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**ALBERTA
TRANSPORTATION
AND UTILITIES
ANNUAL REPORT
1991/92**



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1991/92 ANNUAL REPORT

Alberta

TRANSPORTATION
AND UTILITIES

ISSN 0836-1509



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TRANSPORTATION
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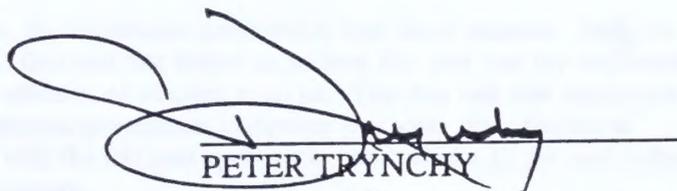
Office of the Minister
420 Legislature Building
Edmonton, Alberta
T5K 2B6

403/427-2080

The Honourable
Gordon Towers
Lieutenant-Governor
Province of Alberta

Sir:

I have the honour to submit to you the Annual Report of Alberta Transportation and Utilities for the fiscal year ending March 31, 1992.



PETER TRYNCHY
Minister of Transportation
and Utilities

DEPUTY MINISTER'S MESSAGE

This year marked the completion of one of the largest construction projects in the department's history. It also marked significant changes in how we operate in order to meet the needs of Albertans.

The 1991/92 fiscal year is highlighted by the completion of the major initiative to four-lane both Highways 1 and 16. This was a massive undertaking. Under this 10 year program, over 660 kilometres on these two highways were twinned. Another major project completed by the department was the construction of all the roads and the rail spur line for the Peace River Pulp Mill. Our work on projects like these improved safety and furthered the ability of Alberta's businesses to compete domestically and in world markets.

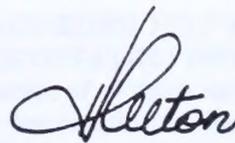
This consideration for a broader, international focus in our transportation concerns is important. Last year the department continued with joint work by federal, provincial and territorial governments towards a National Highways Policy. Such a policy will lead to strong federal and provincial co-operation on highways of national importance for trade, tourism and travel. This will benefit Albertans in the short and long term.

This emphasis on partnerships is not new for us. In the third year of the Alberta Cities Transportation Partnership, the department provided \$116 million to Alberta cities to assist them with the development of their transportation systems. Alberta towns, villages and summer villages also received funding for transportation projects under the Streets Improvement Program. Similarly, the Alberta Municipal Water/Wastewater Partnership provided a sharper focus to aim available funding towards high priority water supply and treatment, as well as, wastewater treatment and disposal facilities.

Our concern for clean water extends to the environment in general. New materials, such as lightweight sawdust fill and recycled plastic fenceposts, were used effectively and economically to help make construction needs more environmentally responsible. The department also continued to be innovative and proactive by expanding the reuse of paint barrels to include barrels which hold tar-like material used to seal cracks in highways. This effort not only eliminated unnecessary container waste but reduced the price of the product, which was also very important to us.

In addition to environmental challenges, the department continued to face fiscal restraint. Still, we successfully continued to deliver our programs. One tool that helped us achieve this goal was our continued policy on using privatization where it was cost effective or efficient to do so. The chip seal coat application was tendered to private sector contractors and surplus government equipment was sold. Privatization of guardrail installation and erosion control along with the seal coat application, resulted in a 12 per cent reduction of the department's fleet size and equipment inventory.

The information contained in this annual report translated into quality transportation and utilities systems and services being provided to Albertans in 1991/92.



Harvey M. Alton

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PROVINCIAL TRANSPORTATION

CONSTRUCTION AND MAINTENANCE: ACCOMPLISHMENTS AND INITIATIVES

Construction

Road and bridge construction and a variety of preventative maintenance measures provide safe and efficient transportation systems for users of Alberta's highways. During the year, many construction and maintenance initiatives were completed to satisfy this departmental objective.

A total of 181 contracts were undertaken in 1991 of which 50 contracts were administered by the municipalities and managed by their consultants. Construction was completed on 2808 kilometres of primary and secondary highways, resource, park and approach roads. In 1991, 25.7 million cubic metres of earth were moved primarily by contract and about six million metres of grading were undertaken by in-place contracts or by local forces. A record quantity of granular base course construction totalling 7.61 million tonnes was placed in 1991. Approximately 472 thousand tonnes of cement stabilized base course were laid and 3.55 million tonnes of asphaltic concrete were mixed and placed.

The following major initiatives were undertaken in 1991/92:

- **HIGHWAYS 1 AND 16 FOUR-LANING PROGRAM:** The major initiative to four-lane Trans Canada Highway 1 and 16 was completed in 1991. This program was initiated in 1981 as a 10 year government commitment. Under this program, a total of 403 kilometres of the Yellowhead Highway (Trans Canada Highway 16) and 258 kilometres of Trans Canada Highway 1 have been four-laned. Additional work will be undertaken in 1993 on these final paving projects: the twinning of Highway 16 south of Vegreville and the four-laning of Highway 1 east of Highway 41 to Irvine.

- **PEACE RIVER PULP MILL TRANSPORTATION INFRASTRUCTURE:** The construction of all roads and the rail spur line for this project was completed. The major bridge over the Peace River east of the Peace River Pulp Mill on SH 686 is scheduled for completion in 1992.

● **ALBERTA PACIFIC PULP MILL
TRANSPORTATION INFRASTRUCTURE:**

Construction was started on the transportation infrastructure required to serve the Alberta Pacific Pulp Mill at Athabasca. Eight grading contracts were awarded to private contractors and four grading projects were started using rental equipment. A total of 65 kilometres of grading was completed. In addition, the construction of the piers for the new Athabasca River Bridge and the pre-construction engineering for the rail spur line was completed.

● **HIGHWAY 63 WIDENING PROGRAM:** The program to widen Highway 63 to Fort McMurray was continued. Two carry-over projects totalling 43.5 kilometres were completed. Construction was also started on two additional projects and good progress was achieved. In total, 125 kilometres have been completed, and only one project remains to complete this program which started in 1986.

● **HIGHWAY 2 MEDIAN WIDENING PROGRAM:** A 10 kilometre widening project was completed on Highway 2. In total, 54 kilometres have been completed, and 47 kilometres remain to complete the widening of Highway 2 between Red Deer and Airdrie.

● **EXPORT HIGHWAY PROGRAM:** This program, designed to complete four-laning of Highway 2 and Highway 3 from Calgary to Lethbridge, was initiated in 1989. Construction was undertaken on three projects on Highway 2 south of Claresholm in 1991. Fifty-five kilometres of four-laning on Highway 2 have now been completed.

● **SECONDARY HIGHWAYS SURFACING PROGRAM:** In 1991, 608 kilometres of base course and 267 kilometres of final paving were completed. Fifty-six per cent or 8400 kilometres of the secondary highway system is now surfaced.

● **SKID RESISTANCE PROGRAM:** This year, a seal coat surface was applied to 513 lane-kilometres of paved primary highways, and more than 105 lane-kilometres of secondary highways. In addition 687 lane-kilometres were completed by contract to the private sector. A total of 965 lane-kilometres were tendered.

● **PRIMARY HIGHWAY LIGHTING PROGRAM:** Sixty-seven per cent of the total program expenditures were directly related to cost

sharing agreements with local municipalities. This year lighting was undertaken in eight urban areas within the following municipalities: the County of Strathcona; Improvement District 17 East-South; Municipal District of Foothills; the Towns of Claresholm, Edson, Lacombe and Vermilion; and the Villages of Consort, Onoway, and Stavely. Under the department's cost-sharing policy, the department pays for installation costs and the local municipal authority is responsible for operating costs.

New installations were provided at rural highway intersections at Consort, the accesses to Dewberry, Islay, Priddis Greens Estates, South Cooking Lake, Smith, the junction of Highways 3 and 22, and at 45th Avenue on Highway 14.

● **NEW CONTRACTING INITIATIVES:** The department undertook a new initiative to contract out seeding, guardrail and sign installation, and re-gravelling local roads in improvement districts. This is a continuation of an ongoing effort to effectively use the private sector to decrease costs. During the year 36 contracts were awarded with 36 561 metres of guardrail installed and 2746 hectares seeded.

● **CONSTRUCTION OF CAMPSITES AND REST AREAS:** Based on an agreement reached in 1990/91, Alberta Transportation and Utilities transferred 47 campsites to the former Alberta Tourism, Parks and Recreation and nine campsites to local authorities. The transfer of the department's remaining 37 sites remains in progress.

● **AVIATION:** Additional runway lighting was installed at Pincher Creek and Rocky Mountain House, and slurry seals were applied to Wainwright, Olds-Didsbury, High River and Two Hills. At Spirit River a runway overlay was completed. In the Lloydminster Air Terminal Building a passenger holding room was constructed. Non-directional beacons were installed at Coronation, Sundre and Claresholm. Non-directional beacons and distance measuring equipment were installed at Bonnyville and Consort. A microwave landing system was purchased for the Whitecourt Airport for installation in 1992/93. Upgrading was also done on the Algar and Johnson Lake forestry airstrips.

● **TRAFFIC OPERATIONS:** Significant improvements in safety and traffic operations were achieved during the year. A total of 23 railway

crossing improvements and the installation of 11 traffic signals were completed.

- **ALBERTA PARTNERSHIP PROGRAM:** This program was initiated to assist in advancing priority secondary highway projects on a cost-shared basis with the rural municipalities. Nineteen projects were cost-shared under this program in this fiscal year. The program is part of an overall objective to recognize, promote, and support local autonomy and responsibility.

- **BRIDGE CONSTRUCTION:** Construction was carried out on two new major bridge structures during the year. A start was made on the bridge over the Athabasca River which will serve the Alberta Pacific Pulp Mill and construction continued on the bridge over the Peace River which will serve Peace River Pulp Mill. In addition a total of 25 major bridge structures were completed.

Other activities included deck rehabilitation on 34 bridge structures and the strengthening of older bridge structures. A noteworthy project was the re-decking, widening and strengthening of the North Saskatchewan River Bridge on Highway 15 at Fort Saskatchewan. To minimize the duration of construction time for the travelling public, the department used a new technique which involves a contract process where the contractor rents the bridge for the construction period. This resulted in this \$2 million construction upgrading project being completed two months ahead of schedule.

Maintenance

The department maintains 38 000 kilometres of primary highways, approach roads, and improvement district roads through a network of departmental maintenance yards.

Other maintenance responsibilities include 16 provincial airports, 62 forestry airstrips, seven ferries, six rest areas and the Civilian Air Terminal at Medley.

- **HIGHWAY CLEANUP CAMPAIGN:** During the 1991/92 highway clean up campaign, a total of 7639 children and 4504 adults representing 507 clubs participated in cleaning Alberta's primary highway rights-of-way. A total of 7665 kilometres was cleaned with 49 805 bags of litter collected. To enhance safety of the highway cleanup program a training program was developed and introduced in 1991/92. This program involved a manual safety checklist and video.

- **ENVIRONMENTAL INITIATIVES:** The recycle, refurbish sign program continued in 1991/92. Old sign

materials were reconditioned and reused in the making of new signs. During the year approximately 2600 signs were reconditioned for reuse under this program. As well, the reuse of paint barrels was expanded to include the barrels for crackseal material. This eliminates unnecessary container waste which reduces the price of the product.

- **HIGHWAY PAVEMENT MARKING:** Highway line painting equipment which was surplus to department needs, was auctioned to the private sector during the year. It is anticipated the private sector will help to supplement department efforts to accomplish this work more efficiently. A primary highway pavement marking contract was successfully completed in the Peace River Region. The project involved 461 kilometres of highway painting.

The following table highlights line painting achievements over this period.

