ANNUAL REPORT

OF THE

Department of Public Works

OF THE

PROVINCE OF ALBERTA

1964-65

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON, ALBERTA
Printed by LEE S. WALL, Printer to the Queen's Most Excellent Majesty
1966

ANNUAL REPORT

OF THE

Department of Public Works

OF THE

PROVINCE OF ALBERTA

1964-65

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON, ALBERTA
Printed by LEE S. WALL, Printer to the Queen's Most Excellent Majesty
1966

THE HONOURABLE F. C. COLBORNE

Minister of Public Works

EDMONTON, October 1, 1965.

To His Honour
J. PERCY PAGE,
Lieutenant Governor of the
Province of Alberta.

Sir:

The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ended March 31, 1965.

Respectfully submitted,

F. C. COLBORNE,
Minister of Public Works.

DEPARTMENT OF PUBLIC WORKS

Edmonton, Alberta
October 1, 1965

TO:

The Honourable F. C. Colborne,
Minister,
Department of Public Works.

Sir:

I have the honour to submit herewith a report covering the activities of the Department of Public Works for the fiscal year ending March 31, 1965.

During the past year the Department undertook an extensive programme of construction and maintenance, the details of which are contained in this report. Some illustrations are included of buildings that were under construction or completed in 1964-65.

The Mechanical Branch, which is responsible for the operation and maintenance of the power and heating plant steam services, continued this year to provide its services to eighteen Provincial Institutions.

The Department arranged for the construction of a number of retail outlets at various points in the Province for the Alberta Liquor Control Board.

Staff changes which took place in the year reviewed are covered in the report from the Personnel Section.

Respectfully submitted,

S. E. KENWORTHY,
Acting Deputy Minister of Public Works.

THE FUNCTION OF THE DEPARTMENT OF PUBLIC WORKS

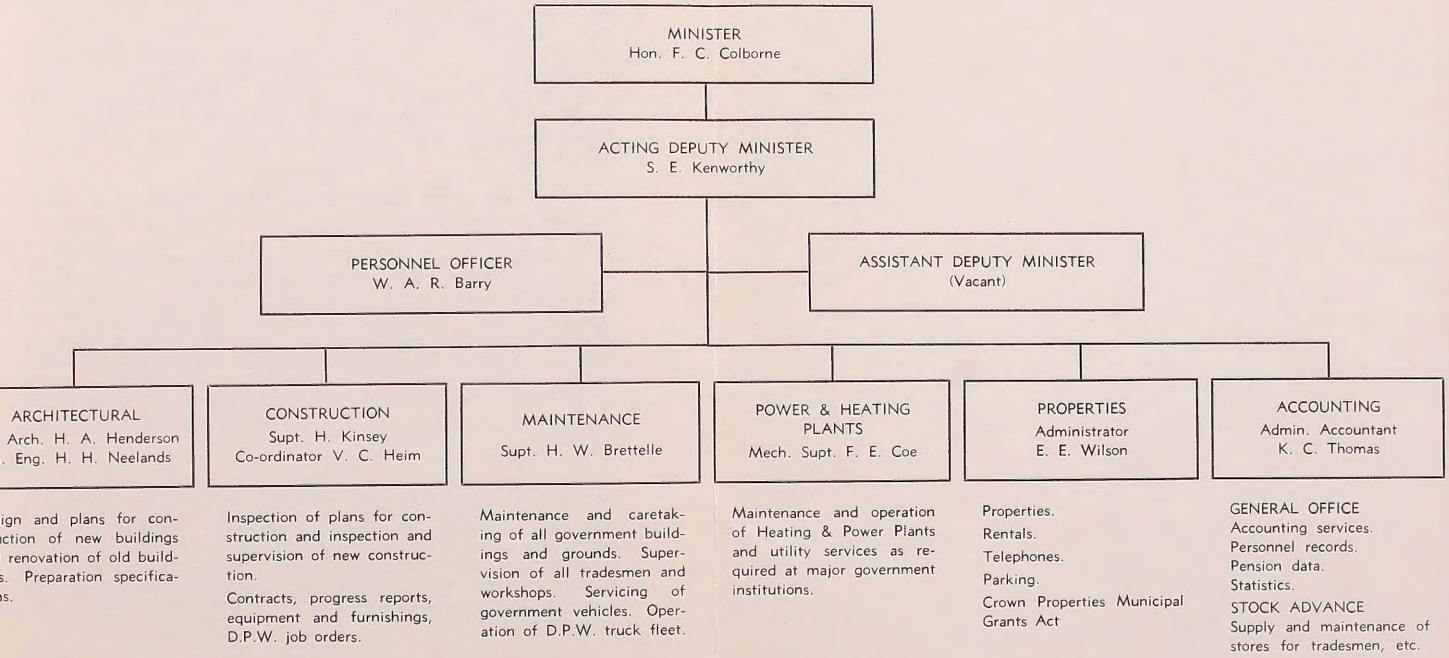
The Department of Public Works is required to provide suitable accommodation, the necessary furnishings and equipment to all Departments of the Government so that the Departments may carry out the various functions required of them. Such accommodation is provided in buildings rented, purchased or constructed by the Department of Public Works.

The Department is responsible for the construction of all Provincial Government Buildings.

The chief officials of the Department are:

Minister of Public Works	Hon. F. C. Colborne
Acting Deputy Minister of Public Works	Mr. S. E. Kenworthy
Assistant Deputy Minister of Public Works	(vacant)
Chief Architect	Mr. H. A. Henderson
Chief Engineer	Mr. H. H. Neelands
Mechanical Superintendent	Mr. F. E. Coe
Administrative Accountant	Mr. K. C. Thomas
Superintendent of Maintenance	Mr. H. W. Brettelle
Superintendent of Construction	Mr. H. Kinsey
Co-ordinator of Capital Works	Mr. V. C. Heim
Property Administrator	Mr. E. E. Wilson
Personnel Officer	Mr. W. A. R. Barry

The Department is also responsible for the servicing and maintenance of all Provincial Government owned buildings, with the exception of various self-contained institutions, such as the Schools of Agriculture and the University of Alberta. The maintenance and servicing of these buildings needs the services of a large group of men of assorted technical skills. Carpenters, plumbers, electricians and other tradesmen keep these buildings in good repair. Gardeners maintain the surrounding grounds which are quite extensive at some points, namely, the Provincial Mental



ign and plans for con-
ction of new buildings
renovation of old build-
s. Preparation specifica-
ns.

Inspection of plans for construction and inspection and supervision of new construction.

Contracts, progress reports, equipment and furnishings, D.P.W. job orders.

Maintenance and caretaking of all government buildings and grounds. Supervision of all tradesmen and workshops. Servicing of government vehicles. Operation of D.P.W. truck fleet.

Maintenance and operation of Heating & Power Plants and utility services as required at major government institutions.

Properties.

Rentals.

Telephones.

Parking.

Crown Properties Municipal Grants Act

GENERAL OFFICE

Accounting services.
Personnel records.
Pension data.
Statistics.

STOCK ADVANCE

Supply and maintenance of stores for tradesmen, etc.

Institute, Oliver and the Institute of Technology and Art, Calgary. Caretakers keep the buildings clean, men operate the elevators, and watchmen guard the buildings at night.

The extensive programme of construction which we are presently undertaking requires the services of a large staff of architects, engineers, draughtsmen, surveyors and building inspectors, who design and plan the buildings and supervise the work of the contractors. Some urgent and also minor construction work is undertaken by our own forces. Such work is kept to a minimum because it is the policy of the Department to have whatever construction work necessary done whenever possible by the contractors. This requires the Department to maintain a staff of tradesmen which is augmented by temporary staff as the requirements of the work necessitate.

The Department also operates various trade shops where furniture and equipment such as laboratory benches, etc. are made.

A group of engineers, firemen and tradesmen working under the direction of the Mechanical Superintendent is responsible for the supply of electric power, heat, water and sewage disposal at the eighteen largest institutions. These men also design, install and maintain the special equipment necessary. At these institutions, farm machinery, milking, canning, laundry, kitchen and fire fighting equipment are also maintained and kept in good repair by the staff. The utilities and maintenance servicing of a large institution is comparable to the servicing of a town of two or three thousand people.

The Department also has a number of other functions including the arrangements for the installation and rental of telephones, and, when required, the buying and leasing of lands for building sites. The Department is also responsible for the renting to civil servants Government-owned residences which are located throughout the Province, mainly at the Provincial Mental Institutions and Gaols, and parking stalls on Government property in Calgary and Edmonton.

A large modern garage, located on the ground floor of Block "A", Terrace Building, Edmonton, services the automobile fleet of the Government.

CALLING OF TENDERS AND AWARDING OF CONTRACTS

Departments of the Government which need additional work space submit their space requirements to the Department of Public Works. If, in order to provide this additional space, a new building is deemed necessary, the Architectural Office effects liaison with the Department or Departments concerned, and the actual space requirements and the purpose of the proposed building are determined. In co-operation with the Departments which will be housed in the building, preliminary plans are drawn, and from such plans an estimate of the cost of construction is obtained. A sum of money is submitted in the annual estimates for the next fiscal year for approval by the Legislature. Needless to say, the actual amount of money requested is dependent upon the amount of construction that this Department estimates will be done in the following fiscal year. If actual construction is not expected in the following fiscal year, a nominal sum not exceeding $10,000.00 is requested to cover preliminary investigations on the site, which may include soil testing and/or line relocations.

The design and the basic construction materials of which the structure will be built are determined by the Deputy Minister in consultation with the Chief Architect and the Chief Engineer. Detailed plans are then drawn and submitted for approval to the Deputy Minister, bearing the signature of the Chief Engineer and the Chief Architect. If approval is obtained from the Deputy Minister, the plans are submitted to the Minister of the Departments concerned and these Ministers are required to sign the plans. Finally, the plans are submitted to the Minister of the Department of Public Works for signature.

Advertisements calling for tenders are placed in the major newspapers throughout the Province, in Trade Papers and the various Construction Associations and such advertisements usually run for a period of three days.

The size of the project under construction determines the length of the "tender period". All tenders are opened in public at two o'clock on a Thursday afternoon in the Conference Room of the Department of Public Works. The Department will consider the use of acceptable alternate materials to those specified during the "tender period" but applications for such alternate materials will not be accepted later than ten days prior to the closing date of tenders . No approval for the employment of alternate materials is considered after the contract has been awarded. When it is necessary to issue an addendum approving an alternate material

or a change in design, such addenda are issued at least seven days prior to the closing of tenders and, incidentally, these addenda are sent by double registered mail to any contractor who has indicated his intention to bid on the project by obtaining plans and specifications. The plans and specifications are available by the payment of a nominal deposit only to those firms registered in the Province of Alberta. This is refunded when the plans and specifications are returned to the Department. Additional copies of the plans and specifications are also sent to the Construction Associations in the major cities throughout the Province.

During the past year the Department has continued to use the services of the Alberta Bid Depository for all contracts exceeding $100,000.00. The Alberta Bid Depository is operated by the Alberta Construction Association, which represents the building industry in Alberta. This system requires all sub-contractors to send to the Alberta Bid Depository any bids the sub-contractor wishes to submit to a general contractor. The Alberta Bid Depository distributes to the general contractors the bids received from the sub-contractors.

Each tenderer must submit with his tender a sum of not less than 10% of the total tender price. While such deposit is usually by certified cheque, the Department would accept cash, Dominion of Canada Bearer Bonds or a Bid Bond. At the close of the tender opening, the tender deposits submitted by the two lowest tenderers are held pending a review of tenders. The lowest tender is checked carefully by the Chief Architect and the Chief Engineer to ensure that it complies with the specifications and that all sub-contractors are shown and that those shown are acceptable to the Department. A Bid Sheet is prepared and signed by the committee that opened the tenders and forwarded to the Minister of Public Works with a Press Release giving complete details. Following the Minister's approval, a letter of intent is forwarded by the Department to the successful tenderer advising that contract documents are being prepared for his signature. The contract documents are prepared in triplicate and forwarded to the contractor . When returned properly signed by the contractor, they are then signed by the Minister of Public Works.

When the successful contractor returns the signed contract documents to the Department he may substitute his certified cheque, which equals not less than 10% of the total tendered price, with a 100% Material and Performance Bond. If he does not do this but leaves as a guarantee or security deposit the original certified cheque or replaces this cheque with Dominion of Canada Bearer Bonds equal to 10% of the total tendered price, the Department retains as a holdback 10% of the total of each progress

estimate. However, if the contractor does substitute a 100% Material and Performance Bond for his original certified cheque, the Department retains 15% of the total of each progress estimate. It will thus be seen that when the contractor has completed the project, the Department has either:—

1. A certified cheque or Dominion of Canada Bearer Bonds equal to 10% of the total tendered price as a guarantee for the satisfactory completion of the contract and also a holdback equal to 10% of the total payments made by progress estimates, or
2. A 100% Material and Performance Bond as a guarantee for the satisfactory completion of the contract and also a holdback equal to 15% of the total payments made by progress estimates.

The Department makes an inspection of the completed project and if the contract has been completed to the satisfaction of the Department, payment of the monies held back from the payment of each progress estimate is made to the contractor 30 days later. If the project is not completed to the satisfaction of the Department, the payment of the monies held back from the payment of each progress estimate is withheld until all deficiencies have been corrected.

Material and performance bonds expire one year after the acceptance of the project, thus providing a guarantee for that period. If a certified cheque or Government of Canada bonds equal to 10% of the tender price has been deposited as a guarantee for the successful completion of the contract, the cheque or bonds are returned to the contractor one year after the completion of the project.

TENDERS CALLED AND CONTRACTS AWARDED

THE FOLLOWING BIDS WERE OPENED IN PUBLIC AND CONTRACTS AWARDED DURING THE FISCAL YEAR WHICH ENDED MARCH 31, 1965. Bids marked with an asterisk were withdrawn by the tenderers before this Department had forwarded a letter of acceptance to the bidder or were rejected by this Department because the bidder failed to comply with the regulations governing the submission of tenders. Where the low bid was withdrawn or rejected and the contract was awarded to the second lowest bidder, authority for so doing was obtained by Order of the Lieutenant Governor in Council.

