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CENTRAL MORTGAGE AND HOUSING CORPORATION
ARCHITECTURAL AND PLANNING DIVISION

FOR:
THE CITY OF WHITEHORSE
THE GOVERNMENT OF THE YUKON TERRITORY
THE DEPARTMENT OF NORTHERN AFFAIRS AND
NATIONAL RESOURCES

FEBRUARY, 1963.

ACKNOWLEDGEMENTS

The study of the Whitehorse Metropolitan Area was carried out by the Architectural and Planning Division in collaboration with the Economic Research Department of Central Mortgage and Housing Corporation.

During the visit to Whitehorse in July 1961 and the subsequent preparation of the report, assistance was received from the Mayor and City Council, City Officials and representatives of private firms. Special mention should also be made of the assistance received from the Commissioner of the Yukon and his staff, and the Commanding Officers of the Army and R.C.A.F. establishments. Many departments of the Federal Government also provided information and guidance, in particular officials of the Department of Northern Affairs and National Resources, Department of Transport, and Department of Mines and Technical Surveys.

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All graphic material contained in this text represents a diagrammatic simplification of the large scale drawings which form a separate part of this study. They have been included to assist in clarifying the text and should be used in this context only.

SURVEY

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INTRODUCTION

In the Report on the City of Whitehorse prepared in 1960 by the Institute of Local Government, Queens University, a recommendation was made "that a Metropolitan Plan be prepared by the City, subject to the approval of the Commissioner to control development within 10 miles of the City". At the request of the Department of Northern Affairs and National Resources on the 12th of January 1961, Central Mortgage and Housing Corporation undertook to prepare the metropolitan plan.

Following a planning survey of the area and a series of related background studies a metropolitan plan was prepared. This is comprised of an illustrated report and a series of wall maps at large scale which describe recommendations for development over a 20 year period, and the methods by which they may be implemented.

SURVEY

A planning survey was carried out in July 1961 with the collaboration of the territorial and city officials. Subsequently a research programme was undertaken to investigate the physical, economic and social influences inherent in the development of Whitehorse. The results of this programme was described in the following section.

HISTORY

Early Exploration and Settlement

- (1) Leechman, Douglas: 'Yukon Territory' report of article in Canadian Geographical Journal Ottawa, June 1950, p.15.

Archaeologists have indicated that primitive man penetrated the American Continent via the Yukon Valley where temporary encampments were established at the head of navigation of the Yukon River. Following these early migrations a small population of Indians and Eskimos were for many years the only inhabitants until the Russian discovery of Alaska in 1741.(1) The Yukon however was not penetrated by the white man until trappers and prospectors entered the territory in the mid-19th Century. In 1838 a Hudsons Bay fur trading post was established in northern British Columbia which served as a jumping off point for other routes which were established via the MacDougal Pass and Porcupine River in the North, and the Chilkoot and White Passes in the South West.

Following the major gold strike in August 1896 near the junction of the Klondike and Yukon Rivers there was a large influx of population and a rapid expansion of existing settlements. The Chilkoot and White Passes became the principal gateways to the Yukon and prospectors would travel by sea up the west coast to the port of Skagway, go overland via the passes to the head of navigation of the Yukon River, and proceed by sternwheeler to the goldfields in the Dawson City area. As a consequence of this heavy population movement the settlement of Whitehorse expanded rapidly at the point where the overland route joined the Yukon River. Whitehorse became a major transshipment centre due to its location 110 miles from the ice-free port of Skagway and its situation at the head of navigation of the Yukon River. The construction of the White Pass and Yukon Railway in 1900 further strengthened its position as a regional transshipment and service centre.

Since the turn of the century the Town of Whitehorse has been a barometer of the economic climate of the Yukon. The decline which followed the gold rush period was reflected in the size of the town which dwindled to some 350 inhabitants in winter and 650 in summer. In 1913 a stimulus was provided by the silver lead mine at Keno Hill and the gradual expansion of the mining industry which has since become a large scale and stable feature of the local economy.

A second boom development was experienced because of the build up of military requirements for the defence of Alaska during the 2nd World War. This resulted in a temporary population of approximately 40,000 in the Whitehorse area. Much of the construction was in the form of military barracks, and storage areas. The airport and the Alaska Highway were completed providing valuable additions to the City's transportation facilities. At this time the squatters settled on land owned by the Federal Government and British Yukon Navigation Company. Following the war time expansion a decline set in and by 1944 the City's population was 8,000 diminishing to 3,680 by 1945.

As a result of war time development very large areas were committed to military uses surrounding the City on the west and north, and transportation and storage areas were established north of the City. These developments within the limited area of the townsite made necessary the subsequent expansion to the east bank of the river and the growth of territorial subdivisions adjoining the Alaska highway. Shortage of land on the townsite also encouraged the growth of squatter areas on the fringe of the town. Other main features of post war development were the construction of a power dam at Whitehorse Rapids and the completion of a sewer and water system for the City.

The Gold Rush

The Second World War

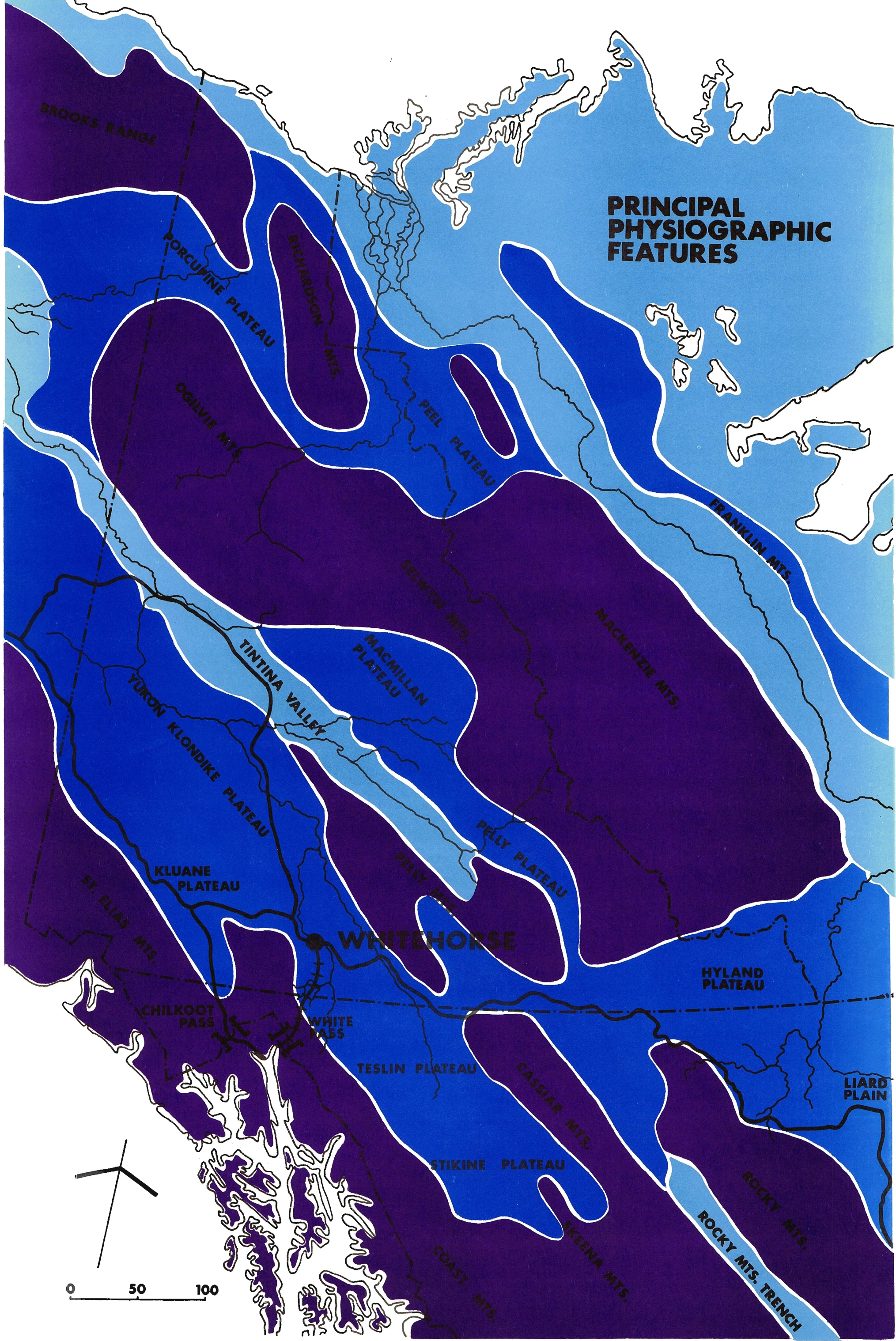
HISTORY

Government

The evolution of local government for Whitehorse throughout this period reflects its growing importance in the territory. The Yukon became a provisional district of the Northwest Territories in 1895 and 3 years later was established as a separate territory with its capital at Dawson City. Administration of the territory was the responsibility of a Commissioner advised by a legislative council appointed by the Federal Government. Elected members were later added to the council. Whitehorse achieved city status in 1950 and five years later became Capital of the Yukon.

Whitehorse's history of development has followed a fluctuating pattern of expansion and decline. In periods of prosperity the value of Whitehorse as a regional transportation centre was demonstrated. Following a post war decline Whitehorse gradually broadened its range of activities to become the capital of the Yukon, a centre for military establishments and the service and transportation centre of an expanding mining industry. The instability of rapid growth and decline appears to have given way to a broad based economy with hope for steady future growth based on an expanding mining and tourist industry. Plans for future development will ensure an orderly pattern of growth.

PRINCIPAL PHYSIOGRAPHIC FEATURES



Topography

- (1) Atlas of Canada 1957: Map 13
 Physiographic Regions.
 Batelle Memorial Institute:
 Transport Requirements for
 the Growth of N. W. N. America
 1961, Vol. II, Chapter II,
 p.p. 1-8.

A description of the major physical features of the Canadian northwest will give some indication of their influence on the penetration and development of the region. The map entitled "Principal Physiographic Features", (1) illustrates this section.

The Yukon Territory is situated at the northern end of the North American Cordilleras mountain system with its two major ranges, the Coast Mountains and the Rocky Mountains separated by a system of high irregular plateaus. The Coast Mountains form a barrier to the sea and the Rocky Mountains complete the isolation of the region by following the eastern Territorial boundary and then cutting diagonally across the Yukon. An extension of this system known as the Richardson Mountains lies in the northern Yukon flanked by two plateaus, one draining north to the Beaufort Sea, the other west to the Yukon River.

The major portion of the Yukon lies south of the Ogilvie and Selwyn Mountains in the Rockies and consists of a plateau system drained in a northwesterly direction by the Yukon River and its tributaries eventually flowing to the Bering Sea. This southern plateau system is further broken up by the Cassiar and Pelly Mountains in the south, and the Tintina Valley which follows the general northwesterly direction diagonally across the Yukon Territory.

The main accesses to this region are the overland route from the southeast crossing the Rocky Mountain barrier via the Liard Valley, the Yukon River route from the south, and the sea route from the southwest to the port of Skagway then overland through the Coast Mountains via the Chilkoot and White Passes. Access from the north is limited by the Beaufort Sea with its problems of arctic navigation.

- (2) F.H. Collins: Yukon Territory.
 Brief to the Gordon Com-
 mission 1955, p. 15.

The climate in the region is sub-arctic, (2) with the exception of the northern areas where the Arctic tundra climate dominates. There are great seasonal variations in temperatures, however, the average temperatures in January (the coldest month of the year) are little different in the southern Yukon from those reported for Winnipeg and Saskatoon. It is the length of the Yukon winter that compares less favourably with other areas.

