ALBERTA CAPITAL REGION
Transportation Plan
(2003 - 2012)

FINAL REPORT

Prepared for:

Alberta Capital Region Alliance Ltd.

Prepared by:

Stantec Consulting Ltd.

21 June 2002

[135-37017]

Table of Contents

Executive Summary

This update to the Alberta Capital Region Alliance (ACRA) Transportation Plan represents the fourth edition of the plan prepared by the Transportation Standing Technical Working Group (TSTWG) for the ACRA Board.

The 2002 plan updates both the long-term recommended regional transportation system and the 5-year and 10-year project priorities, and refines the plan document to continually improve the effectiveness and ease of understanding of plan priorities.

The number one priority continues to be the **completion of Anthony Henday Drive by 2011**. It is important that Alberta Transportation develop a strategy, in consultation with ACRA, to meet this objective. **Preliminary design must be started in 2003** to address this regional priority.

The plan is founded on a set of principles guiding long-term planning toward the goal of a regional transportation system. Specific criteria are considered in evaluating both the regional nature of potential projects and their technical priority for upgrading.

The recommended long-term road system for the Alberta Capital Region is based on a system of ring roads, with “spokes” connecting the rings with the provincial / national highway system as well as major regional transportation and economic activity nodes. Regional public transit is also recommended in the long-term plan.

The plan report addresses implementation of the long-term plan.

1. The top implementation priority is establishment of Provincial funding commitment to complete Anthony Henday Drive (Highway 216) by 2011, as a special initiative with funding in addition to the normal priorities for regional transportation facilities. The report describes rationale, benefits, and costs of the Anthony Henday Drive initiative.
2. Regional transit, as a priority of the ACRA Board, is highlighted. A report on regional transit is documented, and specific public transit implementation priorities are identified, including SLRT extension and regional transit centres in Edmonton and the region.
3. All other projects in the plan are tabulated by type of project (rehabilitation & overlays, new & upgraded facilities) and by proposed timing (one to five years, six to ten years).

The total value of the projects included in the ACRA plan (2003 - 2012) is $2.4 billion over ten years. About half of this amount is directly related to provincial highways, including Anthony Henday Drive. About one-quarter of the total plan value is related to regional public transit.

1.0 Introduction

1.1 BACKGROUND

This 2002 update to the Alberta Capital Region Alliance (ACRA) Transportation Plan represents the fourth edition of the plan prepared by the Transportation Standing Technical Working Group (TSTWG) for the ACRA Board. This work has been conducted according to the direction of the Board as per the terms of reference of the TSTWG, which calls for an annual update to the ACRA Transportation Plan.

- In 1999, the ACRA transportation plan was initiated to compile and prioritize the organization's desired five year capital expenditure priorities on regional road and transit projects. This plan was presented to the provincial government and was used as input to the provincial three-year capital transportation program.
- In 2000, the updated plan included a set of transportation goals and principles to be used to guide the long-term development of a regional transportation system.
- In 2001, the plan incorporated the capabilities of the Edmonton regional transportation model in the process of prioritizing projects, and expanded from a 5-year horizon to a 10-year horizon to address critical longer-term system priorities.

The 2002 plan updates both the long-term recommended regional transportation system and the 5-year and 10-year project priorities, and refines the plan document to continually improve the effectiveness and ease of understanding of plan priorities.

The number one priority continues to be the **completion of Anthony Henday Drive by 2011**. It is important that Alberta Transportation develop a strategy, in consultation with ACRA, to meet this objective. **Preliminary design must be started in 2003** to address this regional priority.

1.2 OVERVIEW OF PROCESS

Update of Project List

As in previous years, an initial step in the process was to poll ACRA membership and Alberta Transportation to determine which projects on the old priority list had been completed or would be completed in 2002. The list of completed projects is contained in Appendix A. Two in-progress projects are scheduled to carryover beyond 2002. As these carryover projects affect funding requirements in future years, they are retained in the list of priority projects.

ACRA membership was also requested to identify any other transportation projects that they considered regional in nature that were not already on the project list, or projects currently on the list that should be removed for any reason.

TSTWG Meetings

At the regular Transportation Standing Technical Working Group (TSTWG) meeting on 12 April 2002, the input received from ACRA membership was reviewed and discussed. At the following TSTWG meeting on 10 May 2002, the draft Transportation Plan (2003 - 2012) was presented and components of the plan were discussed in considerable detail.

2.0 Principles and Criteria

2.1 GOAL AND PRINCIPLES

Recognizing that regional transportation planning requires a long-term perspective, the Transportation Standing Technical Working Group has adopted a goal and set of principles to guide the long-term planning of a regional transportation system.

The overall goal of the ACRA regional transportation system is as follows.

> *Development and maintenance of an integrated transportation system that facilitates the safe, effective and efficient movement of people and goods within and through the Alberta Capital Region.*

To attain the recommended goal, 5 principles were established to guide planning of the desired regional transportation system. The recommended principles are as follows:

1. *Develop and maintain a Ring Road system as follows:*
   a) A high standard Regional Ring Road with interchanges at major intersections and appropriate access management
   b) A free-flow Anthony Henday Drive with appropriate access management
   c) A high standard Inner Ring Road with appropriate access management

2. *Develop and maintain a system of high standard roadways with appropriate access management connecting the Ring Road system with the Provincial and National Highway System.*

3. *Develop and maintain a roadway system with appropriate levels of access management that provides a high standard of accessibility to key air and rail facilities, such as the Edmonton International Airport and rail intermodal facilities, and key regional transit facilities.*

4. *Develop and maintain a roadway system with appropriate levels of access management that provides a high standard of accessibility to major industrial areas within the region.*

5. *Develop and maintain public transit services that can cost effectively provide regional accessibility for those who rely on public transit and more effectively utilize the existing roadway system and increase the capacity of the transportation system.*

2.2 EVALUATION CRITERIA

To assist in reviewing and prioritizing lists of potential transportation projects, the Transportation Standing Technical Working Group (TSTWG) considered a number of criteria in evaluating both the regional nature of potential projects and their technical priority for upgrading.

Regional Evaluation Criteria

- Responds effectively to the needs of existing industry and business and supports established regional economic development priorities: e.g., Heartland Industrial Area; Nisku and Edmonton International Airport area; Northwest Edmonton Industrial Area and the CN Intermodal Facility.
- Contributes to regional roadway/transit network connectivity and integration with provincial and national transportation systems.
- Required as a result of traffic demand; e.g., high traffic volumes, congestion, etc.
- Practicality and ease of implementation; e.g., community/political acceptance, ease/challenges associated with actual construction, environmental constraints, timeframes, etc.
- Cost-benefit and affordability.
- Preserves, protects and maintains a valuable regional asset.
- Corrects deficiencies with existing infrastructure; e.g., narrow pavement width, narrow medians, chronic safety/operational problems, pavement quality, etc.
- Supports the objectives of local Municipal Development Plans

Upgrading Evaluation Criteria

The TSTWG has adopted Alberta Transportation (AT) guidelines for upgrading provincial highways as an appropriate set of criteria for upgrading of regional roads. The AT guidelines are published formally in the Alberta Geometric Design Guide, and are summarized in Appendix B.

However, the TSTWG recognizes that the AT guidelines apply more directly to rural situations, and acknowledges that other factors need to be considered, particularly in urban areas.

Other Evaluation Resources

- Alberta Transportation is in the process of enhancing the City of Edmonton transportation model to represent the entire Alberta Capital Region in greater detail. Recommended project priorities reflect application of this regional transportation model at its current level of completion. Over time, the model will continue to be used to evaluate the technical soundness of the ACRA plan.

- A regional commodity flow survey was initiated in 2001 and will be completed in 2002. The results of this survey and subsequent travel demand modeling will be incorporated appropriately as a tool to assist in the evaluation of ACRA project priorities.

3.0 Recommended Regional Transportation System

Based on the goal and principles for the regional transportation system, the key components of the regional road network were identified and are illustrated on Map I on the following page. This represents the recommended long-term road system for the Alberta Capital Region.

Changes relative to the previous plan include:

- Inclusion of Highway 627, from Highway 779 to Highway 770, and Highway 770 from Highway 627 to Highway 16. These sections of highway provides access from the regional industrial power plants south of Lake Wabamun to the rest of the regional transportation system.
- Inclusion of Highway 830, from Highway 15 to Highway 16. This section of highway provides additional access from the Industrial Heartland area to the Yellowhead / TransCanada Highway (Highway 16), as well as improved network continuity with the recommended new bridge crossing of the North Saskatchewan River approximately seven kilometres north of Highway 15.
- Inclusion of Airport Road, from Highway 2 to the Nisku Spine Road, and Nisku Spine Road, from Airport Road to Highway 625. These sections of road provide access from Edmonton International Airport to the Nisku industrial area, as well as additional connectivity from the Airport to the rest of the regional transportation system.
- Several other map changes of a “housekeeping” nature.

