THE GEOGRAPHY OF ALBION TOWNSHIP

A THESIS

Presented to

The Faculty of the Department of Geography

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of the Requirements for the Degree

Bachelor of Arts

By
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TO THOSE WHO

HELPED AND GUIDED

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PREFACE

The purpose of this thesis is to describe and interpret the physical and cultural geography of Albion Township. Preliminary to field study, census data, historical publications and a number of maps were procured. By first studying this material, a number of basic facts were deemed more important than others, enabling the author to be more selective in choosing phenomena to be emphasized.

By combining maps of the physical geography a natural division of Albion was recognized. Field study confirmed these two natural regions with their cultural relationships. Consequently, it has become part of the author's purpose to discuss the validity of regionalization and to describe and analyze the factors that influence the regional geography of Albion Township.

PART I

INTRODUCTION

Albion Township lies in the north-east corner of Peel County. On the north, Albion is bordered by Tecumseh and Adjala Townships of Simcoe County and Mono Township of Dufferin County. Caledon and Chinquacousy Townships to the west and Toronto Gore to the south are the bordering municipalities of Peel County, while on the east are Vaughan and King Townships of York County.

On the north, west and south, Albion is bordered by paved roads. The eastern border is a survey line that has not formed as a road. It separates the earlier surveyed "Toronto Purchase" on the east from the old "Mississauga Tract" that was surveyed in 1819.

Bolton, the main village within the Township, is situated on Highway #50, the main axis of Albion. Bolton lies 25 miles north-west of Toronto, 13 miles north of Brampton, 50 miles north-east of Hamilton and 18 miles south-east of Orangeville. A number of excellent paved roads put Albion within easy accessibility of these urban centres. Toronto may be reached by highway in 55 minutes, Brampton in 20 minutes, Hamilton in 75 minutes and Orangeville in 30 minutes.

Albion Township has the shape of a quadrilateral. It has an area of slightly greater than 57,000 acres or over 90 square miles. Survey lines of 1819 ran north north-west, perpendicular to the shoreline of Lake Ontario.

Albion has eleven concession lines, each 0.85 miles apart. Every 1.85 miles from the "Base Line" sideroads, running west-south-west by east-north-east, intersect the concessions dividing Albion into rectangular blocks. Each rectangular block consists of 1000 acres which has been divided into 5 lots parallel to the side roads. A dividing line parallel to the concessions divides the block into half lots of 100 acres. (see base map)

The Township has a variation in elevation of 800 feet. In the north-east corner, on top of the Niagara escarpment, the elevation reaches 1500 feet. From there the terrain slopes south-eastward to the lowest point of less than 700 feet where the Humber River crosses the eastern boundary.

The Humber River traverses Albion Township from north-west to south-east, winding its way through the hummocky north and deeply incising itself as it crosses the plain-like south.

Before proceeding with a detailed description of the Township under specific topics, it would be best to introduce the reader to the broad contrasts revealed by the north and south regions of Albion Township.

North Albion has a continuous irregular hummocky landscape. A side road reconnaissance trip at 30 miles per hour in a car could be likened to a

roller coaster ride up and down steep hills and around sharp bends. The flattest land is found on poorly drained valley bottoms. In most places the difference in elevation between hilltop and valley bottom varies between 50 and 100 feet.

The soils are sandy and excessively drained, especially on the hilltops. Wind and water erosion are evident in many places. Fields of tall slender mulleins tower above a thin cover of weeds and grasses. These fields have been stripped of their top soil and are used only as poor pastures. White patches of sand stand out against a dull green background of thin grasses on many slopes. These "blowouts" are caused by wind erosion and have formed on slopes that should never have been cultivated.

Reforestation areas are scattered over the landscape, especially on eroded hilltops and side slopes. However, many eroded areas still lie barren to weathering processes.

The farmsteads in this seemingly unfertile area vary greatly. It is not uncommon to see a large 300 acre farm with beautiful, large and modern buildings lying next door to a 100 acre farm with small, old and shabby looking buildings. Similarly, the land use pattern reflects the difference in farmsteads. On the large farm, 90% of the acreage may be covered with pastures and hayfields, while the small farm will reveal up to 50% of the land in grain crops.

Evidence of non agricultural residents are also found in North Albion. On paved roads and near streams large modern houses are present everywhere. Golf courses, ski areas, conservation parks, cottages, horse farms, public camps, gas stations and modern homes, indicate an infiltration of city people into a scenic area.

Towards the south, in the vicinity of #15 sideroad, the rolling complex begins to flatten. The hills are fewer and become more gently sloping as they grade into a flat till plain which ranges as far as the eye can see. Here is found a continuous pattern of 100 acre farms. Lush pastures are grazed by large dairy herds and numerous hay and grain fields present a colourful mosaic. Woodland, unlike in the north, has been almost totally cleared to allow utilization of every acre of this fertile land.

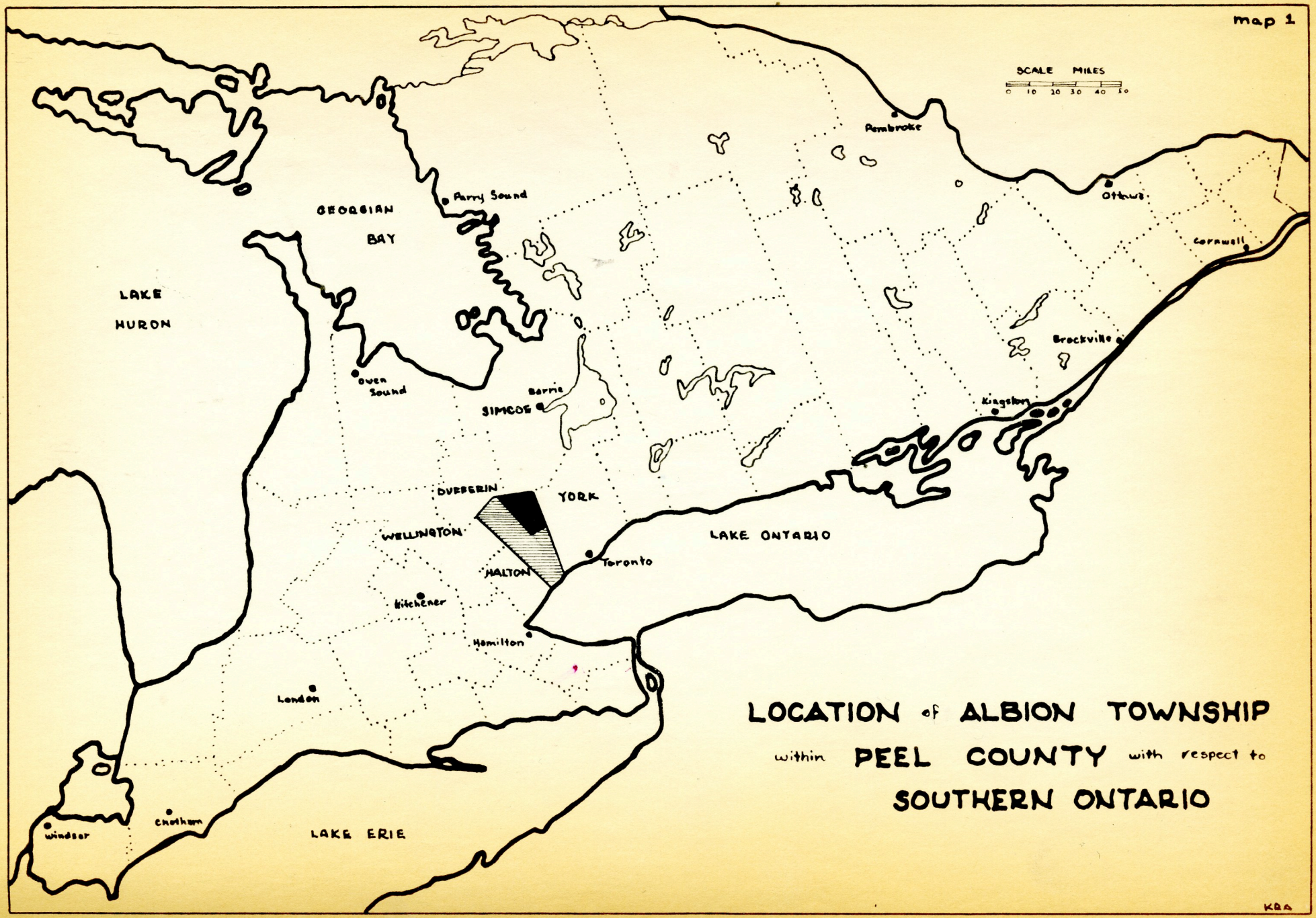
Homesteads are quite large and the buildings well kept. The barns are larger than in the north and have whitewashed concrete bases and silos, typical of barns in a dairying area. "Surge Milker" signs are typical of these southern farms and may be found at the entrance to nearly every farmstead.

The influence of urbanism is noticeable in South Albion but in quite a different way than in the north. Concession roads reveal single houses or strips of houses that are less than 10 years old and which are

occupied by former city residents. Unlike the high class residential development in the north, many new homes in the south are detracting from the beauty and values of the agricultural landscape.

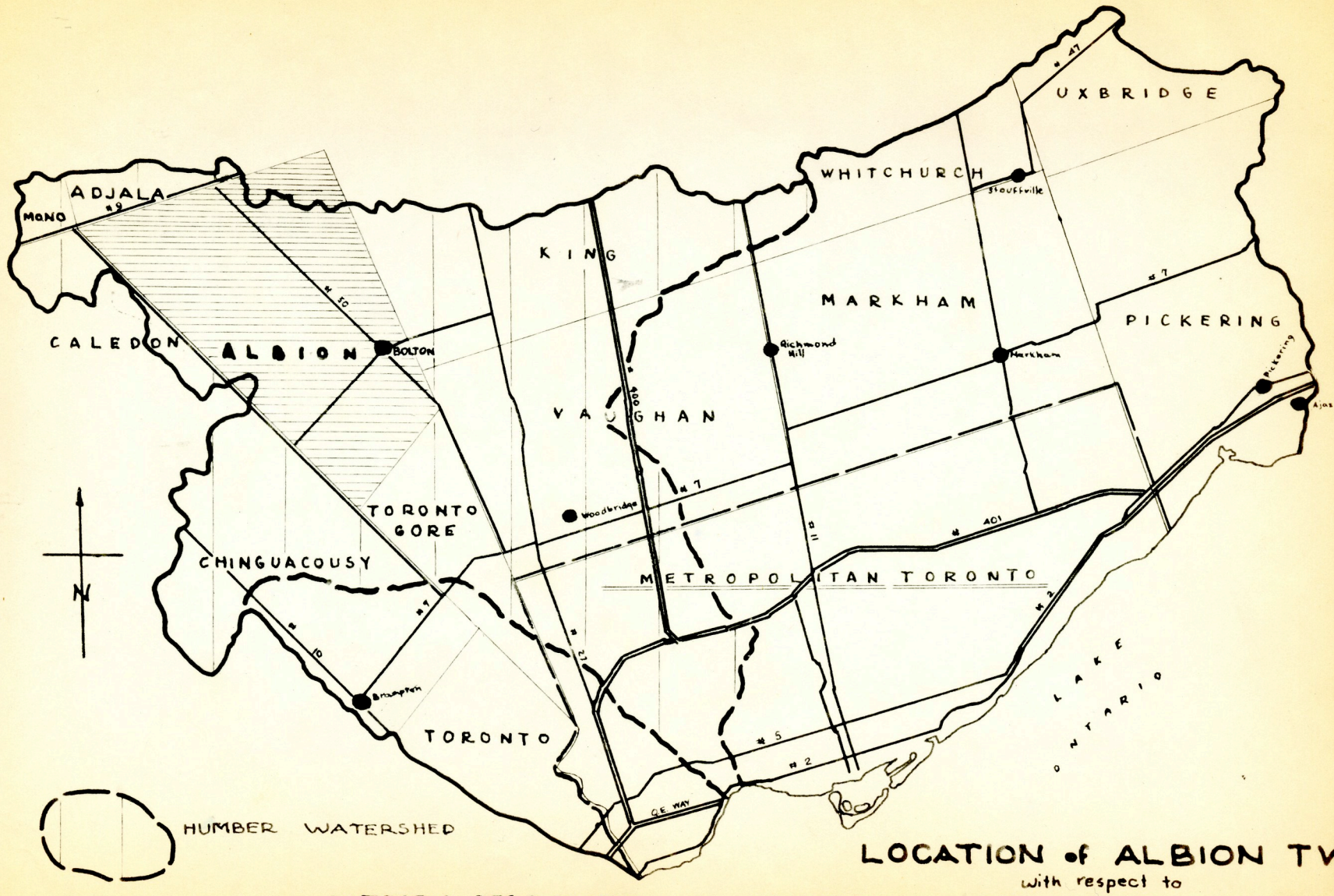
The most striking examples of urbanism are found in the Village of Bolton, an agricultural service centre that has blossomed overnight into an expanding urban complex. Sprawling on a 100 acre lot of once rich farmland is the characteristic housing subdivision of red, yellow and grey brick bungalows that all look alike.

map 1



LOCATION of ALBION TOWNSHIP
within PEEL COUNTY with respect to
SOUTHERN ONTARIO

KRA



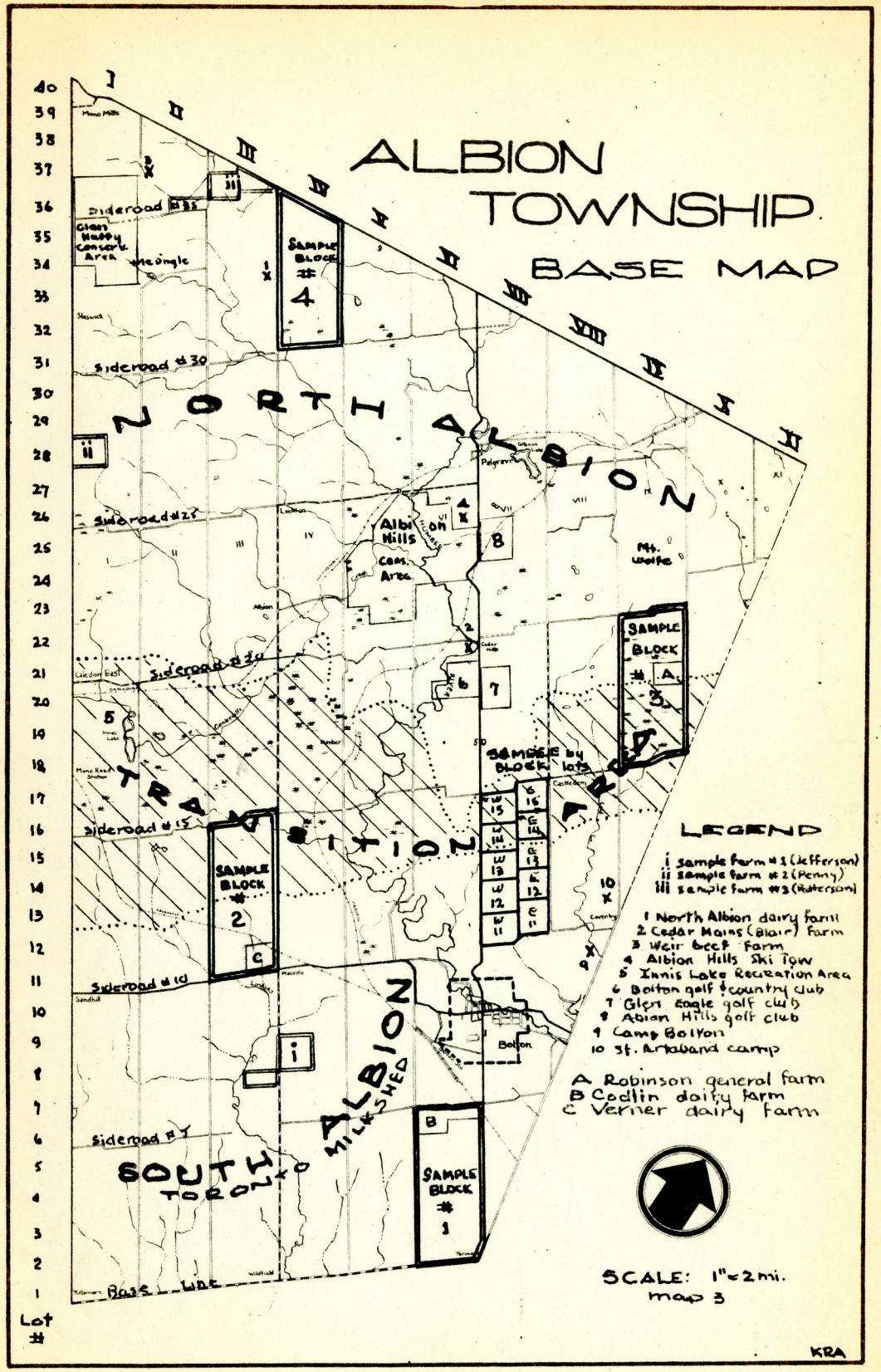
LOCATION of ALBION TWP. with respect to METRO TORONTO, the HUMBER WATERSHED and the METROPOLITAN TORONTO and REGION CONS. AUTH.

0 1 2 3 4 5 6 7 8
SCALE MILES

map 2

based on a map by the metropolitan toronto & region conservation authority KRA

6B


ALBION TOWNSHIP
BASE MAP
NORTH ALBION
TRAFALGAR
SOUTH ALBION
TORONTO
MILKSHED
SAMPLE BLOCK # 4
SAMPLE BLOCK # 3
SAMPLE BLOCK # 2
SAMPLE BLOCK # 1
SAMPLE BLOCK by lots
Sideroad #30
Sideroad #25
Sideroad #20
Sideroad #15
Sideroad #10
Sideroad #5
Albion Hills Cons. Area
Mt. Wolfe
Bolton
Base Line
LEGEND
i sample farm #1 (Jefferson)
ii sample farm #2 (Penny)
iii sample farm #3 (Patterson)
1 North Albion dairy farm
2 Cedar Mains (Blair) farm
3 Weir beef farm
4 Albion Hills Ski Tow
5 Innis Lake Recreation Area
6 Bolton golf & country club
7 Glen Eagle golf club
8 Albion Hills golf club
9 Camp Bolton
10 St. Aristband camp
A Robinson general farm
B Codlin dairy farm
C Verner dairy farm
SCALE: 1" = 2 mi.
map 3
KRA

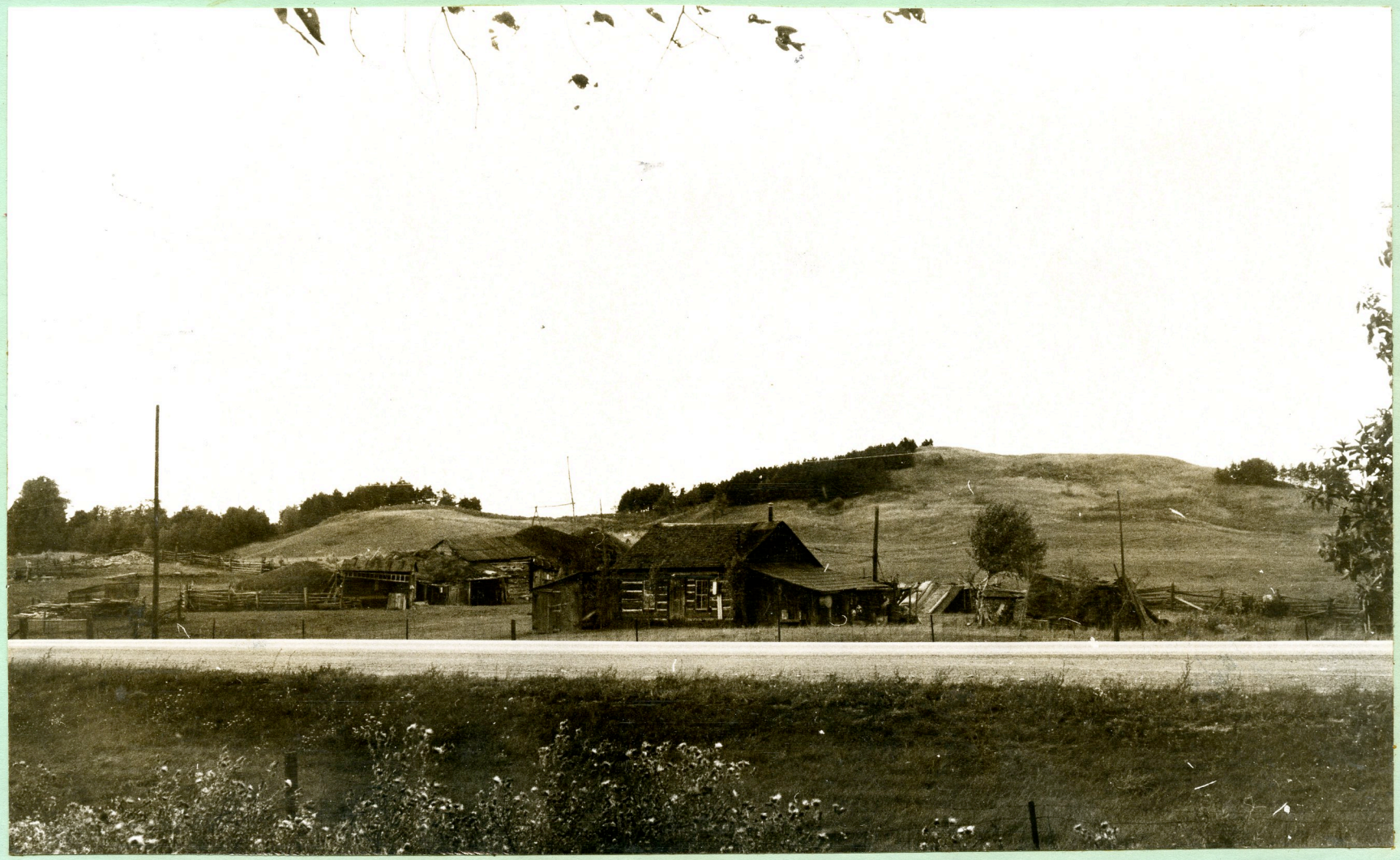


Fig. 1a

A farmstead from yesteryear. This farm, located in the rolling moraines of North Albion is over 125 years old. It is still occupied and worked.

Fig. 2

The junction of Highway #9 and Highway #50. Excellent paved roads such as these make Albion Township easily accessible to large metropolitan areas such as Toronto.

Fig. 3

The C.P.R. line from Toronto to Sudbury. This railway, passing through Bolton, was one of three that brought prosperity to a number of Albion villages in the late 19th and early 20th centuries.

Fig. 4.

North Albion. A field of mulleins on the Niagara escarpment, which indicate top soil erosion, and which is used as poor permanent pasture.

Fig. 5

North Albion. "Blowouts", seen in the background on steeply sloping land. These sandy soils are being reforested to combat deadly erosion.

Fig. 6

North Albion. Reforestation projects on infertile, sandy eroded soils are becoming more and more prevalent to-day. The "M.T.R.C.A." plants more trees in North Albion than in any other area under their jurisdiction.

Fig. 7

North Albion. Numerous lakes, ponds and rivers on a rolling morainic landscape provide a great recreation attraction to visitors from Toronto.

Fig. 8

North Albion. Large and modern farms with excellent buildings such as these are scattered throughout the northern region. This beef and sheep farm belongs to a resident-non farmer.

Fig. 9

North Albion. Buildings characteristic of a general farm with a livestock emphasis. In comparison with the above-mentioned farm, the buildings are old and less modern. Farms, such as this, are being sold to Toronto people for recreation purposes.

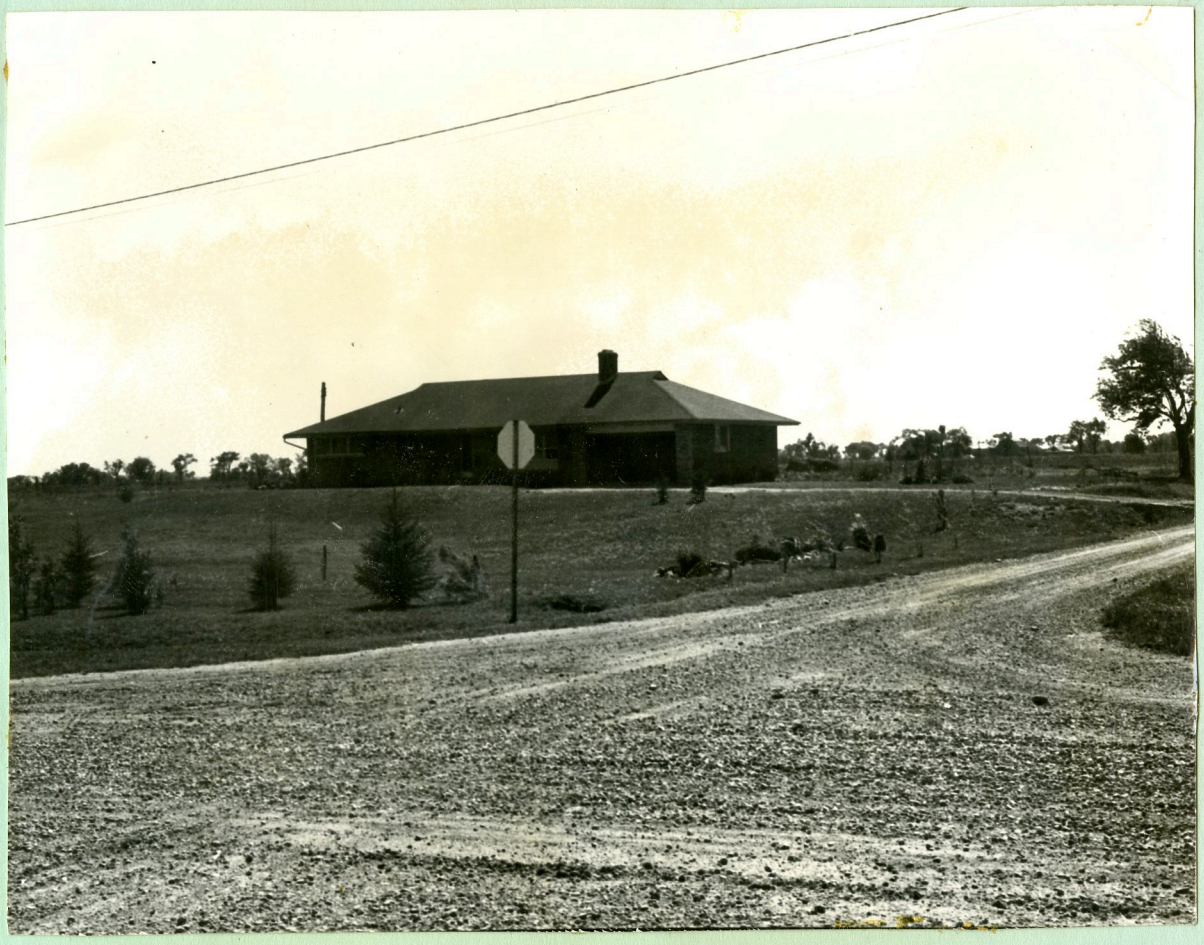


Fig. 10

South Albion. A large modern home on the rich agricultural soils of the till plain.

Fig. 11

South Albion. Road improvement in Bolton, which will widen Highway #50 to 4 lanes north and south of the village.

Fig. 12

Looking into the eastern sector of the village of Bolton from the crest of the Humber Valley. This is the "old village". Most of the newer developments in Bolton have been built south of the village on the till plain; however a number of new duplexes, seen in the foreground, indicate that the valley part of Bolton is also taking on a new appearance.

Fig. 13

South Albion. This dairy barn is typical of the till plain dairy farm areas of South Albion. Note its large size, the new silo and the white-washed concrete base.

Fig. 14

South Albion. A herd of Holstein cows pasturing on a field of alfalfa after it has first been cut.

PART II

PHYSICAL GEOGRAPHY

(i) BEDROCK GEOLOGY

The geological history of Albion Township indicates a variety of formations that are not found in adjacent townships. However, this variety of bedrock formations is completely masked by a cover of glacial drift, except for one small area in the north-west corner of the township.

Albion Township was inundated during the Palaezoic era by a vast epicontinental sea. Ordovician and Silurian sediments of varying thickness were deposited on an older eroded surface of metamorphic and igneous Pre-Cambrian rocks that have never been exposed. These sedimentary strata trend in a north north-west direction, following the long axis of the township. (see map #4)

All but the extreme north-west corner of Albion lies below the Niagara escarpment which, except for a few detached outcrops, has been blanketed by the Oak Ridges interlobate moraine. The Lockport formation forms the upper part of the escarpment, being composed of light grey to bluish magnesium limestone or dolomite. This fine, to coarsely crystalline formation is inclined in beds from 2 to 4 feet thick.

Directly underlying the Lockport is the Medina formation. Lithologically it consists of the Whirlpool member, a resistant light grey quartzose sandstone.

Where outcrops occur at the Dingle (see map #4), the rock is chocolate coloured, in places revealing light grey mottling on a chocolate background. The beds are usually quite thick but may commonly show a shallow upper layer underlain by a much thicker lower part. Well borings indicate that the beds underly the younger upper component of the Niagara escarpment, that being the aforementioned Lockport sediments.

The Queenston formation, of Ordovician age, extends north-south in a belt varying in width from 2 to 5 miles. The strata consist of brick red, thinly bedded, sand and shale which are remarkably uniform in character. Where the shale rests directly under the Whirlpool formation, it often contains mud cracks filled with sand from the overlying beds. Outcrops of this red shale do not occur at the surface.

The Meaford formation extends in a 5 mile wide belt north through the centre of the township, outcropping nowhere in the township itself. It consists of grey to bluish fissile shale with inter-statified hard layers varying from impure calcareous sandstone and arenaceous shale to pure crystalline limestone. The discontinuity and lensey character of the hard beds, plus the presence of ripple marks, indicate that this formation has been deposited in shallow water. [x1]

[x1] The description of this formation has been enabled by study in the Credit River area to the West by J. F. Cayley.

The oldest of the Palaeozoic deposits in Albion Township is that of the Dundas formation. It can be seen on the map to extend just inside the eastern boundary of the township again running in a north-south belt. A greyish blue, thinly bedded shale, the Dundas formation reveals a lens-like appearance of hard calcareous and arenaceous bands, the calcareous material being more prevalent near the Dundas-Meaford contact.

It has become quite evident from the above description that the bedrock geology of Albion Township has very little importance to the topography, physiography and soils. Except for a few exposures at the top of the Niagara escarpment, bedrock is everywhere, covered by the interlobate moraine. It is the glacial materials that almost exclusively control the topography of Albion, the structure of the underlying rock influencing the surface relief only on the escarpment.

The proximity of bedrock to the surface on top of the escarpment is indicated by a few outcroppings and by a large number of boulders and smaller stones. These boulders have been dragged to field edges and piled up to form fence lines. This small area above the escarpment is the only area in Albion Township to reveal a bouldery and stony character as such and has a great effect on the land use of the area. The proximity of the bedrock to the surface accounts for the stoniness of the surface materials.

Fig. 15

A boulder fence on the Niagara escarpment. These boulders, mainly dolomite and quartzose sandstones, were plucked by glacial erosion and scattered irregularly over the escarpment. Farmers have hauled them to the sides of fields to enable cultivation.

(ii) PLEISTOCENE GEOLOGY

The glacial period in Southern Ontario has had greater effect on the present landscape than has any other period. In the Pleistocene epoch there were four distinct glaciations; the Nebraskan, Kansan, Illinoian and Wisconsin. Evidence in Albion Township to-day, of the first three, is everywhere obscured by deposits of the last ice sheet.

About 20,000 years ago the Wisconsin ice sheet began to retreat under the influence of a warming climate. From its farthest advance in Southern Ohio, the Wisconsin glacier melted back 150 miles before it uncovered any land in Southern Ontario. In these waning stages a number of glacial lakes were formed, being dammed between higher land and morainic deposits to the south and the retreating glacier to the north. These glacial lakes formed the basins of the present day Great Lakes but were of much greater areal extent than to-day. Indication of former lakes at their higher levels have been found in Albion Township and have been termed the Peel Pondings. Numerous other glacial land forms were produced and are genetically related to the waxing and waning stages of this great ice sheet.

The Wisconsin ice sheet split into a number of lobes, each advancing from different directions. Affecting Albion Township were the Ontario lobe, which advanced

westward through the present Lake Ontario basin and pressed against the Niagara escarpment, and the Lake Simcoe section, which advanced from the north-east to meet the Ontario lobe in the vicinity of Highway #9.

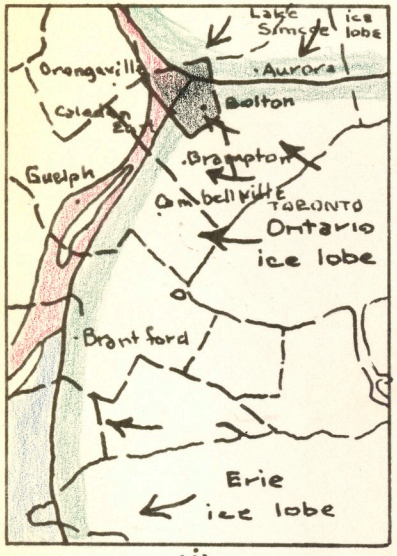
In its advance the Ontario lobe deposited a very thick till plain and, where it met the southward advancing Lake Simcoe sheet, it formed the Oak Ridges moraine in a re-entrant between the two lobes. Draining the ice front between the two lobes, a large spillway developed, extending through Albion Township in a southerly direction. This broad gravelly floored trough is, at present, partly occupied by a misfit stream, Centreville Creek.

During the Lake Warren stage of retreat, (see map #6) the melted water from both the Ontario and Lake Simcoe lobes, piled sands and gravels on the crests of the moraine, leaving the occasional knob of till projecting above the fluvium. The depth of this sandy material varied greatly, road cuts showing it to be 100 feet deep in places.

The Lake Lundy stage depicts the Ontario lobe as having retreated to a position a few miles south of the Albion Township boundary. (see map #5) This retreat revealed the South Slope till plain which the ice had deposited in its waxing stages. As the ice gradually withdrew from the till plain it trapped water between

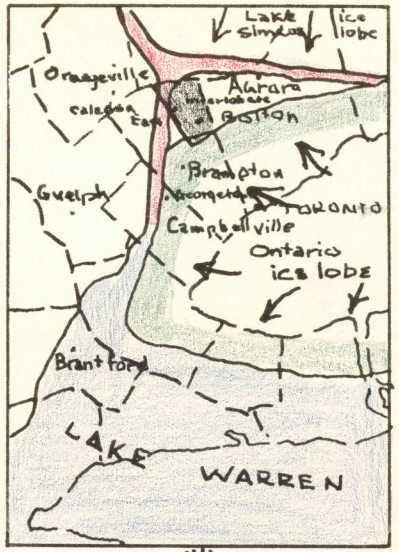
the higher morainic materials to the north and the ice front to the south. This ice-dammed lake came to be known as the Peel Ponding. The main outlet for the Peel Ponding was the re-entrant at Mount Nemo, which carried water from this lake into Lake Lundy.

The continued retreat of the Wisconsin glacier saw the disappearance of this ponding and no further glacial influence on Albion Township. This great glacial epoch, however, left lasting remnants on the topography.



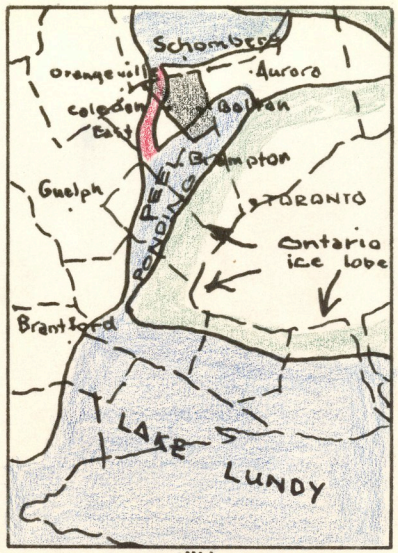
(i)

LAKE WHITTLESEY STAGE



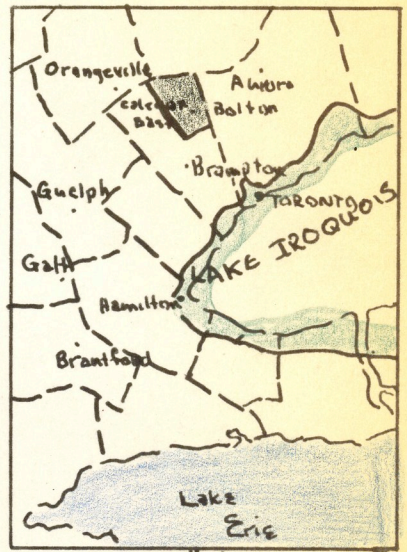
(ii)

LAKE WARREN STAGE



(iii)

LAKE LUNDY STAGE



(iv)

LAKE IROQUOIS STAGE

LEGEND

- Albion Township
- county boundaries
- present lake basins
- spillways
- ice front
- glacial lakes & ponds

map 5

RETREAT OF THE WISCONSIN GLACIER

based on CHAPMAN & PUTNAM

KRA

12 B

(iii) PHYSIOGRAPHY

This section is based on Chapman and Putnam's The Physiography of Southern Ontario. The physiographic regions have been left unchanged except for 2 areas; those being the boundaries of the bevelled till plain and the junction between the interlobate moraine and the till plain. It was felt by the author that these changes were justified on the basis of field study and on the interpretation of topographical and soil maps.

Albion Township may be divided into 2 main physiographic regions - North Albion and South Albion. The boundary is very indefinite, the division being a transition zone. This transitional area lies at the junction of the till plain and interlobate moraine, the dividing line of these two features being hypothetical and not at any sharp break in topography.

NORTH ALBION

Moraines - The morainic areas of Albion Township are found exclusively in the northern region. They form a part of what has been termed the Oak Ridges Interlobate Moraine. The moraines within Albion are a product of either the junction of the Ontario and Simcoe sections of the Wisconsin ice sheet or the Ontario lobe alone. The surface is hilly, with a knob and basin relief, typical of end moraine. Sandy and gravelly materials are characteristic of these hills but on some of the

highest hills boulder clay can be seen protruding above the outwash. This stony till was deposited as a lodge and dump moraine to form the knob and basin topography and during the waning stages, under a warming influence, outwash materials blanketed most of the till. The Niagara escarpment at 1500 feet and Mount Wolfe at 1200 feet, were not covered by the sandy outwash because the melt water issuing from the glacier front was at a lower elevation. As can be seen from map #6, both of these features show a covering of till moraine which is a heavier, more clayey textured material than the surrounding outwash.

At first glance, Mount Wolfe may be thought to be an extremely prominent kame produced by the down-washing of stagnant ice. But, closer examination reveals that the texture of the material is less sandy than the stratified materials of kames nearby. It has been thought by some people, including the author, that Mount Wolfe is a pre Wisconsin glacial feature. A study of the materials contained within the hill would seem to indicate it to be a feature of the Illinoian glaciations. It seems plausible that some feature produced in a past glaciation has caused materials to be deposited to a great height, forming the present Mount Wolfe. That bedrock should have caused the formation of such a feature seems impossible.

Towards the south boundary and in the transition zone between the northern moraines and the till plain

to the south, there are extremely good examples of kame formation. In concessions II and III, lot 19, a well preserved kame can be seen. (see soil map #7) The soil on this kame is sandy in comparison to the loamy soils of the surrounding countryside and, as is shown in sample block #2, the land use on this feature is quite different to the adjacent loamier soils.

Blowouts are in evidence throughout Albion moraines. Cultivated to exhaustion, wind and water erosion has taken its toll revealing patches of sand especially on hilltops and side slopes. (see Fig. 4B6) The fertility of the moraines is low. Excessive drainage, steep slopes, sandy and gravelly soils, have all combined to limit the productivity of North Albion's 55 square miles.

Spillways - A spillway traverses North Albion from north to south, (see map #6) passing out of the Township at the village of Caledon East and extending from there along the face of the Niagara escarpment. It drained the re-entrant between the Simcoe and Ontario lobes carrying meltwater into glacial Lakes Lundy and Warren.

Gravelly deposits were found to exist on the bed of the trough which shows a very slight (less than 25 feet) drop from where it enters and where it leaves the Township. Cedar swamps were used as one criteria,

along with gravel beds, as evidence for the existence of this spillway. The most extensive cedar-covered area was found to be north of Palgrave on Highway #50. (see Fig. 60e) There the trough is flat and the soil quite wet. Marshy areas were found in conjunction with the spillway along its entire length.

