

NORTH BAY and REGION

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INTRODUCTION

A Geographical study of any unit or area of the earth's surface is concerned with the natural environment and the human adjustment to this environment. In this thesis an attempt has been made to explain why settlement occurred at North Bay, what factors influenced its development, what the present function or functions are and how all of these are related to the physical and human geography of the urban region.

ACKNOWLEDGEMENTS

The author wishes to acknowledge the kind cooperation received in the many personal interviews so necessary in the gathering of information for this thesis. Although some data was obtained by the author in the field, much of the material used was obtained from text books, pamphlets and newspaper clippings. A special note of gratitude is due to Professor L. G. Reeds¹ for the initial suggestion and encouragement offered and to Mr. H. A. H. Wood² for the many hours spent in reading the original manuscript and for his constructive criticism and helpful suggestions.

C.W.T.

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CHAPTER I

PHYSICAL GEOGRAPHY

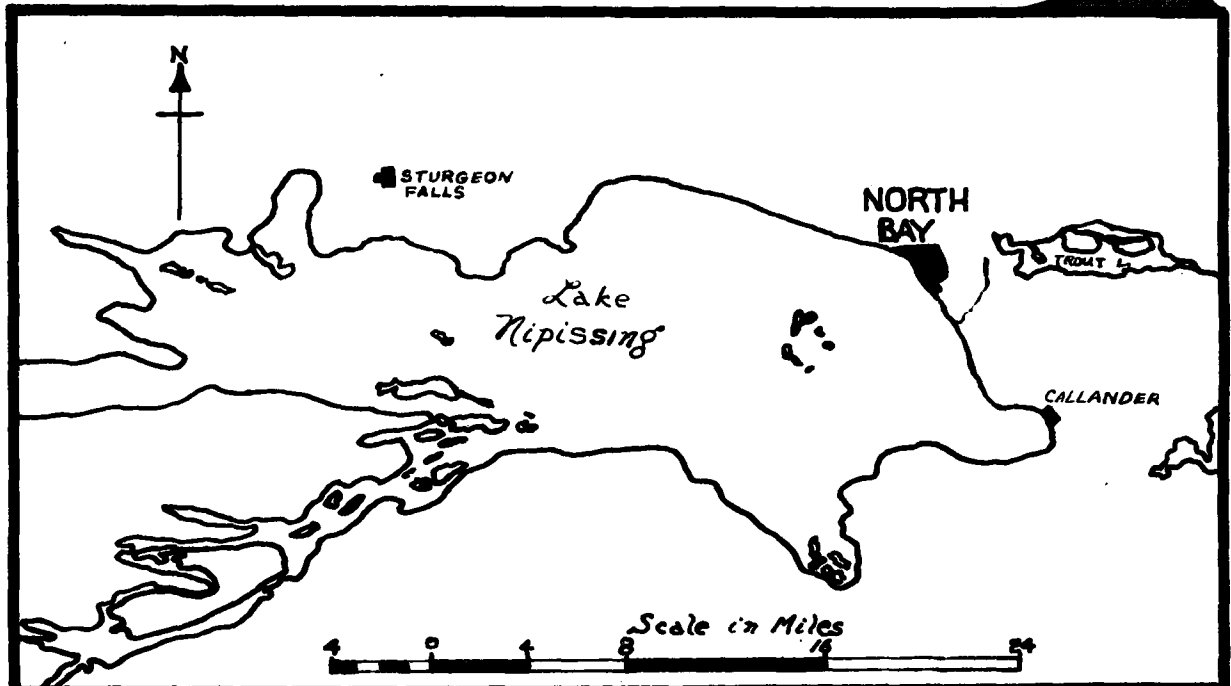
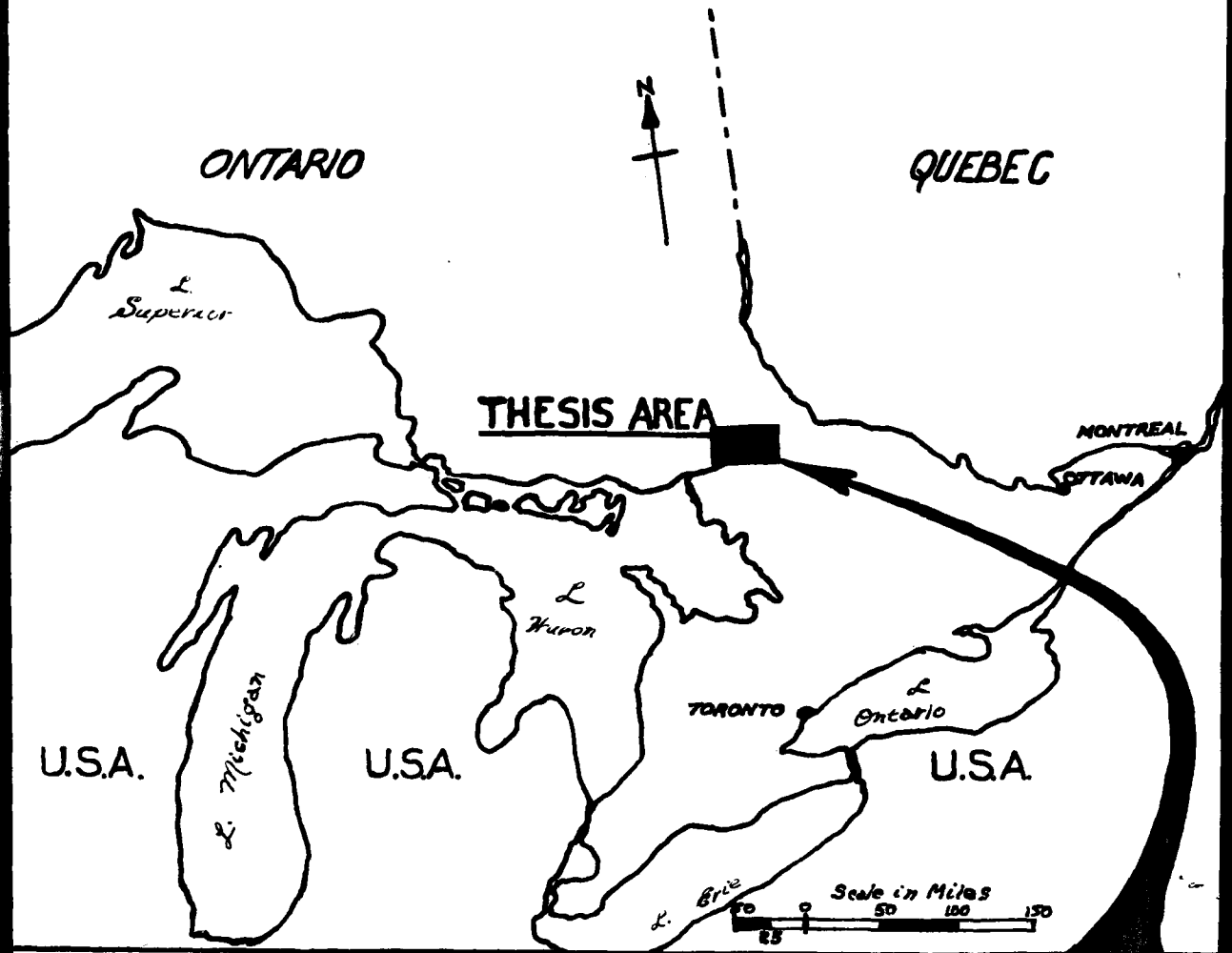
LOCATION

The city of North Bay, population 18,740, is located on the north east shore of Lake Nipissing, in the Province of Ontario. Fondly called "the Gateway to the North", the city is 221 air miles north of Toronto, the capital of Ontario, and 228 air miles west of Ottawa, the capital of the Dominion of Canada. Served by three main rail lines, the Canadian National, the Canadian Pacific and the Ontario Northland, Railroads, it is also at the junction of highways number 11 and 17.

Politically, North Bay is in the district of Nipissing and acts as the district administrative and judicial seat.

Although the city lies south of the rich mining and forestry belt which so characterizes the region known as Northern Ontario, other factors physical, economic, and human, also place North Bay within these rather indefinite boundaries. Transportation and communication have made it the southern gateway to other settled areas in the northern part of the province.

LOCATION MAP



CHAPTER I

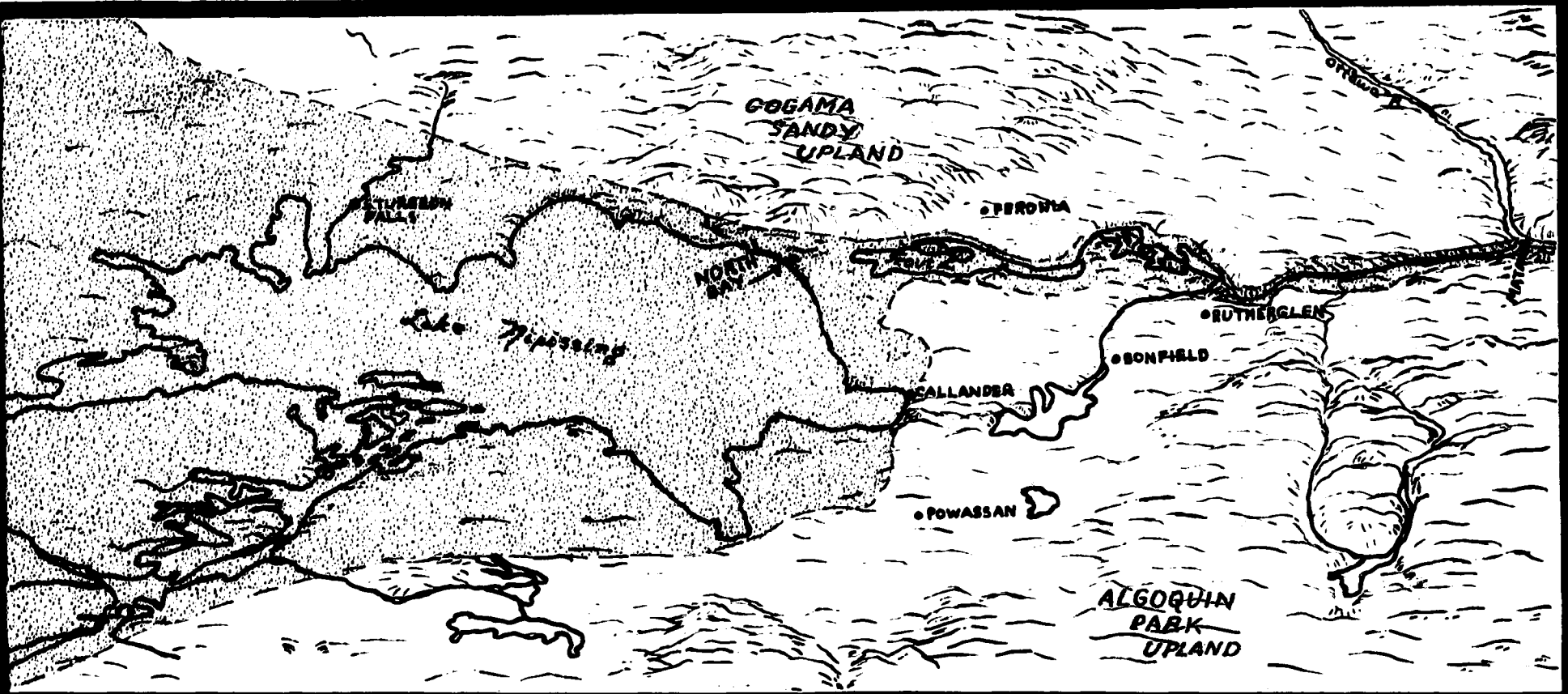
GEOMORPHOLOGY

Geologically, the region is underlain by precambrian rocks of the Canadian Shield. The Shield is an area of some of the world's oldest mountains which have been worn down to smooth stumps by ages of erosion and glaciation. Most of the precambrian rocks are dated as archean and are very complex. In the vicinity of North Bay they are generally micaceous or hornblendic gneiss and various other gneissoid rocks, interstratified with beds of quartz, crystalline limestone and oxidized iron. Most of the beds are tilted at considerable angles and are corrugated or contorted, forming small and large anticlines and synclines.

The area suffered severely from glacial action which removed nearly all the overburden from the higher elevations. Later, during the recession of the last glacier, the lower sections were filled with outwash and other morainic debris.

Some of the meltwater from the glacier formed a large lake which covered an area not too different from the present lakes, Superior, Michigan, Huron, and Nipissing. At that time nearly all drainage was via a trough at the north east end of Lake Nipissing. After passing a swampy col immediately north of the present city site, the water flowed down the ancient Mattawa river and thence down the Ottawa River Graben to the St. Lawrence river.

The Mattawa river itself is composed mainly of a chain of small lakes connected by short rapid streams. Some of the lakes are long, narrow and between 100 and 300 feet deep. Many lie in canyon-like valleys 200 to 300 feet wide often bordered by precipitous walls 100 feet or more high. Trout Lake, four miles

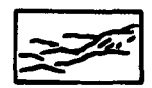


TRACHOGRAPHIC MAP
of the
NIPISSING-MATTAWA OUTLET

LEGEND



NIPISSING - MATTAWA OUTLET



HILLS AND UPLAND.....



After LEVERETT & TAYLOR 1915



The Nipissing Mattawa trough. This photo taken at North Bay shows the relatively flat lower lying trough bordered by the Gogama Sandy Uplands region visible in the ~~right~~^{left} middle section of the picture.

east of North Bay is the headwater basin for the Mattawa and with its neighbour, Talon Lake, comprises the largest body of water in the chain.

Still later, differential uplift caused the waters of the Nipissing Lake to flow out via lakes St. Clair, Erie and Ontario. Today the height of land which separates the Great Lakes System of drainage and the Ottawa River System, runs approximately N.N.W. about one mile west of Trout Lake.

North of North Bay the land rises rapidly from 675 feet to form a rough hummocky upland region known as the Gogama Sandy Uplands, with an average height of 1500 feet. Numerous sand and gravel deposits such as kames and distorted eskers appear in this region hence the term "sandy". These provide excellent sources of sand and gravel for road fill or other purposes.

Highway 63 between North Bay and Temiskaming Que., runs along the Nipissing/Mattawa trough to Trout Lake then rises sharply to a rough shelf, part of the Gogama Sandy Uplands, which extends north of Trout and Talon lakes. Around the villages of ^FPeronia and Redbridge the surface assumes a gentler, more rolling nature and is covered to varying depths with sands and sandy silt loams. Outcrops are common and the surface becomes rougher towards the Ottawa river.

The area between the Gogama Sandy Uplands and the Algonquin Park Uplands to the south, is known as the Nipissing Lowlands. Part of this region was covered by the old Nipissing Lakes which resulted in the flat locustrine beach terraces along the north and northwest shores. These beaches are significant because the expanse of water even at that time was not large enough to



A view of part of the Nipissing Lowland Region along the north shore of Lake Nipissing. The city of North Bay is barely visible on the left hand side.



