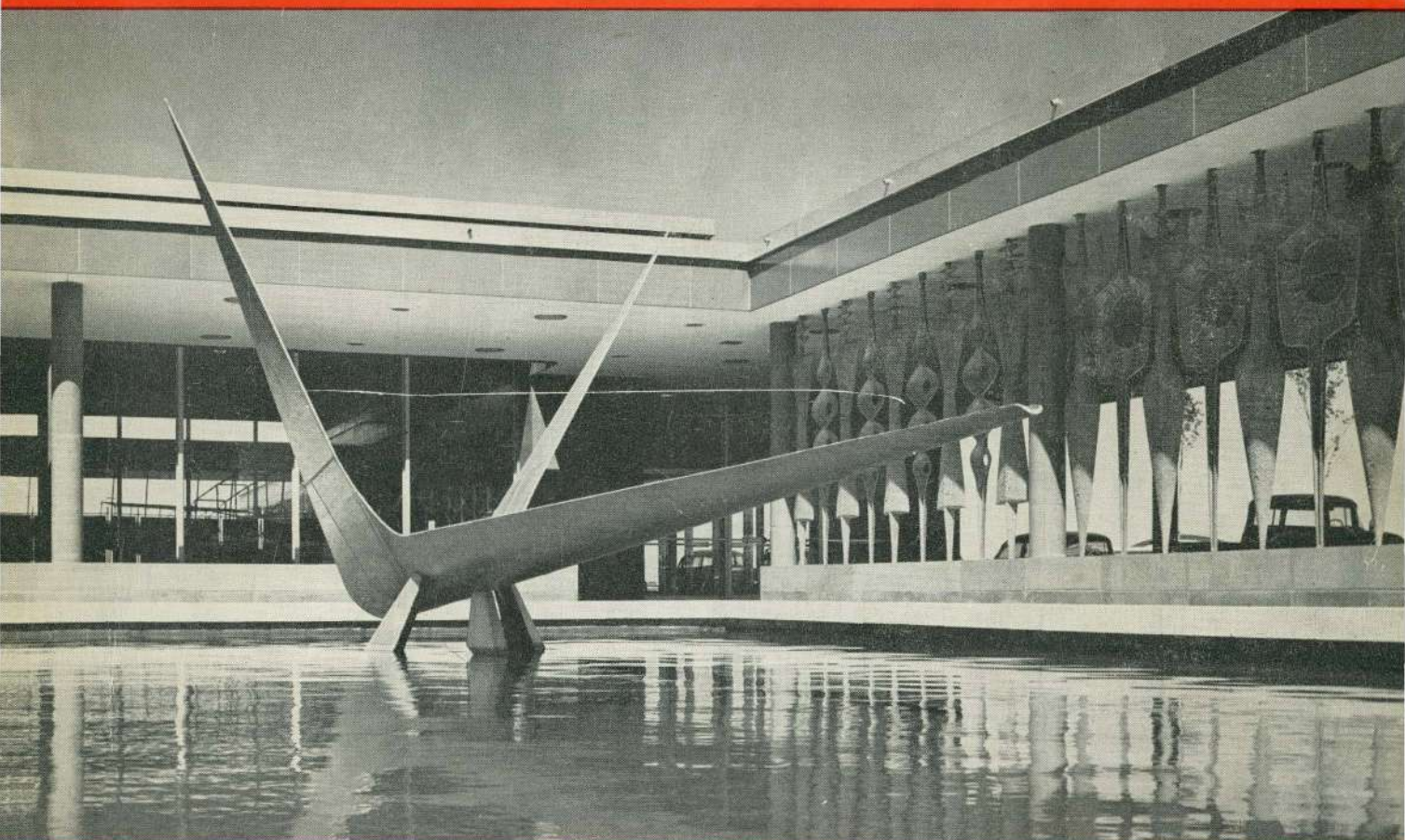
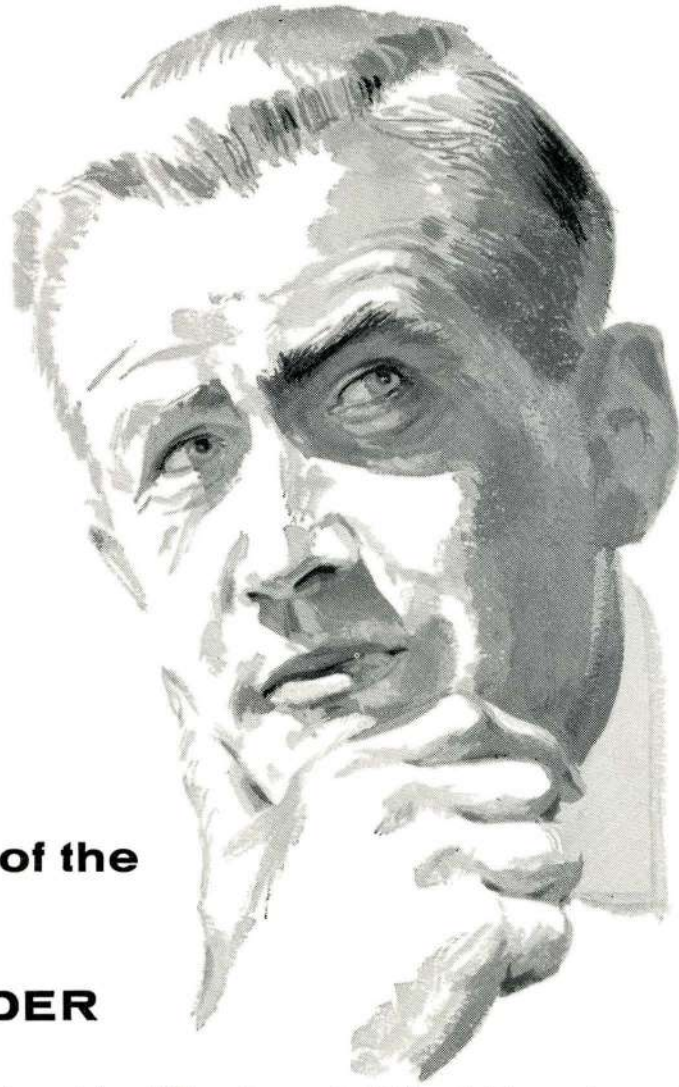


ROYAL
ARCHITECTURAL
INSTITUTE
OF CANADA
JOURNAL



DECEMBER 1960

ROYAL ARCHITECTURAL INSTITUTE OF CANADA
INSTITUT ROYAL D'ARCHITECTURE DU CANADA



The case of the BAFFLED BUILDER

One day, a builder faced a tough problem! How to meet all the rigid requirements of architect's and engineer's heating specifications for his new building contract. He was frankly baffled because there were so many special conditions to be met.

The heating had to be ultra-modern, highly efficient, extra rugged and maintenance-free. It should be easy to install, easy to clean and *silent* . . . no irritating scrapes and grinds of expanding metal inside the cabinets. Design should be uncluttered and blend with *any* part of the building. Above all, *quality, performance and durability* should be second to none! Altogether quite an assignment!

The builder chose Trane Wall-Fin convectors! Only Trane had the wide variety of units to meet these *exacting* requirements . . . fill the bill on *all* counts! For *any* heating application in *any* building, you can meet your specifications with Trane Wall-Fin Convectors!



TRANE COMPANY OF CANADA, TORONTO 14, ONTARIO

Manufacturers of equipment for air conditioning, heating and ventilating.

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**MORE
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- **More than 115 new pages of advertising in 1960!**
- **More than 100 extra pages of editorial content!**
- **Substantial broadening of distribution!**
- **89% noted score for tested August issue!***

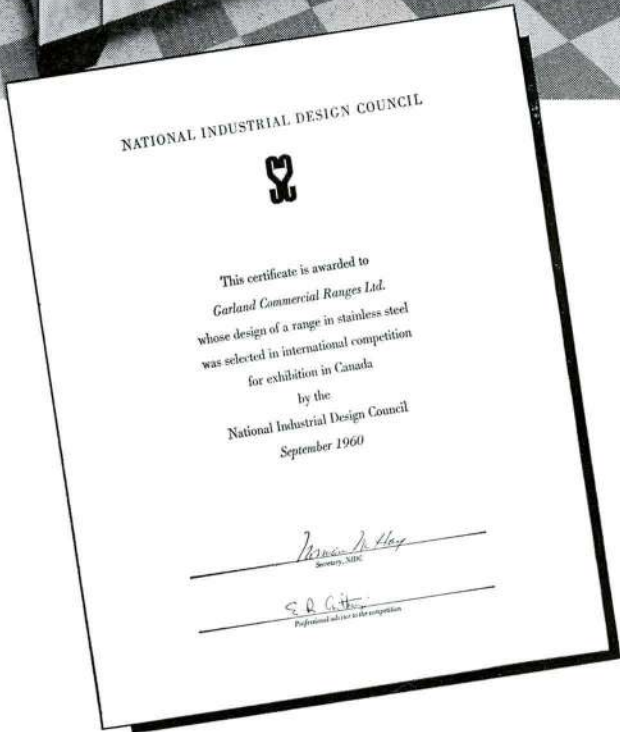
... These facts reflect the soundness of the Journal's vigorous editorial and promotional policy, and dramatize its impact on the building and construction field.

The R.A.I.C. Journal is now distributed not only to architects, but to those who work for and with them—specification writers, selected mechanical, electrical and structural engineers, practitioners in the allied arts, etc.

**Independent Readership Survey Report on August issue is now available.*

THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA JOURNAL
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ROYAL
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IN INTERNATIONAL COMPETITION

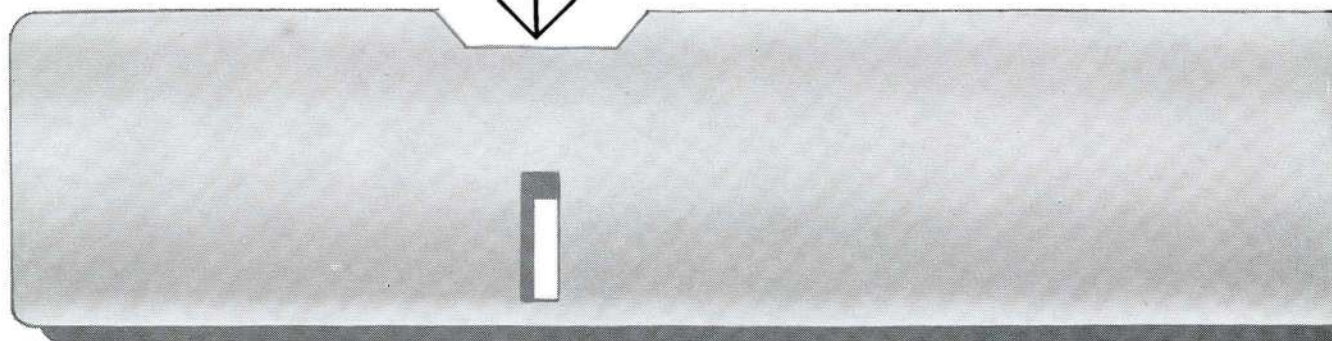
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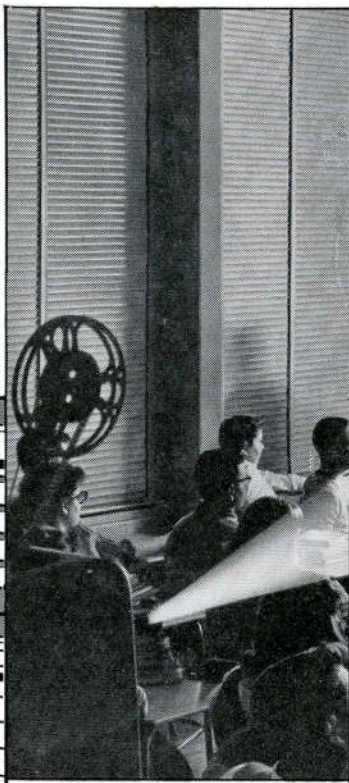
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The patented feature
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on no other blind

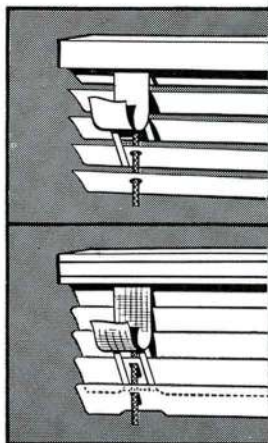


the notch nobody sees lets
Flexalum twi-nighter
*keep out six times more light
than ordinary blinds.*

Few people are aware that the small notch stamped from the slats of Flexalum Twi-Nighter venetian blinds plays such an important role. When a Twi-Nighter is closed, the notch accommodates the vinyl plastic tape cross ladders, permitting a snug overlap. The notchless design of ordinary blinds *prevents* complete closure. Light meter tests prove that Twi-Nighters keep out six times as much light as some other blinds. A few more examples of the great differences in quality, function and styling which make Flexalum Twi-Nighter



the industry leader: crash-proof cord lock prevents blind from falling even when suddenly released . . . non-slip tilter prevents cords from sliding out of reach or adjustment . . . exclusive, spring-tempered slat alloy (slats snap back from 180° bend without deformation or paint damage!) . . . 5-year *written* guarantee. You pay a little more for Twi-Nighter quality at the start, but you save *much* more in upkeep, utility and long life.



ORDINARY BLIND Lifting cord spaces slats, prevents complete closure.
FLEXALUM TWI-NIGHTER Cord holes and notches permit complete closure.

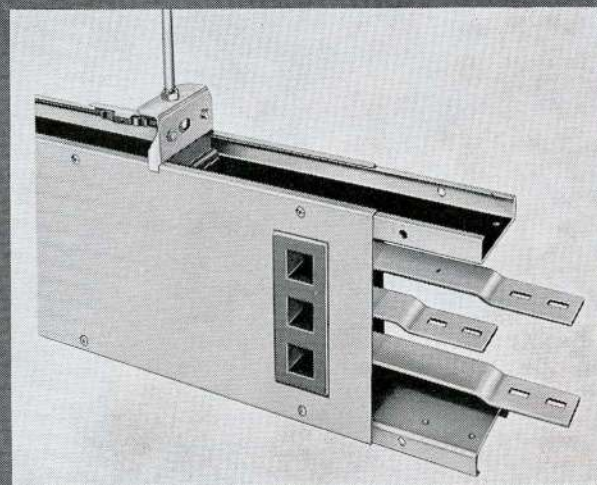
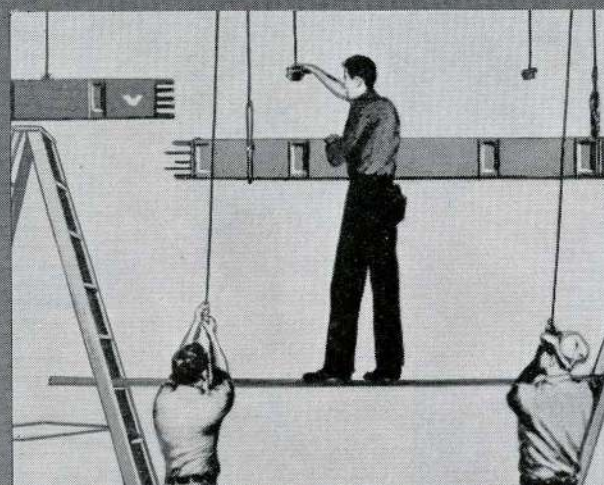
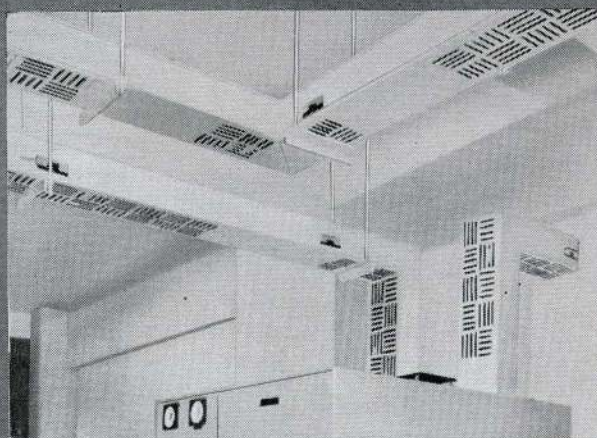
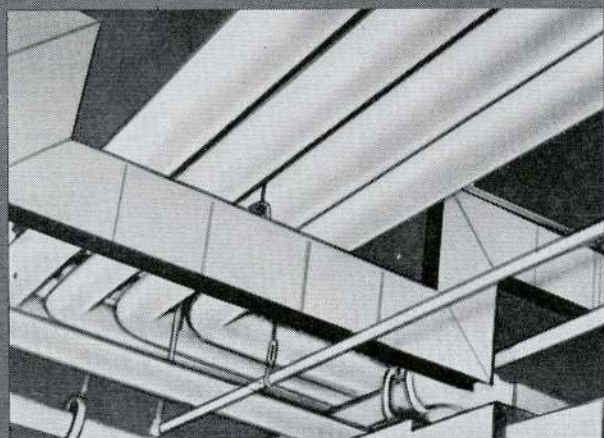
More slats per foot, special notches; light traps at sides, top and bottom . . . here is why the unique Flexalum Audio-Visual Blind is the superior performer for schools and all other screen projection situations.



Open, the audio-visual blind diffuses light for ideal class-room conditions. Also available: special, audio-visual skylight blinds for complete light control in overhead applications.

For further information and free descriptive literature, write "Flexalum Twi-Nighter", Hunter Douglas Ltd, 9500 St. Lawrence Blvd., Montreal.

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Westinghouse Bus Duct gives you neat, effective power distribution in any direction or plane, around corners and obstructions. Complete prefabricated sections come in any required length up to 10 feet. They're designed for convenience in handling and mounting. And for flexibility, there's a complete selection of standard tees, elbows and crossovers.

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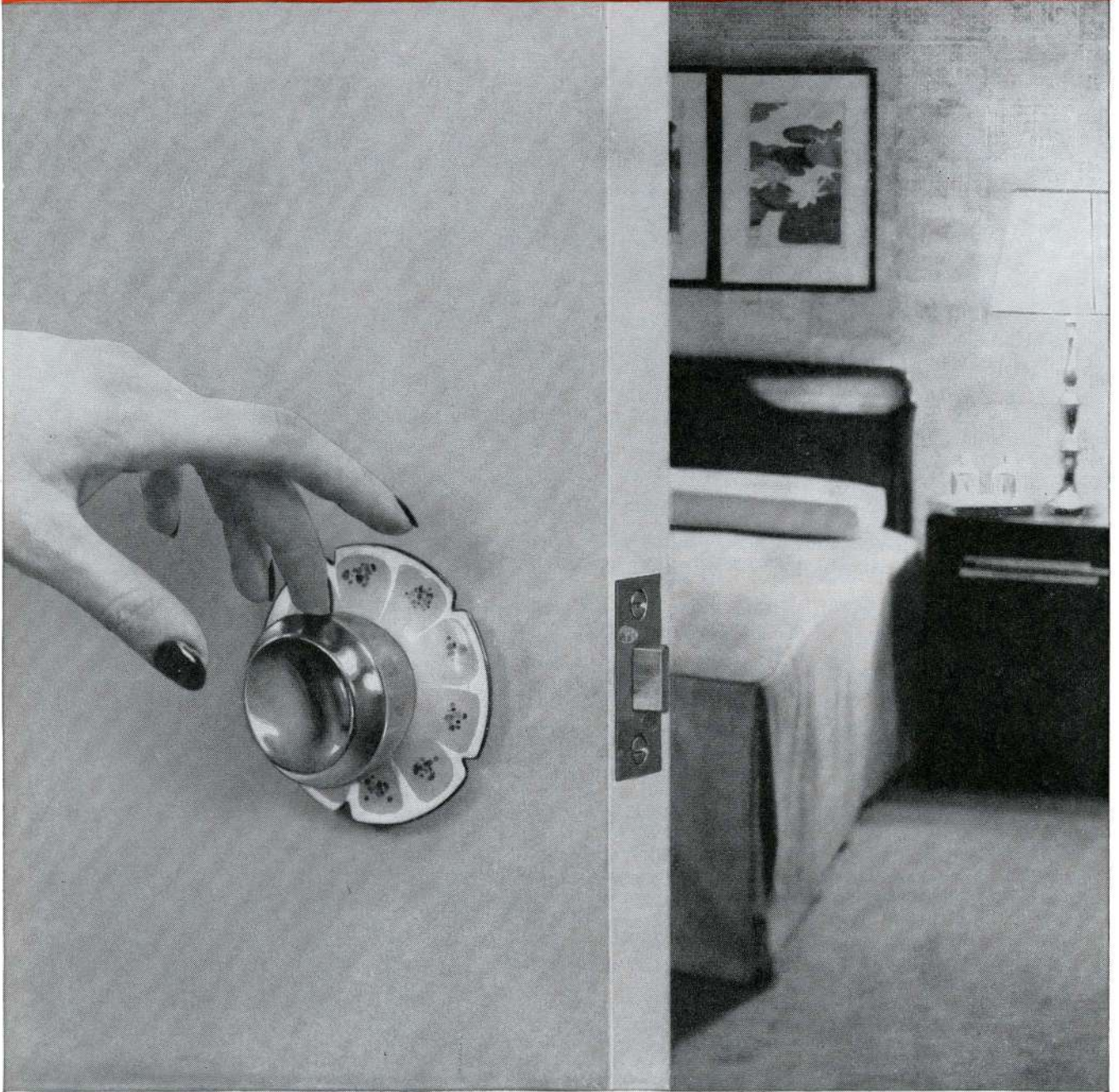
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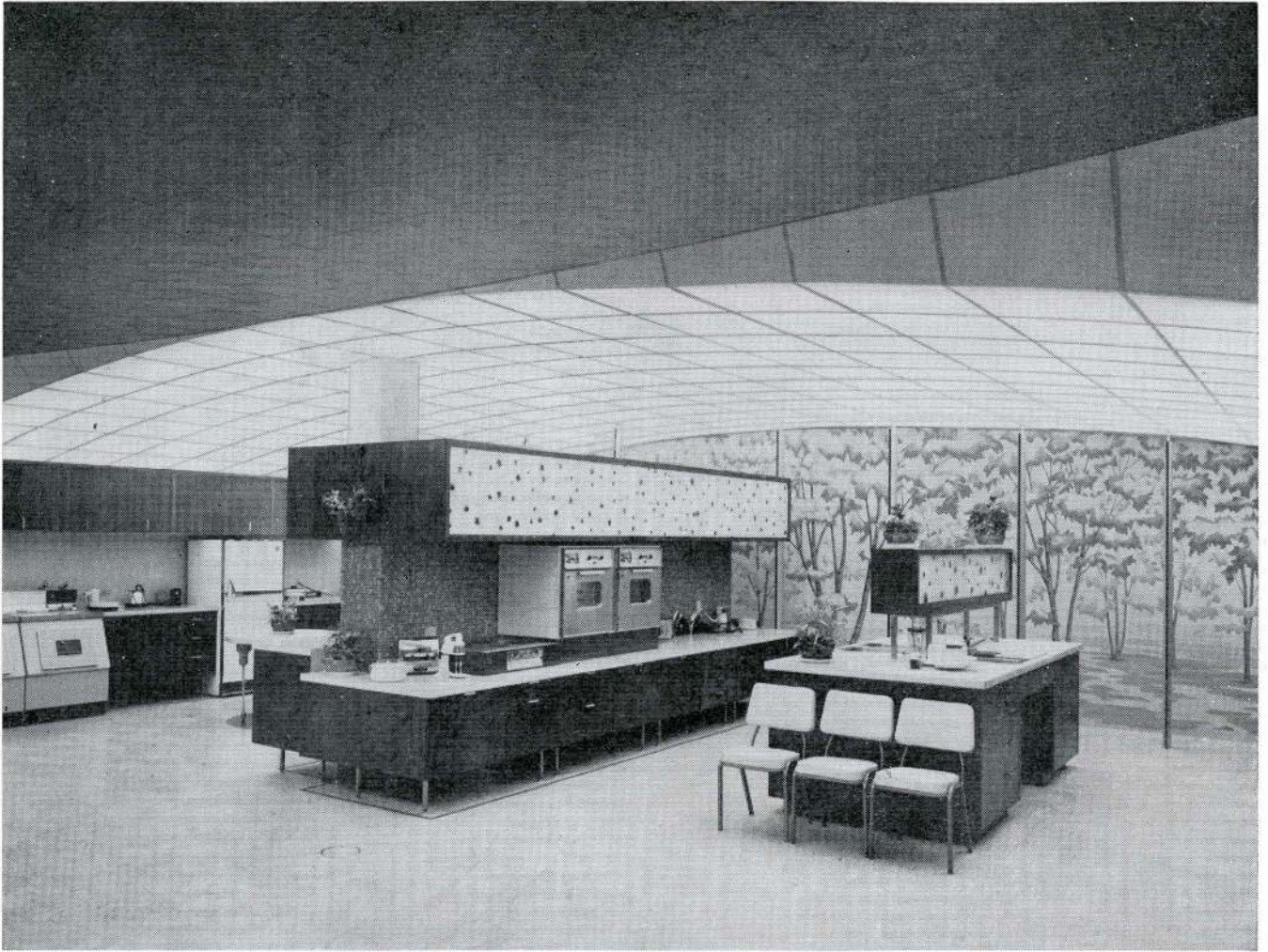


Corbin Horizon Design 439 FE

Bedroom, bathroom, den or front door, Corbin-crafted locksets enhance any type home . . . perhaps a polished brass knob with delicate petal-shaped rose of Fyre-Finish enamel . . . or maybe the rose in brass and the knob of a rare wood with highlighted grain. There are literally hundreds of dramatic Corbin combinations . . . with the soft sell that sells harder than you think. Ask your dealer about them — and the rest of Corbin's complete line of builders hardware. Corbin Lock Division, International Hardware Company of Canada Ltd., Belleville, Ont.



CL1837



Interior of Public Utilities Commission Building, London, Ontario, where Wilson Circlgrid is installed. Architect: H. L. Hicks.

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for illuminated ceilings*

WILSON CIRCLGRID

Circlgrid... the new non-burning vinyl louvre, another Wilson contribution to comfortable lighting.

Each Circlgrid panel consists of a pair of vacuum-formed, non-combustible sheets of rigid vinyl electronically welded for great structural strength and light weight.

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"Engineered Seeing" is identified by the Wilson "W" and symbolizes a company of illumination engineers and experts serving Canadian industry for fifty years.



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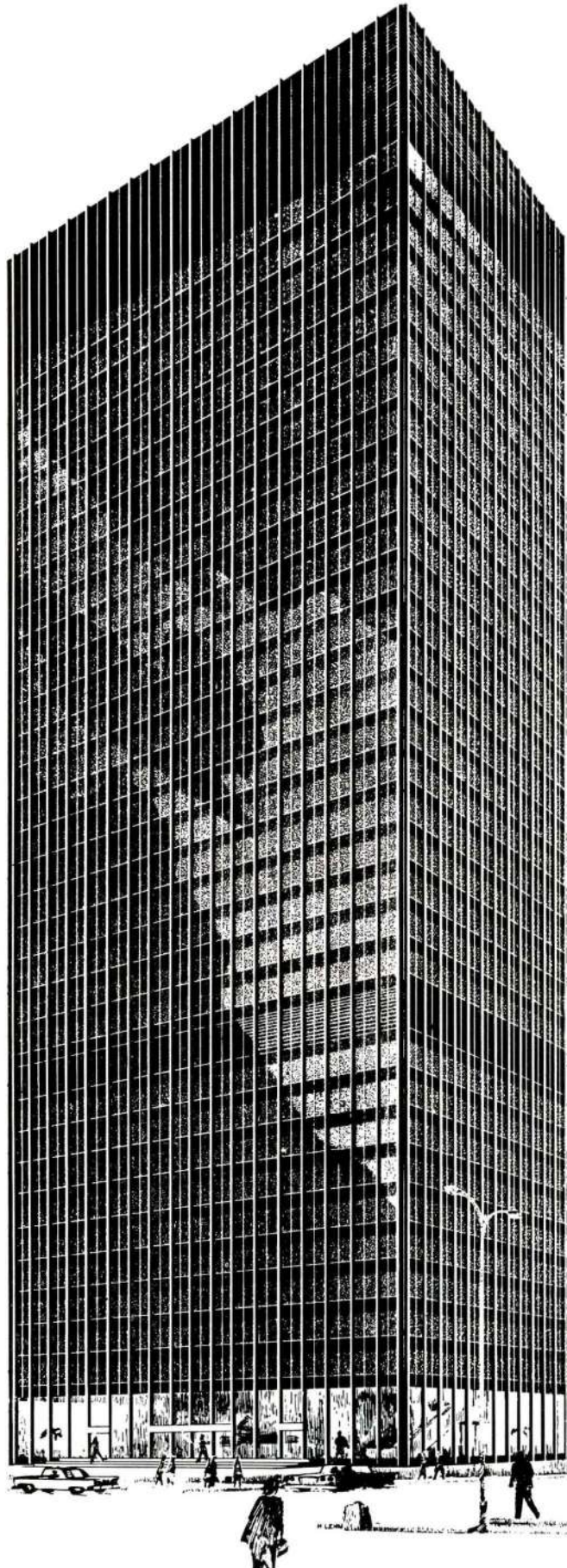
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New Laval University Medical School in Quebec City is designed with nickel stainless steel kalamein curtain walls fabricated by National Window Company Ltd., Montreal. Architect: Lucien Mainguy, Quebec City.

NICKEL STAINLESS STEEL

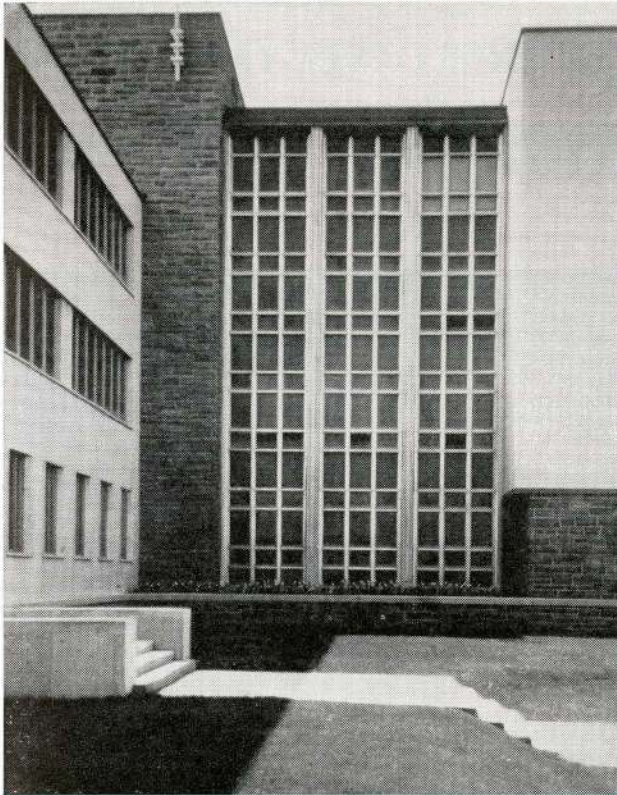
for lasting beauty, low cost



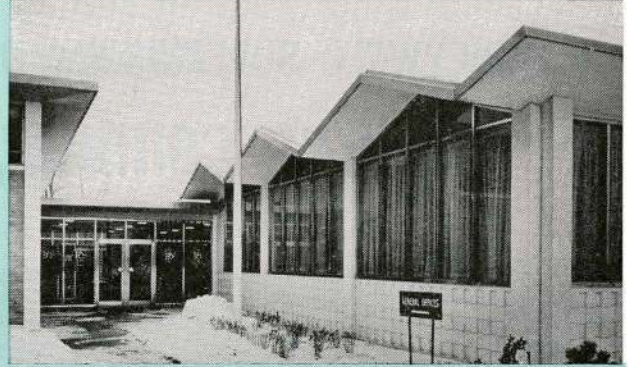
Entranceway and windows of new Manitoba Red Cross Centre on Osborne St., Winnipeg, are of nickel stainless steel. Fabricator: Dominion Bronze and Iron Ltd., Winnipeg. Architects: Moody and Moore, Winnipeg.



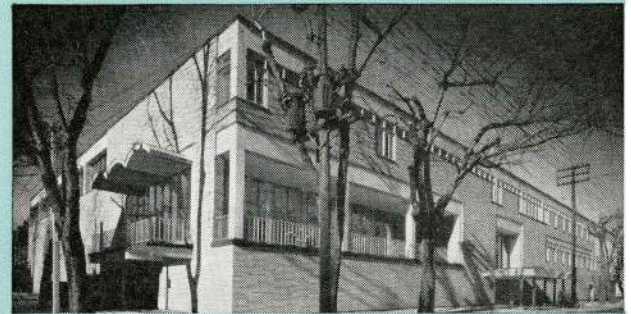
Nickel stainless steel mullions lend bright beauty to St. George's Roman Catholic Church in Byron, Ontario. Fabricator: Macotta Company of Canada Limited. Architects: Blackwell and Hagarty.



New wing of Cardinal Leger Normal School for girls in Montreal uses nickel stainless steel kalamein curtain wall construction. Fabricator: National Window Company Ltd. Architects: Larose and Larose.



New office building of Parke, Davis & Company, Ltd. in Montreal features nickel stainless steel window walls and entranceway fabricated by Canadian Pittsburgh Industries Limited of Montreal. Architect: Paul H. Lapointe. Engineer: R. P. Steketee, c/o Giffels & Vallet of Canada, Ltd.



New Women's Athletic Building, University of Toronto. Window frames and mullions are designed in nickel stainless steel. Fabricator: Cresswell-Pomeroy Ltd. Architects: Fleury, Arthur and Barclay.

in architectural applications maintenance and long life

Nickel stainless steel is the ideal architectural material for curtain walls and entrances of modern buildings, windows, beautiful ageless hardware and a multitude of related applications.

Nickel stainless steel resists corrosion from weathering and atmospheric conditions. It won't crack, chip, peel or deteriorate with age; stays attractive for years with a minimum of cleaning and maintenance. And it harmonizes beautifully with wood, stone, glass and enamelled surfaces to produce striking architectural effects.

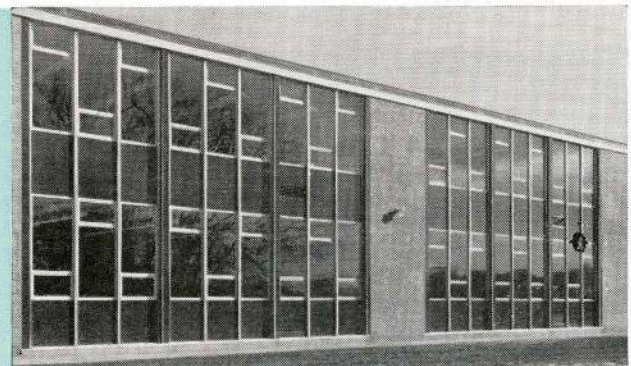
Nickel helps give stainless steel its rich, silvery lustre, increases its resistance to rust and corrosion, makes it easier to form and fabricate.



THE INTERNATIONAL NICKEL

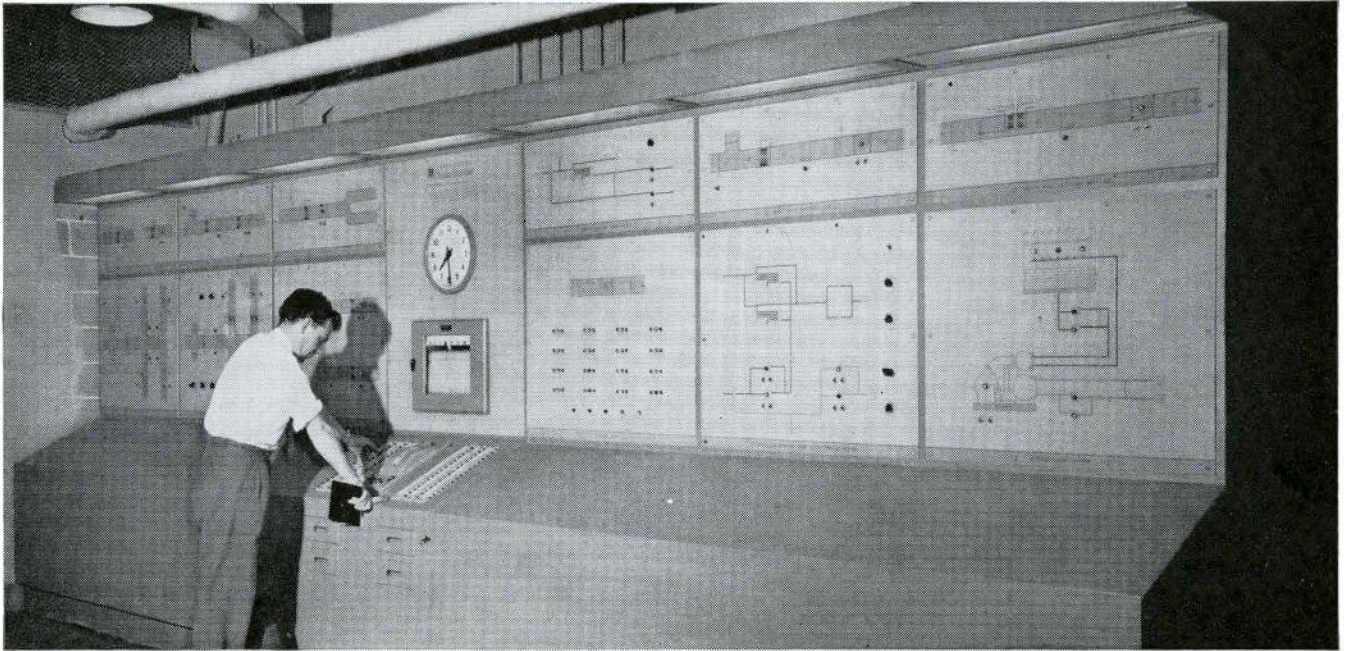
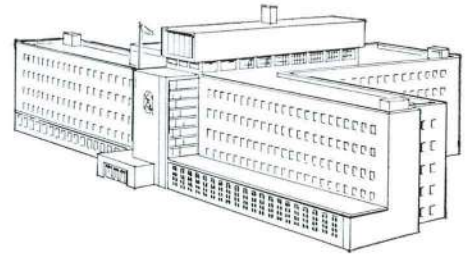
COMPANY OF CANADA, LIMITED

55 YONGE STREET, TORONTO



Nickel stainless steel curtain wall at Oakridge Senior Public School, St. Catharines, Ontario. Fabricator: Macotta Company of Canada, Limited. Architects: Salter and Flemming.

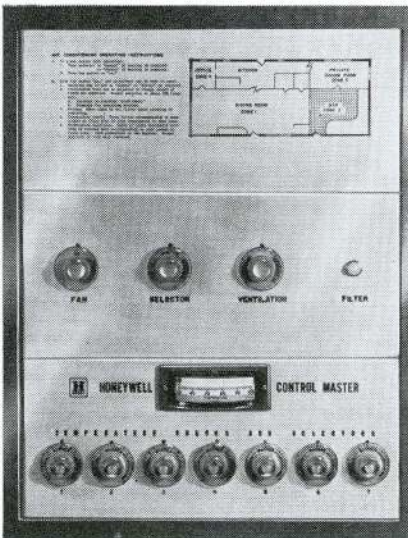
A HONEYWELL SUPERVISORY DATACENTER insures comfort, saves



HERE'S THE SUPERVISORY DATACENTER. Simply by pressing a button, one operator can read, adjust and record critical temperatures throughout the building, start and stop fans and other pieces of equipment. Each fan system is represented by a graphic module on the panel and a switch provides fast adjustment of temperature in any area that is too hot or too cold. Among other functions, the Supervisory DataCenter checks outdoor temperatures, return air temperatures, mixing chamber

temperatures, chilled or hot water temperatures, and so on. And the Supervisory DataCenter indicates the temperature of supply air to private offices where occupants can set the desired temperature on individual office thermostats. Associated Architects: *Marani, Morris and Allan, Toronto; Moody, Moore & Partners, Winnipeg.* Consulting Engineers: *H. H. Angus and Associates, Toronto.* Mechanical Contractor: *Randall & Company Limited, Winnipeg.*

HONEYWELL CAN PROVIDE AUTOMATIC



◀**SIMPLICITY PLUS ECONOMY.** For even the smallest air-conditioning system, Honeywell supplies the Control Master . . . a simple electronic panel controlling up to seven zones. The Control Master permits the building owner or manager to start or stop equipment, adjust temperature or fresh-air supply without leaving his office.