In the better sections of the spillway where the soil had a sandy loam texture with less gravel, fruit trees and some vegetables were found. (see Fig. 19)

There is a smaller spillway, indicated on the physiography map, which lies along the face of the escarpment. During the Wisconsin glaciation, where the ice sheet came in contact with the escarpment, this spillway carried meltwater along the face, eventually joining the larger one to the south at the Credit Forks in Caledon Township.

SOUTH ALBION

Till Plain - The till plain in South Albion was deposited in irregular swells and swales of very gentle relief. This till plain becomes more hummocky around #15 sideroad where it joins the morainic areas to the north. In the transitional area of about 4 miles, (see Map #6) the soils are of a loamy nature, exhibiting good internal and external drainage on moderate to steep slopes. Sheet erosion is everywhere a problem in this region. Numerous pockets of sandier outwash

are found to occur irregularly within this band of loamy soils. Stratified kame deposits are frequently found also in the zone of transition.

In the till plain proper the topography is level, exhibiting clay loam soils, fair to good drainage and is the best agricultural land in Albion Township. A product of the advancing Ontario lobe, the parent materials are quite shaly in nature with limestone also being present. The till generally has a medium texture throughout with a few stones scattered through the matrix of sand, silt and clay. The land use in this area depends greatly on these characteristics and consequently the till plain supports mainly dairy and a few general farms, based on all types of hay and grain crops.

Bevelled Till Plain - This landform type occurs in the extreme southern parts of Albion. It is a product of the Peel Ponding, a shallow muddy lake that bevelled the underlying till plain to form a flat plain of little relief. The pondage inundated Albion to a level of about 850 feet, depositing varves of lacustrine sediments to a depth of about 3 feet. The soils formed on the lacustrine materials are heavy clays and because of their impermeability and a flat site, drainage tends to be imperfect. The land use in this area reflects a dairy predominance with cereal grains, hay and pasture predominating.

Sand Plain - There are two small areas of sand plain in Albion, one in the north, associated with the spillway north-east of Palgrave, and one in the south on the eastern boundary where the Humber River leaves Albion. Both of these features are deltaic formations produced by glacial channels that flowed into temporary pondings.

Evidence of this sand plain was found in a road cut on concession IX where a typical delta formation was revealed. (see Fig. 22) The foreset beds consist of alternating sands, silts and gravels in bands of varying thicknesses and were deposited on a gravelly bed. The unconformity on top consists of unsorted outwash materials. There is some question as to the origin of this unconformity. One hypothesis is that the outwash was deposited when a temporary dam was breached and the drainage resumed its normal flow down the channel. Another, which seems more correct to the writer, was that a glacial readvance occurred after ponding. This accounts for the distortions or convolutions which are present (see Fig. 22) and which may have been caused by the weight of the ice on the foreset beds. The fact that morainic materials are absent is probably due to the great amount of later outwash which carried away all evidence of the glacial laid deposits. The sandy soils of both sand plains are areas of specialized agriculture on a limited scale with a few acres of orchard and market gardens.

In conclusion, it would appear quite evident that there is a great contrast in physiography between North and South Albion. The northern areas, with a great variance in elevation, have sandy soils which are generally unfertile and conducive mainly to reforestation, natural pastures and general farming of a rather poor type. Thus large acreages, devoid of cultivation, are quite characteristic. The southern areas have some of the best farm land in Southern Ontario. The soils are loams and clay loams on a flat topography and are excellent for dairy and general farms.

Fig. 16

North Albion rolling moraines, from the Niagara escarpment. Note the kame formation in the foreground and also the amount of woodlot and unimproved pasture compared with Fig. 21.

Fig. 17

A North Albion inter-kame kettle lake. This depressional area is very marshy and is surrounded by woodland. There are recreation possibilities for this pond.

Fig. 18

The spillway through Caledon East looking north from the crest of the valley. This gravel-floored trough is one mile in breadth from crest to crest.

Fig. 19

The spillway from the valley floor. The spillway which traverses hummocky North Albion is used by the C.N.R. because of uniform elevations. Note the apple orchards in the background, which are almost non-existent in the rest of Albion.

Fig. 20

A kame deposit in North Albion. These formations are scattered throughout the north. They are very steep and used only as permanent pasture.

Fig. 21

The bevelled till plain of South Albion. It is extremely flat, has heavy rich agricultural soils and has little woodland. The field in the foreground was in oats. The contrast between this photo and Fig. 16 is quite vivid.

Fig. 22

Deltaic formation in a temporarily dammed channel. The topset beds were sheared off by glacial re-advance and outwash sands were deposited on top. The foreset beds show distortion because of the weight of the re-advancing glacier. The material composing this formation is in variable bands of sand, silt and gravel.

(iv) SOILS

Soils of Albion Township are quite clearly related to physiography.

Formed under the action of a cool moist temperate climate and a mixed forest type of vegetation, the soils belong to the Grey Brown Podzolic Group. The process of leaching through decaying vegetation has carried minerals from the "A" into the "B" horizon, a characteristic found in all of Albion's soils. Podzolization in various glacial parent materials has imparted the basic characteristics to these soils.

NORTH ALBION

Pontypool Sandy Loam - This soil series covers 35% - 40% of Albion Township and is by far the most prevalent soil in North Albion. It has formed under a mixed forest vegetation (hard maple, beech and spruce) and coincides with the interlobate and kame moraine areas. The parent material was deposited by glacio-fluvial action and thus it is poorly sorted. Pontypool sandy loam is coarse textured and is well to excessively drained on irregular, moderately sloping to steeply sloping topography. The profile is well developed because of its open textured nature. (see table #2 and Fig. 23) Being porous in nature, the sandy loam is an early soil and can

be cultivated with ease. In contrast to the clay loam soils of South Albion, this soil does not require fall plowing in order to aerate it.

Pontypool sandy loam is greatly limited by low fertility, droughtiness and susceptibility to wind erosion. It is lacking in phosphate, potash and especially organic matter. Adequate amounts of manure should be added in order to build up this important component.

Cover crops should be left on the soil for as great a period of time as possible to guard against erosion.

In some pockets the soil is heavier and is able to support general farming, but for the most part, especially on the hilltops and slopes, the soil supports only a scrubby permanent pasture. It is these areas that are being reforested. In areas where great care and great amounts of money are put into the land, the fertility can be raised and large acreages have been improved sufficiently for the support of good herds of livestock.

Dumfries Sandy Loam - This series is found in Albion associated with the Niagara escarpment.

The sandy loam soil has developed on course limestone and shale materials, the parent material, which is till, being composed largely of Lockport dolomite. It developed mainly under a hardwood vegetation.

Steeply sloping topography, good internal and external drainage, and severe surface stoniness, are characteristic of this soil. The limitations of the Dumfries series are based on severe sheet erosion on steep slopes, frequent stones and boulders which are a hindrance to cultivation, irregularity of topography which prohibits conservation farming and low fertility based on low to medium quantities of phosphorus, nitrogen, potash and organic matter.

Being well supplied with lime, the soil is well suited to the growing of legumes. However, the land use in Albion is found to be mostly forests, permanent pasture and hay pasture with small grains in lesser quantity. Because of the erosion problem, the soil should be under a vegetation cover permanently.

Others - Two other soil groups are found to exist in North Albion but areally, occupy only a small proportion of the land. Brady sandy loam occurs in a small patch south of Highway #9 on Concession VI. It is formed on well sorted sands, is imperfectly drained and is low in organic matter, potassium and phosphorus.

The muck soils are more widespread. Accumulations of well decomposed organic materials are found on depressional topography. These dark black soils are very wet and are underlain by sticky clays, sands and marls. Cedars, elms and sedges are the dominant vegetation. (see Fig. 30)

Transition Zone - There are two soil groups that dominate this zone. Both of them can be found in either the north or south but the main concentration is in the transitional area. (see soil map #7)

King Clay Loam - This soil is found on smooth, moderately sloping topography and on steeply sloping land where dissection by the Humber River has occurred. The soil is fine textured, based on a parent material derived from angular limestone and shale, interspersed with a clayey matrix.

Free downward movement of water has formed a well developed profile with good internal drainage. (see table #2) This is probably the most fertile soil in Albion. It is well supplied with calcium, potassium and organic matter and its good internal drainage and smoothly sloping topography allow the practice of ship cropping and contour tillage.

The soil is especially well adapted to grain crops, hay and pasture, the basis for an excellent dairying economy. Where fertility is maintained most crops yield good quantities.

The main limitation of this soil is erosion. Where slopes are steep great care must be taken to preserve precious top soil. However, if the land is kept under a vegetation cover, especially of hay or pasture, and barnyard manure is added, erosion can be arrested with a

minimum of trouble and good yields of hay or productive pastures can be obtained.

Woburn Loam - Woburn loam has formed on a parent material derived of medium textured shale with smaller amounts of limestone. This series occupies a relatively small area in Albion Township but is recognized as one of the best soils if proper farming practices are followed.

It occurs on moderately to steeply sloping land and exhibits good internal and external drainage. It has a loamy texture and a relatively porous nature which permits early cultivation. Mineral fertilizers should be added to build up the amount of phosphate, and potash and manure should be used to maintain the organic matter content.

As in the King clay loam, erosion hazards are the main problem. Short rotations should not be used for they will encourage erosion and impair the soil structure. The best land use for this soil is the growing of legumes because of the good drainage characteristics. Grains and pasture are also well adapted to the Woburn series so that general farming is the main activity.

SOUTH ALBION

Chinguacousy Clay Loam - This is the most extensive soil type in South Albion, occurring west of Concession V and south of Sideroad #15. The soil has developed under woodland on a stony and calcareous clay till where shale predominates and limestone occurs to a lesser extent. Being formed on a heavy textured till, the Chinguacousy series exhibits a clay loam top soil with a mottled clay to clay loam subsoil. The topography is smooth, gently sloping, and coupled with the clay loam texture of the soil, causes imperfect drainage. However, tile drains can make this a Class I soil. (see Fig. 24) Organic matter, phosphorous and calcium are deficient but can be built up and maintained by additions of lime, barnyard manure and mineral fertilizers.

Cereal grains and forage crops are the largest land use categories on this soil which has a heavy dairy emphasis. Few wood lots remain to-day on this soil.

Peel Clay - Peel clay has formed on a thin veneer of calcareous lacustrine clay, underlain by fine textured clay till. It coincides with the bevelled till plain. Because the relief is so modest and the soil texture heavy, Peel clay is imperfectly drained. The soil is stonefree with a heavy clay top soil underlain by a mottled A_2 and B_2 horizon. The internal drainage is slow, run-off is slow and the topography slight, making

the erosion hazard small. (see Table #2 and Fig. 25)

The clay soil is high in organic matter and plant nutrients and the most prevalent problem is drainage. Where tile drains are used, alfalfa yields, which come to an optimum under good drainage conditions, are greatly increased.

Peel clay is very well adapted to dairy farming, which is by far the most important type in this area. The soil is well suited to cereal grains, corn, all types of hay, and produces lush pastures as well as cash crops. The soil developed under a vegetation of soft maple and elm, but only a very small acreage, remains in woodland to-day.

Others - Five other soil series exist in South Albion. The Malton clay is similar to the Peel clay, but exhibits poorer drainage. The Monaghan and Jeddo clay loams have formed on heavy textured limestone and shale till and are similar to other members of their catena (see soil map #7), with the exception that they are more poorly drained. The Caledon loam soils have formed on well sorted outwash. Bolton occupies all the area of this type. Milliken loam, on medium textured shale and limestone till, is so small in area as to have no importance in change of land use from adjacent areas.

Albion Soils Common To North and South - Oneida clay loam on heavy textured till, Brighton sandy loam on well sorted sandy outwash and the Bottom land soils, are found in small acreages throughout the Township. Of these, only the sandy loam illustrates a difference in land use from adjacent areas, being conducive to small orchards and market gardens.

In summary, it is evident that there is a great contrast in soils between North and South Albion. The best soils are the King clay loam and artificially drained Chinguacousy clay loam with the rest of the soils in South Albion close behind. On the other hand, North Albion has the least fertile and sandier land. The sandy loams of the Oak Ridges moraine area are the poorest soils in Albion. South Albion, on the other hand, has good fertile soils. Thus it must be concluded that there is a great regional variation between soils in the north and south sections of Albion.

NORTHERN ALBION

PONTYPOOL SANDY LOAM

A0 – Thin layer of partially decomposed leaves, twigs etc.

A1 – 0-4" sandy loam; dark greyish brown; fine crumb structure; very friable consistency; few stones; pH-6.6.

A21 – 4-19" Sand; yellowish brown; very weak platy structure; very friable consistency; stone free; pH-6.4

A22 – 19-24" Sand; light yellowish brown; single grain structure, loose consistency; stone free; pH-6.4.

B2 – 24-34" sandy loam; dark brown; medium nuciform structure; friable consistency; few stones; pH-6.8

C – sand; greyish brown; single grain structure; loose consistency; calcareous; few to frequent stones pH-7.8

SOUTHERN ALBION

KING CLAY LOAM

A0 – Thin layer of partially decomposed leaves, twigs etc.

A1 – 0-5" clay loam; greyish brown; med. granular structure; friable consistency; stone free; pH-6.8

A21 – 5-11" clay loam; brown, weak platy structure; friable consistency; stone free; pH.-6.5

A22 – 11-13" clay loam; light yellowish brown; weak platy structure friable consistency; stone free pH-6.4

B2 – 13-30" clay; dark brown; coarse blocky structure; hard consistency; stone free; pH-7.0

C – clay till; brown; prismatic structure; hard consistency. calcareous; few stones; pH-7.8

PEEL CLAY

A0 Thin layer of partially decomposed leaves, twigs etc.

A1 – 0-6" clay; dark greyish brown; med. granular structure friable consist; stone free pH-6.8

A2 – 6-8" clay; light yellowish brown; slightly mottled; medium nuciform structure firm consistency; stone free pH-6.5

B2 – 8-18" clay; dark brown; mottled; coarse nuciform structure; plastic consistency stone free; pH-7.0.

C – 18-20" clay; greyish brown; med nuciform structure; plastic consistency; stone free; calcareous pH-7.8.

D – clay till; light greyish brown; fragmental structure; hard consistency; gritty few stones; calcareous pH-7.8.

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ALBION TOWNSHIP SOIL PROFILES

TABLE #2

27F

Fig. 23

Pontypool sandy loam. Ease of percolation through sandy outwash facilitates good profile development. Note the pebbles within the profile.

Fig. 24

Chinguacousy clay loam. In this profile the internal drainage has been improved. The leached A_2 horizon (the whitish layer by the scale) is well developed. Little mottling occurs here.

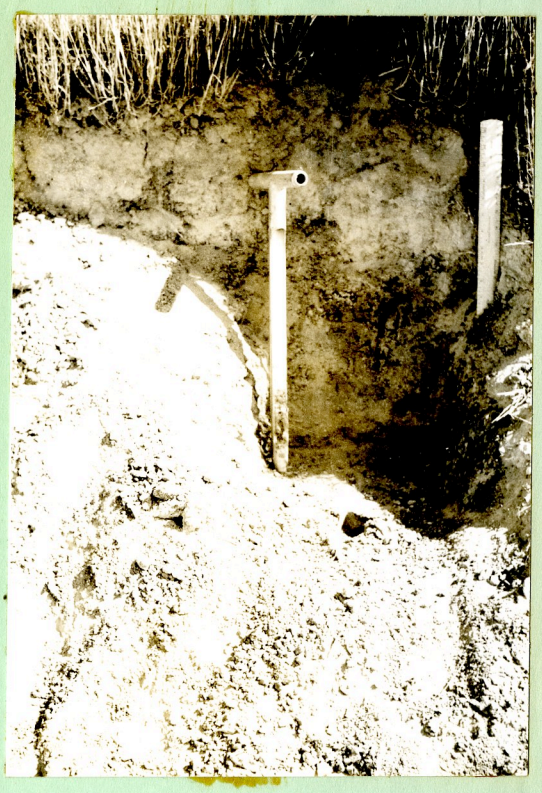


Fig. 25

Peel clay. This profile developed on the flat bevelled till plain of South Albion. Note the granular to blocky structure of the clay soil.

Fig. 26

Jeddo clay loam. This is the poorly drained member of the same series as chinguacousy clay loam. In its dry condition, as illustrated, the soil is blocky in structure and is tilled only with extreme difficulty because it is so compacted.

Fig. 27

A poorly drained area of Peel clay. This is one of the few unused areas of South Albion. The clumps of bushes and reeds, in the foreground, indicate the poor internal and external drainage.

(v) NATURAL VEGETATION

Albion Township is located within the Huron-Ontario section of the Great Lakes St, Lawrence Forest Region. [x1] The natural vegetation is forest, the climax being a beech-sugar (hard) maple association. The forest vegetation is completely integrated with physiography and soils because the soils were formed under forest on the glacial materials.

Three very broad tree associations have been mapped in Albion (see map #8). They are the

(a) hard maple - beech - spruce association (Fig.28)
(b) oak - hard maple - pine association
(c) soft maple - elm association (Fig.32)

Close surveillance of the areas mapped in these associations reveals that they coincide with the physical divisions of North and South Albion, with a small transition zone between.

The writer feels it is unnecessary to look deeply into these different associations as less than 7% of Albion Township to-day is under a forest cover. The trees that remain represent farm woodlots, wet associations such as cedar groves found in areas of bottom land or muck and reforestation projects on greatly eroded and infertile land.

[x1] Halliday, W.E., A Forest Classification for Canada Dominion Forest Service, Bulletin 29, 1937.

Albion woodlands to-day, beautiful as they are, reflect little of the glory of the early forests. They tell nothing of the immensity of early trees in height and breadth and number.

James Bolton, an early settler, had this to say about the size of white pines in Albion -

> "It was quite a sight to see the long mast timber hauled through Bolton, the butt end on the front wheels of a wagon and a pair of hind wheels chained under the log about every 20 feet to the end, drawn by eight or ten yoke of oxen, or ten or a dozen span of horses."[1]

Bolton says that white pine trees a hundred feet high were found in Albion.

Sugar maple and beech predominated in the virgin forests just as they do to-day. Basswood, white elm, silver maple and burr oak, silver and yellow birch, pine, hemlock and spruce were existing species distributed throughout the Township in 1819. As soon as the surveyers had finished, however, white settlers came flocking into the Township to chop, burn, blast and drag the trees from the land. To these people the forest was an enemy to be destroyed with all speed, for it stood implacably between them and their shining goal of acres and more acres of fertile cropland.

1 Heyes, E. The Story of Albion. Bolton Enterprise, Bolton, 1961, p.86.

At first there was no market for Albion timber. Consequently, it was used only for log houses, barns, fences, firewood, wooden farm implements and vehicles. The ashes from burned trees were also collected, leached with water to form lye, which then was mixed with grease to form a primitive kind of soap. After the settlers built their homes, they began to clear away more and more trees which were soon used for foreign export. The British were in great need of timber for naval stores and potash for glassmaking. With such a great market available, the Albion settler was soon cutting down pines for masts and other naval stores, and hardwoods which could be processed into potash. Soon timber was being cut for tan bark, lathwood, and fence posts. The trees in Albion were being depleted at such a rate that in 1860 over 60% of the township had been cleared.

However, the peak of depletion was still to come. There developed in Britain and the United States a great need for squared timber. White pine best served this sawn timber trade and during the peak reduction of forests for export trade, ten times as much white pine as all other species combined was being used.

The ruthless slashing of Albion forests started to slow down around 1910. In that year greater than 92% of the forests in Albion had been cut down with little or no effort made to replace them. At this time the soils

of Albion were in very bad condition. In 1920 trees were planted in Albion. There was a resulting decrease in soil erosion and increase in water storage. For most of the period up to the present there was a slow rise in the acreage of forest land in Albion, almost all the increase taking place in the northern parts of the Township. However, the co-ordinated practice of planting trees and the realization of their great conserving qualities did not come into existence, in full force, until the Humber Valley Authority, in 1946, and later, in 1957, the Metropolitan Toronto and Region Conservation Authority came into being. These organizations have done tremendous work in emphasizing the great need for the return of trees to Albion Township,

NORTH ALBION

The sugar maple - beech - spruce association is found on the well drained loams, sands and gravels. The hardwoods occur most frequently on the loamier soils while the spruce occurs most frequently in the sandier areas. Typically associated with this climax vegetation are white pines, red and white oaks, red maples and black cherries. White pine was previously much more extensive than it is to-day. Nevertheless, along with other conifers such as red pine, spruce and tamarack, it is one of the trees most often used in the greatly expanding reforestation projects.

White cedar swamps are prevalent in this region also. They are found mainly on Muck soils but also on Bottom lands and sometimes on the King clay loam soils. Continued existence of cedar groves has been due to the fact that they maintain themselves on a wet site, undisturbed by cuttings or fires. Approximately 20% of all forest cover in Albion to-day is of this type. (see Fig. 30 and Fig. 60e)

SOUTH ALBION

The soft maple - elm association is dominant on imperfectly drained soils and on well drained clay tills of limestone origin. A very small proportion of this type remains to-day, the land having been over 95% cleared for agriculture. Wood lots remain on a few farms and near stream areas. (see Fig. 32)

The remaining association in Albion occupies the transition zone of Albion Township and very little of this association remains to-day. What is left is found on the well drained Oneida clay loam and Woburn loam soils.

Summarizing, hard maple and beech, the climax vegetation of Albion and their associates occupy 30% of the forest cover, white cedar 20%, white elm and its associates about 15%, aspen, a pioneer vegetation that grows in burned and cut over areas, 10%, and other conifers, and

a few minor types, the remaining 25%. [x1]

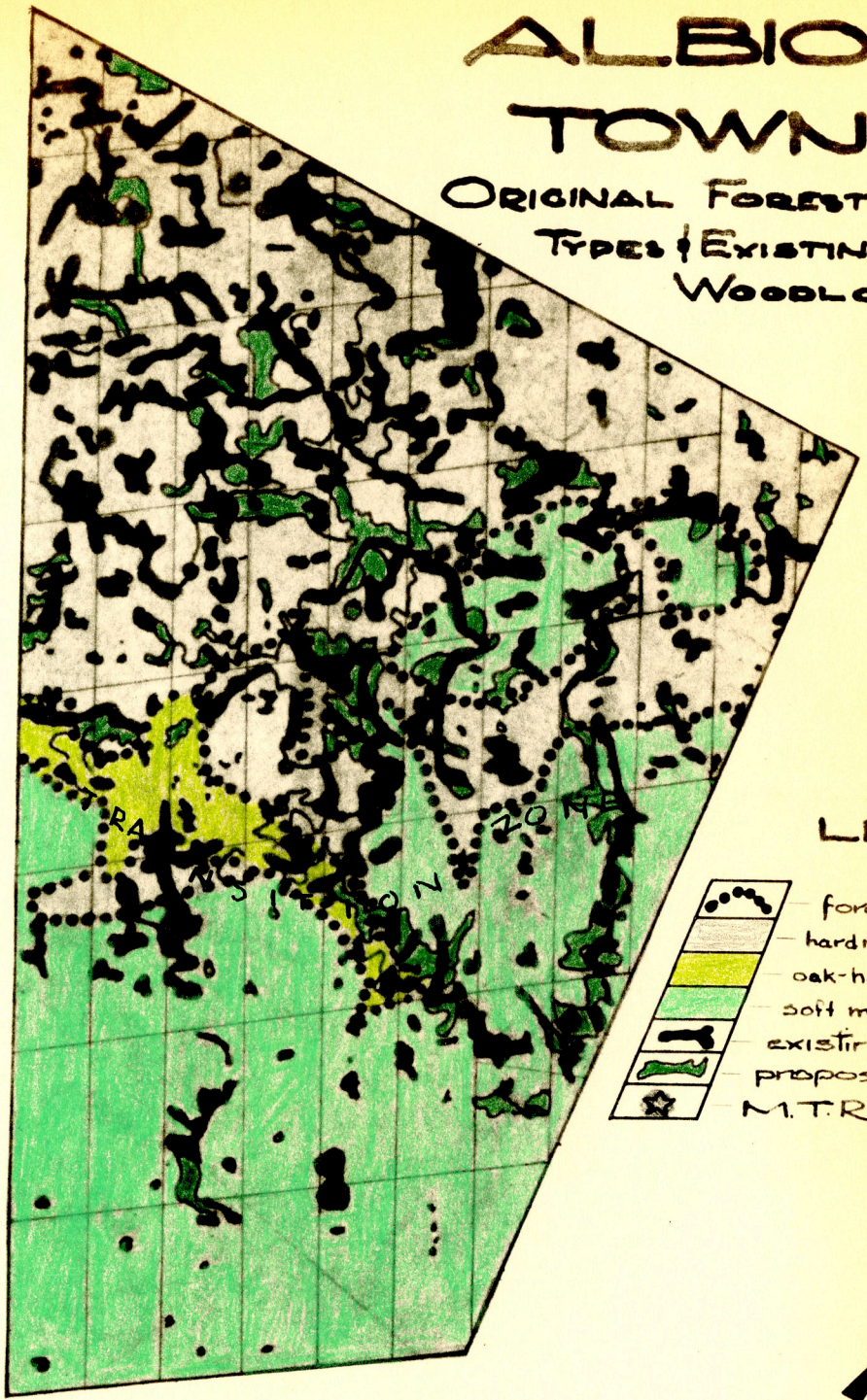
In conclusion, one striking fact is brought to light. Over 90% of the woodland in Albion Township lies in the northern region of hummocky topography and droughty and infertile soils. No reforestation plots exist on South Albion soils. Peel clay and Chingua-cousy clay loam soils, the most successful agricultural soils, are almost devoid of farm woodlots.

[x1] For a complete list of the forest types and soil conditions in Albion Township see Appendix A - based on,

A Report of the Committee on Forest Types,
FOREST COVER TYPES OF THE EASTERN U.S.A.,
by the Society of American Foresters,
From the Humber Valley Report 1948.

ALBION TOWNSHIP

ORIGINAL FOREST VEGETATION TYPES & EXISTING & PROPOSED WOODLOTS



LEGEND

- forest type bound.
- hard maple-beech-spruce
- oak-hard maple-pine
- soft maple-elm
- existing woodlots
- proposed woodlots
- M.T.R.C.A forests

map 8a

SCALE: 1 inch : 2 miles

based on Ont. Ag. College Soil Survey # 18
& M.T.R.C.A's Humber Valley Report

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TABLE #3

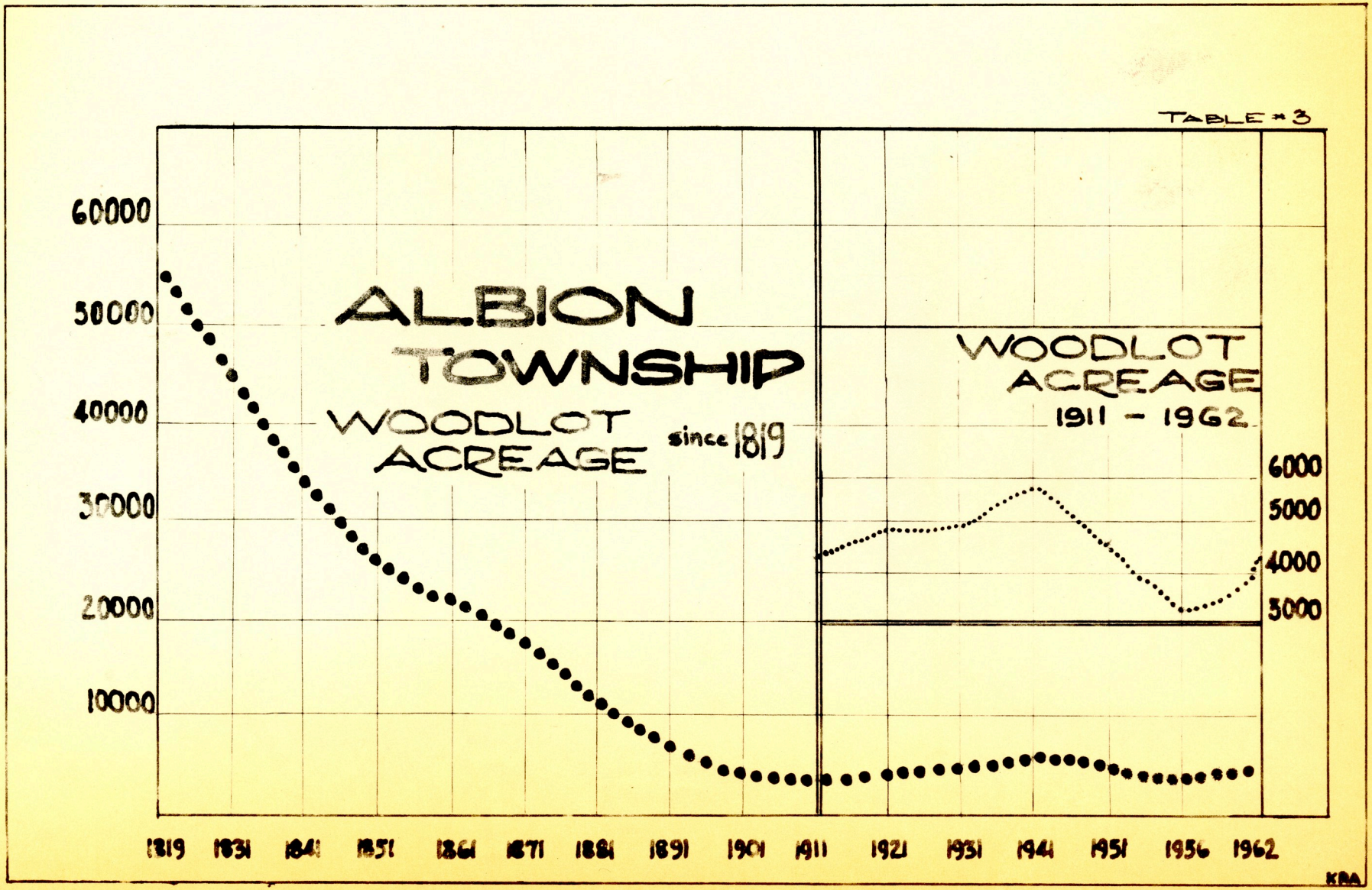

ALBION TOWNSHIP
WOODLOT ACREAGE since 1819
WOODLOT ACREAGE 1911 - 1962
60000
50000
40000
30000
20000
10000
6000
5000
4000
3000
1819
1831
1841
1851
1861
1871
1881
1891
1901
1911
1921
1931
1941
1951
1956
1962
KBA

Fig. 28

Type: Hard maple-beech. This association is the climax vegetation in Albion Township. Few acres of this type remain. This association was used by early settlers as an indication of good soils.

Fig. 29

Type: Aspen and birch. These trees grow in wet areas and in places that have been cut and/or burned. They are very tolerant trees.

Fig. 30

Type: White cedar. This type has been untouched by axes or fires. This is a typical Albion wet soil vegetation. Along with its associates it is very extensive to-day, throughout the Township.

Fig. 31

Type: Willow. Found almost exclusively near river or stream areas. The willows are often seen leaning over the river. They are a rugged tree, sustaining themselves even after heavy floods.

Fig. 32a

Type: White Elm. This is the main association of South Albion. It is also found in the north. It exists to-day mainly as woodlots on farms. Note eroded slopes in background that should be reforested.

Fig. 32b

Type: Silver maple - white elm. A type that is often found in wet soil areas, especially near stream channels.

(vi) CLIMATE

Albion Township has a Long Summer, Humid Microthermal Climate. That is, the warmest month has a temperature greater than 50°F. but less than 72°F., the temperature of the coldest month is lower than 27°F. At least four months record temperatures greater than 50°F. and precipitation is sufficient in all months.[1]

In Putnam and Chapman's climatic classification of Southern Ontario, Albion is divided north-south into the Simcoe and Kawartha Lakes Region and the South Slopes Region. This division corresponds very closely with the regions of North and South Albion.[2] (see map #8b)

The elevations in the north rise 400 feet higher on a more irregular landscape than in the south. The winter season is one or two degrees colder and it is slightly longer. The spring season is more backward and is about two degrees cooler than the south. Fall and winter are only about one or two degrees cooler. The mean annual temperature is 42° to 44°F. in North Albion compared to 43° to 45°F. in South Albion.

The important difference lies in the comparison of lengths of the growing season and the frost free period.

1 Koeppe, C.E., DeLong, G.C., Weather and Climate. McGraw-Hill Book Co. Inc., New York, 1958, Plate II.

2 Chapman, L.J., Putnam, D.F., The Climate of Southern Ontario, reprinted from Scientific Agriculture 18:8 April, 1938 p.438-439.

North Albion generally lags a week behind or is a week ahead of South Albion. The last frost in spring occurs in North Albion on or about May 22nd, while in South Albion it is five to seven days earlier. In the fall, the first frost comes along about September 24th in the north, and about September 18th or 19th in the south. Thus, the southern farmer is able to allow some of his crops to ripen longer and has a slightly longer period of time to work in his fields at the busy harvest season. An example of the different climates is illustrated by the Ontario Agricultural College, which recommends winter wheat to be planted between September 7th and 15th in the north and between September 1st and 7th in the south.[1]

Although Albion contains no weather recording stations, the accompanying graph (#4) showing Oak Ridges (Simcoe and Kawartha Lakes) and Georgetown (South Slopes), points out moisture relationships in South Albion. There is a slight period of moisture deficiency in both sections of Albion, the deficiency coming earlier (late July), in the south, than in the north. This deficiency, however, is not harmful since it comes during the grain harvesting period in Albion. The slightly earlier harvest period in the south and late period in the north, means that all of Albion is harvesting grains when there is a slight moisture deficiency. The maximum precipitation comes in early July when it is needed most. Thus, the soil moisture surplus

1 Waddell, W.H., Growing Winter Wheat In Ontario, Ontario Dept. of Agriculture Publication, Ontario Agricultural College, Guelph, August 1956, p.14.

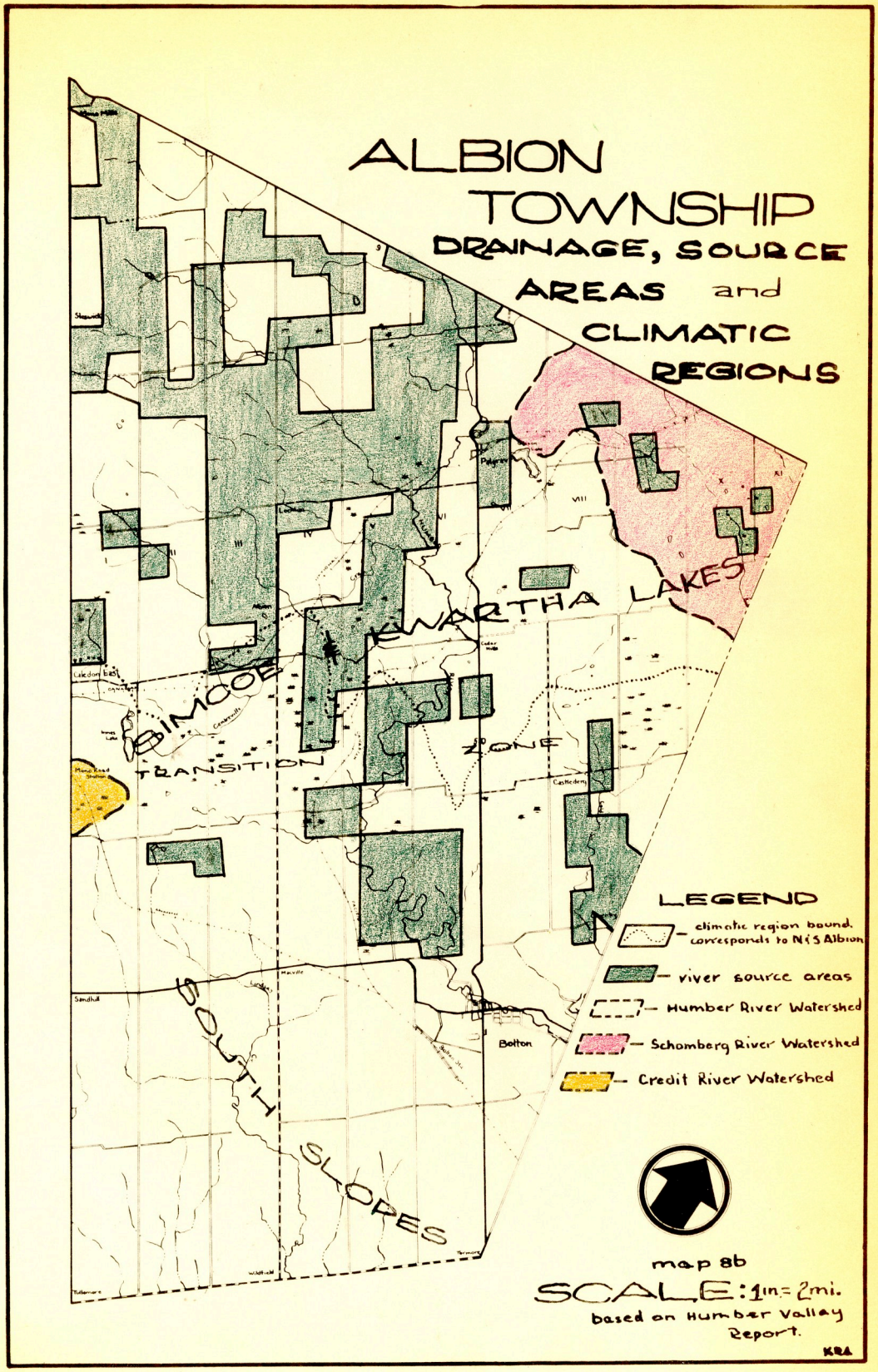
is at a maximum when the efficienty of precipitation is impeded most by high temperatures. North Albion receives about 0.5 inches less rain than in the south during the summer months. North Albion receives less rainfall through the year than does South Albion because it is in the rain shadow created by the Western Upland near Alton, eight miles to the west.

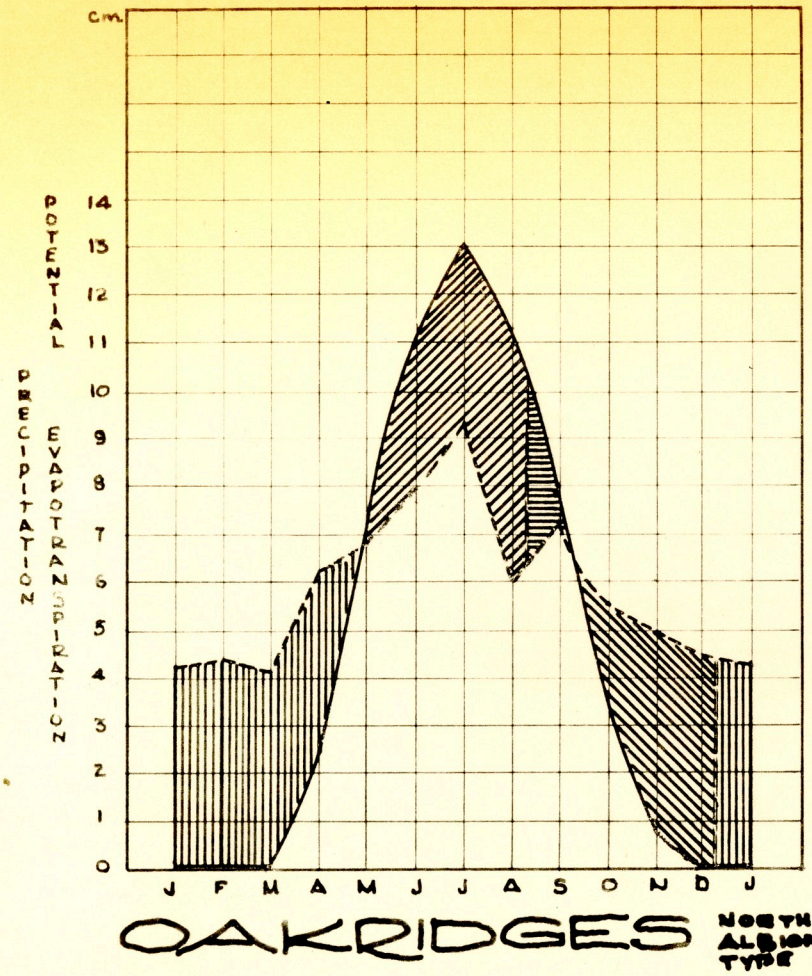
In order to understand differences in climate, which tend to be rather small, in relation to other physical differences between the north and south parts of the Township, the efficiency of rainfall should be reviewed. The Thornthwaite graph has no mention of the soil differences which would seem to the writer to be a very important criteria in measuring rainfall efficiency. North Albion has sandy, hummocky, well to excessively drained soils, which absorb the rainfall much faster than do the stickier clay soils in the south. Therefore, in the south the water is in the upper few inches of the soil for a longer period and is therefore more beneficial to plant growth.