Kame and outwash deposits along the edge of the Gogama Sandy Uplands. These serve as excellent sources of supply of gravel or sand. The light patches are where gravel or sand ~~has~~ has been removed.

permit the powerful waves found on the Great Lakes. Therefore, the strong beaches are an indication that wave action lasted for a considerable time. The beach terrace extends west of North Bay but granite bosses interrupt the flat table-like terrain for about fifteen miles. Suddenly at Meadowside the surface levels out and a flat clay and clay loam terrace borders the lake and continues west past Hagar. This clay and clay loam was undoubtedly deposited during the period of the Nipissing Great Lakes. The sandy terraces around North Bay contrast ^{with} the clay to the west but are the result of increased water velocity at this end of the lake. The velocity was such that only coarser sediments could be deposited.

The city itself is almost entirely built upon the sandy beach terrace, through which numerous outcrops appear. Approximately 30 feet above the present level of the lake at the western end of the city, the terrace grades off gradually toward the south east. As a result the land becomes lower and wetter in the vicinity of Ferris. In the community of Ferris itself the ground water level is so close to the surface that many houses have no cellars or are elevated to permit a dry basement. The commercial core of North Bay is built upon one of the lower rocky ridges and excavation was exceedingly difficult. Priests Hill is underlain by a higher outcrop but was covered with morainic till and sand. Even there however, small scattered outcrops indicate bedrock is close to the surface.

To the south of North Bay the trough contains numerous outcrops and in the vicinity of Callander the land begins to rise gradually. Immediately south of Callander high granitic bosses emerge and give the southern fringe of the Bay a steep rocky



Houses in West Ferris. If desired, basements must be built partially above the ground because the ground water level is close to the surface. Note the height of the first floor above the ground.



aspect. From Callander to Powassan the surface continues to rise and becomes rougher with an increasing number of massive outcrops. The lower lying sections are flat and contain poorly drained muck soils.

At Powassan however, the surface assumes a more graded, rolling character and the bedrock is covered to a considerable depth by clay and heavy clay loams. This rolling belt stretches from Lake Restoule on the west, through Powassan and last to Bonfield, Rutherglen and Eau Claire.

South of Powassan the land begins to rise again and becomes increasingly rocky finally rising up to another rough highland block known as the Algonquin Park Uplands.

In general, both upland areas are almost monotonous with their succession of rounded bosses, small lakes, streams, swamp muskeg and outwash deposits. The lowlands around the north and N. east shores of Lake Nipissing are lacustrine plain which resulted from the waters of the Nipissing Great Lakes.

CLIMATE

The climate around North Bay may be termed Humid Continental with cool summers. In the Koeppen classification this would then be a Dfb climate.

A.676'	J	F	M	A	M	J	J	A	S	O	N	D	Yr.
T ^o F	10	11	23	35	50	59	63	63	53	44	27	15	38
R"	4.3	3.5	3.2	3.0	3.0	3.6	4.2	4.6	3.0	2.3	4.3	2.5	41.5

The mean January temperature is 10^oF while that of July is 63^oF. There is also a fairly high diurnal range and although

the daylight hours may be warm or in summer hot, the temperature drops considerably during the evening and night due to the relatively low humidity.

A maximum of 136 or a minimum of 95 frost free days are possible in any one year. The last frosts of Spring have been recorded between the 12 May and the 8 June, while the first frosts of Fall usually come between the 4 September and 28 September. This results in an average growing season of 175 days.

Snow and hail storms have been experienced during the summer months but are quite unusual and have done little damage.

Precipitation is very reliable in the area. The lowest recorded total rainfall was 35" in 1950 and a maximum of 46" in 1941. Although regions to the north experience average totals of but 30 inches of rain, North Bay and the northern fringe of the Algonquin Park Uplands receive an average annual rainfall of 41.5 inches. Despite the fact that precipitation occurs on an average of 180 days every year the pattern is usually four or five rainless days followed by four or five more days in which precipitation in some form will occur. Storms of short duration bringing large amounts of snow or rain are not common.

Topography has little effect on the climate and although the lake tends to moderate temperatures in the Spring, Summer and Fall, it is frozen completely from mid December through till April or May and has no effect on winter conditions.

Prevailing winds are from the north from October till May but for the rest of the year they blow from the south or south west.

NATURAL VEGETATION.

On Halliday's map of the Forest Regions of North America, the area lies within the Great Lakes Mixed Forest belt, and pines are the dominant species. The word dominant may be misleading because the pines cover but a small percentage of the region. Other species found in the original forest included white birch, white pine, poplar, spruce, balsam, red pine, yellow birch and hard and soft maples. Of these, white pine, poplar and white birch are the most abundant and cover respectively 19.9%, 16.9%, and 12.7% of the present wooded areas. Species such as white pine, red pine, yellow birch and hard maples have been reduced due to fire, insects and the lumberman. Other species such as white birch and poplar are increasing in number because they are more resistant to forest insects and blights and they regenerate faster on burnt over land.

Present surveys show much of the better and more mature timber has been removed from all easily accessible areas but, out of an approximate figure of 3,500,000 acres in Nipissing district, 2,800,000 are listed as potential forest and which can produce timber.

SOILS

In general the soils are brown podzolics. Except in the areas around Sturgeon Falls, Verner Noelville and Powassan Bonfield and Rutherglen, they are shallow and have but three distinct horizons. A comparatively thin brownish grey surface soil with a considerable mixture of organic material comprises the upper layer and rests on a coffee brown nut-structured subsoil. In most cases the parent material is glacial debris or rock flour.

In the clay and clay loam formations, wave lines can be found at varying depths. However, because of imperfect drainage, the profiles tend to be shallow. Despite this imperfection these soils when properly fertilized provide the best areas for agriculture in the North Bay region.

The well drained sandy soils of the upland areas are also fertile and will produce good crops. Unfortunately agriculture there is limited by topography and the fact that many of the level areas are usually too small to be economically worked. The majority of the upland districts are either too poorly drained, producing bog or half-bog soils; are of bare rock; or have coarse sand and gravel deposits which are excessively drained and therefore too dry in summer months.



Typical examples of the rugged nature of the shield. Agriculture in such upland areas is almost impossible. The low lying sections are wet and poorly drained and filled with rock debris. The smoothed rounded bosses are almost bare of topsoil.



CHAPTER IIHISTORY

The Nipissing - Mattawa River route had been the favorite choice of nature travellers for centuries before Columbus discovered America and as early as 1610 a white man, Etienne Brute, passed through the region. Five years later, in 1615, Champlain guided by Brute and a party of natives passed from Trout Lake, via the Lavasse River to the shores of Lake Nipissing, on his famous voyage to Lake Huron. A cairn commemorating the event has been erected five miles south of North Bay where the Lavasse river crosses highway #11.

Although this same route was used extensively during the next 250 years the only settlements which resulted were two small fur trading posts. One was located at the present site of Sturgeon Falls where a drop in the river necessitated a portage. The other was on Lake Nipissing at the mouth of the Lavasse river where the fur traders had established a camping site on the broad beaches.

Fur trading in the region began to decline by the middle of the nineteenth century but the route attracted the attention of Great Lakes shippers who were seeking a shorter route to Lake Superior and the west. As early as 1854 a parliamentary proposal to find a shorter more efficient route to Lake Superior was passed and in the following year, 1855, T. C. Clarke was commissioned to make the survey.

His proposed route started at Montreal and proceeded up the Ottawa river to the Mattawa river. Here the course turned due west up the Mattawa river and its chain of lakes to Trout Lake, overland to Lake Nipissing and west to Georgian Bay via the French



The cairn, commemorating Champlain's trip to Lake Huron in 1615. It is located five miles south of North Bay, where highway #11 crosses the Lavasse river.

river. Mr. Clarke described the route as follows, ".... four hundred and thirty-one miles in length, 352 of which are fit for vessels of 12 foot draught, 79 miles require improvements and 29 miles of canal."¹ The motion was shelved temporarily with the result that as late as 1880 there was no settlement at North Bay. It should be mentioned here that the idea of a Georgian Bay/Montreal shipping route was not entirely forgotten. Later in 1905 and a second time in 1910 the North Bay Board of Trade reopened the issue. Each time new surveys were made and each time very favourable reports were written. Unfortunately for North Bay by 1910 the route via Lake Ontario and Lake Erie was so well established and served such a large population that this second route would not justify the expense involved.

In 1880 the Canadian Pacific Railway Co., began the extension of its line westward from Pembroke in an attempt to link with the lines already laid in Western Canada. Topography dictated choice of the route in so far as the sand and gravel deposits laid down by the ancient Ottawa river and the Nipissing/Mattawa outlet, provided the most feasible road bed. Some data was available from the previous Georgian Bay/Montreal Canal Surveys and with this and his own experience as a background, Duncan Sinclair surveyed a right of way in 1880. Although slightly inland from the Mattawa river the line followed the old glacial river channel.

Original proposals called for a divisional point to be established at Callander but as it turned out there were 3 separate locations all called Callander and all were within close proximity of one another. They were, the present site of Callander on Lake Nipissing, a settlement at the head of Lake Nosbonsing and the

1. GARD A.A. "Gateway to Silverland", Emerson Press, P.59, Toronto 1909.

present town of Bonfield. Sir Stafford Flemming partially settled the issue by remarking, "Choose what route you please, but you must reach the north shore of Lake Nipissing."¹ He realized that the route along the north shore was not only shorter but the beach terraces there provided a smoother road bed. Further, at the present site of North Bay there was a broad flat sandy terrace bordering the lake. This was also a convenient distance from Chalk River. Of these factors the broad flat land with a convenient water supply favoured the choice of North Bay over the other Callanders and on the 28 June 1881 construction workers began clearing the site. By the summer of the following year, 1882, the rail line itself had reached the lake there. A terminal station with shipping yards and repair shops soon were built.

With steady employment provided by the railroad shops and offices and the offer of free rail fare into the town many people from Pembroke began to settle at North Bay. The majority of these had formerly been employed as railway construction workers and today many of their descendants are living in the city. The first settler other than a railroad construction worker was William McFarlane and for a time his log home was used as a church and meeting house. Credit for clearing the first land which later became the townsite of North Bay is attributed to John Ferguson. He began construction of the first shingled house in 1882. These factors by themselves are perhaps insignificant, but this was the same John Ferguson who was so influential in the development and growth of North Bay, who encouraged people to come there and live

1. Souvenir, "Old Home Week", North Bay 1925, P.11.



The beach terrace along the north shore of Lake Nipissing provides the most accessible and shortest route to communities farther west. As a result it is used extensively. This photograph, taken in the north west end of the city where the terrace narrows, illustrates this use. The C.P.R. transcontinental line is visible to the left of the highway (#17 to Sudbury) while the C.N.R. transcontinental line through North Bay is approximately 400 yards off to the right of the photograph.

and who made many trips to Toronto and Ottawa to see that the newly settled area received proper representation in provincial and dominion governments.

Wm. Macdonald opened the first general store in 1883 and for the first time supplies could be purchased locally. In the same year stone quarries were opened on Main Street, west of Ferguson Street and supplied building material and rock fill for the railroad. Construction of "Company Row", near the C.P.R. station also began in December of 1883 and was expected to house other railroad employees.

Strange as it may seem, the early settlers did not think of the site as a town and it was referred to only as a mileage distance. Later, a camp clerk ordering nails for a house looked at the Lake then wrote, "Send them to North Bay." The name like many "nick names" was very popular and it became official in 1882 when the settlement was incorporated as a village.

By 1884 there was no representative for the District of Nipissing, but a Mr. Thomas Murray, provincial member of parliament for Renfrew took charge of the District of Nipissing also. Through his efforts the town of North Bay secured the appointment of the district Records Office and the district Jail. These influenced the establishment of many government offices there in later years.

To satisfy the needs of the increasing number of settlers a church and school were constructed in 1884. This church served Protestants and Roman Catholics alike and services were administered by the Reverend Silas Huntington and Father Coté. The school, fondly called the "Log School", was built on the site of the present Baptist Church.

By 1885 the town had a bank. In the same year Stewart

Huntington opened a printing office and published the Nipissing Times, the district's first newspaper. Also in 1885³ A. Nixon surveyed the boundaries of the township of Widdfield and organization was completed by the appointment of a

Although Main Street was no more than a rocky, stump covered way in 1885 it was soon cleared, the old quarries were filled in, and a semblance of order was apparent by 1886. With an improved street available, new stores, notably T.W. Dugan's Boots and Shoes and Richardson and Company, Tinsmiths were opened. Also in 1886 construction of the first hotel, the "Pacific" was begun.

While the C.P.R. was pushing westward another rail company, the Grand Trunk was building north from Gravenhurst. Construction was begun in 1882 at the request of settlers who had pushed north towards North Bay. At first the rugged Laurentian Shield proved a forbidding obstacle but spurred by the demands of the settlers further north it was pushed on. By 1886 the rail line had reached the present site of Nipissing Junction and established contact with the C.P.R. at that point. The first Grand Trunk train from Toronto entered North Bay on C.P.R. tracks in 1889.

Population throughout the district numbered over 2,000 at this time and the Ontario Legislature passed an act admitting Nipissing District for representation. On the 23 March 1889 John Lough^hin of Mattawa was elected district representative to the provincial parliament.

The next year, on the 7 April 1890 a second act was passed incorporating the village of North Bay as a town effective 1 January 1891. The population of North Bay numbered 1,726 and the town boundaries enclosed 794 acres purchased from the township of

Widdéfield.



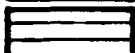


The appointment of the district administrative seat in 1895 was the next event which bears directly on the development of North Bay. At this time the boundaries of the district of Nipissing were somewhat indefinite, however, the area extended from the northern limits of Hastings county, 600 miles north to Hudson's Bay, and stretched over 100 miles westward from Mattawa. Within this area, the three towns of Sturgeon Falls, North Bay and Mattawa all sought the appointment but an election on 14 March 1895 eliminated Sturgeon Falls. The second vote, held to decide between North Bay and Mattawa was hotly contested and many irregularities occurred. It was reported both the quick and the dead voted, however, in the final count North Bay won by a margin of 8 votes. This appointment favoured North Bay by attracting other government offices which did not have to locate at the district seat. Both provincial and dominion offices for all of Northern Ontario have continued to locate in North Bay, largely due to its increasing communication net and its central location to most other northern centres.