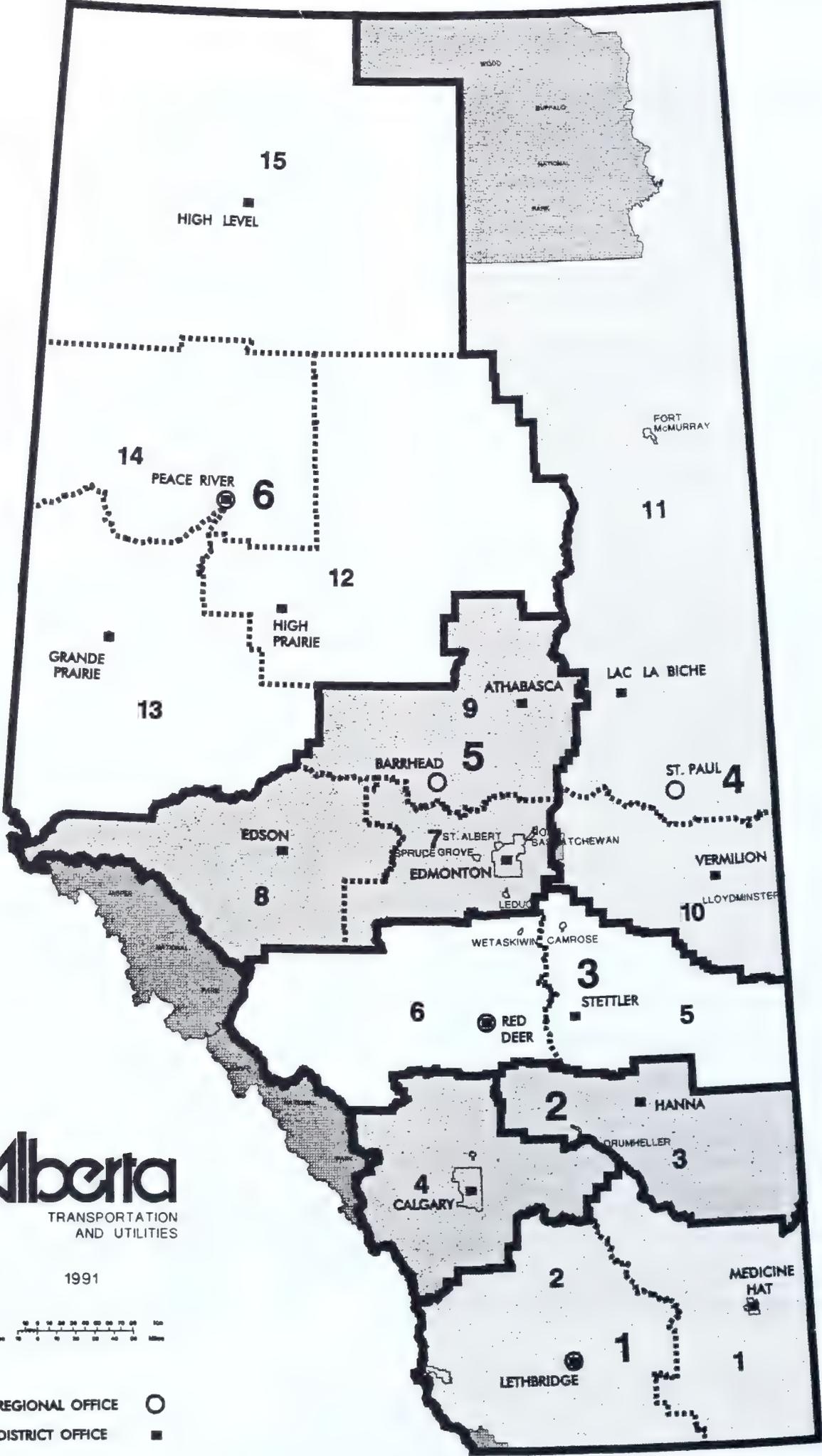
1991/92 Provincial Pavement Marking

Region	New Construction	Repainting	Total
Southern	440	1 421	1 861
South Central	513	2 067	2 580
Central	360	1 864	2 224
North East	580	1 765	2 345
North West	972	1 695	2 667
Peace River	380	1 619	1 999
	3245	10 431	13 676

- **SNOW AND ICE REMOVAL:** The following table shows the total metric tonnes of salt used by the regions. This total represents a four and one-half per cent reduction compared to 1990/91 and a 20 per cent reduction compared to 1989/90.

Provincial Salt Use

Region	1989/90	1990/92	1991/92
Southern	7 740	6 160	5 020
South Central	19 830	13 470	10 370
Central	12 870	8 610	7 290
North East	10 060	7 590	9 420
North West	28 100	22 780	18 940
Peace River	28 100	27 150	30 860
	106 700	85 760	81 900



Alberta

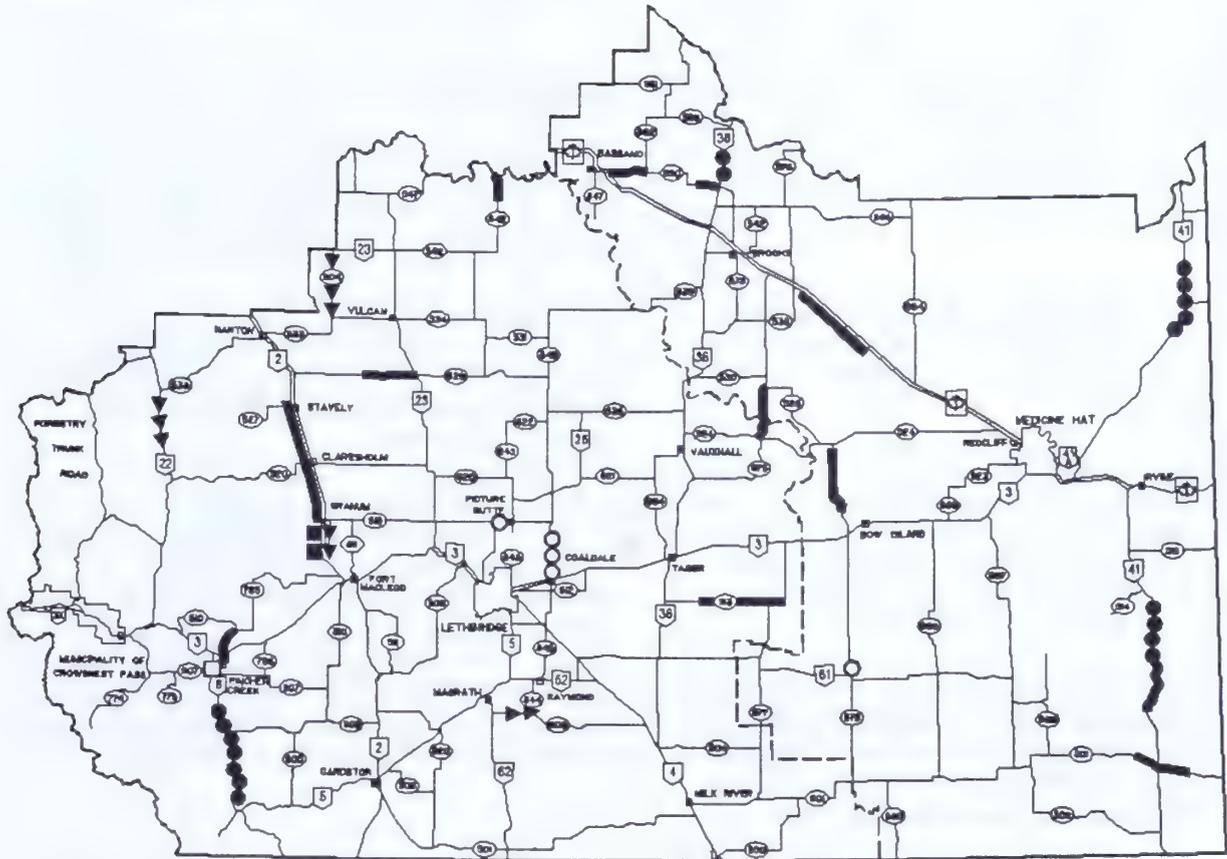
TRANSPORTATION
AND UTILITIES

1991



- REGIONAL OFFICE ○
- DISTRICT OFFICE ■

SOUTHERN REGION



LEGEND

- | | | | |
|------|-------------------------|---|------------------------------|
| ▶▶▶ | GRADING | □ | BRIDGE DECK REHABILITATION |
| ———— | SURFACING | ■ | MAJOR BRIDGE CONSTRUCTION |
| ●●●● | PAVEMENT REHABILITATION | ◆ | INTERCHANGE/GRADE SEPARATION |
| ○○○○ | RECONSTRUCTION | — | EXISTING TWINNED HIGHWAY |

CONSTRUCTION

The region completed 15 of 20 contracts during the year for a total of 37 kilometres of grading, 86 kilometres of base course, 36 kilometres of paving and 60 kilometres of combined construction. Widening and reconstruction was done on 15 kilometres. Seventy-seven kilometres of pavement overlay and 155 kilometres of seal coat were also completed. Six contracts involved 545 hectares of seeding and 4706 metres of guardrail installation or

replacement.

The weather conditions in Southern Alberta were generally ideal during the spring and summer of 1991/92 allowing for excellent progress on construction and maintenance activities. However, some projects were suspended earlier than usual due to the onset of winter in late October.

Major twinning construction continued on the Trans Canada Highway 1 and on the Export Highway in the Granum area. The completion of the last two four-laning projects between Suffield and Tilley complete the twinning of the Trans Canada Highway from west of Irvine to Banff National Park. Twinning was completed of the Export Highway on Highway 2 to south of Granum and construction of the next section of Highway 2 was started during the year.

Grading of the Oldman River Dam secondary highway roadway network and a carry-over contract for stockpiling gravel from the Oldman River Dam was completed.

Engineering consultants assisted local counties and municipal districts to manage nine contracts. Eight were completed. Regular grants and special funding was provided to the counties, municipal districts, towns and villages for road, street improvement projects and for dust control programs.

As part of the Export Highway, construction of bridge structures across the Lethbridge Northern Irrigation District (L.N.I.D.) canal and Willow Creek, north of Fort Macleod were started in 1991. Four bridge structures were replaced on two

headworks canal systems. Ten standard bridges and 35 bridge sized culverts were also installed.

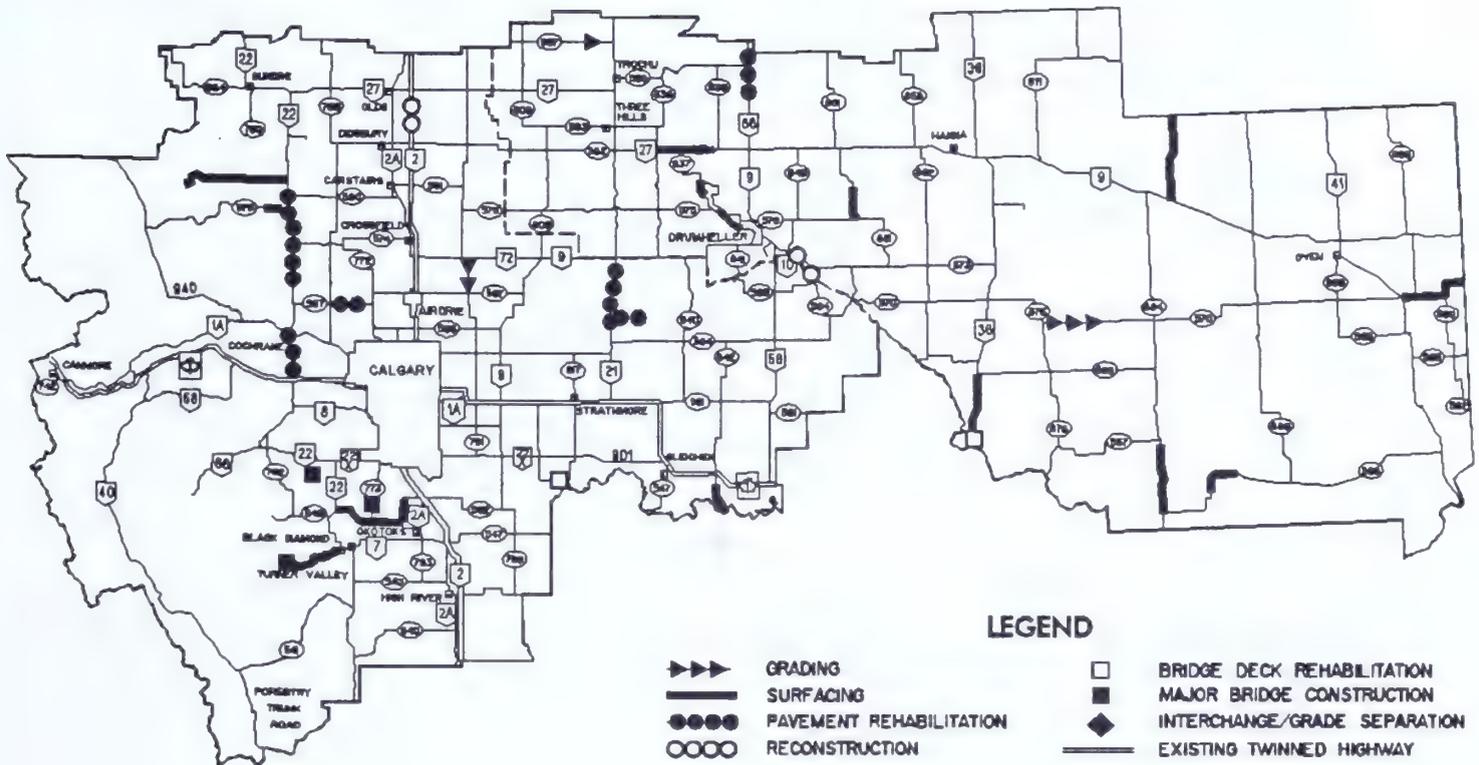
MAINTENANCE

Snow and ice control budgets were taxed early but with the change to mild weather and record high temperatures with little precipitation during the latter part of the winter, budget levels were not exceeded.

