Avenue at this location. Note that the collision trend for this intersection suggests a pattern of side street visibility issues, particularly from the east leg, similar to the conditions at Davies Street. An on-ramp from Gordon Street as it passes under the Kootenay Lake Bridge forms an odd 5th leg to this intersection, which is inconsistent with driver expectation and generates a high potential for collision.



Timeframe	Proposed Upgrade	Estimated Cost	Funding Responsibility	Rationale
Repaving Project	Curb Extensions (at Ped X-Walks) Roadway Closure at On-Ramp (5 th Leg) Access Restrictions	\$10,000 \$25,000 Varies	50% MoT 50% CoFN 50% MoT 50% CoFN MoT	Current Design Practice Existing Safety Issue Future LOS and Safety, Performance Issues
Long Term				

DISCUSSION

Unlike Davies Street, Kokanee Street is not part of the major roadway network, and is very close to the Kootenay Lake Bridge. Consequently, it is not being considered for additional forms of traffic control in the future when growth and development generates further side street traffic delays. A modern roundabout could also be considered at this location, but has not been identified as the 'preferred strategy' as additional design elements would need to be considered, which are beyond the scope of this assessment. In this location, it would also function as a significant 'gateway' to the City of Nelson.

4.2 ICBC Investment Analysis

ICBC seeks opportunities to invest in roadway safety improvements where a demonstrated benefit to the historic collision claims performance of the facility can be achieved. Presently, a return ratio of 3:1 over a two year period is the benchmark for indicating where an opportunity might be considered for advanced levels of assessment.

In order to determine what level of annual road savings might be achieved by the various safety improvements identified along the Highway 3A corridor in Nelson, collision reduction factors were applied. The collision reduction factors were sourced from ***Safer Roads: A Guide to Roadway Safety Engineering*** – K.W. Ogden, Ashgate 1996.

As noted, an overall corridor wide annual collision cost savings in the order of \$129,962 can be achieved through the implementation of the safety improvement measures noted in this report. Given a 3:1 investment return benchmark, an ICBC investment of \$86,641 could be considered.

The individual improvement elements which generate this overall corridor investment potential are summarized in Table 4.2, while each item was also listed in the relevant sub-section of Section 4.1. From the analysis, it is evident that the single largest investment opportunity is the entire repaving project itself, which will introduce an improved surface and delineation (assuming the pavement markings are upgraded to current standards for design and visibility), guidance and improved sidewalk separation along the entire corridor. Improvements to the traffic control signal head visibility at the Front and Hall intersection is also noted as being a possible significant investment opportunity, effectively mitigating, to the extent possible, the skew in the Highway 3A alignment at this point. While the other identified investment opportunities are individually relatively minor in nature, they do add up to represent a significant opportunity (~\$16,674).

The single greatest limitation to identifying advanced levels of investment opportunity for ICBC was the condition of the base data. In many cases, the data simply was not specific enough in incident description and/or location to be included in the analysis. As a result, the overall investment potential appears relatively modest given the length of the corridor and the number of intersections and incidents that exist.

TABLE 4.2 – Collision Savings Potential

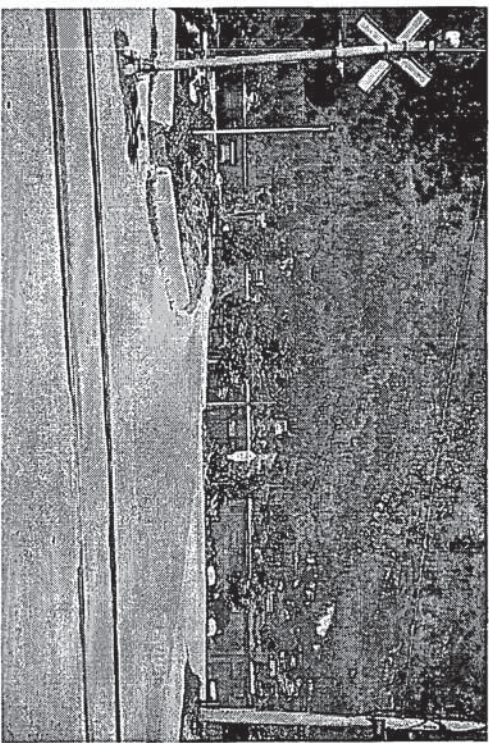
Location	Proposed Improvements	Target Collision Types	Target Collisions # Injury # PDO	Collision Mod Factors Range Assumed	Annual Collision Reduction	Average Collision Cost	Annual ICBC Cost Savings
Corridor Wide	Resurfacing	Rear End, Off-Road, Out of Control	34 71	10%-40% 25%	5.25	\$ 9,177	\$ 48,179
	Delineation	Lane Change, Rear End, Pedestrians Off Road, Out of Control	25.5 53.25	15%-25% 20%	3.15	\$ 9,177	\$ 28,908
Vernon & Stanley	Channelization Skid Resistant Pavement	Rear End Rear End	1 5	40%-60% 50%	0.6	\$ 5,500	\$ 3,300
Vernon & Ward	Intersection Guidance	Read End, Reversing	5.4	20%-40% 30%	0.324	\$ 5,110	\$ 1,656
		Sideswipe	8	30%-60% 40%	0.64	\$ 5,110	\$ 3,270
Front & Hall	Signal Head Visibility	Left Turn	6 3	30%-80% 45%	1.62	\$ 17,200	\$ 27,864
Front & Cedar	Traffic Control Signals	Crossing, Right Angle Rear End	2 4 (2.40)	30%-60% 45% (30%-50%) (0)	0.54 (0.19)	\$ 9,400 \$ (960)	\$ 5,076 \$ (184)
	Visibility/Geometry	Crossing, Right Angle, Rear End	2 4.8	30%-50% 40%	0.544	\$ 8,482	\$ 4,614
Nelson Ave Corridor	X-Section Revisions	All	4.2 10.2	30% 30%	0.864	\$ 8,425	\$ 7,279
Total Annual Corridor Cost Reductions							\$ 129,962

4.3 City of Nelson Major Roadway Network

Issues surrounding the City of Nelson Major Roadway Network are listed in order of priority.

4.3.1 Waterfront Area (Lakeside Drive) Access

Formal public access to the Waterfront Area is limited to Hall Street, through the busy Hall/Front intersection. While access can be achieved through both the Poplar and Cedar intersections, the roadway connections both traverse privately held property. Considering the desire to foster and promote alternative and more intense public and private land uses along the Waterfront area, formalizing and improving access is critical.



In this regard, the following mitigation strategy is offered in response to this current situation:

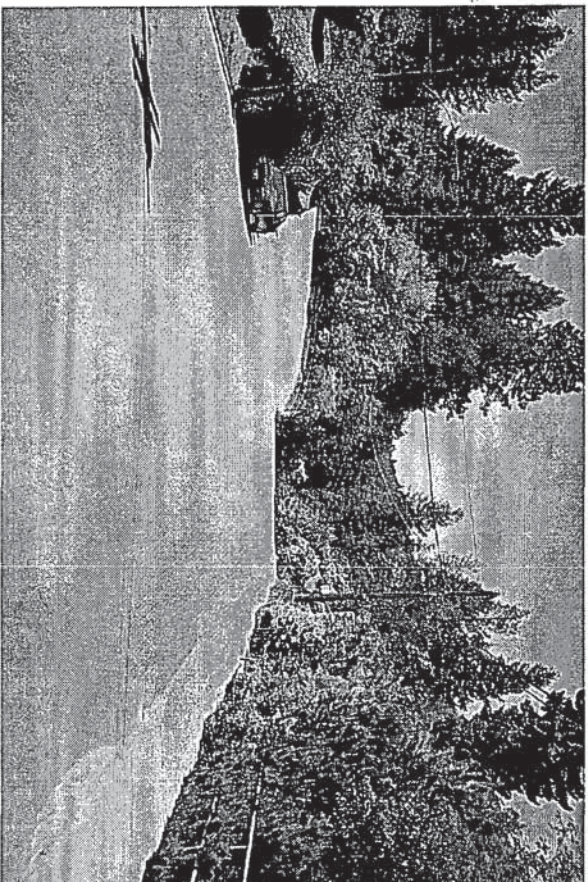
- Amend the OCP Major Roadway Network Plan to identify the Cedar connection.
- Formalize a public connection to the Poplar Street intersection.
- Formalize a public connection to the Cedar Street intersection.

Strategy	Roadway Class	ROW	Implementation Method
Poplar Access	Collector	20 m	Land Acquisition and Road Construction Through Property Redevelopment
Cedar Access	Collector	20 m	Road Construction Through Property Redevelopment

While a significant benefit to roadway network connectivity and development could be achieved by considering a direct link between Lakeside Drive in the west and Davies or Gordon in the east, discussion with City staff suggest that such connections are not likely achievable. Consequently, they have not been considered further in this analysis.

Formalizing access to the Waterfront area will force confirmation of the CPR crossing regulations and requirements. Such a confirmation process should be soon, as in our experience it can trigger lengthy negotiations. The City of Nelson, supported by the Ministry of Transportation, should seek approval for all future public crossings of the railway line as discussed in this report.

4.3.2 Downtown East-West Connectivity



As discussed previously, the City's Major Roadway Network Plan relies heavily on the Highway 3A corridor functioning as the primary arterial roadway. While this has served the community in the past, the functional limits of the corridor's capacity will begin to become an issue in the coming years with growth. Consistent with the City's desire to avoid the need to add an additional 2 lanes of capacity (resulting in 4 lane facility) to this corridor in the future (as noted in Section 1.0), serious

consideration should be given to the creation and formalization of a supporting major network element. While links currently exist which serve this function (High Street, Morgan Street, Gyro Park Road...), they are circuitous and not identified as major network elements within the OCP. As Highway 3A capacity issues are not predicted to be critical in the short-term, such a connection could be achieved incrementally over the course of many years, to avoid the incurrence of major single cost elements and to take advantage of redevelopment opportunities. A functional design of the connection should be pursued to prove out the connections' feasibility, property requirements and ultimate construction costs. Opportunities for cost-sharing with the Ministry of Transportation should also be explored. See Figure 4.2.

In this regard, the following mitigation strategy is offered in response to this current situation:

- Amend the OCP Major Roadway Network Plan and formalize an alternate downtown connection, using the Vernon, Edgewood, High corridor, connecting to Nelson Avenue. This will require some intersection realignment and road widening.

Strategy	Roadway Class	ROW*	Implementation Method
Cedar	Collector	20 m	City Capital Funding
Edgewood	Collector	20 m	City Capital Funding
Park	Collector	20 m	City Capital Funding
High	Collector	20 m	City Capital Funding
Nelson	Collector	20 m	City Capital Funding

* Denotes Ultimate Desired ROW, Although Functionality Can Be Achieved on a 10m Wide Asphalt Roadway

While the topography in the area would suggest that achieving this link would be a costly undertaking, alternate design guidelines for hillside or topographically challenging areas should be considered to both keep costs realistic and to respect the environment through which the roadways will pass.

4.3.3 Government Road Industrial Area Access

As noted in Section 3.0, development opportunities in the commercial/industrial land base bound by Government Road, Highway 3A and the Waterfront are significant. In this regard, a concept for a strong supporting major roadway network should be in place to support the land use and to maximize opportunities to achieve portions of this network through property development and redevelopment. A strong link from Lakeside Drive through to Highway 3A is required (other than via the Baker intersection) as well as an improved internal circulation route. Such connections would provide support to the Highway 3A corridor, creating a more robust roadway network and allow for increased land use densities which are not hindered by roadway capacity issues. See Figure 4.2.



In this regard, the following mitigation strategy is offered in response to this current situation:

- Amend the OCP Major Roadway Network Plan to identify a connection.
- Formalize the connection, using the Lakeside, Baker, and Government corridor.