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
ANIMAL SCIENCES BUILDING, AGRICULTURAL & VOCATIONAL COLLEGE, VERMILION.	
April 2nd, 1964.	
A. W. Homme Ltd.	$ 223,356.00
Buchanan Construction & Engineering Co. Ltd.	214,167.00
Universal Construction Co. Ltd.	210,000.00
K. G. Myers Construction Ltd.	209,800.00
Bird Construction Co. Ltd.	208,524.00
P. W. Graham & Sons (1963) Ltd.	205,890.00
Norman Nilsen Construction Ltd.	205,629.00
Poole Construction Co. Ltd.	205,562.00
Burns & Dutton Construction Ltd.	202,366.00
Briden Construction Ltd.	199,990.00
Forest Construction Ltd. awarded	**198,000.00**
LANDSCAPE GRADING AT RECREATION AREA, DEERHOME INSTITUTION, RED DEER.	
April 9th, 1964.	
Beckley-Campbell Construction Co. Ltd. awarded	**8,100.00**
PROVINCIAL BUILDING, SPIRIT RIVER.	
April 9th, 1964	
Monteyne & Hof Construction Ltd.	169,652.75
Norman Nilsen Construction Ltd.	159,427.50
St. Laurent Construction Ltd.	157,861.00
Lance Construction Ltd.	156,651.00
Noral Construction Ltd.	155,950.00
Camwil Construction Ltd.	153,200.00
W. J. Bennett Contractors Ltd.	152,307.00
Burns & Dutton Construction (1962) Ltd.	150,900.00
Poole Construction Co. Ltd.	150,659.00
Buchanan Construction & Engineering Co. Ltd. awarded	**146,650.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
PAVING & RELATED WORK, PROVINCIAL GAOL AND BAKER SANATORIUM, CALGARY. April 16th, 1964.	
Standard-General Construction Ltd.	88,620.00
M. & S. Paving Ltd.	69,620.00
Pioneer Paving Ltd.	64,151.00
Gallelli and Sons Co. Ltd.	63,616.00
Everall Construction (Edmonton) Ltd. awarded	**58,681.00**
METALS SHOP, AGRICULTURAL & VOCATIONAL COLLEGE, OLDS. April 23rd, 1964.	
Hornstrom Bros. Construction Ltd.	174,987.00
C. J. Oliver Ltd.	173,600.00
Burns & Dutton Construction (1962) Ltd.	171,932.00
Oland Construction (1959) Ltd.	168,900.00
Poole Construction Co. Ltd.	167,954.00
Forest Construction Ltd.	167,500.00
Briden Construction Ltd.	164,890.00
A. W. Homme Ltd. awarded	**164,350.00**
GRAVELLING AND RELATED WORK, LANDS & FORESTS YARD AND FOREST SERVICE OFFICE, WHITECOURT. April 30th, 1964.	
Nadon Paving Co.	8,674.00
Poole Construction Co. Ltd.	8,639.00
Paul Flasha Trucking Ltd.	7,343.00
Everall Construction (Edmonton) Ltd.	6,610.00
Clarke Engineering Ltd. awarded	**6,273.00**
GRADING AND RELATED WORK, FOOTNER LAKE LANDS & FORESTS YARD, HIGH LEVEL. May 14th, 1964.	
Moore Construction Ltd.	57,372.00
Fraser & Rice Construction Ltd.	44,990.00
Brewster Construction Ltd.	39,509.00
Mike Henitiuk Construction Ltd. awarded	**31,950.60**
TREASURY BRANCH BUILDING, MANNING. May 21st, 1964.	
Alta-West Construction Ltd.	65,990.00
R. V. Coambs Construction Ltd.	64,500.00
Camwil Construction Ltd.	62,900.00
Rosen Construction Co. Ltd.	61,340.00
Lahey Construction Peace River Ltd.	61,141.00
Briden Construction Ltd. awarded	**58,400.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
HOME FOR THE AGED, CROSSFIELD. May 28th, 1964.	
H.D.C. Construction Co. Ltd.	212,748.00
Hornstrom Bros. Construction Ltd.	206,929.00
Kenwood Engineering Construction Ltd.	206,800.00
Burns & Dutton Construction (1962) Ltd.	205,500.00
Poole Construction Co. Ltd.	202,853.00
Bird Construction Co. Ltd.	198,440.00
Alta-West Construction Ltd. awarded	**192,632.00**
HOME FOR THE AGED, MYRNAM. May 28th, 1964.	
A. W. Homme Ltd.	212,511.00
H.D.C. Construction Co. Ltd.	206,538.00
The Genereux Building Supplies Ltd.	197,898.00
Buchanan Construction & Engineering Co. Ltd.	195,867.00
P. W. Graham and Sons (1963) Ltd.	194,048.00
Burns & Dutton Construction (1962) Ltd.	193,209.00
Poole Construction Co. Ltd.	192,983.00
Alta-West Construction Ltd.	191,712.00
Forest Construction Ltd. awarded	**191,000.00**
EXTENSION OF WATER AND SEWER LINES AND RELATED WORK, PROVINCIAL GAOL, LETHBRIDGE. May 28th, 1964.	
M. & S. Paving Ltd.	36,020.70
Borger Construction Ltd.	28,849.00
Oland Construction (1959) Ltd.	27,010.00
Craig's Welding and Construction awarded	**23,496.30**
STORAGE BUILDING, DEPARTMENT OF AGRICULTURE, COLONIZATION BRANCH, LETHBRIDGE. May 28th, 1964.	
Chronik Construction Ltd.	20,000.00
Oland Construction (1959) Ltd.	18,600.00
Modrzejewski Construction Ltd.	17,890.00
Kenwood Engineering Construction Ltd.	17,200.00
Bird Construction Co. Ltd. awarded	**17,199.00**
WAREHOUSE FOR DEPARTMENT OF LANDS & FORESTS, FOOTNER LAKE. June 4th, 1964.	
Solar Construction Co. Ltd.	43,900.00
Buchanan Construction & Engineering Co. Ltd.	43,690.00
Fraser and Rice Construction Ltd.	41,578.00
A. W. Homme Ltd.	39,932.00
Byrnes and Hall Construction Ltd. awarded	**39,222.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
DEMOLITION & REMOVAL OF A FRAME RESIDENCE, 10704 - 98th AVENUE, EDMONTON. June 4th, 1964.	
Adby Demolition Co. Ltd. ..... awarded	Gov't to pay: **785.00**
DEMOLITION OF A FRAME RESIDENCE, 9842 - 108th STREET, EDMONTON. June 4th, 1964.	
Adby Demolition Co. Ltd. ..... awarded	Gov't to pay: **500.00**
DEMOLITION & REMOVAL OF A FRAME AND STUCCO STORE & SUITE, 9709 - 109th STREET AND 10824 - 97th AVENUE, EDMONTON. June 4th, 1964.	
Adby Demolition Co. Ltd. ..... awarded	Gov't to pay: **640.00**
REMOVAL AND DEMOLITION OF FRAME RESIDENCE, 9719 - 109th STREET, EDMONTON. June 4th, 1964.	
Adby Demolition Co. Ltd. ..... awarded	Gov't to pay: **420.00**
DEMOLITION OF OLD SHED AND GARAGE, 9719 - 109th STREET, EDMONTON. June 4th, 1964.	
Adby Demolition Co. Ltd. ..... awarded	Gov't to pay: **460.00**
REMOVAL & DEMOLITION OF TWO-STORIED BRICK VENEER AND STUCCO RESIDENCE, 612 - 7th AVE., S.W., CALGARY. June 4th, 1964.	
Adby Demolition Co. Ltd. ..... awarded	Gov't to pay: **1,195.00**
SUPPLY AND INSTALLATION OF STEAM LINES TO HOUSEHOLD ECONOMICS & EDUCATION BUILDINGS, UNIVERSITY OF ALBERTA, EDMONTON. June 11th, 1964.	
C. R. Frost Co. Ltd.	40,558.00
Haddow & Maughan Ltd.	39,500.00
Northway Plumbing & Mechanical Installations Ltd.	38,897.00
Lockerbie & Hole Western Ltd.	37,620.00
Carse, Anderson Ltd.	37,519.00
Meccon Installations Ltd.	37,322.00
Industrial Power Installations Ltd.	36,126.00
Canadian Comstock Co. Ltd.	35,876.00
Economy Plumbing Ltd. ..... awarded	**34,673.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
UNDERGROUND WATER STORAGE RESERVOIR & RELATED WORK, BAKER MEMORIAL SANATORIUM, CALGARY. June 25th, 1964.	
I. W. Campbell Construction Ltd.	37,744.20
McLean Service & Construction Ltd.	37,212.60
Borger Construction Ltd.	37,055.00
Burns & Dutton Construction (1962) Ltd. awarded	**34,320.00**
EXTENSION OF WALKS, RETAINING WALLS, PATIOS, CURBS AND GUTTERS, UNIVERSITY OF ALBERTA, EDMONTON. July 2nd, 1964.	
Arthur A. Voice Construction Co. Ltd.	53,372.13
Burns & Dutton Construction (1962) Ltd.	51,664.00
Fraser & Rice Construction Ltd.	49,792.50
Clarke Engineering Ltd.	48,678.00
Alberta Concrete Products Ltd. awarded	**48,137.60**
EXTENSION OF PAVING AND RELATED WORK, UNIVERSITY OF ALBERTA, EDMONTON. July 2nd, 1964.	
Alberta Concrete Products Ltd.	68,383.00
Everall Construction (Edmonton) Ltd.	65,898.00
Nadon Paving Ltd.	62,534.00
O'Hanlon Paving Ltd. awarded	**60,673.00**
DEMOLITION OF A RESIDENCE, 9727-29 - 109th STREET, EDMONTON. July 2nd, 1964.	Gov't to pay:
Adby Demolition Co. Ltd. awarded	**470.00**
SUPPLY AND INSTALLATION OF ELECTRICAL UNDERGROUND SYSTEM, UNIVERSITY OF ALBERTA, CALGARY. July 9th, 1964.	
McCormick Electric Ltd.	95,215.00
Preston Clarke Ltd.	70,986.00
Burns & Dutton Construction (1962) Ltd.	53,980.00
I. W. Campbell Construction Ltd.	52,000.00
Poole Construction Co. Ltd. awarded	**47,700.00**
PHASE 2, BIOLOGICAL SCIENCES COMPLEX, UNIVERSITY OF ALBERTA, CALGARY. July 9th, 1964.	
Burns & Dutton Construction (1962) Ltd.	2,624,978.00
Oland Construction (1959) Ltd.	2,398,000.00
The Foundation Co. of Canada Ltd.	2,379,978.00
Bird Construction Co. Ltd. awarded	**2,349,562.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
CALGARY HALL, UNIVERSITY OF ALBERTA, CALGARY. July 16th, 1964.	
Commonwealth Construction Co. Ltd.	3,195,972.00
Bird Construction Co. Ltd.	3,179,826.00
Poole Construction Co. Ltd.	3,177,448.00
The Foundation Co. of Canada Ltd.	3,063,723.00
McNamara Construction Western Ltd.	3,054,500.00
Oland Construction (1959) Ltd.	3,038,330.00
Bennett and White Alberta (1963) Ltd.	3,028,993.00
Burns & Dutton Construction (1962) Ltd. awarded	**3,025,868.00**
PAVING AND RELATED WORK, PROVINCIAL MENTAL HOSPITAL, PONOKA. July 16th, 1964.	
Everall Construction (Edmonton) Ltd.	67,299.00
Border Paving Ltd. awarded	**60,635.00**
TREASURY BRANCH BUILDING, TABER. July 16th, 1964.	
Kenwood Engineering Construction Ltd.	59,000.00
Adamix Concrete & Construction Co. Ltd.	58,379.00
Getkate Masonry Construction Ltd. awarded	**57,995.00**
Chronik Construction Ltd.	50,350.00*
PROVINCIAL BUILDING, ROCKY MOUNTAIN HOUSE. July 16th, 1964.	
A. W. Homme Ltd.	452,983.00
I. W. Campbell Construction Ltd.	392,987.00
Buchanan Construction & Engineering Co. Ltd.	377,038.00
Bird Construction Co. Ltd.	367,726.00
Summit Construction Ltd.	361,316.00
Forest Construction Ltd.	361,000.00
P. W. Graham & Sons Northern Ltd.	359,871.00
Poole Construction Co. Ltd. awarded	**351,867.00**
PAVING AND RELATED WORK, PROVINCIAL AUXILIARY HOSPITAL, RAYMOND. July 23rd, 1964.	
Tollestrup Construction Co. Ltd. awarded	**9,875.00**
Kenwood Engineering Construction Ltd.	7,670.00*
PAVING AND RELATED WORK, PROVINCIAL BUILDING, HIGH PRAIRIE. July 23rd, 1964.	
O'Hanlon Paving Ltd.	19,845.00
Poole Engineering (1958) Ltd. awarded	**18,240.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
GRADING, GRAVELLING AND RELATED WORK, DEPARTMENT OF HIGHWAYS YARD, EDMONTON. July 30th, 1964.	
Alberta Concrete Products Co. Ltd.	154,101.00
Steffler Construction Ltd. ....awarded	**105,310.00**
DEMOLITION AND REMOVAL OF A TEN-ROOM HOUSE, 9721-23 - 109th STREET, EDMONTON. July 30th, 1964.	
	Gov't to pay:
Adby Demolition Co. Ltd. ....awarded	**520.00**
DEMOLITION OF A RESIDENCE, 10820 - 97th AVENUE, EDMONTON. July 30th, 1964.	
	Gov't to pay:
Adby Demolition Co. Ltd. ....awarded	**420.00**
DEMOLITION OF A RESIDENCE, 10822 - 97th AVENUE, EDMONTON. July 30th, 1964.	
	Gov't to pay:
Adby Demolition Co. Ltd.	225.00
	Gov't to be paid:
C. G. Bligh ....awarded	**900.00**
FOUR STALL GARAGE FOR DEPARTMENT OF LANDS & FORESTS, ELKWATER LAKE PROVINCIAL PARK, CYPRESS HILLS. July 30th, 1964.	
Johnson Construction Co. Ltd.	64,223.00
D. and H. Construction Ltd. ....awarded	**60,600.00**
Paul Stober Construction Ltd.	54,732.41*
ADDITION TO THE AIR CONDITIONING SYSTEMS OF THE ARTS AND EDUCATION AND SCIENCE AND ENGINEERING BUILDINGS, UNIVERSITY OF ALBERTA, CALGARY. August 6th, 1964.	
Canadian Comstock Co. Ltd.	68,980.00
Lockerbie and Hole Western Ltd.	65,400.00
Fred Deeves and Sons, Ltd. ....awarded	**64,176.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
PAVING AND RELATED WORK AT VARIOUS GOVERNMENT INSTITUTIONS, EDMONTON AREA. August 13th, 1964.	
W. C. Wells Construction Co. Ltd.	61,537.00
Nadon Paving Ltd.	54,032.75
O'Hanlon Paving Ltd.	52,354.60
Everall Construction (Edmonton) Ltd.	50,110.60
Alberta Concrete Products Co. Ltd. awarded	**49,806.03**
PAVING AND RELATED WORK AT VARIOUS GOVERNMENT INSTITUTIONS, RED DEER AREA. August 13th, 1964.	
Border Paving Co.	72,997.50
Standard-General Construction (International) Ltd. awarded	**62,637.00**
TWO TEN-BED COTTAGES AND ONE GARAGE BUILDING, WOODSIDE HOME, EDMONTON. August 20th, 1964.	
Engineered Homes (Alberta) Ltd.	189,097.87
Alta-West Construction Ltd.	168,995.00
D. S. Greenfield Construction Ltd. awarded	**165,000.00**
ADMINISTRATION BUILDING, PROVINCIAL AUXILIARY HOSPITAL, CLARESHOLM. August 20th, 1964.	
I. W. Campbell Construction Ltd.	191,850.00
Bird Construction Co. Ltd.	187,788.00
Poole Construction Ltd.	184,624.00
Kenwood Engineering Construction Ltd.	184,200.00
Oland Construction (1959) Ltd. awarded	**177,350.00**
BUILDING TO HOUSE SANITARY CONVENIENCE, ASPEN BEACH PARK. August 27th, 1964.	
Parkins Construction Ltd.	33,300.00*
Ellis Construction Ltd.	33,070.00*
Lance Construction Ltd. awarded	**31,490.00**
GRADING, GRAVELLING AND RELATED WORK, DEPARTMENT OF LANDS & FORESTS YARD, PEACE RIVER. September 3rd, 1964.	
Fraser and Rice Construction Ltd.	22,559.00
Clarke Engineering Ltd.	20,742.50
Whissell Enterprizes Ltd. awarded	**18,129.50**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
VETERINARY DIAGNOSTIC LABORATORY, LETHBRIDGE. September 3rd, 1964.	
Oland Construction (1959) Ltd.	189,677.00
Bird Construction Co. Ltd.	186,900.00
Chronik Construction Ltd.	183,800.00
Kenwood Engineering Construction Ltd.....awarded	**181,350.00**
HOME FOR THE AGED, ELBOW VALLEY, CALGARY. September 3rd, 1964.	
Poole Construction Ltd.	1,075,742.00
Christensen & Macdonald Construction Ltd.	1,065,150.00
Bird Construction Co. Ltd.	1,033,400.00
Alta-West Construction Ltd. .....awarded	**935,294.00**
EXTERIOR PAINTING, BOW VALLEY LODGE, HOME FOR THE AGED, CALGARY. September 17th, 1964.	
K. and G. Painting	6,660.00
Homme Decorating (Calgary) Ltd.	4,850.00
Beale Decorating Co.	4,590.00
Coxson Decorating Ltd.	4,450.00
Cal-West Decorating Co. Ltd.	3,978.00
Norwin Decorating Ltd.	3,940.00
Park-Derochie Ltd.	3,396.00
Taylor Decorating Ltd. .....awarded	**3,260.00**
SHIPPING AND RECEIVING CENTRE, UNIVERSITY OF ALBERTA, EDMONTON. September 17th, 1964.	
Bird Construction Co. Ltd.	53,608.00
A. W. Homme Ltd.	53,364.00
Lance Construction Ltd.	51,449.00
Poole Construction Ltd.	51,384.00
A. V. Carlson Construction Ltd.	51,293.00
Stuart Olson Ltd.	49,837.00
Noral Construction Ltd.	49,833.00
P. W. Graham and Sons Northern Ltd.	49,687.00
Parkins Construction Ltd.	49,349.00
Forest Construction Ltd.	48,686.00
Prism Construction Co. Ltd.	48,400.00
Burns & Dutton Construction (1962) Ltd.	47,385.00
McRae & Associates Construction Ltd.....awarded	**47,000.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
HIGHWAY MAINTENANCE GARAGE, EAST EDMONTON. September 17th, 1964.	
Bird Construction Co. Ltd.	81,910.00
A. W. Homme Ltd.	80,300.00
Poole Construction Ltd.	78,327.00
McRae and Associates Construction Ltd.	77,100.00
Jason Construction Ltd.	76,935.00*
Fraser and Rice Construction Ltd.	76,364.00
Stuart Olson Ltd.	75,888.00
Summit Construction Ltd.	75,650.00*
Prism Construction Co. Ltd.	74,944.00
P. W. Graham and Sons Northern Ltd.	74,351.00
Ness Construction Ltd.	74,134.00
A. V. Carlson Construction Ltd.	73,842.00
Forest Construction Ltd.	72,799.00
Dornwood Construction Ltd. awarded	**71,983.00**
RENOVATIONS TO SECOND & THIRD FLOORS, BEAVER HOUSE, EDMONTON. September 17th, 1964.	
Norman Nilsen Construction Ltd.	121,988.00
Bird Construction Co. Ltd.	109,155.00
A. V. Carlson Construction Ltd.	101,919.00
Parkins Construction Ltd.	101,800.00
Stuart Olson Ltd.	101,000.00
Prism Construction Co. Ltd.	98,393.00
Alther Construction Ltd. awarded	**97,944.00**
SUPPLY & INSTALLATION OF ONE ELECTRIC OIL HYDRAULIC ELEVATOR, INFIRMARY BUILDING #6, CENTRAL ALBERTA SANATORIUM, KEITH. September 24th, 1964.	
Otis Elevator Co. Ltd.	12,365.00
Turnbull Elevator of Canada Ltd.	12,170.00*
T. E. Bate Engineering Ltd.	10,644.00
Peterson & Cowan ,Division of Montgomery Elevator Co. Ltd. awarded	**10,387.00**
SUPPLY & INSTALLATION OF CERAMIC TILE, PROVINCIAL MENTAL HOSPITAL, PONOKA. October 1st, 1964.	
Columbia Tile & Terrazzo Ltd.	10,316.00
Bob Candido's Tile & Terrazzo Co. Ltd.	9,999.00
H.M.H. Tile Co. Ltd. awarded	**9,869.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
TWO HOUSES, WELFARE CENTRE, GUNN. October 15th, 1964.	
Rosen Construction Co. Ltd.	36,354.00
Oakland Homes Ltd.	33,879.00
Costie Construction Ltd.	32,389.00
Parkins Construction Ltd.	30,300.00
South Bend Structures Ltd. ..... awarded	**26,951.00**
RE-ROOFING OF THE SCHOOL FOR THE DEAF, EDMONTON. October 22nd, 1964.	
Aetna Roofing Co. Ltd.	34,854.00
A. Clarke Roofing (1961) Ltd.	33,570.00
J. K. Campbell & Associates Ltd.	30,873.00
South Side Roofing Ltd.	26,065.00
Freeze Maxwell Co. Ltd.	26,038.00
Otto Roofing Ltd. ..... awarded	**25,770.00**
INDUSTRIAL ANNEX, NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY, PHASE IV, EDMONTON. October 29th, 1964.	
Stuart Olson Ltd.	689,969.00
Christensen & Macdonald Construction Ltd.	672,150.00
Bird Construction Co. Ltd.	662,906.00
McNamara Construction Western Ltd.	659,000.00
Alta-West Construction Ltd.	655,113.00
John Laing & Son (Canada) Ltd.	648,653.00
The Foundation Co. of Canada Ltd.	644,394.00
Forest Construction Ltd.	644,000.00
Poole Construction Ltd.	636,945.00
Burns & Dutton Construction (1962) Ltd. . awarded	**631,000.00**
GRADING, GRAVELLING AND RELATED WORK, SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY, CALGARY. October 29th, 1964.	
M. & S. Paving Ltd.	32,695.00
McLean Service & Construction Ltd.	31,922.50
Consolidated Concrete Ltd.	29,864.50
Pioneer Paving Ltd.	29,646.00
Gallelli and Sons Co. Ltd. ..... awarded	**28,220.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
SUPPLY & INSTALLATION OF DRYWALL IN HOUSES, GAOL CAMP, NORDEGG. November 5th, 1964.	
Alta-West Construction Ltd.	13,030.00
Allied Drywall Ltd.	10,843.00
Alexander Allison Johnson	10,381.32
Mechanical Dry Wall (Northern) Ltd.	9,168.00
Teralta Construction & Supply Ltd.	8,880.00
Quality Drywall ..... awarded	**8,792.00**
INSTALLATION & COMPLETION OF SUB-STATION FOOTINGS AND UNDERGROUND DUCT, UNIVERSITY OF ALBERTA, EDMONTON. November 5th, 1964.	
Poole Construction Ltd.	14,212.00
Alta-West Construction Ltd.	13,044.00
Burns & Dutton Construction (1962) Ltd.	12,436.00
Camwil Construction Ltd.	10,876.00
Alther Construction Ltd.	10,836.00
Parkins Construction Ltd.	10,800.00
Cressey & Owen Construction and Rex Concrete Products Ltd.	10,100.00
A. V. Carlson Construction Ltd. ..... awarded	**9,865.00**
SUPPLY & INSTALLATION OF ONE PLUNGER ELECTRIC PASSENGER ELEVATOR, DORMITORY #2, PROVINCIAL MENTAL INSTITUTE, OLIVER. November 12th, 1964.	
Turnbull Elevator of Canada Ltd.	12,640.00
T. E. Bate Engineering Ltd.	11,444.00
Otis Elevator Co. Ltd.	11,100.00
Peterson & Cowan, Division of Montgomery Elevator Co. Ltd. ..... awarded	**11,072.00**
SUPPLY & INSTALLATION OF ONE ELECTRIC PASSENGER ELEVATOR, DORMITORY #5, PROVINCIAL MENTAL INSTITUTE, OLIVER. November 12th, 1964.	
Peterson & Cowan, Division of Montgomery Elevator Co. Ltd.	15,725.00
Otis Elevator Co. Ltd.	15,600.00
Turnbull Elevator of Canada Ltd. ..... awarded	**14,350.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
FOUR STALL MAINTENANCE GARAGE, MANNING. November 26th, 1964.	
Byrnes and Hall Construction Ltd.	59,216.00
Camwil Construction Ltd.	58,240.00
Lance Construction Ltd.	56,256.00
Van Vliet Construction Co. Ltd.	56,012.00
Briden Construction Ltd. ....awarded	**53,600.00**
Forest Construction Ltd.	53,234.00*
FOUR STALL MAINTENANCE GARAGE, HINES CREEK. November 26th, 1964.	
Buchanan Construction & Engineering Co. Ltd.	57,565.00
Byrnes and Hall Construction Ltd.	57,062.00
Camwil Construction Ltd.	55,650.00
Norman Nilsen Construction Ltd.	54,698.00
Van Vliet Construction Co. Ltd.	54,422.00
Lance Construction Ltd.	53,745.00
Briden Construction Ltd. ....awarded	**53,600.00**
Forest Construction Ltd.	52,439.00*
FOUR STALL MAINTENANCE GARAGE, TWO HILLS. December 3rd, 1964.	
Parkins Construction Ltd.	54,800.00
Summit Construction Ltd.	54,633.00
Forest Construction Ltd.	51,400.00*
Briden Construction Ltd.	50,600.00
Ness Construction Ltd.	48,706.00
Alther Construction Ltd. ....awarded	**42,997.00**
GARAGE AND WAREHOUSE, DEPARTMENT OF LANDS AND FORESTS, PEACE RIVER. December 3rd, 1964.	
Brown & Root Ltd.	87,462.00
Rosen Construction Co. Ltd.	82,432.00
Byrnes and Hall Construction Ltd.	77,977.00
Buchanan Construction & Engineering Co. Ltd.	75,622.00
Summit Construction Ltd.	74,724.00
Lance Construction Ltd.	74,447.00
P. W. Graham and Sons Northern Ltd.	73,578.00
Lahey Construction Peace River Ltd.	73,300.00
Camwil Construction Ltd.	72,300.00
Poole Construction Ltd.	71,891.00
Van Vliet Construction Co. Ltd.	71,751.00
Forest Construction Ltd.	71,733.00
Briden Construction Ltd.	69,990.00
Norman Nilsen Construction Ltd. ....awarded	**69,799.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
INSTALLATION OF A STORM SEWER SYSTEM, AGRICULTURAL COLLEGE, OLDS. December 10th, 1964 .	
Steve's Trenching and Ditching	51,396.85
Borger Construction Ltd.	48,573.00
M. & S. Paving Ltd.	38,975.25
Burns & Dutton Construction (1962) Ltd. ..awarded	**33,413.25**
INSTALLATION OF A NEW PUMPED CONDENSATE STEAM DISTRIBUTION SYSTEM, UNIVERSITY OF ALBERTA, EDMONTON. December 10th, 1964.	
Fuller & Knowles Co. Ltd.	22,966.00*
Carse, Anderson Ltd.	20,206.00
Meccon Installations Ltd.	19,500.00
Lockerbie and Hole Western Ltd.	18,800.00
Canadian Comstock Co. Ltd. ..... awarded	**16,973.00**
RADIATION RESEARCH LABORATORY, UNIVERSITY OF ALBERTA, EDMONTON. December 10th, 1964.	
Burns & Dutton Construction (1962) Ltd.	258,420.00
Camwil Construction Ltd.	257,900.00
Bennett and White Alberta (1963) Ltd.	253,990.00
Rosen Construction Co. Ltd.	253,699.00
Morin Brothers Construction & Engineering Ltd.	252,985.00
Prism Construction Co. Ltd.	252,839.00
Bird Construction Co. Ltd.	249,494.00
R. Vollan (Alta.) Ltd.	248,666.00*
Christensen & Macdonald Construction Ltd.	248,504.00
Alta-West Construction Ltd.	247,406.00
Forest Construction Ltd.	245,980.00
Norman Nilsen Construction Ltd.	245,755.00
John Laing & Son (Canada) Ltd.	243,000.00
Poole Constructoin Ltd. ..... awarded	**230,182.00**
SUPPLY AND INSTALLATION OF ROOFING TO POWER PLANT, LEGISLATIVE BUILDING GROUNDS, EDMONTON. December 17th, 1964.	
A. Clark Roofing (1961) Ltd.	3,790.00
South Side Roofing Ltd.	3,618.00
Christensen & McLean Roofing Ltd.	3,528.00
Mid-West Roofing & Maintenance Ltd.	3,432.00
Aetna Roofing Co. Ltd.	3,379.00
Freeze, Maxwell Co. Ltd.	3,295.00*
L. H. Walker Roofing Ltd. ..... awarded	**2,387.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
TOWER BUILDING, NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY, EDMONTON. December 17th, 1964.	
McNamara Construction Western Ltd.	2,693,000.00
Bird Construction Co. Ltd.	2,690,420.00
The Foundation Co. of Canada Ltd.	2,659,000.00
Burns & Dutton Construction (1962) Ltd.	2,655,000.00
Poole Construction Ltd.	2,646,468.00
Christensen & Macdonald Construction Ltd.	2,631,750.00
Alta-West Construction Ltd. awarded	**2,579,439.00**
ADDITIONS & ALTERATIONS TO FORESTRY TRAINING SCHOOL BUILDING, HINTON. December 17th, 1964.	
Bird Construction Co. Ltd.	205,000.00
Crawley and Mohr Ltd.	189,679.00
Summit Construction Ltd.	183,789.00
Poole Construction Ltd.	183,770.00
Harsim Construction Ltd.	174,800.00
Forest Construction Ltd.	172,950.00
Norman Nilsen Construction Ltd.	171,825.00
Newbert Construction & Engineering Ltd.	170,988.00
Prism Construction Co. Ltd. awarded	**169,934.00**
SUPPLY AND INSTALLATION OF A SUSPENDED ACOUSTIC CEILING, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. December 17th, 1964.	
Morin Labbe Contractors Ltd. awarded	**1,793.00**
ADDITION TO ALBERTA INSTITUTION FOR GIRLS, BELMONT. January 7th, 1965.	
Universal Construction Co. Ltd.	503,132.00
McNamara Construction Western Ltd.	503,000.00
Stuart Olson Ltd.	502,409.00
Bennett & White Alberta (1963) Ltd.	499,798.00
Burns & Dutton Construction (1962) Ltd.	493,998.00
John Laing & Son (Canada) Ltd.	493,800.00
Christensen & Macdonald Construction Ltd.	492,900.00*
Bird Construction Co. Ltd.	490,872.00
P. W. Graham & Sons Northern Ltd.	489,730.00
Poole Construction Ltd.	485,327.00
Forest Construction Ltd. awarded	**481,427.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
SUPPLY & ERECTION OF STRUCTURAL STEEL FOR RESEARCH COUNCIL OF ALBERTA PILOT PLANT, CLOVER BAR. January 7th, 1965.	
Canada Iron Foundries Ltd.	139,534.00
Brittain Steel Ltd.	135,256.00
A I M Steel Ltd.	(a)129,924.00
	(b)125,496.00
Dominion Bridge Co. Ltd.	118,644.00
Guardian Steel Fabricators Ltd. ..... awarded	**112,537.00**
MAINTENANCE BUILDING, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. January 28th, 1965.	
Buchanan Construction & Engineering Co. Ltd.	66,322.00
Prism Construction Co. Ltd.	65,668.00
Poole Construction Ltd.	65,193.00
Rosen Construction Co. Ltd.	64,530.00*
P. W. Graham & Sons Northern Ltd.	64,337.00
Burns & Dutton Construction (1962) Ltd.	64,241.00
Newbert Construction & Engineering	63,980.00
Lance Construction Ltd.	63,936.00
Ness Construction Ltd.	63,800.00
Norman Nilsen Construction Ltd.	63,777.00
Forest Construction Ltd.	63,654.00
Van Vliet Construction Co. Ltd.	63,026.00
Summit Construction Ltd.	62,955.00
Briden Construction Ltd.	62,322.00
McRae & Associates Construction Ltd. ..... awarded	**57,600.00**
SUPPLY AND INSTALLATION OF A WATER LINE AND RELATED WORK, PROVINCIAL GAOL, LETHBRIDGE. January 28th, 1965.	
Borger Construction Ltd.	127,161.75
G. C. McLeod & Co. Ltd.	130,673.51
Patrick Construction Co. Ltd.	114,908.85
Tollestrup Construction Co. Ltd.	108,154.07
M. & S. Paving Ltd.	107,774.40
Cunningham & Shannon Ltd. ..... awarded	**91,729.25**
PLASTERING CEILING AT GYMNASIUM-AUDITORIUM, BOWDEN INSTITUTION. February 18th, 1965.	
Fred Blanchard & Son (1963) Ltd.	12,818.00
Amalgamated Plastering Co. Ltd.	8,632.00
Modern Lathing Ltd.	7,210.00
C. Beckett & Co. (Edmonton) Ltd. ..... awarded	**4,906.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
CARPENTER SHOP, ALBERTA HOSPITAL, PONOKA. February 25th, 1965.	
Oland Construction (1959) Ltd.	98,600.00
Summit Construction Ltd.	93,794.00
Poole Construction Ltd.	92,021.00
McRae & Associates Construction Ltd.	91,362.00
Alther Construction Ltd.	89,419.00
Harsim Construction Ltd.	88,000.00
Newbert Construction & Engineering	87,980.00
Parkins Construction Ltd.	87,883.00
Ness Construction Ltd.	87,300.00
Teralta Construction & Supply	87,000.00
D. S. Greenfield Construction Ltd.	85,900.00
P. W. Graham & Sons Northern Ltd. awarded	**84,990.00**
ADDITION AND RENOVATIONS TO COURT HOUSE, RED DEER. February 25th, 1965.	
Burns & Dutton Construction (1962) Ltd.	172,240.00
Hornstrom Bros. Construction Ltd.	160,785.00
W. E. Sandquist Construction Ltd.	155,864.00
R. V. Coambs Construction Ltd.	151,604.00
Oland Construction (1959) Ltd.	147,700.00
Newbert Construction & Engineering Ltd.	146,500.00
Harsim Construction Ltd. awarded	**143,700.00**
GARAGE AND WAREHOUSE, DEPARTMENT OF LANDS AND FORESTS, BOW RIVER. March 4th, 1965.	
Walden Construction Ltd.	68,715.00
Bird Construction Co. Ltd.	68,146.00
I. W. Campbell Construction Ltd.	67,300.00
J. C. Hughes Contractors Ltd.	66,644.00
McLean Service & Construction Ltd.	66,200.00
Boulder Construction Ltd.	65,996.00
Hurst Construction Co. Ltd.	65,950.00
Bennett & White Alberta (1963) Ltd.	64,940.00
Poole Construction Ltd.	64,925.00
Jason Construction Ltd.	62,290.00
Befus Construction Ltd. awarded	**60,893.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
TRACKAGE WAREHOUSE, DEPARTMENT OF HIGHWAYS, SOUTH EAST EDMONTON. March 4th, 1965.	
A. V. Carlson Construction Ltd.	73,288.00
H. D. C. Construction Co. Ltd.	71,150.00
Summit Construction Ltd.	69,884.00
Brown & Root Ltd.	69,157.05
Watson (Tofield) Ltd.	67,950.00
Camwil Construction Ltd.	66,150.00
Fraser & Rice Construction Ltd.	66,061.00
P. W. Graham & Sons Northern Ltd.	64,843.00
VanDoorn Construction Ltd.	64,412.00
Span Structures & Supplies Ltd.	63,478.00
Ness Construction Ltd.	62,725.00
D. S. Greenfield Construction Ltd.	62,500.00
Forest Construction Ltd.	61,490.00
Alther Construction Ltd. ....awarded	**57,726.00**
HENRY MARSHALL TORY BUILDING "SOCIAL SCIENCES", UNIVERSITY OF ALBERTA, EDMONTON. March 4th, 1965.	
Commonwealth Construction Co. Ltd.	6,218,775.00
Bird Construction Co. Ltd.	6,066,166.00
The Foundation Co. of Canada Ltd.	6,060,000.00
Universal Construction Co. Ltd.	6,050,000.00
Poole Construction Ltd.	5,923,466.00
Burns & Dutton Construction (1962) Ltd. ..awarded	**5,884,000.00**
SUPPLY AND INSTALLATION OF MOVABLE PARTITIONING, HIGHWAYS BUILDING, EDMONTON. March 11th, 1965.	
Duby Engineering Associates (1961) Ltd.	10,840.70
George R. Byer & Associates Ltd.	10,600.00
Gypsum Drywall (Edmonton) Ltd.	10,100.00
D. S. Greenfield Construction Ltd.	9,600.00
F. Drexel Co. Ltd.	8,787.00
Double Duty Drywall Ltd.	8,478.00
Allied Drywall Ltd.	7,981.00
J. F. Ford Engineering & Supply Ltd.	7,140.00
Northern Panel Structures Co. Ltd. ....awarded	**6,900.00**