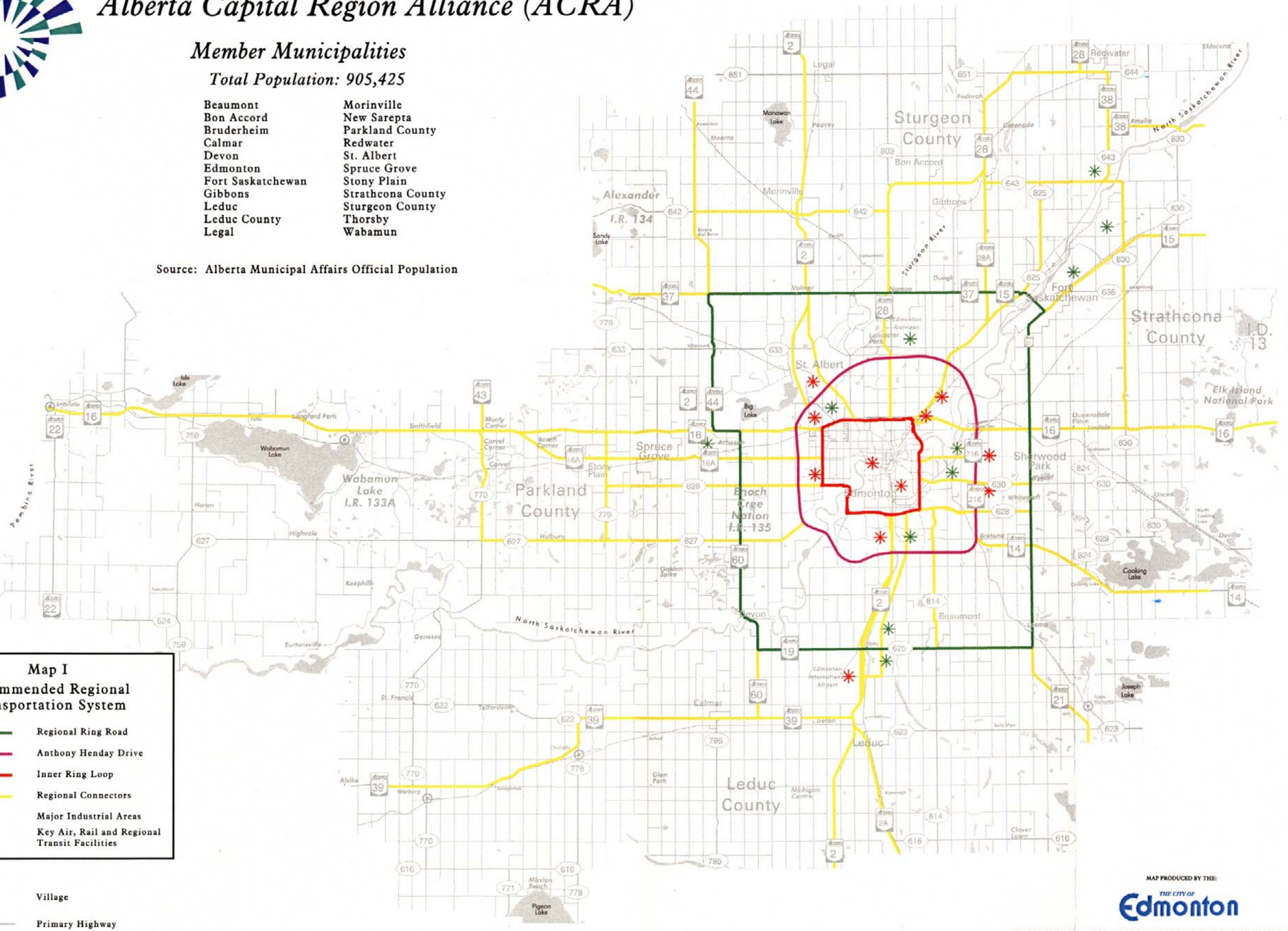
Alberta Capital Region Alliance (ACRA)

Member Municipalities

Total Population: 905,425

Beaumont	Morinville
Bon Accord	New Sarepta
Bruderheim	Parkland County
Calmar	Redwater
Devon	St. Albert
Edmonton	Spruce Grove
Fort Saskatchewan	Stony Plain
Gibbons	Strathcona County
Leduc	Sturgeon County
Leduc County	Thorsby
Legal	Wabamun

Source: Alberta Municipal Affairs Official Population



Map I
Recommended Regional Transportation System

- Regional Ring Road
- Anthony Henday Drive
- Inner Ring Loop
- Regional Connectors
- Major Industrial Areas
- Key Air, Rail and Regional Transit Facilities

- Village
- Primary Highway
- Secondary Highway
- Railway

0 10 15 20 25 30
kilometers

MAP PRODUCED BY THE:
THE CITY OF Edmonton

INFORMATION AS OF MAY 30, 2002

4.0 Anthony Henday Drive

Status

Since the inception of the Alberta Capital Region Alliance, advancement of the completion of Anthony Henday Drive as a regional transportation facility has consistently been held as a top priority.

An initial eight kilometre section of Anthony Henday Drive (Highway 216) is now open to traffic between Yellowhead Trail (Highway 16) and Callingwood Road (south of Highway 628). The rest of the south-west portion of Anthony Henday Drive, between Callingwood Road and Calgary Trail, is currently being designed and constructed for completion by 2006. This project was prioritized by ACRA as the recommended top priority for a special $10 million provincial grant in 1998. Alberta Transportation has assumed full responsibility for the construction, operation, and maintenance of the south-west leg of Anthony Henday Drive, and the province is investing over $200 million in that portion of Anthony Henday Drive.

As illustrated in Figure 4.1, full completion of Anthony Henday Drive will require construction of Highway 216 from Calgary Trail to Highway 14, and from Highway 16 East across north Edmonton to Highway 16 West.

ACRA Position

The importance of complete Anthony Henday Drive construction was confirmed at the 05 October 2000 meeting of the ACRA Board, which approved the following motion.

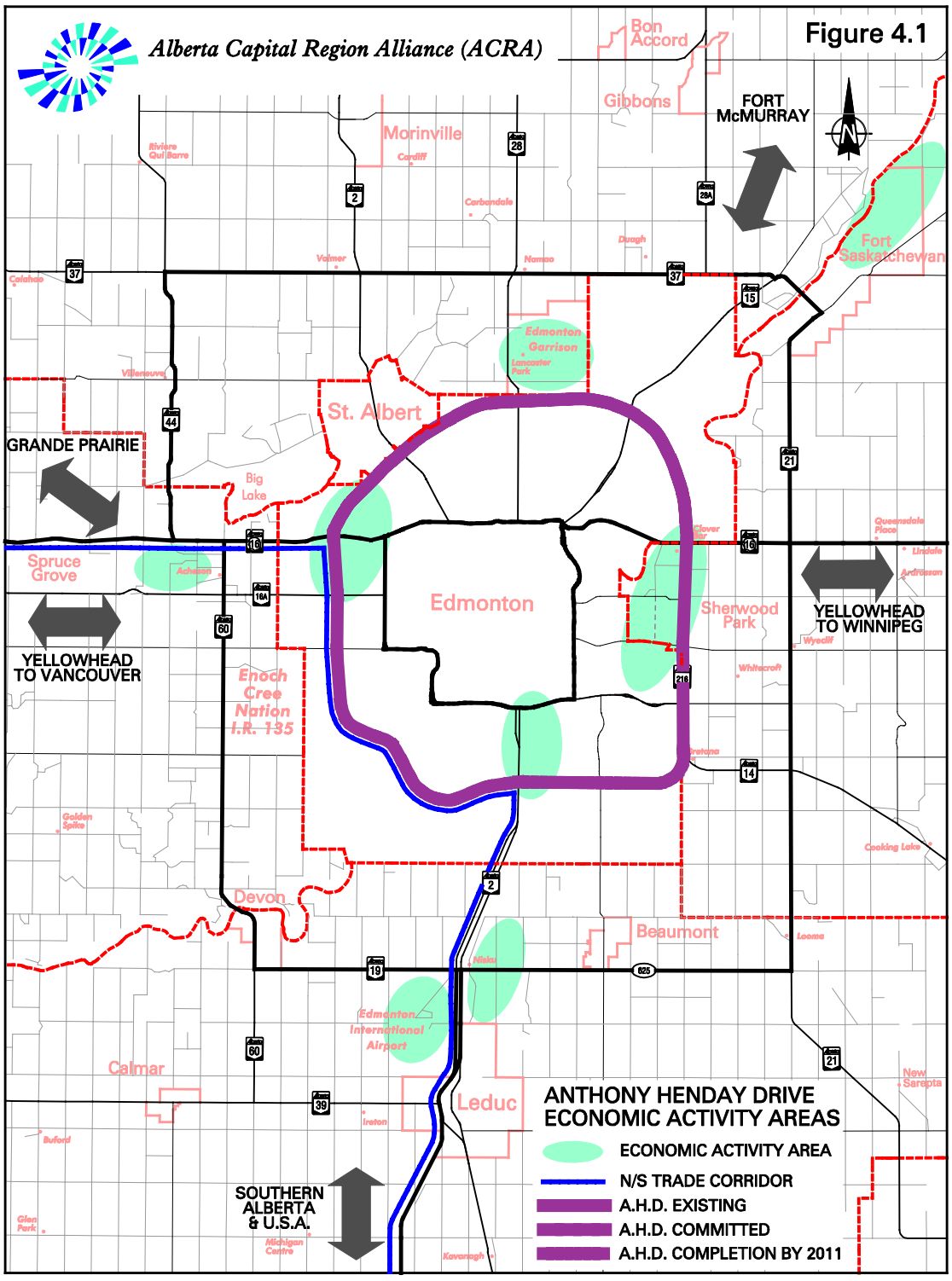
> *"That ACRA work with Alberta Infrastructure[1] to secure a commitment and schedule for the ongoing implementation of Anthony Henday Drive…"*

In ACRA's Anthony Henday Ring Road Strategy, submitted to the Edmonton Area Caucus on 11 April 2001, Chair V. Hartwell presented a specific objective:

> *Establishment of a Provincial funding commitment to complete Anthony Henday Drive (Ring Road 216) by 2011.*

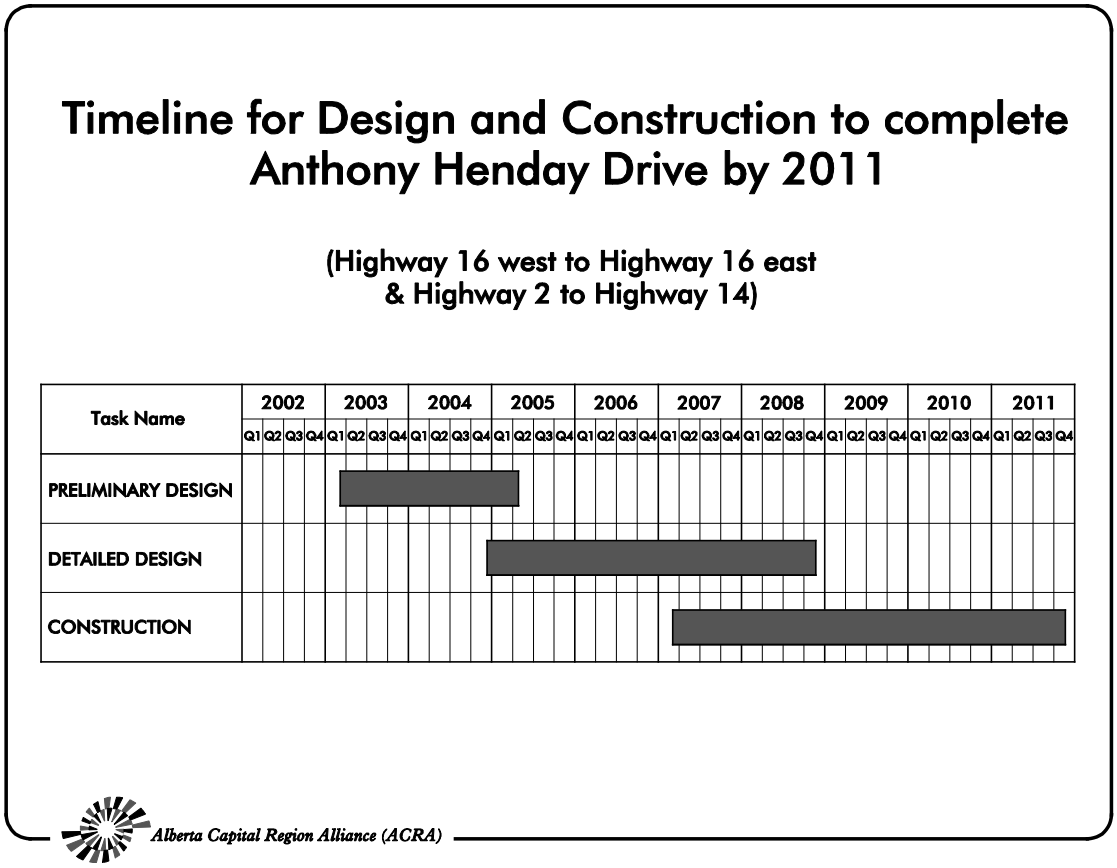
Getting started on preliminary design is necessary to ensure that the project construction schedule can be maintained. Before the construction can begin, there are several years of preliminary and detailed design that need to be completed.