Strategy	Roadway Class	ROW	Implementation Method
Lakeside	Collector	20 m	Land Acquisition and Road Construction Through Property Redevelopment
Internal Circulation Link	Collector	20 m	City Capital Funding and Land Acquisition and Road Construction Through Property Redevelopment
Government	Collector	20 m	City Capital Funding

4.3.4 Rosemont Neighbourhood Major Roadway Network



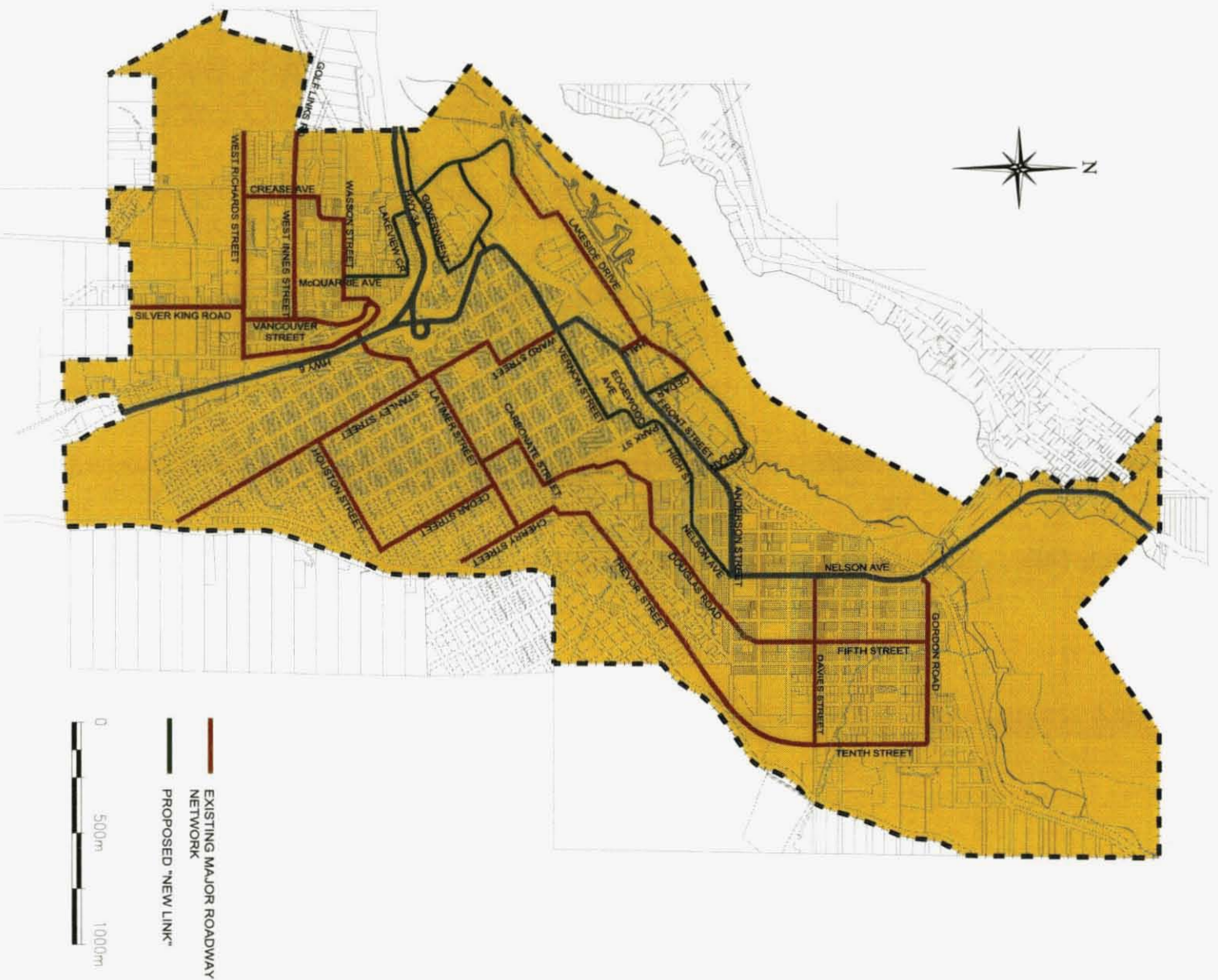
status in the future. The link is one of the two critical access points to the community.

In this regard, the following mitigation strategy is offered in response to this current situation:

- Amend the OCP Major Roadway Network Plan to identify the existing Lakeview/McQuarrie connection.

The Rosemont Neighbourhood, within the context of the City of Nelson, is isolated between Highway 3A to the north, Highway 6 to the east. Access to Highway 6 is provided via the Observatory Street Interchange, and to Highway 3A via the Lakeview Crescent intersection. This latter link, however, is not identified as a major roadway network element within the OCP Major Roadway Network Plan, which could threaten it's

Figure 4.2 – Proposed New Major Roadway Network Plan



Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

Inventory Item	Primary Key	XSP	Attributes	Chainage		Length	Modification Date
				Start	End		
SIGN	2271844	LS	PB BC Parks Branch East Telspar 1 No PB-32-5 A SYRINGA/CREEK/PROVIN TURNOFF 2KM	0.657	0.657		2010-06-22
SIGN	2271829	RS	I-020-R Rest Area RIGHT ARROW West Telspar 1 No	1.105	1.105		2010-06-22
SIGN	2271862	RS	I-012 Litter Barrel for Tourists Only Others Dumping Refuse will be Prosecuted North No Post 0 No OTHERS DUMPING REFUS	1.266	1.266		2010-06-22
SIGN	2271879	RS	P-015 No Camping or Overnight Parking North Telspar 1 No	1.266	1.266		2010-06-22
SIGN	2271861	RS	I-024 (Name) REST AREA Help Us Keep it Clean MoT (Name) District (Name) Community West Wood 1 No BRILLIANT REST AREA	1.290	1.290		2010-06-22
SIGN	2271830	LS	I-020-L Rest Area LEFT ARROW West Telspar 1 No	1.318	1.318		2010-06-22
SIGN	2271817	RS	PS-009 Do Not Pass School Bus symbol When Lights Flashing East Telspar 1 No	2.354	2.354		2010-06-22
SIGN	2271877	RS	W-022-U () km/h tab West Telspar 1 No ADVISORY SPEED 80KM/H	2.550	2.550		2010-06-22
SIGN	2271873	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No MAX 90KM/H	2.701	2.701		2010-06-22
SIGN	2271880	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 80KM/H	2.706	2.706		2013-05-02
SIGN	2271837	RS	I-056-1 Fruit Stand Unknown Telspar 1 No	5.306	5.306		2010-06-22
SIGN	2272013	RS	W-054-L Hazard marker - left West Telspar 1 No	6.848	6.848		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271989	RS	R-003 POSTED SPEED () km/h AHEAD ARROW West Telspar 1 No MAX 80KM/H AHEAD	7.293	7.293		2010-06-22
SIGN	2271987	RS	PS-001-TCX 50 km/h When Children on Highway tab Unknown No Post 0 No	7.489	7.489		2010-06-22
SIGN	2272007	RS	PS-001 School Area Ahead symbol Unknown Telspar 1 No 	7.489	7.489		2010-06-22
SIGN	2272008	RS	R-022-1 Do Not Pass symbol Unknown Telspar 1 No	7.659	7.659		2010-06-22
SIGN	2272021	LS	R-023 Passing Permitted symbol Unknown Telspar 1 No 	7.818	7.818		2010-06-22
SIGN	2272006	RS	PS-001 School Area Ahead symbol Unknown Metal 1 No 	7.869	7.869		2010-06-22
SIGN	2272027	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol Unknown No Post 0 No	7.973	7.973		2010-06-22
SIGN	2272030	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol Unknown No Post 0 No	7.973	7.973		2010-06-22
SIGN	2272028	LS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol Unknown No Post 0 No	7.973	7.973		2010-06-22
SIGN	2272026	LS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol Unknown No Post 0 No	7.973	7.973		2010-06-22
SIGN	2272187	RS	R-023 Passing Permitted symbol Unknown Telspar 1 No 	8.185	8.185		2010-06-22
SIGN	2272159	LS	R-022-1 Do Not Pass symbol Unknown Telspar 1 No	8.192	8.192		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2272117	LS	PS-001-TCX 50 km/h When Children on Highway tab Unknown No Post 0 No	8.292	8.292		2010-06-22
SIGN	2272154	LS	PS-001 School Area Ahead symbol Unknown Telspar 1 No	8.292	8.292		2010-06-22
SIGN	2272118	LS	PS-009 Do Not Pass School Bus symbol When Lights Flashing Unknown Telspar 1 No	8.417	8.417		2010-06-22
SIGN	2272037	LS	W-035 DO NOT USE-Trucks Turning Unknown Telspar 1 No	8.908	8.908		2010-06-22
SIGN	2778243	RS	SA-R10 (Service Type) text 1 (Business Name) panel (LEFT or RIGHT) ARROW South Telspar 2 No SA-31-3A-524 03-AUG-06 GLADE GENERAL STORE	10.518	10.518		2010-06-22
SIGN	2778244	RS	G-007-3 OH Double (Street Name) - Overhead South Telspar 2 No 03-AUG-06	10.597	10.597		2010-06-22
SIGN	2778246	LS	W-054-R Hazard marker - right North Round Steel 1 No 03-AUG-06 ON GR	10.725	10.725		2010-06-22
SIGN	3183511	RS	W-054-R Hazard marker - right West Round Steel 1 No	10.856	10.856		2013-04-26
SIGN	3183513	RS	R-002-U YIELD symbol West Telspar 1 No	10.878	10.878		2013-04-26
SIGN	3183512	RS	W-054-D Hazard marker - double West Telspar 1 No	10.880	10.880		2013-04-26
SIGN	3183514	RS	R-002-U YIELD symbol West Telspar 1 No	10.883	10.883		2013-04-26
SIGN	3183517	LS	R-009-1U Do Not Enter symbol South No Post 0 No 08-AUG-06	10.883	10.883		2013-04-26