TENDERS CALLED FOR ON BEHALF OF THE ALBERTA LIQUOR CONTROL BOARD

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
LIQUOR STORE, NANTON. July 2nd, 1964.	
McLean Service & Construction Ltd.	39,350.00
Master Craft Homes Ltd.	37,050.00
A. W. Homme Ltd.	35,472.00
Kenwood Engineering Construction Ltd.	32,550.00
Boulder Construction Ltd. ..... awarded	**32,358.00**
LIQUOR STORE, BROOKS. July 2nd, 1964.	
Hornstrom Bros. Construction Ltd.	50,987.00
McLean Service & Construction Ltd.	48,050.00
Bird Construction Ltd.	43,388.00
Paul Stober Construction Ltd.	43,038.00
A. W. Homme Ltd.	42,208.00
Boulder Construction Ltd.	42,163.00
Kenwood Engineering & Construction Ltd.	42,150.00
Jacobson & Son ..... awarded	**41,474.00**
LIQUOR STORE, SWAN HILLS. September 24th, 1964.	
Lance Construction Ltd.	37,973.00
McCalder Construction Co. Ltd.	36,112.00
Rosen Construction Co. Ltd.	35,995.00*
Watson (Tofield) Ltd.	35,698.00
Alther Construction Ltd.	34,992.00
Barr Construction Ltd. ..... awarded	**33,750.00**
LIQUOR STORE, VIKING. September 24th, 1964.	
Lance Construction Ltd.	34,443.00
Rosen Construction Co. Ltd.	34,320.00*
C. Burrows Construction Ltd.	34,014.00
Stuart Olson Ltd.	32,763.00
Watson (Tofield) Ltd.	32,550.00
Jason Construction Ltd.	31,981.00
Parkins Construction Ltd. ..... awarded	**31,443.00**
LIQUOR STORE, TABER. February 4th, 1965.	
Bird Construction Co. Ltd.	42,695.00
McLean Service & Construction Ltd.	37,125.00
Boulder Construction Ltd.	36,500.00
Parkins Construction Ltd.	34,240.00
Jason Construction Ltd.	31,436.00
Getkate Masonry Construction Ltd. ..... awarded	**30,394.00**

GRANTS PAYABLE UNDER THE PUBLIC WORKS ACT, CHAPTER 270, SECTION 19(1), TOWARDS THE COST OF CONSTRUCTION OF SWIMMING POOLS OR THE IMPROVEMENTS THEREOF

1. A grant of $7,000.00 or one third of the actual cost of construction, whichever is the lesser amount, is payable towards the cost of construction of a swimming pool.

2. A grant of $7,000.00 is payable towards the cost of improvement to an already existing swimming pool for which no grant has already been paid, or one third of the actual cost of such improvements, whichever is the lesser amount.

3. Grants as set forth above are payable to Municipalities with a population of not more than 10,000.

4. Approval by the Architects of the Department of Public Works must be obtained for the plans of the pool and drainage arrangements.

5. Approval of the plans of the pool as to sanitary arrangements must be obtained from the Sanitary Engineer of the Department of Health.

6. The grant will be computed from an audited statement of expendiutre which must be submitted to the Department of Public Works.

7. The title of the swimming pool must be held by the Municipality, village, town or city.

During the fiscal year 1964-65 a total of $28,232.32 was paid to the following as "swimming pool grants":

Village of Acme
Town of Bow Island
Village of Oyen
Village of Sterling
Village of Turner Valley.

THE CROWN PROPERTY MUNICIPAL GRANTS ACT

Under "The Crown Property Municipal Grants Act", being Chapter 20 of the Statutes of Alberta, 1961, and amendments and regulations thereto, grants are paid on all Crown owned properties other than the following:

(a) real property forming part of an undertaking in respect of the conservation, irrigation, reclamation, rehabilitation or reforestation of land;

(b) any park, historical site, monument or museum;

(c) except when otherwise prescribed by the Provincial Treasurer, real property leased to or occupied by a person from whom the municipality may, by reason of his interest in the property, levy and collect a municipal tax;

(d) real property used for or in connection with academic, trade, forestry or agricultural schools, colleges or universities;

(e) real property used for or in connection with hospitals and mental institutions;

(f) (deleted by amendment);

(g) real property comprising streets, lanes, roadways or road allowances;

(h) real property that is not used or actively occupied by the Crown and that is not occupied by a person under a lease, licence permit or agreement for sale;

(i) real property owned by the Alberta Liquor Control Board, the Alberta Government Telephones Commission or the Workmen's Compensation Board;

(j) any specific property or class of real property exempted from the provisions of the Act by the Lieutenant Governor in Council.

In addition to this, grants are paid on any building which would otherwise be excluded but which are serviced by local utilities services, such as forestry ranger buildings.

In the case of grazing leases on Crown lands, a portion of the lease fee is returned to the Municipality and such payments made are not included in the figures shown as payments made under "The Crown Property Municipal Grants Act".

GRANTS IN LIEU OF TAXES

During the fiscal year 1964-65, a total of $1,544,669.82 as grants in lieu of taxes for Government buildings was paid to the following Cities, Towns, Villages, Counties and Municipal Districts throughout Alberta:

CITY OF:	
Calgary	$283,969.62
Camrose	9,768.66
Drumheller	11,727.51
Edmonton	766,777.73
Grande Prairie	28,210.00
Lethbridge	32,036.88
Medicine Hat	6,086.34
Red Deer	22,050.13
Wetaskiwin	7,270.01
TOWN OF:	
Athabasca	1,584.36
Barrhead	6,035.12
Black Diamond	178.50
Blairmore	1,820.04
Bonnyville	252.88
Bowness	307.44
Brooks	1,617.04
Cardston	2,711.66
Castor	512.74
Cold Lake	497.40
Coleman	573.60
Coronation	339.60
Devon	1,392.93
Didsbury	454.35
Drayton Valley	2,829.26
Edson	13,174.70
Fairview	1,165.60
Falher	475.41
Fort Macleod	4,554.77
Fort McMurray	629.68
Fort Saskatchewan	47,343.92
Grimshaw	5,524.35
Hanna	9,264.60
High Prairie	1,813.02
Hinton	445.92
Innisfail	1,090.80
Jasper Place	5,452.18
Lac La Biche	7,189.98
Lacombe	2,593.20
Manning	727.88
Mayerthorpe	4,243.80
McLennan	833.81
Nanton	220.20
Olds	2,364.63
Peace River	18,622.94
Ponoka	945.18
Redwater	1,177.00
Rocky Mountain House	3,365.70
Stettler	3,152.14
Stony Plain	320.64
St. Paul	4,212.18
Swan Hills	842.40

TOWN OF:	
Taber	$ 124.12
Three Hills	307.36
Two Hills	1,338.96
Valleyview	2,407.02
Vegreville	4,425.68
Vermilion	1,896.50
Viking	429.66
Vulcan	444.95
Wainwright	1,120.20
Westlock	1,083.16
Whitecourt	2,487.50
VILLAGE OF:	
Andrew	366.60
Bon Accord	168.00
Boyle	44.55
Chipman	21.40
Cochrane	203.00
Consort	41.58
Coutts	240.00
Czar	349.44
Duchess	376.80
Elnora	186.75
Evansburg	188.16
Hines Creek	560.50
Killam	709.40
Rycroft	1,297.04
Ryley	565.62
Slave Lake	2,420.55
COUNTY OF:	
Forty Mile #8	719.12
Leduc #25	2,523.78
Lethbridge #26	35,227.04
Newell (Brooks) #4	3,598.57
Ponoka #3	6,938.40
Red Deer #23	67,856.86
St. Paul #19	42.18
Smoky Lake #13	57.15
Stettler #6	101.48
Strathcona #20	4,780.44
Sturgeon #15	6,702.88
Thorhild #7	20.79
Two Hills #21	85.00
Warner #5	589.20
Wheatland #16	200.79
MUNICIPAL DISTRICT OF:	
Fairview	973.56
Foothills	815.30
Lac Ste. Anne	6,100.06
Rockyview #44	44,067.56
Stony Plain	749.00
Westlock	142.88
Willow Creek	4,786.67

Improvement District of Canmore #46	$ 464.36
Improvement District of Entrance #96	1,809.07
Improvement District of Raven River #65	762.75

SUMMARY OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS FOR THE FISCAL YEAR ENDING MARCH 31, 1965

Appropriation Number	Description	Amount	Total
	ADMINISTRATION:		
2601	Minister's Office	$ 19,826.65	$
2602	General Administration	265,374.42	
2606	Public Buildings Staff	905,232.22	
2608	Mechanical Branch	49,180.05	
2609	Maintenance Branch Administration	262,766.11	1,502,379.45
	MAINTENANCE:		
2610	Legislative & Public Buildings—Maintenance	6,885,676.46	
2612	Public Institutions—Maintenance	2,302,316.38	
2614	High Pressure Power Plants	2,111,109.12	
2615	Low Pressure Power Plants	531,116.88	
2620	Government Automobile Service	80,199.49	11,910,418.33
	GRANTS:		
2624	Grants to Municipalities for Swimming Pools	28,232.32	
2625	Grants for Construction of Police Buildings	70,768.10	
2626	Grants to Municipalities in Lieu of Taxes	1,544,669.82	1,643,670.24
	CAPITAL:		
2681	Administrative & Judicial Buildings—Furnishings & Equipment	437,303.98	
2682	Public Buildings—Sites and Construction	19,363,809.10	
2683	Specialized Institutional and Departmental Buildings—Furnishings and Equipment	4,735,109.95	
2684	Power Plants Construction	118,165.72	24,654,388.75
			$39,710,856.77

PROGRAMME OF CONSTRUCTION

Department of Agriculture

Agricultural and Vocational College, Fairview

Construction of a new Gymnasium Building was started on April 1, 1964, and completed on November 5, 1964. The building is to provide recreational facilities for the students at the College. The main structure is 98 feet long and 68 feet wide, and consists of concrete masonry on reinforced concrete foundation, with maple flooring on sleepers. The roof construction is of glue-laminated beams supporting tongued-and-grooved cedar decking surfaced with asphalt shingles. At one end of the Gymnasium there is a raised stage with changing rooms. Locker and shower facilities are provided as well as an instructor's office. The building is heated by the use of gas-fired furnaces and a low velocity duct system.

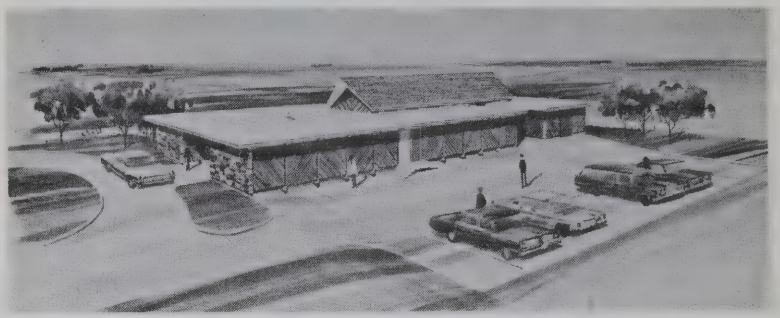
Construction of a new Mechanics Building was started on April 1, 1964, and was completed October 21, 1964. The building contains instructional laboratories, draughting and lecture rooms, and a workshop. The main structure consists of concrete masonry on reinforced concrete foundations, with the roof construction of glue-laminated beams supporting tongued-and-grooved wood decking, surfaced with rigid insulation and built-up roofing. Windows have sealed glazing units in opening and fixed sash and wood frames. The building is heated by wall-hung hot water radiation, complete with hot water boiler. A fan coil unit supplies hot air to the various areas of the building via a low velocity duct system.