[1] Now Alberta Transportation.


Alberta Capital Region Alliance (ACRA)
Figure 4.1
Bon Accord
Gibbons
FORT McMURRAY
Morinville
Fort Saskatchewan
Edmonton Garrison
St. Albert
GRANDE PRAIRIE
Big Lake
Spruce Grove
Edmonton
Sherwood Park
YELLOWHEAD TO WINNIPEG
YELLOWHEAD TO VANCOUVER
Enoch Cree Nation I.R. 135
Devon
Beaumont
Edmonton International Airport
Calmar
Leduc
SOUTHERN ALBERTA & U.S.A.
ANTHONY HENDAY DRIVE
ECONOMIC ACTIVITY AREAS
ECONOMIC ACTIVITY AREA
N/S TRADE CORRIDOR
A.H.D. EXISTING
A.H.D. COMMITTED
A.H.D. COMPLETION BY 2011

Schedule

The project timeline below illustrates the interaction of the design steps, and demonstrates the importance of an early commitment to AHD by 2011. Funding for a two-year period of preliminary design (2003/04 and 2004/05 fiscal years) will keep the momentum going on this crucial endeavor.



Rationale

The rationale for the importance of completion of Anthony Henday Drive is summarized in a Backgrounder contained in Appendix C. Key aspects of the need for completion of Anthony Henday Drive include the following.

- **Congestion levels are increasing on key highway routes, with particular concern along Yellowhead Trail (Trans Canada Highway).** Edmonton City Council has approved a number of measures within Edmonton to accommodate short to medium term growth along Yellowhead Trail. However, increasing congestion on this route, over time, will eventually affect the effectiveness of the Yellowhead to function as a multilane through highway route. A new, alternative route is needed to ensure that through highway movements on Yellowhead Trail

(Trans Canada Highway) are accommodated as a key part of the National and Provincial Highway system.

- **Construction of a complete Anthony Henday Drive will also relieve congestion on a number of other roadways within the City of Edmonton and Region**, including St. Albert Trail, Highway 15 river crossing in Fort Saskatchewan, and Calgary Trail.
- **Major economic development activity within the region is occurring close to the planned Anthony Henday Drive route** (northwest, south, east industrial areas, CN Intermodal facility). The roadway also provides a key linkage between CFB Edmonton and the International Airport. A completed Anthony Henday Drive will play a key role in connecting these major activity centres, and will also accommodate movement between these centres and other major economic development areas in the Region (Nisku, International Airport, Heartland, Acheson).
- **Completion of Anthony Henday Drive will also provide a key corridor for goods movement between the regional economic development areas and the connecting primary highway system.** Key destinations being served include Fort McMurray, Grande Prairie, Calgary, and other southern destinations on the North/South Trade Corridor, as well as destinations east and west of Edmonton along the Yellowhead route.

Benefits

An assessment of the economic benefits of completing Anthony Henday Drive has been undertaken, and a summary is contained in Appendix C.

As described in the assessment, completion of Anthony Henday Drive by year 2011 would provide the following benefits:

- Appropriate logistics infrastructure to support the province's aggressive economic development activity, particularly with respect to energy, petrochemicals and agro processing sectors.
- A hub to enhance provincial trade corridors, especially N-S, E-W and to the N-E oilsands projects.
- Direct User Benefits estimated at $50.9 million annually if Anthony Henday Drive existed in year 2001 and $82.7 million if Anthony Henday Drive existed in Year 2011. These are constant 2001 dollars reflecting current cost levels and the analysis reflects comparison against current traffic operating speeds on the existing network. To the extent that the existing route alternatives may be slowed by congestion over the 2001-2011 time frame, the estimated user benefits may be understated.

- Annual Fuel savings amount to 17.3 million litres of gasoline and 8.9 million litres at 2001 traffic levels – increasing to 28.7 million litres of gasoline and 14.2 million litres of diesel by Year 2011.

- Greenhouse gas emission savings of 66,000 tonnes annually in Year 2001 would rise to 107,000 tones by Year 2011.

The full report on economic benefits of completing Anthony Henday Drive is available from ACRA (contact: Ken Woitt at 496-8085, or visit *www.capregion.ab.ca*).

Cost & Implementation

The estimated cost of constructing the remaining portions of Anthony Henday Drive is in the order of $500 million.

Two other points are important to note.

- ACRA considers completion of Anthony Henday Drive as an initiative of special importance, with funding in addition to the normal priorities for implementation of regional transportation facilities (tabulated later in this report).
- ACRA recognizes that it is the responsibility and prerogative of Alberta Transportation to determine the order of construction of the various sections of Anthony Henday Drive over the course of the implementation period.

5.0 Public Transit

The ACRA Transportation Plan is broader than just road construction priorities, and one of the five principles upon which the plan is founded relates to public transit service. Objectives include regional accessibility, effective use of the existing roadway system, and enhanced capacity of the transportation system.

The importance of regional public transit was confirmed at the 05 October 2000 meeting of the ACRA Board, which approved the following motion.

> *"That ACRA investigate the operational / capital costs and opportunities of a Regional Transit System and also investigate the longer term needs of regional LRT / High Speed Transit"*

Pursuant to this motion, a subcommittee of the TSTWG was struck. The report of the Transit Subcommittee, presented to the ACRA Board on 01 February 2001, is contained in Appendix D. In February, 2002, a consultant was engaged to undertake a review of coordinated municipal transit for the Alberta Capital Region. This study will be completed in 2002.

Table 5.1 highlights specific public transit priorities identified for the region. These priorities are also depicted in Map II (Regional Transportation Priority Program) at the end of this report. In addition to the projects shown in the table, Project T1 (Planning / Prelim Design for Light Rail Transit from University Station to Heritage Station) will be completed in 2002.

Table 5.1
TRANSIT PROJECTS

Project No.	Project Description	Estimated Cost ($millions)
	Five Year Projects (2003 - 2007)	
T3a	Light Rail Transit construction from University Station to Health Sciences Station	100.0
T3b	Light Rail Transit construction from Health Sciences Station to Neil Crawford Station	125.0
T4a	Develop regional transit services	n/a
T4b	Develop regional disabled transit service	n/a
T4c	Regional transit marketing	n/a
T6	North Transit Centre in Strathcona	2.0
	SUBTOTAL	227.0
	Ten Year Projects (2008 - 2012)	
T3c	Light Rail Transit construction from Neil Crawford Station to Heritage Station	375.0
T5	Belvedere LRT Station / Transit Centre / Park & Ride upgrade	5.8
	SUBTOTAL	380.8
	Total (Transit)	**607.8**

6.0 Other Regional Implementation Priorities

This section presents all remaining projects in the ACRA Transportation Plan by type of project (rehabilitation & overlays, new & upgraded facilities) and by proposed timing (one to five years, six to ten years). All projects are illustrated on Map II at end of report, color coded and indexed to project numbers found in the tables below.

6.1 CARRY-OVER PROJECTS (2002+)

Table 6.1 lists projects that commenced in 2002 or earlier, and which will carry-over into the year 2003 or later. Because they are already underway, the funding commitments necessary to complete them are considered to be highest priority. These projects are illustrated in yellow on Map II at the end of this report.

Table 6.1
CARRY-OVER PROJECTS (2002+)

Project No.	Project Description	Estimated Cost[2] ($millions)	Expected Year of Completion
3	Hwy 216 (Anthony Henday Drive) from Whitemud Drive to Calgary Trail	220.0	2006
63	Construction of Campsite Road / Hwy 16 Interchange	15.0	2004
	Total	**235.0**	

6.2 FIVE YEAR PRIORITY PROJECTS (2003 - 2007)

Table 6.2 lists projects assigned priority over the first five years of the plan, consisting of rehabilitation of existing transportation facilities, pavement overlays, as well as intersection improvements and other works typically associated with access control. These projects are illustrated in red on Map II at the end of this report.

Table 6.3 lists projects assigned priority over the first five years of the plan, consisting of new or upgraded transportation facilities. “Upgraded” typically refers to facilities that are to be widened or expanded to increase capacity. These projects are illustrated in green on Map II at the end of this report.

[2] In Table 6.1, estimated cost represents carry-over amount remaining to complete project.

Within each of these tables, the projects are listed in the following order:

- projects comprising the Regional Ring Road
- projects inside the Regional Ring Road
- projects outside the Regional Ring Road

Table 6.2
FIVE YEAR PROJECTS: REHABILITATION & OVERLAYS (2003 - 2007)

Project No.	Project Description	Estimated Cost ($millions)
	Links Inside the Regional Ring Road	
13	Yellowhead Trail pavement rehabilitation from 156 Street to CNR	1.6
14	Manning Drive pavement rehabilitation from 137 Avenue to Edmonton's north corporate limits	7.5
15	Fort Road pavement rehabilitation from 66 Street to 137 Avenue	1.2
17	Yellowhead Trail pavement rehabilitation from 97 Street to 107 Street (needs to be coordinated with Project No. 24)	1.2
25b	St Albert Trail pavement rehabilitation from 128 Avenue to 137 Avenue	1.5
41	50 Street pavement rehabilitation from 23 Avenue to Whitemud Drive	2.7
43	170 Street pavement rehabilitation from Whitemud Drive to Stony Plain Road	2.3
44	50 Street pavement rehabilitation from Edmonton's SCL to 13 Avenue	1.7
69	Yellowhead Trail pavement rehabilitation (Victoria Trail to 50 Street)	1.4
	SUBTOTAL	21.1

Table 6.2 (continued)
FIVE YEAR PROJECTS: REHABILITATION & OVERLAYS (2003 - 2007)