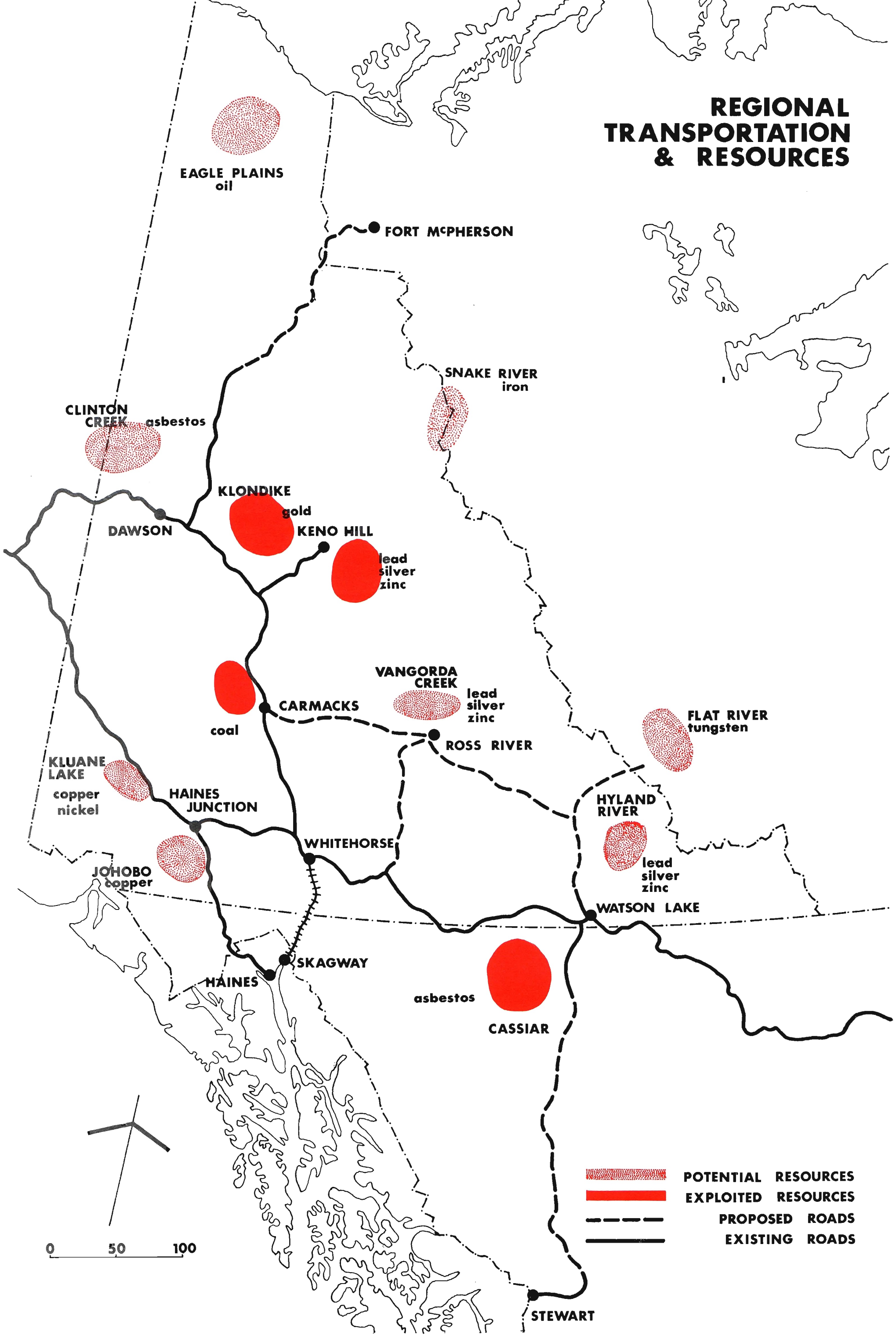
Frost free period at Whitehorse	-	78 days (45 at airport)
Mayo	-	64 days
Saskatoon	-	112 days





- (3) Dr. H.S. Bostock: Geological
 Survey Branch, Dept. of Mines
 and Technical Surveys.
 Personal contact.

The long hours of summer sunlight in addition to the warm temperature promote rapid growth of vegetation. The average precipitation in the area is about 12.5 inches of rain and 43 inches of snow per annum. Heaviest precipitation occurs on the western slopes of the Coastal and Rocky Mountains, leaving their eastern faces and the high central plateaus relatively dry. The two wet belts can create severe obstacles for traffic movement, particularly over the passes in the Southwest. (3) As a result of this precipitation pattern most of the tributaries of the Yukon originate in the Rocky Mountains in the easterly part of the region.

Climate

REGIONAL TRANSPORTATION & RESOURCES



-  POTENTIAL RESOURCES
-  EXPLOITED RESOURCES
-  PROPOSED ROADS
-  EXISTING ROADS

0 50 100

- (1) F.H. Collins: Op. Cit. p. 5-9.
 (2) R.G. Bucksar: The Frontiers Recede. "The North" Nov-Dec 1961, p.16.
 Royal Commission on Canada's Economic Prospects. Some Regional Aspects of Canada's Economic Development 1956, p. 202.
 (3) B.G. Sivertz: The North as a Region - Resources for Tomorrow: Vol. I, 1961, p. 571.
 (4) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter IV, p. 22.
 (5) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter V, p. p. 151, 217, 231.
- (6) F.H. Collins: Op. Cit. p.13.
 (7) Royal Commission on Canada's Economic Prospects: Op. Cit. p. 203.
- (8) Source Whitehorse Star.
- (9) F.H. Collins: Op. Cit. p. 8.
 (10) R. Skinner: Mineral Industry of Yukon Territory and South Western District of MacKenzie 1960.
 Batelle Memorial Institute: Op. Cit. Vol. II, Chapter V, p. 4.
 Survey of Mines 1961, published by the Financial Post.

The limited information available indicates that the Yukon is potentially one of the great resource areas of the world.(1) The problems of physical barriers(2) and distance from processing and manufacturing centres have so far restricted the pace of development and adversely affected the regions competitive position in relation to existing major resource areas. The Yukon remains a frontier economy with a low overall population density of approximately 1 person to 14 square miles.(3) Further study is required to assess the resource potential with any accuracy, and development on a large scale is unlikely while similar resources are available in Canada and elsewhere at lower cost.(4) The information in this section is illustrated on Maps entitled "Regional Transportation and Resources" and "Transshipment via Whitehorse 1960".

The growing of food is confined to some 20 farms occupying approximately 4,000 acres.(5) Less than 1,000 acres are improved land which is cultivated for local consumption or used for experimental agriculture. Most of the forest wealth is concentrated in the south of the region and, of the 27 million acres potential, only a minor part is accessible. Lumber may become increasingly important over the long term when the Yukon may compete with more accessible areas in B.C. and Alberta. Trapping and the sale of fur pelts has dropped sharply as a result of competition from synthetic furs and ranch raised pelts.

The potential of hydro electric power is estimated to be 4-1/2 million h.p. or about 1/4 of the capacity now developed in Canada.(6) Recently, a power dam generating 15,000 Kwh has been constructed on the Yukon River near Whitehorse, supplying the City and area. The Yukon Consolidated Gold Corporation operates its own installation of about 15,000 Kwh which also provides electric power to Dawson City.(7) The Northern Canada Power Commission operates a 4,000 Kwh plant on the Mayo River for power delivery to United Keno Hill Mines Limited. The availability of additional hydro power could be an important stimulus for processing of ores and for the establishment of other industries in the region.

Exploration of oil and gas reserves in the Eagle Plains area in the Northern Yukon have involved expenditures of \$10 - \$15 million, most of it in the last five years. This is an involved and costly process with problems of climate, terrain and great distances involved. A further 10 - 15 years may be required to appraise these reserves. A report by Professor Quirin of the University of British Columbia is however optimistic concerning the potential role of the Yukon as a major source of oil which may be shipped by pipeline via Whitehorse to Skagway, or by tankers from more northerly ports.(8)

The mainstay of the region's economy is the mining industry. 25 different minerals have been discovered in the area.(9) Of these, gold, silver, lead, zinc, cadmium, coal and asbestos are mined in significant quantity, with copper, tungsten, platinum and antimony to a lesser amount and significance.(10) In the period from 1956 to 1960 the annual metal production declined from \$15.7 million to \$12.2 million, and only the asbestos production of Cassiar expanded to about \$10 million in 1960. The latter operations are located in B.C. but use the transshipment facilities at Whitehorse.

General

Agriculture, Forestry and Trapping

Hydro Electric Energy

Oil and Gas

Mining

(11) Dominion Bureau of Statistics.

Mineral Production in Canada's Northwest(11)
1960

<u>Mineral</u>	<u>Quantity</u>	<u>Value</u>
Gold (a)	77,770 oz.	\$ 2,638,736
Silver (b)	6,765,450 oz.	\$ 6,011,779
Lead (b)	17,546,060 lb.	\$ 1,873,919
Zinc (b)	10,323,961 lb.	\$ 1,377,216
Cadmium (b)	143,513 lb.	\$ 203,788
Asbestos (c)	39,675 tons	\$11,109,000
Coal (d)	4,945 tons	\$ 74,414
Total		\$23,288,852

- (a) Mined by the Yukon Consolidated Gold Corporation - Dawson City.
 (b) Mined by United Keno Hill Limited - Mayo.
 (c) Mined by Cassiar Asbestos Corporation - Cassiar, B.C.
 (d) Irregularly mined by the Yukon Coal Company - Carmacks.

United Keno Hills Limited, Cassiar Asbestos Corporation Limited and the Yukon Consolidated Gold Corporation are at present producing almost the entire mineral output of the region.

The Cassiar Asbestos Corporation is the leading producer of minerals in the region with an annual output of about 40,000 tons of concentrates. The bagged concentrates are moved 357 miles by truck to Whitehorse, transferred there to containers and moved by the White Pass and Yukon railroad down to Skagway (110 miles) where the containers are transferred to the ocean going vessel of the White Pass and Yukon railroad Company for the 1,600 mile trip down the Inside Passage to Vancouver. There it is warehoused and shipped to world-markets.(12) In addition to the shipments through Whitehorse, concentrates are now being shipped to Fort St. John for rail transportation to the interior,(13) and presumably the new Cassiar-Stewart road, when completed, will take further shipments direct by truck to the ocean port at Stewart.

The United Keno Hill Mines Limited, is the main producer of metals in the region. The company is mining and concentrating silver, lead, zinc and cadmium on Galena and Keno Hills between Keno and Elsa, 32 miles north of Mayo and about 280 miles north of Whitehorse. About 36,000 tons of concentrates were shipped in 1960 by trucks to Whitehorse and from there transhipped via Skagway and Vancouver to the smelters in Trail B.C.(14) The high silver content of around 40 ounces per ton of ore mined is the pre-

(12) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter V, p. 54.

(13) Whitehorse Star December 18, 1961.

(14) R. Skinner: Op. Cit.

Mining

dominant value that makes the operation economic. The total value of the company's output of silver, lead, zinc and cadmium reached \$8.8 million in 1960 and in 1961 the company was one of the largest silver producers in the world. The outlook for the future of this enterprise appears very favourable, and reserves are stated to be large. In the near future, two new mines are expected to be opened.

The third largest mining firm is the Yukon Consolidated Gold Corporation, which operates in the Klondike region near Dawson City. (15) Gold and silver to the value of \$2.2 million were mined in this area in 1960, together with some mercury and platinum. Gold production is slowly declining. (16) In addition to the large scale gold mining described above there are many small mines with a relatively low output.

Other mining operations are small compared to those described above. These include the working of high grade copper deposits at Johobo Mines, where 2,100 tons were produced in 1960 and nickel and copper deposits at Kluane Lake.

The Yukon Coal Company operates at Carmacks with the bulk of the production being supplied to United Keno Hills Mining and the remainder to Cassiar Asbestos, Whitehorse and the Dawson area. The coal is of a good quality and production may expand in the future. (17)

There has been a sharp increase in mineral prospecting in recent years. Out of a total of 1,500 claims in 1960, 928 were located in the Whitehorse District. (18)

Potential mineral areas include lead, zinc, silver, gold and copper deposits at Vangorda Creek and lead, zinc and silver in the Hyland River area east of Watson Lake. At Clinton Creek 40 miles north of Dawson City there are asbestos deposits which may eventually yield 30,000 tons annually. (19) The areas of South East Yukon and South West Mackenzie generally are rich in ore deposits as well as lumber and hydro power potential. The areas require further investigation to evaluate the reserves, and large companies such as Rio Tinto, Premium Iron Ore and Phelps Dodge Corporation are involved in prospecting.

The importance of the tourist industry has only recently received the attention it deserves. Some countries derive almost the whole of their earnings from tourism whilst other predominantly industrial economies, particularly in Europe, regard tourism as a major source of foreign exchange. The Yukon has considerable tourist appeal and is in a position to attract U.S. traffic en route to Alaska provided the attractions of the region are developed and transportation and accommodation are adequate. (20)

The Yukon's romantic associations with the Gold Rush era, its frontier atmosphere combined with the physical grandeur of the Northwest, make it eminently suitable as a tourist area. In addition to these romantic associations the region affords excellent opportunities for exploring, hunting and fishing in the largely uninhabited wilds of the Rocky Mountains and the central Yukon Plateau. Within the vicinity of Whitehorse are to be found the Takhini hot springs (20 miles away), Miles Canyon and the Whitehorse rapids, Destruction Bay (at mile 1083) which is the graveyard of gold-rush-day boats, and the Million

Mineral Potential

Tourism

- (15) R. Skinner: Op. Cit.
K.J. Christie: Known Mineralised Areas and Mining Development in Yukon Territory and North West Territories, 1960, p. 30.
- (16) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter V, p. 4.
Dr. H.S. Bostock - personal contact.
- (17) K.J. Christie: Op. Cit. p. 26.
- (18) Department of Northern Affairs and National Resources: Mining in the North 1961, p. 10.
- (19) Department of Northern Affairs and National Resources: Op. Cit. p.p. 2-10.
Batelle Memorial Institute: Op. Cit. Vol. II, Chapter V, p. 66.
- (20) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter V, p.p. 243-268.