The summer of 1991 was the last year of a two-year trial at privatization of the Finnegan Ferry operation on the Red Deer River, north of Brooks. The trial was successful and a longer term of operation was tendered.

Bridge maintenance and repair work was undertaken on eight major primary highway bridges and 26 major secondary highway bridges. Maintenance or repair work was begun on an additional 42 standard bridges and bridge-sized culverts. This work included the painting of the steel girders on the Yarrow Creek Bridge, deck restoration on the Pincher Creek Bridge and strengthening of two standard bridges on Highway 1 near Brooks.

SOUTH CENTRAL REGION



CONSTRUCTION

A total of 31 contract projects were managed by the region and 17 contract projects were managed by the municipalities with the assistance of their consulting engineering firms. A total of 51 kilometres of grading, 144 kilometres of base course, 100 kilometres of final paving and six kilometres of combined construction were also completed. Eleven kilometres of widening and reconstruction, 88 kilometres of pavement overlay and 110 kilometres of seal coat were completed. Other work included the application of slurry seals, gravel crushing and stockpiling projects.

Under the Highway 2 Median Widening Program between Airdrie and Red Deer, a 10 kilometre project was completed on Highway 2 from north of the Didsbury Interchange to south of the Olds Interchange. Surfacing was finished on the high load corridor between the U.S. Border and Lac La Biche with the completion of base course on a 20 kilometre section of Highway 36, from the Red Deer River north. The Rosedale Rest Area, located adjacent to the Star Mine Suspension Bridge crossing

the Red Deer River, was upgraded and officially opened.

Bridge structures were completed over Threepoint Creek near Millarville, at Fish Creek near Priddis, at Little Jumping Pound and on Jumping Pound Creek near Cochrane. The Bow River Bridge south of Carseland was strengthened and rehabilitated.

MAINTENANCE

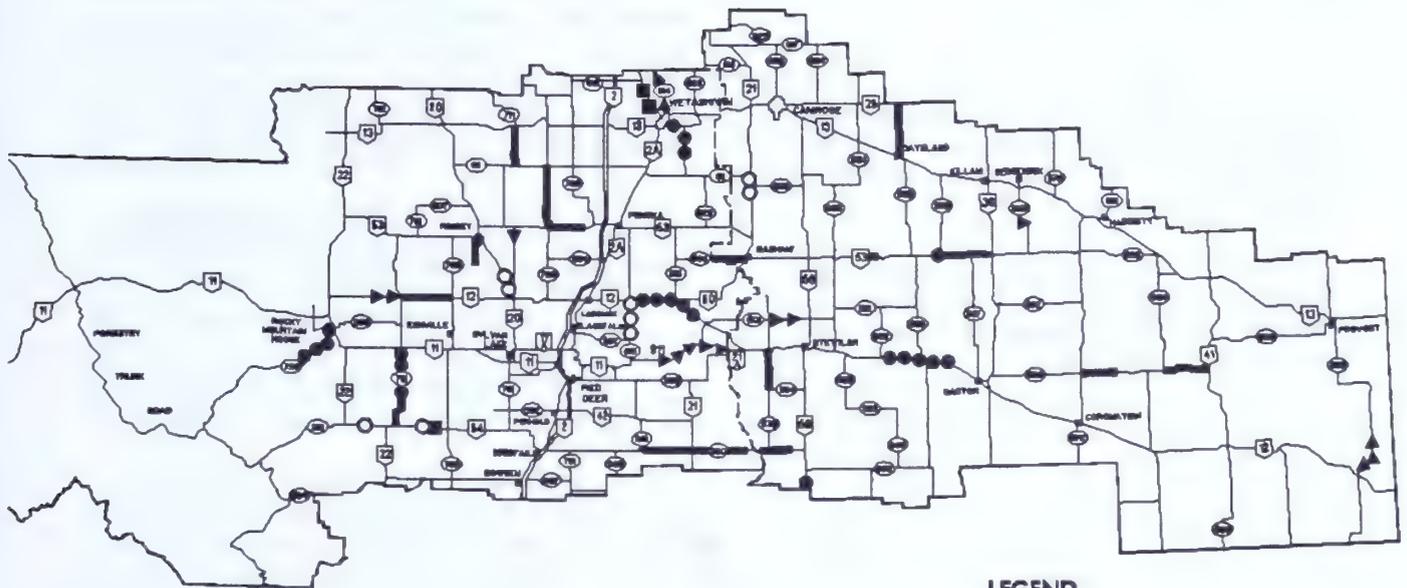
In addition to normal maintenance activities undertaken by department staff, the majority of highway pavement patching and mowing of the rights-of-way in the region was contracted out to private industry. Projects of an environmental enhancement nature included the completion of seeding contracts and reclamation work on a number of gravel pits.

Bridge decks were rehabilitated on the Banff Coach Road overpass, on a bridge overpass on the Kananaskis Trail, and on the Red Deer River near Duchess.

A large number of erosion projects, both of a preventative and remedial nature, were completed. This work involved installation of erosion blankets, gabion structures, ditch blocks, culverts and down drains. These methods are designed to correct or improve drainage courses and flood damages.

A maintenance facilities' beautification program was continued in the region.

CENTRAL REGION



LEGEND

▶▶▶	GRADING	□	BRIDGE DECK REHABILITATION
————	SURFACING	■	MAJOR BRIDGE CONSTRUCTION
●●●●	PAVEMENT REHABILITATION	◆	INTERCHANGE/GRADE SEPARATION
○○○○	RECONSTRUCTION	—	EXISTING TWINNED HIGHWAY

CONSTRUCTION

The region completed 35 major contracts. Of these projects, 18 were managed by district staff and 17 were administered by counties and municipal districts with the assistance of engineering consultants.

A total of 70 kilometres of grading, 134 kilometres of base course and 71 kilometres of final paving were completed. Widening and reconstruction on 14 kilometres and 103 kilometres of pavement rehabilitation were completed. Nine seal coat contracts, involving 141 kilometres of secondary highways, were tendered and managed by the municipalities with the assistance of their consulting engineering firms. Under contracts administered by the department, 22 kilometres of primary highways and approach roads were seal coated.

Grading was completed on SH 911 from west of Haynes Creek to Highway 21. This established the new link for the future Highway 11 to serve traffic between Stettler and Red Deer.

The final grading project on Highway 12 from west of Lobstick Creek to SH 761 was finished, completing the connection to Highway 22.

Major reconstruction to upgrade and widen to current highway standards was completed on Highway 20 from Highway 12 to Forshee and on Highway 21 from south of Ferintosh to south of New Norway. Major improvements were made to the alignment of Highway 54 at Caroline and the crossing of the Raven River.

The rehabilitation of older pavement is required to retain load carrying capability and maintain the level of service. Pavement overlays were undertaken on Highway 12, Gadsby to Halkirk; Bentley to Highway 2 and west of Alix; Highway 53 in the Forestburg area and SH 613 and SH 822 east and south of Wetaskiwin and SH 752 west of Rocky Mountain House.

Major bridges were replaced at Raven River near Caroline and at Bigstone and Pipestone Creeks on Highway 2A south of Millet. One bridge rehabilitation and 14 standard bridges and culverts were constructed on primary highways while 25 standard bridges and culverts were constructed on the secondary highway and local road network. This

work included the installation of a major culvert on SH 911 at Haynes Creek.

MAINTENANCE

Extensive patching on Highway 2 with an improved patch and seal operation was successful and will postpone the need for pavement rehabilitation for a number of years.

Good driving conditions were maintained throughout the winter. The use of salt was minimized to avoid problems with residue on the highway and excess leaching.

An emergency response team made up of technical staff was organized to assist with traffic direction and control during winter storms and in emergency situations. The response team manned barricades through the night on the few occasions that Highway 2 became impassable. This provided excellent support for the snowplow operators.

Efforts toward improved safety were recognized with a lower incidence of employee, vehicle, bridge and construction zone accidents.

NORTH EAST REGION

CONSTRUCTION

Construction was undertaken on 44 major contracts on primary and secondary highways, approach and resource roads.

The Highway 16 Twinning Program was successfully completed in mid-October providing a continuous four-lane route from east of Edmonton to the Saskatchewan boundary. The Vermilion Subway project on Highway 41, accommodating the CNR track, was completed and opened to traffic in the fall.

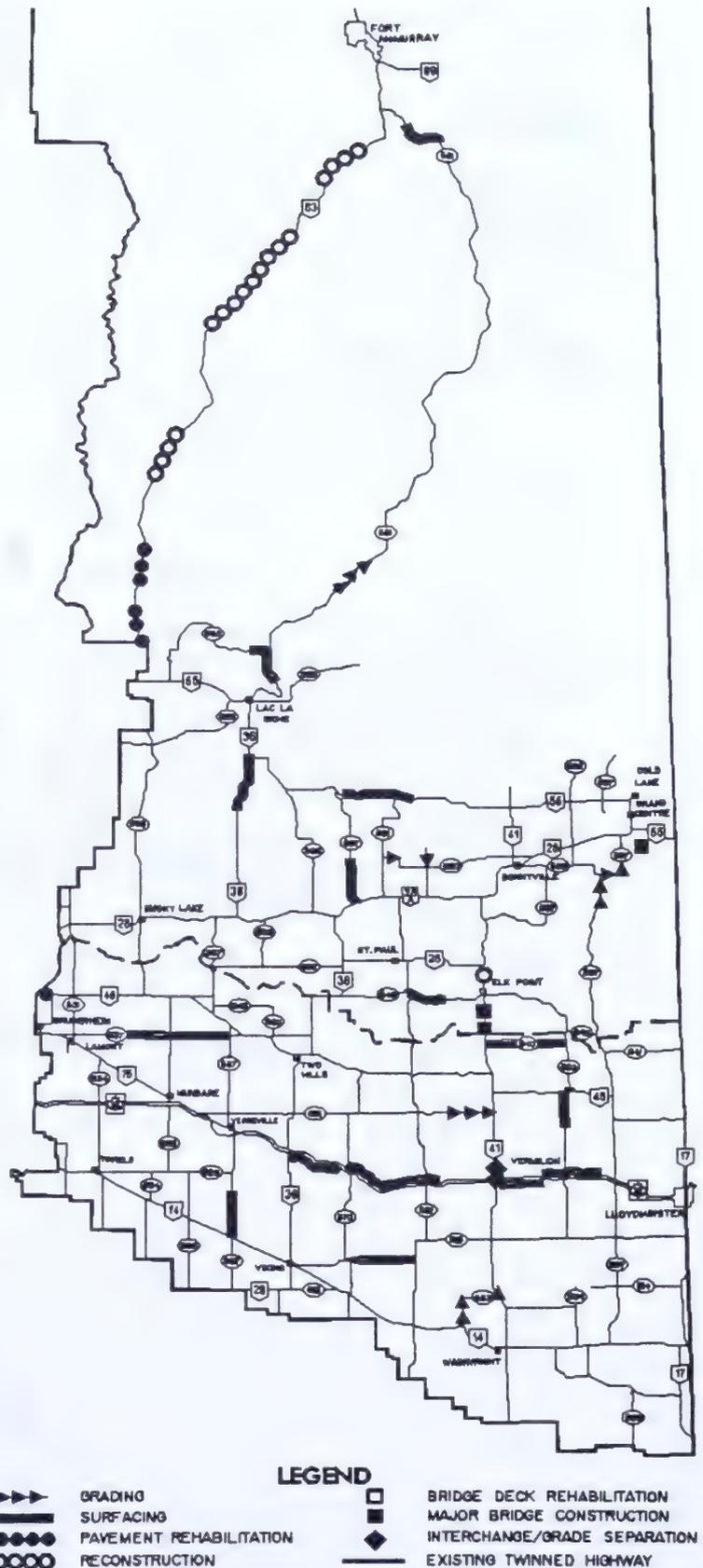
Two Highway 63 grade widening projects totalling 43.5 kilometres were completed. Base course was done on a third widening project north of Marianna Lake to north of Algar Tower. Final paving will be done in 1992. A fourth Highway 63 widening project was initiated during the year, leaving only one project remaining to complete the Highway 63 widening program.

Another base course project was completed on Highway 55 leaving one, 18 kilometre project to complete the surfacing between Highway 36 and Highway 28 west of Cold Lake.

As part of the Highway 41 CNR Subway construction, a local street overpass was constructed in the Town of Vermilion.

During the year, a total of 61 kilometres of grading, 65 kilometres of base course, 132 kilometres of final paving and 82 kilometres of combined construction was completed. Thirty-four kilometres of widening and reconstruction, 32 kilometres of pavement rehabilitation and 72 kilometres of seal coat construction were also completed.

A major local bridge across the Beaver River, south of Grand Centre was completed. Other bridge construction involved work on 11 standard bridges on local roads and secondary highways, five bridge culverts on primary highways and seven bridge culverts on local and secondary highways.



