

Alberta Infrastructure and Transportation (Southern Region)

Safety Rest Areas

Site Evaluations
January 2005





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January 27, 2005

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Attention: Naveed Butt, P.Eng.
Project Administrator, Southern Region
John Lowe, P.Eng.
Project Sponsor, Southern Region

Re: Evaluation of Proposed Safety Rest Areas – Southern Region
January 2005 Report

Enclosed is one CD copy of the January 2005 SRA report. This report addresses the majority of INFTRA comments received over the last quarter, along with an overall update of the report format, department change of name and revised aerial and map exhibits.

This final report is intended for the INFTRA sign-off after which time the report will be printed.

Thank you.

Sincerely,

Dennis W. Pommen, CLGM, CHRP
President

Darcy Paulichuk, P.Eng.,
Project Lead

ALBERTA INFRASTRUCTURE AND TRANSPORTATION
SOUTHERN REGION - SAFETY REST AREA EVALUATION – JANUARY 2005

THE RECOMMENDATIONS CONTAINED WITHIN THIS REPORT WERE

PRESENTED TO

ALBERTA INFRASTRUCTURE AND TRANSPORTATION
SOUTHERN REGION

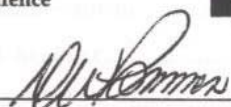
ON 05.01.27, 2005.

THIS DOCUMENT IS COMPLETE AND HAS BEEN ACCEPTED

BY

ALBERTA INFRASTRUCTURE AND TRANSPORTATION
WITH THE FOLLOWING PROVISIONS:




Dennis W. Pommen, CLGM, CHRP
President

Date: 05.01.27




Darrell Camplin, P.Eng.
Director, Southern Region

Date: FEB 24 2005

Report No R:899

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1. EXECUTIVE SUMMARY

Alberta Infrastructure and Transportation (INFTRA) has conducted extensive research and developed strategies for Safety Rest Areas (SRAs) on highways in the province. Through the development of the various strategies, various stakeholder groups were involved and consulted in the earlier studies to assist in the development of the various plans. The most recent, March 31, 2004 *Policy Framework & Implementation Strategy (R-863)*, consolidated all strategies and provides guidelines for development of SRAs on provincial highways. This specific report addresses the reconciliation of the Southern Region existing and proposed SRAs in accordance with the policy framework.

In July 2004, POMMEN Group was retained by the South Region of INFTRA to complete the site evaluations of 16 SRA sites identified in the Policy Framework & Implementation Strategy. The scope of the study involved a refinement in the planning process for locating the sites and actual field evaluation of potential sites to ensure compliance at both the strategic and field levels.

Observations and recommendations have been made through applying the INFTRA SRA strategic criteria for spacing requirements, criteria of the framework and specific information obtained about each site through field observations.

The purpose of this site evaluation is to make specific recommendations for future action for each site. These recommended actions may include upgrading an existing site for conversion to one of the proposed SRAs, upgrading of a site for continued use as a non-SRA facility (Vehicle Inspection Station (VIS), self-weigh facility or Mobile Inspection Station (MIS), scenic lookout, brake check area, historical point of interest, etc.) or removal of the site. In some instances like historic turnouts, it is recommended that the turnouts be maintained until such time that alternative sites are proposed or upgraded conforming to the highway standards.

In order to complete evaluation of the 16 sites proposed in the Policy Framework & Implementation Strategy, a complete survey of highways #1, #2 and #3 was carried out in August 2004. An inventory of the existing roadside turnouts along pictures, chainage and GPS coordinates was created during the site visits. Similar data was obtained for other potential SRA locations as well. Existing and 20-year projected traffic volumes were obtained from INFTRA.

The data was then analyzed and the sites evaluated in light of the Policy Framework & Implementation Strategy resulting in 24 sites being recommended for consideration. Construction priorities, land for right-of-ways and cost estimates were prepared for the recommended sites. Two existing sites near Milk River on Hwy #4 are identified to upgrade facilities. The overall results and recommendations of all of the Site Evaluations are summarized in the following tables 1.1 and 1.2:

Table ES-1.1

SRA Action	Hwy #1	Hwy #2	Hwy #3	Hwy #4	\$,000
Upgrades	3	0	1	2	845
Removals	17	11	14	0	860
New	6	8	4	0	20,042
Sub-total	26	19	19	2	21,747
Land ROW					661
Total					22,408

Table ES-1.2 Recommended Sites

Hwy. Section	# Count	Type	Southern Region Highway							Class of SRA						\$ (000) Estimate						Label	%	Add ROW Ha
			SRA #	Location				Existing WAADT	2024 WAADT	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total			
				Hwy #	Approx. CS	Km	Direction																	
																					Label	%		
1.1		S	R-031	1	CS 1.02	21.990	WB	14,970	22,110					1	1					20	20	A	73	
1.1	1	S	P-003	1	CS 1.02	22.400	WB	14,970	22,110									225		20	225			
1.1		S	R-001	1	CS 1.02	27.640	WB	14,970	22,110					1	1					20	20			
1.1		T	R-008	1	CS 1.04	7.280	WB	16,290					1	1						20	20			
1.1		T	R-009	1	CS 1.04	7.250	EB	16,290					1	1						20	20			
1.2	1	N	P-002	1	CS 1.06	1.850	WB	16,480	23,260	1					1	1,429					1,429	B	58	3.8
1.2	1	N	P-005	1	CS 1.06	17.600	EB	16,480	23,260	1					1	1,429					1,429	C	40	3.9
1.2		T	R-053	1	CS 1.06	19.148	EB	16,480	23,260				1	1						20	20			
1.3	1	N	P-007	1	CS 1.14	7.600	EB	7,140	10,180		1						1,070			20	1,090	B	60	3.8
1.3	1	N	P-006	1	CS 1.14	17.920	WB	6,150	10,180		1				1		1,070			1,070	1,070	B	60	5.3
1.4		T	R-010	1	CS 1.14	57.624	EB	6,080					1	1						20	20			
1.4		T	R-011	1	CS 1.16	9.020	WB	6,370					1	1						20	20			
1.4		T	R-012	1	CS 1.16	51.692	EB	6,590					1	1						20	20			
1.4		T	R-013	1	CS 1.16	25.700	WB	6,590					1	1						20	20			
1.5		T	R-014	1	CS 1.18	23.051	EB	6,210					1	1						20	20			
1.5		T	R-015	1	CS 1.18	24.700	WB	6,210					1	1						20	20			
1.5		I	R-016	1	CS 1.18	39.285	WB	5,670					1	1						20	20			
1.5	1	U	P-004	1	CS 1.18	44.400	EB	5,670	8,180	1					1		20			20	20	B	45-S	0
1.5	1	NH	P-012	1	CS 1.18	53.930	WB	5,670	8,180	1					1		1,070			1,070	1,070	B	58	3.0
1.5		I	R-018	1	CS 1.20	3.560	EB	5,670					1	1						20	20			
1.5		T	R-019	1	CS 1.20	25.759	EB	7,940					1	1						20	20			
1.5		T	R-020	1	CS 1.20	26.643	WB	7,940					1	1						20	20			
1.6		I	R-021	1	CS 1.22	20.816	EB	5,740					1	1						20	20			
1.6		T	R-022	1	CS 1.22	24.470	WB	4,710					1	1						20	20			
1.6	1	U	P-009	1	CS 1.22	45.780	WB	4,710	6,280		1				1		100			100	100	A	45-S	0
1.6	1	N	P-008	1	CS 1.22	45.000	EB	4,710	6,280		1				1		1,070			1,070	1,070	A	70	4.4
2.1		T	R-007	2	CS 2.22	7.535	NB	21,400	31,890					1	1					20	20			
2.1	1	N	P-001	2	CS 2.20	31.525	SB	19,810	29,520	1					1	1,489				1,489	1,489	A	83	4.2
2.1	1	N	P-023	2	CS 2.20	24.800	NB	19,810	29,520	1					1	1,489				1,489	1,489	A	83	4.1
2.2		T	R-027	2	CS 2.12	33.981	SB	15,190					1	1						20	20			
2.2		T	R-053	2	CS 2.12	1.831	NB	10,880	15,760					1	1					20	20			
2.2	1	N	P-016	2	CS 2.10	38.000	SB	8,760	15,760		1				1		1,163			1,163	1,163	A	75	5.5
2.2	1	N	P-022	2	CS 2.10	38.000	NB	8,760	15,760		1				1		1,163			1,163	1,163	A	75	4.9
2.3		T	R-006	2	CS 2.10	12.159	SB	6,750	9,620					1	1					20	20			
2.3		T	R-028	2	CS 2.10	1.107	SB	6,540					1	1						20	20			
2.3		I	R-029	2	CS 2.08	43.158	NB	6,550					1	1						20	20			
2.3	1	N	P-017	2	CS 2.08	15.600	SB	4,320	5,450		1				1		1,070			1,070	1,070	B	63	4.1
2.3	1	N	P-021	2	CS 2.08	14.200	NB	4,320	5,450		1				1		1,070			1,070	1,070	B	63	4.6
2.4		T	R-037	2	CS 2.06	20.583	SB	1,500					1	1						20	20			
2.4		T	R-038	2	CS 2.06	12.022	NB	1,280					1	1						20	20			
2.4	1	N	P-020	2	CS 2.06	7.700	SB	1,280	1,643					1	1					535	535	C	35	0
2.4	1	N	P-019	2	CS 2.06	1.925	NB	1,280	1,643					1	1					535	535	C	35	0
2.4		R	R-039	2	CS 2.06	0.532	NB	1,280					1	1						20	20			
2.4		I	R-040	2	CS 2.04	1.565	NB	2,110					1	1						20	20			
2.4		T	R-041	2	CS 2.02	21.884	NB	2,880					1	1						20	20			
3.1		I	R-055	3	CS 3.02	1.680	EB	5,800	6,636					1	1					20	20			
3.1	1	I	P-024	3	CS 3.02	3.200	WB	5,800	6,636		1				1		200			200	200	B		
3.1		T	R-057	3	CS 3.02	10.942	EB	5,800	6,636					1	1					20	20			
3.1		T	R-058	3	CS 3.02	10.942	WB	5,800	6,636					1	1					20	20			
3.1		T	R-045	3	CS 3.02	12.000	EB	5,800	6,636					1	1					20	20			
3.1		S	R-004	3	CS 3.02	31.400	WB	4,840	6,636					1	1					20	20			
3.1		S	R-005	3	CS 3.02	31.400	EB	4,840	6,636					1	1					20	20			
3.1		S	R-003	3	CS 3.04	0.643	WB	4,840	6,636					1	1					20	20			
3.1	1	N	P-015	3	CS 3.04	17.200	EB	3,440	4,350						1		1,175			1,175	1,175	A	73	5.8
3.1	1	N	P-014	3	CS 3.04	28.850	WB	3,440	4,350			1			1		1,175			1,175	1,175	A	73	3.1
3.1		H	R-050	3	CS 3.04	19.988	WB	3,500	6,636					1	1					20	20			
3.1		T	R-051	3	CS 3.06	14.950	WB	2,870	6,636					1	1					20	20			
3.1		T	R-052	3	CS 3.06	0.730	EB	2,870	6,636					1	1					20	20			
3.2		T	R-002	3	CS 3.06	39.666	WB	3,820	5,154					1	1					20	20			
3.2		I	R-026	3	CS 3.08	34.886	WB	14,440					1	1						20	20			
3.2		T	R-024	3	CS 3.10	2.260	WB	15,020					1	1						20	20			
3.3		I	R-023	3	CS 3.10	15.750	WB	8,250					1	1						20	20			
3.4	1	N	P-011	3	CS 3.14	4.000	WB	2,830	3,513			1			1		1,070			1,070	1,070	B	63	4.2
3.4	1	N	P-010	3	CS 3.14	29.400	EB	2,770	3,449			1			1		1,070			1,070	1,070	B	63	4.7
	2	U	n/a	4	Milk River Facil.	NB/SB				2					2	200				200	200	B	63	
	24		Totals							8	11	2	2	43	66	6,036	11,206	2,350	1,295	860	21,747			69.4
S - Scenic, T - Turnout, R - Rest Area, N - New SRA, U - Upgrade SRA, I - Point of Interest, H - Historic																								

2. INTRODUCTION

2.1 Site Development

The Southern Region of INFTRA retained POMMEN Group to undertake a study for site evaluation of 16 potential SRA sites in the region. For the most part, the sites were previously identified in the SRA Policy Framework & Implementation Strategy (R-863) and reports for the North-South Trade Corridor (R-750) (Montana to BC Borders), Highway #1 (R-777) (Saskatchewan to Banff Park Entrance) and Highway #3 (R-773) (Saskatchewan to BC Borders).

The generic term “Safety Rest Area (SRA)” refers to as a location created or designated to permit a driver to exit the main highway traffic lanes for the purpose of stopping to reduce driver fatigue, attend to vehicle or load needs, etc. Safety Rest Areas are public facilities providing minimal services, toilets and parking only. This generic term now encompasses all locations that were previously referred to as “Roadside Turnouts”.

2.2 Objectives

The Southern Region study was carried out to achieve the following objectives:

1. Review the proposed Safety Rest Area list for the Southern Region provided in the POMMEN report; complete site evaluations for each strategically located site; and identify a specific location, type and preliminary cost for each of the proposed Safety Rest Area sites.
2. As part of the continuum of strategically located Safety Rest Areas on highways #1, #2 and #3, verify the recommended locations and spacing of the proposed Safety Rest Areas so as to prepare the department to proceed to detailed design and construction. The strategy provides for Safety Rest Areas guideline spacing which may be accomplished by upgrading an existing rest area, building a new one and removing rest areas outside of the spacing strategy.
3. Identify the applicable Alberta INFTRA Safety Rest Area outer separated design standard for each Safety Rest Area. Alberta INFTRA Divisional Executive Committee has approved the use of outer separated designs for Safety Rest Areas on all divided highways (All existing grade widened sites on divided highways are ultimately to be removed and/or upgraded to an outer separated design standard based upon the strategic guidelines).
4. Identify the right of way requirements for each Safety Rest Area along with the associated land acquisition costs.

2.3 Deliverables

The deliverables from the Consultant for this study are:

1. Safety Rest Area site assessments and evaluations of proposed Safety Rest Area locations identified for the Southern Region Highways #1, #2 and #3 in accordance with POMMEN Group previous strategic spacing reports and INFTRA criteria Implementation Framework;
2. Provide detailed evaluation of sites to address technical merits of locations, topography, environmental implications, utilities, right-of-way requirements and amenities so as to present documentation that will prepare INFTRA to proceed to SRA detailed design and construction;
3. Apply INFTRA design criteria of outer separated designs for Safety Rest Areas on all divided highways (All existing grade widened sites on divided highways are ultimately to be removed and/or upgraded to an outer separated design standard based upon the strategic guidelines); and
4. Apply strategic and technical judgement to the application of SRA site evaluation and location recommendations.

3. HISTORY AND BACKGROUND

3.1 Policy Framework

This report follows the “SRA Policy Framework and Implementation Strategy” of March 2004, (#R: 863) either verifies, incorporates or updates the previous studies of the North/South Trade Corridor, Highways #1 and #3. Combining these reports with the addition of the GPS technology approach to site evaluation has produced viable site locations and advancing the implementation stage of SRA planning/ pre-construction phase.

3.2 Rest Area Research

INFTRA has conducted extensive research and developed strategies for SRAs on highways in the province over several years. The more recent studies include the following:

1. Highway Rest Area Research & Development
2. Highway 16 between Edmonton and Jasper Park Gate
3. North/South Trade Corridor (Montana to BC Borders)
4. Highway 3 (Saskatchewan to BC Borders)
5. Highway 1 (Saskatchewan to Banff Park Entrance)
6. Two Lane Highways
7. SRA Framework & Implementation Strategy
8. Design Guideline amendment April 2004

The various studies have incrementally increased the knowledge and awareness of how SRAs add to the overall safety of the highway network and provide facilities to address driver needs. A combination of key elements demonstrates the need to add SRAs to highways:

• Driver fatigue management	• Driver operating hours
• Open Cargo Guide for load checks	• Equipment checks and maintenance
• Adverse weather conditions	• Equipment breakdowns
• Log haul safety checks	• Heavy truck haul checks, layovers
• Long haul trucking needs	• General travel needs
• Increased truck transportation	• Growth in economic development
Reference studies identified above	

The research and studies has led INFTRA to develop the following Safety Rest Area Policy:

“Alberta INFTRA develops safe highway network design and operation with the inclusion of Safety Rest Areas within the highway network applied in accordance with North American transportation guidelines and criteria.”

Through the development of the various strategies, various stakeholder groups were involved and consulted to assist in the development of various plans over the period of several years. These included:

• Alberta Motor Association • Alberta Municipal Districts & Counties • Alberta Transportation Association • Alberta INFTRA Safety & Inspections • Alberta Urban Municipalities Association • American States and Safety Associations • AASHTO	• CMA Representatives • Forestry Industry Representatives • Heavy Haul and Commercial Transportation District Advisory Committees • MLA Whitecourt Advisory Committee • Other Canadian Provinces • INFTRA-Canada Yellowhead Highway Association
Reference studies identified above	

Stakeholders have identified the need for additional stopping opportunities along transportation corridors to ensure a safe, efficient, and long-distance movement of people and goods. Need identification is further supported by North American practices and studies that illustrate how rest areas improve highway safety.

3.3 Roadside Facility Categories

Roadside Facilities may include the following major categorizations of SRA and Non-SRA Sites:

SRA Sites:

- Safety Rest Areas (SRAs) classified as:
 - Major Rest Areas (six existing sites in Alberta): These are “full service Alberta provincial sites that have service buildings with Rest Rooms. Southern Region has two: Hwy #1 Kininvie Rest Area (Bassano vicinity) and Hwy #2 Stevenson/Dickinson (near Airdrie).
 - Minor Rest Areas (16 Sites previously identified in the Southern Region which include existing to be upgraded and new proposed sites). These are classified as “minimum standard” sites that provide “basic” services; are designed to current day F-2 Design Manual standards; and are strategically located based on the established/approved INFTRA “strategic guidelines”.

Non-SRA Sites:

- Vehicle Inspection Stations (VIS) Classified as:
 - Class A (VIS)
 - Class B (VIS)
 - Class C (MIS)
- High/Wide Oversize Load Sites:

- Sites typically near point of origin for the movement of large products destined for manufacturing or plant sites.
- Points of Interest Sites:
 - Significant Alberta features or historic points signed for the interest and information of the traveling public.
- Brake Check Sites:
 - Sites typically near long/steep hills/valleys that are used by vehicles to check brakes,
 - Add or remove tire chains etc.

Several existing roadside facilities (Including VIS, MIS, Points of Interest, Non SRA commercial sign and town signs, Brake Check sites, and SRAs) have been identified in the Southern Region. All Roadside Facilities identified in the Southern Region have been categorized with their basic/primary function. This study advances only those sites that meet the SRA evaluation criteria.

3.4 INFTRA Policy and Implementation Framework

The Safety Rest Area Policy and Implementation Framework (R-863) readies INFTRA for the implementation of Safety Rest Area development based on priority criteria. The responsibility to implement the Safety Rest Area Strategy is delegated to the INFTRA Regions.

The SRA implementation strategy includes the following sequences:

1. Policy and Strategic Implementation
2. Site Evaluation Stage
3. Implementation Stage
4. Construction Stage
5. Monitoring and Maintenance Stage

In addition, the INFTRA Regions will update their three-year priority plan before the 31st of March each year. The plan will outline priority A, B, and C Safety Rest Areas in a region, as well as timelines and budgets for completion.

Specific responsibilities and outcomes include the following:

- Planning for and conducting individual site evaluations and advancing plans for Safety Rest Areas identified by priorities and strategies, in advance of construction.
- Annually budgeting for the construction of sufficient Safety Rest Areas so that the “A” priorities are constructed and completed over a shorter period of time.
- Designing and engineering Safety Rest Areas so that the design conforms to INFTRA site development requirements and standards.
- Acquiring right-of-way and land in advance of facility construction.
- Issuing tenders and contracts for an annual construction program.

- Managing the construction programs.
- Maintaining and repairing facilities on an annual basis.

3.5 Implementation Strategies

3.5.1 Implementation

The implementation strategies followed by the INFTRA Regions will address:

- Sites and budgets in the three-year highway budget to provide for design and construction of Safety Rest Areas by priority locations and highways or, alternately, the plan to participate in dedicated funding approvals.
- Standard INFTRA policy that future highway construction, overlays, rehabilitations, and modifications provide for Safety Rest Area construction as part of design and construction contracts to realize savings whenever possible.
- New installations to be completed before removals occur.

The implementation strategy shall plan, coordinate, budget for, and complete the construction of Safety Rest Areas based on a three-point (A, B, C) priority scale as follows:

- | | |
|----------------------------|---|
| A - High Priority sites: | Construction should be planned, coordinated, and completed within a three-year window. |
| B - Medium Priority sites: | Construction should be planned, coordinated, and completed within three to six years. |
| C - Low Priority sites: | Construction should be planned and coordinated for completion after A and B priority Safety Rest Areas are constructed. |

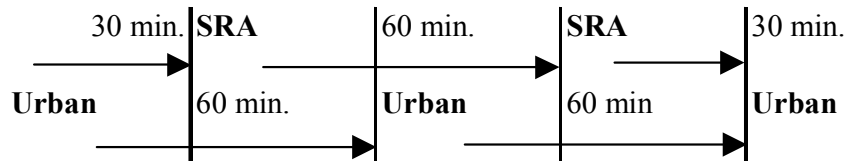
Upon the completion of the Priority A sites, B sites will become As, and Cs will become Bs. Any future proposed rural sites ranked Priority A shall enter the three-year plan and take precedence over B and C sites, but not over A sites already identified in this report. *Note: Urban areas do not qualify within the criteria of the SRA program.*

3.5.2 Priorities and Strategies

- SRA sites proposed subsequently will be subject to the evaluation criteria identified in the Safety Rest Area Policy and Implementation Framework document.
- This site evaluation study examined the potential sites and established a priority ranking based on factors such as spacing, traffic mix, traffic volumes, safety and geographical conditions. These sites were ranked as priority A, B or C.
- It is recommended that the SRAs be staggered so that the traffic flow encounters an SRA on the right hand side of a four-lane highway one to two kilometres in advance of the SRA located on the left hand side of the highway.

- Where two SRAs are planned for construction in close proximity, it would be advisable if they were bundled together to gain economies of scale.
- Existing close-by roadside facilities should only be removed after the new SRA has been constructed in the vicinity.

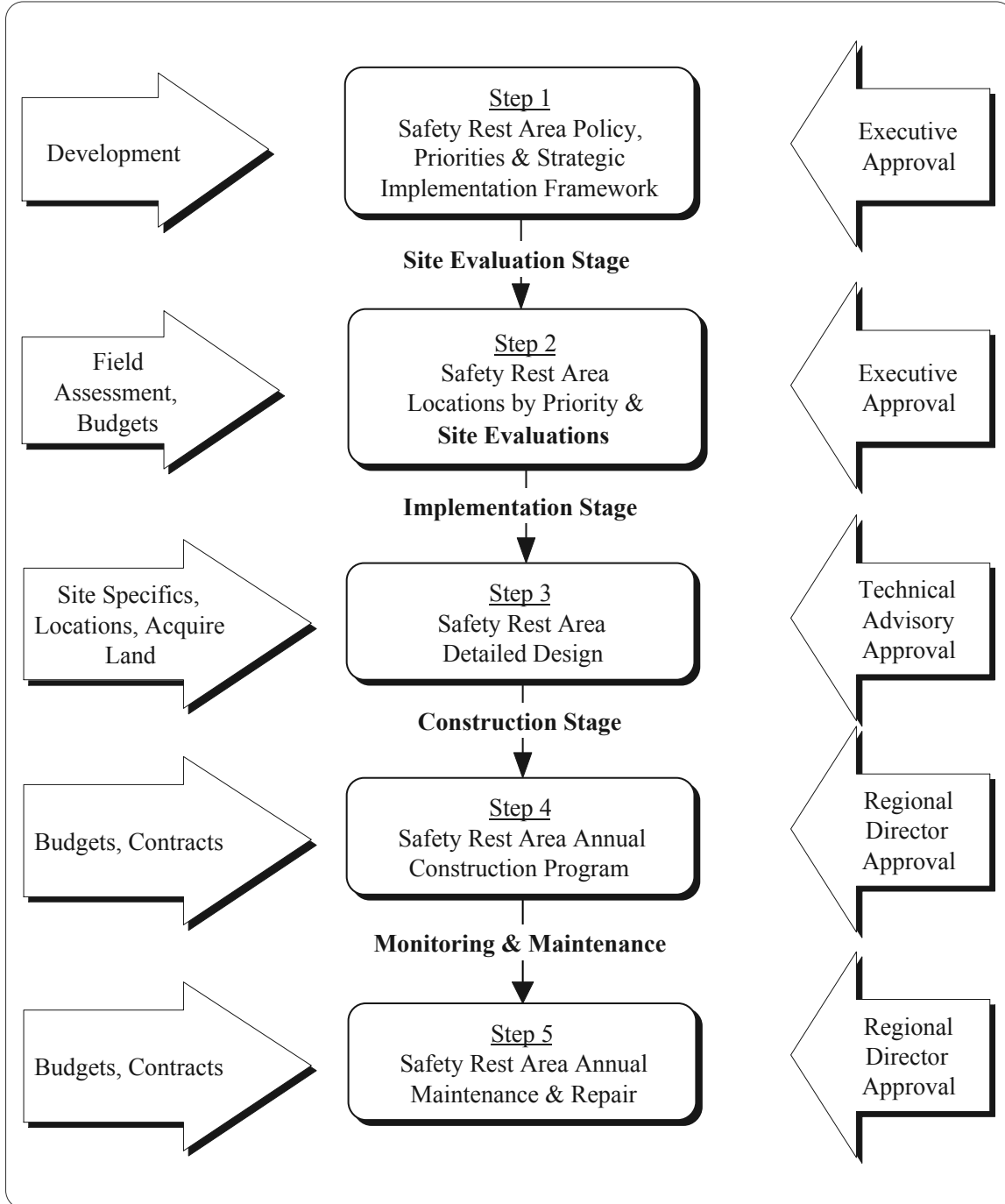
3.5.3 Spacing



The overall strategies and functional factors determine the locations and spacing of Safety Rest Areas. The primary factors are:

- Approximately 30-minute travel time spacing from urban centres or previous stopping locations with variances in relationship to volume and mix of traffic, e.g., in log haul areas, a stop is required within 80 kilometres of accessing a highway; therefore, the travel time could be extended beyond 30 minutes to meet the criteria.
- North American rest areas are planned at approximately 60-minute spacing. Where rest areas do not exist, a combination of urban stops, rural commercial areas, INFTRA MIS/VIS sites, and existing sites become part of the calculation of a 60-minute travel time for stopping.
- An overall 60-minute travel time spacing between safety rest areas, depending on the variances in volume and mix of traffic.
- Locations in relation to existing business or services

Procedures Flow Chart



Note that this report covers Step 2: Field Assessment, Cost Estimates, SRA Locations by Priority and Site Evaluations.

4. METHODOLOGIES

The following methodologies and procedures were employed to complete the project scope.

4.1 Technical Guidelines

The Technical Review Committee established the following guidelines for locating Safety Rest Areas in the Southern Region:

- All freeway/multilane highway designs shall be outer separated.
- Historic/Scenic locations will be incorporated with Safety Rest Areas where the point of interest can be moved and existing substandard sites removed. Historic locations that cannot be moved and do not meet the design standard are excluded from this study. INFTRA will advance a separate study for dealing with such sites.
- Safety Rest Areas be located about 3 kilometers away from existing or future interchanges to minimize traffic conflict and assist with locating signage. The same rule applies to intersecting highways or local roadways.
- The terminology *upgrade* means an existing substandard rest area or turnout that partially meets the design criteria but needs to incorporate certain facilities for bringing it up to the current F.2 design standard. The terminology *modify* means an existing substandard rest area or turnout will be modified to improve functionality, but is constrained by site topography and cannot meet a full F.2 design standard.
- Where service roads compliment a freeway/multilane highway, the cost for moving or providing a service road in the vicinity of the Safety Rest Area is to be included in the estimated costs.
- Where freeway bypasses are planned or likely to be planned, Safety Rest Area locations will be based on the future bypass location and the travel distance criteria.

4.2 Selection and Evaluation of Proposed SRAs

The purpose of the study was to evaluate and select specific locations for 16 new SRAs in the Southern Region. These 16 sites were identified in the INFTRA SRA Policy Framework and Implementation Strategy. Through field observations and spacing assessment, additional sites were identified and evaluated which are reflected in the overall tables.

The site evaluation process for SRAs included the following steps:

- Using the general locations identified in previous reports, the 16 sites were plotted on a detailed provincial map along with the existing sites. (Refer to the updated mapping in this report).

- As a result of field inspection and final site evaluation, this report produces specific locations and preliminary cost estimates for 16 new or upgraded SRA sites in the Southern Region. In addition to the 16 SRAs identified in the previous study, another eight SRAs were identified and have been included in this report.
- INFTRA operations staff was consulted to obtain relevant information.
- Using pre-established strategic site evaluation criteria (refer to the sample sheet in this report); a preliminary selection for each site was carried out using aerial photos and previous highway video/picture logs.
- Preliminary site overlays were assembled using geographical coordinates and cadastral information obtained from INFTRA databases.
- Using a Garmin GPSMAP 76S Handheld GPS and MapSource MetroGuide mapping software, the coordinates for the proposed SRA sites from the preliminary site selection were programmed into the handheld device and laptop computers.
- During the week of August 8, 2004 and November 8, 2004, site evaluation trips were carried out and the proposed sites were visited and evaluated according to the criteria. In each case, primary and secondary sites were selected and plotted into the GPS for download, site photos were recorded, and field notes taken.
- Latitudes and longitudes were established for locating the sites precisely.
- Title searches and consultations with Alberta One-Call were carried out to determine the ownership of lands abutting the proposed locations and the existence of any registered utilities on or near the site. This information is documented in each Data Sheet of the proposed Safety Rest Area. Specific on-site locates will be required before design and construction is taken in hand.
- The information obtained in the field was analyzed, and recommendations regarding location, appropriate geometric highway design standards, the number of required parking stalls, and site priorities were formulated for each site on data sheets included in this report.

4.3 Reference Guidelines and Resources

4.3.1 Technical Standards

The following design guidelines and manuals were consulted for preparing this report:

- *Engineering Consultants Guidelines for Highway and Bridge Projects* (August, 2002)
- *Highway Geometric Design Guidelines* (2004 update)
- *Drafting Guidelines – CB4* (July 1995)
- *Access Management Guidelines for Rural Roads in Alberta* (now incorporated as a section in the *Highway Geometric Design Guidelines*)
- *Traffic Accommodation in Work Zones* (May 2001)
- *TAC Geometric Standards Manual* (1999)
- *An Information Guide for Roadway Lighting, AASHTO* (1984)

Additional resources on criteria, design standards, and construction costs are included in the Appendices.

4.3.2 SRA Lighting

INFTRA Highway Geometric Design Guidelines (2004 update) recommends low intensity lighting for parking areas in the Safety Rest Areas. AASHTO has published guidelines for rest areas and suggest parking areas luminance be 1.0 Foot-candles, 11 Lux and 3:1 to 4:1 Uniformity Ratio. AASHTO guidelines further suggest that intensity of lighting should be evaluated to the location and functioning of the Safety Rest Area to minimize confusion or conflict with adjacent highway travel.

In Alberta, some Safety Rest Area locations will be able to be served by adjacent power lines. However, in remote locations without power, solar energy may possibly be the best option. Carmanah Technologies Inc. (www.Carmanah.com) most recently has installations and applications of its solar-powered and LED edge-lit roadway and parking lot lighting products and maybe one solution for lighting. This technology has been installed on:

1. Yoho Bridge on Trans Canada Highway Solar 24-Hour Flashers
2. World's Largest Soccer Facility Solar Crosswalk Beacons
3. Tyler, Texas LED Edge-lit Street Signs
4. Oregon DOT Solar School Zone Flashers For Elementary School Zone

This is the latest information available regarding solar powered parking lot lighting and reference material is included in Appendices Section 9.6.

4.3.3 SRA Telephones

One of the facilities or services that is to be located on-site at an SRA is that of a pay-telephone kiosk. For some sites, the service will be readily available with Telus lines in the immediate facility. Such service should be arranged during design and ready for installation with construction of the site.

Where telephone service lines are not available, there may be three alternatives:

1. To install service at an extra cost to the project, where distance and costs are reasonable in relationship to the overall installation;
2. To install solar powered cellular service with a user-pay credit card payment feature where cellular coverage is available and installation costs are reasonable in relationship to the overall installation; or
3. To defer installation of telephone service until such time as availability of service and/or costs reaches an acceptable level.

4.3.4 SRA Environmental Assessment

One of the factors or criteria in locating SRAs is to consider the impacts of constructing a facility at a chosen location. Two factors apply as the basis of considering impacts: physical characteristics and judgment by the evaluator through visual and knowledge assessment.

For all sites identified and recommended in this evaluation, various factors were considered relating to siting an SRA. The following elements form the basis for selecting a Safety Rest Area:

1. Minimal impacts on watercourses and surrounding land.
2. Geography and topography of the areas being considered.
3. Distance and separation from residential development.
4. Distance and separation from highway intersections, existing and future interchanges, railway operations, etc.
5. Consideration of historic sites and the need for consultation with Alberta Community Development.

A combination of all of these factors forms the basis for evaluating and selecting a site for a Safety Rest Area.

4.4 Sample Site Evaluation Checklist

Hwy #		Control Section #	Km #	Site #
Region:		Direction of Travel:		
Pre-Design Evaluation				
Functional Factors		Yes	No	Comments/Variations (See Reverse)
1	Spacing			
1	1 60 min. SRA			
1	2 30 min. SRA			
2	Traffic Characteristics			
2	1 Traffic Composition			
2	2 Trip Purpose/Length			
2	3 Traffic Volume			
2	4 Design Type			
3	Location			
3	1 Environmental			
3	1 1 Natural conditions			
3	1 2 Water courses			
3	1 3 Scenic views			
3	1 4 Points of interest			
3	1 5 Winter storms			
3	2 Adjacent Services			
3	2 1 30 min. separation			
3	3 Urban Centres/Borders			
3	3 1 30 min. separation			
3	4 Neighbouring Develop.			
3	4 1 Land Use Bylaw			
3	4 2 Residences			
3	4 3 >1 km separation			
3	4 4 Utilities, Irrigation			
3	5 Right-of-way			
3	5 1 F.2. Highway Design Guide			
3	5 2 Grades, Visibility			
3	5 3 Land ownership			
3	5 4 Interchanges (P & E)			
3	5 5 Intersections (P & E)			
4	Facilities			
4	1 Litter Containers			
4	2 Phone			
4	3 Dry Toilet			
4	4 Regular Maintenance			
4	5 Winter Maintenance			
4	6 Visibility			
4	7 24 hour access			
4	8 No. of Parking Stalls (P & E)			
SRA — Safety Rest Area; P & E — Planned and Existing				
Inspected by _____ Date _____ Reviewed by _____ Date _____				

5. SRA DESIGN GUIDELINES

5.1 Geometric Design Guide

Section F.2 of the Highway Geometric Design Guide (Updated May 2004) provides several design configurations for SRAs. This section addresses SRA configurations for the following types of highways:

- Divided highways,
- Two-lane highways,
- Two-lane highways expected for twinning, and
- Stages to accommodate existing need and future expansion.

The scope of this project covers two-lane and four-lane highways, therefore the following standards are of relevance for Highway SRAs' designs:

- Figure F-2.1.1 Classification F.2.1 Freeway / Expressway over 12,000 AADT
- Figure F-2.1.2 Classification F.2.1 Expressway under 12,000 AADT
- Figure F-2.2.1 Classification F.2.2 Existing Two Lane Highway
(Future Multi-Lane) on Same Side
- Figure F-2.2.2 Classification F.2.2 Existing Two Lane Highway
(Future Multi-Lane) on Opposite Side

SRA location access and functional design should consider the traffic composition, truck types, AADT/ASDT, 20-year projections, and seasonal volumes of traffic on the adjacent highway.

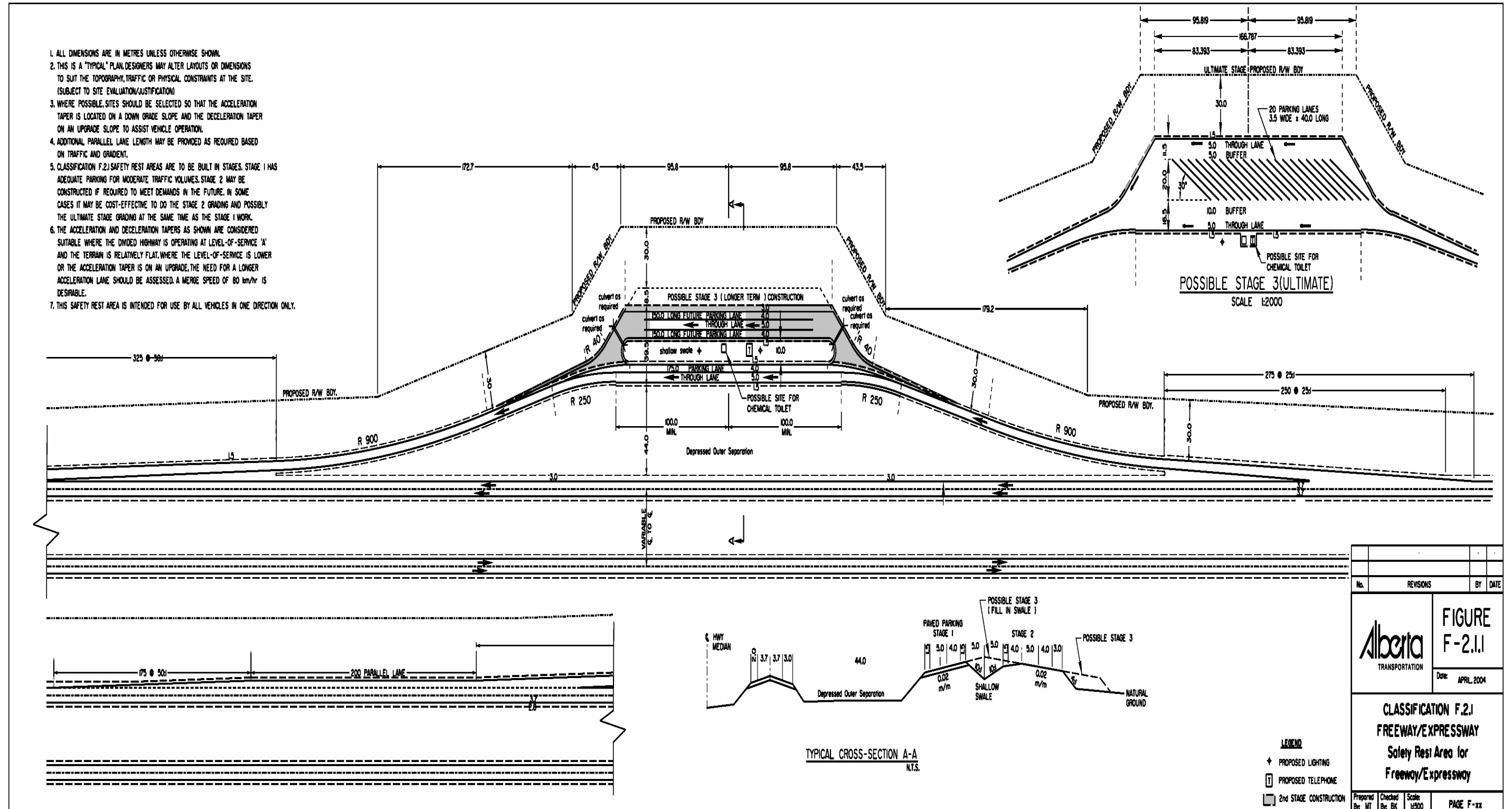
Geographical and topographical features at certain locations did not allow application of standard design templates. The following design templates (with slight modification) were used for such locations:

- Figure F-2.3.1 Classification F.2.3 Two Lane Highway (Typical)
- Figure F-2.3.2 Classification F.2.3 Two Lane Highway for Log Haul Routes

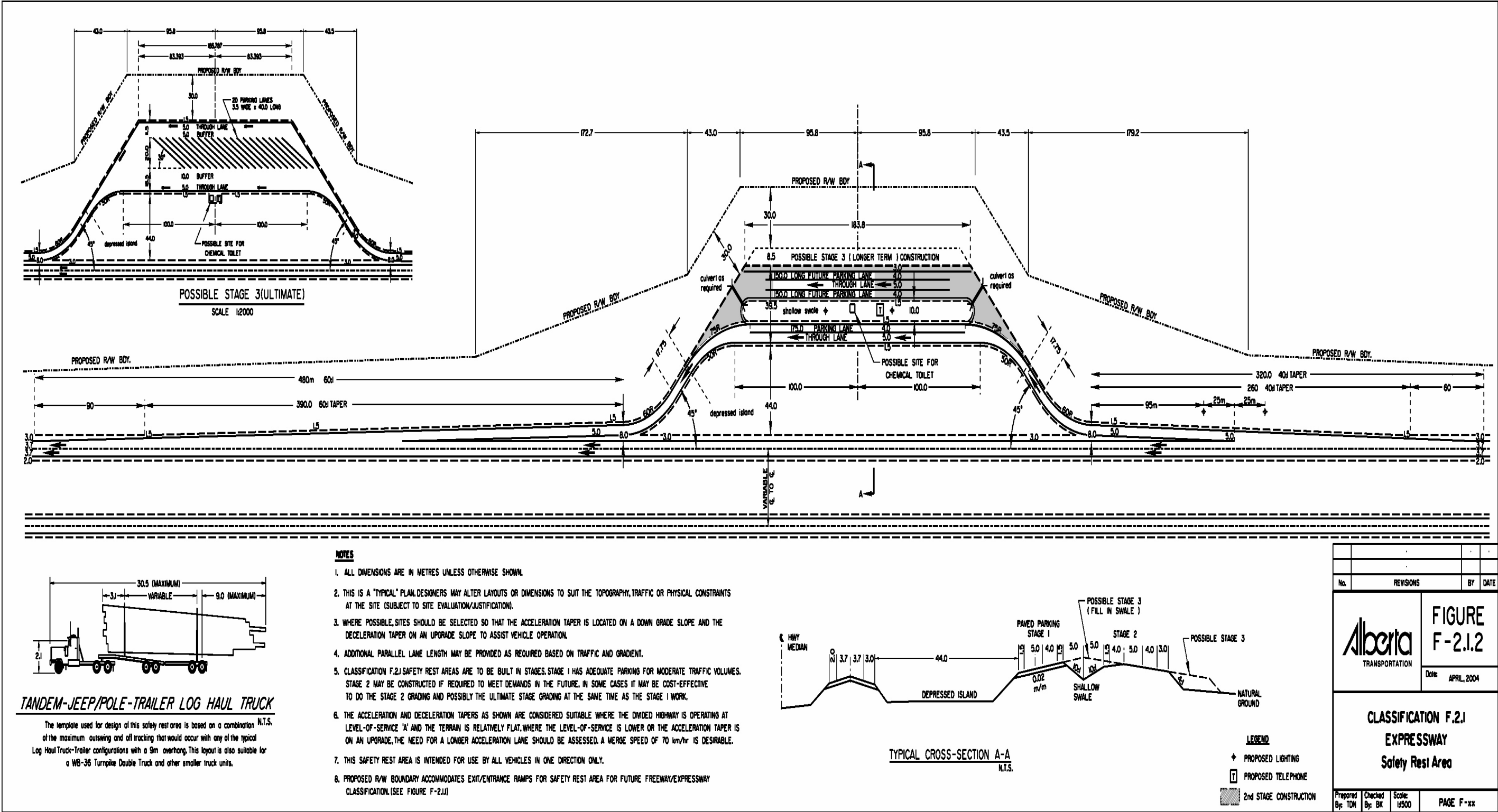
SRA design/layout templates for the Divided and Undivided Highways are shown in the following pages/sheets:

5.2 F-2 Design Templates

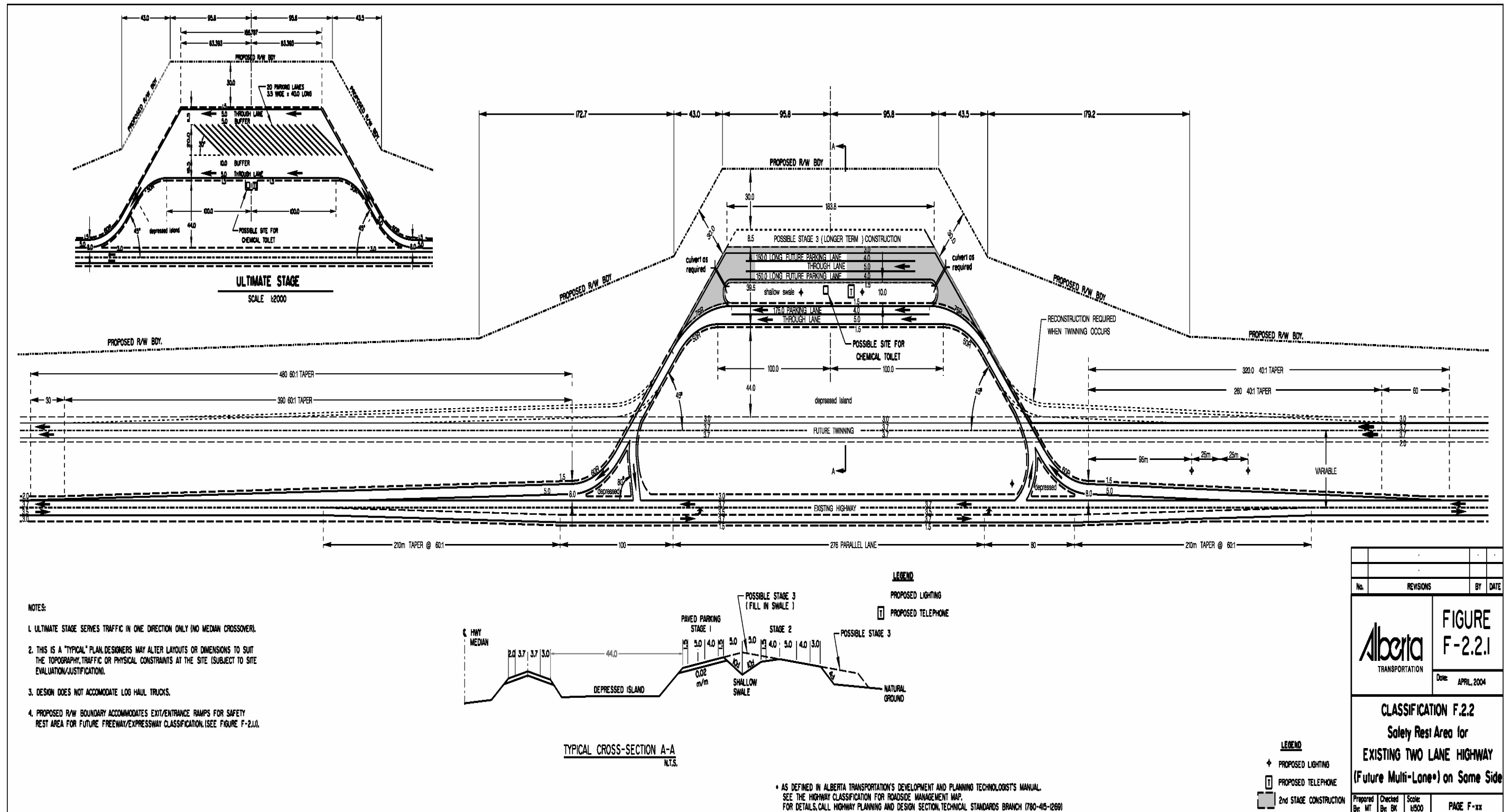
5.2.1 F-2.1.1



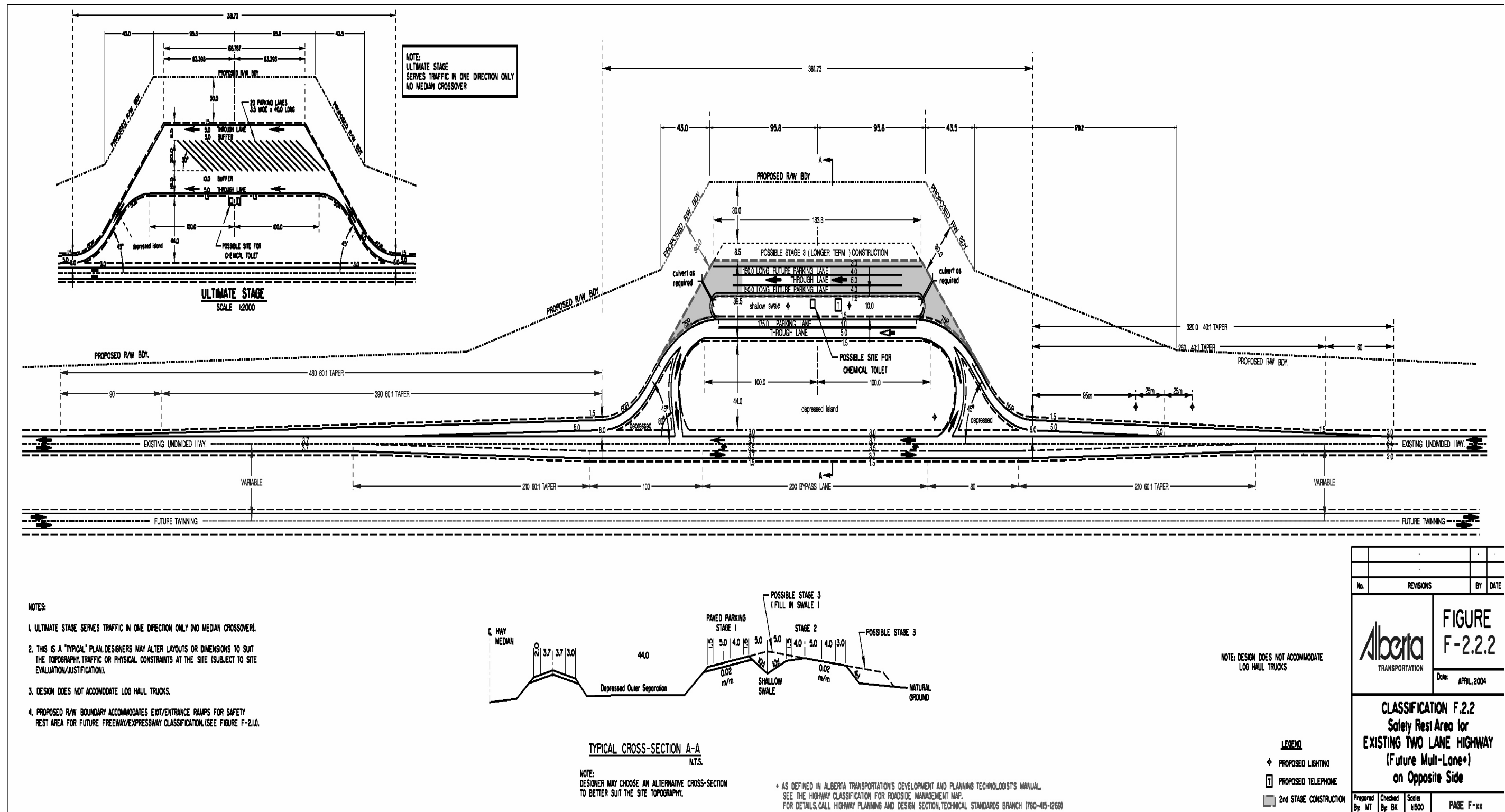
5.2.2 F-2.1.2



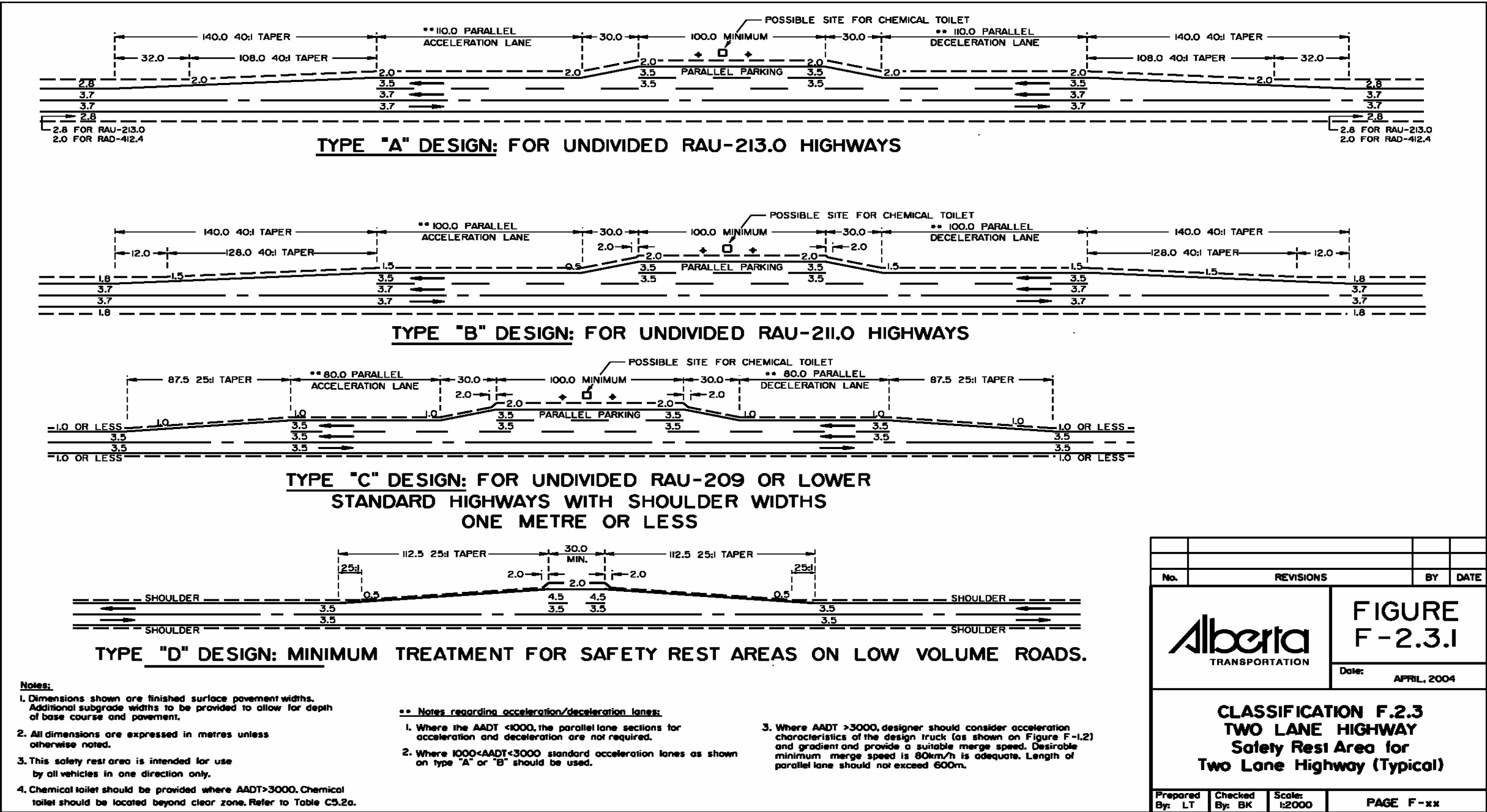
5.2.3 F-2.2.1



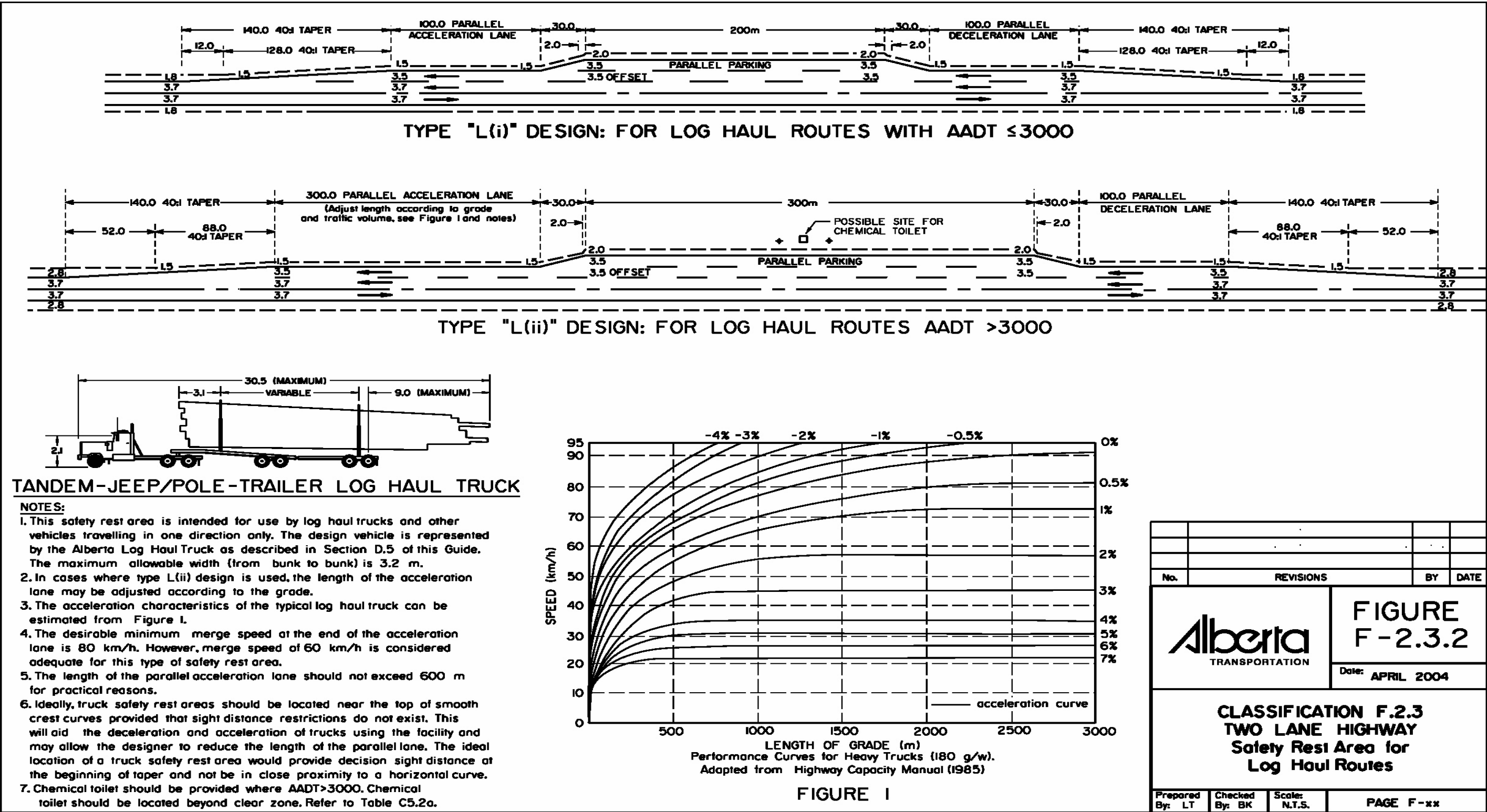
5.2.4 F-2.2.2



5.2.5 F-2.3.1



5.2.6 F-2.3.2



6. PROPOSED SAFETY REST AREAS

6.1 Technical Merits

The previous sections of this report provide the technical rationale for determining the locations and types of SRAs needed for Southern Region highways #1, #2 and #3. This technical rationale represents the following elements:

- Strategic Policy Framework & Implementation Strategy;
- Site evaluations in accordance with the Evaluation Sheet and site visits;
- Subsequent assessment and evaluation of data collected, projected 20-year WAADT and correlated to geography and topography of SRAs;
- SRA spacing according to a continuum of roadside facilities for driver access;
- Determination of applicable F-2 design template, parking requirements and priority calculation; and
- Categorization of new, upgrades or removals required.

6.2 SRA Recommended Sites

Tables 6.2.1 and 6.2.2 provide a summary of the SRA proposed sites including removals of the sub-standard roadside turnouts in the three highway corridors. Table 6.2.1 is sorted by Highway number and the Table 6.2.2 is sorted by SRA number.

The following legend identifies the SRA status:

- Grey Shade – Highway Sections;
- B – Alternate Site;
- E – Existing;
- M – Modified;
- P – Proposed;
- R – Removal;
- U – Upgrade Existing;
- Priority Label – A, B or C.

[Note: In some SRA locations, an alternate is provided and is distinguished by the following numbering: “P-00B or P-00C”. These are not to be confused by the Priority designation of “A, B or C”, which is noted on the second page of each data sheet.]

Table 6.2.1 Recommended Sites

Hwy Section	# Count	Type	Southern Region Highway							Class of SRA						\$ (000) Estimate										
			SRA #	Location				Existing WAADT	2024 WAADT	F.2.1.1	F.2.1.2	F.2.2.1	F.2.3.1	Removal	Total	F.2.1.1	F.2.1.2	F.2.2.1	F.2.3.1	Removal	Total	Priority		Add. ROW Ha		
				Hwy #	Approx. CS	Km	Direction															Label	%			
1.1		S	R-031	1	CS 1:02	21.990	WB	14,970	22,110					1	1					20	20					
1.1	1	S	P-003	1	CS 1:02	22.400	WB	14,970	22,110					1	1				225	20	225	A	73			
1.1		S	R-001	1	CS 1:02	27.640	WB	14,970	22,110					1	1					20	20					
1.1		T	R-008	1	CS 1:04	7.280	WB	16,290						1	1					20	20					
1.1		T	R-009	1	CS 1:04	7.250	EB	16,290						1	1					20	20					
1.2	1	N	P-002	1	CS 1:06	1.850	WB	16,480	23,260	1					1	1,429					1,429	B	58	3.8		
1.2	1	N	P-005	1	CS 1:06	17.600	EB	16,480	23,260	1					1	1,429					1,429	C	40	3.9		
1.2		T	R-053	1	CS 1:06	19.148	EB	16,480	23,260					1	1					20	20					
1.3	1	N	P-007	1	CS 1:14	7.600	EB	7,140	10,180		1				1		1,070			20	1,090	B	60	3.8		
1.3	1	N	P-006	1	CS 1:14	17.920	WB	6,150	10,180		1				1		1,070				1,070	B	60	5.3		
1.4		T	R-010	1	CS 1:14	57.624	EB	6,080						1	1					20	20					
1.4		T	R-011	1	CS 1:16	9.020	WB	6,370						1	1					20	20					
1.4		T	R-012	1	CS 1:16	51.692	EB	6,590						1	1					20	20					
1.4		T	R-013	1	CS 1:16	25.700	WB	6,590						1	1					20	20					
1.5		T	R-014	1	CS 1:18	23.051	EB	6,210						1	1					20	20					
1.5		T	R-015	1	CS 1:18	24.700	WB	6,210						1	1					20	20					
1.5		I	R-016	1	CS 1:18	39.285	WB	5,670						1	1					20	20					
1.5	1	U	P-004	1	CS 1:18	44.400	EB	5,670	8,180	1					1		20			20	20	B	45-S	0		
1.5	1	NH	P-012	1	CS 1:18	53.930	WB	5,670	8,180	1					1		1,070			1,070	B	58	3.0			
1.5		I	R-018	1	CS 1:20	3.560	EB	5,670						1	1					20	20					
1.5		T	R-019	1	CS 1:20	25.759	EB	7,940						1	1					20	20					
1.5		T	R-020	1	CS 1:20	26.643	WB	7,940						1	1					20	20					
1.6		I	R-021	1	CS 1:22	20.816	EB	5,740						1	1					20	20					
1.6		T	R-022	1	CS 1:22	24.470	WB	4,710						1	1					20	20					
1.6	1	U	P-009	1	CS 1:22	45.780	WB	4,710	6,280		1				1		100				100	A	45-S	0		
1.6	1	N	P-008	1	CS 1:22	45.000	EB	4,710	6,280		1				1		1,070				1,070	A	70	4.4		
2.1		T	R-007	2	CS 2:22	7.535	NB	21,400	31,890					1	1					20	20					
2.1	1	N	P-001	2	CS 2:20	31.525	SB	19,810	29,520	1					1	1,489					1,489	A	83	4.2		
2.1	1	N	P-023	2	CS 2:20	24.800	NB	19,810	29,520	1					1	1,489					1,489	A	83	4.1		
2.2		T	R-027	2	CS 2:12	33.981	SB	15,190						1	1					20	20					
2.2		T	R-053	2	CS 2:12	1.831	NB	10,880	15,760					1	1					20	20					
2.2	1	N	P-016	2	CS 2:10	38.000	SB	8,760	15,760		1				1		1,163				1,163	A	75	5.5		
2.2	1	N	P-022	2	CS 2:10	38.000	NB	8,760	15,760		1				1		1,163				1,163	A	75	4.9		
2.3		T	R-006	2	CS 2:10	12.159	SB	6,750	9,620					1	1					20	20					
2.3		T	R-028	2	CS 2:10	1.107	SB	6,540						1	1					20	20					
2.3		I	R-029	2	CS 2:08	43.158	NB	6,550						1	1					20	20					
2.3	1	N	P-017	2	CS 2:08	15.600	SB	4,320	5,450		1				1		1,070				1,070	B	63	4.1		
2.3	1	N	P-021	2	CS 2:08	14.200	NB	4,320	5,450		1				1		1,070				1,070	B	63	4.6		
2.4		T	R-037	2	CS 2:06	20.583	SB	1,500						1	1					20	20					
2.4		T	R-038	2	CS 2:06	12.022	NB	1,280						1	1					20	20					
2.4	1	N	P-020	2	CS 2:06	7.700	SB	1,280	1,643					1		1		535			535	C	35	0		
2.4	1	N	P-019	2	CS 2:06	1.925	NB	1,280	1,643					1		1		535			535	C	35	0		
2.4		R	R-039	2	CS 2:06	0.532	NB	1,280						1	1					20	20					
2.4		I	R-040	2	CS 2:04	1.565	NB	2,110						1	1					20	20					
2.4		T	R-041	2	CS 2:02	21.884	NB	2,880						1	1					20	20					
3.1		I	R-055	3	CS 3:02	1.680	EB	5,800	6,636					1	1					20	20					
3.1	1	I	P-024	3	CS 3:02	3.200	WB	5,800	6,636		1				1		200				200	B				
3.1		T	R-057	3	CS 3:02	10.942	EB	5,800	6,636					1	1					20	20					
3.1		T	R-058	3	CS 3:02	10.942	WB	5,800	6,636					1	1					20	20					
3.1		T	R-045	3	CS 3:02	12.000	EB	5,800	6,636					1	1					20	20					
3.1		S	R-004	3	CS 3:02	31.400	WB	4,840	6,636					1	1					20	20					
3.1		S	R-005	3	CS 3:02	31.400	EB	4,840	6,636					1	1					20	20					
3.1		S	R-003	3	CS 3:04	0.643	WB	4,840	6,636					1	1					20	20					
3.1	1	N	P-015	3	CS 3:04	17.200	EB	3,440	4,350					1		1	1,175				1,175	A	73	5.8		
3.1	1	N	P-014	3	CS 3:04	28.850	WB	3,440	4,350					1		1	1,175				1,175	A	73	3.1		
3.1		H	R-050	3	CS 3:04	19.988	WB	3,500	6,636					1	1					20	20					
3.1		T	R-051	3	CS 3:06	14.950	WB	2,870	6,636					1	1					20	20					
3.1		T	R-052	3	CS 3:06	0.730	EB	2,870	6,636					1	1					20	20					
3.2		T	R-002	3	CS 3:06	39.666	WB	3,820	5,154					1	1					20	20					
3.2		I	R-026	3	CS 3:08	34.886	WB	14,440						1	1					20	20					
3.2		T	R-024	3	CS 3:10	2.260	WB	15,020						1	1					20	20					
3.3		I	R-023	3	CS 3:10	15.750	WB	8,250						1	1					20	20					
3.4	1	N	P-011	3	CS 3:14	4.000	WB	2,830	3,513		1				1		1,070				1,070	B	63	4.2		
3.4	1	N	P-010	3	CS 3:14	29.400	EB	2,770	3,449		1				1		1,070				1,070	B	63	4.7		
	2	U	n/a	4	Milk River Facil		NB/SE			2					2	200					200	B	63			
24		Totals								8	11	2	2	43	66	6,036	11,206	2,350	1,295	860	21,747			69.4		
S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic																										

S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic

Table 6.2.2 Recommended Sites

Hwy. Section	# Count	Type	Southern Region Highway							Class of SRA						\$ (000) Estimate								Add. ROW
			SRA #	Location				Existing WAADT	2024 WAADT	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	Priority		
				Hwy #	Approx. CS	Km	Direction															Label	%	
2.1	1	N	P-001	2	CS 2:20	31.525	SB	19,810	29,520	1				1	1,489					1,489	A	83	4.2	
1.2	1	N	P-002	1	CS 1:06	1.850	WB	16,480	23,260	1				1	1,429					1,429	B	58	3.8	
1.1	1	S	P-003	1	CS 1:02	22.400	WB	14,970	22,110				1	1				225		225	A	73		
1.5	1	U	P-004	1	CS 1:18	44.400	EB	5,670	8,180	1				1		20		225		20	B	45-S	0	
1.2	1	N	P-005	1	CS 1:06	17.600	EB	16,480	23,260	1				1	1,429					1,429	C	40	3.9	
1.3	1	N	P-006	1	CS 1:14	17.920	WB	6,150	10,180		1			1		1,070				1,070	B	60	5.3	
1.3	1	N	P-007	1	CS 1:14	7.600	EB	7,140	10,180		1			1		1,070			20	1,090	B	60	3.8	
1.6	1	N	P-008	1	CS 1:22	45.000	EB	4,710	6,280		1			1		1,070				1,070	A	70	4.4	
1.6	1	U	P-009	1	CS 1:22	45.780	WB	4,710	6,280		1			1		100				100	A	45-S	0	
3.4	1	N	P-010	3	CS 3:14	29.400	EB	2,770	3,449		1			1		1,070				1,070	B	63	4.7	
3.4	1	N	P-011	3	CS 3:14	4.000	WB	2,830	3,513		1			1		1,070				1,070	B	63	4.2	
5.5	1	NH	P-012	1	CS 1:18	53.930	WB	5,670	8,180	1				1		1,070				1,070	B	58	3.0	
3.1	1	N	P-014	3	CS 3:04	28.850	WB	3,440	4,350			1		1			1,175			1,175	A	73	3.1	
3.1	1	N	P-015	3	CS 3:04	17.200	EB	3,440	4,350			1		1			1,175			1,175	A	73	5.8	
2.2	1	N	P-016	2	CS 2:10	38.000	SB	8,760	15,760		1			1		1,163				1,163	A	75	5.5	
2.3	1	N	P-017	2	CS 2:08	15.600	SB	4,320	5,450		1			1		1,070				1,070	B	63	4.1	
2.4	1	N	P-019	2	CS 2:06	1.925	NB	1,280	1,643				1	1				535		535	C	35	0	
2.4	1	N	P-020	2	CS 2:06	7.700	SB	1,280	1,643				1	1				535		535	C	35	0	
2.3	1	N	P-021	2	CS 2:08	14.200	NB	4,320	5,450		1			1		1,070				1,070	B	63	4.6	
2.2	1	N	P-022	2	CS 2:10	38.000	NB	8,760	15,760		1			1		1,163				1,163	A	75	4.9	
2.1	1	N	P-023	2	CS 2:20	24.800	NB	19,810	29,520	1				1	1,489					1,489	A	83	4.1	
3.1	1	I	P-024	3	CS 3:02	3.200	WB	5,800	6,636		1			1		200				200	B			
1.1	1	S	R-001	1	CS 1:02	27.640	WB	14,970	22,110					1	1				20	20				
3.2	1	T	R-002	3	CS 3:06	39.666	WB	3,820	5,154					1	1				20	20				
3.1	1	S	R-003	3	CS 3:04	0.643	WB	4,840	6,636					1	1				20	20				
3.1	1	S	R-004	3	CS 3:02	31.400	WB	4,840	6,636					1	1				20	20				
3.1	1	S	R-005	3	CS 3:02	31.400	EB	4,840	6,636					1	1				20	20				
2.3	1	T	R-006	2	CS 2:10	12.159	SB	6,750	9,620					1	1				20	20				
2.1	1	T	R-007	2	CS 2:22	7.535	NB	21,400	31,890					1	1				20	20				
1.1	1	T	R-008	1	CS 1:04	7.280	WB	16,290						1	1				20	20				
1.1	1	T	R-009	1	CS 1:04	7.250	EB	16,290						1	1				20	20				
1.4	1	T	R-010	1	CS 1:14	57.624	EB	6,080						1	1				20	20				
1.4	1	T	R-011	1	CS 1:16	9.020	WB	6,370						1	1				20	20				
1.4	1	T	R-012	1	CS 1:16	51.692	EB	6,590						1	1				20	20				
1.4	1	T	R-013	1	CS 1:16	25.700	WB	6,590						1	1				20	20				
1.5	1	T	R-014	1	CS 1:18	23.051	EB	6,210						1	1				20	20				
1.5	1	T	R-015	1	CS 1:18	24.700	WB	6,210						1	1				20	20				
1.5	1	I	R-016	1	CS 1:18	39.285	WB	5,670						1	1				20	20				
1.5	1	I	R-018	1	CS 1:20	3.560	EB	5,670						1	1				20	20				
1.5	1	T	R-019	1	CS 1:20	25.759	EB	7,940						1	1				20	20				
1.5	1	T	R-020	1	CS 1:20	26.643	WB	7,940						1	1				20	20				
1.6	1	I	R-021	1	CS 1:22	20.816	EB	5,740						1	1				20	20				
1.6	1	T	R-022	1	CS 1:22	24.470	WB	4,710						1	1				20	20				
3.3	1	I	R-023	3	CS 3:10	15.750	WB	8,250						1	1				20	20				
3.2	1	T	R-024	3	CS 3:10	2.260	WB	15,020						1	1				20	20				
3.2	1	I	R-026	3	CS 3:08	34.886	WB	14,440						1	1				20	20				
2.2	1	T	R-027	2	CS 2:12	33.981	SB	15,190						1	1				20	20				
2.3	1	T	R-028	2	CS 2:10	1.107	SB	6,540						1	1				20	20				
2.3	1	I	R-029	2	CS 2:08	43.158	NB	6,550						1	1				20	20				
1.1	1	S	R-031	1	CS 1:02	21.990	WB	14,970	22,110					1	1				20	20				
2.4	1	T	R-037	2	CS 2:06	20.583	SB	1,500						1	1				20	20				
2.4	1	T	R-038	2	CS 2:06	12.022	NB	1,280						1	1				20	20				
2.4	1	R	R-039	2	CS 2:06	0.532	NB	1,280						1	1				20	20				
2.4	1	I	R-040	2	CS 2:04	1.565	NB	2,110						1	1				20	20				
2.4	1	T	R-041	2	CS 2:02	21.884	NB	2,880						1	1				20	20				
3.1	1	T	R-045	3	CS 3:02	12.000	EB	5,800	6,636					1	1				20	20				
3.1	1	H	R-050	3	CS 3:04	19.988	WB	3,500	6,636					1	1				20	20				
3.1	1	T	R-051	3	CS 3:06	14.950	WB	2,870	6,636					1	1				20	20				
3.1	1	T	R-052	3	CS 3:06	0.730	EB	2,870	6,636					1	1				20	20				
1.2	1	T	R-053	1	CS 1:06	19.148	EB	16,480	23,260					1	1				20	20				
2.2	1	T	R-053	2	CS 2:12	1.831	NB	10,880	15,760					1	1				20	20				
3.1	1	I	R-055	3	CS 3:02	1.680	EB	5,800	6,636					1	1				20	20				
3.1	1	T	R-057	3	CS 3:02	10.942	EB	5,800	6,636					1	1				20	20				
3.1	1	T	R-058	3	CS 3:02	10.942	WB	5,800	6,636					1	1				20	20				
2	24	U	n/a	4	Milk River Facil		NB/SB			2				2	200					200	B	63		
24		Totals								8	11	2	2	43	66	6,036	11,206	2,350	1,295	860	21,747			69.4
S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic																								

S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic

6.3 SRA Alternative Sites

A number of alternative Safety Rest Area sites have been identified and evaluated. These sites are labelled as P-00B and P-00C and are presented in Tables 6.3.1 and 6.3.2 respectively. Should land acquisition or any other constraints preclude construction of the original proposed sites, then these alternative sites may be considered for design and construction.

It should be noted that alternative sites have only be proposed for such sites that are likely to cause problems.

Table 6.3.1

Hwy. Section	# Count	Type	Southern Region Highway Alternates - "Bs"							Class of SRA						\$ (000) Estimate								Add ROW Ha	
			SRA #	Location				Existing WAADT	2024 WAADT	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	Priority			
				Hwy	Approx CS	Km	Direction															Label	%		
1.2	1	N	P-002B	1	CS 1.06	8.100	WB	16,110	22,740	1					1	1,429					1,429	B	58	5.4	
1.3	1	N	P-007B	1	CS 1.14	17.645	EB	6,150	8,770		1				1		1,070				1,070	B	60	6.3	
1.3	1	N	P-006B	1	CS 1.14	17.920	WB	6,150	10,180		1				1		1,070			20	1,090	B	60	4.6	
1.6	1	U	P-008B	1	CS 1SK	0.200	EB	4,710	6,280		1				1		1,070				1,070	A	70	0	
2.1	1	N	P-001B	2	CS 2.20	24.280	SB	19,810	29,520	1					1	1,489					1,489	A	83	4.1	
2.1	1	N	P-023B	2	CS 2.20	23.300	NB	19,810	29,520	1					1	1,489					1,489	A	83	4.2	
2.2	1	N	P-016B	2	CS 2.10	33.000	SB	8,760	15,760		1				1		1,163				1,163	A	75	4.4	
2.2	1	N	P-022B	2	CS 2.10	32.800	NB	8,760	15,760		1				1	1,429					1,429	A	75	6.0	
2.3	1	N	P-021B	2	CS 2.08	4.718	NB	4,320	5,450		1				1		1,070				1,070	B	63	3.5	
2.4	1	N	P-020B	2	CS 2.06	7.700	SB	1,280	1,643		1				1		1,070				1,070	C	35	9	
3.1	1	N	P-015B	3	CS 3.04	25.500	EB	3,440	4,350			1			1			1,175			1,175	A	73	6.8	
3.1	1	N	P-014B	3	CS 3.04	17.200	WB	3,440	4,350			1			1			1,175			1,175	A	73	8.4	
3.4	1	N	P-010B	3	CS 3.14	33.150	EB	2,770	3,449		1				1		1,070				1,070	B	63	8.1	
13			Totals							3	8	2	0	0	13	5,836	7,583	2,350	-	20	15,789			70.8	
S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic																									

S - Scenic, T - Turnout, R - Rest Area, N - New SRA, U - Upgrade SRA, I - Point of Interest, H - Historic

Table 6.3.2

Hwy. Section	# Count	Type	Southern Region Highway Alternates - "Cs"								Class of SRA					\$ (000) Estimate							Add ROW		
			SRA #	Location				Existing WAADT	2024 WAADT	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	Priority			
				Hwy #	Approx CS	Km	Direction															Label		%	
1.3	1	N	P-007C	1	CS 1.14	14.400	EB	6,150	8,770		1			1		1,070			20	1,090	B	60	5.4		
1.3	1	N	P-006C	1	CS 1.14	14.800	WB	6,150	8,770		1			1		1,070			20	1,090	B	60	4.6		
2.2	1	N	P-016C	2	CS 2.10	29.000	SB	8,760	15,760		1			1		1,163				1,163	A	75	5.2		
2.2	1	N	P-022C	2	CS 2.10	28.500	NB	8,760	15,760		1			1		1,163				1,163	A	75	1.4		
4			Totals							0	4	0	0	0	4	-	4,466	-	-	40	4,506			16.6	
S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic																									

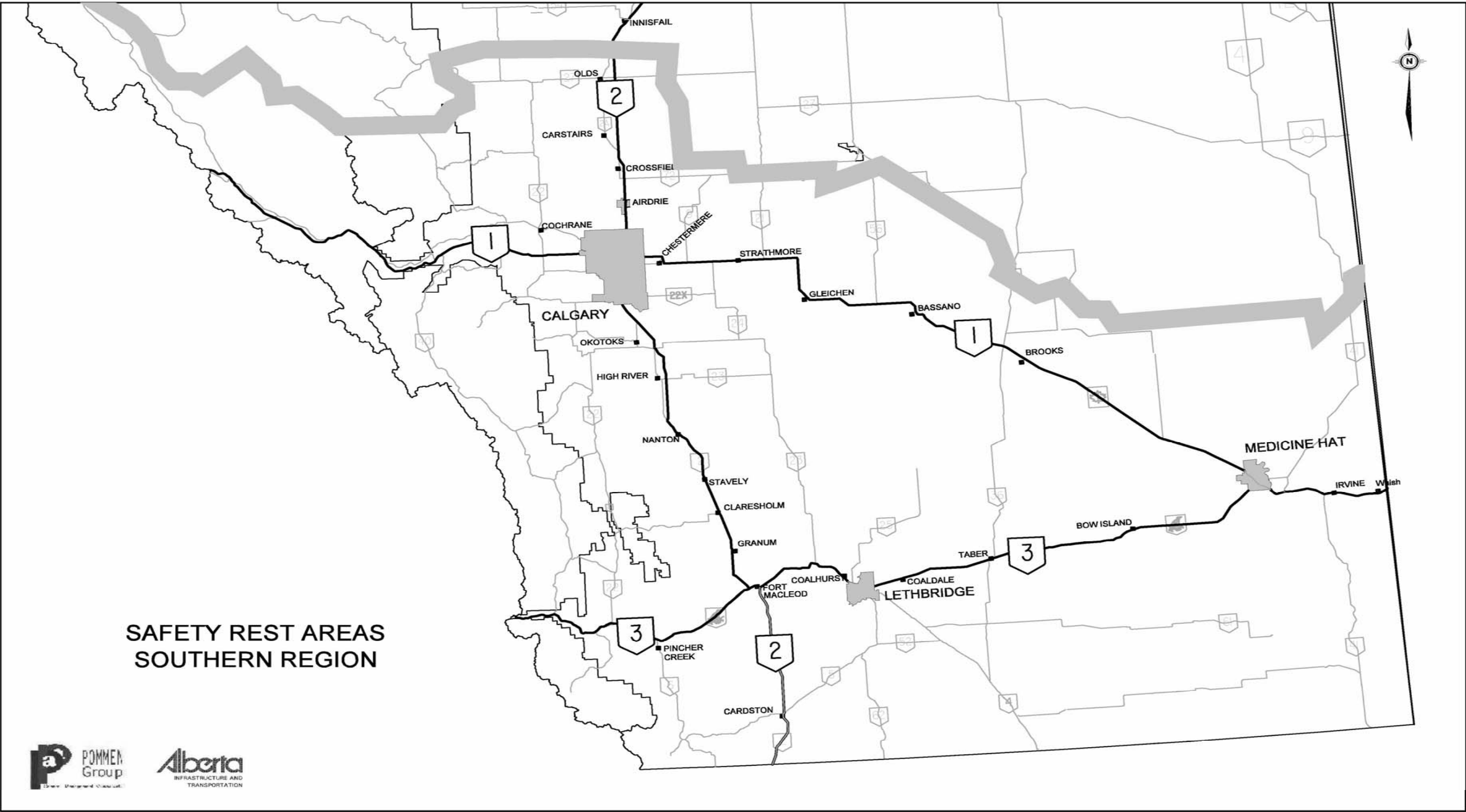
S - Scenic, T - Turnout, R - Rest Area, N - New SRA, U - Upgrade SRA, I - Point of Interest, H - Historic

7. SRA EVALUATIONS – EXHIBITS & DATA SHEETS

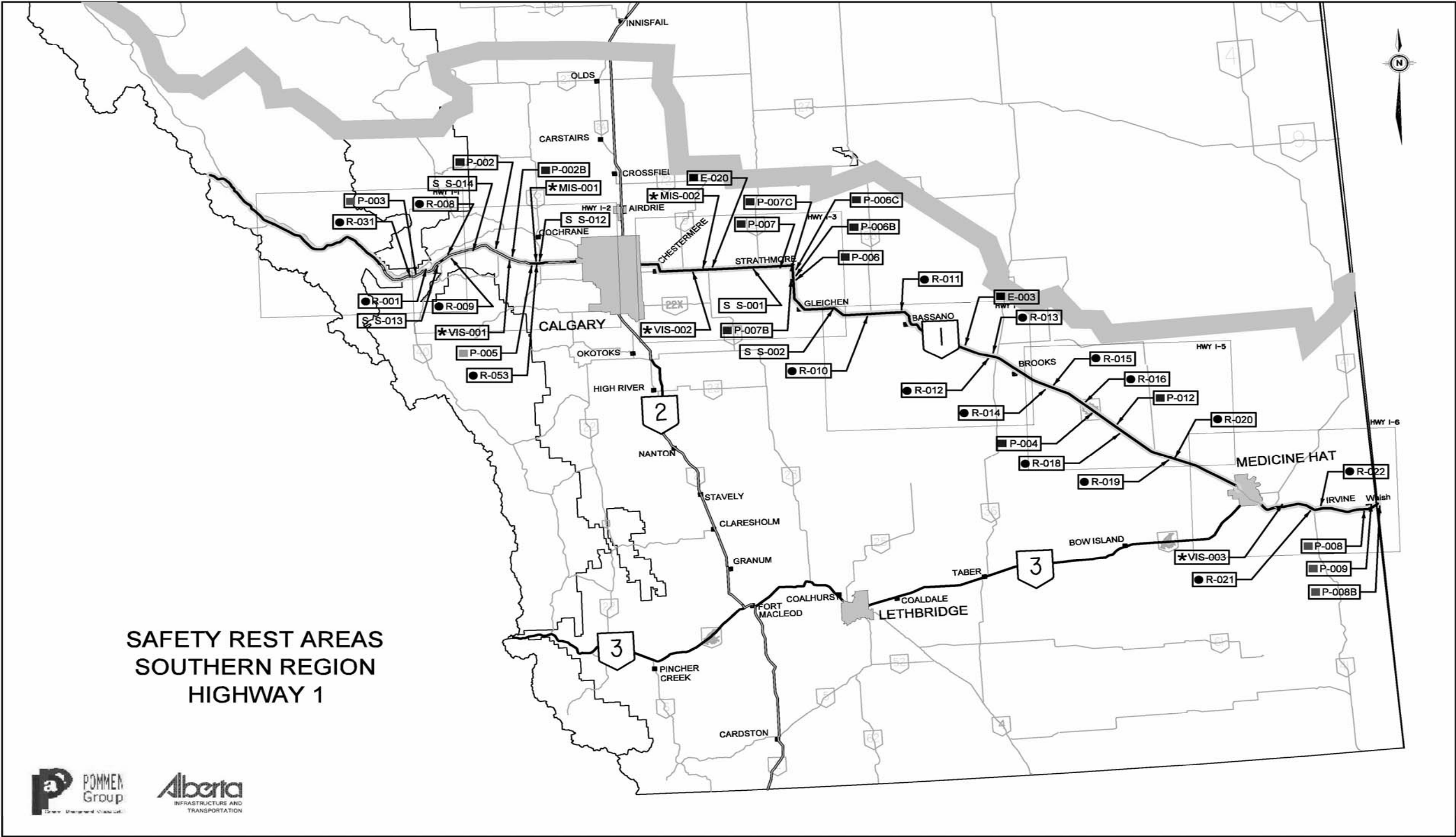
Site evaluation sheets for SRAs for Highways #1, #2 and #3 include the following information:

1. Overall Southern Region Highway Map for highways #1, #2 and #3.
2. Highway #00 Exhibit (Key Map) – provides a reference to each SRA with SRA reference number.
3. Highway #00 Section Map – provides a larger view section of the referenced highway along with the SRA reference numbers.
4. SRA Data Sheet – provides specific reference to the SRA, site number, picture chainage location, Lat./Long., general location, field notes, WAADT, priority, recommended F-2 design, estimated costs, etc.
5. SRA Aerial Photograph with the F-2 design superimposed on the photograph along with the right-of-way delineation.
6. Where applicable, an alternative “B” and “C” site that include the same evaluation as a proposed site.

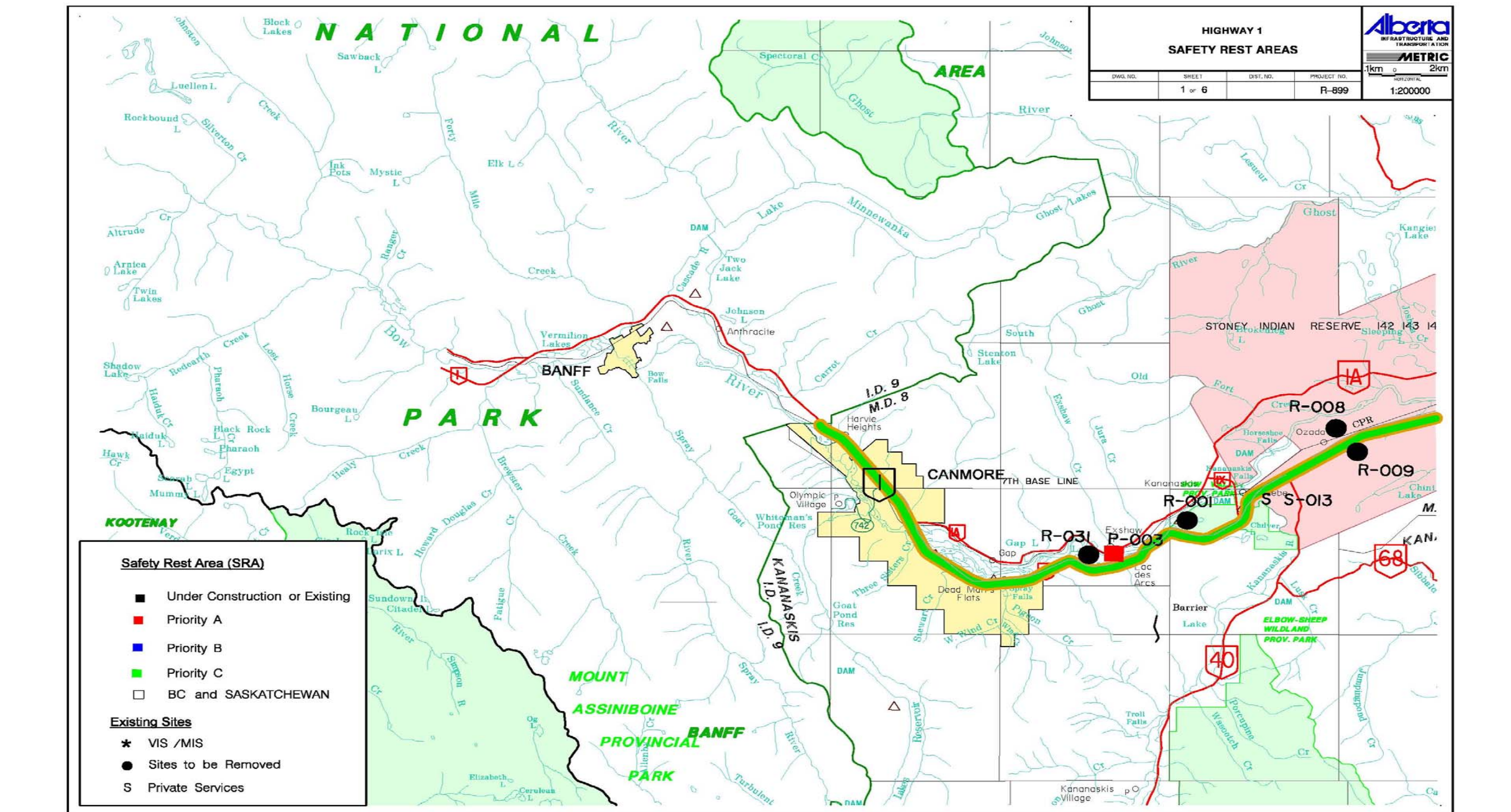
Highways #1, #2 & #3 Map



7.1 Highway 1 Exhibit (Key Map)



7.1.1 Highway 1: Section 1 Map





Scenic Site: R-031

Remove with P-003; Priority [A]

Site Identification:

Highway: 1

CS: 02 Chainage: 21.990 km

Latitude: N51 02.873

Longitude: W115 10.764

Travel Direction: WBL

WAADT Current: 14,970

General Description:

Recommend removal of this existing point of interest turnout along the shore of Lac des Arcs.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Scenic, unsigned, substandard Turnout located along Lac des Arcs 410m west of R-054.
- Decel/Accel lanes too short on a horizontal curve and insufficient land area beside the lake do not permit this site to be expanded.
-

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Considered well below standards.
Location required for Historic, Tourism or other public use?	Scenic Viewpoint.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-003, due to: the significantly constrained location, geometric considerations, non-conforming design standards and strategic spacing.