AIR CONDITIONING SELECTOR is designed for ▶ single-zone buildings such as grocerias, branch banks and so on. The unit illustrated provides automatic control of year-round air conditioning in a 25,000 square foot area. It also regulates fresh air intake as required by internal conditions.



IN THE GREAT-WEST LIFE BUILDING, WINNIPEG man hours, fuel and power

HONEYWELL CENTRALIZED CONTROL PROVIDES EFFICIENT SYSTEM OPERATION, YIELDS UP TO 33% ON INVESTMENT

An imposing blend of function and bold "T" design, the Great-West Life Building, Winnipeg, is equipped with a Honeywell Supervisory DataCenter to ensure efficient, economical operation of the heating and air conditioning system.

A Supervisory DataCenter such as this can save thousands of dollars a year on labor, fuel and power costs, can pay for itself in three to six years, and yield from 15% to 33% on the investment in a typical building. There's another factor, too. The increased comfort and efficiency of the office personnel. It doesn't translate readily into dollars and cents. But you can be sure that better work will be done in this ideal indoor climate.

Consider the savings in manpower alone. With Honeywell's Supervisory DataCenter, the adjustment of controls and instruments scattered throughout a building is centralized at one custom-built panel . . . and operated by only one man. He can detect, record and adjust temperatures in open areas many floors above. He can monitor equipment throughout the building. Without a Supervisory DataCenter, it would be necessary to have a crew of maintenance men patrolling the building to check equipment, measure temperatures and adjust controls for best performance.

A Supervisory DataCenter can be custom-designed to meet the exact needs of any building, new or old: factories, hotels, motels, apartments, schools, offices or churches. Only Honeywell manufactures all types of automatic control equipment: pneumatic, electronic and electric. Honeywell is a single source of supply for thermostats, valves, switches, indicating, recording and control instruments, and all the necessary components and accessories for its installation, service and maintenance.

For complete information, call your nearest Honeywell office or write Honeywell Controls Limited, *Commercial Division*, Toronto 17, Ont.

Honeywell



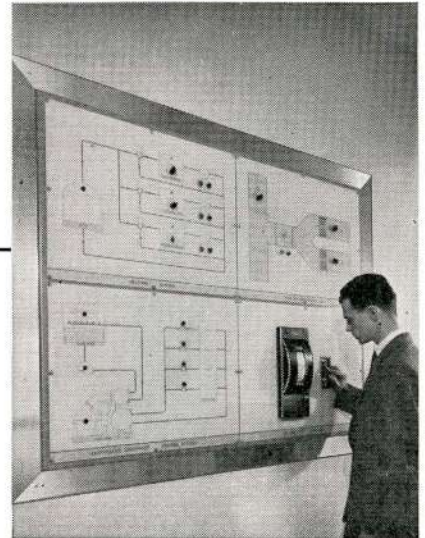
First in Control
SINCE 1885

CONTROL FOR EVERY SIZE OF BUILDING



▶ **THIS SUPERVISORY DATACENTER** incorporates a graphic color layout of a complete air conditioning system. It was designed to give a medium-sized building all the economy and efficiency made possible by centralized control of temperature.

◀ **HONEYWELL SELECTOGRAPHIC DATACENTRE** saves space by projecting floor plans and system diagrams on a console screen at the touch of a button. The operator can check temperatures and adjust key operating points for that floor or system. Thus one set of buttons—one compact unit—can regulate the air conditioning system of any size building.





Specify

Architects and Design Engineers

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No other building material — for the same low initial cost — can give you . . .

- 1** the **HIGH STRUCTURAL STRENGTH** of steel
- 2** the **LONG-TERM ATMOSPHERIC PROTECTION** of zinc
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Today's galvanized steel is a far superior product to that of a few years ago. The ZINC coat is uniform and metallurgically bonded so tightly to the steel base that the sheet can be shaped to most exacting specifications without damage to the coating.

ZINC doubly protects steel as a low-cost, long-lasting surface covering and if damage occurs to the extent that the coat is broken, the ZINC will "sacrificially" protect the exposed steel.

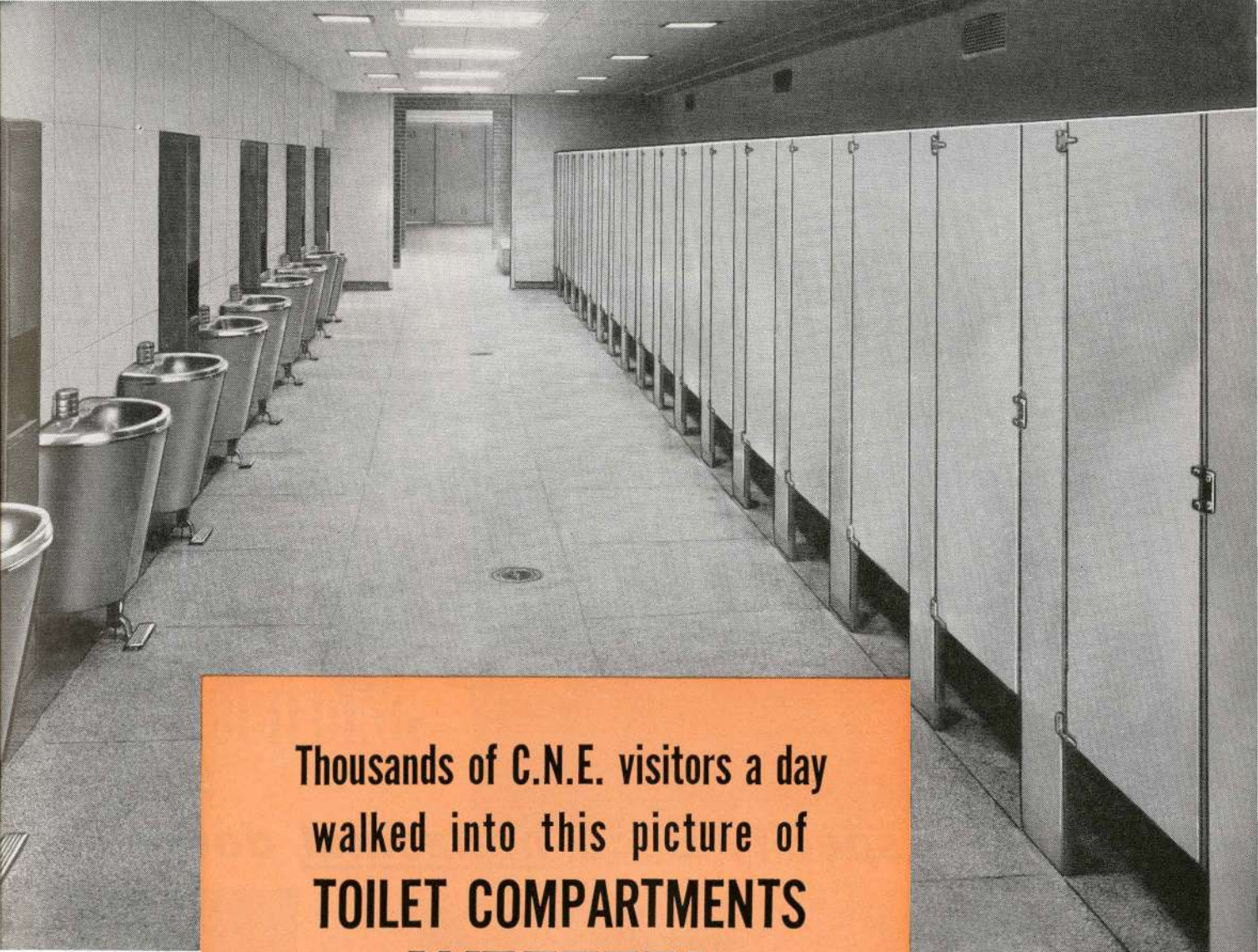
Galvanized steel in convenient shapes and sizes is readily available. Galvanized roofing and siding is inexpensive and easy to install. Galvanized duct work is strong and requires minimum support. Galvanized surfaces are ideal bases for paint.

You will save dollars and get long trouble-free service when you specify galvanized steel in your design. For further information write our Sales Development Division.

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Thousands of C.N.E. visitors a day
walked into this picture of
TOILET COMPARTMENTS
by **WESTEEL**

Modern design is the keynote of the new Dufferin Gate entrance to the Canadian National Exhibition. That's one of the reasons why Normandie Toilet Compartments by Westeel were chosen for the men's washroom.

Other important reasons were: rugged construction and ease of cleaning; tamper-proof concealed hinges.

There are no headrails, no overhead bracing — yet these attractive Normandie Compartments are firmly anchored for years of service.

Catalogue No. 56 containing specifications of the Normandie and other designs by Westeel is yours for the asking. Simply write or phone the Westeel office near you.

A million visitors from now — a thousand maintenance hours from now — this will still be a pleasing picture.



WESTEEL

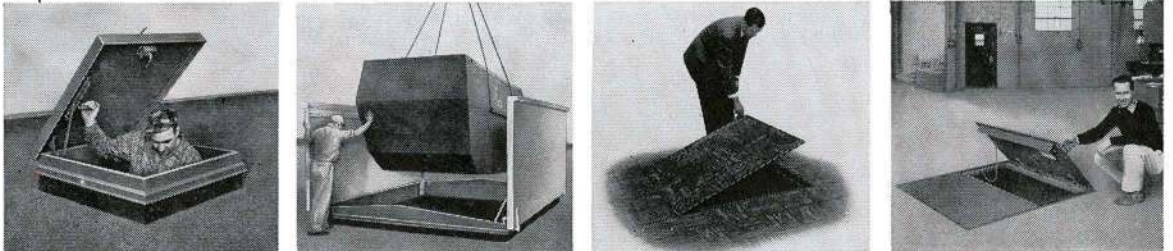
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Sales Offices also at HALIFAX, QUEBEC, OTTAWA.

vertical access?

specify Bilco horizontal doors



Bilco Special Service Doors are the architect's logical answer to access problems. He can choose from a wide range of standard units, or call for doors custom-engineered to his specifications.

He can select Roof Scuttles for vertical ladder access, for ship's ladder or for normal rise-and-run stairs . . .

He can choose large special Roof Scuttles in double- or single-leaf design for replacement or removal of large equipment . . .

Or he may specify Flush Floor Doors and Ceiling-Access-Doors that blend smoothly into their environment.

He knows that for access to basements and underground utility equipment, Bilco Sidewalk Doors have no equal.

All Bilco doors are watertight, feature long trouble-free life and the exclusive Bilco spring operators for effortless opening year after year.

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P.O. Box N 1268, St. John's, Newfoundland

in the beautiful new
**MACKENZIE
 BUILDING**



Crane plumbing fixtures and fittings are used throughout this impressive new office building, occupying an entire block in downtown Toronto. *Owner:* Department of Public Works, Ottawa. *Chief Architect:* E. A. Gardner. *Architects:* Shore & Moffat, Toronto. *General Contractors:* Redfern Construction Co. Limited. *Mechanical Contractor:* Universal Plumbing & Heating Co. Ltd.

...the beautiful
**NORWICH
 LAVATORY**
 with integral soap chamber



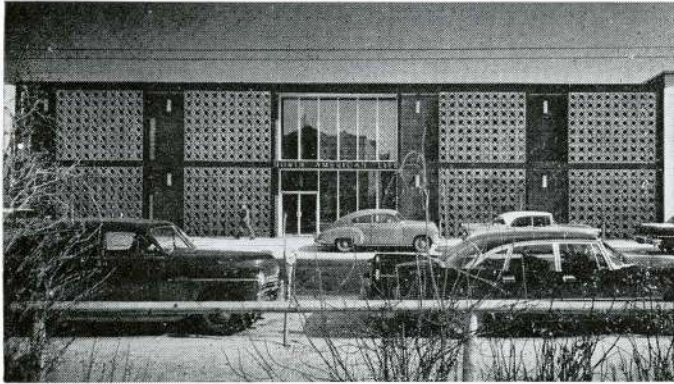
Crane's modified Norwich wall-hung lavatory, installed in the Mackenzie Building, features 10-pint capacity built-in soap chamber. "Dial-ese" supply fittings. It's a handsome, efficient, low-maintenance product of Crane engineering leadership. *Dimensions:* 22" x 19".

CRANE HEAD OFFICE: 1170 BEAVER HALL SQUARE, MONTREAL



VALVES · PIPING · PLUMBING · HEATING · AIR-CONDITIONING

CONSTRUCTION



NORTH AMERICAN LIFE BUILDING, WINNIPEG, MAN.

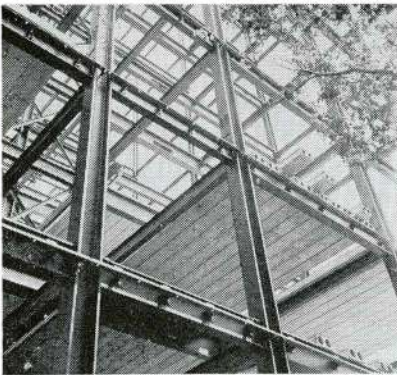
Architects: WARD AND MACDONALD
 Consulting Structural Engineers: CROSIER, KRAUSS AND GREENBERG
 General Contractor: MALCOLM CONSTRUCTION CO. LTD.
 Mechanical Contractor: S. E. JOHNSON, LTD.
 Electrical Contractor: STEWART ELECTRIC, LTD.
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NICE GOING, NORTH AMERICAN

In its new Winnipeg office building, the North American Life Assurance Company has the second floor. Second floor tenants include the firm of Ward and Macdonald. — which shows the acumen of the North American Life people . . . Ward and Macdonald. are the building's architects. By designing the building in which they will be meeting their clients they have surrounded themselves with a showcase of their finest work.

So, cannily, has North American.

TIME, SPACE AND MONEY



FLEXICORE PRE-CAST SLABS
 GO DOWN FAST

Much of any architect's work is concerned with solving three basic problems—Time, Space and Money (also known as Early Occupancy, Serviceability, and Economy.)

Architects Ward and Macdonald had one quick, simple solution to the three problems — Flexicore.

FLEXICORE SOLVED THEIR PROBLEMS

Flexicore — long span, precast concrete slabs with hollow cores that could serve as raceways for electrical or communication wiring, or as ducts for the air conditioning — gave the contractor concrete roofs and floors that needed no forms, no pours, no curing, no waiting at all. As soon as the Flexicore was laid (one crew lays about 2500 sq. ft. in a day) the sub-

trades could be on the job. From a schedule that with conventional materials seemed impossibly tight, the contractor now found he would be finished with the job much sooner than usual. This saving in time for the contractor meant a saving in money for the owners who were able to have earlier occupancy.

"WE LIKE FLEXICORE"

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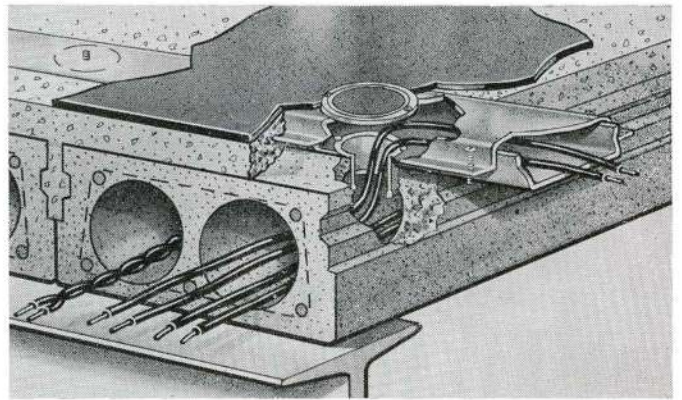


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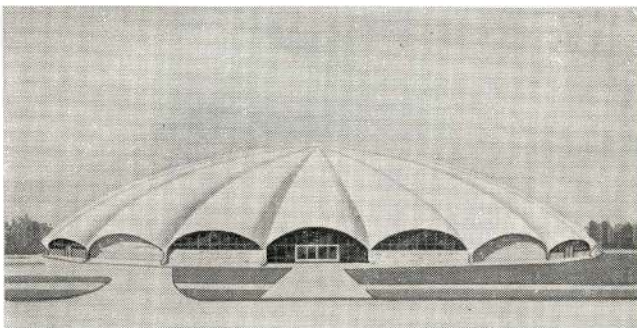
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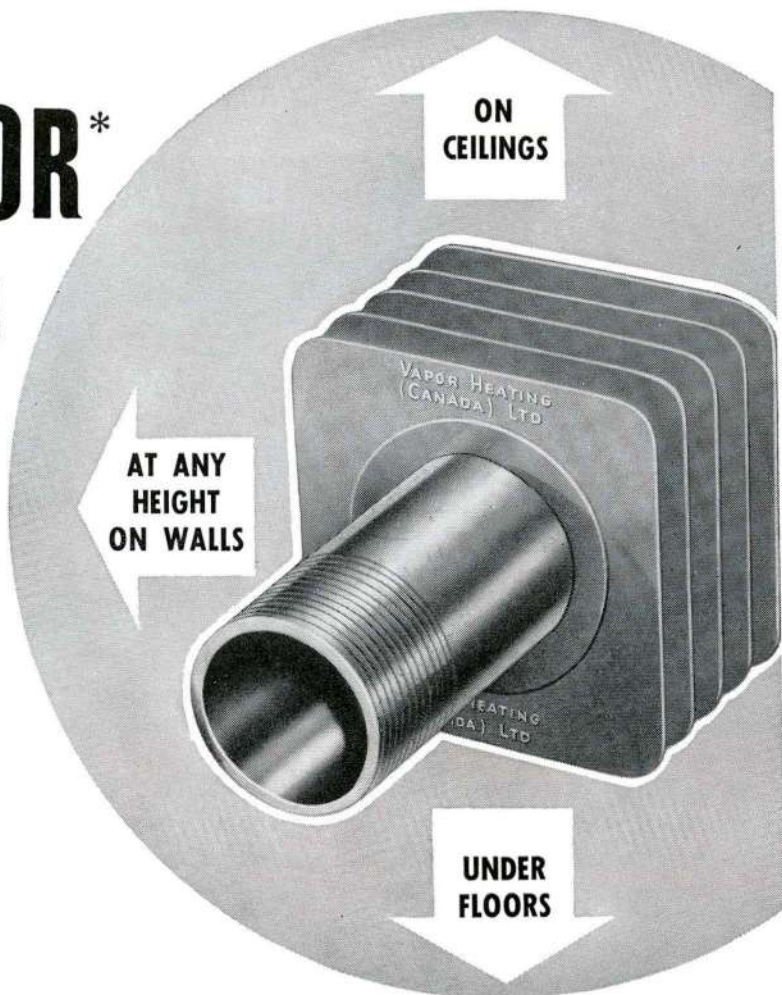


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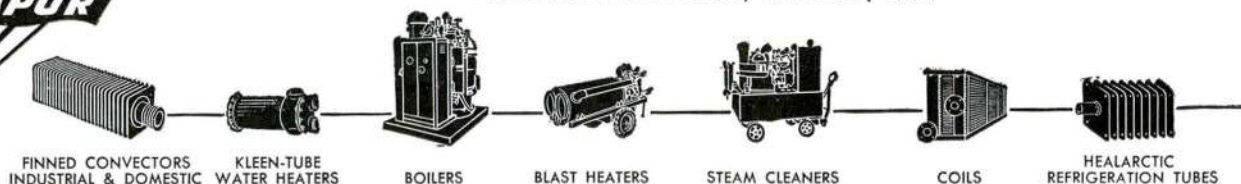
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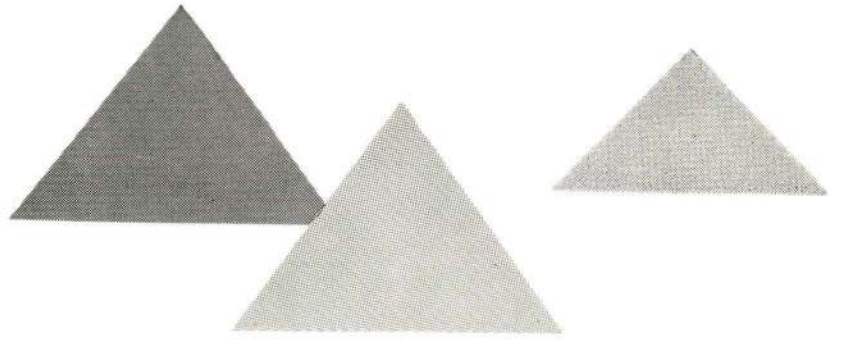
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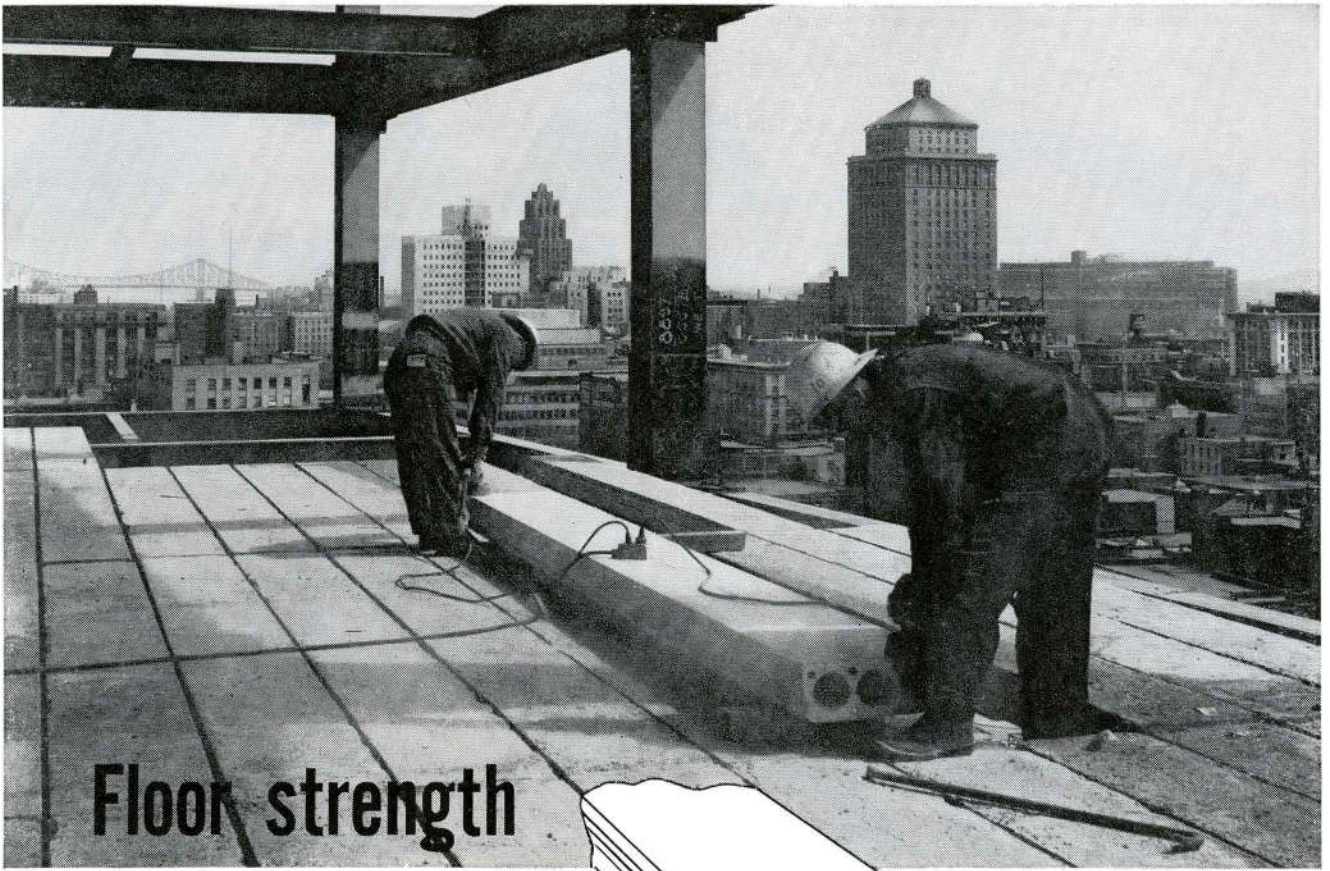
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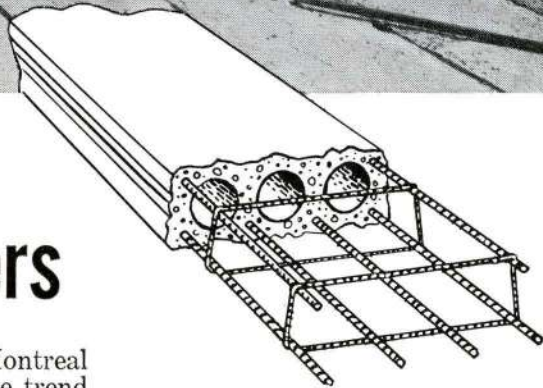
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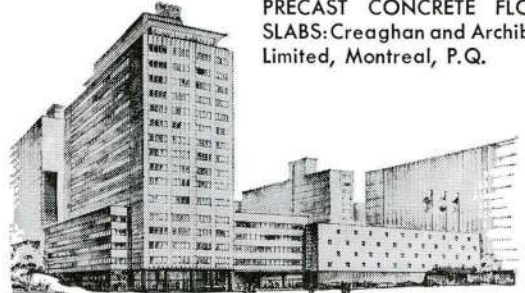
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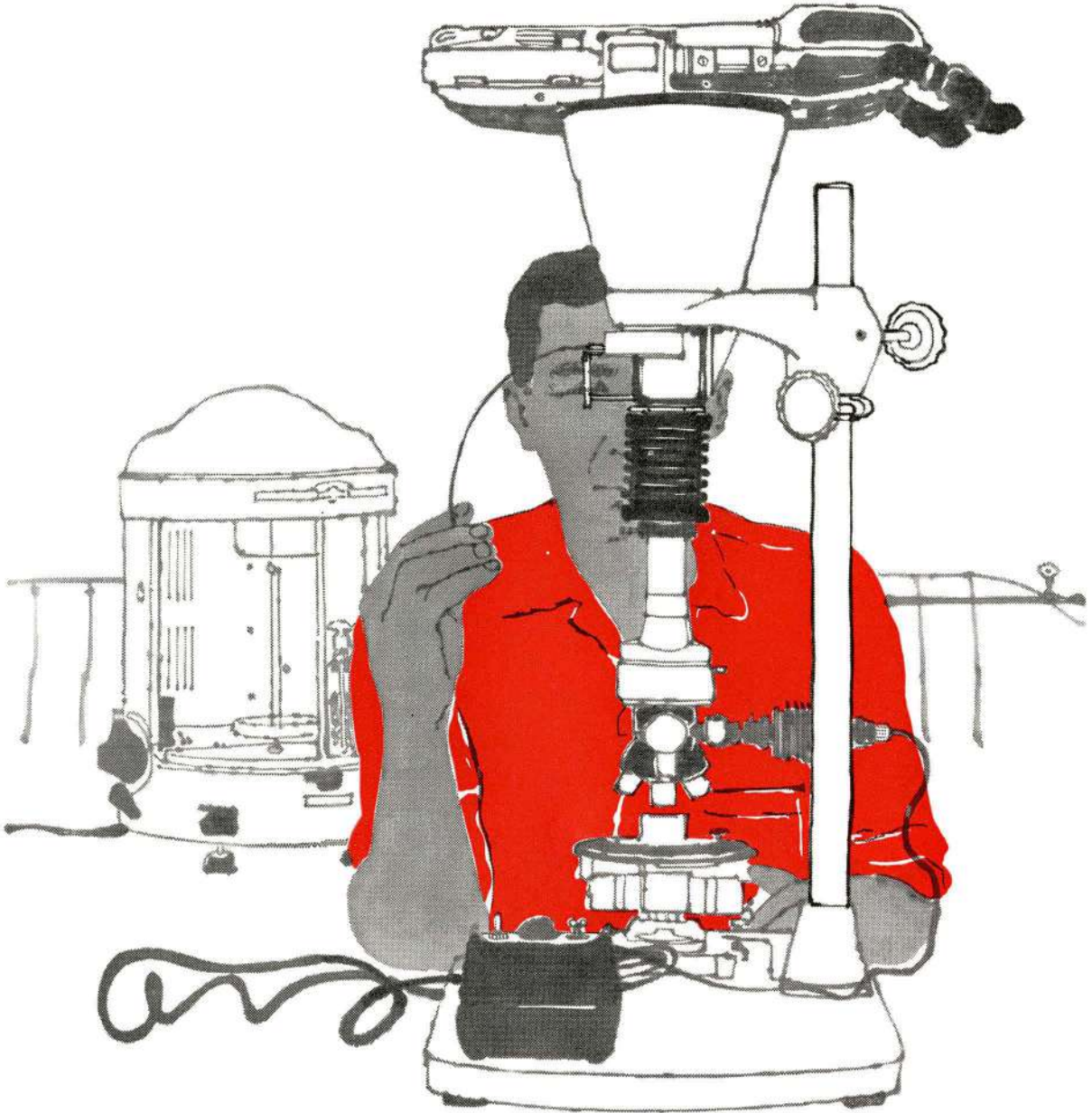
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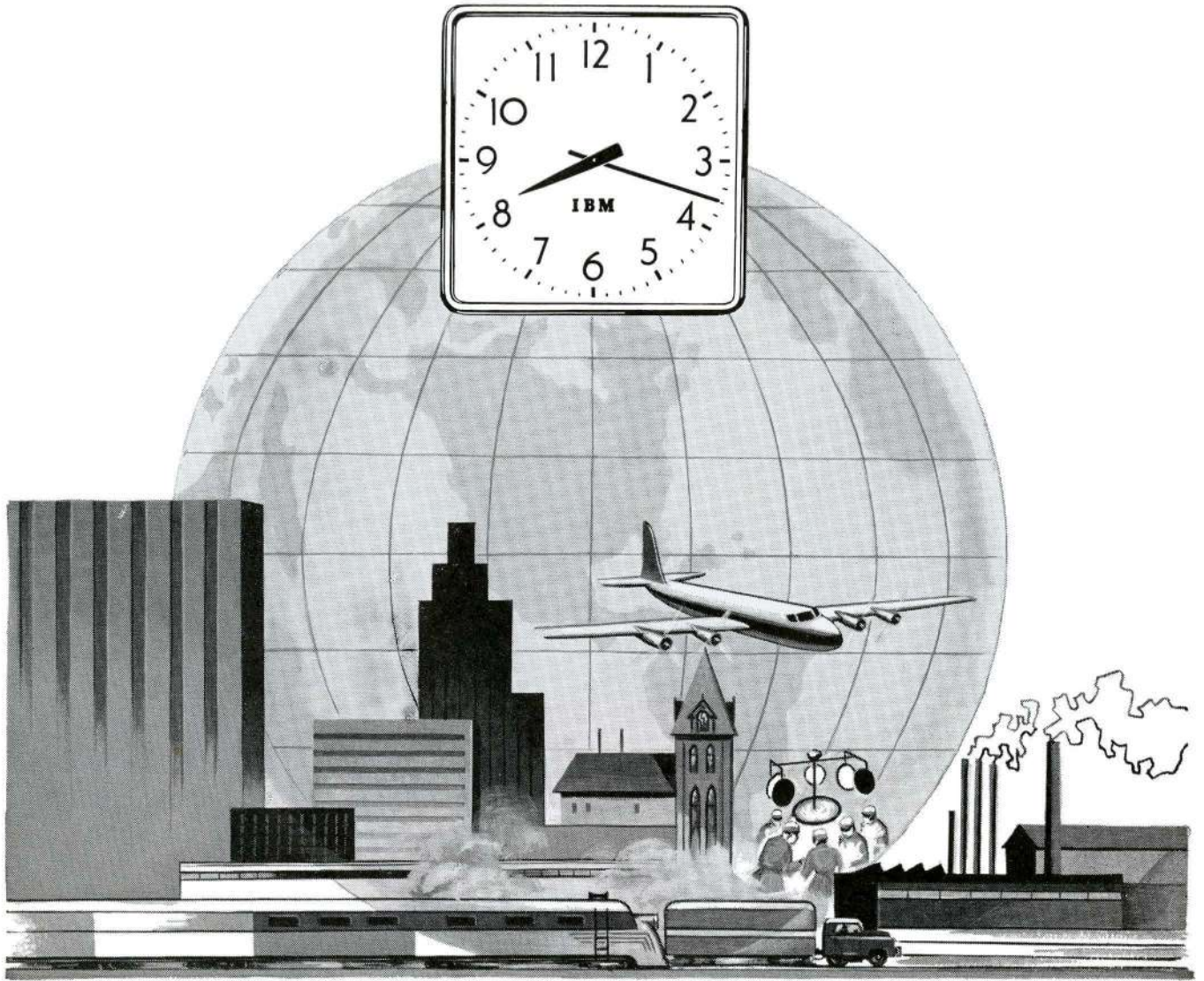
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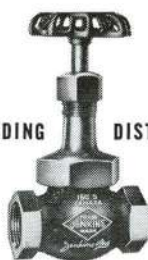
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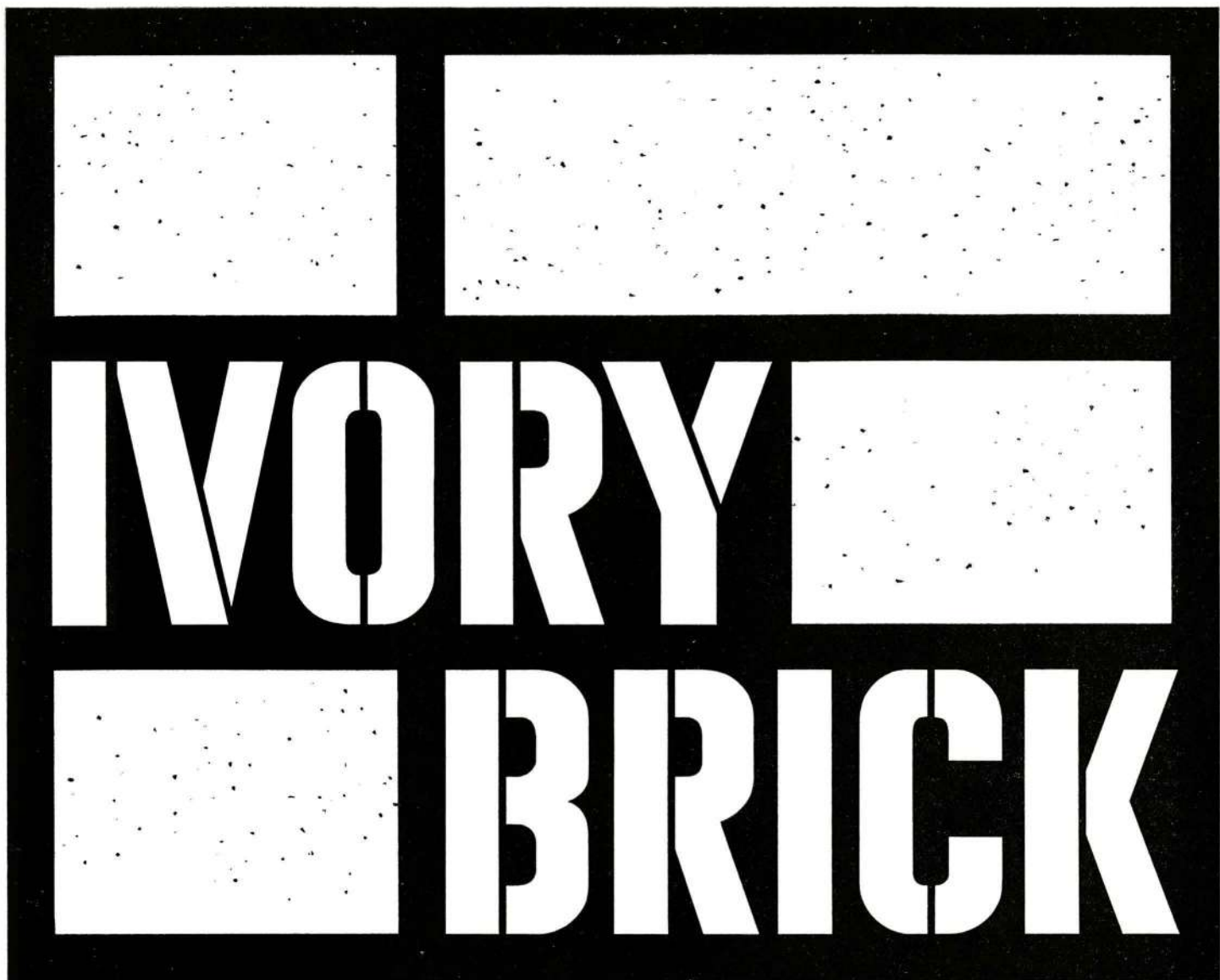
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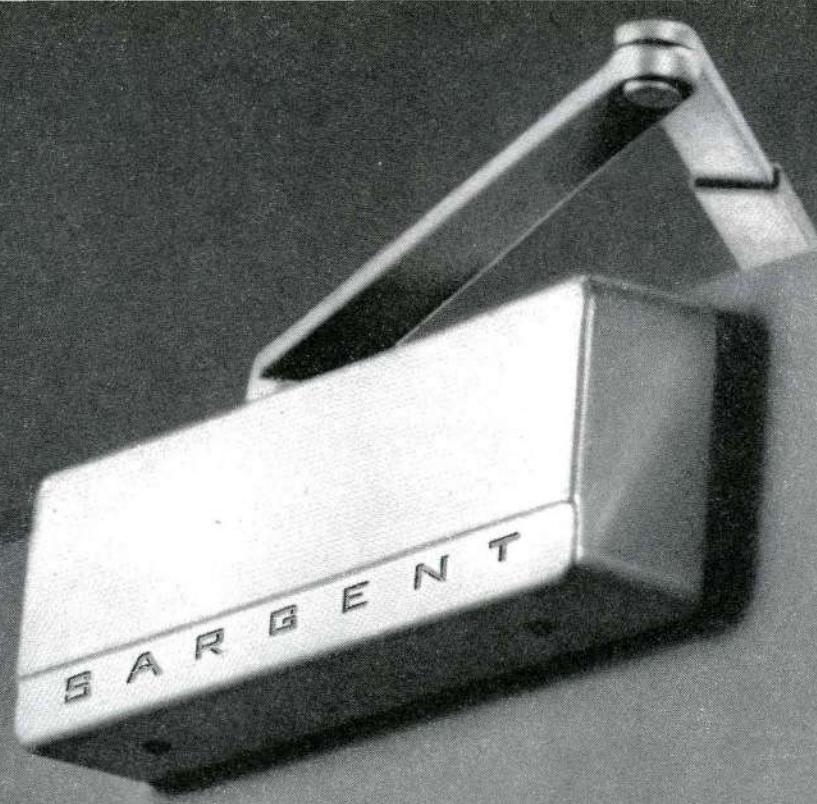
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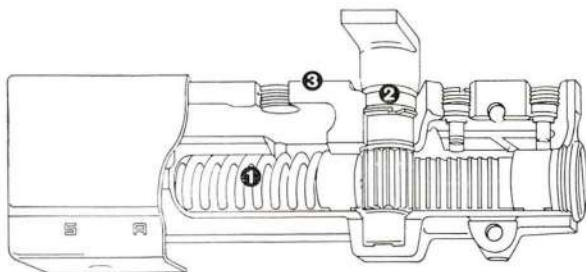
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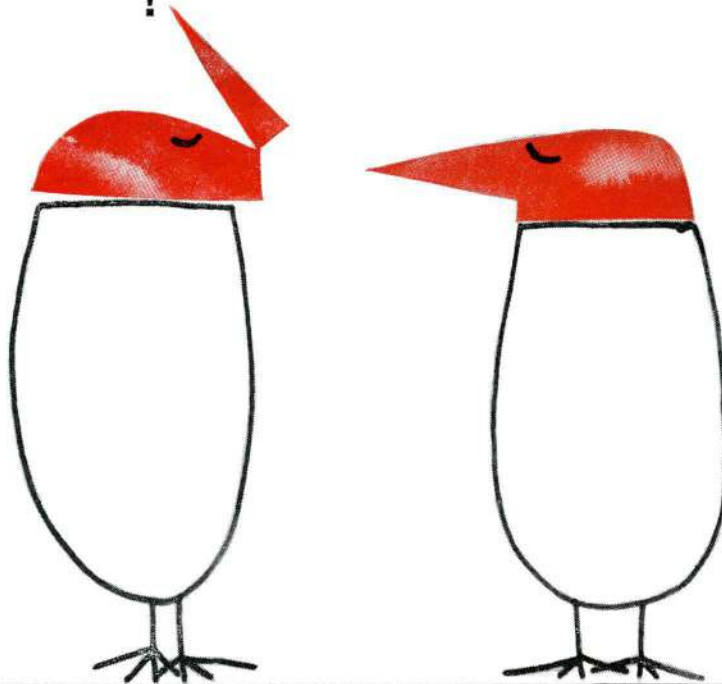
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AS YOUR NEW PRESIDENT, I must confess to fellow members that my chief interest in recent weeks has been to bring about implementation of the "Environment" Report.