Tourism

Dollar Mile which is noteworthy for having been surfaced with the tailings from the Tenderfoot Creek gold strikes. In Whitehorse proper there is the attractive setting of the city beside the Yukon River with its rapids and the old sternwheelers, the historical interest of the museum, Sam McGee's cabin and the local Indian population.

The bulk of the tourist traffic into the Yukon travels by automobile and bus via the Alaska Highway with increasing numbers using air travel. There is a great tourist potential from Alaska with its 1/4 million people and transient military population, who show an increasing interest in the Yukon. Whitehorse is also used as a base for hunting expeditions which employ local guides and stay for longer periods.

The tourist industry can exploit the natural and historical attractions of the region, but has to contend with the cost and inconvenience of great distances and the relatively short season imposed by the climate. These disadvantages will be intensified by the Alaska ferry system and by the upgrading of the Haines cut-off road creating a relatively fast through route to Alaska by-passing the Whitehorse area.

To offset these difficulties the travel and accommodation facilities and the tourist attractions of the region would have to be markedly improved to remain in a competitive position and increase their share of the Alaskan tourist traffic. Once local improvements were initiated, the upgrading of the major road system would be a strong inducement for the motoring public to cover the great distances involved.

The outlook for tourism in the region is encouraging.(21) In 1960, for example \$4 million was spent by tourists in the Territory. Various sources give conflicting figures for the number of visitors entering the Yukon Territory, but nevertheless all indicate that tourism is increasing. The following information was compiled by the Whitehorse Board of Trade for the months of May through August:-(22)

(21) B. G. Sivertz: Op. Cit. p. 571.

(22) Whitehorse Star 1962.

Year	Cars In	Passengers In	Bus Passengers In	Total Passengers In
1960	7,468	23,299	1,622	25,000
1961	8,037	25,563	1,793	27,350

The year 1961 was the busiest year for the Alaska Highway and it was estimated that just under 10,000 travellers headed South into the Yukon (at mile 1202) during July, making it the best month in the roads history.

The next few years are crucial for the tourist industry in the region, but if facilities expand to meet the demand, besides the gradual growth in tourism now experienced, there could even be a diversion of visitors who now holiday in Alaska. The Batelle Report draws attention to the locational advantage of the region for persons wishing to travel North and concludes encouragingly: "much of the Canadian portion of the study area is more accessible than other areas in terms of time, comfort and cost".(23)

(23) Batelle Memorial Institute:
Op. Cit. Vol. II, Chapter V,
p. 264.

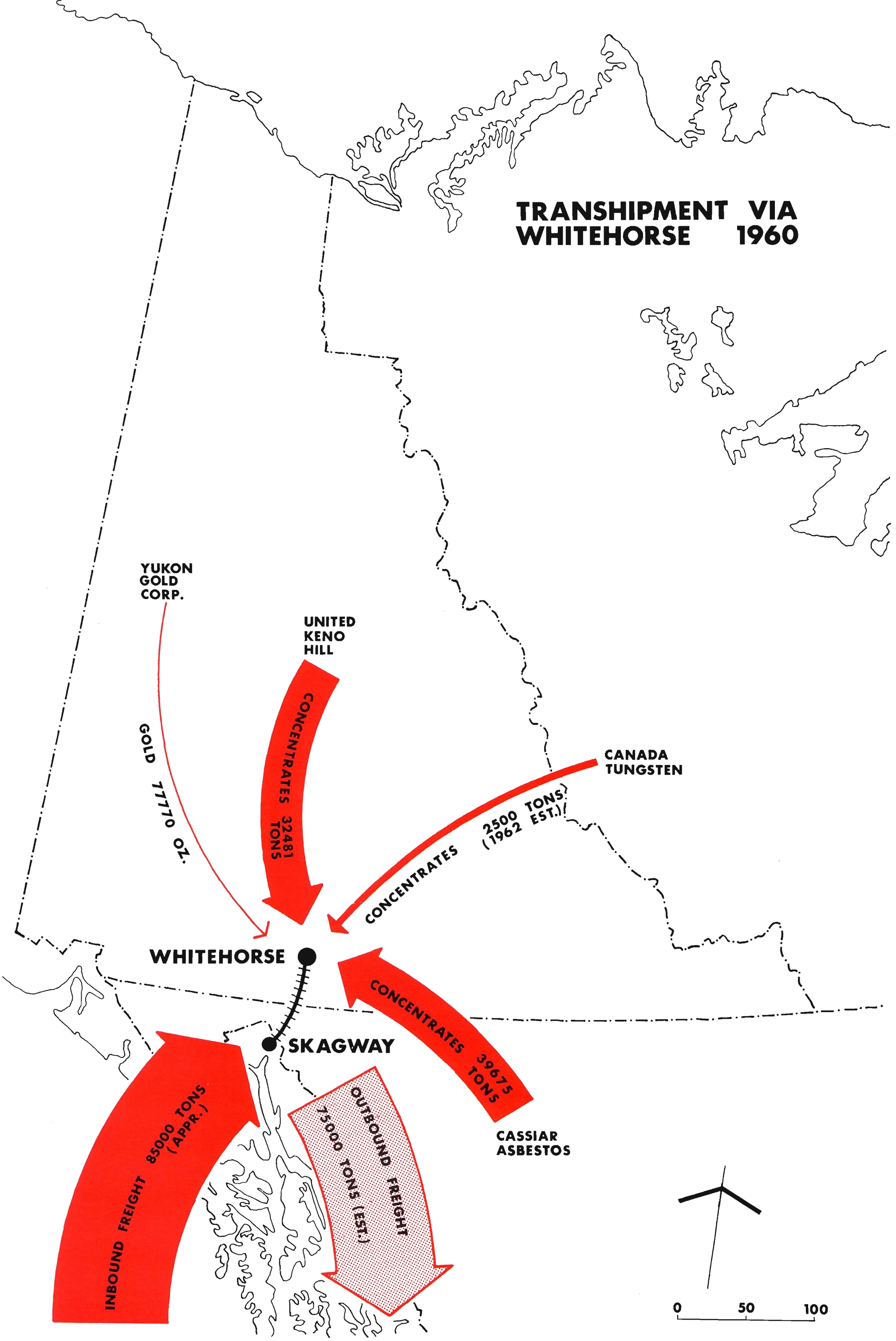
Summary

- (24) J.R.K. Main: Transportation as a Factor in Northern Development - Resources for Tomorrow, Vol. I, 1961, p. 579.
R.G. Bucksar: Op. Cit. p. 17.
F.H. Collins: Op. Cit. p. 16.
Royal Commission on Canada's Economic Prospects: Op. Cit. p. 213.
Batelle Memorial Institute: Op. Cit. Vol. II, Chapter VII, p.p. 1-30.

Evidence indicates that the Yukon is one of the great resource areas of the world. High transportation costs however, control the pace of development and the ability to compete in world markets.(24) The mining industry is likely to remain the mainstay of the region's economy with large reserves as yet untapped. There are indications of hydro power potential and oil and gas reserves, both of which must be regarded as long term developments. The region also has large lumber reserves and a small and localized agriculture. It is reasonable to assume a period of steady expansion over the long term as exploration and proving of resources continues. This was taken into account in estimating the annual rate of growth for Whitehorse in the Chapter entitled "Population and Social Characteristics".

Tourism plays an increasing part in the regional economy and with a planned upgrading of facilities should expand fairly rapidly to exploit the natural and historical attractions of the Yukon.

TRANSHIPMENT VIA WHITEHORSE 1960



YUKON GOLD CORP.

GOLD 77770 oz.

UNITED KENO HILL

CONCENTRATES 32481 TONS

CANADA TUNGSTEN

CONCENTRATES 2500 TONS (1962 EST.)

WHITEHORSE

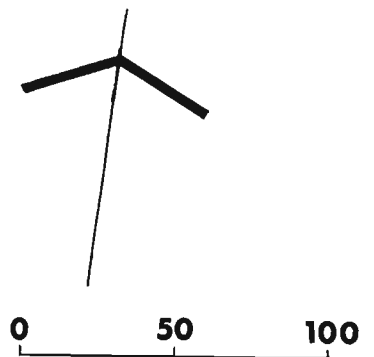
SKAGWAY

CONCENTRATES 39675 TONS

CASSIAR ASBESTOS

INBOUND FREIGHT 85000 TONS (APPR.)

OUTBOUND FREIGHT 75000 TONS (EST.)



Major Routes

Whitehorse is firmly established as the major transportation centre of the Yukon. It lies at the centre of a regional highway system of which the main traffic artery is the Alaska Highway starting at Dawson Creek, B.C. and running 506 miles through the Territory to the Alaskan border and Fairbanks in a general northwesterly direction. Just north of Whitehorse the road branches north from the Alaska Highway. The Dawson City road branches north west at Stewart Crossing and the Sixty Mile road links Dawson with the Alaska Highway beyond the Territorial boundary. These two highways are well maintained throughout the year, and enable a growing trucking operation to supply Whitehorse with foodstuffs and other freight at a cost which has successfully competed with local agriculture and processing.

The White Pass and Yukon railway runs 110 miles from Whitehorse to the port of Skagway. Whitehorse thus acts as a transshipment centre for the export of minerals and as a service and distribution centre for the region with links to the south via road, rail and air.

The Whitehorse airport is located on high ground west of the city and is operated by the Department of Transport. Regular flights are operated by Canadian Pacific and Pan American Airways with the scheduled traffic for the year 1960 totalling 433 flights.(1) Freight to the Mackenzie Delta is now being air lifted via Whitehorse and this traffic is likely to become increasingly important.

(1) Statistics Section, Department of Transport.

The City lies on the Yukon River which is navigable for 6 months of the year. Following the decline of river traffic the use of the waterway was until recently restricted to tourist cruises. In 1961 however, a freight service with two boats was revised between Whitehorse and Dawson City.(2)

(2) Dr. H.S. Bostock - personal contact.

An American fast ferry service between Prince Rupert, B.C. and six Alaskan harbours including Skagway and Haines will be introduced in the summer of 1962 consisting of three ships each taking 500 passengers and 100 cars which will reduce the travelling time from Prince Rupert to Skagway to 26 hours.(3) Although this ferry is planned mainly with regard to tourist traffic it will also affect the region's freight traffic.

(3) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter VII, p.24.

The Haines cut-off road runs 100 miles from Haines, Alaska to Haines Junction on the Alaska Highway, 100 miles west of Whitehorse. The introduction of a fast American ferry service has strengthened the case for winter maintenance on the above mountainous road which has been open only for summer traffic. This would establish an alternative route to west coast ports for resource areas west and north of Whitehorse, thus eliminating the railway transshipment operation. High costs would be involved however in upgrading the Haines cut-off road and the facilities of Haines Harbour.

Haines Cut-Off Road

A road is now under construction in British Columbia from the port of Stewart to Cassiar thus connecting to the Alaska Highway.(4) The asbestos producing Cassiar mines are now exporting via Whitehorse but the shorter all road link to an ocean port will attract traffic to avoid the transshipment costs of reloading to rail service at Whitehorse. This route, going through two wetbelts, will require efficient maintenance and adjustments to the high road taxes in B.C. before assuming a great proportion of the traffic now going to Whitehorse. But even so it is probable to assume the decision to proceed with this route was well considered as to costs, maintenance, new development and resources, and will eventually compete with the Whitehorse route, especially for areas to the east and south.

(4) Batelle Memorial Institute: Op. Cit. Vol. II, Chapter VII, p.27.

Stewart-Cassiar Road

TRANSPORTATION

Flat Creek-Eagle Plains Road

(5) Department of Northern Affairs
and National Resources,
Op. Cit. p.11.

A new road is under construction which will connect Flat Creek (east of Dawson City) via the Ogilvie Mountains with the oil and gas explorations in the Eagle Plains area.(5) This link is expected to be extended through the Richardson Mountains to Fort MacPherson in the Mackenzie District, referred to as the Aklavik or Arctic Road. This route, in which the White Pass and Yukon Railway has interests might produce additional requirements for transshipment facilities using pipe line, rail or truck service for importing or exporting, but only when significant discoveries are made can this trend be assessed.

Watson Lake-Ross River Road

(6) Department of Northern Affairs
and National Resources:
Op. Cit. p.11.

A road is now under construction from Watson Lake to Ross River and would include an access road to the Nahanni Range in the Mackenzie District which would lead to the property of the Canada Tungsten Mines Limited and play an important role in the exploration of the Mackenzie Mountains.(6)

Ancillary Effect

This road building program results in a seasonal influx of unskilled and semi-skilled labour, and the construction of new roads together with the maintenance of the Alaska Highway by the Army, represents an important source of income for Whitehorse and the region. There are also long term considerations such as the possibility of paving the Alaska Highway and transferring its maintenance from the military to a civilian administration. Both proposals might reduce the labour force required at Whitehorse but neither can be forecast with any accuracy.

Railway

(7) Batelle Memorial Institute:
Op. Cit. Vol. II, Chapter VII,
p.p. 1-30.