In concluding, it has been found that the climatic regions in Albion coincide with the physical divisions noted previously. The difference in climate is very small between north and south. The growing season, however, is longer in the south. The most fundamental difference in climate between the two regions is the greater efficiency of rainfall in the south.

Other physical features such as soils and physiography are much greater indicators of regionalism than is climate, which in part, is based on these differences. How climate is superseded by soils in spring planting of crops is illustrated by the fact that field crops are planted earlier in the north than in the south even though frosts are more prevalent. This is due to the fact that northern soils are much better drained than those in the south. They dry out and warm up faster and are therefore able to be cultivated earlier than the heavier moisture retaining clays and clay loams of South Albion. Climate plays little role in explaining areal differences in land activities and land use.[1]

1 For a complete comparison of the climates of North and South Albion, see Appendix B.


ALBION
TOWNSHIP
DRAINAGE, SOURCE
AREAS and
CLIMATIC
REGIONS
KAWARTHA LAKES
SIMCOE
TRANSITION
ZONE
SOUTH
SLOPES
Bolton
LEGEND
– climatic region bound. corresponds to N & S Albion
– river source areas
– Humber River Watershed
– Schomberg River Watershed
– Credit River Watershed
map 8b
SCALE: 1in = 2mi.
based on Humber Valley Report.
KRA



LEGEND

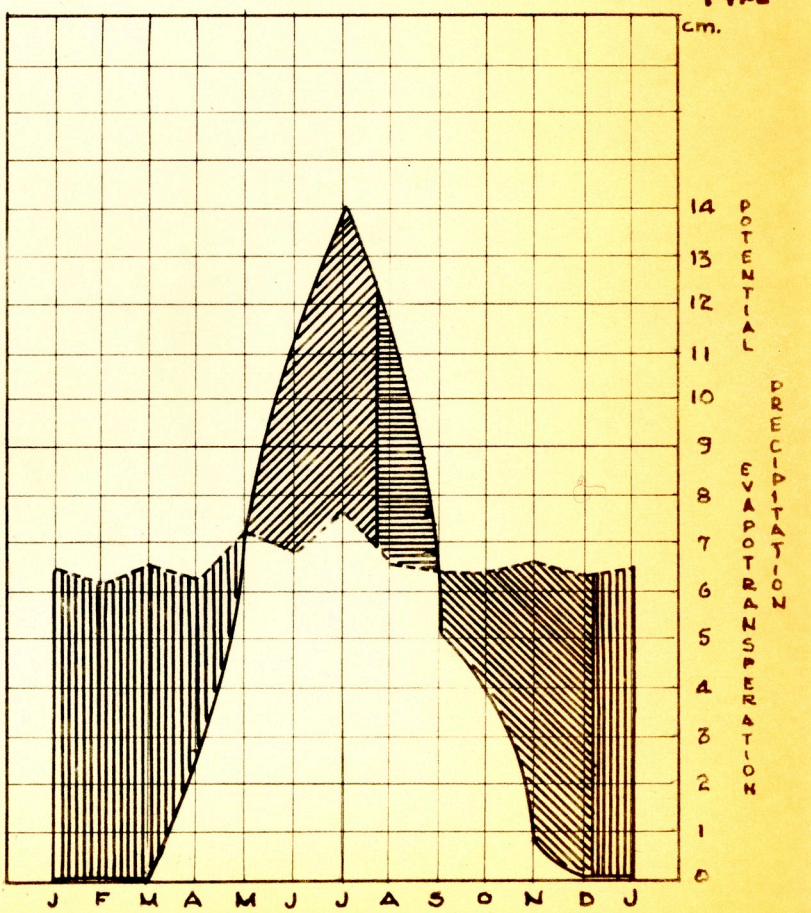
- Precipitation
- Potential Evapotranspiration
- Soil Moisture Surplus
- Soil Moisture Utilization
- Soil Moisture Deficiency
- Soil Moisture Recharge

TABLE # 4

ALBION TOWNSHIP

MOISTURE RELATIONSHIPS

based on the Thornthwaite method



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(vii) DRAINAGE

Albion Township lies within the Humber River Watershed, the Credit River Watershed and the Schomberg River Watershed. The Humber Watershed is by far the most important in the Township, taking up about 90% of the area. This fact is important in that it is one of the key areas under the jurisdiction of the Metropolitan Toronto and Region Conservation Authority. No tributaries from the Credit River and only a few from the Schomberg River are found in Albion Township. It is for this reason that the discussion of drainage will be primarily a discussion of the Humber River and its tributaries.

The Humber River is probably pre-glacial, having once flowed on the underlying bedrock. It has been said that the channel it followed had a much straighter course than it has to-day, acquiring its offset course after glacial times. The major bends in the river to-day may be due to the Peel Ponding. The major turn in the Humber above Bolton, in lot 14, Concession V, has possibly been formed during the glacial epoch. The river made a turn in order to enter a ponding at an entrance perpendicular to the shoreline. The Peel Ponding was oriented in a linear direction north-north-east by south-south-west, so that its upper long shoreline faced the west-north-west, which is the direction from which the Humber comes after making its turn. It is conceivable to the writer that the pre-

glacial Humber may have previously occupied the Lindsay Creek channel which lies only 2 miles to the south. If a bedrock geology map were available, the former river channel could be located to check this hypothesis. (see map #8)

The present Humber and its tributaries has a watershed of 220 square miles, 80 of which are in Albion Township, The main river itself has a length of 63 miles, 15 being in Albion. The river has its source in the Niagara escarpment near Mono Mills just to the north of the Albion boundary. From there it makes a clockwise circle re-entering the Township in Concession VI. The fact that the Niagara escarpment is the main source accounts for the maintenance of the water level to a degree higher than it would be had its source been in the deforested, coarse textured, sandy moraine. There are two main branches of the Humber, the West Branch and the East Branch. Both have their source in Albion Township, the Lindsay Creek being the source stream (in clay heavy soils) of the former and Cold Creek (in the sandy moraine), being the source stream of the latter. A brief glance at the map(#8)indicates the amount of land in Albion that acts as source areas and points up the importance of proper care of the land in order to maintain a sufficient and regular stream flow. In the past, the river was importantly used for saw and grist mills, as well as to provide water for livestock. To-day, its main use is for livestock and recreation.

The main stream is very scenic, winding through woodlands and farmland at a gradient of only 15 feet per mile, compared to 45 feet per mile on the Lindsay Creek, 35 feet per mile on Cold Creek, 70 to 120 feet per mile for its small tributaries and 18 feet per mile on Centreville Creek. The Centreville Creek gradient is relatively small because it follows an old broad-troughed glacial spillway. Chapman and Putnam, in 1951, discussing the Humber River and its tributaries in Albion Township state:

> "This lack of streams (due to the exceptionally porous nature of the soils through which they flow) puts the area at a great disadvantage for recreational purposes and also limits its usefulness as pasture land."[1]

Many pastures in Albion reveal a thin vegetation cover on steep, droughty soils. However, Albion Township, in many cases, has been termed "The Playground of Toronto". Located on the Humber are two of the largest conservation areas in Southern Ontario, "Albion Hills" at 810 acres and "Glen Haffy" at 532 acres. These parks are packed to capacity on Sundays during the summer. A weekend in the fall will show numerous parties of hunters combing the river woodlands and pastures for game animals. It was true in 1951 that Albion did suffer a loss of recreation because of a lack of streams. In 1957 the Metropolitan Toronto and Region Conservation Authority (M.T.R.C.A.) took over control of the Humber and its

1 Chapman,L.J., Putnam,D.F., The Physiography of Southern Ontario, University of Toronto Press, Toronto, 1951, P.204.

tributaries. In conjunction with river improvements and reforestation on sandy and badly eroded source areas, the water table has risen. A dam has been planned for Cedar Mills as part of a flood control plan for the Humber River. Poor agricultural land has been purchased and used for parks and reforestation. Those areas nearest the Humber have received the greatest amount of attention. Since their injunction, the "M.T.R.C.A." has attracted an increasing number of people to enjoy the beautiful rolling landscape traversed by the Humber River and its tributaries. (see Fig. 33 to 36)

Fig. 33

Cold Creek, as seen near Bolton Fresh Air Camp. Scenic river areas such as this are attracting city emigrants for recreation and permanent residence.

Fig. 34

Humber River at Bolton. The Humber River is very scenic along its entire course but during floods, as during Hurricane Hazel of 1954, the river becomes a raging fury. Homes such as this, seen in the background, are being removed by the M.T.R.C.A., for safety purposes.

Fig. 35

A tributary of Lindsay Creek, in South Albion. During the dry summer small streams such as this dry up. In many of the clay areas of Albion, wells must be dug very deeply, and in some places the water is salty. Dams are being built on small tributaries, as above, for farm storage purposes.

Fig. 36

Humber River at Bolton Park. The Humber River in South Albion has few recreation areas. Steep dissection and a small amount of flood plain land is very common in the south. This area, in Bolton, is used as a community park.

PART III

HISTORICAL GEOGRAPHY

The discussion of Albion's historical geography is divided into two sections; "Rural Settlement" and "Urban Settlement". By studying the rural landscape separately from the villages, a more easily comprehensible development is attained. Where necessary, mention will be made in the first sections, of the various urban places which influence the development of the rural settlement.

The main sources of information for the historical geography are The Story of Albion, written in 1961 by a Township resident, Esther Heyes; The Humber Valley Report, written in 1948 by the Department of Planning and Development, and the Historical Atlas of Peel County, published for the year 1877.

(i) RURAL SETTLEMENT

This section has been divided into a number of periods defined by a combination of transportation developments, years of heavy immigration, and changes in the Albion economy.

Early Settlement 1819 - 1825

Albion Township was a Mississauga Indian forested home until 1818. It lay immediately to the west of the land included in the Toronto Purchase which was bought from the Mississaugas in 1787-88. In 1818, the Mississauga Tract of 648,100 acres, which included all of Peel County except the present Toronto Township, was purchased from the Indians for 8,500 pounds sterling. The surveyors made their way into this part in the following year.

The first settlers arrived within the new Township in the spring of 1820. They came from two directions, the east and the south, along the first roads constructed in Albion. Mono Road (first line Albion or sixth line Caledon), was built up the western boundary of Albion in 1819. It was the only pre-settlement road. By 1820, settlement in Concession I had moved up as far as lot 38.

The Hollingshead Road, beginning at Richmond Hill in the east, ran through King Township to the base line between Toronto Gore and Albion, thence northward to Bolton and finally turned to the northwest, intersecting Mono Road

near the present village of Caledon East.(see map #9)

The year 1820 initiated a period of road building that enabled early settlers to move into the northern lots of Albion. Of these, the most important road was the Albion Road which began at the Humber Road in Etobicoke Township and ended at lot 26 in Albion. It is the present Concession IV.

The roads, crudely cut slashes through the forests, did not always stay on the surveyed allowances, but either struck off across lots to isolated settlements or followed the easiest and most direct routes. As time went on and the density of settlement increased, the diversions were abandoned. A few ruins remain to-day of these old diversions.

The first settlers into Albion stayed very close to Mono, Hollingshead and Albion Roads, as illustrated by a glance at the settlement map.(#9) They were mainly from the British Isles, having been lured to Upper Canada by immigration agents who glibly portrayed the new country as a trans-Atlantic paradise.

English settlers predominated in the first few years, evidenced by the name of the Township - "Albion" - which is the ancient romantic name for England. It was not until 1829 that the first great influx of Irish settlers arrived in Albion. Few United Empire Loyalists

settled in Albion but rather in the areas of the Toronto Purchase of 1787-88, which were opened soon after the American Loyalist migrations of the 1780's.

Settlement proceeded quickly in Albion. Agents, anticipating a large movement within the Township, moved into the area to reserve land for the new settlers. Clergy Reserves, which consisted of two-sevenths of all Albion land, were all leased by 1821. Grantees settled on their land within a year. Absentee ownership was almost non-existent, indicating the great demand for new land. Within thirty-five years all the land in Albion was settled.

> "Important as were the soil differences in shaping the course of settlement, the first pioneers were influenced even more by the regions of natural vegetation. This, in their minds, divided the countryside into ------ areas of varying desirability."[1]

Thick hardwood forests, especially containing the climax vegetation, hard maple and beech, were the most desirable. Even the hilly portions were eagerly sought after for the plentiful timber promised profitable farmlands.[2] However, as the settlers were to find, after the first few years of cultivation, the northern sandy morainic soils were much

1 Billington, R.A., Westward Expansion, The Macmillan Company, New York 1949, p.293.

2 Billington, R.A., ibid., P.293.

less fertile than first anticipated.

The first spring consisted of battling the forest. Potatoes, indian corn, squash and pumpkins were the earliest staples of the pioneer dinner table. In late summer, fall wheat was scratched into the virgin soils with a homemade wooden harrow. In winter the farmer devoted his time to clearing more land and constructing his share of the public road adjacent to his lot.

In the next year, spring wheat replaced corn, and potatoes, and were followed succeedingly by hay, pasture, oats and buckwheat. Some of the pioneers sowed wheat year after year but the wisest ones only planted it on four or five acres of land, newly cleared each year. By 1825 the earliest settlers were able to begin plowing on certain acreages where softwood stumps had sufficiently decayed. The above rotation thereby produced better yields. Permanent cultivation came in the next five years when stumps had rotted enough to allow removal by oxen.

Grist mills became important to the Albion farmer only after the first few years when he was able to produce beyond a subsistence level. Saw mills were built at least as early as grist mills to cut and process products of Albion's forests. In 1820, mills were built on lot 9, Concession VII (Bolton), lot 9, Concession III (Meloy's Saw Mill) and at Mono Mills.

The activities and problems of the period 1819-1825 were those that confronted all of the pioneers who

bought land in Albion Township. Later settlers had a somewhat easier task however, for roads had been slightly improved and friendly neighbours often lent a hand to start the new resident on his way.

Clearing the Land 1826 - 1840

This period marks the phase of settled agriculture in Albion Township. Lands that had been clothed in towering forests a few years earlier, were succumbing to the axes of the new farmers. Had aerial photographs been available in 1826, 1830 and 1840, they would have revealed an ever decreasing wooded area that was retreating parallel to opened concessions.

Fields were being regularly cultivated in forage crops and primarily wheat, which served as a cash crop for a foreign market. A typical farm unit had a few dairy cows for domestic production of milk, pigs which were sold for export, and draught animals. Potatoes and peas were also sold for cash. Little money was received from timber products.

By 1830 there were a number of prosperous wheat farmers in the Township. Their market, however, was subjected to wide fluctuations. Crop failures in Europe and the United States sent Albion prices soaring while foreign "bumper crops" brought mild depressions. Few Albionfarmers seriously diversified their economies, for Albion livestock products had not reached the quality of similar products

below the border and no other crop was as important as wheat at that time.

In the later 1830's and early 1840's, crop failures in the United States raised Albion wheat prices. With preferential treatment to Canada, under the new British Corn Laws, and a protective tariff on American imports, a period of prosperity hovered over the countryside. Plank and corduroy roads were developing, and hamlets and villages were springing up to serve the surrounding families and travellers alike. Political fervour reached toward rebellion, culminating in a small skirmish at Montgomery's Tavern in Toronto. Immigration steadily continued.

Population and Agricultural Boom 1841 - 1859

In 1840, Albion's population was 1500 and rising fast. In 1851, it had trebled to 4500. The rise was in part due to the growth of villages but principally because of an increase in the rural population. Much of the increase was caused by the Irish migrations of 1846-1847. A depressing economy, climaxed by the potato famine of 1845, resulted in the great "Irish Exodus". In 1851, the Irish accounted for nearly half of the Albion inhabitants while native Canadians and English accounted for most of the rest. (see table #6)

By 1846, 75% of Albion was settled and nearly 20% was cultivated. The southern part of Albion was over

four-fifths settled and the north slightly less. In 1861, nearly 90% of Albion was settled, over 50% was cultivated and the population continued to rise.

Throughout the 1840's and 50's, wheat remained the primary Albion crop, reaching its peak of production in 1853 and 1854. A European crop failure, the Crimean War, which curtailed Russian wheat exports and the Canadian-American Reciprocity Treaty, combined to push Canadian wheat prices up to $1.40 - $2.40 per bushel. The whole economy prospered. Extra cash was used to improve livestock that in the past was of poor quality. Clydesdale draught horses from England replaced oxen; Berkshire and Essex swine were slightly improved and Leicester and Southdown sheep were improved in quality. By 1851, 11,104 pounds of wool were being produced in Albion and woollen mills in Albion were changing to cloth factories.

The dairy industry proved to be the most enticing and profitable to the prosperous farmers in the 1850's. Early mongrel mixtures of Durhams, Devons, Herefords, Lancashires and Normans, produced good quantities of milk but had few qualities on which cattle breeders could rely. With available capital, the Albion farmer began to form herds of pure bred cattle.

The rural landscape in Albion reflected the new-found prosperity. New and larger homes were built. Some

were brick but the majority were wood. New homes were two and three times the size of the old log shanties which were relegated to storage purposes. New and larger barns were built, fences were improved, better farm machinery was bought and livestock herds were improved and increased in size, although they were still relatively unimportant as a part of the economy.

In 1856, the wheat boom ended. Market prices dropped and Albion soils were exhausted because of short rotations. Wheat midge, a small fly, invaded Albion's wheat fields, slightly decreasing the harvests of 1856 but drastically reducing them in the following year. Wheat acreages of 1853 dropped about one-third from 1854. Prices for Albion wheat decreased by half. Yet, the wheat failure was only an indication of what was to follow. Depression rocked the countryside in 1859. The problem was not low prices but unsaleable commodities. However, the previous period of prosperity, which had given farmers new buildings and a surplus of food, enabled Albion families to pass through the depression relatively unscathed.

A Changing Economy 1860 - 1872

The depression lifted in 1860 and Albion's economy began to change. Barley contested wheat as the principle crop. By 1871 only 6000 acres of Albion farmland, less than half of the 1953 acreage, were planted in wheat. In that same period, barley production increased

from about 100 acres to 4500 acres. Barley was overcoming wheat because of wheat midge, low wheat prices and the need of Canadian barley by the American brewing industry. North Albion's sandier soils were found particularly conducive to these coarse grains.

Livestock became increasingly important, especially in the south. A comparison of 1851 and 1861 census figures shows an increase of all types except oxen, which were being replaced by horses. General farming was by far the dominant activity by the end of the period.

In 1867, Albion's population reached a peak of 5400 and then slowly declined. All the Township land was settled. Soon after, farm abandonment began on a very small scale.

The 1860's were booming times for villages. Improving roads caused increasing traffic. Prosperity of the 1850's enabled many families to buy better vehicles. Macadamized roads replaced planked ones. Farm wagons, freight wagons, private passenger wagons, stagecoaches, sleighs, horses and foot travellers increased significantly. Stagecoach service existed between Bolton and Mono Mills, Bolton and Thistletown, Sand Hill and Mimico. Improved transportation and denser traffic caused thriving villages. Farmers needed a place for supplies, mills for lumber products and grains, and churches, stores and taverns for exchange of news. Travellers needed stables

and hotels along the way. This great prosperity of cross-road hamlets declined quickly however, in the next decade.

The Railroad Era and The Metropolitan Influence 1873-

Beginning in 1873 a trio of railroads came to Albion Township (see base map). The Toronto, Grey and Bruce Railway, between Toronto and Owen Sound, passed near Bolton and created a new village at Mono Road. In 1878, the Hamilton and Northwestern expanded business in Caledon East and Palgrave, and finally, in 1904, the Canadian Pacific line between Toronto and Sudbury, traversed the Township north-south. Urban centres through which the railway passed expanded in a flourish of activity; by-passed villages declined rapidly. Only railway feeder roads increased in use; all others declined. Long freight hauls were no longer made by road; hence their condition decayed.

Agriculturally, Albion stagnated and then slowly declined. In 1881, there were 545 farms, compared to 577 ten years earlier. The amount of land "taken up" decreased by over 1000 acres. The amount of improved land increased, however, and a definite general farming economy became typical. Increased hay and oat production indicates a growing emphasis on livestock. In 1851, 1600 acres of land were devoted to the production of oats, increasing to 9500 acres by 1910. In the same period, hay yields increased by 6000 tons and in 1910 occupied 5000 acres of improved land.

Albion farm products came under the dominating influence of Toronto's ever expanding hinterland. This domination was made especially clear by the introduction of rail lines into the Township. Albion's flat till plain areas were affected more than the exhausted moraine areas. Northern products were of lesser quality and quantity than those of the south and remained oriented to local markets.

The Toronto market aimed at obtaining good breeds of unmixed dairy and beef herds. Albion farmers responded by developing excellent pure bred herds of Holstein, Hereford, Ayrshire, Guernsey, Durham, Jersey and Polled Angus cattle. Holstein dairy cows, because they produced a greater quantity of milk, came to dominate. Horses, pigs, sheep and chickens were also attracted to the Toronto market, but in lesser quantities than the beef and dairy products.

Barley continued to be the main cash crop until 1891. In that year the Progressive Conservatives defeated the Liberals in the federal election and inserted a protective tariff on certain trade products between the United States and Canada. Trade between the countries decreased and there was a resultant drop in Canadian barley exports.

Wheat acreages also continued to decline in Albion. Prairie wheat, although twenty cents more per bushel than Albion wheat, was more desired in eastern markets. Near the turn of the century only 5 to 15 acres of each Albion farm were devoted to wheat. General farm-

ing in the north and general farming with a dairy emphasis in the south were the dominant farming activities.

The twentieth century included two world wars, a severe depression, increasing mechanization, a slow and continuous population decline, followed by a resurgence, and a continuous change in Albion's economy. Roads were gravelled and paved, railroads lost some of their early importance and Toronto increasingly became an important factor in the development of Albion Township.

The number of farms fell continuously from a 1911 high of 589 to 357 in 1951. Throughout this century farm abandonment occurred in North Albion only. The richly endowed south continued to supply products to the Toronto market in increasingly larger amounts. Cash grain crops declined steadily while oats and barley dominated, being used exclusively for forage purposes. The corresponding increase in improved pasture reveals that there was a heightening importance of livestock.

In 1931 a number of important happenings affected Albion. Depression hovered over Canada and hard times fell upon the Township. Farm produce sold for remarkably low prices, with the result that cash was scarce on Albion farms. The high potato acreage of that year suggests that Albion farmers were growing this high yielding commodity because it was the easiest and most satisfying method of boosting a low standard of living and falling food supply. A re-importance of wheat in that year was

mostly caused by a Prairie failure.

An important land use characteristic revealed in 1931, was the sharp drop in oat production and the corresponding rise in acreage of mixed grains (barley and oats). Improved pasture increased 2500 acres from 1921 to 1931 which helped to make up for the 2200 acres loss in oats production.

Dairy cows and swine increased in 1931, significant of expanding urban areas and a strong desire for highly nourishing milk and meat products. The increase in hogs was in part associated with the Great Britain trade agreement in which Canada was to export pork products.

In 1931, the population within Albion Township fell to its lowest ebb. From that time on, people slowly began to return and the population rose. It was not until the end of World War II that the movement really began to gain momentum, and not until after 1956 that startling changes became apparent. Agriculture in the north continued to decline while population returned. The newcomers came from the cities, looking for homes and recreation areas. Village growth and strip development indicate an increased population in the south but never was farm abandonment significant there.

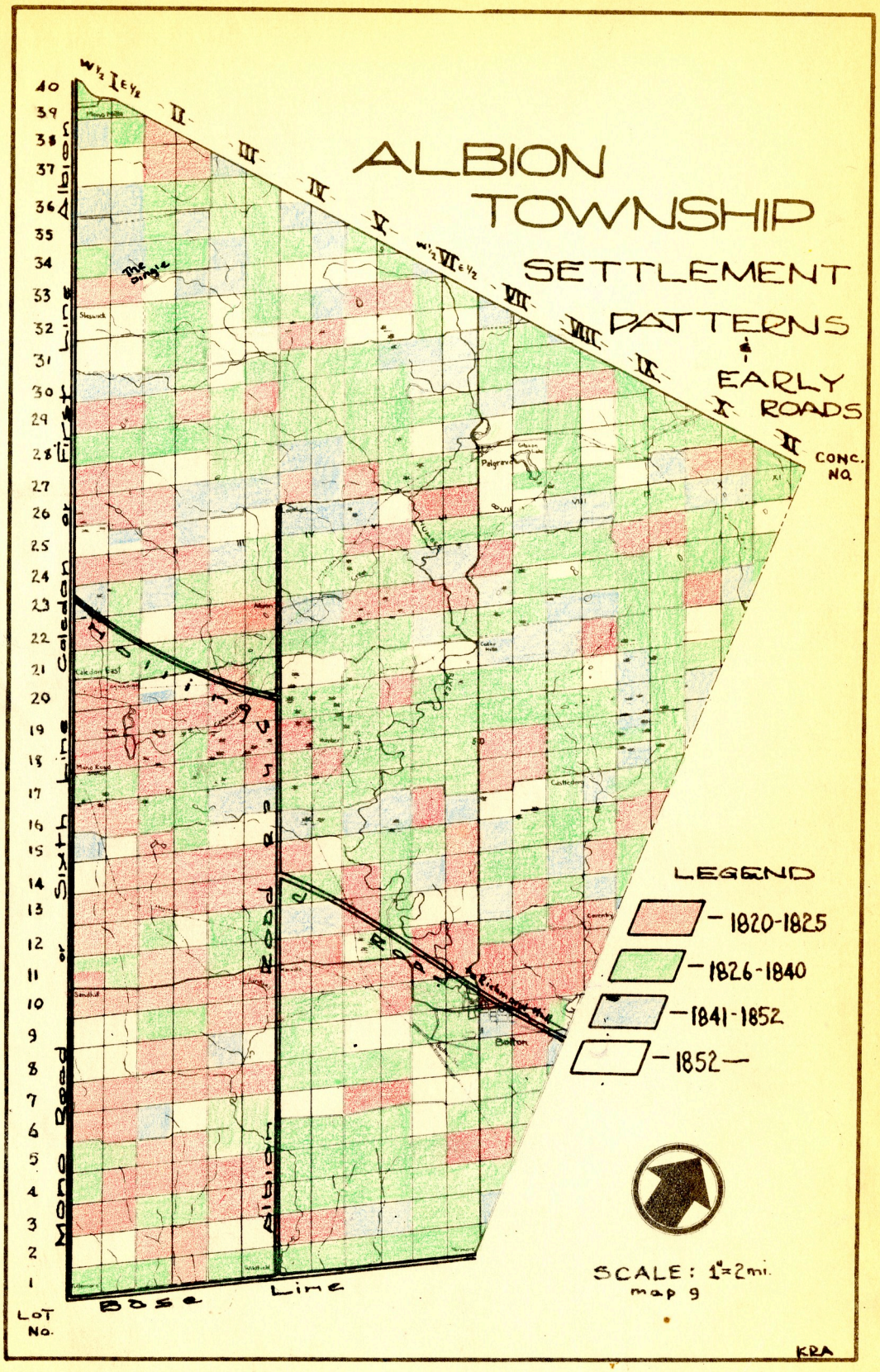
In summary, it may be said that Albion Township was first characterized by rapid settlement, a long slow decline and then a quickening recent immigration. At first

there was a violent slashing and burning of forests, which, coupled with intensive grain cultivation, caused a crippling of soils, some of which should never have been cleared. A prosperous farming of cash wheat followed. Depression and wheat midge deflected the economy and barley was planted in the already depleted and multi-turned furrows. Improved stock raising began in the late 1850's but it wasn't until the twentieth century, especially in the 1930's and 40's, that dairying began to dominate. It was this activity that inaugurated a slow but ever intensifying split in the economies of the northern and southern parts of Albion. A mediocre general farming economy based on livestock raising evolved in the sandy and hummocky northern lots, while pure bred dairy herds were emphasized on southern farms.

Physical differences started the division of the northern and southern regions of Albion. The intensifying influence of Toronto, beginning in the 1870's, made the division more apparent. Neither the settlers, nor their differing origins, nor their methods of clearing and cultivating, nor the crops they planted, caused the split. What was done in the north was also done in the south. The difference lay in the fact that, what was done in the north was done on marginal farmland, while activities in the south proceeded on fertile soils, The first settlers based their choice of land on vegetation types. They cared little for hummocky topography. Consequently, after

a number of years the morainic soils became much less productive than the till plain soils. Not until the 1870's and the increasing domination of Toronto, was an outlet provided for emigration from the infertile areas. The southern areas participated little in the de-populating movement.

The northern and southern regions were always existent. This became apparent, however, only with immigration of land hungry settlers, fifty years or less of cultivation, and the influence of the City of Toronto.


ALBION TOWNSHIP
SETTLEMENT PATTERNS & EARLY ROADS
CONC. NO.
LOT NO.
Base Line
Mono Road or Sixth Line
Caledon or First Line Albion
Albion Road
LEGEND
1820-1825
1826-1840
1841-1852
1852—
SCALE: 1"=2mi.
map 9
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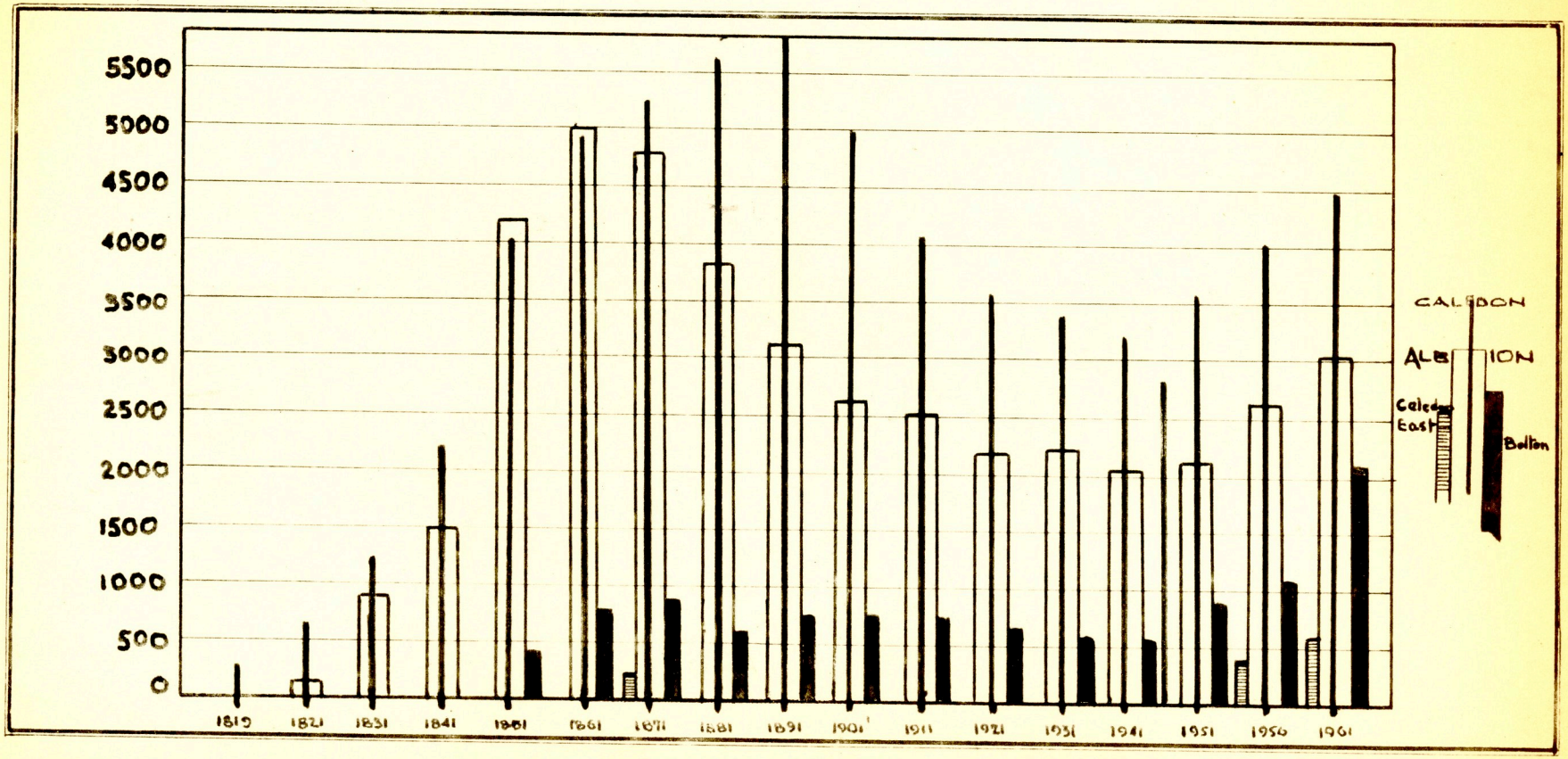

ALBION TOWNSHIP

TABLE # 5

A COMPARISON OF

POPULATION TRENDS

based on Canadian Census Reports & historical records

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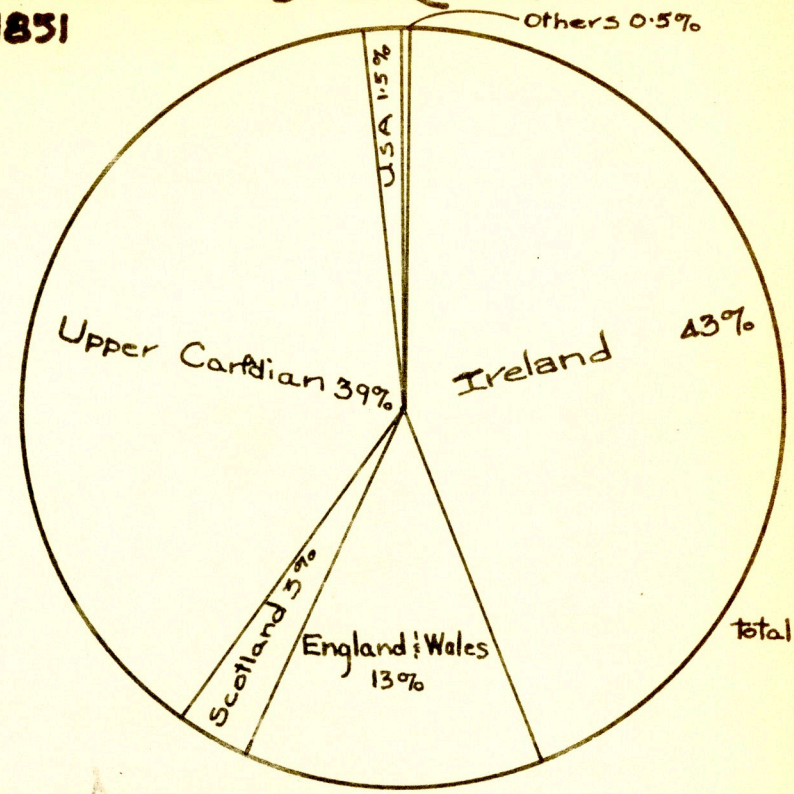
ALBION TOWNSHIP

Table #6
based on
Canada Census
Records

CENSUS by ORIGIN
1851



total population: 4281

CENSUS by RELIGION
1851

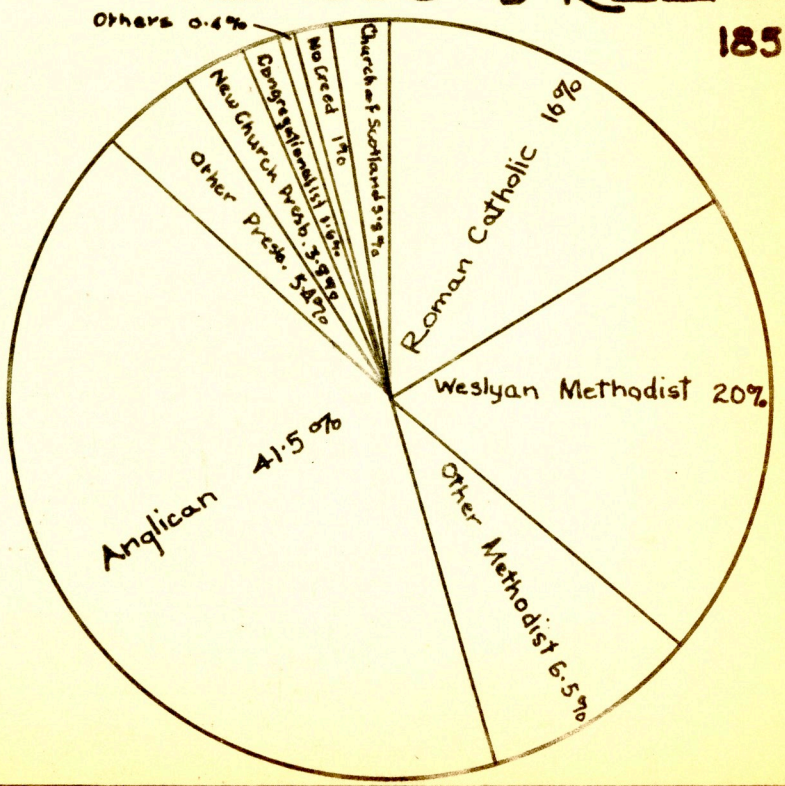


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Table #7

FARMS & ACREAGE of FARMS OCCUPIED

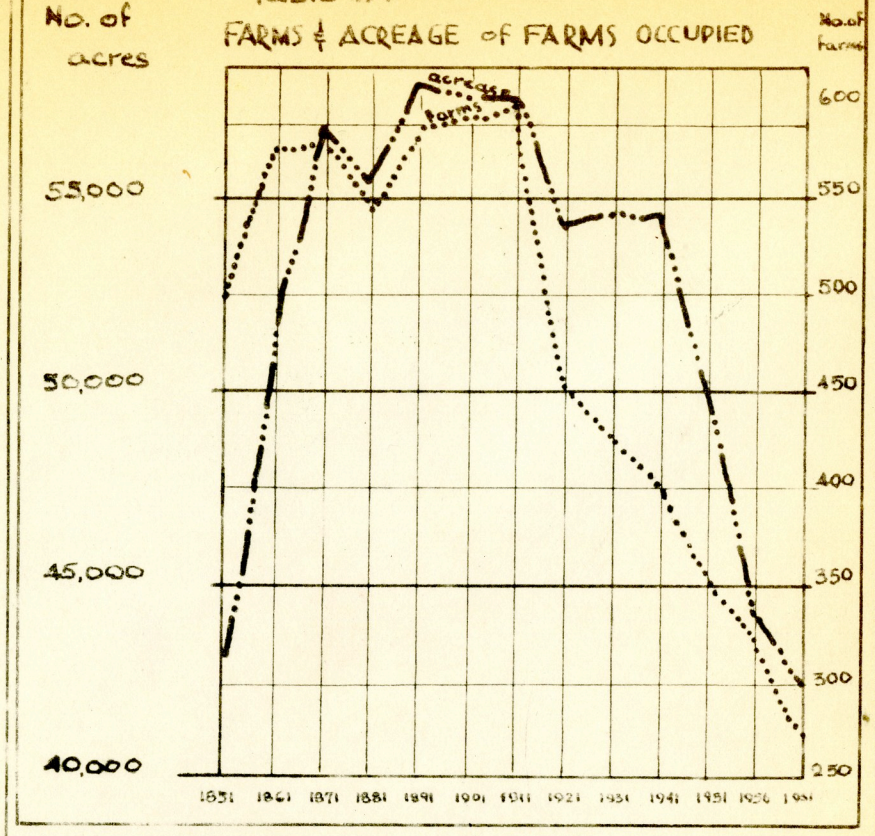
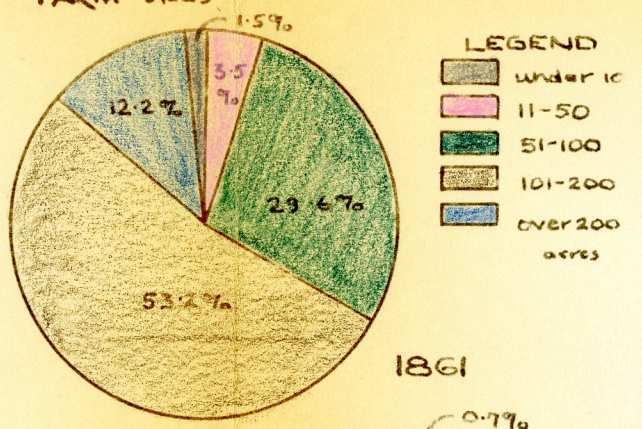