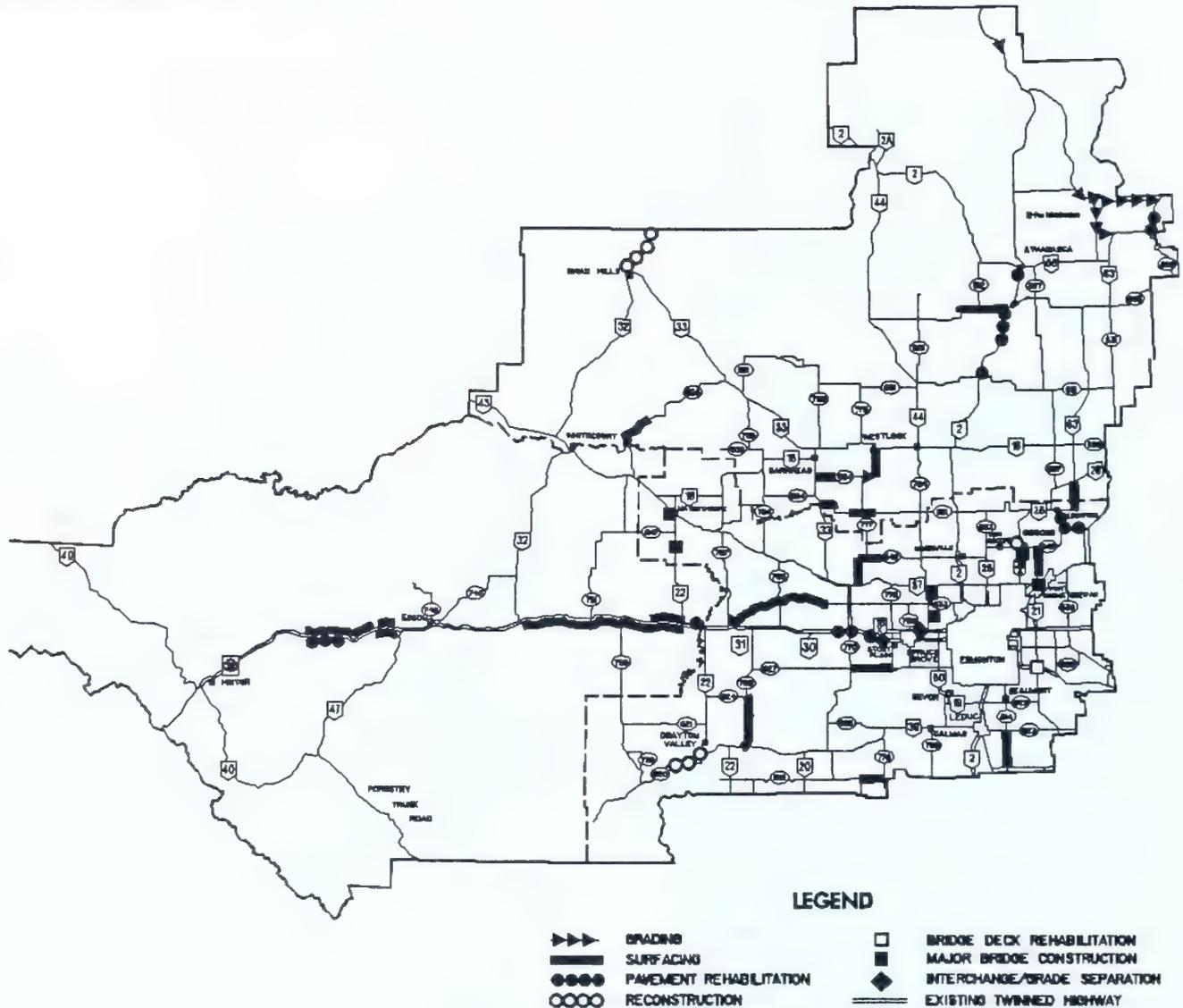
In Improvement District No. 18, 14.5 kilometres of roadway were constructed and 556 were gravel surfaced.

highways involving 12 standard bridges, five major bridges and one bridge culvert. Maintenance of primary highways proceeded at the previous year's level of service.

MAINTENANCE

Repair and maintenance was undertaken on one standard bridge and three major bridges on primary highways. Similar work was undertaken on local roads and secondary

NORTH WEST REGION



CONSTRUCTION

Construction on the Yellowhead Trans Canada progressed well and by the fall of 1991, the entire section west of Edmonton to west of Hinton was open for four-lane travel. Eight major projects made up the completion of the final 74 kilometres.

Road construction on the ALPAC infrastructure commenced in 1991/92. Eleven grading projects totalling 65 kilometres and five clearing projects totalling 44 kilometres were completed.

A total of 405 000 tonnes of gravel was stockpiled for future use on the road infrastructure.

Work was undertaken on two interchanges on Highway 16X west of Edmonton. The Century Road Interchange at Spruce Grove was completed and opened to traffic. The clearing for the Highway 16X Interchange on SH 794 was completed in preparation for future construction.

In total, work was undertaken on 56 major projects involving 75 kilometres of grading, 121 kilometres of base course, 133 kilometres of final paving and 59 kilometres of combined construction. Widening and reconstruction of 15 kilometres, 85 kilometres of pavement overlay and 13 kilometres of seal coat construction were also completed.

Of these projects, forty-one were managed by district staff, four by engineering consultants and 11 by municipalities with the assistance of their engineering consultants. In the improvement districts, 61 kilometres of local roads were graded and 1208 kilometres of local roads were regravelled.

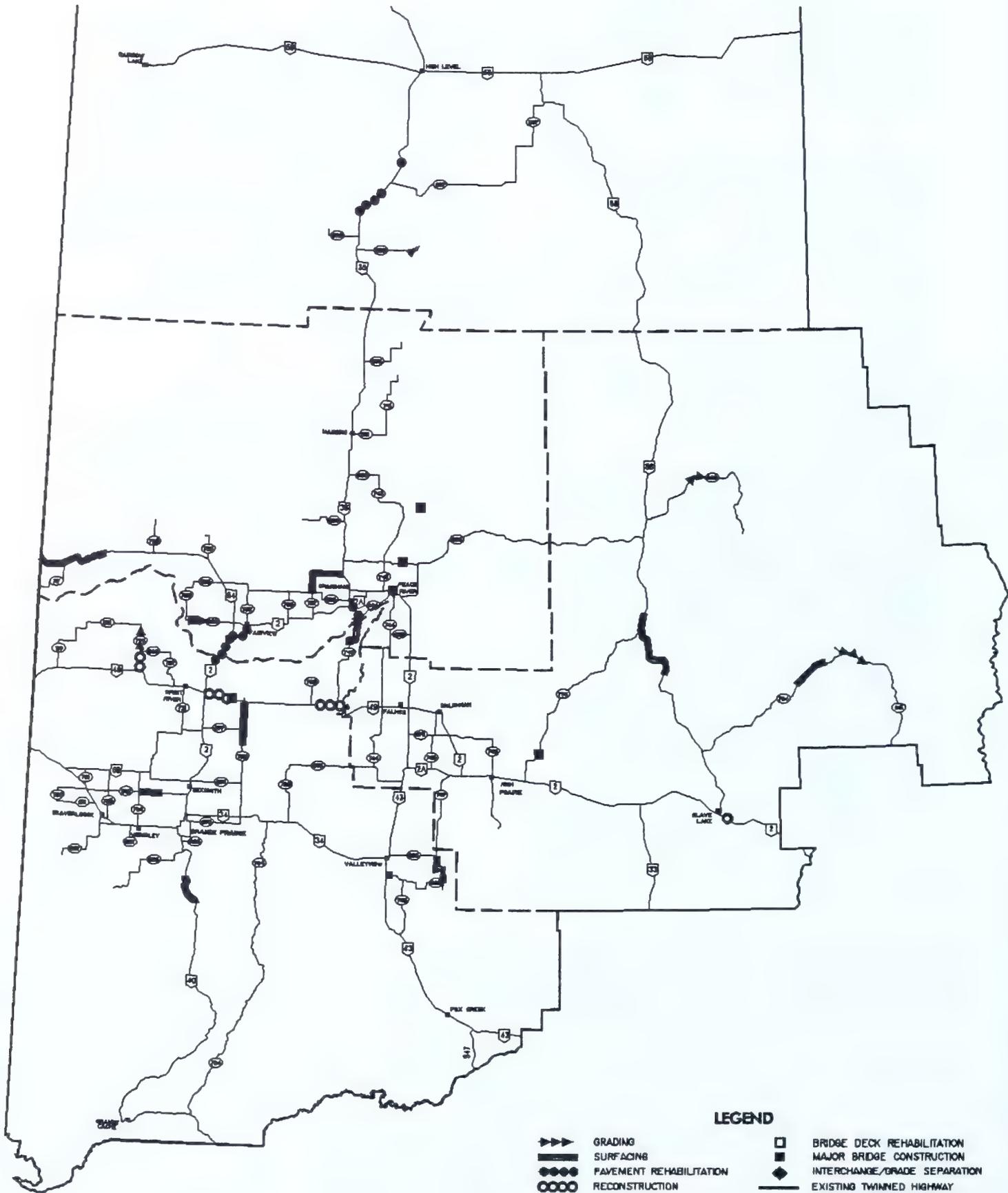
Major bridges were completed on the Sturgeon River at Gibbons, at two Sturgeon River crossings near St. Albert, on the Little Paddle and Paddle River south of Greencourt, and on local roads. The North Saskatchewan River Bridge deck at Fort Saskatchewan was also rebuilt and widened. Construction or reconstruction of 36 standard bridge culverts was completed.

MAINTENANCE

Summer maintenance activities: crackfilling, mowing, patching, guardrail, signing and painting were accomplished with few problems. Winter came earlier than usual in mid-October; however, acceptable levels of service were maintained by department maintenance crews.

Repairs were also made on 81 major bridges, 52 standard bridges and 12 culverts.

PEACE RIVER REGION



CONSTRUCTION

This year saw the completion of paving on Highway 64 to the British Columbia border and the completion of a paved link on Highway 88 between Red Earth and Slave Lake. As well, work on the second access into the Town of Peace River was started with completion scheduled for 1992.

Construction on primary and secondary highways, approach, tourism, local and resource roads included a total of 67 kilometres of grading, 86 kilometres of base course, 55 kilometres of paving, and 36 kilometres of combined construction. Widening and reconstruction of 24 kilometres and 42 kilometres of pavement overlay were also completed.

In Improvement Districts and Indian Reserves, a total of 184 kilometres of grading, 4763 kilometres of gravelling, and 107 kilometres of dust abatement was completed. Thirty-four lump sum grading contracts were tendered this year. Use of the quotation method to select equipment for day labour hire was expanded. The region also tendered eight regravelling contracts. Tendering local road construction and regravelling has resulted in cost savings over standard government rates.

Bridge piers and the steel girder erection was completed on the new Peace River Bridge east of the Peace River Pulp Mill. The construction of the concrete bridge deck was started and is scheduled to carry-over to 1992. As well, the Cadotte River Bridge was completed and construction started on a new bridge over the Saddle River on Highway 49 east of Rycroft. In addition, two smaller bridges were constructed and 15 bridge-sized culverts were installed.

MAINTENANCE

Summer weather conditions were generally favourable. Under the Canada/Alberta Northern Development Agreement, dust abatement on 125 kilometres of Highway 40 (Bighorn Highway) south of Grande Prairie was cost-shared.

Abnormal snowfall levels occurred in December and January and several freezing rainstorms resulted in some maintenance difficulties. The near record snowfall, coupled with an early thaw resulted in some localized flooding and contributed to an ice jam downstream from the Town of Peace River. This resulted in flooding in the town. The department provided assistance to the town during this emergency.

A high performance epoxy wearing surface was applied on bridges on Highway 35 at Keg River, Steen River and Hawk Hills. Strengthening was also completed on the Little Smoky River Bridge on SH 744. Structural repairs were completed on the Heart River Bridge on Highway 2 near Nampa, and the Whitemud River Bridge west of Dixonville. A maintenance trolley was installed on the Dunvegan Bridge and a significant portion of the structural steel was repainted. Repairs were also carried out on 59 major bridges and 24 standard bridge culverts.

POLICY AND PLANNING

NATIONAL AND PROVINCIAL POLICY

With its mission to provide an efficient integrated transportation system for Albertans today and in the future, the department takes an active role in all modes of transportation. It represents the province's needs and interests in national forums, and develops provincial policies which respond to changing trade and travel patterns. The department's overall aim is to ensure that Albertans have access to the transportation systems and services they require to access domestic and international markets and destinations.

In 1991/92, the department continued to provide input to the ongoing Canada/U.S. air bilateral negotiations. A participatory process was set up in the previous year for the Canadian negotiating team to receive provincial and other input through each negotiating round. These negotiations are leading to a less restrictive agreement and the opportunity for airlines to improve services between Alberta and the U.S.