There are four railroads which serve Canada's North West and one in Alaska which either have or could have an impact on the Yukon and subsequently Whitehorse. These are:(7)

The White Pass and Yukon Route.
The Northern Alberta Railway.
The Pacific Great Eastern Railway.
The Canadian National Railway.
The Alaskan Railway.

The White Pass and Yukon route, the only railway in the Yukon, runs for 110 miles by narrow gauge from Whitehorse to Skagway carrying mostly freight for Cassiar Asbestos and United Keno Hill Mines amounting to approximately 150,000 tons annually, 85,000 in-bound and 65,000 out-bound.(7) It has in addition a pipe line running from Skagway to Whitehorse, which at present is almost entirely utilized in shipping petroleum products into the Region. It is the presence of the railway at Whitehorse and the other transportation facilities attracted by it that gives the city its transshipment importance and one of its major economic functions.

The Northern Alberta and the Pacific Great Eastern export very little from the Yukon Region but their importance lies in their connection to the continental rail system and possibility of future extensions up into the Yukon and Alaska.

The C.N.R. which maintains a line from Prince George to Prince Rupert have made studies to continue the line north from Summit Lake to the Yukon but preoccupation with rail expansion in Northern Quebec will probably delay this for a considerable period.

TRANSPORTATION

The Alaskan Railway has no impact on the Yukon at present but might form part of a future continental rail-linkup which would immediately place Whitehorse in a through route position. In adapting to this continental system the White Pass and Yukon Railway may consider changing from narrow to standard gauge and relocating on high ground west of Whitehorse. It is also possible that related transshipment activities might tend to relocate near the new route outside the present municipal boundary. The White Pass and Yukon Railway have recently renewed their track and rolling stock and the above proposals can only be regarded as long term possibilities.

Railway

It would seem evident that the future role of Whitehorse is tied very closely to the development of its hinterland and depends heavily on the location and facility of new transportation routes. Conceivably the upgrading of the Haines cut-off could drain freight from the north and west and the Stewart-Cassiar Road take major freight haulage from the south and east thus leaving Whitehorse in between the two with a resultant decline of the railway and transshipment functions. However, both routes have inherent problems of costs, maintenance, severe weather conditions and topography. These factors combined with modern comprehensive service available through the White Pass and Yukon Company, a tried and less severe route to a well equipped harbour, together with the existence of a wide range of ancillary facilities in Whitehorse, would all seem to indicate that Whitehorse will maintain its dominating position as the Yukon's service and transshipment centre at least for some considerable time in the future. In addition, the city has a well equipped airport, is a major centre for mining and exploration companies, Territorial and Federal Offices and military establishments, all indicating the importance of Whitehorse in the further growth of Canada's northwest. The estimated annual rate of growth of the city in the Chapter entitled "Population and Social Characteristics" reflects this assumption of gradual long term expansion.

Summary

The Territorial Government System

(1) Statutes of Canada, 1952-53, Elizabeth 1-2, Vol. 1, Queen's Printer, Ottawa 1953.

Since 1898 the area known as the Yukon Territory has existed by virtue of a Canadian Statute referred to as "The Yukon Act"⁽¹⁾ and has been administered by a form of government closely resembling the Federal-Provincial system of separation of powers but with certain essential differences. These differences were designed to insure Federal control over what was a sparsely populated, extensive and virtually unexplored area of Canada, in which the major administrative requirements were of a Federal nature. To ensure satisfactory local representative government, the Territorial Government system was established which, though acting in a role of a provincial government and having virtually the same powers other than owning or administering its own natural resources, acts under instructions of, and in the final instance is responsible to, the Federal government. The administration of the territory is carried out by a resident Commissioner, who is appointed by the Governor-in-Council and responsible to the Minister of Northern Affairs and National Resources. There is a legislative council of 7 members who are elected for 3 year terms and who present bills to the Commissioner which he may approve, disapprove or reserve for the assent of the Governor-in-Council. His powers extend to "generally all matters of a merely local or private nature in the Territory", or "to such other matters as are from time to time designated by the Governor-in-Council".⁽²⁾

(2) Op. Cit. Chapter 53, Section 16, (x) and (2).

Among other powers available for the orderly development of the Yukon Territory, the Commissioner has the power to designate any area as a "development area" and thereby control it by the various means as set down in the "Area Development Ordinance".⁽³⁾ The powers of expropriation lie with the Federal Government and their implementation in the Municipality is a complex problem.

(3) Revised Ordinances 1958, Yukon Territory, Chapter 7, Section 4.

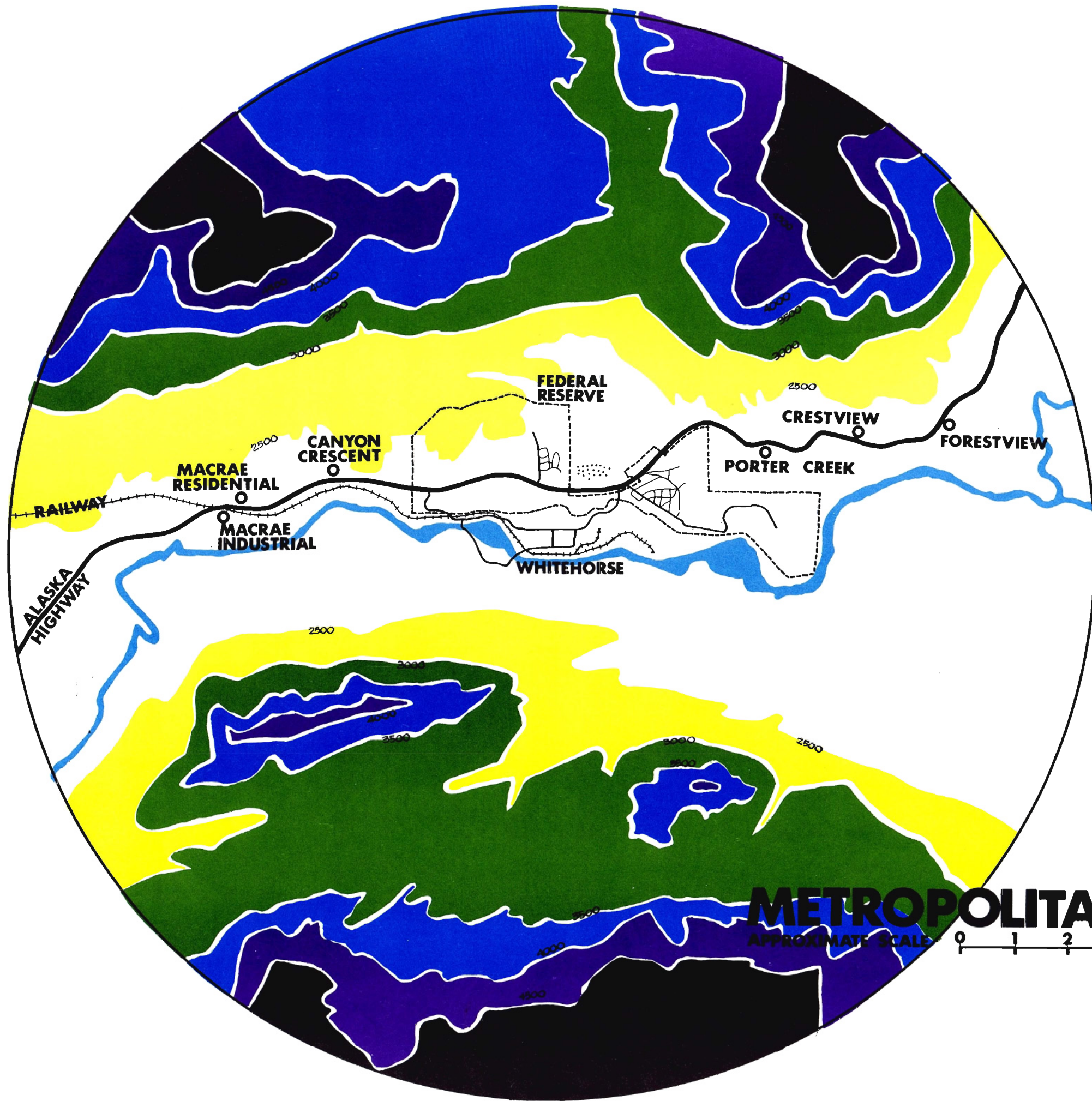
In addition to its overall area responsibilities, the Territorial Government assists in, or in some cases, assumes financial or administrative responsibility for many functions generally under the jurisdiction of a municipality. It assumes financial responsibility for education facilities for white and non-Indian status children, and administratively through a superintendent of schools responsible to the Commissioner. Hospitalization and health care costs, fire-protection services and the financial burden of construction, maintenance and upgrading of roads in unorganized communities, are all assumed by the Territorial Government. In organized municipalities such as Whitehorse and Dawson City the Territorial Government pays the city 50% of road construction costs and 25% of road maintenance costs.

Local Responsibilities of the Territorial Government

This municipal reliance on a senior level of government as a major source of revenue has allowed the Territorial Government a great deal of control and guidance in municipal development, and in general to participate at a local government level to a greater degree than would normally be found in provincial-municipal relations. This has been necessary at the outset to establish and guide municipalities until they are in a stronger administrative and financial position. This measure of control has, however, removed from the municipality areas of responsibility that would normally lend strength and stability to the local government.

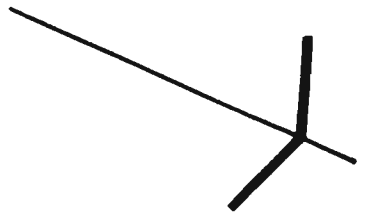
The form of government that exists in the Yukon would seem to be a generally satisfactory one with which to deal with the peculiar problems of the Yukon Territory. However, the relationship that exists between the 3 levels of government does not readily lend itself to metropolitan area development.

Summary



METROPOLITAN AREA

APPROXIMATE SCALE 0 1 2 3 4 5 MILES



EXISTING AREA

PHYSICAL FEATURES

Topography

The Whitehorse area lies on the upper reaches of the Yukon River in a major physiographic division known as the Yukon Plateau province. This is undulating upland at an average elevation of 5000 feet with valleys of 1500 feet to 4000 feet depth with a general drainage to the northwest. The pre-glacial valley of the Yukon River at Whitehorse is about 4 miles wide from base to base of the enclosing hills. Silts and boulder clays form the central portion of the valley floor through which the river has cut a narrow winding secondary valley about 200 feet in depth. The River passes through Miles Canyon and Whitehorse Rapids before reaching the city at which point it is 300 to 400 feet wide. The 200 feet escarpment west of the townsite consists of stratified beds of silt from 1 to 3 inches thick with a surface layer of sand from 4 to 30 feet thick.(1) This forms a barrier behind the townsite which restricts development and is subject to erosion during periods of heavy run off.

(1) J.R. Lotz: "General Introduction to Whitehorse" a report prepared by the Department of Northern Affairs and National Resources, August 1961, p. p. 1 and 6.

(2) Ibid.

The main townsite is located approximately 2100 feet above sea level on a gravel flat from 10 to 20 feet above the river level. The gravel is clean washed of a maximum size of 2 inches and all topsoil must be imported.(2) The flat site is bounded by the Yukon River on the east and the escarpment on the west forming a roughly rectangular shape with narrow necks north and south of the City. The built up area extends to the east bank of the river and to the plateau west and north of the gravel flat.