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2778390	LS	R-009-1U Do Not Enter symbol South No Post 0 No 08-AUG-06 LEFT EXIT ISLAND	10.885	10.885		2013-04-26
SIGN	3183529	LS	R-002-U YIELD symbol West No Post 0 No	10.899	10.899		2013-04-26
SIGN	2778345	RS	R-009-1U Do Not Enter symbol North No Post 0 No 08-AUG-06 RIGHT EXIT ISLAND	10.901	10.901		2013-04-26
SIGN	3183525	LS	R-002-U YIELD symbol West No Post 0 No	10.901	10.901		2013-04-26
SIGN	3183522	LS	W-054-D Hazard marker - double East Telspar 1 No 	10.903	10.903		2013-04-26
SIGN	2778348	RS	R-009-1U Do Not Enter symbol North No Post 0 No 08-AUG-06	10.903	10.903		2013-04-26
SIGN	2778281	LS	G-007-3 OH Double (Street Name) - Overhead North Telspar 2 No 08-AUG-06	11.192	11.192		2010-06-22
SIGN	2778282	LS	SA-R10 (Service Type) text 1 (Business Name) panel (LEFT or RIGHT) ARROW North Telspar 2 No SA-31-3A-525 08- AUG-06 GLADE GENERAL STORE	11.290	11.290		2010-06-22
SIGN	2272128	LS	R-007-1 Slower Traffic Keep Right Unknown Telspar 1 No	11.971	11.971		2010-06-22
SIGN	2272147	LS	W-054-R Hazard marker - right Unknown Telspar 1 No 	12.024	12.024		2010-06-22
SIGN	2272172	RS	W-054-L Hazard marker - left Unknown Telspar 1 No 	12.024	12.024		2010-06-22
SIGN	2272173	RS	W-054-L Hazard marker - left Unknown Telspar 1 No 	12.024	12.024		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2272148	LS	W-054-R Hazard marker - right Unknown Telspar 1 No 	12.024	12.024		2010-06-22
SIGN	2272146	RS	W-054-R Hazard marker - right Unknown Telspar 1 No 	12.152	12.152		2010-06-22
SIGN	2272171	LS	W-054-L Hazard marker - left Unknown Telspar 1 No 	12.165	12.165		2010-06-22
SIGN	3183744	RS	W-054-D Hazard marker - double West Telspar 1 No 	12.304	12.304		2013-05-02
SIGN	2271814	LS	G-006 Distance Guide - Custom Unknown Metal 1 No 31-68 CASTLEGAR 19/TRAIL 5	13.956	13.956		2010-06-22
SIGN	2272082	RS	W-008-U T-Intersection symbol Unknown Telspar 1 No 	14.009	14.009		2010-06-22
SIGN	2272087	RS	R-003 POSTED SPEED () km/h AHEAD ARROW East Telspar 1 No MAX 80KM/H AHEAD	14.082	14.082		2010-06-22
SIGN	2271911	RS	G-011-2 BC Highway (Number) Route marker West No Post 0 No ROUTE 3A	14.184	14.184		2010-06-22
SIGN	2271937	RS	G-011-TB2 Junction tab West Telspar 1 No 	14.184	14.184		2010-06-22
SIGN	2271910	RS	G-011-2 BC Highway (Number) Route marker West No Post 0 No ROUTE 6	14.184	14.184		2010-06-22
SIGN	2271912	RS	G-011-2 BC Highway (Number) Route marker West Telspar 1 No ROUTE 6	14.235	14.235		2010-06-22
SIGN	2271913	RS	G-011-2 BC Highway (Number) Route marker West No Post 0 No ROUTE 3A	14.235	14.235		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271931	RS	W-007-1U Side-road symbol - left/right West Telspar 2 No	14.288	14.288		2010-06-22
SIGN	2271932	LS	W-007-1U Side-road symbol - left/right East Telspar 1 No	14.297	14.297		2010-06-22
SIGN	2271919	RS	SA Service & Attraction West Telspar 2 No HUBBYS BURGERS	14.341	14.341		2010-06-22
SIGN	2271893	LS	G-011-TC2 West tab East No Post 0 No	14.445	14.445		2010-06-22
SIGN	2271914	LS	G-011-2 BC Highway (Number) Route marker East Metal 1 No ROUTE 3A	14.445	14.445		2010-06-22
SIGN	2271891	LS	W-037-RU Merging Traffic Right symbol East Telspar 1 No	14.485	14.485		2010-06-22
SIGN	2481250	LS	W-055-2 Yellow delineator marker West Plastic 1 No	14.814	14.814		2010-06-22
SIGN	2481248	RS	G-011-TC2 West tab East No Post 0 No	14.827	14.827		2010-06-22
SIGN	2481249	RS	G-011-TC3 North tab East No Post 0 No	14.860	14.860		2010-06-22
SIGN	2481253	LS	G-011-2 BC Highway (Number) Route marker East No Post 0 No ROUTE 6	14.879	14.879		2010-06-22
SIGN	2481257	RS	W-006-U Crossroad symbol Unknown Telspar 1 No	14.900	14.900		2010-06-22
SIGN	2481255	RS	G-008-1A Single (Street Name) Ahead - Side Mount Unknown No Post 0 No GRANITE RD AHEAD	14.932	14.932		2010-06-22
SIGN	2481259	RS	R-050 Chains Mandatory on All Tires of Drive Axle Beyond This Point Unknown No Post 0 No	14.932	14.932		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2481260	RS	G-006 Distance Guide - Custom Unknown Metal 1 No 31-72 CASTLEGAR 45/TRAIL 7	15.002	15.002		2010-06-22
SIGN	2481256	LS	R-004 Maximum POSTED SPEED () km/h Unknown Telspar 1 No MAX 90KM/H	15.035	15.035		2010-06-22
SIGN	2481245	LS	R-004 Maximum POSTED SPEED () km/h North Telspar 1 No MAX 60KM/H	15.035	15.035		2010-06-22
SIGN	2481295	LS	W-055-1 White delineator marker Unknown Plastic 1 No	16.569	16.569		2010-06-22
SIGN	2481298	RS	R-022-1 Do Not Pass symbol West Telspar 1 No	16.578	16.578		2010-06-22
SIGN	2481268	LS	W-055-1 White delineator marker Unknown Plastic 1 No	16.639	16.639		2010-06-22
SIGN	2481270	RS	W-007-1U Side-road symbol - left/right East Telspar 1 No	16.736	16.736		2010-06-22
SIGN	2481264	RS	I-056-1 Fruit Stand East No Post 0 No	16.740	16.740		2010-06-22
SIGN	2481263	LS	W-048 Divided Highway Ends symbol Unknown No Post 0 No TRAFFIC ISLAND SYMB	17.029	17.029		2010-06-22
SIGN	2481269	LS	W-054-R Hazard marker - right Unknown Telspar 1 No	17.041	17.041		2010-06-22
SIGN	2481265	LS	W-054-R Hazard marker - right Unknown No Post 0 No TRAFFIC ISLAND	17.083	17.083		2010-06-22
SIGN	2481244	LS	W-054-L Hazard marker - left Unknown Telspar 1 No	17.217	17.217		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2481252	RS	W-055-1 White delineator marker North Plastic 1 No 	17.489	17.489		2010-06-22
SIGN	2481275	RS	G-006 Distance Guide - Custom Unknown Metal 1 No 31-103 CASTLEGAR 37/TRAIL 6	19.493	19.493		2010-06-22
SIGN	2481262	RS	W-054-L Hazard marker - left Unknown Telspar 1 No 	20.385	20.385		2010-06-22
SIGN	2481266	LS	W-055-1 White delineator marker Unknown Plastic 1 No 	21.420	21.420		2010-06-22
SIGN	2481267	LS	W-055-1 White delineator marker Unknown Plastic 1 No 	21.420	21.420		2010-06-22
SIGN	2481287	RS	W-055-1 White delineator marker Unknown Plastic 1 No 	21.855	21.855		2010-06-22
SIGN	2481288	RS	W-064-1 Deer symbol East Telspar 1 No FOR 8 KM	22.713	22.713		2010-06-22
SIGN	2481286	RS	LR Local Radio East Telspar 1 No LR-31-3A-3	23.144	23.144		2010-06-22
SIGN	2481274	RS	LR Local Radio East Telspar 1 No LR-31-3A-8	24.044	24.044		2010-06-22
SIGN	2481283	RS	W-007-1U Side-road symbol - left/right West Telspar 1 No	24.207	24.207		2010-06-22
SIGN	2481284	RS	G-007-1 (Street Name) - Side Mount West No Post 0 No CORRA-LYNN	24.225	24.225		2010-06-22
SIGN	2481280	LS	G-008-1A Single (Street Name) Ahead - Side Mount Unknown No Post 0 No BONNINGTON RD AHEAD	25.838	25.838		2010-06-22
SIGN	2481246	RS	W-001-LX CURVE LEFT ARROW North Wood 1 No	27.300	27.300		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

Inventory Item	Primary Key	XSP	Attributes	Chainage		Length	Modification
				Start	End		
SIGN	2481271	RS	W-054-L Hazard marker - left North Telspar 1 No	28.883	28.883		2010-06-22
SIGN	2481272	RS	W-054-L Hazard marker - left Unknown Telspar 1 No	29.496	29.496		2010-06-22
SIGN	2481273	M	W-054-L Hazard marker - left West Telspar 1 No	29.543	29.543		2010-06-22
SIGN	2481285	M	G-006 Distance Guide - Custom North Metal 1 No 31-69 NELSON 21/CRANBROOK	29.585	29.585		2010-06-22
SIGN	2481278	RS	I-065 DO NOT USE-Please Avoid Use of Engine Brake in Urban Areas East Telspar 1 No	29.797	29.797		2010-06-22
SIGN	2481282	RS	W-054-L Hazard marker - left East Telspar 1 No	29.942	29.942		2010-06-22
SIGN	2481279	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No ON LAMP STANDARD; DOUBLE ARROW	30.121	30.121		2010-06-22
SIGN	2481281	LS	W-041-1TD Slippery When Frosty tab East Telspar 1 No	30.414	30.414		2010-06-22
SIGN	2481276	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) West Metal 1 No RIGHT ARROW	30.439	30.439		2010-06-22
SIGN	3119590	LS	W-054-R Hazard marker - right East Metal 1 No	32.599	32.599		2011-04-29
SIGN	3119592	LS	W-061-R Right Lane Ends symbol East Telspar 1 No	32.658	32.658		2011-04-29
SIGN	3119591	RS	W-061-R Right Lane Ends symbol East Telspar 1 No	32.658	32.658		2011-04-29
SIGN	3119593	RS	R-015-L No Left Turn symbol West No Post 0 No	32.658	32.658		2011-04-29

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	3119595	LS	W-061-R Right Lane Ends symbol East Telspar 1 No 	32.807	32.807		2011-04-29
SIGN	3119597	LS	W-061-TB ()00 m Ahead tab East Telspar 1 No 200 M	32.807	32.807		2011-04-29
SIGN	3119594	RS	W-061-R Right Lane Ends symbol East Telspar 1 No 	32.807	32.807		2011-04-29
SIGN	3119596	RS	W-061-TB ()00 m Ahead tab East Telspar 1 No 200 M	32.807	32.807		2011-04-29
SIGN	3119598	LS	W-054-R Hazard marker - right East Metal 1 No	33.288	33.288		2011-04-29
SIGN	3119599	LS	W-054-R Hazard marker - right East Metal 1 No	33.762	33.762		2011-04-29
SIGN	3119600	RS	W-054-R Hazard marker - right West Metal 1 No	33.856	33.856		2011-04-29
SIGN	3119601	LS	R-007-2 Keep Right Except to Pass West Telspar 1 No 	34.125	34.125		2011-04-29
SIGN	3119603	LS	I-082-2T Passing Lane () km tab East No Post 0 No 1.5 KM	34.274	34.274		2011-04-29
SIGN	3119602	LS	I-082-2 Passing Lane - Slower Traffic Use Right Lane symbol East Telspar 1 No	34.274	34.274		2011-04-29
SIGN	2481299	RS	W-007-1U Side-road symbol - left/right West Telspar 1 No	34.555	34.555		2010-06-22
SIGN	2481292	LS	G-007-1 (Street Name) - Side Mount West No Post 0 No SENTINAL RD.	34.592	34.592		2010-06-22
SIGN	2481300	RS	G-011-2X BC Highway (Number) Route marker East No Post	34.683	34.683		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			0 No ROUTE 3A				
SIGN	2481294	LS	G-011-2 BC Highway (Number) Route marker North Telspar 1 No ROUTE 3A	34.877	34.877		2010-06-22
SIGN	2481290	LS	I-006 Historic Site Ahead East Telspar 1 No ROUTE	34.877	34.877		2010-06-22
SIGN	2481296	RS	SA Service & Attraction North Telspar 2 No	34.914	34.914		2010-06-22
SIGN	2481289	RS	R-003 POSTED SPEED () km/h AHEAD ARROW West Telspar 1 No MAX 80KM/H AHEAD	34.914	34.914		2010-06-22
SIGN	2481293	RS	G-100-1 AHEAD ARROW tab East Telspar 1 No JOIN	34.914	34.914		2010-06-22
SIGN	2481291	LS	LR Local Radio West Telspar 1 No	34.934	34.934		2010-06-22
SIGN	2481254	RS	G-011-2 BC Highway (Number) Route marker West Metal 1 No ROUTE 3A	35.172	35.172		2010-06-22
SIGN	2481247	RS	G-011-TC1 East tab West No Post 0 No	35.172	35.172		2010-06-22
SIGN	2481261	LS	G-001 Directional Guide - Custom East Telspar 2 No 31-18 CASTLEGAR/TRAIL	35.244	35.244		2010-06-22
SIGN	2481258	RS	G-011-TC1 East tab Unknown No Post 0 No	35.252	35.252		2010-06-22
SIGN	2481251	RS	W-037-L Merging Traffic Left symbol North Telspar 1 No	35.271	35.271		2010-06-22
SIGN	2274926	RS	R-001-U STOP sign South Telspar 1 No	35.323	35.323		2010-06-22
SIGN	2275026	RS	W-022-U () km/h tab West Telspar 1 No	35.323	35.323		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			ADVISORY SPEED 50KM/H				
SIGN	2274960	RS	R-009-1U Do Not Enter symbol East Telspar 1 No	35.323	35.323		2010-06-22
SIGN	2274967	RS	W-054-D Hazard marker - double South Telspar 1 No	35.323	35.323		2010-06-22
SIGN	2274977	RS	R-002-U YIELD symbol South Telspar 1 No	35.410	35.410		2010-06-22
SIGN	2274959	RS	R-009-1U Do Not Enter symbol East No Post 0 No	35.410	35.410		2010-06-22
SIGN	2274902	LS	W-061-R Right Lane Ends symbol East Telspar 1 No	35.456	35.456		2010-06-22
SIGN	2274890	LS	SA Service & Attraction East Telspar 2 No NELSON GOLF CLUB LEFT	35.483	35.483		2010-06-22
SIGN	2274873	RS	G-011-TAR-3 RIGHT ANGLED ARROW tab West No Post 0 No	35.517	35.517		2010-06-22
SIGN	2274883	RS	G-030-1 H Hospital West Telspar 1 No	35.517	35.517		2010-06-22
SIGN	2274937	RS	G-011-2 BC Highway (Number) Route marker West Wood 2 No 31-183 RTE 3A E SYMBOL/NELS	35.556	35.556		2010-06-22
SIGN	2274891	RS	SA Service & Attraction West Wood 2 No	35.587	35.587		2010-06-22
SIGN	2274968	RS	W-022-U () km/h tab West No Post 0 No ADVISORY SPEED 30KM/H	35.870	35.870		2010-06-22
SIGN	2274934	RS	W-002-LX SHARP CURVE LEFT ARROW West Telspar 1 No	35.870	35.870		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274958	RS	R-009-1U Do Not Enter symbol North Telspar 1 No	36.136	36.136		2010-06-22
SIGN	2274871	LS	G-001 Directional Guide - Custom North Wood 2 No 31-259 CASTLEGAR/RTE 3A W S	36.207	36.207		2010-06-22
SIGN	2274920	M	G-011-2 BC Highway (Number) Route marker North No Post 0 No 31-197 RTE 6 S SYMBOL/SALMO	36.248	36.248		2010-06-22
SIGN	2274922	Z	G-011-2 BC Highway (Number) Route marker South No Post 0 No 31-182 R RTE 3A E SYMBOL/KOOT NO TRUCKS CITY CENTRE	36.248	36.248		2010-06-22
SIGN	2274921	Z	G-011-2 BC Highway (Number) Route marker North No Post 0 No 31-181 R RTE 6 S SYMBOL/SALMO	36.248	36.248		2010-06-22
SIGN	2274901	RS	G-007-1 (Street Name) - Side Mount South Telspar 1 No 31-174 VICTORIA ST	36.260	36.260		2010-06-22
SIGN	3122429	LS	W-054-L Hazard marker - left West Metal 1 No	36.318	36.318		2011-06-08
SIGN	2274966	RS	W-054-D Hazard marker - double South Telspar 1 No 	36.334	36.334		2010-06-22
SIGN	2274919	Z	G-011-2 BC Highway (Number) Route marker South No Post 0 No 31-173 RTE 3A E SYMBOL/KOOT	36.388	36.388		2010-06-22
SIGN	2274894	RS	SA Service & Attraction South Wood 2 No	36.410	36.410		2010-06-22
SIGN	2274927	Z	W-001-RU CURVE RIGHT ARROW South No Post 0 No	36.449	36.449		2010-06-22
SIGN	2274974	Z	W-011 Stop Sign symbol AHEAD ARROW South No Post 0 No 	36.449	36.449		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274899	Z	W-001-LU CURVE LEFT ARROW South Metal 1 No	36.449	36.449		2010-06-22
SIGN	2274881	LS	R-004 Maximum POSTED SPEED () km/h North Telspar 1 No MAX 50KM/H	36.466	36.466		2010-06-22
SIGN	2274970	RS	R-120-1U No Truck symbol South No Post 0 No	36.473	36.473		2010-06-22
SIGN	2274900	RS	G-007-1 (Street Name) - Side Mount South Metal 1 No 31-175 BAKER ST.	36.473	36.473		2010-06-22
SIGN	2274976	RS	R-002-U YIELD symbol South Telspar 1 No	36.522	36.522		2010-06-22
SIGN	2274957	RS	R-009-1U Do Not Enter symbol North No Post 0 No	36.522	36.522		2010-06-22
SIGN	2274925	M	R-001-U STOP sign South Telspar 1 No	36.523	36.523		2010-06-22
SIGN	2274939	M	R-001-TBU 4-Way tab South No Post 0 No	36.523	36.523		2010-06-22
SIGN	2274965	M	W-054-D Hazard marker - double South Metal 1 No	36.523	36.523		2010-06-22
SIGN	2274924	RS	R-001-U STOP sign East Metal 1 No	36.545	36.545		2010-06-22
SIGN	2274887	RS	G-030-1 H Hospital South Metal 1 No	36.546	36.546		2010-06-22
SIGN	2274938	LS	R-001-TBU 4-Way tab North No Post 0 No	36.547	36.547		2010-06-22
SIGN	2274923	LS	R-001-U STOP sign North Telspar 1 No	36.547	36.547		2010-06-22
SIGN	2274955	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Telspar 1 No DOUBLE ARROW	36.593	36.593		2010-06-22
SIGN	2274978	LS	W-011 Stop Sign symbol AHEAD ARROW East Telspar 1 No	36.594	36.594		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274904	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No LEFT ARROW	36.602	36.602		2010-06-22
SIGN	2274986	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	36.621	36.621		2010-06-22
SIGN	2274912	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Telspar 1 No LEFT ARROW	36.622	36.622		2010-06-22
SIGN	2274985	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No RIGHT ARROW	36.798	36.798		2010-06-22
SIGN	2274911	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No LEFT ARROW	36.813	36.813		2010-06-22
SIGN	3178693	RS	PS-003-L Pedestrian Crosswalk symbol - left East No Post 0 No	36.837	36.837		2012-12-17
SIGN	3178692	RS	PS-003-R Pedestrian Crosswalk symbol - right West Telspar 1 No	36.837	36.837		2012-12-17
SIGN	3178695	LS	PS-003-R Pedestrian Crosswalk symbol - right East No Post 0 No	36.839	36.839		2012-12-17
SIGN	3178696	O	PS-003-LX Pedestrian Crosswalk symbol - left West Illuminaire/Davit 1 No	36.839	36.839		2012-12-17
SIGN	3178694	LS	PS-003-L Pedestrian Crosswalk symbol - left West No Post 0 No	36.839	36.839		2012-12-17
SIGN	3178697	O	PS-003-LX Pedestrian Crosswalk symbol - left East No Post 0 No	36.839	36.839		2012-12-17

