

# THE MANITOBA PROFESSIONAL ENGINEER

February, 1963

Bulletin of the Association of Professional Engineers of the  
Province of Manitoba



WINDSOR PARK, 1962 — No. of Households, 2800 — Population, 12,645  
(See story inside, "Modern Subdivisions" by A. W. Bell, P. Eng.)

**ANNUAL FEE up to March 1** ..... **\$15.00**

**ANNUAL FEE after March 1** ..... **\$18.00**

## 34th ANNUAL DANCE

FRIDAY, MARCH 15

ROYAL ALEXANDRA HOTEL

9:00 p.m. to 1:00 a.m.

Published by the Association of Professional Engineers of the Province of Manitoba  
418 — 265 Portage Avenue, Winnipeg 2, Manitoba

*President* — T. E. WEBER, P. Eng.

*Vice-President* — B. CHAPPELL, P. Eng.

*Secretary and Registrar* — O. MARANTZ, P. Eng.

The Manitoba Professional Engineer is published under the direction of the Bulletin Committee

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Vol. 6

WINNIPEG, MANITOBA, FEBRUARY, 1963

No. 1

## President's Message

By T. E. WEBER, P. Eng.

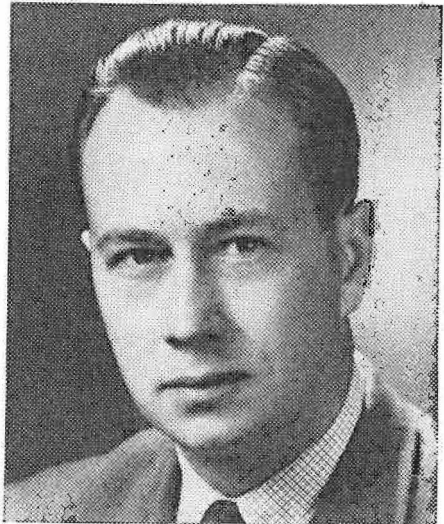
In this, the first edition of the Manitoba Professional Engineer for 1963, I wish to take this opportunity to wish the members a happy, prosperous and "professional" New Year.

On January 7th, Council gave final approval on the membership of the fourteen committees of Council. Organizational meetings of the Committees have been held and many have started on their 1963 programs. It is through these committees that your Council can carry out the varied phases of the program for the advancement of the Association and the Profession in Manitoba. Council and its committees represent the Association of which you are a member, therefore, during the year if you have any suggestions or complaints bring them to the attention of Council or the appropriate committee.

Within the next few months you will have the opportunity to vote on the plan for Confederation proposed by the Engineers Confederation Commission. This plan is the result of two years' work by very competent and dedicated Engineers. It, therefore, demands your serious consideration before casting your vote. Between now and the time of the vote discuss this proposal with your fellow Engineers whenever possible, as it is through this media that you, as a member, can ensure that the results represent the well-considered opinion of the Engineers in Manitoba.

Through Canadian Council your Association has again had the opportunity to recommend candidates for an Emergency Measures Organization Technical Orientation Course and a Shielding Analysis Course both given at the Civil Defence College at Armprior and running for five days. It is anticipated that in the future we will again be requested to recommend candidates and if any members are interested in these courses they should contact the office.

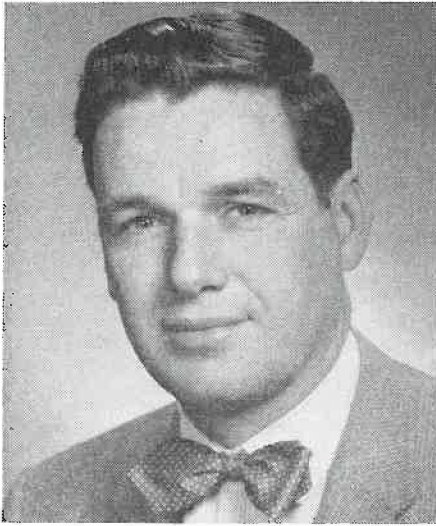
## President 1963



The new President of the Association of Professional Engineers of the Province of Manitoba for 1963 is T. E. (Tom) Weber, Chief Engineer, Water Control and Conservation Branch of the Manitoba Department of Agriculture and Conservation.

Tom served for eight years on the Social Committee and later was on the Engineering Technicians Committee and the Legislation Committee. He is a Past Chairman of the Civil Section of the E.I.C.

Elected to Council in 1960, he was Vice-President last year. One of our younger Presidents, his well known energy and ability assure our members of an active and rewarding year. — I.W.T.



COUNCIL MEMBER

R. C. (Craig) Sommerville, Engineer of Waterworks for Metro, was elected to his first term on Council this year. Previous Association activities include service with the Student Liaison Committee and as Chairman of the Public Relations Committee and the Bulletin Committee.