The city's location in the valley provides an average frost free period of 78 days compared to 45 days at the airport on the plateau. Snow falls from September to May with an average for the year of 43 inches, together with an annual rainfall of 10 to 12 inches. The temperatures range from a mean of 3.2°F in December to a mean for the month of July of 56.2°F. The low lying situation provides little protection from prevailing southeast and south winds which(3) are funnelled up the river valley and the north-south oriented grid street pattern is exposed. Wind speeds average 9 mph over the year rising to a maximum of 10.7 mph in October.(4) Low lying land north of the city is subject to flooding during the break up period. The average change in the river levels is 8 feet from low to high water.(5)

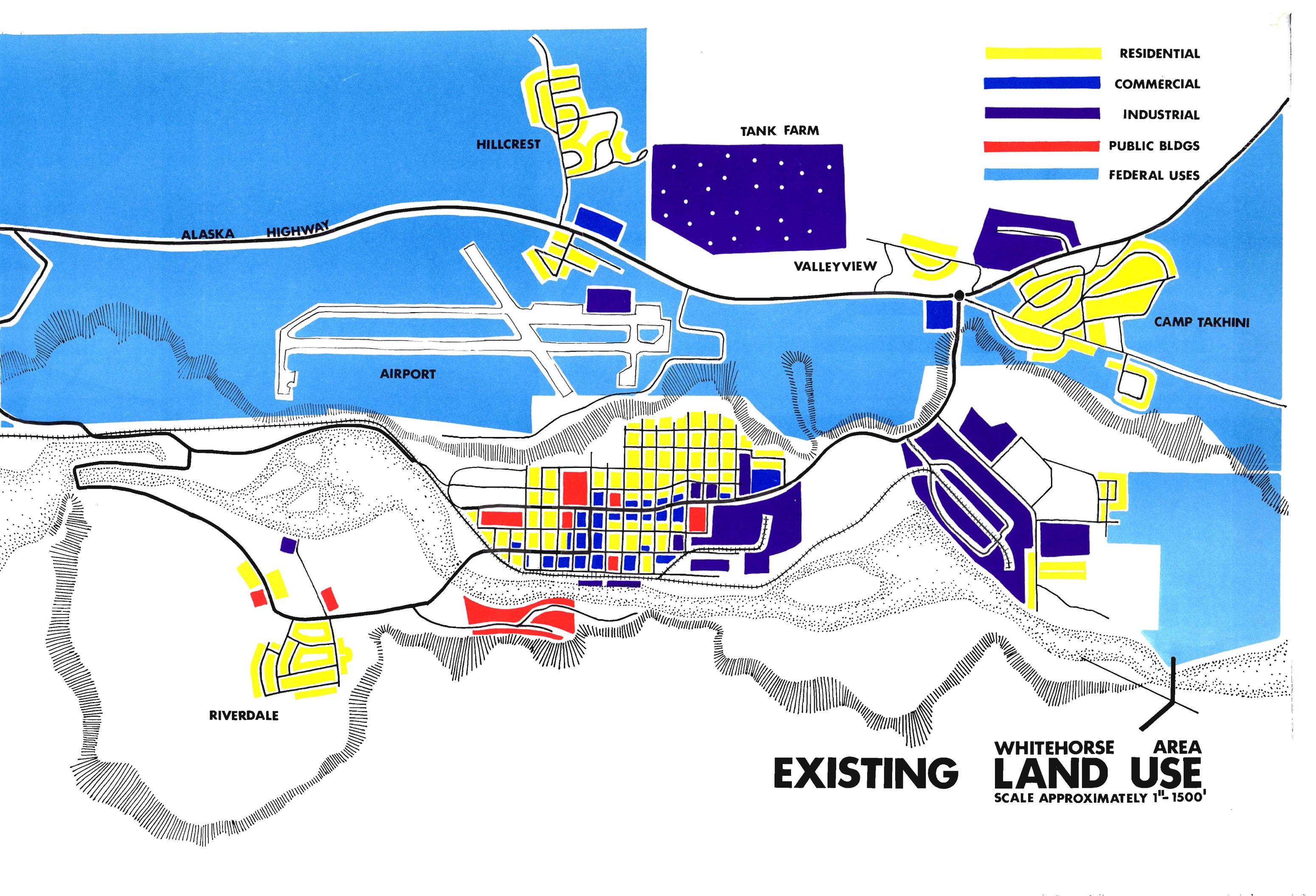
(3) Whitehorse District Aviation Forecast Office, Meteorological Branch, Department of Transport, "Whitehorse Yukon - Annual Meteorological Summary 1960 and Long Term Records 1942-1960", p. 20.

(4) Whitehorse District Aviation Forecast Office: Op. Cit. p. 20.

(5) J.R. Lotz: Op. Cit. p: 6.

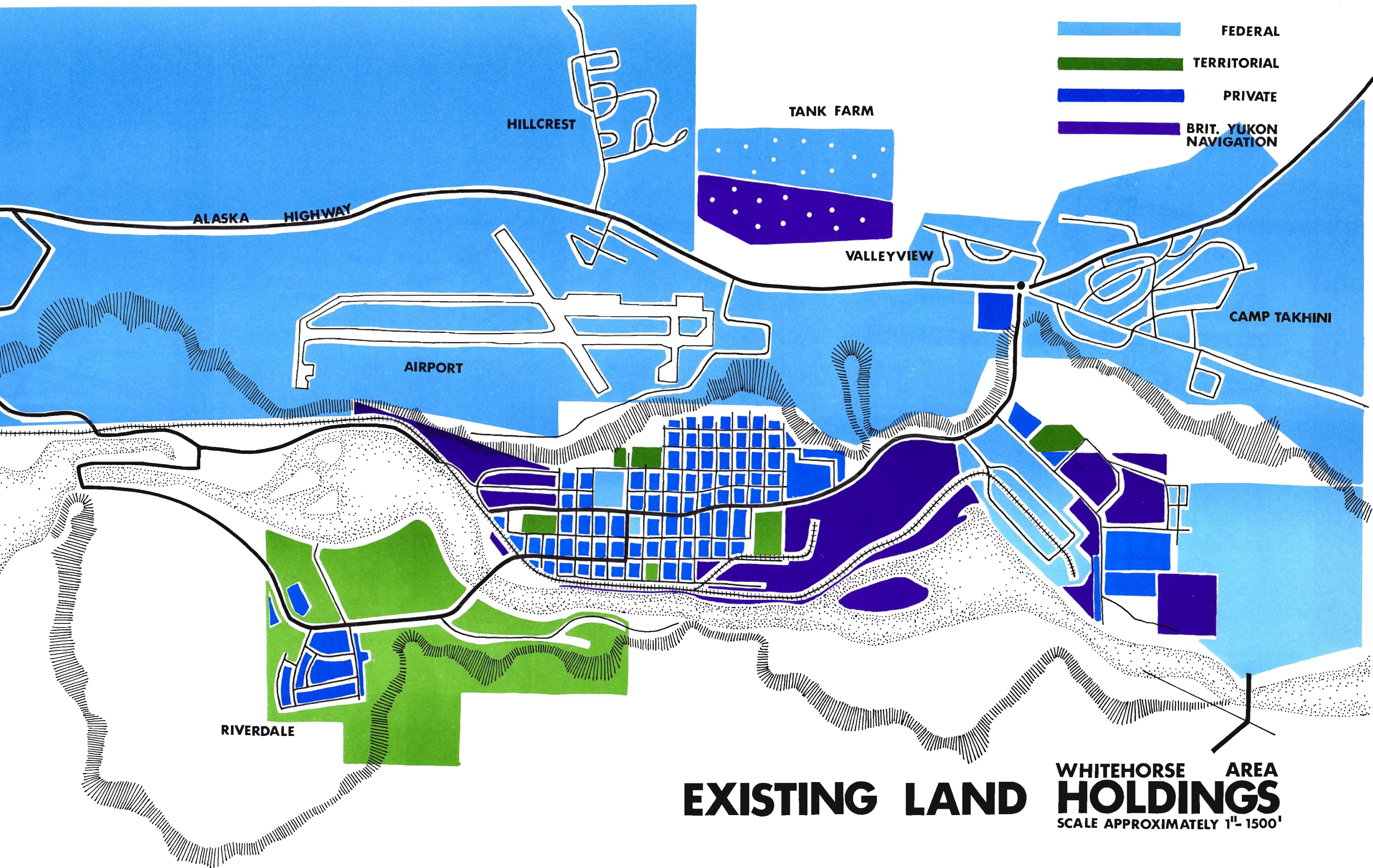
Climate

Local topography has shaped the city and restricted its growth so that additional areas of development are relatively inaccessible and are dispersed on the high plateau and on the east bank of the river.



- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC BLDGS
- FEDERAL USES

EXISTING WHITEHORSE AREA
LAND USE
SCALE APPROXIMATELY 1" = 1500'



- FEDERAL
- TERRITORIAL
- PRIVATE
- BRIT. YUKON NAVIGATION

EXISTING LAND

WHITEHORSE AREA HOLDINGS
 SCALE APPROXIMATELY 1" = 1500'

EXISTING DEVELOPMENT

Whitehorse Metropolitan Area

The Whitehorse Metropolitan Area has been defined as land within a 10 mile radius of the centre of the City of Whitehorse. This area includes all land set aside for territorial subdivisions from Macrae to the south, up to the junction of the Alaska Highway and Mayo Road north of Whitehorse. Although this circular area has the advantage of being easily defined, the land suitable for future development in the valley floor is generally confined to a strip approximately 5 miles wide following the Alaska Highway.

South of the City of Whitehorse and east of the Yukon River lies a very attractive area at Chadburn Lake which has a great potential as a scenic and recreational centre. North of the City McIntyre Creek flows into the Yukon River between Camp Takhini and Porter Creek and is a local source of power and water supply.

Adjoining the Alaska Highway at the southern extremity of the metropolitan area land is allocated for 2 undeveloped territorial subdivisions, one industrial and one residential. Further north lies the Canyon Crescent subdivision which was partially developed at the time of the Survey in July 1961. Six lots were sold out of a total of 42 and some preparatory work undertaken on the roads. The most fully developed of the territorial subdivisions flank the Alaska Highway about 5 miles north of the city at Porter Creek and further north at Crestview. Forestview as yet undeveloped, is the last of the 5 territorial subdivisions on the Alaska Highway, and is located at the northern extremity of the metropolitan area.

Large areas of Military and Federal reserves surround the city on the west and north. The D.O.T. reserve including the airport, and the R.C.A.F. reserve including communications equipment and a small residential area (Hillcrest) are located west of the city on high ground. North of this lie a small D.O.T. residential area (Valleyview) and the C.N.T. buildings, adjacent to 2 Mile Hill which is the main access road from the Alaska Highway down to the city. Other areas to the north of the city include an army highway maintenance depot, an industrial area, the Indian Reserve (not an official reserve under the Indian Act) and a large army reserve including a residential area in Camp Takhini and communications areas further north.

Approximately 8,000 acres of land are in use in the metro area at the present time of which 6,770 acres or 85% are military and Federal reserves.

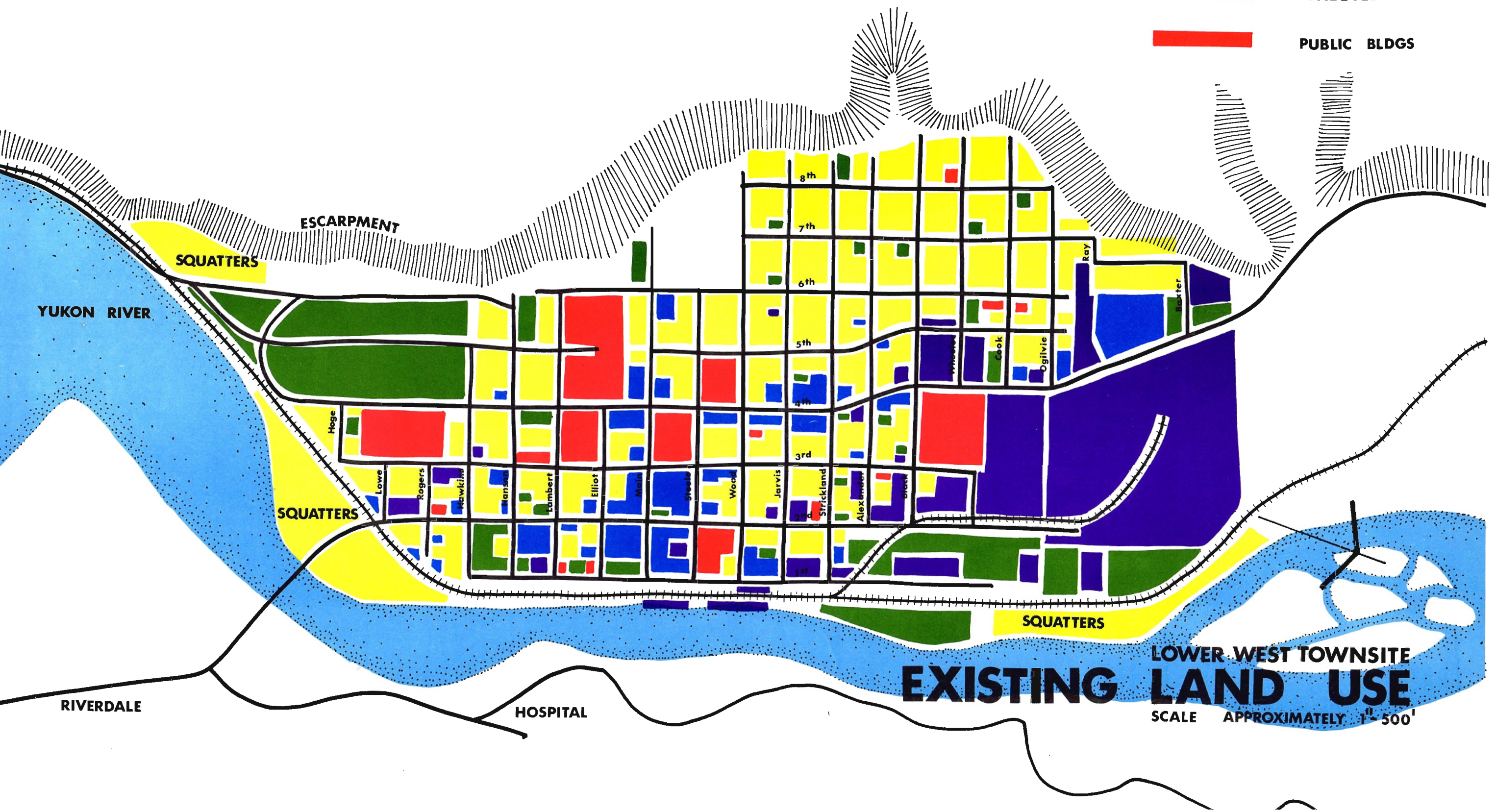
North of the city the Army reserve, including a small Federal area totals approximately 2,600 acres and the Indian reserve is approximately 270 acres. The Department of Transport Airport reserve totals approximately 1,250 acres and the R.C.A.F. reserve 2,650. Both are located west of the city.