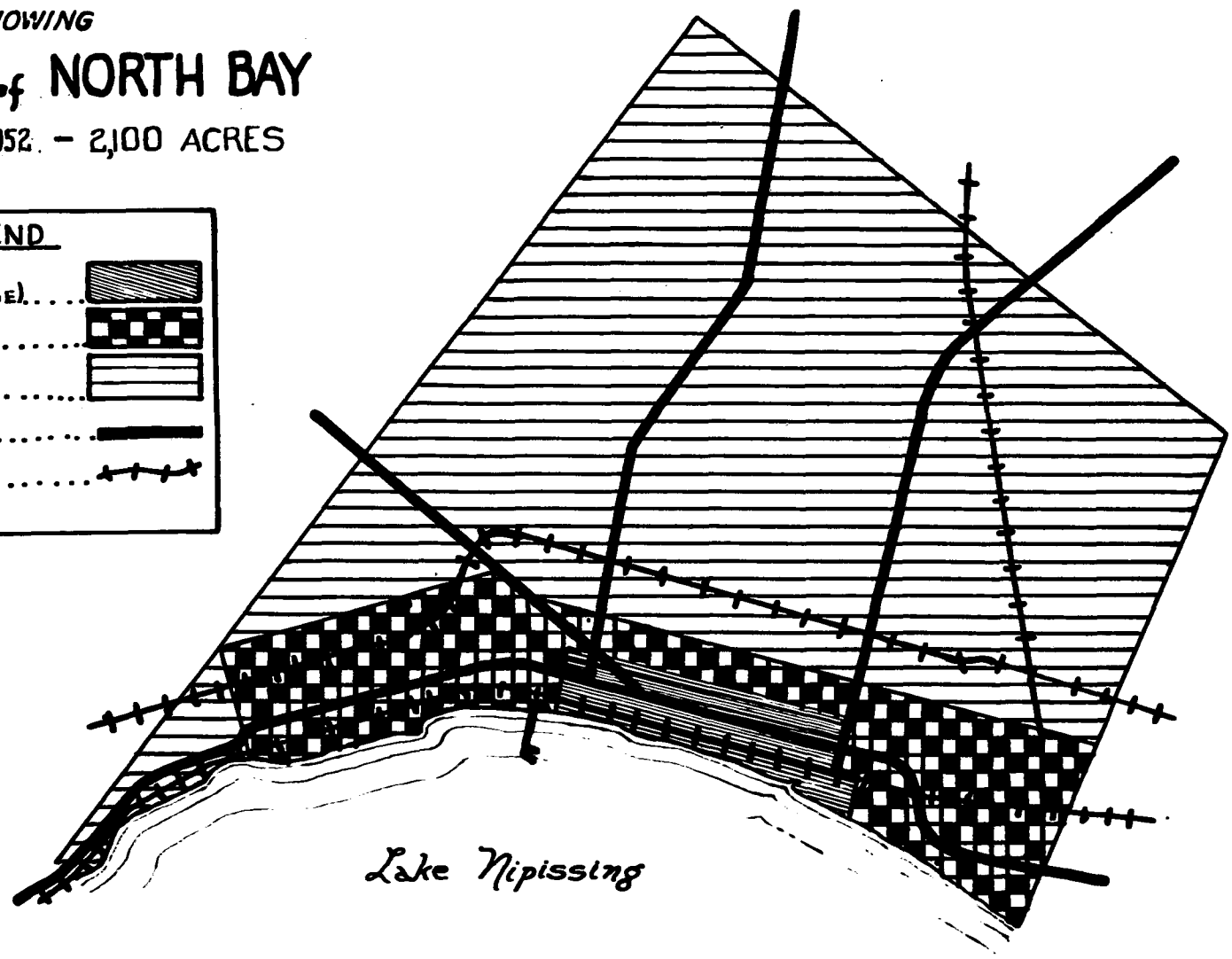
While many settlers had located east and west of North Bay along the rail line others had continued north from Mattawa by boat, up the Ottawa river. As early as 1880 some had reached the head of Lake Temiskaming. Now in the 1890's they clamoured for a railroad to connect them with Southern Ontario. Soils in this "Little Clay Belt" had produced good crops and further colonization in that area seemed possible. The Hon. F. R. Latchford proposed a rail line to connect existing settlements and at the same time further colonization of this far northern area. A bill granting a charter to the Temiskaming and Northern Ontario Railway was passed 10 May

1902 in Toronto and a provincial commission was appointed to manage the venture. Because of existing rail connections the proposed route started at North Bay and continued north to the head of Lake Temiskaming. It was hoped to develop new farming and lumbering communities in the intervening areas. The rail line, which started as a colonization venture, had its success assured when silver was discovered on the right of way near Cobalt. With this discovery Ontario experienced its first mining boom. The mines were judged by some as the greatest deposits of silver in the world. This new discovery prompted a general mineral development throughout Northern Ontario and a smelter to handle the ore from Cobalt was constructed at Trout Lake. Although no minerals were discovered close to the town, North Bay prospered from the developments further north and became the distributing and collecting centre for wood and mineral products. Expanding railroad yards and shops coupled with new wholesale and retail distributors attracted more people to North Bay and the population grew from 2,337 in 1900 to 3,813 by 1905.

By 1910 the population of the town had reached a high of 6,110 and the people were beginning to seek building lots outside the town limits. To provide more room the council passed a by-law to annex 1,306 acres from the township of Widdfield. This new land was almost twice the area already occupied but many felt such a large new area was necessary to provide room for future expansion. Although the population almost doubled in the preceding five years and continued to increase steadily for the next nineteen years the rate of growth levelled off quickly and the total of 2,100 acres has been able to supply the needs of most, even to the present date.

MAP SHOWING
GROWTH of NORTH BAY
 TOTAL AREA 1952. - 2,100 ACRES

LEGEND	
1882.....(VILLAGE).....	
1890.....	
1910.....	
HIGHWAYS.....	
RAILWAYS.....	



Lake Nipissing



In 1911 the Grand Trunk Railway extended its line from Nipissing Junction to North Bay in order to tie in with its trans-continental line. In the same year it began construction of a station and freight yard. The station itself was between Fraser Street and Ferguson Street and served both the Grand Trunk and the T. & N.O.

From this point, 1911, it is difficult to attribute the rapid growth to any single factor or historical event other than an overall development of Northern Ontario. As new mining districts opened in the north and to the ^{north} south-west, North Bay developed as a transportation centre and both rail and highway facilities expanded to meet the new demand. Many immigrants settled in North Bay to work as labourers on the railroads. By 1915 the population had jumped to 10,000 and by 1925 the number had increased to 14,000.

In that year, 1925, the town of North Bay was incorporated as a city and was the largest urban settlement in the district. The next four years saw the development of the vast nickel deposits of Sudbury and the gold mines of ^{IKK} ~~K~~land Lake, Schumacher, South Porcupine and Noranda. All across Canada these were considered "Boom Years" and North Bay was no exception. The population had increased to over 16,300 and future growth appeared certain.

Tourists brought added prosperity and the first resorts began to open

In common with the rest of the world North Bay suffered during the economic depression of the thirties. The rapid growth slowed almost to a stop. Between 1930 and 1935 the population increased by only 241. To make matters worse, the city fell into debt and was unable to meet payments on loans floated to cover an overambitious improvement plan, inaugurated in 1926. With many other communities

it had to seek provincial aid and became subject to the rules and regulations of the Ontario Municipalities Act. City administrators are still labouring under the burden of this large debt and as a result finances are often unable to cope with present problems.

It was in this depression period, on the 28 May 1934, that news of the birth of the Dionne Quintuplets at Corbeil, Ontario flashed across the world. Curious tourists flocked to the district to see the tiny tots who were put on exhibition in a special courtyard behind semi frosted glass. Callander and Corbeil were more directly affected by the event but both were small communities and could not accommodate the thousands who sought lodging. They had to drive to North Bay, and almost overnight new tourist courts and cabins blossomed along the highway. In little more than two years nearly every available lot bordering the lake shore between North Bay and the Lavant^{SP} river had a cottage or a tourist camp built upon it. These sites were favoured by extensive beaches near a main highway, conditions which did not exist around Callander. This was the beginning of the modern tourist trade for North Bay and its surrounding region. Many visitors who came to see the Quintuplets were so impressed by the rugged scenery, and the abundant fish+game that they returned in following years to spend their holidays. The influx of tourists was aided by the building of new and improved highways to Toronto, Ottawa, Temiskaming, Temagami and Sault Ste. Marie. By 1937 air port facilities were available at North Bay and air travel became a new communication link with other larger centres.

The population declined slightly during World War II because many men enlisted in the armed services and many others sought

employment in Southern Ontario where higher wages were available. On the other hand activity and employment within North Bay increased. Railroads were always short handed but there as in other activities women and other people who had been previously unemployed filled many positions.

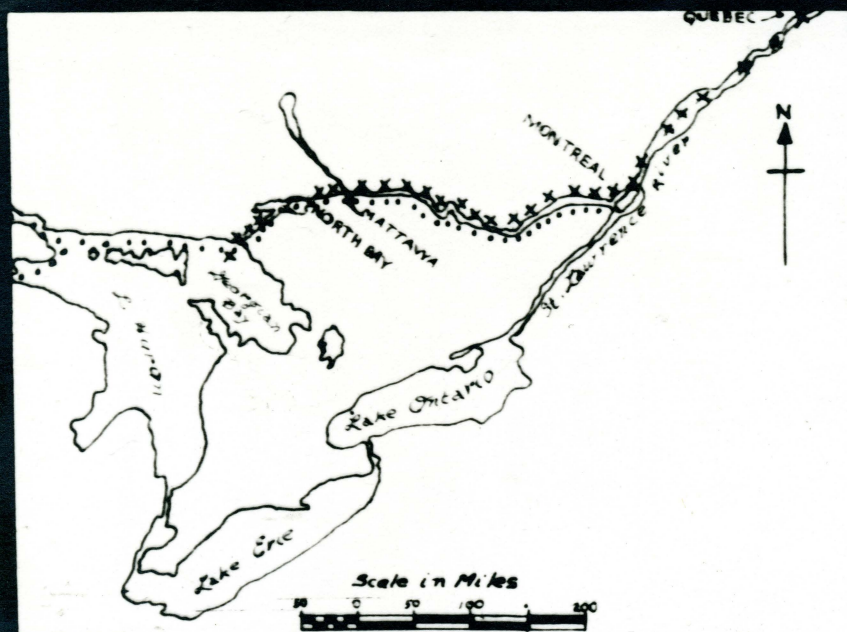
Post war developments have again increased the extent of trade and commerce. Added to this is a revived and much publicized tourist industry, which is steadily increasing. During the war the airport was used as a training base for Ferry Command pilots. Although their hangars and buildings were left vacant at the end of hostilities, the R.C.A.F. has recently established a Jet fighter training base there and activity has again increased. Runways have been enlarged, new barracks and a complete new townsite have been constructed, all of which promise to aid commerce within the city.

Throughout the history of North Bay and its surrounding region, development has been dominated by communications. Settlement lagged behind that in Southern centres because of the rugged nature of the Canadian Shield but the first rail lines provided a means of communication to the interior and settlers followed on the heels of the lumbermen. North Bay was fortunate in having one of the few broad level sites suitable for urban development and at the same time was a suitable distance from other centres that it could benefit from developments throughout Northern Ontario. Settlement attracted more settlement and more rail and road lines until North Bay became the most important land transportation hub in Ontario north of Toronto and west of Ottawa. Lacking industries, the city developed as a rail and highway terminus and as an administration centre for Northern Ontario. Until the mid 1930's the railroads provided the

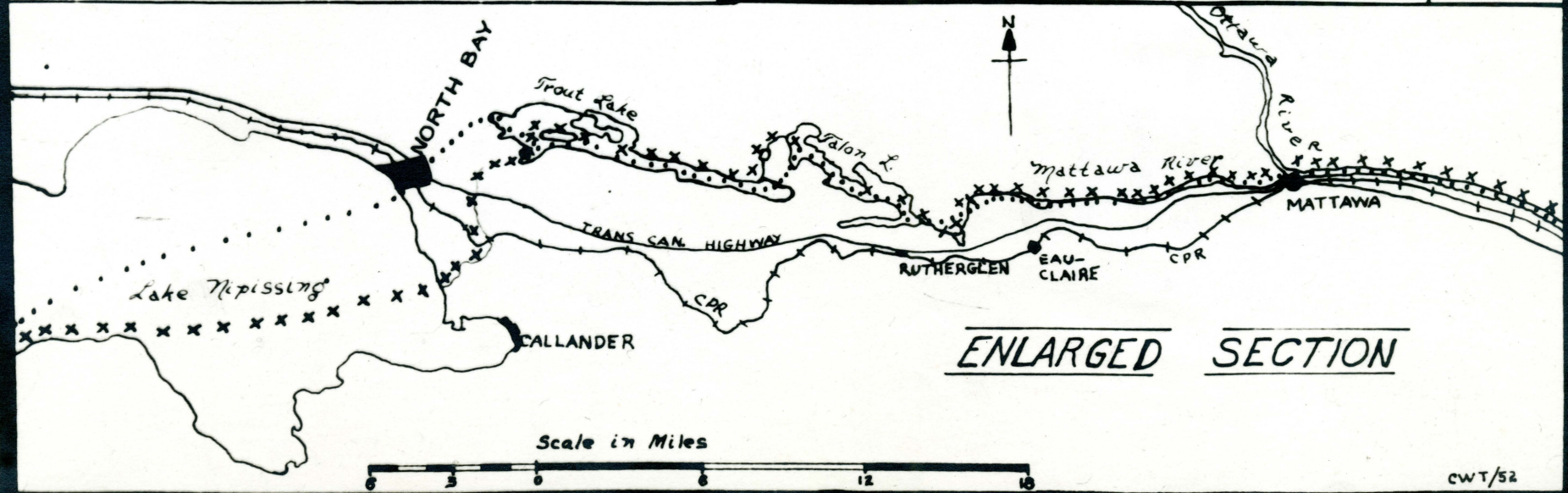
major source of income for the townspeople. In recent years, however, the tourist traffic has increased rapidly and provides a second major source of income.

Just what events may occur which will influence the growth and history of the city no-one can say but in any case the communication net and the tourist trade will still be important factors.

MAP SHOWING
HISTORICAL ROUTES
 ALONG THE
NIPISSING - MATTAWA OUTLET



LEGEND	
CHAMPLAIN'S ROUTE 1615	x x x x x
PROPOSED GEORGIAN BAY CANAL ROUTE 1854
CANADIAN PACIFIC RAILWAY 1881	x x x x x
LAND ROUTE, NORTH BAY - OTTAWA (TRANS CAN. HWY)	—————



ENLARGED SECTION

CHAPTER IIITHE NORTH BAY REGION.