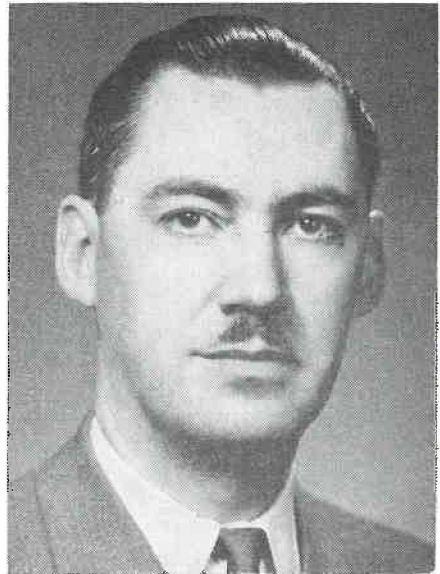
Well known to Bulletin readers as our Editor in 1960 and 1961, Craig has a very keen interest in Association affairs, and his editorial comments over the past few years revealed many fresh ideas and new approaches to old problems.

We are sure he will make a strong contribution to the work of Council and his progress will be watched with interest (especially by his ex-friends on this Committee, from whom he can expect no special consideration, now that he is one of THEM).—I.W.T.



We welcome the return to Council this year of R. T. (Bob) Harland, Assistant General Manager, City Hydro. Active for many years in Association affairs, he previously served on Council during 1958-59, and before that was a member of the Plan for Unity Committee and the Legislation Committee. He is still Chairman of the latter Committee. He is also Past Chairman of the Electrical Section of the E.I.C.

He is particularly remembered as the friendly and helpful representative of Council at



COUNCIL MEMBER

various committee meetings during his last term on Council.

His experience and talent will be a strong influence in Council affairs this year.—I.W.T.



One of the new members elected to Council at the recent elections is James R. Rettie, Director of Engineering of Manitoba Hydro.

Born and educated in Winnipeg, Jim graduated from the University of Manitoba in 1935 with a degree in Civil Engineering. His engineering career started with the C.P.R. in British Columbia, continued with Anthes Foundry in Winnipeg, and from Anthes, he took his first job with the Province of Manitoba, Dept. of Mines and Natural Resources. During the war years, Jim worked for Fraser Brace Engineering Limited of Montreal where his experience included work on the Atomic Energy Site of Chalk River, construction of an aluminum plant and work at United Shipyards in Montreal on the construction of LST's and 10,000 ton cargo ships. In 1945, Jim returned to the Manitoba Department of Mines and Natural Resources where he became Project Engineer for the Pine Falls Generating Station — the first hydro electric power plant to be built by the Manitoba Government. With the formation of the Manitoba Hydro-Electric Board in 1949, Jim became one of the original Board employees and in his position as Manager of Engineering, played



COUNCIL MEMBER

a major part in the building of MacArthur Falls Generating Station, Brandon Steam Plant, Selkirk Steam Plant, Kelsey Generating Station and Grand Rapid's Generating Station.

In 1961, with the merging of the Manitoba Power Commission and the Manitoba Hydro-Electric Board to form Manitoba Hydro, Jim became Director of Engineering, the position he now holds. Currently much of his time is being taken up with planning studies for work on the lower Nelson River.

In addition to his membership in the APEM, where he had previously served on the nominating committee, Jim holds memberships in the Engineering Institute of Canada, the Canadian Electrical Association, the American Society of Civil Engineers and the Canadian National Committee, International Commission on Large Dams. With this latter body Jim is an executive member and in his capacity as official Canadian delegate he has just returned from a three-week trip to the International Convention in Cairo Egypt. With the E.I.C. Jim was chairman, Annual Meeting Committee, when that body held its Annual Meeting in Winnipeg in 1960.

Jim is married with two children, Brenda, a Home Economics Student at University of Manitoba and Ross in Grade XI at Windsor Park Collegiate. When he gets the opportunity, he likes to relax at a game of curling, or do a little swimming or hunting. Jim is also interested in art.

The APEM is indeed fortunate to have as a councillor, a man with such a varied back-

ground in engineering and one who through his present position is so actively engaged in furthering the economic growth of the Province of Manitoba.—C.R.M.



## COUNCIL MEETING

January 9, 1963

Attending the Council meeting of January 9, were President Weber, Vice-President Chappell, Registrar Marantz, Councillors Rettie, Sommerville, Borgford, Noonan, Harland and Hoogstraten.

Issue of seven licences was approved. The issue of three licences to one man brought forward an explanation of a not generally known fact, that a temporary licence issued to a non-member covers only one specific job.

One Engineering Pupil and thirteen Engineers in Training were enrolled, and two transfers were approved. Fourteen Engineers were registered and two applications rejected for lack of qualification. Two ex-members were reinstated after receipt of appropriate membership fees, plus penalties. (Beware the first of March, dear reader).

The representation of the Association on the Metro Building Code Committee provoked considerable discussion as to who should represent the Association on the main committee, and whether we should be represented on the various sub-committees. It was decided that the Metro committee be approached unofficially and their views be obtained.