The Calgary and Edmonton Regional Airports Authorities, established under provincial legislation, finalized agreements with Transport Canada during the year for the transfer of federal airports to their management. The Edmonton Regional Airports Authority then turned its attention to the Edmonton Municipal Airport. To assist the debate on whether scheduled air services at the latter should be consolidated with the Edmonton International Airport, the department developed a package of information on air travel trends. This data was subsequently provided to all interested parties.

A National Rail Network Study was initiated, upon approval by the Council of Ministers Responsible for Transportation and Highway Safety. The department is participating in the study team made up of representatives of the federal, provincial and territorial governments and the national railways. The study aims to identify the essential rail network for Canada and to evaluate current federal processes for rail line rationalization.

The department also continued its review of the Alberta Railway Act, which applies to short-line railways incorporated within the province. Currently, Central Western Railway is the only such public railway carrier. During the year the department consulted extensively with operators of industrial spurs and amusement railways to assess whether these

operations should be covered in a modernized Act.

Progress was made toward a National Highways Policy with results reported to the Council of Ministers Responsible for Transportation and Highway Safety. Working together for several years, a team of federal, provincial and territorial representatives had, by year end, identified the national highway system, developed common standards for the system, assessed the costs and benefits of upgrading and rehabilitating the system to these standards, and considered program options. The national highway system consists of the key interprovincial and international links for trade, tourism, and travel. Fourteen per cent of the national highway system is within Alberta, indicating the importance of road transport in the province. These Alberta highways also represent 16 per cent of the national needs for improvements and rehabilitation.

Barrier-free transportation within Alberta received priority throughout 1991/92. With guidance from its Advisory Committee, the department is working toward the vision of barrier-free transportation systems and pedestrian environments for persons with disabilities and seniors. During the year an amendment was made to the Highway Traffic Act to enable municipalities to enforce parking designated for persons with disabilities in shopping centres and other similar areas. Provincial standards were also finalized and implemented in municipalities for curb ramps at intersections and for easier access features on new transit buses. By year end a demonstration project was underway of accessible taxis in Medicine Hat. The department also released a barrier-free policy, entitled "Learning by Doing", which outlines the thrust of activities in the upcoming years.

PLANNING ALBERTA'S TRANSPORTATION SYSTEM

The department streamlined transportation planning during the year by amalgamating several units into a Planning Branch. All planning functions from the province-wide identification of long range needs to the preparation of location-specific project plans are now performed in a single branch. The reorganization has improved co-ordination with municipalities, industry and the public, and also yielded savings and management reductions within the department.

The planning of a safe and efficient highway network for Alberta is founded on sound traffic data, analysis and forecasts. The department conducts an

extensive annual program of traffic data collection, focusing on areas of changing economic activity, traffic patterns, vehicle mixes or safety statistics. Progress was made during the year on enhancements to the computerized tools used in compiling and analyzing traffic information.

With budget restraint, long-range transportation planning has assumed added importance. The long-range twenty year plan of highway sufficiency helps guide the department in setting priorities among competing needs; it also encourages early dialogue with municipalities, ensuring that provincial and local plans are mutually reinforcing. The department has continued to enhance its long-range plan, which is an internal working document updated with shifts in Alberta's economic and population growth and traffic patterns.

Complementing the long-range plan, regional road reviews were completed during the year for a number of Alberta Transportation and Utilities' districts and urban fringe areas. The department also released a study of alignment options and costs for a future all-weather road link north from Fort McMurray to Fort Chipewyan. The study responded to requests from local communities for an update of an earlier report (1976) and while the department could not commit to construction in the near term, feed back from the communities was sought on the study.

Regions impacted by accelerated growth due to tourism and forestry received particular attention in this fiscal year. Planning studies were undertaken with local authorities to assess future transportation needs and options for the Bow-Canmore Corridor. The government also responded to an infrastructure investment plan by the Town of Canmore to help service rapid tourism and residential growth. In the Athabasca-Boyle-Lac La Biche area, road options and plans were finalized to accommodate traffic generated by the Alberta Pacific Pulp Mill and related community growth.

Planning of needed site-specific improvements to the highway system is part of the department's ongoing activities. This includes field studies to determine the preferred location of realignments and other upgrades. During the year, a number of such location studies were undertaken, including the relocation of Highway 63, to accommodate Syncrude's mining operations north of Fort McMurray.

Site-specific planning also encompasses the preparation of transportation options, their evaluation against safety, cost-benefit, environmental and other objectives, and their review with local authorities and the public. In 1991/92, public open houses were held in various communities throughout the province. One of these was in Red Deer, where two options were discussed for the future redevelopment of Highway 2 south of the city, which is currently a speed-restricted zone with congestion and a growing accident rate. Feedback from such consultations is used in modifying plans and selecting a course of action which can best meet provincial and local objectives.

Planning also includes the management of access to the highway system, as provided in the Public Highways Development Act, to ensure that safety, traffic flow and other public objectives are met. During the year proposals from the private sector for access and for commercial and residential development along highways continued to be assessed. The assessment and approval process requires close co-ordination with municipal planning authorities.

ENGINEERING

QUALITY ENGINEERING FOR QUALITY TRANSPORTATION SYSTEMS

Quality road and bridge construction, maintenance and operation demands quality engineering. The department continued to provide this engineering through an efficient combination of in-house and private sector services.

New and enhanced geometric design standards were developed and implemented for passing lanes, climbing lanes and guardrail/sideslope optimization.

A micro-based Aggregate Information System was substantially completed. A computerized Geotechnical Control Sites Information System was developed and implemented in two districts. The department's computerized soil log system was enhanced to enable more efficient data retrieval. Work continued on the development of a computerized integrated Bridge Management System with the initiation of two new subsystems, the Bridge Rating Information System and the Long Range Planning Module. Electronic processing of construction specifications was initiated in preparation for the publication of a standard specification book.

The application of new technology contributed to more efficient and better quality engineering, particularly in the areas of in-place soil testing, pile driving analysis, and pavement strength evaluation. New materials, such as lightweight sawdust fill and recycled plastic fenceposts, were used to innovatively address construction needs in effective, economic and environmentally friendly ways. Other new product and process investigations included calcium chloride and emulsified asphalt granular base stabilization, hot-in-place asphalt pavement recycling, large size aggregate pavements, use of reclaimed tire rubber in pavements, and asphalt pavement segregation.

Total survey methods continued to replace older equipment and procedures, enabling improvements in accuracy, speed and productivity of the construction survey and design process.

Training of in-house, municipal and private sector staff, through courses and manuals, continued to be a high priority. This included training in bridge inspection and maintenance, total station survey, geometric design, erosion control measures, materials testing, and geotechnical instrumentation and data collection.

An effective balance was achieved in grading design, with about 75 per cent of departmental projects being designed in the district. Continued growth in the number of end product specification, contractor-supply and municipally-administered contracts has contributed to a significant shift in responsibility for aggregate testing and analysis, mix design and construction quality control from the department to the contractor and their private engineering consultants.

In addition to 64 direct agreements with private consultants totalling approximately \$3 million, the private sector also provided over \$8 million in engineering services to 262 department-funded roadway construction projects administered by rural municipalities. This contributed to a significant reduction in the amount of soil, aggregate and mix testing performed in the Transportation Laboratory.

Decentralization of aggregate prospecting activities to the regions was finalized and transfer of erosion control and geotechnical instrumentation/data collection technology to the districts was initiated.

Environmental and archaeological sensitivity continued to be a key component of the department's engineering efforts. This included providing input to environmental protection and wetlands legislation, regulations and policy, and the application of considerable environmental and archaeological mitigation measures in the design and construction of specific highway projects.

Investigation of new equipment and processes for repairing pavements and constructing rumble strips was carried out in co-operation with the districts.

The department hosted the 1991 International Highway Engineering Exchange Program conference in Edmonton in September. Over 350 delegates and guests from 48 states and provinces heard presentations from experts on a broad spectrum of state-of-the-art technology topics relating to the planning, design, construction, maintenance and operation of highway systems.

A new Road Crossing Agreement for Natural Gas Distribution Pipelines was finalized. This agreement, which ensures that uniform pipeline crossing safety standards are applied consistently throughout the province, has been signed by all of the major gas distributors and most gas co-operatives.

PROPERTY SERVICES AND RIGHT-OF-WAY ACQUISITION

The realty aspects of these operations were strengthened in order to significantly improve property inventory and management capabilities. Initiatives include a property sales agreement which was signed with the Alberta Real Estate Association, enabling the sale of the department's surplus property through the Multiple Listing System (MLS) and realtors throughout the province. Another major endeavour resulted in the development of the Automated Land Information System (ALIS) which will become operational in 1992 and will provide the regions and the central office with enhanced land inventory and management abilities.

The twinning of Highways 1 and 16 and the development of the Export Highway maintained the flow of acquisition agreements. Significant progress was made in obtaining right-of-way from Indian bands, particularly with regard to Highway 88 (Tall Cree) and SH 652 (Saddle Lake). Legal surveys required for registration at the Land Titles Offices contained a majority of surveys carried out by private companies.

PROTECTION OF ALBERTA'S ROAD AND BRIDGE INVESTMENT

Once again the department conducted extensive pavement evaluation and bridge inspection programs in order to provide the data needed to rationally and cost effectively plan, program, design, operate, rehabilitate and reconstruct Alberta's roads and bridges. These programs enable the protection and management of the province's huge transportation system in order to maximize its service to users while minimizing its overall cost, thus optimizing the value received for the dollars spent.

Specific rehabilitation programs were once again developed and carried out for roadway pavements and bridge decks, in addition to that accomplished through reconstruction and upgrading programs.

The Bridge Load Rating Program continued with ratings on the secondary highway system essentially completed. As a result of this program, strengthening of older and weaker bridges continued on both the primary and secondary highway systems. One noteworthy project was the bridge over the North Saskatchewan River on Highway 15, which

was re-decked, widened and strengthened. This work will delay major capital expenditures for many years.

The department provided bridge inspection training to 46 employees from local road authorities, private sector and other government agencies, and the first non-department staff were certified by the department.

CONSTRUCTION CONTRACTS

The trend toward more contracting out continued with the disbanding of the department's only remaining seal coat camp and the increased tendering of local road grading and gravelling projects formally constructed by equipment rental, day labour operations. Fifty-three local road grading, eight local road gravelling and 17 seal coat contracts were tendered during the year. Virtually all guardrail, seeding and signing was also performed by contract.

A total of 271 roadway and 30 bridge contracts were tendered during the period. The number of End Product Specification contracts rose to 35. These involved contractor supply of aggregate and asphalt and a quality-based payment schedule. A number of additional contracts required or allowed the contractor to provide their own aggregate supply.

As a result of increased municipal tendering of secondary highway construction and increased departmental use of End Product Specification contracts, the amount of highway construction materials purchased directly by the department dropped considerably. Asphalt was once again purchased on a fixed bid price basis and prices remained steady. Overall, roadway construction costs for 1991 were lower than those of the previous year, with indications of some increase in the early part of 1992.

A total of 25 major bridge construction contracts were completed during the 1991/92 construction season. Work commenced on the bridge over the Athabasca River northwest of Grassland, to serve the Alberta Pacific Pulp Mill project and local traffic. Work also continued on the bridge over the Peace River northeast of the Town of Peace River, adjacent to the Daishowa Pulp Mill.

A hot in-place pavement recycling project was tendered in order to further assess this new and potentially cost effective technology.

FLEET AND MATERIALS RESOURCES

The Transportation Revolving Fund provides fleet, material, and shops' services to the department on a cost-recovery basis.

Highlights of 1991/92 are outlined below:

- fleet size was reduced by 12 per cent to 4371 units as a result of the privatization of construction activities for guardrail installation, seal coat operations, and erosion control
- ten light trucks were converted to natural gas fuel for energy efficiency and emission evaluation
- re-refined oils were specified for use in all units across the fleet to support environmental goals
- heavy-equipment life expectancy was increased by two to three years by higher engineering specifications and effective preventative maintenance programs
- electronic engine controls were evaluated for improved fuel economy and reduced exhaust emissions
- inventories of materials were reduced by 28 per cent to approximately \$10 million to reflect lower activity levels, contracting out, and tighter materials management controls
- staffing levels were significantly reduced as part of branch restructuring, and levels of management were also reduced resulting in a flatter and leaner organization
- expenses were targeted for reduction to bring balance to the reduced revenue levels.

RESEARCH AND DEVELOPMENT

The department has a strong commitment toward developing and implementing technical solutions that enhance the efficiency and effectiveness of its many programs. Priorities are guided by annual and five-year plans developed with input from a Research Advisory Committee that has department-wide representation. We actively seek opportunities for co-operative projects with other jurisdictions and

agencies to encourage technology transfer, economize on research efforts, take advantage of all available expertise, and elicit support for the department's research investment. Information sharing and technology transfer across the department's decentralized organization are high priorities.