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274910	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No LEFT ARROW	36.843	36.843		2010-06-22
SIGN	2274886	RS	G-030-1 H Hospital West Metal 1 No	36.910	36.910		2010-06-22
SIGN	2274915	RS	I-007-TR AHEAD-RIGHT ARROW tab West No Post 0 No	36.910	36.910		2010-06-22
SIGN	3178698	RS	PS-003-R Pedestrian Crosswalk symbol - right West Telspar 1 No	36.934	36.934		2012-12-17
SIGN	3178699	RS	PS-003-L Pedestrian Crosswalk symbol - left East No Post 0 No	36.934	36.934		2012-12-17
SIGN	3178700	LS	PS-003-L Pedestrian Crosswalk symbol - left West No Post 0 No	36.936	36.936		2012-12-17
SIGN	3178703	O	PS-003-LX Pedestrian Crosswalk symbol - left West Illuminaire/Davit 1 No	36.936	36.936		2012-12-17
SIGN	3178702	O	PS-003-RX Pedestrian Crosswalk symbol - right East No Post 0 No	36.936	36.936		2012-12-17
SIGN	3178701	LS	PS-003-R Pedestrian Crosswalk symbol - right East No Post 0 No	36.936	36.936		2012-12-17
SIGN	2274875	M	G-011-TAA AHEAD ARROW tab West No Post 0 No	36.954	36.954		2010-06-22
SIGN	2274984	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No RIGHT ARROW	36.954	36.954		2010-06-22
SIGN	2274893	M	SA Service & Attraction West No Post 0 No CAMPING	36.954	36.954		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274888	M	I-017-TL1 ()00 m LEFT ARROW tab West Telspar 1 No 400 M	36.964	36.964		2010-06-22
SIGN	2274898	M	G-011-TC1 East tab West No Post 0 No	36.975	36.975		2010-06-22
SIGN	2275029	M	G-011-2X BC Highway (Number) Route marker West Telspar 1 No ROUTE 3A	36.975	36.975		2010-06-22
SIGN	2274884	M	G-011-TAL-1 AHEAD-LEFT ARROW tab West No Post 0 No 	36.975	36.975		2010-06-22
SIGN	2274954	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No DOUBLE ARROW	36.982	36.982		2010-06-22
SIGN	2274953	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No DOUBLE ARROW	37.010	37.010		2010-06-22
SIGN	2274961	LS	G-100-4 LEFT/RIGHT ARROW tab East No Post 0 No RIGHT	37.018	37.018		2010-06-22
SIGN	3178707	LS	PS-003-R Pedestrian Crosswalk symbol - right East Telspar 1 No	37.029	37.029		2012-12-17
SIGN	3178704	RS	PS-003-R Pedestrian Crosswalk symbol - right West Other 1 No UTILITY POLE	37.029	37.029		2012-12-17
SIGN	3178705	RS	PS-003-L Pedestrian Crosswalk symbol - left East No Post 0 No	37.029	37.029		2012-12-17
SIGN	3178706	LS	PS-003-L Pedestrian Crosswalk symbol - left West No Post 0 No	37.029	37.029		2012-12-17
SIGN	2274918	Z	G-011-2 BC Highway (Number) Route marker East Metal 1 No 31-57 RTE 3A E SYMBOL/KOOT	37.042	37.042		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274909	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No LEFT ARROW	37.042	37.042		2010-06-22
SIGN	2274870	Z	G-001 Directional Guide - Custom North Metal 1 No 31-58 TO RTE 6 SYMBOL SALM	37.081	37.081		2010-06-22
SIGN	2274983	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	37.082	37.082		2010-06-22
SIGN	2274929	RS	PS-006-TB No Passing tab North No Post 0 No	37.097	37.097		2010-06-22
SIGN	2274982	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	37.097	37.097		2010-06-22
SIGN	2274952	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	37.116	37.116		2010-06-22
SIGN	2274933	RS	W-002-RU SHARP CURVE RIGHT ARROW South Telspar 1 No 	37.125	37.125		2010-06-22
SIGN	2274877	RS	W-054-R Hazard marker - right South No Post 0 No 	37.125	37.125		2010-06-22
SIGN	2274908	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) East Metal 1 No LEFT ARROW	37.160	37.160		2010-06-22
SIGN	2274876	LS	W-054-R Hazard marker - right East Telspar 1 No	37.180	37.180		2010-06-22
SIGN	2275020	RS	W-054-L Hazard marker - left West Telspar 1 No	37.203	37.203		2010-06-22
SIGN	2274932	LS	W-002-LU SHARP CURVE LEFT ARROW East Telspar 1 No 	37.210	37.210		2010-06-22
SIGN	2274969	LS	W-022-U () km/h tab East No Post 0 No	37.210	37.210		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			ADVISORY SPEED 30KM/H				
SIGN	2274914	RS	I-007-TR AHEAD-RIGHT ARROW tab West No Post 0 No	37.235	37.235		2010-06-22
SIGN	2274945	RS	G-035 Police West Telspar 1 No	37.235	37.235		2010-06-22
SIGN	2274944	Z	G-050-1 International Airport symbol West No Post 0 No	37.296	37.296		2010-06-22
SIGN	2274913	Z	I-007-TLR LEFT/RIGHT ARROW tab West No Post 0 No	37.296	37.296		2010-06-22
SIGN	2274964	Z	I-007-TL AHEAD-LEFT ARROW tab West Metal 1 No	37.296	37.296		2010-06-22
SIGN	2274907	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North No Post 0 No LEFT ARROW	37.308	37.308		2010-06-22
SIGN	2274971	RS	W-054-L Hazard marker - left West Telspar 1 No	37.309	37.309		2010-06-22
SIGN	2274963	LS	I-007-TL AHEAD-LEFT ARROW tab West No Post 0 No	37.334	37.334		2010-06-22
SIGN	2274947	LS	G-035 Police East Metal 1 No	37.334	37.334		2010-06-22
SIGN	2274839	LS	I-006-TR AHEAD-RIGHT ARROW tab East Telspar 1 No	37.446	37.446		2010-06-22
SIGN	2274840	LS	R-082-R1U This Lane Right RIGHT ARROW East No Post 0 No	37.446	37.446		2010-06-22
SIGN	2274835	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No DOUBLE ARROW	37.451	37.451		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274842	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South No Post 0 No RIGHT ARROW	37.502	37.502		2010-06-22
SIGN	2274828	LS	G-050-1 International Airport symbol East Metal 1 No	37.502	37.502		2010-06-22
SIGN	2274834	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	37.538	37.538		2010-06-22
SIGN	2274818	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South No Post 0 No LEFT ARROW	37.569	37.569		2010-06-22
SIGN	2274844	RS	P-058 No Stopping symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	37.571	37.571		2010-06-22
SIGN	2274843	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No RIGHT ARROW	37.619	37.619		2010-06-22
SIGN	2274821	LS	PS-010 Warning Diamond - School Bus Turn Ahead East No Post 0 No	37.628	37.628		2010-06-22
SIGN	2274822	RS	PS-010 Warning Diamond - School Bus Turn Ahead West No Post 0 No	37.628	37.628		2010-06-22
SIGN	2274860	RS	G-011-2X BC Highway (Number) Route marker West Telspar 1 No ROUTE 3A	37.665	37.665		2010-06-22
SIGN	2274816	RS	G-011-TC1 East tab West No Post 0 No ROUTE 3A	37.665	37.665		2010-06-22
SIGN	2274858	LS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol East Metal 1 No	37.725	37.725		2010-06-22
SIGN	2274813	LS	I-017-TL1 ()00 m LEFT ARROW tab East Metal 1 No	37.837	37.837		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	3178711	LS	PS-003-RX Pedestrian Crosswalk symbol - right East Telspar 1 No	37.872	37.872		2012-12-17
SIGN	3178710	LS	PS-003-LX Pedestrian Crosswalk symbol - left West No Post 0 No	37.872	37.872		2012-12-17
SIGN	3178709	RS	PS-003-LX Pedestrian Crosswalk symbol - left East No Post 0 No	37.872	37.872		2012-12-17
SIGN	3178708	RS	PS-003-RX Pedestrian Crosswalk symbol - right West Telspar 1 No	37.872	37.872		2012-12-17
SIGN	2274855	RS	G-011-TAR-1 AHEAD-RIGHT ARROW tab West No Post 0 No 	37.920	37.920		2010-06-22
SIGN	2274815	RS	SA Service & Attraction West No Post 0 No CAMPING	37.920	37.920		2010-06-22
SIGN	2274833	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	37.920	37.920		2010-06-22
SIGN	2274848	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	37.978	37.978		2010-06-22
SIGN	2274845	LS	P-006 No Parking symbol Here to Corner DIRECTIONAL ARROW(S) South Metal 1 No RIGHT ARROW	37.981	37.981		2010-06-22
SIGN	2274832	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No DOUBLE ARROW	38.005	38.005		2010-06-22
SIGN	2274823	RS	SA-024 Tourism BC Logo Tourist Attraction symbol West No Post 0 No	38.010	38.010		2010-06-22
SIGN	2274838	RS	SA Service & Attraction West Telspar 1 No 31-3A-95	38.010	38.010		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274827	RS	SA-100-4 LEFT/RIGHT ARROW tab West No Post 0 No LEFT	38.010	38.010		2010-06-22
SIGN	2274857	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol West Metal 1 No	38.044	38.044		2010-06-22
SIGN	2274847	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	38.051	38.051		2010-06-22
SIGN	2274814	RS	PS-006 Warning Diamond - Playground Area Ahead symbol West Metal 1 No	38.054	38.054		2010-06-22
SIGN	2274831	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No DOUBLE ARROW	38.055	38.055		2010-06-22
SIGN	2274817	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No LEFT ARROW	38.094	38.094		2010-06-22
SIGN	2274819	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No LEFT ARROW	38.098	38.098		2010-06-22
SIGN	2274837	LS	SA Service & Attraction South Telspar 1 No 31-U-95 	38.103	38.103		2010-06-22
SIGN	2274825	LS	I-065 DO NOT USE-Please Avoid Use of Engine Brake in Urban Areas South Telspar 1 No	38.103	38.103		2010-06-22
SIGN	2274824	LS	SA-024 Tourism BC Logo Tourist Attraction symbol South No Post 0 No	38.103	38.103		2010-06-22
SIGN	2274846	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South No Post 0 No RIGHT ARROW	38.123	38.123		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274830	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	38.137	38.137		2010-06-22
SIGN	2274829	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No DOUBLE ARROW	38.155	38.155		2010-06-22
SIGN	2274836	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	38.175	38.175		2010-06-22
SIGN	2274856	LS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol East Metal 1 No	38.176	38.176		2010-06-22
SIGN	2274820	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Telspar 1 No LEFT ARROW	38.197	38.197		2010-06-22
SIGN	2274859	LS	G-011-2X BC Highway (Number) Route marker East Metal 1 No ROUTE 3A	38.198	38.198		2010-06-22
SIGN	2274951	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No HWY #3A; DOUBLE ARROW	38.220	38.220		2010-06-22
SIGN	2275025	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol West Telspar 1 No	38.228	38.228		2010-06-22
SIGN	2274950	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	38.250	38.250		2010-06-22
SIGN	2274981	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	38.295	38.295		2010-06-22
SIGN	2275028	LS	G-011-2X BC Highway (Number) Route marker West Metal 1 No ROUTE 3A	38.296	38.296		2010-06-22
SIGN	2274906	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal	38.312	38.312		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			1 No LEFT ARROW				
SIGN	3178714	LS	PS-003-LX Pedestrian Crosswalk symbol - left West No Post 0 No	38.314	38.314		2012-12-17
SIGN	3178713	RS	PS-003-LX Pedestrian Crosswalk symbol - left East No Post 0 No	38.314	38.314		2012-12-17
SIGN	3178715	LS	PS-003-RX Pedestrian Crosswalk symbol - right East Telspar 1 No	38.314	38.314		2012-12-17
SIGN	3178712	RS	PS-003-RX Pedestrian Crosswalk symbol - right West Telspar 1 No	38.314	38.314		2012-12-17
SIGN	2275024	LS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol East Telspar 1 No	38.365	38.365		2010-06-22
SIGN	2275023	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol East Telspar 1 No	38.383	38.383		2010-06-22
SIGN	2275022	LS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol West Telspar 1 No	38.400	38.400		2010-06-22
SIGN	2274949	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	38.402	38.402		2010-06-22
SIGN	2274980	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	38.458	38.458		2010-06-22
SIGN	2274905	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Telspar 1 No LEFT ARROW	38.485	38.485		2010-06-22
SIGN	2274956	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	38.523	38.523		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