Council felt that the Engineering Technicians Committee should make a start on proposals for organization of an Engineering Technicians Group, which could be organized under its own identity but administered by the A.P.E.M. The President agreed to convey Council's thoughts to the Technicians Committee at their next meeting.

The request of the Consulting Engineers Committee for changes in the Act was referred back to committee for details of what changes to what section of the Act. A request from Canadian Council for comment on the advisability of presenting a brief to the Royal Commission on Taxation was discussed. Although it was felt that the profession had no specific concern in taxation as far as Association affairs were concerned, it was suggested that an Engineer's view of taxation in general might be of value to the Commission. The Advisory Committee will be asked to consider the subject. — I.W.T.

## COUNCIL MEETING

November 6, 1962

The final meeting of the 1962 Council was held on November 6, 1962, at 4:30 p.m. Present were President Chant, Councillors Landon, Chappell, Borgford, Weber, Marantz, Wardrop and Noonan.

The fee charged to the E.I.C. for collection of E.I.C. dues through the A.P.E.M. offices was discussed and it was unanimously agreed that the present fee of fifty cents (50c) per collection be increased to One Dollar (\$1.00).

A motion to obtain additional storage space from the office opposite the present premises was passed with limitations regarding cost.

Due to lack of time for the necessary co-ordination with other Associations and the E.I.C., the proposal for including a questionnaire with the confederation ballot was dropped.

The C.C.P.E. assessment increase from \$1.50 to \$2.00 per member was approved for January 1, 1963, on the basis that the increase was required to improve present services and not to initiate new ones.

Correspondence from S. J. Borgford suggesting that Council take an interest in the Metro Building Code Work Committee was discussed. It was pointed out to Mr. Borgford that Dr. Landon had already been appointed Council's representative. The letter was referred to him.

Following a recommendation by the Joint Committee of Architects and Engineers, it was unanimously agreed that a meeting be undertaken by the respective Association Presidents with the Minister of Health to discuss safeguards to ensure that the Municipal Hospital Board used proper professional supervision for building extensions and equipment installations.

Two infractions of the Engineering Profession Act were discussed. A meeting with one of the principals concerned and the President, Vice-President, Registrar and legal counsel was proposed for the near future. The President was to reply to correspondence dealing with the other infraction.

The existing practise of paying for the luncheon associated with the annual Kipling Ritual was discussed. When practice was started, the people involved were mainly the new engineering graduates as few camp members attended the ceremony. Today a large number of camp members attend the Ritual and their lunch cost was paid by A.P.E.M. as well as that of the students. The President and Regis-

trar were to discuss this matter with the camp Wardens in regard to controlling the contribution by the A.P.E.M.

The annual meeting was discussed briefly with regard to procedures in relation to the new practice of printing all committee reports in the Bulletin. The Executive Secretary was requested to notify all committee chairmen that they were required to be present at the meeting and were to prepare a brief abstract of their reports for presentation.

All Council members present were asked to read their prepared statements regarding Confederation. Councillor Chappell considered that the unity of purpose was the main consideration and was in favor of the vote on the report. Councillor Borgford had no statement prepared. Councillor Marantz expressed regret that so much effort that had gone into confederation seemed likely to be wasted just due to individual power plays. He was in favor of approving the report and making changes after it had been approved. Councillor Noonan was in favor of the report and stated the principle had been lost sight of due to personalities involved. Councillor Weber criticized the lack of co-operation between C.C.P.E. and the E.I.C. and stated that Confederation was not acceptable in its present form. He recommended that the report be turned down and that the C.C.P.E. build a strong organization to act for engineers across Canada. Councillor Landon was in favor of ballot. President Chant expressed the view that Confederation would work if given the chance although he was not in full agreement with the way it was presently written.

As the Council was not unanimous, the President suggested that both views be presented to the membership and that the view "for" be presented by Registrar Marantz and the view "against" be presented by Councillor Weber. Councillor Borgford expressed the opinion that the membership would vote for Confederation as it was written.

The meeting adjourned around 7:00 p.m.

—G.R.K.



## CONGRATULATIONS

To Mr. and Mrs. H. P. Schippers on the birth of a daughter, Pamela Renee, on January 24, 1963.

To Mr. and Mrs. R. M. Stokes on the birth of a son, Richard Alexander, on January 26th, 1963.

## Increased Numbers Attend Annual Meeting

### T. E. Weber Elected President

The switch in days from Saturday to Thursday resulted in a larger number of members attending the annual meeting. This was particularly noticeable during the meeting portion, although there was an increase in those attending the dinner as well.

Councillors elected were J. Hoogstraten, J. R. Rettie, R. T. Harland, S. J. Borgford and R. C. Sommerville. T. E. Weber was elected President, B. Chappell Vice-President and O. Marantz was elected Secretary-Treasurer and Registrar.