The department continued its active participation in the Canadian and U.S. Strategic Highway Research Programs, which are investigating asphalts, pavements, concrete structures and highway maintenance operations. A modest investment, gains access to the technology and results of this almost \$200 million international co-operative research effort, implementation of which is expected to yield future large savings in highway infrastructure construction, maintenance and operational costs. Other co-operative research, which levered up the department's research investment, was conducted with the Research and Development Council of the Transportation Association of Canada, the Research Council of Alberta, the Forest Engineering Research Institute of Canada, and the Universities of Alberta and Calgary.

Adaptation of new technology to departmental functions continued to be a high priority. A strategy was developed to implement satellite technology to surveying and data gathering needs. Expert systems were developed for culvert repair, bridge welding, highway access and seal coat programming. Applied research continued into improved and environmentally friendly materials and processes. This included projects on use of super plasticizers to improve concrete performance, recycled tires in asphalt, anti-corrosive de-icers on bridge decks, polymer crackfillers for pavement maintenance, natural gas in fleet trucks, and recycled antifreeze. A culvert installation training video was developed. Improved access was achieved to the Alberta Special Products List, containing some 500 products that have been evaluated during departmental operations. The departmental research publication Transearch and the second annual departmental technology transfer seminar held in Grande Prairie, were other tools used to transfer research results to department staff and operations.

MUNICIPAL INFRASTRUCTURE

CITY TRANSPORTATION

The Government of Alberta has been providing financial assistance to urban centres since 1931 to develop and operate effective and efficient roadway and public transit systems. Over the years, the grant programs have been evaluated and adjusted, as required, to respond to the challenging needs of Alberta cities and the fiscal capacity of the government.

The Alberta Cities Transportation Partnership, originally announced in 1988, is the program that provides financial assistance to the major urbanized centres in Alberta. In 1991/92, \$116 million was allocated to assist 16 cities and the Urban Services Area of Sherwood Park. The government also announced in November 1991, that it will be extending the Alberta Cities Transportation Partnership to an ongoing multi-year program, effective April 1992, which better reflects current economic conditions.

In 1991/92, grants totalling \$116 million were disbursed to each eligible municipality as follows:

Airdrie	\$	730 668
Calgary		36 294 476
Camrose		1 128 060
Drumheller		108 194
Edmonton		47 622 597
Fort McMurray		2 205 513
Fort Saskatchewan		977 441
Grande Prairie		3 771 995
Leduc		747 132
Lethbridge		3 894 322
Lloydminster		91 670
Medicine Hat		2 397 148
Red Deer		7 191 922
Spruce Grove		707 894
St. Albert		2 809 825
Wetaskiwin		706 257
County of Strathcona (Sherwood Park)		2 076 974
	\$	113 462 088

Public Transit Operating Grants to Towns, Villages, Counties, M.D's, etc.	2 408 326
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Multi-jurisdictional projects	92 226
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TOTAL GRANTS	\$ 115 962 640
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The Alberta Cities Transportation Partnership is comprised of four grant components.

Capital Grants

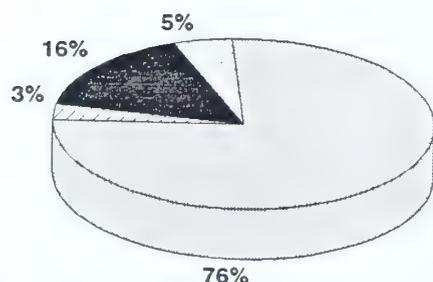
- Basic Capital/Community Safe Streets
- Primary Highway Connectors

Operating Grants

- Primary Highway Maintenance
- Public Transit Operating - distributed through the Alberta Partnership Transfer Program

Figure 1 illustrates the overall distribution of the total grant budget in 1991/92.

ALBERTA CITIES TRANSPORTATION PARTNERSHIP DISTRIBUTION OF 1991/92 GRANT ALLOCATIONS



GRANT TYPE

- Basic Capital/Community Safe Streets
- Primary Highway Connectors
- Public Transit Operating
- Primary Highway Maintenance

FIGURE 1

1991/92 Major Projects/Events

CALGARY

- Construction on Beddington Trail/Country Hills Boulevard from Deerfoot Trail to 14 Street N.W.
- Construction of interchange at John Laurie Boulevard and 14 Street N.W.
- 10th Anniversary of L.R.T.

EDMONTON

- Construction is continuing on four major projects:
 - Whitemud Drive/Calgary Trail Interchanges
 - Capilano Drive extension including an interchange at Yellowhead Trail
 - South L.R.T. extension to the University Station
 - Upgrading of 114 Street from University Avenue to Belgravia Road.

LETHBRIDGE

- Opening of Scenic Drive/Whoop-Up Drive Bridge and twinning of 43 Street.

ST. ALBERT

- New Articulated Buses.

SHERWOOD PARK

- Opening of improved Sherwood Drive from Baseline Road to Highway 16.

RED DEER

- Continuing construction on the Major Continuous Corridor.

WETASKIWIN

- Opening of Highway 13 West widening to the new Reynolds Alberta Museum
- Opening of 50 Street from Northmount Drive to 53 Avenue.

RURAL TRANSPORTATION

Streets Improvement Program/Community Safe Streets Program

Since its implementation in April 1989, the Streets Improvement Program has provided cost-shared financial assistance to Alberta towns, villages and summer villages for the construction of lasting street improvements. Projects such as grading, gravelling, base course paving, sidewalks, curb and gutter, roadway drainage, and related works received funding. During 1991/92 approximately \$10 million was provided to 96 municipalities for the construction of 104 street improvement projects.

The Community Safe Streets Program was also implemented in 1989 as a new initiative in response to concerns over the safety of the travelling public. Funds are available for municipalities to undertake street improvements that enhance public safety such as traffic control devices, improved street illumination and pedestrian safety devices. During 1991/92 some \$872 500 was provided for 31 municipalities to undertake 32 projects.

Road Grants to Counties, Municipal Districts and Special Areas

Each county, municipal district and the special areas are provided annual formula-based grants to develop and upgrade their local roadways to a uniform standard. Funds are provided for projects such as grading, gravelling, base course, dust abatement and engineering-related costs. Grant dollars provided during 1991/92 under the various components of this program are detailed below:

Regular Road Grants	\$23 915 190
Dust Abatement	2 579 700
Hamlet Streets Assistance Grants	445 925
Engineering Assistance Grants	677 010
Discretionary Grants	1 403 010
Special Areas Grants	1 526 000
	<hr/>
	\$30 546 835
	<hr/>
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MUNICIPAL WATER AND WASTEWATER ASSISTANCE

Alberta Municipal Water/Wastewater Partnership

After the completion of a comprehensive review of the previous municipal water/wastewater programs, the new Alberta Municipal Water/Wastewater Partnership was formulated and approved by Cabinet for implementation on April 1, 1991. The review evaluated eligibility criteria, funding formulas, water conservation strategies, and future program and budget needs.

The new Alberta Municipal Water/Wastewater Partnership combined all of the previous municipal water/wastewater programs under one "umbrella" program and refocused the available funding towards high-priority water supply and treatment and wastewater treatment and disposal facilities, and provides enhanced levels of funding to smaller centres. Cities (under 45 000 population), towns, villages, summer villages, regional commissions, and eligible hamlets within rural municipalities are eligible to receive funding under this program. Cost-sharing is based on a formula calculated on population. Communities with populations less than 1000 are eligible for 75 per cent assistance for approved projects, with funding for communities with over 1000 populations being calculated on a declining scale thereafter, depending on population.

Several initiatives outlined below, were developed as part of the new program:

- **Water Conservation Initiative** - This initiative encourages water conservation by implementing the potential for a 10 per cent reduction in the cost-sharing ratio for those municipalities that do not have metering in place and the average annual consumption exceeds the norm for the area. As well, municipalities with meters in place, which have not implemented a rate schedule based on consumption, will be eligible for the 10 per cent lesser grant.

This particular initiative has been extremely successful in its first year of implementation and has received the co-operation of the municipalities. Those municipalities with no water conservation methods in place have been counselled by staff and have made commitments to proceed with some form of water conservation

in the future. To date, the department has not implemented the 10 per cent reduced grant allocation, as the municipalities have demonstrated their commitment to reducing their costs, and the government's, by implementing various water conservation methods.

- **Northern Communities Initiative** - Under the previous water and wastewater programs, an annual allocation was set aside to provide enhanced levels of funding for northern hamlets due to the higher costs of construction in those areas and the low tax base available to cover the local share. The Northern Communities Initiative essentially replaced the previous program by providing small northern communities, located within improvement districts and under the jurisdiction of the Northern Alberta Development Council, with an additional 10 per cent grant assistance above what is available under the regular program terms. This program is administered under the same terms as the regular program and will be in effect for a three-year term, to March 31, 1994.
- **Regional Systems Initiative** - Financial assistance is available to regional commissions or for two or more municipalities for the construction of regional water and wastewater systems which are more cost-effective and/or environmentally desirable than independent facilities. It is acknowledged that increasing sophistication and operating complexities have made it more difficult for smaller communities to effectively operate individual systems; therefore, this initiative enables these municipalities to consider joint-use facilities. During the year several regional projects were proposed and implemented, including the Highway 14 regional water line. This water line is unique in nature in that it was the first time that a private-sector company has constructed, owned and operated a municipal water system through a municipal regional commission. The project involved the construction of a water line to bring City of Edmonton water from Sherwood Park to Tofield, serving several other communities and rural users along the route.
- **Water/Wastewater Studies Initiative** - This initiative provides cost-shared funding to eligible communities, under 10 000 population, for preliminary engineering studies to investigate the water and wastewater needs of their community.

By undertaking the preliminary investigations, municipalities and the department can better plan for their projects and identify future potential needs for funding. In this period several studies were funded, such as the water supply study for the Hamlet of Carseland and the Town of Innisfail's water and wastewater study.

Overall, the first year of the new Alberta Municipal Water/Wastewater Partnership was extremely successful, with over \$23 million being provided to 141 communities to undertake 194 projects.

MOTOR TRANSPORT SERVICES

COLLISION REDUCTION

Once again a number of safety initiatives were established to create a safer motoring environment on Alberta highways. These initiatives included a spring/fall seatbelt safety information campaign, invitations into the National Safety Code (NSC) Program sent to all private carriers whose operations fall under the program, and more than 14 000 inspections of large commercial vehicles under the Commercial Vehicle Safety Alliance (CVSA). The department provided private and public carriers with administrative assistance to ensure compliance with NSC standards.

Data systems for the Alberta Collision Information System continued to be revised to provide individuals with improved information regarding collision locations, highway quality, and identification of problem vehicles, drivers and locations.

Policies, procedures, regulations and signage were amended in consultation with the province's commercial trucking industry to improve safety within log hauling and other operations.

SUPPORT SERVICES

Several new carrier administrative services initiatives were undertaken during the year. Under the NSC Program, over 11 000 carriers responded to the invitation to enter into the program and held satisfactory ratings by year end. In addition, 7233 applications for operating authorities and related documentation were also processed. To facilitate administrative simplicity, the province's Commercial Bus Operation Regulation was also amended by reducing the number of charter bus operating classifications.

As part of Alberta Transportation and Utilities' commitment to provide barrier-free transportation in Alberta, negotiations were initiated for the establishment of an accessible intercity bus service for the physically disabled, to run between Edmonton, Red Deer and Calgary.

More effective use of public relations strategies and joint strategies with organizations sharing similar safety interests enabled the department to increase slightly the number of advertising initiatives, exhibits and program publications promoting safety and road protection throughout the province. This was accomplished although budget reductions had taken

place in both safety and program communications. The major communication focus was on seat belt and safe log haul.

Through the joint efforts of the training staff and other enforcement agencies, training seminars were provided to peace officers in 25 county and municipal district jurisdictions, on safety and highway protection Regulations.

With the implementation of the Commercial Vehicle Inspection Program (CVIP) initiated January 1, 1992, revenue received from station and mechanic licence fees during the last quarter was \$225 800. Fees were raised for intra provincial operating authority transfers, livery and drive-yourself operating authorities.

A total of 123 820 permits were issued to regulate the movement of oversize loads on Alberta highways. Revenue generated from permit sales and user pay fees was approximately \$7 million. To provide the industry with a convenient method to pay their invoices, ground work was laid to initiate payment at their local banks.

PROTECTION OF THE HIGHWAY INFRASTRUCTURE

Several programs were in place to strategically manage the trucking industry to protect the investment in the province's highway infrastructure.

The Automated Road Ban Information System (ARBIS) provides the public and industry with road ban information on a 24-hour toll free access. Industry continued to be kept abreast of roads which are not normally banned in the spring, as well as truck route information through the cities via the Alberta Highway Map and Weight Guide.

Efforts continued to complete the next phase of the Transportation Association of Canada weight and dimension standards for Alberta and to expand the high-load transport corridor from Cochrane to Sundre. During the year, Junction 20 to 22 on Highway 39 was added to this corridor.