Inventory Item	Primary Key	XSP	Attributes	Chainage		Length	Modification
				Start	End		
SIGN	2275027	RS	G-011-2X BC Highway (Number) Route marker West Telspar 1 No ROUTE 3A	38.576	38.576		2010-06-22
SIGN	2274979	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No ROUTE 3A; RIGHT ARROW	38.579	38.579		2010-06-22
SIGN	2275003	M	R-009-1U Do Not Enter symbol West Telspar 1 No	38.609	38.609		2010-06-22
SIGN	2274994	M	R-001-U STOP sign East Telspar 1 No	38.610	38.610		2010-06-22
SIGN	2274990	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No LEFT ARROW	38.613	38.613		2010-06-22
SIGN	2275005	M	W-054-D Hazard marker - double East Telspar 1 No	38.617	38.617		2010-06-22
SIGN	2274989	LS	P-001 No Parking symbol DIRECTIONAL ARROW(S) South Metal 1 No LEFT ARROW	38.650	38.650		2010-06-22
SIGN	2275010	Z	W-001-LX CURVE LEFT ARROW East Metal 1 No	38.657	38.657		2010-06-22
SIGN	2275004	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No DOUBLE ARROW	38.657	38.657		2010-06-22
SIGN	2274996	Z	W-001-RX CURVE RIGHT ARROW East No Post 0 No	38.657	38.657		2010-06-22
SIGN	2275018	LS	G-011-TAR-1 AHEAD-RIGHT ARROW tab East No Post 0 No 	38.672	38.672		2010-06-22
SIGN	2274992	LS	G-011-2 BC Highway (Number) Route marker East No Post 0 No ROUTE 6	38.672	38.672		2010-06-22
SIGN	2274993	LS	G-011-2 BC Highway (Number) Route marker East No Post 0 No ROUTE 3A	38.672	38.672		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2275002	LS	G-011-TG To tab East Telspar 1 No	38.672	38.672		2010-06-22
SIGN	2274995	LS	W-001-RX CURVE RIGHT ARROW East Telspar 1 No	38.690	38.690		2010-06-22
SIGN	2275006	LS	R-082-R1U This Lane Right RIGHT ARROW East No Post 0 No	38.690	38.690		2010-06-22
SIGN	2275016	Z	G-001 Directional Guide - Custom East Metal 1 No 31-56 CITY/CENTRE RTE 3A W	38.691	38.691		2010-06-22
SIGN	2275009	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Metal 1 No RIGHT ARROW	38.715	38.715		2010-06-22
SIGN	2274862	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 50KM/H	38.782	38.782		2010-06-22
SIGN	2275000	LS	G-050-5 Ferry symbol East No Post 0 No	38.785	38.785		2010-06-22
SIGN	2274998	LS	SA-030 Camping (Trailer) symbol East Metal 1 No	38.785	38.785		2010-06-22
SIGN	2274866	LS	G-030-1 H Hospital East Metal 1 No	38.871	38.871		2010-06-22
SIGN	2274865	LS	G-011-TAL-1 AHEAD-LEFT ARROW tab East No Post 0 No	38.871	38.871		2010-06-22
SIGN	3178719	RS	PS-003-R Pedestrian Crosswalk symbol - right West No Post 0 No	38.977	38.977		2012-12-17
SIGN	3178723	O	PS-003-LX Pedestrian Crosswalk symbol - left West Illuminaire/Davit 1 No	38.977	38.977		2012-12-17
SIGN	3178724	O	PS-003-RX Pedestrian Crosswalk symbol - right East No Post 0 No	38.977	38.977		2012-12-17

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	3178721	O	PS-003-RX Pedestrian Crosswalk symbol - right West No Post 0 No	38.977	38.977		2012-12-17
SIGN	3178720	RS	PS-003-L Pedestrian Crosswalk symbol - left East No Post 0 No	38.977	38.977		2012-12-17
SIGN	3178727	LS	PS-003-L Pedestrian Crosswalk symbol - left West Telspar 1 No	38.992	38.992		2012-12-17
SIGN	3178725	LS	PS-003-R Pedestrian Crosswalk symbol - right East No Post 0 No	38.992	38.992		2012-12-17
SIGN	2274867	RS	W-061-R Right Lane Ends symbol West Telspar 1 No	39.005	39.005		2010-06-22
SIGN	2274991	LS	G-011-2 BC Highway (Number) Route marker East Telspar 1 No ROUTE 3A	39.104	39.104		2010-06-22
SIGN	2274999	LS	G-011-TC2 West tab East No Post 0 No	39.104	39.104		2010-06-22
SIGN	2275019	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol South Telspar 1 No	39.130	39.130		2010-06-22
SIGN	2275001	RS	G-035 Police West Metal 1 No	39.136	39.136		2010-06-22
SIGN	2274864	RS	G-011-TAL-1 AHEAD-LEFT ARROW tab West No Post 0 No	39.136	39.136		2010-06-22
SIGN	2274997	LS	SA-030 Camping (Trailer) symbol East Metal 1 No	39.166	39.166		2010-06-22
SIGN	2275017	LS	G-011-TAA AHEAD ARROW tab East No Post 0 No	39.166	39.166		2010-06-22
SIGN	2275008	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North No Post 0 No RIGHT ARROW	39.214	39.214		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274863	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No MAX 50KM/H	39.214	39.214		2010-06-22
SIGN	3178730	O	PS-003-LX Pedestrian Crosswalk symbol - left East No Post 0 No	39.231	39.231		2012-12-17
SIGN	3178731	O	PS-003-RX Pedestrian Crosswalk symbol - right West Illuminaire/Davit 1 No	39.231	39.231		2012-12-17
SIGN	3178728	RS	PS-003-R Pedestrian Crosswalk symbol - right West No Post 0 No	39.231	39.231		2012-12-17
SIGN	3178732	O	PS-003-RX Pedestrian Crosswalk symbol - right East Illuminaire/Davit 1 No	39.240	39.240		2012-12-17
SIGN	3178734	LS	PS-003-R Pedestrian Crosswalk symbol - right East No Post 0 No	39.240	39.240		2012-12-17
SIGN	3178733	O	PS-003-LX Pedestrian Crosswalk symbol - left West No Post 0 No	39.240	39.240		2012-12-17
SIGN	2274942	LS	SA-100-4 LEFT/RIGHT ARROW tab South No Post 0 No RIGHT	39.244	39.244		2010-06-22
SIGN	2274941	LS	I-065 DO NOT USE-Please Avoid Use of Engine Brake in Urban Areas East Telspar 1 No	39.244	39.244		2010-06-22
SIGN	2274962	LS	SA Service & Attraction East Telspar 1 No 31-U-94 TRAMWAY	39.244	39.244		2010-06-22
SIGN	2274935	LS	SA-024 Tourism BC Logo Tourist Attraction symbol South No Post 0 No	39.244	39.244		2010-06-22
SIGN	2275021	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol	39.304	39.304		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			East Telspar 1 No				
SIGN	2274946	LS	G-035 Police East No Post 0 No	39.328	39.328		2010-06-22
SIGN	2274872	LS	G-011-TAR-1 AHEAD-RIGHT ARROW tab East No Post 0 No	39.328	39.328		2010-06-22
SIGN	2274874	LS	G-011-TAA AHEAD ARROW tab East No Post 0 No	39.359	39.359		2010-06-22
SIGN	2274885	LS	G-030-1 H Hospital East Telspar 1 No	39.359	39.359		2010-06-22
SIGN	2274943	LS	SA-100-4 LEFT/RIGHT ARROW tab North No Post 0 No	39.393	39.393		2010-06-22
SIGN	2274936	LS	SA-024 Tourism BC Logo Tourist Attraction symbol North No Post 0 No	39.393	39.393		2010-06-22
SIGN	2274892	LS	SA Service & Attraction North Telspar 1 No 31-3A-94	39.393	39.393		2010-06-22
SIGN	2274917	RS	G-011-2 BC Highway (Number) Route marker West Telspar 1 No	39.442	39.442		2010-06-22
SIGN	2274897	RS	G-011-TC1 East tab West No Post 0 No	39.442	39.442		2010-06-22
SIGN	2274928	RS	PS-009 Do Not Pass School Bus symbol When Lights Flashing South Wood 1 No	40.271	40.271		2010-06-22
SIGN	2274882	RS	I-006 Historic Site Ahead West Telspar 1 No	40.300	40.300		2010-06-22
SIGN	2274903	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No	40.338	40.338		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2274948	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 60KM/H	40.348	40.348		2010-06-22
SIGN	2274987	LS	P-006 No Parking symbol Here to Corner DIRECTIONAL ARROW(S) South Telspar 1 No RIGHT ARROW	40.389	40.389		2010-06-22
SIGN	2271813	RS	W-054-R Hazard marker - right West Metal 1 No	40.703	40.703		2010-06-22
SIGN	2272197	RS	G-006 Distance Guide - Custom North Metal 1 No 31-89 KASLO 53/CRESTON 101	40.737	40.737		2010-06-22
SIGN	2271808	LS	R-003-X POSTED SPEED () km/h AHEAD ARROW East Telspar 1 No MAX 50KM/H AHEAD	40.837	40.837		2010-06-22
SIGN	2272054	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 60KM/H	41.890	41.890		2010-06-22
SIGN	2272073	RS	SA-066 Artisan symbol West Telspar 1 No	41.906	41.906		2010-06-22
SIGN	2272072	LS	SA-066 Artisan symbol East Telspar 1 No	42.083	42.083		2010-06-22
SIGN	2272051	LS	P-015 No Camping or Overnight Parking South Telspar 1 No	42.327	42.327		2010-06-22
SIGN	2272039	LS	W-005-RU WINDING ROAD RIGHT ARROW West Telspar 1 No	43.240	43.240		2010-06-22
SIGN	2272043	RS	W-024-U For () km tab West No Post 0 No FOR 2 KM	43.240	43.240		2010-06-22
SIGN	2272042	RS	I-056-TA Next () km West No Post 0 No	43.627	43.627		2010-06-22
SIGN	2272074	RS	SA-066 Artisan symbol West Telspar 1 No	43.627	43.627		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2272055	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No MAX 60KM/H	43.636	43.636		2010-06-22
SIGN	2271803	LS	SA-100-9 RIGHT ANGLED ARROW tab East No Post 0 No	43.800	43.800		2010-06-22
SIGN	2271809	LS	SA-066 Artisan symbol East Telspar 1 No	43.800	43.800		2010-06-22
SIGN	2272195	LS	W-005-RU WINDING ROAD RIGHT ARROW East Telspar 1 No	44.913	44.913		2010-06-22
SIGN	2271805	RS	G-008-1A Single (Street Name) Ahead - Side Mount West No Post 0 No RIDGEWOOD RD AHEAD	44.969	44.969		2010-06-22
SIGN	2272083	RS	W-007-1U Side-road symbol - left/right West Telspar 1 No	44.969	44.969		2010-06-22
SIGN	2272200	LS	W-024-U For () km tab East No Post 0 No FOR 3 KM	45.105	45.105		2010-06-22
SIGN	2272194	LS	W-005-RU WINDING ROAD RIGHT ARROW East Telspar 1 No	45.105	45.105		2010-06-22
SIGN	2272011	LS	G-008-1A Single (Street Name) Ahead - Side Mount East No Post 0 No RIDGEWOOD RD AHEAD	45.394	45.394		2010-06-22
SIGN	2271985	LS	W-007-1U Side-road symbol - left/right East Telspar 1 No	45.394	45.394		2010-06-22
SIGN	2272157	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 60KM/H	45.842	45.842		2010-06-22
SIGN	2272126	RS	SA Service & Attraction West Telspar 2 No LODGING WILLOW POINT LODGE LEFT	45.988	45.988		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