Budget Estimate:

\$20,000



Scenic Site: P-003

Modified; Priority [A] - Page 1

Site Identification:

Highway: 1

CS: 02 Chainage: 22.400 km

Latitude: N51 02.929

Longitude: W115 10.370

Travel Direction: WBL

WAADT Current: 14,970

WAADT 20-Year Future: 22,110

General Description:

Modify existing turnout and historical site/point of interest located on the shores of Lac des Arcs approximately 0.8 km west of the Hwy 1 and Rge Rd 91a interchange.

General Discussion:

- Existing location has importance as scenic viewpoint.
- WAADT is comprised of 10.2% tractor-trailer units, 2.8% single unit trucks, 2.0% buses, 2.8% recreational vehicles (total 18%), with the remainder being passenger vehicles.
- Restrictions in land area caused by the proximity to Lac des Arcs, expansion of this site to an F-2.1.1 is not possible.

Summary of Field Notes:

- Decel/accel lane functions as a drive through lane as well as a large parking area.
- The current site size is 185m in length and 28m in width. The east end decel lane is a weave from the overpass existing accel lane. The west end accel lane may be extended to improve egress.
- A raised concrete median could give separation from the traffic flow, however detailed engineering needs to address access, through traffic, overpass traffic, etc. before a specific design can be recommended.

Site Considerations:

- While moving the site to a location that could accommodate an SRA built to current standards was considered, the choice was made to maintain this as a unique scenic site as a prime location for pictures. If removed, it is believed that travelers will try and stop along the highway creating an unsafe situation.
- The community of Deadmans Flats is in close proximity to this site and provides full services and parking for passenger types of vehicles.
- P-003 is not intended, nor used as a rest area as much as it is used as a historic location/ point of interest. This site has only garbage receptacles.

Design Template:

Figure F-2.3.1 - modified

Required Number of Parking

Stalls:

Configure parking to area of the site.



Scenic Site: P-003

Modified; Priority [A] - Page 2

Site Identification:

Highway: 1

CS: 02 Chainage: 22.400 km

Latitude: N51 02.929

Longitude: W115 10.370

Travel Direction: WBL

WAADT Current: 14,970

WAADT 20-Year Future: 22,110

General Description:

Modify existing turnout and historical site/point of interest located on the shores of Lac des Arcs approximately 0.8 km west of the Hwy 1 and Rge Rd 91a interchange.

Surrounding Landowners:

Adjacent Land Parcel

SW-15-24-9-5

NW-15-24-9-5

NE-15-24-9-5

Owner on Title

Crown Non Patent Sheet

Crown Non Patent Sheet

Crown Non Patent Sheet

Utilities:

- No utilities were observed during the site visit and due to the close proximity to the lake, it is unlikely that any utilities would be located to the north of the highway.
- Alberta One Call resulted in EOG Resources indicating interest in the area.

Prioritization of Site [A]:

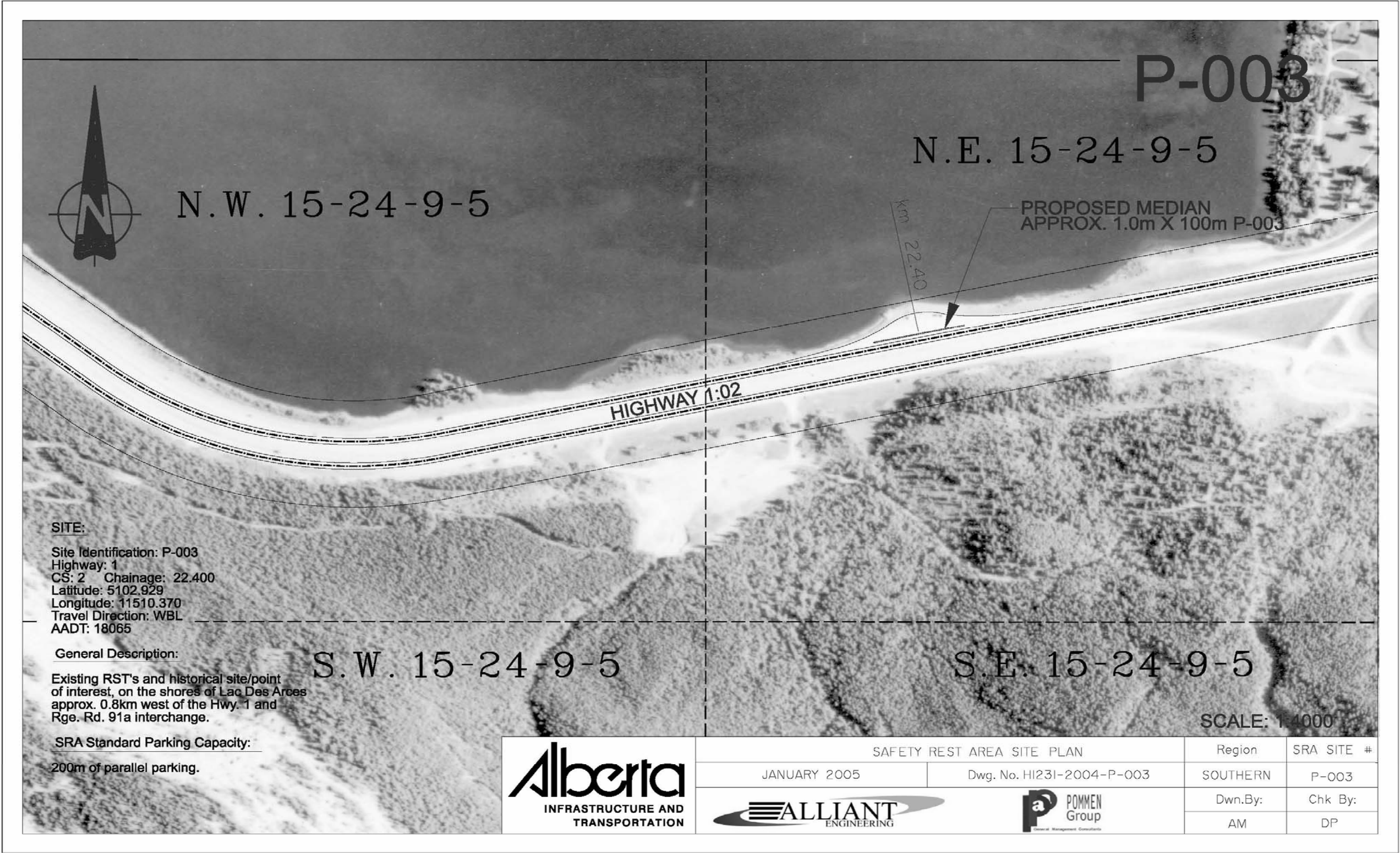
- This site is part of the Trans-Canada Highway and is not considered to be a SRA.
- However, this is considered an important scenic viewpoint that with detailed engineering may be modified to improve traffic flow and safety. Modifying the site would be for an interim period pending increase in traffic volumes and/or expansion of interchange.
- The strategic framework priority criteria assign a value of 73%.
- At the time of modifying P-003, also remove site R-031.

Budget Breakdown:

\$15,000 for the raised concrete median, \$10,000 for lighting and \$200,000 for the deceleration and acceleration lane extensions.

Total Budget:

\$225,000





Scenic Site: R-001

Remove with P-003; Priority [A]

Site Identification:

Highway: 1

CS: 02 Chainage: 27.640 km

Latitude: N51 04.154

Longitude: W115 06.643

Travel Direction: WBL

WAADT: 14,970

WAADT: 20 Year Future: 22,110

General Description:

Recommend removal of this existing turnout located approximately 4.1 km west of the Hwy 1 and Hwy 1X interchange.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- This turnout is considered a point of interest, but no signs are present on-site.
- Located between two curves without outer separation, deceleration and acceleration tapers.
- Insufficient parking for RVs and large trucks and the overall site is under-designed.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
-

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Considered below standards.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-003, due to: geometric considerations, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-008

Remove with P-003; Priority [A]

Site Identification:

Highway: 1
CS: 04 Chainage: 7.280 km
Latitude: N51 07.379
Longitude: W114 58.370
Travel Direction: WBL
WAADT: 16,290

General Description:

Recommend removal of this existing turnout located approximately 4.0 km east of the Jct. of Hwy 1 and Hwy 40

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Roadside turnout warning sign is visible and a garbage receptacle.
- Site has decel/accel lanes but not outer separated.
- Future expansion at this site could be costly due to the close proximity of power transmission lines.
- This site is in the Stoney Indian Reserve.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No
Location required due to local Safety Conditions?	No
Location required for Historic, Tourism or other public use?	No
Location required or requested to remain by local industry?	No

Recommendation:

Remove with P-003 upgrade, due to: site restrictions, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-009

Remove with P-005; Priority [C]

Site Identification:

Highway: 1

CS: 04 Chainage: 7.250 km

Latitude: N51 07.343

Longitude: W114 58.375

Travel Direction: EBL

WAADT: 16,290

General Description:

Recommend removal of this existing turnout located approximately 4.0 km east of the Jct. of Hwy 1 and Hwy 40

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Roadside turnout highway sign is visible and a garbage receptacle.
- Site has decel/accel lanes, but not outer separated.
- This location is in the Stony Indian Reserve.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

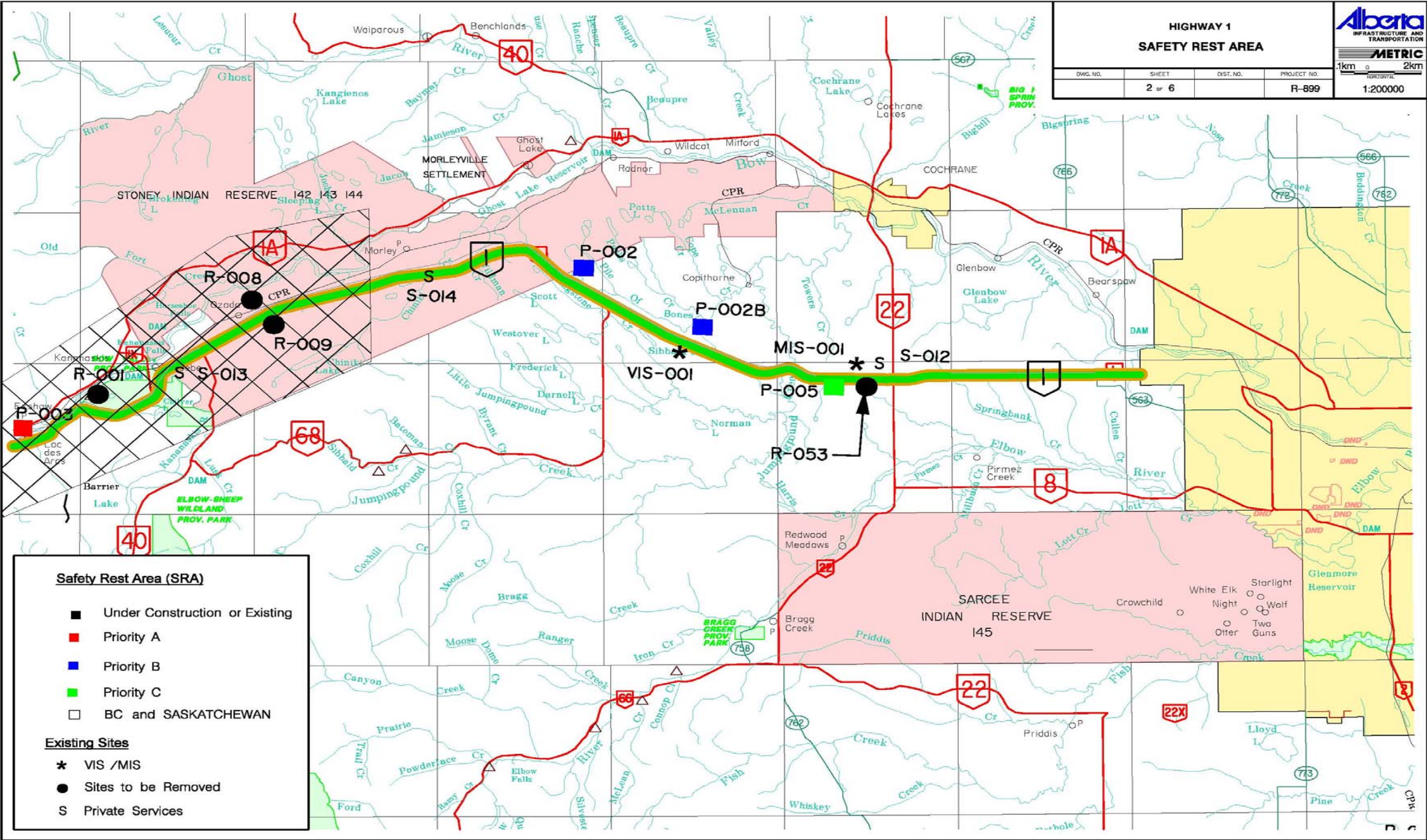
Recommendation:

Remove with P-005 upgrade, due to: non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

7.1.2 Highway 1: Section 2 Map





New Site: P-002

F-2.1.1 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 06 **Chainage:** 1.850 km

Latitude: N51 08.656

Longitude: W114 43.523

Travel Direction: WBL

WAADT Current: 16,480

WAADT 20-Year Future: 23,260

General Description:

Recommend upgrade existing SRA located 2.7 km west of the Hwy 1 and Hwy 68 interchange to full F-2.1.1 design.

General Discussion: Primary Purpose – Roadside Turnout (outer separated)

- Existing top of crest outer separated turnout, but does not have fully developed parking area for vehicles to be classified as an F-2.1.1.
- WAADT is comprised of 10.8% tractor-trailer units, 3.5% single unit trucks, 2.3% buses, and 2.5% recreational vehicles (Total 19%) with the remainder being passenger vehicles.
- The location is at the approximate spacing criteria for a SRA location between Calgary and Banff Park gate.

Summary of Field Notes:

- Approximately a 30-minute drive from Calgary City Limits with large volumes of traffic on a continuous basis. It is in close proximity to the Stony Indian Reserve
- Location has limited site visibility, which will be overcome by the SRA signing criteria.
- This site can accommodate an increased size of SRA and is a good location for truck access.

Site Considerations:

- Existing site is classified as an under designed SRA based on an F-2.1.1 design.
- Parking area on site is inadequate with only one parking lane measured at 145m in length.
- The separation between the SRA and the highway is sub-standard at 27m, but there is a grade difference of 4-5m, which increases the effective separation.

Design Template:

Figure-F-2.1.1

Required Number of Parking Stalls:

24 (12 truck; 12 cars).



New Site: P-002

F-2.1.1 Design; Priority [B] - Page 2

Site Identification:

Highway: 1
 CS: 06 Chainage: 1.850 km
 Latitude: N51 08.656
 Longitude: W114 43.523
 Travel Direction: WBL
 WAADT Current: 16,480
 WAADT 20-Year Future: 23,260

General Description:

Recommend upgrade existing SRA located 2.7 km west of the Hwy 1 and Hwy 68 interchange to full F-2.1.1 design.

Surrounding Landowners:

Adjacent Land Parcel
 SW-24-25-6-5
 NE-13-25-6-5

Owner on Title
 Scott Lake Ranch Ltd.
 Scott Lake Ranch Ltd.

Utilities:

- Telephone cable in the current R/W and a power line on the edge of the current R/W. The addition of a phone and lighting could easily be achieved.
- Alberta One Call resulted in ATCO Gas and Monarch Fibre Ltd. indicating interest in the area.

Prioritization of Site [B]:

- Future WAADT is 23,260.
- Strategic framework priority criteria assign a value of 58%.
- When P-002 is upgraded, then remove R-008 and R-009.

Budget Breakdown:

Ultimate stage construction \$1,326,000; Lighting \$10,000; \$90,000 for WC's and \$2,500 for Garbage Bins.

Total Budget:

\$1,429,000 F-2.1.1 Ultimate stage
 Budget does not include land acquisition





New Site: P-002B

F-2.1.1 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 06 **Chainage:** 8.100 km

Latitude: N51 06.488

Longitude: W114 38.020

Travel Direction: WBL

WAADT Current: 16,110

WAADT 20-Year Future: 22,740

General Description:

This is an Alternative Site only for P-002 located 240m west of the VIS on the north side of Hwy 1.

General Discussion:

- WAADT is comprised of 7.9% tractor-trailers, 2.5% single unit trucks, 1.8% buses, 4.9% recreational vehicles (total 17%), with the remainder being passenger vehicles.
- Future WAADT is 22,740 for this location requiring an F-2.1.1 to be used for the design.

Summary of Field Notes:

- Site is currently being used as pastureland with a small dugout exists although it was almost completely void of water.
- Accel lane would end on an uphill grade and would not be conducive to trucks and large recreational vehicles.
- A certain quantity of fill would be required at this location for construction as well.

Site Considerations:

- There is a concern with this location being in the vicinity of a VIS as drivers may become distracted with traffic movements taking place on the opposite side of the highway.
- A stagger of facilities is preferred when attainable, but moving the VIS to achieve the separation is not possible.
- There is a possibility that the MIS located near junction Hwy #22 could be relocated to this location.

Design Template:

Figure F-2.1.1

Required Number of Parking Stalls:

24 (12 truck; 12 cars).



New Site: P-002B

F-2.1.1 Design; Priority [B] - Page 2

Site Identification:

Highway: 1
 CS: 06 Chainage: 8.100 km
 Latitude: N51 06.488
 Longitude: W114 38.020
 Travel Direction: WBL
 WAADT Current: 16,110
 WAADT 20-Year Future: 22,740

General Description:

This is an Alternative Site only for P-002 and is located 240m west of the VIS on the north side of Hwy 1.

Surrounding Landowners:

Adjacent Land Parcel

NE-4-25-5-5
 SW-9-25-5-5

Owner on Title

Sibbald, Wayne Murray
 Sibbald, Wayne Murray

Utilities:

- Presence of Alberta SuperNet fibre optic line in the westbound ditch. This line could pose a problem for construction depending on cost to relocate. There were no other utilities observed during the site visit and investigation.
- Alberta One Call resulted in ATCO Gas, Monarch Fibre Ltd. and Bell SuperNet indicating interest in the area.

Prioritization of Site:

- Future WAADT is 23,260.
- Strategic framework priority criteria assign a value of 58%.
- When P-002 is upgraded, then remove R-008 and R-009.

Budget Breakdown:

Ultimate stage construction \$1,326,000; Lighting \$10,000; \$90,000 for WC's and \$2,500 for Garbage Bins.

Total Budget:

\$1,430,000 F-2.1.1 Ultimate stage
 Budget does not include land acquisition costs.





New Site: P-005

F-2.1.1; Priority [C] - Page 1

Site Identification:

Highway: 1

CS: 06 **Chainage:** 17.600 km

Latitude: N51 05.224

Longitude: W114 30.395

Travel Direction: EBL

WAADT Current: 16,480

WAADT 20-Year Future: 23,260

General Description:

Recommended New Site located approximately 2.8 km to the west of the Hwy 1 and Hwy 22 interchange.

General Discussion:

- WAADT is comprised of: 7.9% tractor-trailers, 2.5% single unit trucks, 1.8% buses, 4.9% recreational vehicles (total 17%), with the remainder being passenger vehicles.
- Future WAADT is 23,260 with a SRA design standard of F-2.1.1.

Summary of Field Notes:

- Site has good visibility and allows for approximately 1 km of separation from neighbouring residences and developments.
- There are some low ditches that would require fill to be able to maintain a constant grade line.
- The adjacent land is currently used as pasture land.

Site Considerations:

- High traffic and usage justifies constructing the SRA to the ultimate stage design.
- Location provides travelers the opportunity to prepare for route alternatives on the approach to Calgary, although the location is within the 30-minute travel time for separation of SRAs, but this location should not detract business from Calgary.

Design Template:

Figure F-2.1.1

Required Number of Parking Stalls:

24 (12 truck; 12 cars).



New Site: P-005

F-2.1.1; Priority [C] - Page 2

Site Identification:

Highway: 1

CS: 06 **Chainage:** 17.600 km

Latitude: N51 05.224

Longitude: W114 30.395

Travel Direction: EBL

WAADT Current: 16,480

WAADT 20-Year Future: 23,260

General Description:

Recommended New Site located approximately 2.8 km to the west of the Hwy 1 and Hwy 22 interchange

Surrounding Landowners:

Adjacent Land Parcel
SW-33-24-4-5

Owner on Title
C L Ranches Ltd.

Utilities:

- There were no utilities observed at this site during the site observation and investigation.
- Alberta One-Call did not result in any responses, however must be contacted for field locates before design/construction.

Prioritization of Site [C]:

- Future WAADT is 23,260
- Strategic framework priority criteria assign a value of 40%.

Budget Breakdown:

Ultimate stage construction \$1,326,000;
Lighting \$10,000; \$90,000 for WC's and \$2,500 for Garbage Bins.

Total Budget:

\$1,429,000 F-2.1.1 Ultimate stage
Budget does not include land acquisition





Rest Area Site: R-053

Remove with P-005; Priority [C]

Site Identification:

Highway: 1

CS: 06 Chainage: 19.148 km

Latitude: N51 05.186

Longitude: W114 28.805

Travel Direction: EBL

WAADT Current: 16,480

WAADT 20-Year Future: 23,260

General Description:

Recommend removal of this existing sub-standard rest area located in the SW quadrant of Hwy 1 and Hwy 22 interchange.

Summary of Field Notes: Primary Purpose – Rest Area

- Site is outer separated; however, the accel lane almost overtakes the decel lane of the Hwy #22 interchange.
- For spacing and safety reasons, this site should be replaced by new site P-005 to the west.
- No conflicts evident with moving to the west, but some fill material might be required to achieve a safe grade line.
- Current facilities offered at this site include garbage, phone and information.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes.
Location required due to local Safety Conditions?	Conflict with interchange traffic.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

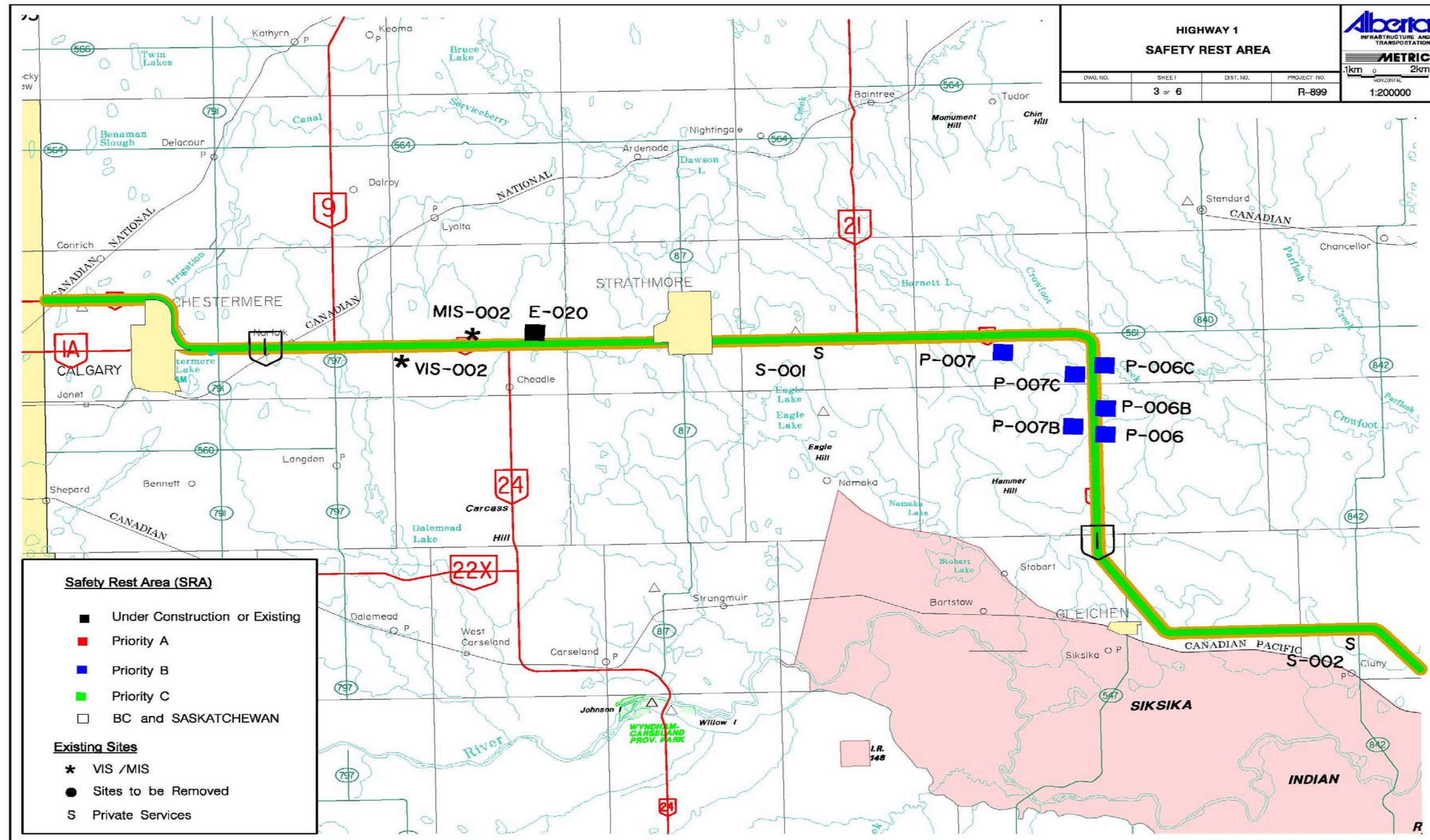
Recommendation:

Remove with P-005 construction, due to: constrained location, geometric considerations, non-conforming design and interchange spacing.

Budget Estimate:

\$20,000

7.1.3 Highway 1: Section 3 Map





Rest Site: E-020

Complimentary with P-006

Site Identification:

Highway: 1

CS: 12 Chainage: 10.448 km

Latitude: N51 02.276

Longitude: W113 31.805

Travel Direction: WBL

WAADT: 11,800

General Description:

Recommend retention of existing rest area located approximately 0.7 km east of the Jct. of Hwy 1 and Hwy 24.

Summary of Field Notes: Primary Purpose – Rest Area

- Site is outer separated, but parking is under sized for it to be classified as a full SRA.
- A constraint for expansion is a major stream crossing east of the site.
- Location does not meet spacing criteria due to close proximity to Calgary and is in conflict with interchange at Hwy #24 (within 3 kms).
- Retain this facility as a truck stop prior to entering the City of Calgary.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA 2004/06 Major Provincial Highway Project Interchange Construction @ Hwy 9/Hwy 797.
- Since facility meets some criteria and provides one additional rest area opportunity, retain the site until no longer functional or becomes in conflict with Hwy #24 interchange.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Retain the facility.

Budget Estimate:

\$60,000



New Site: P-007

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 14 Chainage: 7.600 km

Latitude: N51 02.253

Longitude: W113 09.215

Travel Direction: EBL

WAADT Current: 7,140

WAADT 20-Year Future: 10,180

General Description:

Recommended new site located 4.9 km west of the intersection of Hwy 1 and Hwy 561.

General Discussion:

- WAADT is comprised of 14.7% tractor-trailer units, 4.8% single unit trucks, 0.7% buses and 3.2% recreational vehicles (total 23%) with the remainder being passenger vehicles.
- With future WAADT of 10,180 on a divided highway, a SRA F-2.1.2 design is required with a WAADT of less than 12,000.

Summary of Field Notes:

- This location will bring the rest area closer to Strathmore, yet this should not be a concern as eastbound traffic has already passed the town.
- Adjacent land is currently used as farmland and there is a residence located approximately 800m to the east on the opposite side of the road.
- Sight distances are very long; the grade line is level, allowing for standard length decel/accel lanes.

Site Considerations:

- This site is on tangent and falls well in advance of a horizontal curve and there are no vertical curves at this location.
- There are road allowances on both sides of the highway that enter the main alignment and the design would have to be fit in while avoiding interfering with those range roads.
- The proximity to the residence maybe a concern.
- If P-007 is built, then alternate P-007B (existing RST) is to be removed.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

11 Stalls [6 truck, 5 car].



New Site: P-007

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 1
 CS: 14 Chainage: 7.600 km
 Latitude: N51 02.253
 Longitude: W113 09.215
 Travel Direction: EBL
 WAADT Current: 7,140
 WAADT 20-Year Future: 10,180

General Description:

Recommended new site located 4.9 km west of the intersection of Hwy 1 and Hwy 561.

Surrounding Landowners:

Adjacent Land Parcel
 NE-9-24-23-4

Owner on Title
 Vergouwen, Lisbeth

Utilities:

- Bell fibre optics are located in the eastbound ditch, as well there is overhead power at the location running parallel to the road containing 6 lines. No other utilities were observed during the site visit and investigation.
- Alberta One Call resulted in Bell SuperNet indicating interest in the area.

Prioritization of Site [B]:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #561 – East of Gleichen EBL Preservation Overlay
- Future WAADT is 10,180 and is on the INFTRA-Canada Highway.
- Strategic framework priority criteria assign a value of 60%.
- When P-007 is built, remove P-007B, R-010 and R-012.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for lighting;
 \$90,000 for WC's and \$2,500 for garbage bins;
 Plus \$20,000 to remove P-007B.

Total Budget:

\$1,090,000 F-2.1.2
 Budget does not include land acquisition costs.





New Site: P-007B

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1
CS: 14 **Chainage:** 17.645 km
Latitude: N50 59.385
Longitude: W113 04.485
Travel Direction: EBL
WAADT Current: 6,150
WAADT 20-Year Future: 8,770

General Description:

This is an Alternative Site only for P-007. It is an existing RST and is located 5.6 km south of the intersection of Hwy 1 and Hwy

General Discussion: Primary Purpose – Roadside Turnout

- Existing RST on divided highway Hwy 1 receives: 12.9% of the WAADT as tractor-trailer units, 3.1% as single unit trucks, 0.4% buses, and 4.4% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Future WAADT is 8,770. A SRA F-2.1.2 design is required with a WAADT of less than 12,000.

Summary of Field Notes:

- Existing RST is an Alternative Site only for P-007. If P-007 were built, this existing site would be removed. The adjacent field is farmland.
- There is an existing local road allowance that intersects the highway approximately 300m to the north. The existence of the road allowance is the reason that this existing site be only an alternative.

Site Considerations:

- This site has existing garbage bins and decel/accel lanes, but not outer separated.
- Expansion of this site would cause either the closure of the local road, or the re-routing of it. These options should be avoided by the selection of P-007 as the primary site for an SRA for the eastbound direction.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

11 Stalls [6 truck, 5 car].



New Site: P-007B

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 1

CS: 14 Chainage: 17.645 km

Latitude: N50 59.385

Longitude: W113 04.485

Travel Direction: EBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

This is an Alternative Site only for P-007. It is an existing RST and is located 5.6 km south of the intersection of Hwy 1 and Hwy

Surrounding Landowners:

Adjacent Land Parcel

NE-25-23-23-4

SE-36-23-23-4

Owner on Title

Wilson, Sheila Josephine

Sperling, Peter and Heidi

Utilities:

- Local distribution power lines located in the eastbound ditch, running parallel to the highway. These lines would have to be relocated if this alternative site was chosen in place of P-007. Telephone was also noted in the eastbound ditch at the existing location.
- Alberta One-Call did not result in any responses, however must be contacted for field locates before design/construction.

Prioritization of Site [B]:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #561 – East of Gleichen EBL Preservation Overlay
- Future WAADT is 8,770 and is on the INFTRA-Canada Highway.
- Strategic framework priority criteria assign a value of 60%.
- When P-007B is built, remove R-010 and R-012.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2

Budget does not include land acquisition costs.



No Picture
Available

New Site: P-007C

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1
CS: 14 Chainage: 14.4 km
Latitude: N51 01.301
Longitude: W113 04.481
Travel Direction: EBL
WAADT Current: 6,150
WAADT 20-Year Future: 8,770

General Description:

This is an alternate site only for P-007 along the eastbound lanes of Hwy 1, approximately 2.0 km south of Hwy 1 and Secondary Hwy 561 intersection.

General Discussion:

- SRA replacement for an existing turnout 3.5 km south.
- WAADT is, 12.9% are tractor-trailer units, 3.1% are single unit trucks, 0.4% buses, 4.4% recreational vehicles (total 21%), with the remainder being passenger vehicles.
- A SRA F-2.1.2 design is required for a divided highway with a WAADT of less than 12,000.

Summary of Field Notes:

- Location has good sight lines but lack utilities.
- No residences are within the 1 km guideline for separation and the adjacent land is farmland.
- There is a slight uphill grade for the eastbound traffic at this site, but the grade is not excessive and may not cause operational issues. A slightly larger acceleration taper could be added to compensate for this up hill grade line.

Site Considerations:

- Location has good sight distances, separation from residences and achieving a stagger in the layout of the SRA locations.
- Location will allow for eastbound traffic to come upon this SRA before seeing the westbound location at P-006. The stagger is 3.5 km.
- The alternative P-007B is at the existing site of an RST and would be removed after construction of P-007 or P-007C.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

11 Stalls [6 truck, 5 car].

No Picture
Available

New Site: P-007C

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 1
CS: 14 Chainage: 14.4 km
Latitude: N51 01.301
Longitude: W113 04.481
Travel Direction: EBL
WAADT Current: 6,150
WAADT 20-Year Future: 8,770

General Description:

This is an alternate site only for P-007 along the eastbound lanes of Hwy 1, approximately 2.0 km south of Hwy 1 and Secondary Hwy 561 intersection.

Surrounding Landowners:

Adjacent Land Parcel

SE-12-24-23-4
 NE-01-24-23-4

Owner on Title

McCallum, Mervin Keith and Sharon Elaine
 Risseeuw, Eric Daniel and Eileen

Utilities:

- There were no utilities observed at this site during the site observation and investigation.
- Alberta One-Call was contacted, however no responses received. However, site locates must be requested before design/construction.

Prioritization of Site [B]:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #561 – East of Gleichen EBL Preservation Overlay
- Future WAADT is 8,770 and is on the INFTRA-Canada Highway.
- The strategic framework priority criteria assign a value of 60%.
- At the time of constructing P-007C, also remove the site identified as Alternative P-007B.
- When P-007C is built, remove R-010 and R-012.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2
 Budget does not include land acquisition costs.





New Site: P-006

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 14 Chainage: 17.920 km

Latitude: N50 59.381

Longitude: W113 04.447

Travel Direction: WBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

Recommend upgrade existing RST for the WBL approximately 5.6 km south of the Hwy 1 and Hwy 561 intersection.

General Discussion: Primary Purpose – Roadside Turnout

- Existing RST on Hwy 1 receives, 12.9% of the WAADT as tractor-trailer units, 3.1% as single unit trucks, 0.4% buses, and 4.4% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Existing design is based on a F-2.3.2 L (i) design intended for an undivided highways. Therefore upgrade to reflect an F-2.1.2 design for a divided highway with an AADT of less than 12,000.

Summary of Field Notes:

- Existing RST has good sight distances at this location.
- Adjacent land is farmland and the closest residence is approximately 1 km to the north.
- It is approximately 20-minute travel time to Strathmore, but with minimal SRA services, it would not be expected to detract from existing urban services and the westward direction spacing criteria.

Site Considerations:

- Existing site is a good location for an SRA.
- The centre of the upgraded SRA should be kept to the same position relative to the chainage along the highway.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

11 Stalls [6 truck, 5 car].



New Site: P-006

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 1

CS: 14 Chainage: 17.920 km

Latitude: N50 59.381

Longitude: W113 04.447

Travel Direction: WBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

Recommend upgrade existing RST for the WBL approximately 5.6 km south of the Hwy 1 and Hwy 561 intersection.

Surrounding Landowners:

Adjacent Land Parcel

SW-31-23-22-4

NW-30-23-22-4

Owner on Title

Mullen, Lorne and Bruce

Mullen, Alvin and Florence

Utilities:

- Existing above ground power line and phone running parallel to the highway in the eastbound ditch of Hwy 1. A Telus line would hamper construction in the westbound ditch, running along the fence, but no other utilities were observed.
- Alberta One Call resulted in Bell SuperNet and Monarch Fiber Ltd. indicating interest in the area.

Prioritization of Site **[B]**:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #561 – East of Gleichen EBL Preservation Overlay
- Future WAADT is 8,770 and is on the INFTRA-Canada Highway.
- Strategic framework priority criteria assign a value of 60%.
- When P-006 is built, remove R-011 and R-013.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2

Budget does not include land acquisition costs.





New Site: P-006B

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 14 Chainage: 16.550 km

Latitude: N51 00.139

Longitude: W113 04.448

Travel Direction: WBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

This is an Alternative Site only for P-006 located 4.2 km south of the intersection of Hwy 1 and Hwy 561.

General Discussion:

- WAADT is comprised of 12.9% tractor-trailer units, 3.1% as single unit trucks, 0.4% buses, and 4.4% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Future WAADT is 8,770 on a divided highway requires a F-2.1.2 design with an AADT of less than 12,000.

Summary of Field Notes:

- Location borders a planted crop and is within 800m of a residence to the south on the opposite side of the highway.
- Visibility is minimal as there is a slight hill just before the location in the travel direction.
- A road right-of-way to the north would require the combination of the accel taper for the SRA with the decel and accel tapers of the road allowance.

Site Considerations:

- The proximity of the SRA to the road right-of-way creates a situation that increases the risk factor at that intersection.
- Visibility at this site is not unsafe; however it is at a minimal level. Recommended P-006 is a better location.
- If P-006B is built, then proposed P-006 (existing RST) is to be removed.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

11 Stalls [6 truck, 5 car].



Upgrade Site: P-006B

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 1

CS: 14 Chainage: 16.550 km

Latitude: N51 00.139

Longitude: W113 04.448

Travel Direction: WBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

This is an Alternative Site only for P-006 located 4.2 km south of the intersection of Hwy 1 and Hwy 561.

Surrounding Landowners:

Adjacent Land Parcel

NW-31-23-22-4

Owner on Title

Pharis, Warren and Leanne; Monty and Audrey

Utilities:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #561 – East of Gleichen EBL Preservation Overlay
- No utilities were observed during the site visit and investigation.
- Alberta One Call resulted in Bell SuperNet and Monarch Fiber Ltd. indicating interest in the area.

Prioritization of Site **[B]**:

- This alternative site for P-006 future WAADT is 8,770 and is on the INFTRA-Canada Highway.
- Strategic framework priority criterion assigns a value of 60%.
- When P-006B is built, remove P-006, R-011 and R-013.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2500 for garbage bins. Plus \$20,000 Remove P-006.

Total Budget:

\$1,090,000 F-2.1.2

Budget does not include land acquisition costs.





New Site: P-006C

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 14 **Chainage:** 14.800 km

Latitude: N51 01.061

Longitude: W113 04.443

Travel Direction: WBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

This is an Alternative Site only for P-006 located 2.5 km south of the intersection of Hwy 1 and Hwy 561.

General Discussion:

- WAADT is comprised of 12.9% tractor-trailer units, 3.1% as single unit trucks, 0.4% buses, and 4.4% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Future WAADT is 8,770 on a divided highway requires a F-2.1.2 design with an AADT of less than 12,000.

Summary of Field Notes:

- Adjacent land is used as pasture land and there appears to be an old slough that has become devoid of water.
- It is approximately 20-minute travel time to Strathmore, but with minimal SRA services, it would not be expected to detract from existing urban services and meets the westward direction spacing criteria.

Site Considerations:

- Proposed site P-006 is located at an existing RST. If this alternative were used instead of P-006, then the existing RST at P-006 would be removed once P-006C is constructed.
- Visibility along this section of the INFTRA-Canada Highway is not a large concern, as in most of this section the terrain is fairly consistent.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

11 Stalls [6 truck, 5 car].



New Site: P-006C

F-2.1.2 Design; Priority [B] - Page 2

Highway: 1

CS: 14 Chainage: 14.800 km

Latitude: N51 01.061

Longitude: W113 04.443

Travel Direction: WBL

WAADT Current: 6,150

WAADT 20-Year Future: 8,770

General Description:

This is an Alternative Site only for P-006 located 2.5 km south of the intersection of Hwy 1 and Hwy 561.

Surrounding Landowners:

Adjacent Land Parcel

NW-6-24-22-4

SW-6-24-22-4

Owner on Title

Wilson, Allen; David, Kenneth and George

Wilson, Allen; David, Kenneth and George

Utilities:

- There were no utilities at this site that were observed during the site visit and investigation.
- Alberta One Call did not result in any responses, however site locates must be done before design/construction.

Prioritization of Site **[B]**:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #561 – East of Gleichen EBL Preservation Overlay
- Future WAADT is 8,770 and is on the INFTRA-Canada Highway.
- Strategic framework priority criteria assign a value of 60%.
- When P-006C is built, remove P-006 R-011 and R-013.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2500 for garbage bins. Plus \$20,000 to remove P-006.

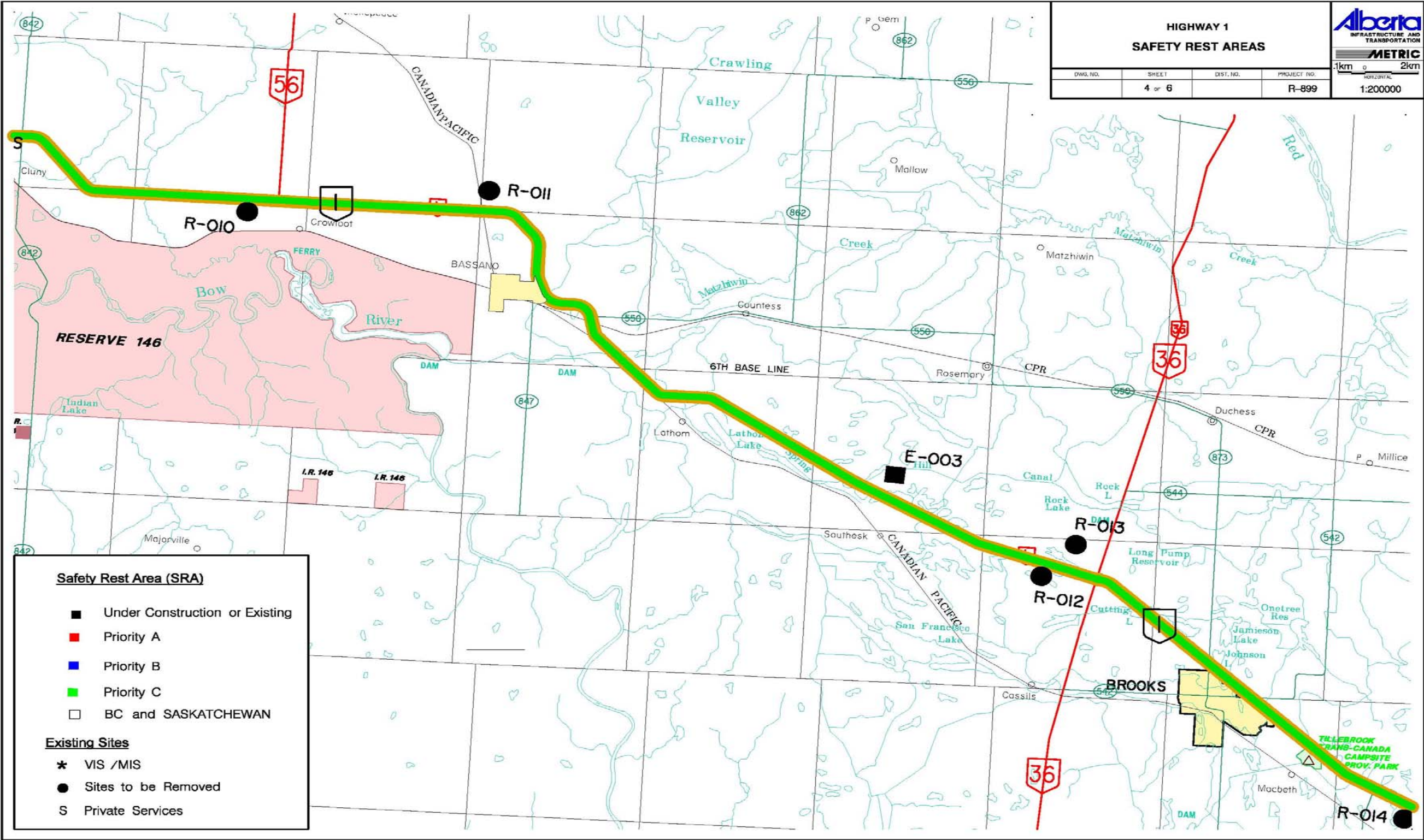
Total Budget:

\$1,090,000 F-2.1.2

Budget does not include land acquisition costs.