The Vehicle Inspection Stations (VIS) facilities in Slave Lake and Balzac were opened as well as CVSA Inspection Buildings at both these locations and in Coutts. To ensure availability of regional vehicle weighing sites, mobile inspection sites (MIS) were constructed in High Level, Clyde Corner, Claresholm and Cheadle. This brings their number to 14. The

MIS allow farmers and motor carriers in these areas to check vehicle and axle weights to assure their vehicles are within acceptable weight limits.

The agreement between Montana and Alberta, in place since 1990/91, allows commercial vehicles to haul Alberta weights from the border to Shelby, Montana on Interstate Highway 15. This agreement allows the trucking industry, manufacturers and producers to increase pay loads to Shelby and improve product competitiveness via reduced shipping. With mutual co-operation between the two authorities, it has provided significant benefits to the industries involved.

Discussions were also in place between Alberta and other Western Canadian jurisdictions and the Western States in an effort to streamline and standardize, where possible, regulations on the movement of vehicles and loads from a weight dimension perspective.

Educational and training programs were once again delivered to local governments and members of the commercial transport industry. As in the past, seminars on the standards and regulations for equipment use in Alberta were attended by trucking industry representatives and equipment manufacturers.

Specifically, 10 educational modules were developed to be used by staff to train industry personnel both during college courses and at the company level.

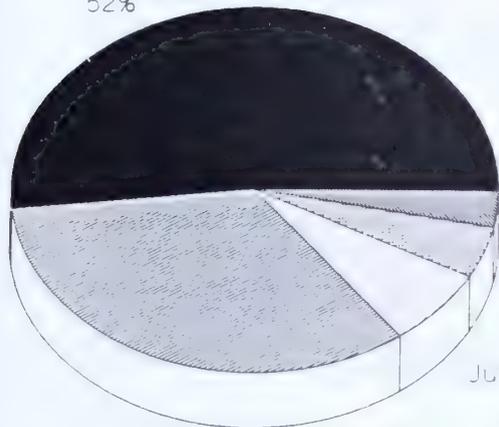
SAFETY EDUCATION

This year marked the beginning of a transition in delivering safety education programs to the public. While still involved in direct delivery, new programs were being introduced to allow teachers or other community leaders to receive and utilize, completely self-contained education packages on such subjects as seat belts, child safety seats, bicycle safety, school bus safety and winter driving. With these "Community Operated Safe Transportation" Programs just coming on-stream in January 1992, they were used 58 times in the first three months.

The safe use of Alberta's highways was also promoted by Safety Education Representatives going to classrooms and appearing before adult groups. During the year a total of 1994 such sessions were conducted for 108 200 Albertans.

Audience Reach - 1991/92 Total 108 200 Albertans

Kindergarten - Gr. 3
52%



Grade 4 - 6
34%

High School
3%
Adult
5%
Junior High
7%

Safety Education Programs

The extremely popular Mobile Safety City Program continues to be offered to Early Childhood Services (Kindergarten) and grade one students with 375 classes being visited during 1991/92 for a total of 8314 students. This program provides a realistic interactive learning environment where correct and safe pedestrian techniques are learned through actual practice and repetition.

ALBERTA MOTOR TRANSPORT BOARD

The Board's progression through the implementation of regulatory reform for the extra provincial trucking industry was virtually completed in this fiscal year.

As a result, the Board successfully downsized, by reducing the number of part time members by two. The membership is now composed of the chairman and three part time members.

Alberta has consistently supported the "sunsetting" on January 1, 1993 of the sections of the federal Motor Vehicle Transport Act, 1987, that will leave only fitness and safety as the only entry control.

The Council of Provincial Ministers Responsible for Transportation and Highway Safety are expected to confirm to the federal Minister of Transport that the sunsetting provisions of the Act should proceed on

schedule January 1, 1993 which will remove the "reverse onus" sections of the Act.

The regulatory reform process has resulted in a number of changes in the trucking industry. Mergers and acquisitions have developed, resulting in most sectors of the Alberta extra provincial trucking industry becoming more dominant in the north-south corridors. Alberta truckers are in a very competitive position to continue to develop new traffic, especially when the Canada/USA/Mexico Free Trade Agreement (NAFTA) is concluded.

The scheduled bus industry continues to report some serious declines in ridership throughout rural Alberta. The Board has worked closely with the industry and several inter-departmental task forces to develop information and data that will assist in maintaining scheduled bus service to as many communities as is economically feasible for the industry to provide.

Work continues on the development of legislation that will serve the trucking industry in an ease-of-entry environment, and with the view that the Board's role will shift from regulatory entry control, to dealing with the continued operation of the transportation industry, in the public interest, for safety and fitness of the carrier.

RURAL UTILITIES

RURAL GAS

This program provides rural Albertans with financial assistance to obtain natural gas service through a network of rural gas distributors and is unique to Alberta. This service ensures that natural gas is available to consumers at a reasonable cost.

Since its inception in 1973, over 138 000 natural gas service points were installed through an infrastructure of gas distribution pipelines totalling 99 000 kilometres in length. This total includes the 4801 service installations and 2200 kilometres of pipeline installed in 1991/92. The pipeline network is the largest of its kind in the world and reaches most agricultural areas of the province.

Grants totalling \$381 million, or approximately 60 per cent of the program capital cost of \$657 million, have been provided to rural gas distributors since 1973. This includes approximately \$9 million in grant payments during the past year. The program contributes to Alberta's rural economy through annual fuel cost savings of approximately \$160 million to rural residents and rural-based industry. In addition, the private sector and municipal utilities which operate under the program contribute the following capital and operating expenditures to the rural economy:

• Overall capital and operating expenditures	\$115 million
• Direct employment	900 person-years
• Total salaries for direct employment	\$26.2 million

Gas Alberta serves as the gas supply broker for most of Alberta's small rural gas utilities. The program manages a natural gas supply pool of more than 16 billion cubic feet each year, and uses the economies of scale from this pool to provide rural gas utilities with secure and reliable gas supplies at a reasonable price. In 1991, Gas Alberta reduced the price for gas supplies by a further \$0.15 per gigajoule, the fifth year in a row that prices have been reduced as a result of gas industry deregulation.

GRANTS TO INDIVIDUALS

Alberta Farm Water Grant Program

During the 1991/92 fiscal year the Alberta Farm Water Grant Program assisted farmers and ranchers with water systems for domestic and/or livestock use. No new applications were accepted as the program covered only funding for applications received prior to July 27, 1990.

A total of approximately \$3 million in grants was paid out during the year.

Remote Area Heating Allowance

The Remote Area Heating Allowance Program lowered heating costs by an average of \$338 for 1274 Albertans who use propane or heating oil for heating. These people are mostly located outside the boundaries of a natural gas distributor. Total rebates paid during the 1991/92 fiscal year were \$431 000 compared to about \$1 million in the prior year.

RURAL ELECTRIFICATION PROGRAM

The Rural Electrification Revolving Fund has provided financing for new electrical services to provincial farmers since 1953. Lending activities were extended in 1987 to assist rural electrification associations with the rebuilding of distribution systems. Approximately \$188 million in loans have been issued through the lifetime of this program and include 798 loans in 1991/92 for a total of approximately \$5 million in loans and grants. The following list describes program activity over the past year:

- a total of \$2 744 620 was issued in loans for new electrical services
- eighty non-interest bearing loans totalling \$1 205 540 were issued to rural electrification associations to rebuild and improve distribution systems
- payments on outstanding loans during the year totalled \$3 892 719
- at year end, the outstanding loans receivable balance of the Rural Electrification Revolving Fund was \$38 522 627.

Grant Activities:

A recoverable grant program was introduced in April of 1990. Some \$740 000 was advanced in 1991/92 to reduce the cost of expensive electrical service, and repayment of these grants is contingent upon additional connections to the existing distribution system.

Grants totalling \$50 000 were issued to the Alberta Federation of Rural Electrification Associations to assist associations in achieving self-sufficiency, \$30 000 of which went towards the publication of a history book. In addition, grants of approximately \$33 000 and \$13 000 were issued under the Isolated Communities and Generating Plant Grant Programs respectively.

ADMINISTRATIVE SERVICES

The main focus of Administrative Services has been to enhance the levels of service and communication between the operating areas of the department and administration.

Services are provided in four functional areas:

- FINANCIAL SERVICES
- PERSONNEL SERVICES
- GENERAL SERVICES
- INFORMATION SYSTEMS

ASSISTING OUR PARTNERS

- A number of municipalities in Alberta manage highway construction work which is funded by Alberta Transportation and Utilities. The introduction of the Goods and Services Tax threatened this arrangement because Revenue Canada intended to apply the tax to the work in a manner that would have resulted in a cost to the municipalities. Negotiations between Alberta Treasury, Revenue Canada and Alberta Transportation and Utilities were completed which resulted in a relief from this tax for the municipalities.
- To improve the operational fitness of carriers, vehicles and drivers, development efforts continued on the National Safety Code, Commercial Vehicle Inspection, and Collision Information Systems.

IMPROVING: Our Service Delivery

- A financial reporting package was developed for managers who are responsible for operations funded through the Transportation Revolving Fund. Financial information for the current month, fiscal year to date, and previous fiscal year to date is significant to the enterprises operated by Equipment, Supply and Services Branch as well as the investment in land and gravel by Regional Transportation.
- To enhance the understanding by department staff of the government financial systems, the seminar "Financial Management for Non-Financial Managers" was provided on a

regular basis and as requested. This seminar provides participants with an understanding of the basic financial management processes in the Alberta government as well as some skills for applying these concepts in administering program responsibilities.

- The development of local area networks (LAN) were underway within the Twin Atria Building. The use of LAN's not only allow for a more cost effective use of software and hardware equipment but provide a significant communication link to aid in all aspects of the department's operations.

DEPARTMENTAL OPERATIONS

- Plans to implement an additional module to the Financial Reporting and Control System were finalized. This module will enable the decentralization of financial administrative functions to the regions, districts and branches resulting in improved operations and program delivery. Additionally, the annual budget process was improved by enhancing the computer based budget preparation model to facilitate budget decision making by using various scenarios to achieve optimum program levels for budget funds available.
- An improvement to the reporting of overtime allocation resulted in a substantial reduction in costs to the department.
- Assistance was provided to department staff to formulate strategies to accommodate the requirement to adjust the department workforce. One of the tools provided for a Voluntary Severance Program.
- The use of automation was expanded to improve departmental planning, engineering, program management and administrative functions.
- The Strategic Information Systems Plan was updated to reflect Electronic Data Processing (EDP) priorities that support the department's business priorities.
- The development of a Disaster Recovery Plan was begun. Its aim is to ensure an ability to recover vital computer functions in the event of a disaster.

- Information Engineering Methodology concepts have been adopted and are being implemented in order to improve the productivity of systems development staff.
- Cost savings, convenience, and prompt, quality service in the duplication area has significantly increased the volume of production that is completed internally. This is due to the acquisition of a state-of-the-art Canon CLC500 copier and the Xerox 5090. Volume copying completed by the Xerox 5090 has increased from 4.2 million in 1988/89 to 6.8 million in 1991/92.

OUR EXPERTISE

- To ensure the best service and support to the department operations, Financial Services has embarked on a rigorous training and development program which included cross-function training and skills upgrading.
- To improve the co-ordination of internal departmental information, Library Services and Record Services were reorganized under one manager.

INTERNAL AUDIT

Internal Audit Services (IAS) provides departmental managers with an assessment of the adequacy of the internal controls incorporated into all aspects of the department's operations. This assessment includes an evaluation of how effective and how efficient our operations are. In 1991/92 IAS completed five audits and one special investigation that had been initiated in the previous year. Sixteen new audits were commenced during the year. Nine of these audits were completed by year end. There were no new special investigations undertaken during this time period.

During the year the audits completed included an examination of the Pay & Benefits Section of Personnel Services; an examination of the controls in place in Equipment Supply and Services that monitor the fuel consumption of departmental vehicles; an examination of the revenues generated from surplus properties in both Property Services in Edmonton and in each of the six Regional Offices. The Engineering Project Reviews were conducted in Red Deer, Vermilion, and Peace River (Fairview). Two of these projects were managed by departmental

employees and the other was managed by a consultant.

In addition to carrying out audits, IAS also commenced a series of "Follow Up" audits. A "follow up" is the final step in the audit process. The purpose of a "follow up" is to ensure that the corrective actions proposed during the audit by departmental managers have been implemented; and to ensure that these corrective actions have achieved the desired results.

APPENDICES

ORGANIZATIONAL ROLES IN ALBERTA TRANSPORTATION AND UTILITIES

Responsibilities are noted under each agency, division and branch.

MOTOR TRANSPORT BOARD

- manages the regulatory system governing the intra and extra provincial truck and bus industry; within the framework of the Alberta Motor Transport Act, and as delegated to the Board by the Federal Motor Vehicle Transport Act, 1987.

ALBERTA RESOURCES RAILWAY

- accountable for revenues generated from railway usage
- annually assesses required railway maintenance.