Colonization Branch, Lethbridge

Construction was started on July 5, 1964, and completed on November 18, 1964, of a modest vehicle storage building for the Colonization Branch in Lethbridge. The building consists of a single large storage space capable of accommodating a large self-propelled earth moving machine, and is also provided with a small office and washroom . Facilities are provided for minor maintenance on equipment and vehicles. The construction is of concrete masonry on reinforced concrete foundations with glue-laminated wood beams and a wood deck. It is heated by means of three suspended natural gas fired unit heaters; gravity ventilators provide the means of exhausting the air.

Veterinary Diagnostic Laboratory, Lethbridge

Construction commenced on October 17, 1964, and the building is expected to be completed in July, 1965. The project consists of two buildings connected by an "A" shaped roof. The major



Veterinary Diagnostic Laboratory, Lethbridge.

building houses the offices, diagnostic laboratories and holding pens. The secondary building houses the barn, incinerator and garage storage. Construction includes partial basement with reinforced concrete floor throughout, wood bearing partition with timber beams and cedar decking. Exterior finish includes field stone frontage and the remainder of the building finished in alternating diagonal cedar siding. The flat portion of the building has a built-up gravel surfaced roof, and the "A" shaped roof is finished in cedar shingles. Interior finishes include both plastic and ceramic tile; floors are finished with asbestos tile and durafax was used in areas which are required to be hosed down. The office and laboratory areas of the building are fully air conditioned with a forced hot water radiation system of heating. The air conditioning is accomplished by a multizone ventilation unit, an air washer and air cooled condenser located outside the building. The heating load of the building is 780,000 British thermal units per hour, and the cooling load is equivalent to melting of 25 tons of ice per day. The animal holding area and the garage area are heated with individually suspended hot water unit heaters. The incinerator is capable of handling 600 pounds per hour of combined type 3 and 4 waste. Underground service is provided at 120/208 volt, 3 phase 4-wire, with capacity of 350 amps. Liberal provision has been made in all laboratory spaces for connection of additional electrical equipment and for convenient relocation of existing equipment. An overhead electrical trolley duct system has been provided in animal necropsy and the animal holding areas to provide a means of convenient connection for supplementary lighting and use of special portable electrical equipment. All offices and laboratories are illuminated to maintained levels of 65 - 75 foot candles using commercial fluorescent lighting fixtures in such areas, with the exception of animal necropsy where mercury lighting is used to satisfy the unique space requirements. The building is fitted with

an extensive intercommunication system between offices and laboratories, and liberal provision for future additions to the sound equipment.

Agricultural and Vocational College, Olds

Construction of a Metals Shop was started on May 15, 1964, and completed on December 7, 1964. The building is to be used for instructing students in all phases of metal work, welding and tinsmithing. Two arc welding shops, one gas welding shop, and a forge and metal shop are provided, together with a large storage space for materials. Other accommodation in the building consists of two classrooms, a locker and washroom, and an instructor's office. The construction is of concrete masonry superstructure on reinforced concrete foundations with concrete floor slabs. The building has a flat wood deck roof on glue-laminated beams. Automatically controlled unit ventilators supply the ventilation and heating for the shop. The heating medium is steam generated from a central power plant. The illumination is provided primarily by fluorescent lighting.

Agricultural and Vocational College, Vermilion

Construction of the first phase of the Animal Science Building for the Agricultural and Vocational College at Vermilion was started on April 21, 1964, and completed November 26, 1964. The building is of rectangular shape, one storey high with a clerestory over the animal pavilion area. Accommodation consists of two lecture rooms, three laboratories, two judging pavilions, a small animals lab, a stock holding area and a small abattoir where animals are slaughtered for study purposes; preparation rooms, staff rooms, mechanical and washroom facilities. The building has reinforced concrete floor slabs on grade with exterior and interior walls of exposed concrete block . Roof construction is flat, of tongued-and-grooved cedar decking supported by glue-laminated beams finished with a built-up gravel surfaced roofing . Windows are of wood construction with fixed and opening sealed glazing units. Floor finishes consist of vinyl asbestos, unglazed mosaic tile and quarry tile. The building periphery is heated by wall-hung hot water unit ventilators, while the animal pens are heated by ceiling hung gas fired unit heaters.

The renovations to the Dormitory, Kitchen and Dining Room are a continuing project which was commenced last year and is intended to upgrade the food service facility to accommodate the increased enrollment. Alterations were commenced in the kitchen area itself under the maintenance vote by the College's own maintenance crew. The work still to be done consists of considerable replanning in the main food preparation area, the provision of a free flow servery to provide cafeteria type service and renovations

in the dining hall itself. The last will consist of replacing the existing wood strip flooring with resilient tile, the provision of additional lighting and the installation of crockery storage and self-service counters around the outside walls. A large folding door will also be provided to separate cafeteria dining from an area to be reserved for continued family-style dining. Other renovations in the dormitory will include refinishing in all washrooms, including floor and wall tile work, and refinishing throughout many of the bedroom areas. Extensive rewiring is being carried out, and generally the entire building is being upgraded. The basic fabric of the building is still in very sound condition, and these extensive renovations will ultimately result in a building equal to present day standards of construction.

Construction of a Maintenance Building for the College was started on February 11, 1965, and completion is expected in September, 1965. This building is designed and constructed as a simple and economic utility building for the Maintenance Branch of the College. It houses the fire fighting equipment, a machine repair shop with painting room and also a cold store room. Exterior walls are exposed painted concrete blocks with loose fill insulation. Floors are concrete slab on grade; roof construction is glulam beams with purlins and 2" x 4" tongued-and-grooved decking covered with built-up roofing. The building has a self-contained gas fired, forced air heating system.

Department of the Attorney General

Alberta Institute for Girls, Belmont

Construction of the addition to the Institute to accommodate the increased population started on January 25 ,1965, and is expected to be completed in September, 1965. The addition includes the following accommodation:

Main Floor	Second Floor
Laundry	Library
Dining Room	Four Lounges
Six Classrooms	Two Workrooms
Washrooms	Two Utility Rooms
Chapel and Vestry	Ten Single Bedrooms
Principal's Office	Four Isolation Bedrooms
Swimming Pool	Twelve Double Bedrooms
	Three Staff Control Rooms
	One Interview Room
	Two Storage Rooms

The materials employed in the construction of this project are load bearing precast concrete walls, floor and roof slabs, aluminum windows (detention type), exposed and plastered concrete block

partitions, acoustic tile and suspended plaster ceilings, vinyl asbestos tile floor covering, glazed concrete block and ceramic mosaic tile to swimming pool. A hot water wall-hung radiation system will supply the heating for the building. The hot water will be generated by passing through a steam shell and tube calorifier and then pumped through the system. A new 300 boiler horsepower natural gas fired low pressure boiler was added to the existing heating plant and will generate the required steam for the calorifier. A separate ventilation system will be used for the classrooms and offices, the indoor swimming pool and the laundry areas. The indoor swimming pool will be heated to maintain an average temperature of 72 degrees. A normal filtration and chlorination system is provided for the swimming pool water supply, while a water treatment plant, including an automatic brine system and water softener, will be installed in the laundry area. The building is equipped throughout with fluorescent lighting, and other electrical systems consist of a clock program and a comprehensive intercommunication and P.A. system.

Provincial Gaol, Lethbridge

Tenders were called, and a contract let, for the replacement of the water supply main. The old water supply system was dependent upon the Federal Government Experimental system supply pipe line from the City of Lethbridge. An agreement was reached between the Federal Government and the Government of Alberta whereby the Alberta Government, being the end receiver of the supply mains, would be responsible for the line, and the Federal Government would reimburse part of the cost. In addition, the fire protection system was updated by the installation of standard hydrants and a new line around the institute proper.

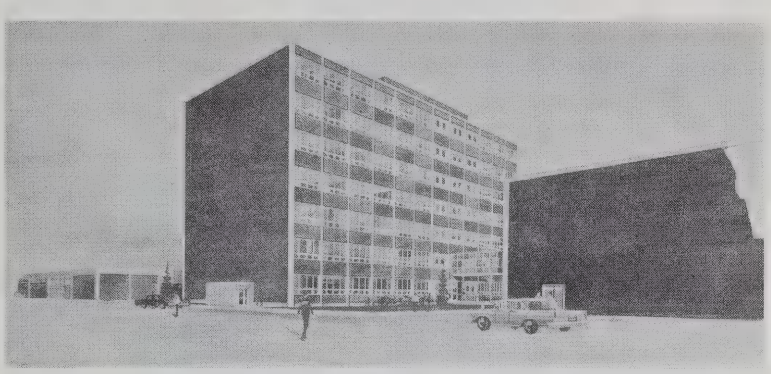
Department of Education

Northern Alberta Institute of Technology, Edmonton

Construction started on November 4, 1964, of the Industrial Annex Building, one of the two new buildings required at this site. This building is expected to be completed in May, 1965, and will accommodate the automotive body shop and spray paint booths for automotive instruction, and a Forestry Laboratory Growth Chamber to provide artificial conditions for plant growth. The building structure consists of precast concrete columns, beams, and roof structure, concrete block walls with brick veneer, aluminum windows, and vinyl asbestos tile floor finish. The machine shop and auto body shop have concrete floors with floor hardener for heavy duty wear. The building is provided with a ventilation system to suit the various occupancies. All shops, laboratories, classrooms, etc., are ventilated from central equipment rooms. In the central

equipment rooms, heating and ventilating units are installed to accommodate the various sections of the building. A large exhaust system is installed in the auto body shop, spray paint booth and similar areas where a continuous exhaust is required. A sprinkler system is installed throughout the building except in the classroom and office areas where no sprinklers are required. The system is connected to the fire alarm system by means of a flow switch and a water motor alarm gong, and is connected to the City Fire Department system. The Growth Chamber in the Forestry Laboratory has been fitted with special high temperature controls and high humidity controls for simulated growth under various conditions, and units are specially protected against corrosion. The Growth Chamber has also been fitted with fluorescent lighting to provide intensities from 0 to 2,000 foot candles in eight equal steps of adjustment. A lighting control panel has been provided to make illumination cycles completely automatic and to provide pre-set illumination intensities, time of exposure and time of day cycling. All standard electrical facilities are provided throughout the building, including central fire alarm monitoring, clock and program signals, provision for future television, etc. Power service is 347/600 Volt, 3 phase, 4 wire, by means of a 600 Amp feeder through the tunnel system from the Services Building. All shops and laboratories have extensive provision for addition of power equipment in the future or for relocation of equipment now installed. The machine shops have an extensive underfloor connection of machine tools in present or future locations. Fluorescent lighting, industrial-type and commercial-type, has been installed throughout to provide 65 - 70 foot candles maintained illumination level. Classrooms and offices are fitted with recessed fluorescent lights in Tee Bar ceilings. Low voltage relay lighting control has been used throughout, complete with lock switch operated master controls, for classrooms and shops.

Construction of the Tower Building commenced on December 28, 1964, and is of reinforced concrete, columns, beams, floor and roof slab. It is expected to be completed in December, 1965. Exterior walls are of concrete block and brick veneer . Interior walls are of glazed concrete block in corridors, exposed concrete block and steel channel stud walls with gyproc lath and plaster in classrooms, and metal partitions in office areas. Fenestration consists of sealed glazing units in wood frames and in alumnium frames in student area on roof. Suspended acoustic ceilings are provided in corridors, classrooms and offices; suspended plaster ceilings in washrooms and janitor rooms. The building consists of a service tunnel connected to the Service Building, basement and seven floors, and student area penthouse on the roof. Two elevators and three stairwells provide the vertical transportation. The basement houses the mechanical room, electrical vault, classrooms, machine



Tower Building, Northern Alberta Institute of Technology, Edmonton.

repair rooms, washrooms and a large storage room. All other floors have classrooms, staff offices, washrooms, special rooms for typing, accounting, computer, records, merchandizing, shorthand, tailoring and dressmaking. A bridge connects the second floor of the Tower Building to the second floor of the existing Technical Building. The heating of the building and bridge is accomplished by hot water radiation. The hot water is generated from convertors heated by steam from the existing power house. The heating system is split into three zones, one for each exposure and one for the bridge. Entrances are heated with steam cabinet heaters, independently controlled. Air conditioning is by a single duct, terminal reheat system with fans, coils, filters and sprays located in the basement machine room. Chilled water is supplied from existing absorption units; exhaust fans for washrooms, etc., are roof mounted. Each classroom and office area is thermostatically controlled; controls are pneumatic. Controlled building humidification is also provided for. The roof cafeteria is separately air conditioned with equipment utilizing refrigerant coils thereby eliminating extensive chilled water piping and a compressor condenser unit. The system is thermostatically controlled and operates independently of the building system. A complete system of storm and sanitary drains is provided, including a complete system of hot, cold, and recirculation water lines throughout the building to serve plumbing fixtures required. Power supply is at 13.8 KV 3 phase, supplied from the main switchboard at the Institute Power House. Transformation is by dry type 3 phase transformers as follows: 1,000 KVA with 347/600 volts secondary supplying the majority of fluorescent lighting at 347 volts and motor loads at 600 volts, 3 phase. 450 KVA with 120/208 volt secondary to supply receptacles, appliance loads and laboratory loads throughout the building. The building is illuminated by recessed fluorescent fixtures using frameless-type prismatic plastic lenses to provide an average

maintained level of illumination to 700 foot candles. Also provided are systems for fire alarm, intercommunication, paging, television antenna and power distribution.

Department of Health

Baker Memorial Sanatorium, Calgary

A new water storage reservoir and new water supply mains were installed at this site. This system supplies water requirements for both the Sanatorium and the Provincial Gaol. With the increase in water demand experienced at the Gaol, and in the event of a prolonged treatment plant shutdown, the project was designed to augment the present water storage.

Foothills Provincial General Hospital, Calgary

Work continued on the main hospital building this yeatr and consisted largely of the basic general mechanical and electrical trades. Masonry work was carried on, and the installation of mechanical equipment, duct work and controls, electrical equipment, including light and power distribution centres, and the installation of conduit systems. Finishing trades are expected to do the bulk of their work in the coming fiscal year with construction approaching completion early in 1966 . A complete description of the Hospital was included in the 1963-64 Annual Report.

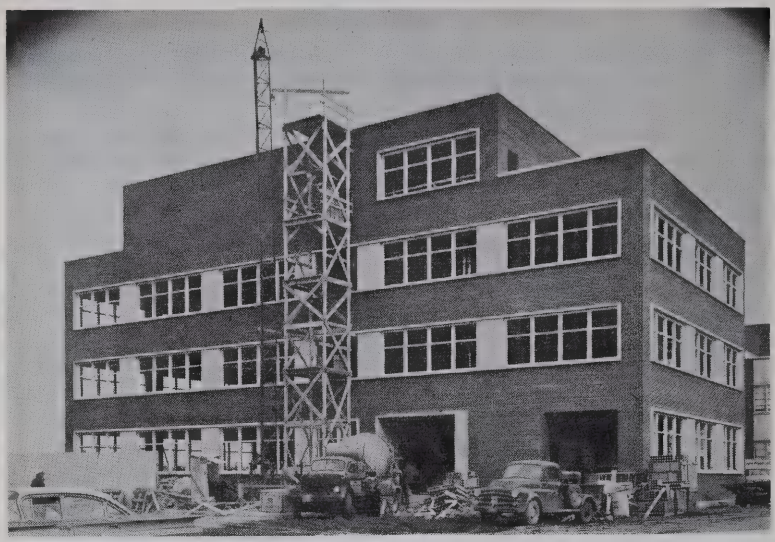
Foothills Provincial General Hospital, Calgary.

Alberta Hospital, Claresholm

The Administration Building is part of the Alberta Hospital and contains a general office for the hospital administration, together with reception areas and private offices for the Matron, the Assistant Matron, Doctors, the Hospital Bursar and the Accountant. In addition there is a food servery and cafeteria to seat 100 people, with a private dining area for senior staff. Construction commenced on October 1, 1964, and completion is expected in June of 1965. The building has a wood frame superstructure with face brick and stucco exterior finishes on a concrete full basement. The cafeteria has glulam beams and cedar roof deck, and the entire building has built-up roofing with gravel finish. Wood frame windows are used throughout. The building is connected by a tunnel to the existing tunnel system which shall be used for bed traffic and trucking of food, and which contains steam and water services. The mechanical heating and ventilation equipment is located in the basement mechanical room. The building is heated by a hot air system; humidification, filtering, and heating of the air is achieved by use of a multizone unit and remote preheat wing coil located in the fresh air plenum. Hot air is supplied to the basement and main floor rooms via baseboard diffusers. Air quantities are based on cooling requirements and future refrigeration equipment without additional changes to the ductwork.

Provincial Laboratory of Public Health, Edmonton

Construction of an addition to the Provincial Laboratory of Public Health, which started on March 15, 1964, was completed on March 15 ,1965. The building is a reinforced concrete frame structure with hollow clay tile interior partitions and back-up walls to exterior face brick veneer and wood frame interior partitions to other locations. Fenestration consists of sealed glazing units in wood sash and frames having fixed and opening lights which match the existing part of the building. Interior finishes have terrazzo and vinyl asbestos floors, plaster walls, suspended acoustic tile and plaster ceilings. The building provides for laboratories, sterilizer rooms, lecture rooms, office space, storage rooms, photographic rooms, culture rooms, animal rooms, refrigerator rooms and staff rooms. The Laboratory has a complete air conditioning system maintaining comfortable room conditions all the year round. The air is supplied by one large centrifugal fan unit, located in the penthouse, delivering a total quantity of air of 64,085 cubic feet per minute to the various areas by a high velocity dual duct system. The cooling requirements for the building are fulfilled by one 100 ton and one 60 ton reciprocating chiller controlled in four steps according to demand. The chilled water obtained from the chillers is circulated through the water cooling coils in the fan section. The building periphery is heated by wall-hung water radiation.



Provincial Laboratory of Public Health, Edmonton.

The hot water for the system is generated by a low pressure steam convertor and the individual room temperature requirements are obtained by a pneumatic control system. Both the high pressure and low pressure steam is brought into the building via a steam underground service from the main University Plant. The high pressure steam is used for the autoclaves and the steam cleaning room. The illumination is primarily provided by fluorescent lighting.

Alterations will be undertaken to the original Laboratory Building to upgrade the facilities and bring them in line with the 1956 and 1964 additions. The tremendous increase in the services required of the Laboratory will necessitate extensive remodelling throughout all four floors of the building, including the introduction of air conditioning to several critical areas. Additional animal quarters will be provided on the third floor and the present freight elevator will be converted to provide passenger-freight service.

Alberta School Hospital, Red Deer

Construction of a new Infirmary Building, which commenced on January 6, 1964, was completed on December 8, 1964. This building is of reinforced concrete, concrete block masonry and brick veneer masonry construction. Fenestration consists of sealed glazing units in wood frames to all rooms except activity rooms and

the reception area which have wood frame curtain walls of sealed glazing units and insulated sandwich panels. The roof is constructed of steel joists supporting steel decking cast in-situ concrete slab, rigid insulation and built-up gravel surfaced roofing. The interior finish is of plaster and ceramic tile walls, suspended acoustic and plaster ceilings, resilient type and ceramic mosaic floor tiles. The following accommodation is provided: six 10-bed wards, nurses' stations, lavatories, bathrooms, isolation wards, activities rooms, utility rooms, storage rooms, solariums, reception and waiting rooms, kitchens, dining rooms, administration staff locker rooms and washrooms, mechanical equipment rooms. The heating and ventilation of the building is provided by two multizone heating and ventilating units with steam coils producing the hot air which is supplied via ductwork throughout the building. The steam is obtained from the main power plant via a steam chase. During the summer months the main floor is cooled by flooding the roof. The illumination is provided primarily by fluorescent lighting. A complete fire alarm system, internal telephone system and music system have been installed throughout the building . The music system consists of an AM/FM tuner located in the central nurses' station with wall mounted speakers installed at various locations.

The Services Building, on which construction started January 6, 1964, was completed on February 24, 1965. This building is a steel framed structure with reinforced concrete foundation, concrete block masonry walls and back-up, face brick veneers. The roof is of steel joists supporting steel decking, rigid insulation and built-up gravel surfaced roofing. Fenestration consists of sealed glazing units in wood or steel frames. Interior finishes are of glazed concrete block, ceramic tile, plaster walls and ceilings, acoustic tile ceilings, terrazzo, quarry tile and resilient tile. This building houses the kitchen and laundry facilities and provides for the following services: laundry, soiled linen room, clean linen room, sewing room, kitchen complete with space for food preparation, refrigerators, dishwashing room, staff dining room, staff locker rooms and washrooms. The building is heated by a three zone forced hot water perimeter heating system. The hot water is generated by three low pressure steam convertors, the steam being obtained from the main power plant via a circular "Armco" steam chase. The building is fed with high and low pressure steam; the high pressure is for the laundry equipment and the low pressure steam is for the heating system. The building also has a complete supply and exhaust air system. The electrical system is provided by a high voltage cable into a transformer which is then distributed in 3 phase, 4 wire, at 208 volts. A specially built truck is supplied so that food carts can be conveyed to the various buildings. The truck is equipped with a small electric generator so that food carts can be plugged in and the food kept warm; it has an hydraulically operated platform.