Table #8

FARM SIZES



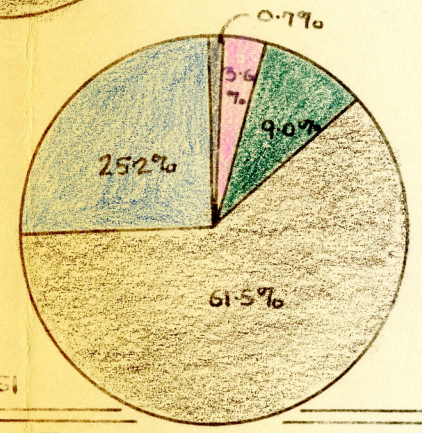
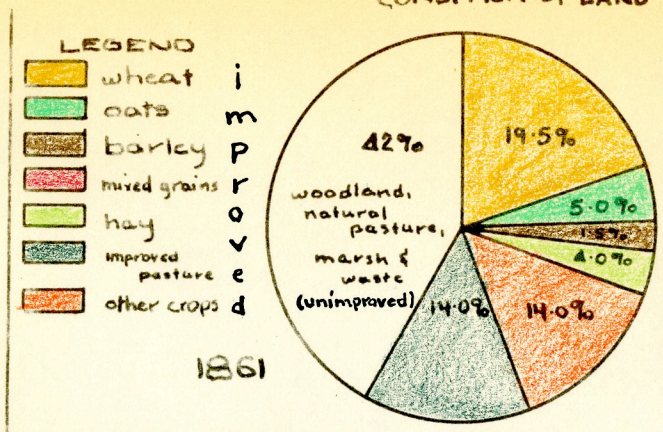


Table #9

CONDITION of LAND



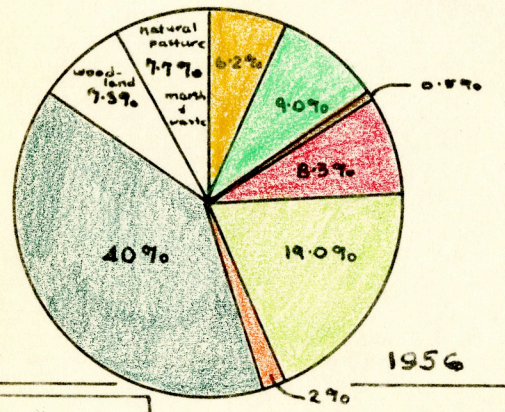


Table #10

FIELD CROP ACREAGES

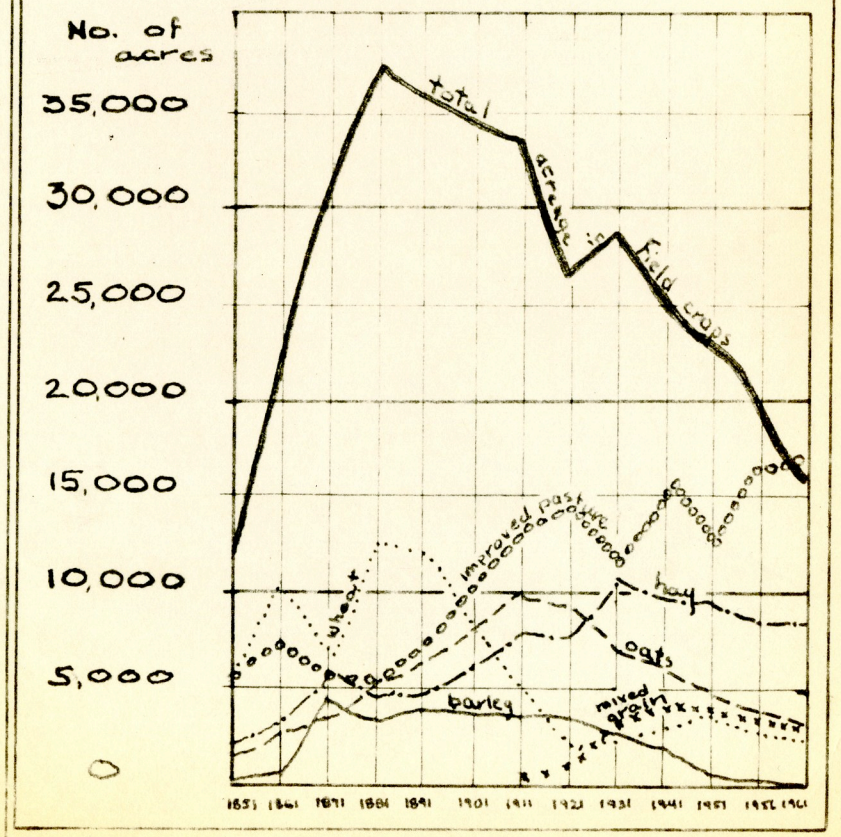
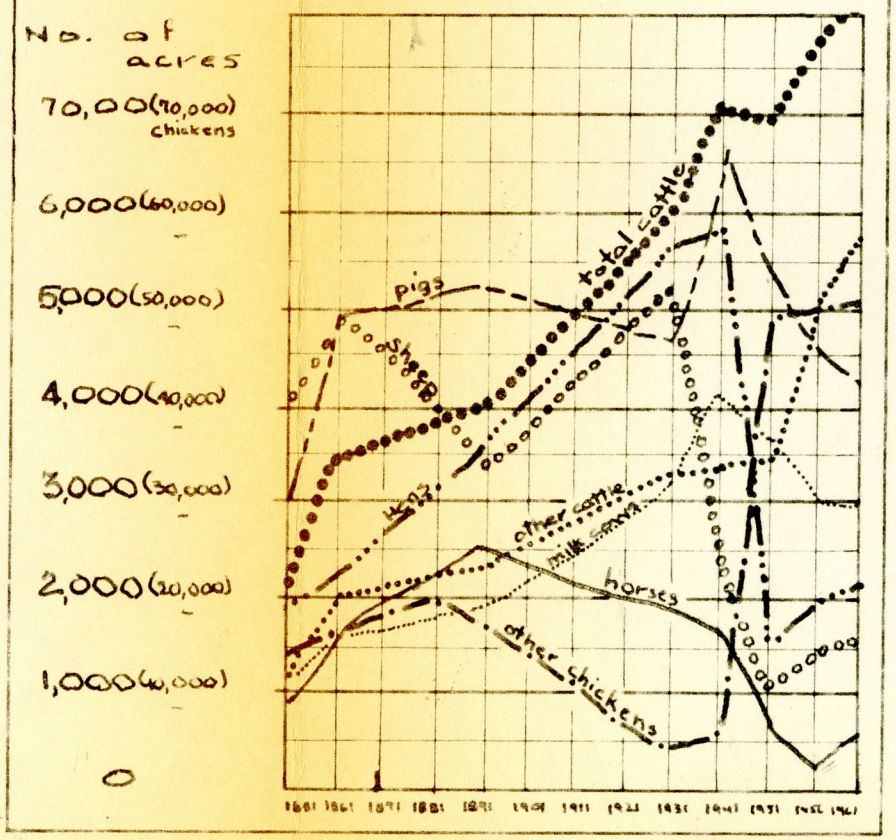


Table #11

LIVESTOCK RECORDS



ALBION TOWNSHIP

AGRICULTURAL GRAPHS & TABLES

KEA

(ii) URBAN SETTLEMENT

The historical geography of urban settlement in Albion Township is concerned exclusively with the development of villages. The earliest phase of village growth nucleated around mill sites. As time went on and road facilities improved, crossroad hamlets were born in Albion. The railroad era, beginning in 1873, brought further developments to urbanism in Albion Township. New villages sprang to life in some cases, while other villages that were by-passed, faded quickly. The final urban influence was the City of Toronto which, in the 1870's, caused villages to lose population while, in the 1950's, brought a striking revival.

Albion's first two villages developed around mill sites on the Humber. They were Bolton and Mono Mills. These mills and their associated establishments were important elements in the life of the pioneer for they played a strong role in directing the choice of location for farmsteads.

BOLTON

Bolton received its name from the persons who built its first mill. James and George Bolton, from Norfolkshire, England, constructed a grist and saw mill on lot 9, Concession VII, in 1823. Further settlement proceeded soon after. Esther Heyes, an Albion resident, had this to say about early Bolton:

> "First a small grist mill was built and a saw mill. Then, one by one rough log buildings, identical except for size, sprang up to house a store, a cooperage, where flour barrels were made, a blacksmith shop, a tavern, another store, a bootmaker's shop and a tailor shop -- there were no ready mades, not even boots, in those days -- a tannery, a wagon shop, a woollen mill and a distillery added to the grist mill to make use of inferior grain. Thus a village was born and proceeded to grow on the Humber in the time of the pioneers."[1]

By 1840 there were fourteen log buildings in Bolton, but there was soon to be a vast increment. In the 1840's and 1850's a real estate boom came to Bolton and the cost of half an acre of village land was three hundred and fifty dollars. In 1851, 400 people lived in the village which was the hub of a widening circle of prosperous farms.

Between 1851 and 1857, Bolton flourished with activity as indicated by the rise in number of commercial establishments (see table #12). The prosperity was in part caused by the improvement of plank and macadamized roads, but primarily because a great agricultural boom spread over the countryside. Brick homes began to replace small frame and log houses. With an excess of cash, village residents and surrounding farmers demanded an increase in services and luxury goods.

1 Heyes, Esther, op.cit., p.133

In 1857, Bolton's population grew to 700. From then until the railroad era the village remained stagnant. (see table #12) The quiescence was caused by the depression near the end of that decade and also by the fact that railroads, which had come to other parts of Southern Ontario, as yet had not reached Albion Township.

By 1872, Bolton's 795 residents were clamouring for better roads and sidewalks. Their bid was successful and Bolton became an incorporated village. In 1873 the railroad arrived. Prosperity rapidly increased and yet it was rather short lived. The reason was probably because the railroad did not pass through the village, which lay on the valley floor, but south of the village on the till plain which was 100 feet higher. Only in the 1950's did the village expansion reach the till plain.

Bolton reached its peak in 1877. The boundaries enclosed an area of 500 acres, assessed at 160,764. dollars, and contained over 900 people. The village was considered to be a good commercial and manufacturing community.

By 1877, the decline which had begun ten years earlier in the rest of Albion, came to Bolton. The railroad had delayed Bolton's decline but soon its influence and the attraction of Toronto took away village residents. In 1881 the population had fallen to 650. A white pine boom in the Township caused a slight rise in population to 700 but then it continually fell until it reached its low point of 550 in 1931.

The year 1931 represented a turning point in Bolton's growth and thereafter the village began to expand. The rise was slow until the last decade when Bolton quadrupled its population to over 2000. It will be seen later on that this recent population explosion of the 1950's and 60's has been caused by migration from Metropolitan Toronto.

TABLE #12

COMMERCIAL AND MANUFACTURING ESTABLISHMENTS OF BOLTON

	1845	1851	1867	1877
Grist Mills	1	1	1	1
Distilleries	1	1	1	1
Saw Mills	1	1	2	2
Woollen Mills	1	1	1	1
General Stores	2	3	1	5
Inns	1	3	2	5
Taverns	1	3	3	5
Cooperages	1	2	2	2
Blacksmith Shops	2	3	3	3
Shoemakers	2	4	4	4
Tailors	1	2	2	2
Tanneries	1	1	1	1
Wagon Factories	1	1	1	1
Brickmakers		1	1	1
Soap and Candle Factories		1	1	1
Saddlers and Harness Shops		1	1	1
Agricultural Machine Shop				1
Cabinetmakers		1	1	1
Pump Makers		1	1	1
Doctors		2	1	1
Architects		1	2	1
Butchers		2	2	2
Bakers		2	2	2
Drug Stores				1
Schools		1	1	1
Churches		3	3	4
Post Offices		1	1	1

MONO MILLS

Mono Mills was the site of the first mill in Albion. The grist mill was built by Mike and John McLaughlin. Soon after, other establishments arrived, including a tavern, mill, and general store. In 1839, a post office was opened.

By 1851 Mono Mills was one of the largest villages in Albion for it was situated at a crossroad forming the junction of four townships -- Albion, Caledon, Mono and Adjala. It was fast gaining prosperity for it serviced a large surrounding hinterland on improving gravel roads. In 1857 there were a number of inns, a woollen, saw and grist mill, four taverns, a tannery, blacksmith shop, a church, chapel and Orange Hall, and four general stores.

Mono Mills flourished until 1871 at which time it had 500 occupants. In the 1870's, railroads were built in and around Albion, but Mono Mills was by-passed. Mono Mills was considered as a possible site, but lost out to Orangeville because the residents were asking too high a price for the land.

Most mills, inns and stores stayed open until the 1890's but the population dropped sharply by 1900 and there were fewer businesses than ten years before. Lumbering declined in this once flourishing region, soils were rapidly losing fertility and the rural population was migrating to better lands or towards large cities. The woollen

mills ceased to run in the early 1880's and the grist mill ten years later. In 1908 the saw mill departed, leaving only a chopping mill that disappeared in the 1920's.

In 1911 one general store and one hotel remained in the village, chiefly remarkable for its ruins of massive stone buildings which are the monuments of a more prosperous past.

CEDAR MILLS

Cedar Mills was quite appropriately named since it rose on the Humber near a small mill and its location had a magnificent abundance of white cedar trees -- the only remnants of this historical hamlet.

Cedar Mills was first settled in 1834. The Historical Atlas of Peel County mentions that a grist mill was built on that location in 1879. No records of the population at that time are available. The combination of a large number of mills less than three miles away and the railroad, probably caused the village to slowly disappear.

In 1904-05 the Canadian Pacific Railway between Toronto and Sudbury, was constructed near the village, which at that time had about fifty inhabitants - its maximum. The railroad had no real drawing power and population began to wane soon after.

PALGRAVE

The name Palgrave was given to this mill village in 1869 when the post office came. Previously, it was called Buckstown after an early Irish settler, Barney Dolan, who was quite adept at shooting deer and who was nicknamed "Buck".

Palgrave developed as a village for an agricultural district. It was the centre for potato production on an Irish countryside. A grist mill was built in 1846, followed twenty years later by a saw mill. Palgrave flourished in the 1870's and 80's because of the great white pine harvests in the northern regions. The saw mill in those years did a thriving business.

The Hamilton and Northwestern Railway passed through Palgrave in 1878 and the village rapidly expanded. By 1900, the population had doubled since 1878. Four lumber mills were flourishing, having superseded agricultural services in the police village.

After 1900 agriculture was declining, the white pine boom was over and Toronto was attracting Palgrave's inhabitants. The village quickly declined and it remains a quiescent little hamlet to-day.

These first four mill villages began on the Humber River. The next three developed on tributaries.

COVENTRY

Coventry began near the eastern Albion boundary at lot 10, Concession III, on Cold Creek. It was first settled by the English and in 1846 grist and saw mills were built. In the 1860's population began to decline and the dwindling of Albion forests caused the hamlet to disappear soon after 1910.

LOCKTON AND CENTREVILLE (ALBION)

The Village of Lockton, nicknamed "The Pines" was named after its first settler, Archibald Lock. Centreville, or Albion, as it was later called, was another lively Irish Village. It developed about a mile to the south. Its nickname, "Helltown", was quite appropriate for it housed an explosive combination of Irish Roman Catholics and Irish Methodist Orangemen.

The Lockton-Centreville community developed because of four mills in the area. An interesting fact about the community was that it had three doctors. This may have been a coincidence but it seems more likely they were all needed to mend an extraordinarily large number of injuries, product of a clannish, jealous,"wild and wooly" Irish countryside.

Lockton first dominated the area, being succeeded by Centreville during the railroad era. It was a very busy agrictural service village throughout the 1860's, reaching its peak early in the 1870's.

Centreville's pre-eminence came with the Hamilton and Northwestern Railroad. In 1878 the hub of activity quickly shifted from Lockton to Centreville. A five-story grist mill and a new church, pillars of the Irish community, were also extremely important in the shift of activity.

The magnetic drawing power of Toronto spelled the downfall of Centreville early in the twentieth century. St. John the Evangelist Church is all that remains of the once prosperous village. In Lockton, nothing remains of the past except the crossroad around which the village formed.

The next eight villages to be discussed were important because of their location on well travelled roads. Most of them began in the early 1830's and 40's when Albion roads were improved. Most of them reached their peak in the 1860's and early 1870's. All but Caledon East faded into obscurity when the railroad came, mainly because Caledon East was the only one of the eight through which the railroad passed. (for location of early villages and most important roads, see map #9)

CASTLEDERG

Castlederg developed on lot 15, Concession VIII. It was famous for having three Methodist churches within a three mile radius. It was a very small service centre that was dwarfed by Bolton, four miles to the south. A United Church is all that remains to-day.

SLESWICK

Sleswick was settled in 1825 by an Irishman. At its peak development it had a general store, blacksmith shop, hotel and tavern. It is significant that the small Dingle school, one mile to the east (see map #9), was planned to be the future centre of the expanding village, by some overzealous residents. In actuality, the school served no more than a handful of rural students. Its development was stunted by Mono Mills to the north and Caledon East to the south. Modern homes occupy the old village site to-day.

MACVILLE

Macville, known originally as McDougall's Corners, had a general store, blacksmith shop, tavern, Church, school and post office in 1877. Its development was restricted by Bolton to the east and Sand Hill to the west. Its last link with the past is a small brick United Church.

TORMORE AND WILDFIELD

Both villages began on the Base Line between Albion and Toronto Gore Townships. They were Irish Roman Catholic settlements that had their centres in Toronto Gore. Both communities acted as farm service centres and were rather small. Nothing remains in Tormore to-day, while a few houses, a farm service establishment, a school and St. Patrick's Church, stand in Wildfield.

TULLAMORE

Tullamore developed on the boundary of Albion, Toronto Gore and Chinguacousy Townships at the junction of the Base Line and Mono Road. It was the epitome of an early crossroad hamlet. The village was an Irish service centre at the hub of a rich agricultural landscape. Travellers from Toronto, to points north of Tullamore, stayed in that village over night because it was a one day journey from there by horse and carriage.

In 1851 the village had a population of 100 and a number of hotels, stores and industries. By 1865, the population reached 300, new establishments had been added and Tullamore was enjoying great prosperity.

When the railroad by-passed Tullamore in the 1870's, the village began to decline. In 1901 only 25 people and one store remained. To-day a gas station and a general store mark the site of that once flourishing village.

SAND HILL

Four miles north of Tullamore, the Village of Newton Hewitt developed. When the post office arrived in 1844, the name was inappropriately changed to Sand Hill. The village had neither sand nor hill but clay loam on a flat till plain.

Sand Hill grew at about the same time as Tullamore, although it was slightly smaller in size. In the early 1870's, the population was 200 and the village had a number of commercial and industrial establishments. It was the embarkation point for a weekly stage coach run to Mimico on Lake Ontario.

When the railroad passed through Albion it did not pass through Sand Hill. Roads lost their importance and consequently so did the crossroad village. In 1900 a general store was the chief feature of the disappearing village. To-day a gas station, farm service station, church and poultry farm remain.

CALEDON EAST

The village location was patented in 1824 by Elisha Tarbox, but settlement did not spring up until the 1850's when a large stone tavern was built. From that time on, other establishments were constructed and formed the site of Caledon East in the valley of Centreville Creek.

Little development occurred until the 1870's when a grist mill was built and the Hamilton and Northwestern Railway passed through the village. In the 1870's, Caledon East had to compete with the booming village of Mono Road, one mile south. However, a larger hinterland, a more important railroad, and a better endowed location in a spillway valley, enabled Caledon East to successfully subdue the Village of Mono Road.

In the 1870's, the village population was 250. It never completely lost that population although it declined slightly. Unlike the other hamlets on important roads, Caledon East only slightly declined. The railroad first enabled the village to overcome the magnetic influence of Toronto. Its location on the important, well travelled Mono Road, enabled it to regain its early losses and begin again to grow. The creamery, that was built on the north-east corner of the crossroad also enabled Caledon East to stay alive. (see map #28) This creamery drew milk and poultry products from an extensive general farming area, to the north, and still remains an important function of the village.

The last important village is the only one of its kind in Albion. It began when railways came to Albion and declined almost as quickly when the line through the village was abandoned.

MONO ROAD

Mono Road was born in 1873 where the Toronto, Grey and Bruce Railway crossed Mono Road. Lots were laid out in 1873 and a house and steam saw mill were built. In four years the population jumped to 300 and the village was still expanding. Numerous stores, hotels and other urban establishments desired to locate in the new village. Before Caledon East got the railway Mono Road was shipping more grain and timber than any other place between Orange-

ville and Toronto.[1] Mono Road reached its peak in 1880.

In 1913 the railroad line was abandoned and so, too, was the village of Mono Road. It disappeared very quickly, having no other means of importance. Its location on Mono Road and its hinterland were eclipsed by Caledon East, that was located in a valley, on a more prosperous railroad and on a crossroad. To-day, only a few shabby houses, a post office and a farm service centre remain.

In summary, urban settlement in Albion Township depended on the improvement of transportation facilities and the spread of small decentralized industry. Before 1830, the main settlements were around mills on the Humber and its tributaries. As settlement continued, roads were improved and crossroad hamlets began to grow. Albion farming families needed urban services for the distribution and processing of farm products, for domestic purchases and for social exchanges. Travellers needed hotels, blacksmith shops and stables. By the 1860's and early 1870's, most of Albion's mills and crossroad villages reached their peaks. Those villages through which the railroads passed, expanded even more.

The Toronto influence also arrived with the railroad era. Albion villages, through which the railroads

1 Heyes, Ester, op.cit., p.155.

passed, enjoyed early prosperity but by the 1900's, those villages began to decline. Villages that were avoided by the railroad acceded immediately to the Toronto influence. The Toronto preponderance became so great that no towns within thirty miles of Toronto grew up after 1900.

In the 1900's large towns and townships adjacent to Toronto began to recover slightly. This occurrence, however, did not reach Albion immediately. It took a number of years for the expanding metropolitan area to cause an increase in Albion's population. Toronto's expanding sphere of influence radiated farther and farther out into the countryside until in the 1930's it reached Albion. Growth of Albion's urban population was slow at first, but in the last decade, expansion greatly increased. Caledon East and Bolton are really the only villages to have undergone a marked growth and their expansion has been in the form of a small scale urban sprawl.

Fig. 37

The abandoned Toronto Grey and Bruce Railway that brought a spurt to Bolton business in 1873 and created the village of Mono Road.

Fig. 38a

The original mill and dam were built in 1823. This was the beginning of Bolton. The photos are representations of the improved mill and dam that were built about 100 years ago. Note the size of the building.

Fig. 38b

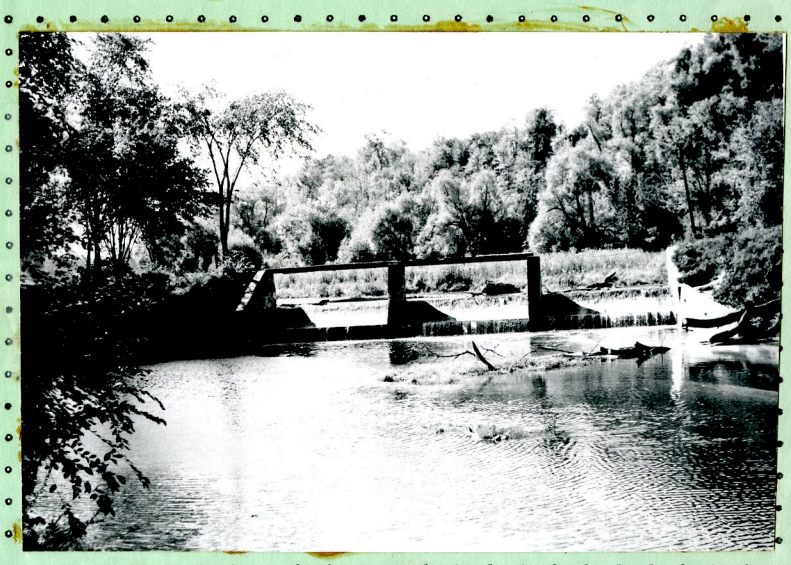


Fig. 38c

An old Bolton tannery that was built about one century ago. It was part of a flourishing industrial and commercial village.

Fig. 39

An old pioneer one-room home. This home is one of the first types ever built in Albion Township. The logs were cut and interlocked. The spaces between were filled with wedges of wood and plastered with a mixture of clay and lime. The building is in an improved state. It is still used to-day as a storage shed, attesting the strength of the materials forming it.

Fig. 40a

"The hamlet of Mono Mills lives on in the shabby respectability of a wearied old age. Occasionally a cow strolls through the crumbling stone entrance of an old-time store or over the debris of the tavern where Old Hickory Mick lost his fights with John Barleycorn." - from Paddy Slater's Yellow Briar, p.176.

Fig. 40b

An old farmstead at the corner of Mono Road and Highway #9, at the present site of Mono Mills.

Fig. 41

St. John, the Evangelist Roman Catholic Church, Centreville (Albion). High on a hill, it was the pinnacle for the Irish village of Centreville, overlooking the countryside. The choice of Centreville and not Lockton, for its construction, was a small part of the reason why Lockton lost its importance.

Fig.42

Castlederg United Church. Once a group of Methodist churches, of which this is one, were scattered within three miles of each other. This, the only one that remains, is the only existing remnant of Castlederg.

Fig. 43

St. Patrick's Roman Catholic Church, Wildfield. This site was chosen by Irish Toronto Gore Township settlers for the first church in 1819. The new church, a Gothic type of architecture, still towers over the countryside.

Fig. 44

A gas station and general store mark the site of Tullamore. The gas station exists because it is on the well travelled, paved, Mono Road (First Line Albion).

PART IV

PRESENT CULTURAL GEOGRAPHY

An introduction to the present geography was presented in the opening pages of this thesis and a look into the physical and historical geography sets the stage for a study of the cultural geographical aspects of Albion to-day.

(i) CRITERIA USED IN THIS STUDY

Albion Township is primarily rural as it was in the past. However, this rural nature is not quite as strong as it was, for to-day, the influence of urbanism is quickly enshrouding Albion.

In the past, Albion was under the domination of the large metropolitan area to the south but the influence was of a much different nature. In the 1870's Toronto began to attract not only agricultural produce from Albion farms, but also the farmers themselves. Jobs were available in Toronto and farmers, especially from the northern parts of the Township, decided to change to an urban existance. This occurrence went on more or less until the 1930's and 40's, at which time the population all over Southern Ontario began to rise. Toronto was increasing its control far out into the countryside. It was at this time that a few city people decided to move out into the country to live. At first, the city to country flow of population was small, but, as the years went by and city problems began to increase, the small trickle became a rushing torrent until to-day, Albion

Township, as part of Toronto's hinterland, has become a primary homeland for Toronto emigrants.

In the introduction to this thesis, the author mentioned that he had discovered vast differences between the northern and southern sections of Albion. Part II on physical geography, pointed out how the physiography, topography, soils, vegetation and climate adhered to this regionalization and Part III, on the historical geography, indicated that, as settlement began and continued, regionalism became more and more clear. It is man's presence and his consequent activities that bring to light the the differences in regional character. This can be quite clearly seen at the present time.

On the ensuing pages the present geography of Albion Township will be presented in regional form. The criteria used for this study are land ownership, land occupance and activity patterns which control land use relationships.

In the first section, dealing with "Rural Geography", North Albion is divided into four main headings. The first part of each heading indicates the type of land to be discussed; i.e., agricultural land or recreational land. The second part indicates the type of land holding on this particular type of land; i.e., non farm or farm. Under each of these headings a number of sub-headings have been used. These sub-headings relate the type of activity undertaken by each land occupier. In South Albion, only

three main headings have been found necessary.

It will appear that certain headings under North and South Albion are the same. A closer study however, will reveal that, in actuality, though the type of land and the type of land holding is the same, the activity pattern is quite different and instead of pointing up similar characteristics between the regions, they bring to light the contrasts.

Under each sub-heading of activity, land use relationships will be described. It will be shown how these relationships reflect, not only the physical qualities of the land, but also the activities of the occupants. Where a study twenty years ago would have shown a marked correspondence between physical geography and land use characteristics, this study reveals that the human element, with its greatly capricious qualities, causes a very notable variance in this once distinct physical land use relationship. This does not mean, however, that present physical qualities can be dispensed with. In the south, slightly more so than in the north, the old relationship continues and intrinsic physical qualities show close relationships with land use and activity patterns. In the north a new physical-cultural relationship is developing. The attraction is not fertile land, but a scenic landscape which is captivating Toronto migrants.

The south, to a lesser degree, also has physical characteristics that are appealing to onrushing urban

emigrants -- cheap, flat subdivision land.

In the process of this study, use will be made of sample farms and sample blocks. These will be presented to describe varying land use and activity patterns. A complete field study of land use in Albion Township was not attempted for two reasons. Firstly, the land use pattern would not show a satisfactory relationship with physical conditions, especially in the northern region. The influence of Toronto and its migrating inhabitants have broken down the relationships in much of Albion. A land use map that does not reflect patterned conditions is of little value. Secondly, Albion is extremely large and in many places much too irregular. A complete field study would have taken a great amount of time and would have been too difficult and tedious. The author found it satisfactory and advantageous to choose sample areas. Careful choice was made of these areas to be sure that they were representative of regional conditions. Studying land use in this way enabled more time to be devoted to other important geographical relationships within the Township. It was felt that a map of land use, prepared from aerial photographs, would have definitely been an asset, if photographs more recent than 1956 could have been obtained. Because of the constantly changing conditions in Albion, a land use map six years old would definitely be outdated.

With a brief knowledge of the factors involved and the criteria and methods of study, it is time to turn to the rural geography of Albion Township.

(ii) RURAL GEOGRAPHY

NORTH ALBION

A Agricultural - Farm

Resident - Full-Time Farmer

This type of farmer is rapidly disappearing from North Albion. His land is relatively poor, with respect to land in the southern part of the Township, and unless he has a large quantity of cash, with which to buy large amounts of fertilizer or adjacent lands, he has to live a rather meagre existence. The desire of city people for this type of scenic and hilly country has induced these farmers to sell their land for prices that are extremely high ($30,000. per 100 acres).

Resident full-time farmers in North Albion to-day, usually own farms that have a number of pockets of fertile loam soils among the acres of sandy hills. They usually own farms of more than 100 acres. In order to compete with regions that are more fertile, this North Albion farmer must buy 50 or 100 acres more.

Two types of farming economy exist for this farmer to-day. They are, general farming with a livestock emphasis and general farming with a beef cattle emphasis. There is no great concentration of one type in any one area. (i.e., where more money is available, the more lucrative beef emphasis predominates) A very slight concentration of general farms with a livestock emphasis occurs in the transition area of about four miles between

North and South Albion (see map #3 for location of block and see maps 10 and 11 for sample block #3).

Sample Block #3 is found on Pontypool sandy loam and King clay loam soils. The topography varies greatly from smooth moderate slopes to irregularly steep slopes. Because it is in the till plain - moraine junction area, the land, though mapped continuously in sandy loam or clay loam, actually is dotted with numerous pockets of each. The amount of improved land within this block is typical of a general farming area.

Mr. Robinson, on the east half of lot 18, has a typical general farm with a livestock emphasis. His 100 acres consist of 33 acres of oats, 7 to 8 acres of fall wheat, 21 acres of hay, 20 acres of hay pasture and 15 acres in woodlot. The woodlot is used for pasture and a home supply of wood.

As in the rest of Albion, oats is by far the most important grain crop. Soil requirements for oats vary from light to heavy, on fairly well drained land. However, the King clay loam soils yield better than the sandy loam soils. No land is left idle. A field left uncultivated is generally used for pasture. Alfalfa hay crops have a high yield and a high feed value. They are generally harvested twice, the first cutting taking place in the second or third week of June.

On the Robinson Farm 81 acres of cultivable land support 10 cows, 7 mixed Holstein beef cattle, 20 hogs and 175 hens. In order to supplement feed supplies, certain cereals, especially rolled and mixed bran, are obtained from a local mill. Milk is taken to the Caledon East Creamery which is about eight miles away, where it is processed into butter. Mr. Robinson ships one five gallon can of cream per week, which, at $10. per can, nets him about $500. per year from his cows. About 1050 dozen eggs per year are received from his 175 hens. The eggs are also taken to Caledon East where they are graded and sold. At 32 to 35 cents per dozen, on the average, a net profit of $350. is forthcoming from the sale of eggs.

The pigs are taken to Toronto where they sell for about $45. each at Canada Packers. Calves are also taken to Toronto when they are about 10 - 12 weeks old. A calf weighs about 250 pounds when it is sold to the United Farmers and this forthcoming veal animal brings about $80.

Thus, Mr. Robinson's farm can be seen to be definitely a part of the general farming activity. His economy is partly oriented to Toronto and partly to Caledon East. He and his wife do all their shopping in Bolton, or in the Township itself. Seldom do they find need to travel to the Toronto area to buy any of their home or farm needs.

In comparison with this latter farming activity, general farming with a beef emphasis is less likely to be concentrated in a particular area. One of the main criteria for distinguishing this type from the just described type is the size of the land holding. Most of North Albion's beef farms are 50 to 100 acres larger. A good example of such a farm belongs to Carson Patterson, a very successful farmer whose ancestors have worked the land since the early 1850's. Mr. Patterson owns 219 acres, comprising lot 36, Concession II, and the south-east quarter of lot 37, Concession III. (see maps 12 and 13 and map 3).

A glance at the land capability map of the Patterson farm reveals no first class land and little second class land. The poorest agricultural land corresponds to the steeply sloping, excessively drained, sandy knobs. Heavier soils are usually found in small till pockets. A scan of Mr. Patterson's farmstead and farm reveals, however, that he has been fairly successful. A planned, long term rotation of fields on a large farm unit allows Mr. Patterson to farm more extensively than farmers with a smaller acreage. In fields with a higher capability, a four year rotation is used, with cultivated grain being planted only once in four years. During the other three years, the soils are either planted in an alfalfa dominating hay crop or put into rotation pasture. On the less capable fields a five year rotation is followed.

On the steepest, sandiest and most easily eroded land, permanent pasture is found. This may be broken up and re-seeded every five or six years or may remain untouched. Oats, as before, is the best yielding forage crop under existing conditions. Thirty-six acres of spring grain are planted, with mixed oats and barley occupying only a few acres. Potatoes, a once important crop of the early settlers of this area, are grown on about 8 acres. Potatoes, being particularly successful in sandy well drained soils, Mr. Patterson plants one field each year. This is a rather unusual crop to be found in Albion to-day and is probably cultivated here because there is a large acreage of land to devote to fodder crops. On smaller farms where every acre of land is needed, a specialty crop, such as potatoes, is not found. Smaller farms would have every possible acre devoted to the production of livestock.

On the Patterson farm there are an average of 45 shorthorn beef cattle, 40 in summer and 50 in winter. No milking is done, the cattle being rigidly geared to the Toronto beef market. Heifers and steers are usually sold in the fall after summer fattening. The cattle are usually a year old when they are sold and generally reach 800 pounds by slaughtering time. Steer prices are considered good at 30 cents a pound, netting the farmer about $240. per animal.

Besides the beef predominance, 30 pigs are kept and these, too, are shipped to Toronto slaughter houses. Swine prices vary, with $50. or $55. being a good average price per pig. Eggs laid by 250 hens are taken to Orangeville to be sold.

A unique occurrence is found on lot 33, Concession III, adjacent to sample block #4 (see map 3 p. 16C). [illegible]). Here is the only strictly dairy farm for miles around; in fact, the only farm in North Albion that ships fluid milk. The farm of 200 acres, on poor soil, is owned by Mr. Ian Smith who has 55 Jersey cows. Daily, 1000 pounds of fluid milk are picked up by an Acme Dairy truck that deviates from its route along Highway #9. The only reason Mr. Smith is able to have a fluid milk economy is because his farm lies close to Highway #9 and the pick-up truck need only go one mile off route. The driver says that this is the only farm in North Albion to ship fluid milk to Toronto.

The farm originally cost $8,000. two years ago. Its value now is about five times that much.

Mr. Smith says that Jersey cows produce more milk per quantity of feed than any other cattle and therefore are able to exist on lesser yielding fields, giving a high production of milk. Holstein cows would be a poor investment in this part of Albion Township.

Concluding this section, a number of points can be made. The beef emphasis farm is generally larger and more lucrative than the smaller general farm with a livestock emphasis. Larger acreages allow the beef farmer to be more selective in land use, thus enabling him to use longer rotations and gain better yields on less exhausted soils. Smaller farms have a comparatively intensive economy. They have no permanent pasture areas except in lands that are so steep or wet as to be uncultivable by mechanical means. Indication of intensive use and poor conservation farming is illustrated by Mr. Robinson who uses his bush for pasture. Mr. Patterson's 50 acres of woodland remain ungrazed.

The number of beef emphasis farms are increasing, the others are decreasing. However, contrary to many opinions, it would seem that there still remains a larger number of general farms with a livestock emphasis than those with a beef emphasis.

Resident - Part-Time Farmer

Because of competition from more fertile farms close to Toronto, many farmers in North Albion have found it necessary to supplement their incomes. This is usually done by taking a job in an urban centre such as Toronto, Brampton, Orangeville or Bolton. Improving transportation networks allow quick and easy access to city jobs.

Not having much time for the farm, this North

Albion land owner has decreased his numbers of swine, milk cows, and hens and is trying to build up a herd of beef cattle, which will be quite remunerative when sold on the Toronto market. With a beef cattle emphasis, much of his land reverts to pasture and any grain feeds are usually bought from a mill. Because beef cattle require very little care, especially in summer, the part-time farmer is able to keep two jobs without too much difficulty.

Thomas Penny has a part-time, 100 acre farm, on the west half of lot 28, Concession I (see maps 14 and 15). Class 4 and Class 6 land occupy about 90 acres of Mr. Penny's farm which is used almost exclusively for pasture.

Most part-time farmers keep about ten beef cattle. In summer they are fed on farm pastures while in winter they are fed on assorted mill feeds. Beef cattle on part-time farms seem to be of lesser quality than those on full-time farms.

Not only are farmers becoming urban workers, but also city workers are turning to farming. Farmland prices in North Albion were cheap a few years ago. City people who wanted to own a farm but continue their other jobs purchased land and proceeded to raise beef cattle on a part-time basis.

There are not very many part-time farmers in Albion to-day. In an age tending toward specialty farming, it is difficult for this type of farm to be productive.

Resident - Non Farmer

Farms such as this are owned by wealthy men, who, in their past, have had a desire to farm but have been prevented from doing so by other business ventures. The owners, for the most part, are middle-aged, successful business men. Cheap, available land in North Albion and good roads connected to Toronto, have been the main attraction. Most farms are larger than 200 acres and in many cases are found along scenic rivers and streams. The owners are resident but they do little of the farming. Managers, and a group of employees are hired to perform the farm duties.

This type of farm is very specialized. Beef cattle predominate, although some horse and sheep farms occur. The fact that pure bred animals are raised, suggests that the farms are not primarily used for economic gain.

Farms in this category may range anywhere from 200 acres upward. They are very modern in appearance and farm implements, facilities and methods are very efficient.

A typical farm of this category belongs to Mr. Sid. Blair, whose land is found on the historical site of Cedar Mills. His renovated home used to be the old church on that site. His home and buildings are modern and the

farm methods used are scientific and up to date. (see Fig.49) The farm itself consists of 200 acres while 200 more are rented. Two hundred pure bred Suffolk sheep and 100 pure bred Hereford beef cattle are raised.

Of the improved land, 25% is cultivated in grains while the rest is used for hay and pasture combinations. Adherance to good conservation methods such as long rotations, high quantities of fertilizer and modern implements facilitate good use of the land. Most of the farmland is found on soils that are steep to moderately sloping. The sandiest areas are almost exclusively left in pastures which are broken up and seeded every five years. A large acreage on which hay and pasture predominate, saves the land from erosion and exhaustion. Smaller general farms have more grain crops. The land is more intensively used and thus may be rendered less productive in a number of years. On poor North Albion farm soils a hay and pasture use of land is most efficient and least exhaustive.