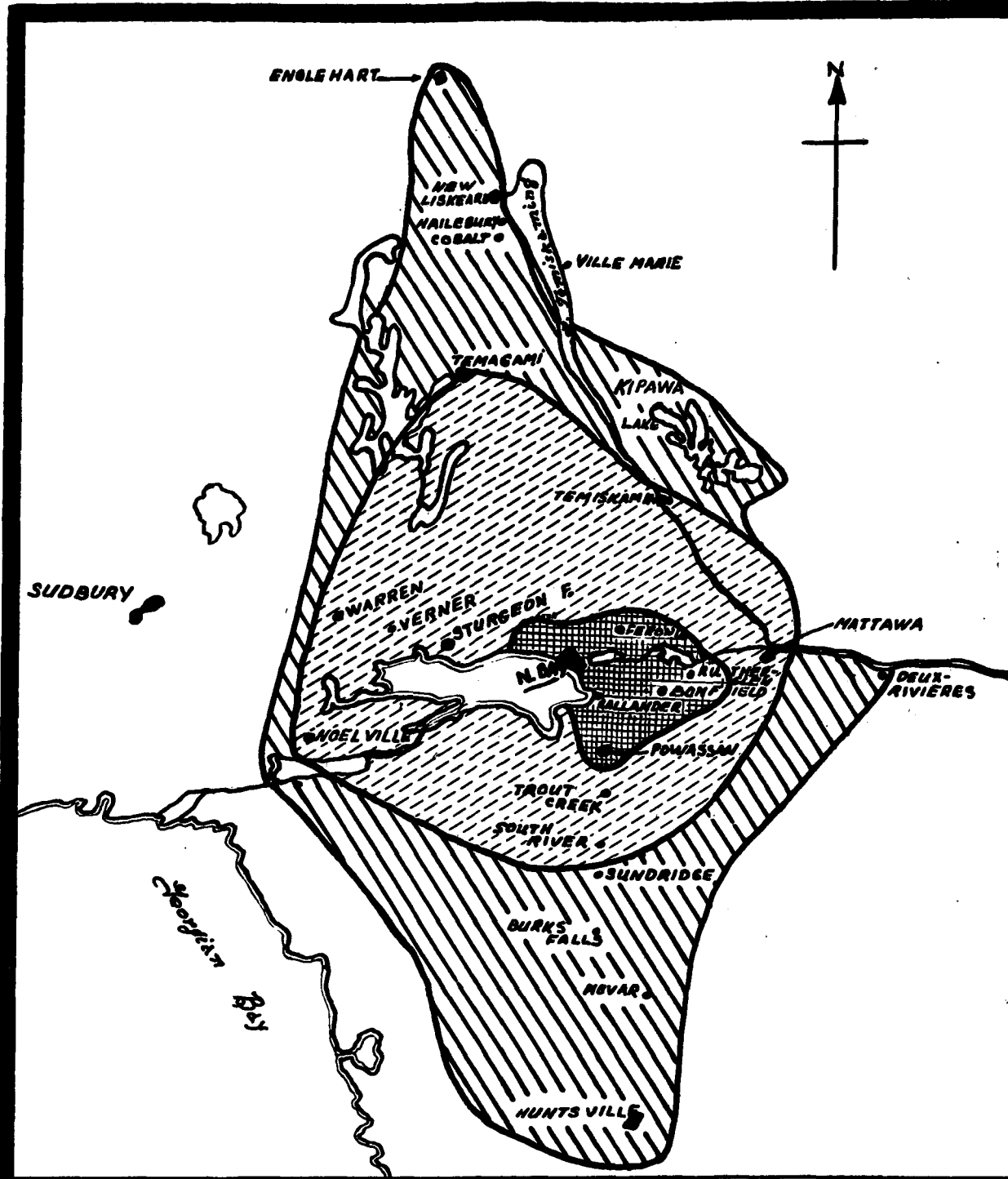
An urban region defined by all the possible environmental influences would involve many complex relations. In order to simplify matters, a discussion of the region as defined by the trade area of North Bay was chosen. This involves the major activity of the city with respect to the surrounding area. At the same time examples of all other environmental factors which could constitute an urban region can be found within this trade area. Indeed some of the activities to be discussed will extend for beyond this trade boundary, but, as far as is possible, an attempt will be made to show how the functions of North Bay are influenced by the "regional" environment and how this region, as defined above, is served or influenced by North Bay.

The regional boundaries extend north to Temagami, east to Temaskaming, Que., and Mattawa, south to Sundridge, and west to Hagar and Noelville.

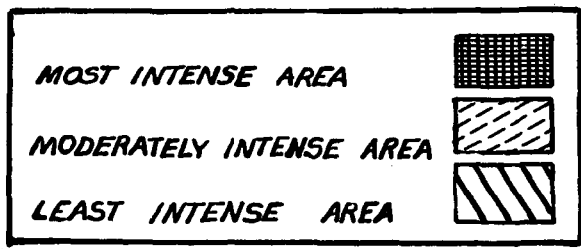
COMMUNICATIONS

Quick communications through North Bay could hardly be improved. All but two of the transcontinental rail lines and highways pass through the city. These are supplemented by air transport. A boat line owned by the Ontario Northland Railway operates out of North Bay and serves the French River district. In addition all these forms of transport are aided by transworld telephone, telegraph and teletype lines, a local press and a local radio station. Such an extensive communication net has extended some of the influences of North Bay over much of Northern Ontario, however, these far-reaching influences are generally in the form of administration and distribution.

Locally these communication links have extended the North Bay



TRADE AREA of NORTH BAY
 SHOWING INTENSITY of TRADE



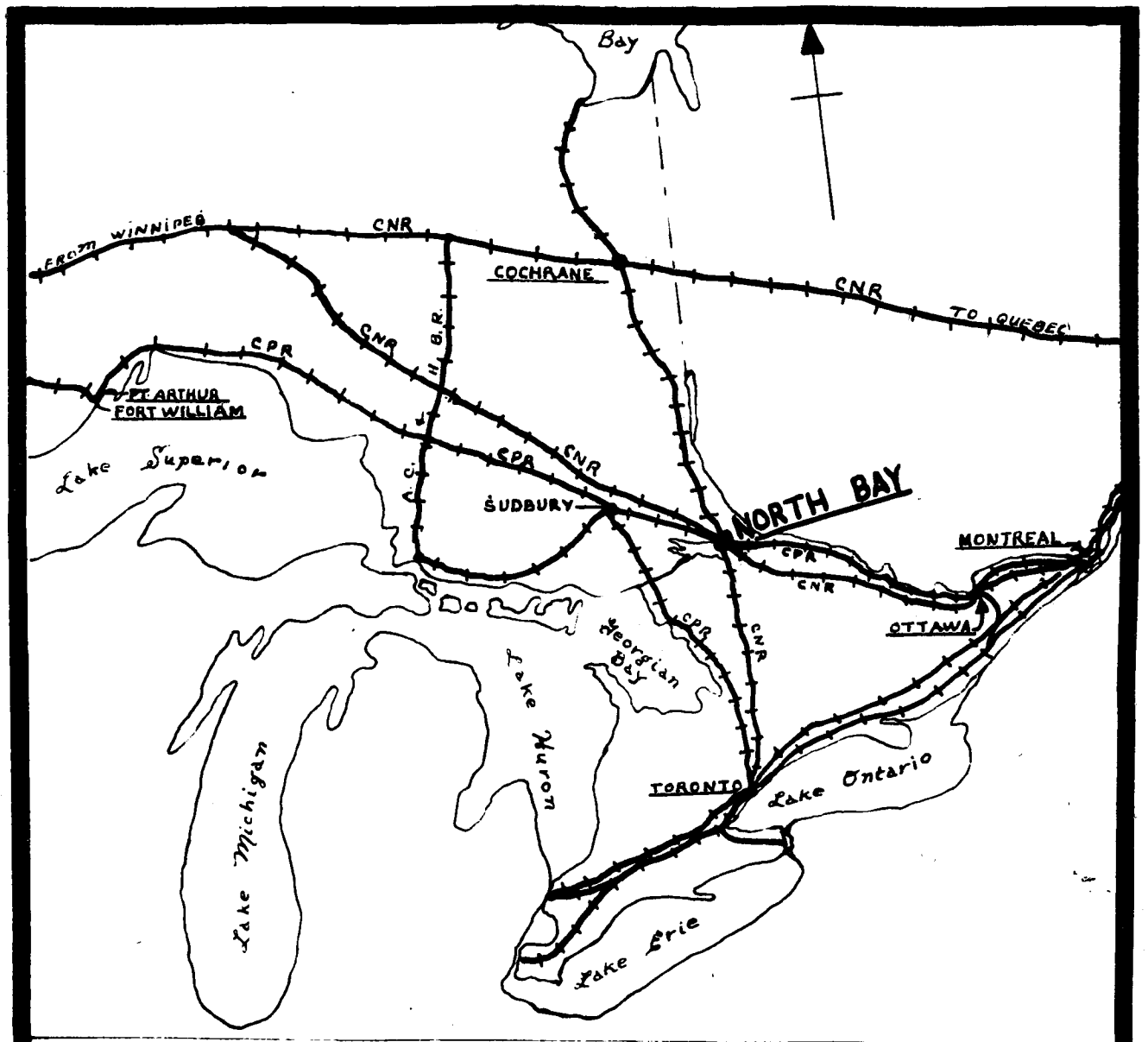
trade boundaries to their present limit, stimulated settlements, provided employment, made North Bay the district administrative seat and stimulated an overall development throughout Northern Ontario and the Shield.

The region, while served by major transportation routes does lack interconnecting roads and highways. This is due in no small way to the rugged terrain of the Shield, which makes construction of any form difficult.

Railways There are three railway companies operating throughout the region. They are the Canadian Pacific Railway, the Canadian National Railway and the Ontario Northland Railway. The Canadian Pacific and the Canadian National each operate a main transcontinental line. The Ontario Northland provides a link between Southern Ontario and the rich gold mining areas and clay belts of the northern part of the province. Although this line terminates at North Bay, a Canadian National line from North Bay to Toronto completes the link with the southland. Its schedules are arranged to coincide with those of the O.N.R. In this way through north-south traffic operates with a minimum of delay. The Railroad Map shows the concentration of rail lines on North Bay.



Very few regional products are exported by these rail companies but extensive yards are required in North Bay to handle the freight which must be rerouted to other regions. As an example the C.N.R. handles one half the total wood pulp produced in Ontario, not to mention the ore and mining equipment.

An approximate total of 18 passenger trains enter and leave North Bay every day. Of these, twelve run east-west and six run north-south. The majority of these stop only at the larger towns



RAILROAD MAP

SHOWING THE
PRINCIPAL EAST - WEST
AND
NORTH - SOUTH ROUTES
IN
ONTARIO

RAILROADS 
PROVINCIAL BOUNDARY 



but each company operates at least one local train a day which stops at every settlement, large or small, along the right of way.

Highways. All major transcanada and transprovincial highway travel is routed via North Bay. The surrounding region benefits greatly from these direct lines, however, as with the railways, the tendency is to focus most of the regional trade on North Bay. Some secondary roads act as interconnecting links between settlements but the major portion of the traffic is on highways #11, #17, and #63, all of which connect within the city.

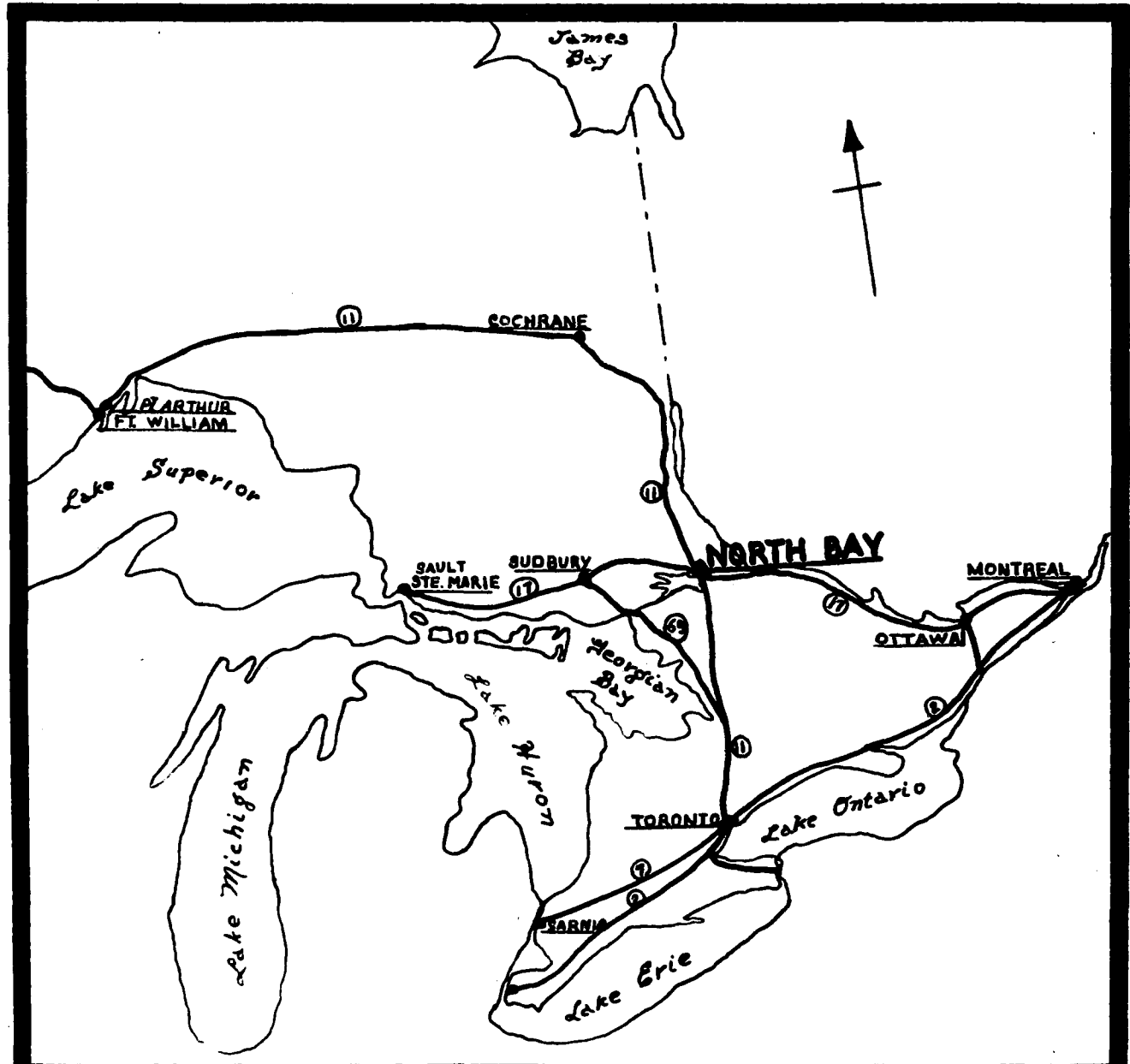
One trucking company and five bus lines operate daily schedules in and out of the city and these, supplemented by outside companies, give complete and rapid transportation as far west as Sault Ste. Marie, north to Cochrane, east to Temiskaming and Ottawa and south to Toronto. No general statistics are available but the Deluxe Transportation Company in North Bay employs 179 persons and has 67 trucks, busses and light transports operating throughout the region.

Highway maintenance and construction is of prime importance and over 600 miles of highway are supervised by the Department of Highways branch in North Bay. The highways under their jurisdiction extend east to Pembroke, south to Trout Creek, west to Hagar and north to Temagami. In addition two large road construction companies have located at North Bay and do the major repairs or build new links for the region. Because the highway traffic has increased so enormously in post-war years a new by pass around North Bay is under construction. When completed this by pass will facilitate the through traffic of the region by relieving much of the congestion and reducing delays.

Muskeg, rock, snow and frost boils still constitute the major



A section of road cut through an outcrop north of North Bay. Many such cuts are often necessary when highways are built in the Shield and make construction both costly and difficult. As a result there are few interconnecting roads through the sparsely populated areas.



HIGHWAY MAP
 SHOWING THE
PRINCIPAL EAST-WEST
 AND
NORTH-SOUTH ROUTES
 IN
ONTARIO

HIGHWAYS _____

PROVINCIAL BOUNDARY - - - - -



highway construction problems, but modern equipment and new methods of road construction have improved matters. With modern equipment and teletype communication the Department of Highways has been able to keep every road open throughout the worst storms.

Air Travel. In 1937 the Department of Transport inaugurated its first Trans-Canada flight. North Bay was chosen as one of the air stations on the route and an airport with long runways was constructed three miles north of the city. The site chosen for construction was a fairly level area of the Gogama Sandy Uplands region. The level nature of the land made construction relatively easy and the elevation enabled air transports to gain height rapidly. Also it was close to a large urban centre and highway connections to the city were excellent. During World War II the airport also served as a Ferry Command training base. Since 1945 a feeder service has been in operation and connects Kapuskasing with Toronto and North Bay. In 1953 two new air routes will commence operation. One from Toronto via North Bay to Noranda, Rouyn and Temminis will be flown by Canadian Pacific Airlines, the other from Toronto via North Bay and Sudbury to the Lake Head will be flown by Trans Canada Airlines. To supplement these flights a private airline has established a seaplane base at Trout Lake and also serves North Bay.