Excluding the military reserves there are 1,160 acres of existing developed land in the Metropolitan area of which 566 acres or 49% is residential, 32% is commercial and industrial, 11% is occupied by public buildings, and 8% is used for cemeteries and unoccupied lots on the townsite. (See Table - Metropolitan Area Existing Development).

WHITEHORSE METROPOLITAN AREA
EXISTING DEVELOPMENT

	Units	Areas In Acres Incl.Rds.	Residential Road Area Acres	Residential Rds. at % of Area Developed	% Incl. Military Reserves	% Excl. Military Reserves
RESIDENTIAL						
Townsite (West Bank)	735	103	31	30%		
Squatters	287	38	-	-		
Riverdale	175	45	12	27%		
Wells Subdivision	26	6	-	-		
Army (Camp Takhini)	380	115	25	22%		
R.C.A.F. (Hillcrest)	165	44	12	27%		
D.O.T. (Valleyview)	35	15	3	20%		
C.N.T.	15	6	-	-		
Porter Creek	156	146	46	32%		
Crestview	25	48	17	35%		
	1999	566			7%	49%
RETAIL COMMERCIAL AND OFFICES						
		23				
INDUSTRIAL						
		347				
		370			5%	32%
PUBLIC DEVELOPMENT						
Government and Civic		13				
Schools		33				
Hospital		52				
Hostels		18				
Churches		6				
Civic Recreation Centre		5.5				
		127.5			2%	11%
OPEN LAND						
Cemeteries		15.5				
Vacant Lots (Townsite)		83				
		98.5			1%	8%
TOTAL EXCL. MILITARY RESERVES		1162				100%
MILITARY AND FEDERAL RESERVES						
Army and Federal		2600				
R.C.A.F.		2650				
D.O.T.		1250				
Indian Reserve		270				
		6770			85%	
TOTAL INCL. MILITARY RESERVE		7932			100%	

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- UNDEVELOPED
- PUBLIC BLDGS

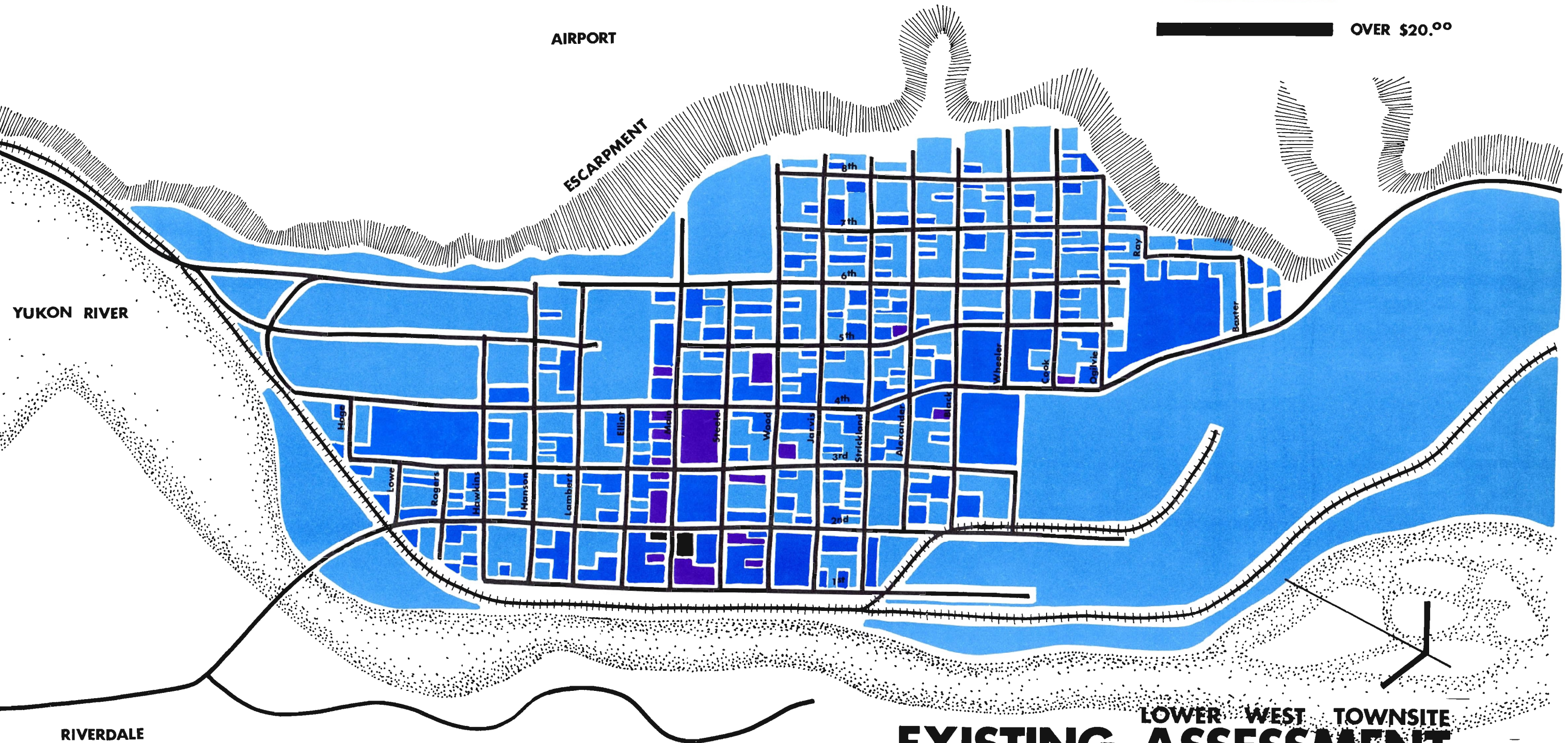
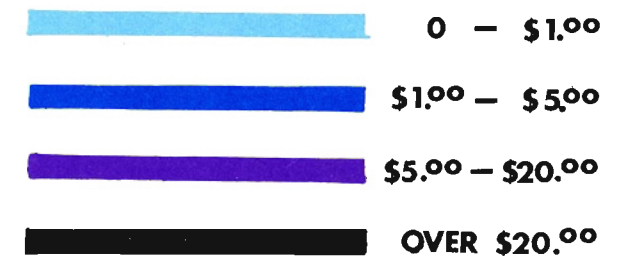


WHITEHORSE - TOWNSITE WEST BANK

EXISTING DEVELOPMENT

	Units	Areas In Acres Excl. Rds.	% of Total Area	Areas of Roads
Residential	735	72	18	31
Squatters	287	38	9	-
	1022	110	27%	31
Retail Commercial and Offices		14	3.5	6
Industrial		91	22	38
		105	25.5%	44
Government and Civic		9	2	4
Schools		5	1	2
Churches		4	1	2
Civic Recreation Centre		4	1	1.5
		22	5%	9.5
Cemetery		4	1	1.5
Vacant Lots		58	14.5	25
		62	15.5%	26.5
Roads		100	24	
Rear Lanes		11	3	
		111	27%	
		410	100%	111

ASSESSED VALUE OF LAND PLUS IMPROVEMENTS PER SQUARE FOOT



RIVERDALE

EXISTING ASSESSMENT

LOWER WEST TOWNSITE

SCALE APPROXIMATELY 1"=500'

EXISTING DEVELOPMENT

The City of Whitehorse

The main townsite is located on the west bank of the Yukon River. Its plan is based on a gridiron pattern with blocks averaging 300' x 220' including 20' rear lanes. Streets are 80' wide with the exception of Main and 1st Avenue which have a width of 100'.

The townsite contains the business centre, government offices and the industrial and transportation functions of the Whitehorse area. Most of these activities are located in the north east quadrant of the townsite between the river frontage and 5th Avenue. This area has as its northern limits approximately 50 acres of railway sidings, transshipment and storage areas. On the west exists a ribbon of service industry and commercial uses on 4th Avenue extending from Main Street to the Tourist Services Shopping Centre. The southern limits are defined by the business district and Federal building on Main Street and the service industry and automobile retail areas South of Main Street. Beyond the above north east quadrant are areas predominantly residential in character with occasional development of a semi-public character such as the Civic Recreation Centre at the south end of the townsite, the R.C.M.P. Headquarters area, the Anglican and R.C. sites centrally located, and the cemetery on the west side of the City adjoining the escarpment. The Riverdale subdivision is situated on the east bank of the river within the City boundary.

The townsite within the municipal boundary on the west bank of the river contains approximately 410 acres of usable land, of which approximately 58% is developed for residential, public buildings, commercial and industrial uses, 27% is used for roads and rear lanes, and 15% of the land lies vacant. The vacant land includes the 24 acres in lot 19 at the south of the City, land adjoining the cemetery and a number of widely distributed vacant lots.

Residential development occupies 27% of the townsite, but approximately one third of this total is taken up by squatter areas. Industrial areas occupy 22% and commercial areas 3.5% of the total area. Public buildings, schools, churches, a recreational centre and cemetery account for 6% of the land. (See Table - Townsite West Bank - Existing Development).

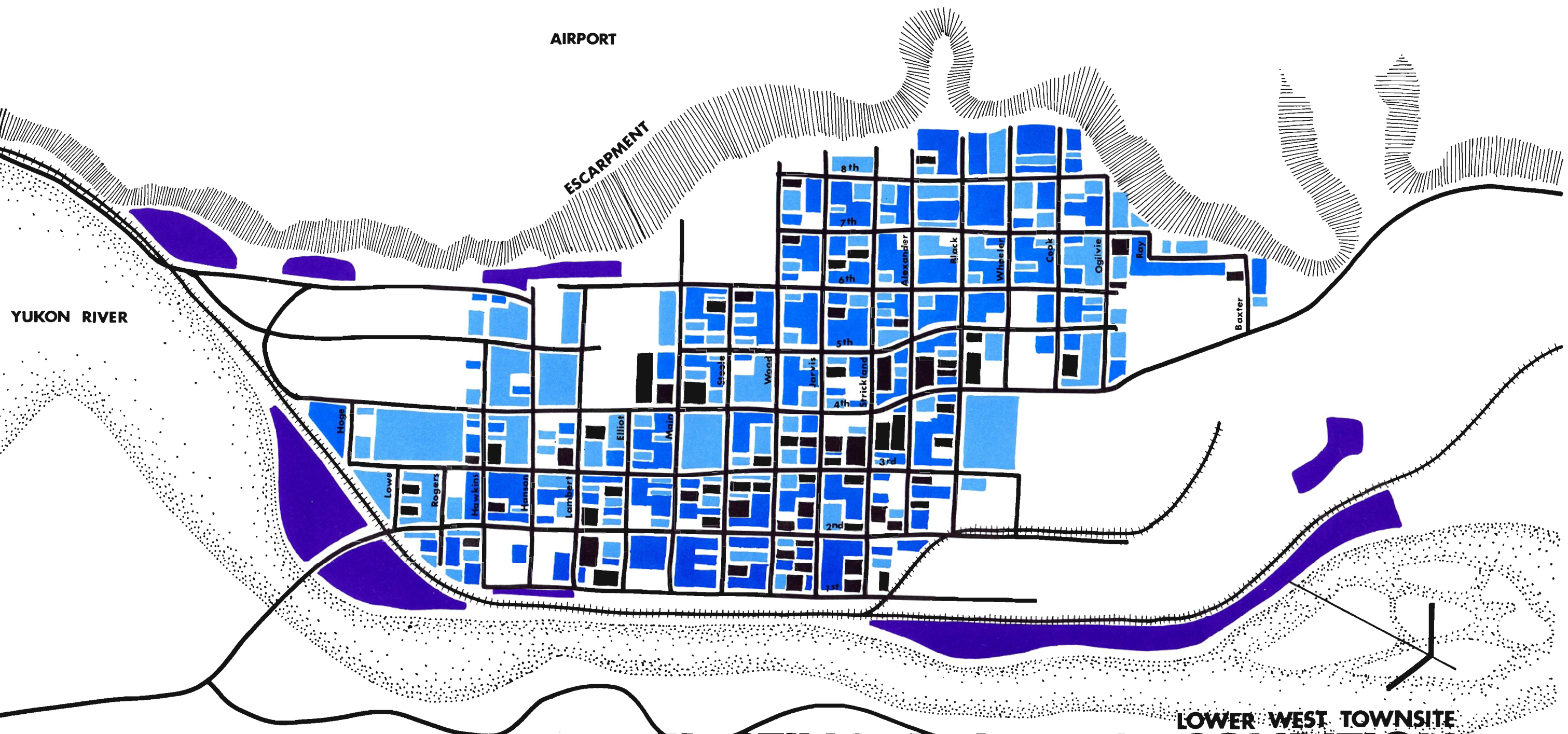
Assessment figures indicate that the most expensive land and improvements are located on Main Street, 1st and 4th Avenues. In very general terms the mixed use area in the north east quadrant of the townsite (north of Main St. and east of 4th Avenue) is in the middle range of assessed values, although this area shows a higher than average concentration of poor buildings. The lowest range of values occurs in the predominantly good residential areas west and south of this quadrant. The squatter areas, railway yards and land outside the built up area of the Townsite are in the low range assessed values with the exception of the Riverdale housing area. Most of the industrial land is under the ownership of the British Yukon Navigation Company who own approximately 40% of the townsite area. Low assessment figures reflect the relatively undeveloped nature of industrial areas.