Inventory Item	Primary Key	XSP	Attributes	Chainage		Length	Modification
				Start	End		
SIGN	2272038	LS	SA Service & Attraction East Telspar 2 No LODGING WILLOW POINT LODGE RIGHT	46.094	46.094		2010-06-22
SIGN	2272048	RS	W-002-LX SHARP CURVE LEFT ARROW West Wood 1 No	46.271	46.271		2010-06-22
SIGN	2272057	RS	W-022-U () km/h tab West No Post 0 No ADVISORY SPEED 40KM/H	46.271	46.271		2010-06-22
SIGN	2272070	RS	W-054-L Hazard marker - left West Telspar 1 No	46.355	46.355		2010-06-22
SIGN	2272047	RS	W-002-LX SHARP CURVE LEFT ARROW West Telspar 1 No 	46.749	46.749		2010-06-22
SIGN	2272056	RS	W-022-U () km/h tab West No Post 0 No ADVISORY SPEED 40KM/H	46.749	46.749		2010-06-22
SIGN	2272069	RS	W-054-L Hazard marker - left West Telspar 1 No	46.834	46.834		2010-06-22
SIGN	2272158	LS	W-022-U () km/h tab East No Post 0 No ADVISORY SPEED 40KM/H	46.978	46.978		2010-06-22
SIGN	2272120	LS	W-002-RX SHARP CURVE RIGHT ARROW East Telspar 1 No 	46.978	46.978		2010-06-22
SIGN	2272139	LS	G-104 () km Reference marker East Wood 1 No KM 11	47.013	47.013		2010-06-22
SIGN	2272156	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No No MAX 60KM/H	47.047	47.047		2010-06-22
SIGN	2272029	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol West Telspar 1 No SYMBOL	47.950	47.950		2010-06-22
SIGN	2272125	RS	SA Service & Attraction West Telspar 2 No	48.009	48.009		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			LODGING WILLOW BAY & DUHAMEL				
SIGN	2272108	RS	W-008-U T-Intersection symbol West Telspar 1 No	48.142	48.142		2010-06-22
SIGN	2272162	RS	G-008-1A Single (Street Name) Ahead - Side Mount West No Post 0 No GREENWOOD RD	48.142	48.142		2010-06-22
SIGN	2272116	RS	PS-001-TCX 50 km/h When Children on Highway tab West No Post 0 No	48.188	48.188		2010-06-22
SIGN	2272193	RS	PS-001 School Area Ahead symbol West Telspar 1 No	48.188	48.188		2010-06-22
SIGN	2272189	LS	P-006 No Parking symbol Here to Corner DIRECTIONAL ARROW(S) South Telspar 1 No RIGHT ARROW	48.282	48.282		2010-06-22
SIGN	2271885	RS	PS-002 Warning Diamond - Pedestrian Crosswalk Ahead symbol East Telspar 1 No ADVANCE SYMBOL	48.326	48.326		2010-06-22
SIGN	2272168	LS	G-008-1A Single (Street Name) Ahead - Side Mount East No Post 0 No GREENWOOD RD. AHEAD	48.441	48.441		2010-06-22
SIGN	2272188	LS	P-006 No Parking symbol Here to Corner DIRECTIONAL ARROW(S) South No Post 0 No LEFT ARROW	48.441	48.441		2010-06-22
SIGN	2272185	LS	W-007-1U Side-road symbol - left/right West Telspar 1 No	48.441	48.441		2010-06-22
SIGN	2272115	LS	PS-001-TCX 50 km/h When Children on Highway tab West No Post 0 No	48.518	48.518		2010-06-22
SIGN	2272192	LS	PS-001 School Area Ahead symbol East Telspar 1 No	48.518	48.518		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271892	LS	SA Service & Attraction East Telspar 2 No LODGING WILLOW BAY & DUHAMEL	48.551	48.551		2010-06-22
SIGN	2271890	RS	PS-001-TCX 50 km/h When Children on Highway tab West No Post 0 No	48.713	48.713		2010-06-22
SIGN	2271933	RS	PS-001 School Area Ahead symbol West Telspar 1 No 	48.713	48.713		2010-06-22
SIGN	2271916	RS	W-041-1TD Slippery When Frosty tab West Telspar 1 No 	48.758	48.758		2010-06-22
SIGN	2271921	RS	W-054-L Hazard marker - left West Telspar 1 No	48.813	48.813		2010-06-22
SIGN	2271918	RS	I-003 Landmark (Name) marker West Telspar 1 No DUHAMEL CREEK	48.821	48.821		2010-06-22
SIGN	2271939	LS	W-054-R Hazard marker - right West Telspar 1 No	48.821	48.821		2010-06-22
SIGN	2271917	LS	I-003 Landmark (Name) marker East Telspar 1 No DUHAMEL CREEK	48.854	48.854		2010-06-22
SIGN	2271938	RS	W-054-R Hazard marker - right East Telspar 1 No	48.855	48.855		2010-06-22
SIGN	2271923	LS	W-054-L Hazard marker - left East Telspar 1 No	48.863	48.863		2010-06-22
SIGN	3178325	RS	PS-005-R School Crosswalk symbol - right West Telspar 1 No	48.891	48.891		2012-12-07
SIGN	3178326	RS	PS-005-L School Crosswalk symbol - left East No Post 0 No	48.891	48.891		2012-12-07
SIGN	3178329	O	PS-005-LX School Crosswalk symbol - left East Illuminaire/Davit 1 No	48.901	48.901		2012-12-07