This Report has been referred to as the most significant event to confront the profession in Canada within living memory. Members who have conscientiously read it will recognize that the breadth and scope of its recommendations are a challenge — a challenge to the zeal and initiative of the building industry and to governments at every level. On December 7 the Quebec Association sponsored a successful conference of 200 architects, planners, builders, realtors, developers and government officials. I was privileged to attend. Proceedings of this significant meeting will be printed and distributed throughout the profession. I would like to extend my congratulations to the PQAA for showing this admirable initiative in acting to develop practical implementation of the Report's recommendations. Particular credit must go to Peter Barott, PQAA Public Relations chairman, who conceived the conference and provided effective leadership.

Active support of the program to implement the thirty-two recommendations, by members of the profession, and by organizations and individuals inside and outside the building industry, has made it possible for the RAIC to provide leadership at the national level.

Having taken the responsibility for revealing inadequacies in the residential environment through production of the Report, it is now up to the RAIC to maintain the initiative and mobilize the force and influence of Canadian architects so that beneficial action will result.

The RAIC maintained close relations with component societies during 1960. For the first time in many years the Institute President toured Western Canada to secure first-hand knowledge of the problems facing the profession. The tour included brief visits to Vancouver, Calgary, Edmonton, Saskatoon, and Winnipeg. A highlight of the journey was the presentation of an RAIC brief advocating increased use of the services of private architects by the Government of the Province of Alberta to the Honorable E. C. Manning at Edmonton. Another highlight was the attendance at the annual convention of the Saskatchewan Association at Saskatoon.

Preparations are now under way for a meeting of the RAIC Executive Committee and Council at Toronto in January.

A key instrument in the work of the Institute is the *Journal*, which in December marks its first year under the direct ownership of the RAIC. It has been a very encouraging year, both from the editorial and financial viewpoint. The *Journal*, under Managing Editor Walter Bowker, made noteworthy editorial progress during 1960. We have been fortunate to enjoy the services of an able and conscientious Editorial Board with Robert Fairfield as chairman.

A most interesting development in recent months was the inaugural meeting of the new joint RAIC-CCA Committee on Building Materials. This Joint Committee was the result of representations made by the RAIC to the Canadian Construction Association in 1959, when it was suggested that both organizations study the feasibility of establishing a committee comparable to those established by the AIA and the Producers' Council in the United States.

A feature of the coming year will be the Massey Medals for Architecture competition. Plans are well advanced for the 54th Annual Assembly of the Institute at Quebec City from May 17-20, 1961. The keynote speaker on the Assembly theme, "The Building Community" will be Philip Will, FAIA, of Chicago, President of the American Institute of Architects.

The interest of architects throughout Canada in the affairs of the Royal Institute has been stimulated as never before. It is hoped that in 1961 progress will be made toward shaping and developing the important programs initiated in 1958.

Harland Steele (F)
President, Royal Architectural Institute of Canada

JE SUIS PRÉSIDENT DE L'INSTITUT depuis environ cinq mois, mais j'avoue que, ces dernières semaines, mes préoccupations ont porté surtout sur les moyens adoptés par l'Institut pour donner suite au Rapport sur les conditions de l'habitation.

Des gens sérieux ont affirmé que ce rapport est l'événement le plus lourd de conséquences que, de mémoire d'homme, les milieux architecturaux canadiens aient connu. Chose certaine, ceux qui l'ont lu consciencieusement admettront que le programme qu'il préconise a assez d'ampleur pour stimuler le zèle et l'initiative des constructeurs et des gouvernements à tous les paliers. L'association québécoise a tenu à Montréal, le 7 décembre, une conférence très réussie qui a attiré 200 architectes, urbanistes, constructeurs, agents d'immeuble, promoteurs de projets d'habitation et fonctionnaires. J'ai eu l'avantage d'y assister. Le compte rendu en sera publié et sera distribué à tous les membres de la profession. Je tiens à féliciter l'AAPO de cette admirable initiative, conçue pour favoriser la mise en oeuvre du rapport. Je félicite en particulier M. Peter Barott, président des affaires extérieures de l'AAPO, qui en a été l'instigateur et le dynamique organisateur.

Grâce à l'appui actif des membres de la profession et de certains particuliers et groupements, tant à l'intérieur qu'à l'extérieur de l'industrie du bâtiment, l'IRAC a pu, dans la mise en oeuvre des 32 recommandations du rapport, faire preuve, sur le plan national, d'un dynamisme sans précédent.

L'IRAC ayant, dans ce rapport, étalé au grand jour les lacunes de l'habitation au Canada, il se doit de poursuivre l'oeuvre entreprise et, pour la mener à bien, de mettre à contribution la puissance et l'influence des architectes canadiens.

En 1960, l'Institut a entretenu d'étroites relations avec ses sociétés composantes. Pour la première fois depuis nombre d'années, son président a fait, en octobre, une tournée de l'Ouest, pour se renseigner personnellement sur les problèmes de la profession. Il s'est arrêté brièvement à Vancouver, Calgary, Edmonton, Saskatoon et Winnipeg. Au nom de l'IRAC, il a présenté au premier ministre de l'Alberta un mémoire demandant que le gouvernement de la province utilise plus souvent les services d'architectes du secteur privé. Il a assisté, d'autre part, au congrès annuel des architectes de la Saskatchewan.

On prépare pour le 20 janvier, à Toronto, une réunion du Comité exécutif, qui sera suivie le lendemain d'une réunion plénière du Conseil de l'IRAC.

Le Journal de l'IRAC, qui depuis près d'un an relève directement de l'Institut, joue un rôle de premier plan à cet égard. Il a eu une année très encourageante, et sur le plan rédaction et sur le plan financier, sous la direction de son rédacteur gérant, M. Walter Bowker. Nous pouvons nous féliciter d'avoir un conseil de rédaction aussi compétent que consciencieux, présidé par M. Robert Fairfield.

La réunion inaugurale du nouveau comité mixte IRAC-ACC des matériaux de construction, tenue à Toronto en septembre, est un des événements les plus intéressants des derniers mois. Ce comité est le fruit des démarches faites par l'IRAC auprès de l'Association canadienne de la construction à l'automne de 1959; l'Institut avait alors proposé que les deux groupements envisagent la création d'un comité analogue à ceux établis aux États-Unis par l'AIA et le *Producers' Council*.

Quant à 1961, un des événements de l'année sera le concours d'architecture Massey. Les préparatifs de la 54^e assemblée annuelle de l'Institut, qui doit avoir lieu à Québec du 17 au 20 mai 1961, vont bon train. M. Philip Will, FAIA, de Chicago, président de l'*American Institute of Architects*, prononcera le discours-thème, qui portera sur "La communauté de la construction".

Dans tout le pays, on constate que les architectes s'intéressent comme jamais aux affaires de l'Institut. Puissent les travaux si importants entrepris depuis 1958 marquer, en 1961, de nouveaux progrès.

Harland Steele (F)

Président, Institut royal d'Architecture du Canada

RAIC Post Assembly Architectural Tour of Europe

Three weeks in the Netherlands,
Switzerland, Italy and Spain

Leave Montreal, Sunday, May 21st, immediately following
1961 RAIC Annual Assembly at Quebec City May 17-20th
Return Montreal Monday June 12th

All Inclusive Cost \$900

Includes return air transportation via KLM, hotel
accommodation and meals, motor coach and local
transportation, guides and entrance fees, portage
and transfer charges for one piece of baggage.

Hospitality will be extended by architectural societies
in the Netherlands, Switzerland, Italy and Spain.

Space for 79 Tour Members

Applications will be accepted in the order in which
they are received by the RAIC, 88 Metcalfe St. Ottawa.

All applications must be received by February 1st

Tour Director

Dr Thomas Howarth, Director, School of Architecture
University of Toronto

ITINERARY

May 21st, Quebec — Amsterdam; May 22nd, Amsterdam — Basel; May 23rd, Drive to Ronchamp; May 24th, Visit Rudolph Steiner's "Goetheanum" at Dornach, Evening to Zurich; May 25th, Zurich: housing projects, hospitals, schools; May 26th, Drive to Lucerne and return to Zurich; May 27th, (a) Zurich to Rome, (b) Zurich to Barcelona to see work of Antonio Gaudi, Iberia 7:00 — 10:30 or Swissair 2:20 — 6:00; May 28th, (a) Morning Tour of Rome— Afternoon free, (b) leave Barcelona (Iberia) at 11:40 arrive Rome 2:15; May 29th, Rome: the work of Nervi and others; May 30th, Tour of selected monuments; May 31st, Rome to Florence by motor bus through hill country via Assisi, Perugia, Arezzo; June 1st, Florence: morning, tour of city; afternoon alternatives, Uffizzi Galleries or visits to specific monuments; June 2nd, Florence, free day (recommended visit to Fiesole); June 3rd, Florence to Venice by road, via Ravenna; June 4th, Venice: morning, tour of city, afternoon free; June 5th, Venice: visits to specific monuments, afternoon free; June 6th, Venice to Milan by road, via Padua, Vicenza, Verona and Brascia; June 7th, Milan: afternoon tour of city; June 8th, Milan: visits to buildings by Ponte, Rogers, Peressuti, etc.; June 9th, Milan to Amsterdam by air KLM 2:45 - 5:30 p.m.; June 10th, Amsterdam; June 11th, Amsterdam - Rotterdam - Amsterdam (optional tour by road); June 12th, Amsterdam to Montreal 10:00 a.m. - 3:00 p.m.

From the Executive Director's Desk

THE PLACE OF CONSTRUCTION IN THE ECONOMY

IN A YEAR-END ECONOMIC REPORT to its readers, the Editors of the *Architectural Record* have suggested "historians may well conclude that 1960 was something more than just the first year of a new decade. It was apparently the end of an era, the year in which the last nail was driven into the coffin of the post-war period . . ."

In the United States, for the first time since the end of World War II, the building industry has failed to set new records in 1960. This was not too surprising. The construction industry had enjoyed by far its best year in 1959 with work in place running 15% above the previous record set in 1958.

The situation has been very comparable here in Canada. For that reason we have not been surprised to see the emphasis given in the Governor General's Throne Speech at the opening of Parliament on November 17, when His Excellency stated: "You will be asked to approve measures designed to increase immediate employment opportunities, and also measures which will constitute a large further instalment in the long-range program of national development".

The degree of seriousness attached by the Federal Government to the current economic situation, and the extent of the reliance by Ottawa on the construction industry to generate employment is reflected in the fact that ten of the first fourteen items of proposed legislative action forecast in the Throne Speech directly concern construction. Architects will be affected, if only indirectly, by means to accelerate winter works programs, continue Federal grants for hospital construction for five years beyond 1963, modify existing NHA legislation to encourage additional building activity, to undertake purchase, improvement and rental of existing housing in areas of urban redevelopment, and to make new type loans to universities for students' residences.

These are all potentially useful measures, and are balanced in the sense that they apply to a wide variety of construction, notwithstanding claims that government capital were better employed these days in diversifying production and expanding existing production than in financing new housing and public works.

The lower volume of construction activity this year to date means that the government's 1960-1961 legislative program will be warmly welcomed. In British Columbia the January-October building permit totals were down fifty million dollars over the same period in 1959; in Alberta the drop was about sixty-three million; in Saskatchewan the figures sagged by twenty-four million; and only in Manitoba was a narrow gain recorded. Overall in Western Canada the decline in construction activity has averaged about 27% in 1960.

Elsewhere in Canada the same story is told.

What of 1961? The annual F. W. Dodge survey of more than 300 leading US economists' opinions indicates a moderately dim view of the immediate outlook. It appears that the first half of 1961 in North America will see the low point and that the second half is likely to bring a decidedly brighter outlook to the scene.

LA PLACE DE LA CONSTRUCTION DANS L'ÉCONOMIE

DANS UN ARTICLE DE FIN D'ANNÉE sur la situation économique, l'*Architectural Record* déclare qu' "aux yeux des historiens, l'an 1960 aura peut-être été non seulement la première année d'une nouvelle décennie, mais la fin d'une époque, l'année du dernier clou planté dans le cercueil de l'après-guerre . . . Certains secteurs de l'économie ne font que commencer à se rendre compte de l'ampleur de la transformation . . ."

Aux États-Unis, l'industrie du bâtiment, pour la première fois depuis l'après guerre, n'a pas atteint un nouveau sommet en 1960. Il n'y a pas lieu de s'en étonner, car en 1959, elle avait connu, et de beaucoup, sa meilleure année, l'emploi dépassant par moments de 15 p. 100 le sommet précédent, établi en 1958.

Au Canada, la situation est à peu près la même, d'où l'importance accordée à la question à l'ouverture du Parlement, le 17 novembre, dans le discours du trône: "Vous serez invités à approuver des mesures destinées à accroître immédiatement les occasions d'emploi, ainsi que des mesures qui constituent une autre tranche importante du programme à long terme d'expansion nationale".

Le gouvernement fédéral se préoccupe sérieusement de la conjoncture économique, et compte sur l'industrie du bâtiment pour créer de l'emploi. A preuve, dix des quatorze premières mesures législatives annoncées dans le discours du trône intéressent directement la construction. Les architectes seront atteints, au moins indirectement, par les mesures visant à accélérer les programmes de travaux d'hiver, à prolonger de cinq ans au delà de 1963 les subventions fédérales à la construction d'hôpitaux, à modifier la Loi nationale sur l'habitation afin de stimuler la construction, à acheter, améliorer et louer des maisons existantes dans les zones de réaménagement urbain, et à consentir de nouveaux genres de prêts aux universités pour la construction de maisons d'étudiants.

Toutes ces mesures peuvent être utiles, et sont équilibrées en ce sens qu'elle s'appliquent à des genres de construction très divers, même si certains trouvent que le gouvernement aurait mieux fait de diversifier et de stimuler la production.

La construction étant à la baisse, le programme législatif de 1960-1961 recevra un chaleureux accueil. En Colombie-Britannique, la valeur des permis de construction émis de janvier à octobre a baissé de 50 millions par rapport à la période correspondante de 1959; en Alberta, la baisse a été d'environ 63 millions; en Saskatchewan, de 24 millions. Le Manitoba seul a enregistré une hausse, d'ailleurs légère. Le fléchissement de la construction dans tout l'Ouest canadien a été en moyenne de 27 p. 100 en 1960.

Ailleurs au Canada, le tableau est le même.

Que nous réserve 1961? L'enquête annuelle F. W. Dodge sur les opinions d'au delà de 300 économistes américains de renom est un peu pessimiste quant aux perspectives immédiates. L'économie nord-américaine atteindrait son point le plus bas dans la première moitié de 1961, mais il y aurait un redressement marqué dans la seconde moitié.

Tour de l'Europe de l'IRAC après l'Assemblée de 1961

Trois semaines aux Pays-Bas,
en Suisse, Italie, Espagne

Départ: Montréal le 21 mai 1961, le dimanche clôturant
l'Assemblée à Québec du 17-21 mai. Retour à Montréal
lundi le 12 juin

Le Billet Aller-Retour \$900

Inclus: traversée en avion KLM, logement, repas, autobus,
guides, entrées, portage & enregistrement d'une valise;
hôtellerie assurée par les associations professionnelles
hollandaises, suisses, italiennes et espagnoles.

La Participation est limitée à 79 membres seulement

Réservations par ordre de date d'entrée
à l'IRAC, 88 rue Metcalfe, Ottawa.
Clôture le 1er février.

Gérant du Tour:

Dr Thomas Howarth, Dept d'Architecture
de l'Université de Toronto

ITINÉRAIRE

Dimanche 21 mai, Québec-Amsterdam; 22 mai, Amsterdam-Bâle; 23 mai, visite à Ronchamp; 24 mai, visite du "Goetheum" de Rudolph Steiner à Dornach; Zurich en soirée; 25 mai, Zurich: projets d'habitation, hôpitaux, écoles; 26 mai, visite de Lucerne et retour à Zurich; 27 mai, (a) Zurich à Rome, (b) Zurich à Barcelone pour y voir l'oeuvre d'Antonio Gaudi, Iberia 7:00 — 10:30 ou Swissair 2:20 — 6:00; dimanche 28 mai, (a) visite de Rome en matinée; après-midi libre; (b) départ de Barcelone (Iberia) à 11:40, arrivée à Rome 2:15; 29 mai, Rome: oeuvres de Nervi, et autres; 30 mai, visite de certains monuments; 31 mai, Rome à Florence en autobus, par pays montagneux via Assise, Perouse, et Arezzo; 1 juin, Florence: matin, tournée de la ville; après-midi, choix entre Galeries Uffizi et visites à des monuments particuliers; 2 juin, Florence: journée libre; (visite à Fiesole recommandée); 3 juin, Florence à Venise par la route, via Ravenne; dimanche 4 juin, Venise: matin, tournée de la ville; après-midi libre; 5 juin, Venise: visites à certains monuments, après-midi libre; 6 juin, Venise à Milan par la route, via Padoue, Vicence, Vérone et Brescia; 7 juin, Milan: tournée de la ville dans l'après-midi; 8 juin, Milan: visite des immeubles construits par Pante, Rogers, Peressuti, et autres; 9 juin, Milan à Amsterdam en avion KLM, 2:45 — 5:30 de l'après-midi; 10 juin, Amsterdam; dimanche 11 juin, Amsterdam-Rotterdam-Amsterdam (voyage facultatif en autobus); lundi 12 juin, Amsterdam à Montréal 10:00 du matin à 3:00 de l'après-midi.

THE 54th ANNUAL ASSEMBLY AT QUEBEC

THE 54TH ANNUAL ASSEMBLY OF THE RAIC, and the first Institute Convention to be held in the capital of Quebec Province since 1951, will convene at the Chateau Frontenac, Quebec City, from Wednesday through Saturday, May 17-20, 1961. The Chairman of an eight member Convention Host Committee is Gerard Venne (F) of Quebec.

The 1961 Assembly theme is "The Architect and the Building Community (L'architecte et la Communauté de la Construction)". This theme, which denotes co-operation among members of the building industry team, has been selected for the next Assembly because members of the Executive Committee of Council believe that a closer identity of interest between architects and consulting engineers, contractors, suppliers, realtors, developers, planners, and municipal officials is in the public interest, and more important, is now in the course of being formulated.

Beyond question, what might be considered a potential major contribution to the development of better understanding between elements in the construction industry has been the report of the Committee of Inquiry into the Design of the Residential Environment. The Committee survey began in 1959 as a close surveillance of design in residential construction, but broadened in its treatment to include many important considerations beyond the original terms of reference. During the twelve months separating release of the Committee of Inquiry report at Winnipeg on June 1 and the meeting of RAIC members at Quebec City next May 17, important steps will have been taken toward achieving a practical realization of many among the thirty-two recommendations included in the report.

Added to the significance of this RAIC document, which we are now asking other interested bodies to help us implement, was the establishment in early September of 1960 of the Joint RAIC-CCA Committee on Building Materials, which comprises five architects selected for their special qualifications, and five manufacturers who are members of the Manufacturers and Suppliers Section of the Canadian Construction Association. The basic purpose of the Joint Committee is to achieve, through liaison and co-operation, better quality product literature.

Still another joint committee formed in January 1960 by the Institute and the Canadian Council of Professional Engineers is the National Joint Architect-Engineer Committee, which meets twice yearly and exists to provide an

opportunity for exchange of information between engineers and architects at the national level.

Joint committees are established by sponsoring bodies who harbor the hope that the stated purpose of providing permanent liaison and a periodic sounding-board for committee members, is worth developing and perpetuating. It operates from a basic premise that each party must attempt to understand and take into account the point of view, policy and program of the other party. It also recognizes the value, given machinery for co-operation, of stating varying opinions and introducing contentious issues so that they may be seriously discussed, and reconciled or resolved.

Accordingly, we have asked Philip Will, President of the American Institute of Architects, to address the keynote luncheon of the 1961 Quebec Assembly on Thursday, May 18, and he has accepted. An active member of the well-known Chicago firm of Perkins & Will, Mr Will will develop the Assembly theme in his remarks.

As a measure of pre-convention planning, the RAIC has invited several distinguished representatives of the construction industry to participate in the "Building Community" seminar at Quebec on the morning of Friday, May 19. Panel members will be: Raymond Brunet, Ed Brunet Construction, Hull, Que., Past President of the Canadian Construction Association and Chairman of the National Joint Committee on Wintertime Construction; W. N. Hall, FCIC, President, Dominion Tar & Chemical Company Limited, Montreal, and President of the Chemical Institute of Canada; and Marvin Allan, a principal in the well-known Toronto firm of architects, Marani, Morris & Allan. The fourth member of the panel will be a consulting engineer from Western Canada. The Chairman of the panel will be the President of the PQAA.

With a view to precipitating pre-convention discussion about the theme "The Architect and the Building Community", panel participants have been asked to prepare articles for publication in the RAIC Journal commencing January 1961 and continuing until May. Accordingly, the first of four articles will appear in the January 1961 issue over the signature of Raymond Brunet.

It is hoped that members of the Institute will find much food for thought in the course of undertaking an assessment of the views expressed by our guest contributors during the weeks preceding the Annual Meeting of the RAIC at Quebec City.

Harland Steele (F), President, RAIC

LA 54^e ASSEMBLEE ANNUELLE A QUEBEC

LA 54^e ASSEMBLEE ANNUELLE DE L'IRAC, et le premier congrès de l'Institut à être tenu dans la vieille capitale depuis 1951, auront lieu au Château Frontenac, à Québec, du mercredi 17 mai au samedi 20 mai 1961. Le comité de réception du congrès, composé de huit membres, est sous la présidence de M. Gérard Venne (F), de Québec.

L'assemblée de 1961 aura pour thème général "L'architecte et la communauté de la construction" (The Architect and the Building Community). Ce thème évoque l'esprit d'entraide qui doit régner au sein de l'industrie du bâtiment; les membres du comité exécutif du conseil l'ont choisi parce qu'à leurs yeux, l'intérêt public exige la création de liens plus étroits entre l'architecte, l'ingénieur-conseil, l'entrepreneur, le fournisseur, l'agent d'immeuble, l'instigateur de projets d'habitation, l'urbaniste et les autorités municipales. Chose plus importante, ce rapprochement est déjà amorcé.

Il est indiscutable que le rapport du Comité d'enquête sur les conditions de l'habitation pourrait jouer un grand rôle dans l'établissement d'un meilleur climat d'entente entre les divers éléments de l'industrie de la construction. Au début de son enquête, soit en 1959, le comité devait se contenter de scruter dans le détail les plans utilisés dans la construction domiciliaire, mais il a été amené par la suite à aborder un grand nombre de considérations importantes qui n'avaient pas, à l'origine, été prévues dans son mandat. Pendant les douze mois qui se seront écoulés entre la publication du rapport du comité d'enquête, publié à Winnipeg le 1er juin, et l'assemblée des membres de l'IRAC qui doit avoir lieu à Québec le 17 mai prochain, on aura pris d'importantes dispositions pour donner une application concrète à plusieurs des trente-deux recommandations formulées dans le rapport.

Pour ajouter à la portée de ce document de l'Institut, que nous demandons aujourd'hui aux autres groupements intéressés de nous aider à appliquer, on a créé, au début de septembre 1960, le Comité mixte IRAC-ACC des matériaux de construction. Ce comité groupe cinq architectes choisis pour leurs qualifications spéciales et cinq industriels membres de la Section des fabricants et des fournisseurs de l'Association canadienne de la construction. Le rôle principal du Comité mixte est d'améliorer, par un effort de liaison et de collaboration, la qualité des imprimés publicitaires.

Un autre comité mixte a été formé en janvier 1960. Il s'agit du Comité mixte national des architectes et des ingénieurs, qui réunit deux fois par année des représentants

de l'Institut et du Conseil canadien des ingénieurs professionnels, et dont l'objet est de favoriser les échanges de renseignements entre ingénieurs et architectes au niveau national.

Lorsqu'on crée un comité mixte, c'est qu'on croit de part et d'autre à l'utilité d'assurer une liaison permanente et de permettre des échanges de vues périodiques entre les membres de ce comité. On pose en principe, au départ, que chacune des parties s'efforcera de comprendre le point de vue, la ligne de conduite et le programme de l'autre et en tiendra compte. On reconnaît en même temps l'utilité, une fois créé le rouage voulu pour assurer la collaboration, de confronter les opinions diverses et d'aborder les questions litigieuses afin que, par une étude sérieuse, on puisse arriver soit à concilier soit à une résoudre les oppositions.

Voilà pourquoi nous avons demandé à M. Philip Will, président de l'*American Institute of Architects*, de prononcer le discours-thème de l'assemblée de Québec, le jeudi 18 mai 1961. M. Will, qui est membre actif du réputé bureau d'architectes Perkins & Will, de Chicago, a accepté de faire les frais du discours.

En prévision du congrès, l'IRAC a invité plusieurs éminents représentants de l'industrie de la construction à participer à Québec, le matin du vendredi 19 mai, à un colloque sur la "Communauté de la construction". Le groupe d'experts comprendra M. Raymond Brunet, de la société Ed Brunet Construction, de Hull (Qué.), ancien président de l'Association canadienne de la construction et président du Comité mixte national de la construction d'hiver; M. W. N. Hall, FCIC, président de la Dominion Tar & Chemical Company Limited, de Montréal, et président de l'Institut de chimie du Canada; un ingénieur-conseil bien connu de l'Ouest canadien; et M. Marvin Allan, membre de la firme d'architectes Marani, Morris & Allan. Le groupe d'experts sera présidé par le président de l'AAPO.

Afin de mettre en vedette, avant le congrès, le thème "L'architecte et la communauté de la construction", on a demandé aux membres du groupe d'experts de rédiger des articles pour le *Journal de l'IRAC*. Ces articles paraîtront dans les livraisons de janvier à mai 1961. Le premier de la série sera un article de mots de M. Raymond Brunet; on le trouvera dans le numéro de janvier.

Puissent les membres de l'Institut trouver ample matière à réflexion dans les idées qui seront exposées par nos collaborateurs spéciaux au cours des semaines qui précéderont l'assemblée annuelle de l'IRAC à Québec.

Harland Steele (F), président, l'IRAC



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Institute News

Implementation of the Residential Environment Report

Following acceptance in principle of the Report of the Committee of Inquiry into the Design of the Residential Environment at the Annual Assembly last June, the RAIC-CMHC Joint Committee undertook a thorough examination of the 32 recommendations contained in the Report at meetings in July and September. The purpose of these meetings was to analyze the Report and to develop a program for implementation of the recommendations. One result was the separation of the recommendations into six categories: architectural profession, provincial, municipal, university, economic studies, and Central Mortgage and Housing Corporation and federal. Further separation of these recommendations was made into four groupings for immediate action to implement within the various categories. An elaboration of the four groupings and overall implementation program was discussed in the October issue of the *Journal*.

The RAIC-CMHC Joint Committee also proposed that the services of a full-time administrator be acquired by the Institute to take charge of the implementation program. The Executive Committee of the Institute endorsed this proposal and a national fund raising campaign was initiated with a target figure of \$15,000, the minimum amount required to support the program for one year. By the end of November approximately \$10,000 had been received through contributions from architectural firms and individual architects. The results are encouraging, and it is evident that the campaign to reach the \$15,000 objective is being strongly supported.

On November 14 the position of administrator was filled with the appointment of E. D. Fox, a Public Housing Officer at CMHC; and Miss Gail Morris, stenographer, also joined the staff of the Institute to assist Mr Fox.

While a distinct operation has now been established to administer the implementation program over the next 12 months, there is the likelihood that the program itself, or a significant part of it, will be carried on over a longer period. In an effort to obtain the additional financial support necessary over the next few years, the Institute has already approached one foundation in the United States for future financial aid.

Although the special implementation group did not come into the Institute until mid-November, considerable

work had earlier been done to ensure that the program would get underway as quickly as possible, the Institute having communicated with many national groups, such as the Town Planning Institute of Canada, the Canadian Society of Landscape Architects and Town Planners, the National House Builders' Association, the Canadian Federation of Mayors and Municipalities, the Canadian Housing Design Council, the Urban Development Institute (Ontario Division) and others. The purpose behind the initial contact with many of these groups was to ask them to consider possible roles they might take in the carrying out, both unilaterally and in cooperation with the RAIC and other organizations, those recommendations of the Report in which they had a particular interest and in which they may be able to make a particular contribution.

On November 22, RAIC representatives met at separate discussions with members of the Town Planning Institute of Canada, the Urban Development Institute (Ontario Division) and the National House Builders' Association to examine in more detail possible joint action by these groups in the implementation program. It was learned that a liaison committee had been established by the Town Planning Institute to study the question of support and cooperation in these matters. The Urban Development Institute expressed its willingness to designate a representative to work with the Ontario Association of Architects in developing its own program. The National House Builders' Association agreed to have a representative meet with the Ontario Association of Architects to discuss implementation of recommendations at the provincial level, and indicated that they would be considering what additional participation might be warranted on their part in contributing to the overall program.

Briefs relating to recommendations requiring direct action by the Federal Government have been forwarded to the Prime Minister, to the Federal Minister of the Department of Public Works and to CMHC. It is interesting to note that during a discussion in the House of Commons on November 2 on a resolution to amend the National Housing Act, reference was made by Mr F. C. McGee, Member for York-Scarborough, to the work of the RAIC Committee of Inquiry. Among other things, he said that several of the recommendations of the Residential Environment Report would be put into effect, in part, as a result of this resolution.

Provincial Associations have also been requested by the Institute to con-

sider specific action which may be taken at the provincial and local levels with respect to 13 of the recommendations and two of them, Ontario and Quebec, have already taken positive measures.

On December 7 a special conference, sponsored by the PQAA, took place in Montreal. The purpose of this conference was to stimulate interest and obtain support among organizations within the building industry in the Province of Quebec in dealing with the recommendations referred to the Quebec Association. Principal speakers at the conference included: Peter Dobush, (F), Chairman of the RAIC Committee of Inquiry; John Pratt, (M), MP, Mayor of Dorval; H. P. D. van Ginkel, AMT-PIC; Dr H. G. Dion, Vice-Principal, Macdonald College; J. L. Doucet, Deputy Minister, Department of Municipal Affairs; George S. Mooney, Executive Director, Canadian Federation of Mayors and Municipalities; J. A. Lowden, Manufacturers Life Insurance Company, and J. C. La Haye, MTPIC. It is expected that the resolutions which were presented to the plenary session at the conclusion of the conference will serve as a basis upon which a program will be developed to implement the recommendations referred to the PQAA.

The Ontario Association of Architects have also been active in considering what steps should be taken to implement the recommendations referred to them. The responsibility for the study and analysis of these recommendations was given to the OAA Committee on Housing Design under the chairmanship of R. Sterling Ferguson, of Ottawa. At the November 23 meeting of the Council of the OAA, the Committee's proposals for an implementation program were approved. It was proposed initially to call a meeting with builders to discuss certain basic issues of mutual concern to architect and builder; and following this, joint studies will be undertaken with other organizations to consider action in connection with specific recommendations. The Committee proposes as well to issue press releases, following meetings of these study groups, which will indicate what decisions have been reached and what further steps are proposed.

The implementation program has had an encouraging beginning, but much hard work will be required in the days ahead. Ultimate success depends very largely upon the active and continuing support, not only of persons and groups within the architectural profession, but of all individuals, organizations and public authorities whose activities have a bearing on our residential environment.

(Continued on page 536)



TSIN VAN

Ottawa: View of sunken garden, main lobby, spectator deck, control tower and cab

Three International Air Terminals

Ottawa

Architects, Gilleland & Strutt, Ottawa

*A. W. Ramsey, Chief Architect, Department of Transport
Structural, C. C. Parker, Hamilton*

Mechanical & Electrical, Nicholas Fodor & Associates, Toronto

General Contractor, Perini Ltd

Consultant on interior furnishings, Gordon Forest, Ottawa

Sculpture, Louis Archambault, Montreal

OTTAWA

HALIFAX

MONTREAL

DESIGN OF THE OTTAWA AND HALIFAX TERMINALS

BY J. W. STRUTT

The design of the Ottawa International Air Terminal commenced in 1955 and the building was due to be opened in June of 1959. The opening was delayed until June of 1960, however, as a result of the now famous "jet blast" — the breaking of the sound barrier by a fighter aircraft at low altitude immediately over the Terminal — causing damage due to pressure relief, such as breaking of glass, cracking of plaster, displacement of hung ceilings and movement of the curtain wall.

The design of the Halifax International Terminal commenced in 1957 and the building was opened in August 1960.

The experience gained through the design of the Ottawa Terminal assisted both the Department of Transport and ourselves greatly in meeting a two and a half year design and construction schedule for the Halifax Terminal.

Approximate cost of the Ottawa Terminal was five million dollars, and of the Halifax, four and a half million dollars.

Both buildings serve similar sized communities and similar functions. Both will accommodate a predictable growth of traffic over the next fifteen years, and both are easily expandable to accommodate future growth.

After a thorough study of the world's comparable air terminals, of which there are very few, a linear one level scheme was adopted with respect to both passenger and baggage handling, which best satisfied the requirements of this size of operation. Both buildings contain two separate operations. Emplaning passenger facilities together with deplaning domestic passenger facilities occupy the greater part of the building's main floor. Entirely separate and located at one end of the buildings are the Health, Immigration and Customs facilities, which serve deplaning foreign and international passengers. Extra waiting fa-



TSIN VAN

View of mezzanine and exit to spectator deck



TSIN VAN

View of main lobby and exit to aircraft



Ottawa: General view of building showing porte-cochere and main entrance

TSIN VAN

cilities exist in the Halifax Terminal for foreign passengers enroute to other parts of the country who are not required to pass through Customs but do have to be examined by Health and Immigration officials. Air passengers as well as sight-seers are further accommodated by cafeteria restaurant and spectators decks which, by the way, draw considerable revenue for the Department of Transport. Air traffic control in the form of the Control Tower, Radar Rooms, Meteorology, Airport Management, Air Lines offices and Department of Transport offices occupy the balance of the accommodation. The Ottawa Terminal contains two further facilities; one is a permanent Aircraft Museum housing Canada's achievements in this Air Age, which are considerable. The

other is an exhibition space in front of the main entrance, where government departments and industry may display current and topical displays of interest to people entering the capital.

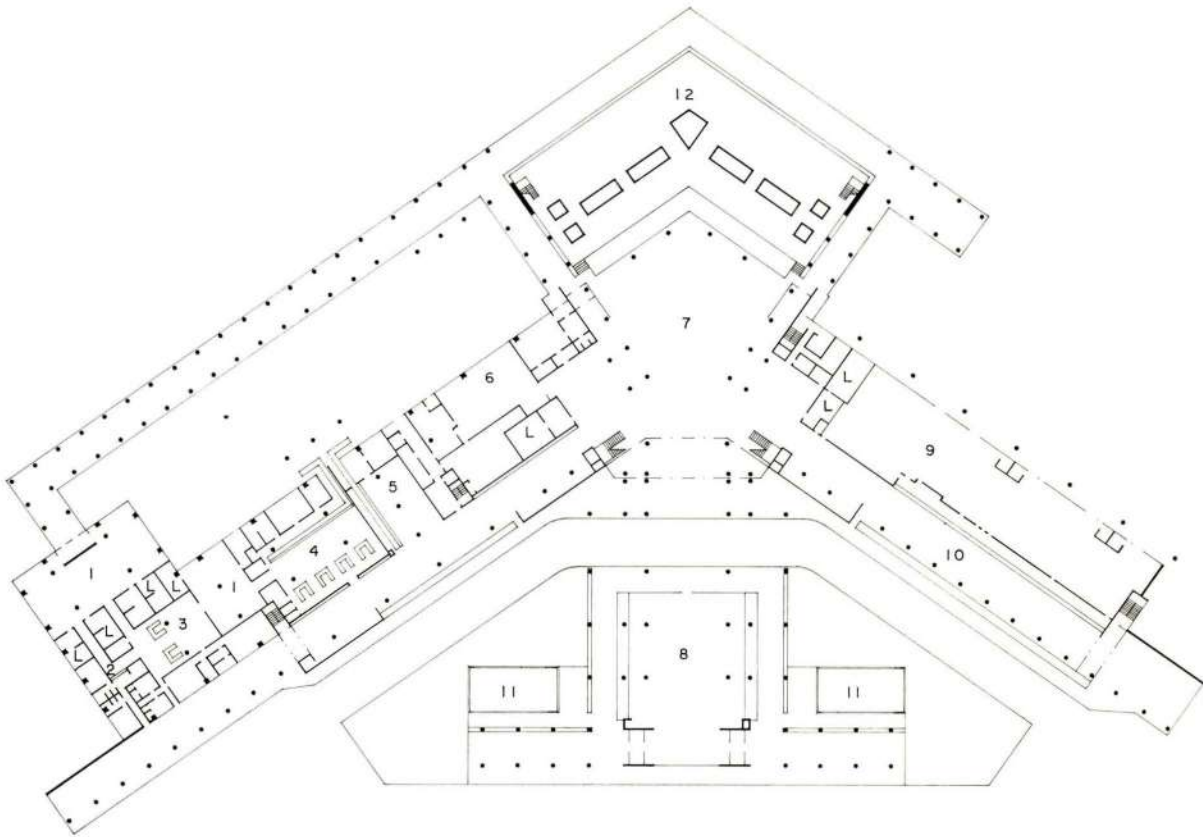
Structurally, both buildings are similar, being of steel frame enclosed with an aluminum curtain wall. A great number of studies were made in conjunction with the Robertson Irwin Company Ltd, to devise a floor duct system which would flexibly accommodate the power, telephone and communication systems which are vital to the operation of Air Traffic Control. The choice of interior finish materials was studied at great length with appropriateness to location and the community each served as well as specific functional re-

View of main lobby, sunken garden and spectator deck



TSIN VAN

Ottawa:
Ground floor plan



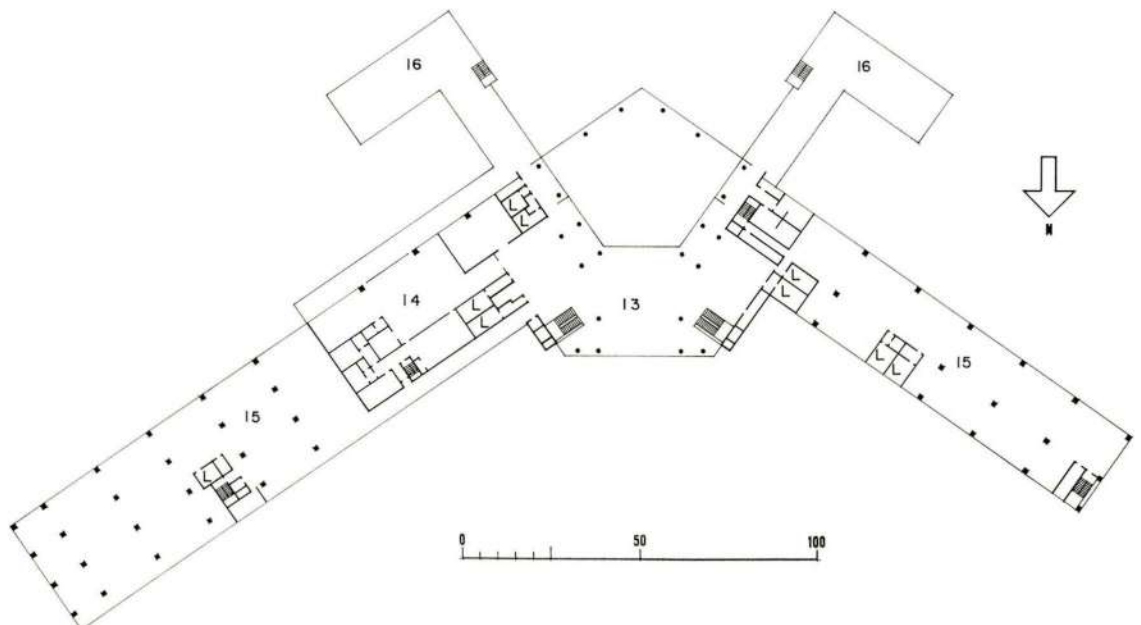
quirements being deciding factors. The lighting fixtures in the public areas of both buildings were designed by the architects. Local brick and tile were used in Halifax, while granite and marble were used at Ottawa. Floors in both buildings are terrazzo in the public areas and vinyl asbestos tile in the offices, etc. Furniture and drapes in the Ottawa Terminal were chosen by the architects. Landscaping for both buildings was designed by the architects in conjunction with the Chief Architect's branch of the Department of Transport.