Non Resident - Non Farmer

This group of landowners is quite similar to the previous group, although the owners of the land do not occupy it. Most owners live in Metropolitan Toronto where they work.

A typical owner is Mr. Weir, who has a 350 acre farm comprising lots 36 and 37, Concession II (see base map #3). Mr. Weir owns his own business in Metropolitan

Toronto where he lives. Twenty years ago he came to Albion looking for an old farm on which he could spend his vacation periods and week-ends. He remodelled the old homestead, planted trees on the most eroded soils, hired a manager to run his farm and now has a large business which is classed as a beef farm with a secondary swine emphasis.

Oats is the optimum crop on this farm, but mixtures of oats and barley are also common. Along with 50 acres of spring grain, 10 acres are planted in fall wheat. Except in wooded areas, the rest of the farm is devoted to combinations of hay and pasture. This land use has been found common in most other sections studied so far, but, as can now be seen, one type of land use does not necessarily reflect one type of activity.

The farm consists of 125 Kroehler shorthorn beef cattle and 200 hogs. The livestock are taken to Toronto. The animals are fed in summer, principally on pastures while in winter, hay, grains and feed concentrates are used.

Concluding this section on rural farm activities, it is apparent that the land use is oriented to a livestock economy in one way or another. In all four categories, combinations of hay, hay-pasture, rotation pasture and permanent pasture dominate. Grain crops are found mostly on the small, least specialized farms. They are predominantly oats, with some mixed oats and barley and fall wheat. Ensilage corn is very uncommon in North Albion.

Seldom are soils found that have high quantities of nitrates and phosphates which are essential to corn growth.[1] The summer day and night temperatures are also at the minimum for corn growth - 66°F. in the day and 55°F. at night. North Albion has a slight moisture deficiency which is detrimental to successful yields. Steep, easily eroded slopes are the main limiting factor.

There are no areal relationships to the first four categories. Former city people have bought available land that has been cheap and scenic. It would be quite incorrect to combine the four types together. It would also be incorrect to combine the first and the last two together on the basis of land use relationships, for even where the economic type of farm is the same, (i.e., beef farm), the purpose of having the animals may be altogether different. For example, Mr. Blair is a breeder of pure bred stock with an emphasis on judging competitions. Mr. Weir, on the other hand, raises beef cattle with the emphasis on their commercial retail value. The location of farm types is mainly determined by the human element. It is therefore incorrect to stereotype these activities, on the basis of such a vascillating entity.

1 Klages, K.H.W., Ecological Crop Geography, The Macmillan Company, New York, 1958, p. 396.

ALBION TOWNSHIP

TABLE #13

LEGENDS

LAND USE

FARM LAND - IMPROVED

- small grains
- corn - ensilage
- hay
- hay pasture
- rotation pasture
- potatoes
- row crops
- orchards
- homesteads

UNIMPROVED

- permanent past.
- marsh or waste
- woodland
- reforestation

NON FARM

- railroad
- speculation
- strip development

SOILS

- Psl — pontypool sandy loam
- Brsl — brighton sandy loam
- Wol — woburn loam
- Oc — oneida clay loam
- Chc — chinguacousy clay loam
- Jc — jeddo clay loam
- Kic — king clay loam
- Pec — peel clay
- Msc — malton clay
- M — muck
- BL — bottom land

LAND CAPABILITY

SUITABLE for CULTIVATION

- 1 — class 1
- 2 — class 2
- 3 — class 3

SUITABLE for OCCASIONAL CULT.

- 4 — class 4

NOT SUITABLE for CULTIVATION

- 5 — class 5
- 6 — class 6
- 7 — class 7

NON AGRICUTURAL

- 8 — class 8

KRL

ALBION TOWNSHIP — LAND USE

SAMPLE LAND BLOCK # 3

CONCESSION IX between LOTS 16 & 20

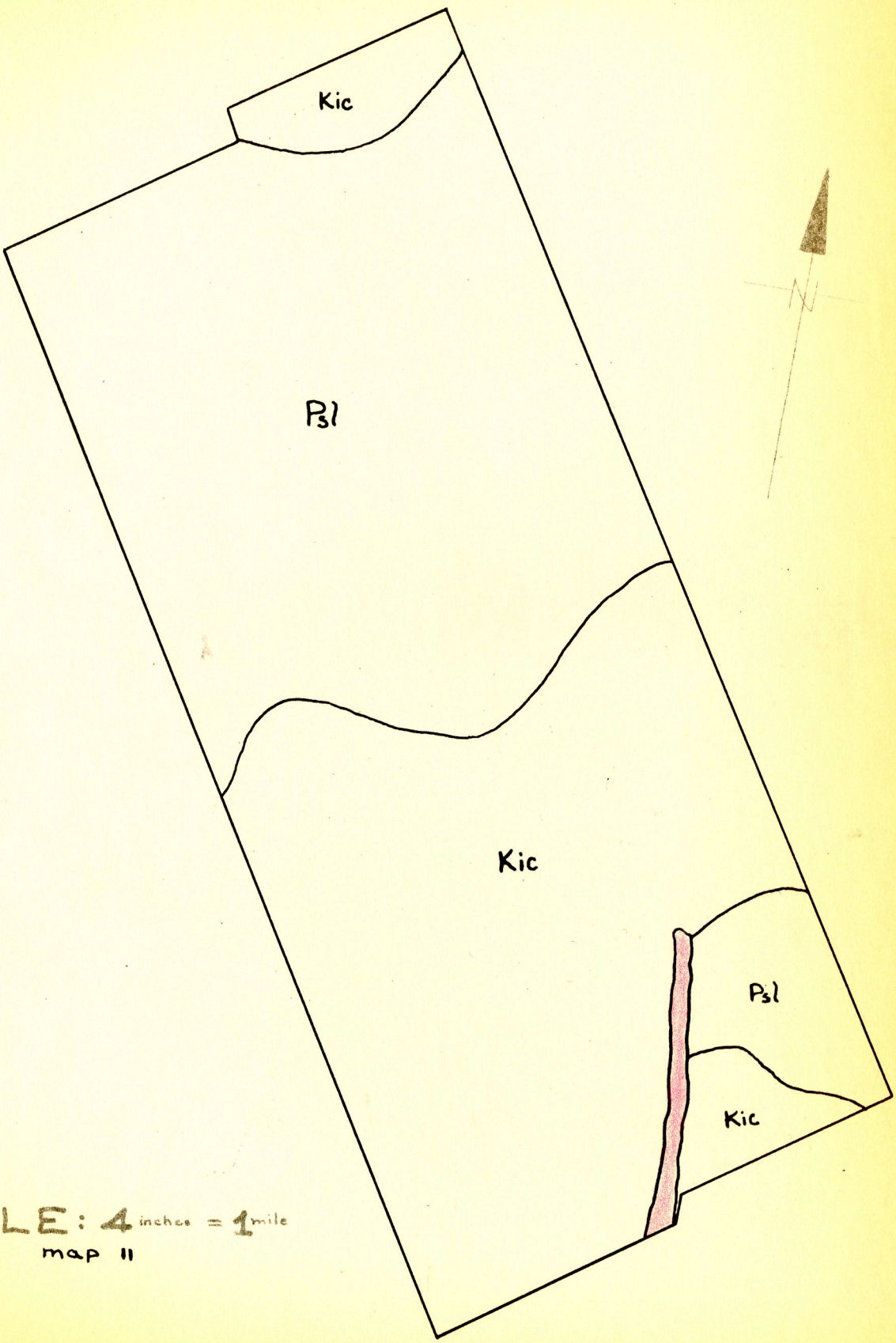
SCALE: 4 inches = 1 mile

map 10

ALBION TOWNSHIP — SOILS

SAMPLE LAND BLOCK # 3

CONCESSION IX between LOTS 16 & 20



SCALE: 4 inches = 1 mile

map 11

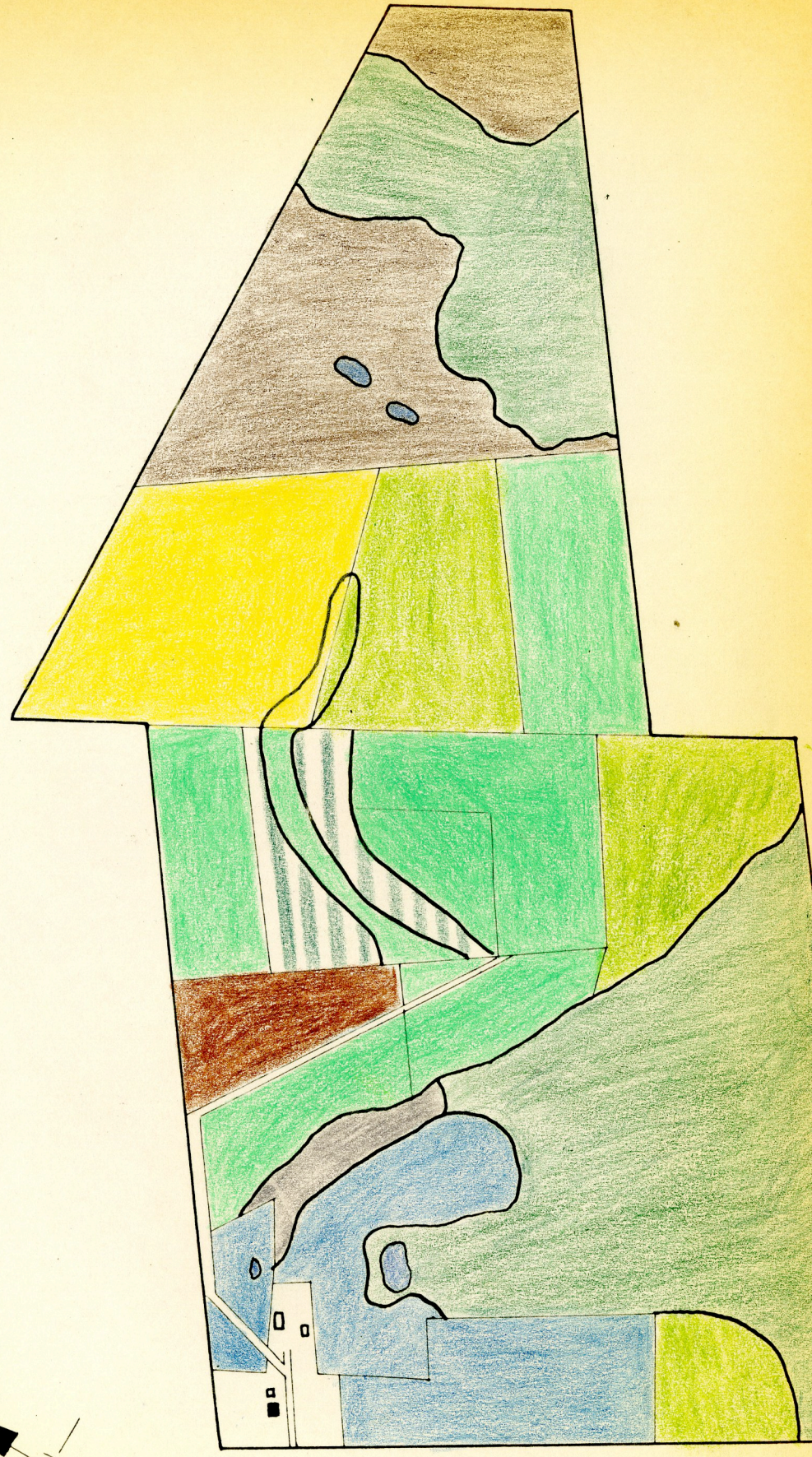
KRA

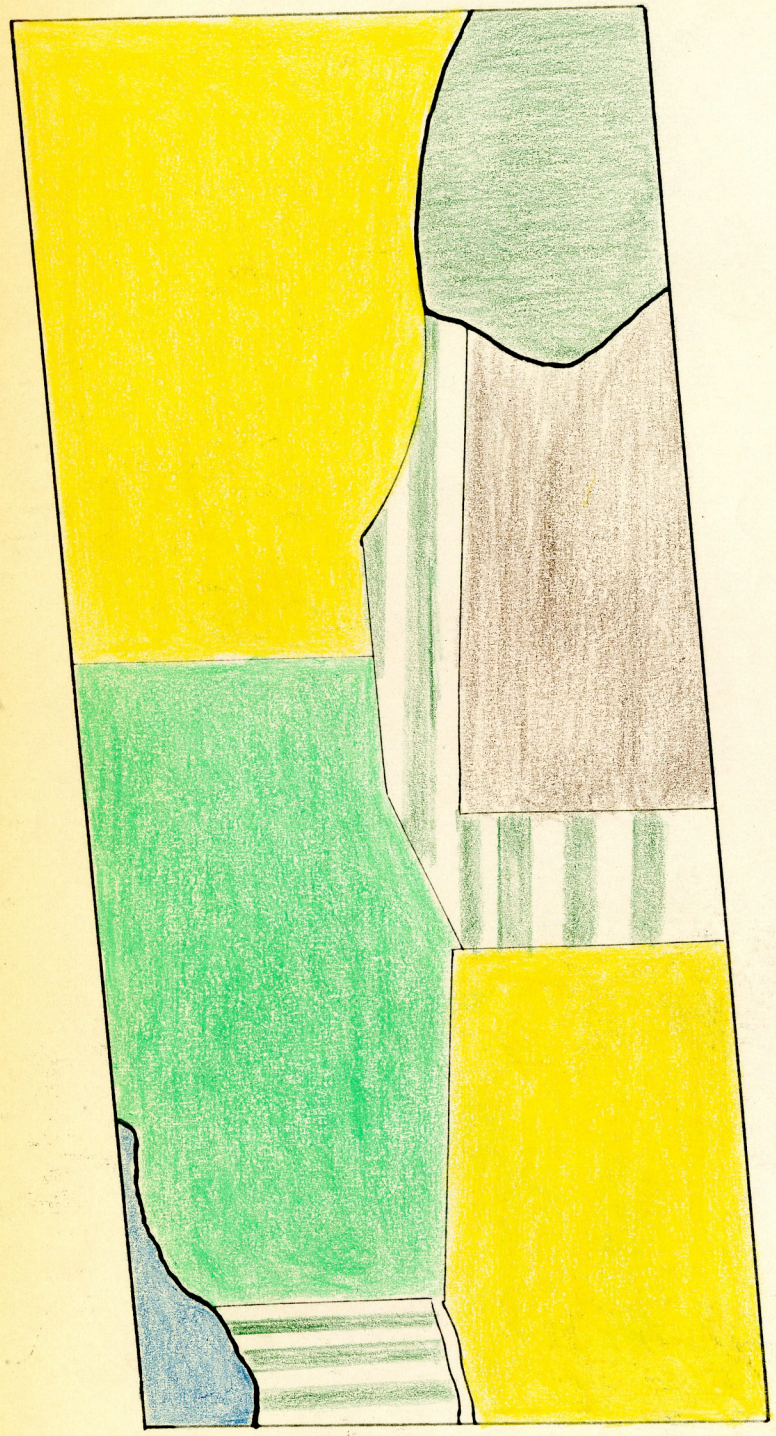
ALBION TOWNSHIP

SAMPLE FARM CONC. II & III LOT 36 & SE. ¼ 37

LAND USE #3

based on O.A.C. Soils Dept.





SCALE: 1 inch = 450 feet

map 12

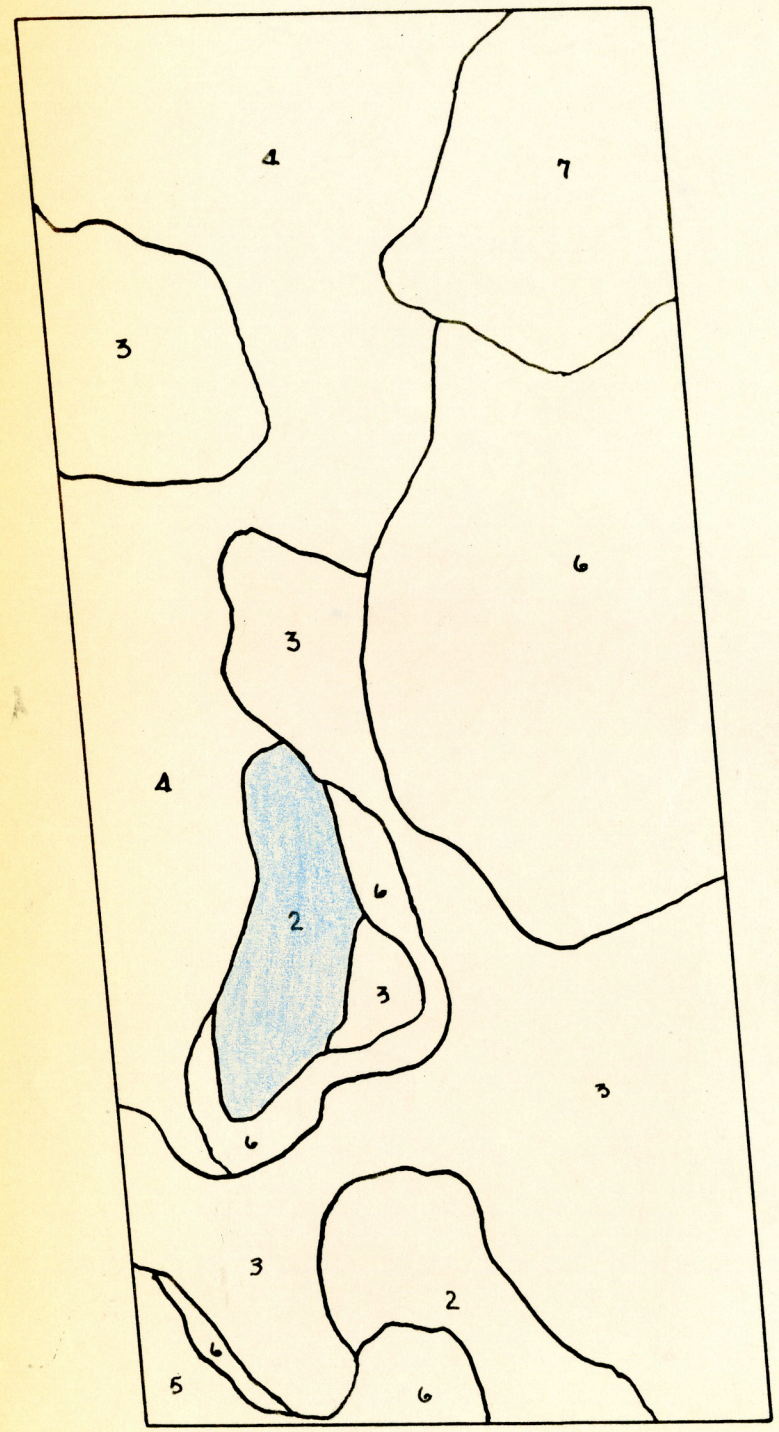
KRA

ALBION TOWNSHIP

SAMPLE FARM CONC. II & III. LOT 36 & SE. ¼ 37 #3

LAND CAPABILITY

based on O.A.C. Soils Dept.



SCALE: 1 inch = 450 feet

map 13

87 E

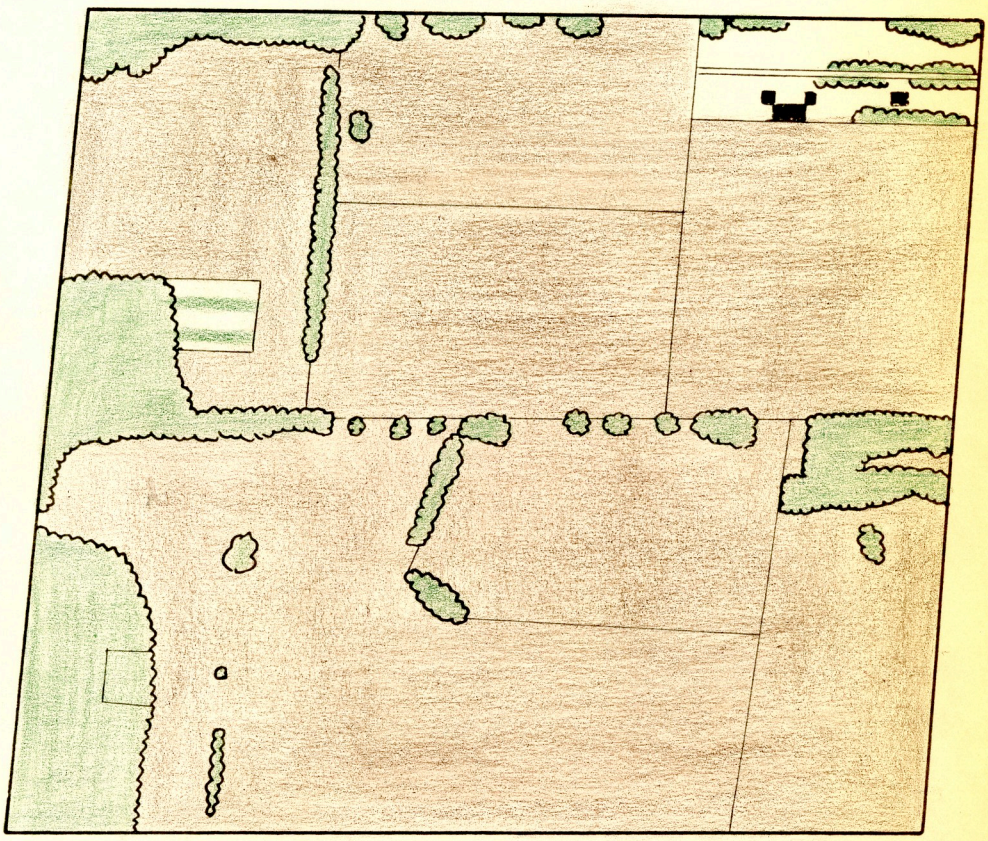
KRA

ALBION TOWNSHIP

SAMPLE FARM CONC. 1 LOT 26 #2

LAND USE

based on O.A.C. Soils Dept.



SCALE: 1 inch = 425 feet

map 14

87 F

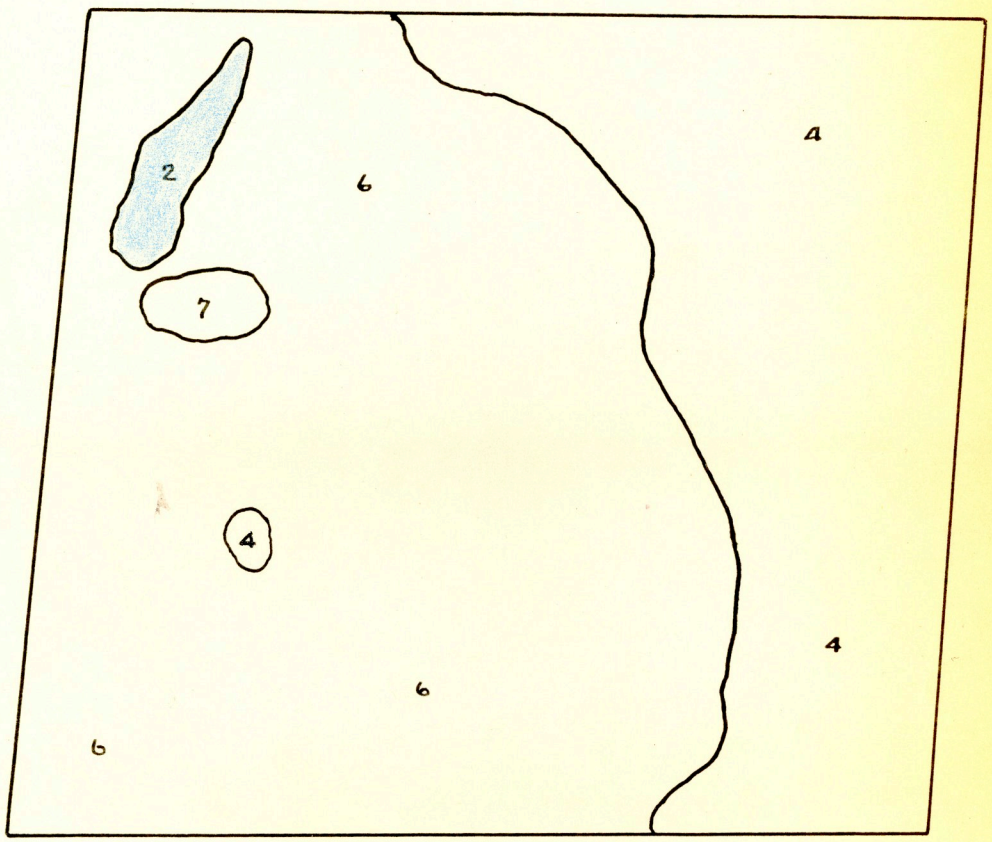
KRA

ALBION TOWNSHIP

SAMPLE FARM CONC. 1 LOT 28 #2

LAND CAPABILITY

based on O.A.C. Soils Dept.



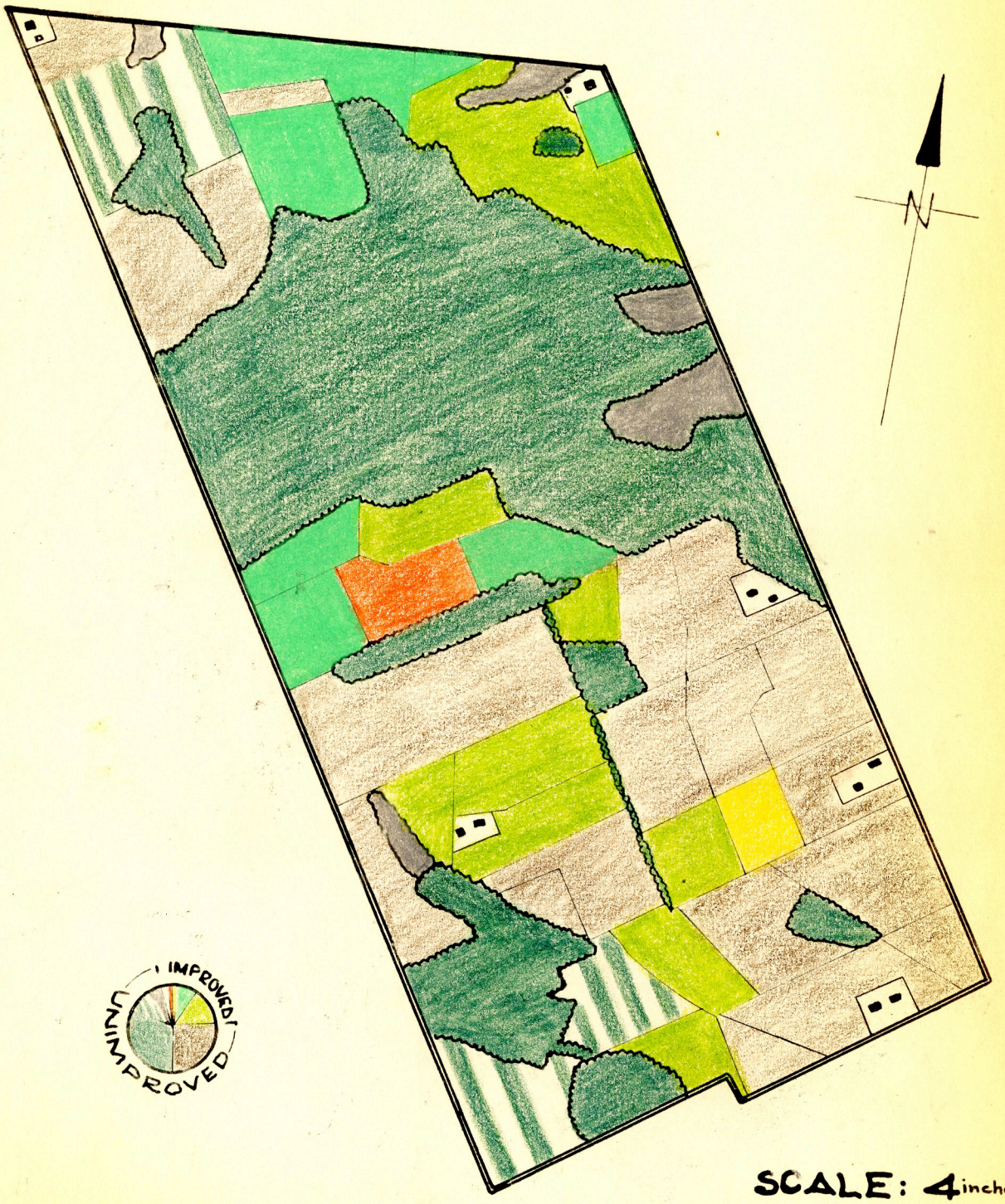
SCALE: 1 inch = 425 feet

map 15

ALBION TOWNSHIP — LAND USE

SAMPLE LAND BLOCK # 4

CONCESSION IV between LOTS 31 & 35



SCALE: 4 inches = 1 mile

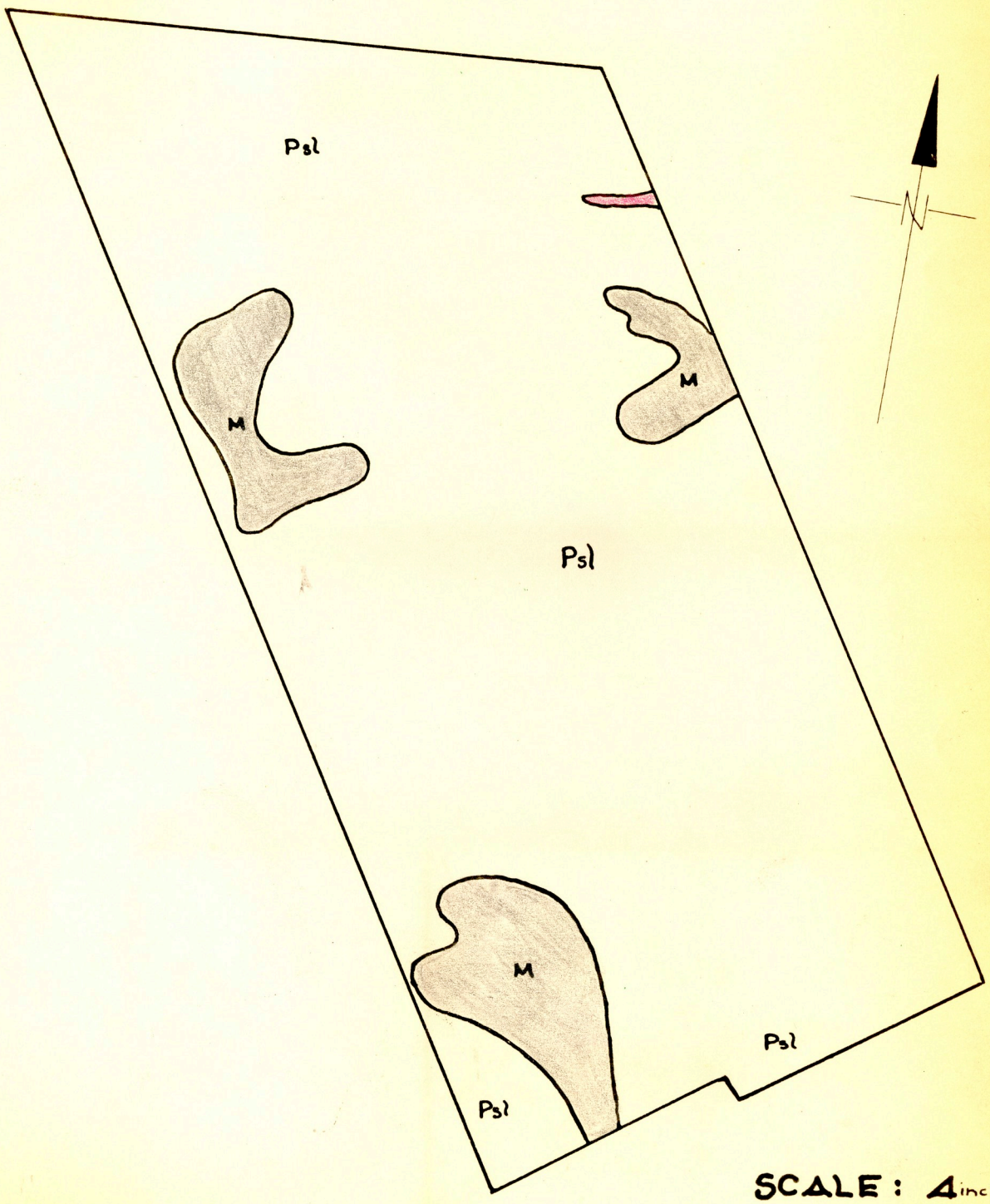
map 16

KRA

ALBION TOWNSHIP — SOILS

SAMPLE LAND BLOCK # 4

CONCESSION IV between LOTS 31 & 35



SCALE: 4 inches = 1 mile

map 17

KRA

Fig. 45a

North Albion general farm with livestock emphasis. Above, note the rolling morainic terrain, the amount of woodland, the old unkempt appearance of the buildings and the rather scrawny mixed cattle. In "b" the land use illustrates that the steep kame deposits are left in permanent pasture while the more level land is cultivated. The farm pond illustrates the trend toward conservation farming.

Fig. 45b

Fig. 46a

North Albion specialty farm. In photo "a", note the large modern attractive horse barn and the beautiful white fences. Photo "b" illustrates a number of race horses pasturing on well kept fields. This farm belongs to a wealthy resident-non-farmer. The owner has a number of hired employees to look after the farm. These photos illustrate that Toronto migrants are buying large farms in the northern regions where land has become available.

Fig. 46b

Fig. 47a. North Albion - Robinson farmstead in Sample Block #3. This is a 100 acre general farm. Note the typical size and shape of the house and buildings. A farmpond in the foreground illustrates how important they are becoming to the farm economy.

Fig. 47b. North Albion - Patterson farmstead-Sample Farm #2. The gothic styled home was built in 1887 at a total cost of $1,800. The beef specialty farm is one of the most successful of those belonging to resident-full-time farmers.

Fig. 47c. North Albion - Smith farmstead--across the road from Sample Block #4. This is the only dairy farm in the sandy moraines. The owner has been there for only eight years. Note the new silo built onto the old barn. Jersey cows are found here.

Fig. 48a

North Albion - Unimproved pasture. Steep sandy moraines covered with a thin vegetation of grasses and weeds. This is Class six land.

It has had most of the top soil eroded away. The pigs and sheep indicate a poor type of pasture.

Fig. 48b

North Albion - Rotation pasture. Beef cattle pasture on the flattest land in this area. Note that the fences keep cattle from grazing on eroded hill slopes. This photo illustrates good land use.

Fig. 49a

North Albion - Specialty farm of pure bred Suffolk sheep and Hereford beef cattle. In the above photo is a modern three floored sheep barn. The cattle barn is to the right, out of the photo. In the photo below a number of sheep and cattle are found on an improved pasture. The owner is a resident non-farmer who works in Toronto. His large acreage (over 400) is typical of specialty farms in North Albion, owned by city migrants.

Fig 49b

B Residential - Non Farm

Resident - Urban Worker

This category is distinguished on the basis that the land is not used for agricultural purposes. Compared to surrounding land owners, this owner has a relatively small acreage.

Most North Albion occupants within the group own 10 acres or less. The attraction of the land has been its quietness, its rugged rural beauty, its availability for purchase at moderate prices, and its proximity to Toronto on excellent paved roads.

The land owners are mostly men and women whose children have grown up. This is by no means always true, but in most cases, a young family with children of school age finds it more convenient to locate closer to Toronto where modern facilities are closer at hand. The gentleman is usually a moderately well to do professional man.

The homes that are built are quite modern and spacious. They are first class in quality and condition. They are located in riverine areas, on hill tops and in wooded sectors of North Albion. Most homes are found on well kept concession roads or on paved roads. Easy accessibility to Toronto is essential, for these former city residents not only work in Toronto but still do all of their shopping there. In almost every case, the writer found that former Toronto residents are oriented to that

Fig. 50

North Albion - Home of resident-urban worker. This house is located on the crest of the Humber Valley, overlooking the river. Note the large size of the house and its beautiful modern appearance. This is a first class home and is typical of homes being built by people who commute to Toronto to work and even to shop.

city in almost every way. However, as the urban Toronto influence increases in Albion, and Bolton continues to expand, many of these people will shop there. In comparison, the old North Albion residents use local facilities exclusively for all of their needs.

The resident - urban worker greatly affects the land use of North Albion. What was once strictly farmland in 100 acre blocks is now greatly fragmented, especially along the fronts of sideroads and concessions and most frequently, at their intersections. Secondly, these new and beautifully landscaped homes increase the value of the land. They put more value into a smaller space and take steep and ugly eroded land out of cultivation. The owner of the small estate often plants trees on highly eroded and wet areas, and dams streams and creeks, building himself a beauty enhancing pond. An increasing number of ponds increases water storage and provides a habitat for fish and small wildlife. (see map 25 and Fig. 50)

C Recreational

The increasing recreation emphasis in Albion enables one to see, indirectly at least, the striking ascendancy of urban Toronto in the Township. It also reveals the difference in cultural and physical patterns between the northern and southern regions. South Albion, has less than 5% of its land oriented to recreation. North Albion, on the other hand, reveals extensive amounts. There are a number of reasons. A look at the drainage and source areas of Albion indicates that the northern region is much

better endowed for recreation. Most source areas exist west of Highway #50 and north of Sideroad #15. The terrain in the northern regions is very rugged and scenic, while flat fertile southern soils are oriented to agricultural activities. Dissection by the Humber River in South Albion is so steep, and flat flood plains so scarce, that recreational use of the land is inhibited. Because the farm land in North Albion is so poor and because farmers have desired to sell their land, large areas have become available for recreational use. For these reasons, it must be concluded that recreational land use is tied closely to streams on a varied and rugged topography that is marginal for agriculture.[1]

A division of recreational land into private and public land holdings was attempted. However, it was too difficult to classify each different land owner into these categories. Instead, a division was made on the basis of profit making on non profit making recreational establishments. Under each, subheadings have been used. These subheadings do not indicate the type of activity performed on the land, but the type of land holding on which different activities are performed.

In almost every case the landowners are non residents.

1 For ease of presentation, because the recreation lands of South Albion Township (excluding the municipality of Bolton), are relatively few, they will be included with the study of North Albion.

Profit Making

Private Recreation Areas

This type of development is as yet relatively uncommon in Albion Township. Most similar areas are not for commercial gain but are non profit making services to the public. One development, however, occurs in Concession I, lots 18 and 19. Here a park has been formed around a dammed pond on the channel of Centreville Creek. Combined with sands and gravels of outwash origin and mixed vegetation of cedars, tamaracks and softwoods, quite a picturesque setting has been formed. The pond is quite shallow and has a bottom laden with weeds and associated water vegetation. One end of the pond has been bulldozed and sand has been dumped into it.

Most of this pond, now called Innis Lake, is used by the public at a nominal charge. A number of private cottages, built before the onrush of the urban population from Toronto, still line certain parts of the lake. Combined swimming, boating and fishing activities, plus a dance hall, have produced a recreation area that is becoming more popular as the pressure for recreation areas increases.

The Albion Ski Club is a private recreation area. It is located on Highway #50, a few miles north of Bolton. It caters to the general public but is not yet a widely used club. Albion's rolling moraines are excellent for

skiing and it is feasible to say that this type of activity will increase in the future.

Golf Courses

Golf courses fit neatly into the pattern of an expanding Toronto sphere of influence, with recreational land use on scenic irregular riverine areas, near excellent roads which provide quick and easy access to the metropolitan area.

There are three golf courses in Albion Township within a distance of two miles of each other. All are less than twenty-five miles from the core of Toronto; all front on Highway #50 and all are found in North Albion. Together they present a beautifying and conserving use of over 700 acres of marginal farmland.

The writer talked to ten visitors at each course in an attempt to justify the presumption that the majority of visitors come from the Metropolitan Toronto area.

Table #14

Golf Course Interviews

Golf Club	Interview Time & Day	Metro. Toronto	Hamil-ton	Bramp-ton	Albion	Others
Bolton Golf & Country Club	Sat., Sept.15, 1962-Morning	8	1	-	1	-
Glen Eagle Golf Club	Thur. Sept.13, 1962, Afternoon	6	-	1	1	2
Albion Hills Golf Club	Thur. Sept.13, 1962, Afternoon	7	-	1	-	2

The interview proved the presumption correct. It also revealed that the more exclusive Bolton Golf and Country Club, with a private membership, attracts more golfers from a greater distance away. The Bolton club has the largest course and the most attractive one. It has a modern, well facilitated club house and curling rink that caters to wealthier people.