Deerhome Institution, Red Deer

Construction of two new Dormitories (#7 and #8) which started on February 10, 1964, is expected to be completed in mid-April, 1965. These are steel framed concrete structures having hollow clay tile interior partitioning and back-up walls to face brick veneers. Roof construction is of reinforced concrete slab with rigid insulation and built-up gravel surfaced roofing. Interior finishes are terrazzo, mosaic ceramic tile and vinyl asbestos tile to floors, terrazzo dados, plaster walls and suspended plaster ceilings. Fenestration consists of sealed glazing units in double hung wood sash and frames with glass block panels. Accommodation provided by these two buildings is four-bed dormitories, single bedrooms, day rooms, dining rooms, treatment rooms, nurses' stations, bathrooms, utility and linen rooms. The mechanical system incorporates three multizone heating and ventilating units with steam heating coils. A proportional amount of fresh air and return air is mixed and passed through the steam coils to achieve the required temperature for heating the building and then transferred via ductwork to the various areas. Provision has been made for supplying future cooling equipment. Steam supply for the coils is obtained from the main power plant.

Highway Maintenance and Repair Shops, Edmonton East

The Department of Highways has found that its operation at the present Scona Shops cannot be successfully expanded at that location. Accordingly, a completely new facility is being planned on a site east of Edmonton on Highways 16.

Construction commenced on October 15, 1964, of an eight stall Maintenance Garage, and it is expected to be completed in June of 1965. This building is basically a storage garage for the equipment used by the Highways Maintenance Branch. There are eight parking bays, each with its large overhead door. A small office, washroom, and mechanical room are included. Construction is in wood frame system, stucco finish, with glulam beams and purlins, and wood deck system. The floors are concrete slab.

Tenders were received on March 4, 1965, for a Trackage Warehouse, and construction is expected to commence shortly. This project was designed as a warehouse for storage of bulk items such as paints and salt used in highway maintenance. Direct unloading will be from a railway spur line with a series of truck loading docks for shipping. The docks and floor slabs will be concrete ,the walls of a "form block" to contain reinforced concrete, and an exterior finish of stucco. The roof system will be of precast concrete T sections.

The next phase in development represents the bulk of the work at this site, which will be the heavy Maintenance and Repair

Shops, including Storage and Administration. This is mostly single storey construction of an approximate total floor area of 175,000 square feet. Carpentry, Paint and Sign Shops are scheduled for future planning.

As mentioned in the section on paving and related work, extensive grading and gravelling was carried out on this site in preparation for this and associated projects.

Four-Stall Highway Maintenance Garages

Construction continued during the year of the four-stall garages for housing and servicing road equipment at the following sites:

Consort—construction commenced October 24, 1963; completed June 11, 1964.

Hines Creek — construction commenced January 15, 1965; expected completion June, 1965.

Manning — construction commenced February 1, 1965; expected completion June, 1965.

Two Hills — construction commenced January 15, 1965; expected completion June, 1965.

These buildings are all typical four-stall garages for the storage of equipment used by the Highway Maintenance Branch. Each has four parking bays, each with an overhead door, an office, a washroom and a mechanical room. Construction is in wood frame system with stucco finish; the roof system consists of glulam beams, purlins and a wood deck; floors are concrete slab.

Department of Lands and Forests

Cypress Hills Provincial Park

The Town of Elkwater is a Lands and Forests headquarters for the region, and also a summer vacation centre. The population density during the peak of the season caused some concern from the standpoint of sanitation. It was decided that the Alberta Government would provide a water supply sysetm only, with a minimum of distribution mains and ample storage system, to supplement the peak pressure needed for vacationers, as well as domestic supply for the Lands and Forest personnel.

Construction of a maintenance garage for servicing Departmental vehicles was commenced on September 15, 1964, and completed on February 4, 1965. Accommodation consists of four large maintenance stalls, office, washroom and storage facilities,

small garage for fire fighting equipment. The main workshop area structure is of concrete block walls with roof construction of glulam beams, cedar decking supported on reinforced concrete columns. The office portion is constructed of concrete block walls and a cedar deck roof. Heating of the building is achieved by overhead gas fired unit heaters in the workshop and a forced air system in the office area.

Forestry Training School, Hinton

Construction of the addition to the Forest Ranger School commenced February 15, 1965. This building consists of a partial basement, a lower floor and a main floor. The basement is constructed of reinforced concrete walls with concrete load bearing interior partitions, and accommodates such areas as storage, mechanical, washrooms, "clean and soiled" changing rooms. In these areas the walls are finished in concrete and plaster, painted; the ceilings in concrete with floors in unglazed mosaic tile and color hardened concrete. The main structure is of wood frame with vertical cedar siding and asbestos board feature panels below the main and lower floor windows. The roof is of trussed rafters with plywood sheathing with asphalt shingles. The lower floor accommodates bedrooms, storage rooms, a photogrammetry lab, living quarters, library-reading room and washroom, while the main floor accommodates classrooms, offices, storage, a training aid room and forest biology laboratory. Interior finishes include vinyl asbestos and lino tile floors, drywall walls, acoustic tile, and drywall ceilings. Windows consist of sealed glazing units set in double hung wood sash and frames. The heating consists of gas fired hot air supply and ventilating system via ductwork throughout the basement, while the upper building periphery is heated by wall-hung fin vectors and unit heaters using hot water.

Lands and Forests Headquarters, Peace River

Construction started on Febrauary 8, 1965, of a Warehouse and Four-Stall Garage, and completion is expected in October, 1965. These buildings are based on typical service garage and warehouse plans as done at other Lands and Forests sites, but for this location the buildings were brought together with a common wall. The warehouse is basically open warehouse space with an office, washroom, mechanical room and small shop. The garage consists of two large bays and two small bays, each with an overhead door, a small office, washroom and mechanical room. Construction is concrete floor slabs, concrete block walls, glulam beams, purlins and wood deck roof system.

Department of the Provincial Secretary

Southern Alberta Jubilee Auditorium, Calgary

The front portion of the main stage which originally covered the orchestra pit was replaced by an hydraulically operated stage. This stage is identical to the one installed in the Northern Alberta Jubilee Auditorium in Edmonton during 1963. The design was developed by the Department of Public Works in close co-operation with the Auditorium Management Committee. The hydraulic stage is in two sections; a large section used primarily as an orchestra playing deck and a smaller section used primarily as a freight elevator. The two sections may be used simultaneously or independently, and may be positioned at any height between the base and the main stage floor level. Two pumps provide hydraulic pressure and are so arranged that in the event of the failure of one pump, the operation is maintained by the other, though at reduced speed. The Department of Public Works maintenance staff worked with the elevator contractor during the installation period. The specifications of the above are as follows:

	Small Unit	Large Unit
Total Travel	8 feet, 10 inches	7 feet
Approximate size of stage	15 feet by 12 feet	50 feet by 14 feet
Approximate speed	10 feet per minute	10 feet per minute

Superimposed Loads (both units)

Moving..... 50 pounds per square foot plus 1,000 pounds concentrated load

Stationary.....100 pounds per square foot plus 1,000 pounds concentrated load

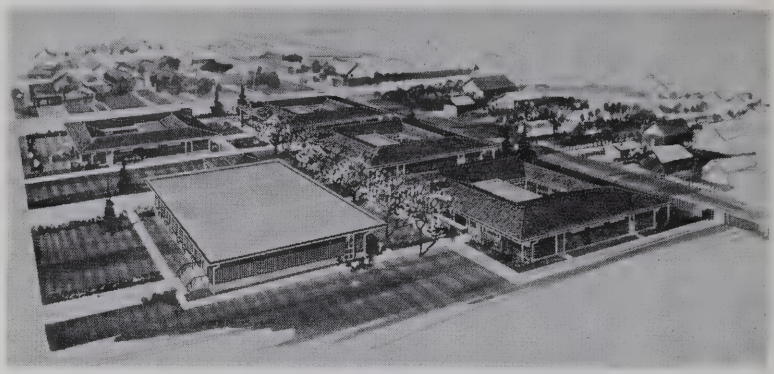
Department of Public Welfare

The programme for the construction of Homes for the Aged was continued this year at the following locations:

Calgary—Elbow Valley
Crossfield
Edmonton—Belvedere #2
Myrnam

Woodside Home, Edmonton

Two ten-girl cottages for unwed mothers, the first of a complex of four cottages, and a double garage, were started September 15, 1964, on a site at 133rd Avenue and 101st Street. Construction is expected to be completed in June, 1965. The cottage unit contains eight single bedrooms, one double bedroom with common



Woodside Home, Edmonton.

living, dining and recreation rooms, kitchen and laundry room. Other facilities include a suite for the Housemother and her assistant, an office and storage for girls' clothing and linen. A feature of the building is the interior court which provides outdoor living for the residents. Construction is wood frame with a pitched roof surfaced with cedar shingles. Exterior wall cladding is vertical V-joint and diagonal bevelled cedar siding with accent panels of cement asbestos. Interior finish is drywall, and accent panels of natural woods and masonite wood grain are used in different areas; ceilings are generally drywall with some areas using acoustic tile; the floor in the living, dining and recreation room is hardwood with all other floors of resilient tile. Windows are wood framed with sealed units in fixed and opening sashes. Heating is by a gas-fired forced air furnace. Exhaust ventilation is provided in all washrooms. Lighting is incandescent throughout.

The two-car garage is wood framed throughout on a reinforced concrete foundation; the roof is similar to the cottages. Enclosed storage is provided at one end of the garage for vegetables and a small work area for the maintenance staff.

Department of Public Works

Provincial Building, High Prairie

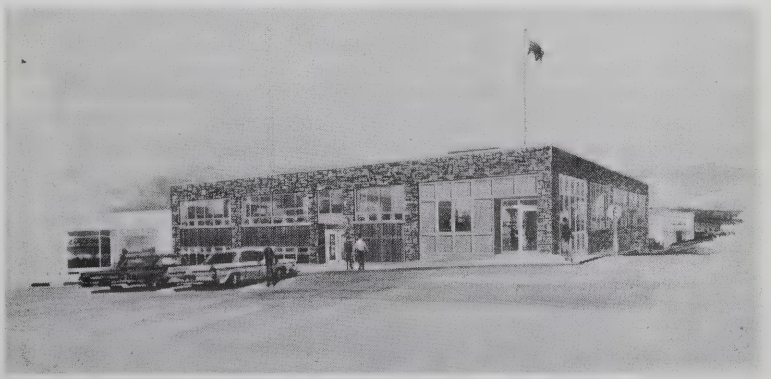
Construction of the Provincial Building at High Prairie started on April 1, 1964, and was completed on September 8, 1964. This building is a wood framed, one storey structure on reinforced concrete foundations. Certain walls and partitions to the Treasury Branch are concrete masonry, and the vault is, as usual, specially reinforced concrete . Exterior finishes are face brick veneers and vertical cedar siding. Roof construction is of glulam beams and tongued-and-grooved decking to the Treasury Branch and Liquor

Store; the other areas have wood joists and plywood deckings, both supporting rigid insulation and bulit-up gravel surfaced roofing. Fenestration consists of sealed glazing units in wood fixed and opening sash and wood frames. Interior finishes are quarry tile and vinyl asbestos floor tile, drywall and exposed block sufaces, suspended acoustic tile ceilings, drywall ceilings, exposed beams and wood deck.

Accommodation is provided for the followig Departments: Treasury Branch, Attorney General, Agriculture, Municipal Affairs, Welfare, Lands and Forests, Alberta Liquor Control Board. The building is heated by means of wall-hung hot water radiation, and unit ventilators. The hot water is generated by means of a 1,600,000 BTUH gas fired boiler. The Treasury Branch, the Courthouse, the Judge's and Magistrates' offices are all heated in the winter and cooled in the summer by means of individual unit fan coil units. These units bring in fresh air on a fixed ratio, and it is cooled or heated as the season or room requires. The refrigeration is obtained by means of a compressor-type water chiller.

Provincial Building, Rocky Mountain House

This Provincial Building, construction of which started August 3, 1964, was completed March 31, 1965. The building is of reinforced concrete basement floor, main floor, roof and foundation walls. Exterior walls are exposed concrete masonry and split face concrete block laid in an ashlar pattern on the north and east faces. Interior walls are concrete block and wood frame. Roof slab has rigid insulation and built-up gravel surfaced roofing. Interior ifnishes are generally exposed concrete block, wood panelling in special areas, asbestos panels, plaster and wood framing; suspended acoustic tile and plaster ceilings; floors are covered with a resilient



Provincial Building, Rocky Mountain House.

type of floor tile. Fenestration is generally wood frame with sealed glazing units with some extruded aluminum framing.

Accommodation is provided on the lower floor for the Treasury Branch, Department of Highways, Department of Municipal Affairs, and the Department of Lands and Forests; located on the main floor are the Treasury Branch, Departments of Agriculture, Lands and Forests (Fish and Wildlife), and Attorney General. The building is heated by forced hot water and is fully air conditioned. Lighting is fluorescent throughout.

Provincial Building, Spirit River

Construction commenced on April 27, 1964, of this Provincial Building, and was completed on November 25, 1964. This building houses a Treasury Branch and Liquor Store. The second floor will be partitioned into various office areas next year, and will accommodate the District Agriculturist and the District Home Economist. The building comprises a one storey Alberta Liquor Control Board Store, and a two storey Provincial Building. The building structure is mainly concrete brick with 4" brick veneer and stucco veneer at the front with a glulam roof structure. The Alberta Liquor Store portion of the building is heated by a forced hot air system. The Treasury Branch area, and the future office area on the second floor, is heated by wall-hung hot water radiation with a low velocity duct ventilation system. Illumination is primarily fluorescent lighting.

Carpenter Shop, Alberta Hospital, Ponoka

Tenders were received on February 25, 1965, for the Carpenter Shop . This building will have a total area of 9,600 square feet and will provide for the following areas: the north shop area, which is to include two offices, hardware storage and an electrical shop; the south shop area, which is to include the tinshop, plumbing shop, lunch room and janitors room . The future occupancy is estimated to be as high as 35 - 40 men. The main building construction will be slab-on-grade, lightweight concrete block, laminated wood roof supported by steel joists, drywall partitions and wood sash windows. Heating and ventilation will be provided by gas-fired furnaces with warm air distribution through overhead and underfloor duct systems, with special provision for make-up air in the welding shop. Illumination will primarily be by fluorescent lighting.

Treasury Branches

Edmonton

On December 1, 1963, construction commenced of the Whyte Avenue and 104th Street Treasury Branch, and was completed on

Treasury Branch, 104th Street & Whyte Avenue, Edmonton.

June 11, 1964. The building is of reinforced concrete basement floor, walls and main floor slab. Exterior walls are of brick and concrete block. The front facade is faced with marble veneer and has an aluminum main entrance way. The interior partitions are of brick, concrete block and wood frame. The pre-cast concrete panels to the roof have rigid insulation and built-up gravel surfaced roofing. Interior finishes are face brick, insulated asbestos panels, plaster and wood to walls; suspended acoustic tile and plaster ceilings; the floors are covered with a resilient type of floor tile. Accommodation is provided for a banking hall, manager's office, staff room, and three vaults of reinforced concrete construction. Fenestration is sealed glazing units in wood and aluminum frames. The heating and cooling is accomplished by a gas-fired furnace fitted with cooling coils. Cooling of the water is accomplished by an air cooled compressor condenser located on the roof. Lighting is generally fluorescent.

Manning

The Treasury Branch building at Manning, construction of which commenced June 14, 1964, and completed October 22, 1964, has reinforced concrete foundation walls and basement floor slab; concrete block masonry walls with face brick veneer to exposed locations. Interior partitions are of concrete block masonry and wood framing, and the building is provided with a reinforced concrete vault. The front facade is finsihed with extruded aluminum entrance and face brick veneer. The roof structure is composed of rigid insulation and built-up gravel surface roofing over wood joists. The main floor structure is composed of wood joists framing into glulam beams. Interior finishes include a feature wall of tongued-and-grooved birch laid vertically, plaster on wood framing, exposed concrete block; acoustic tile ceiling between ex-

posed glulam beams, suspended plaster ceiling, and floors of resilient tile. Accommodation is provided for a banking hall, manager's office, staff room and vault of reinforced concrete construction. Fenestration is sealed glazing units in wood and aluminum frame. Heating and cooling are by means of a gas-fired furnace fitted with cooling coils. Lighting is generally fluorescent.

Taber

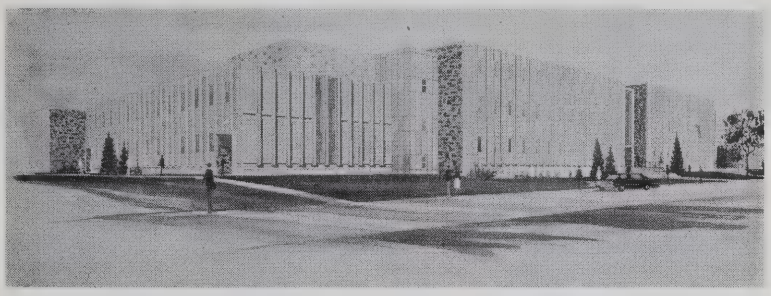
Construction of the Treasury Branch at Taber commenced August 15, 1964, and was completed December 22, 1964. This building has a partial basement, main floor and foundation walls of reinforced concrete. The main entrance and front facade is of extruded aluminum framing with insulated asbestos panels at top and bottom with sealed glazing units between. Exterior walls are of concrete block masonry. Interior walls are of concrete block masonry and wood framing . The roof structure is composed of exposed wood deck on glulam beams on the interior, with rigid insulation and built-up gravel roof to the exterior. Interior finishes are exposed concrete block, wood framing, drywall, and resilient flooring. Accommodation is provided for a banking hall, manager's office, staff rooms, vault, and vault storage. Lighting is fluorescent. Heating and cooling is by a gas-fired furnace fitted with a cooling coil.

University of Alberta

Biological Sciences Complex, University of Alberta, Calgary

Construction continued on the Biological Sciences Complex. This project was described in detail in the previous Annual Report. The complex consists of a Tower Building six floors high with single floor buildings adjacent and connected to the Tower Building. These adjacent buildings are the Lecture Theatre, Lobby, Museum, Library and reading rooms, and four individual seminar rooms. Construction of the complex is of reinforced concrete and faced on the interior with architectural pre-cast stonework. The interior partitioning is concrete block masonry and wood frame; built-up gravel surfaced roofing over rigid insulation; fenestration consists of sealed glazing units in wood sash and frames. Interior finishes are: Floors—quarry tile, ceramic mosaic, slate pavings, resilient type floor tile, carpet. Walls—plaster, ceramic tile, face brick. Ceilings—suspended plaster, suspended acoustic tile. The Tower Building provides accommodation for research laboratories and classroom facilities for all branches of the Biological Sciences such as Chemistry, Geology, Zoology, Physics, Biochemistry, etc. On each floor office spaces and storage spaces are included.

A large amount of bench work is required in the laboratories of this building, and a separate tender was called and a contract awarded on November 16, 1964, for this phase of the work.



Calgary Hall, University of Alberta, Calgary.

Calgary Hall, University of Alberta, Calgary

To provide facilities for the Departments of English, Classics, Drama, Music, Language, Philosophy and Geography at the University of Alberta in Calgary, a complex of buildings, to be named "Calgary Hall" was planned. Construction commenced on July 24, 1964, and completion is expected by December 30, 1965. The site for the buildings is in the heart of the Calgary campus immediately southwest of the new Library and to the east of the Gymnasium. The complex of buildings is planned in a "U" shape with provision for future expansion to close the area on all four sides, creating an inside landscaped court yard.

Calgary Hall consists of five distinctive building blocks connected by enclosed circulation links. The floor areas are occupied mainly by classrooms, laboratories, faculty offices, music practice rooms and lecture halls. The links contain stairs and lobbies. much space in the building is mutli-functional, and, therefore, useful to departments outside Calgary Hall. Faculty offices are located away from through corridors to ensure more privacy for faculty members. For reference the buildings are labelled A, B, C, D, and E.

Block A has three stories occupied by faculty offices, reading rooms, and seminar rooms. Two large lecture halls, each seating 250 persons, are designed for the greatest flexibility in the application of visual aids. The basement contains staff and student common rooms with a small kitchenette. Block B has three stories and basement, all occupied by faculty offices and seminar rooms. Block C has two stories and basement occupied by classrooms and laboratories.

Block D, the Music Wing, is two stories high. This wing is designed in two distinctive halves separated by a main lobby, which is also the main entrance to the Auditorium. One half is occupied by music practice rooms and faculty offices; the other half is taken

up by the large band and choir rooms, and other specialized rooms for listening and piano practice. Extensive research was carried out to arrive at the most appropriate and most economical solutions to the problems of sound control and acoustical treatment.