One of the most satisfying aspects of the design of the Ottawa Terminal was the Department of Transport's interest in the use of sculpture as an integral part of the architectural concept. Sculptor Louis Archambault is to be commended for his conceptualization and co-operation in this regard. It has been most gratifying to hear the great number of favourable comments from lay people who are enjoying this contribution to the arts of Canada.

Legend

- 1 In-coming Waiting Room
- 2 Health Inspection
- 3 Immigration Inspection
- 4 Customs Inspection
- 5 Baggage Claim
- 6 Coffee Shop
- 7 Main Waiting Area
- 8 DOT Operational Area
- 9 Airlines Area
- 10 Ticket Lobby
- 11 Reflecting Pools
- 12 Sunken Gardens
- 13 Mezzanine-Waiting Area
- 14 Dining Room
- 15 Offices
- 16 Observation Decks

First floor plan



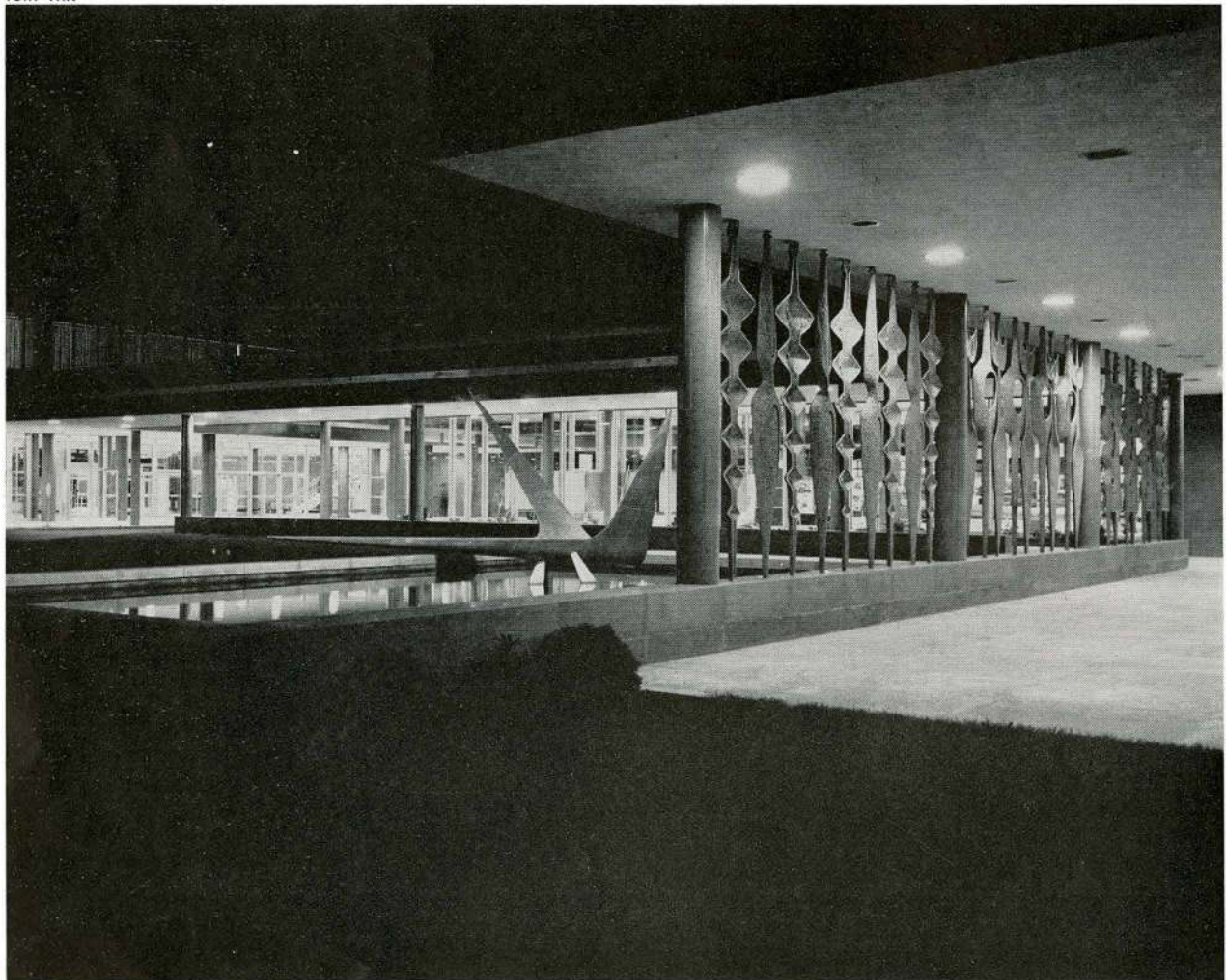


TSIN VAN

Ottawa: Night view of lobby, sunken garden and spectator deck

Night view of sculpture screen, pool sculpture and exhibition space in front of main entrance

TSIN VAN





MAURICE CROSBY

View of ticket lobby and main entrance from parking area

*Architects, Gilleland & Strutt, Ottawa
 C. D. Davidson & Co, Halifax
 A. W. Ramsey, Chief Architect, Department of Transport
 Structural, Adjeleian, Goodkey, Weedmark & Associates Ltd, Ottawa
 Mechanical & Electrical, Nicholas Fodor & Associates, Toronto
 General Contractor, Ellis-Don, London*

Halifax

Main lobby from mezzanine



MAURICE CROSBY

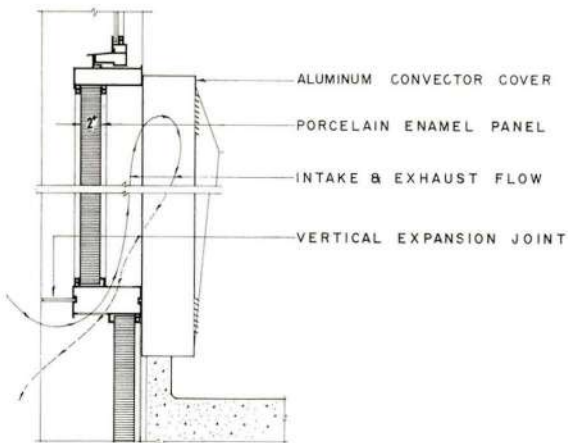


Left: view of sunken garden, main lobby and spectators' deck from tarmac

MAURICE CROSBY

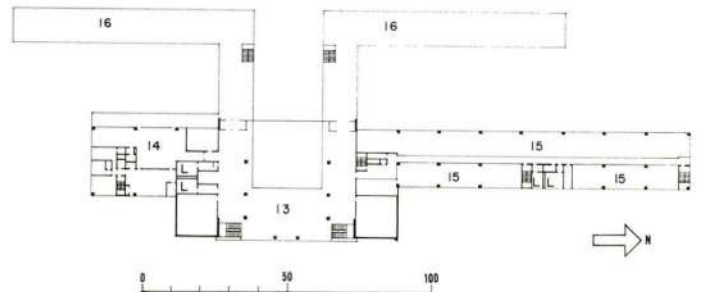
Legend

- 1 In-coming Waiting Room
- 2 Health Inspection
- 3 Immigration Inspection
- 4 Customs Inspection
- 5 Baggage Claim
- 6 Coffee Shop
- 7 Main Waiting Area
- 8 DOT Operational Area
- 9 Airlines Area
- 10 Ticket Lobby
- 11 Reflecting Pools
- 12 Sunken Gardens
- 13 Mezzanine-Waiting Area
- 14 Dining Room
- 15 Offices
- 16 Observation Decks
- 17 Parking Lot-Tunnels

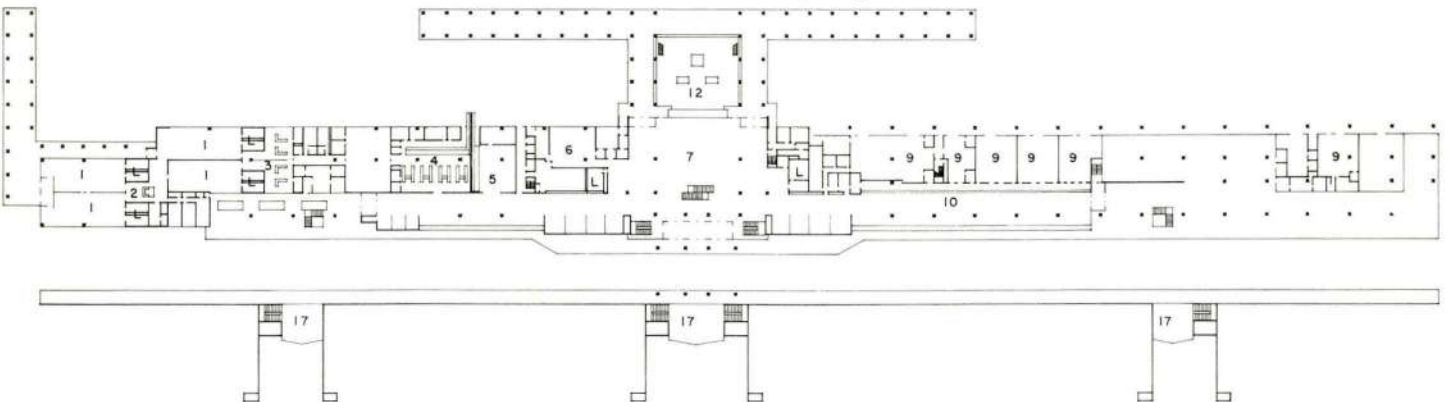


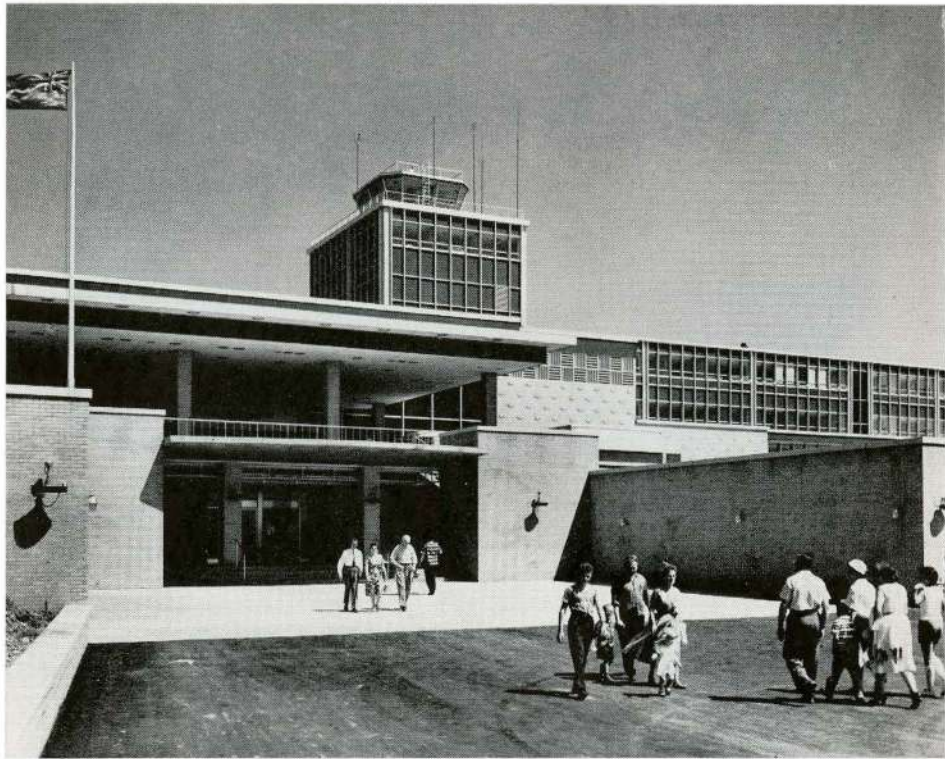
SECTION THROUGH AIR CONDITIONING UNIT AT SILL

First floor plan

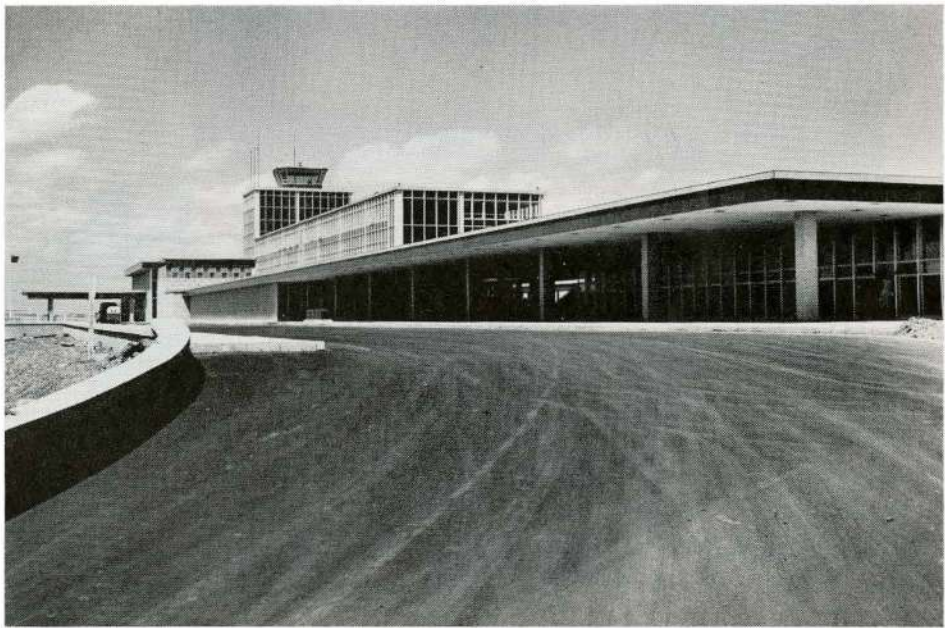


Ground floor plan





MAURICE CROSSBY

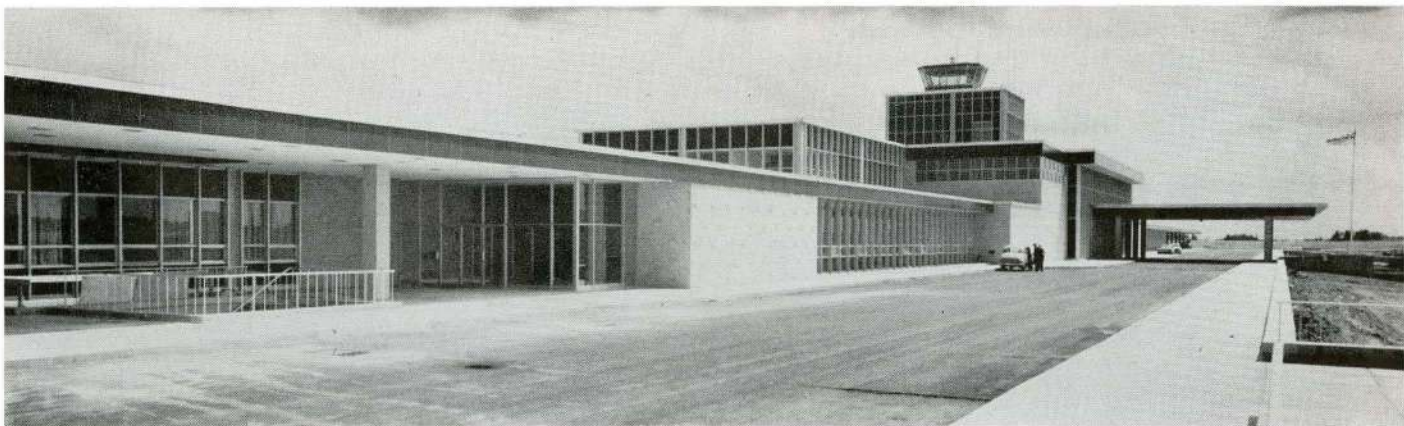


MAURICE CROSSBY

Top: lower level entry from parking lot

Right: general view from entrance road to ticket lobby

Below: view from upper road toward passenger exit and entrance to main lobby

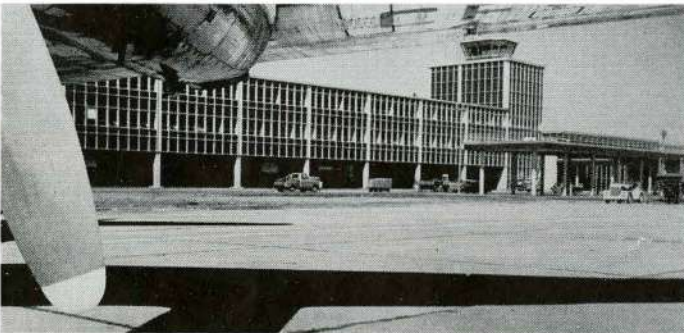


PANDA



View of spectators' deck from tarmac

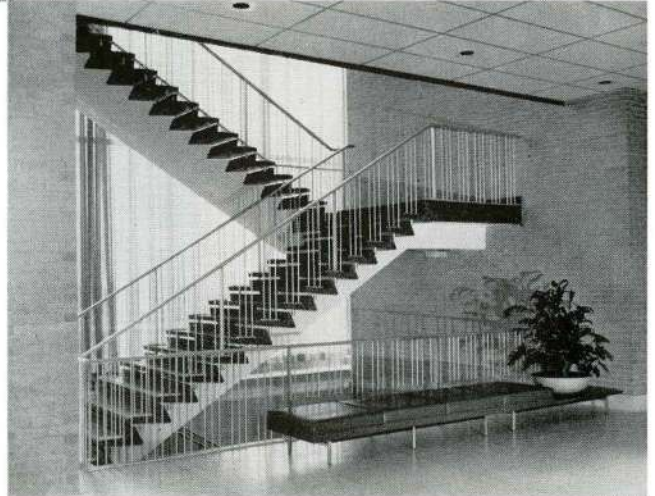
MAURICE CROSBY



Left: administrative wing and control tower from tarmac

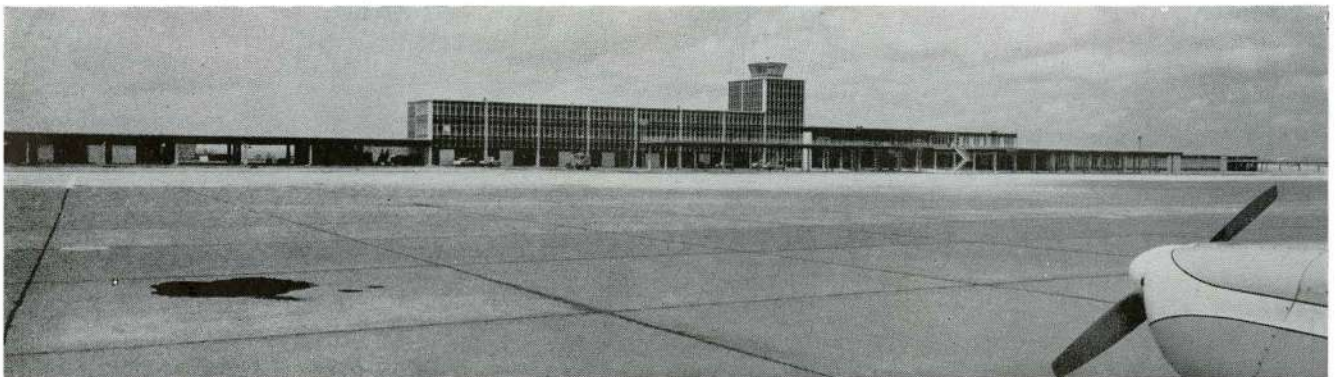
MAURICE CROSBY

Below: view of stair from main lobby to mezzanine



PANDA

General view of Halifax terminal from tarmac



PANDA

Main entrance from mezzanine and escalator to lower lobby



MAURICE CROSBY

View from main lobby of baggage claim waiting area and concession area



PANDA



View of main lobby

Architects:
Illsley, Templeton and Archibald, Montreal,
Larose and Larose, Montreal

Montreal

A. W. Ramsey, Chief Architect,
Department of Transport, Ottawa

BY GILLES LAROSE

MONTREAL, SEAT OF ICAO HEADQUARTERS and metropolis of Canada, can now boast the country's largest air terminal, and certainly one of the most modern in the world.

In the spring of 1954 the Department of Transport gave the commission for the designing of this great building to the Montreal architectural firms of Illsley, Templeton and Archibald and Larose and Larose. The structural designing was awarded to the engineering firm of Brouillet and Carmel; while the firm of Leblanc and Montpetit, consulting engineers, was given the task of designing the mechanical components, air conditioning system and electrical system.

When enough of the planning had been completed, tenders were called for the first phase of the work, which included the foundations and the reinforced concrete structure up to the ground floor. The contract was awarded to the Canamont Construction Company. A second stage in the construction was the structural steel work on the three upper floors and the air traffic control tower, and the contract was awarded to the Dominion Bridge Company. Finally, separate tenders were called for the main structure and for the superstructure of the aeroquays, and the task of completing the building was assigned to the Foundation Company of Canada. The contract for the foundations of the aeroquay was awarded to the Omega Company of Montreal.

The new air terminal is made up of a main building, 840 feet long and 295 feet wide, with three inner courts. The main block includes a basement, ground floor and four storeys, with two more storeys added in the control tower section. To the left and right hand sides of this main building are attached two one-storey wings, 400 and 1,000 feet long respectively, which are designed as aeroquays, and alongside of which planes are positioned to take on or let off passengers.

At the rear of the main building, and running parallel some 600 feet away, is another one-storey building, over 1,200 feet in length. It is connected to the main building by means of two tunnels and also is used as an aeroquay.

It provides enough room for twelve jet planes at once. In the centre of this aeroquay is a secondary control tower, which directs aircraft on the ground, up to take-off point.

All buildings are heated by a separate heating plant, built by the Department of Transport at some distance from the terminal and linked to it by a tunnel.

The outside shell of the building is largely made up of glass and aluminum curtain wall. All glass used is of the twin-pane type, thus ensuring better insulation and better sound-proofing against aircraft noise.

The aeroquays are sheathed with colored glazed brick-work, with doors and windows framed in stainless steel. Each plane station along the quays is equipped with aircraft refuelling hydrants.

A paved ramp, built into the front of the building, allows cars to carry departing passengers to the first storey level. The right hand side of the building is reserved for domestic passengers, while the left hand side is used for the more elaborate procedures of overseas traffic. To the right of the main domestic lobby are found various shops, and to the left are the airline wickets. Straight ahead is a wide glassed-in concourse connecting the two lobbies. Other ticket offices are located along this passage and on the right hand side of the international lobby. To the left of this lobby are other shops, a bank, etc.

Along the rear face of the building, and connected to an observation deck, is a great lounge, furnished with arm chairs and sub-divided by screens to ensure a degree of privacy for travellers waiting for their planes. Along the longitudinal circulation area at the rear are a snack bar and restaurant, day nursery, a bank branch office, etc. From the centre of the lounge, a monumental staircase, with steps of teakwood and tile, leads up to the second floor, where are located the great dining room and bar, which offer a view of the airfield. Also located at the same level is a luxury suite with bar and dining room, where hospitality can be extended to important visitors entering or leaving Canada. The second, third and fourth storeys are used for air line offices.

DOT. ANDRE SIMA



A traveller bound for Europe drives up to the first floor level, stops at the wicket of his airline to check his luggage, which is carried by conveyor to the ground floor for loading aboard the plane. Then he walks to the left of the rear lobby, through a control point, and on to an escalator that carries him down to the tunnel leading to the aeroquay. Having reached the other end of the tunnel, he takes an upward escalator to the emplaning level, and walks through a pastel walled corridor to the waiting room for his particular flight. It is from here that the passenger goes aboard his plane.

An incoming passenger takes a direct escalator from the arrival room for his particular flight down to the lower level of the aeroquay. He then goes through a tunnel running parallel to, but independent from the one mentioned above, and comes out into a hall on the ground floor, where customs and immigration offices are located. A number of waiting rooms are provided where travellers can wait for their turn to go through the usual procedures.

Luggage is carried from the plane by truck and loaded on to conveyors from a loading hall at the air strip level. The conveyors carry the luggage to a clever revolving device called a "carousel", where it is sorted. This is a new development, and it has attracted the attention of our American friends, who are considering using it for their Washington air terminal.

After going through customs, the traveller walks into a lobby and out through the exit, where he can step into a taxi.

As nothing should be left to chance in a building such as this, a small hospital is located above the customs and immigration offices, complete with emergency operating room and a few well equipped rooms for sick travellers. In the same part of the building, quarters with bedrooms are provided for travellers quarantined by the immigration authorities. A jail with a few cells is also provided for unwelcome visitors to Canada.

On the "domestic" side, of course, facilities are less elaborate. However, out-bound passengers also leave from the lobby on the first floor and returning travellers come in at the ground floor, where their luggage is sorted by three carousels. They can then step into their taxi just outside the waiting room.

Also on the ground floor is the administration entrance, facing which are three elevators leading to all upper floors, as well as a cafeteria for air line personnel and separate rooms for pilots and hostesses, etc.

Air cargo comes in through a ramp, on the right hand side of the building, leading to a courtyard, where trucks unload their cargo into the various air line depots.

It should be noted that both the yard and the entry ramps facing it are equipped with radiant panels to ensure quick elimination of snow in winter. The building is partly air conditioned, and provision has been made for extending the air conditioning on an optional basis to offices on the upper floors as they are occupied.

The first floor, which is the building's grand section, is lavishly lighted with very soft lights in the lounge and more intensely lighted ceilings in the lobbies and ticket concourses. Floors are finished in Venetian terrazzo and marble mosaic. Walls and pillars are covered with mosaics and marble.

Many odd shaped and richly colored wall panels are the work of ceramist Claude Vermette, of Ste Adele, Que, who is also responsible for some extremely fine tile murals in the lounge. The floors of the dining room lounge and bar are carpeted, and drapes contribute to a warm atmosphere.

It is also noteworthy that all signs are in three languages, French, English and Spanish.

Finally, with its present facilities, the new air terminal can accommodate twenty-three planes at once, and it is expected that the aeroquays will eventually be extended to provide room for twelve more aircraft. Montreal is thus assured of adequate air facilities for years to come.

AÉROGARE DE MONTRÉAL

PAR GILLES LAROSE

MONTREAL, SIEGE MONDIAL DE L'OACI et métropole du Canada peut s'enorgueillir de posséder maintenant la plus grande aéroport du pays, et certainement l'une des plus modernes du monde.

Au printemps 1954, les autorités du Ministère des Transports renaient les services des architectes Illsley, Templeton & Archibald et Larose & Larose pour préparer les plans de cet important édifice. Les plans de structure furent confiés aux ingénieurs Brouillet & Carmel et ceux de la mécanique, climatisation et électricité à Leblanc & Montpetit, ingénieurs conseils.

Lorsque les plans furent assez avancés, on demanda des soumissions pour une première phase des travaux, à savoir les fondations et la structure de béton armé jusqu'au rez-de-chaussée. Ce travail fut octroyé à la compagnie Canamont Construction. Une seconde étape de la construction fut l'octroi de la charpente d'acier des trois étages supérieurs et de la tour de contrôle du trafic aérien. Cet ouvrage fut exécuté par la Dominion Bridge Co. Enfin, le gros de l'ouvrage ainsi que la superstructure des

aéroquais fit l'objet de soumissions séparées et ce fut la Foundation Co. of Canada qui fut chargée de compléter l'immeuble. Les fondations des aéroquais avaient aussi été l'objet de soumissions qui favorisèrent la compagnie Oméga de Montréal.

L'ensemble de la nouvelle aéroport se compose d'un immeuble principal long de 840 pieds et large de 295 pieds avec trois cours intérieures. Le bloc principal comprend un sous-sol, un rez-de-chaussée et quatre étages. La partie où se trouve la tour de contrôle représente deux étages de plus. Ce corps principal est prolongé à gauche et à droite par deux ailes d'un étage, mesurant respectivement 400 et 1,000 pieds, qui forment des aéroquais près desquels les avions viennent se placer pour recevoir ou descendre leurs passagers. A l'arrière de l'immeuble principal, à 600 pieds de distance, parallèlement à ce dernier, un autre bâtiment d'un étage long de plus de 1,200 pieds relié au corps principal par deux tunnels, sert d'aéroport et peut accommoder douze avions réactés à la fois. Au centre de cet aéroport se trouve une tour de contrôle

secondaire d'où se fait la direction du trafic des avions au sol jusqu'à leur point d'envol.

Le chauffage de l'ensemble est assuré par une chaufferie séparée construite par le département des transports à distance de l'aérogare et reliée à cette dernière par un tunnel.

Comme nous le disions antérieurement, le revêtement extérieur de l'immeuble est fait en grande partie de murs écrans de verre et d'aluminium. Tout le vitrage est à parois doubles, ce qui assure une plus grande étanchéité au froid et aussi au bruit des avions. Les aéroquais eux sont revêtus de brique vernissée colorée et les montages métalliques des fenêtres et portes sont en acier inoxydable. Vis-à-vis chaque poste d'avion, aux aéroquais, il y a des bornes d'amenées de carburant pour faire le plein des appareils.

En façade, on remarque une rampe pavée permettant aux voitures de descendre les voyageurs "partants" au niveau du premier étage. Le côté droit de l'immeuble est réservé aux passagers des lignes dites domestiques tandis qu'à gauche se trouvent les services plus compliqués des passagers à destination d'outre-mer. A droite du grand lobby "domestique", on trouve des boutiques variées, et à gauche, ce sont les guichets des compagnies aériennes. En façade, un grand déambulatoire largement vitré relie les deux lobbys ensemble. Le long de cette circulation, on trouve d'autres guichets de billets de même que sur la droite du lobby "international" de gauche. Du côté gauche de ce même lobby sont logées d'autres boutiques, dont une banque, etc. Le long de la façade arrière, ouvrant sur une terrasse d'observation, se trouve un immense lounge pourvu de fauteuils et subdivisé par des écrans discrets où les voyageurs peuvent se reposer en attendant l'heure du départ. Donnant sur la circulation longitudinale arrière, on trouve un casse-croûte et un restaurant, une garderie pour enfants, une succursale de banque, etc. Au milieu du lounge, un escalier monumental aux marches de teck et céramique conduit au second où se trouve la grande salle à manger et le bar avec vue sur les pistes d'envol. A ce même niveau, on trouve aussi une suite d'apparat avec bar et salle à diner pour la réception des hôtes de marque arrivant ou quittant notre pays. En façade, les 2e, 3e et 4e étages sont réservés à l'usage des bureaux des compagnies aériennes.

Le voyageur qui prend l'avion d'Europe arrive donc en voiture au niveau du 1er étage, passe au guichet de la compagnie dont il doit prendre l'avion, y remet sa malle qui est envoyée par convoyeur au rez-de-chaussée pour le chargement. Il se rend à gauche du lobby arrière où il passe un vestibule de contrôle et de là prend un escalier mobile qui l'amène au niveau du tunnel conduisant à l'aéroquai. A l'autre extrémité du tunnel, il remonte par escalier mobile au niveau des départs et se rend à la salle d'attente de son avion en suivant un corridor aux murs de tons pastel. De cette salle d'attente, on le fait monter à bord. Au retour, le voyageur utilise directement de la salle d'arrivée de son avion un escalier mobile qui l'amène au niveau inférieur de l'aéroquai d'où il prend un tunnel jumelé, mais indépendant du premier, qui l'amène jusqu'à une salle où se trouve le service de l'immigration et des douanes au rez-de-chaussée de l'aérogare. A cet endroit, de nombreuses salles d'attente permettent aux voyageurs de s'asseoir en attendant de remplir les forma-

lités habituelles. Les bagages des voyageurs sont amenés des avions par des camionnettes qui les déposent sur des convoyeurs partant d'un hall à cet usage au niveau des pistes d'envol. Les convoyeurs amènent les malles jusqu'à un appareil rotatif appelé carrousel qui distribue les bagages de façon fort ingénieuse et qui est une innovation que nos amis les américains sont venus voir en vue de l'appliquer à leur aérogare de Washington. Une fois les barrières des services des douanes passées, le voyageur gagne un lobby situé vis-à-vis les portes de sorties d'où il peut prendre son taxi. Cependant, comme il faut tout prévoir dans un immeuble de cet envergure, au premier étage, au-dessus des locaux du service des douanes et de l'immigration, on a aménagé un petit hôpital avec salle d'opération d'urgence et quelques chambres bien équipées pour recevoir les voyageurs malades. Dans cette même partie de l'immeuble sont prévus des locaux avec chambres à coucher pour les voyageurs retenus en "quarantaine" par le service de l'immigration. On a aussi prévu une prison avec quelques cellules pour les indésirables qui nous arriveraient par voie des airs.

Du côté des envolées domestiques, évidemment le système est plus simple, mais là aussi les départs se font depuis le lobby du premier étage et le retour se fait au rez-de-chaussée où trois carrousels distribuent les malles des voyageurs qui peuvent ensuite prendre leur voiture à la porte du hall d'attente. Au rez-de-chaussée, on trouve encore l'entrée de l'administration d'où partent trois ascenseurs conduisant à tous les étages. On trouve aussi une cafétéria pour les employés des lignes aériennes. Des locaux de repos pour les pilotes, d'autres pour les hôtes, etc. Les messageries elles, arrivent par une rampe d'accès à droite de l'immeuble communiquant avec une cour intérieure d'où les camions livrent leurs marchandises aux dépôts des différentes lignes aériennes. Notons que cette cour de service ainsi que les rampes d'accès en façade sont munies de panneaux radiants assurant la fonte rapide de la neige en hiver.

L'immeuble est en partie climatisé et des prévisions ont été faites pour que les bureaux, à mesure que les étages supérieurs seront utilisés, le soient à volonté.

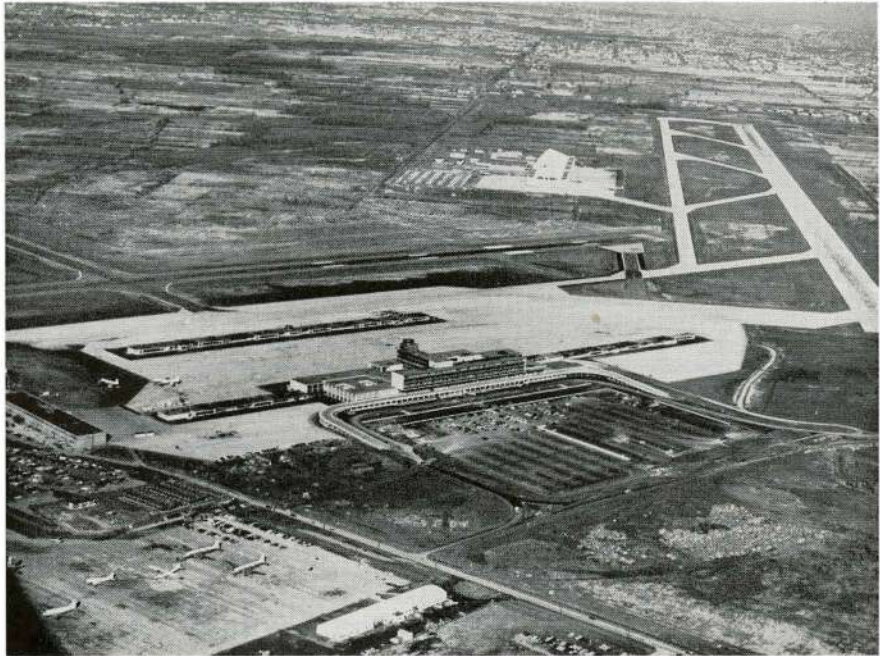
L'étage noble de l'édifice, le premier, est éclairé à profusion par des luminaires électriques très doux pour le lounge et des plafonds lumineux plus intenses pour les lobbys et services de vente des billets. Les parquets sont en terrazzo vénitien et en mosaïque de marbre. Les murs et colonnes sont revêtus de mosaïque et de marbre. De nombreux lambris de céramique aux formes et couleurs très riches sont l'oeuvre du céramiste Claude Vermette de Ste-Adèle, PQ. Au second, Vermette a aussi fourni de très belles céramiques qui décorent les murs du lounge. A cet étage, les parquets de la salle à diner du lounge et du bar sont couverts de tapis. Des tentures assurent la chaleur de l'ambiance.

On notera aussi que toutes les inscriptions sont faites en trois langues, soit le français, l'anglais et l'espagnol.