Project No.	Project Description	Estimated Cost ($millions)
	Links Outside of the Regional Ring Road	
20	Hwy 643 pavement rehabilitation from Hwy 28A to Gibbons' east corporate limits (needs to be coordinated with Project No. 29)	0.1
21a	Hwy 28 overlay from Edmonton's north corporate limits to Sturgeon River	10.0
29a	Hwy 643 overlay from Gibbons east corporate limits to Hwy 825	1.5
29b	Hwy 643 overlay/sideslope improvements from Hwy 825 to Hwy 38	3.5
30a	Hwy 779 grind and overlay from Hwy 628 to S. of Hwy 16A	0.3
34	Hwy 16A pavement rehabilitation from Spruce Grove to Acheson Industrial Park	2.4
37a	Hwy 825 and Boysdale Road intersection improvements	0.3
37b	Hwy 825 pavement overlay from Hwy 37 to Boysdale Road	0.3
45	Hwy 642 pavement rehabilitation from Hwy 2 to 100 Street in Morinville	1.0
	SUBTOTAL	19.4
	TOTAL	**40.5**

Table 6.3
FIVE YEAR PROJECTS: NEW & UPGRADED (2003 - 2007)

Project No.	Project Description	Estimated Cost ($millions)
	Regional Ring Road Links	
5	Hwy 21 widening and intersection improvements from Hwy 14 to Hwy 628	4.2
6	Hwy 21 twinning from Hwy 628 to Hwy 16	12.0
7	Hwy 19 twinning from Hwy 2 to Hwy 60	20.0
8	Hwy 60 twinning from Hwy 16A to Hwy 16 and interchange modifications at Hwy 16A	15.0
9	Hwy 37 intersection improvements from Hwy 15 to Hwy 825	1.0
10	Hwy 625 widening in Nisku	3.0
62	Hwy 15 twinning from Hwy 28A to North Saskatchewan River	8.0
68	Hwy 15 increasing bridge clearance at 99 Ave. in Ft. Sask.	0.3
	SUBTOTAL	63.5
	Links Inside the Regional Ring Road	
18b	Yellowhead Trail/184 Street interchange and CNR rail grade separation	59.0
24	Yellowhead Trail intersection improvements from 82 Street to 149 Street	14.0
27	Yellowhead Trail/156 Street interchange and railway overpass	72.0
38	Hwy 16 from Hwy 216 to Hwy 21 signing improvements	0.4
46a	Whitemud Drive widening from Anthony Henday Drive to 207 St	7.0
51a	Ray Gibbon Drive (2 lanes) from Levasseur Road to McKenney Ave. in St. Albert	13.0
51b	Ray Gibbon Drive (2 lanes) from Levasseur Road to Hwy 216	4.0

Table 6.3 (continued)
FIVE YEAR PROJECTS: NEW & UPGRADED (2003 - 2007)

Project No.	Project Description	Estimated Cost ($millions)
52	Hwy 628 twinning from Hwy 216 to Hwy 21	5.2
55	Design of Highway 16 / Sherwood Drive interchange	1.0
56	Design of Highway 16 / Broadmoor Boulevard interchange	1.0
58	Hwy 814 widening from TR 510 to 55 Avenue in Beaumont	0.6
59	170 Street four laning from Levasseur Road to 137 Ave	4.0
64a	Whitemud Drive rehabilitation and widening of Quesnell bridge	20.0
64b	Whitemud Drive rehabilitation and widening from 149 St. to Terwillegar Drive	65.0
114	Highway 16 / Broadmoor Boulevard interchange	20.0
	SUBTOTAL	286.2
	Links Outside of the Regional Ring Road	
11a	Hwy 44 widening/reconstruction from Hwy 642 to S. of Busby	2.0
11b	Hwy 44 widening and overlay from S. of Sturgeon River to S. of Hwy 642	2.0
21b	Hwy 28 widening from Sturgeon River to Gibbons	20.0
28	Hwy 2/50 Avenue overpass widening (Leduc)	2.0
30b	Hwy 779 widening and overlay from S. of Hwy 16A to Hwy 16	3.0
49	Hwy 2 / 65 Avenue interchange improvements (Leduc)	20.0
50a	Hwy 628 widening from RR 273 to RR 270	4.8
50b	Hwy 628 widening from RR 270 to Edmonton's West City Limit	8.0

Table 6.3 (continued)
FIVE YEAR PROJECTS: NEW & UPGRADED (2003 - 2007)

Project No.	Project Description	Estimated Cost ($millions)
54	Design of Hwy 643 from RR 214 to RR 215 with new river crossing (between Sturgeon & Strathcona Counties)	2.0
57	Hwy 28 widening from Gibbons to Redwater	13.0
106b	Hwy 642 widening and overlay from Morinville ECL to Hwy 28	6.0
	SUBTOTAL	82.8
	TOTAL	**432.5**

6.3 TEN YEAR PRIORITY PROJECTS (2008 - 2012)

Table 6.4 lists projects assigned priority between six and ten years. These projects are illustrated in blue on Map II at the end of this report.

The projects are listed in the following order:

- projects comprising the Regional Ring Road
- projects inside the Regional Ring Road
- projects outside the Regional Ring Road

Table 6.4
TEN YEAR PROJECTS (2008 - 2012)

Project No.	Project Description	Estimated Cost ($millions)
	Regional Ring Road Links	
33a	Hwy 625 widening (Nisku to Hwy 814)	4.0
33b	Hwy 625 widening (Hwy 814 to Hwy 21)	7.0
76	Hwy 60 (Athabaska Avenue to Derrick Drive in Devon) intersection improvements / access control	0.8
104	Hwy 21 twinning from south of Hwy 628 to Hwy 14 including Hwy 14 interchange modifications	9.2
112	Hwy 15 twinning from North Saskatchewan River to Hwy 21	43.0
	SUBTOTAL	64.0
	Links Inside the Regional Ring Road	
18a	Yellowhead Trail widening to 6 lanes from Anthony Henday Drive to 178 Street	4.0
46b	Whitemud Drive reconstruction from 207 Street to 231 Street	9.0
47a	Construct interchange on Whitemud Drive at 17 Street	10.0
47b	Construct interchange on Whitemud Drive at 34 Street	20.0
48	Fort Road widening from Yellowhead Trail to 137 Avenue	10.0
51c	Ray Gibbon Drive (2 lanes) from McKenney Ave. to Villeneuve Road (St. Albert)	10.0
60	184 Street four laning from Levasseur Road to Hwy 16	4.0
61	Calgary Trail / 23 Avenue Interchange	70.0
64c	Whitemud Drive reconstructing Terwillegar Drive Interchange	90.0
64d	Whitemud Drive widening to 6 lanes from Terwillegar Drive to 122 St.	10.0

Table 6.4 (continued)
TEN YEAR PROJECTS (2008 - 2012)

Project No.	Project Description	Estimated Cost ($millions)
65	Yellowhead Trail/ 66 St. Interchange	100.0
66a	Hwy 814 twinning from TR 510 to Edmonton SCL	3.5
66b	50 St. twinning from Edmonton SCL to Millwoods Road south	5.0
67a	Nisku Spine Road construction of 2 lanes from Leduc City to Edmonton SCL	6.5
67b	91 Street paving/realign from Edmonton SCL to Anthony Henday Drive	5.0
70	Anthony Henday Drive - 100 Avenue / Stony Plain Road interchange	20.0
71	170 Street (Whitemud Drive to Yellowhead Trail) intersection improvements / widening / access control)	10.0
72	Gretzky Drive (98 Avenue to 116 Avenue) widen to six lanes	20.0
73	75 Street (Whitemud Drive to Argyll Road) widen to six lanes	20.0
74	Hwy 627 (199 Street to Anthony Henday Drive)	4.0
113	Hwy 16 / Sherwood Drive interchange	20.0
	SUBTOTAL	451.0
	Links Outside of the Regional Ring Road	
75	Hwy 16A (Lake Eden Road to Glory Hills Road) intersection improvements / service roads	2.0
101a	Hwy 39 and Hwy 2 Bypass (65 Avenue construction from Hwy 2 to West Boundary Road in Leduc)	1.8
101b	Hwy 39 and Hwy 2 Bypass (West Boundary Road construction from 50 Avenue to 65 Avenue in Leduc)	1.8

Table 6.4 (continued)
TEN YEAR PROJECTS (2008 - 2012)

Project No.	Project Description	Estimated Cost ($millions)
102	100 Street upgrading from Cardiff Road to CPR in Morinville	3.0
103	Hwy 38 widening from 44 Street to 58 Street in Redwater	0.9
105	Hwy 651 extension and upgrading from RR 235 to Hwy 28	2.2
106a	Hwy 642 upgrading from Hwy 44 to Morinville ECL	6.0
110	Construction of Hwy 643 from RR 214 to RR 215 with new river crossing (between Sturgeon and Strathcona Counties)	25.0
	SUBTOTAL	42.7
	TOTAL	**557.7**

7.0 Funding Requirements

7.1 OVERALL FUNDING REQUIREMENTS

Based on the list of priority projects for the 2003 to 2012 period, the total regional transportation funding requirements for the Alberta Capital Region over the next ten years are summarized in Table 7.1.

Table 7.1
OVERALL FUNDING REQUIREMENTS
(2003 to 2012)

Group	Funding Requirements ($ million)
Anthony Henday Drive Completion	500.0
Transit Projects	607.8
Carry-Over Projects (2002+)	235.0
Five Year Projects: Rehabilitation & Overlay (2003 - 2007)	40.5
Five Year Projects: New & Upgraded (2003 - 2007)	432.5
Ten Year Projects (2008 - 2012)	557.7
Total	**2,373.5**

It should be noted that this funding requirement does not include the value of any of Alberta Transportation's other programmed rehabilitation work on highways in the region or the value of any of the municipalities' other non-regional transportation projects.

The total value of the projects included in the ACRA plan (2003 - 2012) is about $2.4 billion over ten years, as compared to about $2.2 billion in the previous plan.

7.2 PROJECT FUNDING

Under the current funding scenario, Alberta Transportation is responsible for any of the priority projects related to the provincial highway network. In addition, they are responsible for the development of the southwest leg of Anthony Henday Drive, and it is assumed they will be responsible for the remaining portions of Anthony Henday Drive. All other projects are considered as the responsibility of the municipality in which they are located, although outside of the City of Edmonton most of these projects would be eligible for cost sharing with Alberta Transportation. In addition, some projects could conceivably be cost shared between a number of benefiting municipalities. Table 7.2 summarizes the approximate funding requirements of Alberta Transportation and the municipalities for the priority projects identified in the plan.