7.1.4 Highway 1: Section 4 Map



**Turnout Site: R-010**

Remove with P-007; Priority [B]

Site Identification:

Highway: 1

CS: 14 Chainage: 57.624 km

Latitude: N50 50.033

Longitude: W112 41.689

Travel Direction: EBL

WAADT: 6,080

General Description:

Recommend removal of existing turnout located approximately 2.5 km west of the Jct. of Hwy 1 and Hwy 56.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Turnout located before Hwy 56 with substandard decel/accel lanes and not outer separated.
- Tourist Information Map Sign to be relocated to P-007.
- Garbage receptacles are accessible but there are no other facilities at this location.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Tourist Information Map Sign
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-007, B or C due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-011

Remove with P-006; Priority [B]

Site Identification:

Highway: 1

CS: 16 Chainage: 9.020 km

Latitude: N50 50.031

Longitude: W112 30.438

Travel Direction: WBL

WAADT: 6,370

General Description:

Recommend removal of existing turnout site located approximately 10.6 km east of the Jct. of Hwy 1 and Hwy 56.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing turnout with substandard decel/accel lanes and not outer separated.
- Site has garbage receptacles but no other services.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-006, B or C due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

**Turnout Site: R-012**

Remove with P-007; Priority [B]

Site Identification:

Highway: 1

CS: 16 Chainage: 51.692 km

Latitude: N50 38.644

Longitude: W112 01.634

Travel Direction: EBL

WAADT: 6,590

General Description:

Recommend removal of existing turnout located approximately 2.8 km west of the Jct. of Hwy 1 and Hwy 36.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing turnout with substandard decel/accel lanes and not outer separated.
- The area surrounding the site is fairly flat.
- Garbage receptacle is available but no other services exist.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #36 – East of Bassano EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-007, B or C due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-013

Remove with P-006; Priority [B]

Site Identification:

Highway: 1
CS: 16 Chainage: 25.700 km
Latitude: N50 38.674
Longitude: W112 01.616
Travel Direction: WBL
WAADT: 6,590

General Description:

Recommend removal of existing turnout located approximately 2.8 km west of the Jct. of Hwy 1 and Hwy 36.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing turnout with substandard decel/accel lanes and not outer separated.
- Garbage receptacle is available but no other services exist.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #36 – East of Bassano EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

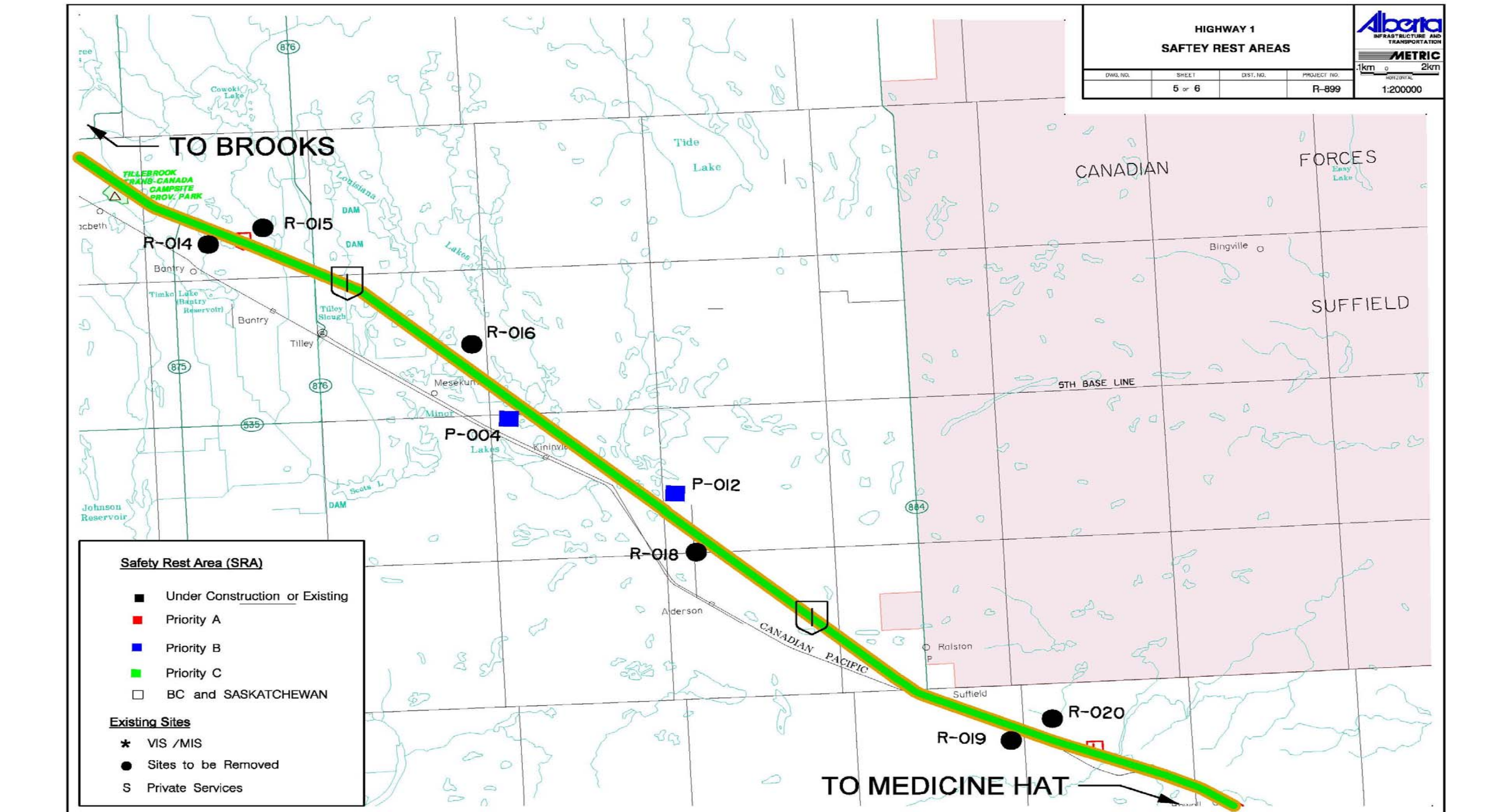
Recommendation:

Remove with P-006, B or C due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

7.1.5 Highway 1: Section 5 Map



**Turnout Site: R-014**

Remove with P-004; Priority [B]

Site Identification:

Highway: 1

CS: 18 Chainage: 23.051 km

Latitude: N50 30.770

Longitude: W111 43.820

Travel Direction: EBL

WAADT: 6,210

General Description:

Recommend removal of existing RST located approximately 2.3 km east of the Jct. of Hwy 1 and Hwy 875

Summary of Field Notes: Primary Purpose – Roadside Turnout

- This existing site is a substandard roadside turnout.
- There are no facilities other than garbage receptacle and no power is visible in close proximity.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-004 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-015

Remove with P-012; Priority [B]

Site Identification:

Highway: 1

CS: 18 Chainage: 24.700 km

Latitude: N50 30.428

Longitude: W111 42.632

Travel Direction: WBL

WAADT: 6,210

General Description:

Recommend removal of existing RST is located approximately 3.8 km east of the Jct. of Hwy 1 and Hwy 875

Summary of Field Notes: Primary Purpose – Roadside Turnout

- This existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- There exist large power lines to the north of the site.
- Garbage receptacles are available but no other services.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-012 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Interest Site: R-016

Remove with P-012; Priority [B]

Site Identification:

Highway: 1

CS: 18 Chainage: 39.285 km

Latitude: N50 25.894

Longitude: W111 32.464

Travel Direction: WBL

WAADT: 5,670

General Description:

Recommend removal of existing RST located approximately 10.2 km east of the Jct. of Hwy 1 and Hwy 876

Summary of Field Notes: Primary Purpose – Roadside Turnout

- This existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- Site has an area map and is equipped with garbage receptacles.
- A power line is visible to the north of the vicinity but no lighting exists.
- Move the area map to site P-012.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Local area map.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-012 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Upgrade Site: P-004

Lighting; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 18 Chainage: 44.400 km

Latitude: N50 23.979

Longitude: W111 29.340

Travel Direction: EBL

WAADT Current: 5,670

WAADT 20-Year Future: 8,180

General Description:

Recommend adding lighting to existing Kininvie Rest Area located approximately 15.3 km east of the Jct. of Hwy 1 and Hwy 876.

General Discussion:

- WAADT is 20.5% are tractor-trailer units, 4.6% are single unit trucks, 1.0% are buses, and 3.7% are recreational vehicles (total 30%), with the remainder being passenger vehicles.
- Future WAADT is 8,180, which allows the current existing F-2.1.2 safety rest area to remain the standard.

Summary of Field Notes:

- A large rest area that is outer separated from the highway called Kininvie Rest Area.
- To the south of the site there are two parking areas for cars and trucks.
- Site has garbage receptacles, toilet but no lighting and there is no power visible in the vicinity.
- Lighting should be added to meet SRA standard.

Site Considerations:

- This site is located close to the halfway point between Brooks and Medicine Hat and as such meets the spacing criteria for a rest area.
- The lighting that would be required at this site is minimal, as the full size of the required SRA is already in place.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

11 Stalls [6 truck, 5 car].



Upgrade Site: P-004

Lighting; Priority [B] - Page 2

Site Identification:

Highway: 1
 CS: 18 Chainage: 44.400 km
 Latitude: N50 23.979
 Longitude: W111 29.340
 Travel Direction: EBL
 WAADT Current: 5,670
 WAADT 20-Year Future: 8,180

General Description:

Recommend adding lighting to existing rest area located approximately 15.3 km east of the Jct. of Hwy 1 and Hwy 876.

Surrounding Landowners:

Adjacent Land Parcel
 SW-5-17-11-4

Owner on Title
 The Board of Trustees of the Eastern Irrigation District

Utilities:

- Power lines were observed on the opposite side of the highway; however, no utilities were observed at this existing site.
- Alberta One Call resulted in Encana, Bell SuperNet and Monarch Fibre Ltd. indicating interest in the area.

Prioritization of Site [B]:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay
- Site is part of the INFTRA-Canada Highway and has a future WAADT of 8,180.
- Strategic framework priority criteria assign a value of 45% justifying adding toilets to the site, but as a priority C.
- Since P-012 is a Priority B in the immediate vicinity, upgrade should be completed at the same time, therefore recommended as priority B.
- Transfer Historic Point of Interest Sign from R-018 and remove R-018 at the time of upgrading P-004.

Budget Breakdown:

\$20,000 for lighting

Total Budget:

\$20,000
 This site does not require land.





New Historic Site: P-012

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 1

CS: 18 Chainage: 53.930 km

Latitude: N50 20.286

Longitude: W111 22.786

Travel Direction: WBL

WAADT Current: 5,670

WAADT 20-Year Future: 8,180

General Description:

Recommend construct new SRA located approximately 25.7 km east of the Jct. of Hwy 1 and Hwy 876 to F-2.1.2.

General Discussion: Primary Purpose – Historic Site

- WAADT is comprised of 20.5% tractor-trailer units, 4.6% single unit trucks, 1.0% buses and 3.7% recreational vehicles (total 30%) with the remainder being passenger vehicles.
- Future WAADT is 8,180, which requires the design of an F-2.1.2 safety rest area to be used as the standard.

Summary of Field Notes:

- A small substandard existing turnout with historical site monument of Old Assinaboa Boundary marker as the boundary of Northwest Territories before Alberta and Saskatchewan became provinces.
- Design is below standard without decel/accel lanes and no outer separation.
- No lighting but a map is available for use and a garbage receptacle exists. This site can be expanded to a full SRA and maintaining the historical monument.

Site Considerations:

- This site is located close to the halfway point between Brooks and Medicine Hat and as such meets the spacing criteria for a rest area.
- The monument currently at this site is of historical significance and may be incorporated into the new SRA. At time of site design, review the historical point of interest at R-018 to determine if it can be moved to either P-004 or P-012.
- Also, close median cross over at this location.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

6 Stalls [3 truck, 3 car].



New Historic Site: P-012

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 1

CS: 18 Chainage: 53.930 km

Latitude: N50 20.286

Longitude: W111 22.786

Travel Direction: WBL

WAADT Current: 5,670

WAADT 20-Year Future: 8,180

General Description:

Recommend construct new SRA located approximately 25.7 km east of the Jct. of Hwy 1 and Hwy 876 to F-2.1.2.

Surrounding Landowners:

Adjacent Land Parcel

NW-7-16-10-4

NE-12-16-11-4

Owner on Title

Her Majesty The Queen in Right of Alberta

The Board of Trustees of the Eastern

Irrigation District

Utilities:

- No utilities were noted on the site.
- Alberta One Call resulted in Petro-Canada, Canadian Natural Resources, Encana, Monarch Fibre Ltd. and Bell SuperNet indicating interest in the area.

Prioritization of Site [B]:

- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay
- This site is part of the INFTRA-Canada Highway and has a future WAADT of 8,180.
- Strategic framework priority criterion assigns a value of 58%.
- During design of P-012, review the applicability of R-018 to determine if it can be moved to either P-004 or P-012. If it cannot, another alternative will need to be discussed with Alberta Community Development for R-018.
- Upon construction of P-012, remove R-014, R-015, R-016, R-018, R-019 and R-020.

Budget Breakdown:

Basic construction \$967,000 for F-2.1.2;
\$10,000 for lighting; \$90,000 for WC's and
\$2,500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2
Budget does not include land acquisition
costs.





Interest Site: R-018

Remove with P-004; Priority [B]

Site Identification:

Highway: 1
CS: 20 Chainage: 3.560 km
Latitude: N50 18.964
Longitude: W111 20.591
Travel Direction: EBL
WAADT: 5,670

General Description:

Recommend removal of existing RST located approximately 29.2 km east of the Jct. of Hwy 1 and Hwy 876.

Summary of Field Notes: Primary Purpose – Interest Site

- Existing roadside turnout under-designed without decel/accel lanes and outer separation.
- Site is a historical point of interest and houses an informational plaque. During design of P-012, review the applicability of R-018 to determine if it can be moved to either P-004 or P-012 at the time of construction.
- If R-018 cannot be moved, alternatives will need to be discussed with Alberta Community Development.
- There are no services or power, but there is one garbage receptacle.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Interest Site
Location required or requested to remain by local industry?	No

Recommendation:

Remove with P-004, due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

**Turnout Site: R-019**

Remove with P-004; Priority [B]

Site Identification:

Highway: 1

CS: 20 Chainage: 25.759 km

Latitude: N50 11.798

Longitude: W111 05.743

Travel Direction: EBL

WAADT: 7,940

General Description:

Recommend removal of existing RST located approximately 6.2 km east of the Jct. of Hwy 1 and Hwy 884.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- The existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- The site has garbage receptacles, but no other services are provided and there is no power visible in the vicinity.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-004, due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-020

Remove with P-012; Priority [B]

Site Identification:

Highway: 1

CS: 20 Chainage: 26.643 km

Latitude: N50 11.624

Longitude: W111 05.047

Travel Direction: WBL

WAADT: 7,940

General Description:

Recommend removal of existing RST located approximately 7.1 km east of the Jct. of Hwy 1 and Hwy 884.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- The existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- The site has a garbage receptacle, but no other services are offered and there is no power visible in the vicinity.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Hwy #1 – East of Brooks EBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

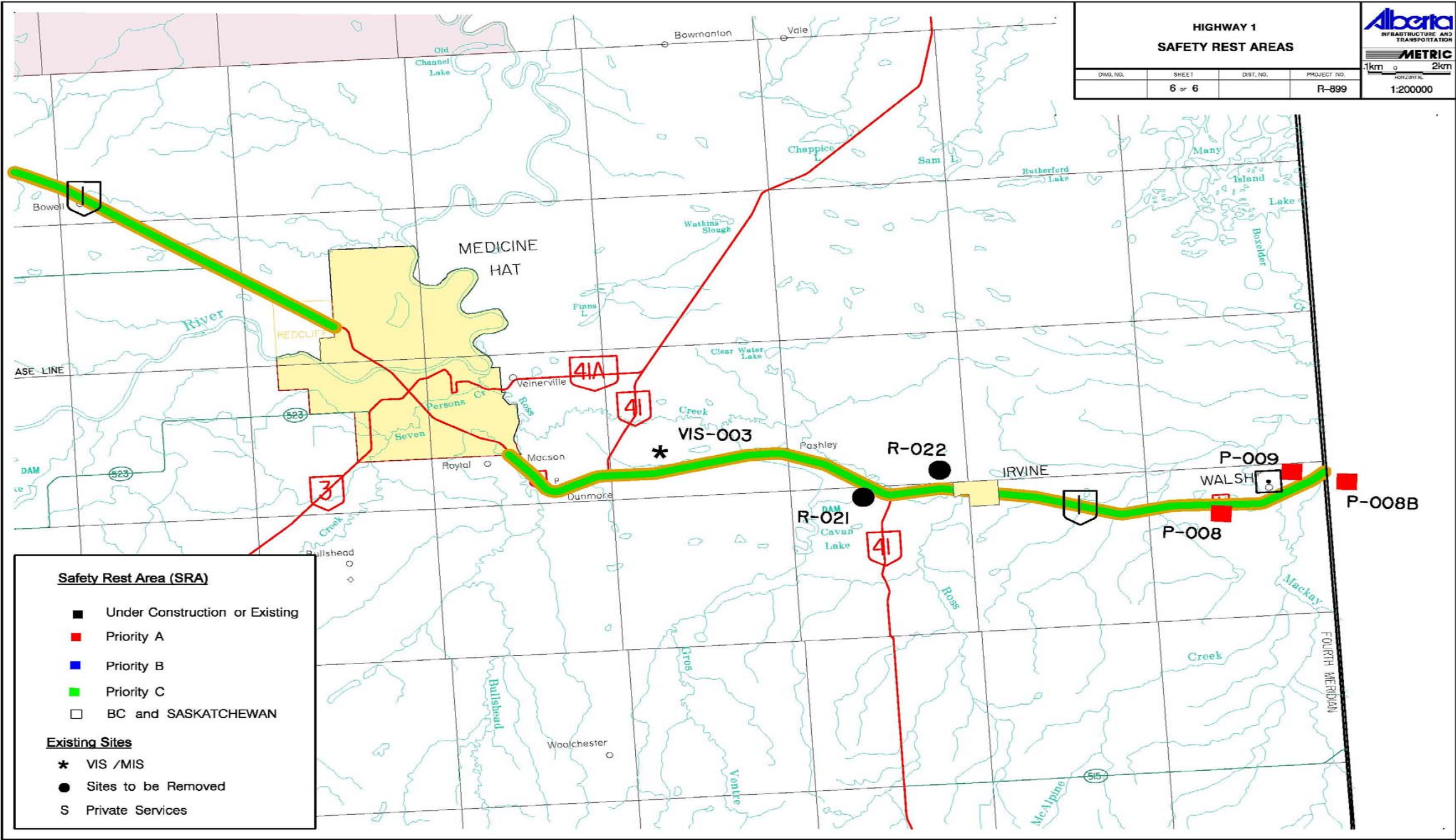
Recommendation:

Remove with P-012, due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

7.1.6 Highway 1: Section 6 Map



**Interest Site: R-021**

Remove with P-008; Priority [A]

Site Identification:**Highway:** 1**CS: 22 Chainage:** 20.816 km**Latitude:** N49 57.868**Longitude:** W110 21.743**Travel Direction:** EBL**WAADT:** 5,740**General Description:**

Recommend removal of existing RST located approximately 1.9 km west of the Jct. of Hwy 1 and Hwy 41 south.

Summary of Field Notes: Primary Purpose – Point of Interest

- The existing site is a historic point of interest substandard turnout without decel/accel lanes and outer separation.
- The site has a garbage collect but no other services are provided and there is no power visible in the vicinity.
- Relocate sign to P-009, or P-008, or takedown sign.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- During the design of P-008, determine the historical significance of R-021 with Alberta Community Development to address relocation of the sign.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic interest Site
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-008 or B, due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

**Turnout Site: R-022**

Remove with P-009; Priority [A]

Site Identification:

Highway: 1

CS: 22 Chainage: 24.47 km

Latitude: N49 57.425

Longitude: W110 18.969

Travel Direction: WBL

WAADT: 4,710

General Description:

Recommend removal of existing RST located approximately 1.6 km east of the Jct. of Hwy 1 and Hwy 41 south.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- The existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- The site has a garbage receptacle, but no other services are offered and there is no power visible in the vicinity.
- Due to railway tracks, expansion is not recommended.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-009, due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Upgrade Site: P-009

Toilets & Lighting; Priority [A] - Page 1

Site Identification:

Highway: 1

CS: 22 Chainage: 45.780 km

Latitude: N49 56.941

Longitude: W110 01.454

Travel Direction: WBL

WAADT Current: 4,710

WAADT 20-Year Future: 6,280

General Description:

A new existing SRA located approximately 1.8 km west of the Alberta Saskatchewan border.

General Discussion: Primary Purpose – Safety Rest Area

- WAADT is comprised of 12.7% tractor-trailer units, 2.3% single unit trucks, 1.0% buses, and 8.3% recreational vehicles (total 24%) with the remainder being passenger vehicles.
- Existing SRA was recently built at freeway standard F-2.1.2. This site should be maintained pursuant to strategic criteria and as the welcome to travelers to the province.

Summary of Field Notes:

- The first westbound SRA from Saskatchewan on Hwy 1 with a high percentage of users.
- Outer separated and well-developed decel/accel lanes. The start of the decel lane crosses a local field access.
- Site already has two separate parking areas for trucks and passenger vehicles and is equipped with a garbage can. There are no toilets or lighting pursuant to standards.

Site Considerations:

- This is a high profile and highly used SRA meeting the location spacing requirement.
- Since this SRA is already built with outer separation from the highway, the overall safety of this location is already high.
- The site already has garbage receptacles, therefore the only costs would be lighting the site and the addition of toilets

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

7 (4 truck, 3 cars).

Parking already exists.



Upgrade Site: P-009

Toilets & Lighting; Priority [A] - Page 2

Highway: 1

CS: 22 Chainage: 45.780 km

Latitude: N49 56.941

Longitude: W110 01.454

Travel Direction: WBL

WAADT Current: 4,710

WAADT 20-Year Future: 6,280

General Description:

An existing SRA located approximately 1.8 km from the Alberta Saskatchewan border.

Surrounding Landowners:

Adjacent Land Parcel

SW-36-11-1-4

Owner on Title

Hutterian Brethren Church of Spring Creek

Utilities:

- There were no utilities found onsite during the site visit and investigation.
- Alberta One Call resulted in Monarch Fibre Ltd. indicating interest in the area.

Prioritization of Site **[A]**:

- This site is part of the INFTRA-Canada Highway and has a future WAADT of 6,280.
- Strategic framework priority criteria assigns a value of 45% justifying adding toilets to the site, but a priority of C.
- Since P-008 is a Priority A in the immediate vicinity, upgrade should be completed at the same time, therefore recommend Priority A.

Budget Breakdown:

\$10,000 for lighting and \$90,000 for WC's

Total Budget:

\$100,000 for facilities.
No land required.



No Picture
Available

New Site: P-008

F-2.1.2 Design; Priority [A] - Page 1

Site Identification:

Highway: 1
CS: 22 Chainage: 45.000 km
Latitude: N49 56.941
Longitude: W110 01.954
Travel Direction: EBL
WAADT Current: 4,710
WAADT Future: 6,280

General Description:

Recommend a new F-2.1.2
SRA located before reaching
the Saskatchewan border.

General Discussion:

- WAADT is comprised of 12.7% tractor-trailer units, 2.3% single unit trucks, 1.0% buses, and 8.3% recreational vehicles (total 24%) with the remainder being passenger vehicles.
- WAADT of less than 12,000 should be upgraded to design template of F-2.1.2.

Summary of Field Notes:

- Applying the Alberta SRA spacing criteria, an SRA should be located at approximately the border of Saskatchewan for eastbound traffic from Medicine Hat.
- This location allows for the geometrics of the standard design to be used.
- There are no obstacles that would interfere with the placement of an SRA at this location.

Site Considerations:

- This location east of Walsh should not detract business from Walsh and could serve as a tourist location for a map or details about the Trans Canada Highway for travellers as they leave the province.
- Irvine and Walsh are within reasonable distance to each other to allow using of private services.
- There are no facilities in Saskatchewan within 40 kilometres of the border.

Design Template:

Figure F-2.1.2

**Required Number of Parking
Stalls:**

7 (4 truck, 3 cars).

No Picture
Available

New Site: P-008

F-2.1.2 Design; Priority [A] - Page 2

Site Identification:

Highway: 1
CS: 22 Chainage: 45.000 km
Latitude: N49 56.941
Longitude: W110 01.954
Travel Direction: EBL
WAADT Current: 4,710
WAADT Future: 6,280

General Description:

Recommend a new F-2.1.2
SRA located before reaching
the Saskatchewan border.

Surrounding Landowners:

Adjacent Land Parcel
SW 36-11-1-4

Owner on Title
Hutterian Brethren Church of Spring Creek

Utilities:

- No utilities were observed during the site visit.
- A utility locate must be performed before any construction takes place.

Prioritization of Site **[A]**:

- This is the INFTRA-Canada Highway with a future WAADT of 6,280.
- Strategic framework priority criterion assigns a value of 70%.

Budget Breakdown:

Basic construction \$967,000; \$10,000 for
lighting; \$90,000 for WC's and \$2,500 for
garbage bins.

Total Budget:

\$1,070,000 F-2.1.2
Budget does not include land acquisition
costs.





Upgrade Site: P-008B

F-2.1.2 Design; Priority [A] - Page 1

Site Identification:

Highway: 1

CS: Sask. Chainage: 0.20 km

Latitude: N49 57.359

Longitude: W110 00.164

Travel Direction: EBL

WAADT Current: 4,710

WAADT 20-Year Future: 6,280

General Description:

This is an Alternative Site only for the upgrade of an existing SRA located 200m into Saskatchewan.

General Discussion: Primary Purpose – Rest Area (cars only)

- This existing substandard Saskatchewan rest area located 200m across the Alberta border in Saskatchewan and serves as the location of the 'Welcome to Saskatchewan' sign.
- WAADT is comprised of 12.7% tractor-trailer units, 2.3% single unit trucks, 1.0% buses, and 8.3% recreational vehicles (total 24%) with the remainder being passenger vehicles.
- WAADT of less than 12,000 should be upgraded to design template of F-2.1.2.

Summary of Field Notes:

- Sub-standard SRA on a divided highway without decel/accel lanes, 90-degree access.
- There is no access for large trucks and no established parking area exists, no signage for the rest area.
- Services include garbage receptacle and a picnic table.
- There is a 'Welcome to Saskatchewan' sign.

Site Considerations:

- There are no rest area facilities offered in Saskatchewan within 30 minutes of the border.
- This rest area is the last stop for travelers as they leave Alberta and is at the desired spacing criteria east of Medicine Hat. With this consideration in mind, it could be developed and brought up to Alberta freeway standards.
- If this alternative were to be upgraded, discussions with Saskatchewan would need to be undertaken. P-008 is a more desirable site.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

7 (4 truck, 3 cars).



Upgrade Site: P-008B

F-2.1.2 Design; Priority [A] - Page 2

Site Identification:

Highway: 1

CS: Sask. Chainage: 0.20 km

Latitude: N49 57.359

Longitude: W110 00.164

Travel Direction: EBL

WAADT Current: 4,710

WAADT 20-Year Future: 6,280

General Description:

This is an Alternative Site only for the upgrade of an existing SRA located 200m into Saskatchewan.

Surrounding Landowners:

Adjacent Land Parcel
Parcel in Saskatchewan

Owner on Title
Not obtained at this time

Utilities:

- There were no observable utilities found during the site visit and investigation.
- A utility locate must be performed before any construction takes place.

Prioritization of Site **[A]**:

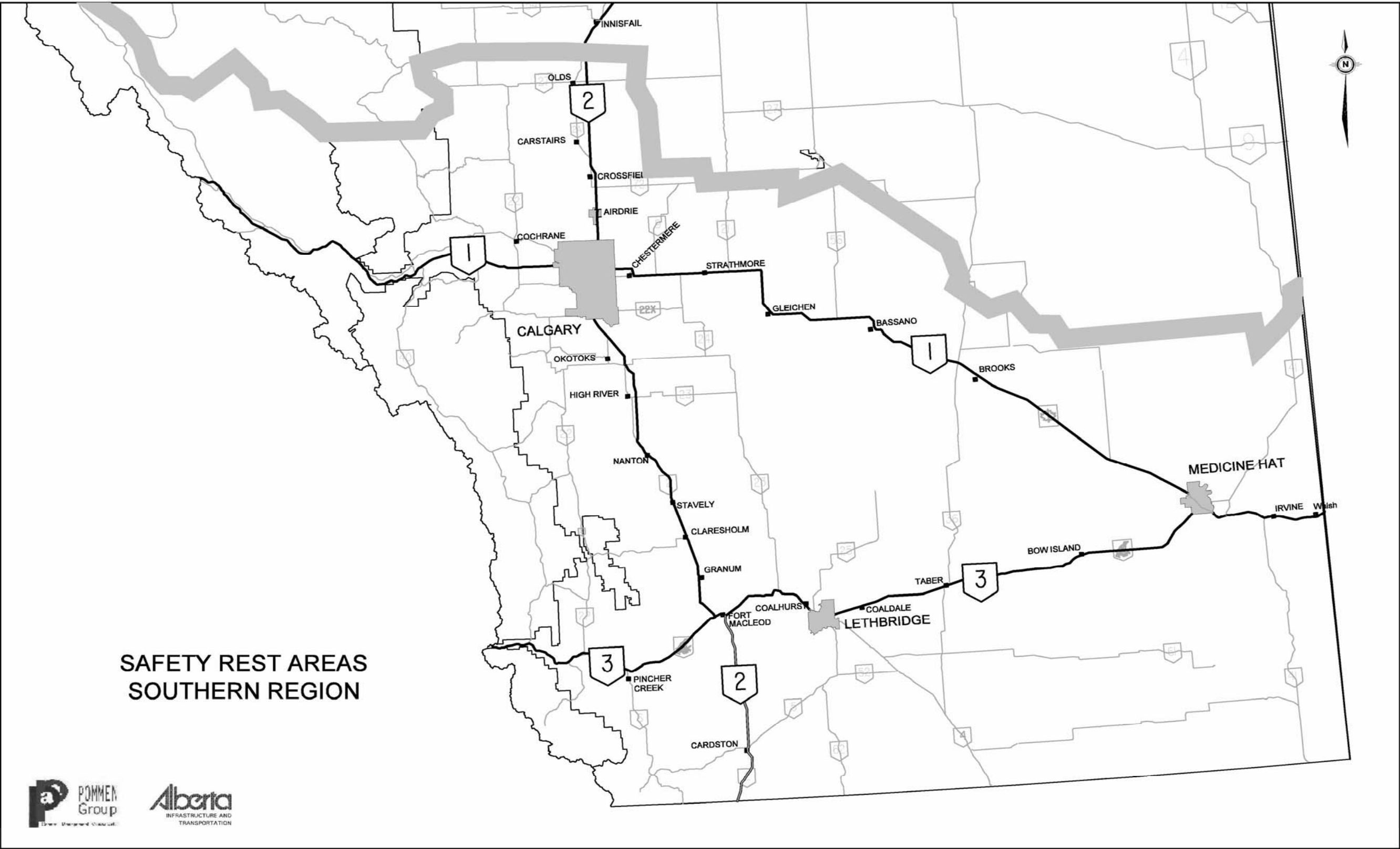
- This existing site is well below acceptable standards and should be brought up to a F-2.1.2. standard.
- This is the INFTRA-Canada Highway with a future WAADT of 6,280.
- Strategic framework priority criterion assigns a value of 70%.

Budget Breakdown:

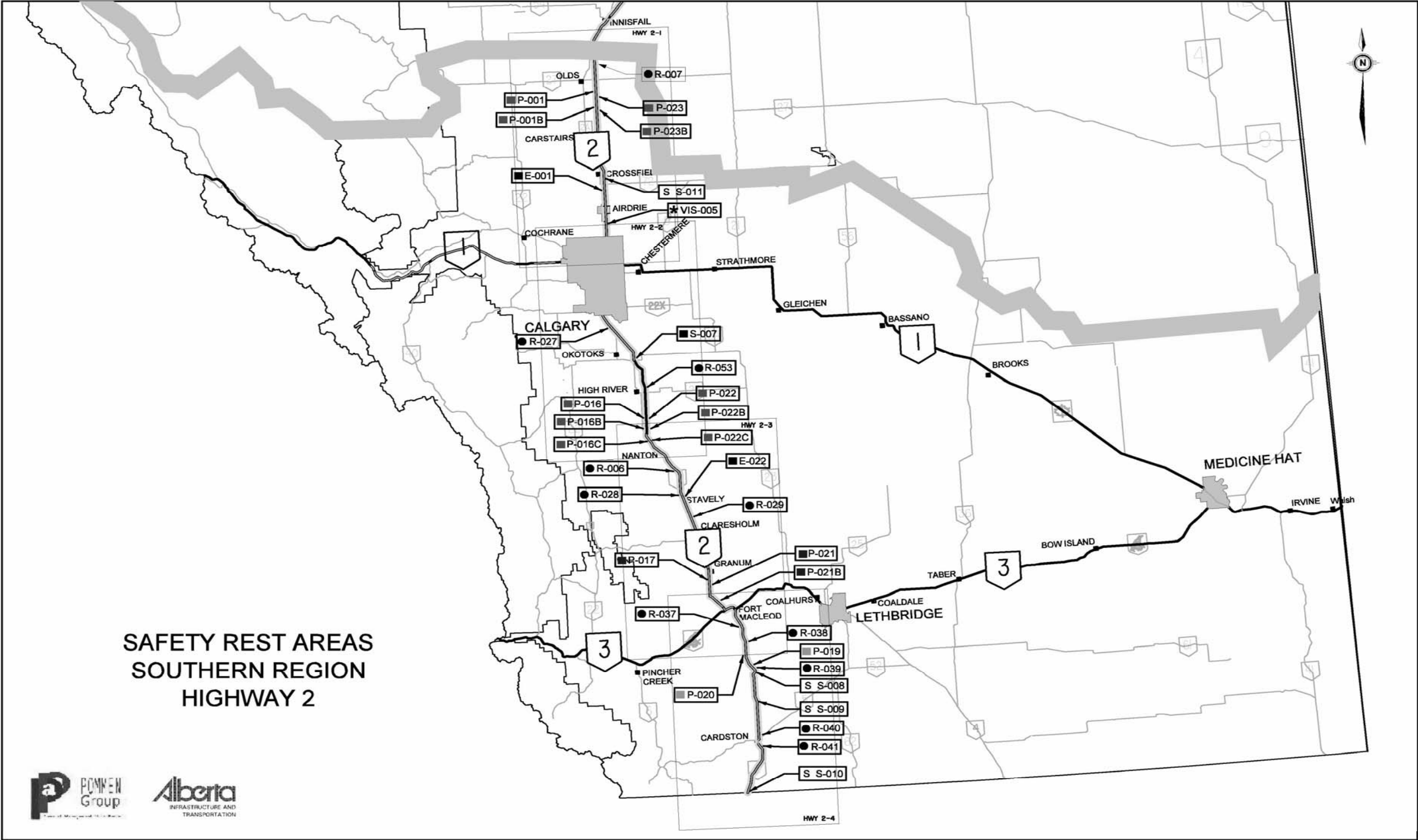
Basic construction \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

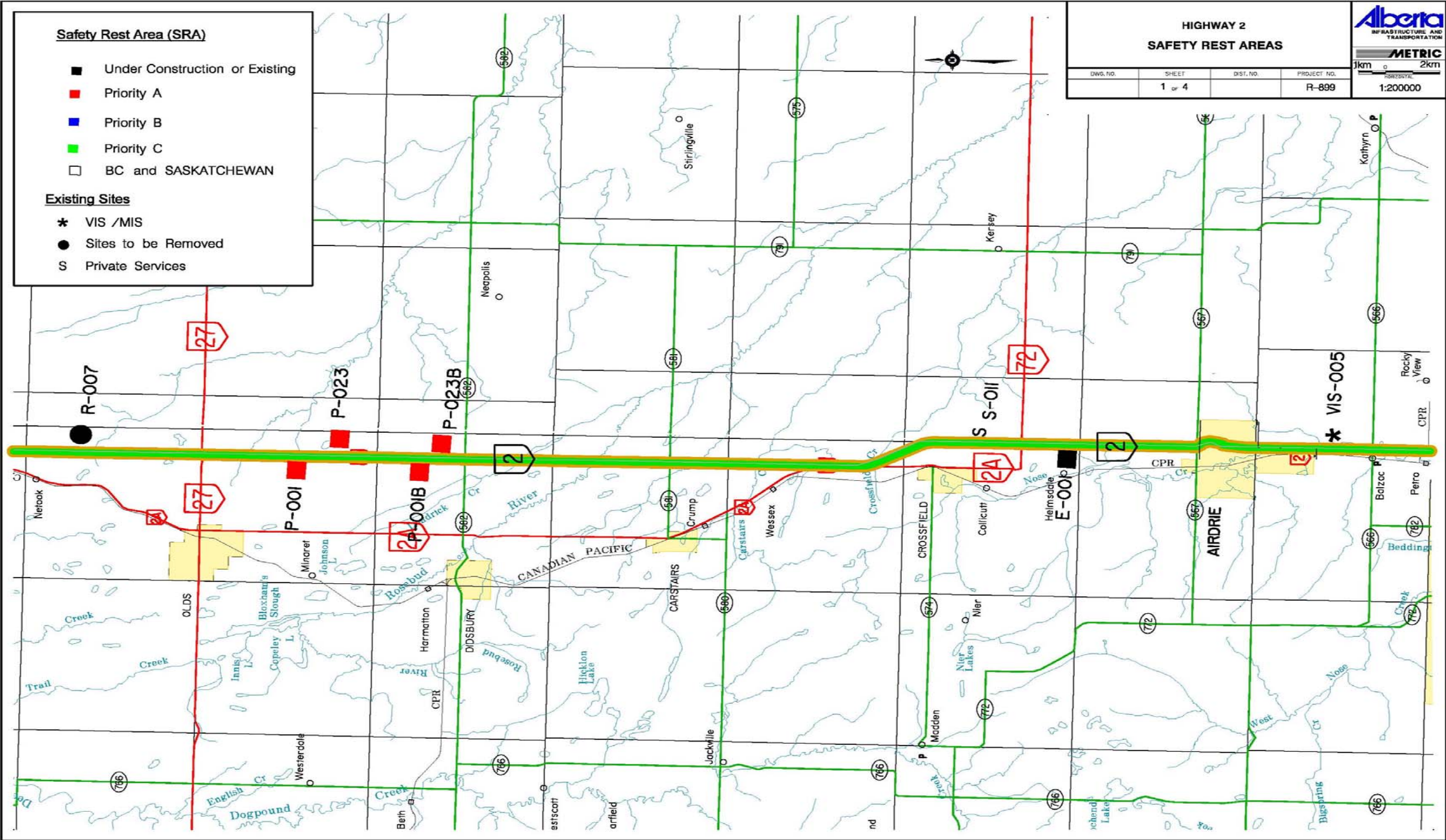
\$1,070,000 F-2.1.2
Budget does not include land acquisition costs.



7.2 Highway 2 Exhibit (Key Map)



7.2.1 Highway 2: Section 1 Map





Turnout Site: R-007

Remove with P-023; Priority [A]

Site Identification:

Highway: 2
CS: 22 Chainage: 7.535 km
Latitude: N51 51.734
Longitude: W114 01.512
Travel Direction: NBL
WAADT: 21,400

General Description:

Recommend removal of existing turnout located approximately 7.5 km north of the Hwy 2 and Hwy 27 interchange.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing roadside turnout has tapers with a drive through lane and parking, however the facility is under-designed without full decel/accel lanes and outer separation.
- Site has two garbage receptacles, but no other services. There are

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-023, due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



New Site: P-001

F-2.1.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 2

CS: 20 Chainage: 31.525 km

Latitude: N51 45.429

Longitude: W114 01.543

Travel Direction: SBL

WAADT Current: 19,810

WAADT 20-Year Future: 29,520

General Description:

Recommend new site located 4.2 km south of the Hwy 2 and Hwy 27 interchange.

General Discussion:

- WAADT is comprised of 12.8% tractor-trailer units, 3.1% single unit truck, 0.3% bus, 3.3% recreation vehicles (total 20%), with the remainder being passenger vehicles.
- This SRA should be an F-2.1.1 standard (greater than 12,000 WAADT) and should be ultimate stage of construction.

Summary of Field Notes:

- There is a service road running parallel to the highway approximately 40m from the edge of pavement and will require realignment.
- There is an estimated 1.5m difference in elevation between the highway and the service road.
- There are residences in the area, however, the closest one is 1 km away from the SRA.
- A power crossing exists at km 32.600 running east west and crossing the highway at that location.

Site Considerations:

- There were no other concerns noted on this site during the site visit and investigation.
- Location is about mid point spacing for southbound traffic between Red Deer and Dickson Stevenson Rest Area, taking into consideration that the Bowden municipal rest area has limited access and not expandable for trucks and a future interchange.
- When P-001 is constructed, existing P-001B roadside turnout is to be removed or absorbed within freeway multilanes.

Design Template:

Figure F-2.1.1

Required Number of Parking Stalls:

31 stalls [16 truck, 15 cars]



New Site: P-001

F-2.1.1 Design; Priority [A] – Page 2

Site Identification:

Highway: 2

CS: 20 Chainage: 31.525 km

Latitude: N51 45.429

Longitude: W114 01.543

Travel Direction: SBL

WAADT Current: 1,810

WAADT 20-Year Future: 29,520

General Description:

Recommend new site located
4.2 km south of the Hwy 2
Hwy 27 interchange.

Surrounding Landowners:

Adjacent Land Parcel

NE-23-32-1-5

SE-23-32-1-5

Owner on Title

Wiebe, Jacob Edwin and Margaret Patricia
J.E. Nielsen Farms Inc.

Utilities:

- No utilities were noted on the site¹.
- Alberta One Call resulted in Esprit Exploration Ltd. indicating interest in the area.

Prioritization of Site **[A]**:

- This site is part of the North-south Trade Corridor, has a future WAADT of 29,520, and justifies ultimate stage construction.
- Strategic framework priority criteria assign a value of 83%.

Budget Breakdown:

Ultimate stage construction \$1,326,000; Lighting \$10,000; \$90,000 for WC's, \$2,500 for Garbage Bins and \$60,000 to move service road.

Total Budget:

\$1,489,000 F-2.1.1 Ultimate stage
Budget does not include land acquisition costs.





New Site: P-023

F-2.1.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 2

CS: 20 Chainage: 24.800 km

Latitude: N51 43.841

Longitude: W114 01.513

Travel Direction: NBL

WAADT Current: 19,810

WAADT 20-Year Future: 29,520

General Description:

Recommend new site located approximately 7.4 km north of the Hwy 2 and Hwy 582 intersection.

General Discussion:

- WAADT is comprised of 12.8% tractor-trailer units, 3.1% single unit truck, 0.3% bus, 3.3% recreation vehicles (total 20%), with the remainder being passenger vehicles.
- This SRA should be an F-2.1.1 standard (greater than 12,000 WAADT) and should be ultimate stage of construction.

Summary of Field Notes:

- Location adjacent to farmland use and has no residences within 1 km.
- A service road runs parallel to the highway approximately 50m from the edge of pavement and will require realignment.
- The accel taper of this site would also have to be combined with the decel and accel tapers of Amerada Road.

Site Considerations:

- Location is about mid point spacing for northbound traffic between Airdrie and Red Deer, taking into consideration that the Bowden municipal rest area has limited north bound access, is not expandable for trucks and future interchange will impact access more so.

Design Template:

Figure F-2.1.1

Required Number of Parking Stalls:

31 stalls [16 truck, 15 cars]



New Site: P-023

F-2.1.1 Design; Priority [A] - Page 2

Site Identification:

Highway: 2

CS: 20 Chainage: 24.800 km

Latitude: N51 43.841

Longitude: W114 01.513

Travel Direction: NBL

WAADT Current: 19,810

WAADT 20-Year Future: 29,520

General Description:

Recommend new site located approximately 7.4 km north of the Hwy 2 and Hwy 582 intersection.

Surrounding Landowners:

Adjacent Land Parcel

SW-36-31-1-5

NW-36-31-1-5

Owner on Title

Stiles, Anne Leona

Anderson, Roxanne and Royden Thomas

Utilities:

- A local distribution power line crosses Hwy 2 at km 28.158 and services a single farmhouse on the west side of the highway. The farmhouse is set back from the west edge of pavement by 500-600m.
- A gas switching/pump station in use on the west side of the highway at km 28.312, but does not appear to cross the highway.
- Alberta One Call resulted in Crossroads Gas Co-op indicating interest in the area.

Prioritization of Site **[A]**:

- This site is part of the North-south Trade Corridor and has a future WAADT of 29,520 and justifies ultimate stage of construction.
- The strategic framework priority criteria assign a value of 83%.
- Upon completion of construction P-023, remove R-007.

Budget Breakdown:

Ultimate stage construction \$1,326,000; Lighting \$10,000; \$90,000 for WC's, \$2,500 for Garbage Bins and \$60,000 to move service road.

Total Budget:

\$1,489,000 F-2.1.1 Ultimate stage
Budget does not include land acquisition





New Site: P-001B

F-2.1.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 2
CS: 20 Chainage: 24.280
Latitude: N51 41.434
Longitude: W114 01.545
Travel Direction: SBL
WAADT Current: 19,810
WAADT 20-Year Future: 29,520

General Description:

Alternate only to P-001 located approximately 3.2 km north of the Hwy 2 and Hwy 582 interchange, to F-2.1.1 standard.

General Discussion:

- WAADT is comprised of 12.8% tractor-trailer units, 3.1% single unit truck, 0.3% bus, 3.3% recreation vehicles (total 20%), with the remainder being passenger vehicles.
- The existing Figure F-2.3.2 L (i) design is intended for an undivided highway and this SRA should be a freeway F-2.1.1 standard (greater than 12,000 WAADT) and should be ultimate stage of construction.

Summary of Field Notes:

- Existing turnout be used as part of the accel lane for the upgrading by moving the center of the SRA 400m north. A safer separation will result between the end of the accel lane for the SRA and the start of the decel lane of the overpass for Hwy 582 as well as a stagger with respect to P-023B.
- There is a service road running parallel to the highway approximately 50m west of the east edge of pavement that would have to be relocated.

Site Considerations:

- Build to the ultimate design for Figure F-2.1.1 as part of the north-south trade corridor and above average truck traffic. The long haul trucks use this area for rest periods.
- The highest priority at this site is to achieve outer separation from the highway.
- Location is about mid point spacing for southbound traffic between Red Deer and Dickson Stevenson Rest Area, taking into consideration that the Bowden municipal rest area has limited access; cannot be expanded for trucks and future interchange will impact access moreso.