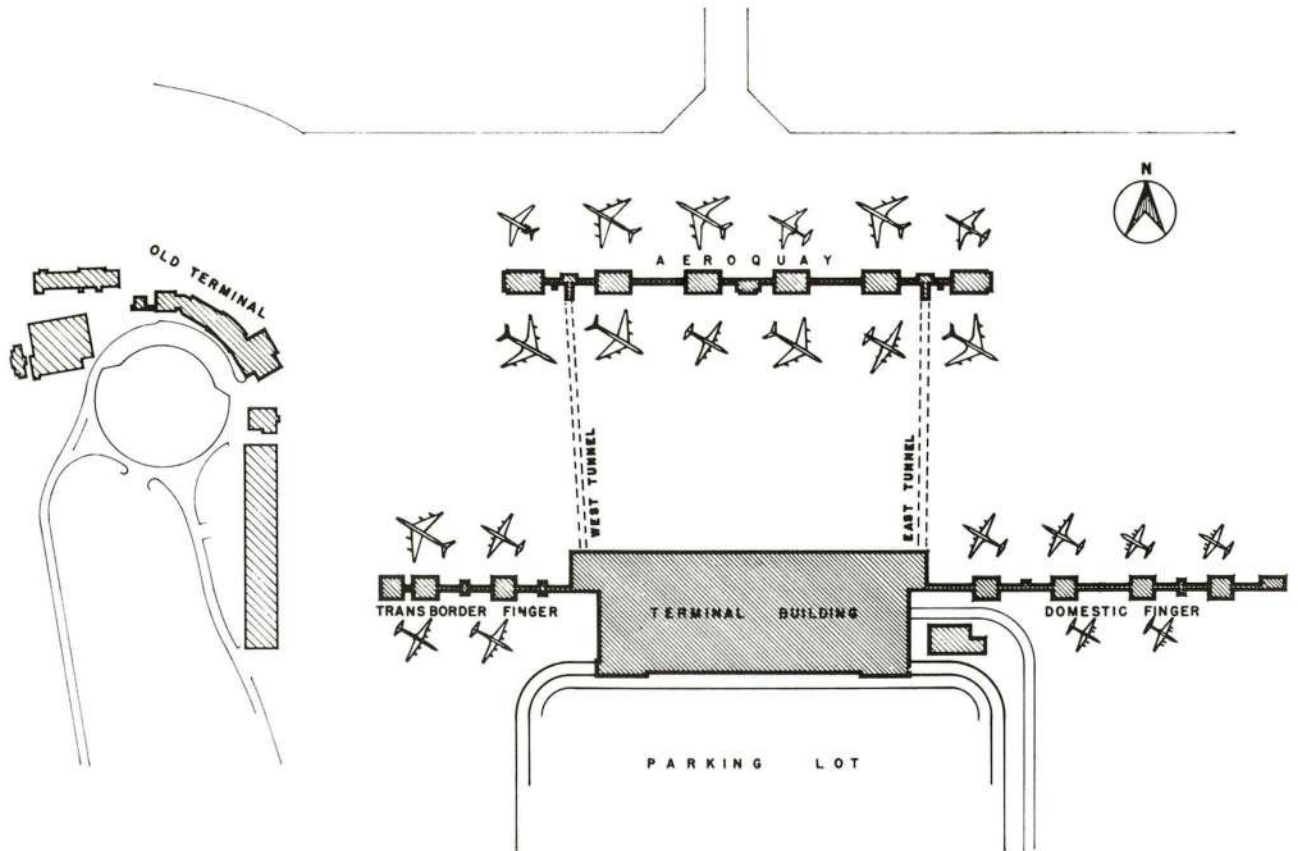
Enfin, les facilités qu'offre la nouvelle aérogare permettent d'accommoder vingt-trois avions simultanément et il est prévu qu'éventuellement les aéroquais seront prolongés pour en recevoir une douzaine de plus, ce qui assure à Montréal des commodités aériennes pour de nombreuses années à venir.



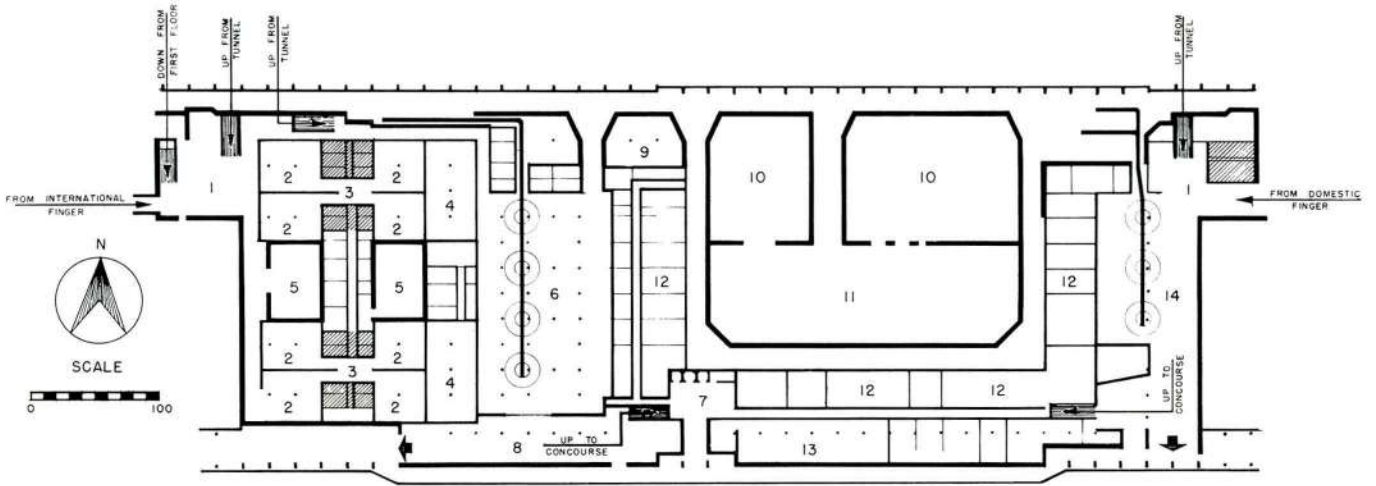
PANDA



LA PRESSE



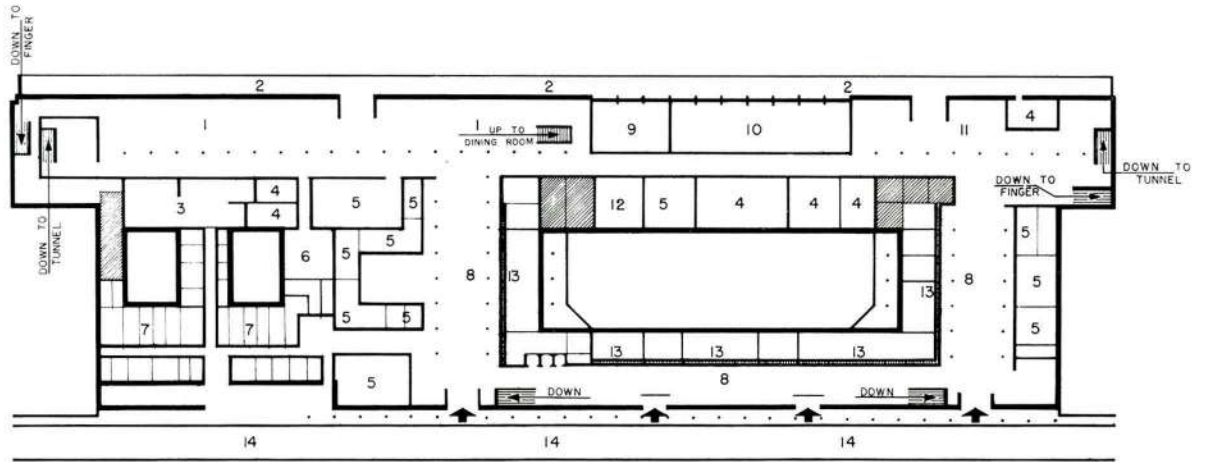
SITE PLAN
SCALE 0 100 200



Ground floor plan

Legend

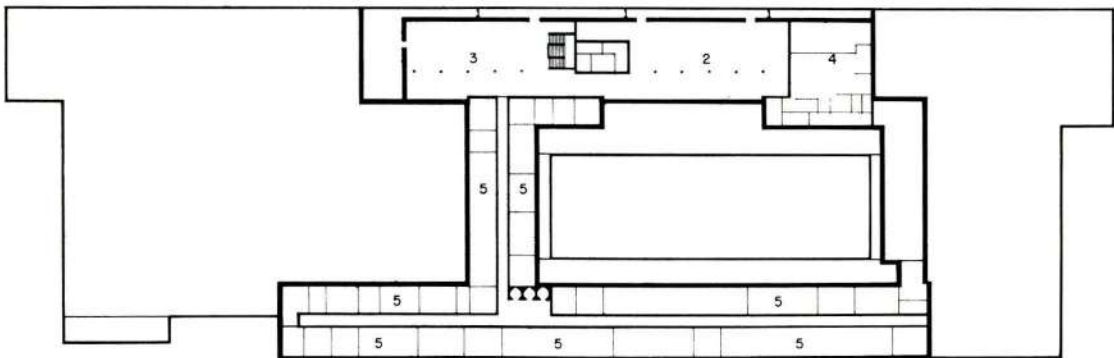
- | | | |
|----------------------------|----------------------------|---------------------------|
| 1 Arrival lobby | 6 Customs inspection | 11 Service court |
| 2 Immigration waiting room | 7 Staff lobby | 12 Airlines' baggage room |
| 3 Health inspection | 8 International exit lobby | 13 Staff cafeteria |
| 4 Immigration inspection | 9 Ramp staff lunch room | 14 Domestic baggage claim |
| 5 Light court | 10 Airlines' commissary | Washrooms shown hatched |



First floor plan

Legend

- | | | |
|---------------------------|--------------------|----------------------------|
| 1 Waiting room | 6 Reception suite | 11 Domestic waiting room |
| 2 Spectators deck | 7 Health | 12 Nursery |
| 3 In transit waiting room | 8 Ticket concourse | 13 Airline ticket counters |
| 4 Food services | 9 Reading room | 14 Elevated approach road |
| 5 Concession | 10 Lounge | Washrooms shown hatched |



Second floor plan

Legend

- | |
|-------------------|
| 1 Spectators deck |
| 2 Dining room |
| 3 Lounge |
| 4 Kitchens |
| 5 Offices |

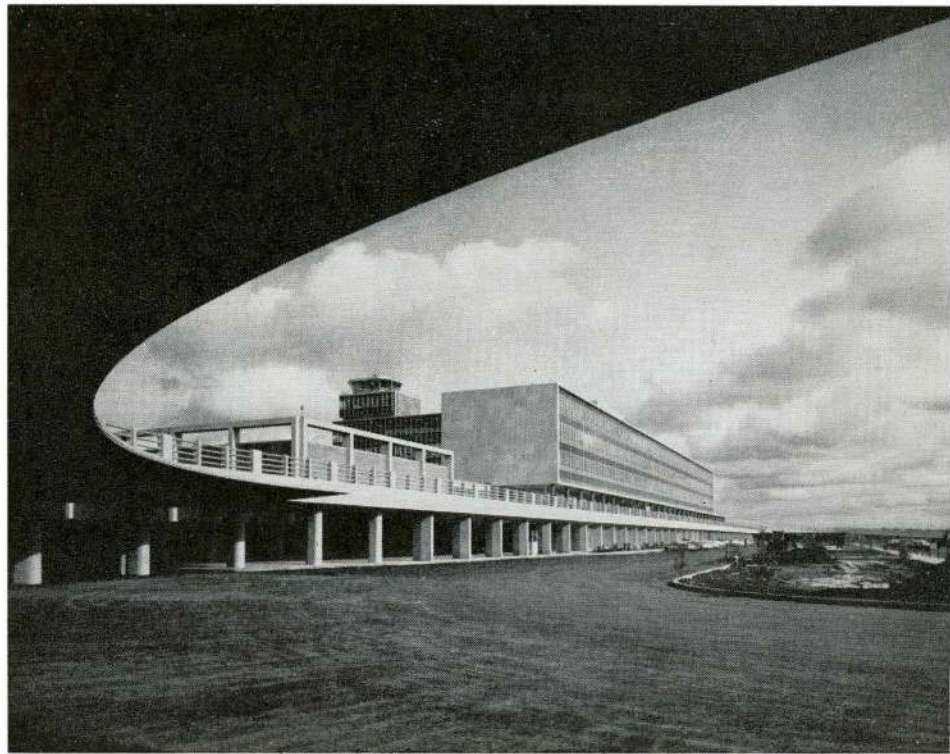


PANDA

Above: Front elevation from the east

Right: Main entrance front seen from near bus docking area, with protective canopy over

Below: Aerial view



DOT. ANDRE SIMA

PANDA



Right: International departure lobby

Centre Left & Right: Ticketing concourse

Bottom Left: International arrival lobby, Customs hall can be seen through glass screen on right

Bottom Right: Domestic arrival lobby. The "Carousel" (the circular delivery unit in the foreground) is served by overhead conveyer



PANDA



PANDA



PANDA

PANDA



PANDA





PANDA

Above: Stair to dining room and bar on second floor

Right: A typical passenger waiting room for international arriving passengers preparatory to health and immigration inspection

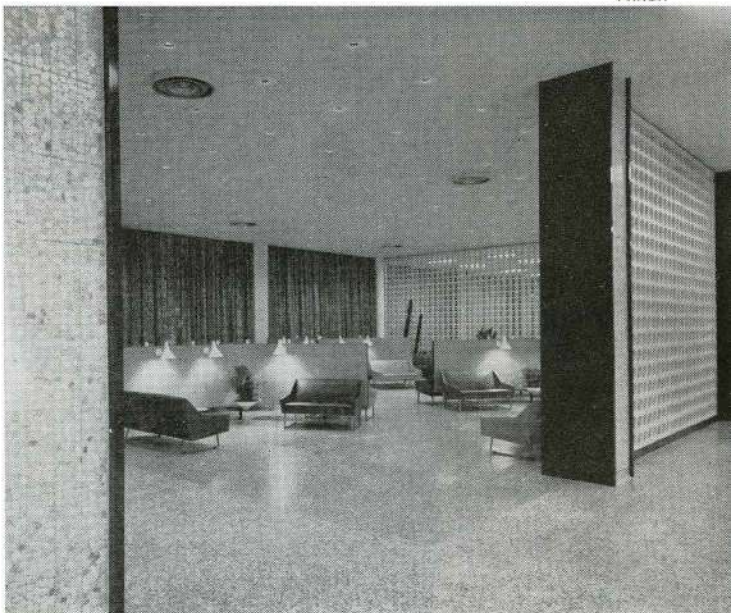
Below Left: Lounge and writing room

Below Right: Corner of main lounge, showing perforated plaster screen



PANDA

PANDA



PANDA



PANDA

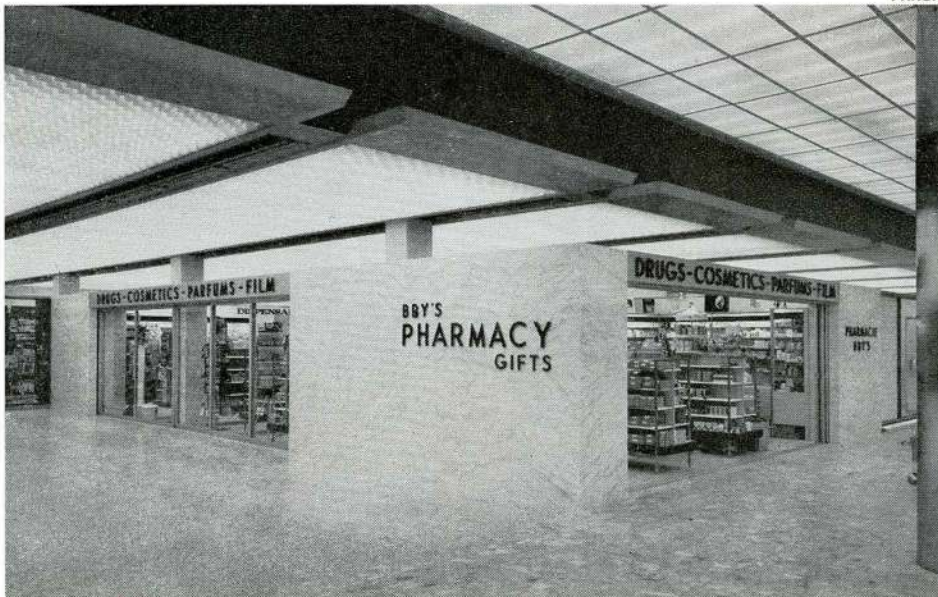


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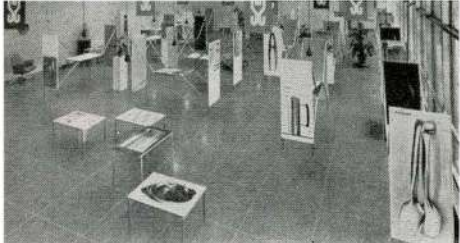
Top: Part of main lounge

Left: International customs inspection benches

Below: A drug store in the first floor concession area



PANDA



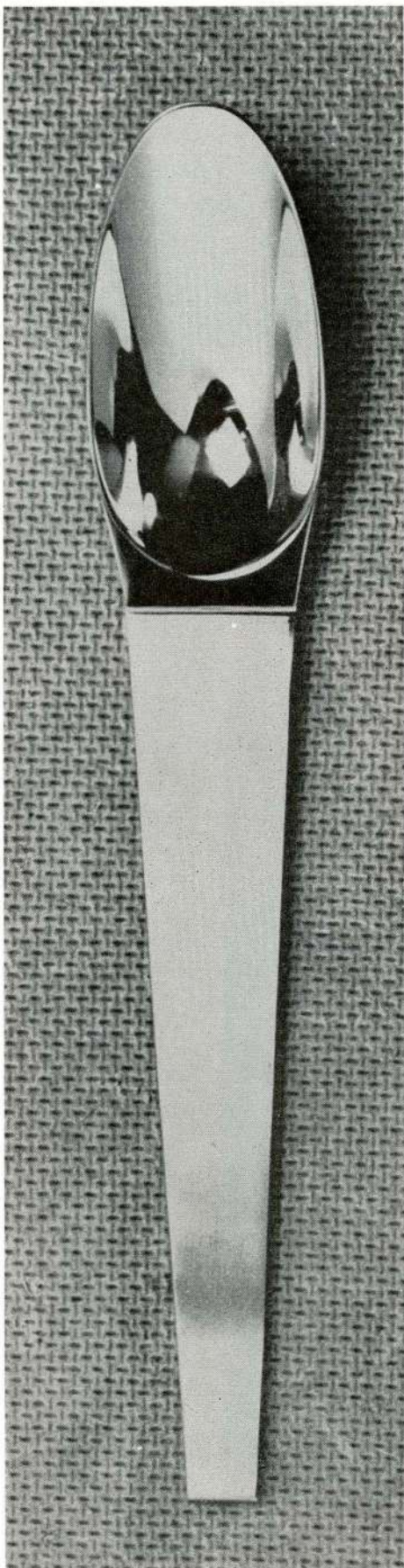
Stainless

Steel

Design

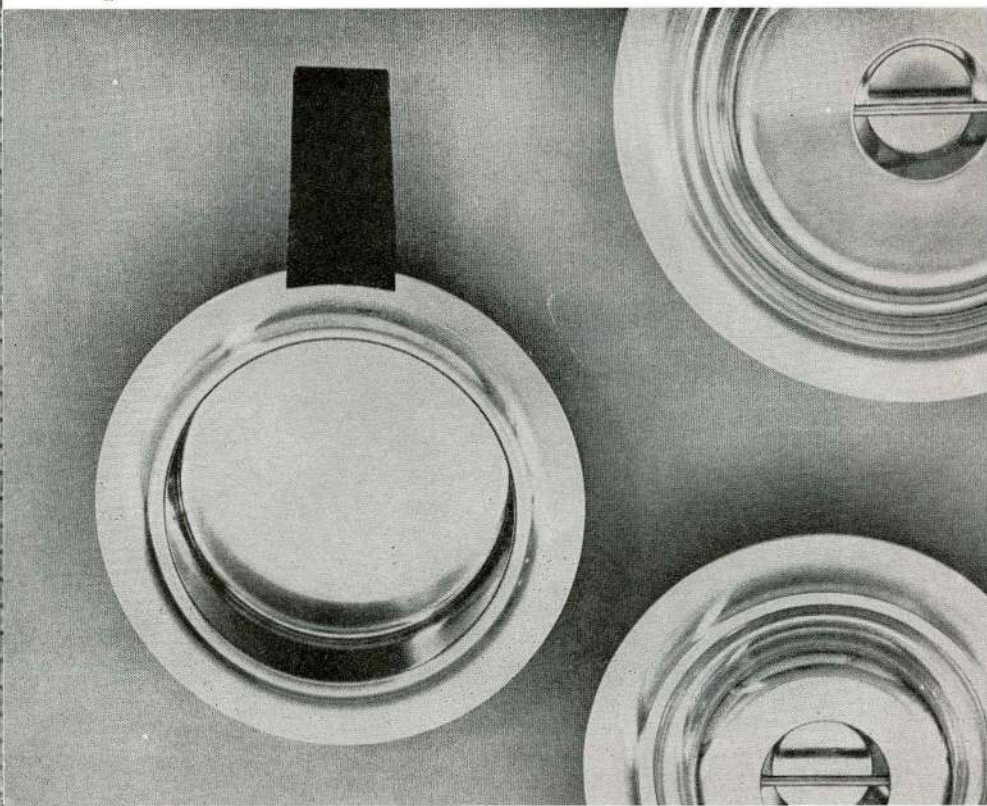
Awards

1960



1

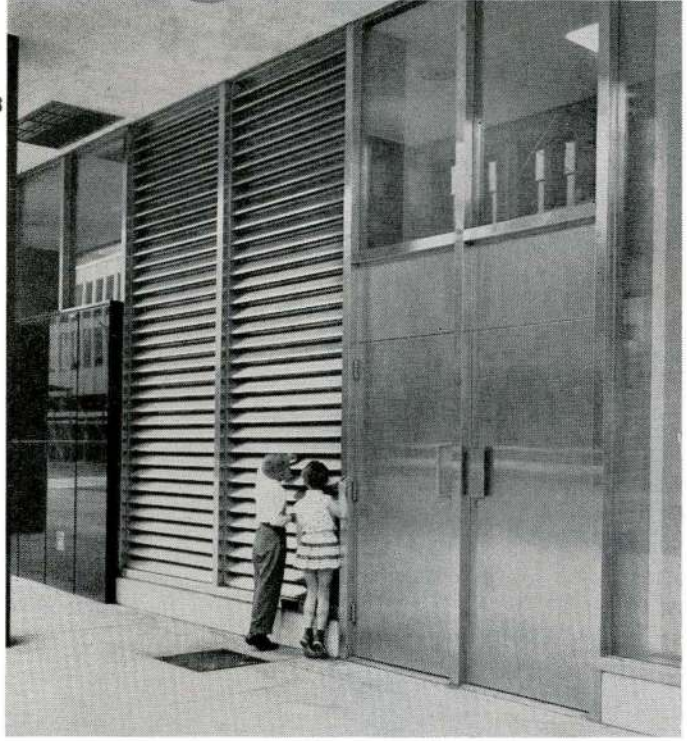
2



4

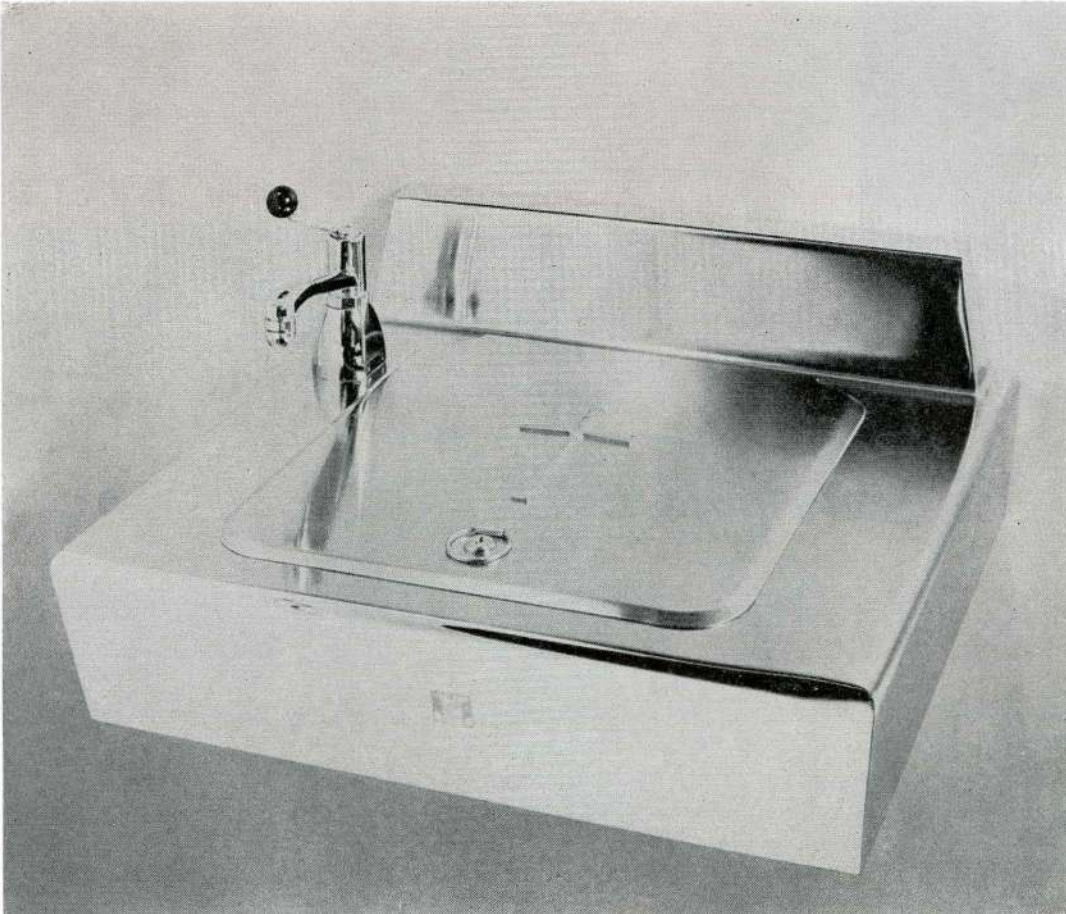


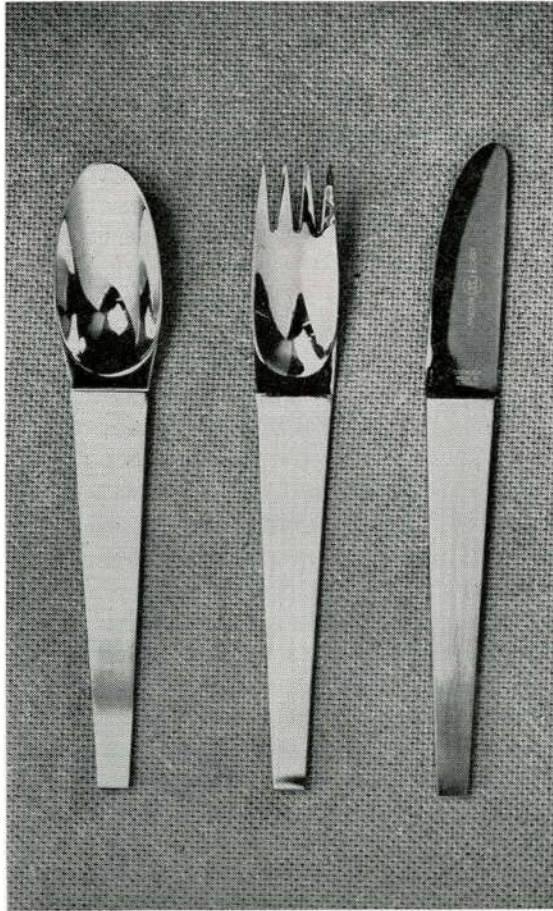
3



(1 & 6) Flatware, Austria, designer, Carl Aubock, Vienna, Manufacturer, Neuzeughammer Ambosswerk; (2) Covered Casserole, Finland, Designer, Bertel Gardberg, Helsinki, Manufacturer, Hackmann & Co, Helsinki; (3) Exterior Door and Detailing, Mackenzie Building, Toronto, Architects, Shore & Moffat, Toronto, Fabricator, Canadian Rogers Eastern Ltd; (4) Flatware, Holland, Designer, D. W. Simonis, Manufacturer, N. V. Gerofabriek, Zeist; (5) Sacristy Sink, USA, Designer, Henry Horvat, Manufacturer, Just Manufacturing Co, Franklin Park, Illinois; (6) Sales Office, INCO, Toronto, Architects, Page & Steele, Toronto, Interior Designer, J. & J. Brook Ltd, Toronto; (7 & 8) American Society for Metals Building, Novelty, Ohio, Architect, J. T. Kelly, Cleveland, Fabricator, Limbach Company, Pittsburgh.

5





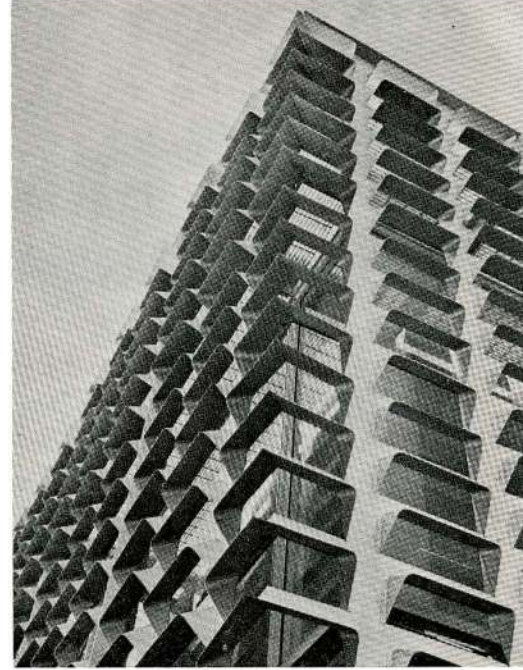
6

An international exhibition of photographs of objects made of stainless steel was recently organized under the auspices of the National Industrial Design Council with headquarters in Ottawa, in co-operation with the Stainless Steel Design Award Committee whose members include Atlas Steels Limited, The International Nickel Company of Canada, Limited and Union Carbide Canada Limited. It was shown for four weeks in Ottawa, and is now on tour in Canada.

The announcement of the exhibition aroused the interest of designers the world over and, from the many photographs submitted, the jury selected the present exhibition in which nine countries are represented. The jury consisted of Dr E. R. Arthur, Mr Norman M. Hay and Mr Alan Jarvis. The international aspect of the exhibition has a two fold significance. It focuses the attention of other nations on Canada, while at the same time providing an opportunity for Canadians to better appreciate the importance of good design in a variety of categories and to judge the standards of achievement in other countries.

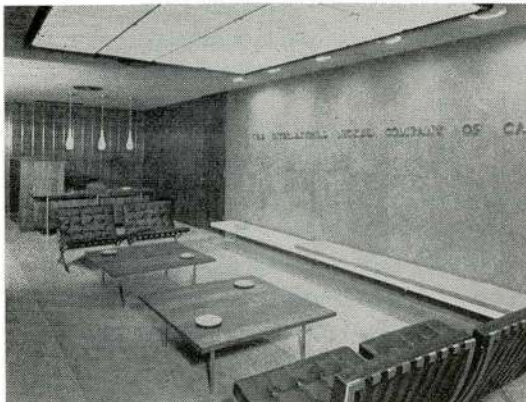
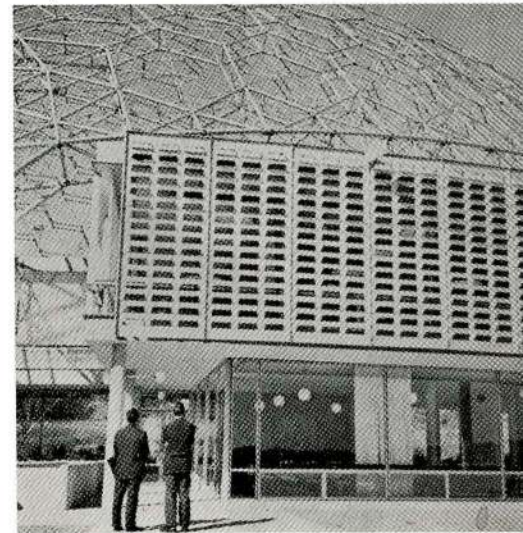
The categories are domestic, architectural, decorative and institutional. Submissions in the domestic category, which was the largest, varied in quality from the excellent to imitations of old silver which the jury was unable to accept. The temptation to imitate was most noticeable in the domestic field, and less evident in commercial installations which have no similar background of tradition. In the latter cases the designer, unfettered by tradition has been able to use stainless steel frankly and honestly to the limits of its potentialities as a metal.

The same is true of architecture. The cantilevered wall and the curtain wall both suggest a light steel frame on which a thin veneer of metal and glass can be fastened. Among the many materials whose use has evolved with the new technology, stainless steel is one of the most significant. It offers a challenge to the designer as the examples in the exhibition show. They are definitely of our time and in the spirit of the new architecture.



8

9



7

The Canadian Housing Design Council

1960

National Awards

Single Family

Houses

The Judges

Eric R. Arthur, Toronto

James W. Strutt, Ottawa

S. A. Gitterman, Ottawa

Mrs A. Davidson Dunton, Ottawa

Madame Jean Boucher, Ottawa

*Campbell C. Holmes, Toronto, President,
National House Builders Association*

COMMENTS BY THE PANEL OF JUDGES

The task of the panel was to examine 34 entries, all of which had previously won Regional Awards, and recommend to the Council those entries considered worthy of receiving National Awards. Nine entries were recommended for this distinction out of ten possible Awards offered by the Council.

The jury felt that the quality of design was equal to that achieved in previous series of Awards and a growing appreciation of better architecture in housing was evident in the best designs. Good planning principles in interior layout and thoughtful use of materials, both inside and out, were demonstrated in the winning entries.

Decisions were based on both planning and appearance. Such fundamental considerations as the proper separation of living and sleeping areas; uncomplicated circulation patterns, adequate entrances, efficient use of space allowing for convenient furniture arrangements — these and other points were carefully examined.

Straightforward building shapes, with simple and effective massing, was generally evident in the winning designs. The jury particularly noted that roofs were low-pitched. Also in this year's entries the winning designs indicated no evidence of a "regional" style, in fact, contrary to a few years ago, the use of natural wood in both exteriors and interiors seemed as common in Ontario as in BC.

The panel wondered whether, in the entries examined, they were observing a new trend in planning — a developed sense of privacy as opposed to the open planning and large glass areas seen in recent years. This was noted in the form of dining areas situated off, rather than in, the living-room. Interior walls also seemed to be more in evidence, providing for good furniture placement, the showing of pictures or other art forms, as well as giving a sense of privacy. This was considered to be a noticeable change to the post-war period when open planning, although providing flexibility and multi-use rooms, often provided inadequate interior wall spaces and little feeling of privacy.

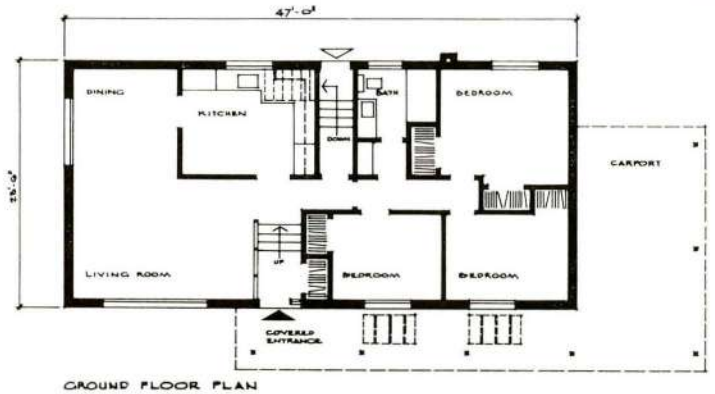
Although there had been an increase in the construction of two-storey houses in recent years, the jury noted only one two-storey house among the Regional winners and was pleased to include this in their final selection. All other Regional and National winners were either bungalow or split-level design. Although generally considered more difficult to resolve, the jury found more evidence of ingenuity and taste in the designs of smaller houses than they did in the larger ones.

The entries showed that in most cases considerable care and attention had been given to topography. Natural growth had been preserved where possible and most houses had already developed a mature look about them because of their settings. The jury was particularly interested in this aspect and commended the builders and designers for their recognition of this important contribution towards a better environment.

*Location: 1 Lyncroft Drive, Scarborough, Ont.
 Designer: Lipson & Dashkin and N. R. Stone,
 Don Mills, Ont.*

Builder: Cadillac Contracting (1959) Ltd, Toronto

To this standard plan have been added certain characteristics that have resulted in a distinguished and interesting house. By raising the floor level three steps above grade, good natural light is achieved in the basement; the service entrance is direct and allows access to the bathroom from the basement without intruding on the living-working area. There is also excellent separation of the bedroom area. The exterior is restrained and provides a good massing and an appropriate use of materials.

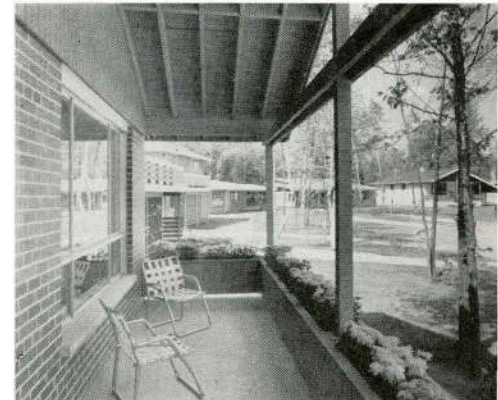
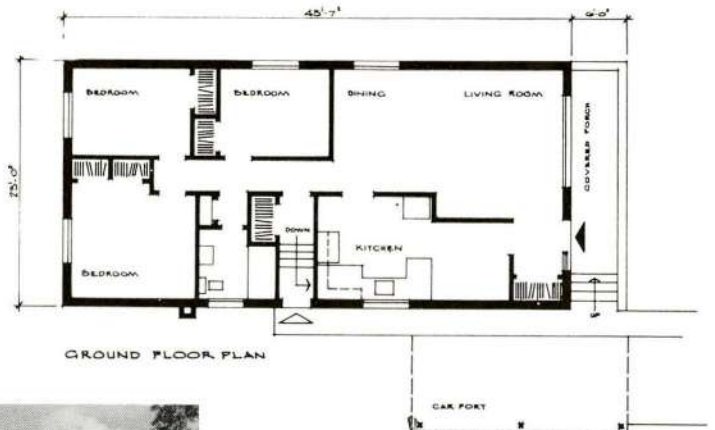


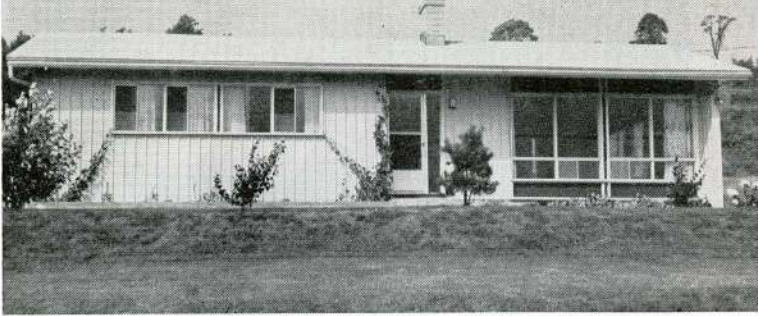
SINGLE FAMILY HOUSES UNDER 1150 SQ FT

*Location: 280 Guildwood Parkway, Scarborough, Ont.
 Designer: Lipson & Dashkin and N. R. Stone,
 Don Mills, Ont.*

Builder: Cadillac Contracting (1959) Ltd

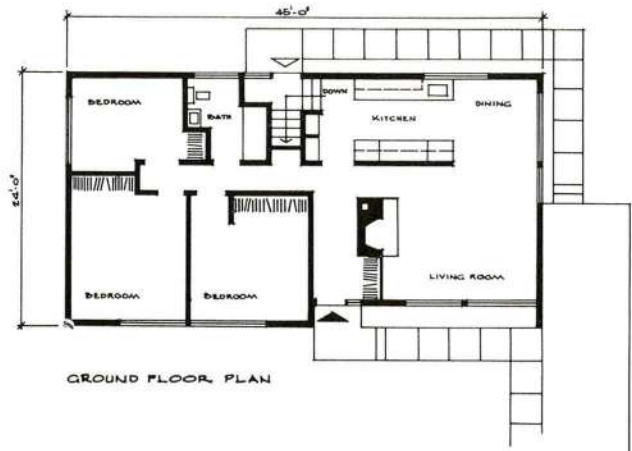
This plan was praised for many features. The raised porch gives privacy to the living-room from the street while, at the same time, it provides the virtues of the old-fashioned verandah. The closet at the back door is very handy for school clothes and the bathroom nearby is a real convenience for the children coming in from play, or up from the basement recreation room. The jury noted the economical shape of the plan and the advantages of a raised basement providing space for good window lighting.