There are approximately 2,000 dwelling units in the Metropolitan area, of which 1,223 are in lower Whitehorse, 595 in Army, R.C.A.F., D.O.T. and C.N.T. residential areas, and 181 in Territorial subdivisions adjoining the Alaska Highway. The bulk of the accommodation is in single family housing, with the exception of an apartment block of 13 units, some small rooming houses and hostel accommodation in lower Whitehorse.

Areas

Assessment

Housing



AIRPORT

ESCARPMENT

YUKON RIVER

RIVERDALE

EXISTING BUILDING

**LOWER WEST TOWNSITE
CONDITION**

SCALE APPROXIMATELY 1" = 500'

Housing

The main townsite on the west bank of the river contains 735 dwellings at a density of 7 dwellings per net acre. 276 dwellings were found to be in good physical condition, 381 were fair and 78 or 11% were poor. 10 squatter areas are located on B.Y.N. and Crown land on the periphery of the townsite. The total number of squatters dwellings at the time of survey was 287 at an average density of 8 dwellings per net acre. 100 dwellings are fit for relocation - 40 of these meet the City's standards for serviced subdivisions and 60 could be relocated on unserviced land. The remaining 187 houses are classified unfit. The squatter problem has been studied in detail by the Department of Northern Affairs and National Resources.(1) A proportion of the squatters have reasonable incomes and accommodation, but 80% of them are in a low income group which could not afford normal rents or home ownership on a standard serviced lot. Their location is such that prime land with great scenic potential is used for some of the worst accommodation in Whitehorse. Funds are available for the clearance of these areas and rehousing on alternative sites.(2)

- (1) J. R. Lotz: "Report on the Squatters" prepared by the Community Planning Branch, Department of Northern Affairs and National Resources - August 1961, p. 51, Table VIII.
 (2) Government of Yukon Territory. Estimates 1960-61.

No survey of buildings was made for the new subdivisions and military areas. In Riverdale, Camp Takhini, (Army), and Hillcrest (R.C.A.F.) the density is 3.5 to 4 dwellings per net acre and the housing and maintenance is of a high standard. Of the 5 territorial subdivisions for which land has been reserved, only two, one at Porter Creek and one at Crestview, north of the city, have been substantially developed at approximately 1.5 dwellings per net acre, with lot sales at the time of survey totalling 156 in Porter Creek out of a total of 230, and 25 in Crestview out of a total of 69. There is also a small private subdivision partially developed and containing some 6 dwellings and 20 trailers just north of the city boundary known as the Wells subdivision. All these areas are intended to provide low cost home-ownership and the standard of building is not as high as that prevailing in the serviced residential areas.

Residential development occupies a total of 566 acres or 49% of the developed land in the metropolitan area excluding the large areas of military and Federal reserves. (See Table - Metropolitan Area). Of this total 110 acres is situated in the townsite on the west bank of the river and represents 27% of the townsite area. (See Table - Townsite West Bank).

The business district of city and metropolitan area is centred on Main Street. The largest stores are located on the south side of Main Street and on 1st Avenue just north of Main. The post office, banks, offices and two of the major hotels and a movie theatre are also located in this area between 1st and 4th Avenues. The majority of the buildings on the south side of Main Street are in good condition with the exception of a block adjoining 1st Avenue which has been burnt down since the time of the survey. The quality of most of the buildings on the north side between 2nd and 3rd Avenues was below the general level for the central business district.

Commercial development including retail stores, automobile distributors, service stations and a proportion of service industrial uses such as auto body shops and warehousing, has spread north and south of Main on 1st, 2nd and 4th Avenues. This trend is most marked on 4th Avenue from Main Street running north to the city boundary, an area containing a supermarket, a motel, a bottling plant and a truck depot, in addition to the uses described above. Between this portion of 4th Avenue and the river is an area of mixed storage, commercial and residential use generally of a poor quality.

Commercial Areas

EXISTING DEVELOPMENT

In the metropolitan area there is a total of 23 acres or 2% of land used for retail commercial and office purposes excluding the military reserves. (See Table - Metropolitan Area). 14 acres of this development is in the main townsite representing a proportion of 3.5% of the total townsite area. (See Table - Townsite West Bank). The total commercial and office floor space of 331,000 sq. ft. is approximately 50% of the total commercial land area in the townsite. Retail space excluding offices totals 305,360 sq. ft. which amounts to a fairly generous figure of 38 sq. ft. per person. Assuming a median family income of \$5,500 with 49% available for retail expenditure, it is calculated that an average of \$40 per sq. ft. represents the retail expenditure in Whitehorse compared to a Canadian average of \$45 per sq. ft.

Commercial Areas

The total area of metropolitan land used for industrial, transportation and warehousing purposes is 347 acres or 30% of metropolitan development excluding military reserves. (See Table - Metropolitan Area). Major industrial and storage areas outside the city are the tank farm of 146 acres west of the Alaska Highway and the area adjoining 2 Mile Hill Road north of the city which consists of 67 acres of industrial land and 63 acres used for the army maintenance depot. 91 acres of industrial land lie within the city limits and represent 22% of the main townsite area. (See Table - Townsite West Bank). Most of this land is at the northern neck of the townsite and consists of railway sidings, transshipment areas and adjacent truck depots and warehousing. These combine with the local topography to restrict the northerly growth of the town.

Industry

Of the total of 91 acres of industrial land on the main townsite only 3.8 acres or 167,000 sq. ft. (4%) represents the total building space occupied, the remainder being open land, some of which is used for surface storage. The Railway right-of-way outside the sidings area represents quite a small proportion of the total industrial area, but it follows the town's river frontage from the southern boundary to the industrial area north of the city and restricts the development of this frontage for other purposes.

The land used for public and civic purposes in the metropolitan area totals 127.5 acres representing 11% of the total developed area excluding military reserves. (See Table - Metropolitan Area). Areas include Government and Civic buildings 9 acres, Schools 31 acres, Hospital grounds 52 acres, Hostels 18 acres, Churches 4 acres, and the Civic Recreational Centre 4 acres. Of the above total 22 acres of public land are located on the townsite representing 5% of the townsite area. (See Table - Townsite West Bank). The major government buildings are the Federal building and the R.C.M.P. site north and south of Main Street respectively, also the Municipal Offices and Museum between 1st and 2nd Avenues.

Public Buildings

The schools on the main townsite are the Whitehorse High School (4.25 acres) at the north end of town on 4th Avenue and the Christ the King separate school on the R.C. land west of 4th Avenue. There is an elementary school which is in poor condition and offers inadequate accommodation. Both public and separate schools are provided adjacent to the Riverdale Subdivision and a territorial school is located at Camp Takhini.

EXISTING DEVELOPMENT

There is a shortage of land and classroom accommodation which is being corrected under the provisions of the Educational programme of the Territorial Government. This will provide new high and vocational school accommodation, additional elementary school accommodation and the transfer of grades from the substandard elementary school.

Public Buildings

The 4 acres Civic Recreational Centre at the south end of the city provides for active sports such as baseball, curling, skating and swimming. The buildings and ball park are owned and maintained by the City Council.

There are 72 acres (7% of the total developed area) of open land in the metropolitan area comprising cemeteries and vacant lots. (See Table - Metropolitan Area). A cemetery is located near the escarpment on the west side of the main townsite. Approximately 4 acres of this is in use with an equivalent area held in reserve and classified as vacant land. Another cemetery of 10 acres is located in the Riverdale subdivision on land originally planned for a residential neighbourhood, and a small Indian Cemetery of approximately 1 acre is situated at the base of 2 Mile Hill Road north of the city. The location of the two larger cemeteries on flat serviceable land aggravates the problem of inefficient and wasteful land use which is a characteristic of Whitehorse development.

Open Land

Land on the subdivided portion of the townsite which was not in use at the time of survey was classified as vacant land and totalled 58 acres representing 14.5% of the area of the main townsite. (See Table - Townsite West Bank). This apparently high figure includes lot 19 (24 acres), unused land adjoining the cemetery on the west side of town, a portion of the old hospital site on 1st Avenue, and a number of widely distributed vacant lots, some of which may be held for speculative purposes. At the time of the survey in July 1961 there were no municipal park areas but small parcels of land have now been acquired for this purpose in Riverdale. Prime riverfront land of great scenic value has been built up with squatters dwellings.

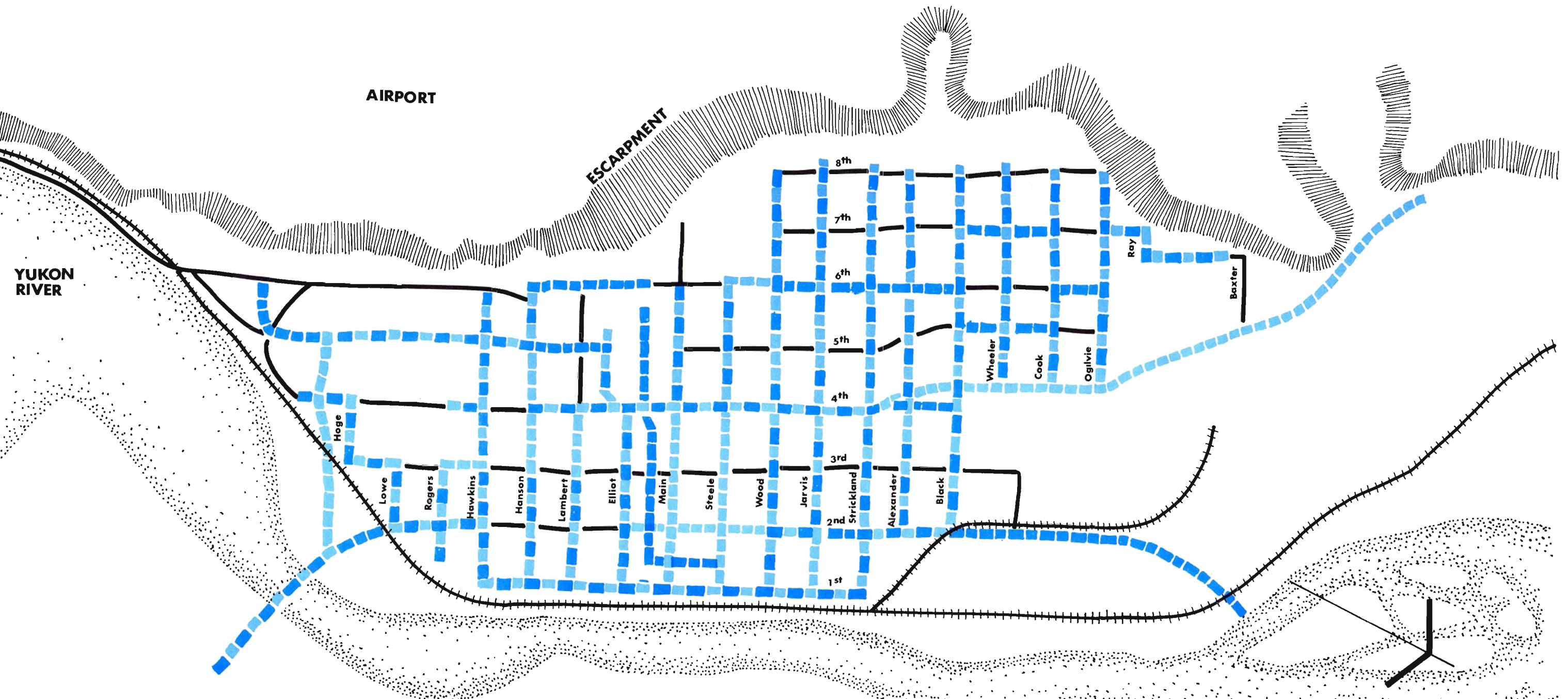
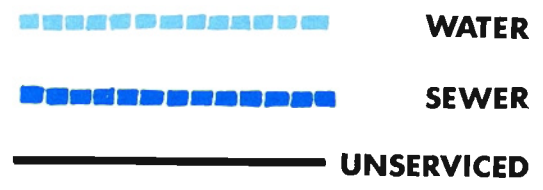
An escarpment approximately 200' high encircles the townsite to the west. Detailed studies have been made by the N.R.C. with the object of preventing the sloughing which occurs on this escarpment during the periods of heavy run-off.