Block E consists of four main divisions: the display area, the 500 seat auditorium, workshop and T.V. studio with visual aid facilities in the basement. The display area serves as a link between the auditorium and Block D. The floor and walls are intended for displays of items pertaining to the activities in the building. The auditorium is designed as a "theatre-in-the-round", with the front stage protruding into the circle of the audience in the manner of the Shakespearean Theatre, and the seating rising towards the back wall to create a tie of intimacy between actors and spectators. However, some compromises away from the ideal "theatre-in-the-round" had to be made in order to accommodate other functions of the theatre, i.e., lectures, musical performances, motion pictures. Thus a wide proscenium opening is provided with a series of moveable panels which can be arranged in different positions. A backstage with provisions for a gridiron is included. To one side of the backstage are the workshops separated by a folding partition. To the other side is the television studio which in time is intended to serve the whole campus through a closed circuit.

A visual aid department is located in the lower floor below the television studio as there is an important interrelationship between these facilities.

The structural system for all blocks of the complex is poured-in-place reinforced concrete. Exterior walls are precast architectural panels and exposed textured concrete accented with fieldstone veneer. Interior finishes are plaster and exposed concrete blocks, painted.

The design of the heating and air conditioning system in this building is influenced by plans for the future installation of a high temperature, high pressure, hot water heating plant to serve the whole campus. With respect to the boiler plant, hot water boilers have been utilized to minimize the changes which will be necessary in the system when the central plant is installed. The boilers are located in the mechanical equipment room in the basement of Block C, together with all other equipment normally associated with a boiler plant. All this equipment, with the exception of the boilers, would be utilized when the central heating plant for the campus is installed. Full air conditioning has been provided for the entire building utilizing a hot water absorption refrigerator machine located in the basement machine room. The air handling equipment for the main areas of the building (i.e., areas exclusive of the lecture halls and the auditorium block), is located in a roof penthouse. The main areas of the building are served by an induc-

tion-type air conditioning system and are provided with individual room control. The cooling towers are installed in the penthouse, both to provide "weatherproofing" and to permit operation of the refrigeration equipment in freezing weather conditions. The air conditioning systems serving the lecture halls are low velocity systems with the equipment located in the equipment rooms provided adjacent to these areas.

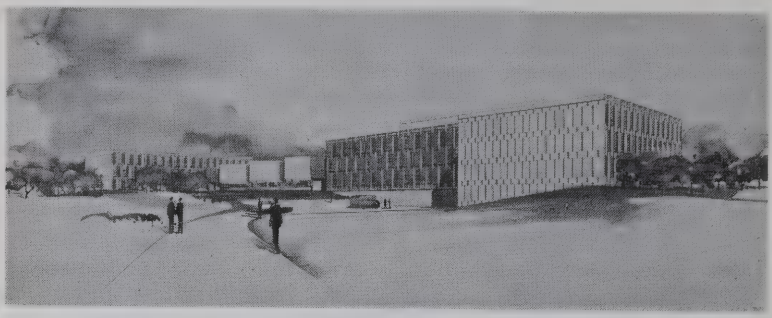
Electrical services to buildings on the Calgary campus are provided by means of an underground duct system. Power supply in the underground distribution system on the campus consists of a 13,200 volt, 3 phase, Delta ring main, with future planning to provide a parallel ring main for standby switching purposes. The unit substation transforms the incoming voltage to a distribution voltage of 600/347 volts, 3 phase, 4 wire, Star system, and power is distributed to the building at this voltage. Motor loads are restricted to 600 volts, 3 phase, and fluorescent lighting throughout the building is fed at 347 volts. Miscellaneous convenience outlets and incandescent lighting loads required in the theatre and lecture halls are supplied by means of dry-type transformer unit substations located in the respective wings, fed by 600 volts, 3 phase, and so arranged as to provide a distribution voltage of 120/208 volts, 3 phase, 4 wire.

The theatre has been provided with specialty lighting and control to comply with the requirements of both the apron stage and the conventional proscenium arch stage. A main dimmer and control panel has been installed in the control room at the back of the theatre with provision for remote control of some of the lighting by means of an instructor's portable control box. An emergency evacuation lighting system has been installed throughout the building utilizing automatically controlled battery standby units. Provisions have been made for installation of future cables for television distribution. A sound system, controlled from the theatre control booth, has been installed in Block E, and permits the use of stage microphones, together with recorded programs from the main console in the control booth. Also included in the system is a light system for cueing and traffic control within the theatre to facilitate open stage use of the theatre.

In order to highlight some of the attractive features of the exterior of the building, some floodlighting has been provided along the outside wall of Block E, and to floodlight the courtyard enclosed by the building, utilizing both ground mounted and building mounted weatherproof floodlights.

Civil Engineering Building, University of Alberta, Calgary

Construction of this building was started on November 5, 1963, and was completed on October 1, 1964. This is a reinforced



Engineering Centre, University of Alberta, Calgary.

concrete and concrete masonry structure having artficial precast stone facing panels to exterior walls. Fenestration is double glazing wood frames to all floors; to the main entrance hall there are tall vertical steel-framed single glazed windows. The roof has rigid insulation and built-up gravel surfaced roofing. Interior finish is exposed concrete block and plaster walls, suspended and attached acoustic tile ceilings, ceramic, mosaic and resilient floor tile. Accommodation is provided for material testing, research laboratories, structural testing, design laboratories, lecture rooms, classrooms and administration offices. The heating and ventilation requirements of the building are met by large centrifugal fan units bringing in fresh air and mixing it proportionally with return air according to the temperature and seasonal requirements. A hot water heating coil is installed in the air conditioning unit to heat the air and this hot air is supplied to the various areas by a high velocity duct system. The hot water coil is heated by means of a temporary 80 horsepower gas fired boiler. This boiler will be replaced by a high temperature hot water heat exchanger when the central boiler plant that is being planned for the campus is put into operation. An extensive pneumatic control system allows for individual control of the heating systems in various parts of the building. Provision has been made for the installation of approximately 120 tons of refrigeration for cooling purposes in the future. In order to reduce the noise level of the system in the classrooms, provision has been made for the use of sound absorbing duct linings and anti-vibration mountings for the equipment.

Greenhouse Addition to Science and Engineering Building, University of Alberta, Calgary

A modest greenhouse has been added on the roof of the Science and Engineering Building in conjunction with the existing Botany facilities. The new structure provides two sections of glazed-in growing space and a potting shed. Exterior walls are

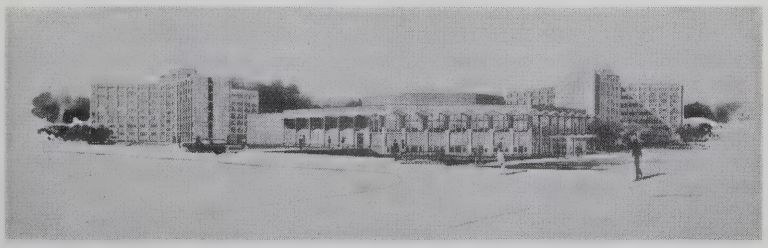
designed to match existing structure with precast panels and aluminum windows. All floor slabs have a waterproof finish. The greenhouse is heated by steam at the perimeter. Overhead artificial light is provided for year round growing conditions.

Student Housing Complex, University of Alberta, Calgary

Construction of a Student Housing Complex commenced on the Calgary campus. Two eight storey Residence buildings were started on April 1, 1964, and a Food Services Building on August 25, 1964; the buildings are similar in most respects to those on the Edmonton campus.

The Residences, which are of reinforced concrete and masonry construction will provide accommodation for 412 students in each building. The majority of the students will be accommodated in double rooms while some single rooms are available on each floor. Each floor also has the usual complement of washrooms and bathrooms, and common lounge areas, together with a small kitchenette and hand laundry room and a study alcove. The main floor of each residence includes a Warden's suite, a library reading room, a small guest suite and a reception office, while the basement floor has a students' recreation room and music practice rooms. Each building is served with two high-speed passenger elevators. Finishes throughout the residences are modest. A third future building of the same shape and size is allowed for in the planning.

The Food Services Building, which is of combined reinforced concrete and steel construction with cast stone exterior, is designed to provide the dining room and additional lounge facilities for those students living in residence, as well as food services for the campus generally. The building is capable of seating 1,500 students at any one time. The main cafeteria which is provided with a "scramble" type servery can seat 900. The future banquet room will be able to accommodate 300, the private dining room will seat 50, while a 250-seat snack bar will be located on the lower floor. The building is, therefore, sized to accommodate the whole population of the student residences at two sittings for any one



Student Housing Complex, University of Alberta, Calgary.

meal. The ancillary dining facilities will be developed in the future as student enrollment increases; the space is used meantime for student activities which will eventually transfer to the Students' Union Building. In addition to the foregoing facilities, the building also provides accommodation for the Director of Student Housing and also serves as a distribution point for all main services to the residences buildings. The Food Services Building is fully air conditioned, and accommodates the steam generating equipment to serve the entire complex.

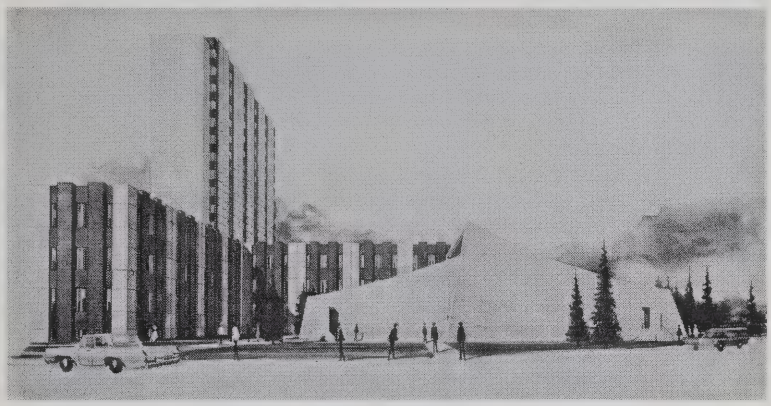
Completion of the project is expected in June, 1965.

Henry Marshall Tory Building, University of Alberta, Edmonton

Construction started March 19, 1965, on a new Social Sciences Building on the University of Alberta campus in Edmonton at 112th Street and Saskatchewan Drive. The project will consist of a 15-storey central tower building with two three-storey wings. A separate lecture theatre will be connected to the main structure by an underground tunnel. This complex will be known as the Henry Marshall Tory Building to commemorate Henry Marshall Tory, the University's joint founder and President from 1908 to 1928. On completion in 1966 it will be the largest building on the campus. A white limestone and brick finish will blend with the surrounding University buildings. The lecture theatre is the first of its design in Alberta and will contain no perpendicular walls. Covering 276,000 square feet, the complex will accommodate 5,000 students. Faculty offices and seminar rooms will be located in the central tower. The two wings are to contain about 40 classrooms each and an equal number of laboratories, while the lecture theatre will house a 500 seat lecture room, another for 300 and two for 250 seats . Facilities for audio-visual aids are to be installed in each room.

The building complex will provide facilities for the archaeology, history, philosophy, sociology, political science and geography departments. The commerce department will also be accommodated in this building, but on a temporary basis.

The structural material predominantly used for the construction of this complex is reinforced concrete. A composite structural floor system of steel beams and concrete slabs will be used in the tower to provide an economical clear-spanned and flexible floor space. The interior partitions will be steel stud, concrete block and brick masonry. The roofs are to be gravelled, over built-up roofing and insulation. Fenestration consists of double glazed units in aluminum sash and frames. Interior finishes are: floors —concrete hardener, terrazzo, rubber tile and carpet; walls—plaster, concrete, concrete block and brick masonry, wood, marble



Henry Marshall Tory Building (Social Sciences), University of Alberta, Edmonton.

and vinyl wall covering; ceilings—suspended plaster and suspended acoustic tile.

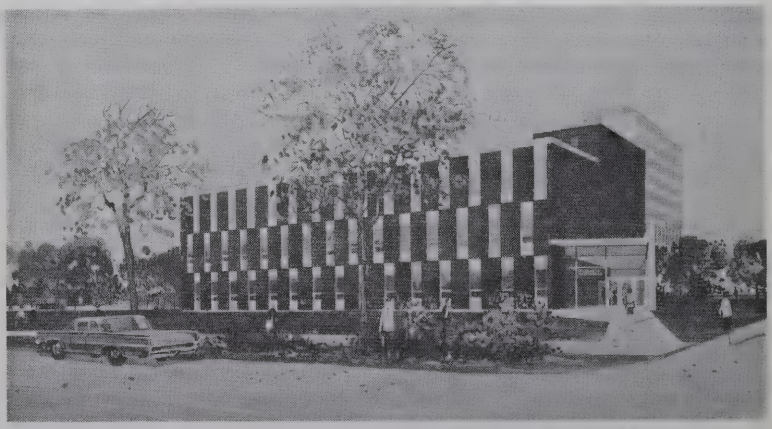
To provide air conditioning, heating and domestic hot water service, high pressure steam and low pressure steam will be supplied to the building from the University Central Heating Plant. Provision for chilled water will be made to be supplied from the new Central Cooling Plant. In the tower and both wings the exterior rooms will be air conditioned by induction units supplied with hot water and chilled water . The interior areas will be supplied with air from a single duct system using terminal reheat units with hot water coils. Mechanical equipment rooms will be located in the tower sub-basement and on the 15th floor. In the sub-basement equipment room hot water will be generated and pumped to the various systems and also through a tunnel system to the lecture theatre. Domestic hot water and chilled water will also be pumped to the lecture theatre via this tunnel. The lecture theatres will be air conditioned by central multizone units located in an equipment room on the mechanical floor above main floor level.

The building will be illuminated by standard fluorescent fixtures to the adequate levels as required for each function . The lighting and motor power distribution will be 600/347 volts. Receptacles and incandescent lights are to be served from a 120/208 volt system transformed down from the 600 volt system. To illuminate the lecture theatre, large (48") round fixtures will be used. In order to reduce lighting levels in this area, additional incandescent fixtures on dimmer controls will be installed. This building is to be supplied with electricity from the University 13.8 KV distribution system which will run underground through manholes.

Two 750 Kva transformers will reduce the voltage to 600 volts. The tower section is to be supplied with a vertical buss-duct, and each floor area will then be fed from the small electrical rooms on each floor. Auxiliary systems conduits will be provided for intercommunication, telephone, closed circuit television distribution, fire alarm and clock systems. The intercommunication system will be of a telephone type, with a push-button for digit selection rather than dialing. Lightning protection with points and ground connections will be provided on the tower. The power, telephone and intercommunication systems will be distributed on each floor through the underfloor duct system to each room, or to the modular partition walls. It will be so arranged that at any new location of partition services could be brought into the partition.

School of Household Economics, University of Alberta, Edmonton

Construction started on this building on April 6, 1964, and was completed February 16, 1965. The school is functionally divided into five general areas: mechanical rooms, laboratories and classrooms, storage areas, offices and washrooms. This embraces a total square footage of 40,000 square feet, and is a reinforced concrete structure with face brick and precast panels on the exterior. Fenestration is sealed glazing units in wood frames to all floors except the main entrance which has double glazing in aluminum frames. Interior finish is exposed concrete block and plaster walls, suspended acoustic tile ceilings, terrazzo, unglazed mosaic and resilient floor tile. The roof has rigid insulation and built-up gravel surfaced roofing.



School of Household Economics, University of Alberta, Edmonton.

Accommodation is provided for clothing laboratories, applied art, general classrooms, administration and staff offices, food laboratories, central stores, demonstration and methods laboratory, house furnishings laboratory, kitchen and dining room unit combinations, research laboratory with animal rooms and test room for textile research.

The complete building is air conditioned with the animal rooms having their own separate heating and cooling system to prevent contamination. Forced hot water heating is used throughout from a low pressure steam convertor . The building heat load is approximately three British thermal units per cubic foot per hour, and is provided by wall-hung hot water radiation, hot water cabinet unit heaters, and steam unit heaters in the penthouse. The circulated hot water is heated by a low pressure steam convertor. The high pressure steam is reduced in pressure from a 6-inch main supplied from an existing 6-inch high pressure line in the Education Building. The Kjedahl room is provided with fifty air changes per hour, and the rat and chick rooms have twenty air changes per hour. The building is supplied with a double duct, high velocity air conditioning system with provision for 100% fresh air intake. Refrigeration load for the cooling of the building is equal to the melting of 182 tons of ice per day. This cooling load is taken care of by a centrifugal compressor in conjunction with a roof mounted underflow cooling tower. The building is equipped with compressed air, distilled water, natural gas, and a vacuum dry mop system.

Most lighting is fluorescent, with some special areas having incandescent illumination. Some classrooms have been provided with television outlets for future audio-visual instruction. A tunnel connects with the Education Building.

Shipping and Receiving Building, University of Alberta, Edmonton

A Shipping and Receiving Building for the handling of a wide variety of material for University use was commenced on October 16, 1964, and completed March 3, 1965. The building has a total area of 4,464 square feet with 2,400 square feet serving as warehouse space, and the remaining area divided into five offices, a drafting room, work room, heating room and two washrooms. The building construction is a concrete slab on a built-up gravel bed, light weight concrete block walls supported on a concrete strip foundation. The roof is made up of precast double "T" deck. Three overhead doors opening from a loading platform serve the warehouse area. Office partitions are of drywall construction; opening wood sash windows are installed in the office area. The

warehouse area is heated with overhead unit heaters; the office area is heated by a gas-fired furnace and overhead ducts. Illumination is primarily fluorescent lighting.

Underground Radiation Laboratory, Chemistry Building, University of Alberta, Edmonton

Construction of this one storey reinforced concrete underground radiation laboratory was started March 15, 1965, and completion is expected in October, 1965. The basement floor level will be eighteen feet below finish grade with tunnel connections at the north and south ends of the Chemistry Building.

Interior wall finishes will be concrete and concrete block with exposed concrete ceilings; floor finish will be concrete with integral hardener. Accommodation will be provided for four offices, irradiation room, Van De Graff, gamma cell, and other research areas. A manhole to the ground surface is to be provided for the removal of heavy equipment. Heating and cooling will be accomplished through a central heating air conditioning unit with ductwork to all areas. Ceiling-type diffusers are to be used for the distribution of cooled air. Lighting will be generally fluorescent; power is to be supplied from a 600 amp main breaker located in the Chemistry Building.

ALBERTA LIQUOR CONTROL BOARD

Alberta Liquor Control Board Stores

During the past year Liquor Stores have been constructed or are at present under construction for the Alberta Liquor Control Board at the following locations throughout the Province:

Brooks
Nanton
Swan Hills
Taber
Viking

These buildings are of the same basic construction consisting of reinforced concrete foundations and concrete block masonry exterior walls. The interior partitioning is wood framed with drywall finish. Roof construction is either pre-cast concrete tees or glue-laminated beams and tongued and grooved decking, surfaced with rigid insulation and built-up gravel surfaced roofing. The front wall of the building may consist of extruded aluminum curtain wall with entrance or a field stone veneer with concrete block masonry back-up and extruded aluminum entrance. Accommodation consists of the store area, warehouse storage area, heating

room and staff rooms. They are heated generally by gas fired warm air furnaces and have complete plumbing facilities. Unit heaters warm the warehouse and lawn watering services have been supplied for grounds maintenance.

PAVING AND RELATED WORK — GOVERNMENT INSTITUTIONS

This area of the work deals with site finishing and landscaping at various institutions. In order to maintain a good system of roadways and parking areas, the latest construction standards for this type of work are used, taking into account such factors as load bearing and drainage requirements. Street lighting, car plug-ins, retaining walls, patios, walks are also carried out during this phase of the work. A continuous process of up grading is constantly being carried out at the older institutions of the Province where dirt road systems and works of a like era are being improved.

The following is a breakdown of projects in this branch for the fiscal year.

Alberta School Hospital—Red Deer
Deerhome Institute—Red Deer
Institute for Boys—Bowden
University of Alberta—Edmonton
Provincial Gaol———Calgary
Baker Memorial Sanatorium—Calgary
Southern Alberta Institute of Technology—Calgary
Alberta Hospital—Ponoka
Provincial Building—High Prairie
Alberta Hospital—Raymond
University of Alberta—Calgary
Belmont Girls Home—Edmonton
Legislative Grounds Parking Lot—97th Ave. and 108 St.
Northern Alberta Institute of Technology—Edmonton
Public Health Building—Edmonton
Southeast Edmonton Highways Yard
Lands and Forests Service Yard—Peace River
Ottewell Home for the Aged—Edmonton
Courthouse Parking Area—Peace River
Lands and Forests Yard—Whitecourt.