*Location: Ski Jump Road, North Bay, Ont.
 Designer: Critchley & Delean, North Bay, Ont.
 Builder: Homer Ouellete, North Bay, Ont.*

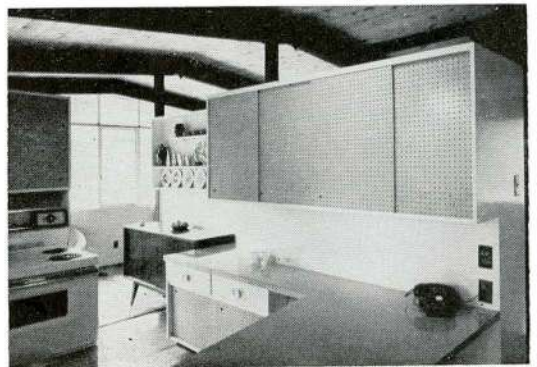
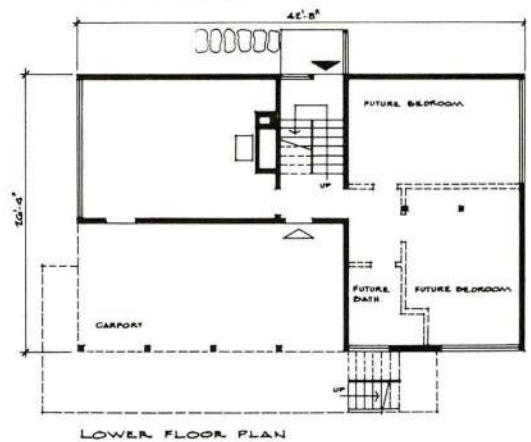
The jury found this house good in all respects. It is charming and unpretentious in its exterior with straightforward use of simple materials and carefully studied details. It is also thoughtfully planned to work well, with living-room space and furniture grouping there and elsewhere handled with taste and skill. Altogether a very pleasant house with good domestic scale.

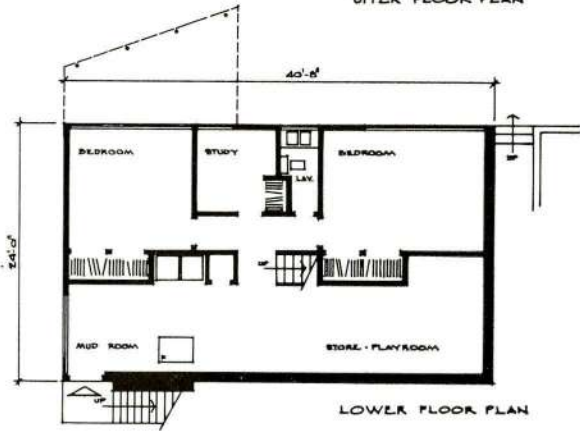
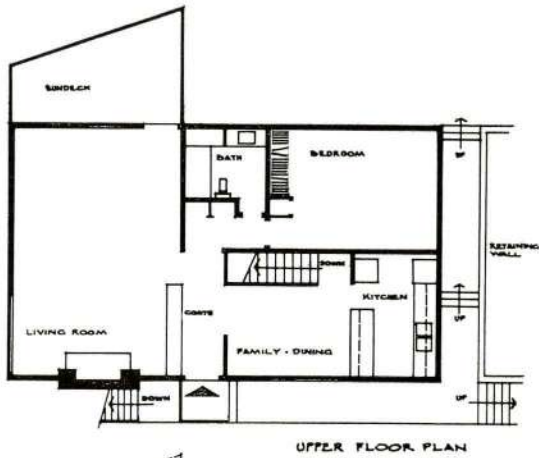


SINGLE FAMILY HOUSES UNDER 1150 SQ FT

*Location: 2957 Spuraway Drive, Port Coquitlam, BC.
 Designer: D. Manning, North Vancouver
 Builder: Taggart & Son Ltd, New Westminster*

It was agreed that this house was successful, both externally and internally. It achieves a sense of internal space in spite of its limited size and all rooms are well related and generous, with adequate cupboard space. The balcony with doors from the kitchen and dining-room, widens the living areas of this house. The site was a challenging one and well met. The exterior is distinguished by sensitive detailing, good taste and commendable restraint.





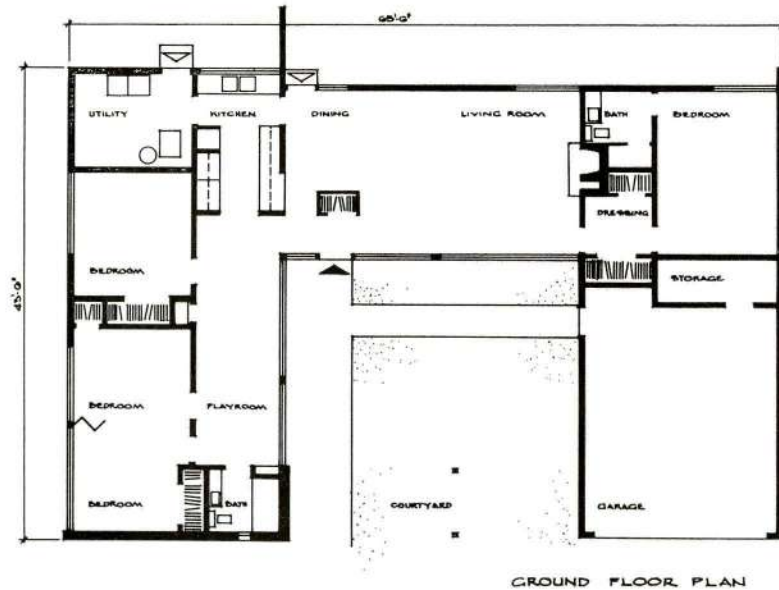
Location: Poplar Point, Kelowna, BC.

Designer: John Woodworth, Kelowna, BC.

Builder: G. P. Johnson, Winfield, BC.

This house is notable for originality of design with great care given to detail. Adult and children's areas are well defined, it being possible to restrict family activities to the lower floor and the upper family-dining-kitchen area, if necessary. The jury liked the fine sense of space achieved by the exposed ceiling beams and by the windows being carried up to ceiling height. The exterior, using local material, was simply and carefully detailed and finished.

SINGLE FAMILY HOUSES OVER 1150 SQ FT

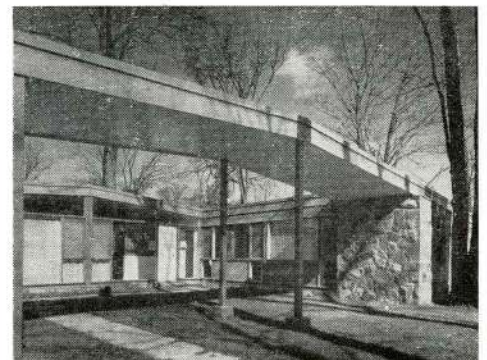
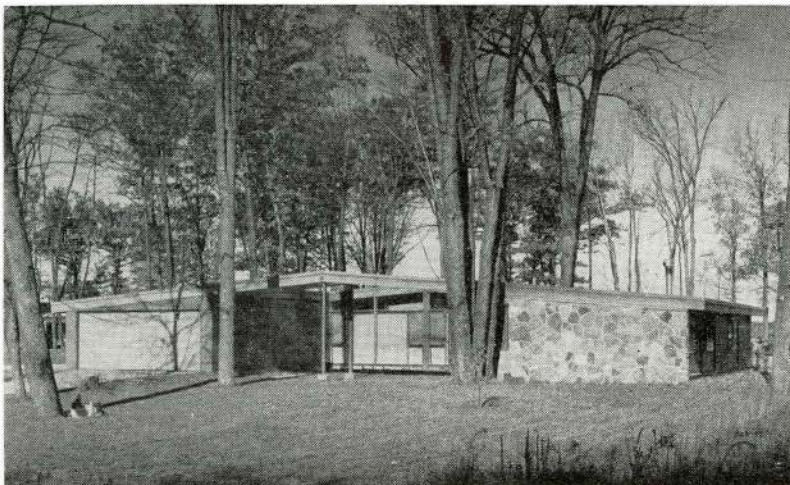


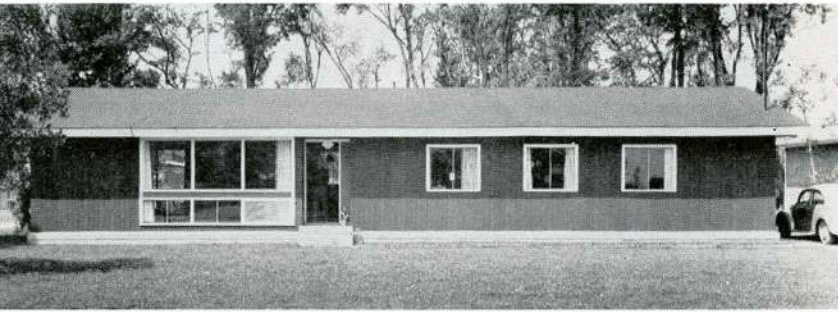
Location: 2 Wigwoss Drive, Woodbridge, Ont.

Designer: Jerome Markson, Toronto

Builder: Woodview Development Ltd, Downsview, Ont.

In this design, both the plan and the architectural form possess an unusual clarity. Intended for a family with small children, the house is zoned for the better enjoyment of both children and adults. The playroom is easily supervised from the kitchen and the segregation of areas is excellent. The exterior handling of the "U" shape is most successful and the general form is logical and in complete correspondence with interior spaces. The use of natural materials in the finish is appropriate to the site.

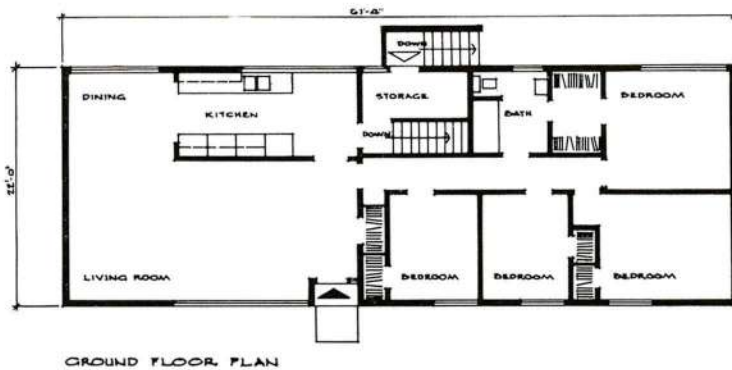




*Location: 34 Monsheen Drive,
Woodbridge, Ont.*

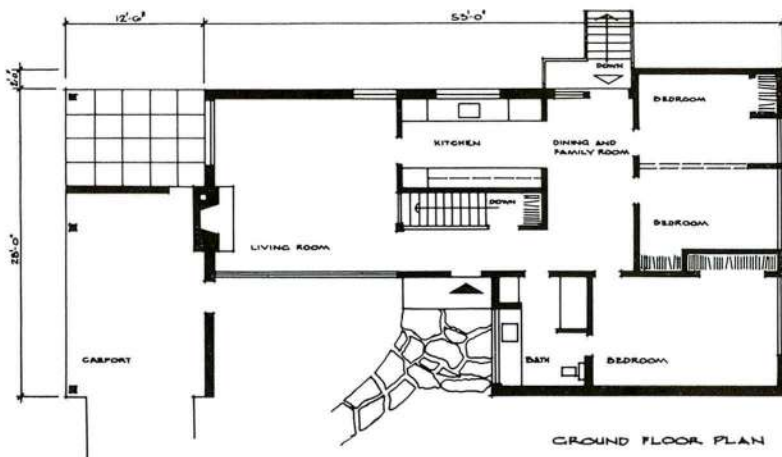
Designer: Jerome Markson, Toronto, Ont.

*Builder: Woodview Development Ltd,
Downsview, Ont.*



This design is distinguished by an economical plan and simple architectural form. The exterior is quite charming with proportioning and window arrangement being particularly good. In the plan, the separation of living and sleeping quarters are well arranged and the detailing throughout has resulted in architectural character of great refinement. The jury questioned the entrance directly into the living-room, regretted the absence of a fireplace in this particular case, and wondered whether a washroom in the storage area would not be a boon to a young family.

SINGLE FAMILY HOUSES OVER 1150 SQ FT



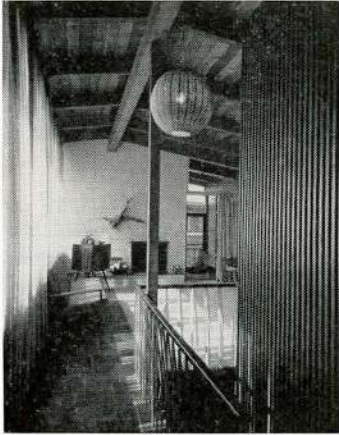
Location: 2113 Rushton St, Ottawa, Ont.

Designer: Teron Construction Ltd, Ottawa, Ont.

Builder: Teron Construction Ltd, Ottawa, Ont.

The exterior of this house shows a bold and vigorous design with respect for the existing trees. The consistent expression of framing gives the house a strong rhythmic quality. The interior gives a fine sense of space and livability with the judicious use of simple natural materials. The family room serves as a play area and also a major circulation space. It is questionable whether dining accommodation in this small area would be entirely satisfactory.

2113 Rushton St, Ottawa, Ont.



SINGLE FAMILY HOUSES OVER 1150 SQ FT



Location: 3226 Constitution Drive,
Toronto Township, Ont.

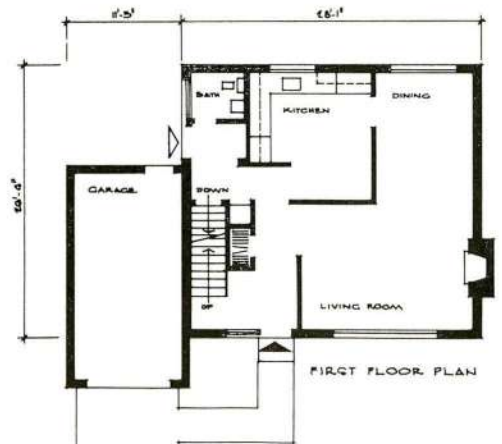
Designer: Lipson & Dashkin, Don Mills, Ont.

Builder: G. S. Shipp & Son Ltd, Port Credit, Ont.

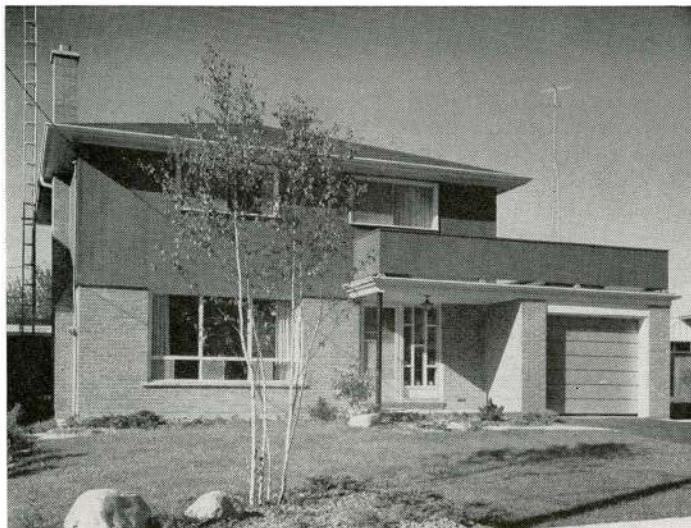
By compact planning, this two-storey house provides four bedrooms and bathroom on the upper floor. The living-room itself is small in relation to bedroom accommodation, but this is balanced by a recreation room in the basement. Noted with approval were the closets; the extra lavatory facilities at the back door; the workable kitchen and the vestibule where the coat closet is nicely removed from the immediate vicinity of the front door. Landscaping has received careful attention and this must add considerably to the enjoyment of the outdoor living area.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



Architect-Producer Seminar Will Convene at Scarborough January 9

Twenty-five Ontario architects and twenty-five sales managers from Ontario companies manufacturing building products will meet in a two day Seminar at the Guild Inn, Scarborough, Ont., January 9 and 10. The Seminar is sponsored by the Joint RAIC-CCA Committee on Building Materials.

The aim of the conference is to help provide better quality product literature for the design profession and improved relationships between architects and producers in Canada. It is hoped that Seminars may be held in Halifax, Montreal, Winnipeg, and Vancouver during 1961.

The Seminar chairman is Dr Thomas Howarth, Director, School of Architecture, University of Toronto. Speakers will be Robert F. Legget, Director of Building Research, NRC, who will deliver the keynote address; Harland Steele, President RAIC; S. A. Gitterman, Chairman RAIC Standing Committee on Building Research; Donald Jupp, President Pilkington Ltd and CCA Ontario vice president; John B. Parkin; and W. H. Evans, President Honeywell Controls Ltd.

Royal Canadian Academy Elections

Franklin Arbuckle, Toronto painter, was elected president of the Royal Canadian Academy at the annual meeting in December. Two architects, Gordon S. Adamson, Toronto, and T. Galt Durnford, Montreal, were appointed to the council for two years; and Leonard E. Shore and Gordon Fowler, Toronto, were elected associate academicians (architect).

Other officers elected were: vice-president Cleeve Horne, Toronto; honorary treasurer, Albert Cloutier, Montreal; secretary, Harold Beament, Montreal; council members for two years: Sydney H. Watson, Peter Haworth, Fred Finley, Toronto; Robert Pilot, Montreal. Associates named to the council were: Carl Schaefer, Toronto; Henry Simkins, Montreal. Other new associate academicians elected were: D. MacKay Houstoun, Toronto; John Korner, Vancouver; Frank Palmer, Calgary; Claude Picher, Quebec City; sculptors: Elford Cox, Toronto; Anne Kahane, Montreal; Arthur Price, Ottawa; designer: Lionel Thomas, Vancouver. Alan Collier, Toronto, and Robin Watt, Montreal, were raised from associate to full academician status.

The Architects' Registration Council of the United Kingdom announces Maintenance Scholarships at UK approved schools in accordance with the

needs of the individual student and funds available from other sources for the student's support and training. While the scholarships chiefly apply to United Kingdom residents, they are open to British subjects under 17 years of age, but candidates must take the examinations in England on April 5th and 6th, 1961. Closing date for applications from Canada is March 6th, 1961. Particulars of the Scholarship may be obtained from RAIC Headquarters, Ottawa; or directly from the Secretary to the Board of Architectural Education, ARCUK, 68 Portland Place, London, W.1.

REGISTRATIONS

Architectural Institute of British Columbia

November 1, 1960

Carlson, Carl Einar; 3 Gore Avenue, Chilliwack, B.C. (Albert E. Anderson)

Cole, Peter, ARIBA; #203, 1139 Barclay St, Vancouver 5, B.C.

Garrett, Robert Michael, ARIBA, A.A.Dip; 6926 Angus Drive, Vancouver 14, B.C. (Gardiner, Thornton, Gathe & Assoc.)

Hansen, Poul Erik; (Royal Academy of Copenhagen); 1021 Cornwall St, New Westminster, B.C. (c/o C.B.K. Van Norman & Assoc., 1030 W. Georgia St.)

Henderson, James Douglas; 1240 West Pender St, Vancouver 1, B.C. (Douglas H. Miller)

Hill, Arthur Henry, ARIBA; 1827 London Street, New Westminster, B.C. (Grosvenor-Laing B.C. Limited)

Hooper, John Downing, ARIBA, Dip. Arch. (Leics.); 5034 Wesley Road, RR #2, Royal Oak, V.I., B.C. (Public Works Dept, B.C. Government, Victoria)

Marr, Bing G., 4205 Price Crescent, South Burnaby, B.C. (C.B.K. Van Norman & Assoc.)

Metz, Norman Joseph, B.Arch; M.Arch (Community Planning) U. of Man; Grad. Student Teaching Asst'ship during Masters Course at U. of Man; Awarded CMHC Fellowship for Community Planning; Design Award from MAA in 5th year; Scholarships from W. G. McMahon & T. Eaton Co, Winnipeg in 1st and 2nd year for scholastic ability. #3 Royal Bank Building, Dawson Creek, B.C. (G. A. Killick, #3 Royal Bank Building, Dawson Creek, B.C.)

Nelson, William Cecil, B.Arch (U. of B.C.); 265 W. 4th St, North Vancouver, B.C. (D. C. Simpson Associates)

Plavsic, Vladimir Alexander, B.Arch, UJA (UBC/Toronto/Belgrade). B.C. Lumber Mfrs. (UBC); Eatons (U. of Tor.). 6260 Nelson Avenue, West Vancouver, B.C. (Plavsic & Mees)

Rowett, Clyde D., B.Arch (UBC); 2705 West 31st Avenue, Vancouver 8, B.C. (Thompson, Berwick & Pratt, 1553 Robson St., Vancouver 5, B.C.)

Thiersch, Wolfgang Bruno, B.Arch (UBC); RAIC Gold Medal 1958. 4656 Vantreight Dr., Saanich, V.I., B.C. (Dept. of Public Works, Gov't of B.C.)

Wilson, Carl Herbert; 645 Edgar Ave, New Westminster, B.C. (Underwood, McKinley, Cameron)

Announcements

Fred Ashworth, MRAIC, ARIBA, Roderick Robbie, MRAIC, ARIBA, Colin Vaughan, MRAIC, ARAIA, and Richard Williams, MRAIC, ARIBA, formerly the associates of Peter Dickinson Associates, have resigned from the firm and have commenced private practice under the name of Ashworth, Robbie, Vaughan & Williams, Architects, with offices at 170 Bloor Street West, Toronto, and will open an office in Montreal early in the new year.

Mr C. D. Hay announces the opening of private practice at 12 Masters Terrace, Kentville, Nova Scotia.

Positions Wanted

Position wanted with development commission, local government authority or large-scale development company. British citizen, age 33, elected ARIBA 1950 and AMTPI 1955; wide experience in planning and architecture with emphasis on planning; employed by government and private consultants during past ten years; salary range \$6,500-\$7,500. Dennis A. Barker, Box 836, Gwelo, S. Rhodesia.

Letter to the Editor

Editor, RAIC Journal:

I have just had the pleasure of reading the report of the Committee of Inquiry into the Design of the Residential Environment through the courtesy of Miss Eva Young of our School of Social Work. I enclose \$1 for a copy of this report which I would like to have on hand. I was interested also, as a member of the Royal Automobile Club of Canada, in the comments on the influence of thoroughways on the adjacent housing. The report is most interesting and thought provoking in content, and its format a real pleasure. Congratulations!

(Dr) A. S. Ross, Associate Professor of Chemistry, McGill University, Montreal

Provincial News

PQAA Conference on Design of Residential Environment

Quebec has set the pace. An attendance of over 200 people keenly interested in housing was recorded at the Queen Elizabeth on December 7th. For one solid hour, the registration desk was kept buzzing with activity handing out badges and tickets so much so that the panel discussion got under way half an hour late.

CMHC, town planners, school commissioners, architects, bankers, real estate brokers, landscape architects, consulting engineers, builders, civic officials, social clubs, lending institutions, etc., were among the various affiliations indicated on the attendance sheet circulated among the audience.

Under the chairmanship of Robert Elie, Director of the Montreal School of Fine Arts, the morning session was exclusively devoted to the delivery of the following eight papers on specific aspects of housing and residential environment: "Action or Apathy" by Peter Dobush, Chairman of the RAIC Committee of Inquiry into the Design of the Residential Environment; "Municipal Aspects of Residential Environment" by Architect R. John Pratt, M.P., Mayor of the City of Dorval; "Urbanization and Agriculture" by Dr H. G. Dion, Vice-Principal of MacDonald College; "Recreation and Land Use" by H. P. Daniel van Ginkel, MTPIC; "Housing Market" by James A. Lowden, President of the Canadian Association of Real Estate Boards; "Master Plans & Zoning" by Jean-Louis Doucet, QC, Deputy-Minister of Quebec Municipal Affairs; "Neighbourhood Unit" by Jean-Claude LaHaye, consulting town planner; and "Provincial Leadership in Regional Planning" by George S. Mooney, Executive Director, Canadian Federation of Mayors and Municipalities.

In his after-luncheon address, Henri Mercier, President of the PQAA, stressed the need for a spirit of cooperation between segments of the community concerned with the issue under study. He also pointed out that in holding such a conference, Quebec was providing leadership to the rest of Canada.

The assembly divided into five syndicates for the afternoon portion of the program, when the morning papers were discussed and questions thrown at the panelists. At the concluding session in the principal meeting room the seminar chairmen summed up the feelings of, and presented resolutions adopted, by their individual groups.

Following is part of the conclusions reached at the conference:

(1) *That the PQAA institute a series of exchanges between and among all organizations connected with housing to*

arrive at proposals to raise standards and ensure greater stability in the field.

(2) *That the manifesto on the proceedings of this conference be transmitted to Provincial authorities asking them, in the best interest of Housing Environment to take steps to establish a system of regional areas resulting from a survey of existing cultural, social, economic and physical conditions.*

(3) *That the Quebec Government be requested to pass legislation, or put teeth in already existing regulations, governing regional and local planning.*

(4) *That the conception of the neighbourhood unit be brought to the attention of lending institutions, municipal authorities, citizens' associations, school boards and religious corporations.*

Obviously the conference was only a beginning. *Jacques Tisseur*

Montreal Study Group

The second dinner meeting of the 1960-61 session was held on November 15 under the chairmanship of Jean-Louis Lalonde, when a panel discussion on "The Aesthetics of the Neighbourhood" was conducted by Guy Desbarats, Jean-Paul Pothier and our guest speaker, the sociologist Fernand Cadieux. The attendance was smaller than usual, but the discussion seemed to the secretary to be more animated, perhaps because, by an oversight, the same number of cocktails and the same amount of wine had been ordered as on previous occasions.

Guy Desbarats began by describing the elaborate study which he and various colleagues had made of collective dwellings built in Montreal between 1935 and 1952. Despite the immense amount of factual information obtained by means of questionnaires, it was evident from what he said that little light had been shed on the aesthetics of the neighbourhood. The duplex, by various accidental circumstances, had undoubtedly established itself as the dominant feature of the existing visual environment, but in view of recent constructional and economic developments, it seemed unlikely that the spiral stairway and the folk-ornament, so characteristic of the earlier duplexes, would continue to be employed.

Jean-Paul Pothier was of the opinion that the aesthetic character of each Montreal neighbourhood was in large measure due to the presence of so many churches. As an example of the advantage which could be taken of this, he showed a sequence of photographs of an uncommonly unattractive urban back lane which had a church tower terminating its axis, and suggested that if suitably modified, the houses them-

selves would gain immeasurably in dignity through being approached from the rear.

Fernand Cadieux's opening remarks were mainly concerned with the history of the movements of population in Montreal, but his principal theme was that the neighbourhood is undoubtedly the basic sociological unit of cities, even though he found it impossible to define clearly what a neighbourhood is. He thought it was best considered as a psycho-social environment, consisting not only of buildings but of noises and symbols. This caused him to regret that a careful analysis of the empirical world was not yet a feature of our intellectual life. The secretary reflected sadly how much more fashionable it is nowadays to analyze than to draw useful conclusions, for in an age when psychiatrists can cure by simply compiling analytical case-histories, it is not surprising that historical analysis should become a standard necromantic technique of urban design, even though, after a century of struggle, it has been abolished from architecture forever.

This precise point was then made, though less abstrusely, by André Blouin, who observed that the entire evening had been devoted to archaeology, whereby instead of hearing about the aesthetics of the neighbourhood, all we had heard about was its history. He considered that too much sentimentality was lavished on the old districts of Montreal, which were seldom either aesthetically or historically important enough to be worth preserving. For him the first problem was that of traffic circulation, and unless this was solved quickly and radically, urban renewal projects would be a waste of time. The second problem was to introduce some discipline into urban design. Perhaps the best way to achieve the latter would be to have a chief architect for each area who would design a unified scheme, leaving a team of architects to take responsibility for its execution under his control.

The discussion was forcibly terminated by the chairman at ten o'clock. The most interesting fact which emerged was that whatever visual environment an architect may create for a neighbourhood, it is unlikely to be consciously moulded by the tastes of the intended occupants themselves. According to Guy Desbarats, the residents of the district he studied proved quite insensitive to aesthetic problems, and when asked in their questionnaires to comment on the shapes of their balconies, they obtusely ignored the finer considerations of design, and confined their criticisms to mundane defects, such as the fact that their offspring kept falling over the rails. *Peter Collins*

Manitoba



GLEN ROBINSON

New Building for Winnipeg Firm

A sod turning ceremony at Fort Garry, marked the commencement of construction of the offices for Smith Carter Searle Associates, Winnipeg. Left to right: Dennis Carter, Hon. Sterling Lyon, Provincial Attorney General, (at controls), James E. Searle, (President MAA), and Ernest Smith.

Maritimes

The fall meeting of the Nova Scotia Association of Architects held November 18 in Halifax. At the morning session, attention was drawn to the Stainless Steel exhibition to be shown at the annual meeting of the NSAA. (See page 527 — Ed.)

A committee composed of J. Philip Dumaresq, Geoffrey Marshall and J. J. Napier was established to study the Duty on Plans — Tariff Board Survey for the RAIC. Chairman of the Board of Examiners, T. W. Bauld, introduced two new members, Charles D. Hay of Kentville, NS, and Walter P. de Silva of Halifax.

The afternoon session was a symposium on school architecture and construction with Philip Dumaresq as moderator, and L. J. Page as co-moderator. The AIA film, "A School for Johnny" and slides of the DND four stage school were shown. The discussion and resulting views were recorded for future use in contacts with NS municipal school boards.

Dinner dance speaker was Mrs Amita Malik from India, whose Canadian tour is being sponsored by the Canadian Women's Press Club and UNESCO.

Maritime Joint Councils Meet

Seven Council members of the Architects' Association of New Brunswick journeyed to Halifax last November

4th, to meet with the Nova Scotia Association of Architects to discuss mutual problems and projects. Among those present were New Brunswick President, W. W. Alward, Jack Myles, Neil Stewart, Doug Jonsson, Yvon LeBlanc, Richard West, Cyrille Roy; Nova Scotia President, John Darby, Don Davison, Charles Fowler, Henry Romans, James MacDonald, and Lester Page.

The reciprocal agreement between the two provinces, which has been in effect for a number of years, was discussed at length, with the point raised as to the registering of the firm or the individual, and the Acts in both provinces state clearly that only an individual may be registered. As such, all partners, whose names appear on the letterhead shall be required to register under the reciprocal arrangement.

The new School of Architecture proposed at Nova Scotia Technical College is still planned but awaits the appointment of a new president to replace President Hoogstraten, who returned to Winnipeg. Both Councils expressed their wholehearted approval of the new school and approved in principle its establishment.

Both Councils presented the views that so often the major responsibility fell on the shoulders of the architect, and the share of the burden that should belong to the mechanical and electrical consultants, who receive their pay for their services, is too often added to the already heavy load borne by the architect. Too often the fee charged by the consultants is the same if not more than the architects receive, and is not always commensurate with the service.

A report was read on the Atlantic Provinces Economic Council Show recently held in Moncton. The show met with great success and the Council is to be commended. *L. J. Page*

BOOK REVIEWS

"OFFICES IN THE SKY" by Earle Shultz and Walter Simmons, published by Bobbs-Merrill Company, Inc., Indianapolis, New York. Price \$6.75.

In the words of the authors, their intention is "to relate the story of the office building as a tool of commerce and a prime factor in the growth of cities". In this they have succeeded.

The work is a detailed account of the introduction of the first multi-storied buildings, erected in Chicago around the turn of the century, and the most important developments in office buildings during the interval, culminating in the soaring towers of present day New York. It is a record of great achievement.

Offices in the Sky reminds us that the days of those first tall buildings were not unlike our own — adventuresome days signalling the beginning of a new era. To architects who were tremendously interested in the design and construction of many of the buildings mentioned, the pleasure at being reintroduced is like that experienced in meeting old friends. It will hold the readers' interest despite the amount of statistical data used to support opinions expressed or statements made. The attitude throughout is that of the building manager whose primary object is to attract and hold tenants of good reputation and sound financial standing. The book might have been entitled appropriately "The economics of multi-storied office buildings past and present". It is concerned with promotion, financing, planning, renting, cleaning, maintenance and tenant changes; with all the factors effecting the success or failure of each venture. It dwells at length on the clients' changing requirements; experience during peace and war, depressions and periods of prosperity. It takes cognizance of the many improvements in lighting, heating, ventilating and cooling, acoustical treatment, high speed automatic elevators and also of labour-saving schemes. Continuously intertwined with the history of office buildings in America is the story of the National Association of Building Owners and Managers, their aspirations and achievements, with special reference to their Building Planning Services; their concern with restrictive legislation and labour relations; and their efforts through good management and fair practices to ensure a reasonable return on invested capital.

To many architects much of the material contained in the text is not new. Those who have been recently admitted to the profession or are just now becoming interested in the design of tall office buildings can read it with profit. True, those courageous pioneers Jenney, Burnham, Root and Holabird are praised, but references to architects generally are meagre and not always complimentary. They do, however, fare better than the town planners who are criticized frequently.

The work is not a statement of an architectural credo or philosophy. The authors content themselves with referring to architectural beauty or the personality of the building as a drawing power in the battle for tenants. This may be their only interest. In any case it would appear that in any discussion of aesthetics they are much less at home than when writing of profit or loss. *Gordon S. Adamson, Toronto*

CANADIAN BUILDING DIGEST



DIVISION OF BUILDING RESEARCH • NATIONAL RESEARCH COUNCIL

CANADA

HOUSE FOUNDATIONS

by C. B. Crawford

UDC 624.131.524

Foundations for houses and other light structures usually receive much less attention than they should. Perhaps the reason is that individual failures seldom result in total destruction. Nevertheless unsatisfactory foundation performance often induces more worry and frustration on the part of the owner than any other single cause. In most cases it is as easy to provide a proper foundation as it is to build a poor one. All that is needed is a simple understanding of the materials on which the structure is placed.

Site Selection

The first opportunity to control a foundation is by the selection of the site. While many unrelated considerations enter into proper site selection surely the first must be concerned with foundation suitability.

Two of the most obvious questions to be answered are whether or not the site is subject to flooding or to large scale earth movements. These are not only critical economic considerations but are possibly the only controllable factors which may cause catastrophic failure of the foundation.

Flood risk might be considered too obvious for special consideration in a note on house foundations were it not for such facts as the following. The \$26 million Winnipeg flood of 1950 damaged 9,000 houses, 25 per cent of which were less than five years old, indicating a trend to the use of unsuitable flood plain sites. Four years later the floods following Hurricane Hazel caused an equal amount of destruction and resulted in the loss of more than eighty lives due largely to unsatisfactory site selection.

Soil creep down natural slopes and stream banks is a common phenomenon in many

regions. It is characterized by accumulations at the base of the slope and by a rippled slope surface. For obvious reasons a particular part of the residential Southern California coastline has been named "Heartbreak Hills". Similar real estate is available in Canada. While creep is more likely to be a general phenomenon in certain areas the occurrence of landslides is less predictable. The edge of any large slope should be avoided as a building site unless detailed investigation proves it to be stable.

Another extremely important consideration is the drainage of the site. Surface water must be removed either by natural drainage or by the provision of an artificial drainage system. Further, the ground water around basement walls must be collected in subsurface drains and removed from the site. Failure to take drainage into account in site selection and development has serious after effects.

Other important features in site selection are the occurrence of organic soils and artificial earth fills and the existence of old refuse dumps. Organic soils and filled ground often result in large foundation settlements. Refuse dumps may cause similar settlements but, in addition, an intolerable odour has been known to penetrate basement walls, probably due to wicking in ground water with evaporation at the inside surface.

By far the best way to evaluate site conditions is to study the performance of existing buildings. In newly developed regions of course this is not possible. In addition to the commonsense considerations just mentioned it is necessary to probe beneath the surface.

Site Investigation

Every detailed site investigation should be preceded by a surficial appraisal in order to

avoid the obvious difficulties outlined above. The next step is to establish whether or not bedrock will be encountered in any proposed excavations since this might affect foundation selection and future planning.

If the proposed site is not solid rock the nature of the soil should be determined in order to evaluate possible foundation difficulties. For the same reason the level of the groundwater table should be established. This is the level at which free water is encountered in the ground. If the groundwater table is at the surface the site is likely to be poorly drained and if special measures are not taken, damage to basement walls may result. If the groundwater table is very deep, basement dampness is not likely to be a serious problem. Special attention must be paid to seasonal influences on groundwater table. A low water table during a dry season will not necessarily be the case during other times of the year. Personal experience will necessarily play a vital part in this evaluation.

The best source of preliminary subsurface information is the local municipal engineering office. Further information can be obtained by hand augering or by digging test pits. The extent to which subsurface site investigation is carried out will naturally depend on the total investment in the building or buildings and on the general site characteristics. With the sprawl of modern urban communities, more and more questionable sites are being developed for housing. Obviously, if a site is poor from a foundation point of view it will require more detailed subsurface investigation and possibly a special foundation design. Expert advice on these matters is now available in all parts of Canada.

Soil Identification

The subsurface examination of a building site requires the identification and description of the soils encountered. If it is to be of general use, this information must be recorded in familiar and standard terminology.*

Soils are divided into two main groups, "coarse-grained soils" and "fine-grained soils". Coarse-grained soils are the familiar gravels and sands and include all particles that are

* The reader is referred to the "Guide to the Field Description of Soils for Engineering Purposes", Technical Memorandum 37, Associate Committee on Soil and Snow Mechanics, National Research Council, Canada.

clearly visible to the naked eye. Fine-grained soils are usually more trouble-some in building operations than are the coarse-grained soils. Their properties result more from their mineralogical and chemical characteristics than from their grain size. Accordingly they are distinguished mainly on the basis of their plasticity and structure.

Two classes of soil particles make up fine-grained soils. The coarser fraction, called "silt" has properties grading from those of very fine sand to those of the finest fraction, called "clay". The properties of clays can be attributed largely to the presence of "clay minerals". These complex minerals are formed by the natural weathering of basic minerals. It is the interaction between clay minerals and water that gives them their unusual properties.

Because of their wide variation in performance it is essential to distinguish between silt and clay at a building site. The two materials look so much alike that they have often been identified improperly to the detriment of later construction operations. They can easily be distinguished in the field by three simple tests.

The first is called the *shaking test*. If a pat of the wet soil is shaken vigorously in the hand, the surface will become glossy and will shed the free water. If the pat of soil is then squeezed in the fingers the free water may disappear, in which case the soil is a silt. If the free water does not disappear then the soil is probably a clay.

The second test is called the *shine test*. If a moist lump of soil is stroked with considerable pressure either with the flat of a knife blade or with the finger nail the soil can be recognized as a silt if a dull surface is produced, and as a clay if the surface is shiny.

The third simple test is the *dry strength test*. If a small piece of soil is broken after it has been dried, its breaking strength is some indication of its character. If it is very strong it is almost certainly a clay, but if it powders easily, then it is probably a silt.

In addition to these tests, clay sticks to the fingers when wet and it does not wash off easily. Silt, on the other hand, will wash away easily or will brush off when dry. When a small quantity of soil is placed between the teeth, the presence of grit will indicate silt or sand but if no grit can be detected with the teeth, then the soil is certainly a clay.

While all natural soils can be classed as either coarse-grained or fine-grained there are three types of deposit that warrant special mention. These are "glacial till", "man-made fill" and "organic soils".

Glacial till, as the name implies, is the unsorted soil deposit which results from glacial action. It is usually very dense and hard and may contain a complete range of particle sizes from large boulders down to the finest clays. Occasionally it is found to be rather soft but it is always characterized by lack of stratification and an unusual range of particle sizes. Because of Canada's glacial history it is a very common soil deposit.

Fill is a man-made deposit which must always be identified if it occurs at a building site. It is characterized by the presence of pieces of masonry, glass, twigs, grass or rubbish. Usually an organic soil profile will be found at its base.

Organic soil is easily recognized by its dark colour and characteristic odour. Natural soils may contain a very small amount of organic matter or they may be almost entirely composed of organic matter. Even small amounts of organic matter should be noted in the soil description. Completely organic soil, called peat, requires special investigation.

Soil Properties

Natural soil is made up of a skeleton of solid particles the voids of which are filled with water and air. Saturated soil is a special case in which the voids are completely filled with water. Until the interaction of the three components is understood the performance of soil as a construction material is something of a mystery.