Design Template:

Figure F-2.1.1

Required Number of Parking Stalls:

31 stalls [16 truck, 15 cars]



New Site: P-001B

F-2.1.1 Design; Priority [A] - Page 2

Site Identification:

Highway: 2
CS: 20 **Chainage:** 24.280
Latitude: N51 41.434
Longitude: W114 01.545
Travel Direction: SBL
WAADT Current: 19,810
WAADT 20-Year Future: 29,520

General Description:

Alternate only to P-001 located approximately 3.2 km north of the Hwy 2 and Hwy 582 interchange, to F-2.1.1 standard.

Surrounding Landowners:

Adjacent Land Parcel

SE-35-31-1-5
 NE-26-31-1.5

Owner on Title

Brown, Frederick J
 Milne, Blenda; Didsbury, AB.

Utilities:

- No utilities were noted on the site, which was a reason for this site being chosen for expansion.
- Alberta One Call resulted in Foothills Natural Gas Coop Ltd. indicating interest in the area.

Prioritization of Site [A]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 29,520 and justifies ultimate stage of size.
- The strategic framework priority criteria assign a value of 83%.

Budget Breakdown:

Ultimate stage \$1,326,000; Lighting \$10,000; \$90,000 for WC's; \$2,500 for Garbage Bins and \$60,000 to move the Service Rd.

Total Budget:

\$1,489,000 F-2.1.1 Ultimate stage
 Budget does not include land acquisition costs.





New Site: P-023B

F-2.1.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 2

CS: 20 Chainage: 23.300 km

Latitude: N51 41.089

Longitude: W114 01.512

Travel Direction: NBL

WAADT Current: 19,810

WAADT 20-Year Future: 29,520

General Description:

Alternate new site only to P-023, located approximately 2 km north of Secondary Hwy 582.

General Discussion:

- WAADT is comprised of 12.8% tractor-trailer units, 3.1% single unit truck, 0.3% bus, 3.3% recreation vehicles (total 20%), with the remainder being passenger vehicles.
- This SRA should be an F-2.1.1 standard (greater than 12,000 WAADT) and should be ultimate stage of construction.

Summary of Field Notes:

- Site is under the three km separation from the interchange at Hwy 582, *therefore not a viable site*.
- A service road runs parallel to the location 50m east of the edge of pavement and would require realignment
- A Township Road intersects the service road at km 22.600; however, there is no access for either road to the highway at that point.
- Location allows for a 1 km separation from residences and an abandoned barn east of the highway.
- A road allowance that intersects the highway at km 25.840.

Site Considerations:

- Adjacent land is farmland.
- A small power crossing is located south of the proposed centre of the SRA should not be affected by the construction of the SRA. This site would also create a good resting point approximately halfway between Calgary and Red Deer.
- Location is about mid point spacing for northbound traffic between Airdrie and Red Deer, taking into consideration that the Bowden municipal rest area has limited north bound access, cannot be expanded for trucks and future interchange will impact access moreso.

Design Template:

Figure F-2.1.1

Required Number of Parking Stalls:

31 stalls [16 truck, 15 cars]



New Site: P-023B

F-2.1.1 Design; Priority [A] - Page 2

Site Identification:

Highway: 2

CS: 20 Chainage: 23.300 km

Latitude: N51 41.089

Longitude: W114 01.512

Travel Direction: NBL

WAADT Current: 19,810

WAADT 20-Year Future: 29,520

General Description:

Alternate new site only to P-023, located approximately 2 km north of Secondary Hwy 582.

Surrounding Landowners:

Adjacent Land Parcel

SW-25-31-1-5

NW-25-31-1-5

Owner on Title

Fulkerth, Anna Mae and Peggy Arlene

Stiles, Anne Leona

Utilities:

- There is a local distribution power line that crosses the highway running east west at km 22.600 running along the shoulder of the township road; however the power does cross the highway. There were no other utilities that were observed.
- Alberta One Call resulted in no responses, however a site locate must be made at design/construction stage.

Prioritization of Site **[A]**:

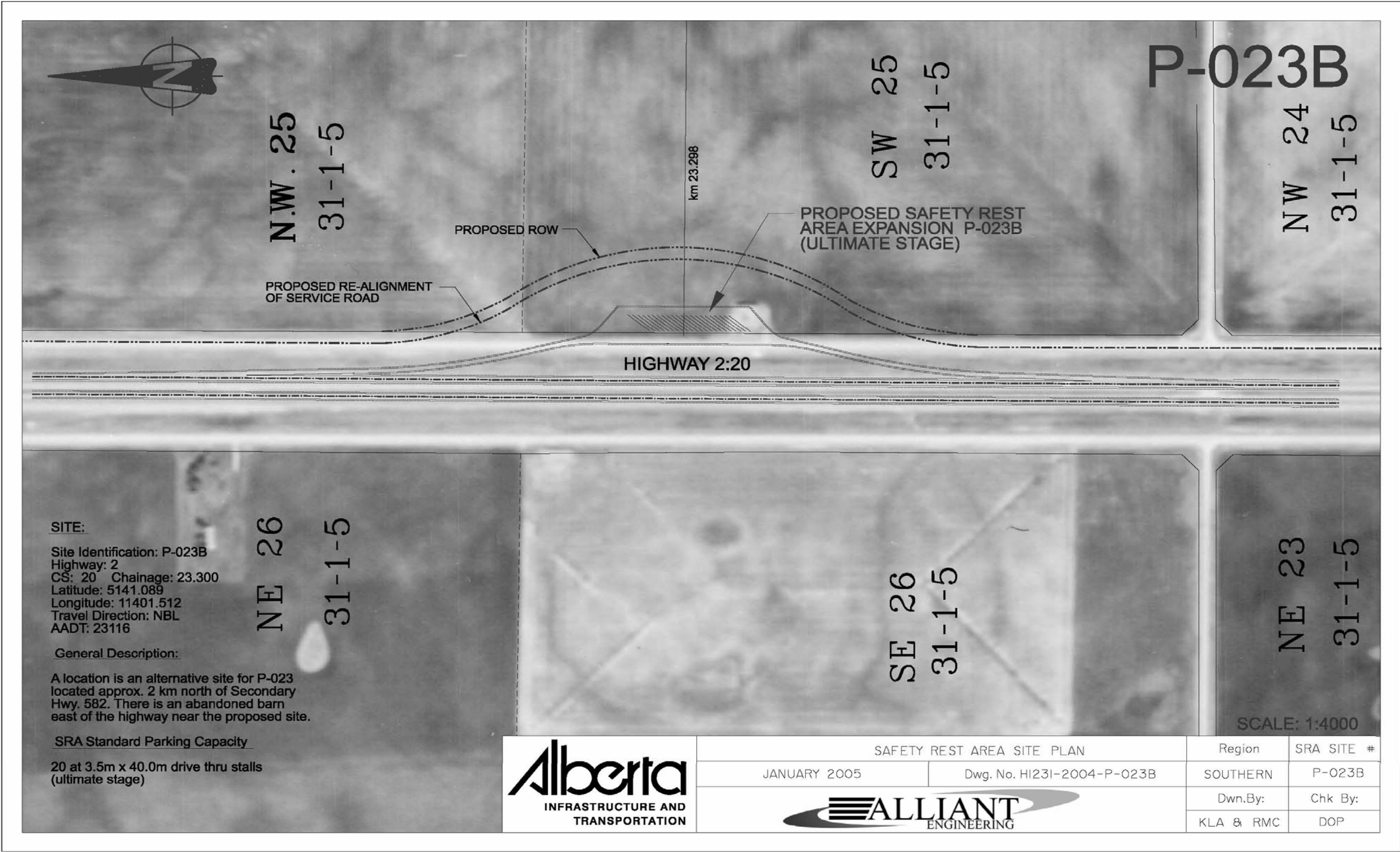
- This site is part of the North-south Trade Corridor and has a future WAADT of 29,520 and justifies ultimate stage of size.
- The strategic framework priority criteria assign a value of 83%.
- Upon completion of construction P-023B, remove R-007.

Budget Breakdown:

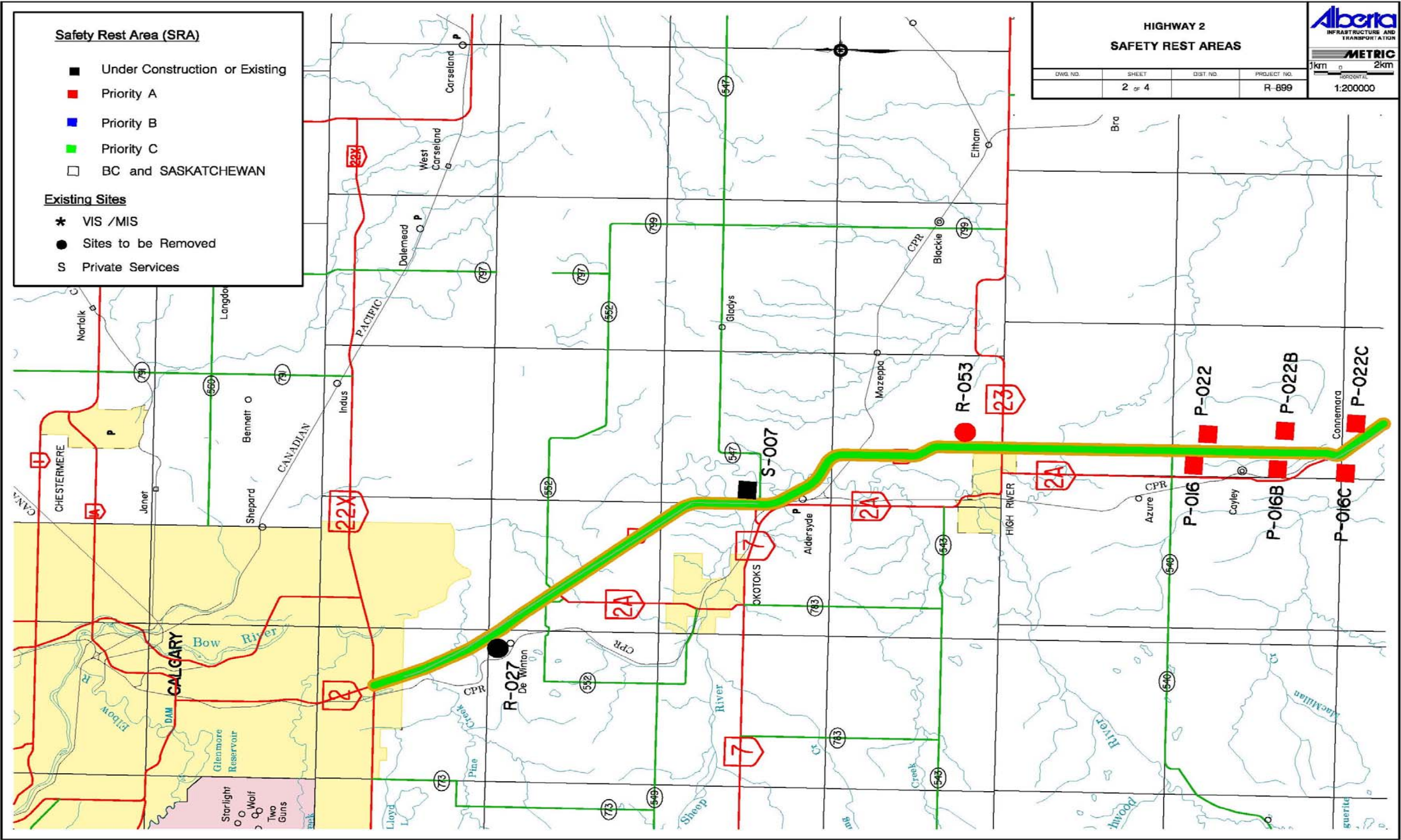
Ultimate stage \$1,326,000; Lighting \$10,000; \$90,000 for WC's; \$2,500 for Garbage Bins and \$60,000 to move the service road.

Total Budget:

\$1,489,000 F-2.1.1 Ultimate stage
Budget does not include land acquisition



7.2.2 Highway 2: Section 2 Map



**Turnout Site: R-027**

Remove with P-016; Priority [A]

Site Identification:**Highway:** 2**CS: 12 Chainage:** 33.981 km**Latitude:** N50 50.199**Longitude:** W114 00.712**Travel Direction:** SBL**WAADT:** 15,190**General Description:**

Recommend removal of existing RST located approximately 5.3 km north of the Jct. of Hwy 2 and Hwy 552/2A interchange.

Summary of Field Notes: Primary Purpose – Roadside Turnout & MIS

- The existing turnout is under-designed without decel/accel lanes and outer separation.
- Site is in conflict with intense land uses, future interchanges and spacing criteria.
- This site has garbage receptacles, but no other services available.
- Lighting exists just south of the highway intersection but no lighting in the turnout.
- A self-scale is in operation.

Summary of Stakeholder Input:

General consultation about rest area needs was carried out in previous research and studies. Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-016 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Interest Site: R-053

Remove with P-022; Priority [A]

Site Identification:

Highway: 2

CS: 12 Chainage: 1.831 km

Latitude: N50 27,771

Longitude: W113 49.676

Travel Direction: NBL

WAADT Current: 10,880

WAADT 20-Year Future: 15,760

General Description:

Recommend removal of existing turnout located approximately 1.83 km north of the Jct. of Hwy 2 and Hwy 23 interchange.

Summary of Field Notes: Primary Purpose – Historic Point of Interest

- No outer separation, but decel/accel lanes and parking accommodates large trucks and garbage receptacles.
- A service road is on the east side of the highway approximately 40m from the edge of pavement and a residence north of the site approximately 500m away.
- Site is in conflict with intense land uses and future interchanges.
- Relocate signs to P-022, B or C if the sign message applies to the new location.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Interest Point
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-022, B or C due to: the location, non-conforming freeway design standards and conflict with interchange spacing.

Budget Estimate:

\$20,000



New Site: P-016

F-2.1.2 Design; Priority [A] - Page 1

Site Identification:

Highway: 2

CS: 10 Chainage: 38.000

Latitude: N 50 27 46.2

Longitude: W 113 49 42.0

Travel Direction: SBL

WAADT Current: 8,760

WAADT 20-Year Future: 15,760

General Description:

This proposed SRA is located approximately 2.4 kms south of the intersection of Hwy 2 and Hwy 540 West.

General Discussion:

- WAADT is comprised of: 12.4% tractor-trailer units, 5.0% as single unit trucks, 0.7% buses, and 2.8% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Considering the predicted growth of the WAADT in 20 years is expected to exceed 12,000, the correct standard to apply is F-2.1.2 initial stage design.

Summary of Field Notes:

- The terrain at this location is very flat and is an ideal location for an SRA.
- Allows for good site distances and there are no obstacles that would have to be avoided at this location.

Site Considerations:

- As part of the North South Trade Corridor, an SRA in this area is expected to be highly used by both truck traffic as well as by the passenger vehicles that travel this highway.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

17 Stalls [9 truck, 8 cars]



New Site: P-016
F-2.1.2 Design; Priority [A] - Page 2

Site Identification:

Highway: 2
CS: 10 Chainage: 38.000
Latitude: N 50 27 46.2
Longitude: W 113 49 42.0
Travel Direction: SBL
WAADT Current: 8,760
WAADT 20-Year Future: 15,760

General Description:

This proposed SRA is located approximately 2.4 kms south of the intersection of Hwy 2 and Hwy 540 West.

Surrounding Landowners:

Adjacent Land Parcel

NE-30-17-28-4
SE-30-17-28-4

Owner on Title

Beverly Iris Van Dine
Sheila Young

Utilities:

- There is a telephone cable along the fence line labeled with AGT.
- A Shaw fibre optic cable located along the west fence.
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site [A]:

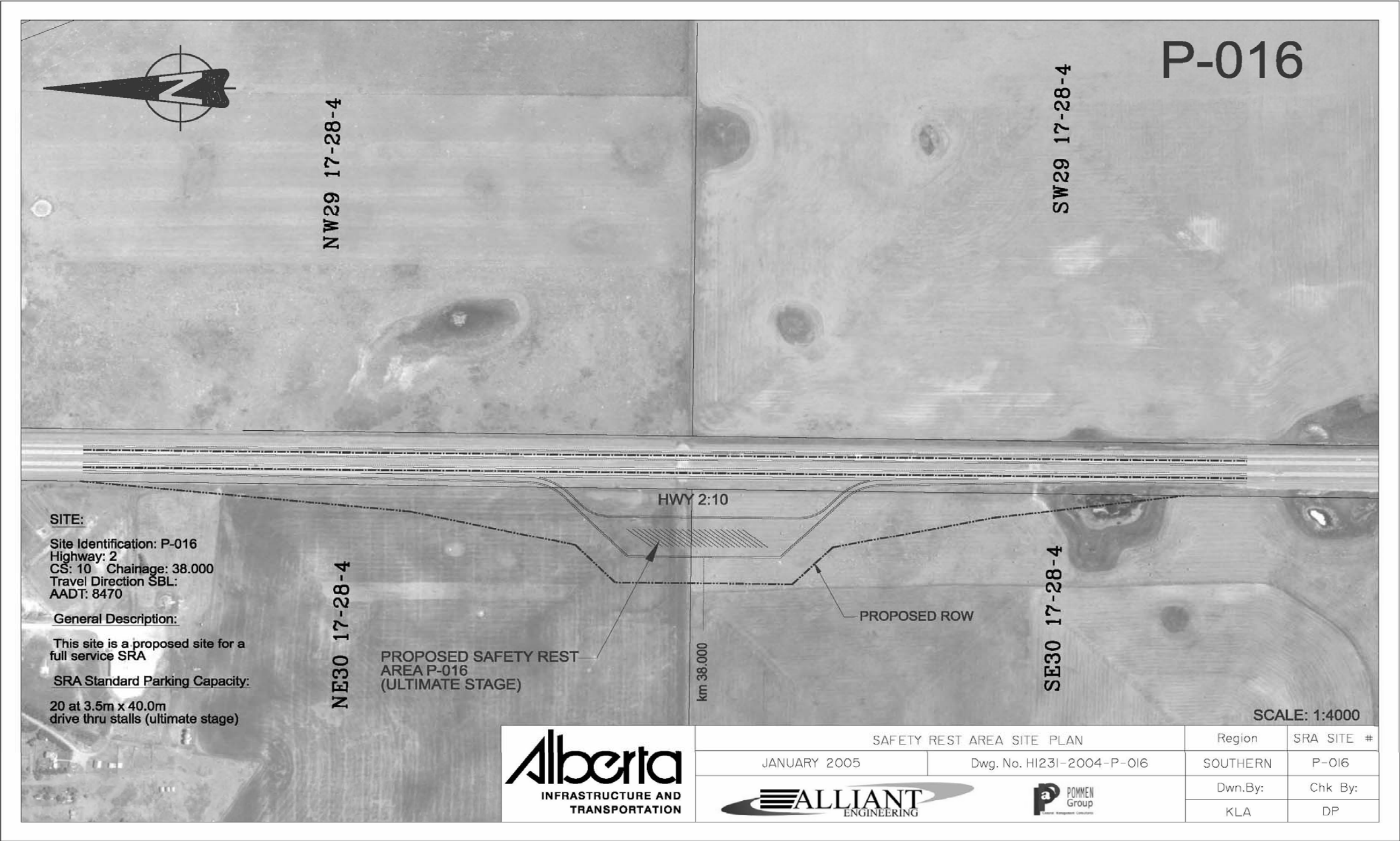
- This site is part of the North-south Trade Corridor and has a future WAADT of 15,760.
- Strategic framework priority criteria assign a value of 75%.
- Upon construction of P-016, remove R-027

Budget Breakdown:

Ultimate stage \$1,060,000; \$10,000 for lighting;
\$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,163,000 F-2.1.2 ultimate stage design
Budget does not include land acquisition costs



**New Site: P-022**

F-2.1.2. Design; Priority [A] - Page 1

Site Identification:**Highway:** 2**CS:** 10 **Chainage:** 38.000**Latitude:** N 50 27 46.5**Longitude:** W 113 49 40.6**Travel Direction:** NBL**WAADT Current:** 8,760**WAADT 20-Year Future:** 15,760**General Description:**

Recommended new SRA located 14 kilometres north of the intersection of Hwy 2 and Hwy 533 East.

General Discussion:

- WAADT is comprised of 12.4% tractor-trailers, 5% single unit trucks, 0.7% buses and 2.8% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Future WAADT is 15,760 criteria allow for the use of a design of a F-2.1.2.

Summary of Field Notes:

- The terrain at this location is a constant grade and is an ideal location for an SRA.
- Allows for good site distances and there are no obstacles that would have to be avoided at this location.

Site Considerations:

- As part of the North South Trade Corridor, an SRA in this area is expected to be highly used by both truck traffic as well as by the passenger vehicles that travel this highway
- Due to the development constraints in the southern vicinity of Calgary and proposed interchanges, this site becomes a locational compromise to meet reasonable spacing and stopping opportunities (McElhanney 99.09 Report #R-761).
- This site will not be implicated by realignment of Hwy #2 near the railroad overhead north of Nanton.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

17 Stalls [9 truck, 8 cars]

**New Site: P-022**

F-2.1.2. Design; Priority [A] - Page 2

Site Identification:

Highway: 2

CS: 10 Chainage: 38.000

Latitude: N 50 27 46.5

Longitude: W 113 49 40.6

Travel Direction: NBL

WAADT Current: 8,760

WAADT 20-Year Future: 15,760

General Description:

Recommended new SRA located 14 kilometres north of the intersection of Hwy 2 and Hwy 533 East.

Surrounding Landowners:Adjacent Land Parcel

SW-29-17-28-4

NW-29-17-28-4

Owner on Title

Lindsay Wendt

Kenneth Boyd and Wendy Sue Stadlwisner

Utilities:

- A three-line overhead power line runs along the east fence.
- Alberta One Call must be made for onsite locates at design/construction stage.

Prioritization of Site [A]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 15,760.
- The strategic framework priority criteria assign a value of 75%.
- Upon P-022 construction, remove R-053.

Budget Breakdown:

Ultimate stage \$1,060,000; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins

Total Budget:

\$1,163,000 F-2.1.2 Ultimate stage
Budget does not include land acquisition costs.



**New Site: P-016B**

F-2.1.2 Design; Priority [A] - Page 1

Site Identification:**Highway:** 2**CS:** 10 **Chainage:** 33.000**Latitude:** N 50 24 55.0**Longitude:** W 113 49 40.8**Travel Direction:** SBL**WAADT Current:** 8,760**WAADT 20-Year Future:** 15,760**General Description:**

This proposed alternative SRA is located approximately 7.4 kilometres south of the intersection of Hwy 2 and Hwy 540 West.

General Discussion:

- WAADT is comprised of: 12.4% tractor-trailer units, 5.0% as single unit trucks, 0.7% buses, and 2.8% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Considering the predicted growth of the WAADT in 20 years is expected to exceed 12,000, the correct standard to apply is F-2.1.2 initial stage design.

Summary of Field Notes:

- The terrain at this location is very flat and an ideal location for an SRA.
- Allows for good site distances, however, there is a swale near by that would require the installation of a large bridge sized culvert.
- This site may be impacted by realignment of Hwy #2 section near the existing railroad overpass north of Nanton.

Site Considerations:

- As part of the North South Trade Corridor, a SRA in this area is expected to be highly used by both truck traffic as well as by the passenger vehicles that travel this highway.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

17 Stalls [9 truck, 8 cars]

**New Site: P-016B**

F-2.1.2 Design; Priority [A] - Page 2

Site Identification:

Highway: 2

CS: 10 Chainage: 33.000

Latitude: N 50 24 55.0

Longitude: W 113 49 40.8

Travel Direction: SBL

WAADT Current: 8,760

WAADT 20-Year Future: 15,760

General Description:

This proposed alternative SRA is located approximately 7.4 kilometres south of the intersection of Hwy 2 and Hwy 540 West.

Surrounding Landowners:Adjacent Land Parcel

SE-7-17-28-4

NE-7-17-28-4

Owner on Title

Samuel H. Peck

Douglas John Mackenzie

Utilities:

- No utilities were noted during the site visit.
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site [A]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 15,760.
- Strategic framework priority criteria assign a value of 75%.
- Upon construction of P-016, remove R-027

Budget Breakdown:

Ultimate stage \$1,060,000; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,163,000 F-2.1.2 ultimate stage design
Budget does not include land acquisition costs



**New Site: P-022B**

F-2.1.2. Design; Priority [A] - Page 1

Site Identification:**Highway:** 2**CS:** 10 **Chainage:** 32.800**Latitude:** N 50 24 53.0**Longitude:** W 113 49 40.8**Travel Direction:** NBL**WAADT Current:** 8,760**WAADT 20-Year Future:** 15,760**General Description:**

Alternate only F-2.1.2 SRA located 8.8 kilometres north of the intersection of Hwy 2 and Hwy 533 East.

General Discussion:

- WAADT is comprised of 12.4% tractor-trailers, 5% single unit trucks, 0.7% buses and 2.8% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Future WAADT is 15,760 criteria allow for the use of a design of a F-2.1.2.

Summary of Field Notes:

- Located on a slight uphill grade for the location that would become the decel lane and then the terrain flattens out where the accel lane would be located. This would assist in aiding vehicles to slow down to enter the SRA.
- There were no obstacles that would have to be negotiated.

Site Considerations:

- As part of the North South Trade Corridor, a SRA in this area is expected to be highly used by both truck traffic as well as by the passenger vehicles that travel this highway
- Due to the development constraints in the southern vicinity of Calgary and proposed interchanges, this site becomes a locational compromise to meet reasonable spacing and stopping opportunities (McElhanney 99.09 Report #R-761).
- This site will be implicated by realignment of Hwy #2 near the railroad overhead north of Nanton.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

17 Stalls [9 truck, 8 cars]

**New Site: P-022B**

F-2.1.2. Design; Priority [A] - Page 2

Site Identification:**Highway:** 2**CS:** 10 **Chainage:** 32.800**Latitude:** N 50 24 53.0**Longitude:** W 113 49 40.8**Travel Direction:** NBL**WAADT Current:** 8,760**WAADT 20-Year Future:** 15,760

Alternate only F-2.1.2 SRA located 8.8 kilometres north of the intersection of Hwy 2 and Hwy 533 East.

Surrounding Landowners:

Adjacent Land Parcel
SW-8-17-28-4

Owner on Title
????

Utilities:

- A Bell West Inc. fibre optic line was noted running along the fence line.
- Alberta One Call must be made for onsite locates at design/construction stage.

Prioritization of Site [A]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 15,760.
- The strategic framework priority criteria assign a value of 75%.
- Upon P-022 construction, remove R-053.

Budget Breakdown:

Ultimate stage \$1,060,000; \$10,000 for lighting;
\$90,000 for WC's and \$2,500 for garbage bins

Total Budget:

\$1,163,000 F-2.1.2 Ultimate stage
Budget does not include land acquisition costs.



**New Site: P-016C**

F-2.1.2 Design; Priority [A] - Page 1

Site Identification:**Highway:** 2**CS:** 10 Chainage: 29.000**Latitude:** N50 23 10.0**Longitude:** W113 48 50.1**Travel Direction:** SBL**WAADT Current:** 8,760**WAADT 20-Year Future:** 15,760**General Description:**

This alternative SRA is located approximately 11.4 kms south of the intersection of Hwy 2 and Hwy 540 West.

General Discussion:

- WAADT is comprised of 12.4% tractor-trailer units, 5% single unit trucks, 0.7% buses, 2.8% recreational vehicles (total 21%), with the remainder being passenger vehicles.
- Considering the predicted growth of the WAADT in 20 years is expected to exceed 12,000, the correct standard to apply is F-2.1.2 ultimate stage design.

Summary of Field Notes:

- The terrain at this location is very flat and an ideal location for an SRA.
- Good site distances prevail and there are no obstacles that would have to be avoided at this location.

Site Considerations:

- Location is 2.4 km south of a grade separation for an abandoned railway crossing. If this crossing is converted to a highway interchange, P-016 alternatives may need to be considered.
- INFTRA plans to realign Hwy #2 at the railroad overhead in this section of hwy. The realignment is yet to be determined; therefore not suitable as an SRA.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

17 Stalls [9 truck, 8 cars]

**New Site: P-016C**

F-2.1.2 Design; Priority [A] - Page 2

Site Identification:**Highway:** 2**CS:** 10 Chainage: 29.000**Latitude:** N50 23 10.0**Longitude:** W113 48 50.1**Travel Direction:** SBL**WAADT Current:** 8,760**WAADT 20-Year Future:** 15,760**General Description:**

This proposed alternative SRA is located approximately 11.4 kms south of the intersection of Hwy 2 and Hwy 540 West.

Surrounding Landowners:Adjacent Land Parcel

SW-32-16-28-4

SE-32-16-28-4

Owner on Title

Robert and Jane Lemieux

Linda Loree

Utilities:

- There is a telephone cable along the fence line labelled with AGT. There is also a Shaw fibre optic cable located along the west fence.
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site [A]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 15,760.
- Strategic framework priority criteria assign a value of 75%.
- Upon construction of P-016, remove R-027

Budget Breakdown:

Ultimate stage \$1,060,000; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,163,000 F-2.1.2 ultimate stage design
Budget does not include land acquisition costs.





New Site: P-022C

F-2.1.2. Design; Priority [A] – Page 1

Site Identification:

Highway: 2
CS: 10 **Chainage:** 28.500
Latitude: N 50 22 58.1
Longitude: W 113 48 32.7
Travel Direction: NBL
WAADT Current: 8,760
WAADT 20-Year Future: 15,760

General Description:

Proposed alternative to P-022
 SRA located 4.5 kilometres north
 of the intersection of Hwy 2 and
 Hwy 533 East.

General Discussion:

- WAADT is comprised of 12.4% tractor-trailers, 5% single unit trucks, 0.7% buses and 2.8% recreational vehicles (total 21%) with the remainder being passenger vehicles.
- Future WAADT is 15,760 criteria allow for the use of a design of a F-2.1.2.

Summary of Field Notes:

- An abandoned railway line runs parallel to the highway with the ballast still present.
- A fence on the far side of the railway bed is located 68 metres from the shoulder of the highway and if the railway is no longer in use, a right-of-way may not have to be purchased, however the right-of-way is very constrained.
- The terrain is, for the most part, flat, however, some borrow would be needed.

Site Considerations:

- As part of the North South Trade Corridor, an SRA in this area is expected to be highly used by both truck traffic as well as by the passenger vehicles that travel this highway
- Due to the development constraints in the southern vicinity of Calgary and proposed interchanges, this site becomes a locational compromise to meet reasonable spacing and stopping opportunities (McElhanney 99.09 Report #R-761).
- This site will likely be implicated by realignment (bypass) of Hwy #2 near Nanton.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

17 Stalls [9 truck, 8 cars]



New Site: P-022C

F-2.1.2. Design; Priority [A] – Page 2

Site Identification:

Highway: 2

CS: 10 **Chainage:** 28.500

Latitude: N 50 22 58.1

Longitude: W 113 48 32.7

Travel Direction: NBL

WAADT Current: 8,760

WAADT 20-Year Future: 15,760

General Description:

Proposed alternative to P-022
SRA located 4.5 kilometres north
of the intersection of Hwy 2 and
Hwy 533 East.

Surrounding Landowners:

Adjacent Land Parcel
SE-32-16-28-4

Owner on Title
Linda Loree

Utilities:

- Overhead power lines located 1.5 kms to the south of the proposed location.
- A Bell West Inc. (1-800-242-3447) fibre optic line noted between the highway and the abandoned railway.
- Alberta One Call must be made for onsite locates at design/construction stage.

Prioritization of Site [A]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 15,760.
- The strategic framework priority criteria assign a value of 75%.
- Upon P-022 construction, remove R-053.

Budget Breakdown:

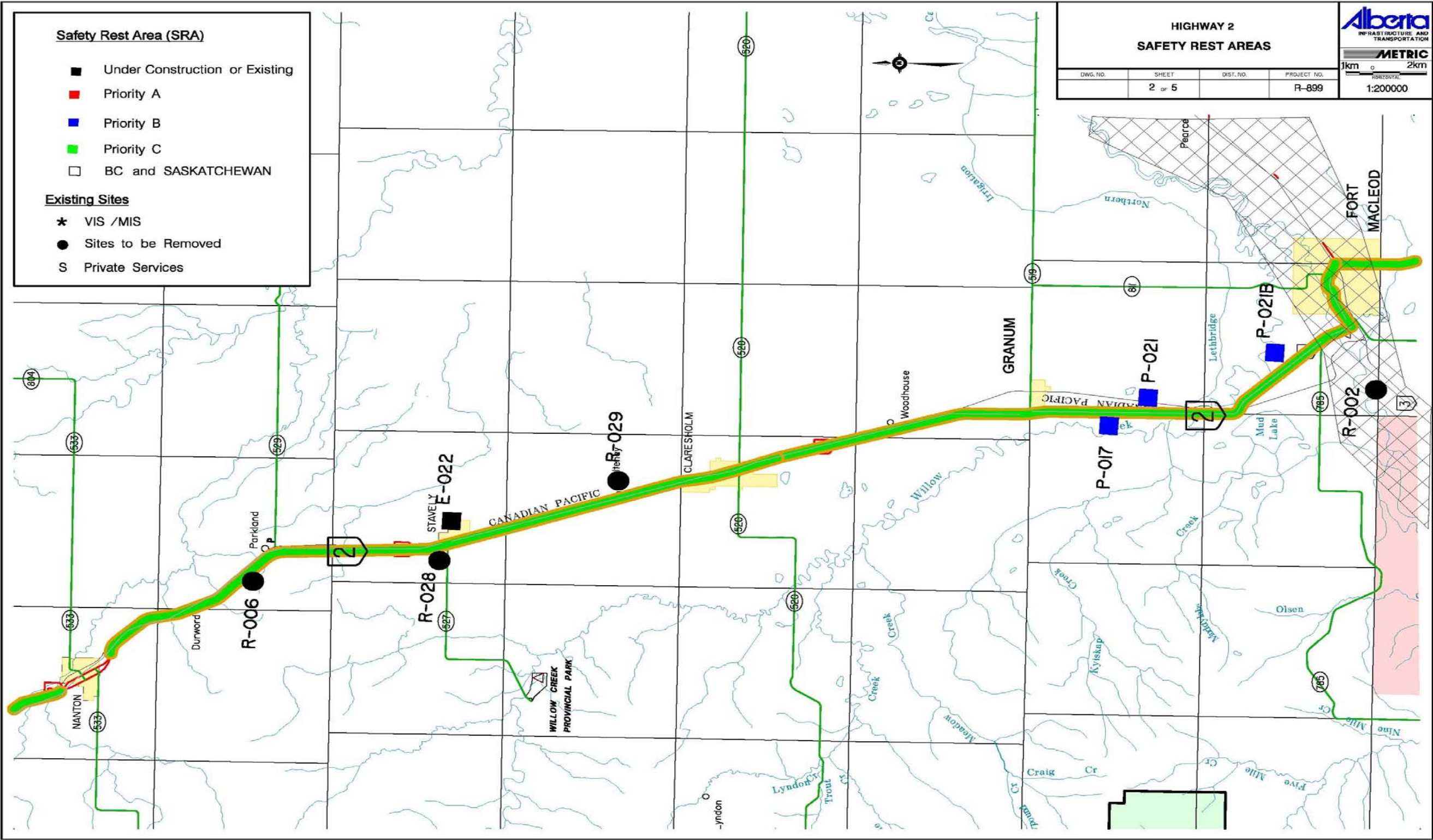
Ultimate stage \$1,060,000; \$10,000 for lighting;
\$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,163,000 F-2.1.2 Ultimate stage
Budget does not include land acquisition costs.



7.2.3 Highway 2: Section 3 Map





Turnout Site: R-006

Remove with P-017; Priority [B]

Site Identification:

Highway: 2

CS: 10 Chainage: 12.159 km

Latitude: N50 16.044

Longitude: W113 40.7272

Travel Direction: SBL

WAADT: 6,750

General Description:

Recommend removal of existing turnout located at approximately 2.3 km north of the Hwy 2 and Hwy 529 intersection.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- The existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- Site is not required within strategic spacing.
- There is a garbage receptacle and no other services at the site.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No
Location required due to local Safety Conditions?	No
Location required for Historic, Tourism or other public use?	No
Location required or requested to remain by local industry?	No

Recommendation:

Remove with P-017 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-028

Remove with P-017; Priority [B]

Site Identification:

Highway: 2

CS: 10 Chainage: 1.107 km

Latitude: N50 10.380

Longitude: W113 39.216

Travel Direction: SBL

WAADT: 6,540

General Description:

Recommend removal of existing turnout located approximately 0.9 km north of the Jct. of Hwy 2 and Hwy 527.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- The existing site is a substandard roadside turnout without decel/accel lanes and outer separation.
- Site is not required within strategic spacing.
- There is a garbage receptacle and no other services at the site.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-017 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

**Historic Site: E-022**

Consider with P-021; Priority [B]

Site Identification:**Highway:** 2**CS:** 08 **Chainage:** 53.050 km**Latitude:** N50 09.528**Longitude:** W113 38.695**Travel Direction:** NBL**WAADT:** 6,550**General Description:**

Existing turnout located approximately 0.7 km south of the Jct. of Hwy 2 and Hwy 527.

Summary of Field Notes: Primary Purpose – Historical Interest

- Turnout is a Stavely historical landmark approximately 1 km south of secondary Hwy 527 intersection. Sign is specific to that area and another location will be needed if this site is removed.
- Stavely is located approximately 150m east of the site.
- The existing site is substandard without decel/accel lanes and outer separation.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- Propose to discuss the future of this site and signage with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Landmark
Location required or requested to remain by local industry?	No.

Recommendation:

Discuss with ACD. Possible removal with P-021 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000

**Interest Site: R-029**

Remove with P-021; Priority [B]

Site Identification:

Highway: 2

CS: 08 Chainage: 43.158 km

Latitude: N50 04.546

Longitude: W113 36.304

Travel Direction: NBL

WAADT: 6,550

General Description:

Recommend removal existing turnout located approximately 6.6 km north of the Jct. of Hwy 2 and Hwy 520.

Summary of Field Notes: Primary Purpose – Historical Interest

- This turnout can be classified as a historical point of interest.
- It is equipped with a garbage receptacle but no other services.
- The existing site is under-designed without decel/accel lanes and outer separation.
- Site is not required within strategic spacing.
- Relocate sign to P-021.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Discuss with ACD. Remove with P-021 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



New Site: P-017

F-2.1.2 Design: Priority IB1 - Page 1

Site Identification:

Highway: 2

CS: 08 Chainage: 15.600 km

Latitude: N49 49.814

Longitude: W113 31.472

Travel Direction: SBL

WAADT Current: 4,320

WAADT 20-Year Future: 5,450

General Description:

Recommend F-2.1.2 SRA located 15.6 km from the Hwy 2 and Hwy 3 interchange.

General Discussion:

- WAADT is comprised of 17.7% tractor-trailers, 4.1% single unit trucks, 0.8% buses, 3.6% recreational vehicles (total 26%), with the remainder being passenger vehicles.
- Taking into account that this location is on a divided highway and the WAADT is under 12,000 for the 20-year prediction, this site should be an F-2.1.2 SRA.

Summary of Field Notes:

- The purpose of an SRA at this location is to allow traffic a safe place to pull off the highway before arriving at the interchange of Hwy 2 and Hwy 3 and particularly address travel distance before proceeding West due to limited West options.
- The site is within 30 min recommended distance of Fort MacLeod and satisfies the time/distance factors for westbound traffic.

Site Considerations:

- A rest area at this location provides an excellent location for the public not familiar with the area to check maps and rest before proceeding West or East. An information sign could also be added onsite that would help direct people as to the correct route to plan for their given destination.
- Future interchange is likely to be located at Highway 519 near Granum.
- A planned service road will be needed and both service road and SRA would fill in a wetland area.
- When this site is constructed, remove R-006, R-028 and R-002.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

7 Stalls [4 truck, 3 cars].



New Site: P-017

F-2.1.2 Design: Priority [B] - Page 1

Site Identification:

Highway: 2

CS: 08 Chainage: 15.600 km

Latitude: N49 49.814

Longitude: W113 31.472

Travel Direction: SBL

WAADT Current: 4,320

WAADT 20-Year Future: 5,450

General Description:

Recommend F-2.1.2 SRA located 15.6 km from the Hwy 2 and Hwy 3 interchange.

Surrounding Landowners:

Adjacent Land Parcel

NE-13-10-27-4

SE-24-10-27-4

Owner on Title

Echo Springs Ranching Co. Ltd.

Echo Springs Ranching Co. Ltd.

Utilities:

- There were no utilities that were observable during the site visit and investigation.
- Alberta One Call resulted in BP Canada indicating interest in the area.

Prioritization of Site [B]:

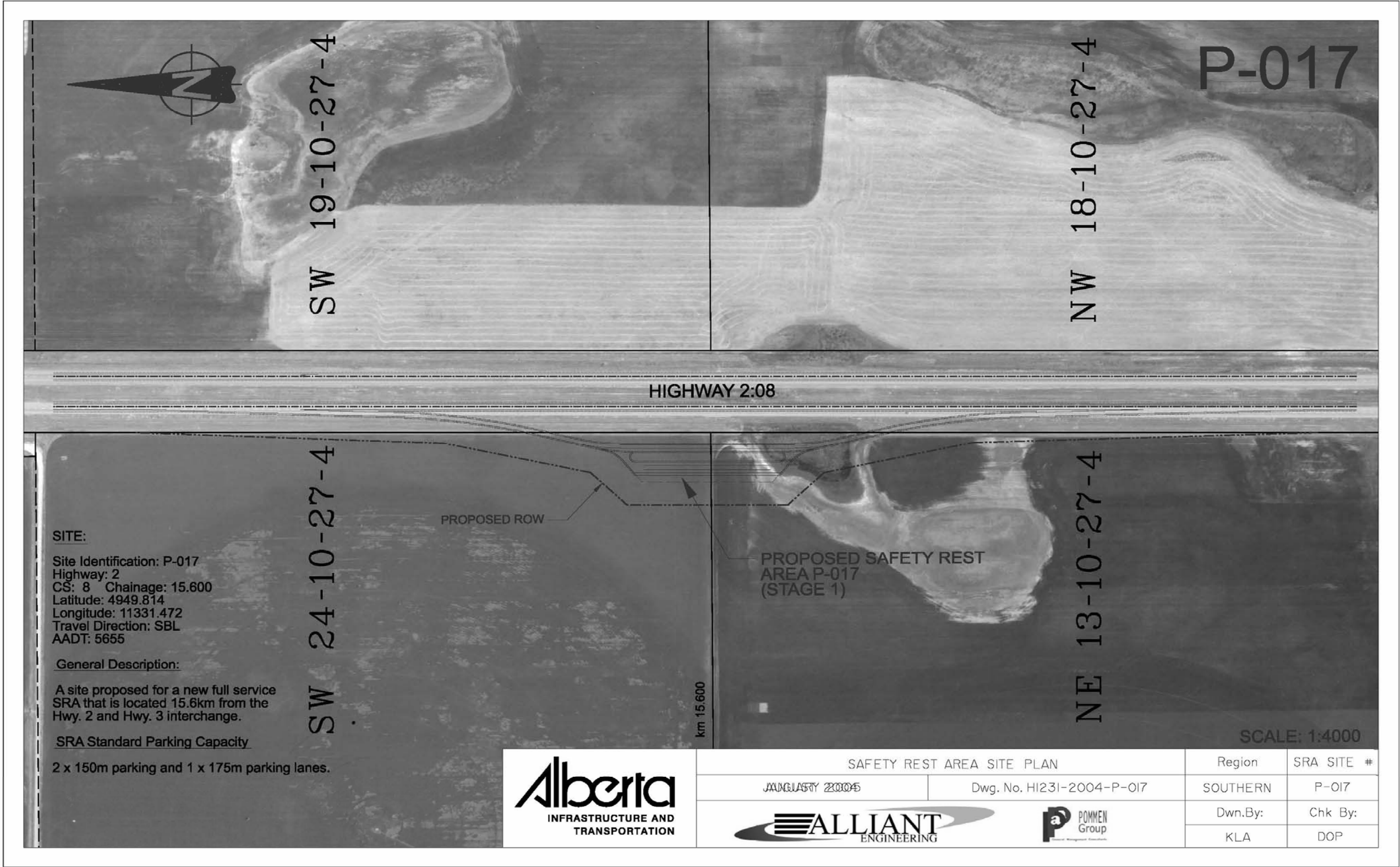
- This site is part of the North-south Trade Corridor and has a future WAADT of 5,450.
- Strategic framework priority criteria assign a value of 63%.
- When this site is constructed, remove R-006, R-028 and R-002.

Budget Breakdown:

Stage I \$967,000; \$10,000 for lighting;
\$90,000 for WC's and \$2500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2 initially Stage I.
Budget does not include land acquisition costs.





New Site: P-021

F-2.1.2 Design; Priority [B] – Page 1

Site Identification:

Highway: 2

CS: 08 Chainage: 14.200 km

Latitude: N49 49.325

Longitude: W113 31.428

Travel Direction: NBL

WAADT Current: 4,320

WAADT 20-Year Future: 5,450

General Description:

Recommended SRA located 5.7 km south of the Hwy 2 and Hwy 519 intersection.

General Discussion:

- WAADT is comprised of 17.7% tractor-trailers, 4.1% single unit trucks, 0.8% buses, 3.6% recreational vehicles (total 26%) with the remainder being passenger vehicles.
- This location being on divided highway and having a future WAADT of less than 12,000, an F-2.1.2 design is required.

Summary of Field Notes:

- This alternative site is adjacent to farmland and the closest residence is more than 1 km away with good sight distances.
- This location experiences a higher than average percent trucks.

Site Considerations:

- During the site visit and investigation, there were no considerations found to detract from this location as a replacement site for P-021B.
- When this site is built, remove P-21B and R-029.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

7 Stalls [4 truck, 3 cars].



New Site: P-021

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 2
 CS: 08 Chainage: 14.200 km
 Latitude: N49 49.325
 Longitude: W113 31.428
 Travel Direction: NBL
 WAADT Current: 4,320
 WAADT 20-Year Future: 5,450

General Description:

Recommended SRA located
 5.7 km south of the Hwy 2 and
 Hwy 519 intersection.