Table 7.2
DISTRIBUTION OF FUNDING REQUIREMENTS
(2003 TO 2012)

Agency	Approximate Funding Requirements ($ million)
Alberta Transportation – Anthony Henday Drive (Southwest leg)	220.0
Alberta Transportation– Anthony Henday Drive (Remaining Portions)	500.0
Alberta Transportation – Other Highways	360.1
Municipalities	1293.4
Total	**2,373.5**

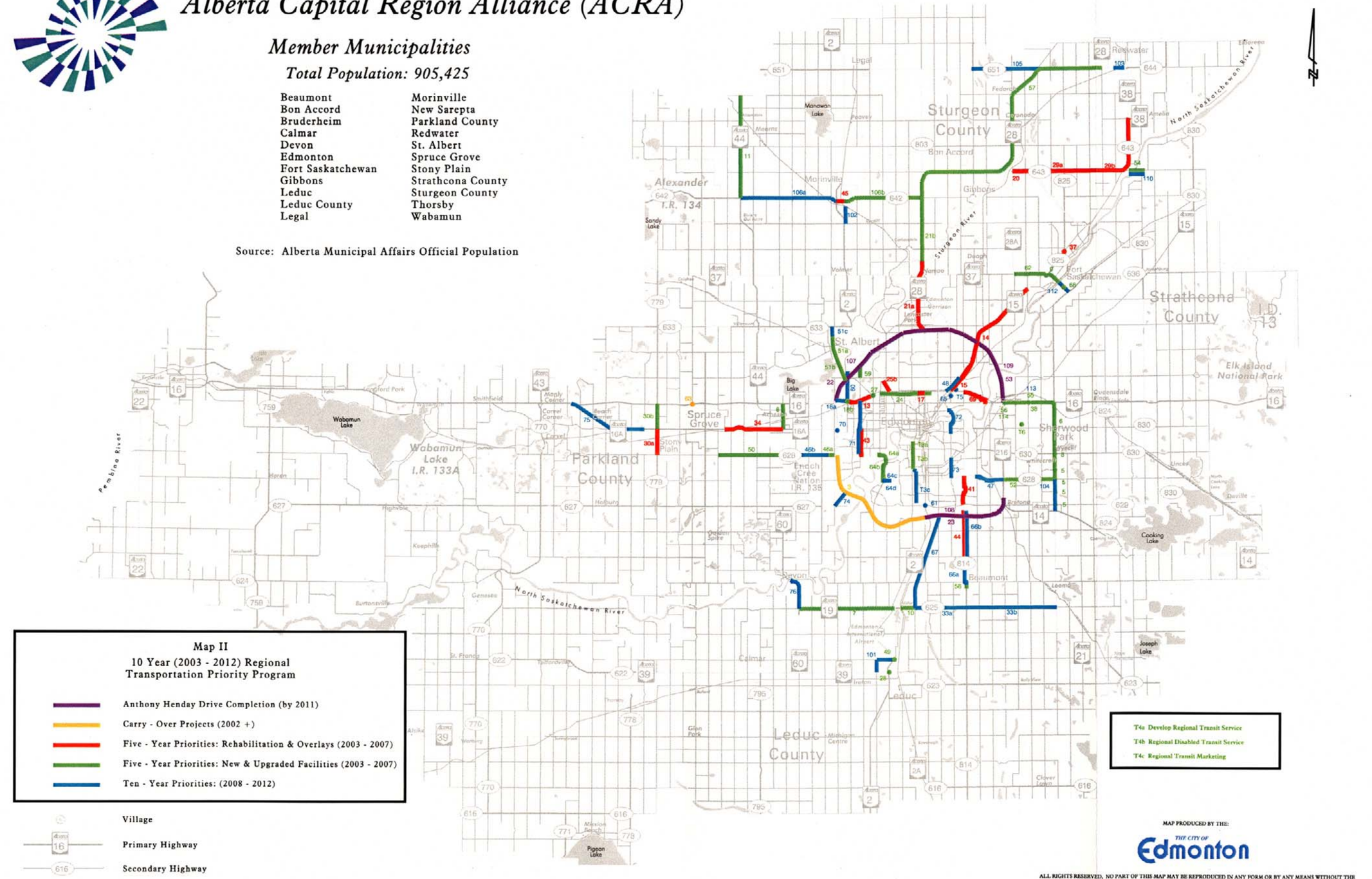
Alberta Capital Region Alliance (ACRA)

Member Municipalities

Total Population: 905,425

Beaumont	Morinville
Bon Accord	New Sarepta
Bruderheim	Parkland County
Calmar	Redwater
Devon	St. Albert
Edmonton	Spruce Grove
Fort Saskatchewan	Stony Plain
Gibbons	Strathcona County
Leduc	Sturgeon County
Leduc County	Thorsby
Legal	Wabamun

Source: Alberta Municipal Affairs Official Population



Map II
10 Year (2003 - 2012) Regional Transportation Priority Program

- Anthony Henday Drive Completion (by 2011)
- Carry - Over Projects (2002 +)
- Five - Year Priorities: Rehabilitation & Overlays (2003 - 2007)
- Five - Year Priorities: New & Upgraded Facilities (2003 - 2007)
- Ten - Year Priorities: (2008 - 2012)

- Village
- Primary Highway
- Secondary Highway
- Railway

0 10 15 20 25 30
kilometers

MAP PRODUCED BY THE:
THE CITY OF Edmonton

INFORMATION AS OF JUNE 24, 2002

Appendix A List of Completed Projects

Table A
COMPLETED PROJECTS

Project No.	Project Description	Estimated Cost ($millions)	Year of Completion
T1	Planning / Prelim Design for Light Rail Transit from University Station to Heritage Station	12.0	2002
25a	St Albert Trail / Yellowhead Trail bridge rehabilitation	1.0	2002
26	Whitemud Drive pavement rehabilitation from 111 Street to west of 122 Street	1.0	2002
35	Gretzky Drive bridge rehabilitation	3.1	2002
39	75 Street pavement rehabilitation from Argyll Road to 101 Avenue	1.6	2002
40	Gretzky Drive pavement rehabilitation from 112 Avenue to 118 Avenue	0.7	2002
42	Terwillegar Drive pavement rehabilitation from Whitemud Drive to 40 Avenue	0.6	2002
T2	Edmonton Clareview Transit Centre upgrade	8.7	2001
1	HWY 60 – SH 627 to HWY16A	13.0	2001
2	HWY 2 @ Ellerslie Road interchange	41.0	2001
4	Yellowhead Trail @ Cloverbar Bridge – replace structure	20.0	2001
12	Yellowhead Trail pavement rehabilitation from 17 Street to North Saskatchewan River	0.7	2001
16	97 Street widening from 137 Avenue to 167 Avenue and pavement rehabilitation from 137 Avenue to Edmonton's north corporate limits	8.2	2001

Table A (continued)
COMPLETED PROJECTS

Project No.	Project Description	Estimated Cost ($millions)	Year of Completion
31	Planning of SH 643 from RR 214 to RR 215 with new river crossing	1.0	2001
36a	Hwy 16A pavement overlay from RR 275 to west of Hwy 779	0.5	2001
T201	Heritage Transit Centre upgrade	4.2	2000
T202	Millwoods Transit Centre reconstruction	1.2	2000
32	SH 814 and 55 Avenue in Beaumont traffic signals	0.2	2000
201	Hwy 2 overlay from Hwy 39 to Edmonton's south corporate limits	1.7	2000
202	Hwy 21 overlay from SH 623 to TR 492	0.4	2000
204	Hwy 16A overlay through Spruce Grove	1.4	2000
205	Hwy 15 twinning from 125 Street to RR 213	3.4	2000
207	Hwy 44 widening from TR 544 to SH 642	8.0	2000
208	Calgary Trail pavement rehabilitation from Edmonton's south corporate limits to 55 Avenue	6.4	2000
209	Yellowhead Trail pavement rehabilitation from 82 Street to 89 Street	0.4	2000
210	Hwy 15 intersection improvements at Hwy 21	1.0	2000

Table A (continued)
COMPLETED PROJECTS

Project No.	Project Description	Estimated Cost ($millions)	Year of Completion
211	St Albert Trail pavement rehabilitation from 137 Avenue to Hebert Road	1.8	2000
212	Sparrow Drive pavement rehabilitation from Airport Road to DK Ford in Leduc	0.7	2000
213	50 Street pavement rehabilitation from 43A Avenue to 61 Avenue in Leduc	0.8	2000
214	Stony Plain road pavement rehabilitation from 175 Street to 184 Street	0.7	2000
215	Stony Plain Road pavement rehabilitation from 199 Street to 215 Street	1.0	2000
216	SH 642 twinning from 97 Street to 99 Street in Morinville	0.4	2000
203	Hwy 44 widening from Hwy 16 to TR 544	6.0	1999
206	Hwy 19/Hwy 2 bridge rehabilitation	1.1	1999
217	Design of Hwy 16 / Campsite Road interchange	1.0	1998
	Total	**155.9**	

Appendix B Upgrading Evaluation Criteria

PROVINCIAL HIGHWAY UPGRADING

On rural high-speed highways when volumes increase above a certain level, it is appropriate to build an additional two-lanes of highway to reduce traffic conflicts, increase capacity and improve level of service. The time when an existing rural two-lane highway is twinned varies depending on such things as:

- ✓ Whether the highway is part of the National Highway System
- ✓ Whether it is used for long distance trips, the number of trucks
- ✓ Existing standard and condition of highway surface
- ✓ Number of access points to the highway and adjacent land use

Generally speaking, however, when a two-lane highway reaches 9,000 to 12,000 AADT, it is recognized by Alberta Transportation as being a likely candidate for future development to a four-lane standard.

More detailed information concerning when highways are twinned can be obtained at:

http://www.tu.gov.ab.ca/Content/doctype233/production/rds007.htm

The following are guidelines of when highways are considered for upgrading related to highway classification and traffic guidelines. The suggested AADT values are dependent on functional class of the roadway and are as follows:

HIGHWAY IMPROVEMENTS		
	Twinning	**Six laning**
	AADT	AADT
National Highways	7500	31,000
Rural Arterial	9300	31,000
Rural Collectors	11,300	31,000

Suggested ranges for **widening** of existing paved roads depend on the existing width as well as function and volume as follows:

National Highways: If width is less than 10 m and AADT is greater than 2500, widening is suggested.