The water contained in coarse-grained soils does not have a great influence on their properties but the flow of water through them, when they are not confined, may eliminate the frictional resistance between grains and cause a complete loss of strength. This results in the condition known as "quicksand" which can be corrected only by reversing the flow of water or by loading the affected area.

The water content of a fine-grained soil has a much greater influence on the properties of the soil. As water is removed from a fine-grained soil it shrinks and the strength increases. Correspondingly some clay soils will

take up water when it is available and will swell and decrease in strength.

Coarse-grained soils readily allow the passage of water and are said to be "permeable". Normally they are not very "compressible" and for this reason they are regarded as good foundation materials.

Fine-grained soils are quite "impervious". Therefore they are difficult soils to drain. Further they are often quite compressible and subject to volume change by seasonal drying and wetting. They do not compact easily. They may "heave" when they freeze and so cause distortion to light structures founded on them. They do, however, have some desirable qualities. They retain moisture necessary for growth during dry periods. Their impermeability can be turned to advantage to prevent seepage at undesirable locations. They resist erosion and so make good slope material.

Foundation Selection

The selection of the type of foundation for a house is usually based on local convention. The load transmitted to the soil is normally so small that it can be neglected. Concentrated loads such as those imposed by large fireplaces may need special attention. Foundations located on organic soil and fill *always* need special attention.

Often, as an economic measure, houses are founded on surface concrete mats. Where a site is underlain by solid rock this type of construction has obvious economic advantages. Where the site is on soil the cost of providing service space above ground must be compared with the cost of a basement. If a mat is used it is good practice to disturb the natural ground as little as possible and cast the slab on a base of compacted stone or gravel at least one-foot thick. Insulation must be provided to prevent frost penetration beneath the slab.

Other types of foundations are used in certain regions because of local soil conditions but most houses are founded on full basements. Usually it can be shown that the basement provides the most economical space for heating equipment, laundry and other activities which do not require first-class accommodation. Further, basement footings are less susceptible to various influences such as frost heaving and swelling or shrinking clays.

Dampness is the main problem with house basements and this can usually be attributed

to faulty construction. The most effective way to reduce water infiltration is to collect and control it before it reaches the basement wall. Surface drainage away from the wall is necessary. Subsurface water is intercepted by an underdrain placed outside the wall footings in a pervious collecting layer and is discharged from the site. Even with these measures the outside of a basement wall will usually be damp and there will be a tendency for water to move through the wall. The use of properly placed good materials will result in a practically impervious wall and eliminate this problem.

Until it is completely fixed, top and bottom, the full vertical load has been applied, and the concrete or mortar has completely cured, the structural resistance of a normal basement wall to lateral forces is not very great. During construction therefore, the wall is especially subject to failure or to damage which will later permit leakage. Special care should be taken during this period to prevent the accumulation of water next to the wall before backfilling and to keep heavy construction equipment away from the wall during and after backfilling. Lateral earth pressures are increased by vertical loads but if equipment is kept at a distance from the wall equal to its depth it will have little detrimental effect.

The slow settlement of backfill often causes appreciable damage to steps, walks and ad-

jacent slabs and results in a depression around the building which collects roof run-off water. This annoying situation can be avoided by proper placing of backfill. In most cases a light tamping of the backfill in thin layers is all that is required. The placing of backfill is extremely important if footings are to be founded on the fill and expert advice should be sought. It is usually possible and wise to avoid disturbing the soil beneath a footing.

Fine-grained soils draw in water when they freeze, causing, in some cases, a considerable increase in volume. Silty soils are especially susceptible to "frost heaving". Coarse-grained soils are not susceptible. This ground heaving commonly causes considerable damage to improperly founded attached garages and porches. It may also affect house foundations that have been left unheated in winter. Where fine-grained soils occur footings must be placed at depths below the penetration of frost.

Conclusion

This note has attempted to show the necessity for general site evaluation and the advantages to be gained from studying the soils at every building site. Reference is made to the standard terminology which has been developed to facilitate the accurate recording of soil information. Typical construction difficulties are associated with various types of soil and the solution of common problems is shown to be unusually simple.

This is one of a series of publications being produced by the Division of Building Research of the National Research Council as a contribution toward better building in Canada. The Division has issued many publications describing the work carried out in the several fields of research for which it is responsible. A list of these publications and additional copies of this Building Digest can be obtained by writing to the Publications Section, Division of Building Research, National Research Council, Ottawa, Canada.

"INTRODUCTION TO STRESS ANALYSIS," by Charles O. Harris. New York: The Macmillan Company (Galt, Ontario: Brett-Macmillan Ltd.), 1959, 330 pp., xiii.

By a person who requires an introduction to stress analysis this book merits consideration. It will be of interest too to him who desires a reintroduction to that science.

The book is concerned with the study of what most readers will recognize by one of its more usual names: Strength, Mechanics, or Resistance of Materials. The author, who is Head of the Department of Applied Mechanics at Michigan State University, points out that the course in Strength of Materials as taught to engineering students always forms an introduction to stress analysis, and with a directness characteristic of the rest of the book, calls it that.

This list of chapter headings indicates the scope of the book: Stress Resultants in Bars, Stress and Strain, Uniform Stress, Torsion, Flexural Stress and Deformation, Stresses Due to Transverse Forces on Bars, Shear and Moment Diagrams, Buckling Phenomena, Superposition of Stress Patterns, Factors Which Affect Strength and Deformation of Materials, Simple Problems in Plates and Shells, Strain Energy and Castigliano's Theorem, Two-Dimensional Axially Symmetric Stress Distribution in a Complete Solid of Revolution, Elementary Plasticity. Appendices cover: Properties of an

area, Moment-Area Method for Elastic Curve of a Beam, Some Elements of the Theory of Elasticity, Energy-of-Distortion, The SR-4 Electric Resistance Strain Gage, Modern Notions of Dry Friction.

Although the subjects dealt with differ little from those dealt with in other books in this field, the manner of presentation is different. Strength of Materials in its classical form is the science by which mathematical interpretations are placed upon natural phenomena observed in engineering materials in order that systematic predictions of the behaviour of these materials may be arrived at. Teaching of this science has usually followed the form of its development, with experimental observations, logic and mathematics all being used to varying degrees. In this book, greater emphasis than usual has been put on the theoretical exposition and less on empiricism, because the field of engineering is steadily becoming more scientific and mathematical, and the author views this basic engineering subject as one in which today's students should be prepared for the engineering of the future. Empirical matters are left to courses in Machine Design and Structures and to engineering experience. The author has pruned and reorganized the subject matter into a more compact form and stated more in the language of mathematics.

This book is a textbook for use in teaching, and the author's presentation

has been conditioned by the needs of engineering students in a university, whereas the reader of this review who is interested in its contents will probably desire a book for independent study. The book is in itself fully adequate for the learning of Strength of Materials, anyone approaching the subject for the first time should not be frightened off by its theoretical bias, for the mathematics is no more difficult than that to be found in other books on the subject, and adequate verbal descriptions are supplied where required. Indeed, the book offers the same advantages for the self-teacher as for the university student.

Despite the book's efficiency, there may be those who desire to go into the subject more fully, or who lack facilities by which to gain a knowledge of the empirical aspects, or to whom extended verbal descriptions might be necessary to understanding. These readers might well benefit more from the use of a traditional textbook. On the other hand, a person renewing acquaintance with a subject already studied would, no doubt, benefit from the fresh approach, succinctness and modernity of this book. Typographically, the book is an easy one to read, the diagrams are clear and located for use without page-turning. Illustrative problems are worked out at appropriate intervals, and many problems with answers are provided.

Carson F. Morrison, Toronto.

Viewpoint

"Do you think that a general arts course, before proceeding with specific architectural training, is a necessary prerequisite to architectural education?"

*(Concluded from the November Journal.
Mr W. S. Goulding was unable to contribute)*

DEFINITELY YES — FOR PEDAGOGICAL and other reasons resulting from the present confused general context in which young candidates are fashioned by.

We find to-day in America that the great majority of the schools of architecture integrate in their program some subject matters of a general art course. Nevertheless, there is a tendency as expressed at the last AIA-ACSA seminar on the teaching of architecture, to promote a general art course before proceeding to architectural training. At present, Harvard, Yale, Pennsylvania and maybe others, do require such a course. In Canada

the U.B.C. School of Architecture has recently announced that candidates must possess at least the three first years of the four-year general art course. The Ecole d'Architecture de Montréal, ten years ago, has put into effect the requirement of a B.A. degree for candidates seeking to register in the school.

The present general system used in almost all of the schools did answer at one time to the norms of the day, but the rapid evolution that took place in the past few decades with respect to technology, specialized forms of activities and dominant materialistic minded people, has

produced some sort of a disintegration in the basic general professional rules connected particularly with professional responsibility, leadership and control. These new conditions force us to reevaluate our basic approach and to take the necessary steps to save our heritage and to bring some order in our man-made environment.

Facts of pedagogical nature have proven that the energy of the students is almost totally taken by the professional study of their choice and that their concern is of an immediate technical approach. For that special reason, candidates to the study of architecture should have first a wide cultural background. They should possess a wide-awake sense of systematic, analytic, objective and precise thought; they should be sensible and able to answer emotional and intellectual significations that human activities imply; they should be able to put into practice the virtues basic to harmonious human relations, and, they should possess a pronounced taste for research in the fields of the arts and sciences. (Conversations Across the Nation.)

More and more, candidates have better possibilities to follow a college or university general art course (B.A. degree) that will equip them with a better general education more in line with their professional responsibility called to judge human values and ideas fitted to sustain sound philosophies. The profession should take advantage of this favourable situation liable to bring more matured candidates better prepared to understand in breadth and depth, architecture and its program of education.

One has also the obligation to prepare the relief of present day educators in architecture and this factor adds to promote a new policy destined to raise up our standards along with other desired and needed minds of high calibre to put some order in our confused world.

Convinced the prerequisite matter is a must, nothing should interfere that might prevent its adoption. The heritage left will compensate a hundred times the sacrifices made to-day, if sacrifices do exist rather than an out-dated complacency.

Pierre Morency, Montreal

DEFINITIVEMENT OUI — POUR DES RAISONS d'ordre pédagogiques et autres résultant de l'atmosphère générale confuse dans laquelle les jeunes d'aujourd'hui ont été et sont façonnés. Une solide formation de base est de plus en plus indispensable.

On constate aujourd'hui en Amérique, que dans la grande majorité des écoles d'architecture, les programmes contiennent des matières relevant du baccalauréat es-arts. Néanmoins, des opinions ont été exprimées lors du dernier séminaire sur l'enseignement de l'architecture tenu sous les auspices conjointes du AIA-ACSA, en vue de promouvoir l'idée d'exiger le baccalauréat avant de procéder aux études d'architecture. Aujourd'hui, les écoles d'architecture de Harvard, Yale, Pennsylvania et peut-être d'autres, exigent ce baccalauréat. Au Canada,

l'école d'architecture de la Colombie Britannique annonçait récemment qu'elle n'admettait que les candidats possédant au moins les trois années des quatre dernières conduisant au baccalauréat. L'école d'architecture de Montréal adoptait il y a dix ans, la décision de n'admettre que les candidats possédant le B.A. ou l'équivalent.

Le système présent utilisé dans la majorité des écoles, répond à une époque du passé. L'évolution rapide qui a pris place dans les quelques dernières décades concernant la technologie et sciences architecturales, les multiples formes de spécialisation et l'orientation dominante d'un esprit matérialiste, a favorisé une certaine désintégration à la base des principes affectant particulièrement les responsabilités professionnelles et les valeurs d'autorité et de contrôle. Ces nouvelles conditions nous obligent aujourd'hui de réévaluer nos méthodes d'approche et de prendre toute mesure destinée à sauver notre héritage et à créer un environnement physique établi sur des bases plus rationnelles, plus entières et profondément réfléchies.

Des faits de nature pédagogique ont prouvé par ailleurs que l'énergie des étudiants est presque entièrement consacrée aux approches techniques immédiates de leurs études professionnelles. Pour cette raison particulière, les candidats doivent posséder, avant tout, une culture de base générale et étendue. Ils doivent posséder un sens averti de la pensée systématique, soutenue, objective et précise; ils doivent être sensibles et pouvoir répondre aux significations émotionnelles et intellectuelles qu'impliquent et contiennent les activités humaines; ils doivent mettre en pratique les vertus heureuses à la base de toute relation humaine et ils doivent posséder un goût prononcé pour la recherche dans le domaine des arts et des sciences.

Les candidats, aujourd'hui, ont de plus en plus de possibilités d'entreprendre les cours qui conduisent au B.A. et de s'équiper ainsi d'une formation générale plus en rapport avec leurs responsabilités professionnelles appelées à juger des valeurs humaines et des idées propres à soutenir les meilleures philosophies. La profession doit profiter de cette situation favorable qui conduit à une plus grande maturité d'esprit susceptible de mieux saisir en profondeur et en étendue, les valeurs professionnelles et l'enseignement architectural.

Nous avons également l'obligation de préparer la relève éventuelle de nos professeurs en architecture et seul ce facteur ajoute à promouvoir une politique destinée à élever nos standards parallèlement à ceux de haut calibre requis en vue de mettre un peu d'ordre dans un monde où la confusion règne.

Convaincu de la nécessité d'exiger le B.A., rien ne doit intervenir contre son adoption. L'héritage qui en résultera, compensera des centaines de fois les sacrifices que cette exigence implique, si sacrifices il y a plutôt qu'un manque de clairvoyance.

Pierre Morency, Montreal

Pour quiconque a pris part à la journée d'études du 7 décembre au Reine Elizabeth, il ne fait pas le moindre doute qu'elle a remporté un vif succès tant au point de vue relations extérieures de l'AAPQ qu'au chapitre de sa contribution à la réalisation du programme tracé par le Comité d'enquête de l'Institut sur les conditions d'habitation.

Parmi les buts que poursuit l'Association, il en est un qui s'est vu trop souvent relégué à l'arrière-plan au bénéfice d'objectifs qu'on pourrait qualifier de moins nobles. Non seulement l'AAPQ se doit de veiller aux avantages culturels, scientifiques et économiques de ses membres, mais elle a mission aussi, et surtout, de jouer un rôle esthétique et pratique vis-à-vis du public. Heureusement, ce dernier objectif a pris une cinglante revanche au séminar.

En certains milieux, on avait chuchoté des reproches à l'adresse de l'Institut d'avoir conduit une enquête dans un domaine qui n'était qu'indirectement rattaché à son mandat dans la société. Combien de temps aurait-elle dû attendre pour que d'autres entreprennent la tâche?

Sur le plan strictement légal, le "planisme" et l'esthétique ne relèvent pas encore en exclusivité d'aucune profession en particulier. On aurait mauvaise grâce de jeter la pierre aux architectes et de leur prêter des intentions de pur intérêt. A vouloir endiguer le flot d'indiscipline et d'irresponsabilité qui a déferlé jusqu'ici sur le domaine de l'habitation et à réclamer au plus tôt des plans directeurs et des règlements de zonage plus rigides tant à l'échelon provincial que municipal, les architectes n'ont certes pas comme but premier de garnir leurs goussets mais bien de viser à l'embellissement de la cité de demain.

Le 7 décembre, au-delà de deux cents participants ont écouté les thèses exposées le matin par sept panelistes et se sont groupés en cinq colloques l'après-midi pour débattre les points de vue plus tôt exprimés.

Il ne fallait pas, toutefois, s'attendre à ce qu'une rencontre de six heures apporte des modifications radicales dans l'aménagement de la cité ou dans les moeurs de nos édiles. Les fondateurs de nos cités et villes ne se sont pas montrés des plus clairvoyants: Champlain, Maisonneuve et leurs collègues auraient dû au départ tracer des plans directeurs (!) pour nous épargner aujourd'hui ces regrettables compromis au sujet du Mont-Royal, de Bordeaux, du boulevard Dorchester, etc., pour ne parler que de Montréal. Quand on songe aux millions de dollars gaspillés en expropriations ces dernières années pour corriger le chaos légué par l'incurie des générations précédentes, il s'avère essentiel de prendre les dispositions dès maintenant pour que la chose ne se répète pas en 1980.

Par ce séminar de décembre, l'AAPQ a voulu alerter l'opinion publique. Le but de la conférence, tel que

défini par le président du Comité d'organisation, M. Peter Barott, était de communiquer le Rapport et ses recommandations et d'obtenir l'appui de toutes les disciplines concernées.

On peut résumer de la façon suivante les résolutions adoptées à la séance de clôture:

(1) *Que l'AAPQ organise une série de rencontres entre toutes les associations intéressées à l'habitation en vue d'en arriver à des propositions concrètes pour rehausser les standards et assurer une plus grande stabilité dans le domaine;*

(2) *Qu'on transmette le manifeste de la conférence aux autorités provinciales avec prière de prendre les mesures requises pour établir un système de territoires régionaux, après avoir fait un relevé des conditions physiques, culturelles, sociales et économiques;*

(3) *Qu'on présente une requête au Gouvernement provincial lui demandant d'adopter une loi ou de rendre plus strictes les réglementations qui s'appliquent à l'urbanisme régional et local; et*

(4) *Qu'on porte le concept d'unité de voisinage à la connaissance des sociétés de financement, des autorités municipales, des associations de citoyens, des commissions scolaires et des corporations religieuses.*

En somme les résolutions formulées au terme de la journée d'études réclament des autorités provinciales un plan d'ensemble pour toute la province et des dispositions précises qui imposent aux municipalités des règlements de base en matière d'aménagement urbain.

Ingénieurs, urbanistes et architectes qui ont eu à traiter avec des conseils municipaux sont d'ores et déjà convaincus qu'il ne faut pas trop confier à la décision de ces braves édiles, surtout quand il s'agit d'une question aussi complexe que l'élaboration d'un plan directeur. Telle décision doit se prendre à un échelon supérieur.

Avant toutefois de soumettre un mémoire au Gouvernement de la province, notre Association publiera le texte intégral de chaque conférence prononcée le 7 décembre, un résumé des colloques qui ont suivi et les résolutions en forme adoptées par l'assemblée. Tous les organismes qui se sont fait représenter, ou qui n'ont pas pu le faire mais ont manifesté leur intérêt dans la question, seront conviés de nouveau très prochainement pour mettre au point et endosser les résolutions de la conférence. Elles seront ensuite adressées à qui de droit.

Il y va du bien commun. Les discordes et animosités inter-professionnelles doivent s'effacer. Un travail d'envergure attend urbanistes, architectes, ingénieurs, sociologues, économistes, etc. Tous doivent faire front commun contre l'ignorance et la spéculation.

De toute évidence, la journée d'études n'est qu'un départ.

Jacques Tisseur

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COMING EVENTS

January 14, 1961
Annual Meeting
Manitoba Association of Architects
Fort Garry Hotel, Winnipeg

January 27-28, 1961
Annual Meeting
Alberta Association of Architects
Macdonald Hotel, Edmonton

January 27-28, 1961
Annual Meeting
Prov. Quebec Assn of Architects
Lac Beauport Inn, Quebec

January 27-28, 1961
Annual Meeting
Architects' Association of
New Brunswick
Saint John, N.B.

February 9-11, 1961
Annual Meeting
Ontario Association of Architects
Royal York Hotel, Toronto

February 16-17, 1961
Annual Meeting
Nova Scotia Association of
Architects
Halifax, N.S.

Spring of 1961
Celebration in Honor of Founders
of Modern Architecture,
Gropius, Le Corbusier,
van der Rohe, Wright
Columbia School of Architecture,
New York

May 17-20, 1961
RAIC 54th Annual Assembly
Chateau Frontenac, Quebec

July 3-7, 1961
VIth Congress
International Union of Architects
London, Eng. (Registrations, RIBA)

August 30-September 2, 1961
Conference on Shell Structures
Civil Engineering Dept,
Technical University,
Delft, Netherlands

INDUSTRY

Federal Seaboard Brochure

New York, N.Y., August 31, 1960—Federal Seaboard Terra Cotta Corporation has just issued a new brochure describing and illustrating its new product, CV Durathin. In addition to descriptions of the physical properties of CV Durathin, standard specifications for furnishing and erecting it as well as drawings showing how it is applied to various backings are included in the brochure.

Copies of this new brochure may be obtained by writing to Federal Seaboard Terra Cotta Corporation, 10 East 40th Street, New York 16, N.Y.



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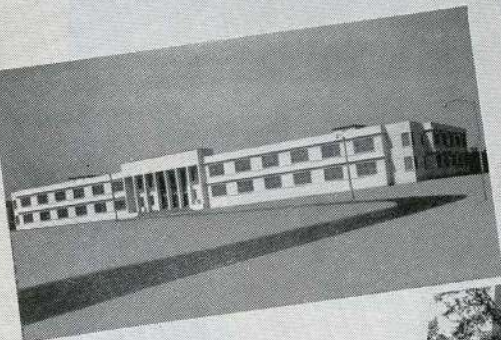
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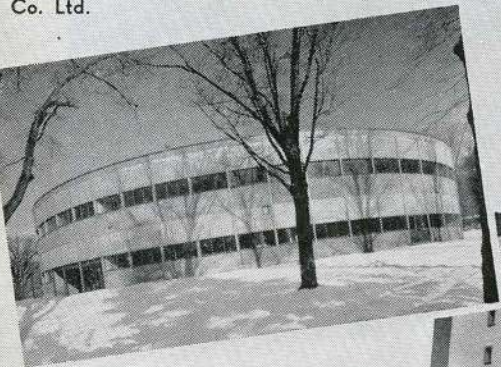


ADMINISTRATION BUILDING, Camp Gagetown, N.B. Engineers, Wiggs, Walford, Frost & Lindsay; Heating Contractor, Reg. H. Steen.

WOMEN'S COLLEGE HOSPITAL, Toronto. Architect, Marani & Morris; Engineer, H. H. Angus & Associates; Heating Contractor, Samuel Crump & Co. Ltd.



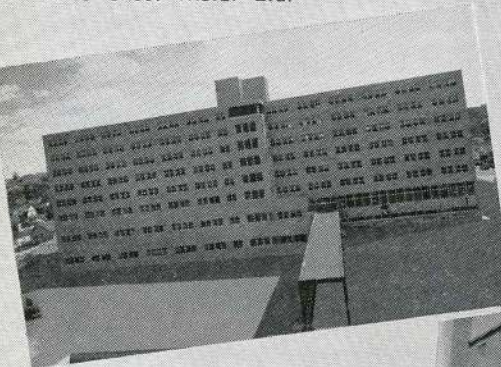
OWEN SOUND HIGH SCHOOL, Owen Sound. Architect, John Layng; Consulting Engineers, Flanagan and Black; Heating Contractor, English & Mould Ltd.



MISERICORDIA HOSPITAL, Winnipeg. Architects, Northwood, Chivers and Chivers; Engineers, H. N. Gawley and R. E. Chant; Air Conditioning, Lafreniere Sheet Metal Ltd.



SCHOOL OF NURSING, HOLY CROSS HOSPITAL, Calgary. Architects, Green, Blankstein, Russell & Associates; Engineers, Sumner & Piercy; Heating Contractor, F. Deeves & Son.



SIR WINSTON CHURCHILL SECONDARY SCHOOL, Vancouver, B.C. Architect, E. D. King; Engineer, D. W. Thomson; Mechanical Contractor, Canadian Comstock Co. Ltd.



New Sound-Control Panel

Canadian Johns-Manville announce the development of a new sound-control panel known as Solo-Tile, consisting of a 7/8" base composed of expanded Perlite, mineral binders and fibers, covered on the face and edges with a perforated sheet of pre-painted aluminum. The aluminum is attached to the base of the Solo-Tile by engagement into the kerfed edges, and by the piercing of the holes, which forces the punched edges of aluminum into the base to provide a secure hold. The white baked enamel finish of the aluminum provides a permanent type surface. The material is available in either random or diagonal perforations, and may be either cemented or suspended in place.



New Open Web Steel Stud

Easier and more economical wall construction is claimed by Dugald Cameron Associates Ltd, Malton, Ont, with use of their new "Fur-Nail" open web steel stud with double nailing slits. Available in 2 1/2", 3", 6" and custom sizes, the stud accommodates drywall, lath and plaster and panelling and also horizontal and vertical services. Double nailing slits permit nailing each side of joint and eliminate loosening and popping of nails. The 1 1/2" wide stud flanges improve facing at joints and secure it without clips. Fewer web diaphragms reduce weight and sound transmission.



Holophane Luminaires

The Holophane Company Ltd announces two new luminaires.

The new 6000 series luminaire featuring Holophane crystal clear, acrylic, prismatic Controlens is only 3 13/32 inches deep to ceiling line. Each of the two lenses is made of one, single injection molded piece 4 feet long. Its distinctively clean, shallow appearance integrates with a wide variety of modern interiors combining economy, visual comfort and high efficiency.

The attractively styled outdoor Wide-Spred® luminaire for efficiently lighting areas such as store fronts, loading docks, parking lots, underpasses, public garages, storage areas, building entrances, recreation and outdoor work areas. The luminaires are designated numbers 480 and 481, for use with 300 watt incandescent or 175 watt mercury lamps.

Further information and literature available from the Holophane Company, Limited, 418 Kipling Ave S., Toronto 18.



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New Bulletin on Preservatives

G. F. Sterne & Sons Limited, Brantford, Ontario, has released a bulletin on STERNSON CU-STET wood and fabric preservative. It describes the standard green CU-STET (for wood and fabric) and clear CU-STET (for wood only). Typical uses, from protection of buildings to treatment of fishing nets and tarpaulins, are given, along with directions for application and specifications. RAIC and AIA File Nos. are given as 25G, 19-A-13, 25-B-17.



Zurn "Thinline" Manual

A new 24-page manual describing "Thinline" supports for wall closets, urinals and lavatories is available from Canadian Zurn Industries, Ltd, 396 Hopewall Ave, Toronto. Titled "Zurn Thinline System", it presents visually the features of the new, slimmer, more compact, behind-the-wall Zurn units. The manual contains minimum space requirements, commonly used combinations, photographs, engineering drawings, and illustrates special variations which may be specified in combination with the basic units; fundamental roughing-in dimension; typical engineered layout arrangements; and engineering data and instructions.

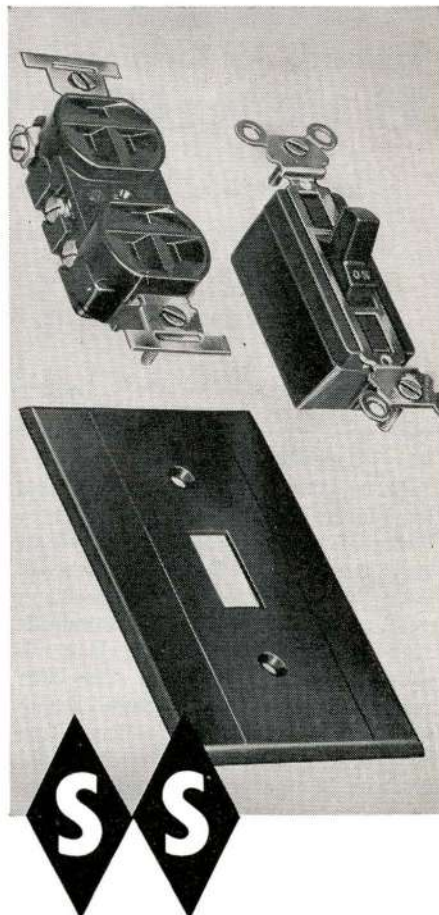
Air Conditioning Catalogue

Worthington Corporation announces the release of a new product catalogue entitled "Twin-Duct Air Blender" for high velocity, double duct air conditioning systems. The catalogue gives detailed engineering information on specifications and noise levels as well as selection and performance data with dimensional drawings. Write Worthington Corporation, Air Conditioning Division, Technical Publications Section, Ampere Station, East Orange, New Jersey.



Colorlith Chalkboard Introduced

Colorlith, a classroom chalkboard in an asbestos and cement composition, has been introduced to the Canadian market by Canadian Johns-Manville. The board, which has a variety of uses, in addition to classroom chalkboard, is available in charcoal gray, reflectance factor 8%; cypress green, reflectance factor 20%; and cameo brown, 17%; and "projection white" for use as a movie or slide screen. Size range of sheets is from 3½' x 4' to 4' x 8'. Brochure No. IN-295A, available from the Company at 565 Lakeshore Rd E, Port Credit, Ont, gives specifications, suggested uses and installation methods.



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G. H. Wood & Company Limited announce their Vinyl Link Floor Mats. Canadian made, from 100% virgin vinyl, these mats will not crack or break even in sub-zero temperatures. A unique link design provides hundreds of wiper action blades that clean the soles and heels of footwear. The links are woven with cadmium plated spring steel wire to assure long and rust-free life. Wood's Vinyl Link Floor Mats are available in eight stock designs, or may be custom made to include names, initials, figures, emblems, or numbers.

Further information may be secured from any G. H. Wood & Company branch across Canada.



Acrylic Emulsions in Paints

Progress Report No. 7, a new 64-page book gives detailed information on the results of a seven-year study of applications and exposure tests of exterior paints made with Rhoplex AC-33, a 100% acrylic resin emulsion. The book contains 21 tables of formulations, applications, and test results.

Details are given on commercial applications and test-panel exposure in various climates. Several types of painted structures, including homes and industrial plants, are shown.

Copies may be obtained from Rohm & Haas Company of Canada, Limited, 2 Manse Road, West Hill, Ontario.

Aluminum Conduit Fittings

The new Pyle-National Copper-Free die cast aluminum fittings augmenting their cadmium plated ferrous alloy Pylets, are made available with an Alkyd-Melamine finish or with Pyle's PEC-9 epoxy coating.

Canadian Series CN die cast Copper-Free Aluminum Pylets and Copper-Free Aluminum Blank Covers have an alkyd-Melamine finish with retained cover screws of cadmium plated steel. Specification grade series OR die cast Copper-Free aluminum Pylets and Copper-Free aluminum blank covers have the added environment resistant protection of PEC-9 epoxy coating. Retained cover screws are of stainless steel. Both series have taper threaded hubs for liquid tight joints. Hubs are tapped simultaneously for true alignment.

Complete information may be obtained by writing to Pyle-National (Canada) Ltd, 33 Ingram Drive, Toronto 15, for bulletins No. 657-C and No. 658-C.



Mosler-Taylor Safes' Booklet

A new booklet recently prepared by Mosler-Taylor Safes Ltd covering their line of modular jail cells, "gang control" devices and prison security equipment, may be obtained from the firm at Brampton, Ontario.

Lightweight Oversize Block

The oversize 18" x 18" "Siporex" building block is now manufactured for stock as a standard precast masonry unit.

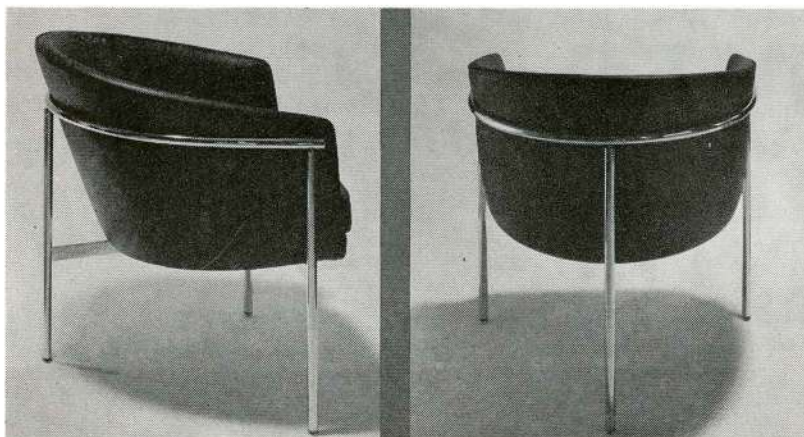
The manufacturer points out that the exceptionally light weight of "Siporex" (20% that of ordinary concrete) ensures easy handling of these large blocks, and that the reduction of mortar joints permits economical and fast erection. The uniform cellular structure of "Siporex" accounts for the light weight and high insulating properties of the blocks.

Available in various thicknesses, "Siporex" blocks can be cut, chased or drilled with ordinary woodworking tools. Full information is available from Siporex Limited, 5165 Sherbrooke Street West, Montreal, Que.



New CCBDA Publications

Two new 8-page booklets are available, without charge, from the Canadian Copper & Brass Development Association, 55 Yonge Street, Toronto, Ontario. They are CCBDA Publications No. 2 "Soldered and Brazed Joints in Copper Tube" and No. 3 "Copper Drainage Tube DWV". Both are intended to be used as standard references on the subjects for all those concerned with, or interested in, the use of copper tube.



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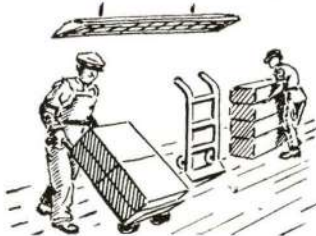


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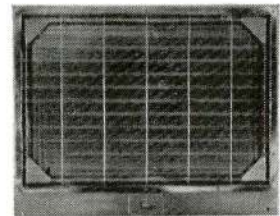
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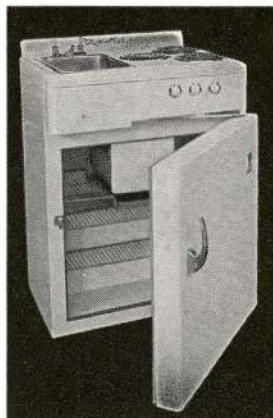
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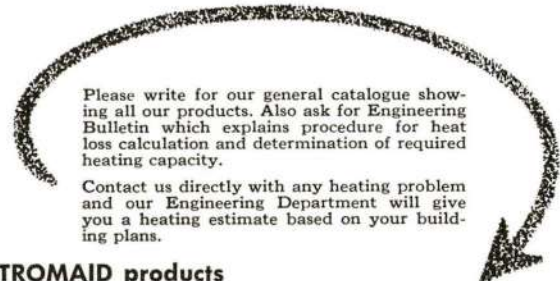
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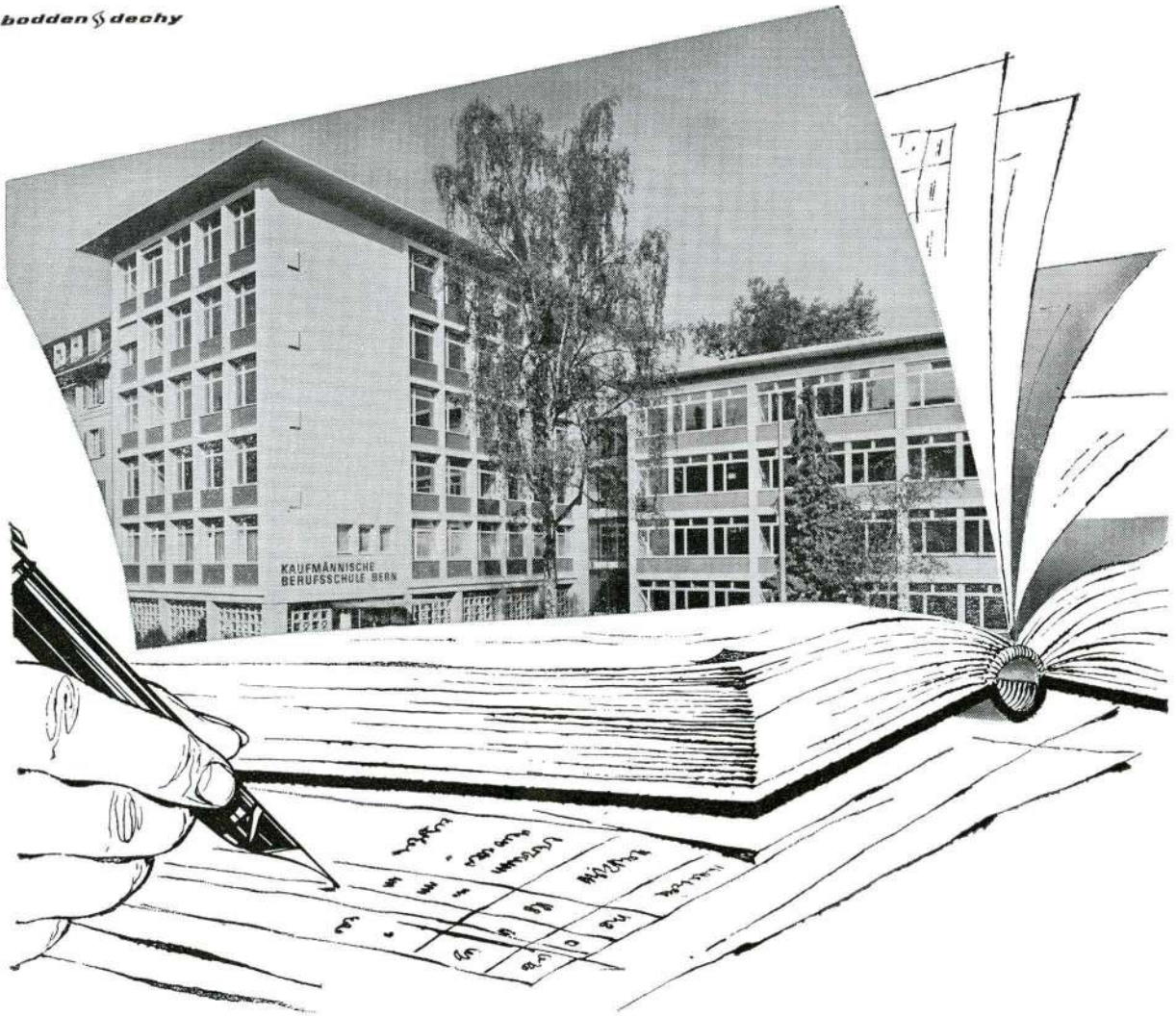
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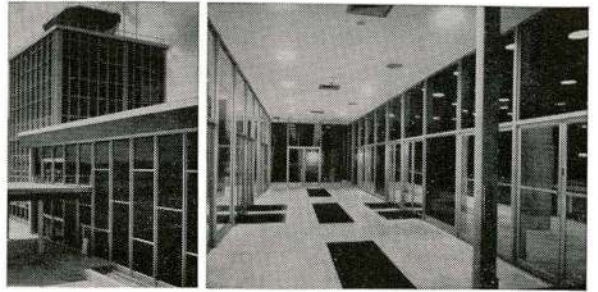
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Ottawa, Ont.
Associate Architects: Archibald,
Illsley & Templeton, Montreal
Larose & Larose, Montreal
Consulting Engineers:
Wiggs, Walford, Frost &
Lindsay, Montreal.
General Contractor:
Foundation Company of Canada
Limited, Montreal



SPRAYED "LIMPET" ASBESTOS was applied to beams, girders, columns and the underside of steel floor assemblies for fire protection. It was also used for condensation control in the Fingers, Aeroquays and underground Connecting Tunnels.

"ATLASITE" INSULATION was applied to high temperature lines in the Terminal Heating Plant and underground Connecting Tunnels. Other "Atlas" insulations were applied to low temperature lines in the Terminal Building itself.

"TURNALL" DENSITE ACOUSTIC PANELS were employed for suspended ceilings throughout the Terminal Building, Connecting Tunnels, Fingers and Aeroquays. Composed of Asbestos Fibre and Portland cement, they are fire-proof, rot-proof, rodent-proof and PERMANENTLY attractive.