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	3178331	O	PS-005-LX School Crosswalk symbol - left West No Post 0 No	48.901	48.901		2012-12-07
SIGN	3178328	LS	PS-005-R School Crosswalk symbol - right East Telspar 1 No	48.911	48.911		2012-12-07
SIGN	3178327	LS	PS-005-L School Crosswalk symbol - left West No Post 0 No	48.911	48.911		2012-12-07
SIGN	2271915	LS	W-041-1TD Slippery When Frosty tab East Telspar 1 No 	48.961	48.961		2010-06-22
SIGN	2272034	LS	PS-001-TCX 50 km/h When Children on Highway tab East No Post 0 No	49.144	49.144		2010-06-22
SIGN	2272077	LS	PS-001 School Area Ahead symbol East Telspar 1 No 	49.144	49.144		2010-06-22
SIGN	2272003	RS	W-002-RU SHARP CURVE RIGHT ARROW West Telspar 1 No 	49.305	49.305		2010-06-22
SIGN	2272031	RS	W-022-U () km/h tab West No Post 0 No ADVISORY SPEED 50KM/H	49.305	49.305		2010-06-22
SIGN	2272191	LS	PS-001 School Area Ahead symbol East Telspar 1 No 	49.496	49.496		2010-06-22
SIGN	2271886	LS	W-022-U () km/h tab East No Post 0 No ADVISORY SPEED 50KM/H	49.621	49.621		2010-06-22
SIGN	2272142	LS	W-002-LU SHARP CURVE LEFT ARROW East Telspar 1 No 	49.621	49.621		2010-06-22
SIGN	2271922	RS	W-054-L Hazard marker - left West Telspar 1 No	50.044	50.044		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271894	RS	W-062 Chevron Alignment marker East Telspar 1 No	50.126	50.126		2010-06-22
SIGN	2271895	RS	W-062 Chevron Alignment marker East Telspar 1 No	50.151	50.151		2010-06-22
SIGN	2271920	RS	W-001-RU CURVE RIGHT ARROW East Telspar 1 No	50.310	50.310		2010-06-22
SIGN	2271908	LS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 60KM/H	50.367	50.367		2010-06-22
SIGN	2272121	LS	R-003 POSTED SPEED () km/h AHEAD ARROW West Telspar 1 No MAX 60KM/H AHEAD	50.547	50.547		2010-06-22
SIGN	2272119	RS	R-003 POSTED SPEED () km/h AHEAD ARROW West Telspar 1 No MAX 60KM/H AHEAD	50.616	50.616		2010-06-22
SIGN	2272122	RS	R-003 POSTED SPEED () km/h AHEAD ARROW East Telspar 1 No MAX 60KM/H AHEAD	50.796	50.796		2010-06-22
SIGN	2272152	LS	W-005-LU WINDING ROAD LEFT ARROW East Telspar 1 No	50.881	50.881		2010-06-22
SIGN	2272092	RS	W-001-LX CURVE LEFT ARROW West Wood 1 No	51.097	51.097		2010-06-22
SIGN	2272182	RS	W-022-U () km/h tab West No Post 0 No ADVISORY SPEED 60KM/H	51.097	51.097		2010-06-22
SIGN	2272177	RS	W-054-L Hazard marker - left West Telspar 1 No	51.188	51.188		2010-06-22
SIGN	2272183	LS	W-022-U () km/h tab East No Post 0 No ADVISORY SPEED 60KM/H	51.424	51.424		2010-06-22
SIGN	2272140	LS	W-001-RX CURVE RIGHT ARROW East Telspar 1 No	51.424	51.424		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271986	RS	W-024-U For () km tab West No Post 0 No	51.887	51.887		2010-06-22
SIGN	2272018	RS	W-064-1 Deer symbol West Telspar 1 No	51.887	51.887		2010-06-22
SIGN	2271994	LS	G-006 Distance Guide - Custom East Metal 1 No 31-85 NELSON 16/CASTLEGAR	53.368	53.368		2010-06-22
SIGN	2271993	RS	G-006 Distance Guide - Custom West Metal 1 No 31-89 KASLO 53/CRESTON 101	53.375	53.375		2010-06-22
SIGN	2272017	LS	W-064-1 Deer symbol East Telspar 1 No	53.487	53.487		2010-06-22
SIGN	2272097	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No MAX 80KM/H	53.739	53.739		2010-06-22
SIGN	2272176	RS	W-054-L Hazard marker - left West Telspar 1 No	53.754	53.754		2010-06-22
SIGN	2272102	LS	W-054-R Hazard marker - right East Telspar 1 No	53.773	53.773		2010-06-22
SIGN	2272170	RS	I-003 Landmark (Name) marker West Telspar 1 No SITKUM CREEK	53.806	53.806		2010-06-22
SIGN	2272169	LS	I-003 Landmark (Name) marker East Telspar 1 No SITKUM CREEK	53.825	53.825		2010-06-22
SIGN	2272175	LS	W-054-L Hazard marker - left East Telspar 1 No SITKUM CREEK	53.833	53.833		2010-06-22
SIGN	2272111	RS	I-006 Historic Site Ahead West Telspar 1 No TRAIL BLAZER-SYMBOL	54.472	54.472		2010-06-22
SIGN	2272112	LS	I-006 Historic Site Ahead East Telspar 1 No TRAIL BLAZER-SYMBOL	54.588	54.588		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2272071	RS	W-064-1 Deer symbol West Telspar 1 No	55.410	55.410		2010-06-22
SIGN	2272046	RS	PB BC Parks Branch West Wood 1 No PB-31-4 D KOKANEE/CREEK/PROVIN	55.567	55.567		2010-06-22
SIGN	2272033	RS	W-026 Road Narrows symbol West Telspar 1 No	55.666	55.666		2010-06-22
SIGN	2272044	RS	G-104 () km Reference marker West Telspar 1 No KM 20	56.004	56.004		2010-06-22
SIGN	2272049	RS	SA-022 Boat Launch symbol West No Post 0 No	56.513	56.513		2010-06-22
SIGN	2272053	RS	SA-020 Marina symbol West Telspar 1 No	56.513	56.513		2010-06-22
SIGN	2272041	RS	I-007-TLR LEFT/RIGHT ARROW tab East No Post 0 No RIGHT	56.513	56.513		2010-06-22
SIGN	2272045	RS	PB BC Parks Branch West Wood 1 No PB-31-3 A KOKANEE GLACIER	56.694	56.694		2010-06-22
SIGN	2272016	LS	W-064-1 Deer symbol East Telspar 1 No	56.792	56.792		2010-06-22
SIGN	2272022	RS	W-001-LX CURVE LEFT ARROW West Telspar 1 No	56.799	56.799		2010-06-22
SIGN	2271991	RS	SA Service & Attraction West Telspar 2 No LODG CAMP CRESCENT BEACH RESOR	56.847	56.847		2010-06-22
SIGN	2272014	RS	W-054-L Hazard marker - left West Telspar 1 No	56.871	56.871		2010-06-22
SIGN	2271901	RS	PB BC Parks Branch West Wood 1 No PB-31-4 C KOKANEE GLACIER	57.110	57.110		2010-06-22
SIGN	2271902	LS	W-001-RX CURVE RIGHT ARROW East Wood 1 No	57.117	57.117		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271907	LS	SA-020 Marina symbol East Telspar 1 No	57.242	57.242		2010-06-22
SIGN	2271903	LS	SA-022 Boat Launch symbol East No Post 0 No	57.242	57.242		2010-06-22
SIGN	2271896	LS	I-007-TLR LEFT/RIGHT ARROW tab East No Post 0 No LEFT	57.242	57.242		2010-06-22
SIGN	2272012	RS	W-041-1TD Slippery When Frosty tab West Telspar 1 No 	57.510	57.510		2010-06-22
SIGN	2271971	RS	W-054-L Hazard marker - left West Telspar 1 No	57.654	57.654		2010-06-22
SIGN	2271967	RS	I-003 Landmark (Name) marker West Telspar 1 No KOKANEE CREEK	57.664	57.664		2010-06-22
SIGN	2271984	RS	W-054-R Hazard marker - right West Telspar 1 No KOKANEE CREEK	57.665	57.665		2010-06-22
SIGN	2271975	LS	W-054-L Hazard marker - left West Telspar 1 No	57.665	57.665		2010-06-22
SIGN	2271983	RS	W-054-R Hazard marker - right East Telspar 1 No	57.713	57.713		2010-06-22
SIGN	2271974	LS	W-054-L Hazard marker - left East Telspar 1 No	57.713	57.713		2010-06-22
SIGN	2271966	LS	I-003 Landmark (Name) marker East Telspar 1 No KOKANEE CREEK	57.714	57.714		2010-06-22
SIGN	2271973	LS	W-054-L Hazard marker - left East Telspar 1 No	57.724	57.724		2010-06-22
SIGN	2271960	RS	W-055-1 White delineator marker West Plastic 1 No 	57.761	57.761		2010-06-22
SIGN	2271959	RS	W-055-1 White delineator marker West Plastic 1 No	57.779	57.779		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271958	RS	W-055-1 White delineator marker West Plastic 1 No	57.799	57.799		2010-06-22
SIGN	2271957	RS	W-055-1 White delineator marker West Plastic 1 No	57.818	57.818		2010-06-22
SIGN	2271964	RS	W-055-1 White delineator marker West Plastic 1 No	57.837	57.837		2010-06-22
SIGN	2271963	RS	W-055-1 White delineator marker West Plastic 1 No	57.860	57.860		2010-06-22
SIGN	2271962	RS	W-055-1 White delineator marker West Plastic 1 No	57.884	57.884		2010-06-22
SIGN	2271965	LS	W-041-1TD Slippery When Frosty tab East Telspar 1 No	57.920	57.920		2010-06-22
SIGN	2271953	LS	W-001-RX CURVE RIGHT ARROW East Telspar 1 No	57.995	57.995		2010-06-22
SIGN	2271898	LS	LR Local Radio East Telspar 1 No LR-31-3A-3	58.146	58.146		2010-06-22
SIGN	2271900	RS	PB BC Parks Branch West Wood 1 No PB-31-3 C	58.573	58.573		2010-06-22
			KOKANEE GLACIER				
SIGN	2271899	LS	PB BC Parks Branch East Wood 1 No PB-31-4 A	58.734	58.734		2010-06-22
			KOKANEE/CREEK/PROVIN				
SIGN	2271834	RS	I-007-TLR LEFT/RIGHT ARROW tab West No Post 0 No	58.834	58.834		2010-06-22
			RIGHT				
SIGN	2271863	RS	SA-020 Marina symbol West No Post 0 No	58.834	58.834		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271850	RS	SA-022 Boat Launch symbol West Telspar 1 No	58.834	58.834		2010-06-22
SIGN	2271826	RS	SA Service & Attraction West Telspar 2 No GAS KOKANEE PARK MARINE	58.896	58.896		2010-06-22
SIGN	2271838	LS	LR Local Radio East Telspar 1 No LR-31-3A-2	58.966	58.966		2010-06-22
SIGN	2271843	LS	PB BC Parks Branch East Telspar 1 No PB-31-3 A KOKANEE/GLACIER/PROV	59.168	59.168		2010-06-22
SIGN	2272124	LS	SA Service & Attraction East Telspar 2 No 31-3A- KOKANEE PARK MARINE GAS	59.235	59.235		2010-06-22
SIGN	2272151	LS	SA-020 Marina symbol East Telspar 1 No	59.349	59.349		2010-06-22
SIGN	2272153	LS	SA-100-4 LEFT/RIGHT ARROW tab East No Post 0 No LEFT	59.349	59.349		2010-06-22
SIGN	2272144	LS	SA-022 Boat Launch symbol East No Post 0 No	59.349	59.349		2010-06-22
SIGN	2271941	LS	W-007-1U Side-road symbol - left/right East Telspar 1 No	59.750	59.750		2010-06-22
SIGN	2271978	LS	W-022-U () km/h tab West No Post 0 No ADVISORY SPEED 70KM/H	60.323	60.323		2010-06-22
SIGN	2271944	RS	W-005-RU WINDING ROAD RIGHT ARROW West Telspar 1 No 	60.323	60.323		2010-06-22
SIGN	2271948	LS	PB BC Parks Branch West Wood 1 No PB-31-4 A KOKANEE/CREEK/PROVIN	60.444	60.444		2010-06-22
SIGN	2271972	RS	W-054-L Hazard marker - left West Telspar 1 No	60.464	60.464		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271951	LS	PB BC Parks Branch North Wood 1 No PB-31-3D KOKANEE GLACIER	60.820	60.820		2010-06-22
SIGN	2271943	LS	R-003 POSTED SPEED () km/h AHEAD ARROW West Telspar 1 No MAX 80KM/H AHEAD	60.897	60.897		2010-06-22
SIGN	2271940	RS	W-007-1U Side-road symbol - left/right West Telspar 1 No	60.925	60.925		2010-06-22
SIGN	2271961	RS	G-008-1A Single (Street Name) Ahead - Side Mount West No Post 0 No LONGBEACH RD AHEAD	60.925	60.925		2010-06-22
SIGN	2272136	LS	W-005-RU WINDING ROAD RIGHT ARROW East Telspar 1 No 	61.229	61.229		2010-06-22
SIGN	2272186	LS	W-022-U () km/h tab East No Post 0 No ADVISORY SPEED 70KM/H	61.229	61.229		2010-06-22
SIGN	2272106	LS	W-007-1U Side-road symbol - left/right North Telspar 2 No	61.276	61.276		2010-06-22
SIGN	2272134	LS	G-007-1 (Street Name) - Side Mount North No Post 0 No 	61.276	61.276		2010-06-22
SIGN	2272105	RS	W-007-1U Side-road symbol - left/right South Telspar 1 No	62.800	62.800		2010-06-22
SIGN	2272133	RS	G-007-1 (Street Name) - Side Mount South No Post 0 No 	62.800	62.800		2010-06-22
SIGN	2272104	LS	W-007-1U Side-road symbol - left/right East Telspar 1 No	63.011	63.011		2010-06-22
SIGN	2272160	LS	G-008-1A Single (Street Name) Ahead - Side Mount East No	63.011	63.011		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			Post 0 No LONGBEACH RD AHEAD				
SIGN	2272163	RS	G-007-1 (Street Name) - Side Mount South Telspar 1 No MARTIN ROAD	63.066	63.066		2010-06-22
SIGN	2271936	RS	G-001 Directional Guide - Custom West Metal 1 No 31-63 HARROP/PROCTOR	63.209	63.209		2010-06-22
SIGN	2271929	RS	SA-052 Bed & Breakfast (B&B) symbol South Telspar 1 No B&B	63.243	63.243		2010-06-22
SIGN	2272098	LS	G-001 Directional Guide - Custom East Metal 1 No 31-62 NELSON/CASTLEGAR/HAR	63.402	63.402		2010-06-22
SIGN	2272137	RS	G-006 Distance Guide - Custom West Metal 1 No 39- 21 KOOTENAY LK. FERRY 7	63.432	63.432		2010-06-22
SIGN	2272181	LS	SA-052 Bed & Breakfast (B&B) symbol South Metal 1 No B&B	63.449	63.449		2010-06-22
SIGN	2272096	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 80KM/H	63.489	63.489		2010-06-22
SIGN	2272114	RS	PS-001-TCX 50 km/h When Children on Highway tab West No Post 0 No	63.544	63.544		2010-06-22
SIGN	2272190	RS	PS-001 School Area Ahead symbol West Telspar 1 No 	63.544	63.544		2010-06-22
SIGN	2272109	RS	W-007-1U Side-road symbol - left/right West Telspar 1 No	63.600	63.600		2010-06-22
SIGN	2272164	RS	G-008-1A Single (Street Name) Ahead - Side Mount West No Post 0 No BRYAN RD AHEAD	63.600	63.600		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