Meritorious Awards were presented to E. V. Caton, J. W. Sanger and A. J. S. Taunton, following the dinner. G. B. Williams, Assistant Deputy Minister of the Department of Public Works in Ottawa, gave an illustrated address on the Rogers Pass Story that was well received. He was introduced by Mr. Antenbring, who recalled that Mr. Williams had been known as "Pothole" Williams, when he had worked for the Province of Manitoba. Professor Chant paid tribute to Dr. C. S. Landon, who retired from Council after serving on it continuously since 1934.

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### I. W. THOMAS

Last year's editor of the Bulletin, J. "Chris" Gillespie, noted for his hard-hitting editorial policy has been moved to Boston, Mass., as "foreign correspondent". To take his place in the editorial chair is I. W. "Bill" Thomas, a veteran of the Bulletin and Public Relations committees.

Bill has a colorful background which should serve him well in his new post. He is a Welshman and received his early education at Stretford, U.K. He studied civil engineering at the College of Science and Technology and University of Manchester while apprenticed to a firm of consulting engineers. His studies were interrupted by the Second War and he joined the R.A.F., coming to Canada in 1942 to train at Carberry. While at Carberry, he met his wife, a Winnipeg girl, and they were married in Moncton in 1942 before he returned to the U.K. He piloted Lancasters in No. 9 and No. 49 Squadrons of Bomber Command until he was shot down over Dortmund in 1943. The following 2 years he sat out as guest of the Third Reich at Stalag Luft 3. After the war, Bill resumed his studies, graduating in 1946 and returning to Canada that same year. He joined

the C.N.R. in Winnipeg in 1947 as Assistant Engineer in the Bridge Department and now holds the position of Structural Engineer in the Regional Engineering Dept. at Winnipeg.

The Thomas's have two sons and two daughters. Bill curls at the Fort Garry club; however, the highlight of his sporting career is represented by a trophy won for a birdie in an Association Golf Tournament (no final score available).—K.H.

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## Flash!! Latest

You Can Sail Year Round For \$35.00 A Day  
(Athens Correspondent)

By J. C. GILLESPIE, P. Eng.

ATHENS, GREECE — Yes, that's right — \$35.00 a day will charter a ship with accommodation for four, and the price includes captain and crew. All you have to do is superintend the wardroom and argue with the skipper's navigation. Furthermore, the spirits locker can be stocked for about \$3.00 per bottle — any ship can stock up duty free — and if you call your yacht a ship it is one.

Other features: Greek food is excellent, and so are Greek wines — just remember the phrase "Naoussa Boutari," and you can't go wrong. Ninety cents a bottle — in restaurants. Many other facilities are pressed on the visitor by the hospitable residents at prices best described as highly variable. Greek sunshine is incredibly beautiful, though Athens is +35 degrees Fahrenheit, in the middle of the night.

Greek driving is best described as intrepid; there is one accident per year per car here, and your correspondent is glad to report that he is measuring well up to the norm.

There are also some ruins around here left by the Italian called Adrian or Hadrian or something like that, but your correspondent has had little time for trivia in his researches.

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### FLIN FLON NEWS

By M. N. COLLISON, P. Eng.

My wife and I enjoyed a well-deserved (?) holiday, spending several days at the Seattle Fair, visiting the Okanagan Valley, Jasper Park, as well as the lovely new Rogers Pass highway and Vancouver en route.

E. Austin, P. Eng., along with Mrs. Austin and Mr. and Mrs. A. R. Blake of Winnipeg, spent the month of November touring the Hawaiian Islands. Eric reports the climate is marvellous, the scenery beautiful, and a wonderful time had by all.

G. H. Kent, P. Eng., and Mrs. Kent celebrated their 25th wedding anniversary on De-

ember 30th and were duly surprised at a party given by their many friends.

While on the subject of weddings, Clark Brewer, P. Eng., was married on September 1st and spent a month-long trip following that momentous occasion visiting Kelowna, Spokane, western Canada in general, and also Calgary. At the latter city, he took in the Western Canada Water and Sewer Conference.

A. A. Koffman, P. Eng., spent a month in Winnipeg during December on vacation. Albert reported that it was too cold to go to Florida and that is why he stayed in Winnipeg.

On September 10th, 1962, Gordon Carss, Engineer for the town of Flin Flon, was registered as a Professional Engineer in Manitoba, after transferring from Saskatchewan. Gordon, who has been in Flin Flon for a year now, is a graduate of the University of Saskatchewan with a bachelor of science degree in civil engineering, graduating in 1946. Since that time, he has been employed by the Department of Highways in Saskatchewan, the Federal Department of Mines and Natural Resources, and Poole Construction in Regina. Gordon is married and has three boys.