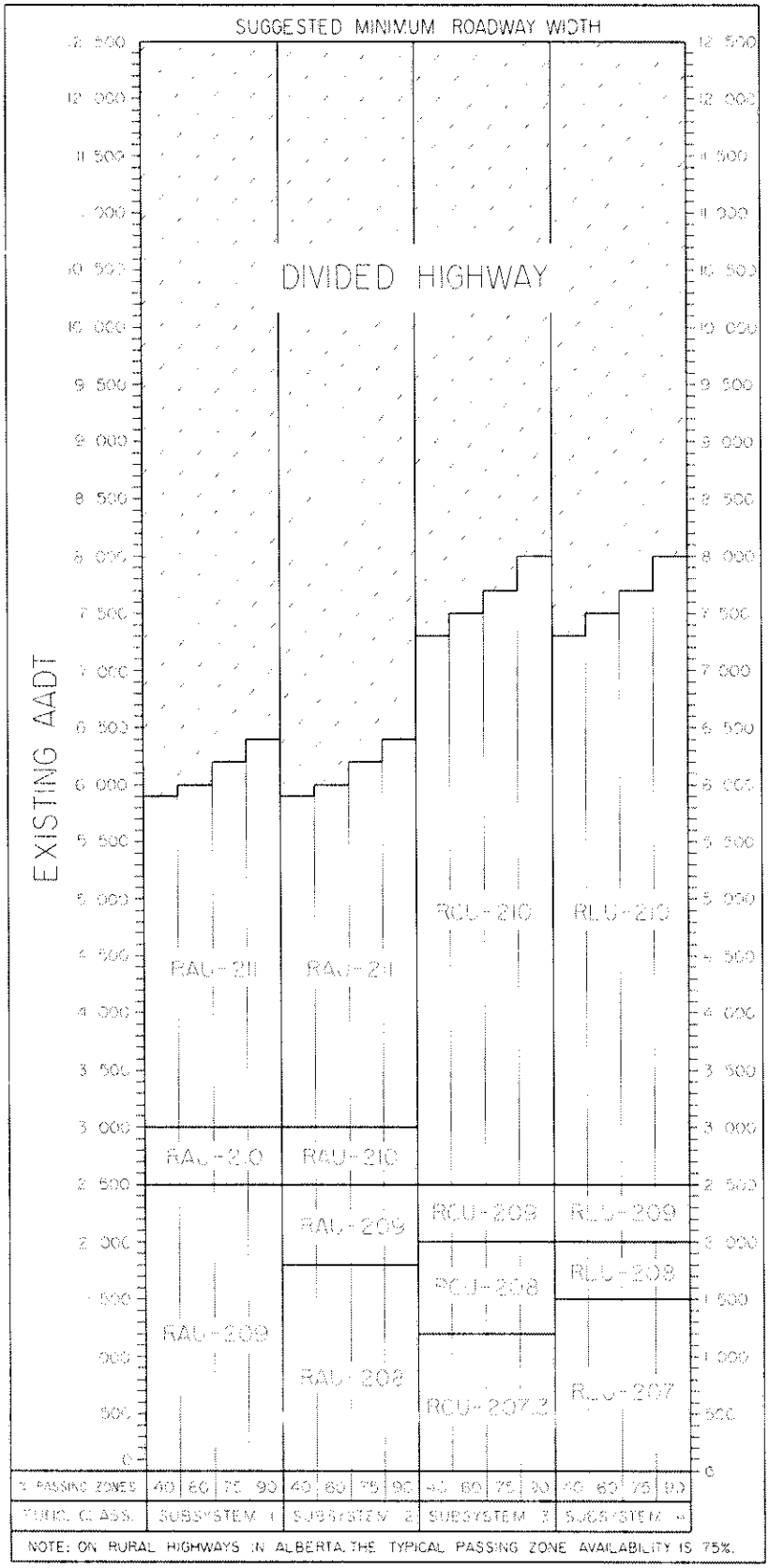
Rural Arterial: If width is less than 9 m and AADT is greater than 1800, widening is suggested.

Rural Collector: If width is less than 8 m and AADT exceeds 1200, widening is suggested.

Rural Local: If width is less than 8 m and AADT exceeds 1500, widening is suggested.*

* Refer to Figure G-1.1 of the Alberta Geometric Design Guide for a complete guide to suggested minimum widths.

FIGURE G-1.1 SUGGESTED MINIMUM ROADWAY WIDTH FOR RURAL HIGHWAYS IN ALBERTA (shown in terms of existing AADT)



(shown in terms of existing AADT)

NOTE: This chart has been developed as a guideline to assist in deciding whether a particular roadway, which requires pavement rehabilitation, should be widened. The chart should be used as follows:

1. A geometric assessment should be conducted on all pavement rehabilitation projects. The need for, and cost-effectiveness of, grade widening will be considered as part of that assessment. This chart has been prepared to show cost-effectiveness based on generalized assumptions for construction cost, collision rate and collision severity. The collision rates have been based on design designation (roadway width) and traffic volume. Appendix B provides the background information and an example of the economic analysis. The assumptions are based on provincial averages. Where any of the major parameters related to costs or benefits, on a particular project, are significantly different from those assumed, a project specific economic analysis should be undertaken.

2. The chart shows suggested minimum widths for roadways on each subsystem, based on traffic volumes. The ranges have been established based on practical considerations, which limit the minimum widening that can be done, and the results of a life-cycle economic analysis, which includes safety benefits associated with grade widening. The existing AADT values have been obtained from the economic analysis, by determining the current traffic volume required to yield a satisfactory rate of return on construction investment, by the end of the design life. For this purpose, a 20 year design life and an average annual traffic growth rate of 2.5% (not compounded) was used. Generally, this is considered to be a good ballpark growth rate to apply to Alberta's rural roads based on examination of traffic growth patterns for the period from 1979 to 1989. Where a more accurate 20 year traffic volume projection is available for a specific roadway, a designer may use that information to adjust the ranges shown here or run a special economic analysis to determine the cost-effectiveness of grade-widening on that particular project.

3. If the roadway after being overlayed would have a width less than that shown for the existing AADT and function, then grade widening, reconstruction, or twinning is called for. Desirable standards, as shown on Figure A-3-2a, should generally be used on all projects which involve a significant amount of grading work.

4. If the overlayed width is greater than, or equal to, the width shown and the accident rate is normal, an overlay is appropriate.

5. Where reconstruction has been selected, it must be decided whether "new construction standards" or special "retrofit design standards" should be used. The geometric and safety record of the existing roadway, the level of access control, the desirable design speed, the design AADT, the passing demand and opportunity should all be considered in that decision.

6. The maximum AADT volumes shown for two lane roadways in each subsystem, and for each percentage of passing zone availability, have been set according to the limit of level-of-service 'D', which could be achieved at the end of the design life (20 years). If higher volumes were allowed, level-of-service 'E' would result in the design hour (30th highest hour) assuming normal traffic composition and characteristics. It has been assumed that subsystems 1 and 2 are typically rural and subsystems 3 and 4 are typically commuter for the traffic volume ranges where twinning is contemplated. Level-of-service 'E' on two lane roadways is defined as that condition where vehicles experience delay for at least 75% of the time in the design hour. Such a condition is generally considered to be unacceptable for two lane rural roads in Alberta.

GRAPHICS FILE: debgil man

Appendix C Anthony Henday Drive Background

Backgrounder
Justification for Provincial Commitment to Complete Anthony Henday Drive by 2011

At the ACRA General Assembly, a resolution was passed that **ACRA secure a commitment from the Province for construction of all sections of Anthony Henday Drive by 2011.** To achieve this construction timetable, immediate commitments are needed in the next business plan cycle (2001 to 2003) to advance the planning and preliminary design of the route. ACRA acknowledges that the staging of individual components of the plan would be defined by the Province based on the outcome of the planning work.

In 1998, the Alberta Capital Region Alliance put forward an Infrastructure Position Statement which identified key priorities for the Alberta Capital Region, which included the construction of Anthony Henday Drive (Attachment 1). Ministers Iris Evans and Dave Hancock, MLAs of the Edmonton Caucus and Mayor Smith of the Premier's Task Force on Transportation, worked together to secure a special $10 million allotment from the Province for regional transportation needs. ACRA members assigned the full allotment to commence implementation of ACRA's top priority, the southwest quadrant of Anthony Henday Drive (Highway 216).

In 1999, the Province announced a commitment to fund the complete southwest quadrant of Anthony Henday Drive (as shown in Attachment 2). In 1999, the Province also assumed full jurisdiction and funding responsibility for the secondary highways, in addition to the primary highway system. At this time, no formal commitment has been received from Alberta Infrastructure regarding timing for planning, design or construction of the other sections of Anthony Henday Drive.

In 1999, and again in 2000, ACRA has developed a Transportation Plan, outlining regional transportation priorities. The goal of the ACRA plan is stated as:

Development and maintenance of an integrated transportation system that facilitates the safe, effective and efficient movement of people and goods within and through the Alberta Capital Region.

To attain this goal, key principles were established to guide planning of the desired regional transportation system, including *"Develop and maintain a Ring Road system (Regional ring, Anthony Henday Drive, Inner Ring), including a free flow Anthony Henday Drive with appropriate access management"*. Specific projects within the ACRA 5-year plan were evaluated using a number of evaluation criteria. With respect to Anthony Henday Drive, this project meets the following criteria:

- Projects that support existing industry and business and established regional economic development priorities (e.g. Heartland, Nisku, Edmonton International Airport, Northwest Edmonton Industrial Area and CN Intermodal facility).

- Contributes to regional roadway/transit network connectivity and integration with provincial and national transportation system.

- Required as a result of traffic demands (volumes and congestion).