Although competition with other available means of transportation is keen, approximately 700 air express and 450 air cargo consignments were flown in or out of North Bay in 1951. These included such items as Caviar from Sturgeon Falls, drilling equipment produced at North Bay and flowers flown into North Bay.

Air travel within the region is limited because distances involved are short but in special cases such as tourist and mining

activities local flights are important. The significant point is that if speed is essential the region does possess a major airport and can meet the demand. Furthermore, although the major port is at North Bay, small local airline or speedy rail and highway transport are available to link the other major communities in the region.

Finally, the most recent development at the Department of Transport airport, is the new R.C.A.F. jet fighter training base established there. Runway and hangar facilities have been increased and a new townsite to house the married personnel has been constructed near the airport. This new settlement will undoubtedly benefit North Bay commercially.

Other Forms of Communication. These include the telephone, telegraph and teletype plus a local newspaper and local radio station. The telegraph lines are operated by the railroad companies. In addition the O.N.R. maintains and operates the telephone lines north to Moosonee. The Bell Telephone offices in North Bay supervise an area which extends west to Fort William, south to Sarrie and east to Bissetts. Line maintenance crews operate east to Bissetts, south to Sundridge, west to Hagar and include Widdefield immediately to the north of North Bay. Within this local region they also supervise 17 private companies and service 24,000 phones. This indicates a very high degree of service controlled from North Bay.

The North Bay newspaper, the Daily Nugget has a regional circulation of approximately 12,000 and maintains local and world wide news coverage. Although the limits of circulation extend north of Temagami to include Englehart the other boundaries fall



Top photo shows the Department of Transport airport 3 miles north east of North Bay. While level areas such as this are few in the Upland areas this site was chosen for its elevation, proximity to North Bay, distance from Toronto and the fact that few land forms or large urban developments present obstacles to landings or take-offs. Below is a view of part of the new R.C.A.F. housing development near the airport.



within the trade area of North Bay and include Deux Rivers on the east, South River on the south and Warren on the west.

To supplement the newspaper the region is also served by radio station C.F.C.H. located in North Bay. At present the station operates at an output of 1,000 watts and the area of primary coverage extends east and west a distance of 60 miles and north to south a distance of 40 miles.

In nearly every case, regional transportation and communications are controlled from district or head offices located in North Bay. These companies also provide employment for many of the people within the region, and North Bay in particular.

SETTLEMENT

Settlement of the region was held back until communications were available. As more road and rail lines were built more people entered the area and settled along these routes. Topography now as in the late 1880's confined most of the settlement to comparatively narrow strips along these lines. Concentration usually occurred in pockets where resources such as power or forest products were available and accessible. Exceptions to this above statement are the two large agricultural areas around Verner and Powassen, and the communications hub at North Bay.

The regional influence of North Bay extends out from the city in belts or zones which correspond to intensity of trade. Metropolitan North Bay includes the following five settlements, Widefield or Gateway (pop. 3,100) is immediately to the north, the airport townsite 3 miles north east, Trout Mills (pop. 50) $\frac{2}{3}$ miles east, West Ferris (pop. 2,400) immediately south of the city and Callander (pop. 200) nine miles south of North Bay. Although this

last town Callander is 9 miles from the city it is served by the local bus line, North Bay high schools and telephone exchange, and many of its inhabitants are employed or shop daily in the city. The distribution of suburbs is marked by a concentration on the north and south of the city limits. Apart from Callander with its saw mill the most significant form of employment is provided by the tourist industry in West Ferris. Even this last form is secondary to the employment provided within North Bay. Settlement occurred in Gateway and West Ferris primarily because cheap land suitable for urban development was available, the areas are readily accessible to the city and residents can enjoy city services while paying lower taxes. Trout Mills is at present a tourist centre but as far as can be determined it originated with the construction of a smelter to process ore from Cobalt. This smelter no longer exists but the residents have been able to capitalize on the tourist attraction of the lake.

The Airport townsite is too recent a development to have any noticeable effect on North Bay. However, the commercial facilities and high school will probably be the first major links.

Bordering this Metropolitan zone are the settlements of Fernia, Rutherglen, Bonfield and Powassan. Although not served by any of the city owned services these communities are closely linked by commercial activities and many of their inhabitants are employed in North Bay. These form the outer limits of the commuter zone and are within a 20 mile radius of the city. The remaining communities of Temagami to the north; Temiskaming, Mattawa and Eau Claire to the east; Trout Creek, Port Loring, South River and Sundridge on the south and Sturgeon Falls, Verner, Warren and Noelville on the

west are still within the North Bay region but the ties here are mainly commercial or agricultural.

It is evident that the degree of dependancy and service between North Bay and the regional communities varies directly with distance. This will be illustrated in more detail in the following sections. Also some communities outside the region are influenced and influence North Bay. These latter centres have been omitted because they fall within other urban regions, such as Kenⁿland Lake or New Leskiard to the north, Pembroke to the east, Orillia and Huntsville to the south and Sudbury to the west.

NATURAL RESOURCES

Fur. Although the region around North Bay still contains much game, the fur trade has declined to a mere trickle during the last quarter century. However, some commercial trapping is still being conducted and the majority of the trappers market their furs through dealers located in North Bay. A small fur processing factory is also located there.

Forestry. Forty years ago, timber cut within a fifty mile radius of North Bay amounted to well over 600,000,000 board feet of lumber per year. This figure does not include pulpwood cut. Today the amount has dropped to little over 100,000,000 board feet of dressed lumber and the only large sawmills in the region are located at Field, Cache Bay, Callander, Powassan, Trout Creek, Mattawa and North Bay. The mills at North Bay and Callander originally used logs from nearby forests but at present have to import logs by rail or truck transport. The other centres still have local sources of supply or can float the logs in from areas further away. However, in every case available water courses and timber ranges

were the locating factors.

Fortunately lumber was not the only forest product utilized. Pulp and paper mills and wood processing factories located in Sturgeon Falls, Temiskaming, Mattawa and North Bay. Sturgeon Falls originally produced fine grade pulp and cellulose but when the source of supply was used up by 1927 the mill closed. Recently it has reopened and using second grade pulp produces ^K draft papers. Temiskaming produces high grade cellulose and sources of supply are still available and should continue profitable outputs for years to come. Availability of waterpower provided by a drop in river levels was the prime locating factor in both cases. The Mattawa factory manufactures plywood and veneer utilizing local reserves of basswood, beach, maple and pine. Wood for the lumber and planing mills at North Bay must be imported long distances however, a large market and availability of good communications make this location advantageous for the industry.

Power. The rugged topography of the Shield has enabled the construction of many hydro electric generating stations and if the necessity arises many more undeveloped sites are available.

North Bay has its own hydro electric company and maintains 3 small generators in the Pawan area. In addition the city purchases power from the Hydro Electric Power Commission (Ontario) installations at Crystal Falls and the Mississagi Tunnel station. Temiskaming is a company owned town and company generators supply all the needs of the community. A power plant at the pulp factory in Sturgeon Falls also supplies its own power.

Supplementing these previously mentioned sources, the northern and southern systems of the H.E.P.C. tie in at North Bay and

additional power is available from Des Joachimes, La Cave and the Abitibi generator. As a result of local supplies and the provincial power net power in the North Bay region is abundant and cheap.

AGRICULTURE.

Agriculture in the Shield is limited by topography, soils and climate. The North Bay region is fortunate in that it contains two relatively large pockets of arable land. These are cultivated to varying degrees and supply some of the needs of the inhabitants. The majority of the farms are general type and few specialize in any one product. Although the map of agricultural areas indicates the location of these pockets of land it should be noted that these boundaries are general and include much land that is covered with forest or unsuited for agriculture.

The flat clay plains around Sturgeon Falls and Hagar sustain prosperous farms. The soils are relatively heavy but the flat nature permits a high degree of mechanization. As a result cultivation is intensive. The majority of the products such as fluid milk and seed oats are shipped to Sudbury because higher prices are paid there, however, some products do reach North Bay.

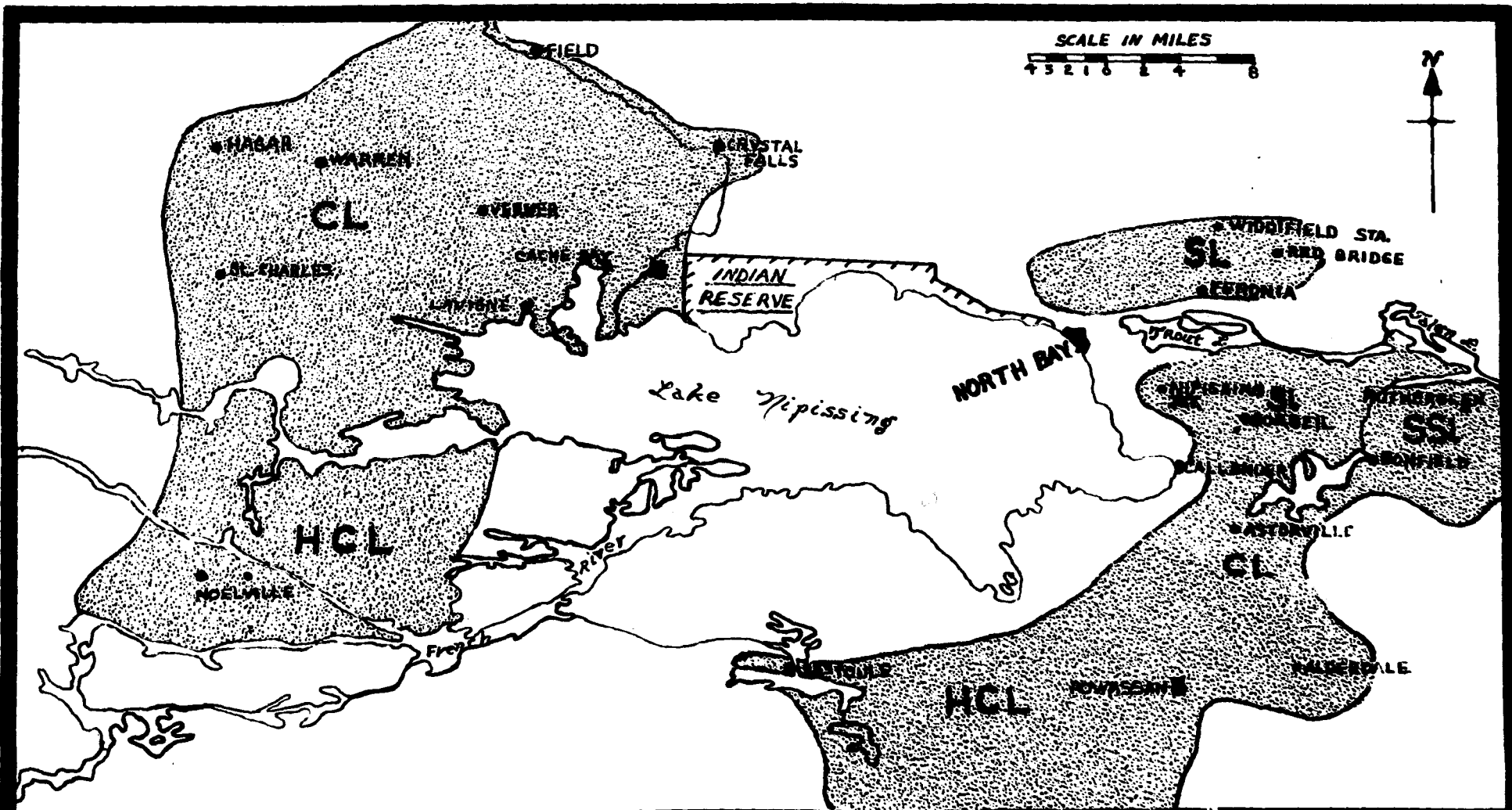
The heavy rolling clay soils around Pawanassan do not permit a very high degree of mechanization and are more suitable for dairying. This belt is North Bay's chief source of fluid milk and other dairy products. Farms in the Astorville, Corbell, Bonfield, Rutherglen and Eau Claire districts are smaller and often limited by topography. As a result they are less prosperous than the previous two areas but supply some beef cattle, vegetables and dairy products.

Potatoes and other vegetables are favoured in the lighter soils around Widdfield and Feronia. Many farms there could produce more



Farms in the Powassan area. Note the rolling nature of the land. Woods still cover the steeper rougher areas within this district are left in woods or used as grazing land.





AGRICULTURAL AREAS

CL - CLAY LOAM

HCL - HEAVY CLAY LOAM

Sl - SILT LOAM

SL - SANDY LOAM

SSi SANDY SILT

cwt/62

and food wholesalers would buy the produce, however, a definite lack of initiative is apparent.

Sheep rearing is increasing throughout the region, especially on the rougher land, and it is hoped this may raise many of the farms from the present subsistence level which characterizes the Upland areas.

All agricultural products find a ready market in the North Bay region, the bulk being sold in the city itself. Although the farmers cannot hope to meet the entire urban demand, they do produce 95% of all fluid milk sold in North Bay and manage to export some cheddar cheese.

MINING

The North Bay region is located immediately to the south and east of the rich mineral belt of Northern Ontario, however, small pockets of minerals do exist. Gold mines south west of Temagami operated before 1939 but high cost of production caused a cessation of activities there. A small mica mine operates near Eau Claire and at present constitutes the one productive mineral deposit in the region.

Recently rich deposits of uranium 308, columbium and tantalum oxides have been discovered on islands in Lake Nipissing seven miles south west of North Bay. If these deposits prove workable mining will become another major resource of the region and commercial and industrial activities within North Bay itself will benefit greatly.

MANUFACTURING.

Manufacturing throughout the region revolves around forest and power resources. There are no large manufacturing areas but large plants do exist at Temiskaming, Sturgeon Falls and Mattawa. What

other industries there are, are concentrated in North Bay in order to utilize the communications available.

Despite the availability of resources, transportation, hydro electric power and a semi-skilled labour force of approximately 17,000, the region lags in industrial development. The major cause for this lag can be attributed to the lack of a large market. It is doubtful that manufacturing will ever rank among the dominant characteristics of this or any other northern Ontario region. The best that can be hoped for is that there will be a wise use of the existing natural resources such as timber and that in future other specialized industries less dependant on local markets will locate in the region.

COMMERCE.

Because of its relative size, good communications and concentration of wholesale and retail concerns within the city, Regional Commerce revolves around North Bay. The map of the Trade Area of North Bay shows three zones of intensity and the following section is a discussion of the regional trade within these zones.

The extreme trade area is somewhat diamond-shaped, probably due to the fact that the communications lines which govern settlement is diamond shaped. Commercial activities are limited by competition from other trade centres such as New Liskeard, Englehart and Kirkland Lake to the north; Pembroke, Renfrew and Ottawa to the east; Huntsville, Orillia and Toronto to the south and Sudbury to the west. Of these centres the strongest competition probably comes from Sudbury. It is not only ^{one of} the closest urban centre but it is large and contains the greatest concentration of retail and wholesale distributors within a 150 mile radius of North Bay.

Other centres to the north, east or south are overshadowed or at least affected by the proximity of neighbouring large urban centres and the pull is divided. Sudbury like North Bay has no large urban centre close by to interfere with its commercial sphere.