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## The Lost 320

In the Province of Manitoba there are approximately 1,600 practising engineers eligible for registration with the Association of Professional Engineers. Of these there are 1,280 registered. Where are the other 320? Are they lost? — No, for engineers are never lost or at least they do not dare admit it, for in this modern day and age there are two unknown types of professionals, sick doctors and lost engineers.

Now we have 1,280 registered engineers who know what we are and where we are going. What of the "Lost 320". A search must be conducted.

### SEARCH OPERATIONS

With 1,280 members we can form 320 4-member search parties and each party will be assigned the task of finding one member, then assist the other parties until all 320 are found. So form your group today and begin the campaign for new members. Look first around your office or plant, then through your business associates, at your social clubs or in your neighborhood. Check your engineering associates against our roster and soon you will find one of the "Lost 320".

### 3 STEPS TO SURVIVAL

Firstly present to the bewildered engineer

the tangible benefits of our association which provides such services as:

1. It conducts a salary survey of all members and publishes a report on salaries along with those of other associations.
2. Members receive monthly issue of the Engineering Digest and the E.I.C. Journal.
3. It provides Group Life Insurance Scheme.
4. It provides social functions during the year.
5. Each member receives a copy of the membership roster and issues of the Canadian and Manitoba Professional Engineer Bulletins.
6. An employment service is offered to members.

Secondly when the lost engineer begins to take interest give him the legal and moral aspects of the profession and Association.

1. To develop and maintain a high standard for the Profession.
2. To advance the professional, social and economic welfare of the members.
3. To promote the knowledge and appreciation of engineering and of the Engineering profession and to enhance the usefulness of the profession to the general public.
4. To establish and maintain the bond with other associations and to promote the welfare of the Engineering profession in Canada.

Mention also that the Association is governed by the "Engineering Profession Act" passed by the Manitoba Legislature to protect the public by ensuring that only qualified persons practise the profession; it also provides the only protection for the profession against such practises by unqualified persons.

Finally refer the prospective member to Search Headquarters. Don't call 999 but WH 3-6745 and don't ask for help but for an application. — T.J.M.

Membership Committee,  
Directors of Search.

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## Traffic Control Course

The Department of Extension, University of Alberta, in conjunction with the Western Canada Traffic and Parking Association are planning the Fourth Annual Traffic Control Course at the Banff School of Fine Arts, May 6th to May 10th, this year.

This Course is of interest to those engineers, and their staffs, in the field of Municipal work, or consulting. Those interested could contact Mr. B. Huffman, Traffic Engineer, City Hall, Edmonton, Alta., or the Department of Extension, University of Alberta.



Social Committee at work in the Association Office planning the Annual Dance. Left to right: Al Burrows, Vic Chorley, Chairman Lou Earp, Ray Crawford, Doug Grimes and Bill Alexander.

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### RHODES SCHOLAR

Mr. W. F. W. Neville, step-son of J. A. Greenaway, P. Eng., has been selected Rhodes Scholar for 1963, at the University of Manitoba.

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## Letters to the Editor

Dear Sir:

RE: EDUCATION STANDARDS

I would like to take this opportunity of writing you to show my alarm at the way our education standards are going, in the hope that it will be food for thought for those of us who may be able to do something concrete to improve the situation.

The average boy graduating from grade 12 does not seem to know exactly what course he would like to take if he goes on to University. If his father has been through engineering before, the chances are he will be strongly urged to go into engineering also, which may not be what he is best suited for.

With our increasingly high entrance and scholastic standards, more and more average boys are being eliminated, to drift off hither and yon. Yet it is the average boy who grows up eventually to become the man who must be depended on to get the major share of the work done properly. Unfortunately, there isn't room at the top for everyone.

Are the universities eventually to become centres where only the geniuses and the brilliant students will be allowed to go? Every person has certain natural abilities in certain directions, but not in others. For example, some boys do not like drafting and yet they are forced to take it in first year engin-

earing. Should not more emphasis be placed on grade 12 students taking another year of subjects of their choice with more freedom of choice as to science subjects and less on languages, if so desired?

Curling, one of Canada's finest sports, seems to be approaching closer to the point where there are not very many rinks available to the average curler. (If you don't make 19 out of 20 shots your skip is liable to demote you). Are the University courses going to end up the same way?

Happy New Year from the wind that blows from the North.

H. L. EASTON, P. Eng.,  
Councillor-elect, Town of  
Flin Flon.

EDITOR'S NOTE—We welcome Mr. Easton's comments, but not his north wind.

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## Who's On Top??

Did you, Mr. Average Engineer, believe that although there may be in Canada a thin lower layer of underprivileged poor, and a narrow upper crust of overprivileged rich, that the rest of us belong to a vast flexible middle class?

You are wrong!

Recently, a national magazine published an article on the class system in Canada. This contained an interesting scale, rating people by occupation and based on an income-education formula. The derivation and application of the formula are not described, but are of no importance, since this is obviously a very intelligent and scientific scale.

There are seven classes, according to the article in Maclean's which range from the judges (90.0 points) in Class I down to trap-pers (32.0 points) in Class 7.