Surrounding Landowners:

Adjacent Land Parcel
 SW-18-10-26-4

Owner on Title
 Echo Springs Ranching Co.

Utilities:

- At this alternative location no utilities were observed during the site visit and investigation.
- Alberta One Call resulted in ATCO Gas indicating interest in the area.

Prioritization of Site **[B]**:

- This site is part of the North-south Trade Corridor and has a future WAADT of 5,450.
- Strategic framework priority criteria assign a value of 63%.
- When this site is built, remove P-021B, and R-029.

Budget Breakdown:

Stage I \$967,000; \$10,000 for lighting;
 \$90,000 for WC's and \$2500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2 Stage I design.
 Budget does not include land acquisition costs.



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New Site: P-021B

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 2

CS: 08 Chainage: 4.718 km

Latitude: N49 44.717

Longitude: W113 28.995

Travel Direction: NBL

WAADT Current: 4,320

WAADT 20-Year Future: 5,450

General Description:

Alternate only F-2.1.2 upgrade to existing turnout located approximately 7.2 km north from Fort MacLeod.

General Discussion:

- WAADT is comprised of 17.7% tractor-trailers, 4.1% single unit trucks, 0.8% buses, 3.6% recreational vehicles (total 26%) with the remainder being passenger vehicles.
- Existing turnout is only 40m in length, is under designed and lacks decel/accel lanes and outer separation.
- A divided highway having a future WAADT of less than 12,000, an F-2.1.2 design is required.

Summary of Field Notes:

- This is part of the North-south Trade Corridor.
- There is currently a residence on the west side of the southbound lane approximately 100m to the south of the proposed location. This SRA should be moved up to 300m to the north to increase that separation.
- The current RST has one garbage receptacle.

Site Considerations:

- This route is heavily used by the trucking industry and the long haul trucking industry, as seen by the percent tractor-trailers and single unit trucks.
- This location is strategic for rest periods for traffic coming from the south and west proceeding north. Traffic not stopping in Fort MacLeod is offered one more opportunity to rest before proceeding northward.
- Service road may need to be accommodated in the design.

Design Template:

Figure F-2.1.2

Required Number of Parking Stalls:

7 Stalls [4 truck, 3 cars].



New Site: P-021B

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 2

CS: 08 Chainage: 4.718 km

Latitude: N49 44.717

Longitude: W113 28.995

Travel Direction: NBL

WAADT Current: 4,320

WAADT 20-Year Future: 5,450

General Description:

Alternate only F-2.1.2 upgrade to existing turnout located approximately 7.2 km north from Fort MacLeod.

Surrounding Landowners:

Adjacent Land Parcel
SE-20-9-26-4

Owner on Title
Van Sluys, Gary

Utilities:

- There were no utilities noted during the site visit and investigation that would conflict with construction.
- Alberta One Call resulted in ATCO Gas and Bell SuperNet indicating interest in the area.

Prioritization of Site [B]:

- This site is part of the North-south Trade Corridor and has a future WAADT of 5,450.
- Strategic framework priority criteria assign a value of 63%.

Budget Breakdown:

Stage I \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2500 for garbage bins.

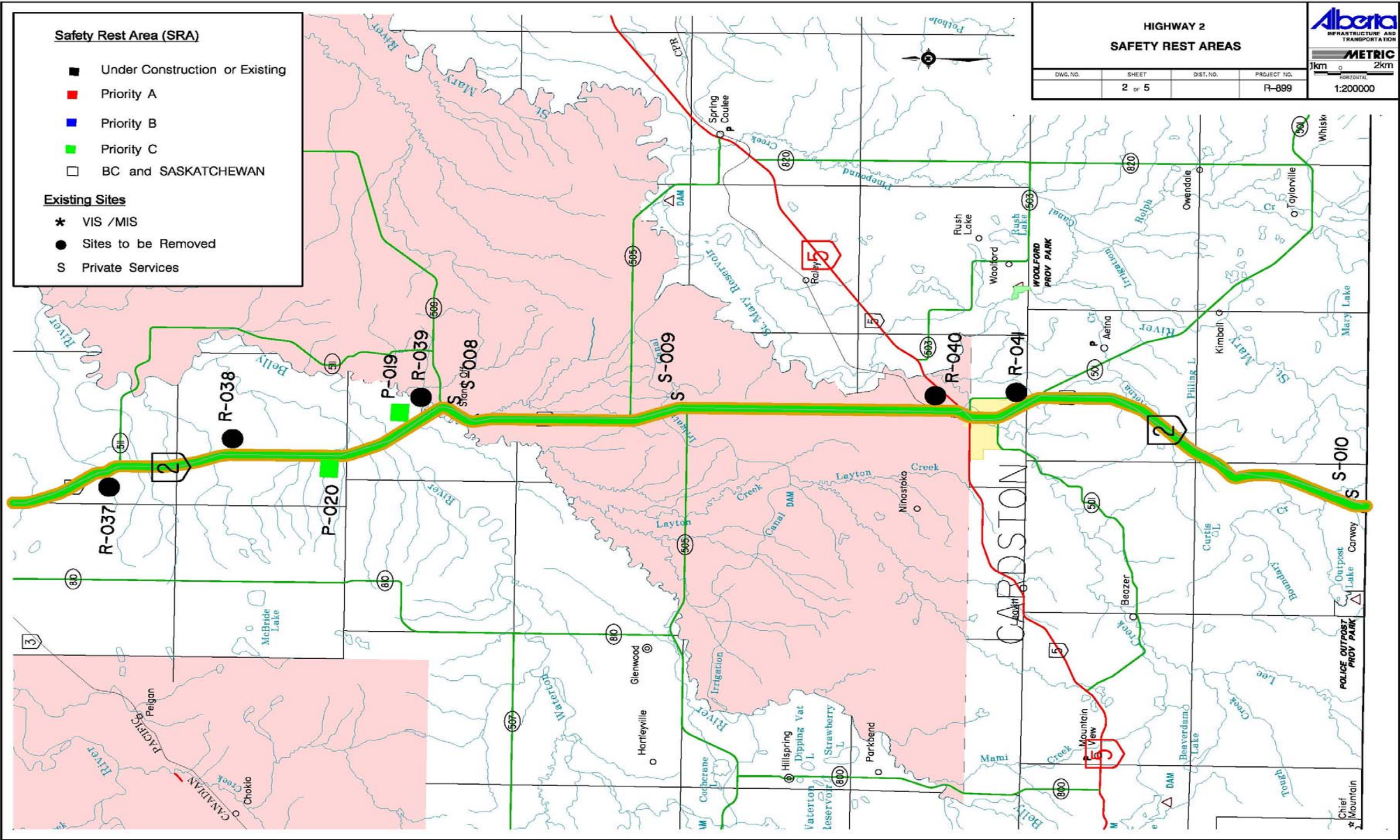
Total Budget:

\$1,070,000 F-2.1.2 Stage I design.
Budget does not include land acquisition costs.



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7.2.4 Highway 2: Section 4 Map



**Turnout Site: R-037**

Remove with P-020; Priority [C]

Site Identification:**Highway:** 2**CS:** 06 **Chainage:** 20.583**Latitude:** N49 39.257**Longitude:** W113 21.779**Travel Direction:** SBL**WAADT:** 1,500**General Description:**

Recommend removal of existing turnout located approximately 1.63 km north of the Jct. of Hwy 2 and Hwy 511, 8 km south of Fort Macleod.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing site is a roadside turnout under-designed without decel/accel lanes.
- One garbage receptacle is on site.
- Site is not required as strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-020, due to: the location, non-conforming two-lane design standards and strategic spacing.

Budget Estimate:

\$20,000



Turnout Site: R-038

Remove with P-019; Priority [C]

Site Identification:

Highway: 2

CS: 06 Chainage: 12.022 km

Latitude: N51 24.746

Longitude: W114 00.099

Travel Direction: NBL

WAADT: 1,280

General Description:

Remove existing turnout located approximately 6.9 km south of the Jct. of Hwy 2 and Hwy 511, south of Fort Macleod.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing site is a roadside turnout under-designed without decel/accel lanes.
- One garbage receptacle is on site.
- Site is not required as strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-019, due to: the location, non-conforming two-lane design standards and strategic spacing.

Budget Estimate:

\$20,000



New Site: P-020

F-2.3.1 Design; Priority [C] - Page 1

Site Identification:

Highway: 2

CS: 06 Chainage: 7.700 km

Latitude: N49 32.369

Longitude: W113 20.603

Travel Direction: SBL

WAADT Current: 1,280

WAADT 20-Year Future: 1,643

General Description:

Recommend new F-2.3.1 SRA located approximately 7.7 km north of the Belly River.

General Discussion:

- WAADT is comprised of 7.0% tractor-trailer units, 1.9% single unit trucks, 2.8% buses, 2.0% recreational vehicles (total 14%) with the remainder being passenger vehicles.
- A single directional SRA to service only southbound traffic should be applied using the design of F-2.3.1 SRA.

Summary of Field Notes & Stakeholder comments:

- Excellent location with a downhill grade for the southbound direction of approximately 3-4%, and there is sufficient length to accommodate an extended decel lane.
- There is a grade change to the north of the SRA site 1.16km away, where the grade changes from 3-4% north to south downhill, to 1-2% north to south downhill.
- Location approximately 1 km from the nearest residence. The adjacent land is farmland.

Site Considerations:

- Fort MacLeod is still enough distance away that urban services would not be affected, and most of the traffic volumes traveling through Fort MacLeod enter town from Hwy 3.
- This location should be considered jointly with P-020 as both sites compliment single direction SRAs.
- This location also offers the desired stagger between sites.

Design Template:

Figure F-2.3.1

Required Number of Parking

Stalls:

2 Stalls [1 truck, 1 car].



New Site: P-020

F-2.3.1 Design; Priority [C] - Page 2

Site Identification:

Highway: 2

CS: 06 Chainage: 7.700 km

Latitude: N49 32.369

Longitude: W113 20.603

Travel Direction: SBL

WAADT Current: 1,280

WAADT 20-Year Future: 1,643

General Description:

Recommend new F-2.1.2 SRA located approximately 7.7 km north of the Belly River.

Surrounding Landowners:

Adjacent Land Parcel

NE-5-7-25-4

SE-8-7-25-4

Owner on Title

Chary Enterprises Ltd.

Hutterian Brethren Church of Greenwood

Utilities:

- There were no utilities observed during the site visit and investigation that would impact the construction of the proposed SRA site.
- Alberta One Call did not generate any responses, however an onsite locate must be made at time of design/construction.

Prioritization of Site [C]:

- This site has a low WAADT (1,643) and is predicted to stay relatively constant for the next twenty years. The border crossing at Carway is not open 24 hours a day and as such, the nighttime traffic is expected to be much less than daytime volumes.
- Strategic framework priority criteria assign a value of 35%.
- At time of construction, remove R-037.

Budget Breakdown:

Stage I \$433,000 for F-2.3.1; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$536,000 for F-2.3.1 Stage I design
Budget does not include land acquisition costs.





New Site: P-019

F-2.3.1 Design; Priority [C] - Page 1

Site Identification:

Highway: 2

CS: 06 Chainage: 1.925 km

Latitude: N49 29.561

Longitude: W113 18.979

Travel Direction: NBL

WAADT Current: 1,280

WAADT 20-Year Future: 1,643

General Description:

Recommend new F-2.3.1 SRA located approximately 1.9 km from the Belly River.

General Discussion:

- WAADT is comprised of 7.0% tractor-trailer units, 1.9% single unit trucks, 2.8% buses, 2.0% recreational vehicles (total 14%), with the remainder being passenger vehicles.
- A single directional SRA to service only southbound traffic should be applied using the design of F-2.3.1 SRA.

Summary of Field Notes:

- This would be the first SRA north of the US border and although less than 30 minutes from Fort MacLeod, it is more than 20 minutes and should not detract from urban services there.
- There are no sightline problems, no road right-of-ways and no residences that would be factors in not choosing this location.
- This site in conjunction with P-020 also provides the desired stager for SRAs.

Site Considerations:

- This location is proposed jointly with P-020 as both sites being designed as single direction safety rest areas.
- With construction of P-019, sites R-038, R-039, R-040 and R-041 be removed, as they do not meet standards and are not part of the spacing criteria.

Design Template:

Figure F-2.3.1

Required Number of Parking

Stalls:

2 Stalls [1 truck, 1 car].



New Site: P-019

F-2.3.1 Design; Priority [C] - Page 2

Site Identification:

Highway: 2

CS: 06 Chainage: 1.925 km

Latitude: N49 29.561

Longitude: W113 18.979

Travel Direction: NBL

WAADT Current: 1,280

WAADT 20-Year Future: 1,643

General Description:

Recommend new F-2.3.1 SRA located approximately 1.9 km from the Belly River.

Surrounding Landowners:

Adjacent Land Parcel

NW-21-6-25-4

Owner on Title

Hutterian Brethren Church of Standoff Colony

Utilities:

- At this location no utilities were observed during the site visit and investigation.
- Alberta One Call resulted in ATCO Gas indicating interest in the area.

Prioritization of Site [C]:

- This site has a low WAADT (1,643) and is predicted to stay relatively constant for the next twenty years. The border crossing at Carway is not open 24 hours a day and as such, the nighttime traffic is expected to be much less than daytime volumes.
- Strategic framework priority criteria assign a value of 35%.
- With construction of P-019, sites R-038, R-039, R-040 and R-041 be removed.

Budget Breakdown:

Stage I \$433,000 for F-2.3.1; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$536,000 for F-2.3.1

Budget does not include land acquisition costs.



**Turnout Site: R-039**

Remove with P-019; Priority [C]

Site Identification:

Highway: 2

CS: 06 Chainage: 0.532 km

Latitude: N49 28.946

Longitude: W113 18.307

Travel Direction: NBL

WAADT: 1,280

General Description:

Recommend remove existing turnout located approximately 1.8 km north of the Jct. of Hwy 2 and Hwy 509.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing site, only 50m in length, is a roadside turnout under-designed without decel/accel lanes.
- One garbage receptacle is on site.
- Site is not required as strategic spacing criteria.
- Close proximity of residence, utilities and the geometry, expansion is not possible.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-019, due to: the location, non-conforming two-lane design standards and strategic spacing.

Budget Estimate:

\$20,000

**Interest Site: R-040**

Remove with P-019; Priority [C]

Site Identification:**Highway:** 2**CS:** 04 **Chainage:** 1.565 km**Latitude:** N49 13.030**Longitude:** W113 17.827**Travel Direction:** NBL**WAADT:** 2,110**General Description:**

Recommend removal of existing RST located approximately 1.2 km north of the Jct. of Hwy 2 and Hwy 5.

Summary of Field Notes: Primary Purpose – Point of Interest

- This site is located in the Blood Reserve with no available services.
- Existing site is a roadside turnout under-designed without decel/accel lanes, but includes a point of interest sign.
- One garbage receptacle is on site.
- Site is not required as strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-019, due to: the location, non-conforming two-lane design standards and strategic spacing.

Budget Estimate:

\$20,000

**Turnout Site: R-041**

Remove with P-019; Priority [C]

Site Identification:

Highway: 2

CS: 02 Chainage: 21.884 km

Latitude: N49 10.596

Longitude: W113 17.559

Travel Direction: NBL

WAADT: 2,880

General Description:

Recommend removal of existing RST located approximately 0.6 km north of the Jct. of Hwy 2 and Hwy 501

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing site is a roadside turnout under-designed without decel/accel lanes, located within 300m of 2 residences.
- One garbage receptacle is on site.
- Site is not required as strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

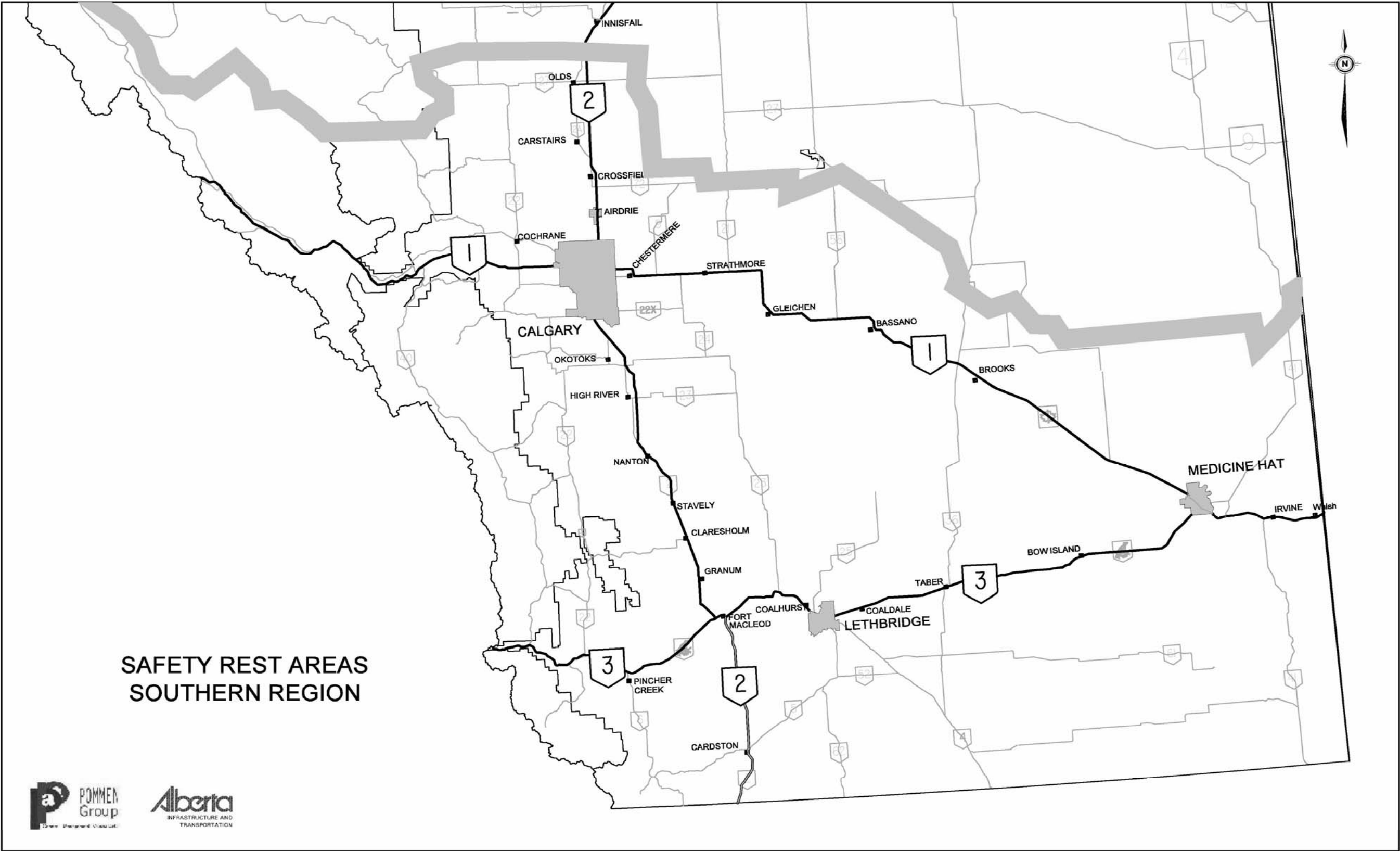
Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

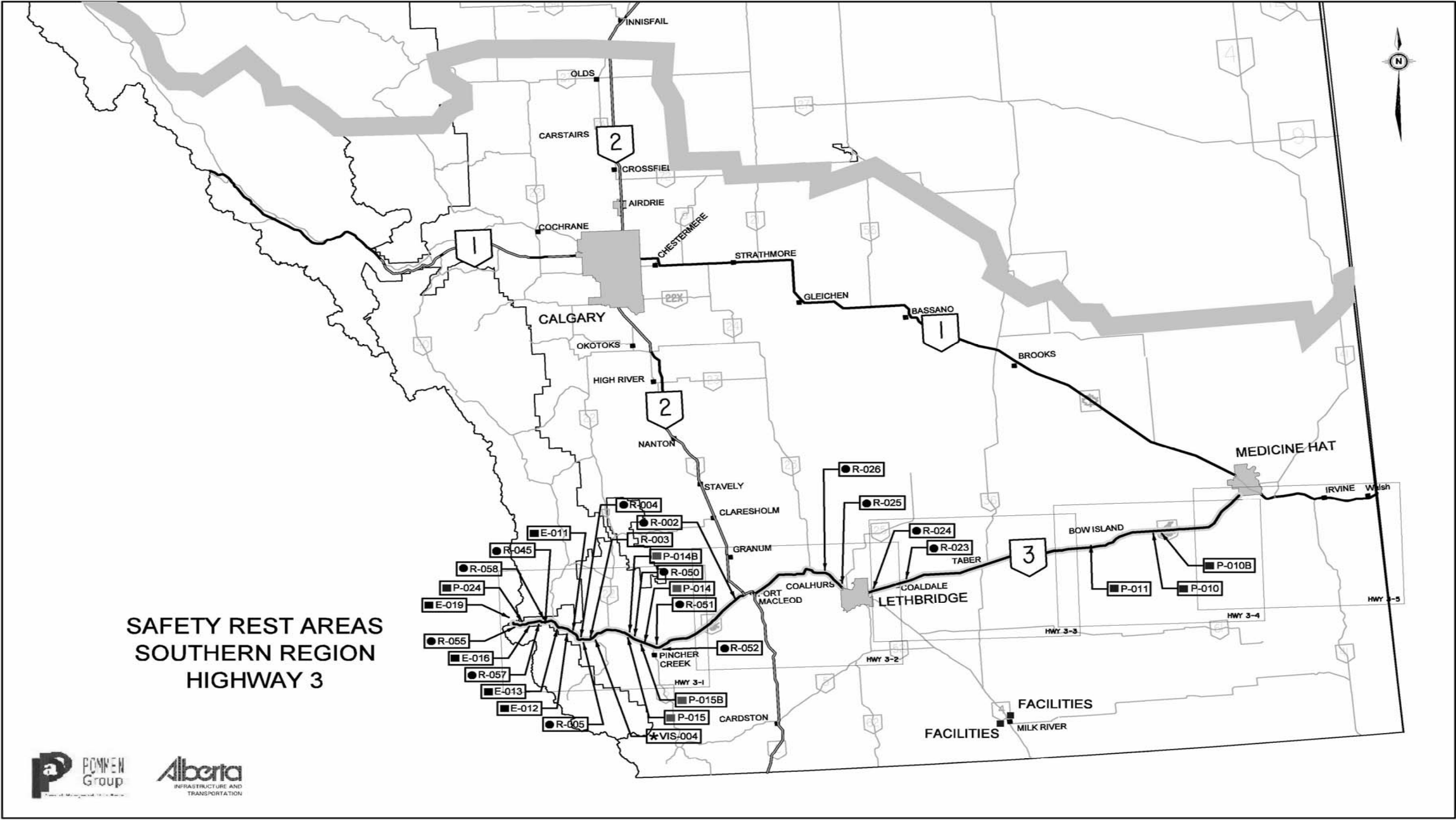
Removal with P-019, due to: the location, non-conforming two-lane design standards and strategic spacing.

Budget Estimate:

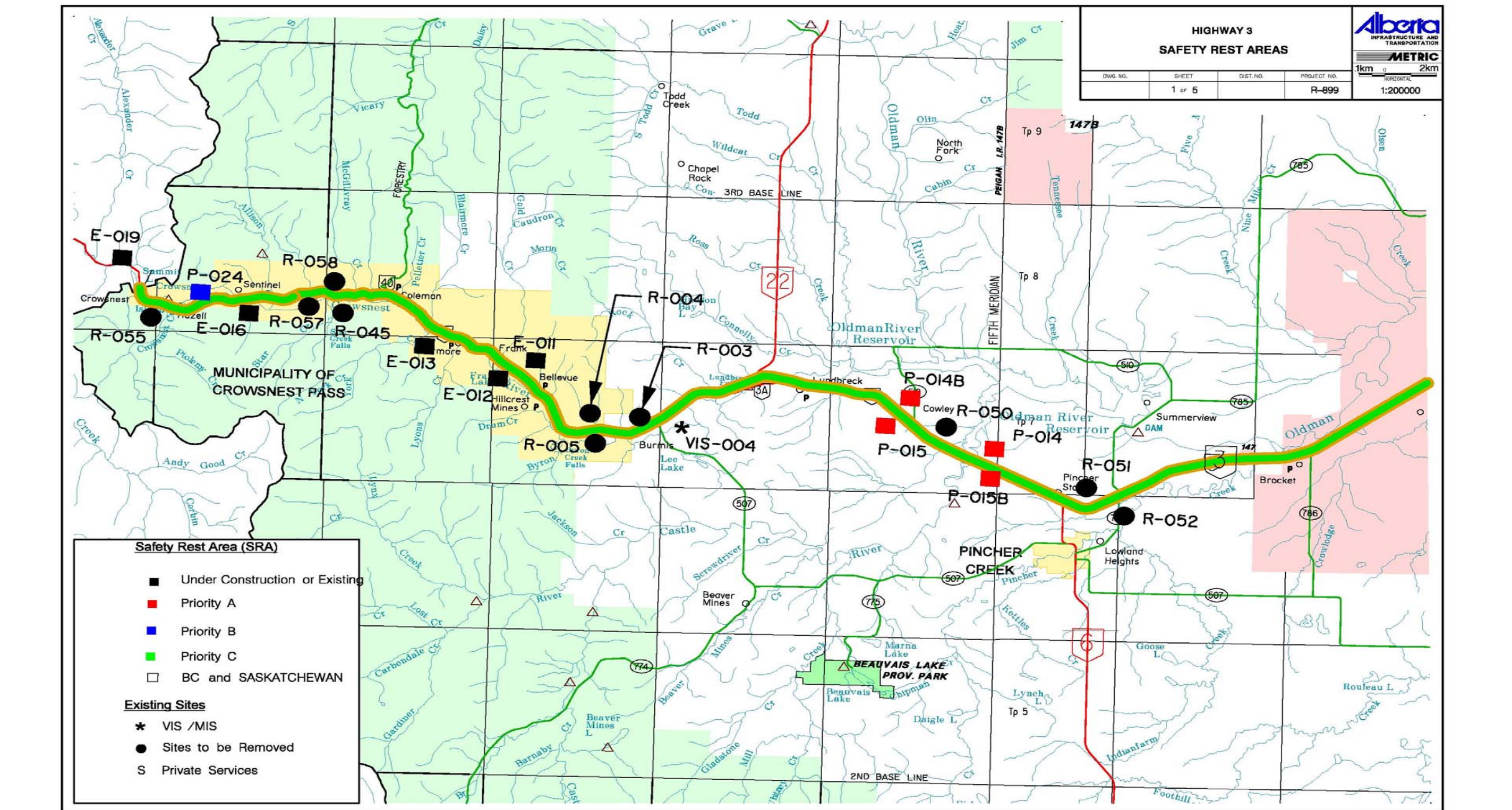
\$20,000



7.3 Highway 3 Exhibit (Key Map)



7.3.1 Highway 3: Section 1 Map



**Interest Site: R-055**

Remove with P-015; Priority [A]

Site Identification:**Highway:** 3**CS:** 02 **Chainage:** 1.680 km**Latitude:** N49 37.630**Longitude:** W114 40.456**Travel Direction:** EBL**WAADT:** 3,430**General Description:**

Recommend removal of existing Welcome Sign turnout located approximately 1.55 km east of the B.C. Alberta border.

Summary of Field Notes:

- The "Welcome to Alberta Sign" is situated at the site.
- Caution has to be taken when turning into the site due to the absence of tapers and decel/accel lanes.
- There are signs identifying Crowsnest Pass and Municipality of Crowsnest visible on site.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Tourism
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000



Interest Site: P-024
[Aerial E-017]; Priority [B] - Page 1

Site Identification:

Highway: 3
CS: 02 Chainage: 3.200 km
Latitude: N49 37.467
Longitude: W114 39.211
Travel Direction: WB
WAADT Current: 3,430
WAADT 20-Year Future: 6,636

General Description:

Recommend upgrade decel/accel lanes. Existing scenic turnout located approximately 3.16 km east of the B.C. Alberta border.

General Discussion:

- This is a large area utilized as a scenic viewpoint where access can be improved to increase traffic safety. It is not sufficient in area to create a full F-2.1.2 SRA.
- However, with adding decel and accel lanes, the site may be able to remain in a functional state in relationship to the surrounding terrain.

Summary of Field Notes:

- The site is a sufficiently large rest area next to the lake with a great scenic view along with the mountains to the side of it.
- The location has picnic tables, toilets and garbage receptacles. There are power lines visible in the area, but no telephones for access.
- Substandard decel / accel lanes exist and there is sufficient room for large trucks to stop at the location.

Site Considerations:

- Although the site has parking functionality, the access and egress is below standard and requires upgrading for ongoing utilization.
- When the site is engineered for upgrading, consideration needs to be given to separating the SRA from the highway.

Design Template:

Figure F-2.1.2 modified

Required Number of Parking Stalls:

8 stalls (4 truck and 4 cars)



Interest Site: P-024
[Aerial E-017]; Priority [B] - Page 2

Site Identification:

Highway: 3
CS: 02 Chainage: 3.200 km
Latitude: N49 37.467
Longitude: W114 39.211
Travel Direction: WB
WAADT Current: 3,430
WAADT 20-Year Future: 6,636

General Description:

Recommend review of decel/accl lanes. Existing scenic turnout located approximately 3.16 km east of the B.C. Alberta

Surrounding Landowners:

Crown Land

Utilities:

- At this alternative location no utilities except power lines are visible.
- Alberta One Call resulted in Bell SuperNet indicating interest in the area.

Prioritization of Site [B]:

- This site is close to the BC border and has a current WAADT of 3,430.
- Strategic framework priority criteria assign a value of 58%.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

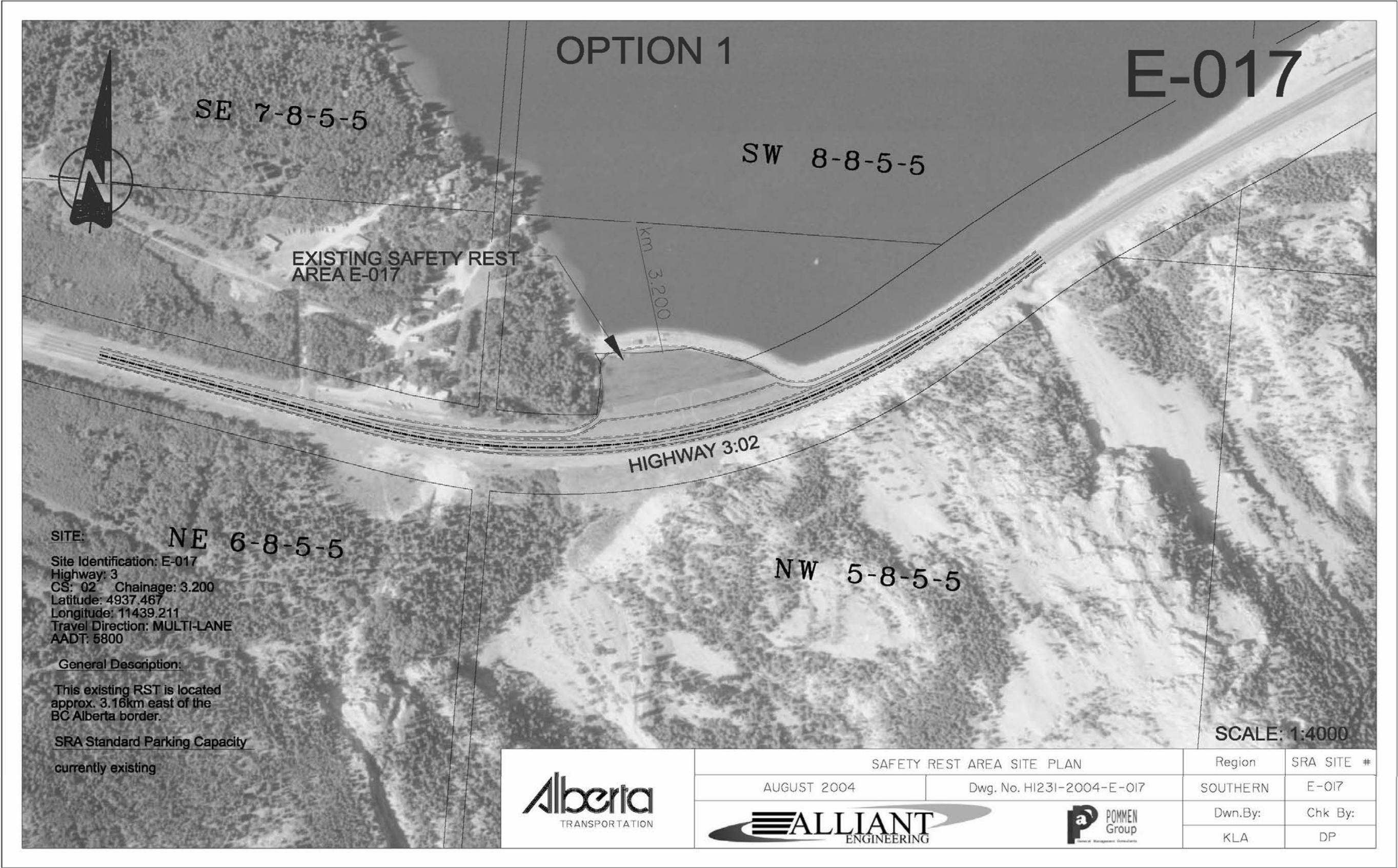
Budget Breakdown:

Construction \$190,000; \$10,000 for lighting.

Total Budget:

\$200,000 F-2.1.2 modified
Site constraints do not permit additional land acquisition.







Rest Site: E-016

Site Identification:

Highway: 3
CS: 02 Chainage: 6.510 km
Latitude: N49 37.880
Longitude: W114 36.662
Travel Direction: EBL
WAADT: 5,800

General Description:

Existing Visitor Information Centre is located approximately 8.2 km west of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- A visitor Travel Alberta Information Centre, with washrooms and garbage receptacles.
- Parking area for trucks and cars with 17 standard stalls; 7 20-metre pull through, but not for large trucks.
- Below standard access of a 90-degree intersection.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only TRANS representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Consider the future of this facility in relationship to SRA Strategic Criteria and the future design of the Hwy #3 corridor.

Budget Estimate:

\$0.00

**Turnout Site: R-057**

Remove with P-015; Priority [A]

Site Identification:**Highway:** 3**CS: 02 Chainage:** 10.942 km**Latitude:** N49 38.196**Longitude:** W114 33.106**Travel Direction:** EBL**WAADT:** 5,800**General Description:**

Recommend removal of existing turnout located approximately 3.7 km west of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- Existing roadside turnout, which includes a separate auxiliary lane from the highway.
- There is no lighting and no services other than one garbage receptacle.
- Surrounding terrain is not conducive to expansion – rolling, on highway curve. Requires deep fills to high cuts. Pipeline in the vicinity.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Turnout Site: R-058**

Remove with P-014; Priority [A]

Site Identification:

Highway: 3

CS: 02 Chainage: 10.942 km

Latitude: N49 38.216

Longitude: W114 32.991

Travel Direction: WBL

WAADT: 5,800

General Description:

Recommend removal of existing turnout located approximately 3.6 km west of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- Existing roadside turnout located on the westbound lane.
- The site only has a garbage receptacle, no other services.
- Existing substandard separate auxiliary lane.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Turnout Site: R-045**

Immediate Removal; Priority [A]

Site Identification:**Highway:** 3**CS: 02 Chainage:** 12.000 km**Latitude:** N49 38.114**Longitude:** W114 32.350**Travel Direction:** EBL**WAADT:** 5,800**General Description:**

Recommend immediate removal of existing turnout located approximately 2.7 km west of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- When traveling in the eastbound direction, the existing turnout is located immediately at the exit of a curve.
- The presence of the curve requires extra caution when entering site due to short decel/accl lanes making the location an unsafe condition and as a Priority **[A]**.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000



Historic Site: E-013

Consult ACD; Priority [A]

Site Identification:

Highway: 3
CS: 02 Chainage: 19.185 km
Latitude: N49 36.938
Longitude: W114 27.157
Travel Direction: EBL
WAADT: 7,030

General Description:

Consult ACD before removing the existing turnout located approximately 4.5 km east of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- The site is a historical point of interest with information about the location on a plaque that can be found on the rock situated at the site.
- There is a good scenic view of Blairmore Mountain Valley.
- There are no services at the site and no lighting or garbage receptacles.
- The area is small and has substandard tapers.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.
- Discuss relocation of historical reference with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Consult ACD before removing/relocating the existing turnout.

Budget Estimate:

\$20,000

**Historic Site: E-012**

Consult ACD; Priority [A]

Site Identification:**Highway:** 3**CS: 02 Chainage:** 23.985 km**Latitude:** N49 35.720**Longitude:** W114 23.827**Travel Direction:** EBL**WAADT:** 8,230**General Description:**

Consult ACD before removing the existing turnout located approximately 2.0 km west of the Hwy 3/Hillcrest junction.

Summary of Field Notes:

- The site is a historical point of interest with a great scenic view of Frank Slide.
- A monumental plaque in a rock is situated at the site. The size of the turnout is relatively small, therefore not suitable for large trucks.
- The site has a garbage receptacle, but no other facilities and there is no power.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.
- Discuss relocation of historical reference with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Scenic Historic View
Location required or requested to remain by local industry?	Np

Recommendation:

Consult ACD before removing/relocating the existing roadside turnout.

Budget Estimate:

\$20,000

**Historic Site: E-011**

Consult ACD; Priority [A]

Site Identification:**Highway:** 3**CS: 02 Chainage:** 24.792 km**Latitude:** N49 35.495**Longitude:** W114 23.264**Travel Direction:** WBL**WAADT:** 8,230**General Description:**

Consult ACD before removing the existing turnout located approximately 1.2 km west of the Jct. of Hwy 3 and the Hillcrest Access.

Summary of Field Notes:

- The site is a historical point of interest with a great scenic view.
- A sign of the Frank Slide is at the location.
- The size of the turnout is relatively small, therefore not suitable for large trucks.
- There is an auxiliary westbound lane but it ends shortly to the west of the site.
- Garbage receptacles are onsite but there are no other services at this location.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.
- Discuss relocation of historical reference with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Consult ACD before removing/relocating the existing roadside turnout.

\$20,000



Scenic Site: R-004

Remove with P-014; Priority [A]

Site Identification:

Highway: 3
CS: 02 Chainage: 31.400 km
Latitude: N49 33.457
Longitude: W114 19.491
Travel Direction: WBL
WAADT: 4,840

General Description:

Recommend removal located at approximately 3.9 km west from the Hwy 3 and Hwy 507 intersection.

Summary of Field Notes: Primary Purpose – Scenic Site

- The site is a westbound roadside turnout.
- There is a garbage receptacle at the site, but no other services.
- There are some old scenic views of Collieries Buildings west of the site.
- The westbound lane is too close to Leitch Collieries, the site cannot be expanded. An existing railway in the south side is too close to upgrade into a SRA.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Scenic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Scenic Site: R-005**

Remove with P-015; Priority [A]

Site Identification:**Highway:** 3**CS: 02 Chainage:** 31.400 km**Latitude:** N49 33.457**Longitude:** W114 19.491**Travel Direction:** EBL**WAADT:** 4,840**General Description:**

Recommend removal located at approximately 3.9 km from the Hwy 3 and Hwy 507 intersection.

Summary of Field Notes: Primary Purpose – Scenic Site

- A roadside turnout with a garbage receptacle, but no other services.
- There are some old scenic views of Collieries Buildings west of the site.
- Since the westbound lane is too close to Leitch Collieries the site cannot be expanded. An existing railway in the south side is too close to upgrade into a SRA.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Scenic Point of Interest.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Scenic Site: R-003**

Remove with P-014; Priority [A]

Site Identification:**Highway:** 3**CS: 04 Chainage:** 0.643 km**Latitude:** N49 33.352**Longitude:** W114 17.916**Travel Direction:** WBL**WAADT:** 4,840**General Description:**

Recommend removal located approximately 2.0 km west of the Hwy 3 and Hwy 507 intersection.

Summary of Field Notes: Primary Purpose – Scenic Site

- The site is a point of interest.
- No available services or facilities including garbage receptacles and lighting are at this site.
- This is a potential unsafe traffic zone.
- Relocate sign to P-014.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Scenic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000



New Site: P-015

F.2.2.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 3

CS: 04 Chainage: 17.200

Latitude: N49 34 38.0

Longitude: W114 05 24.6

Travel Direction: EBL

WAADT Current: 3,440

WAADT 20-Year Future: 4,350

General Description:

Recommend F-2.2.1 SRA as a replacement to an existing RST located 1 kilometre west of Cowley.

General Discussion:

- WAADT is comprised of: 10.0% tractor-trailer units, 4.2% as single unit trucks, 0.9% buses, and 3.2% recreational vehicles (total 18%) with the remainder being passenger vehicles.
- Future WAADT is 4,350 on a two-lane highway; therefore, an F-2.2.1 design is required in conjunction with SRA P-014.

Summary of Field Notes:

- Location offers a prime view of the wind power generating stations that line the ridge south of the highway.
- No obstacles conflict with the geometrics required for a full size SRA at this location, however it is not possible to gain a one km separation with P-014B, thus a concern for pedestrian cross-over of the highway.
- This location is only about one km from a possible future interchange of Hwy #510 at Cowley. However, geographical constraints restrict locating an SRA.

Site Considerations:

- Locating SRAs in the Crowsnest Pass meets constrained right-of-way conditions and it is not possible to shift proposed SRAs a kilometre or two to gain ideal spacing conditions.
- 20-year WAADT of 4,350 is very low with only say 10% of two-way traffic flow stopping or about 220 vehicles per day in one direction
- Traffic conflict with future (possible) Hwy #510 Interchange should be minimal from the P-015 location.

Design Template:

Figure F-2.2.1

Required Number of Parking

Stalls:

5 Stalls [3 truck, 2 cars].



New Site: P-015

F.2.2.1 Design; Priority [A] - Page 2

Site Identification:

Highway: 3

CS: 04 Chainage: 17.200

Latitude: N49 34 38.0

Longitude: W114 05 24.6

Travel Direction: EBL

WAADT Current: 3,440

WAADT 20-Year Future: 4,350

General Description:

Recommend F-2.2.1 SRA as a replacement to an existing RST located 1 kilometre west of Cowley.

Surrounding Landowners:

Adjacent Land Parcel

SW-21-7-1-5

Owner on Title

George and Marjorie Sinnot

Utilities:

- There is an existing overhead power line running parallel to the highway at this location.
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site **[A]**:

- INFTRA Major Provincial Highway Project 2004/06 2004 Contract West of Lundbreck, West of Cowley; West of Hwy #6 East of Hwy #785 Preservation Overlay
- A strategically located SRA is needed in the Crowsnest Pass area considering spacing distance from Lethbridge/Fort MacLeod and the BC border.
- Often harsh winter weather experiences in this region require a safe-haven in the area.
- Strategic framework priority criterion assigns a value of 73% equating to a priority A.

Budget Breakdown:

Stage I \$1,072,000 for F-2.2.1; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,175,000 for F-2.2.1 Stage I design. Budget does not include land acquisition costs.





New Site: P-015B

F.2.2.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 3

CS: 04 **Chainage:** 25.5

Latitude: N49 32 12.8

Longitude: W113 59 42.9

Travel Direction: EBL

WAADT Current: 3,440

WAADT 20-Year Future: 4,350

General Description:

Alternative location located midpoint along Hwy. 3 between Pincher Station and Cowley just east of the South Fork of the Oldman Reservoir.

General Discussion:

- WAADT is comprised of: 11.0% tractor-trailer units, 4.3% as single unit trucks, 0.6% buses, and 2.2% recreational vehicles (total 18%) with the remainder being passenger vehicles.
- Future WAADT is 4,350 on a two-lane highway; therefore, an F-2.2.1 design is required in conjunction with SRA P-014B.

Summary of Field Notes:

- Alternative location has no geometric concerns.
- Terrain is very flat and could accommodate an SRA with no additional problems.
- It is not possible to gain a one km separation with P-014, thus a concern for pedestrian crossover of the highway.

Site Considerations:

- Locating SRAs in the Crowsnest Pass meets constrained right-of-way conditions.
- Local requests have been to locate SRAs near or at a wind power generation station.
- There is a wind station located west of the road allowance and north of the railway tracks. This allows for the SRA to be close enough for pictures to be taken by travellers.

Design Template:

Figure F.2.2.1

Required Number of Parking

Stalls:

5 Stalls [3 truck, 2 cars].



New Site: P-015B

F.2.2.1 Design; Priority [A] - Page 2

Site Identification:

Highway: 3

CS: 04 **Chainage:** 25.5

Latitude: N49 32 12.8

Longitude: W113 59 42.9

Travel Direction: EBL

WAADT Current: 3,440

WAADT 20-Year Future: 4,350

General Description:

Alternative location located midpoint along Hwy. 3 between Pincher Station and Cowley just east of the South Fork of the Oldman Reservoir.

Surrounding Landowners:

Adjacent Land Parcel
SE-12-7-1-5

Owner on Title
4 S Farms Inc.

Utilities:

- There were no utilities observed during the site visit
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site [A]:

- INFTRA Major Provincial Highway Project 2004/06 2004 Contract West of Lundbreck, West of Cowley; West of Hwy #6 East of Hwy #785 Preservation Overlay
- A strategically located SRA is needed in the Crowsnest Pass area considering spacing distance from Lethbridge/Fort MacLeod and the BC border.
- Often harsh winter weather experiences in this region require a safe-haven in the area.
- Strategic framework priority criterion assigns a value of 73% equating to a priority A.

Budget Breakdown:

Stage I \$1,072,000 for F-2.2.1; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,175,000 for F-2.2.1 Stage I design. Budget does not include land acquisition costs.





New Site: P-014

F.2.2.1 Design; Priority [A] - Page 1

Site Identification:

Highway: 3

CS: 04 **Chainage:** 26.850

Latitude: N49 31 52.2

Longitude: W113 58 47.2

Travel Direction: WBL

WAADT Current: 3,440

WAADT 20-Year Future: 4,350

General Description:

Recommend new F-2.2.1 SRA located at the midpoint along Hwy. 3 between Pincher Station and Cowley just east of the South Fork of the Oldman Reservoir.