The courses cater to an extremely large population area and summer business is extremely heavy. They provide interestingly irregular courses for the professional and amateur alike. Each of the clubs is very new, having developed within the last ten years, since the great suburban expansion of Toronto and the corresponding boom in the recreation industry.

Non Profit Making

Cottages and Cabins

These land owners are the types who like to get away from the city on weekends and during vacations in fall, winter, spring and summer. In many cases, the appeal of a rugged and scenic landscape with woodlands and pastures, creeks and ponds and associated wild life have more appeal than bothersome summer rides to and from conjested Muskoka and Georgian Bay beaches.

These landowners have purchased poor farmland that has willingly been sold by farmers. As the demand increases, prices are being elevated.

Old farm houses and cabins are again occupied after varying periods of disuse. The accommodations are small, in many cases, and lack modern facilities, but these facts are relatively unimportant to the owner who is an outdoor enthusiast and who utilizes the accommodation only as sleeping and eating quarters.

Hunters, fishermen and naturalists of all sorts may be found dispersed throughout the northern countryside. Equestrian enthusiasts are eminently increasing in numbers also. Families buy a few horses, pasture them on small acreages, and travel to their weekend retreats where they find the rolling moraines of the Township, with its grasses, woods and trees, excellent land for riding. A notable Township resident, Mr. Gordon Culham, said that on some of the back roads on a fall or summer Sunday, it is oftimes possible to see more horses than automobiles.

Public and Private Camps

Albion Township is the home of Camp Bolton, for underprivileged children and St. Thomas Artaban Church Camp. Together they occupy about 500 acres on the Township's eastern boundary. A varied landscape with rolling hills, shaded woodlands, grassy open areas, play fields and running water, provide excellent fresh air conditions for young people. On Cold Creek, running through the camps, dams have been built to provide swimming facilities. This type of landscape provides an excellent setting for educating young people about camp life, nature lore and conservation.

This type of recreational land use will probably not expand in Albion Township because land prices are becoming extremely high. Both of these camps were founded when land prices in Albion were about $10,000. per hundred acres, on a landscape that was highly eroded. To buy similar land to-day, it would cost anywhere from two to three times that much. When occupants of the land find out they are dealing with wealthy people or large organizations, the price for land is inflated.

Conservation Areas

The Metropolitan Toronto and Region Conservation Authority (M.T.R.C.A.) is the dominant organization in planning and co-ordinating the development of public recreation in Albion Township to-day. As of 1962, they owned two large public conservation areas in Albion Township, both of them in the northern section. The total area of these two areas is 1,342 acres.

As was mentioned previously, the Authority, in conjunction with the Metropolitan Toronto Planning Board, has designated a certain area around Toronto as the "Outer Green Belt". This area is to provide public recreation for a population of 1,750,000. Seventy-five percent. of Albion Township falls within this area and most of this percentage is in North Albion. The Authority has plans to build another conservation area on 200 acres north of Palgrave.

Land prices have risen exhorbitantly and are

thrusting forth barriers to Authority progress; yet whenever a piece of land that is concerned in M.T.R.C.A. plans, is put on the market, it is purchased immediately. Almost all areas in North Albion figure in Authority plans. The right to expropriate has aided the M.T.R.C.A. immensely in breaking through certain barriers. Albion farmers who have poor agricultural land, are able to gain 30,000 or even 40,000 dollars for a 100 acre farm if they wait long enough and if the hopeful purchaser has a great enough need for the land. This is ten times what the land is worth for agricultural purposes. If a large organization desires the parcel of land, the vendor feels justified in steeply raising the purchase price.

A look at the Albion Hills Conservation Area on Highway #50 indicates how the Conservation Authority makes use of its land. (see map 3 and 24) Comprising an area of 810 acres, this park, opened in 1956 to public use, is the oldest of the Authority's parks. Its location, to the west of Highway #50, above lot 23, puts it mainly within the Pontypool sandy loam area. The land is steeply sloping and reveals to the public greatly eroded hills, in comparison with similar hills that have been properly covered. Sixty-five acres of land have been set aside as a pasture demonstration area, that is grazed by numerous farm animals. Ponds have been dug to illustrate their great and varied use in conservation farming activities.

Aside from the demonstration area, there are three miles of access roads leading to picnic, camping, fishing and swimming areas, nature trails, skating and skiing areas. Most of the visitors to the park are from Metropolitan Toronto. On a hot Sunday, the swimming area is filled to capacity.

As the pressure for recreation areas increases, more parks will be needed in Albion and care will have to be taken when planning new areas. At present the Township is in an enviable position. Poor soils are being taken out of cultivation to be replaced by a more preserving, recreational use of the land.

D Woodland and Reforestation

Part II of this thesis discussed how the forests of Albion were cleared away in the early 1800's and the resulting effect this clearing had on the land. It mentions also how trees were cut for lumber products, with no plans to replace them.

Table #3 shows in a nutshell how the acreage of forestland in Albion Township has varied throughout the past. In 1956 the amount of forested land in Albion Township fell to the low point in its history of 3,200 acres. From 1956 to 1962 the acreage shows a sharp increase of about 1,100 acres. (see table #15) This increase is largely due to the efforts of the M.T.R.C.A. It largely coincides with the migrating urban population to Albion Township (see table #5) and the increased accent on recreation and conservation.

The return of trees to Albion is a return only to the northern sections. A look at the woodland vegetation (map #8) indicates the relative lack of trees in the south. Where they do occur, they are located on sandy, eroded soils characteristic of the north (see sample block #2) in steep stream valley areas and on the back parts of farms (relatively few of these are to be found; i.e. sample block #1). The fact that the reforestation projects which exist in Albion are in the north, is a further justification of dividing the Township into regions.

Private

Woodlots are found in Albion to-day, growing in wet swampy areas that have never been cut and on the back part of farms. White cedar and its associates (see Appendix A) occur naturally, never having faced man's axe or his fires. Hilltops were not so lucky, (see Fig. 59b and 60g) The steeply sloping areas of Albion are the ones that should not have been cut and these sandy slopes are the ones being reforested to-day.

Farmers, cottage owners, golf course owners, and now resident city migrants are planting jack red and white pines, spruce and tamarack, on their land to-day. Although they are not able to reap direct profits from the plantings, they are stopping erosion, raising the ground water and thereby protecting springs and source areas. This indirectly increases the value of the land. Little reforestation

Table #15

Reforestation and Woodland in Albion Township

Planted by M.T.R.C.A. | Planted Privately

	Authority Lands		Private Lands		
	Acres	Number	Acres	Number	
1957	12,000	12,000	49,250	49,250	
1958	51,600	51,600	107,500	107,500	120,000 acres or 120,000 trees
1959	27,000	27,000	69,100	69,100	
1960	67,000	67,000	128,400	128,400	
1961	96,400	96,400	181,150	181,150	
1962	118,700	118,700	105,000	105,000	
Total	372,700	372,700	640,400	640,400	

Total Plantings by M.T.R.C.A.: 1,013,000 acres
1,013,100 trees

Total Private Plantings: 120,000 acres
120,000 trees

Total Plantings in Albion Township (1957 - 1962): 1,133,100 acres
1,133,100 trees

Total Acreage of Woodland in Albion Township (1962):

3,212 acres (1956 census) plus 1,133 acres (1957-1962) equals 4,345 acres

Based on M.T.R.C.A. figures.

has been carried out in South Albion because the land is very fertile and used for agricultural purposes, almost exclusively.

Public

Public forests in Albion Township are actually called "Authority Forests". These Authority Forests consist of plantations and natural woodland areas. When the Authority purchased new woodlands, many areas were in poor and run-down condition. (see Fig.56) Many had been heavily overcut and pastured, leaving only the poorer species of trees remaining. The forests were improved to the theoretical basis that each acre should produce 500 board feet of lumber or one cord, if cut.

When the M.T.R.C.A. came into existence, their aim was to establish and maintain trees on land marginal for agriculture. (land classes 5 - 8) Plantations were started at Albion Hills Conservation Area, the Glen Haffy Conservation Area and at the Dingle. (see map #3) Since 1956, 372 acres of mainly red and white pine have been planted on Authority lands and their use in conserving and beautifying areas which attract recreation and wild life are invaluable to the future of North Albion.

THE METROPOLITAN TORONTO & REGION CONSERVATION AUTHORITY'S

ALBION HILLS CONSERVATION AREA

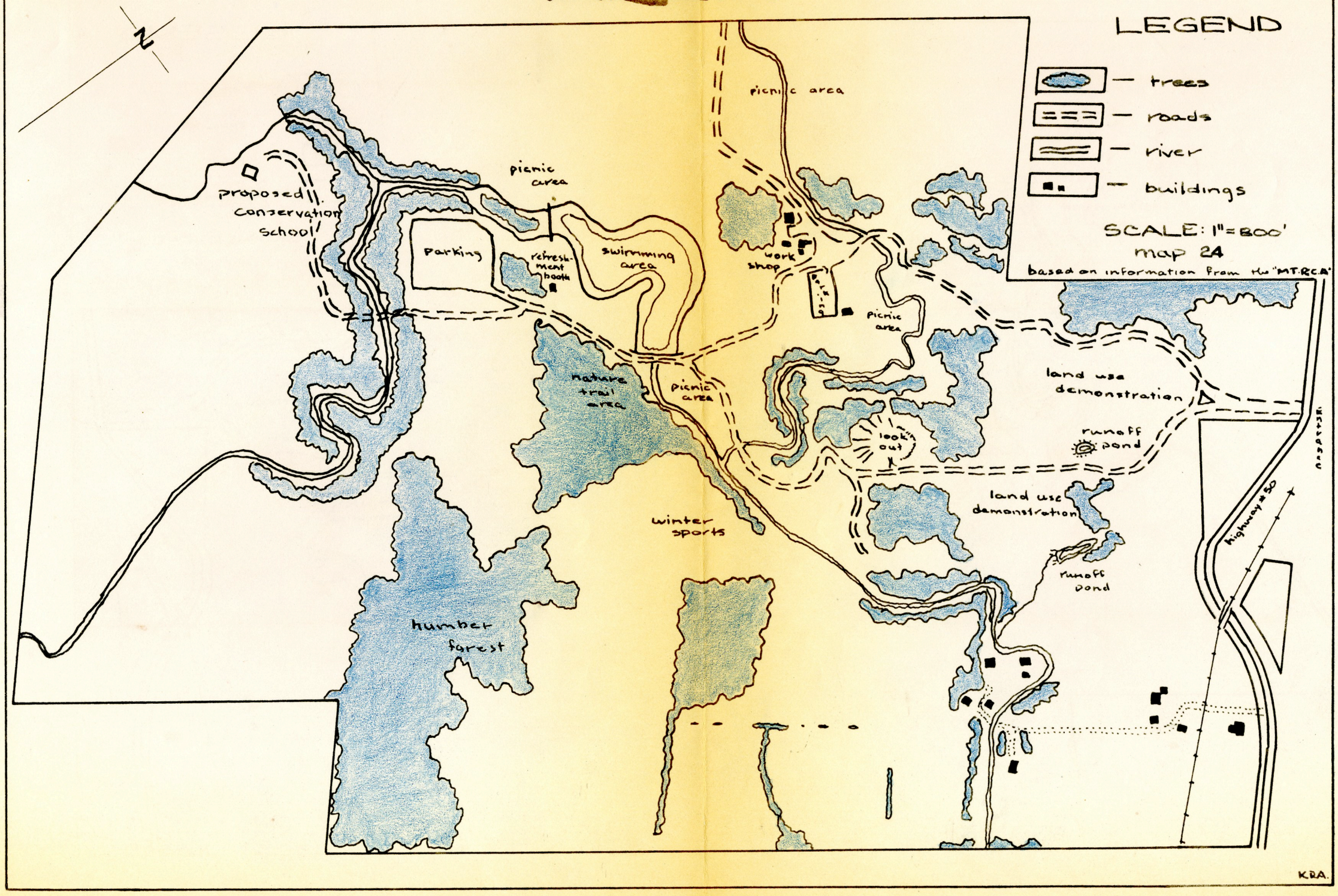


Fig. 51

North Albion - Albion Hills Ski Tow ; owned privately for public use and for a profit. Albion's rolling hills should become a more used skiing area. The main liability to skiing is that the hills are plentiful but not excessively long.

Fig. 52

North Albion - looking at the Glen Eagle Golf Course from the lawn of the Bolton Golf and Country Club. North Albion's sandy hills, woodlands and creeks and easy accessibility to Toronto are great attractions to golfers. One other club is located less than one mile farther north.

Fig. 53

North Albion. A great number of equestrian enthusiasts are coming to Albion. Sandy hills, woodlands, pastures and creeks present a natural haven to riders.

Fig. 54

Bolton Fresh Air Camp with numerous cabins and lodges, swimming facilities and fields, provides a service to underprivileged children. High land prices have prevented more such organizations from locating in Albion Township.

Fig. 55a

North Albion - The "M.T.R.C.A." Albion Hills Conservation Area. Located on the Humber River about 5 miles north of Bolton, this conservation park provides numerous recreational facilities for the public. Large swimming areas, such as below, are packed to capacity on hot summer Sunday afternoons. As the influence of the authority becomes greater, more parks such as this will be located in Albion Township's northern region.

Fig. 55b

Fig. 56

North Albion - Pastured wood lot. This type of land use occurs in the marginal farming areas of Albion Township. It is poor land use, for cattle trample and eat the smaller species of trees. Wood lots should be fenced from cattle.

Fig. 57

North Albion - One of the first plantations in Albion Township. Red and white pines are the most often used as reforestation trees on North Albion's sandy and eroded soils.

Fig. 58

M.T.R.C.A. Authority Forest located in Sample Block # 2 on a sandy kame. This area was much too sandy and droughty to be economically farmed. Red and white pines, spruce and tamarack have been planted.

Fig. 59

Directly across the road from Fig. 58 is this area of permanent pasture. It is part of the large kame deposited by a stagnant block of glacial ice. Mulleins indicate loss of top soil. This land should be reforested as above.

SOUTH ALBION

A Agricultural - Farm

Resident - Full Time Farmer

The main activity in South Albion is dairy farming. A few farms raise beef cattle; a few are general farms with a livestock emphasis. This latter type, however, occurs near the boundary between North and South Albion.

All of South Albion Township lies within the Metropolitan Toronto fluid milk-shed. The crops produced are almost exclusively forage crops and all of the land is used. Except for a few woodlots, bottom lands and marshy areas, South Albion consists of improved land. Permanent pasture is non existent.

Two sample blocks, and one sample farm will be used in the discussion of the South Albion dairying activities.

Sample Block #1 (maps 18 and 19) is located on Concession I, consisting of lots 1 - 5. The soil is; Peel clay, developed on lacustrine materials, a small amount of Malton clay, and Bottom land. The soil is everywhere fertile, the main inhibiting factor to cultivation being imperfect drainage. A look at the land use map of this block shows that hay, hay pastures, rotation pasture and small grains, occur in about equal proportions combining to make up over 85% of the land use. Two fields of corn and one of vegetables were found.

The land use relationships are determined in South Albion by the economic demand and by the physical qualities of the soil. The sample block points up these relationships very well.

The farm of Mr. H. Codlin is found on the west half of lot 5. It has 125 acres of land on which 30 Holstein cattle are kept along with a few pigs and chickens. The land use, however, is predominantly oriented to his dairy herd. Spring grown oats occupy 50 acres of land. Characteristic of the rest of the Township, oats are everywhere the most satisfactory crop for feeding value and yield. The clay and clay loam soils in South Albion produce the best yields. Fall wheat occupies 10 acres of land. In South Albion, all wheat that is planted, is of this variety. It is inferior to Prairie wheat and is therefore not used as a cash crop but is taken to mills to be used in feed concentrates. Its primary use comes with winter feeding. Except for the homestead, hay and pasture fields occupy the other half of Mr. Codlin's farm.

Alfalfa is a main component of the hay crop although it has certain limitations as a pasture crop. It grows quickly in the spring and comes up quickly after cutting. On tile drained lands, alfalfa produces higher yields with more protein. Because the farm's clay soils are rather impermeable to percolation, a greater amount of clover is added. Timothy, brome grass and meadow fescue, combine to give a high yielding hay-pasture crop

which is cut and stored for winter feeding. Hay-pastures are quite common and fit well into the farming economy. A field used first for hay and then pasture enables the cows to graze on a greater number of fields, and prevents the field from being grazed too closely. Rotation pastures have been mapped and are usually seeded for three years at a time and then put into hay or small grain production.

Holstein cattle produce a larger quantity of milk than any other dairy cows. They produce optimum amounts of milk in till plain and bevelled till plain areas of Peel County. The Ontario Agricultural College at Guelph suggests that these dairy cows, under good conditions, eat 150 pounds of grass per day and can produce over 40 pounds of milk.[1]

The fluid milk is shipped to Toronto in trucks that take the milk from bulk coolers. In order to supply a high quality product to the Toronto market, the Toronto dairies will not pick up the milk unless it is in bulk coolers. Dairies demand high efficiency in mechanization and cleanliness.

In order to compare the activities of a farm on Peel clay, with one on Chinguacousy clay loam, it is best to turn to the farm of Mr. Walton Jefferson on lots 7 and 8, Concessions III and IV (see maps 20 and 21). Mr. Jeffer-

1 Dairy Husbandry in Ontario, Bulletin 493, Ontario Department of Agriculture, December 1952, p.32.

son has 150 acres of some of the best agricultural land in Southern Ontario (see land capability map). Information based on the Soils Department of O.A.C. reveals that 145 acres are classed as either first, second or third.

Spring grains with oats predominating, occupy 47 acres of land, Fall wheat is cultivated on only 9 acres. Almost 90 acres of land is devoted to hay-pasture mixtures, of which alfalfa dominates and is the best possible hay crop. Jefferson's land is better drained internally than on the latter farm. For this reason alfalfa yields better.

There are 50 cattle on the Jefferson farm; 35 are milking cows, the others are either bulls or are too young to milk. Holstein cows have been chosen because they produce a higher quality of milk than any other cow. Every day, 1000 pounds of milk are shipped in bulk to Borden's dairy in Toronto. Jefferson, as do other South Albion producers, works on a quota basis in which he contracts to supply a certain amount of milk.

Land Block #2 (maps 24 and 25), reveals a difference from block #1. The southern half of the block is located on flat Chinguacousy clay loam soils while the northern part of the block reveals a loam to sandy loam soil on moderate to steeply sloping land. The southern part of the block is typically south Albion while the northern section is in the transition area formed at the junction of till plain and moraines. A distinctive kame

deposit and steeper lighter soils in the block point up quite a different land use pattern.

The fields in the south of the block are smaller than in the north. The larger northern fields indicate less productive land and also illustrate that larger acreages are needed to produce the same yields as in the south. The smaller southern fields definitely have a greater amount of small grain and hay acreage while the north fields are found to yield permanent pasture, something that was not found anywhere on the flat land of South Albion. The 200 acre M.T.R.C.A. "Authority Forest" definitely points out an excellent land use relationship with the physical qualities of the soil. Before this plantation had been started, the kame showed a large quantity of exhausted and eroded land. With reforestation, erosion has stopped. The soil map of the Township shows that the kame deposit reaches into the block to the west. Figures 58 and 59 point out the extreme differences in land use. Eroded soils in permanent pasture of scrubby thin grasses and mulleins is found immediately west of the reforestation area, and should also be reforested.

The reforestation plot accounts for a decline in the amount of improved land, illustrated on the pie graph. It would have been more revealing to have drawn two pie graphs, one representing the northern three lots and one representing the southern two. This would definitely have shown a difference between South Albion land use conditions

and land use conditions characteristic of the northern parts of the Township.

Activity patterns in the different parts of the block also point out the change, but not nearly so much. On the east half of lot 11, Mr. Leonard Verner has 100 acres, 25 of which are in oats while the rest is in hay and pasture. The only animals he owns are dairy cattle. He has 17 Holstein cows which produce 550 pounds of fluid milk each day. Every three days a truck from Greenvale Dairy in Toronto picks up this bulk cooled milk to be distributed in the Metropolitan Toronto area.

In the northern part of the block there is a mixture of beef, dairy cows and other livestock. Dairying still predominates but this is because the farms are close to delivery routes of Toronto dairy trucks. On one mixed farm the milk is shipped to the Caledon East creamery and a greater number of pigs and chickens are kept than on the Verner dairy farm.

From the study of the farming activities in South Albion a number of important things can be seen. Where flat land corresponds with clay or clay loam soils, dairy farms are by far the most important. One or two beef emphasis farms and a few poultry farms may be found, but these are definitely subsidiary to the important fluid milk industry. On steep slopes the dairy emphasis lessens, except on the King clay loam soils, which are among the

best in Albion Township. An illustration of this can be seen on Highway #50 in lots 13 and 14 where a number of fluid milk shippers are located. Thus a boundary for fluid milk shippers in Albion Township can be drawn that nearly coincides with the till plain-moraine boundary.

Another important fact gained from this study is that the farm sizes are not, as first presumed, all 100 acres. A large number of southern dairy farms are 125 or 150 acres in size. The 100 acre farm is the most common and is quite satisfactory in this region, but where possible, farmers are increasing the size of their holdings, enabling them to obtain larger dairy herds for a more prosperous economy.

Holstein cows, because they give larger quantities of milk than other dairy cows, are the dominant livestock unit. However, a number of good Guernsey herds take second place, followed by Jerseys, Herefords, Ayrshires and Aberdeen Angus. On the whole, however, Angus and Hereford cattle are most often found in transition areas corresponding to a general farming type of economy.

The land in South Albion represents some of the best land in Southern Ontario. High yielding grain and hay crops, combined with lush pastures, provide excellent feed for very high producing dairy herds. Large homesteads, well kept barns and buildings are typical of this part of the countryside. Farms are highly mechanized and clean in appearance.

There is a strong orientation to Toronto. Because the Toronto market needs the fluid milk shipments, the South Albion farmers are always looking for ways and means to better their farm and increase their produce. They do this by following scientific methods, using sensible rotations, taking better care of the livestock and using better and more efficient machinery. They also expand their farms wherever possible. The question naturally arises, however, as to how they follow expansion when the land in South Albion is almost completely settled. The answer comes with the urban influence of Toronto - that is - land in speculation.

Non Resident - Non Farm Speculator

About 2000 acres in South Albion are now classed as speculators' land. In most cases, people from Toronto who can afford to buy land that they don't use, travel to places on the outskirts of a suburban sprawl. They hope to be able to sell this land in a few years for residential, industrial or commercial purposes. They also hope to make a large profit from their investment. Much of this land has already been sold to urban emigrants who want to live on a quiet countryside. This, however, is leading to strip development that devalues the land. The Albion Township Council has presented a by-law which states that no home, less than 1600 square feet in floor area, may be built anywhere in Albion. This by-law is thwarting the speculators who, at one time, hoped to sell land to subdivision contractors. Now, instead, they may only sell

10 acre lots at the least, and the people who buy them must have slightly more money than average to be able to construct the larger houses needed on the larger lots.

Much of this land for speculation is rented out to neighbouring farmers who are able to use the land for their own needs instead of allowing the land to remain idle. Idle land promotes weed growth which chokes planted fields with wind blown weed spores. In some cases this land has even been re-sold nearby to farmers. This accounts for the increase in farm size. With the new Albion by-law there is a greater and greater tendency to subvert residential development and thus place the land back into the hands of the farmer.

B Residential - Non Farm

Resident - Urban Worker

As in North Albion, urban emigrants are taking up agricultural land and using it to build new homes. The differences between the north and south are two-fold. Firstly, the land in the south is excellent agricultural land, while that in the north is poor. Secondly, where northern homes definitely beautify the area, the southern ones tend to form in strips and aesthetically devalue the land.

People from Toronto who are tired of city and suburban life, are looking to the countryside for new home sites. They usually buy anywhere from one to ten acre

lots and build a home, leaving the rest of their acreage as idle land. These people have less money than their northern counterparts; consequently, they do not landscape their properties as beautifully as in the north.

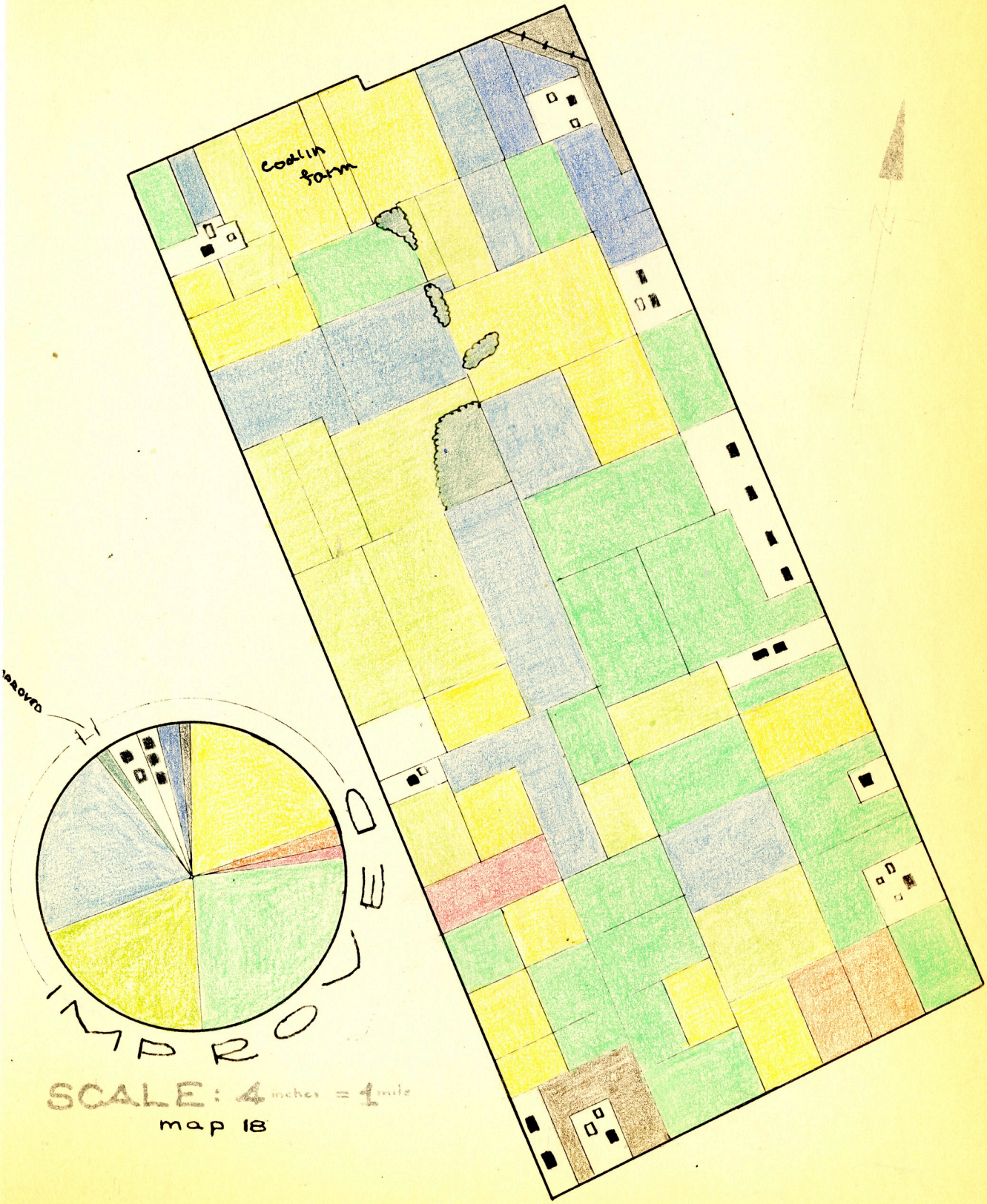
In some cases large modern homes are built and they do add beauty to the countryside.(see Fig. 65a) But in many cases the homes are small and tend to form strips of developments. Most new residences are located on paved roads that give the inhabitants easy access to domestic markets. The people in the larger homes tend to use shopping outlets in the Toronto area while the inhabitants of smaller, lower class homes use Bolton predominantly.

The aforementioned by-law will limit strip development in Albion. The by-law will encourage either large, well built homes that bring a higher capital value to the land, or will deter people from building homes on prime agricultural soils. Transportation has improved to the point that it is only a few minutes' ride from the south to the north in Albion Township. It would be much better if residential development were kept out of South Albion altogether.

ALBION TOWNSHIP — LAND USE

SAMPLE LAND BLOCK # 1

CONCESSION VI between LOTS 1 & 5



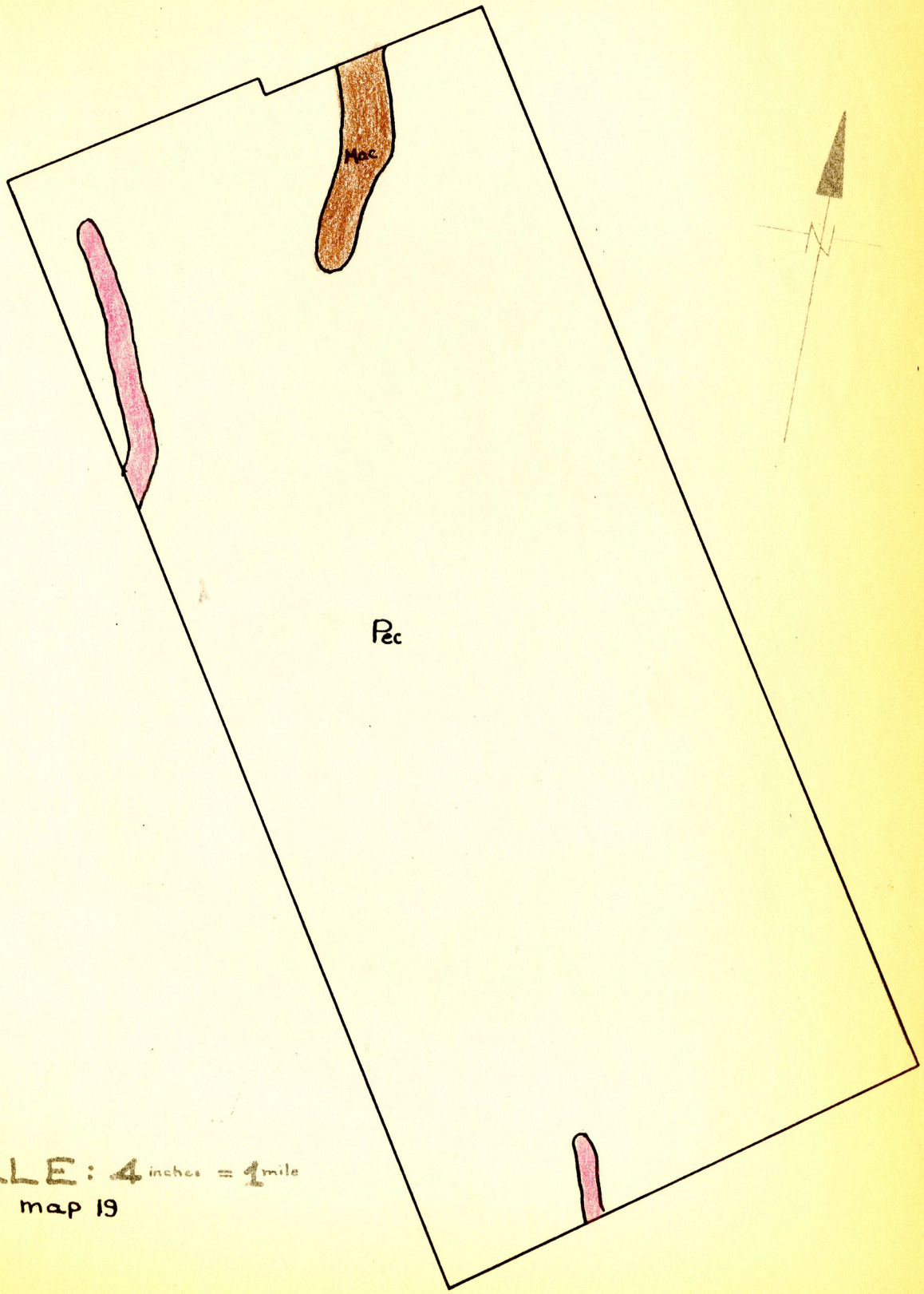
SCALE: 4 inches = 1 mile

map 18

ALBION TOWNSHIP — SOILS

SAMPLE LAND BLOCK # 1

CONCESSION XI between LOTS 1 & 5



SCALE: 4 inches = 1 mile

map 19

KRA

ALBION TOWNSHIP

SAMPLE FARM CONC. 3 & 4 LOT 7 TO 8 #1

LAND USE

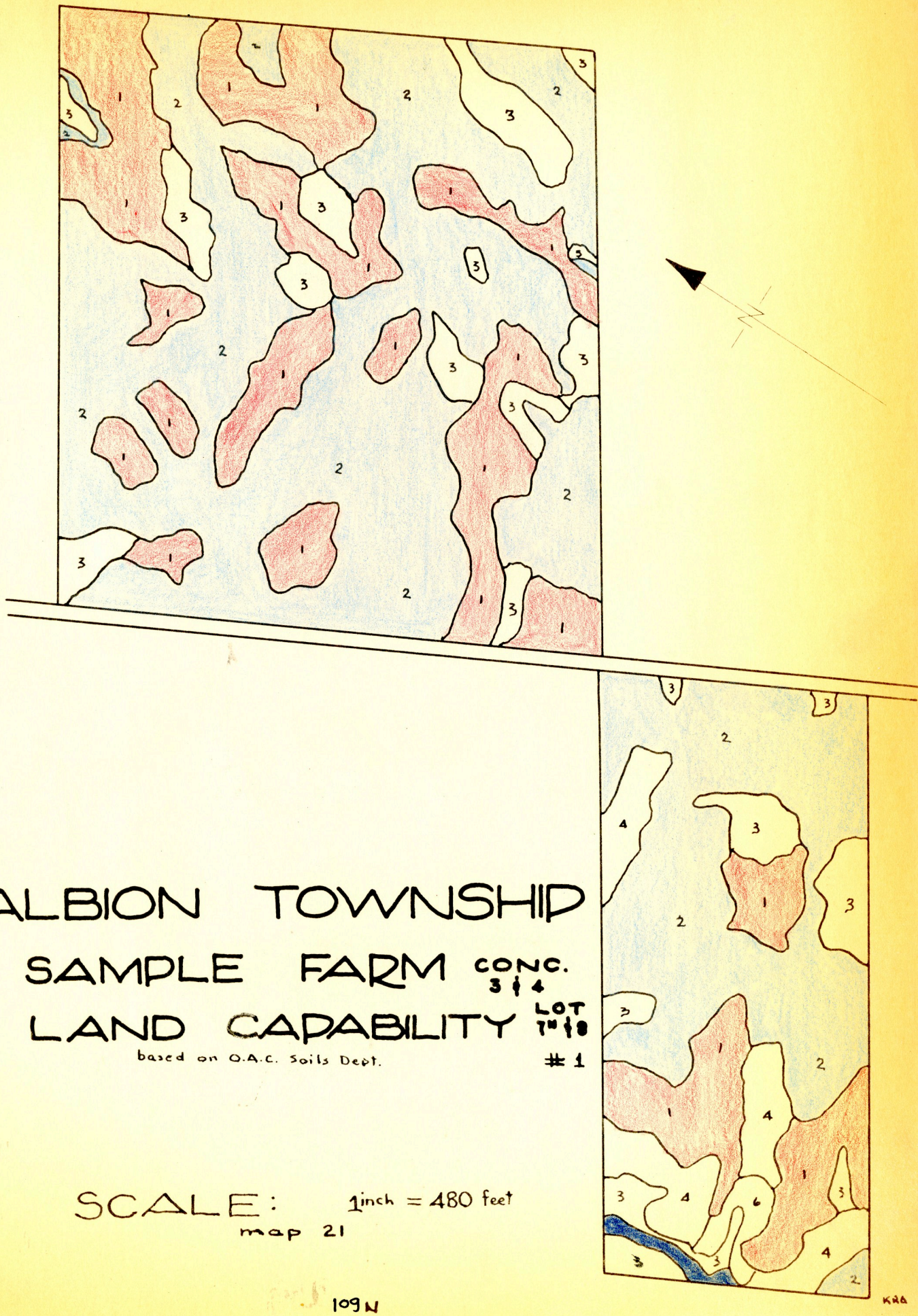
based on O.A.C. Soils Dept.

SCALE: 1 inch = 480 feet

map 20

109 M

KBA



ALBION TOWNSHIP

SAMPLE FARM CONC. 3 & 4 LOT 17 & 18

LAND CAPABILITY #1

based on O.A.C. Soils Dept.

SCALE: 1 inch = 480 feet

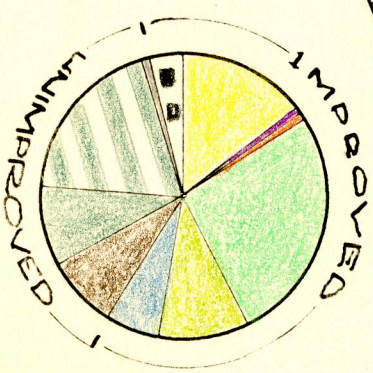
map 21

KRA

ALBION TOWNSHIP — LAND USE

SAMPLE LAND BLOCK # 2

CONCESSION III between LOTS 11 & 15



SCALE: 4 inches = 1 mile

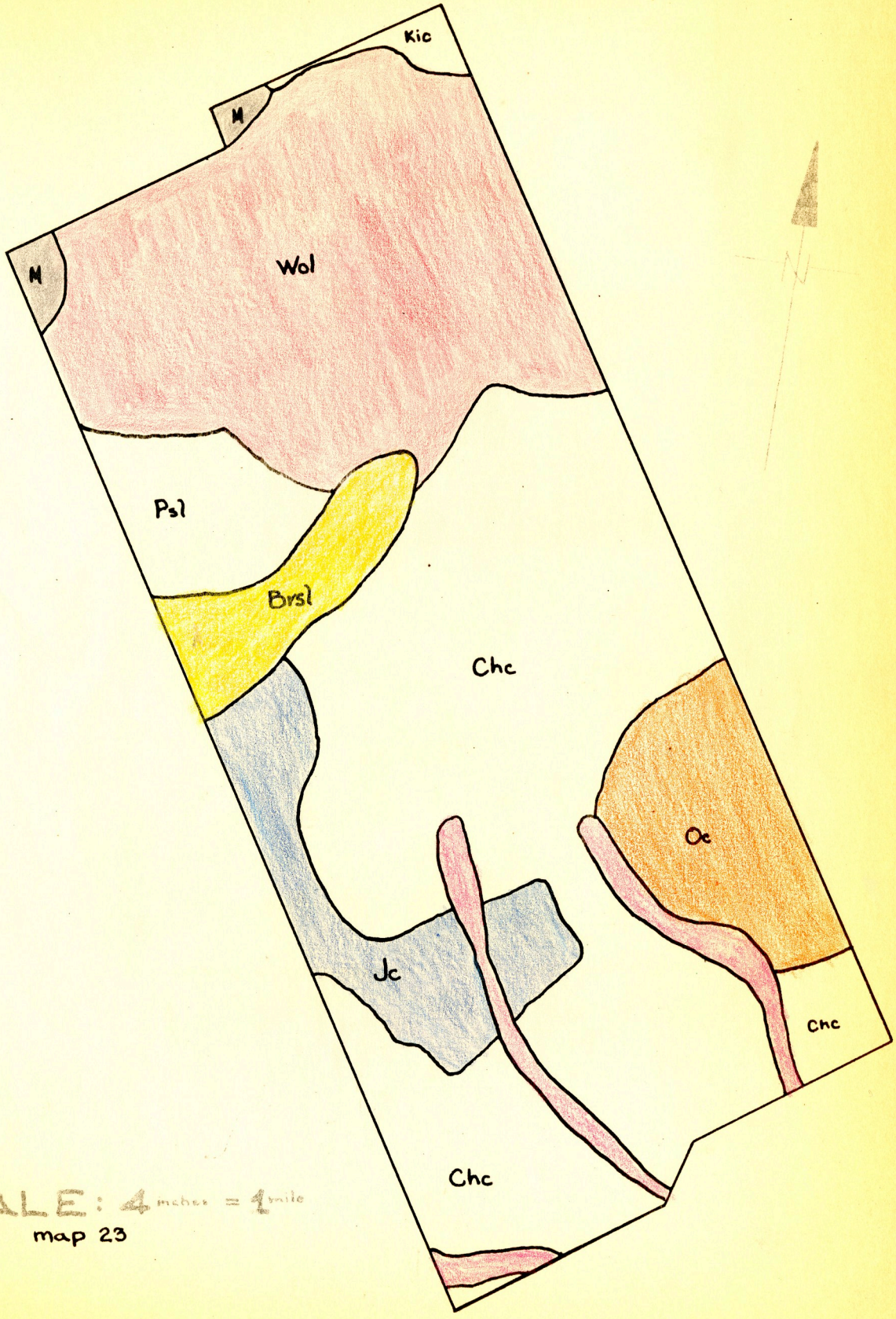
map 22

KRA

ALBION TOWNSHIP — SOILS

SAMPLE LAND BLOCK # 2

CONCESSION III between LOTS 11 + 15



SCALE: 4 inches = 1 mile

map 23

Fig 60a

Land Class I. This is flat King clay loam which has been planted in oats and cut recently. The land is well suited to a wide range of crops with few restrictions. It is well drained, nearly level with little or no erosion, (typically South Albion dairy land).