You and I, my fellow Engineers, are 76.6-point men — in Class I, no less.

It is of interest to note it is likely that Engineering Professors will in future describe themselves simply as "Engineers", since a Professor rates only 72.0 points, which places him in Class 2. Similarly, the "masthead" of this Bulletin will probably no longer describe anyone as "editor", since an editor draws only 63.4 points, way down in Class 2.

[The superiority of this scale is clearly demonstrated over the well-known suburban "point" system. My neighbor, whose fridge is

1.5 cf larger than mine, who drives a 1963 auto, and whose wife owns two fur coats is 15 points ahead of me, on the old point system, which of course is based purely on filthy lucre (or better credit rating). It is my pleasure now to relegate him to Class 3, with the 56.7 points that his less-couth occupation rates.

So the Engineer's fight for recognition advances. Now we have 40-odd thousand engineers and one sociologist convinced that Engineers are the cream of the crop. We only have 18-odd million more fellow Canadians to convince.

Forward men! — I.W.T.



### CONSOLATION WINNERS

University of Manitoba  
Alumni Bonspiel

Angus McLeod, Skip

Ron Gordon, 3rd

Bryan Johnson, 2nd

Russ Sharpe, lead

## Modern Subdivisions or Sewers for The Suburbs

By A. W. Bell, P. Eng.

The postwar years saw a marked increase in the demand for new housing. Greater Winnipeg expanded rapidly in all directions to meet the need with resultant demand for new subdivisions, new services, new streets, bridges and arterial systems.

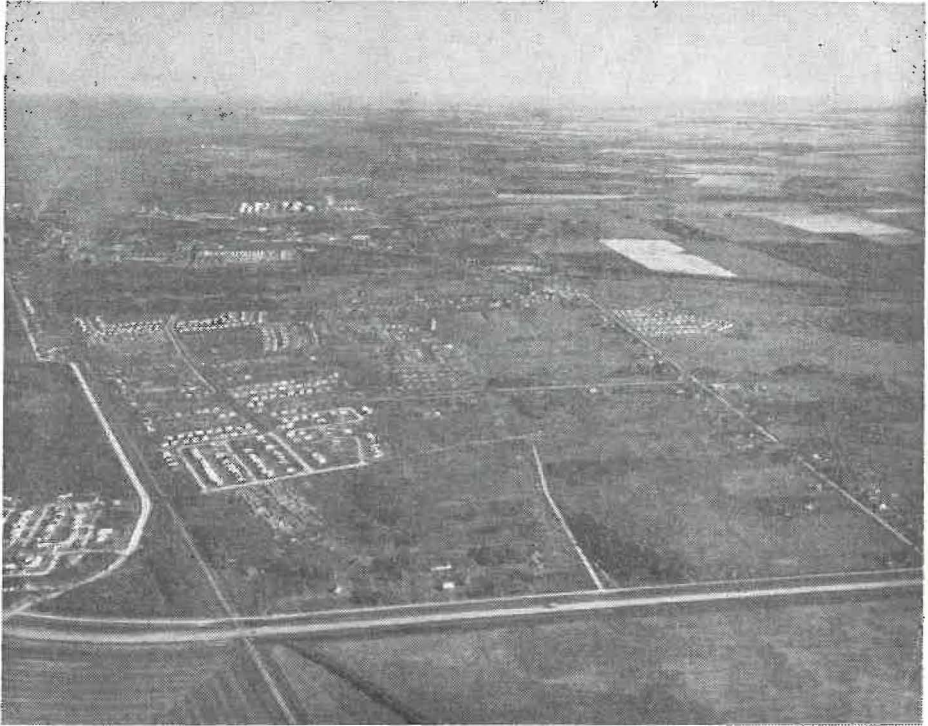
This of course has meant an increased demand for the services of professional engineers of all kinds and has been a major factor in the growth of the engineering community in Winnipeg and in other centres in Manitoba.

In addition to creating a demand for the services of civil engineers, mechanical engineers, electrical engineers, it has served to create a demand for professional planners. Planners need not necessarily be engineers of course, however, it has become increasingly apparent in recent years that a good grasp of engineering principles is essential to effective regional and community planning. More and more professional engineers are returning to university for post-graduate training in planning and now find that jobs are available for professionally trained planners.

In earlier days any one who could draw

straight lines could be a planner and Winnipeg's acres and acres of grid subdivisions are mute testimony to the lack of effective planning in those days. Indeed, hundreds of acres of prairie were subdivided by a few strokes of the pen laid next to a ruler, and many of these acres have not to this day been developed. The first step of the modern developer often is cancellation of the old plan. In some cases such as in Silver Heights in St. James, the developer has found it more convenient to modify the existing grid slightly to make a more acceptable subdivision plan.