Inventory Item	Primary Key	XSP	Attributes	Chainage		Length	Modification
				Start	End		
SIGN	2272068	RS	W-054-L Hazard marker - left West Telspar 1 No	63.768	63.768		2010-06-22
SIGN	2272063	RS	I-003 Landmark (Name) marker West Telspar 1 No REDFISH CREEK	63.778	63.778		2010-06-22
SIGN	2272067	RS	W-054-L Hazard marker - left West Metal 1 No REDFISH CREEK	63.779	63.779		2010-06-22
SIGN	2272079	LS	W-054-R Hazard marker - right West Metal 1 No REDFISH CREEK	63.779	63.779		2010-06-22
SIGN	2272078	RS	W-054-R Hazard marker - right East Metal 1 No	63.795	63.795		2010-06-22
SIGN	2272066	LS	W-054-L Hazard marker - left East Metal 1 No	63.795	63.795		2010-06-22
SIGN	2272062	LS	I-003 Landmark (Name) marker East Telspar 1 No REDFISH CREEK	63.797	63.797		2010-06-22
SIGN	2272065	LS	W-054-L Hazard marker - left East Telspar 1 No	63.806	63.806		2010-06-22
SIGN	2272060	LS	G-008-1A Single (Street Name) Ahead - Side Mount East No Post 0 No BRYAN RD AHEAD	63.901	63.901		2010-06-22
SIGN	2272032	LS	W-007-1U Side-road symbol - left/right East Telspar 1 No	63.901	63.901		2010-06-22
SIGN	2272035	LS	PS-001-TCX 50 km/h When Children on Highway tab East No Post 0 No	64.208	64.208		2010-06-22
SIGN	2272076	LS	PS-001 School Area Ahead symbol East Telspar 1 No 	64.208	64.208		2010-06-22
SIGN	2272150	RS	SA-020 Marina symbol West Telspar 1 No	66.998	66.998		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2272138	RS	I-007-TR AHEAD-RIGHT ARROW tab West No Post 0 No 	66.998	66.998		2010-06-22
SIGN	2272143	RS	SA-022 Boat Launch symbol West No Post 0 No	66.998	66.998		2010-06-22
SIGN	2272149	RS	SA-018 Picnic Table symbol West No Post 0 No	66.998	66.998		2010-06-22
SIGN	2272107	RS	W-007-1U Side-road symbol - left/right East Telspar 1 No	67.104	67.104		2010-06-22
SIGN	2272161	RS	G-008-1A Single (Street Name) Ahead - Side Mount East No Post 0 No	67.104	67.104		2010-06-22
SIGN	2272123	RS	SA Service & Attraction West Telspar 2 No CAMP GROUND RIGHT	67.149	67.149		2010-06-22
SIGN	2272090	RS	SA Service & Attraction East No Post 0 No 31-3A-88 BIRCH GROV	67.252	67.252		2010-06-22
SIGN	2272089	RS	SA Service & Attraction East No Post 0 No 31-3A-88 	67.252	67.252		2010-06-22
SIGN	2271806	LS	G-008-1A Single (Street Name) Ahead - Side Mount East No Post 0 No	67.351	67.351		2010-06-22
SIGN	2272084	LS	W-007-1U Side-road symbol - left/right East Telspar 1 No	67.351	67.351		2010-06-22
SIGN	2272091	LS	SA Service & Attraction East Telspar 2 No CAMP GROUND LEFT	67.405	67.405		2010-06-22
SIGN	2271802	RS	W-005-LU WINDING ROAD LEFT ARROW West Telspar 1 No 	67.417	67.417		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2272203	LS	SA-020 Marina symbol East Telspar 1 No	67.476	67.476		2010-06-22
SIGN	2271804	LS	I-007-TL AHEAD-LEFT ARROW tab East No Post 0 No	67.476	67.476		2010-06-22
SIGN	2271801	LS	SA-018 Picnic Table symbol East No Post 0 No	67.476	67.476		2010-06-22
SIGN	2272201	LS	SA-022 Boat Launch symbol East No Post 0 No	67.476	67.476		2010-06-22
SIGN	2271996	RS	LR Local Radio West Telspar 1 No LR-31-3A-3	67.764	67.764		2010-06-22
SIGN	2272020	RS	SA-066-H Potter tab South Telspar 1 No	67.845	67.845		2010-06-22
SIGN	2271995	RS	I-007-TR AHEAD-RIGHT ARROW tab West No Post 0 No	67.908	67.908		2010-06-22
SIGN	2272010	RS	SA-016 Sani-dump symbol West No Post 0 No	67.908	67.908		2010-06-22
SIGN	2272004	RS	SA-022 Boat Launch symbol West Telspar 1 No	67.908	67.908		2010-06-22
SIGN	2271990	RS	SA Service & Attraction West Telspar 2 No CAMPGROUND RIGHT	67.981	67.981		2010-06-22
SIGN	2271992	LS	SA Service & Attraction East Telspar 2 No KOKANEE CAMPGROUND LEFT	68.177	68.177		2010-06-22
SIGN	2272019	LS	SA-066-H Potter tab North Telspar 1 No	68.202	68.202		2010-06-22
SIGN	2271998	RS	I-007-TL AHEAD-LEFT ARROW tab East No Post 0 No	68.232	68.232		2010-06-22
SIGN	2272009	LS	SA-016 Sani-dump symbol East No Post 0 No	68.232	68.232		2010-06-22
SIGN	2272005	LS	SA-022 Boat Launch symbol East Telspar 1 No	68.232	68.232		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

Inventory Item	Primary Key	XSP	Attributes	Chainage		Length	Modification
				Start	End		
SIGN	2271810	RS	SA-054 Golf symbol South Telspar 1 No & 3KM	68.354	68.354		2010-06-22
SIGN	2272199	RS	LR Local Radio West Telspar 1 No LR-31-3A-9	68.994	68.994		2010-06-22
SIGN	2272086	LS	R-003 POSTED SPEED () km/h AHEAD ARROW North Telspar 1 No MAX 80KM/H AHEAD	69.037	69.037		2010-06-22
SIGN	2272196	LS	G-006 Distance Guide - Custom East Metal 1 No 31-74 NELSON 34/CASTLEGAR	69.257	69.257		2010-06-22
SIGN	2272085	RS	R-003 POSTED SPEED () km/h AHEAD ARROW West Telspar 1 No MAX 60KM/H AHEAD	69.450	69.450		2010-06-22
SIGN	2271812	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No MAX 80KM/H	69.596	69.596		2010-06-22
SIGN	2271811	RS	R-004 Maximum POSTED SPEED () km/h West Telspar 1 No MAX 60KM/H	69.601	69.601		2010-06-22
SIGN	2271875	RS	SA-052 Bed & Breakfast (B&B) symbol South Telspar 1 No	69.659	69.659		2010-06-22
SIGN	2271832	RS	I-034-4 Entering (Jurisdiction Name) West Telspar 1 No BALFOUR UNINCORP	69.715	69.715		2010-06-22
SIGN	2271874	LS	SA-052 Bed & Breakfast (B&B) symbol North Telspar 1 No	69.904	69.904		2010-06-22
SIGN	2271883	RS	G-011-TB1 JCT tab West Telspar 1 No	69.965	69.965		2010-06-22
SIGN	2271840	RS	G-011-2 BC Highway (Number) Route marker West No Post 0 No ROUTE 31	69.965	69.965		2010-06-22
SIGN	2271824	RS	SA Service & Attraction West Telspar 2 No	70.046	70.046		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			LODGINGTHE CEDARS RESORT RIGHT				
SIGN	2271836	RS	I-007-TR AHEAD-RIGHT ARROW tab West No Post 0 No	70.117	70.117		2010-06-22
SIGN	2271842	RS	G-011-2 BC Highway (Number) Route marker West No Post 0 No ROUTE 3A	70.117	70.117		2010-06-22
SIGN	2271839	RS	G-011-2 BC Highway (Number) Route marker West Telspar 1 No ROUTE 31	70.117	70.117		2010-06-22
SIGN	2271828	RS	G-011-TC1 East tab West No Post 0 No	70.117	70.117		2010-06-22
SIGN	2271823	LS	SA Service & Attraction East Telspar 2 No THE CEDARS RESORT LEFT	70.117	70.117		2010-06-22
SIGN	2271827	RS	G-011-TC3 North tab West No Post 0 No	70.117	70.117		2010-06-22
SIGN	2271868	RS	I-006-TL AHEAD-LEFT ARROW tab West No Post 0 No	70.117	70.117		2010-06-22
SIGN	2271881	LS	R-050 Chains Mandatory on All Tires of Drive Axle Beyond This Point East No Post 0 No	70.158	70.158		2010-06-22
SIGN	2271835	RS	I-007-TR AHEAD-RIGHT ARROW tab West No Post 0 No	70.159	70.159		2010-06-22
SIGN	2271851	RS	SA-020 Marina symbol West Telspar 1 No	70.159	70.159		2010-06-22
SIGN	2271860	RS	SA-018 Picnic Table symbol West No Post 0 No	70.159	70.159		2010-06-22
SIGN	2271849	RS	SA-022 Boat Launch symbol West No Post 0 No	70.159	70.159		2010-06-22
SIGN	2271848	LS	PS-009 Do Not Pass School Bus symbol When Lights Flashing	70.233	70.233		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
			East Metal 1 No				
SIGN	2271831	M	G-006 Distance Guide - Custom West Metal 1 No 31-11 AINSWORTH HOT SPRING	70.240	70.240		2010-06-22
SIGN	2271815	RS	I-006 Historic Site Ahead West Metal 1 No TRAIL BLAZER-SYMBOL	70.244	70.244		2010-06-22
SIGN	2271864	RS	SA-100-4 LEFT/RIGHT ARROW tab West No Post 0 No LEFT HISTORIC ROUTE	70.244	70.244		2010-06-22
SIGN	2271865	LS	G-011-TC2 West tab North No Post 0 No	70.277	70.277		2010-06-22
SIGN	2271841	LS	G-011-2 BC Highway (Number) Route marker North Telspar 1 No ROUTE 3A	70.277	70.277		2010-06-22
SIGN	2271825	RS	SA Service & Attraction South Telspar 2 No LANGS-FOOD	70.278	70.278		2010-06-22
SIGN	2272155	RS	G-050-5 Ferry symbol West Telspar 1 No FERRY SYMBOL RIGHT	70.299	70.299		2010-06-22
SIGN	2272100	RS	G-011-TALR LEFT/RIGHT ARROW tab West No Post 0 No RIGHT ARROW	70.299	70.299		2010-06-22
SIGN	2272095	LS	R-004 Maximum POSTED SPEED () km/h East Telspar 1 No MAX 60KM/H	70.311	70.311		2010-06-22
SIGN	2271950	LS	R-001-U STOP sign East Telspar 1 No	70.403	70.403		2010-06-22
SIGN	2271977	RS	R-002-U YIELD symbol West Telspar 1 No	70.410	70.410		2010-06-22
SIGN	2271982	Z	G-001 Directional Guide - Custom North Metal 1 No 31-30 CRESTON VIA/KOOTENAY	70.416	70.416		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

Service Area: Central Kootenay SA

AMA: 10-A - Area A

Sub Area: 10-A-@

RFI Highway: 10-A-@-00003A Rte 3A EB - Brilliant-Balfour

RFI Length: 70.544

RFI Direction: E

<u>Inventory Item</u>	<u>Primary Key</u>	<u>XSP</u>	<u>Attributes</u>	<u>Chainage</u>		<u>Length</u>	<u>Modification</u>
				<u>Start</u>	<u>End</u>		
SIGN	2271945	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) East Telspar 1 No LEFT ARROW	70.483	70.483		2010-06-22
SIGN	2271979	RS	P-001 No Parking symbol DIRECTIONAL ARROW(S) North Telspar 1 No RIGHT ARROW	70.501	70.501		2010-06-22
SIGN	2271955	Z	P-019 No Parking symbol Disabled Parking Permitted symbol DIRECTIONAL ARROW(S) North No Post 0 No	70.513	70.513		2010-06-22
SIGN	2271956	LS	P-019 No Parking symbol Disabled Parking Permitted symbol DIRECTIONAL ARROW(S) North Telspar 1 No	70.537	70.537		2010-06-22
SIGN	2271949	M	R-001-U STOP sign North No Post 0 No	70.543	70.543		2010-06-22

Inventory Item Location Report

Sorted by Highway Number

2014-03-31 01:34 PM

LEGEND

Type	Feature Description
SIGN	Catalog Number Direction Facing Sign Post Type Number of Posts Large Sign Flag District Sign Number Installation Date Comments