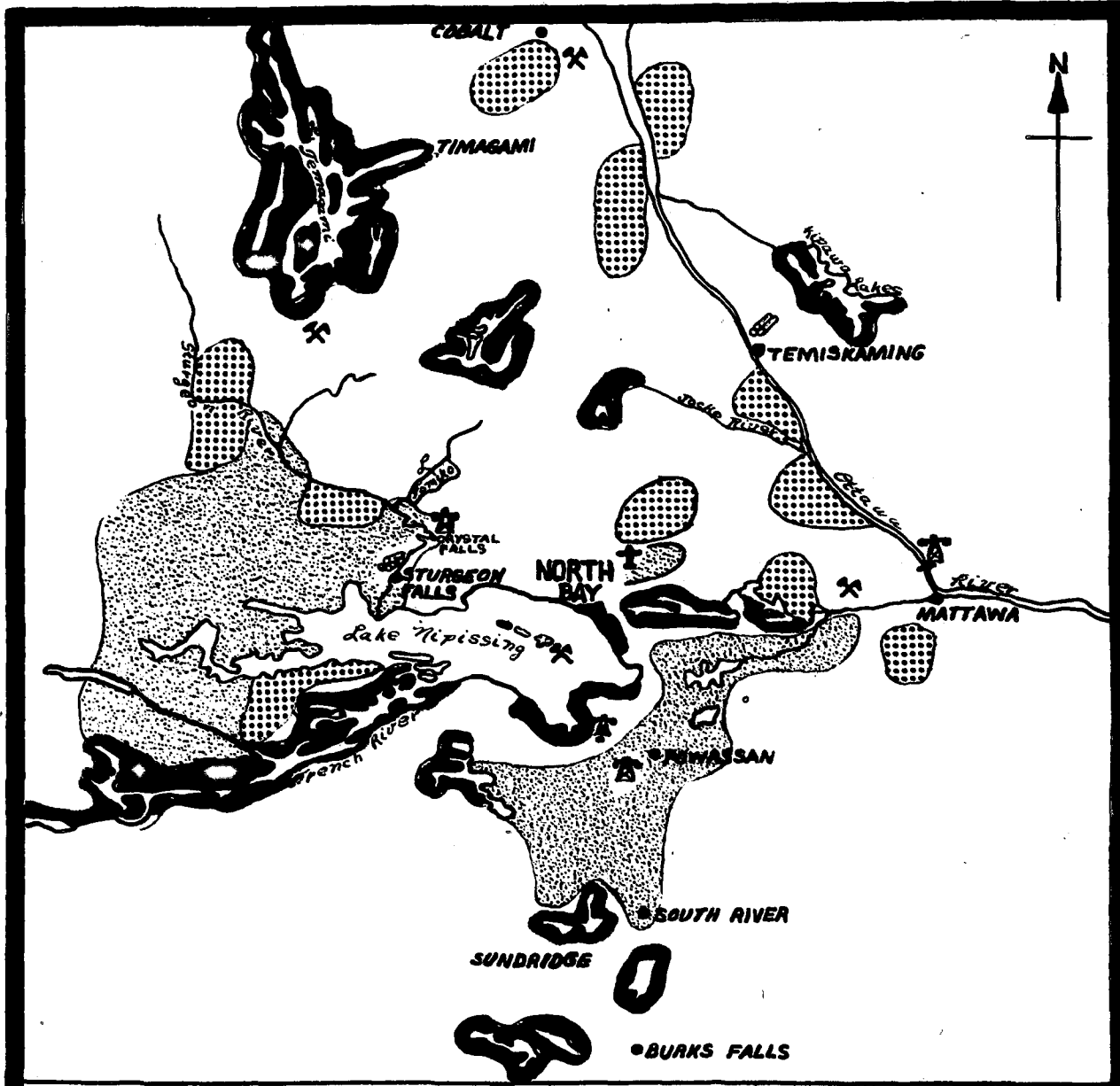
On the map the zone of minimum trade intensity includes settlements which do have some commercial connections with North Bay but are tied tighter to or are within other regional boundaries.

The zone of moderate intensity indicates an area which is served exclusively by all the wholesale, and some retail, distributors in North Bay. Local retail stores serve many of the residents in these communities but most of the residents in these settlements make numerous retail purchases in North Bay because of the wider selection of goods and materials available there. Also the majority of the products originating in the communities of this area are shipped to North Bay for marketing.

The zone of maximum intensity includes all areas, outside North Bay itself, which are served daily by commercial enterprises within the city or whose residents can shop or are employed in the city. This zone corresponds to the commuter zone mentioned previously.

In general commerce within the region depends largely on the activities within North Bay, but because of the relatively small regional output and excellent connections to production areas to the south the city does not depend on the region. The one major exception to this last statement occurs in the tourist season.

In summer months trade within the zone of moderate intensity increases as much as 40% due to the tourist trade and deliveries are increased to keep pace with consumption in the resort areas.














ECONOMIC MAP

of the

NORTH BAY REGION

LEGEND

	TOURIST SITES		POWER STATIONS.....	
	FORESTRY		PULP PLANTS.....	
	AGRICULTURE		MINING.....	
	AIRPORT.....			

Scale in Miles


ADMINISTRATION.

Regional administration, apart from township, town or village councils, is centred in North Bay. As a function this activity extends the influence of North Bay over most of the northern Ontario and covers a much larger area than the urban region. A more thorough discussion will be given in a following section under North Bay, The City.

RECREATION

This function has become of some importance to the region. Its rapid development dates from 28 May 1934 and the birth of the Dionne Quintuplets near Corbeil. Tourist trade before that date was relatively small. The historical development of the industry was discussed under a section in Chapter II.

Accommodating these visitors and catering to their needs provides a net annual income for the district of over \$2,000,000. The Economic Map shows the tourist resort areas served by North Bay. The most concentrated area lies immediately to the south of North Bay, in West Ferris. Here five miles of almost continuous broad sandy beach provide the main attraction. Location here is favoured by the proximity of highway #11 which parallels the lake shore for 3 of the five miles. Fortunately the highway is located far enough inland to permit settlement on the lake side but the pull of business and the concentration have stimulated the construction of cottages, houses and motels on the landed side of the highway also. Many of the tourists accommodated there are over night guests who find the location ^a convenient day's travel from the larger centres to the south and border crossing points such as Sarnia, Windsor or Niagara Falls.



The beach along Lake Nipissing south of North Bay. While barely visible through the trees a multitude of tourist cabins and cottages are located here because of the broad sandy beaches and proximity to highway #11.

The other large tourist resort areas are the south east shore of Lake Nipissing, Machar and Deete lakes west of South River, Lake Bernard near Sundridge, the French River district, Trout Lake and Talon Lake east of North Bay, Jacko Lake, Marten Lake and Lake Temagami all north of North Bay and the Kipawa Lakes north west of Temiskaming. In nearly all of the above districts the locating factors were similar. They are all comparatively large bodies of water with exciting, rugged scenery and the relatively quiet surroundings provide the desired atmosphere, sought by the majority of the tourists. The lakes and streams are also biologically ideal breeding ground for game fish and Lake Nipissing is known as one of the finest pickerel lakes in North America.

All but two of the areas are accessible by train or car. These two areas are the French River district and some of the Kipawa Lakes which must be reached by boat or seaplane. Even the Temagami Lake district has a boat service which enables tourists to reach many resorts otherwise inaccessible.

The resort areas mentioned above are the largest and most popular districts but other smaller and even more isolated sites do exist but because of their relative size or isolation the regional influence is negligible.

Resorts, hotels, motels and cabins within the North Bay region can accommodate an estimated 3,000 people, two thirds of this accommodation being within a 20 mile radius of the city. In 1950 a total of 7,000 tourists registered at the Chamber of Commerce Information Bureau.

Large tracts of Crown Land bordering suitable lakes and rivers are still available. With the advantages of improved road communications, future development of the regional recreation facilities



A highway signpost near North Bay. Income derived from the tourist trade comprises a major portion of the wealth of the region. Note the majority of the names appearing on this post indicate the routes to tourist resort areas.



Trout Lake. Note the rugged scenery and island studded lake. This example is but one of many which attract tourists to the region. This photograph was taken while ice still covered the lake.



Present Home of the Dionne Quint^uplets.
Their birth made the modern tourist possible.
While no longer on exhibition nor acting as
the main attraction for tourists, they still
draw many sightseers to the region.

can be expected.

Summary North Bay is the heart of a region which has been defined on the basis of regional trade. Resources such as timber and pulp are shipped via North Bay and supplies to the region are distributed from wholesale and some retail warehouses in the city. In return the city depends on the region for some of its tourist trade, for some foodstuffs, for raw materials and as a market for its own manufactured products. However, all regional development and trade has been made possible by the communication facilities centred in the city, and this dominating function has made the regional inter-dependance one sided, in favour of North Bay.

CHAPTER IVNORTH BAY, THE CITY

The purpose of this chapter is to discuss the present activities within the city of North Bay and to discuss the land use within the city limits. The Function Plan, made from data gathered by the author in the field will be found inside the back cover of this report. In preparing the plan, the following twelve categories of land use were differentiated: first class houses, second class houses, third class houses, fourth class houses, commercial property, industrial property, public buildings, schoolgrounds, churchland, parkland and hospital property. Each use will be discussed but reference to the map will prove helpful to the reader.

THE RESIDENTS.

The population of North Bay as determined by the city assessment office in 1951 numbered 18,600. Table 11 gives the approximate ethnic breakdown at that time.

table 11

<u>RACIAL ORIGIN</u>	<u>NUMBER</u>
British	13,631
French	3,450
Italian	890
German	317
Miscellaneous.....	312

The majority of the wage earners are employed in some form of communications (notably the railroads), commerce or administration and barring commerce, the other two are very stable forms of employment. This is verified by the fact that there are few transient residents and 85% of the homes in the city are owner occupied.

MUNICIPAL ADMINISTRATION AND SERVICES.

City government is administered by a mayor, ten aldermen and a

city clerk. This council is responsible for the administration of all city services and supervises all public commissions. Included are the following departments: a police department, consisting of a chief, three sergeants, one inspector, one detective and eleven constables; a fire department of one chief and fifteen fire-fighters; a public works department which supervises street maintenance, water works and sewage disposal; a board of education which is divided into Public and Separate School Boards; a hydro commission which administers the city owned hydro system; a planning board; a recreation council and a hospital board.

The streets in the city were surveyed at an early date and as was the custom of the time they were laid out on a modified grid pattern which tended to parallel the C.P.R. rail line. As far as was possible this rectangular grid pattern conformed to the topography which except for Priest's Hill is relatively flat. Rock outcrops caused but one diversion and this was on Front Street near Sixth Avenue. This does not mean that other rock outcrops did not interfere with the streets, they did, notably in the south end of the city, but the pattern remained rigid. If a rocky outcrop does bisect a street the name usually remains the same on both sides of the outcrop. The main traffic arteries such as Cassells Street and Algonquin Ave., have interrupted the pattern more than topography. Names of streets which cross these ^{we} ~~test~~ arteries ^{sometimes} often change. This tends to be confusing but the number of such changes are few and warning is usually given by the fact that a slight jog will be apparent. As an aid to location the city has adopted the 100-to-a-block system in numbering buildings.

Within the city there are 49 miles of public roads and streets,

12.43% of which are paved. Unfortunately there was little provision made for widening the main traffic routes and in recent years these have proved too narrow to handle the increased traffic. Nothing can be done to widen Main Street but some boulevards have been removed and a street widening program is in effect on Algonquin, McIntyre, Cassells and Oak Streets, all of which bear a major share of this traffic. Many traffic control methods have been tried, the most recent of which are the traffic signal lights. However even these have failed to solve the problem in summer months when tourist traffic is at a maximum. It is to be hoped the new highway by-pass will eliminate the bottleneck of Main Street.

One other important point with respect to the street plan is that the tendency of the rail road, to designate the direction of their yards with respect to the general direction of the line, has been carried over to the city streets. All streets that parallel the C.P.R. line have been designated as running east and west despite the fact that their direction with respect to the compass points is closer to being north and south. Reference to city boundaries, made in this report will at all times be with respect to the compass points.

Water supply, a prime necessity in any community, is available from two sources, Lake Nipissing and Trout Lake. The latter was favoured over Lake Nipissing because of its greater depth and bacteria-free water. In addition the Gogama Sandy Uplands which border Trout Lake provided a suitable location for a reservoir. With a high reservoir only one set of pumps, those at the supply station, are required and the flow from the supply duct at Trout Mills is by gravity. Today, there are 40 miles of water mains in the city,



Examples of rock outcrops in the residential areas of the city.



however, the main supply ducts are taxed to capacity and water pressure in the Priests Hill area and in West Ferris often drops to a seriously low level. This added strain has been the result of expansion since 1945. Many new homes and business blocks have been built and areas not previously served have been added. New and larger mains will be needed but underlying bedrocks, outcrops and other underground obstacles make this a very costly project and action has been delayed. The cost to lay mains through outcrops within the city has prevented for years the extension of piped water service to some residential areas such as those to the east of Princess Street.

Sewage and waste disposal is also a major problem in large communities. At present a group of septic tanks along the lake shore collect waste from a major portion of the city. The untreated solution flows from these tanks into Lake Nipissing but a few hundred feet offshore. This has resulted in a pollution of the water which otherwise would provide excellent bathing facilities to local residents. Many years ago voters passed a proposal to contract for a chemical sewage disposal unit and although it has been delayed consideration is being given to a plan which may result in a \$900,000 disposal plant. Future city expansion has not been overlooked and the new plant if constructed will have a capacity of 3 million gallons a day. The waste though pumped into Lake Nipissing will first be purified of all bacteria and will be disposed far offshore.

Hydro electric power came to North Bay at a very early date but until 1940 this power was controlled by private and provincially owned companies. In that year the city established its own power

commission at a cost of \$243,000 hoping to reduce the cost to consumers. The plan proved successful and two reductions have been made in the power rate. The present rate for domestic consumption is 2.3/^{kw} cents for the first sixty hours and 0.9 cents for the remainder. This compares favourably with the power rates of Hamilton Ont. where hydro electric power is considered to be relatively cheap. Sources and availability of supply have been discussed and it is evident that power in North Bay is both cheap and abundant. It is thus understandable that North Bay housewives use more electrical appliances per capita than those of any other Ontario community.¹

Education. City education boards administer a total of thirteen schools. Of this total five are public lower schools, four are separate lower schools, two are girls' boarding colleges, one is a public collegiate and vocational school and one is a boys' boarding college. The lower schools are evenly distributed throughout the city and the majority are located well away from major traffic routes yet within easy access of most homes - both desirable conditions where children are involved. The upper schools are all located in the west end of the city. However, centralization, though mo^re desirable, is not as necessary here as in the case of the lower schools. In their present location these upper schools have spacious yards and lawns and the land is relatively flat permitting the placement of sports fields and other recreational units. In addition a provincial Normal School is located in North Bay and serves all of Northern Ontario.