CONSULTING ARCHITECTS AND ENGINEERS COMMISSIONED BY THE DEPARTMENT OF PUBLIC WORKS DURING THE FISCAL YEAR 1964-1965

Consultant	Type of Service	Project
Kasten, Longworth & Smith Limited—Edmonton	Structural Engineering	Renovation of defective roof trusses in Gymnasium and Shops Building—Bowden Institution—Bowden, Alberta.
Whittaker, Carswell & Co. Ltd.—Edmonton	Structural Engineering	Henry Marshall Tory Building Auditorium, U. of A.—Edmonton, Alberta.
W. R. Cheriton & Associates Limited—Edmonton	Mechanical and Structural Engineering	Industrial Annex of the Northern Alberta Institute of Technology—Edmonton.
Electri-Design Limited—Edmonton	Electrical Engineering	Addition to Alberta Institute for Girls—Edmonton.
J. D. Henderson Engineering Ltd.—Edmonton	Mechanical Engineering	Addition to Alberta Institute for Girls—Edmonton.
B. W. Brooker Engineering Ltd.—Edmonton	Structural Engineering	Industrial Annex Building and Tower Building at Northern Alberta Institute of Technology, Edmonton, Alberta.
Allsopp, Morgan Engineering Limited—Edmonton	Electrical Engineering	Tower Building at Northern Alberta Institute of Technology—Edmonton, Alberta.
Bernard, Curtis, Hoggan Engineering & Testing Ltd. Edmonton	Structural Engineering	Civil Engineering Building, U. of A.—Calgary, Alberta.
Associated Engineering Servces—Edmonton	Structural Engineering	Addition to Alberta Institute for Girls—Edmonton, Alberta.
Crowther, MacKay & Associates Ltd.—Edmonton	Mechanical Engineering	Tower Building, Northern Alberta Institute of Technology—Edmonton, Alberta.

Consultant	Type of Service	Project
J. L. Gilles Chabot—Edmonton	Mechanical Engineering	Greenhouse, U. of A., Calgary; Metals Shop and Female Laundry, Provincial Goal —Fort Saskatchewan, Alberta.
H. W. Klassen & Assoicates Ltd.—Calgary	Mechanical Engineering	Technical Education Complex, Southern Alberta Institute of Technology—Calgary.
Haddin, Davis & Brown Co. Ltd.—Calgary	Electrical and Structural Engineering	Technical Education Complex, Southern Alberta Institute of Technology—Calgary.
Hilliker and Bishop Ltd.—Edmonton	Mechanical Engineering	(a) Maintenance Shop and renovations to Mechanics Bldg. at Agricultural & Vocational College—Vermilion. (b) Forestry Training School—Hinton, Alberta.
Jarvis Engineering—Edmonton	Electrical Engineering	(a) Maintenance Shop and renovations to Mechanics Bldg. at Agricultural & Vocational College—Vermilion. (b) Forestry Training School—Hinton, Alberta.
J. A. Keating and Company Consulting Engineers Ltd. Edmonton	Structural Engineering	Provincial Museum and Archives Building —Edmonton.
Underwood, McLellan and Associates Ltd.—Edmonton	Electrical & Mechanical Engineering	Provincial Museum and Archives Building —Edmonton.
Cohos-Delesalle & Associates—Calgary	Architectural Work	Administration Wing, Provincial Gaol—Calgary.
Bell, McCulloch, Spotowski Associates—Edmonton	Architectural Work	Main Pilot Plant Building and Office Laboratory Bldg. Research Council—Clover Bar.

Consultant	Type of Service	Project
Dupuis Dunn Donahue—Edmonton	Architectural Work	Medium Security Gaol—Peace River.
Glen W. Parsons—Calgary	Architectural Work	Royal Canadian Mounted Police Building—Bow Valley Provincial Park, Alberta.
Associated Engineering Services Ltd.—Edmonton	Structural Engineering	Biological Sciences Building, U. of A.—Edmonton.
Crowther, MacKay and Associates Ltd.—Edmonton	Mechanical Engineering	Biological Sciences Building, U. of A.—Edmonton.
J. H. Cook & Associates—Calgary	Architectural Work	Provincial Building — Medicine Hat, Alberta.
J. L. Gilles Chabot, Edmonton	Mechanical Engineering	Renovations of Arts and Education Building and Science and Engineering Bldg. U. of A. Calgary.
Hemingway & Laubental, Edmonton	Architectural Work	150-Bed Nursing Home for Veterans—Edmonton, Alberta.
Meech, Mitchell Robins & Watson—Lethbridge	Architectural Work	Receiving Home for Children—Lethbridge, Alberta.
Whittaker, Carswell & Co. Ltd.—Calgary	Structural Engineering	Phase II, Civil Engineering Building, U. of A.—Calgary.
Kostenuke, Forest & Associates Ltd.—Calgary	Mechanical & Electrical Engineering	Phase II, Civil Engineering Building, U. of A.—Calgary.
W. G. Milne, Calgary	Architectural Work	Land Titles and Administration Building—Calgary, Alberta.

Consultant	Type of Service	Project
H. W. Klassen and Associates—Calgary	Electrical & Mechanical Engineering	Evaluate project requirements and to establish design data re Heating Plant, Southern Alberta Institute of Technology, Calgary.
Electri-Design Limited—Edmonton	Electrical Engineering	Renovations to Dormitory No. 2, Alberta Hospital—Edmonton.
J. L. G. Chabot, Edmonton	Mechanical Engineering	Renovations to Dormitory No. 2, Alberta Hospital—Edmonton.
J. L. G. Chabot—Edmonton	Mechanical Engineering	Gymnasium Building, Provincial Gaol—Fort Saskatchewan, Alberta.
Cheriton Bolstad Engineering Consultants Ltd.—Edmonton	Electrical & Mechanical Engineering	Central Heating and Cooling Plant, U. of A.—Calgary.
C. T. Larrington—Edmonton	Architectural Work	Belmont Rehabilitation Centre—Edmonton.

Engineering consultants were also employed on most construction projects to carry out soil testing and concrete sample testing.

REPORT OF THE MAINTENANCE BRANCH FOR THE FISCAL YEAR ENDING MARCH 31, 1965

The Department of Public Works Maintenance Branch is responsible for the maintenance of all Public Buildings, Court Houses, Treasury Branch Buildings, Auditoriums, Institutes of Technology, Highway Maintenance Garages and Shops, Forestry Division Buildings, R.C.M.P. Detachment Buildings and Weigh Scale Buildings as well as Provincial Mental Hospitals, Provincial Gaols and Sanatoriums.

Funds are appropriated for this maintenance under Votes 2610 and 2612. Expenditures under Vote 2610, for this fiscal year were $6,885,676.46. Included in this expenditure was the amount of $577,730.00 for special maintenance. This amount was provided specifically for the completion of repairs, rewiring, plumbing replacement, painting, etc. over and above the normal maintenance requirements. This program of special maintenance was completed within the fiscal year. Expenditures for maintenance under Vote 2612, were $2,302,316.38. Included in this amount was $254,740.00, to again carry out special maintenance requirements as outlined above. Under Vote 2609, which is the D.P.W. maintenance administrative vote, expenditures totalled $262,766.-11. This appropriation is provided mainly for administrative staff and the rental of trucks from the Stock Advance Branch.

The Maintenance Branch comprises a total of approximately 1200 employees which includes Supervisory Staff, Tradesmen, Utility Workers and Caretakers. In addition there are approximately 500 to 600 wage employees on the payroll for peak periods of the year.

The maintenance of Public Buildings is administered by Area Supervisors at strategic locations throughout the Province. Maintenance at Institutions and Gaols is also administered by Supervisors located on the site. The Supervisors have a complement of tradesmen and Utility Workers who handle their responsibilities from D.P.W. Shops especially constructed and equipped for this purpose.

Custodial services are the responsibility of Custodial Supervisors located at Edmonton and Calgary who have a staff of caretakers under their jurisdiction. In most of the larger buildings, there are Supervisory and Foreman Caretakers depending on the number of caretakers employed and number of shifts which may be required. The caretaking staff, in addition to their normal duties, clean snow from walks and entrances and do limited landscaping around buildings in which they are employed and where landscaping is not done by the D.P.W. gardening staff. A limited number of female staff are employed in some buildings as Institu-

tional Service Workers for the cleaning of female staff rooms during normal day shifts. The Custodial Supervisors also supervise Commissionaires who are employed for the control of car parking lots and building security. Custodial services are not provided for Department of Health hospitals, Department of the Attorney General, Provincial Gaols and Oil and Gas Conservation Board offices.

A guided tour service is mainatined to enable visitors to tour the Auditorium in Calgary and the Auditorium and Legislative Buildings in Edmonton. Visitors to the Southern Auditorium during 1964-65 humbered 23,569 while 23,968 visited the Edmonton Auditorium and 23,653 visited the Legislative Buildings. These visitors were from almost every part of the world and, according to comments in the Guest Books, all were pleased with the tours and impressed with the attractiveness of the buildings.

The Maintenance Branch is required also to do certain new construction for the department as directed by the Deputy Minister. This construction is carried out where it is not feasible to contract such work. At Provincial Gaols, prison inmate help is used to carry out such construction as part of the rehabilitation program. During this fiscal year, $1,254,200.00 of capital construction was completed by the Maintenance Branch. A limited amount of work is done each year on Work Order through specific requests from the Alberta Liquor Control Board, Workmen's Compensation Board and at various Homes for the Aged. Where such construction is carried out in rural areas of the Province, it is the policy of this Branch to utilize as much local help as possible when it is available. Generally Foreman tradesmen are the only Public Works staff dispatched. During the peak construction season, however, it is often impossible to recruit local help which makes it necessary to dispatch complete crews for such projects.

The main D.P.W. Shops in Edmonton house facilities for all the trades including a fully equipped Welding Shop. A large volume of counters, cabinets ahd fittings are completely manufactured for installation in various buildings. All Treasury Branch fixtures are manufactured and installed by shop tradesmen.

The Government Garage and truck fleet are operated and maintained by the Maintenance Branch. The truck fleet is comprised of 60 vehicles of various capacities. This fleet is provided as a service to all Departments which may require it. Included in the fleet is a tractor diesel unit with high-boy trailer and furniture van, that makes deliveries all over the Province. The garage is operated to service the D.P.W. fleet and vehicles of various other Departments.

The Government Greenhouse provides for the planting and care of lawns, shrubs and flowers. Each year the Greenhouse supplies thousands of bedding plants for transplanting at various build-

ings. Visitors from all over the world as well as this city are impressed by the beauty of the grounds surrounding the Legislative Building and much careful planning and constant care on the part of the Grounds staff is required to make this one of the beauty spots in Edmonton . Situated on the Legislative Grounds is one of the finest lawn bowling greens in the Dominion. There is also a concrete band shell situated at one end of a large expanse of lawn area which is equipped with an excellent sound system and provides facilities for band concerts which are greatly appreciated as evidenced by public attendance at all of these concerts.

The Branch Fire Prevention and Safety Officer is responsible to ensure that fire and safety regulations are enforced and to keep a close check on the servicing of all fire prevention equipment. He is required also to make regular inspections of all Public Buildings and at Institutions and Gaols when requested to do so by the respective Departments.

All maintenance commitments for this fiscal year were discharged within the appropriated amounts, and the locations at which special maintenance and construction were carried out are as follows:

Special Maintenance—Appropriation 2610

Government Buildings

CALGARY:

Manchester Shops: Repainting
Southern Alberta Jubilee Auditorium: Recaulking precast panels
Southern Alberta Institute of Technology: General painting
Ogden Hostel: Exterior and interior painting

EDMONTON:

Northern Alberta Jubilee Auditorium: Repainting ceiling and walls of main area; repairs to sidewalks; replacing of some stone work on the building
Highways Building: Painting of all staircases and north section
Land Titles Building: Complete interior painting
Legislative Building: Repainting of upper dome, hallways and approximately 20 offices; caulking and stone repairs
Power House, Legislative Building Grounds: Complete interior repainting of walls, ceiling, boilers and pipes
Natural Resources Building: Commence renovation of pneumatic system; completing interior painting of hallways and lino floor covering
Power House, University of Alberta area: Repainting of interior
School for the Deaf: Roof replacement

FORT MACLEOD:
Court House: Replace concrete floors

LETHBRIDGE:
Court House: Replace roof, flashing and drains

ST. PAUL:
Provincial Building: Complete exterior painting

SLAVE LAKE:
Forestry Division Headquarters: Complete painting of 6 stall and 4 stall garages, warehouse and frame building

Special Maintenance—Appropriation 2612

Institutions

BOWDEN:
Bowden Institution: Plaster ceiling of gymnasium

CALGARY:
Baker Memorial Sanatorium: Complete interior of boiler room; change heating system in Infirmary III; Replacement of windows on south side and east end of Infirmary III

CAMROSE:
Rosehaven Home: Continue replacement of galvanized waterlines in Buildings 9, 10 and 12

EDMONTON:
Aberhart Memorial Sanatorium: Painting exterior windows
Alberta Hospital (Oliver): Painting and waterproofing of projecting ledge on Building #9

FORT SASKATCHEWAN:
Provincial Gaol: Commence general overhaul of cell door locks, tracks and rollers; complete outside painting of building

PONOKA:
Alberta Hospital: Renovation of residences

RED DEER:
Deerhome Institution: Complete painting of Dormitory #2, female residence and laundry
Alberta School Hospital: Replace cable from power plant to various buildings

Special Maintenance—Appropriation 2682

BLAIRMORE:
Court House: Complete renovations

BOWDEN:

Bowden Institution: Reconstruct hangar trusses and roof

CALGARY:

Baker Memorial Sanatorium: Renovations to pavilions

Provincial Gaol: Construct feed lot in cattle shelter

Southern Alberta Jubilee Auditorium: Construct cooling tower on roof; improvements to sound system; renovations to cooling coils

Old Court House: Renovations to accommodate Glenbow Foundation Museum

Southern Alberta Institute of Technology: Campus landscaping; interior finishing work of east block

CLARESHOLM:

Alberta Hospital: Construct storage building

EDMONTON:

Court House: Renovation to basement area

Highways Building: Renovation to exhaust system

Legislative Building: Replacement of elevators

Northern Alberta Institute of Technology: Construction of mezzanine floor in masonry shop, and of a Gamma Ray Room in the Science Room

Natural Resources Building: Air conditioning of Photo Laboratory

Public Works Building #1: Alterations to Correspondence School Branch

Northern Alberta Jubilee Auditorium: Mechanical renovations to coils; improvement to sound system

Beaver House: Renovations for Welfare Offices and School Book Branch

FAIRVIEW:

Agricultural and Vocational College: Revision of electrical and fire alarm system

FORT SASKATCHEWAN:

Provincial Gaol: Renovation of plumbing in Male Cell Block; improvements to ventilation in female laundry, sewing room and Metals Building; renovation of female gaol kitchen

HANNA:

Court House: Boiler renovations

LETHBRIDGE:

Provincial Gaol: Construct Chapel and recreation centre; install air conditioning in kitchen, laundry and bake shop

OLDS:

Agricultural and Vocational College: Construct third greenhouse section; replace heating plant superstructure

VERMILION:

Agricultural and Vocational College: Revision of electrical and fire alarm system

Provincial Building: Remodel Treasury Branch

WETASKIWIN:

Court House: Boiler replacement

PERSONNEL REPORT FOR THE FISCAL YEAR ENDING MARCH 31, 1965

Staff Changes

Mr. A. Arnold, Deputy Minister, resigned on account of ill health in January, 1965, after almost 20 years of service with the Provincial Government. He had successively been Superintendent of Buildings and Deputy Minister after transferring from the Department of Economic Affairs (now Industry and Development) to Public Works in 1947.

Mr. S. E. Kenworthy, formerly Assistant Deputy Minister for Administration, was appointed Acting Deputy Minister.

Mr. W. A. R. Barry was appointed Departmental Personnel Officer in December, 1964. He had formerly been employed by the Federal Department of National Defence in a number of senior postions where he had been responsible for programmes of organization and classification work related to the integrated RCAF/USAF staffs. He had also been Chief Executive Officer at RCAF Station Cold Lake for three years immediately prior to his taking up residence in Edmonton. This appointment will result in standardization of Departmental Personnel Policies and the conduct of Departmental competitions, provide an advisory service on personnel matters for all branches, and establish a focal point for liaison with the Public Service Commissioner and his staff.

Departmental employees at the end of the calendar year, 1964, totalled 2076. Of these, 1649 were permanent or salaried employees and 427 were temporary wages employees.

REPORT OF THE PROPERTY ADMINISTRATION SECTION FOR THE FISCAL YEAR ENDING MARCH 31, 1965

This Section supplies all space requirements of the Provincial Government, for example — land for yards, dock sites, parking areas, institutional buildings, office buildings, Provincial buildings, court houses, work shops, etc. When buildings are provided, this Section is responsible for allocation of space and the building is then turned over to the Maintenance Section for future upkeep. The Properties Administration Section, however, is responsible for all insurance.

In the acquisition of sites, this Section co-ordinates the survey work, registration and development approval to the point of commencement of design and construction of the project.

With respect to temporary space, this Section negotiates all leases and submits its recommendations to a Space Committee and concludes such documentations as is necessary for those leases which are approved by the Space Committee and the Minister of Public Works.

Legislation was recently enacted to permit the setting aside of lands which will obviously be required in the future for development by public funds. Two specific examples are:

(a) The setting aside of an area around the Legislative Buildings as "Public Works Development Area No. 1". It is intended to locate all major future Government administrative buildings in this area.

(b) The setting aside of part of the Garneau Residential Area in Edmonton for future expansion to the University as "Public Works Development Area No. 2".

The administration of these Public Works Development Areas and the negotiations and acquisition of the properties contained within these areas is an additional responsibility of the Property Administration Section of the Department of Public Works.

PUBLIC WORKS RESERVES:

Upon subdivision of land for development, a percentage of the land is taken for parks and schools. Up until the first of August, 1963, when new Legislation was introduced, the administration of all Public Works Reserves was handled by this Section.

Subsequent to the first of August, 1963, title for all Public Works Reserves that were not being used for some public purpose were filed with the Registrars in accordance with Section 151 of The Town Planning Act. The Registrar is then obliged to raise a new title in favour of the appropriate municipality.

This did not completely eliminate the administration of Public Works Reserves by this Section in that those Public Works Reserves which were under lease are obliged to be administered by us until such time as the lease terminates. The administration of these Public Works Reserves by this Section will eventually be non-existent.

This Section is responsible for all telephone requirements for all Departments of the Government, including new installations and any changes of telephone equipment.

The following is a résumé of some of the transactions which have taken place during the past fiscal year:—

(1) PEACE RIVER: MEDIUM SECURITY GAOL

A site was acquired for a Medium Security Gaol in close proximity to the Town of Peace River. The land had been tilled for many years by a Monastic Order and it was considered this productive soil could be used to gainfully employ the inmates of the gaol. In addition, the site was desirable for the following reasons:—

(a) Proximity to the River for water supply and possible irrigation.

(b) Security (the road can be readily blocked off.)

(c) Adjacent to other Crown Lands for future expansion purposes.

(d) Utilities were readily obtainable.

(e) Proximity to Town of Peace River.

(2) FORT McMURRAY: ADULT VOCATIONAL TRAINING CENTRE

It was decided that an Adult Vocational Training Program should be instituted without delay to provide a short training program for those people who did not have the necessary academic qualifications to enrol in the normal Vocational Training School. In its conception, it was designed for the purpose of giving residents of the greater Fort McMurray area a short intensive course in practical Vocational training to enable them to secure employment in the Tar Sands or related developments.

The supply and demand of suitable property was such that a purchaser, at the completion stage of negotiations, was requested to relinquish his rights in the negotiated purchase in favour of the Government. With his co-operation and an emergent measure of providing prefab buildings, on an invitational bid, the Adult Vocational Training School was operational within six months.

The accommodation provides residential, recreational and dining facilities for fifty students in addition to classroom and shop training facilities, along with residences for the instructional staff and the caretaker.

(3) GRANDE PRAIRIE: DEPARTMENT OF HIGHWAYS, PURCHASE OF NEW SITE, (SHELL REFINERY)

Although a site had been acquired in Grande Prairie for the Department of Lands and Forests and the Department of Highways, the only development which had taken place for the Department of Highways was a related development in the form of an eight-stall maintenance garage, when it was brought to our attention that Shell Refineries were disposing of their holdings in Grande Prairie. It was apparent that their offices and shops were designed for the almost identical use as that required by the Department of Highways, therefore, negotiations were entered into and fifty-nine (59) acres of Shell Refinery property was acquired along with the improvements thereon for future use as a Highways Yard.

This has proved to make an excellent Highways Yard and provides ample room for any foreseeable expansion.

(4) FORT CHIPEWYAN: (INDUSTRY AND DEVELOPMENT) TO PURCHASE COMMUNITY DEVELOPMENT OFFICERS' RESIDENCE

Upon the decision of Cabinet to retain the services of Development Officers for service in the semi-remote areas of the Province to improve the lot of the Metis, it was necessary to provide residential accommodation centrally located in the areas to be served by these Development Officers.

This program commenced with the purchase of property at Fort Chipewyan from the Hudson's Bay Company, and also in Fort McMurray, and in both of these locations, in the interest of expediency, a bid was negotiated for erection of prefab type houses which appear to be serving the purpose very well. In Fort McMurray a residence was also provided for a Welfare Officer.