INTERNAL AUDIT SERVICES

- provides the department with a means of assessing the effectiveness and efficiency of its operations.

LEGAL SERVICES

- provides legal services to the department through seconded Attorney General's Department employees.

PUBLIC COMMUNICATIONS

- provides public relations counsel and communications services supporting departmental policies, programs and activities.

PLANNING AND DEVELOPMENT

- provides advice and recommendations to the department and government on policies affecting all modes of transportation, programs

and plans for improvements to the transportation system.

POLICY DEVELOPMENT

- provides direction for strategic planning for the department
- develops and evaluates transportation policies, programs and legislation affecting all modes of transportation.

PLANNING

- develops traffic statistics and forecasts and identifies requirements for improvements to the highway system
- translates requirements into long range province-wide plans and location specific functional plans
- manages roadside development and access to the highway system.

ADMINISTRATION

- provides administrative support services necessary for the delivery of departmental programs.

FINANCIAL SERVICES

- provides financial planning co-ordination and a controllership function aimed to ensure efficient and effective financial policies, procedures and controls.

GENERAL SERVICES

- provides a variety of essential services, including accommodation and facilities planning, records management, library, insurance and office support.

INFORMATION SYSTEMS

- provides computer technology expertise and support aimed to enhance the productivity of those involved in the delivery of department programs.

PERSONNEL MANAGEMENT

- provides expert personnel management services aimed to enhance the effectiveness of the human resources of the department.

REGIONAL TRANSPORTATION

- through a decentralized framework of six transportation regions and 15 districts, is responsible for the delivery of the department's capital construction (roadway, bridge and airport) and maintenance programs.

REGIONS AND DISTRICTS

- provides roadside management and field implementation for the delivery of construction and maintenance of the provincial transportation system (includes primary highways, improvement district roads, ferries, airports and rest areas).
- provides front line service to Albertans at the local level.

PROGRAM DEVELOPMENT

- responsible for the development of capital construction and rehabilitation programs
- maintains inventories of road systems.

PROGRAM MANAGEMENT

- responsible for scheduling and fiscal control of capital construction and rehabilitation programs
- monitors current year programs, project schedules, and costs.

TRAFFIC OPERATIONS

- establishes traffic engineering and maintenance standards and procedures to ensure the provincial transportation system operates in a safe and efficient manner
- responsible for provincial airport, ferry and rest area operations.

ENGINEERING

- provides engineering, contract administration and research standards and services in support of departmental construction, maintenance and other programs, and delivery of the department's major bridge construction programs.

BRIDGE ENGINEERING

- provides engineering for and delivery of the department's major capital and maintenance bridge programs, and engineering support for regional bridge activities.

CONTRACTS ENGINEERING

- provides contract administration and environmental co-ordination standards and services for the department's construction, maintenance and other programs.

DESIGN ENGINEERING

- provides and co-ordinates geometric and earthwork design, survey, right-of-way, plans, utilities, engineering systems, and related training and materials acquisition standards and services for the department's construction and other programs.

MATERIALS ENGINEERING

- provides materials, pavements and geotechnical engineering, design and technical services and standards for the department's construction, maintenance and other programs.

RESEARCH AND DEVELOPMENT

- plans and manages applied research and technology transfer programs to support the department's construction, maintenance and other operations.

MOTOR TRANSPORT SERVICES

- Ensures a safe and effective surface transportation user environment based on the optimum use of transportation resources while minimizing abuse of the transportation network. Develops and implements standardized legislation, regulations, and operating practices on the international, national and provincial level leading to uniform and safe standards for the movement of people and goods.

ENGINEERING

- develops weight and dimension regulations, policies and procedures which balance highway user needs with the physical capabilities of the road to provide a high standard of highway safety.
- integrates Alberta's weight and dimension standards with international and national bodies to develop effective and uniform regulations and codes of practice for North America.
- provides consultative advice to industry on evaluation of equipment and standards.
- provides additional seasonal protection for highways by using a system of winter weights, road bans and permits.

SUPPORT SERVICES

- provides administrative, communications and training, and operational support services within the division.
- provides for permit issuance and division finance and revenue collection.
- provides secretariat services for Motor Transport Board operations.

TRANSPORT FIELD OPERATIONS

- as the enforcement arm of the department, ensures public vehicle compliance with applicable Provincial/Federal Statutes and Regulations.

- integrates Alberta's enforcement efforts to develop a uniform program of enforcement that is firm yet fair across North America.
- provides joint enforcement services with Montana in support of the North American Free Trade Agreement and as a model for inter-jurisdictional co-operative enforcement services between Canadian provinces.

SAFETY AND NATIONAL SAFETY CODE (NSC)

- provides direction and leadership to ensure the safe transportation of people and goods on Alberta's highways.
- administers Alberta's Railway Legislation as it pertains to safety and operating practices on non-federally chartered railways.
- takes positive, pro-active steps to reduce motor vehicle collisions and their accompanying injuries and fatalities.
- administers the NSC and integrates Alberta's programs into national and international heavy truck safety efforts.

PLANNING AND STATISTICS

- provides planning, research, business analysis and policy development to the division.
- operates the Alberta Collision Information System (ACIS).
- provides one stop shopping for a wide variety of statistics and other information related to the motor transport industry.

SUPPORT PROGRAMS

- provides financial assistance programs and related technical, advisory and regulatory services to urban and rural municipalities and individuals.

EQUIPMENT SUPPLY AND SERVICES

- provides fleet, materials and shop services, supporting the department's operations.

GAS UTILITIES

- manages, co-ordinates and administers all aspects of the department's involvement in the rural gas utility industry.

MUNICIPAL SERVICES

- delivers a variety of financial, technical and advisory services to cities, towns, villages, summer villages, municipal districts, counties and special areas with respect to transportation and utilities infrastructure.
- administers utilities officers assistance to rural municipalities.

PROPERTY SERVICES

- provides policy development and standards for land acquisition and management and monitors the property administration process.

URBAN TRANSPORTATION

- provides financial, technical and advisory services to the province's 17 urban centres respecting transportation projects.
- liaises with city council and administrations ensuring the program meets cities' road priorities and that projects utilizing program funds are consistent with the department's overall transportation system.

UTILITY SERVICES

- administers the department's grant, rebate and loan programs to individual Albertans in support of rural electrification, farm water systems and reducing heating fuel costs.

FINANCIAL STATISTICS

ALBERTA TRANSPORTATION AND UTILITIES REVOLVING FUND OPERATIONS YEAR ENDED MARCH 31, 1992

	1992	1991
	(\$'000 000)	(\$'000 000)
Transportation Revolving Fund:		
Total Assets	\$ 89.1	\$ 93.1
Current Liabilities	4.1	6.7
Advances from the Province of Alberta (maximum \$200 million)	85.0	87.0
Surplus (deficit)	0.0	(0.7)
Revenue	62.4	72.3
Expenses	61.7	77.0
Net Income (Loss) for the year	\$ 0.7	(\$ 4.7)
Rural Electrification Fund:		
Total Assets	\$ 40.4	\$ 39.9
Advances from the Province of Alberta (maximum \$75 million)	39.8	39.3
Interest payable to GRF	0.5	0.4
Loan repayments	3.9	4.3
Loan advanced	\$ 4.0	\$ 4.7
Gas Alberta Operating Fund:		
Total Assets	\$ 9.0	\$ 10.8
Current Liabilities	2.9	4.1
Advances from the Province of Alberta (maximum \$12 million)	3.7	5.2
Surplus	2.4	1.5
Revenue	24.9	28.3
Expenses	24.0	27.3
Net Income (Loss) for the year	\$ 0.9	\$ 1.0

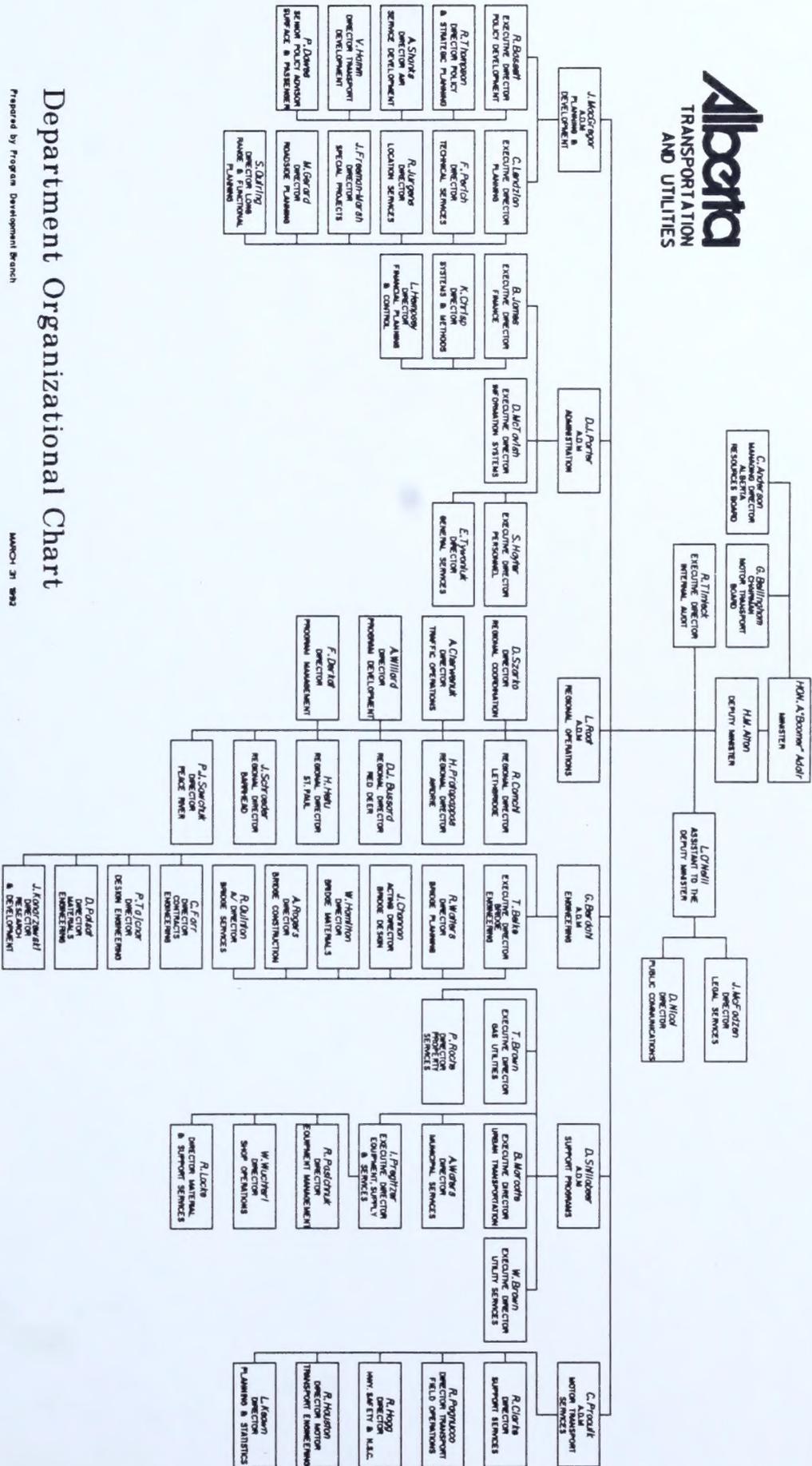
ALBERTA TRANSPORTATION AND UTILITIES
GENERAL REVENUE FUND
YEAR ENDED MARCH 31, 1992

BUDGET ESTIMATES, SPECIAL WARRANTS, TRANSFERS AND EXPENDITURES
(CLASSIFIED BY CONTROL GROUP)

	Budget Estimates	Prior Year Liability	Special Warrants	Transfers	Total Authorization	Actual Expenditures
Manpower	\$ 141 871 700				\$ 141 871 700	\$ 135 880 320
Supplies and Services	426 685 300				427 120 300	419 476 357
Grants	193 485 400			\$ 435 000	193 050 400	195 678 509
Fixed Assets	8 430 700			(435 000)	8 430 700	6 125 439
Other	67 500				67 500	50 638
	\$ 770 540 600			\$ 0	\$ 770 540 600	\$ 757 211 263
Operating	\$ 181 624 500			\$ 6 640 379	\$ 188 264 879	\$ 184 043 777
Capital	588 916 100			(6 640 379)	582 275 721	573 167 486
	\$ 770 540 600			\$ 0	\$ 770 540 600	\$ 757 211 263

REVENUE
(CLASSIFIED BY SOURCE)

	1992	1991
	(\$'000)	(\$'000)
Payments from the Government of Canada	\$ 2 937	\$ 3 462
Fees, Permits and Licenses	7 482	7 167
Refunds of Expenditure	1 408	1 041
Cost sharing agreements	3 722	9 901
Sales of assets and other revenues	936	16 014
Total Revenue	\$ 16 485	\$ 37 585



Department Organizational Chart

Prepared by Program Development Branch

MARCH 31 1983