Fig. 60b

Land Class 2. This is very gently rolling Chinguacousy clay loam. Imperfect drainage in slight depressions (background) drops this land to Class 2. However, with improved drainage, this land, like Class I, would be suitable to the cultivation of varied crops with few limitations (almost exclusively found in South Albion).

Fig. 60c

Land Class 3. This is moderately rolling King clay loam, which is subject to a certain amount of erosion. More careful management is needed here than in Classes 1 or 2. If care is taken, crop production is very good (the best soil found in North Albion).

Fig. 60d

Land Class 4. This is rolling King clay loam. Its steepness makes it very accessible to erosion (the land near the barn is Class 4 land). It is suitable for hay and pasture in rotation with fall wheat planted occasionally as above. It should not be cultivated frequently (often the best soils on North Albion farms).

Fig. 60e

Land Class 5. This is extremely wet land, muck soils that cannot be economically drained. The land is most suited for forestry as seen above (typically North Albion land).

Fig.60f

Land Class 6. This land should be kept under permanent vegetation because of steep slopes that are extremely accessible to erosion. The land should be used for no more than moderate grazing (typically North Albion land).

Fig. 60g

Land Class 7. Ponty pool sandy loam. This steeply sloping, severely eroded, barren, sandy soil is completely unsuitable for agriculture of any kind. It is typical of North Albion land that should never have been deforested. It should be reforested as below.

Fig. 60h

Land Class 7. Ponty pool sandy loam. This steeply sloping sandy land was severely eroded. It has been planted in red and white pines; consequently, erosion has been arrested. This occurrence is becoming more prevalent in North Albion to-day.

Fig. 61a

South Albion. The Cedar Lawn Farm is located in the till plain area on Highway #50 at Lot 13. It consists of 100 acres and is a dairy farm. Note the excellent condition of the barn, typical of South Albion's dairying areas. A herd of about 25 Holstein cattle are raised on this farm. A good Holstein cow (as below) produces the largest quantity of milk of any other Ontario dairy cow.

Fig.61b

Fig. 62

South Albion. A field of ensilage corn on the bevelled till plain. Corn is not a prevalent crop in Albion. The stalks (compare with fence) are over 8 feet high.

Fig. 63

South Albion. Guernsey dairy cows pasturing on a rotation pasture on the bevelled till plain. Note the extreme flatness of the land.

Fig. 64.

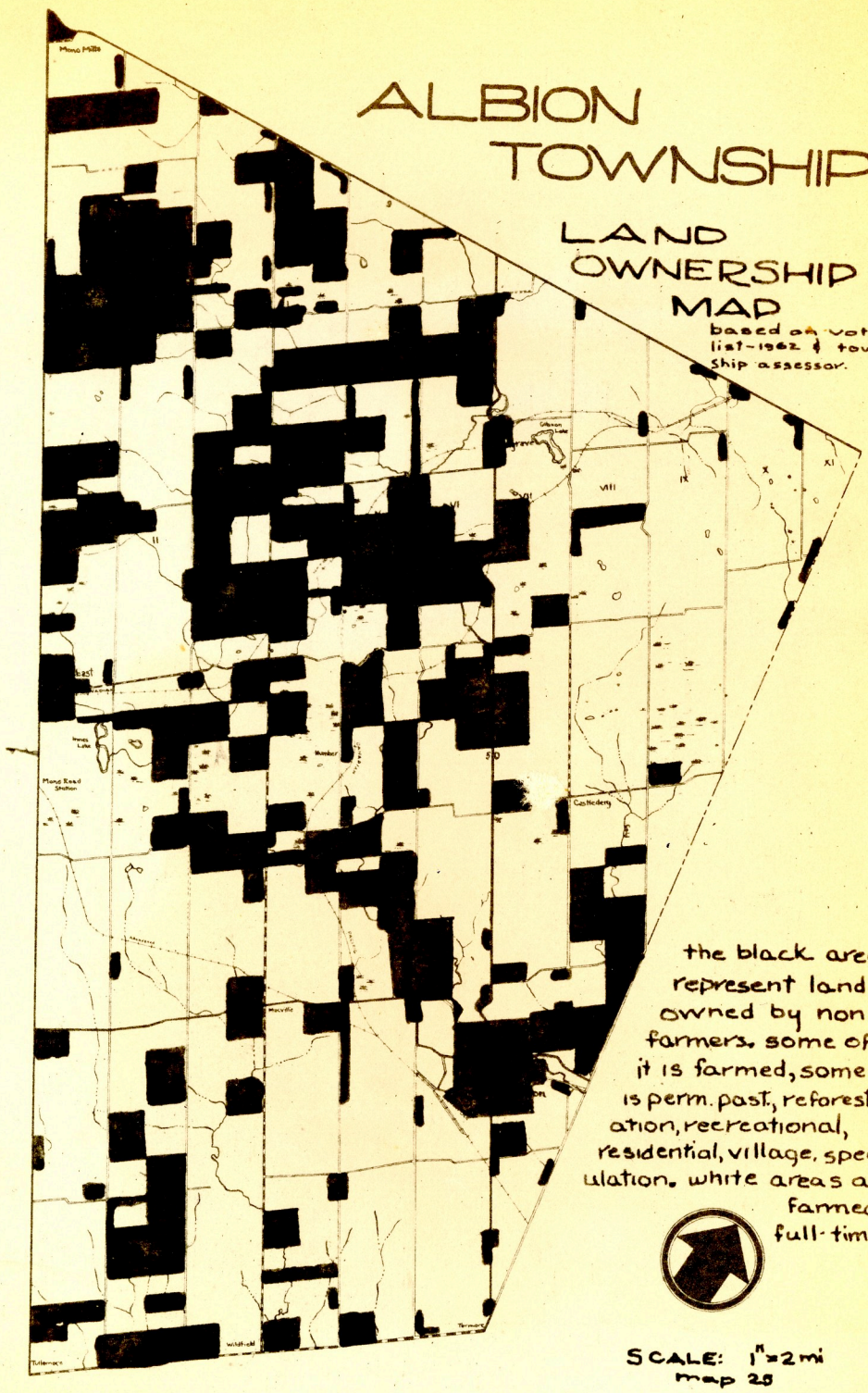
South Albion. Dairy cattle pasturing on the Humber river flats area. This photo indicates good land use (i.e. pasture on floodable bottom lands). However, cattle stir up the river when they are drinking. This is a deterrent to the existence of fish.

Fig. 65a

South Albion. Large modern home of resident-urban worker. As the home in Fig. 10, this is one of many that is taking advantage of cheap (with respect to areas closer to Toronto) available farm land on excellent paved roads. This home is one of a number on Sideroad #10 which leads into Bolton and connects to Highway #50.

Fig. 65b

South Albion. The curse of Albion Township is strip development, such as in the photo. These are new, rather cheap Class II homes. They occupy rich farmland. An Albion Township by-law may, in the future, limit the growth of such developments.


ALBION
TOWNSHIP
LAND
OWNERSHIP
MAP
based on voter's list-1962 & township assessor.
the black areas represent land owned by non farmers. some of it is farmed, some is perm. past., reforestation, recreational, residential, village, speculation. white areas are farmed full-time.
SCALE: 1"=2 mi
map 28
KRA

(iii) URBAN GEOGRAPHY

The Urban Geography of Albion Township will be presented in two parts - Villages, and Industry and Commerce.

A Villages

BOLTON

Bolton developed in the early 1820's as a mill village and the village of 1962 continues to entwine itself among the meanders of the Humber River. However, to-day, there is an old and a new Bolton. The "old village", as in the past, is nestled in the steep valley of the Humber while the "new village" is spreading outward toward the village boundaries, especially to the south where it is extending up the steep slopes of the valley and sprawling on the flat till plain above the "old village".

In the past, the village was a service centre to the agricultural population. To-day it still performs that same function. However, the newer developments in Bolton are not predominantly oriented to an agricultural population, but to a displaced Toronto population.

The number of Bolton residents has doubled to 2,150 since 1956. This new growth has largely been southward, not near the centre of the village. The newcomers are city people and they are starting to form a suburban ring around the village periphery similar to, but on a much smaller scale, than the suburban sprawl around Metropolitan Toronto.

The people who are moving into Bolton remain connected in many ways to Toronto. Most of the new occupants still work there and some still shop there. The movement from the city has been facilitated by the improvement of highways, and the residents live within 25 miles, or less than one hour's drive from the heart of Toronto.

The commercial establishments of Bolton adhere to the "new village - old village" scheme. The commercial core is at the bottom of the valley on the flood plain, south of the river and north of King Street. (see map #26) This commercial core caters mainly to the old residents of Albion Township, especially the farmers. It is still the rural service centre for Albion Township. It too, however, has come under the Metropolitan influence for a Liquor Control Board and Canadian Tire Corporation Store have set up business in the village core.

The appearance of this district is old and very plain. There is a variety of stores. Some have been renovated in order to compete with newer establishments. Others still have the same appearance they had thirty years ago.

There is a notable lack of a large grocery store in the old commercial core and this fact has caused a large amount of business to turn to the new I.G.A. store above the valley in the south of town. The I.G.A. store is part of a small shopping plaza that forms the secondary commer-

cial nucleation in Bolton. This plaza was built after 1956 in conjunction with the subdivision behind it. It is small but modern and contains a drug store, bowling alley, barber shop and brewer's retail store. The plaza is most crowded with shoppers on a Friday night and Saturday. (see Fig. 66) The trade area of this plaza stretches 8 or 10 miles to the north and west, but only about 6 miles to the south and west. Towards the south it intersects with the large trade area of the town of Brampton. With only a few establishments, this commercial outlet does not have the business that it might if a larger number of stores had been built. There is a definite tendency for Albion and Bolton residents to choose new, larger and more modern stores, but the small number in this plaza causes the village core to remain preeminent.

Of particular note are the two hardware stores and the two bakery shops. The bakeries cater to the resident population but also to summer recreation enthusiasts. There is a rousing competition between the bakeries to obtain the business of Bolton's temporary visitors. The hardware stores in Bolton are extremely well stocked with furniture and their trade area is larger than most establishments in Bolton, especially to the north where it extends up to 15 miles. Many comments were made by people interviewed as to the excellence of furniture, appliances and the service provided by Bolton Hardware establishments.

The old Bolton mill still does a good business

to-day, providing feed concentrates, grinding services, coal, wood and fertilizer, to surrounding farmers. The electrified mill is used only for grinding grain, especially oats, barley and mixtures of the two. The non-agricultural products are brought to the mill from outside Albion. No sawing of timber is done to-day.

On the basis of interviewing owners of commercial establishments, the newspaper editor, the banker and the buyers in the surrounding district, a number of trade areas were calculated. Combining these together, it was found that the Bolton hinterland is choked in the south and south-west by Woodbridge and Brampton, in the west by Caledon East and in the north-west by Orangeville. However, many Caledon East residents, as well as those who go to Caledon East for certain services, especially the creamery and the mill, also travel to Bolton for domestic commodities. Six miles to the south, Bolton's trade area coincides with the hinterlands of Woodbridge and Brampton. To the east and north, the trade area expands greatly in comparison to the west and south. To the west, Bolton's influence regularly reaches near Highway #400, a distance of nearly ten miles. Food supplies, dry cleaning, mill products, hardware, and the newspaper are the most influencing items. To the north, the hinterland includes Tottenham but in this area it begins to come into direct competition with Alliston, and to a greater extent, Orangeville. (see map #27)

Industrially, Bolton has had very little develop-

ment in recent years. In the past its history was interwoven with tanneries, agricultural machinery works, carriage and wagon factories, shoe factories and brick making.

In 1962, only two industrial establishments are to be found in Bolton. The Bolton Aluminum and Iron Foundry produces aluminum and iron products for furnace heating equipment. In the past, grey iron castings and sewer and catch basin grates were made but these products are no longer manufactured. It is an old standing establishment employing 15 local men.

Reeves Mushroom Factory has been completely remodelled. It is a canning factory for mushroom and chicken products. The raw materials are sent out from Toronto, processed and canned by 20 local employees and sent back to Toronto where they are distributed. The Factory is owned by the Ontario Mushroom Company and it is likely that this factory, which ships exclusively by truck, would have closed down had great urban expansion and improved transportation services not come to Bolton.

An industrial park has been located on the southern outskirts of the village. A railroad, paved highways, sewers, running water and an expanding population are the attractions to light industry.

The residential character of Bolton falls in line with new expansion in an old village. The older, fourth class homes, are located in the streets adjacent to the

commercial core and near the foundry. They are small, in need of repair and are usually constructed of wood, tar paper or insul brick. They are also found interspersed with third class homes on the outskirts of the "old village". The third class homes are those homes that were built in the early 1900's. They are rather small, plain, and in need of some repair. Second class homes fall into two groups. The "old village" homes are very large, have two stories and were built at the same time as the third class homes by Bolton's most prosperous residents. Most of them are found on large lots lining King Street which runs east-west through the village. The other second class homes are the "new village" homes, found in the southern part of Bolton on the till plain. These subdivision bungalows are modern but inexpensive with respect to the spacious first class homes.

The first class residences are all found on the outskirts of the village. Most overlook the village below from their position on the edge of the Humber valley. Others are found in the valley, on the eastern peripheries. Between these houses and the poor fourth class homes there is a buffer zone of about one-quarter mile, consisting of idle land. The valley floor to the west of Bolton is occupied by the community park.

Twenty years ago land in Bolton could be obtained for $100. or $150. per acre, while in 1962, the same amount of land costs ten times that much. Urban expansion has

come to Bolton in the last six years, causing development around the village outskirts. Most of the growth has been in the southern sectors of the village, due to the fact that it is an expansion towards the City of Toronto, because the land in the south above the valley is flatter than in the north and therefore more conducive to urban expansion, and, because the Humber River, with all of the flood plain land to the south, would break the village into two parts if it expanded northward.

In summary, Bolton is still mainly a service centre to the surrounding agricultural area. The commercial core, the mill and the small plaza, are used by all of the old residents within Bolton's trade area. However, seldom is the core itself used by the urban emigrants. Unlike the agricultural population, they are more closely tied to Metropolitan Toronto. The bakeries, Brewer's Retail Store, Liquor Control Board and antique shop do a larger business in the summer than do other stores, when Bolton has a 25% increase in business. The industrial development is as yet very small but a southern industrial park, with excellent services, is facilitated to draw light industry in the near future. The residential pattern is very simple. The older homes are centrally located within the valley and the newer homes are found near the village boundaries. A community park, six churches and a public school, represent the recreational and institutional establishments for the village inhabitants. Improved communications are keeping

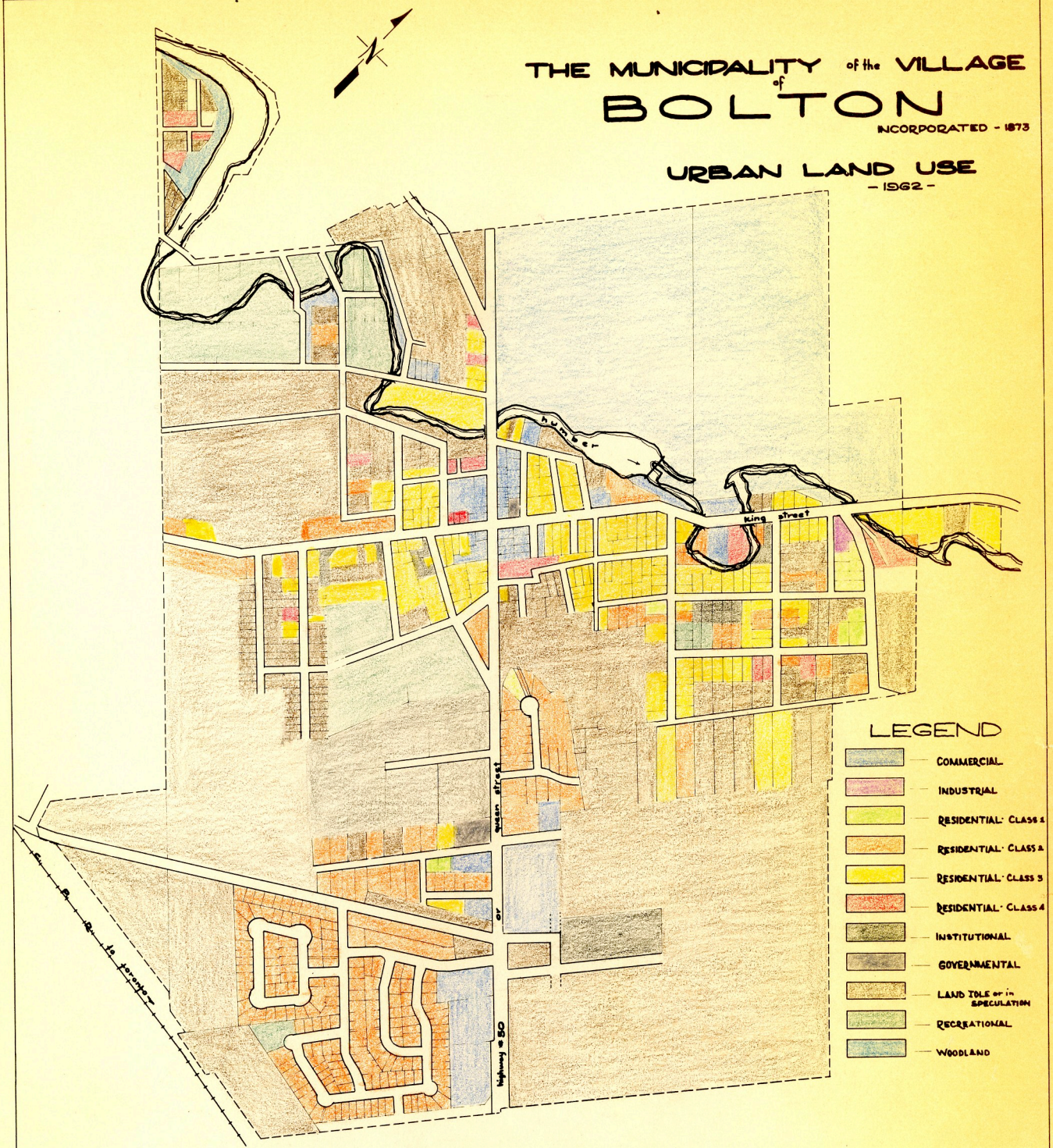
young people in the village, for now, instead of moving to Toronto to find jobs, young people are finding jobs in Bolton. Better roads also enable young people to commute to Toronto instead of drawing them permanently out of the village.

THE MUNICIPALITY of the VILLAGE of BOLTON

INCORPORATED - 1873

URBAN LAND USE

- 1962 -



SCALE: 1 inch = 1000 feet

MAP 26

117R

BOLTON - TRADE AREAS

Bolton serves an agricultural population. New Albion residents (ie from the city of Toronto), usually shop in larger centres such as Toronto, Orangeville, & Brampton.
The inner (heavy) perimeter is the area that Bolton serves in every way
The outer perimeter is the maximum trade area. This is based on the influence of the most used commercial establishments. (IGA store, Bolton newspaper, brewer's retail store, liquor control board, hardwares, Canadian Tire Corporation and the mill.

based on interviews

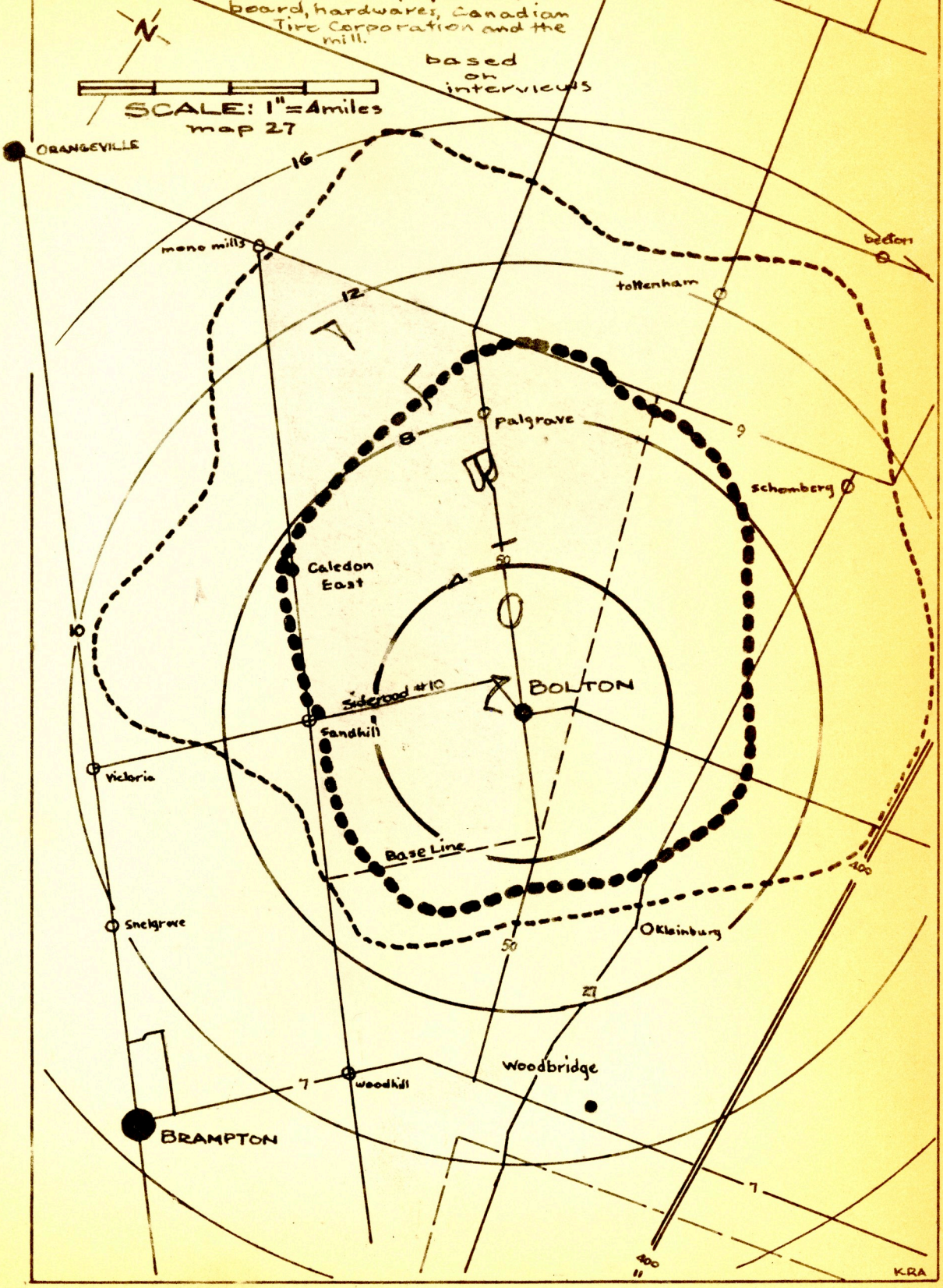
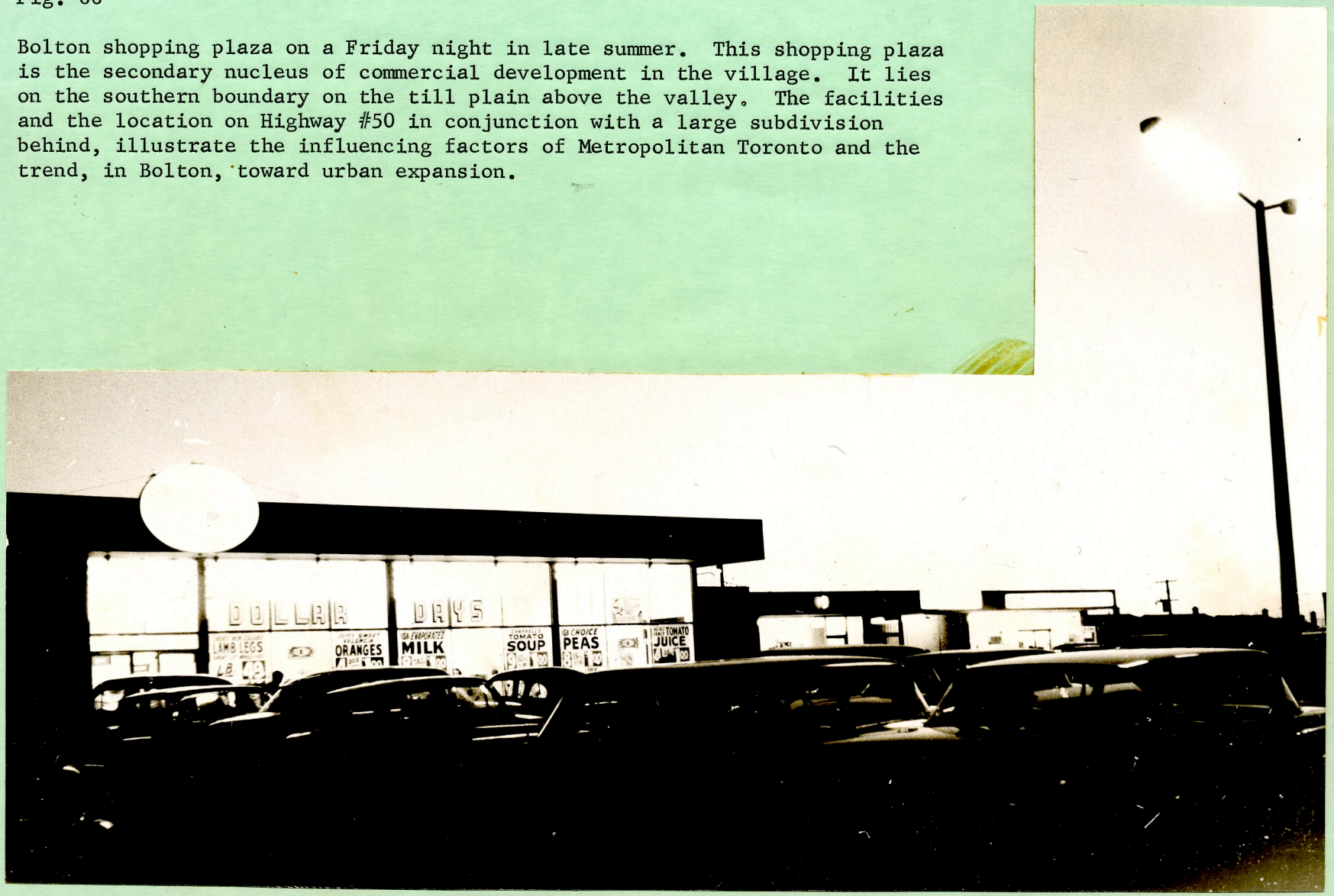


Fig. 66

Bolton shopping plaza on a Friday night in late summer. This shopping plaza is the secondary nucleus of commercial development in the village. It lies on the southern boundary on the till plain above the valley. The facilities and the location on Highway #50 in conjunction with a large subdivision behind, illustrate the influencing factors of Metropolitan Toronto and the trend, in Bolton, toward urban expansion.



IV (iii) a

Fig. 67a

Bolton's "C.B.D." on a late summer Friday afternoon. The central business district in Bolton serves many Bolton residents and the surrounding farming district. Many stores are old and rather plain; others have uplifted faces, and still others are new, suggesting the beginnings of change from a rural service centre. The Toronto influence is becoming more important as time goes on. The highway improvement in the lower picture has hindered access to the main street, but on completion, the commercial area will again have the activity as seen above.

Fig. 67b

Bolton's "C.B.D." on a Fall Thursday afternoon.

Fig. 68

The retail outlet of the Bolton mill. The mill grinds very little grain to-day. Most of the business comes from the sale of motor oils, charcoal, fertilizer and other farm supplies.

Fig. 69

Bolton Bargain Centre. The antique store sells almost anything that is old. It caters to the surrounding district and to curious visitors. As can be ascertained from the photo, this is not a store selling unique high quality merchandise.

Fig. 70

Humberside Cleaners and Dyers. This establishment is located behind the "C.B.D." The size of the building indicates its extremely large business. Its hinterland reaches out farther than most other commercial outlets in Bolton.

Fig. 71a

Bolton Foundries Company specializes in producing aluminum and steel furnace equipment. Until recently it was owned and operated by Howard Foundry in Toronto. It employs 15 men, most from the local district.

Fig. 71b

Reeves Mushroom Factory is a modern attractive factory that packages imported mushroom and chicken products. The raw materials do not come from Albion Township. They are shipped from Toronto, processed, and then shipped back again by truck. An expanding population and the improvement of roads caused this once shabby looking building to be modernized recently.

Fig. 71a

Bolton station on the C.P.R. Light industry in Bolton is as yet unprevalent. However, a main rail line from Toronto to Sudbury that passes on the southern edge of Bolton, large serviced acreages of flat idle land on the outskirts of the village and a main highway (#50) adjacent to the land in Fig. 71b., make Bolton a natural place for development along this line. As the Toronto influence heightens and Toronto land prices rise, Bolton should become a popular place for the location of light industry.

Fig. 71b

Bolton's flat unused land.

Fig. 74

Bolton - Class 4 home. This old, small insulbrick home is located behind the "C.B.D" and adjacent to the foundry. The condition of the roof indicates that this building is in great need of repair.

Fig. 75

Bolton -- Class 3 home. This home is about 50 years old. It is located in the valley but away from the business district. The building is rather plain and is in need of a few repairs.

Fig. 76a

Bolton - Class 2 home. This building is an extremely large gothic styled home about 70 years old. It was built on a large lot on King Street, east of the "C.B.D.", by a wealthy Bolton resident at that time.

Fig. 76b

Bolton - Class 2 homes. These homes are a part of Bolton's first subdivision. They are located on the till plain above the valley. The bungalows have 5 or 6 rooms and are all similar in appearance. These homes indicate the influence of Toronto and the growth of Bolton in the last 6 years.

Fig 77a

Bolton - Class 1 home on the crest of the Humber valley.

Bolton's Class 1 homes are extremely large and modern and are typical "ranch style" bungalows. They occupy land with a view, and are located on the outskirts of the village away from the older sections. These homes are very new and are a product of the recent village growth.

Fig. 77b

Bolton - Class 1 home near the river, on the eastern edge of the village.

CALEDON EAST

Caledon East (6th line) was first important because it developed on Mono Road where Centreville Creek crosses the western boundary. To-day it is still important because it lies on that road up the western boundary of the Township. It has a population of about 700.

Caledon East's continued existence has been due mainly to the mill and the creamery and to the fact that it lies between two townships on Mono Road. The mill deals exclusively in grain products. The miller grinds local grain but also travels to Collingwood to pick up western grain which makes a better concentrate feed product than does Ontario grain. The creamery is very important to the business of Caledon East. It obtains supplies from all of North Albion Township and from Caledon. Besides processing butter, eggs are graded and distributed to food stores in Bolton and Caledon East. The creamery's trade area is cut off very little by Orangeville and Bolton.

The sixth Line, which joins Highway #27 in the south and Highway #9 in the north is now paved. It has increased in importance since it has been paved and is an important route between Orangeville and Western Toronto.

Motorists use the Sixth Line more than before because it is paved and because there is an extraordinary number of trucks using Highway #10 to the west. Trucks, however, are also beginning to use this road because the hills are not so hard to climb as on Highway #10.

The increased traffic on better roads has brought permanent residents to Caledon East. Taking advantage of cheap lots on "Proctor Hill" which overlooks the valley from the south, new homes are being built. The owners are former city residents who desire to leave Toronto and yet still be within easy driving distance of the city. Caledon East with its new services of road improvements, running tap water and a quiet, pleasant countryside, make it a desirable place to live.

Benefitting from increased traffic, a drug store, small bakery and a number of grocery stores, cater to village residents, farmers, recreation visitors to the Glen Haffy Conservation Area and, to a limited extent, the Toronto emigrants. Caledon East is, however, still an agricultural service centre and its plain, paltry, unplanned appearance is typical of a newly incorporated rural service village with growing pains.

The railroad that first passed through in 1878 is of little significance to-day. The old station stands by the track in a tumble of ruin. It is Mono Road which first made Caledon East grow and it is Mono Road which is the main cause of the expansion to-day.

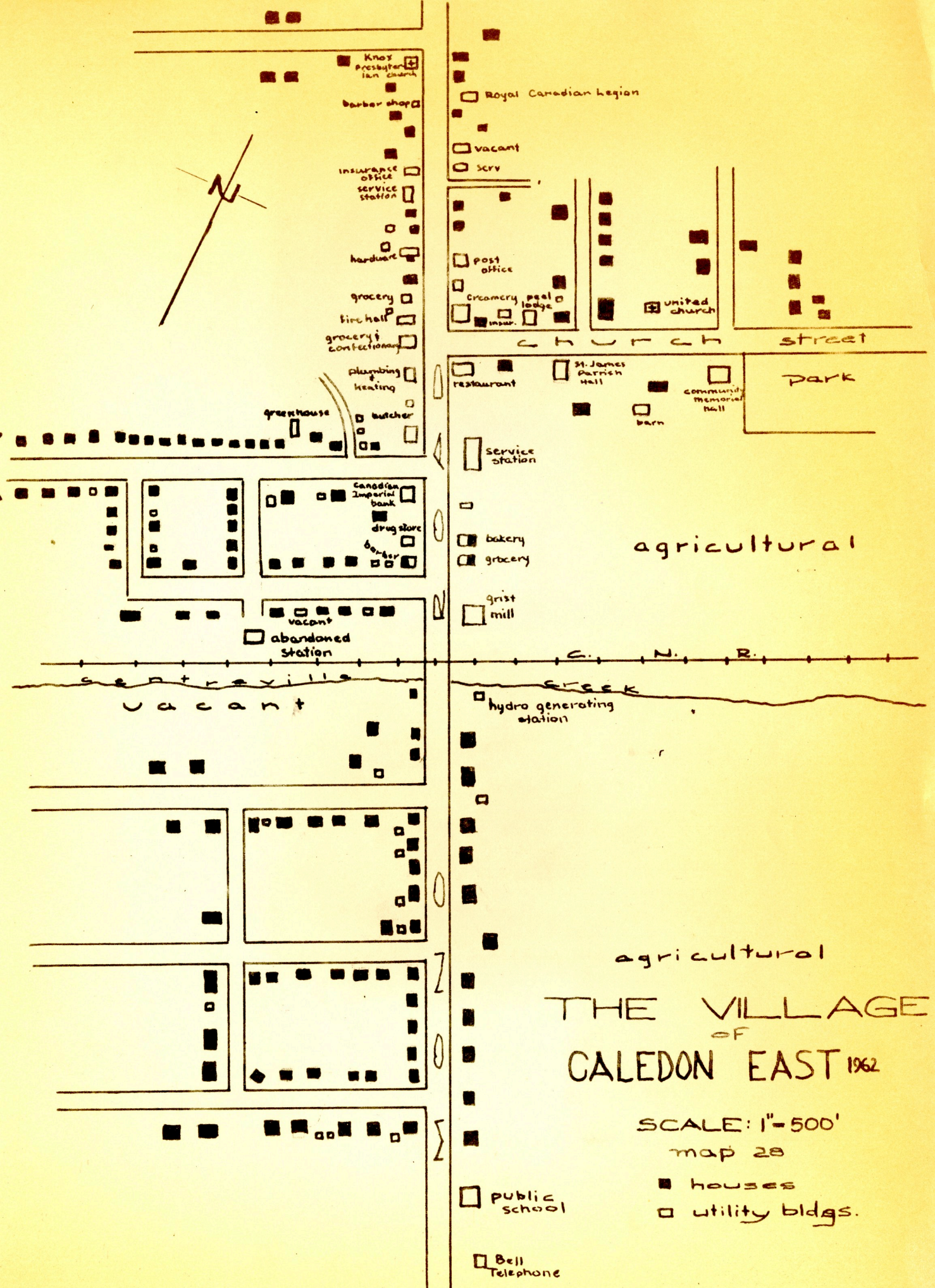

Knox presbyterian church
barber shop
insurance office
service station
hardware
grocery
fire hall
grocery & confectionary
plumbing & heating
greenhouse
butcher
Royal Canadian Legion
vacant
Scrv
post office
creamery
pool lodge
insur.
united church
church street
restaurant
St. James Parish Hall
community memorial hall
barn
Park
service station
bakery
grocery
grist mill
agricultural
Canadian Imperial bank
drug store
barber
vacant
abandoned station
C. N. R.
Centreville
vacant
creek
hydro generating station
agricultural
THE VILLAGE
OF
CALEDON EAST 1962
SCALE: 1"=500'
map 28
houses
utility bldgs.
public school
Bell Telephone
KRA

Fig. 78

Caledon East, looking north along Mono Road. The improvement of this road and the influence of Toronto is bringing a revival to this village. The road is more and more frequently used as an alternate route to Orangeville because the hills are not as steep as on Highway #10, to the west. Note the trucks using the road and the rather unplanned nature of the main business district.

Fig. 79

Caledon East grist mill. This mill has been a continued and successful business since it originated. The grain used in feed concentrates is mainly Prairie grain which the miller picks up in Collingwood on Georgian Bay. It is of better quality than Ontario grain.

Fig. 80a

A first class home in Caledon East located about 200 feet farther down the track from the old abandoned station in Fig. 82. Note the large modern house. It is characteristic of the unplanned, rather illogical development in Caledon East, for it is immediately across the road from the house in Fig. 80b.

Fig. 80b

A small, plain insulbrick fourth class home in Caledon East. Most of the old homes of Caledon East lie in the spillway valley.

Fig. 81

"Proctor Hill" in Caledon East. The village council is encouraging the development of new houses on the north facing spillway slopes. The houses are owned by former city residents; they are scattered along roads and are low priced second class homes. Most of the municipal ambitions in Caledon East are oriented toward the attraction of new homes.

Fig. 82

The C.N.R. line between Hamilton and Barrie passes through Caledon East. In the past it brought a certain amount of prosperity, but its importance has been overcome to-day by Mono Road. The station is abandoned.

PALGRAVE

Palgrave is a sleepy little police village in the northern part of the Township. This village of 200 is located on Highway #50 where the Canadian National Railway, between Hamilton and Barrie, passes. The railway station has been moved two miles east of the village where it now takes advantage of the Canadian Pacific Railway from Toronto to Sudbury. However, the railroad to-day has little influence on Palgrave. No industries make use of its proximity.

In the village is a general store, small hotel, post office and newspaper, The Woodbridge Advertiser, which is put out weekly, lists sales, auctions and farm news. The name "Woodbridge Advertiser", has no relationship with the village of Woodbridge south of Albion Township.

Many Palgrave residents commute thirty miles each day to Toronto business offices, while others work in Bolton, Brampton, Orangeville or Palgrave. Except for small grocery goods, most residents do their shopping in Bolton or Orangeville.

There is a feed mill in the village that was run by water until electrified very recently. It does a rather small business.

Palgrave has continued to exist for a number of reasons. It is central within North Albion, located on

Highway #50 and therefore attracts more settlement than it would, had its location been peripheral. The railroad has provided a small amount of activity and the Albion Township Council used this village as their headquarters until December 1962 when it moved farther south to a new office.

MONO MILLS

Mono Mills has all but been abandoned. It has an Anglican Church, an Orange Lodge, two service stations, a snack bar, and a general store. Only the gas stations do any type of large business and this is because of the traffic on Highway #9. The village still retains a number of houses but the commercial prosperity it exhibited ninety years before is nowhere seen. To-day, Mono Mills lies almost completely within the hinterland of Orangeville, six miles to the west.