(5) ST. ALBERT: PROVINCIAL GOVERNMENT PROPERTY — ACQUIRED FROM FEDERAL GOVERNMENT

It came to the attention of this Department that the Department of Indian Affairs were disposing of land by public tender. It was considered that this land would serve the future needs of the

Province as a site for one of the many types of institutional services which the Provincial Government is from time to time obliged to provide.

It was felt that this particular site was sufficiently close to urban areas to serve well some future institutional facility as yet unknown, and the property was, therefore, acquired.

(6) EDMONTON: REHABILITATION SOCIETY FOR HANDICAPPED

The Rehabilitation Society for Handicapped were housed in leased accommodation, the lease for which was running out.

We had for almost a year endeavoured, without success, to find an economical site which would be close enough to the downtown area in order that a building could be erected specifically for Rehabilitation Society for Handicapped purposes.

A building located at 10215 - 112th Street, which was under construction, was negotiated for and acquired. The Rehabilitation Society for Handicapped are now operating from this new building.

(7) PURCHASE OF GARNEAU PROPERTY:

The City of Edmonton, at the request of the Board of Governors of the University of Alberta, set aside a portion of the Garneau area for future expansion of the University. This portion of land, which lies West of 110th Street, East of 112th Street, North of 87th Avenue and South of Saskatchewan Drive, was declared "Public Works Development Area No. 2" in August, 1965.

The Government is progressively acquiring properties as and when available and will do so for the next few years. It is anticipated that the first development in this area will commence in 1966.

(8) EDMONTON: PUBLIC WORKS DEVELOPMENT AREA No. 1, PURCHASE OF LAND FOR FUTURE GOVERNMENT USE

Since this area, which has been set aside as future "Government Area", was declared "Public Works Development Area No. 1" in September, 1964, work has been progressing with the purchase of properties as and when they come on to the market for sale.

Eight properties were purchased in 1965 and negotiations are presently under way for the purchase of further properties.

MECHANICAL BRANCH
REPORT FOR FISCAL YEAR ENDING MARCH 31, 1965

This report covers briefly the operation and maintenance of eleven Power Plants and seven Heating Plants serving major Provincial Institutions and other establishments in the Province. Plants are located: eight in Edmonton and vicinity, two in Red Deer, three in Calgary, and one at Ponoka, Camrose, Bowden, Claresholm and Lethbridge. They function to supply steam heat, power and utility services as required. Plant and office personnel total approximately two-hundred regular employees and twenty-five additional seasonal employees.

The attached power plant statistical figures show a nominal ten percent increase of steam production and fifteen percent increase of electrical power consumption, with overall operating costs stable. The heating plant figures show approximately a twenty percent increase of fuel (natural gas) consumption and electrical power consumption with a nominal six percent increase of overall operating expenditure. Again, some reduction of Capital money expenditure for replacement and new equipment for all plants has been effected.

Some note of explanation of the above terms: "power plant" and "heating plant," might be of interest and information here. The names derive from the designation of steam boilers. Boilers constructed to operate at low pressure (below twenty pounds per square inch) and used generally for building heating and other low pressure requirement are termed, "heating" boilers. Boilers constructed to operate at high pressures (over twenty pounds per square inch) and used to drive engines, turbines, etc., and for steam distribution over large areas or long distances, are termed "power" boilers. The size or capacity rating of both type boilers is generally expressed in terms of Boiler Horse Power or pounds per hour steam output.

Power Plants then are those plants in which power boilers are installed. These operate at 125 or 425 pounds per square inch and supply steam to engines or turbines for electric power generation and steam to kitchen and laundry high pressure services. The steam exhausted from the engines goes to building heating and other low pressure demand. The electric power generated is a by-product. These plants are mostly at the larger and older institutions as Oliver, Ponoka, Baker Memorial Sanatorium, etc.

Heating Plants, at the smaller institutions such as Belmont, Bowden, Camrose, etc., have low pressure boilers installed for building and other heating requirement and one or two small high pressure boilers for kitchen and laundry service. No electric power, other than emergency requirement, is generated in these plants.

Some further description of plants is included with the following notes covering the more particular items of operation, maintenance and installation for the past year.

BAKER MEMORIAL SANATORIUM—CALGARY

This tuberculosis hospital institution, located on the banks of the Bow River, just west of Calgary, originated about 1919. The present power plant has four boilers totalling 800 BHP and two engine-generator units totalling 366 KVA, with all auxiliaries, water heating, laundry and kitchen service loads. A sewage treatment plant originally serving the hospital has in recent years become overloaded and been abandoned. Sewage is now pumped by lift-station to the City of Calgary sewerage system. Water supply was originally by a small pumping station from the Bow River. Now a larger pumping station and treatment plant on the site supplies all water to the hospital and the Provincial Gaol located over four miles to the north.

Some renovation and small addition to the plant was requested in the past year and, we understand, will be done shortly. Any major installation of equipment or expansion of services is not anticipated.

SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY—CALGARY

This institution and power plant was originally planned and construction started about 1920. The plant now houses three boilers totalling 50,000 Lbs./Hr. output, two generating units totalling 900 KVA rating and all auxiliary equipment. It serves buildings totalling over 400,000 sq. ft. of floor area. Steam production this past year was 115,500,000 pounds and area electrical power consumption was 4,704,000 KW Hrs. Buildings now being planned will more than double the size of this institute in the near future. Expansion of the power plant is also being planned for this construction and long range future loading anticipated.

In the past year a motor driven centrifugal boiler feed pump of 30,000 Lbs./Hr. rating has been purchased to augment present steam pump capacity and for standby and emergency service at top boiler loads. Installation will not be completed till in the new year.

De-alkalizer equipment for use in conjunction with the plant water softeners for boiler make-up feedwater conditioning was purchased and installed. Use of the equipment reduces internal boiler water treatment and largely eliminates heating system return line corrosion.

ALBERTA HOSPITAL—CLARESHOLM

This is one of our newer power plants. Staffing and initial operation only commenced in 1960. Installation comprises two boilers of 10,000 Lbs./Hr. rating each with space for a future 20,000 Lb./Hr. unit, one 500 KVA turbo-generator set and space allocation for a second unit, all auxiliary equipment, water heaters, etc. Water supply for the hospital is from the Town of Claresholm, and sewage disposal is into the Town sewerage system. Steam production for the past year was over 34,000,000 pounds and electrical power consumption over 1,000,000 KW Hrs. Present ward buildings are not yet fully occupied and further extensive construction is scheduled.

Electric power requirement of the institution is largely from utility power service connection with the 500 KVA turbo-alternator unit operating basically on winter load. Frequent and sometimes prolonged outages of the utility service are experienced in the summer months. A 45 KW gas/gasoline engine-generator set for emergency service has been purchased and delivered to the plant. Installation will be completed early in the new year.

PUBLIC WORKS SOUTH POWER PLANT—EDMONTON

This is the largest of our power plants. Construction and installation started in 1958 and staffing by us in 1959. There are two 150,000 Lb./Hr. boilers installed, operating at 425 psig and 750 F, one 2,200 KW gas turbine-alternator unit with waste heat boiler, one 5,000 KW steam turbine-alternator set and all auxiliaries. The plant is destined to ultimately serve the total University of Alberta and hospital area and the U. of A. (North) power plant will be deleted. It is now maintained in reserve operation. Peak steam load demand for the area in the past winter was

250,000 Lbs./Hr. Steam production was nearly a billion pounds and electric power consumption was approximately 64,000,000 KW Hrs. A number of buildings are under construction on the campus area and others planned. Department of Public Works Engineers are fully studying the need of immediate expansion and future sizing of this South plant.

In operation for the past year, plant spares and oil separator equipment was purchased for the steam turbine unit.

Chemical pumps, tank, etc., were purchased and installed for amine feed to the steam system for return line corrosion control.

LEGISLATIVE BUILDINGS—EDMONTON

This plant supplies steam for heating and other services to all Provincial Government buildings in the area. Some electric power is generated and the balance purchased from the City of Edmonton system. Steam production for the year was approximately 300,000,000 pounds and electric power consumption 18,000,000 KW Hrs.

A 625 KVA steam engine-alternator unit no longer required at the University of Alberta (North) Plant has been moved to this plant and is now being installed. The machine will be in operation early in the new year.

This plant has now reached the stage of total equipment installation and total optimum loading. Any construction of additional buildings in the area, or major renovation, will necessitate some addition to the plant and further boiler installation.

PROVINCIAL GAOL—FORT SASKATCHEWAN

Construction of the present power house at this Gaol was started in 1951 and following completion, purchase and installation of equipment, the new plant went into operation in June 1954 and the old plant (basement installation about 1914) was closed down. This was the last of the older plants burning coal. The boilers in the new plant—two of 10,000 Lbs./Hr. rating each with space allowed for a third boiler—are natural gas fired.

In the past year the third boiler, of 15,000 Lbs./Hr. rating has been purchased and delivered. Installation is near completion. Total boiler capacity is now anticipated to carry the steam load for some years.

PROVINCIAL GAOL—LETHBRIDGE

Following completion of installation of a 15,000 Lb./Hr. boiler, 20,000 Lb./Hr. feedwater heater, etc., last year some old equipment has now been removed from the plant and some building alteration effected to provide better store room facilities and access to the basement area.

A new lathe and accessory equipment has been purchased for the plant. This replaces a small lathe in use since about 1914 and now sent to the plant at Fort Saskatchewan for some use there.

ALBERTA HOSPITAL—OLIVER

With a new 30,000 Lb./Hr. boiler installed last year and in operation the past summer of this year #4 - 25,000 Lb./Hr. boiler was scheduled "off" the line and improved type gas burners were installed on recommendation of the boiler manufacturer. The old burners were unstable and hazardous in operation. Operation of the new burners is very satisfactory.

All sewage at this institution goes to an activated sludge sewage treatment plant. Installation comprises primary clarifier, (4) - 16 Ft. aerator-clarifier units of approximately 125,000 gpd capacity, with digester tanks and auxiliary equipment. All necessary items of equipment have been purchased and delivered to the plant to effect a major overhaul of No. 1 Unit, originally installed in 1940. The job will be done in early summer.

A 60,000 Lb./Hr. deaerating storage type feedwater heater has been purchased to provide much needed additional capacity and to adequately handle any winter loading of the larger boilers in operation. The heater is received and installation will be completed in the new year.

ALBERTA HOSPITAL—PONOKA

Installation of atmospheric type condenser equipment purchased and delivered to the plant in late winter has been completed. A summer run of the unit was maintained and operation was satisfactory. It functions to condense exhaust steam going to atmosphere and return it instead as condensate—reducing boiler feedwater make-up and treatment costs. Other plant installations of this type equipment are to be considered.

Water supply at this hospital is from four (4) wells fitted with two old plunger type pumps, one turbine centrifugal pump and one submersible type pump, now so versatile and extensively used.

Prolonged outage of any well during the summer peak demand months could leave the hospital without any reserve pumping capacity. A second submersible pump unit for space service has been purchased. It may be alternated in use on the one well and readily fitted for temporary use in any of the other wells while a regular pump is pulled for maintenance work on it.

ALBERTA SCHOOL HOSPITAL—RED DEER

A motor driven centrifugal boiler feed pump of 20,000 Lbs./Hr. capacity, purchased last year to replace an old, inadequate duplex steam pump and provide emergency standby service for No. 1, 2 and 3 boilers, has been installed.

DEERHOME INSTITUTION—RED DEER

Erection and piping of the 156 KVA engine-generator set delivered to the plant in late spring has been completed. The generator control cubicle for switchboard connection is on order and delivery not expected till early summer. Operation of the unit is scheduled for late fall 1965.

Two new ward buildings are still under construction at this Institution and further major construction is planned. Steam production of the plant for the past year totalled over 117,000,000 pounds on three 15,000 Lb./Hr. boilers with peak load over 35,000 Lbs./Hr. and electric power consumption was 3,600,000 KW Hrs. approximately. A request has been made for supply and installation of a fourth boiler, additional feedwater heater, feed pump and other auxiliary equipment to meet future load demand.

BOWDEN INSTITUTION—BOWDEN

This is one of the larger heating plants transferred to this Branch in 1958 for supervision and operation. Three (3) - 100 H.P. low pressure boilers supply steam for all building heating and other service. One (1) - 50 H.P. high pressure boiler supplies steam to kitchen and laundry service. Normal electric power supply is by Calgary Power Limited. Two small gas engine-generator sets are installed for emergency power supply. Water supply for the institution is pumped from wells, to treatment plant and system. Sewage flow is to a large septic tank arrangement with filtering of final effluent.

When any major additional buildings might be planned for the Institution another boiler and auxiliary equipment will be required.

PROVINCIAL GAOL—CALGARY

This is a relatively new heating plant only fully in operation in late 1961. Two heating boilers and one high pressure boiler totalling 500 H.P. are installed, with space allocation for an additional 250 H.P. boiler. In view of planned Administration Building and other immediate construction at the Gaol request has been made to the D.P.W. Engineering Branch for supply and installation of the additional boiler and auxiliary equipment in the overall project at this time.

ROSEHAVEN HOME—CAMROSE

This is one of the older heating plant installations. Two 105 H.P. low pressure boilers supply steam to building heating system and three smaller high pressure boilers augment the above and supply steam, in addition, for water heating, kitchen and laundry service. The boilers on peak demand are fully loaded. The boilers, water heaters, softeners, vacuum pumps, etc., are installed in basement of the Main Building and there is only little room for additional equipment. When any major building or renovation project may be planned for this institution consideration must be given to construction of a new plant.

BELMONT REHABILITATION CENTRE—BELMONT

Normal operation and maintenance with nothing particularly out of order has been routine for the year at this plant.

Request was made to Public Works Buildings Branch in October 1963 for provision in 1964/65 Estimates to replace the existing wooden roof on the filter house at the sewage treatment plant with a concrete roof to withstand moisture deterioration. We are advised that arrangements have been completed and agreement negotiated with the City of Edmonton to connect the Belmont sewerage system to a City trunk line being constructed in that area. Such tie-connection will eliminate operation of the Belmont treatment plant.

ALBERTA INSTITUTION FOR GIRLS—BELMONT

This institution and the Belmont Rehabilitation Centre are neighbor institutions and under direction of one Chief Engineer. Three (3) - 50 H.P. low pressure boilers only are installed in this plant for building and water heating requirement. A large building

addition and other construction program is scheduled at this institution and boiler room services are to be extended. A fourth low pressure boiler, a high pressure boiler and auxiliary equipment is to be installed.

SCHOOL FOR THE DEAF—EDMONTON

In addition to routine operation and maintenance some replacement and alteration of piping at the storage water heaters was effected and an additional air compressor unit was purchased and installed to increase supply of compressed air to the manual training and carpenter shops.

NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY—EDMONTON

This still growing Institution is now taxing plant facilities to supply steam. Production for the past year was approximately 160,000,000 pounds, an increase of 35 percent. Area water consumption was 24,643,000 gallons, up 50 percent. Electrical power consumption was 8,550,000 KW Hrs., an increase of twenty five percent. And, in other capital estimates of this Department, monies are provided to "Plan and design Addition to Technical Building and commence construction"—Phase IV. Preliminary planning for installation of additional boiler and auxiliary equipment in the heating plant to keep pace with the above construction program is also well in hand by Public Works Engineers.

Again, in closing this report, it is with regret that we note the loss by death of an employee. Mr. J. L. Walker, Shift Engineer, at the age of 57 years, passed away of heart attack, on November 5th, 1964.

PROVINCIAL GOVERNMENT POWER PLANT STATISTICS

For Year Ending March 31, 1965

	FUEL		WATER		ELECTRICITY		STEAM	EXPENDITURE
	Fuel Oil (Imp. Gals.)	Gas (cu. ft.)	Pumped from Local Sources (Imperial	Purchased Gallons)	Generated (Kilowatt	Purchased Hours)	Produced (lbs.)	Plant Operation & Institutional Maintenance
Baker Memorial Sanatorium, Calgary	—	83,606,000	24,830,900	——	729,690	95,720	61,297,000	$ 87,732.51
Southern Alberta Institute of Technology, Calgary	—	170,076,000	——	26,525,000	1,174,100	3,529,600	115,506,000	149,126.77
Alberta Hospital, Claresholm	100	46,158,000	——	4,163,240	75,990	1,070,800	34,274,000	98,904.79
Public Works South Power Plant, Edmonton	—	1,195,465,000	——	18,379,000	14,390,000	49,408,600	818,650,000	713,778.37
Legislative Buildings Power Plant, Edmonton	1,000	357,833,000	——	126,883,000	5,231,400	12,788.300	298,976,000	264,969.32
Provincial Gaol, Fort Saskatchewan	500	87,359,100	22,669,000	——	898,400	308,600	66,721,000	70,832.46
Provincial Gaol, Lethbridge	—	11,340,000	——	18,447,000	556,170	24,600	40,471,000	71,590.34
Alberta Hospital, Edmonton	800	313,842,000	——	81,945,000	4,897,000	133,800	254,223,000	197,578.36
Alberta Hospital, Ponoka	1,920	306,822,000	57,755,000	——	4,534,600	157,800	228,314,000	182,083.80
Alberta School Hospital, Red Deer	2,650	125,997,000	——	34,110,500	1,305,100	584,000	97,232,000	120,898.64
Deerhome Institution, Red Deer	3,400	145,154,000	——	38,793,750	——	3,601,360	117,317,000	153,613.76
	10,370	2,843,652,100	105,254,900	349,246,490	33,792,450	71,703,180	2,132,981,000	$2,111,109.12

Total Fuel Oil Used	10,370	Imperial Gallons
Total Gas Used	2,843,652,100	Cubic Feet
Total Water Used	454,501,390	Imperial Gallons
Total Electricity Used	105,495,630	Kilowatt Hours
Total Steam Produced	2,132,981,000	Pounds

STATISTICS ON CAPITAL EXPENDITURES — PROVINCIAL GOVERNMENT POWER PLANTS

For Year Ending March 31, 1965

(F. E. COE — Mechanical Superintendent)

	Oil Storage Tanks, Water Storage Tanks, Heaters, Piping, Water Softeners, Pumps, Insulation	Generating Equipment, Engines, Switchboards, Wiring, Engine Foundations	Power Plant Maintenance Equipment	Installation of Boilers, Fans, Burners and Piping Insulation, Controls, Air Compressors, etc.	Atmospheric Condenser, Piping, Foundation, Insulation, Controls	Sewage Plant Equipment	Expenditure
Southern Alberta Institute of Technology, Calgary	5,660.41	—	—	—	—	—	$ 5,660.41
Alberta Hospital, Claresholm	—	7,144.43	—	—	—	—	7,144.43
Public Works South Power Plant, Edmonton	1,182.85	2,327.55	—	—	—	—	3,510.40
Legislative Buildings Power Plant, Edmonton	—	10,554.91	546.50	—	—	—	11,101.41
Provincial Gaol, Fort Saskatchewan	—	—	—	52,293.75	—	—	52,293.75
Provincial Gaol, Lethbridge	803.44	—	5,090.35	—	—	—	5,893.79
Alberta Hospital, Edmonton	13,291.58	—	—	4,136.02	—	4,830.37	22,257.97
Alberta Hospital, Ponoka	1,170.00	—	—	—	3,223.54	—	4,393.54
Alberta School Hospital, Red Deer	1,841.37	—	—	—	—	—	1,841.37
Deerhome Institution, Red Deer	—	3,088.31	—	—	—	—	3,088.31
Alberta School For The Deaf, Edmonton	—	—	—	980.34	—	—	980.34
	23,949.65	23,115.20	5,636.85	57,410.11	3,223.54	4,830.37	118,165.72

GAS, WATER AND POWER CONSUMPTION

at the below mentioned Heating Plants under the jurisdiction of the MECHANICAL BRANCH — DEPARTMENT OF PUBLIC WORKS

For period April 1, 1964 to March 31, 1965

	HEATING OIL (Imp. Gal.)	GAS (Cu. Ft.)	WATER (Imp. Gallons)	POWER (Kilowatt Hrs.)	EXPENDITURE Plant Operation and Maintenance
Bowden Institute, Bowden	425	42,026,000	12,082,000	810,700	$ 81,683.01
Provincial Gaol, Calgary	50	42,000,000	15,000,000	1,240,000	66,448.59
Rosehaven Home, Camrose	300	52,412,000	10,224,000	732,000	77,477.54
Belmont Rehabilitation Centre, Edmonton	—	22,821,000	5,882,000	426,600	49,473.52
Alberta Institute For Girls, Edmonton	—	17,701,000	3,522,000	380,300	36,206.18
Alberta School For The Deaf, Edmonton	—	34,468,000	9,481,000	972,400	60,042.45
Northern Alberta Institute of Technology, Edmonton	75	163,835,000	24,643,000	8,548,800	159,785.59
	850	375,263,000	80,834,000	13,110,800	$531,116.88

Total Fuel Used	850 Imp. Gallons
Total Gas Used	375,263,000 Cubic Feet
Total Water Used	80,834,000 Imp. Gallons
Total Power Used	13,110,800 Kilowatt Hrs.