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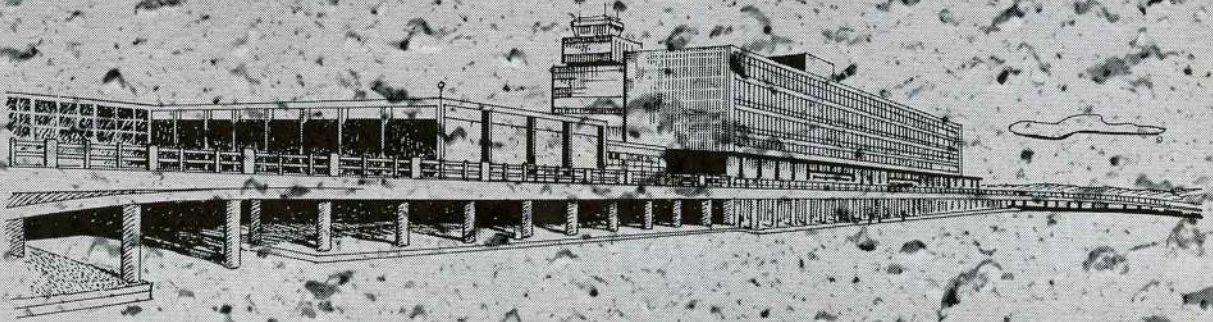
Acoustic Panels:
Dominion Sound Equipments Limited, Montreal
High Temperature Insulation:
Jos. Olivier Ltée., Montreal
Low Temperature Insulation:
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EQUIPMENTS LIMITED,

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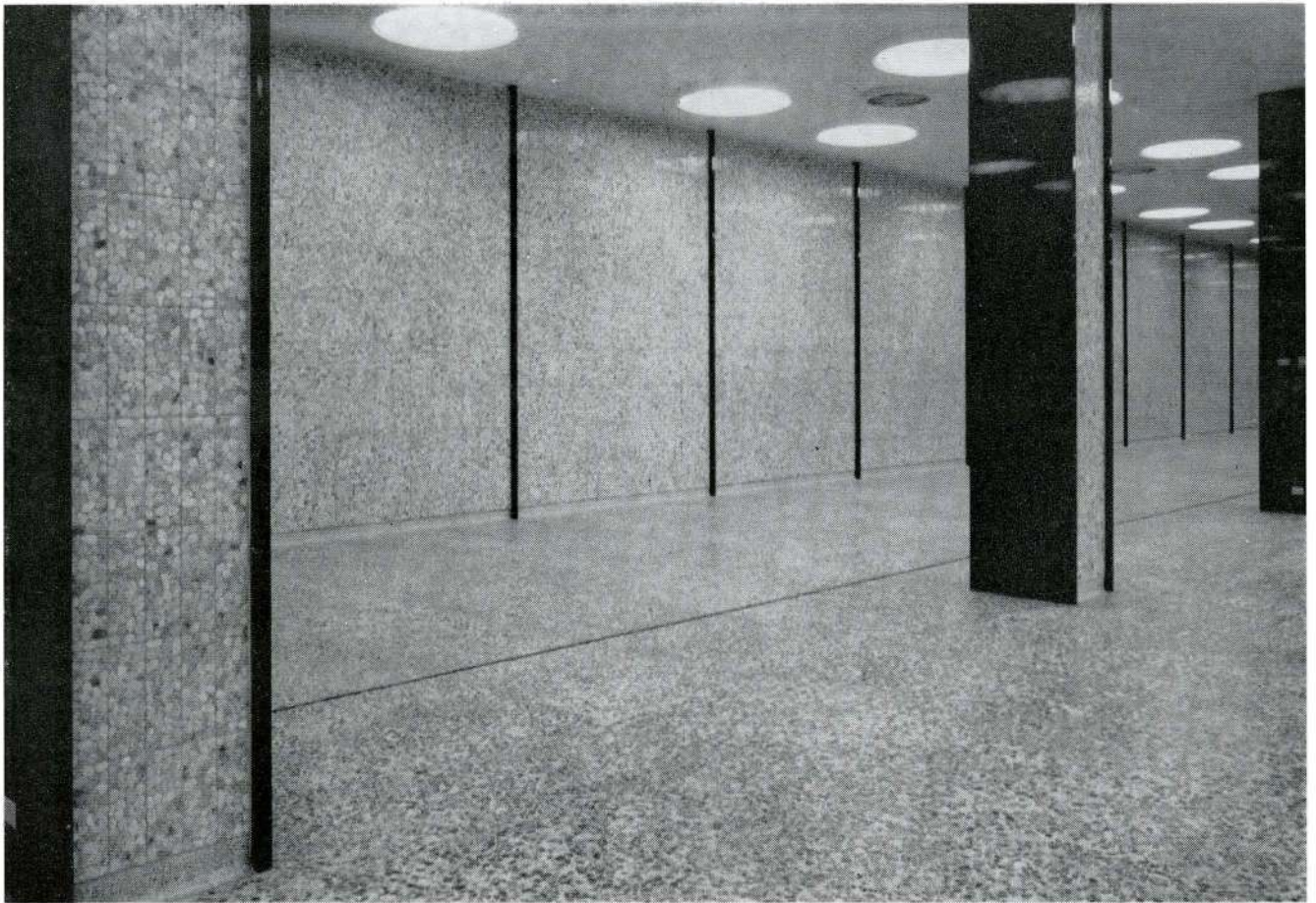
BRANCHES: Halifax, Saint John, Montreal, Ottawa, Toronto, Hamilton, London, North Bay, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver.



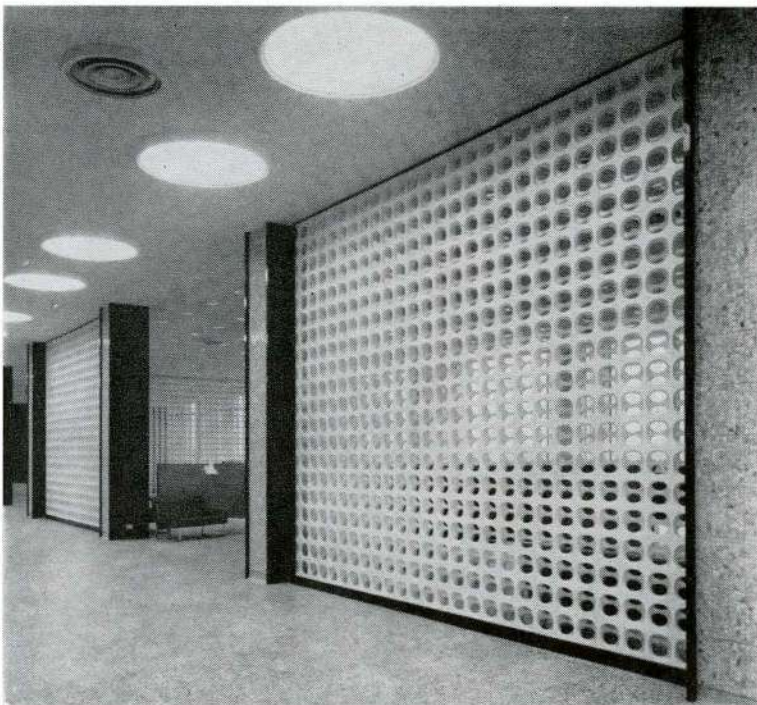
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For Modern 2-Foot-Wide Troffers...

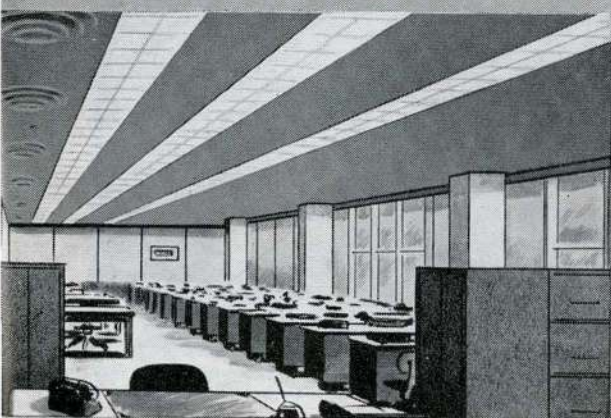
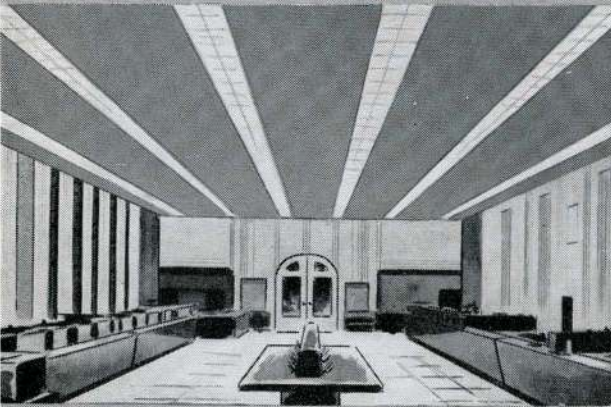
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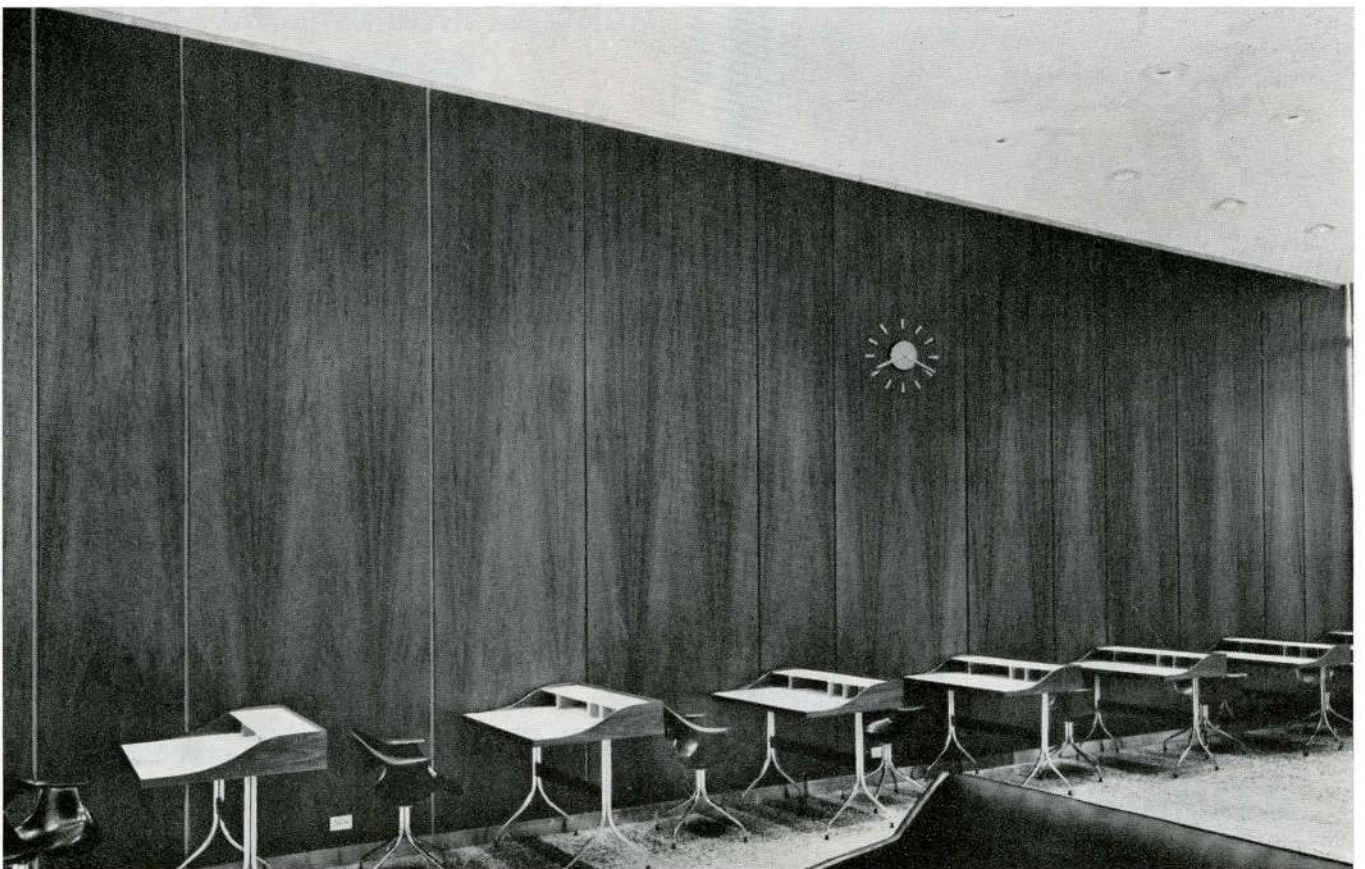
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MAIN STAIR

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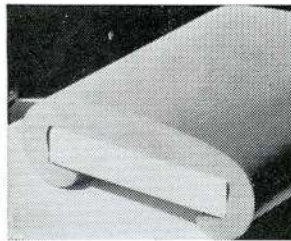
Teak panelling shown in this picture of Montreal Air Terminal waiting room is typical of work under large contract entrusted to the Randall organization.



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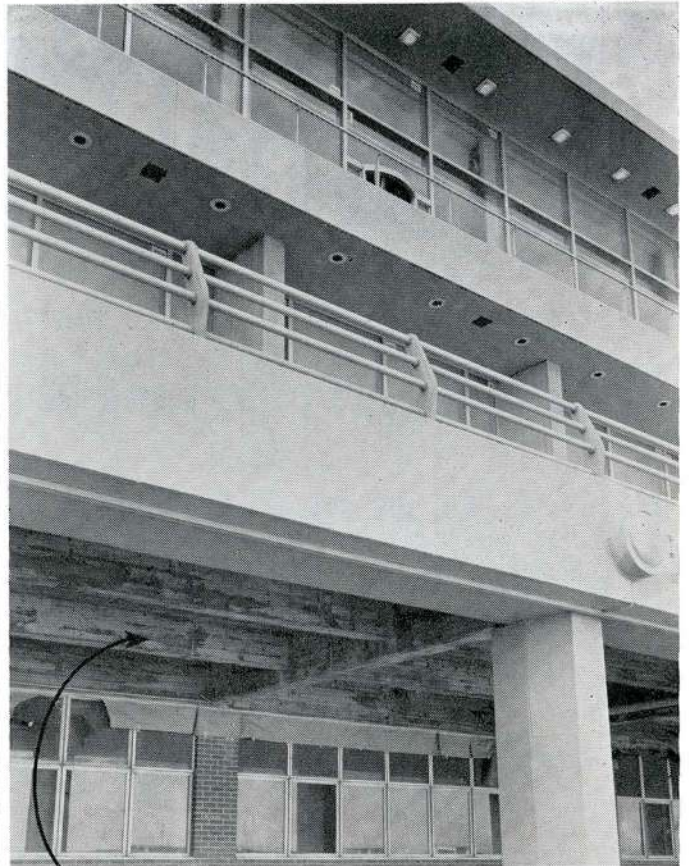
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THE NEW MONTREAL INTERNATIONAL AIRPORT

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Arrow indicates unfinished concrete on Soffit of Trolley-way. Note amazing transformation on columns, Fascia and Soffits of Spectator Deck coated with "ARMOBOND".

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The new bridge across Burrard Inlet has the distinction of being the largest cantilever bridge in British Columbia and the second largest in the whole of Canada. It is 3,160 feet long, has a main span of 1,100 feet and uses 16,600 tons of structural steel.

British Columbia has many notable bridges to its credit and the Second Narrows bridge will play an important part in the further development of the provincial highway system.

During its 78 years of business activity Dominion Bridge has built more than 3,000 steel bridges. Of these, many are famous landmarks in British Columbia.

Quick facts about the Second Narrows Bridge:

Total length of steelwork	3,160 feet
Length of main span	1,100 feet
Rivets used in shop fabrication	1,000,000
High strength bolts used in erection	400,000
Weight of steel superstructure	16,600 tons
Heaviest individual pieces	Six lower chords each 95½ tons

STRUCTURAL DIVISION

57

DOMINION BRIDGE

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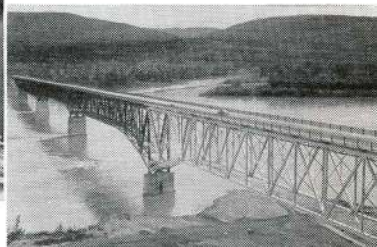
Lions Gate



Oak Street



Pattullo



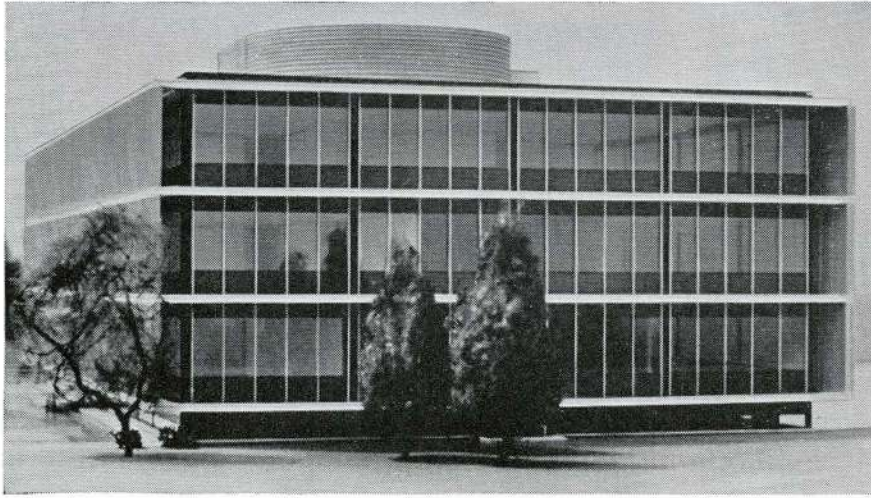
Peace River



Kelowna

Port Mann
(under construction)





Architects :
Peter Dickinson Associates
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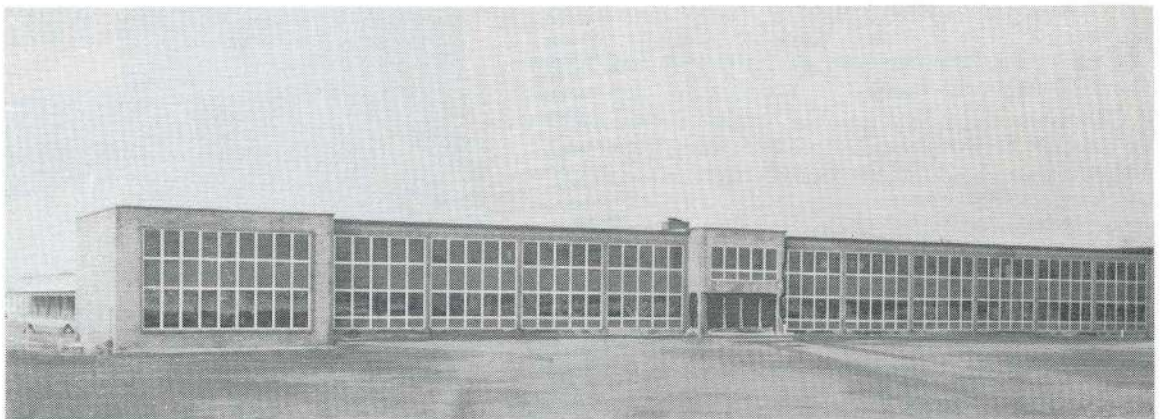
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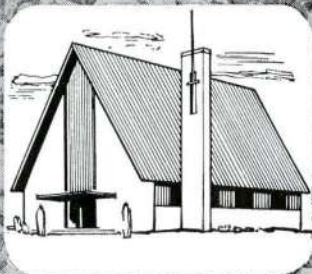
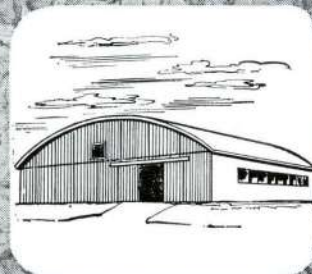
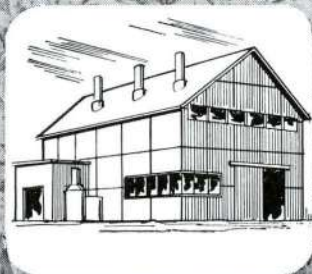
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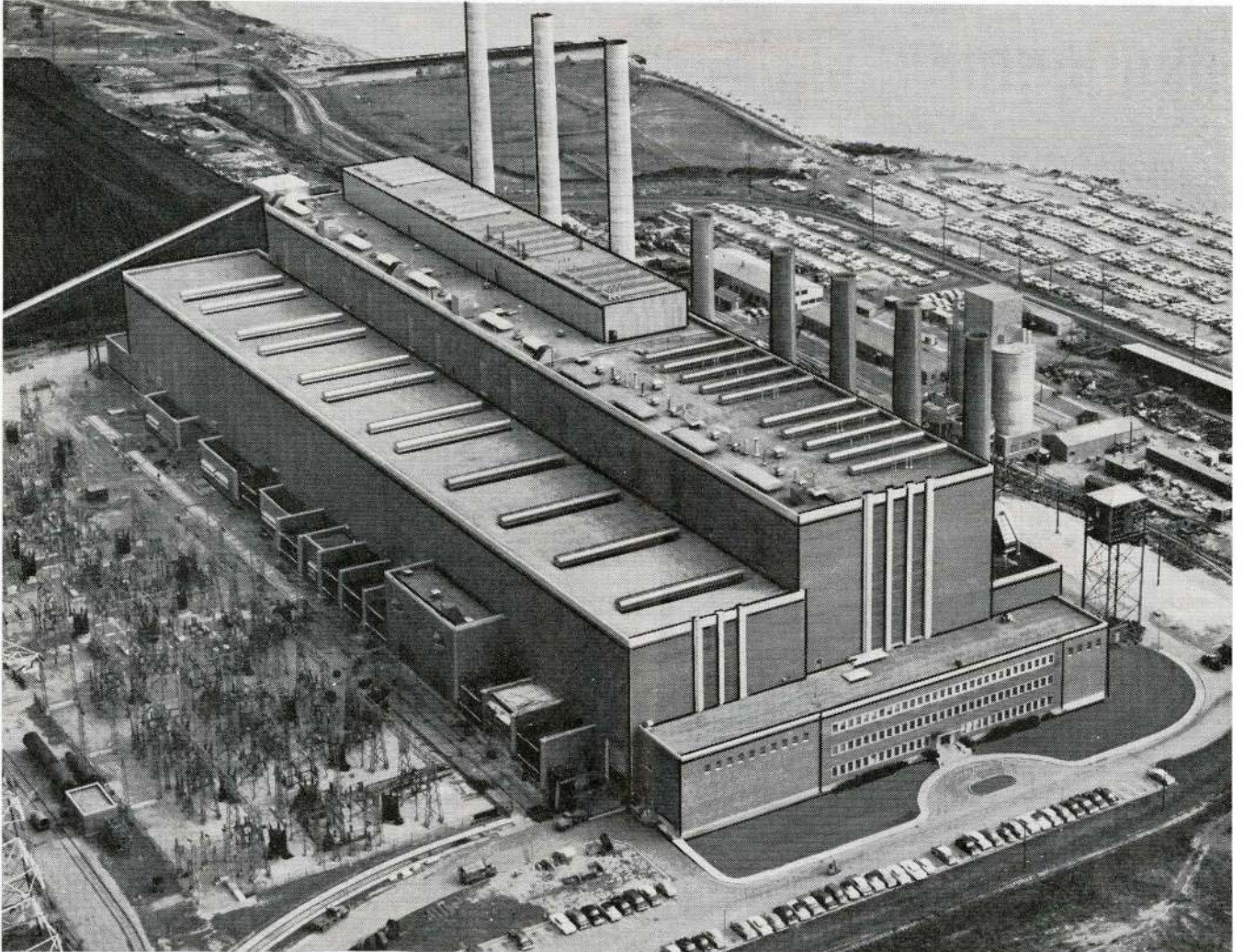
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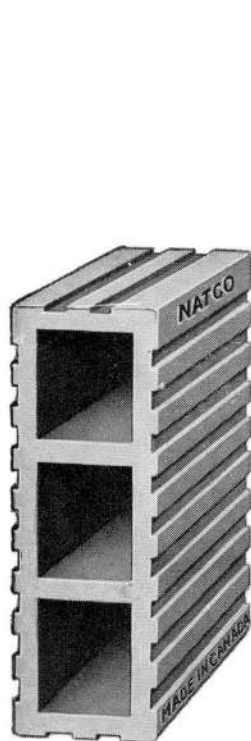
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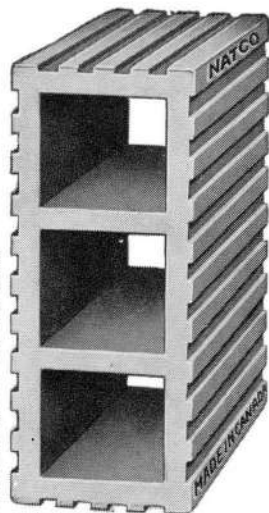
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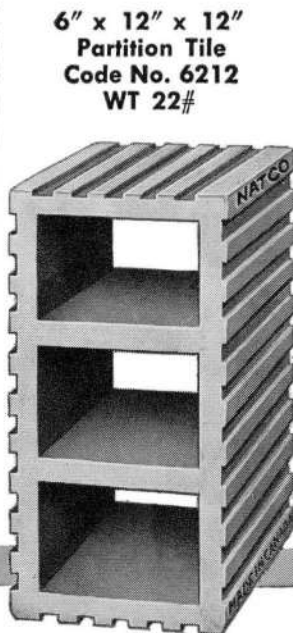
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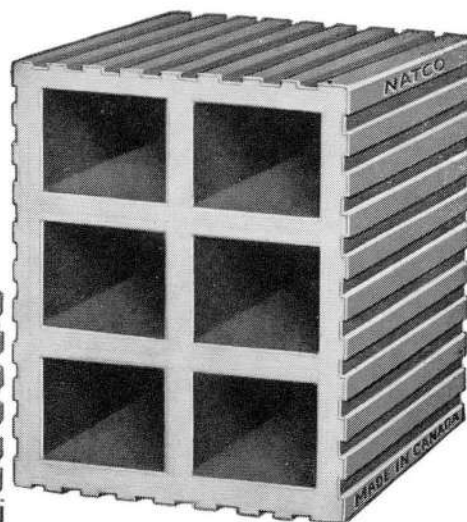
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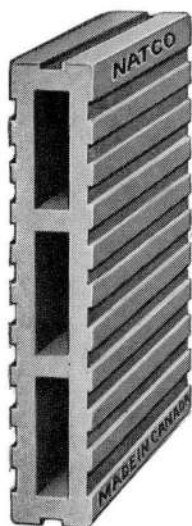
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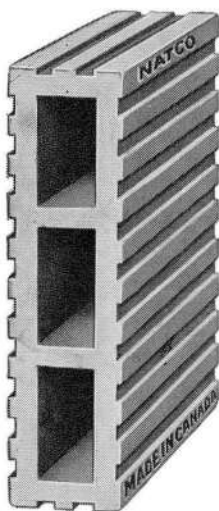
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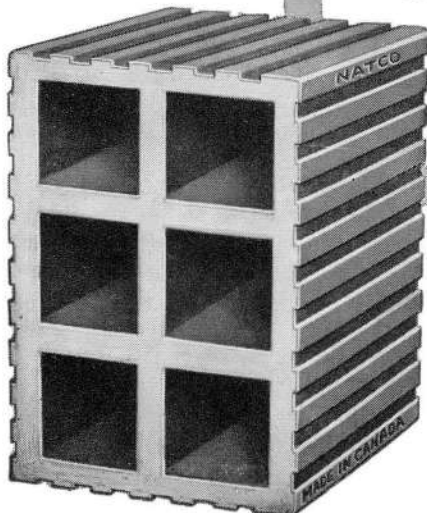
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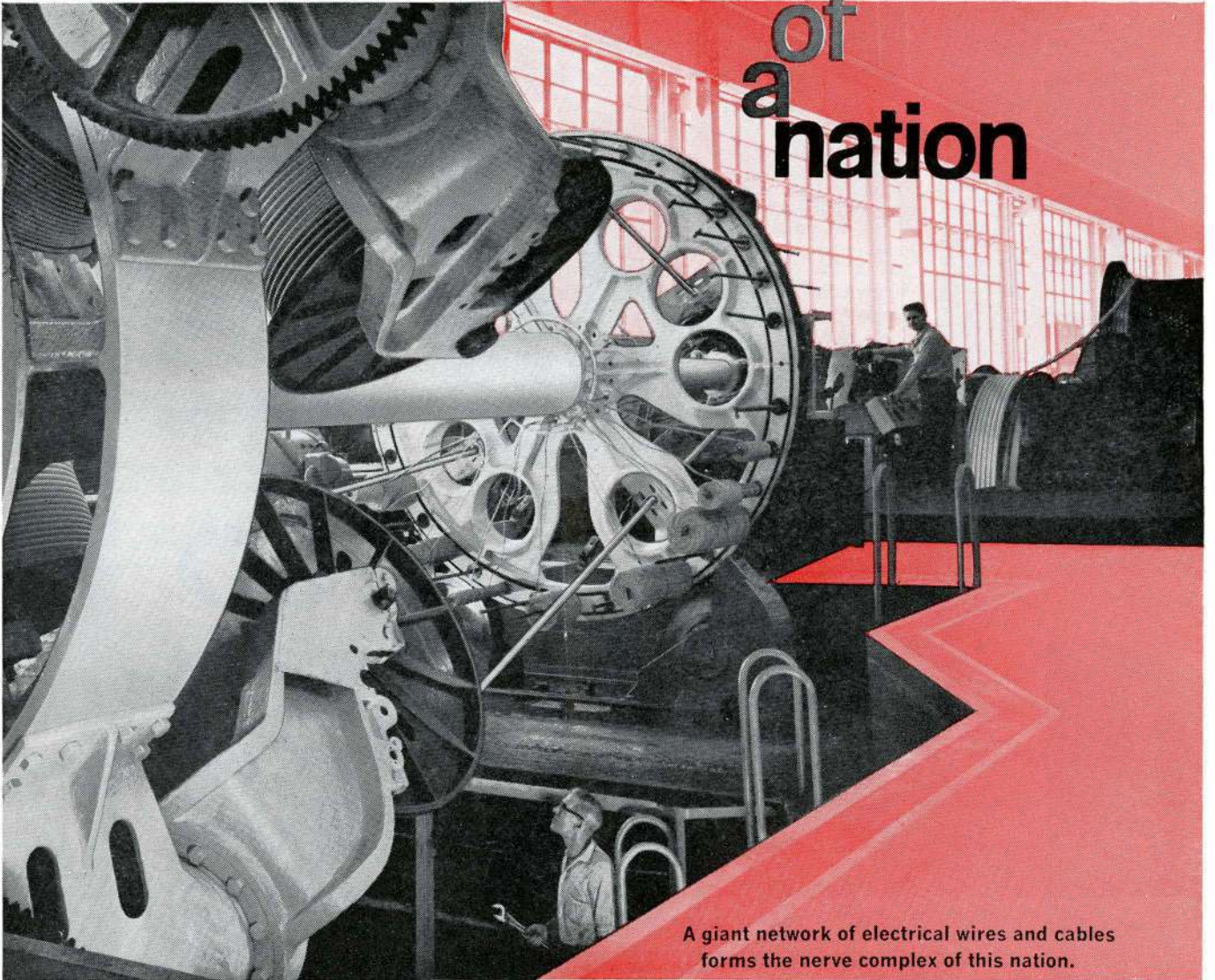
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Technical Considerations. Problems involved in producing uniform quality concrete during cold weather can be easily overcome if these established fundamentals are followed.

When the temperature of the concrete is below 70F, it sets more slowly and the development of the strength is delayed. Below 50F, delay of the set is pronounced and early strengths are sharply reduced. At slightly below 32F, concrete will not set.

To provide normal performance characteristics for concrete in cold weather, it is necessary that one or more (depending on temperature and exposure) of the following practices be employed:

1. Raise temperature of area in which concrete is to be placed.
 - Raise to above freezing the temperature of forms, adjacent concrete and subgrade . . . avoid the presence of ice or the possibility of its formation during concreting.
 - Slabs lose moisture and/or heat rapidly in cold weather atmospheres. Protect from wind and rapid moisture loss . . . provide heated enclosure if necessary to keep concrete temperature above 50F. Avoid overworking of cooled slabs having delayed set . . . don't get on slabs too soon.
2. Raise the temperature of materials (water, coarse aggregate, fine aggregate).
 - The temperature of freshly placed concrete in cold weather should be at least 50F and not more than 90F. In addition to heating water, it may be necessary to heat aggregates. When heated materials are used in concrete mixes, add cement last—to prevent flash sets.
 - Generally, the temperature of the average concrete mix can be raised *one degree* by making . . .
 - a 9° increase in temperature of cement
 - a 3.6° increase in temperature of water
 - a 1.6° increase in temperature of aggregate.
3. Utilize materials (cements, accelerators, etc.) that promote development of high early strength concrete.
 - Water-reducing agents reduce water/cement ratio and produce high early strength concrete.
 - Additional cement (with no increase in water content in the mix) reduces the water/cement ratio and produces high early strength concrete . . . too high a cement content may be objectionable.
 - High early strength cement (Type III) produces high early strength concrete . . . it does not make concrete set more rapidly.
 - Calcium chloride in amounts up to 2% by weight of cement, and other chloride-type accelerators, make concrete set more rapidly and produce high early strength concrete . . . they should not be considered as "anti-freeze" for concrete since chloride lowers the freezing point only a few degrees.
 - A combination of materials, such as a water-reducing agent and calcium chloride, promotes early setting and early strength development.
4. Maintain proper curing conditions (both temperature and moisture).
 - Provide insulation or heated enclosure to maintain concrete temperatures for minimum periods as shown:

TEMPERATURE OF CONCRETE	70F OR 50F
Plain Concrete	3 days 7 days
High Early Strength Concrete	2 days 3 days

After these periods, maintain concrete temperature above 40F for at least 4 days. *Do not allow concrete to dry.*

(CAUTION: After curing and attainment of strength, remove the protection in such a manner that the temperature of the concrete will not drop faster than 40F in 24 hours.)

- Curing and protection, from start to finish, should be continuous and uninterrupted until concrete develops its designed strength. Concrete in both its fresh and hardened state loses moisture and/or heat rapidly to cold weather air which normally has great moisture absorption capacity. This easy drying-out of cold weather concrete can stop strength gain . . . avoid it!

Function of POZZOLITH® in Cold Weather Concreting

- Available in both POZZOLITH (Normal) and POZZOLITH High Early formulations for close control of setting time and rate of early strength development.
- Reduces unit water content 10% to 20% for a given slump. Makes a corresponding reduction in water/cement ratio resulting in 20% to 30% increase in strength of concrete at all ages—including the critical early age for cold weather concreting.

POZZOLITH (Normal) plus normal portland cement produces higher strength concrete and thus higher strength at early ages than a comparable plain concrete.

POZZOLITH High Early plus normal portland cement produces

3 day normal strength in 1 day

7 day normal strength in 3 days

28 day normal strength in 7 days

. . . and up to 25% higher ultimate strength.

- Produces all the other benefits derived from the water-reducing and air-entraining action of POZZOLITH.

Suggested Specification Clauses

When job site temperatures drop below 50F, the contractor and concrete producer shall institute cold weather concreting precautions and practices in accordance with the ACI Standard Recommended Practice for Winter Concreting (ACI 604-56).

POZZOLITH, manufactured by The Master Builders Company, Ltd., Toronto 15, Ontario, shall be used in all concrete to reduce the mixing water requirement and to control the rate of hardening in keeping with specifications requirements and prevailing job site temperatures.

Cylinders used as a basis for the acceptance of concrete as delivered to the structure must be transferred at the age of one day to a location (usually the testing laboratory) where they will receive continuous standard moisture curing until test.

Concrete cylinders stored at the job site for the purpose of determining when forms can be stripped, jacks removed, etc., shall have the same curing conditions as the sections represented by the test specimens.

Our 50th Year of Service

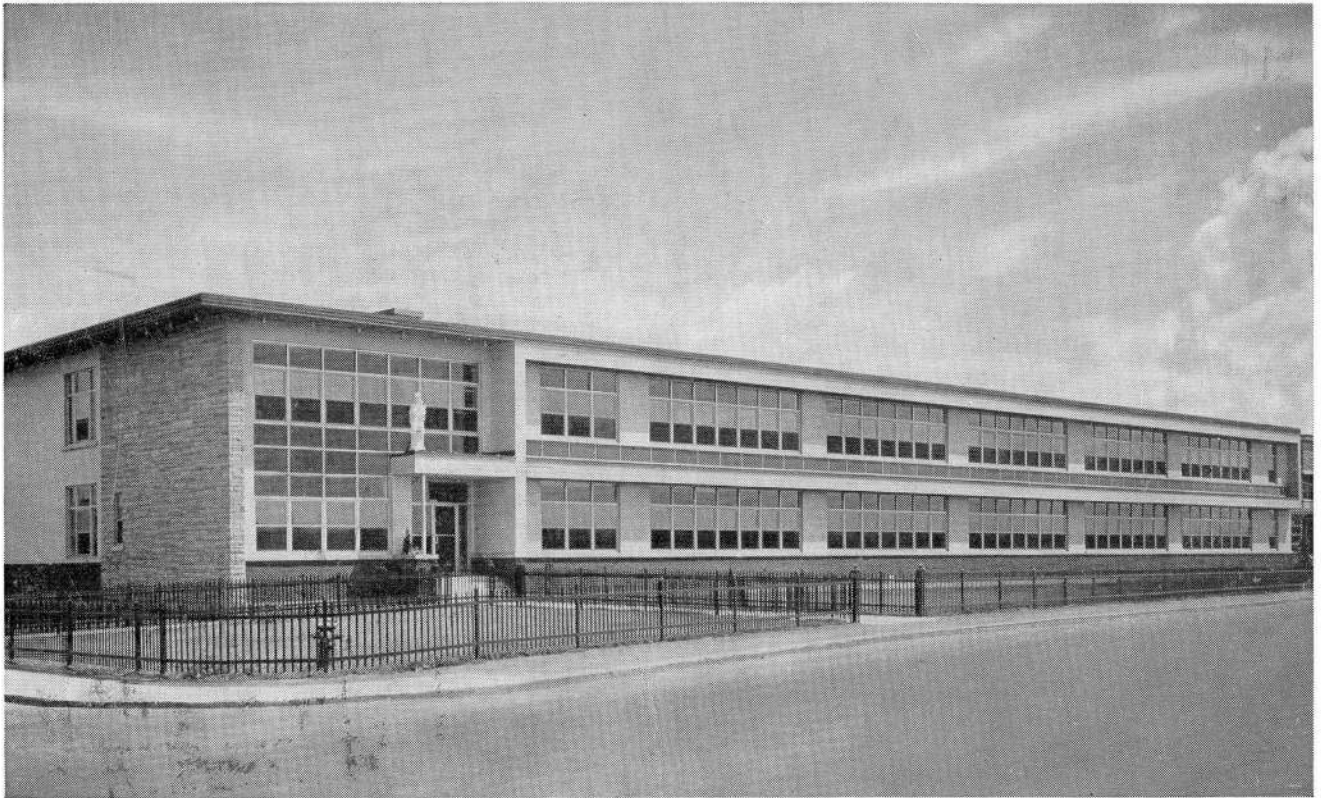
The **MASTER BUILDERS** Company, Ltd.

Subsidiary of American-Marietta Company • General Offices and Factory, Toronto 15, Ontario

Branch Offices in Vancouver, Edmonton, Winnipeg, London, Ottawa, Montreal and Saint John

MC-6016

POZZOLITH is a registered trademark of The Master Builders Company, Ltd. for its ingredient for concrete which provides maximum water reduction, controls rate of hardening and increases durability.



NOTRE DAME AUXILIARY SCHOOL, VERDUN, QUEBEC

Architect: **Jean Maurice Dube**

Builders: **J. R. Robillard Ltd.**

RUSCO colour highlights Verdun school design

Rusco Steel Windows in Country Club Green, contrasted with white frames and bright red panelling, create a striking picture of eye-pleasing design excellence in this distinctive new school at Verdun, Quebec.

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Functionally, aesthetically and for flexibility, Rusco steel windows offer greater design benefits to architects and builders coast to coast. And, Rusco baked-on enamel colours will give more years of bright, weather-resistant beauty.



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