General Discussion:

- WAADT is comprised of: 11.0% tractor-trailer units, 4.3% as single unit trucks, 0.6% buses, and 2.2% recreational vehicles (total 18%) with the remainder being passenger vehicles.
- Future WAADT is 4,350 on a two-lane highway; therefore, an F-2.2.1 design is required in conjunction with SRA P-014B.

Summary of Field Notes:

- Site has a road allowance crossing the highway directly to the east of the proposed location.
- A minimum separation between the road allowance and the start of the deceleration lane will be maintained.
- There is also a set of railway tracks running parallel to the highway on the north side of Highway 3 at approximately 60 metres separation from the shoulder of the highway.

Site Considerations:

- Locating SRAs in the Crowsnest Pass meets constrained right-of-way conditions.
- Local requests have been to locate SRAs near or at a wind power generation station.
- A wind station is located west of the road allowance and north of the railway tracks. This allows the SRA to be close enough for pictures to be taken by travellers.
- It is not possible to gain a one km separation with P-015B, thus a concern for pedestrian crossover of the highway.

Design Template:

Figure F.2.2.1

Required Number of Parking Stalls:

5 Stalls [3 truck, 2 cars].



New Site: P-014

F.2.2.1 Design; Priority [A] - Page 2

Site Identification:

Highway: 3

CS: 04 Chainage: 26.850

Latitude: N49 31 52.2

Longitude: W113 58 47.2

Travel Direction: WBL

WAADT Current: 3,440

WAADT 20-Year Future: 4,350

General Description:

Recommend new F-2.1.2 SRA approximately 4 km east of the junction of Hwy 3 and Hwy 22.

Surrounding Landowners:

Adjacent Land Parcel

SE-12-7-1-5

Owner on Title

CP Railroad Right of Way

Utilities:

- No utilities were observed in the vicinity of the proposed site for P-014.
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site **[A]**:

- INFTRA Major Provincial Highway Project 2004/06 2004 Contract West of Lundbreck, West of Cowley; West of Hwy #6 East of Hwy #785 Preservation Overlay
- A strategically located SRA is needed in the Crowsnest Pass area considering spacing distance from Lethbridge/Fort MacLeod and the BC border.
- Often harsh winter weather experiences in this region require a safe-haven in the area.
- Strategic framework priority criterion assigns a value of 73% equating to a priority A.

Budget Breakdown:

Stage I \$1,072,000 for F-2.2.1; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,175,000 for F-2.2.1 Stage I design. Budget does not include land acquisition costs.



**New Site: P-014B**

F.2.2.1 Design; Priority [A] - Page 1

Site Identification:**Highway:** 3**CS:** 04 **Chainage:** 17.200**Latitude:** N49 34 38.0**Longitude:** W114 05 24.6**Travel Direction:** WBL**WAADT Current:** 3,440**WAADT 20-Year Future:** 4,350**General Description:**

Recommend F-2.2.1 SRA is a replacement to an existing RST located 1 kilometre west of Cowley.

General Discussion:

- WAADT is comprised of: 10.0% tractor-trailer units, 4.2% as single unit trucks, 0.9% buses, and 3.2% recreational vehicles (total 18%) with the remainder being passenger vehicles.
- Future WAADT is 4,350 on a two-lane highway; therefore, a F-2.2.1 design is required in conjunction with SRA P-014.

Summary of Field Notes:

- Location offers a prime view of the wind power generating stations that line the ridge to the south of the highway. Travelers will have an excellent view of the windmills.
- There are no obstacles that would conflict with the geometrics required for a full size SRA at this location.

Site Considerations:

- Locating SRAs in the Crowsnest Pass meets constrained right-of-way conditions.
- Local requests have been to locate SRAs near or at a wind power generation station.
- The surrounding terrain will allow for good visibility and would not afford any geometric conflicts.
- It is not possible to gain a one km separation with P-015, thus a concern for pedestrian crossover of the highway.
- This location is only about one km from a possible future interchange of Hwy #510 at Cowley; however geographical constraints restricts locating an SRA.
- Cowley is in close proximity to this location.

Design Template:

Figure F-2.2.1

Required Number of Parking**Stalls:**

5 Stalls [3 truck, 2 cars].

**New Site: P-014B**

F.2.2.1 Design; Priority [A] - Page 2

Site Identification:**Highway:** 3**CS:** 04 **Chainage:** 17.200**Latitude:** N49 34 38.0**Longitude:** W114 05 24.6**Travel Direction:** WBL**WAADT Current:** 3,440**WAADT 20-Year Future:** 4,350**General Description:**

Recommend F-2.2.1 SRA as a replacement to an existing RST located 1 kilometre west of Cowley.

Surrounding Landowners:

Adjacent Land Parcel
NE, NW-21-7-1-5

Owner on Title
George and Marjorie Sinnott

Utilities:

- There is an existing overhead power line running parallel to the highway at this location.
- Alberta One Call must be called for site locates at the design/construction stage.

Prioritization of Site [A]:

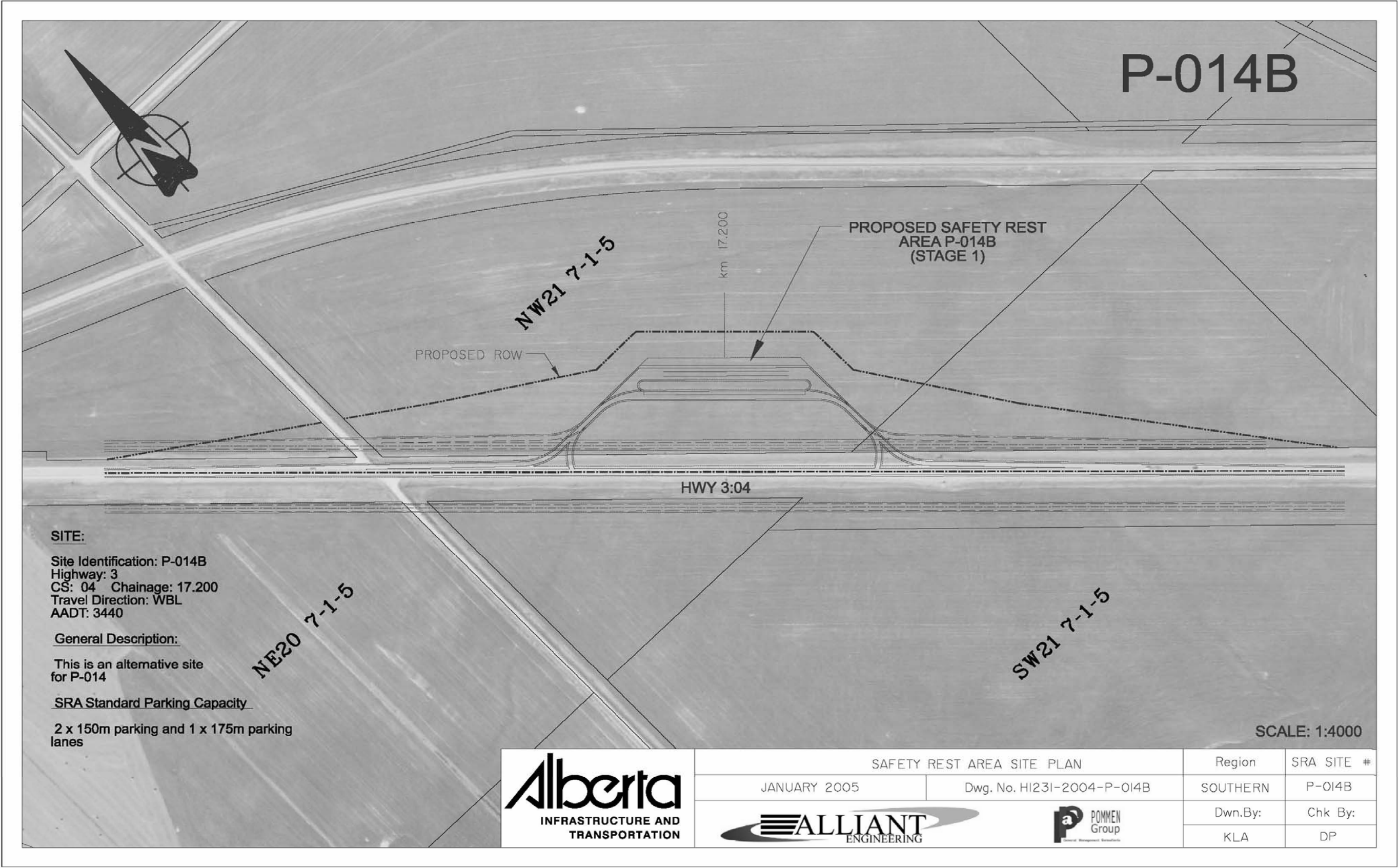
- INFTRA Major Provincial Highway Project 2004/06 2004 Contract West of Lundbreck, West of Cowley; West of Hwy #6 East of Hwy #785 Preservation Overlay
- A strategically located SRA is needed in the Crowsnest Pass area considering spacing distance from Lethbridge/Fort MacLeod and the BC border.
- Often harsh winter weather experiences in this region require a safe-haven in the area.
- Strategic framework priority criterion assigns a value of 73% equating to a priority A.

Budget Breakdown:

Stage I \$1,072,000 for F-2.2.1; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,175,000 for F-2.2.1 Stage I design.
Budget does not include land acquisition costs.



**Historic Site: R-050**

Remove with P-014; Priority [A]

Site Identification:**Highway:** 3**CS: 04 Chainage:** 19.988 km**Latitude:** N49 33.602**Longitude:** W114 03.747**Travel Direction:** WBL**WAADT:** 3,500**General Description:**

Consult ACD - Recommend removal of existing turnout located approximately 0.7 km east of the Jct. of Hwy 3 and Hwy 510.

Summary of Field Notes: Primary Purpose – Historic Sign

- West of Cowley, a historic point of interest with a plaque describing information on the location.
- Power poles are visible behind the turnout; a garbage receptacle exists but no other facilities.
- Located north of the site are businesses, which will make it difficult for up grade or expansion, therefore not recommended.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Consult ACD before removing this RST. If required, remove with P-015 due to: the location, strategic framework spacing criteria.

Budget Estimate:

\$20,000

**Turnout Site: R-051**

Remove with P-014; Priority [A]

Site Identification:

Highway: 3

CS: 06 Chainage: 14.950 km

Latitude: N49 31.328

Longitude: W113 54.712

Travel Direction: WBL

WAADT: 2,870

General Description:

Recommend removal existing RST located approximately 0.6 km west of the Jct. of Hwy 3 and Hwy 785.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing roadside turnout with a garbage receptacle but no power.
- Turnout design is substandard without decel/accel lanes, etc.
- Not required to meet spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-015 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

Not Available

Turnout Site: R-052

Remove with P-015; Priority [A]

Site Identification:

Highway: 3

CS: 06 Chainage: 0.730 km

Latitude: N49 31.213

Longitude: W113 56.533

Travel Direction: EBL

WAADT: 2,870

General Description:

Recommend removal existing turnout located approximately 0.44 km east of the Jct. of Hwy 3 and Hwy 6.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- Existing roadside turnout to the east of the Hwy 6 Pincher Creek access intersection.
- A garbage receptacle is available but no other services are available in the area.
- Turnout design is substandard without decel/accel lanes, etc.
- Not required to meet spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

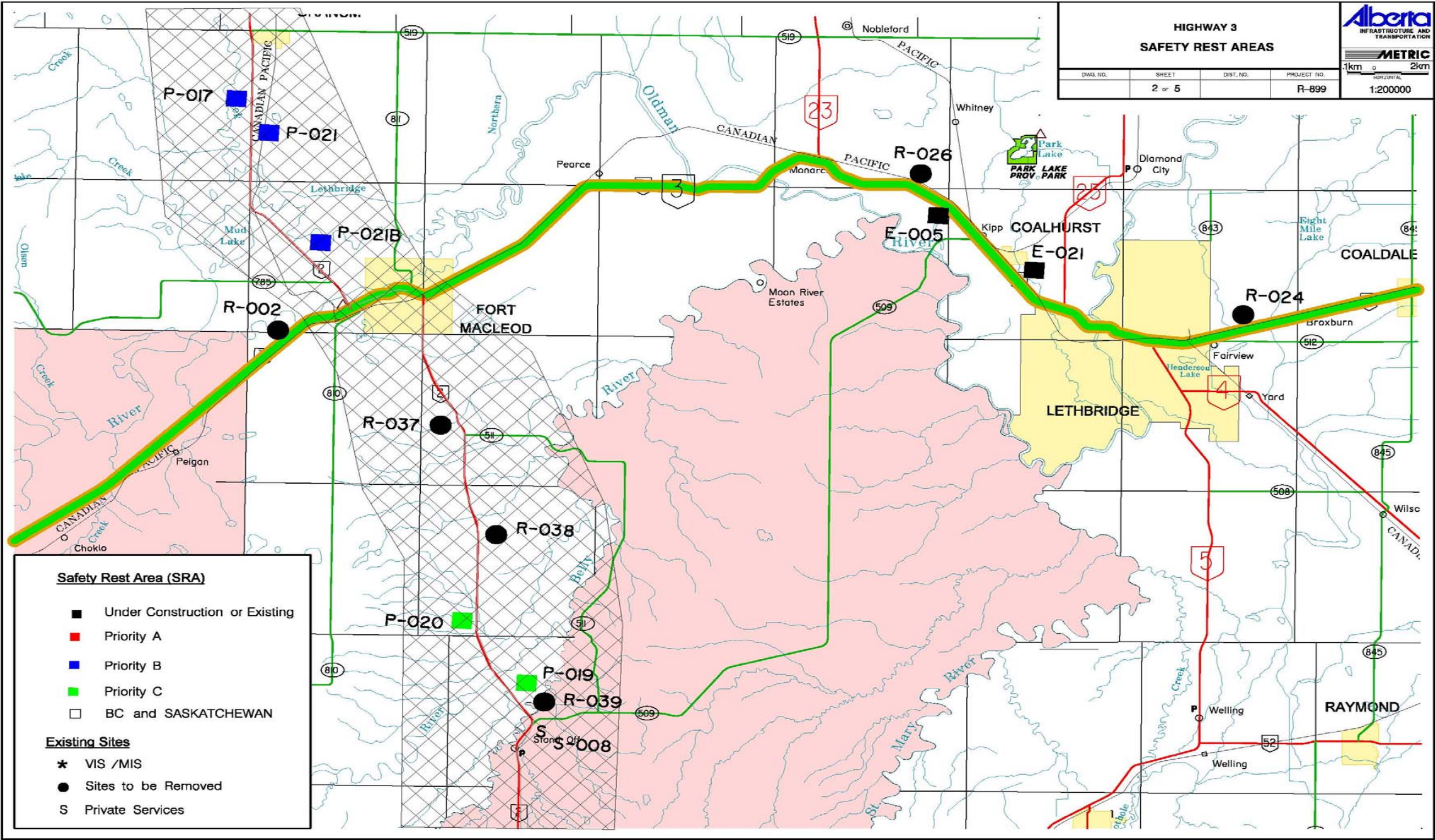
Recommendation:

Removal with P-015 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

7.3.2 Highway 3: Section 2 Map



No Photo
Available

Turnout Site: R-002

Remove with P-017; Priority [B]

Site Identification:

Highway: 3
CS: 06 Chainage: 39.666 km
Latitude: N49 41.602
Longitude: W113 29.577
Travel Direction: WBL
WAADT Current: 3,820
WAADT 20-Year Future: 5,154

General Description:

Recommend turnout removal located approximately 2.9 km west of the Hwy 3 and Hwy 810 intersection.

Summary of Field Notes: Primary Purpose Roadside Turnout

- Roadside turnout has a garbage receptacle, but no other facilities.
- This site is only 10 minutes from Fort McLeod.
- The turnout is very substandard, marginal parking area and poor access.
- Not required for spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-017 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

No Photo
Available

Interest Site: R-026

Remove with P-021; Priority [B]

Site Identification:

Highway: 3

CS: 08 Chainage: 34.886 km

Latitude: N49 47.188

Longitude: W113 01.128

Travel Direction: WBL

WAADT: 14,440

General Description:

Recommend removal of turnout located approximately 5.8 km west of the Jct. of Hwy 3 and Hwy 509.

Summary of Field Notes: Primary Purpose – Point of Interest

- Existing roadside turnout, which is a historical point of interest.
- Garbage receptacles are located at this site; however, due to the proximity of the railroad, this site cannot be expanded.
- Not required for strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- Only advance removal after the Lethbridge highway corridor design is completed.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Removal after Corridor design and with P-021 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Historic Site: E-005****Site Identification:****Highway:** 3**CS: 08 Chainage:** 39.733 km**Latitude:** N49 46.766**Longitude:** W112 58.997**Travel Direction:** EBL**WAADT:** 14,440**General Description:**

Existing Historic Turnout is located approximately 3.0 km northwest of the Jct. of Hwy 3 and Hwy 509.

Summary of Field Notes:

- A historic point of interest located on the eastbound lane west of Lethbridge.
- Large outer separation from the highway.
- Equipped with garbage receptacles, no apparent available power but contains an information board and a very nice scenic view.
- Services would not be required to be added due to the close proximity to Lethbridge.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Yes.
Location required or requested to remain by local industry?	No.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00



Interest Site: E-021

Consult with ACD; Priority [B]

Site Identification:

Highway: 3

CS: 08 Chainage: 43.913 km

Latitude: N49 44.176

Longitude: W112 55.705

Travel Direction: WBL

WAADT: 14,440

General Description:

Consult with ACD before removing the turnout located approximately 3.2 km southeast of the Jct. of Hwy 3 and Hwy 500

Summary of Field Notes: Primary Purpose – Point of Interest

- Existing roadside turnout is a historic point of interest located just near Coalhurst, west of Lethbridge.
- Garbage receptacle located at this site, but no other services.
- The railroad tracks prevent expansion
- Not required for strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- Discuss relocation of historical reference with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Discuss removal with P-021 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000



Turnout Site: R-024

Remove with P-021; Priority [B]

Site Identification:

Highway: 3
CS: 10 Chainage: 2.260 km
Latitude: N49 42.393
Longitude: W112 44.914
Travel Direction: WBL
WAADT: 15,020

General Description:

Recommend removal turnout located approximately 9.37 km west of the Jct. of Hwy 3 and Hwy 845.

Summary of Field Notes: Primary Purpose – Roadside Turnout

- This site offers no decel/accel lanes and no facilities.
- Substandard design and outside of spacing criteria with close proximity to Lethbridge.
- Future bypass north of Lethbridge does not utilize an expanded site in this location.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- INFTRA Major Provincial Highway Project 2004/06 Town of Coaldale EBL and WBL Preservation Overlay.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Removal with P-021 due to: the location, strategic framework spacing criteria and lack of conforming to design standards

Budget Estimate:

\$20,000

**Interest Site: R-023**

Consult with ACD; Priority [B]

Site Identification:

Highway: 3
 CS: 10 Chainage: 15.750 km
 Latitude: N49 44.259
 Longitude: W112 34.050
 Travel Direction: WBL
 WAADT: 8,250

General Description:

Consult with ACD before removing the turnout located approximately 4.1 km east of the Jct. of Hwy 3 and Hwy 845

Summary of Field Notes: Primary Purpose – Roadside Turnout

- This roadside turnout is a historic point of interest located east of Coaldale.
- Under-designed site without decel/accel lanes and minimal parking space.
- A garbage receptacle exists, but no other services.
- Expansion is not recommended due to the railway tracks next to it.
- Not required for strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- Discuss relocation of historical reference with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Point of interest
Location required or requested to remain by local industry?	No.

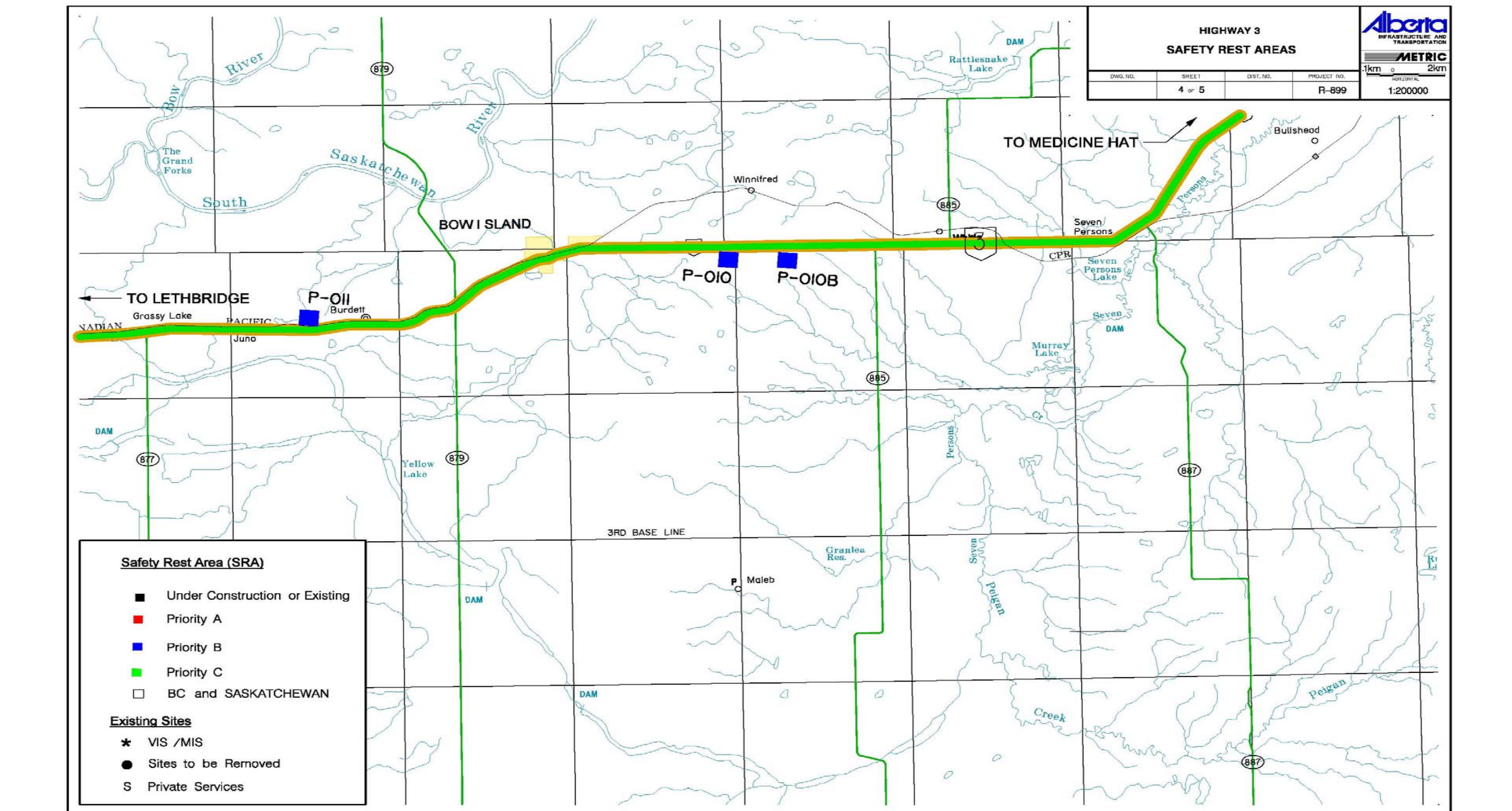
Recommendation:

Removal with P-011 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

7.3.4 Highway 3: Section 4 Map





New Site: P-011

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 3
CS: 14 **Chainage:** 4.000 km
Latitude: N49 52.406
Longitude: W111 34.790
Travel Direction: WBL
WAADT Current: 2,830
WAADT 20-Year Future: 3,513

General Description:

Recommend new F-2.1.2 SRA for westbound traffic located approximately 4.2 km west of Burdett.

General Discussion:

- WAADT is comprised of 16.3% tractor-trailer units, 7.2% single unit trucks, 0.2% buses, 3.2% recreational vehicles (total 27%), with the remainder being passenger vehicles.
- A SRA for westbound traffic only applying the design standards of F-2.1.2, which would prevent eastbound traffic from being able to cross oncoming traffic to enter the facility.
- Proposed site clears future interchanges.

Summary of Field Notes:

- Location is in close proximity of the railway tracks on northside of the highway. Tracks have a separation from the highway that is substantial enough to allow an SRA to be created at this point. The separation would be less than the desired amount, however, there are limited options as to where a westbound SRA can be located.
- The accel lane for this site would have to cross the road allowance for Range Rd. 124.

Site Considerations:

- Currently there are no rest areas for stopping along Hwy 3 proceeding to Lethbridge from Medicine Hat with the exception of the two historical points located a few kilometres east of Lethbridge.
- This particular location is approximately the halfway point, which meets spacing strategy.
- The only foreseeable concern is the proximity of the railroad to the highway. The existing available land between the highway and the railroad is large enough to accommodate an SRA, but the final design may not be able to have the recommended separation from the highway, but a safe distance is achievable.

Design Template:

Figure F-2.1.2

Required Number of Parking

Stalls:

4 Stalls [2 truck, 2 cars]



New Site: P-011

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 3
 CS: 14 Chainage: 4.000 km
 Latitude: N49 52.406
 Longitude: W111 34.790
 Travel Direction: WBL
 WAADT Current: 2,830
 WAADT 20-Year Future: 3,513

General Description:

Recommend new F-2.1.2 SRA for westbound traffic located approximately 4.2 km west of Burdett.

Surrounding Landowners:

Adjacent Land Parcel

NW-16-10-12-4
 SW-21-10-12-4
 SE-20-10-12-4

Owner on Title

Merlinds Farms Ltd.
 H Thacker and Sons Farms Ltd.
 H Thacker and Sons Farms Ltd

Utilities:

- There were no utilities that could be observed during the site visit and investigation.
- Alberta One Call resulted in Chin Coulee Gas Co-op and Monarch Fibre Ltd. indicating interest in the area.

Prioritization of Site **[B]**:

- Future WAADT is 3,513. There are no existing RST or SRA locations within a 30-minute drive. The percentage of truck traffic experienced at this location is higher than average.
- The strategic framework priority criteria assign a value of 63%.

Budget Breakdown:

Stage I \$967,000; \$10,000 for lighting;
 \$90,000 for WC's and \$2500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2 Stage I design
 Budget does not include land acquisition costs.





New Site: P-010

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 3
CS: 14 **Chainage:** 29.400
Latitude: N49 52.406
Longitude: W111 14.352
Travel Direction: EBL
WAADT Current: 2,770
WAADT 20-Year Future: 3,449

General Description:

Recommend new F-2.1.2
 SRA for eastbound traffic
 approximately 8.7 km east of
 Bow Island.

General Discussion:

- WAADT is comprised of 14.4% tractor-trailer units, 5.9% single unit trucks, 0.6% buses, 2.4% recreational vehicles (total 23%), with the remainder being passenger vehicles.
- A SRA for eastbound traffic only applying the design standards of F-2.1.2, which would prevent westbound traffic from being able to cross oncoming traffic to enter the facility.
- Site clears future interchanges.

Summary of Field Notes:

- This site was chosen due to very good sight lines, lack of conflict with any road allowances and no nearby residences.
- The highway at this location is undivided and compliments P-011, 24 km west.
- The particular adjacent field was not in use at the time of the site visit and investigation.

Site Considerations:

- This location creates a rest area between Medicine Hat and Lethbridge meeting spacing requirements.
- Currently there are no areas for safely stopping along Hwy 3 in this section with the exception of the two historical points located a few kilometres east of Lethbridge. This particular location is approximately the halfway point of the trip, which makes it an ideal location for the rest area.
- There are no foreseen concerns with creating an SRA at this location as it is surrounded by farmland.

Design Template:

F-2.1.2

Required Number of Parking

Stalls:

4 Stalls [2 truck, 2 cars]



New Site: P-010

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 3
CS: 14 **Chainage:** 29.400
Latitude: N49 52.406
Longitude: W111 14.352
Travel Direction: EBL
WAADT Current: 2,770
WAADT 20-Year Future: 3,449

General Description:

Recommend new F-2.1.2
 SRA for eastbound traffic
 approximately 8.7 km east of
 Bow Island.

Surrounding Landowners:

Adjacent Land Parcel
 NW-36-10-10-4

Owner on Title
 Wudrich, Rudolph E.

Utilities:

- There were no utilities that could be observed during the site visit and investigation.
- Alberta One Call did not result in any responses, however an onsite locate must be completed at design/construction stage.

Prioritization of Site **[B]**:

- The future WAADT is 3,440. There are no existing RST or SRA locations within a 30-minute drive. The percentage of truck traffic experienced at this location is higher than average.
- The strategic framework priority criteria assign a value of 63%.

Budget Breakdown:

Stage I \$967,000; \$10,000 for lighting;
 \$90,000 for WC's and \$2500 for garbage
 bins.

Total Budget:

\$1,070,000 F-2.1.2 Stage I
 Budget does not include land acquisition
 costs.





New Site: P-010B

F-2.1.2 Design; Priority [B] - Page 1

Site Identification:

Highway: 3
CS: 14 **Chainage:** 33.150 km
Latitude: N49 52.404
Longitude: W111 11.510
Travel Direction: EBL
WAADT Current: 2,770
WAADT 20-Year Future: 3,349

General Description:

Alternative only for site P-010 located approximately 12.5 km east of Bow Island.

General Discussion:

- WAADT is comprised of 14.4% tractor-trailer units, 5.9% single unit trucks, 0.6% buses, 2.4% recreational vehicles (total 23%) and the remainder is passenger vehicles.
- A SRA for eastbound traffic only applying the design standards of F-2.1.2, which would prevent westbound traffic from being able to cross oncoming traffic to enter the facility.

Summary of Field Notes & Stakeholder comments:

- This site was chosen due to the very good sight lines, lack of conflict with any road allowances and no nearby residences.
- The highway at this location is undivided and compliments P-011, 24 km west. The particular adjacent field was not in use at the time of the site visit and investigation.
- This location creates a rest area between Medicine Hat and Lethbridge meeting spacing requirements. Currently there are no areas for safely stopping along Hwy 3 in this section with the exception of the two historical points located a few kilometres east of Lethbridge.
- This particular location is approximately the halfway point of the trip, which makes it an ideal location for the rest area.
- There are no foreseen concerns with creating an SRA at this location as it is surrounded by farmland.

Design Template:

F-2.1.2

Required Number of Parking

Stalls:

4 Stalls [2 truck, 2 cars]



New Site: P-010B

F-2.1.2 Design; Priority [B] - Page 2

Site Identification:

Highway: 3
CS: 14 **Chainage:** 33.150 km
Latitude: N49 52.404
Longitude: W111 11.510
Travel Direction: EBL
WAADT Current: 2,770
WAADT 20-Year Future: 3,349

General Description:

Alternative only for site P-010 located approximately 12.5 km east of Bow Island.

Surrounding Landowners:

Adjacent Land Parcel

NW-32-10-9-4

NE-31-10-9-4

Owner on Title

Winacres Farm Ltd.

Peterson, Bernard C.

Utilities:

- There were no utilities that could be observed during the site visit and investigation.
- Alberta One Call resulted in Forty Mile Gas Co-op Ltd. indicating interest in the area.

Prioritization of Site [B]:

- The future WAADT is 3,440. There are no existing RST or SRA locations within a 30-minute drive. The percentage of truck traffic experienced at this location is higher than average.
- The strategic framework priority criteria assign a value of 63%.

Budget Breakdown:

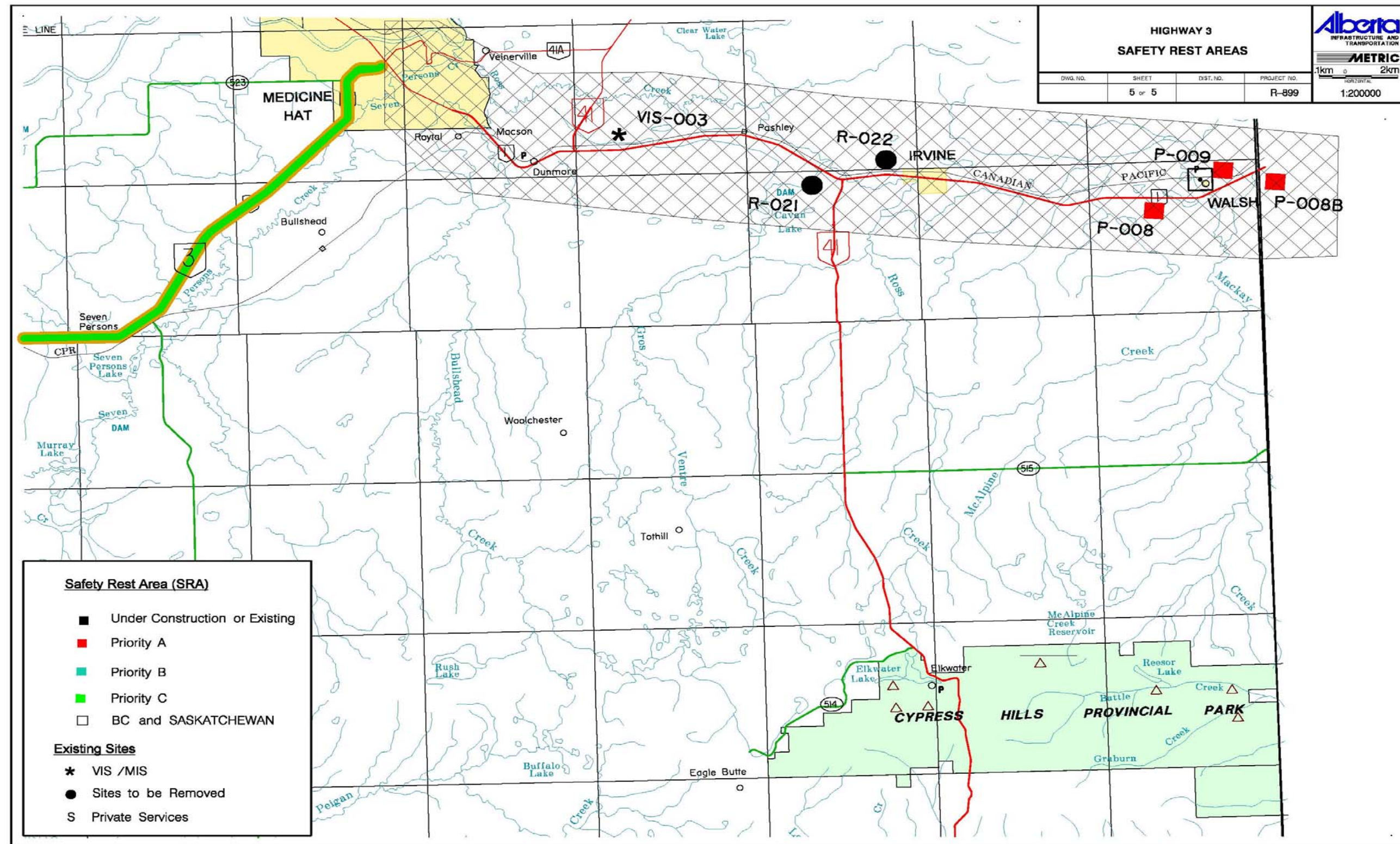
Stage I \$967,000; \$10,000 for lighting; \$90,000 for WC's and \$2,500 for garbage bins.

Total Budget:

\$1,070,000 F-2.1.2 Stage I design
 Budget does not include land acquisition costs.



7.3.5 Highway 3: Section 5 Map



8. CONCLUSIONS & RECOMMENDATIONS

8.1 Conclusions

This study was carried out to evaluate the Safety Rest Area sites in the Southern Region identified in the Safety Rest Area Policy Framework & Implementation Strategy (Report No. R863). Three highways (#1, #2, #3) have been benchmarked to policy and strategy thereby confirming previous studies' recommendations for new or upgraded SRAs. This report documents and provides specific technical data to prepare for final design and construction.

Initial SRA reports identified 16 sites to be developed; however, through this site evaluation process, 24 sites have been identified for upgrading and new construction. The evaluation provides the size and type of SRA to be constructed, the parking requirements and facilities. Each site revealed location attributes which are identified on data sheets along with an aerial photograph.

This process has produced Report No. R:899 that prepares the Southern Region to move to the next phase of land acquisition, detailed design and construction.

8.2 Recommendations

The following specific recommendations apply to the Southern Region for the development of the SRA network for Highways #1, #2 and #3:

1. That the SRAs summarized in Table 8.2.1 and identified in the proposed SRA site recommendations Table 8.2.2 and the section of this report including the highway maps and Data Sheets, be advanced for design and construction in accordance with the identified priorities of "A", "B" and "C"; and
2. That land for SRA right-of-ways be acquired well in advance of construction to secure the right-of-way needs.

Table 8.2.1

SRA Action	Hwy #1	Hwy #2	Hwy #3	Hwy #4	\$,000
Upgrades	3	0	1	2	845
Removals	17	11	14	0	860
New	6	8	4	0	20,042
Sub-total	26	19	19	2	21,747
Land ROW					661
Total					22,408

Table 8.2.2 Recommended Sites

Hwy. Section	#	Count	Type	Southern Region Highway							Class of SRA						\$ (000) Estimate								
				SRA #	Location				Existing WAADT	2024 WAADT	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	F 2.1.1	F 2.1.2	F 2.2.1	F 2.3.1	Removal	Total	Priority		Add ROW Ha
					Hwy #	Approx. CS	Km	Direction															Label	%	
1.1	1	S	R-031	1	CS 1:02	21.990	WB	14,970	22,110					1	1					20	20				
1.1	1	S	P-003	1	CS 1:02	22.400	WB	14,970	22,110					1	1				225	20	225	A	73		
1.1	1	S	R-001	1	CS 1:02	27.640	WB	14,970	22,110					1	1					20	20				
1.1	1	T	R-008	1	CS 1:04	7.280	WB	16,290					1	1						20	20				
1.1	1	T	R-009	1	CS 1:04	7.250	EB	16,290					1	1						20	20				
1.2	1	N	P-002	1	CS 1:06	1.850	WB	16,480	23,260	1					1	1,429					1,429	B	58	3.8	
1.2	1	N	P-005	1	CS 1:06	17.600	EB	16,480	23,260	1					1	1,429					1,429	C	40	3.9	
1.2	1	T	R-053	1	CS 1:06	19.148	EB	16,480	23,260					1	1					20	20				
1.3	1	N	P-007	1	CS 1:14	7.600	EB	7,140	10,180		1						1,070			20	1,090	B	60	3.8	
1.3	1	N	P-006	1	CS 1:14	17.920	WB	6,150	10,180		1						1,070				1,070	B	60	5.3	
1.4		T	R-010	1	CS 1:14	57.624	EB	6,080						1	1					20	20				
1.4		T	R-011	1	CS 1:16	9.020	WB	6,370						1	1					20	20				
1.4		T	R-012	1	CS 1:16	51.692	EB	6,590						1	1					20	20				
1.4		T	R-013	1	CS 1:16	25.700	WB	6,590						1	1					20	20				
1.5		T	R-014	1	CS 1:18	23.051	EB	6,210						1	1					20	20				
1.5		T	R-015	1	CS 1:18	24.700	WB	6,210						1	1					20	20				
1.5		I	R-016	1	CS 1:18	39.285	WB	5,670						1	1					20	20				
1.5	1	U	P-004	1	CS 1:18	44.400	EB	5,670	8,180	1					1		20				20	B	45-S	0	
1.5	1	NH	P-012	1	CS 1:18	53.930	WB	5,670	8,180	1					1		1,070				1,070	B	58	3.0	
1.5		I	R-018	1	CS 1:20	3.560	EB	5,670						1	1					20	20				
1.5		T	R-019	1	CS 1:20	25.759	EB	7,940						1	1					20	20				
1.5		T	R-020	1	CS 1:20	26.643	WB	7,940						1	1					20	20				
1.6		I	R-021	1	CS 1:22	20.816	EB	5,740						1	1					20	20				
1.6		T	R-022	1	CS 1:22	24.470	WB	4,710						1	1					20	20				
1.6	1	U	P-009	1	CS 1:22	45.780	WB	4,710	6,280		1				1		100				100	A	45-S	0	
1.6	1	N	P-008	1	CS 1:22	45.000	EB	4,710	6,280		1						1,070				1,070	A	70	4.4	
2.1		T	R-007	2	CS 2:22	7.535	NB	21,400	31,890					1	1					20	20				
2.1	1	N	P-001	2	CS 2:20	31.525	SB	19,810	29,520	1					1	1,489					1,489	A	83	4.2	
2.1	1	N	P-023	2	CS 2:20	24.800	NB	19,810	29,520	1					1	1,489					1,489	A	83	4.1	
2.2		T	R-027	2	CS 2:12	33.981	SB	15,190						1	1					20	20				
2.2		T	R-053	2	CS 2:12	1.831	NB	10,880	15,760					1	1					20	20				
2.2	1	N	P-016	2	CS 2:10	38.000	SB	8,760	15,760		1				1		1,163				1,163	A	75	5.5	
2.2	1	N	P-022	2	CS 2:10	38.000	NB	8,760	15,760		1				1		1,163				1,163	A	75	4.9	
2.3		T	R-006	2	CS 2:10	12.159	SB	6,750	9,620					1	1					20	20				
2.3		T	R-028	2	CS 2:10	1.107	SB	6,540						1	1					20	20				
2.3		I	R-029	2	CS 2:08	43.158	NB	6,550						1	1					20	20				
2.3	1	N	P-017	2	CS 2:08	15.600	SB	4,320	5,450		1				1		1,070				1,070	B	63	4.1	
2.3	1	N	P-021	2	CS 2:08	14.200	NB	4,320	5,450		1				1		1,070				1,070	B	63	4.6	
2.4		T	R-037	2	CS 2:06	20.583	SB	1,500						1	1					20	20				
2.4		T	R-038	2	CS 2:06	12.022	NB	1,280						1	1					20	20				
2.4	1	N	P-020	2	CS 2:06	7.700	SB	1,280	1,643					1	1					535		535	C	35	0
2.4	1	N	P-019	2	CS 2:06	1.925	NB	1,280	1,643					1	1					535		535	C	35	0
2.4		R	R-039	2	CS 2:06	0.532	NB	1,280						1	1					20	20				
2.4		I	R-040	2	CS 2:04	1.565	NB	2,110						1	1					20	20				
2.4		T	R-041	2	CS 2:02	21.884	NB	2,880						1	1					20	20				
3.1		I	R-055	3	CS 3:02	1.680	EB	5,800	6,636					1	1					20	20				
3.1	1	I	P-024	3	CS 3:02	3.200	WB	5,800	6,636		1						200				200	B			
3.1		T	R-057	3	CS 3:02	10.942	EB	5,800	6,636					1	1					20	20				
3.1		T	R-058	3	CS 3:02	10.942	WB	5,800	6,636					1	1					20	20				
3.1		T	R-045	3	CS 3:02	12.000	EB	5,800	6,636					1	1					20	20				
3.1		S	R-004	3	CS 3:02	31.400	WB	4,840	6,636					1	1					20	20				
3.1		S	R-005	3	CS 3:02	31.400	EB	4,840	6,636					1	1					20	20				
3.1		S	R-003	3	CS 3:04	0.643	WB	4,840	6,636					1	1					20	20				
3.1	1	N	P-015	3	CS 3:04	17.200	EB	3,440	4,350			1			1		1,175				1,175	A	73	5.8	
3.1	1	N	P-014	3	CS 3:04	28.850	WB	3,440	4,350			1			1		1,175				1,175	A	73	3.1	
3.1		H	R-050	3	CS 3:04	19.988	WB	3,500	6,636					1	1					20	20				
3.1		T	R-051	3	CS 3:06	14.950	WB	2,870	6,636					1	1					20	20				
3.1		T	R-052	3	CS 3:06	0.730	EB	2,870	6,636					1	1					20	20				
3.2		T	R-002	3	CS 3:06	39.666	WB	3,820	5,154					1	1					20	20				
3.2		I	R-026	3	CS 3:08	34.886	WB	14,440						1	1					20	20				
3.2		T	R-024	3	CS 3:10	2.260	WB	15,020						1	1					20	20				
3.3		I	R-023	3	CS 3:10	15.750	WB	8,250						1	1					20	20				
3.4	1	N	P-011	3	CS 3:14	4.000	WB	2,830	3,513			1			1		1,070				1,070	B	63	4.2	
3.4	1	N	P-010	3	CS 3:14	29.400	EB	2,770	3,449			1			1		1,070				1,070	B	63	4.7	
	2	U	n/a	4	Milk River Facil		NB/SB				2				2		200				200	B	63		
	24		Totals								8	11	2	2	43	66	6,036	11,206	2,350	1,295	860	21,747			69.4
			S - Scenic; T - Turnout; R - Rest Area; N - New SRA; U - Upgrade SRA; I - Point of Interest; H - Historic																						

S - Scenic, T - Turnout, R - Rest Area, N - New SRA, U - Upgrade SRA, I - Point of Interest, H - Historic

9. APPENDICES

- 9.1 Project Credits
- 9.2 Priority Assessment
- 9.3 Parking Requirements
- 9.4 Costs Estimates Data
- 9.5 Toilet Design and Demand
- 9.6 Solar Lighting
- 9.7 Existing Site Inventory

9.1 Project Credits

Alberta INFTRA Technical Review Committee:

John Lowe, P.Eng.
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Ralph Schimanke, C.E.T.
Dennis W. Pommen, CLGM, CHRP

9.2 Priority Assessment

Applying the Strategic Framework Criteria to all Southern SRA sites, the following Charts provide the evaluation of priorities. These priorities in terms of percentage and category (A to C) are recorded in each datasheet of the report.