Religion Approximately 66% of the population are of Protestant

1. Canadian Consumer Survey 1950.

faith and 34% are of Roman Catholic faith. A total of 21 churches administer to the religious needs of the community. Four are Roman Catholic, four United, two Anglican, two Baptist and eight are of other denominations. No distinction between Protestant or Roman Catholic churches are made on the functional plan. Several churches appear in or on the border of the commercial core. However, these when erected were within a residential area. They are all large churches and their central location enables them to serve a large, widely distributed congregation. Most of the churches within the present residential areas are newer, usually serve smaller congregations and as a result are smaller in size than the older churches near the centre of the city. This decentralization places most churches within walking distance of their congregations.

Recreation. Recreational facilities within North Bay are administered by a full-time Recreation Director and a Recreation Council. In conjunction with the Public School Board they operate six childrens' playgrounds during the summer months and numerous outdoor rinks in the winter. In addition they supervise and operate Memorial Arena and Amelia Park. Others parks within the city are Lee Park in the south and the Centoph Park. A definite lack of parks is apparent within the city. This situation is probably the result of insufficient funds. However, the need for more parks should never be underemphasized. Lee Park and the Cenotaph grounds are well kept and appealing to the eye. Unfortunately Lee Park is located at the extreme southern limits of the city, and while serving as a very attractive approach into the city, it benefits few of the local residents. The Cenotaph Park is near the centre of

the city and is the only park which can directly serve the public. Furthermore both Lee Park and the Cenotaph Park are relatively open areas and do not provide a true "green belt" which contains fairly well wooded areas. One other area in the north east section of the city has been set aside for park space but it is relatively undeveloped and is open like the preceding two parks. Although it is one of the larger residential areas no provision for a park of any kind has been made in the north west end of the city. There are still a few unoccupied areas unsuited for housing or other commercial and industrial sites, which could be used as parkland and attention should be paid to the development of these areas. Certainly more parkland and improved playing fields would serve the community well.

COMMUNICATIONS

Throughout its comparatively short history North Bay has developed as a communications hub. Although this has been supplemented by other functions, the rail, highway and other communication links still dominate the local scene. Of these three links the railroads have played the leading role in the development of the city.

The Railroads and North Bay. There are three main railway companies operating in and out of North Bay. They are the Canadian Pacific Railway, the Canadian National Railway and the Ontario Northland Railway. Both the C.P.R. and the O.N.R. maintain extensive rail yards, divisional shops and divisional administrative offices in North Bay. The C.N.R. while maintaining no divisional shops or offices located their district office in North Bay as early as 1917.



The beach terrace at North Bay. The upper photo shows the terrace bordering the lake with a line of boxcars, some of the shops, the smokestack and water tank of the C.P.R. visible along the top. The lower photo shows the extensive marshalling yards built by the C.P.R. along the top of the terrace.



Approximately 2125 men and women are employed in North Bay by the three railway companies. This figure represents 25% of the total labour force of 6,500 men and 2,200 women available within the city.

The post war trend in railways has been a switch from steam to diesel electric locomotives. This may have a market effect on employment within North Bay because engine maintenance and line operating costs are reduced greatly by using diesel electric locomotives. Repair shops of the C.P.R. located in North Bay primarily because it was a convenient operating distance from Chalk River, the previous divisional point. With the increased mileage possible the C.P.R. has now moved its diesel shops to Chapleau and if the present trend continues a noticeable drop in employment will occur. It is to be hoped that the possible drop of employment in the C.P.R. shops will be offset by increased employment available in the extensive new diesel shops of the O.N.R. at present under construction in North Bay. The answer will depend on future developments.

The property in use and occupies by the railroads was allotted a separate category in the land use map for two reasons. First the railroads play a very large role in the activities of the city and secondly the amount of property occupied by this type of land use is extensive. In comparison to other forms of land use which provide employment for the residents of North Bay the amount of land occupied by the railways is almost directly proportional to the number of people employed.

The level terrace along the lakeshore was the locating factor for the O.P.R. and most of the land originally purchased by them has been occupied by shops, warehouses, offices and marshalling yards.

This has cut off a major portion of the city from the lakeshore and occupied much land suitable for other forms of urban development such as parks or housing. On the other hand the C.P.R. was instrumental in founding the settlement and in its present location immediately adjacent to the lake front, creates few obstructions to expansion or traffic so common to many other communities.

The O.N.R. which occupies the second largest portion of railway property is concentrated in a compact unit along the southern limits of the city. This land is less suitable for residential expansion or commercial purposes than the C.P.R. property and at the same time is far enough removed from present residential and commercial areas that it too causes little interference.

In contrast to the holdings of the previous two rail companies, the C.N.R. property though much smaller, does and will continue to, interfere with development within the city. Traffic obstruction in the central section has been reduced by elevating the rail bed and building subways, through which pedestrians and automobiles can pass. However, crossings west of Algonquin Ave. and east of Fischer Street are level crossings. Also Fraser Street and Sherbrook Streets have been completely cut off to auto traffic.

A main rail line cutting through a residential area is undesirable but the problem is where can it be moved so that interference is at a minimum yet service will be centralized. What is equally disturbing is who shall pay the cost? The city can not afford to and the railway is loath to give up its central location and also pay the cost of moving. Legal title to the land is held by the C.N.R. and an order to move the line would not only involve a costly court issue and the outcome would be doubtful. A solution

will require much planning and cooperation and perhaps the problem will never be solved to everyone's satisfaction.

The greatest obstruction to traffic occurs in the south end of the city where Main Street is forced up over two sets of level crossings. Here there is a great deal of congestion and the traffic tie ups are a constant source of trouble to local drivers and travellers alike. An overpass of some sort is the only solution and the railway companies appreciate the problem. Unfortunately this proposal when put to a vote was rejected by local residents so the congestion is likely to continue for some time to come.

On the whole North Bay is fortunate that rail lines do not interfere more with movement within the city. There is also vacant land adjoining these rail lines that may be used for any future industrial development.

Highways. North Bay is located at the junction of highways #11 and #17 and is the southern terminus for highway #63 to Temiskaming. These all converge in the central area of the city and add to the congestion of the "downtown traffic". A new by pass is at present under construction and when completed will enable through traffic on any of these highways to continue without delay. This by passing of traffic may have a detrimental effect on summer tourist trade within the city but it is hoped other benefits will outweigh the detrimental aspects.

The regional office of the Department of Highways is located in North Bay and employs many local residents permanently. To others it offers seasonal employment during summer months. Establishment of this branch has definitely aided the development of North Bay and the highway facilities available to local residents

are excellent.

Air Lines. The Trans Canada Airlines and Lakeland Skyways operate daily schedules for the convenience of local residents and by the summer of 1953 these two companies will be supplemented by Canadian Pacific Airlines. Today North Bay is only 1 hour's air travel from Toronto and 3 hour's air travel from New York. In addition the Department of Transport provides daily weather forecasts for local residents.

Other Forms of Communication. Locally the city is served by the North Bay Daily Nugget, radio station C.F.C.H., the Bell Telephone Company and a local bus line operated by Deluxe Transportation. Perhaps it is because the local residents are so communication minded that in a city of 19,000 people there are approximately 9,000 telephones of which 6,000 are in residences. To maintain these phones the Bell Telephone Co. has an operating staff of 133 persons.

Deluxe Co. busses carried over 1,300,000 passengers and to operate these busses and other forms of transport the company employs 179 persons.

COMMERCE.

Apart from the stores which cater to the general needs of the residents, two other types of commercial enterprise are apparent in North Bay. First because of the central location of North Bay and its excellent communications, there are a multitude of wholesale warehouses and offices. Secondly there are numerous sports equipment stores and gift shops catering to the tourist trade. However, nearly every store large or small derives a large percentage of its income from the tourist trade. In summer months it is not uncommon to see woolen winter coats, sweaters etc., displayed alongside

sportswear for the benefit of foreign visitors. Some are eager to buy these woolen articles because of the fine quality of the material and some because they believe that since they are north of the border they should buy some "typically northern apparel", as a souvenir.

Service to local residents is excellent and privately owned enterprises are supplemented by larger dominion-wide chain stores. Orders placed in manufacturing centres can be delivered to North Bay with a minimum of delay because all forms of direct communication are available. This has the advantage of reducing transportation costs.

This land use category includes all land occupied by retail businesses and by wholesale warehouses and offices. All early commerce centred around the only supply depot available, the C.P.R. station. For a time Oak Street was the one and only commercial street, however, expansion forced the newer and larger stores to build along Main Street. This was a long rocky outcrop but the added cost of construction there when other more suitable areas existed to the north and west was outweighed by the financial benefits of centralization. This caused a general shift to the new commercial street and Oak Street degenerated into a second class business section with second rate hotels. More recently new stores have sprung up along McIntyre Street and post war development there has been rapid.

The map shows that the largest portion of this type of land use is concentrated in a belt between Oak Street and McIntyre Street and between Foran Street in the north west and Regina Street in the south east. Other areas do appear and are evenly scattered along the major traffic routes. However, it is the large con-



Part of the rock outcrop upon which a major portion of the Commercial core has been built. This view taken from McIntyre Street towards Main Street shows that while very few acres are left vacant they are used to store articles. Future expansion will probably make construction on even such an area as this economically feasible because strategic location will outbalance cost of construction.

centrated belt that is known as the "commercial core". The widest ^a part of this belt is between Cassells Street and ^WWylde Street and is the result of the convergence of major traffic routes. This is especially true along Fraser Street which connects the C.P.R. and C.N.R. stations.

The latest expansion has occurred at the expense of the residential areas bordering the commercial core. This annexation of the transition zone is a natural phenomenon. As yet lack of available sites has not forced the expansion skyward with the result that there are few buildings over four stories high.

Although highway freight is rapidly gaining attention and the wholesalers distribute by truck transport they still import the bulk of their products by rail. Wholesale warehouses and offices have located along the railroads where they have the advantage of easy rail transfer direct from freight car to the warehouses. At the same time they are near the retail stores.

Today there are no unoccupied lots available for development within the commercial core. Although retailers may expand further into residential areas or expand skyward, any new wholesale warehouses will be forced to locate on the outskirts of the city where cheaper unoccupied land does exist.

MANUFACTURING INDUSTRY.

The industrial development of North Bay is comparatively small. The majority are small local industries like bakeries, dairies and others which are necessary to serve the city and to some extent, the region, but there are few manufacturing plants which produce articles for "other regions". This can be illustrated by the fact that the payroll for the four largest industries totalled only \$850,000 as

compared to the railroad payroll of \$5,820,000 for the same period.

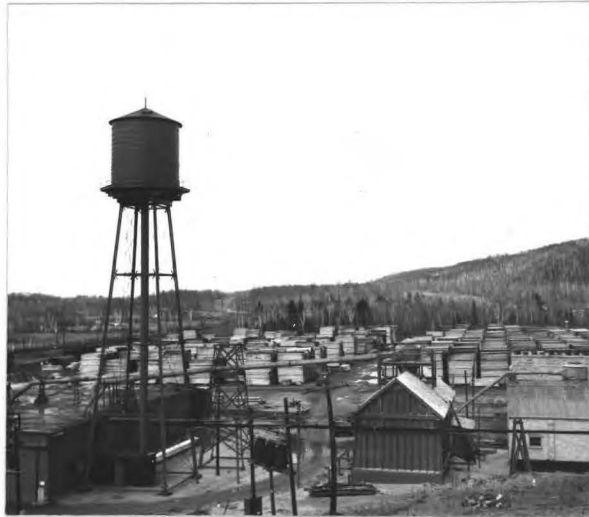
The larger industries and the number they employ are listed below:

Canadian Longyear.....	195
Craig Bit Co. Ltd.....	150
North Bay Mica Ltd.....	82
Great Northern Woods Lumber Co....	60
Rahn Metals.....	45
Standard Planing Mills Ltd.....	44
Inspiration Mining & Developments. Co. ..	30 plus

Although there is no mining on a large scale close to North Bay except the drilling being conducted on Lake Nipissing, it is noteable that four of the seven industries are directly connected with mining activities.

The Canadian Longyear Co. produces diamond drilling equipment to conduct exploration; the Craig Bit Co. produces mining bits and drill rods and also does commercial machine shop work; the North Bay Mica Co. processes sheets of mica mined near Eau Claire; the Inspiration Mining and Development Co. who have been instrumental in opening up the new uranium, columbium and tantalum ore deposits are not primarily a ^{an} manufacturing industry but they do produce some drilling equipment and also do commercial machine shop work. Rahn Metals is a brass, aluminum and lead foundry and while they produce castings of all types their products are used chiefly by the railroads, pulp and paper mills and mining concerns throughout northern Ontario.

Great Northern Woods Company and Standard Planing Mills Ltd. are, as their names imply, engaged in lumbering. These two companies are the only large lumber concerns left in North Bay and have to import their logs from other centres such as Latchford, Cache Bay, or any centre close at hand where timber is being cut. The Great



Lumbering at North Bay. Two large lumbermills operate at North Bay, however they must import the timber from other areas and as a result have located near rail roads and main highways.



Northern Woods although it also processes green logs originally used timber cut from areas which had been ravaged by forest fires exclusively. In such fires many of the trees are only scorched and when sawn up produce excellent lumber. North Bay was chosen as a site for this industry because of its strategic location and the communications available for importing the logs and shipping out the lumber.

There are other industries located within the city but these employ relatively few persons or are seasonal forms of employment. With a population of over 19,000 the city has a labour pool of approximately 6,500 men and 2,200 women. In the fact of a steadily increasing population, more or larger industries are needed to maintain the present level of employment and the per capita income. In North Bay this was \$1,252 in 1961 and resulted in a family buying income of \$4,872, which is \$1,380 higher than the Canadian average.¹ A large percentage of the work available is for unskilled or semi-skilled labour. Tradesmen who have become skilled in their trade while in North Bay, find promotion and pay increases limited with the result that many go to other cities seeking employment.

Although good communications and plentiful supplies of hydro electric power and water are available and tax concessions can be granted by the council, the lack of general manufacturing industries can only be attributed to lack of a large market. Further industrial development in North Bay seems to depend on specialized industries which can utilize local raw materials or are not affected by proximity to market.

The land classified as industrial property includes all areas occupied by manufacturing industries. The areas mapped include

1. Sales and Management Magazine 1960.

all industrial property whether occupied by buildings, used as storage space, or merely left idle. The majority of the existing industries are located on or adjacent railroad property. This although a natural tendency is not a necessity in North Bay because, with the exception of the foundry, industries there are not engaged in the manufacturing or processing of heavy products as are heavier industries in other centres. However, proximity to the railroad even though it is not a necessity is still advantageous.

Other smaller industries, such as bakeries, dairies and the fur processing plant, though not near a railroad are situated near main thoroughfares and are accessible to all forms of automotive transportation.

ADMINISTRATION.

Communications and its strategic location have been the major factors in locating many regional administrative offices in North Bay. The city also functions as an administrative centre for a very large area of Northern Ontario. Not only is it the capital and judicial seat of the District of Nipissing but it is also the location of the following provincial government offices:

Crown Lands, Game and Fisheries, Crown Timber, Fire Ranging, Colonization, Department of Highways, Department of Agriculture, Provincial Police, Hydro Electric Power Commission and the Ontario Northland Railway.

A list of Dominion government offices located in North Bay includes:

Railroad Mail Service, Post Office Inspection, Customs and Excise, National Employment Service, Department of Veterans' Affairs, the Army and Air Force Recruiting Depots, and the Department of Agriculture.

These Provincial and Dominion offices vary in the extent of the area they control, but in general they cover a zone west to and including the District of Algoma, north to Hudsons Bay, east to Pembroke and south to Burks Falls.