The other villages of the past contain nothing, or only a general store, gas station and a few houses. They are important only as historical monuments to a once exciting and flourishing past. The increasing metropolitan influence has meant death to almost all Albion Villages. Most were unable to continue. Others hung by a thread for reasons already stated, until the return of population to Albion Township brought a renewed growth to some Albion villages. In villages to-day, there is a great difference between North and South Albion. From the

south, northward, the villages decrease in importance and have had smaller and smaller growth. The influence of Toronto has brought renewed life to the villages that existed in 1930. Bolton, and to a lesser extent, Caledon East, have been the only villages to expand to any great degree.

B Industry and Commerce

Albion has no industries except the two in Bolton. Previously, there was a gravel pit on Mono Road but this does not exist to-day. Except, in the villages of the past, industry has had no importance in Albion. There are no mineral resources. Agricultural raw materials are plentiful but these are not processed in Albion.

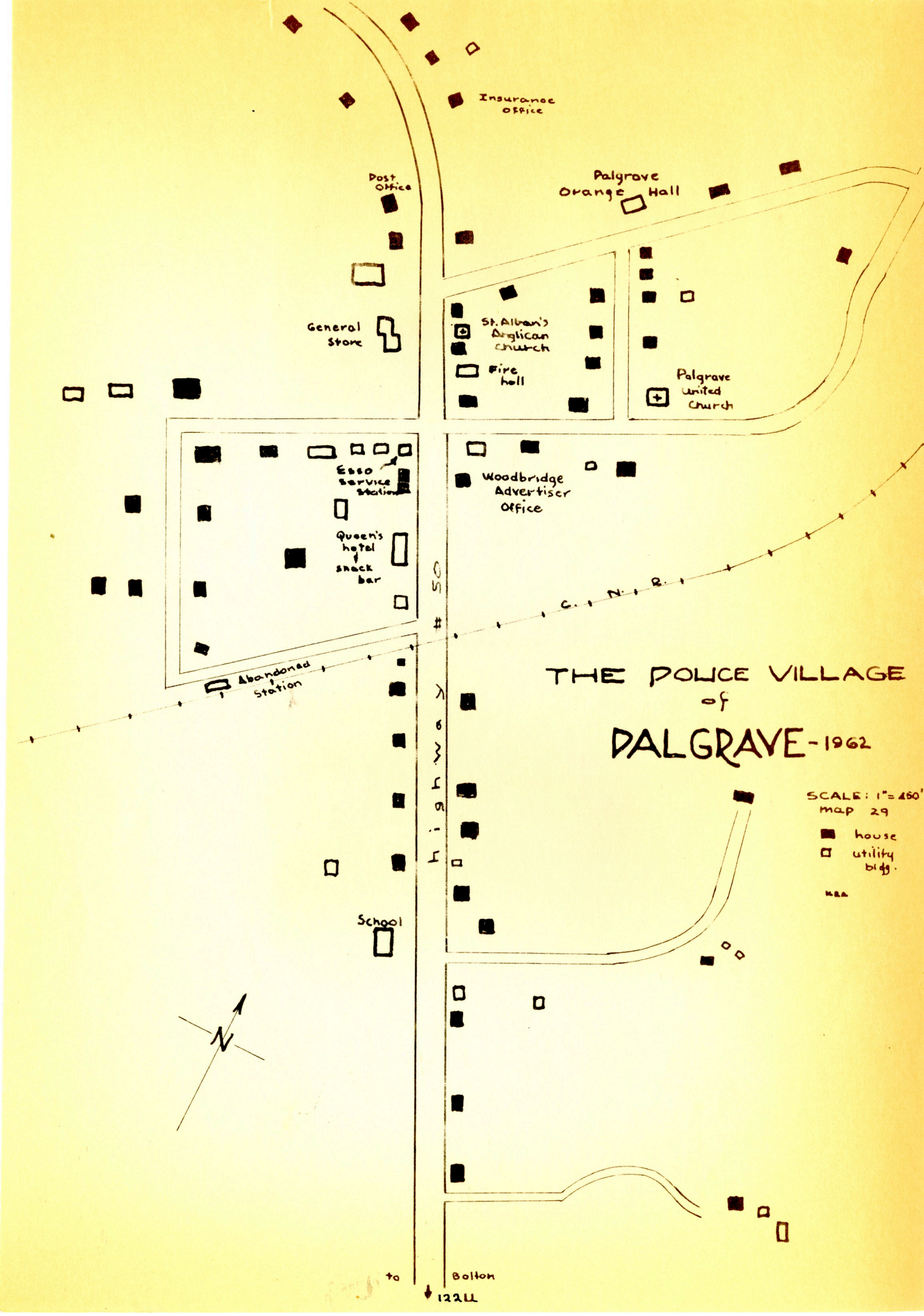
Commercial development in Albion has always been unimportant except in the villages. In the Township proper, only a few types of commercial development exist. Private recreation areas bring money to their owners, a certain amount of timber is sold from time to time, a retail lumber yard is found on Highway #50, south of Bolton, and gas stations, a product of better roads and increased traffic, have located on the main highway through Albion.

In summary, South Albion is agricultural, with dairy farms predominating. North Albion is recreational

and agricultural, with specialized and general farms being common. A livestock economy encourages large acreages to be used for fodder crops and pastures.

A great deal of poor agricultural land in North Albion is being used for recreation and reforestation while rich agricultural land in the south is remaining agricultural.

Villages that have managed to exist until the 1950's are showing an upswing in population, as is all of Albion. Bolton and Caledon East are attracting sub-division development, while individual homes and strips of homes are being built where land is available.



THE POLICE VILLAGE of PALGRAVE - 1962

SCALE: 1" = 450'
map 29

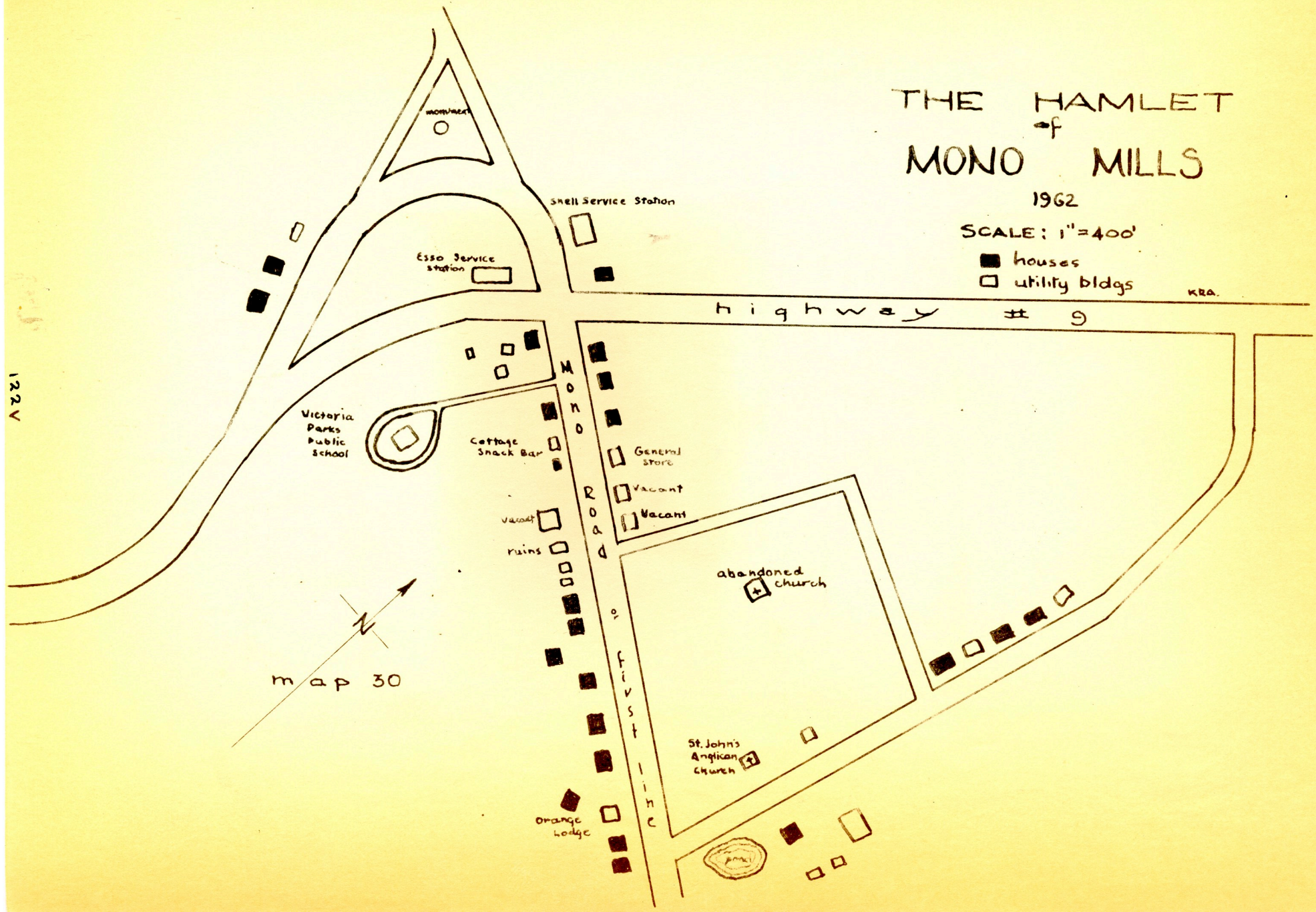
■ house
□ utility bldg.

Fig. 83

Palgrave, as seen looking north along Highway #50. In the foreground is the C.N.R. line that runs through Coleden East, while in the background the Queen's hotel, a snack bar and an Esso service station can be seen. A few city residents have moved to Palgrave but the village has shown none of the growth of Bolton or Coleden East.

Fig. 84

The Palgrave mill was important in the early days of the village. To-day it does a very small business.


THE HAMLET of MONO MILLS
1962
SCALE: 1"=400'
houses
utility bldgs
KBA.
highway # 9
monument
Shell Service Station
Esso Service station
Victoria Parks Public School
Cottage Snack Bar
Mono Road
General store
Vacant
Vacant
vacant
ruins
abandoned church
St. John's Anglican Church
Orange Lodge
first line
map 30

122V

Fig. 85

Mono Mills at the junction of the improved Mono Road and Highway #9. East and west of Mono Road are two gas stations which are active because of the well handled roads. Mono Mills has only a snack bar and a general store left, besides the gas stations. The railroad first spelled its decline, and roads which first brought prosperity have been improved to the extent that Mono Mills will never again grow.

PART V

SUMMARY AND CONCLUSIONS

(i) SUMMARY

The physical geography of Albion Township must be studied in order to obtain a complete understanding of the cultural geography. It must not be studied as a separate entity, but in connection with the cultural elements. The physical aspects of Albion Township would be of little value to this thesis if they did not elucidate the patterns of settlement. Albion was divided into two natural regions and it was left to a study of the cultural geography to see if this regionalization could be justified on the basis of human occupance.

The bedrock in Albion Township is blanketed by unconsolidated glacial materials, except where it outcrops in a few places on the Niagara escarpment. Albion soils reflect bedrock types because they are formed from glacially scoured and pulverized rock that comes from outside the Township but which is similar to Albion bedrock types.

A cool moist climate in a region of mixed forests has produced soils on a varying topography of glacial overburden. In the north, sandy loam soils have developed on a knob and basin complex of poorly sorted outwash sands. Clay and clay loam soils have formed on a flat till plain in the south.

Albion Township was first settled in 1820 by pioneers from the British Isles. The settlers chose their

farmsteads on the principle that hardwood vegetation indicated the best agricultural land. The fact that North and South Albion were settled simultaneously suggests that the first farmers did not know which soils were the most fertile, if not more so, than the heavier "stickier" clay soils of the south. Only after a number of years of intensive and exhausting cultivation did the difference between north and south become evident. The sandy morainic soils proved to be much less fertile than had previously been thought and the removal of the forests soon revealed this fact.

Throughout the 1830's and 1840's land was quickly cleared in Albion to be planted in fields of wheat, barley and other grains. Poor quality livestock, which grazed on unimproved pastures and woodlots, were found on most farms. Grist and saw mills were built on the Humber River and its tributaries and were soon followed by associated urban development. As roads improved, small hamlets originated to provide services to travellers and farmers.

During the 1850's a wheat boom came to Upper Canada and Albion farmers participated with great vigour. Most farms were devoted almost entirely to wheat production. In 1857 the boom ended and farmers turned to barley cultivation to provide for a growing United States brewing industry.

In the 1870's, railroads were built in Albion.

Those villages that were by-passed declined rapidly while new villages on the railroad lines grew quickly. Toronto was becoming a thriving metropolis and began to draw people from the Albion countryside. Many Albion families, their farms cultivated to exhaustion, turned towards the city where jobs were more prevalent and facilities better. Emigration from the Township to the city originated in all areas, although it was North Albion that provided the majority of migrants. Throughout the next seventy years the population within Albion Township slowly declined.

Beginning in the 1870's, when the Toronto influence was first felt in Albion, and continuing into the present, the contrasts between North and South Albion have gradually become clearer. The north, with its less productive soils became an area of mediocre general farming, while the south, because of its greater fertility, turned to dairy production for the metropolitan market. Wheat and barley, however, were still an important part of the Township's economy. In the 1880's, Toronto's need for timber products instigated a large and devastating white pine harvest in Albion's northern areas but the boom was quickly over and Albion settled down to providing livestock products for Toronto and the Township itself.

To-day a vast difference exists between North and South Albion. Poor general farms and excellent beef farms are integral parts of the northern economy. General farms are owned by full time farmers who provide dairy and

poultry products to the local area and beef and pork products to the Toronto market. Beef farms are much larger and are owned by full time or hobby farmers. Their beef products are of excellent quality and are closely oriented to Toronto markets. Fifty per cent. of the general farm is devoted to grain crops, the rest to hay and pasture. Farms emphasizing beef cattle, and in some cases, horses are often devoted entirely to the production of rich hay crops and lush pastures. The human element is markedly altering the poor land-poor farm relationship, for many farms in North Albion have a greater value than those in South Albion. The reason is that wealthy northern owners are able to devote more money to farm improvement than are farmers on the South. Because these wealthy owners have purchased land wherever it has been available, there is no areal pattern of good and poor farms.

In South Albion dairy farms are pre-eminent. Fluid milk is shipped daily to Toronto dairies. Herds of up to forty cows graze on rich pastures. Various hay mixtures occupy over one-third of the farmland, while oats, mixed grains and fall wheat are planted on the remaining land to be used as winter feed.

General beef and poultry farms are found in a few areas but are almost completely concealed by the domination of dairy farming.

Residential and recreational development point out the distinction between North and South Albion. Better

roads and better cars put Albion within less than one hour's driving time from Toronto. Former city residents are moving into Albion Township. In the north a rugged scenery of woodlands, hills and streams is attracting wealthy owners who build large homes on marginal farmland. In the south relatively cheap, flat land is attracting strip development and a few large homes to rich farmland. Speculators are also buying flat acreages for urban expansion.

Recreational development is relegated to North Albion. The south offers none of the advantages which grace the north. The rolling morainic areas have become a natural haven for all types of recreation. The key factors in North Albion's increasing recreational developments are: beautifully wooded stream areas that provide a natural setting for parks, abandoned farms and a return of natural vegetation that provide week-end retreats for city people and new homes for wild life, rolling hills for skiers, equestrian enthusiasts and golfers, and excellent roads that provide easy access for a large metropolitan population.

The Metropolitan Toronto and Region Conservation Authority plays a leading role in the conversion of North Albion from a poor farm area into a beautiful recreation area. The Authority is buying all the land available, for use as recreation and reforestation land. Gradually North Albion is becoming the "Recreational Playground of Toronto".

The villages in Albion Township also reflect the variation between north and south. Bolton, on the south, is growing rapidly, having doubled its population since 1956, while Palgrave, in the north, has shown very slight expansion. Caledon East, on the western boundary, located equi-distant between Palgrave and Bolton, reveals a growth intermediate between these other two villages. Bolton and Caledon East, formerly occupying only valley land, are expanding up the southern slopes toward Toronto. Subdivisions and shopping plazas, characteristic of modern urban expansion, are the predominant types of development.

Having looked at the past and the present, it is necessary to surmise as to what will happen in the future.

Farm sizes will increase, especially in the north where the land is less fertile. Dairy farms will remain dominant in the south and beef farming will be relegated to larger farms in the north for they are less productive per acre. General farms with a livestock emphasis will slowly disappear for they will be unable to compete with the surrounding larger more specialized farms. These farms will be bought by present farm owners or be used for recreational and residential purposes where suitable. The part time farmer in the north will be unable to compete with the full time farmer unless his income is greatly augmented from outside sources. The full time farmer in the north will be forced to buy more land

in order to compete with the hobby farmer who is able to spend large amounts of money for improval of land and breeding of high quality livestock.

Where agricultural activities will remain dominant in South Albion, there will be increasing pressure from urban Toronto to relieve North Albion land of agricultural production and put it into recreational use. Conservation areas will increase in number as an increasing number of visitors demands more and better facilities. A greater number of private recreation areas such as parks and ski clubs will be opened.

Careful planning and administration will be needed in order to control the expanding recreation industry in North Albion. If such principles are adhered to, recreational growth will continue, the aesthetic and capital value of North Albion will increase, and a conserving and satisfactory use of marginal farmland will be obtained.

Residential growth in Albion Township will have to be closely scrutinized. The north will continue to attract first class homes that will enhance the landscape but the flatter south will attract sprawling subdivisions. A by-law has been passed by the Albion Township Council restricting development of homes to those with a floor area greater than 1600 square feet. This should suffice to keep strip development and suburban homes of low value off of South Albion's rich farmland.

The growth of Bolton will continue and urban sprawl will radiate southward. Already it has spread up the valley slopes and now occupies land on the bevelled till plain. The village itself provides little attraction to urban settlement but the site, on Highway #50, twenty-five miles from Toronto, is advantageous to settlement and light industry. Large acreages of relatively cheap land, within easy distance of Toronto, are excellent attractions.

Bolton and Caledon East will less and less be agricultural service centres, and more and more, suburbs of Toronto. Their present commercial business districts will become secondary cores to the Toronto commercial areas. Palgrave, unlike the other two, will remain stagnant.

Albion Township has embarked on a period of prosperity that it has never before had. Population and land values are increasing everywhere. Agriculture is becoming more specialized on larger acreages, yielding large quantities of high value products. Marginal farmland is being taken out of agricultural use to be planted in grass or trees. Erosion is decreasing and wild life is returning. Beautiful homes and many types of recreation developments are increasing in number throughout the Township. Yet, one blemish remains -- that being the use of

prime agricultural areas for suburban development. Careful attention must be given to curtail this development before it swallows up and renders useless this rich agricultural land.

(ii) CONCLUSIONS

Albion Township reveals a north-south regionalization based on physical and cultural differences. Regional differences were non-existent when Albion was first settled. However, with the exhaustion of certain farms, the physical difference between North and South Albion became apparent. In the 1870's, Toronto began to exert an increasing domination on the Township. The metropolitan influence became the primary factor in the widening north-south gap; for Toronto took not only Albion's products, but also its inhabitants.

To-day, the influence of Metropolitan Toronto is pre-eminent. However, its prominence is quite different than before. Where, in the past, Toronto enticed Albion residents into the city, to-day, Toronto is supplying migrants who are being lured to the landscape that commenced to become depopulated ninety years before. Recreation and scenic home lots - not agriculture - are the attraction.

North and South Albion reveal striking dissimilarities in land values, land ownership, land use and land activities. In the past, the physical geography was the main cause of these dissimilarities; to-day it is Metropolitan Toronto. Never, in every way, has Albion Township been so closely oriented to Toronto as it is to-day - and, in no past period has there been a greater contrast between the northern and southern regions because of that large city's domination.

A P P E N D I C E S

APPENDIX "A"

FOREST COVER TYPES IN ALBION TOWNSHIP

Type 4 - ASPEN 10%

- pioneer vegetation
- mostly wet, sometimes dry soils
  Muck, King clay loam, Brighton sandy loam
- associates - white elm, balsam poplar, white cedar.

Type 6 - PAPER BIRCH 0.5%

- pioneer vegetation, followed by hardwood
- wet to dry soils
- associates - aspens, white pine, hemlock, red maple, red oak, basswood

Type 9 - WHITE PINE 3.1%

- a good reforestation tree
- heavy soils - King clay loam /-light soils - Brighton sandy loam and Pontypool sandy loam
- temporary vegetation succeeded by hardwoods /-permanent vegetation
- heavy soil associates - white ash, sugar maple /-light soil associates - aspen, red maple, pincherry, white oak

most white pine in Albion occurs on the lighter soils.

Type 10 - WHITE PINE - HEMLOCK 3%

- found in cool locations, on ravine slopes shaded from the sun's rays
- heavy to light soils - King clay loam - Brighton sandy loam
- associates - sugar maple, beech, red maple, red and white oak, white ash

Type 11 - HEMLOCK 2%

- cool locations, moist north slopes mainly on Brighton sandy loam
- associates - same as Type 10

Type 13 - SUGAR MAPLE - BASSWOOD 2.5%

- located on well drained King clay loam, Chinguacousy clay loam and Brighton sandy loam
- associates - American elm, white pine, iron wood, blue beech, red maple, red and white oak.

Type 14 - SUGAR MAPLE 4%

- northern location on King clay loams to Brighton sandy loam
- associates - yellow birch, white ash, red and white oak.

Type 24 - WHITE CEDAR 21%

- found on Muck soils, Bottom land and imperfectly drained King clay loam
- associates - tamarack, balsam fir, birch, black ash hemlock, white pine, red maple
- undisturbed by cutting or fire

Type 25 - TAMARACK 0.2%

- Muck soils
- associates - white cedar, black ash, red maple, paper birch

Type 57 - HARD MAPLE - BEECH 30%

- climax vegetation
- may be found on most Albion soils, mainly better drained phases such as Pontypool sandy loam, Brighton sandy loam, Woburn loam
- associates - white pine and red oak on driest soils, red maple, white oak, red elm, basswood, hickory, black cherry

Type 58 - BEECH 0.1%

- associated with sugar maple

Type 60 - SILVER MAPLE - WHITE ELM 7%

- wet soil vegetation - Muck, Bottom land, poorly drained King clay loam and Chinguacousy clay loam
- associates are red maple, slippery elm, white and green ash

Type 60 A - WHITE ELM 16%

- mainly on wet sites
- same soils and associates as type 60

Type 88 - WILLOW 0.6%

- small patches and in depressions
- wet soils
- black willow mainly

APPENDIX B

CLIMATIC COMPARISON OF NORTH AND SOUTH ALBION

Based on Chapman & Putnam and Weather Stations at Oakridges and Georgetown.

	North Albion - Simcoe and Kawartha Lakes	South Albion - South Slope
Mean Annual Temp.	42° to 44°F.	43° to 45°F.
Spring Temp.	39° to 41°F.	41° to 42°F.
Summer Temp.	65° to 67°F.	66°F.
Fall Temp.	46° to 47°F.	47°F.
Winter Temp.	17° to 19°F.	18° to 23°F.
Coldest Mnth & Av. Temp.	Feb. 18°F.	Jan.& Feb.20°F.
Warmest " " " "	July 68°F.	July 68°F.
Minimum Temp.	- 39°F.	- 42°F.
Maximum Temp.	104°F.	105°F.
Temp. - Extreme Range	143°F.	146°F.
Last Spring Frost	May 22nd	May 18th
First Fall Frost	Sept. 24th	Sept. 18th.
Length of Growing Season	188 to 195 days	192 to 200 days
Frost Free Period	120 " 140 "	133 " 147 "
Mean Annual Rainfall	(26.5 to 33.9 ins.) Oakridges 28.3	(32 to 38 ins.) Georgetown 31.51
Summer Rainfall (June, July & Aug.)	13.4 ins.	14.5 ins.
Mean Annual Snowfall	48.4 ins.	60.6 ins.
Classification	B_1 B_1' r b_2' humid, mesothermal, little water deficiency, mesothermal	B_2 C_2' r b_1' humid, microthermal, little water deficiency, microthermal
At Oakridges and Georgetown	For further complete monthly temperature, rainfall and snowfall data see Appendix D	

APPENDIX C - PART 1

STATION COMPUTATION BY THORNTHWAITE'S 1948 SYSTEM

STATION NAME - OAKRIDGES (NORTH ALBION) CLIMATIC TYPE - B_2 B'_2 r b'_2

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1. Mean monthly temp., °C. (Unreduced. Months above zero only.)	-7.2	-7.8	-2.2	4.5	11.7	17.2	20.0	18.9	15.6	8.4	2.2	-5	
2. Monthly heat index. (Sum. = "I".) (See Thornthwaite, p. 92.)				0.85	3.62	6.49	8.16	7.49	5.60	2.19	0.29		34.69
3. Unadjusted potential evapotranspiration, cms. (See graph)				2.1	5.7	8.6	10.0	9.4	7.7	4.0	1.0		
4. Latitude & month correction factor. (See Thornthwaite, P. 93) (...)	.81	.82	1.02	1.13	1.27	1.29	1.30	1.20	1.04	.95	.80	.70	
5. Potential evapotranspiration in cms.(Total..cms) (=water need = thermal efficiency index)	0	0	0	2.4	7.2	11.1	13.0	11.3	8.0	3.8	0.80	0	57.60
6. Precipitation in cms.(Total 28.33 ins.)	4.25	4.42	4.17	6.20	6.85	7.67	9.38	5.97	7.30	5.64	6.00	4.45	71.30
7. Precipitation MINUS potential evap., cms.	4.25	4.42	4.17	3.8	-.3	-3.4	-3.6	-5.3	-.7	1.8	5.2	4.5	
8. Soil moisture in storage, cms.	10	10	10	10	9.7	6.3	2.7	0	0	1.8	7.0	10	
9. Storage change, cms.	0	0	0	0	-.3	-3.4	-3.6	-3.6	0	+1.8	5.2	3	
10. Actual evapotranspiration, cms.(Total..ins.)	0	0	0	2.4	7.2	11.1	13.0	8.7	9.3	3.8	.80	0	
11. Moisture deficit, cms. (Total...ins.)	0	0	0	0	0	0	0	2.6	.7	0	0	0	3.3
12. Moisture surplus, cms. (Total...ins.)	4.25	4.42	4.17	3.8	0	0	0	0	0	0	0	1.5	18.14
13. Runoff,cms.(Assuming all surplus is water)	3.88	4.33	4.29	3.98	1.9	0	0	0	0	0	0	.75	

Moisture index - 28.1 Thermal efficiency index - 57.6 Index of aridity - 5.7 (Type) little or no
Climatic type - B_1 humid Climatic type - B'_2 Mesothermal Index of humidity (Type) water deficiency

Annual PE/TE/WM = 57.6 cms. June-July-August = 35.4 cms. Summer concentration = 61.5% (Type b'_2 Mesothermal)

APPENDIX C - PART 2

STATION COMPUTATION BY THORNWAITE'S 1948 SYSTEM

STATION NAME - GEORGETOWN (SOUTH ALBION) CLIMATIC TYPE - B_2 C_2' r b_1'

	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1. Mean monthly temp., °C (Unreduced. Months above zero only.)				5	11.7	16.7	20.0	18.9	9.5	8.4	2.2		
2. Monthly heat index. (Sum. = "I".) (See Thornwaite, p. 92.)				1.00	3.62	6.21	8.16	7.49	2.64	2.19	0.29		31.60
3. Unadjusted potential evapotranspiration, cms. (See graph)				2.5	5.9	8.4	11.0	9.6	4.8	4.2	1.1		
4. Latitude & month correction factor. (See Thornwaite, p.93) (...)	.81	.82	1.02	1.13	1.27	1.29	1.30	1.20	1.04	.95	.80	.76	
5. Potential evapotranspiration in cms.(Total...ins.) (= water need = thermal efficiency index)	0	0	0	2.80	7.5	10.9	14.0	11.6	5.0	4.0	0.88	0	56.70
6. Precipitation in cms. (Total 31.48 ins.)	6.57	6.20	6.70	6.30	7.22	6.90	7.70	6.67	6.40	6.45	6.70	6.33	80.14
7. Precipitation MINUS potential evap., cms.	6.57	6.20	6.70	3.5	-.3	-4.0	-6.3	-4.9	1.4	2.5	5.80	6.33	
8. Soil moisture in storage, cms.	10	10	10	10	9.7	5.7	0	0	1.4	3.9	9.7	10	
9. Storage change, cms.	0	0	0	0	-.3	-4.0	-5.7	0	+1.4	+2.5	+5.8	+.3	
10.Actual evapotranspiration, cms. (Total .....ins.)	0	0	0	2.8	7.5	10.9	12.0	6.7	5.0	4.0	.9	0	
11.Moisture deficit, cms. (Total .....ins.)	0	0	0	0	0	0	-2.0	-4.9	0	0	0	0	6.9
12.Moisture surplus, cms. (Total .....ins.)	6.6	6.2	6.7	3.5	0	0	0	0	0	0	0	6	29.0
13.Runoff, cms. (Assuming all surplus is water.)	6.3	6.4	6.5	5.1	1.1	0	0	0	0	0	0	3	29.1

Moisture index - 43.9 Thermal efficiency index - 56.70 Index of Aridity - 12.3 (Type)little or no
Climatic type - B_2 humid Climatic type - C_2' Microthermal Index of humidity (Type)water deficiency

Annual PE/TE/WM = 56.7 cms. June-July-August = 36.5 cms. Summer concentration = 64.4% (Type b_1')

APPENDIX D

CLIMATIC DATA

OAKRIDGES	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Monthly and Annual Averages of Daily Mean Temp. in Deg. Fahrenheit	19	18	28	40	53	63	68	66	60	47	34	23	43
Monthly and Annual Average Precipitation in inches.	1.67	1.74	1.64	2.44	2.58	3.02	3.69	2.35	2.87	2.22	2.36	1.75	28.33
Average Monthly and Annual Snowfall in inches.	10.1	13.3	6.9	2.7	trace	-	-	-	trace	1.3	4.7	9.4	48.43
GEORGETOWN	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Monthly and Annual Averages of Daily Mean Temp. in Deg. Fahrenheit	20	20	28	41	53	62	68	66	59	47	36	24	44
Monthly and Annual Average Precipitation in inches.	2.59	2.38	2.64	2.48	2.84	2.72	3.03	2.63	2.50	2.54	2.64	2.49	31.48
Average Monthly and Annual Snowfall in inches.	14.6	13.9	10.6	3.4	trace	-	-	-	trace	0.7	5.1	12.3	60.6

APPENDIX E

FARM CENSUS RECORDS - A.

Year	No.of Farms	Farm Sizes (acres) Under 10	11-50	51-100	101-200	Over 200	Farm Area Occupied (acres) Total Area	Area Owned	Area Rented
1851	494	36	131	209	55	3	43,092	-	-
1861	574	20	164	311	69	10	52,085	-	-
1871	577	72	102	274	105	24	56,751	-	-
1881	545	66	68	259	125	27	55,547	-	-
1891	-	-	-	-	-	-	57,723	-	-
1901	-	-	-	-	-	-	-	-	-
1911	589	111	61	237	159	21	57,249	47,541	9,708
1921	452	41	32	195	154	21	54,158	48,441	5,747
1931							54,609	49,544	5,065
1941	410	9	37	157	164	43	54,684	47,703	6,981
1951	357	8	30	110	140	49	50,284	43,727	6,557
1956	326	-	-	-	-	-	44,089	38,981	5,108
1961	271	2[i]	10[i]	25[i]	170[i]	70[i]	42,169	-	-

i estimated.
- no records or no production.

APPENDIX E

FARM CENSUS RECORDS - B

CONDITION OF OCCUPIED LAND								
-- IMPROVED LAND					UNIMPROVED LAND			--
Year	Total	Under Crop	Orch. & Mkt.Land	Improved Pasture	Total	Woodland	Unimproved Pasture.	Marsh or Waste.
1851	17,076	11,417	195	5,464	26,016	2	6,016	
1861	30,064	22,250	505	7,309	22,021	2	2,021	
1871	38,380	32,046	683	5,651	18,371	1	8,371	
1881	43,615	37,395	693	5,527	11,932	1	1,932	
1911	47,951	33,446	758	13,753	9,292	4,313	2,644	2,335
1921	42,204	26,305	247	14,541	11,954	4,815	4,865	2,274
1931	41,456	28,850	194	11,938	13,153	4,993	6,355	1,805
1941	43,121	25,701	292	15,480	11,653	5,474	4,917	2,762
1951	36,937	23,251	-	12,399	13,347	4,606	8,741	
1956	37,431	19,163	-	17,268	6,658	3,212	3,446	
1961	-	-	-	-	4,345	-	-	-

No records available for 1891 and 1901

APPENDIX E

FARM CENSUS RECORDS - C

L I V E S T O C K									
Year	Milk Cows	Beef Cattle	Others	Total	Chickens Hens	Chickens Others	Sheep	Pigs	Horses
1851	1,159	10	90	2,249	-	-	4,149	3,006	817
1861	1,646	18	46	3,492	-	-	4,837	4,813	1,567
1891	1,838	21	18	3,956	34,190	15,346	3,176	3,206	2,351
1931	3,017	28	31	5,848	56,921	4,778	5,184	4,573	1,736
1941	4,096	264	2,810	7,170	57,679	6,395	2,163	6,665	1,525
1951	3,758	1,046	2,183	6,987	15,563	48,283	926	5,280	766
1956	3,028	48	27	7,975	19,210	49,792	1,450	4,620	245
1961	-	-	-	-	-	-	-	-	-

No records available for
1871, 1881, 1901, 1911, 1921, 1961

\- No records or no production

APPENDIX E

FARM CENSUS RECORDS - D

FIELD CROP RECORDS													
Year	Total Acres	Wheat	Oats	Barley	Mixed Grains	Rye	Buck-Wheat	Pota-toes	Turnips & other roots	Peas	Cult. Hay	Corn	Other Fodder Crops
1951	11,417	5,244	1,627	64	-	77	0	432	117	1,428	1,685[t]	5	-
1861	22,250	10,270	2,648	738	-	2	1	586	233	2,784	2,497[t]	0	-
1871	32,046	955,002[i]	3,416	4,350	-	350[i]	181[i]	604	52,407[i]	34,580[i]	5,787	71	-
1881	37,395	202,947[i]	5,573	3,491	-	8,834[i]	242[i]	451	421	-	4,505	74	-
1891	-	-	6,299	4,126	-	6,148[i]	80[i]	519	201	33,364[i]	4,769	2,244	-
1901	-	-	-	-	-	-	-	-	-	-	-	-	-
1911	33,446	8,133	9,764	3,508	409	1,889	269	739	159	2,071	7,865	298	261
1921	26,305	1,871	9,233	3,510	1,038	1,068	295	612	123	335	7,768	394	15
1931	28,850	2,082	7,039	2,416	3,170	1,035	-	1,097	124	-	10,826	-	-
1941	25,701	2,731	6,121	1,739	4,231	395	-	573	62	-	9,317	-	509
1951	23,251	3,874	4,970	480	3,894	352	-	225	5	-	9,085	-	485
1956	19,163	2,680	3,938	231	3,625	189	-	247	-	-	8,318	415	101
1961	-	-	-	-	-	-	-	-	-	-	-	-	-

i bushels
t tons
- no records or no production

APPENDIX F

POPULATION FIGURES

POPULATION			
Year	Albion Township	Bolton	Caledon East
1851	4,281	-	-
1861	5,078	-	-
1871	4,867	-	-
1881	3,872	606[i]	-
1891	3,142	743	-
1901	2,741	702	-
1911	2,545	712	-
1921	2,156	679	-
1931	2,181	556	-
1941	2,039	577	-
1951	2,102	820	-
1956	2,671	1,093	-
1961	3,048	2,104	654[i]

i Bolton incorporated 1873
i Caledon East incorporated 1956
- no records

B I B L I O G R A P H Y

1. Billington, R. A., Westward Expansion, The Macmillan Co., New York, 1949.

2. _____ Canada Census Reports, Dominion Bureau of Statistics 1851 - 1961, Ottawa King's Printer.

3. Cayley, J. F., Palaezoic Geology of the Toronto-Hamilton Area, Ontario, Dept. of Mines and Resources, Geological Survey, Memoir 224, Ottawa King's Printer, 1940.

4. Chapman, L. J. and Putnam, D. F., The Climate of Southern Ontario, Ont. Research Foundation, Toronto, Ont. - reprinted from Scientific Agriculture 18:8, April 1938.

5. Chapman, L. J. and Putnam, D. F., The Physiography of Southern Ontario, Research Foundation, Toronto, Ontario, Univ. of Toronto Press, Toronto, 1951.

6. _____ Climatic Summaries for Selected Meteorological Stations in the Dominion of Canada, Vol.I, Meteorological Div. of the Dept. of Transport, Canada, 1962.

7. _____ Forest Cover Types of the Eastern U. S. A., A Report of the Committee on Forest Types by the Soc. of Am. Foresters, From the Humber Valley Report, 1948.

8. Halliday, W. E. D., A Forest Classification for Canada, Dom. Forest Service, Bul. No. 89, Dept. of Mines and Resources, Ottawa, 1937.

9. Hartshorne, R., The Nature of Geography, from the Annals of the Assn. of American Geographers, Vol. 29, Numbers 3 and 4, Lancaster, Penn., 1961.

10. Heyes, E. The Story of Albion, The Bolton Enterprise, Bolton, 1961.

11. Hoffman, D. W. and Richards, N. R. Soil Survey of Peel County, Report No. 18 of the Ontario Soil Survey, Experimental Farms Service, Canada Dept. of Agriculture and the Ontario Agricultural College, Guelph, Nov., 1953.

12. Klages, K. H. W. — Ecological Crop Geography, The Macmillan Company, New York, 1958.

13. Koeppe, C. E. and DeLong, G. C., — Weather and Climate, McGraw-Hill Book Co. Inc., The Maple Press Co., York, Pennsylvania, 1958.

14. _____ — Biennial Report No. 1, The Metropolitan Toronto and Region Conservation Authority, Charters Publishing Co. Ltd., Toronto 1957-58.

15. _____ — Biennial Report No. 2, The Metropolitan Toronto and Region Conservation Authority, Charters Publishing Co. Ltd., Toronto, 1959-60.

16. _____ — Support Conservation, Enjoy Recreation, The Metropolitan, Toronto and Region Conservation Authority, 1962.

17. _____ — Metropolitan Toronto and Region Conservation Authority Forest - 1951-1961, as managed by the Ont. Dept. of Lands and Forests, The Metropolitan Toronto and Regions Conservation Authority, 1961.

18. _____ — Beef Husbandry in Ontario, Ontario Dept. of Agriculture, Publication 509, Toronto, June, 1960.

19. _____ — Dairy Husbandry in Ontario, Ontario Dept. of Agriculture, Bulletin 493, Toronto, December, 1952.

20. _____ — Farm Life in Ontario, Ontario Dept. of Agriculture, Toronto, 1950.

21. _____ — Field Crop Recommendations for Ontario, 1962, Ontario Dept. of Agriculture, Publication 296, Toronto, 1962.

22. _____ — Growing Winter Wheat in Ontario, by W. H. Waddell for the Ontario Dept. of Agriculture, Bulletin 516, Toronto, August, 1956.

23. Ontario Department of Planning and Development, — The Humber Valley Report, (unpublished) Toronto, 1948.

24. Pope, J. H., Illustrated Historical Atlas of the County of Peel, Ontario, Walker and Miles, 1877.

25. Putnam, D. F., Canadian Regions, J. M. Dent and Sons (Canada) Limited, Toronto, 1957.

26. Slater, P., Yellow Briar, Thomas Allen, Toronto, 1934.

27. Thornbury, W. D., Principles of Geomorphology, John Wiley and Sons Inc., New York, 1956.

28. Thornthwaite, C. W., An Approach Toward a Rational Classification of Climate, reprinted with the permission of The American Geographical Society in The Geographical Review, Vol. 38, No. 1, 1948.

29. _____ Voters List for the Municipality of Albion Township, Curtis Letter Supply Co., Unionville, October, 1962.

30. White, J. H. and Hosie, R. C. The Forest Trees of Ontario, Dept. of Lands and Forests, Division of Reforestation, Baptist Johnston-Queen's Printer, Toronto, 1957.