A point scale guideline applicable to volume of traffic was developed and applied. However, traffic engineering judgement was also applied to the application of point scoring and therefore the tables may vary to this guideline in some instances; example:

0- 5,000 = 1 point	5,000 – 10,000 = 2 points	10,000 – 15,000 = 3 points
15,000 – 20,000 = 4 points	>20,000 = 5 points	

Traffic volumes are represented as veh/day

Highway 1 Section 1

Site P-003

Criteria	Possible Points	Assigned Points	Eval.	P-003
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	<60	3
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	18%	1
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	22,110	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Conflicts	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Mtns.	5
Tourism Benefit	0 to 5	0 to 5	View	5
Total Points	40	Maximum Priority Points = 40		29
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	73%

Highway 1 Section 2

Site P-002

Criteria	Possible Points	Assigned Points	Eval.	P-002
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	<60	3
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	19%	2
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	23,260	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	3
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Conflicts	3
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Mtns.	2
Tourism Benefit	0 to 5	0 to 5	High Use	5
Total Points	40	Maximum Priority Points = 40		23
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	58%

Site P-005

Criteria	Possible Points	Assigned Points	Eval.	P-005
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	<60	0
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	17%	1
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	23,260	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	2
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Conflicts	2
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Mtns.	1
Tourism Benefit	0 to 5	0 to 5	High Use	5
Total Points	40	Maximum Priority Points = 40		16
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	C	40%

Highway 1 Section 3

Site P-007

Criteria	Possible Points	Assigned Points	Eval.	P-007
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	21%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	8,770	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	n/a	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	3
Total Points	40	Maximum Priority Points = 40		24
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	60%

Site P-006

Criteria	Possible Points	Assigned Points	Eval.	P-006
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	21%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	8,770	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	n/a	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	3
Total Points	40	Maximum Priority Points = 40		24
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	60%

Highway 1 Section 5

Site P-004

Criteria	Possible Points	Assigned Points	Eval.	P-004
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	?	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	5,670	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Minor	0
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	n/a	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	2
Total Points	40	Maximum Priority Points = 40		18
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B = P-012	45%

Site P-012

Criteria	Possible Points	Assigned Points	Eval.	P-012
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	?	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	5,670	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	n/a	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	4
Tourism Benefit	0 to 5	0 to 5	Historic	3
Total Points	40	Maximum Priority Points = 40		23
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	58%

Highway 1 Section 6

Site P-009

Criteria	Possible Points	Assigned Points	Eval.	P-009
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	?	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	6,280	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	WC's	0
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	n/a	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	4
Tourism Benefit	0 to 5	0 to 5	Border	3
Total Points	40	Maximum Priority Points = 40		18
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B=P-012	45%

Site P-008

Criteria	Possible Points	Assigned Points	Eval.	P-008
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	?	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	6,280	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	D/A	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	4
Tourism Benefit	0 to 5	0 to 5	Border	3
Total Points	40	Maximum Priority Points = 40		28
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	70%

Highway 2 Section 1

Site P-001

Criteria	Possible Points	Assigned Points	Eval.	P-001
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	20%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	29,520	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	5
Total Points	40	Maximum Priority Points = 40		33
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	83%

Site P-023

Criteria	Possible Points	Assigned Points	Eval.	P-023
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	20%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	29,520	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	5
Total Points	40	Maximum Priority Points = 40		33
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	83%

Highway 2 Section 2

Site P-016

Criteria	Possible Points	Assigned Points	Eval.	P-016
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	18%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	15,760	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	2
Tourism Benefit	0 to 5	0 to 5	Gen. Use	5
Total Points	40	Maximum Priority Points = 40		30
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	75%

Site P-022

Criteria	Possible Points	Assigned Points	Eval.	P-022
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	18%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	15,760	5
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	2
Tourism Benefit	0 to 5	0 to 5	Gen. Use	5
Total Points	40	Maximum Priority Points = 40		30
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	75%

Highway 2 Section 3**Site P-017**

Criteria	Possible Points	Assigned Points	Eval.	P-017
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	3
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	26%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	5,450	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	None	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	n/a	3
Tourism Benefit	0 to 5	0 to 5	Gen. Use	3
Total Points	40	Maximum Priority Points = 40		25
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	63%

Site P-021

Criteria	Possible Points	Assigned Points	Eval.	P-021
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	3
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	26%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	5,450	3
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	None	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	n/a	3
Tourism Benefit	0 to 5	0 to 5	Gen. Use	3
Total Points	40	Maximum Priority Points = 40		25
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	63%

Highway 2 Section 4

Site P-020

Criteria	Possible Points	Assigned Points	Eval.	P-020
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	<60	3
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	14%	0
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	1,643	0
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	n/a	3
Tourism Benefit	0 to 5	0 to 5	Gen. Use	3
Total Points	40	Maximum Priority Points = 40		14
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	C	35%

Site P-019

Criteria	Possible Points	Assigned Points	Eval.	P-019
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	<60	3
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	14%	0
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	1,643	0
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	0
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	n/a	3
Tourism Benefit	0 to 5	0 to 5	Gen. Use	3
Total Points	40	Maximum Priority Points = 40		14
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	C	35%

Highway 3 Section 1

Site P-014

Criteria	Possible Points	Assigned Points	Eval.	P-014
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	22%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	3,401	0
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Tourists	5
Total Points	40	Maximum Priority Points = 40		28
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	70%

Site P-015

Criteria	Possible Points	Assigned Points	Eval.	P-015
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	22%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	4,350	1
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	Below	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Tourists	5
Total Points	40	Maximum Priority Points = 40		29
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	A	73%

Highway 3 Section 4

Site P-011

Criteria	Possible Points	Assigned Points	Eval.	P-011
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	27%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	3,513	0
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	None	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	2
Total Points	40	Maximum Priority Points = 40		25
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	63%

Site P-010

Criteria	Possible Points	Assigned Points	Eval.	P-010
Spacing (1 per +/- 60 minutes)	0 or 3 to 5	Within 60 minutes = 0; otherwise 3 to 5	60	5
Traffic Mix (>15% class variance RV,TT,CU)	0 or 3 to 5	Under 20% variance = 0; otherwise 3 to 5	23%	3
Traffic Volume (>5,000 AADT)	0 or 3 to 5	Under 5, 000 AADT = 0; otherwise 3 to 5	3,449	0
None or Below Current SRA Design Standard	0 or 5	Current Standard = 0; None or Bulb/parallel lane type = 5	None	5
Collision Avoidance - Safety	0 or 5	Minimal improvement = 0; other wise 5	Trucks	5
Industrial Need	0 to 5	0 to 5	n/a	0
Poor Weather or Local Conditions	0 to 5	0 to 5	Storms	5
Tourism Benefit	0 to 5	0 to 5	Gen. Use	2
Total Points	40	Maximum Priority Points = 40		25
% of Total Points determines Need		A = 66-100%; B = 50-65%; C = 0-49%	B	63%

9.3 Parking Requirements

In accordance with the Safety Rest Area Framework & Implementation Strategy, the following criteria apply to the SRA parking calculations for each SRA:

General:

- Typically in determining parking stall requirements - use "projected" AADT traffic volume - "20 years" into the future.
- Typically assume 50% truck stalls @ 40 m each and 50% car stalls @ 10 m each
- Typically if the site were "staged" to accommodate in the very long-term future additional parking, the site would be "graded" to accommodate the next stage.

Number of Parking Stalls:

- Safety Rest Area site with a 20 year projected AADT <5000
 - No. of parking stalls = $AADT/2 \times 10\% \times 0.15$ peak flow factor divided by 6 durations/stall/hr
- Safety Rest Area site with a 20 year projected AADT >5000 and <25,000
 - No. of parking stalls = $AADT/2 \times 9\% \times 0.14$ peak flow factor divided by 6 durations/stall/hr
- Safety Rest Area site with a 20 year projected AADT $\geq 25,000$
 - Requires site-specific analysis

Alberta Transportation Southern Region Safety Rest Area Parking Area Calculation													
SRA #	Hwy	CS	KM	2024 AADT	Formula					50% Truck 40m	50% Cars 10m	Total Parking Metres	F-2 Calc. Metres
					Divide	X	Peak X Factor	Divide Dur. Stall	Stalls Required				
P-002	1	CS 1:06	1.85	23,260	2	9%	0.14	6	24	488	122	611	800
P-005	1	CS 1:06	19.148	23,260	2	9%	0.14	6	24	488	122	611	975
P-007	1	CS 1:14	7.6	10,180	2	9%	0.14	6	11	214	53	267	475
P-006	1	CS 1:14	17.92	10,180	2	9%	0.14	6	11	214	53	267	475
P-012	1	CS 1:18	54.73	5,670	2	9%	0.14	6	6	119	30	149	475
P-008	1	CS 1:SK	0.20	6,280	2	9%	0.14	6	7	132	33	165	475
P-001	2	CS 2:20	31,525	29,520	2	9%	0.14	6	31	620	155	775	975
P-023	2	CS 2:20	25	29,520	2	9%	0.14	6	31	620	155	775	975
P-016	2	CS 2:12	5.35	15,760	2	9%	0.14	6	17	331	83	414	475
P-022	2	CS 2:12	1.831	15,760	2	9%	0.14	6	17	331	83	414	475
P-017	2	CS 2:08	15.6	5,450	2	10%	0.15	6	7	136	34	170	475
P-021	2	CS 2:08	14.2	5,450	2	10%	0.15	6	7	136	34	170	475
P-020	2	CS 2:06	7.7	1,643	2	10%	0.15	6	2	41	10	51	475
P-019	2	CS 2:06	1.925	1,643	2	10%	0.15	6	2	41	10	51	475
P-015	3	CS 3:04	7.7	4,350	2	10%	0.15	6	5	109	27	136	475
P-014	3	CS 3:04	13.1	3,401	2	10%	0.15	6	4	85	21	106	475
P-011	3	CS 3:14	4.0	3,513	2	10%	0.15	6	4	88	22	110	475
P-010	3	CS 3:14	29.4	3,449	2	10%	0.15	6	4	86	22	108	475

Note: no formula for >25,000 AADT; so used <25,000 calculation

9.4 Cost Estimates Data

Cost estimates are for INFTRA F-2 typical designs based on 2004 INFTRA highway construction contract values assuming a certain size and configuration for a given highway.

Cost Components

The cost for each design layout will vary from site to site according to specific locational criteria and geotechnical factors. However, the following provides a preliminary estimate of one SRA constructed on one side of a highway as a standalone construction contract.

Trucks govern acceleration and deceleration characteristics of SRAs, much the same as trucks govern MIS site design.

Estimates

These designations are used to simplify order-of-magnitude estimates. ***Each location will require a specific estimate to address each location's unique circumstances.***

- Figure F-2.1.1 Classification F.2.1 Freeway / Expressway over 12,000 AADT
- Figure F-2.1.2 Classification F.2.1 Expressway under 12,000 AADT
- Figure F-2.2.1 Classification F.2.2 Existing Two Lane Highway
(Future Multi-Lane) on Same Side
- Figure F-2.2.2 Classification F.2.2 Existing Two Lane Highway
(Future Multi-Lane) on Opposite Side
- Figure F-2.3.1 Classification F.2.3 Two Lane Highway (Typical)
- Figure F-2.3.2 Classification F.2.3 Two Lane Highway for Log Haul Routes

Land Estimates

Hwy. Sec. Map	Southern Region Highway											
	SRA #	Location				2024 WAADT	Land \$/Acre			Land \$ Cost		
		Hwy #	Approx. CS	Km	Direction		1st	B	C	1st	B	C
1.2	P-002	1	CS 1:06	1.850	WB	23,260	5,000	5,000	5,000	46,949	66,717	-
1.2	P-005	1	CS 1:06	17.600	EB	23,260	5,000	5,000	5,000	48,185	-	-
1.3	P-007	1	CS 1:14	7.600	EB	10,180	2,000	2,000	2,000	18,780	31,135	26,687
1.3	P-006	1	CS 1:14	17.920	WB	10,180	2,000	2,000	2,000	26,193	22,733	22,733
1.5	P-004	1	CS 1:18	44.400	EB	8,180	1,500	-	-	-	-	-
1.5	P-012	1	CS 1:18	53.930	WB	8,180	1,500	-	-	11,120	-	-
1.6	P-009	1	CS 1:22	45.780	WB	6,280	-	-	-	-	-	-
1.6	P-008	1	CS 1:22	45.000	EB	6,280	1,500	1,500	1,500	16,309	-	-
2.1	P-001	2	CS 2:20	31.525	SB	29,520	3,000	3,000	3,000	31,135	30,393	-
2.1	P-023	2	CS 2:20	24.800	NB	29,520	3,000	3,000	3,000	30,393	31,135	-
2.2	P-016	2	CS 2:10	29.000	SB	15,760	10,000	16,000	16,000	135,905	173,958	205,587
2.2	P-022	2	CS 2:10	28.500	NB	15,760	10,000	22,000	22,000	121,079	326,172	76,107
2.3	P-017	2	CS 2:08	15.600	SB	5,450	2,000	-	-	20,262	-	-
2.3	P-021	2	CS 2:08	14.200	NB	5,450	2,000	2,000	2,000	22,733	17,297	-
2.4	P-020	2	CS 2:06	7.700	SB	1,643	1,500	-	-	-	-	-
2.4	P-019	2	CS 2:06	1.925	NB	1,643	1,500	-	-	-	-	-
3.1	P-015	3	CS 3:04	17.200	EB	4,350	2,500	2,500	2,500	35,830	42,007	-
3.1	P-014	3	CS 3:04	13.100	WB	3,401	2,500	2,500	2,500	19,150	51,891	-
3.4	P-011	3	CS 3:14	4.000	WB	3,513	3,500	-	-	36,324	-	-
3.4	P-010	3	CS 3:14	29.400	EB	3,449	3,500	3,500	3,500	40,648	70,053	-
Totals						Average	3,342	5,833	5,833	660,993	863,491	331,114
NB: Hectare converted to acres @2.471; Hectare rounded to one decimal point												
F-2 design areas calculated by Microstation												
Land values provided by INFTRA Southern Region												

Detailed Breakdown for F-2.1.1 Design

Item	Unit	Unit Rate	Initial Stage		Ultimate Stage	
			Quantity	Cost	Quantity	Cost
Right-of-Way	ha	\$6,000.00	2.50	\$ 15,000	2.50	\$ 15,000
Utility Relocations	lump	\$0.00	0	\$ -	0	\$ -
Grading	m3	\$10.00	38000	\$ 380,000	40000	\$ 400,000
Base (GBC)	tonnes	\$20.00	16000	\$ 320,000	17000	\$ 340,000
Paving (ACP)	tonnes	\$45.00	6500	\$ 292,500	7000	\$ 315,000
Miscellaneous (5%)			1	\$ 50,375	1	\$ 53,500
Sub-Total:				\$ 1,057,875		\$ 1,123,500
Engineering (8%)				\$ 84,630		\$ 89,880
Contingencies (10%)				\$ 105,788		\$ 112,350
Total:				\$ 1,248,293		\$ 1,325,730
Rounded Total:				\$ 1,249,000		\$ 1,326,000

Calculation Assumptions:

- Existing R/W Available of 36.7m from center of highway.
- 1 metre of grading embankment
- Base thickness = 350mm
- Paving thickness = 170mm

Detailed Breakdown for F-2.1.2 Design

Item	Unit	Unit Rate	Initial Stage		Ultimate Stage	
			Quantity	Cost	Quantity	Cost
Right-of-Way	ha	\$6,000.00	2.50	\$ 15,000	2.50	\$ 15,000
Utility Relocations	lump	\$0.00	0	\$ -	0	\$ -
Grading	m3	\$10.00	30000	\$ 300,000	31000	\$ 310,000
Base (GBC)	tonnes	\$20.00	12000	\$ 240,000	13000	\$ 260,000
Paving (ACP)	tonnes	\$45.00	5000	\$ 225,000	6000	\$ 270,000
Miscellaneous (5%)			1	\$ 39,000	1	\$ 42,750
Sub-Total:				\$ 819,000		\$ 897,750
Engineering (8%)				\$ 65,520		\$ 71,820
Contingencies (10%)				\$ 81,900		\$ 89,775
Total:				\$ 966,420		\$ 1,059,345
Rounded Total:				\$ 967,000		\$ 1,060,000

Calculation Assumptions:

- Existing R/W Available of 36.7m from center of highway.
- 1 metre of grading embankment
- Base thickness = 350mm
- Paving thickness = 170mm

Detailed Breakdown for F-2.2.1 Design

Item	Unit	Unit Rate	Initial Stage		Ultimate Stage	
			Quantity	Cost	Quantity	Cost
Right-of-Way	ha	\$6,000.00	2.50	\$ 15,000	2.50	\$ 15,000
Utility Relocations	lump	\$0.00	0	\$ -	0	\$ -
Grading	m3	\$10.00	32000	\$ 320,000	33000	\$ 330,000
Base (GBC)	tonnes	\$20.00	13000	\$ 260,000	15000	\$ 300,000
Paving (ACP)	tonnes	\$45.00	6000	\$ 270,000	6500	\$ 292,500
Miscellaneous (5%)			1	\$ 43,250	1	\$ 46,875
Sub-Total:				\$ 908,250		\$ 984,375
Engineering (8%)				\$ 72,660		\$ 78,750
Contingencies (10%)				\$ 90,825		\$ 98,438
Total:				\$ 1,071,735		\$ 1,161,563
Rounded Total:				\$ 1,072,000		\$ 1,162,000

Calculation Assumptions:

- Existing R/W Available of 36.7m from center of highway.
- 1 metre of grading embankment
- Base thickness = 350mm
- Paving thickness = 170mm

Detailed Breakdown for F-2.2.2 Design

Item	Unit	Unit Rate	Initial Stage		Ultimate Stage	
			Quantity	Cost	Quantity	Cost
Right-of-Way	ha	\$6,000.00	2.50	\$ 15,000	2.50	\$ 15,000
Utility Relocations	lump	\$0.00	0	\$ -	0	\$ -
Grading	m3	\$10.00	31000	\$ 310,000	33000	\$ 330,000
Base (GBC)	tonnes	\$20.00	13000	\$ 260,000	14000	\$ 280,000
Paving (ACP)	tonnes	\$45.00	5000	\$ 225,000	6000	\$ 270,000
Miscellaneous (5%)			1	\$ 40,500	1	\$ 44,750
Sub-Total:				\$ 850,500		\$ 939,750
Engineering (8%)				\$ 68,040		\$ 75,180
Contingencies (10%)				\$ 85,050		\$ 93,975
Total:				\$ 1,003,590		\$ 1,108,905
Rounded Total:				\$ 1,004,000		\$ 1,109,000

Calculation Assumptions:

- Existing R/W Available of 36.7m from center of highway.
- 1 metre of grading embankment
- Base thickness = 350mm
- Paving thickness = 170mm

Detailed Breakdown for F-2.3.2 L(i) Design

Item	Unit	Unit Rate	Initial Stage		Ultimate Stage	
			Quantity	Cost	Quantity	Cost
Right-of-Way	ha	\$6,000.00	1.50	\$ 9,000	0.00	\$ -
Utility Relocations	lump	\$0.00	0	\$ -	0	\$ -
Grading	m3	\$10.00	15000	\$ 150,000	0	\$ -
Base (GBC)	tonnes	\$20.00	5000	\$ 100,000	0	\$ -
Paving (ACP)	tonnes	\$45.00	2000	\$ 90,000	0	\$ -
Miscellaneous (5%)			1	\$ 17,450	0	\$ -
Sub-Total:				\$ 366,450		\$ -
Engineering (8%)				\$ 29,316		\$ -
Contingencies (10%)				\$ 36,645		\$ -
Total:				\$ 432,411		\$ -
Rounded Total:				\$ 433,000		\$ -

Calculation Assumptions:

- Existing R/W Available of 36.7m from center of highway.
- 1 metre of grading embankment
- Base thickness = 350mm
- Paving thickness = 170mm

Removal Cost of Existing Turnout Locations

Assume 100 m x 10 m parking area	= 1,000 m ²
Assume 200 m x 5 m entrance/exit	= 1,000 m ²
ACP and Base Course	<u>= 2,000 m²</u>
Assume 5 days: hoe + two gravel trucks	
\$1,000/day + \$500/day x 2	= \$ 2,000 day
Foreman + truck	= <u>500 day</u>
	= 2,500 day
	x 5 days = \$ 12,500
Saw cut asphalt	2,000
Landscaping	3,000
Overhead and contingency (±15%)	2,500
	<u>\$ 20,000</u>

Lighting Cost Estimate (where practical)*Assumptions:*

- Parking area security lighting only
- Forty-foot steel poles; new versus used
- One pole per 50 m site length; therefore two poles per 100 m long site
- The power company brings power to transformer pole/metre only; balance of site work by local electrical contractor.

Cost Estimate for Location Work

• New metal poles — 2 x \$1,000	= \$ 2,000
• Cast in place concrete bases — 2 x \$800	= 1,600
• Fixtures/Photocells — 2 x \$300	= 600
• Trenching — 100 m @ \$25/m	= 2,500
• Cable — 100 m @ \$7/m	= 700
• Panel box/breakers	= 600
• Eng. and cont. @ 20%	= 2,000
Total estimated location cost	= <u>\$ 10,000</u>

Notes:

1. Reviewed with INFTRA Alta and Magna 4 Engineering
2. Does not include power supply to site by INFTRA Alta
3. Minimum cost for pole and transformer = \$ 3,000
4. Supply of overhead power (wooden poles @ 100m spacing) = \$10,000 per kilometre
5. Cost for pushing conduit under highway is \$50/linear metre, and not included in above.

Portable Toilets (where practical)

General

- No one company maintains sites across Alberta, so they subcontract locally for maintenance.
- Suggest a wheelchair accessible unit at each site.
- Should have adequate ventilation, solar light for night and a heater. Easier to clean and more comfortable in winter.
- Normally, maintenance is weekly. However, high-frequency use locations will require daily service.
- Use brine in winter.
- The renter is responsible for theft, vandalism, base construction, and weather damage.

Number of Toilets per Location

For AADT < 5000

$$\text{No. Of toilets} = \frac{\text{AADT}}{2} \times \frac{10\% \text{ vehicle stopping}}{100} \times \frac{1.2 \text{ users per vehicle}}{30 \text{ toilet Users/hr}} \times \frac{0.15}{\text{peak hour factor}}$$

Factor

For AADT of 3,000 — 0.9 toilets/site; round off to 1/site

For AADT of 4,000 — 1.2 toilets/site; round off to 1/site

For AADT of 5,000 — 1.5 toilets/site; round off to 2/site

For AADT of 6,000 to 15,000 — use lower vehicle stopping at 9% and lower peak hour factor of 0.14. The decision to maintain portable toilets should be reviewed regularly. Above 15,000 AADT, portable facilities may not be appropriate due to the number of units required and maintenance costs.

$$\text{No. Of toilets} = \frac{\text{AADT}}{2} \times 9\% \times \frac{1.2}{30} \times 0.14$$

Example: For AADT of 10,000 — 2.5 toilets/site; round off to 3/site
For AADT of 15,000 — 3.8 toilets/site; round off to 4/site

Rental and Cleaning Service (1999)

Wheelchair accessible units	\$110 each/month/unit
Standard units	\$90 each/month/unit
Solar lighting	\$25 each/month/unit
Heaters	\$15 each/month/unit

Rates quoted are based on supply of 30 units and include weekly service. Rates may vary depending on location and will vary depending on frequency of maintenance schedule. Delivery/set-up costs are also

dependent on location, as well as the type of anchoring base used. The renter is responsible for any loss due to theft, weather or vandalism.

9.5 Toilet Design and Demand

Toilet Requests, Concerns, and Comparisons

Who is asking for public facilities?

- The requests come from several sources. Through the consultation process commencing with the initial 1998 Highway Service Rest Area Study, through to the completion of the five Roadside Turnout reports for all Alberta inter-provincial highways, key stakeholders identified the need for restroom facilities along provincial highways.
- The various groups include: Yellowhead Highway Association, Alberta Motor INFTRA port Association, Alberta Motor Association, municipal and tourism groups, as well as general feedback from general public through letters, letters to the editor, etc.
- Alberta data is not available reflecting the specific toilet demand that can be referred to in relationship to the total traffic stream. A 1989 Transportation Research Board study of US Rest Areas identified that 85% of the Rest Area usage was for Toilets; 50% for rest/stretch; and 14% for water fountain.
- More recently, organizations and INFTRA are receiving complaints about travelers either stopping at the side of the road or at existing “bulbs”, since toilets are not available at existing “bulbs”.
- One organization basically says: “let’s get on with it.”

What are other provinces/states doing?

- SRAs in Alberta are different than other jurisdictions. The US interstate program develops Rest Areas with permanent washroom facilities. British Columbia has a combination of “bulbs” and Rest Areas, where the Rest Areas usually have permanent washrooms sometimes combined with Tourist Facilities or stand-alone buildings (wooden structures). Saskatchewan’s tend to be pull offs with waste receptacles.
- The US system is highly organized and developed as either public facilities or combined with private commercial establishments. Most have large parking areas for all types of vehicles.

Implications of Toilet installations

- INFTRA Operations Managers have concerns for the increased maintenance and possible vandalism that may occur at the toilets. These are valid concerns that need to be balanced in relationship to the overall problem. Since rural private sector facilities are not keeping up with demand or meet the needs of the overall traffic stream, one solution is to install toilets at rural locations.
- A pilot project west of Whitecourt on Highway #43 demonstrated that portable toilets couldn’t keep up with usage and required maintenance; these have been replaced with a

modular wooden structure. There is currently one portable toilet at Hwy #16 Junction #60 at a vehicle weight station and it is proving to be acceptable.

- The public may also complain about the cleanliness or standards of toilet facilities installed. Frequent cleaning through an assigned contract will be necessary. The volume of traffic and seasonal conditions will determine the frequency.
- There is also an increased annual cost to the INFTRA budget. However, the regions may consider the use of separate maintenance contracts for the toilets and other service amenities at SRAs.

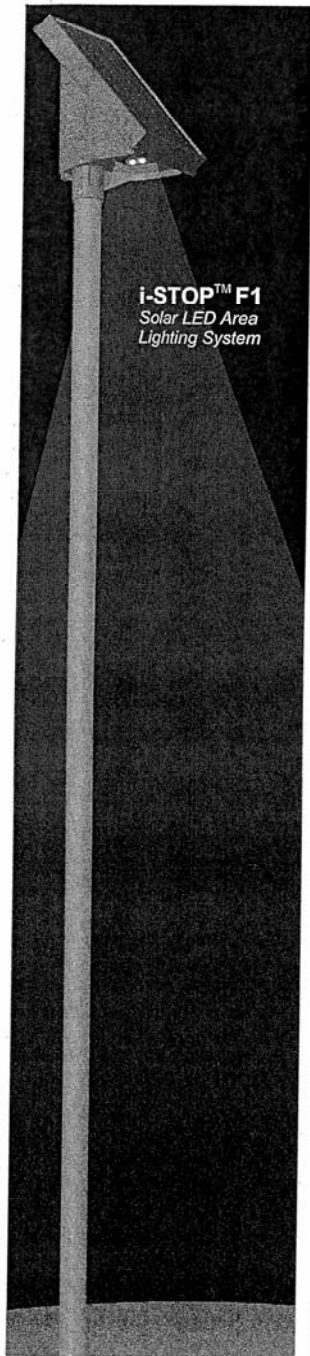
Toilet Design

Type of Toilet

- Generally, highway Rest Area facilities in North America are constructed buildings, with running water and flush toilets; e.g. Hwy. #43 Valleyview; Hwy. #2 Dickensview (Airdrie). Where traffic volumes generate large user demand, portable toilets are installed to supplement the fixed facility. This occurs at private operations as well. Although this type of facility provides an ultimate level of washroom service, these are costly to construct and have not been part of the Alberta SRA strategy for the near or long-term future.
- The next class of toilet is a concrete or wooden structure, usually without running water. These are usually installed at scenic and parks areas. A concrete pre-cast structure is a low cost facility option and feasible for existing and future SRAs.
- A basic class of service is the portable toilet. Various outlets supply and service these units. There may be cold water in the units during the summer months. This low-cost option can be supplied immediately and would answer **low volume demands** at many SRA locations.

Components	Estimate (\$)							
	I		II		III		IV	
	Capital	Annual	Capital	Annual	Capital	Annual	Capital	Annual
Full Service	140-180,000	27-50,000						
Mid-service			90-115,000	15-25,000				
Holding Tanks					70-90,000	10-20,000		
Portables							-	8-12,000

9.6 Solar Lighting



i-STOP™ F1
Solar LED Area
Lighting System

i-STOP™ F1
Solar-Powered LED Area Lighting System

TOP VIEW

Rugged, self-contained design for years of high performance operation.

Uses Carmanah MICROSOURCE™ power management for year round reliable operation.

BOTTOM VIEW

Easy, non-technical installation. Mounts on pole in minutes...

Integrated, high output, no-maintenance LED luminaire

The i-STOP™ F1 is the world's most advanced solar powered LED lighting system. This completely self-contained LED lighting system can be used for bus stops, general illumination or any application where reliable safety lighting is required.

Illuminating an area from dusk to dawn, the i-STOP™ F1 provides years of worry-free operation while delivering high light output for safety and security. Features include:

- Installs in minutes, no trenching, cabling or external power source required;
- Provides bright, white area lighting from dusk to dawn;
- No switching or activation required, automatically turns on at dusk and off at dawn;
- LEDs are rated for up to 100,000 hours of operation;
- No scheduled maintenance or servicing for up to five years, at which time only the battery requires replacement;
- Includes a three year warranty;
- Color can be powder-coated to match corporate branding;
- Vandal resistant hardware included.

The i-STOP™ F1 requires no wiring, no bulb replacement, zero maintenance, and no worries...

See reverse for an overview of i-STOP™ F1 specifications...

THE LEADER IN SOLAR-POWERED LED LIGHTING SOLUTIONS

 **Carmanah Technologies Inc.**
Toll-Free: 1.877.722.8877
www.carmanah.com

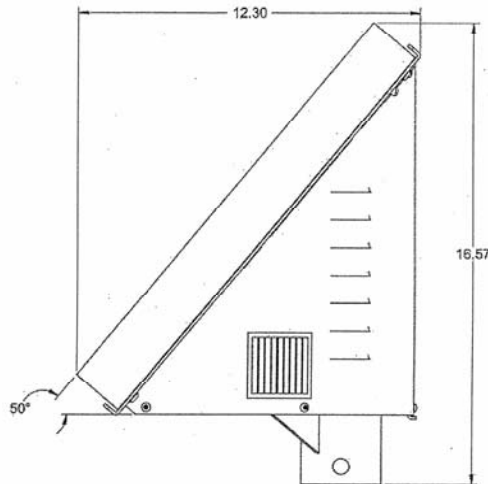
 **Carmanah**

i-STOP™ F1

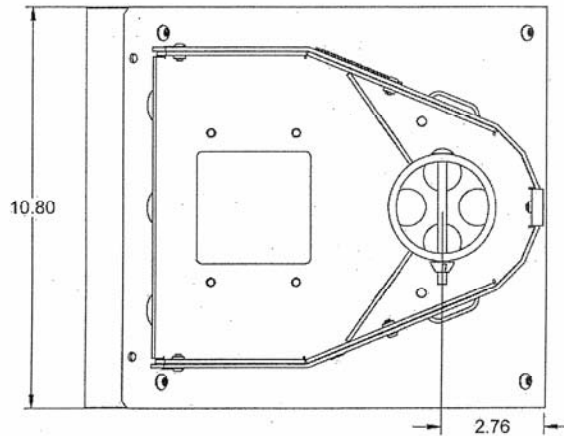
The i-STOP™ F1 Area Lighting System - no wiring, no battery, no bulb replacement, no maintenance, no worries...

DIMENSIONS

SIDE



BOTTOM



SPECIFICATIONS *

Area Lighting

Illumination technology	High intensity light emitting diodes (LEDs)
Illumination level	Minimum 2.0 fc (22 lux) of light output
Output color	White
Illumination area	~ 8 ft diameter circle. Measured from 10 ft.
Illumination duration	Dusk to dawn, automatically activated by photocell

Solar Engine (Patent Pending)

Solar module (photovoltaics)	High efficiency, poly-crystalline solar module, 10 W, 12 V. Tempered glass with anodized aluminum frame.
Battery	Maintenance-free, pure lead sealed AGM battery, 12 AH, 12 V. Fully recyclable.
Power management	Proprietary Automatic Light Control (ALC) adjusts illumination intensity/autonomy according to prevailing weather and solar conditions
Minimum autonomy	96 hours (4 days), based on 15 hours of daily operation
Minimum equivalent peak sun hours to maintain minimum autonomy	2 Hours
Operating temperature range	-15°C to +50°C (5°F to 122°F)

Construction

Housing	High grade, corrosion-resistant aluminum
Finish	Powder coated any color (minimum quantities apply)
Hardware	Security hardware used on all exposed surfaces
Pole mount	Accepts standard 2.5 inch nominal, schedule 40 pipe
Weight	Total weight for mounting of 17.6 lbs (8 kgs)

* Contact Carmanah for different options
All specifications are subject to change without notice.



Carmanah

Carmanah Technologies Inc.

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www.carmanah.com

Laurel Karjala
Business Development Manager,
Industrial Lighting Division



Carmanah

TSX VE: CMH

9.7 Existing Sites Unchanged

Highway 1

Section 1	No Existing Unchanged Areas
Section 2	1 MIS-001 & 1 VIS-001
Section 3	1 MIS-002 & 1 VIS-002; 1 Existing E-020
Section 4	1 Rest Area E-003
Section 5	No Existing Unchanged Areas
Section 6	1 VIS-003

Highway 2

Section 1	1 Rest Area E-001 & 1 VIS-005
Section 2	1 Existing E-022
Section 3	No Existing Unchanged Areas
Section 4	No Existing Unchanged Areas

Highway 3

Section 1	5 Existing E-019, Visitor E-016, E-013, E-012, E-011 & 1 VIS-004
Section 2	2 Existing E-005 & E-021
Section 3	No Existing Unchanged Areas
Section 4	No Existing Unchanged Areas

**Existing Site: VIS-001****Site Identification:****Highway:** 1**CS:** 06 **Chainage:** 8.340 km**Latitude:** N51 06.431**Longitude:** W114 37.832**Travel Direction:** EBL**WAADT:** 16,480**General Description:**

Vehicle Inspection Station located 5.1 km east of the Jct. of Hwy 1 and Hwy 68.

Summary of Field Notes:

- A Vehicle Inspection Station (VIS) with a building for highway traffic inspections.
- Street light facilities are available.
- This location is intended for trucks only and does not serve the general public.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	Yes.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00



Existing Site: MIS-001

Site Identification:

Highway: 1
 CS: 06 Chainage: 3.268 km
 Latitude: N51 05.223
 Longitude: W114 28.790
 Travel Direction: WBL
 WAADT: 16,480

General Description:

Mobile Inspection Station is located approximately 0.9 km from Jct. of Hwy 1 and Hwy 22.

Summary of Field Notes:

- Site is to the west of a Private Service Station (Petro-Canada) located on the Northwest quadrant on the intersection of Hwy 1 and 22.
- Site is a Mobile Inspection Station, which includes a self-weigh station.
- Street lighting and garbage receptacles exist but no specific parking is available.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	Yes.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00



Existing Site: VIS-002

Site Identification:

Highway: 1
CS: 12 Chainage: 4.200 km
Latitude: N51 02.252
Longitude: W113 37.159
Travel Direction: EBL
WAADT: 12,650

General Description:

Vehicle Inspection Station and is located approximately 4.2 km east of the Jct. between Hwy 1 and Hwy 9.

Summary of Field Notes:

- Site serves as a Vehicle Inspection Station.
- Facility is lighted and has garbage receptacle, but is not intended for the general public to use.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No
Location required or requested to remain by local industry?	Yes

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00



Existing Site: MIS-002

Site Identification:

Highway: 1

CS: 12 **Chainage:** 9.745 km

Latitude: N51 02.275

Longitude: W113 34.707

Travel Direction: WBL

WAADT: 12,650

General Description:

Mobile Inspection Station located approximately 2.7 km west of the Jct. of Hwy 1 and Hwy 24.

Summary of Field Notes:

- The site serves as a Mobile Inspection Station (MIS) located directly across the highway from a farmstead and is on the north side of the road.
- There are power poles visible in the vicinity and garbage receptacle.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	Yes.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00



Rest Site: E-003

Site Identification:

Highway: 1

CS: 16 Chainage: 40.500 km

Latitude: N50 40.972

Longitude: W112 10.325

Travel Direction: WBL

WAADT: 6,590

General Description:

Existing full service SRA is located approximately 20.3 km SE of the Jct. of Hwy 1 and Hwy 550.

Summary of Field Notes:

- This SRA is at ultimate stage equipped with a full service facility
- Building includes washrooms, air conditioning, septic pump and an office.
- There are separate parking areas for cars and trucks.
- Picnic tables, small playground and a pet exercise area exist.
- Site is very well maintained.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes
Location required due to local Safety Conditions?	Yes
Location required for Historic, Tourism or other public use?	Yes
Location required or requested to remain by local industry?	Yes

Recommendation:

Facility is part of the SRA spacing criteria.
No action required at this time.

Budget Estimate:

\$0.00

**Existing Site: VIS-003****Site Identification:****Highway:** 1**CS: 22 Chainage:** 8.600 km**Latitude:** N49 58.474**Longitude:** W110 31.509**Travel Direction:** WBL**WAADT:** 5,740**General Description:**

Existing VIS is located approximately 1.9 km east of the Jct. of Hwy 1 and Hwy 41 north.

Summary of Field Notes:

- Site serves as a Vehicle Inspection Site (VIS) with a building for highway traffic inspections.
- Streetlight and garbage receptacles are available at this site.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	Yes.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00



Rest Site: E-001

Site Identification:

Highway: 2

CS: 18 Chainage: 18.486 km

Latitude: N51 22.445

Longitude: W114 00.184

Travel Direction: SBL

WAADT: 26,440

General Description:

Existing full service SRA is located approximately 1.5 km south of the Hwy 2 and Hwy 72 interchange.

Summary of Field Notes:

- Stevenson/Dickson Rest Area, ultimate stage Safety Rest Area complete with indoor washroom and open 24 hours.
- Separate parking areas for trucks and cars available, as well as safe separation from highway.
- Site is equipped with lighting and telephone services.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	Yes.
Location required or requested to remain by local industry?	Yes.

Recommendation:

Facility is part of the SRA spacing criteria.
No action required at this time.

Budget Estimate:

\$0.00



Existing Site: VIS-005

Site Identification:

Highway: 2
CS: 18 **Chainage:** 1.161 km
Latitude: N51 13.927
Longitude: W114 00.068
Travel Direction: NBL
WAADT: 45,760

General Description:

Existing VIS located approximately 6.9 km north of the Jct. of Hwy 2 and Hwy 566.

Summary of Field Notes:

- Site serves as a Vehicle Inspection Station (VIS) and located just north of the 566 Interchange.
- VIS is complete with a service building and full deceleration and acceleration tapers exist.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	Yes.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00

**Historic Site: E-022**

Remove with P-021; Priority [B]

Site Identification:

Highway: 2

CS: 08 Chainage: 53.050 km

Latitude: N50 09.528

Longitude: W113 38.695

Travel Direction: NBL

WAADT: 6,550

General Description:

Recommend removal existing turnout located approximately 0.7 km south of the Jct. of Hwy 2 and Hwy 527.

Summary of Field Notes: Primary Purpose – Historical Interest

- Turnout is a Stavelly historical landmark approximately 1 km south of secondary Hwy 527 intersection. Sign is specific to that area and another location will be needed.
- Stavelly is located approximately 150m east of the site and too close.
- The existing site is under-designed without decel/accel lanes and outer separation.
- Site is not required within strategic spacing.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only TRANS representatives were contacted for this evaluation.
- TRANS Major Provincial Highway Project 2004/06 Claresholm SCL – Stavelly SBL and Sel NBL Preservation Overlay

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Landmark
Location required or requested to remain by local industry?	No.

Recommendation:

Remove with P-021 due to: the location, non-conforming freeway design standards and strategic spacing.

Budget Estimate:

\$20,000



Rest Site: E-019

Site Identification:

Highway: BC
 CS: Chainage: 2.000 km
 Latitude: N49 38.973
 Longitude: W114 41.940
 Travel Direction: WBL
 WAADT: 5,800

General Description:

Existing Rest Area/Turnout is located approximately 2.0 km west of the B.C. - Alberta border.

Summary of Field Notes:

- Site is in the Crowsnest Pass Rest Area and serves as a rest area, however, in close proximity to E-017.
- Picnic tables and garbage receptacles are available.
- There is a parking area for cars and small trucks, but the space is not large enough for large trucks.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation. Due to the complexities of accommodating rest areas within the Crowsnest Pass corridor, this rest area will be left for consideration with the corridor freeway operational design.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	Yes.
Location required or requested to remain by local industry?	No.

Recommendation:

Consider the future of this facility in relationship to SRA Strategic Criteria and the future design of the Hwy #3 corridor.

Budget Estimate:

\$0.00



Rest Site: E-016

Site Identification:

Highway: 3
 CS: 02 Chainage: 6.510 km
 Latitude: N49 37.880
 Longitude: W114 36.662
 Travel Direction: EBL
 WAA DT: 5,800

General Description:

Existing Visitor Information Centre is located approximately 8.2 km west of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- A visitor Travel Alberta Information Centre, with washrooms and garbage receptacles.
- Parking area for trucks and cars with 17 standard stalls; 7 20-metre pull through, but not for large trucks.
- Below standard access of a 90-degree intersection.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only TRANS representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	Yes.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	No.

Recommendation:

Consider the future of this facility in relationship to SRA Strategic Criteria and the future design of the Hwy #3 corridor.

Budget Estimate:

\$0.00

**Historic Site: E-013**

Priority [A]

Site Identification:

Highway: 3

CS: 02 Chainage: 19.185 km

Latitude: N49 36.938

Longitude: W114 27.157

Travel Direction: EBL

WAADT: 7,030

General Description:

Recommend removal existing turnout located approximately 4.5 km east of the Jct. of Hwy 3 and Hwy 40.

Summary of Field Notes:

- The site is a historical point of interest with information about the location on a plaque that can be found on the rock situated at the site.
- There is a good scenic view of Blairmore Mountain Valley.
- There are no services at the site and no lighting or garbage receptacles.
- The area is small and has below standard tapers.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only TRANS representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Historic Site: E-012**

Priority [A]

Site Identification:

Highway: 3

CS: 02 Chainage: 23.985 km

Latitude: N49 35.720

Longitude: W114 23.827

Travel Direction: EBL

WAADT: 8,230

General Description:

Recommend removal existing turnout located approximately 2.0 km west of the Jct. of Hwy 3 and the Hillcrest Access.

Summary of Field Notes:

- The site is a historical point of interest with a great scenic view of Frank Slide.
- A monumental plaque in a rock is situated at the site. The size of the turnout is relatively small, therefore not suitable for large trucks.
- The site has a garbage receptacle, but no other facilities and there is no power.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only TRANS representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Scenic Historic View
Location required or requested to remain by local industry?	Np

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000

**Historic Site: E-011**

Priority [A]

Site Identification:

Highway: 3

CS: 02 Chainage: 24.792 km

Latitude: N49 35.495

Longitude: W114 23.264

Travel Direction: WBL

WAADT: 8,230

General Description:

Recommend removal existing turnout is located approximately 1.2 km west of the Jct. of Hwy 3 and the Hillcrest Access.

Summary of Field Notes:

- The site is a historical point of interest with a great scenic view.
- A sign of the Frank Slide is at the location.
- The size of the turnout is relatively small, therefore not suitable for large trucks.
- There is an auxiliary westbound lane but it ends shortly to the west of the site.
- Garbage receptacles are onsite but there are no other services at this location.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only TRANS representatives were contacted for this evaluation.
- The Crowsnest Pass area is a special freeway design area that SRAs, turnouts, historic and points of interest be addressed with the freeway study.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Historic Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Removal due to the location, strategic framework criteria and lack of conforming to design standards.

\$20,000

**Existing Site: VIS-004****Site Identification:****Highway:** 3**CS: 04 Chainage:** 3.350 km**Latitude:** N49 34.097**Longitude:** W114 15.947**Travel Direction:** EBL**WAADT:** 4,120**General Description:**

Existing VIS is located approximately 0.8 km east of the Jct. of Hwy 3 and Hwy 507.

Summary of Field Notes:

- Site serves as a Vehicle Inspection Station (VIS) with a building for highway traffic inspections.
- Street light facilities exist.

Summary of Stakeholder Input:

- VIS/MIS is a function of Inspection Services and is not apart of SRA usage.
- Inspection Services has been part of the consultation process in past studies.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	Yes.
Location required for Historic, Tourism or other public use?	No.
Location required or requested to remain by local industry?	Yes.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00

**Historic Site: E-005****Site Identification:**

Highway: 3
CS: 08 **Chainage:** 39.733 km
Latitude: N49 46.766
Longitude: W112 58.997
Travel Direction: EBL
WAADT: 14,440

General Description:

Existing Historic Turnout is located approximately 3.0 km northwest of the Jct. of Hwy 3 and Hwy 509.

Summary of Field Notes:

- A historic point of interest located on the eastbound lane west of Lethbridge.
- Large outer separation from the highway.
- Equipped with garbage receptacles, no apparent available power but contains an information board and a very nice scenic view.
- Services would not be required to be added due to the close proximity to Lethbridge.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Yes.
Location required or requested to remain by local industry?	No.

Recommendation:

No action required at this time.

Budget Estimate:

\$0.00

**Interest Site: E-021**

Consult with ACD; Priority [B]

Site Identification:

Highway: 3

CS: 08 Chainage: 43.913 km

Latitude: N49 44.176

Longitude: W112 55.705

Travel Direction: WBL

WAADT: 14,440

General Description:

Recommend removal of turnout located approximately 3.2 km southeast of the Jct. of Hwy 3 and Hwy 509.

Summary of Field Notes: Primary Purpose – Point of Interest

- Existing roadside turnout is a historic point of interest located just near Coalhurst, west of Lethbridge.
- Garbage receptacle located at this site, but no other services.
- The railroad tracks prevent expansion
- Not required for strategic spacing criteria.

Summary of Stakeholder Input:

- General consultation about rest area needs was carried out in previous research and studies.
- Only INFTRA representatives were contacted for this evaluation.
- Discuss relocation of historical reference with Alberta Community Development.

Evaluation Matrix:

Location required by Strategic Criteria?	No.
Location required due to local Safety Conditions?	No.
Location required for Historic, Tourism or other public use?	Point of Interest
Location required or requested to remain by local industry?	No.

Recommendation:

Discuss removal with P-021 due to: the location, strategic framework spacing criteria and lack of conforming to design standards.

Budget Estimate:

\$20,000