Modern day professional city planners find an enlarging scope for their services and are called upon to apply their talents not only on individual problems of subdivision but in preparing regional provincial or even national housing plans. Various government agencies are now involved, however, the planning agencies with which we are most familiar are the Provincial Planning Department and the Planning Department of the Metropolitan Corporation of Greater Winnipeg. Municipal governments within the Metro area generally do not employ professional planners but rely heavily



WINDSOR PARK, 1956 — No. of Households, 525

on the senior planning agency. Some individual land development companies do employ full time engineer planners, however, most of them rely upon planning services available through consulting engineering companies associated with land development work.

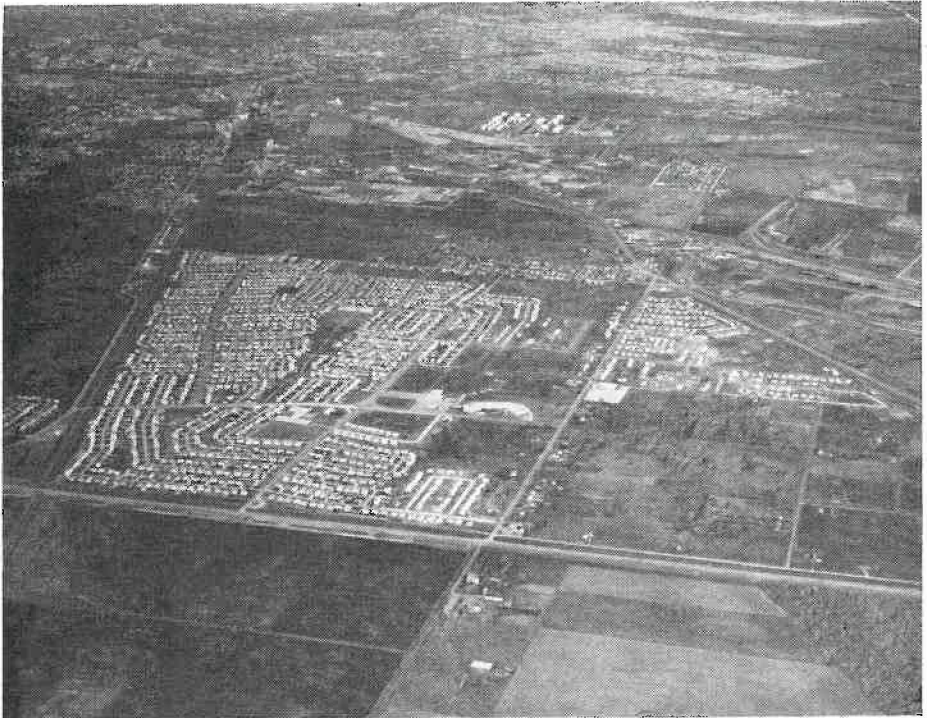
A complex series of inter-related problems face the modern day engineer-planner involved in city development work. Rapid population increases precipitated the exodus to outlying districts and improved modes of transportation have encouraged this trend. Downtown areas are much less attractive places in which to live when compared to owning one's own lot and house somewhere in the suburbs within easy driving distance from work. The sheer numbers involved in this exodus has brought its own problems apart from the basic problem of arranging for the necessary services such as sanitary sewers, storm sewers, water distribution, power distribution, telephones, street-lighting, sidewalks, schools, parks, local shopping centres. With all these people driving to and from work each day, the previous road system is becoming seriously overtaxed and new systems of throughways and downtown parking areas must be built.

Deteriorated downtown areas present another problem in redevelopment; a problem

which Winnipeg is just taking the first steps to solve. Some planners advocate the redevelopment of downtown areas into spiritual and cultural centres, parks, playgrounds and schools rather than into strictly residential use. Dr. A. P. Bernhart of the University of Toronto advocates a combination retail, commercial, office commercial and residential apartments is desirable.

Studies are now under way in Winnipeg investigating the possibility of relocating groups of downtown industries into properly designed Industrial Parks located in the suburbs. A considerable local jealousy now exists and municipal councils, chambers of commerce and Industrial Development committees vie with one another to attract industry to their particular industrial area.

Residential development in Winnipeg has tended to follow the rivers until today the city resembles a giant octopus, spread-eagled on the prairie. A very basic reason for this is that the rivers presented a very simple and inexpensive method of disposing of sewage. We have now found we must pay for this short-sighted policy which turned our beautiful rivers, the only amenities of a stark prairie, into open cess pools.



WINDSOR PARK, 1960 — No. of Households, 1700

The single most important factor in determining the feasibility of developing land for residential purposes, is the availability of sewage collection and disposal facilities. No sizeable development has ever taken place without an adequate sanitary sewage system. Development has taken place, however, in areas chronically short of water, with the realization, of course, that if the demand is great enough, the water will be brought to service the area.

Land development companies in Winnipeg watch the work of sanitary engineers avidly, as each new trunk interceptor announced may make new areas ripe for development. Within the past five years, construction of a sewage outfall in previously dormant Assiniboia started a housing boom which has transformed that municipality from a rural area to an urban community.