In the case of nearly every office mentioned above the area of jurisdiction is extensive. This is a result of the comparatively sparse population throughout the northern part of the province. To make the establishment of such offices practical, the number of people served must have a minimum limit and the boundaries must be extensive enough to include this required number. North Bay was chosen as a locating site because its strategic location and direct communications facilitate the jurisdiction of large areas. The number of administrative offices cover a significant portion of land within the city limits. To reduce the number of categories on the functional plan the symbol which denotes public property includes land owned or buildings occupied by federal, provincial or civic governments. The largest area occupied by this type of land use is in the north-east part of the city. This was an army training and holding camp during World War II. Since that time many buildings have deteriorated but some are still used by the Reserve Army and as offices for other federal government departments. When originally purchased this site was removed from any settled area. Today urban development has extended past this location in the search for suitable building areas. If many of the delapidated buildings here could be removed the area could be set aside for housing. Apart from this one large area, other smaller areas in this class are well kept and if not located in or close to the commercial core, they are located where they interfere little with residential,

industrial or other forms of land use, also they are all readily accessible for clients or employees.

HOUSING.

While it is comparatively simple to differentiate housing from other land uses and even one general class of housing from another, the number of subdivisions of housing in a general survey of this type are usually limited to four for simplicity. Also only the predominating class in any area was mapped and it is possible that lower or higher class dwellings might occur within any one of the housing areas mapped. Further, it should be understood that there are no hard and fast rules which might aid one in deciding where a border line case might fall. Age, improvements, size and environment all play a part in determining the type of house. For example, a new house might be first, second or third class depending on the appearance, the architecture and the condition of the surrounding grounds. In contrast to this a ten year old home might be classified as first class if it were extremely well kept and of appealing architectural design.

In any case, first class homes can soon become second or third class homes and in a border line case the difference between any two consecutive classes may consist merely of a coat of paint or a new lawn. The accompanying photographs are included to help illustrate the different types.

Class I Housing. The majority of houses placed in this category were new or built within the past five years but others which were older, extremely well kept and of appealing design were also included. Surrounding lawns and yards were considered and the condition of these grounds often meant the difference between a first and second class house.



Examples of Class one housing in the Priest Hill area of North Bay.



The plan shows that only a very small percentage of the area contains first class housing. Such a condition is not uncommon in any community and as is generally the case in urban settlements, first class houses are fairly well concentrated in one section of the city. In North Bay this area of concentration of first class homes is the Priests Hill section; west of Algonquin Avenue. It is a comparatively new residential area and the type of housing unit was controlled by local building restrictions which specified that only houses with a high minimum cost of construction could be built in that area. The area is also on the outskirts of the city far removed from the commercial core and from industries. The land is very well suited for housing because it is fairly level, has few rock outcrops to interfere with the landscaping or excavation and is well drained.

Class II Housing. Houses in this category are mainly older homes, still in good condition and usually constructed of brick. Some new homes, such as those constructed in the Priest's Hill district or on Cassells Street, were included in this category because of their small size, unappealing architecture or general lack of improvements. This class comprises the second largest area devoted to housing land use. One large group surrounds the transitional zone of the commercial core and a second large group surrounds the Class I houses of the Priest's Hill area. The majority of Houses in these areas have been first class homes and were the class one houses of pre war years. At present they are owned or occupied by wage earners of the middle or upper income brackets. The land devoted to this type of housing is also well drained, not interrupted by rough topography. In the case of the brow of Priest's Hill it



Examples of Class II housing in North Bay. All are not of brick construction, however they are usually older homes. While houses of this class are well kept and have many improvements they still do not rank on a par with those in Class I areas.



is more ideal for residential development than some of the first class land types being built on today because of the very scenic view.

Class III Housing. This class comprises the largest area devoted to housing land use. Although there are a few, very few, new houses in this category, the majority are older houses of brick or frame construction. Many of the more recently constructed third class homes are small and of cheap construction. In many cases a fresh coat of paint and improved grounds would raise these dwellings to the rank of second class homes. However, all required improvements. Blocks of third class homes appear throughout the city but as anticipated the third class houses are in the transitional zone around the commercial core, between areas of second class houses and fourth class houses or near railroads and industries. They are all low rental type homes and as a general rule house the families of labourers or the hourly wage group. Their location often coincides with the poorer building sites which are low, wet or interrupted by outcrops and are therefore sold at a relatively low price.

Class IV Housing. Some of the houses in this class are two storey frame structures, others are low squalid dwellings of unpainted wood or perhaps covered with tarpaper. The examples which appear on the accompanying page look much better in the photograph than they did in the field but in many cases, of which these are an example, photographs tend to hide many blemishes.

These houses are generally occupied by very low salaried labourers or poverty stricken immigrants. On the other hand some people who live in such dwellings could afford improvements but



Examples of Class 3 housing in North Bay. Houses in this class may be of brick, frame or frame covered with other building materials but they are all unappealing and lack improvements.





Examples of class 4 Housing in North Bay. The proportion of this type of housing to the other three classes is great. Note the appearance of both dwellings and surrounding grounds.



seem to be content with existing conditions. The greatest concentration of houses of this type is on the fringe of urban settlement and extends from Cassells Street south east to the O.N.R. shops. Other smaller areas appear east of Algonquin Ave., north of Front Street and in the north west end of the city again on the fringe zone of settlement. In nearly every case the areas have been settled because they were poorly drained and studded with rock outcrops and therefore were purchased at a very low price.

In any one section of the city improvements depend on the assessment levied and in part on the owners' willingness to accept the higher taxes required to pay for the improvements. In the majority of these areas the people refuse to pay higher taxes. The city cannot afford to pay the extra cost to lay water mains or sewer pipes through these rocky or wet areas, with the result that the streets are little more than gravelled lanes and in some cases lacked sewage disposal and running water.

Such areas present a very difficult problem to planning commissions in every community. The notable feature in North Bay is not that these areas exist, but that there is so a large an area as appears on the map. This appears doubly surprising when it is learned that the average family income in the city was \$4,372. Admittedly this is an average of all brackets and levels of wage earners but there are not enough high salaried residents to make up the necessary difference in this mean if numbers in each wage bracket corresponded to the relative amounts of first, second third and fourth class housing. The solution of the problem seems to rest with the residents themselves and the city planning board.

Hospital Property. North Bay has two large and well equipped

hospitals both in the Priest's Hill district. Each hospital has also extensive grounds which are well landscaped and provide adequate parking facilities. Visitors sometimes consider this location rather far removed from the centre of the city, but the quiet atmosphere and clean environment make these locations very suitable for hospitals. Furthermore one is within one city block of Algonquin Avenue while the other is only three blocks away and as such they are readily accessible to a main thoroughfare. The locations seem well chosen and have the value of being rather aesthetic.

Summary: Land uses in North Bay form a belted pattern of an industrial and railway belt, a commercial belt, a transition zone and a residential belt. Furthermore there are few areas where different uses clash. Industries and railroads are generally separated from the commercial core by Oak Street. In the residential areas there are also few conflicting housing classes in the same area and in general a progression occurs from Class I through Class II to Class III and finally to Class IV. This progression occurs in two directions, one out from the centres of first class housing on Priest's Hill, the other from the Class II houses out from the city centre. The expanding commercial core has created a transition zone between it and the residential area but this is natural.

There are but four negative factors which merit immediate attention. These are, a railway, the C.N.R., which runs through the centre of a residential area, the large area of class IV housing, the traffic congestion in the commercial core and the lack of large parks and playing fields. Future planners should investigate these problems thoroughly and, while taking all factors into account, try to

reach some solution agreeable to the majority of people concerned.

SUMMARY

Long undeveloped, the Shield area of Northern Ontario was first opened for settlement by construction of the Canadian Pacific Railway. The beach terrace along the north shore of Lake Nipissing was found to be the best and most convenient route available for the construction of a rail line to the west. A route via the south of the lake would have involved a longer distance and construction would have been more difficult. Divisional shops and offices were established at the present site of North Bay because the terrace was broad enough to permit construction of extensive yards, because an abundant supply of water was available and because it is a suitable distance from Chalk River, the preceding divisional point.

People were attracted to the area because employment was available in the railroad shops and offices in North Bay and in the lumber camps which sprung up along the rail line. Settlement attracted more people and more rail lines were constructed. Although local lumbering activities declined, North Bay became firmly established as a regional communications hub. Development was aided by the discovery of minerals to the north and west. These new areas required supplies and distributors and wholesale houses became part of the commercial activity of North Bay.

Agriculture in the Shield is hampered by topography, soils and climate. However, small areas of land near the town were suitable for farming and agriculture also became one of the regional activities.

Because of its favourable communications and its strategic location with respect to other centres throughout northern Ontario,

North Bay was chosen as the location for many government administrative offices. Thus the town also became important as an administrative centre.

Today the city functions as a communications hub, an administrative centre and a distributing centre. Activities within the region and within the city depend primarily on these functions, on the natural resources within the region itself, and to some extent, on the development of resources within adjacent regions.

North Bay is also the heart of a thriving tourist vacation land from which many local residents derive an enviable income.

Regional industries are based almost entirely upon timber resources. Within the city manufacturing is not a major activity, however, existing industries either depend on regional resources or have located there because of available communications.

Land uses within North Bay seem well suited to their location in all but one major instance, that of the C.N.R. which cuts through a residential area. Also the large areas of fourth class housing do not conform with the theory that communications and administration provide stable and relatively well-paid forms of employment. An area of fourth class housing as extensive as that in North Bay usually indicates an unstable community. The fault may lie with the people themselves but the problem merits investigation.

Recent expansion within the city has taxed some of the municipal services to capacity. Outcrops of bedrock have interfered with some municipal services such as water supply, sewage disposal and street connections. Lack of sufficient foresight by early planners is evident in the narrow, congested streets of

the commercial core and in the untreated sewage disposal. If the waters bordering the city beaches were not polluted, a park or beach, the envy of any city, could be created. A large bonded debt incurred during the pre depression years prevents expenditures of large sums of money on more than a few local improvements. Careful planning is required and when plans are drawn up they should be flexible and allow for future developments.

The utter dependance on available raw materials that exists in towns such as Sturgeon Falls, Temiskaming, and Cache Bay is not as marked in North Bay although it is true resources within the region do help supply the city with some of the necessities of life.

CONCLUSIONS.

Settlement on the present site of North Bay was made possible by its strategic location at the west end of the Nipissing/Mattawa Outlet, a natural overland route to western Canada. The concentration of major north-south and east-west communications lines on that site was responsible for the development of the city and its urban region. Today the regional activities of North Bay include its functions as a distributing centre, as an administrative centre and as a tourist vacation centre. However, all of these functions still remain secondary to and entirely dependant upon the communication facilities available at North Bay.

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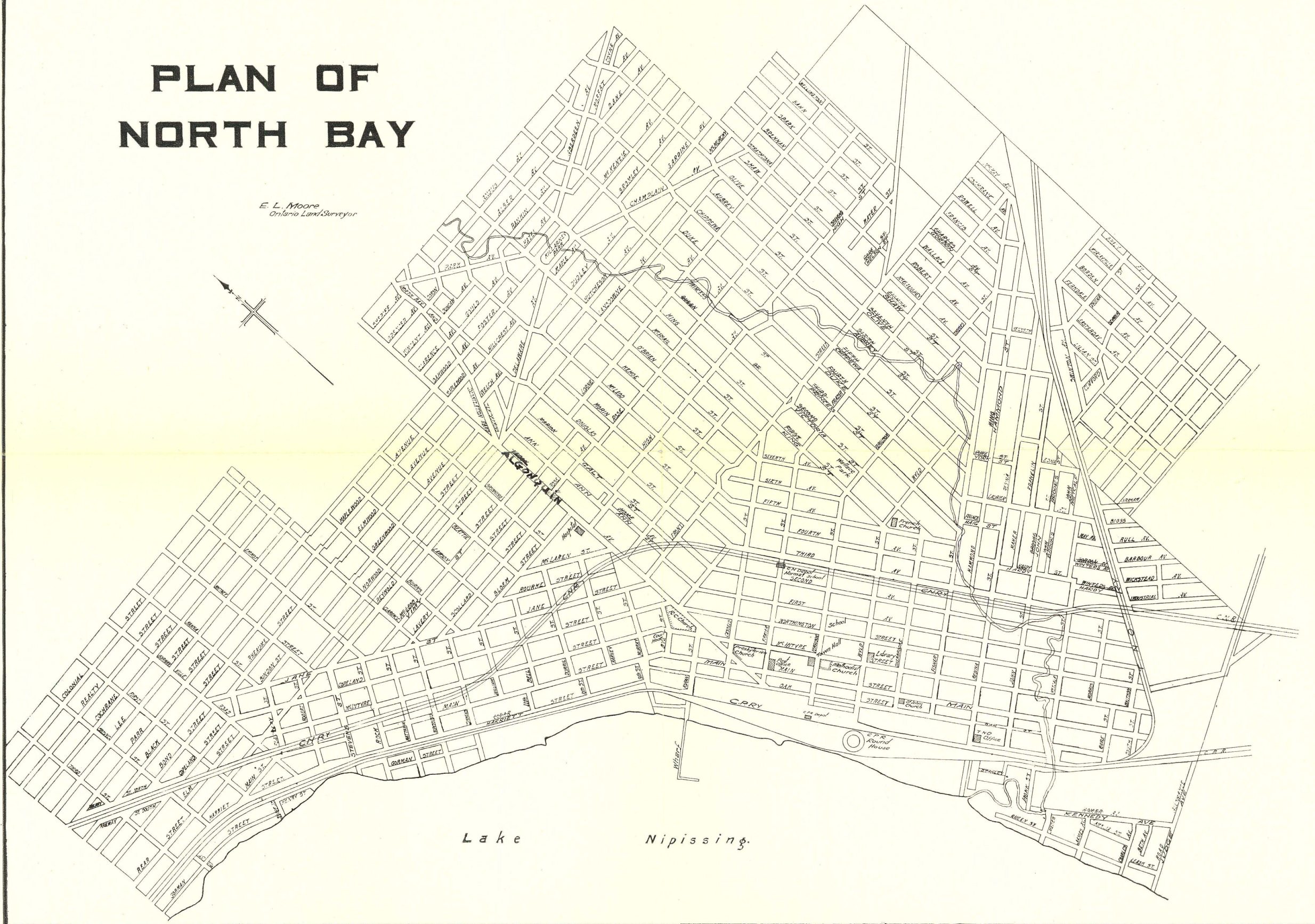
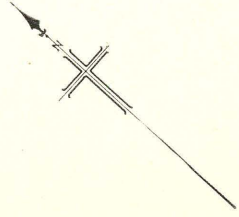
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PLAN OF NORTH BAY

E. L. Moore
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Lake Nipissing.

FUNCTIONAL PLAN of NORTH BAY, ONT.

LEGEND

COMMERCIAL PROPERTY		CLASS 1 HOUSING	
INDUSTRIAL PROPERTY		CLASS 2 HOUSING	
RAILROAD PROPERTY		CLASS 3 HOUSING	
SCHOOLGROUNDS		CLASS 4 HOUSING	
CHURCHLANDS		HOSPITAL PROPERTY	
PUBLIC BUILDINGS		PARKLANDS	

SCALE: 1 INCH = 800 FEET