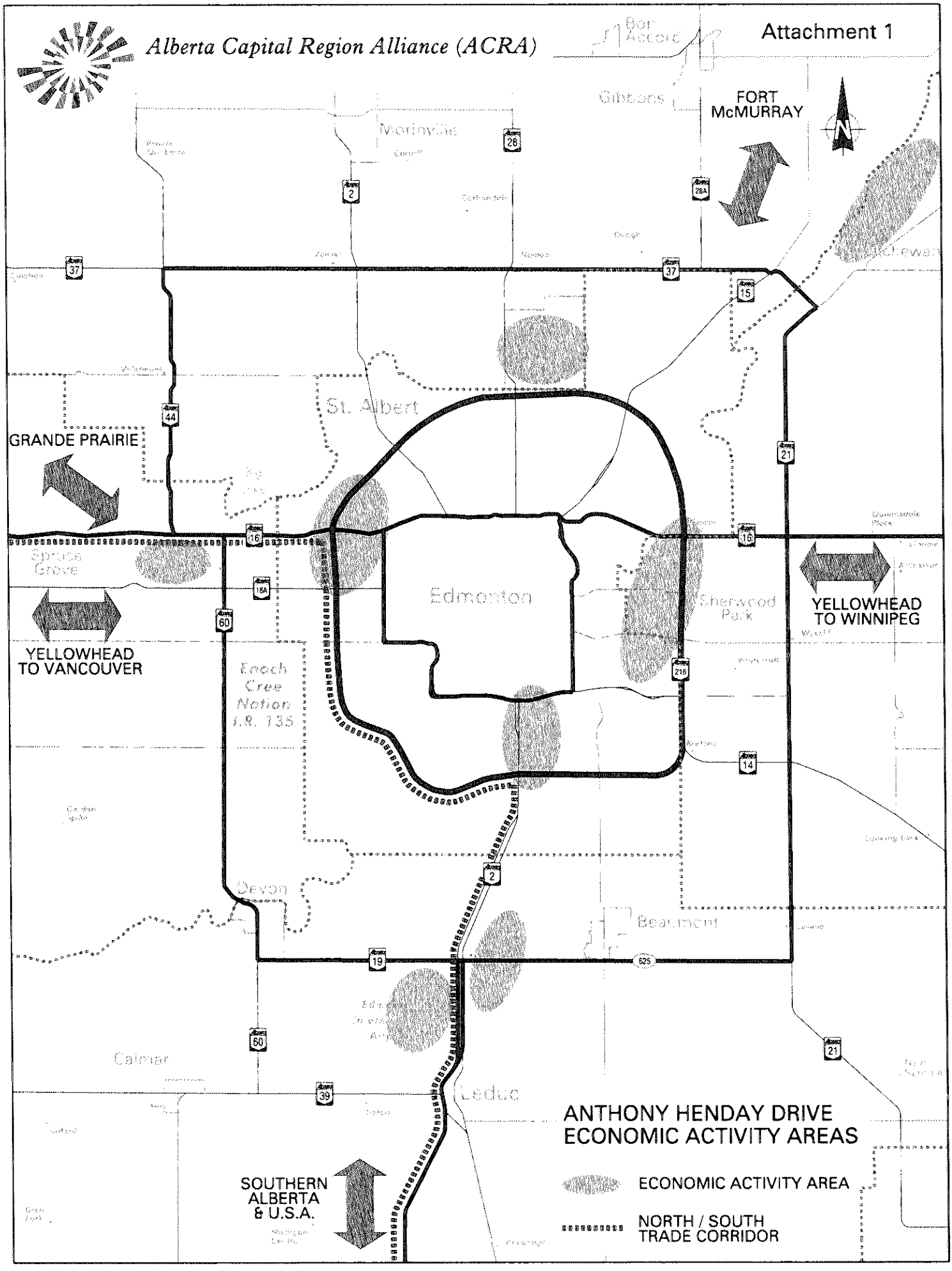
- Supports the objectives of local Municipal Development Plans.

A completed Anthony Henday Drive addresses the regional transportation goal. The project is recognized as a key transportation linkage in the Municipal Development Plans for Edmonton, Strathcona, and St. Albert, and forms a key measure in the connection of regional economic development centres (as shown in attachment 1). There is an urgency to ensure that the project is completed within the next 10 years for the following reasons:

- **Congestion levels are increasing on key highway routes, with particular concern along Yellowhead Trail (Trans Canada Highway).** Edmonton City Council has approved a number of measures within Edmonton to accommodate short to medium term growth along Yellowhead Trail, however increasing congestion on this route, over time, will eventually affect the effectiveness of the Yellowhead to function as a multilane through highway route. A new, alternative route is needed to ensure that through highway movements on Yellowhead Trail (Trans Canada Highway) are accommodated as a key part of the National and Provincial Highway system. The north leg of the Anthony Henday Drive would provide this key function.
- **Construction of a complete Anthony Henday Drive will also relieve congestion on a number of other roadways within the City of Edmonton and Region,** including St. Albert Trail, Highway 15 river crossing in Fort Saskatchewan, and Calgary Trail.
- **Major economic development activity within the region is occurring close to the planned Anthony Henday Drive route** (northwest, south, east industrial areas, CN Intermodal facility). The roadway also provides a key linkage between CFB Edmonton and the International Airport. A completed Anthony Henday Ring will play a key role in connecting these major activity centres, and will also accommodate movement between these centres and other major economic development areas in the Region (Nisku, International Airport, Heartland, Acheson).
- **Completion of Anthony Henday Drive will also provide a key corridor for goods movement between the regional economic development areas and the connecting primary highway system.** Key destinations being served include Fort McMurray, Grande Prairie, Calgary, and other southern destinations on the North/South Trade Corridor, as well as destinations east and west of Edmonton along the Yellowhead route.

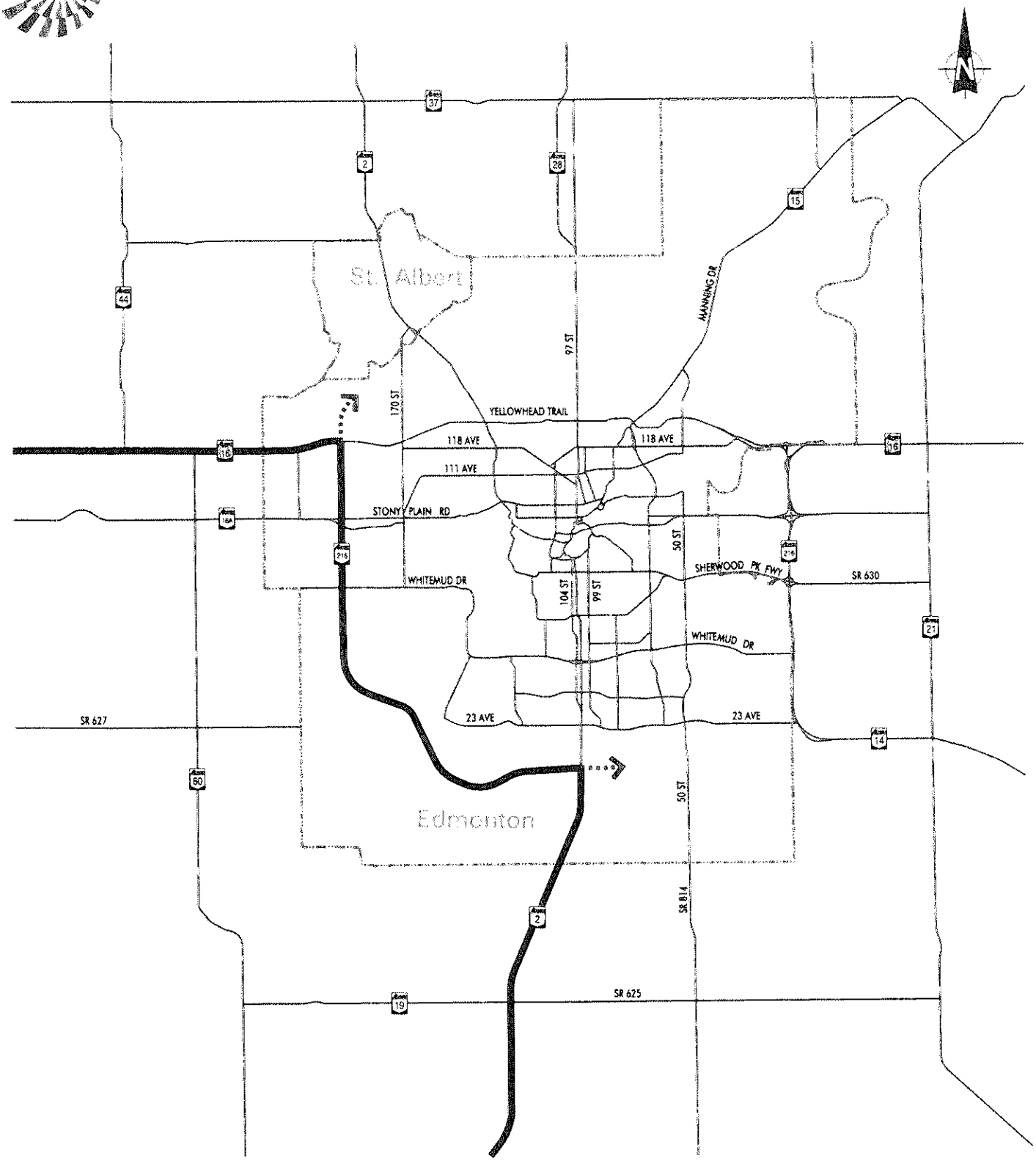
The Regional Economic Development initiative currently being led by Economic Development Edmonton has recognized the need for investment in transportation infrastructure as part of the Cluster strategy. In particular, construction of Anthony Henday Drive is a key infrastructure requirement to achieve the objectives of the strategy.

Undertaking planning and design work in the 2001 to 2003 Business Plan is also critical in order to ensure that property acquisition and environmental assessments are completed in a timely manner, as the experience of the southwest quadrant has indicated that these activities require considerable time (two years or more). ACRA is committed to work with the Province throughout the development and implementation of this project.


Alberta Capital Region Alliance (ACRA)
Attachment 1
FORT McMURRAY
GRANDE PRAIRIE
YELLOWHEAD TO VANCOUVER
YELLOWHEAD TO WINNIPEG
SOUTHERN ALBERTA & U.S.A.
St. Albert
Edmonton
Sherwood Park
Spruce Grove
Devon
Beaumont
Leduc
Calmar
Enoch Cree Nation I.R. 135
ANTHONY HENDAY DRIVE
ECONOMIC ACTIVITY AREAS
ECONOMIC ACTIVITY AREA
NORTH / SOUTH TRADE CORRIDOR

Alberta Capital Region Alliance (ACRA)

Attachment 2



NORTH/SOUTH TRADE CORRIDOR ROUTE *

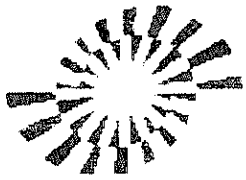
North/South Trade Corridor

Future Construction

* As per Memorandum of Understanding

Benefits Assessment: Anthony Henday Drive

Prepared for



ACRA (Alberta Capital Region Alliance)

By

Applications Management Management Consulting Ltd.
in Association With
Trimac Logistics Ltd.

Presented to the Board of Directors of ACRA
On April 5, 2001

EXECUTIVE SUMMARY

The Alberta Capital Region Alliance seeks a funding commitment from the Province of Alberta for completion of all sections of Anthony Henday Drive by 2011. Applications Management was commissioned to identify / evaluate economic benefits of completion of Anthony Henday Drive by 2011. In view of a limited timeframe for the project, a macro level analysis was necessarily undertaken. The focus of this analysis was particularly directed to:

- Efficiency gains for business and industry resulting from lower goods movement costs.
- Travel time savings by users of the Capital Region transportation system.
- Economic development opportunities associated with improvements to the region's transportation system.

Context

The economic forecast is strong for Alberta and particularly for Edmonton and Northern Alberta. There will be significant population and employment growths in the Capital Region. Over $60 Billion of major projects have been identified for completion in Northern Alberta over the study period. Many of these relate to Alberta's strategic oilsands, petroleum, petrochemicals, forestry and agro processing sectors.