Present construction of a large trunk interceptor and sewage treatment facilities by Metro in Charleswood foretells the next area of rapid expansion. Development along the rivers has been checked at the perimeter highway by legislation and so new sewer construction such as this which permits development will dictate where and how our city grows.

Development companies are becoming more sophisticated and are generally becoming quite adept at solving the jungle of problems which must be solved if they are to bring land onto the market in saleable form. Recent new areas made available for new housing such as Garden City, Windsor Park, Westwood, Pulberry and Crestview Park, are evidence to this new force in community development, the professional land development company.

Sales competition has forced refinements and improvements on the development technique and these companies are forever seeking new methods of merchandising their goods — the residential lot, all improvements in. Myles Robinson in his Heritage Park is presently slightly in the lead with his complete engineering and architectural controlled subdivision. The prospective purchaser is assured that no house, either his or any other will be built unless it fits into the overall decor of the carefully planned subdivision.

The modern land developer is a specialist and if he is to be successful must carefully control each step in the development process. His business is to manufacture, package and sell, attractive packages of property suitable for construction of a modern day house. This

property must be accessible by paved street, must have sewer and water services to the lot line, power and telephone at the rear, and of course be close to schools, churches, playgrounds and parks. In addition to this, since this is a highly competitive business it must be situated in a pleasant community with just the right atmosphere and of course it must be competitive in price.

A new subdivision does not just happen! By the time residential lots go on sale perhaps two or more years of intensive work has gone on by a team of men and women consisting of planners, surveyors, lawyers, engineers, accountants and of course that guiding genius without which any subdivision is doomed, the entrepreneur.

He is the man who has conceived the idea of a subdivision in the first place. He has located some ground which he feels has possibilities. The area may be zoned A-1 Agricultural, it is not now serviced, nor has it roads or power, but it is not too far out, it is well drained, has a few trees and above all it does not have too many owners. This is a vital point since difficulties in obtaining plan approval multiply as the square of the number of owners involved.

The rights of each jealous land owner are carefully protected by law and if he cannot be convinced of the merits of a subdivision plan affecting his property, that plan is doomed however meritorious it may have been. The cost of buying that prickly owner out can sometimes come high and may cause economic failure of an otherwise satisfactory plan.

The experienced realtor chooses his raw land carefully and guards against the squeeze play of the private holder situated in the middle of a developable area.

When he has satisfied himself that any such entanglements do not exist or can be dealt with he may proceed to obtain options on the land to secure his interest while his engineers check out the serviceability of the property. What they tell him will determine whether he has hit pay dirt or whether the development costs will price the final product out of the market.

The engineers conduct soil tests to determine the subsoil conditions particularly with regard to presence of water, boulders, depth to hardpan or whatever might affect trenching costs. Surface topography is measured and plotted so that the planner can get started on a preliminary subdivision layout. The experienced planner takes into account many things when he begins to lay out his basic subdivision framework; such things as tying-in to the surrounding traffic pattern, locating his streets

to assist the engineer to take advantage of the contours of the land in laying out his servicing and remembering that trunk power and telephone lines must get in to the area.

When a basic plan has been laid out the engineer can undertake preliminary studies which will indicate what it will cost to service this particular piece of property. If the results of this study are satisfactory the planning process begins in earnest.

The planning process from here on is a process of revision and compromise. The engineer will require certain rights of way for his sewers; the power and telephone companies will insist on changes to accommodate their pole lines, and when this is all over and the planner is finally convinced that he has a satisfactory plan, the public transportation company will insist that the whole street system be changed to better accommodate its buses.

Eventually one last compromise will be made and a plan satisfactory to all will be drawn and the next phase of the operation can begin. Land Surveyors will undertake the necessary surveys and prepare the final linen drawings so that application for registration can be made. If private owners are affected by the plan their written consents will have been obtained or the whole matter will be reviewed by the Municipal Board prior to registration of the plan. If it clears this hurdle the subdivision is away to the races.

Final construction plans for the sewer and water services can be prepared by the engineers, submitted to the proper authorities for approval, then placed to competitive tender. When a contractor has been selected the construction phase begins. This phase generally takes more than a year since it is not advisable to pave streets until trenches have had full opportunity to subside.

By the time the services are completely installed the developer has his sales campaign organized and is ready to swing into an intensive period of advertising, promoting and sales promotion to generate interest in his subdivision. Professional advertising agencies may be employed to promote his product or he may have professionals on his staff to handle this end of it.

Tales of easy riches in the land development business are just not so as the developer works, and works hard, to process raw land into serviced lots at a competitive price. He must combine the talents of an entrepreneur, an engineer, lawyer, banker, diplomat and salesman coupled with a willingness to gamble his money on the economic conditions two years hence when his property finally becomes saleable. Brother it's no place for an amateur.