Methodology For Estimating Benefits

A general traffic model was used to estimate both commercial and private vehicle time savings, expressed as cost savings using reasonable commercial hourly vehicle operational costs as well as travel time/vehicle operating costs for private vehicles. Special circumstances that are incremental to the general model were also evaluated on a case by case basis (eg. Waste Management Centre, New CN Intermodal Yard, Canadian Forces Base, etc.)

Benefits Summary

Completion of Anthony Henday Drive by year 2011 would provide the following benefits :

- Appropriate logistics infrastructure to support the province's aggressive economic development activity, particularly with respect to energy, petrochemicals and agro processing sectors.
- A HUB to enhance provincial trade corridors, especially N-S, E-W and to the NE oilsands projects.
- Direct User Benefits estimated at $50.9 million annually if Anthony Henday Drive existed in year 2001 and $82.7 million if Anthony Henday Drive existed in Year 2011. These are constant 2001 dollars reflecting current cost levels and the analysis reflects comparison against current traffic operating speeds on the existing network. To the extent that the existing route alternatives may be slowed by congestion over the 2001-2011 tim eframe, the estimated user benefits may be understated.
- Annual Fuel savings amount to 17.3 million litres of gasoline and 8.9 million litres at 2001 traffic levels – increasing to 28.7 million litres of gasoline and 14.2 million litres of diesel by Year 2011.
- Greenhouse gas emission savings of 66,000 tonnes annually in Year 2001 would rise to 107,000 tonnes by Year 2011.

Appendix D Regional Transit Subcommittee Report

Alberta Capital Region Alliance
ACRA TRANSIT SUB-COMMITTEE BACKGROUND REPORT

Introduction

On November 2, 2000, Carl Clayton of Stantec, in a letter to Lou Hyndman, outlined Alberta Capital Region Alliances (ACRA) long-term transportation plan together with its Goal and Supporting Principles.

The 5th principle outlined was:

> "Develop and maintain public transit services that can cost effectively provide regional accessibility for those who rely on public transit and more effectively utilize the existing roadway system and increase the capacity of the transportation system".

Under the heading Transit, the letter outlines the following:

> One area where the current transportation plan is lacking is in the development of a long-term vision for transit. This vision needs to identify major public transit corridors that, while recognizing that public transit best serves higher density areas, will also serve regional needs. To this end, ACRA's board has already directed "That ACRA investigate the operational/capital costs and opportunities of a regional transit system and also investigate the longer term needs of regional LRT/High Speed Transit". This initiative needs to be supported.
>
> In addition to identifying regional transit corridors, a practical approach on how to serve these corridors needs to be developed. Current approaches include the use of light rail transit and park n ride sites. However, busways and high occupancy vehicle lanes may in some cases be more effective and cost efficient. A range of approaches should be investigated to determine their applicability.
>
> Beyond servicing the higher density areas, typically within the City of Edmonton, further work on identifying the potential for various forms of public transit for smaller communities needs to be done. A study is currently being conducted on handi-bus service in Edmonton, St. Albert, and Strathcona County.
>
> However, establishing criteria to decide on when the smaller communities warrant transit service in general and then being able to provide a range of options that can be modified to the specific needs and budgets of these communities is considered important in meeting the need to provide regional accessibility for residents who must rely on public transit.

Demand for Transit

Historically in Alberta, the demand for public transit seems to occur when the population of a community reaches approximately 25,000. Under the circumstances where the community is a bedroom community with a significant commuter population to a specific destination, the population required to support a transit system may be as low as 17,500.

The following table shows the population of Alberta Communities for the year that public transit was established.

Population of Alberta Communities for the Year Public Transit was Established

Community	Year Transit was Established	Population	Contact
Grande Prairie	1981	24,168	Jeanette Bauman, Ec. Dev.
Medicine Hat	1970	26,114	City Clerk's Dept.
Red Deer	1966	25,752	May Mitchell, Ec. Dev.
St. Albert	1974 (contract operation with City of Edmonton)	19,418	Bruce Randall, Ec. Dev.
	1986 (independent operation)	36,453	
Sherwood Park	1978 (contract operation with City of Edmonton)	26,534	Phil Kreisel, Ec. Dev.
	1988 (independent operation)	30,846	
Morinville	1997 (Inter-Link to St. Albert)	6,255	Town Office

The existing populations for potential regional transit centres are as follows:

	Population	Regional Employment Centre
Spruce Grove	15,069	
Stony Plain	8,274	
Atchison Industrial Park		Yes
Total Residential Population	**23,343**	
City of Leduc	14,305	
Edmonton International Airport		Yes
Nisku		Yes
Beaumont	6,518	
Total Residential Population	**20,823**	
Fort Saskatchewan	13,109	
Scotford		Yes
Total Residential Population	**13,109**	

Corridors

Transit corridors fall into two categories, short-term and long term. The short-term transit corridors are based on the existing roadway network while the long-term transit corridors would be based on the future roadway network for busways and high occupancy vehicle lanes and the dedication of right-of-way for future LRT corridors.

Existing road transit corridors have been established by St. Albert Transit and Strathcona Transit. These corridors are 13 km or longer with travel times of 23 minutes or more while the Morinville to St. Albert inter-link is 17 km with an approximate travel time of 30 minutes.

The Capital Region LRT Group under the guidance of Mike Nickel has set forth a proposed plan which outlines future LRT corridors in their pamphlet Plan now for tomorrow's transportation and their plan dated October 11, 2000. (The plan outlines four corridors north of the River and four corridors south of the River. However, there is no radial corridor outlined in their plan.)

Funding and Recoveries

The Canadian Urban Transit Association Canadian Fact Book, 1999 Operation Data indicates that the transit system for Group 4 (population under 50,000) have an average R/C ratio of 43% for 1999 and 47% for 1998. In addition, the Municipal Operating Contribution per capita was $18.51 for 1999 and $25.92 for 1998.

Population	Contribution/Capita	Total Contribution
17,500	$25.00	$437,500
25,000	$25.00	$625,000

Further Study

Further study needs to address the following areas:

- The feasibility of a regional transit system for the three potential systems of Spruce Grove & Stony Plain with a specific west Edmonton destination, City of Leduc, Nisku, & Airport with a specific south Edmonton destination, and Forth Saskatchewan & Scotford with the Clareview destination.
- The identification of short term and long term transit corridors.
- A system for cost sharing between municipalities and between municipalities and the Airport.

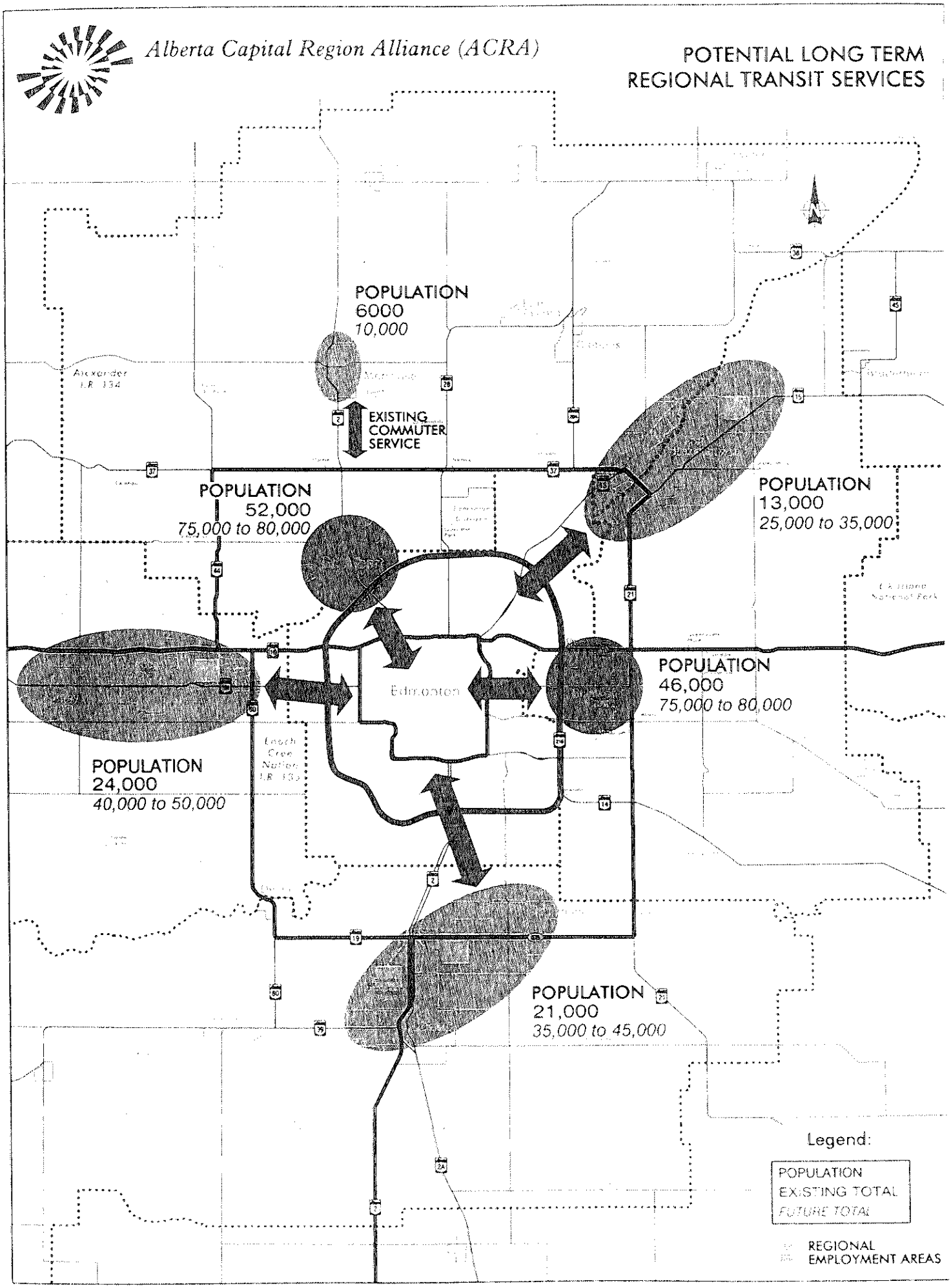
Carl Clayton of Stantec has indicated that the first item would be approximately $25,000 to $35,000. Depending on the detail required of the remaining two items at this stage the cost of the study could be $45,000.

Respectfully submitted,

ACRA Transit Sub Committee

Alberta Capital Region Alliance (ACRA)

POTENTIAL LONG TERM REGIONAL TRANSIT SERVICES



Alberta Capital Region Alliance (ACRA)

EXISTING AND PROPOSED REGIONAL TRANSIT FACILITIES