The improvement of sanitary conditions and the adequacy of water supply were being studied by the civic authorities as early as 1951 and resulted in the submission of a brief in 1953 on behalf of the city supporting an application to the Federal Government concerning the need for a servicing programme in the City of Whitehorse. Negotiations between the City, the Territorial and Federal Governments in 1954 and 1955 were followed by a local plebiscite resulting in strong support for a sewer and water programme at a cost not exceeding \$750,000.(3)

Services

Proposals for the construction by the Federal and Territorial Governments of a hospital and a residential area on the east bank of the Yukon River heightened the interest of the senior levels of government in the

(3) The Institute of Local Government, Queens University, "The City of Whitehorse" a report prepared for the Department of Northern Affairs and National Resources: Jan. 1960, p.p. 21-23 incl.



RIVERDALE

LOWER WEST TOWNSITE
EXISTING WATER AND SEWER
 SCALE APPROXIMATELY 1" = 500'



Services

servicing problem. The Territorial Council at its first session in 1954 enacted The Whitehorse Water-works and Sewage Disposal Ordinance C4.1954 (1st Session) authorizing the City Council to issue debentures to an amount not exceeding \$1,000,000 for the planning, construction, operation and maintenance of a water supply and purification system, a sewage system and disposal plant. This issue was conditional on the approval of the Commissioner and the assent of two-thirds of the city voters. The assent of the electors was received on the 31st May 1954 and the authorizing By-Law No. 30 was passed on the 8th June 1954.(3)

The City agreed that the serviced area should include the hospital and residential area proposed on the east bank, in return for which the Federal Government undertook to construct a bridge across the river. Construction commenced in 1955 with the Commissioner acting as agent for the City and supervising the work. The system was completed and handed over to the City in the fiscal year 1957-58.(3)

The water supply is pumped from the Yukon River into the reservoir and distribution system simultaneously. The reservoir is maintained at 2/3 capacity. Well water is used during the brief periods when the river water is dirty. In winter river water is mixed with water from deep wells to keep the temperature at approximately 37°F. Off peak pumping is maintained as far as possible to minimize the costs of electricity. Approximately 50 bleeders are installed in the distribution mains and additional bleeders are also located in the service entrances to housing. The bleeders reduce the risk of costly repairs due to freezing and the loss of water must be accepted.(4)

- (4) A.B. Yates: "Report on Operating Costs of City of Whitehorse Water and Sewer System" p. 2 - a report prepared by the Engineering Division, Northern Administration Branch, Department of Northern Affairs and National Resources, Jan. 1960.
 (5) A.B. Yates: Op. Cit. p. 2.

Sewage in the major part of the main townsite flows by gravity mains to No. 1 lift station at the north end of the city and is pumped into the Yukon River. Sewage from a small area in the north west of the City and the Riverdale subdivision is discharged through lift stations into the above system. The present site of RCME (17 Works) and adjoining areas are served by an Army lift station and discharged into the river.(5)

In Upper Whitehorse the R.C.A.F. and D.O.T. sewer mains discharge into the City system in the north west and south west of the city respectively.(5)

- (6) A.B. Yates: Op. Cit. p.p. 3 and 4.

A thorough review of the water and sewer system including technical and financial problems was carried out by the Department of Northern Affairs and National Resources. Certain operating defects including inadequate pumping, silting up, broken mains due to freezing and poor ground, and alterations and connections to the Army System had been corrected at the time of the report. Other problems included pipe corrosion, defective automation and flowmeters, defective pumping motors, replacement problems, inadequate storage accommodation and reservoir leakage.(6) The present sewage outfall is located on the west bank of the river adjacent to the north boundary of the city in the vicinity of the railway sidings. This is not the most favourable location as the effluent, due to the location of sandbanks, cannot take advantage of the maximum flow of the main body of the river. Methods of sewage treatment are now under consideration and this will involve decisions on the future use of the few remaining areas of serviceable land adjacent to the townsite.

Roads and Traffic

The major road serving the Metropolitan area is the Alaska Highway. This has a 300' right-of-way and is paved for a distance of 2 miles either side of the junction with 2 Mile Hill. At this point a territorial road forms the main access to Whitehorse. This is a fairly steep gradient and is a dirt road from the Alaska Highway up to the RCEME depot. The roads in the Territorial subdivisions are not paved and have a road allowance of 100'.

City roads on the main townsite are laid out on a close grid pattern with a road allowance of 80' except for 1st Avenue and Main Street which are 100' wide. A large proportion of these roads are unpaved but a paving programme is underway and is now completed for 1st and 4th Avenues and a substantial length of 2nd and 6th Avenues. Of the east west streets, most of Main and Hawkins Streets and portions of Steel and Wood Streets are paved. Portions of the intersecting streets both sides of 2nd Avenue and 4th Avenue have also been paved.

The developed portion of the Riverdale subdivision has been laid out on a curved street system with minor residential road allowances of 60' and major roads of 80'.

Traffic counts were carried out by the R.C.M.P. and indicated the heaviest traffic volume in the city on 4th Avenue between Main Street and Tourist Services at the north boundary of the city. An average of 6,990 vehicles per day used this portion of road over an 11 day period dropping to a figure of 2,736 vehicles further north on 2 Mile Hill. The next highest volume was indicated on Main Street at the junction of 3rd Avenue where an average of 4,494 vehicles were counted over a 7 day period. During the same period 2,792 vehicles were counted on 2nd Avenue at Rogers Street on the route leading to Riverdale subdivision. No origin and destination survey was undertaken, but the figures available indicate 4th Avenue and Main Street to be the busiest streets in the city, with the access roads to the Alaska Highway and Riverdale subdivision next in order of traffic volume.

A small proportion of this total volume consists of heavy traffic such as trucking from the depots to the transshipment areas and bulk petroleum storage, together with the army trucks and bus service. The trucking firms confine their operations to the northern part of the city and run an average of about 15 trips per day, the bulk of which go to the transshipment area or 1st Avenue Warehouses via Black Street, and the remainder to the petroleum storage area north of the city. The Army traffic totals 632 trips per week and is generally confined to 4th Avenue and 2 Mile Hill between the City and Camp Takhini, and south to Riverdale via Main Street and 2nd Avenue.

(7) C. A. Spratt and D. L. MacDonald:
"Whitehorse Metropolitan Area
Transportation Study". March
1962, p. 1.

A recent report states that there is one car for every two persons in Whitehorse.(7) This ratio, combined with the unnecessarily complicated flows of various types of traffic on the townsite, may create serious problems of congestion as traffic volumes increase with future city growth.

A study of the existing land use in the Whitehorse area indicates that development has taken place with little regard for the efficient use of land. City expansion to the north is restricted by the transshipment area and railway sidings which occupy the narrow strip of land between the escarpment and the river.

Summary

Summary

Of the land within the restricted townsite area, 9% or 38 acres are used by squatters, much of it prime river frontage, 14% or 58 acres are unused or vacant land, 27% or 111 acres are taken up by roads and rear lanes, and 22% or 91 acres by industrial uses. Only 4% of the industrial area represents building floor space, the remainder is open land for truck parking, lumber storage or areas of partly used land, such as the railway sidings and transshipment area. This wasteful pattern of development, and the existence of large land holdings allied with the severe topographical restrictions of the escarpment and river, have created a shortage of available land on the townsite. This is reflected in the high lot prices on the townsite and has resulted in the development of peripheral areas.

The pattern of land use indicates a need for the firm application of zoning regulations. Particular examples of undesirable patterns of development are the mixed uses forming a ribbon on 4th Avenue from Main Street to the city boundary, and the area previously described as the northeast quadrant, where the juxtaposition of transshipment and storage areas and residential uses has created an unpleasant environment with a high proportion of deteriorating buildings. There are indications that this deterioration is spreading to other predominantly residential areas in the absence of a firm zoning policy for the townsite.

The British Yukon Navigation Company is the major private landowner on the townsite.

In Metropolitan Whitehorse a similar problem is encountered with the Military and Federal Reserves which total 6,770 acres or 85% of the total of used land. These areas encircle the town on the west and north forcing development to the east bank at Riverdale, and beyond the Army Reserve to the unserved Territorial subdivisions at Porter Creek and Crestview.

In addition to the above problems the land use study also indicated the existing shortage of school sites and park areas. Prime riverfront land of great scenic value has been built up with squatters dwellings and warehousing throughout the entire length of the townsite spoiling what should be one of the city's greatest assets for residents and tourists.

Proposals for sewage treatment are under consideration and the method adopted should take into account the value of the few remaining areas of serviceable land adjacent to the townsite.

The high ratio of car ownership and the complicated flows of different types of vehicular traffic in the townsite, may create serious traffic congestion in the future as traffic volumes increase.

Whitehorse is by far the most important of the settlements in the Yukon, accounting for about one half of the population of the Territory and possessing most of its social, cultural and economic facilities. The main regional traffic arteries meet in Whitehorse which places it in a strong position as a regional transportation centre with facilities which no other city in the territory can offer. The limits of its hinterland are defined by the mountain barriers previously described and by the Alaska border. Up till the 2nd World War, the city depended heavily on its regional transportation functions but its economic base has been broadened as a result of the war and post war development. The main sources of income for Whitehorse in order of importance are now the military, the transportation and service functions, the government and tourism. The 1959 figures for major employers in Whitehorse will serve for comparison in the absence of 1961 figures:

(1) Unemployment Insurance Commission, Analysis and Development Division.

LARGEST INDUSTRIAL EMPLOYERS IN 1959(1)

<u>WHITEHORSE</u>	<u>MALE</u>	<u>FEMALE</u>
Department of National Defence, Army	300	200
Department of National Defence, Air Force	60	15
White Pass and Yukon Railway	225	25
Dawson and Hall Limited, Construction	150	1
Poole Construction	150	2
Northern Commercial Company Limited, Merchants	40	30
Department of Transport, Airport	80	1

The military establishments, the Government, the WP and Y Railway and Construction Companies together account for the bulk of employment in Whitehorse. The military is by far the largest employer of female labour. The available figures indicate that Whitehorse depends heavily on the military as a source of employment and local expenditure. A survey of squatters by the Department of Northern Affairs shows that 23% of employed squatters were on the payroll of the Department of National Defence and an additional 15-20% employed in Service and Trade outlets.(2) Comparable figures for the total population will be available with the publication of the 1961 Census.

(2) J.R. Lotz: "Report on the Squatters" prepared by the Community Planning Branch, Department of Northern Affairs and National Resources, p.p. 54 and 57.

The City of Whitehorse depends on its transshipment and service functions to the region and on its military establishments and governmental activities as capital of the Yukon. It is also likely to increase its share of the tourist trade. Indications are that it will maintain a steady growth to keep pace with a gradually expanding regional economy.

POPULATION AND SOCIAL CHARACTERISTICS

Population

(1) Census of Canada, Dominion Bureau of Statistics, 1957, Bulletin 1-6. Ibid-1962. Advance Report No. AP3 Catalogue No. 92-517.

The population of Whitehorse expanded little in the period 1951-56. The census enumerated 2,594 persons in lower Whitehorse. The following table indicates the accelerated growth in the next 5 year period.(1)

	<u>1956 INTERIM CENSUS</u>	<u>1961 CENSUS</u>
Whitehorse City	2,570	4,833
Army and Air Force Camps	2,700	2,300
Upper Whitehorse (Including D.O.T.)	588	725
Moccasin Flats	773	Incl. in City
Whiskey Flats	<u>342</u>	<u>Incl. in City</u>
Total	6,943	7,858

The additional 915 persons in 1961 corresponds to an annual growth rate of 2.5% per annum which, compared with the national average of 2.6% per annum does not appear spectacular. However, an analysis of these figures indicates that while the military population and their dependants decreased by 400 persons the residents of Whitehorse actually increased by 1,315 persons. This increase represents an annual growth rate of 5.5% per annum - more than double the national average.

Census figures may be exaggerated since the census is carried out in June when the migrant labour force is at its peak. It is nevertheless patent that Whitehorse, typical of population settlement in the Canadian North is effected as much by migration as by natural increase, and for this reason, and especially in an era when the North is becoming a focus of economic development, it is difficult to extrapolate from census information in making population forecasts. Nevertheless assuming that the growth of Whitehorse will increasingly depend on natural increase with a current population of 7,900 and an estimated annual rate of growth of 2.5% to 3.0%, the population can be projected to reach 12,500 to 14,000 by 1980. 1951 census figures indicate a ratio of men to women of 133:100 which gives some indication of the imbalance characteristic of a frontier community with a large proportion of transient males.

Social Characteristics

(2) J.R. Lotz: Department of Northern Affairs and National Resources - personal contact.

The population is divided into five distinguishable social groups which are physically separated. Upper Whitehorse houses the military with their own social stratification; and the Alaska Highway Subdivisions, with Porter Creek having its own unofficial mayor and Ratepayers Association; lower Whitehorse is divided into two groups, one living in the west townsite, the other in the territorial subdivision of Riverdale which according to an informed observer, is in the process of becoming the more exclusive residential area of Whitehorse.(2)

(3) Whitehorse Star: Vol. 61, No. 44, Oct. 19, 1961 et seq.

A list of clubs and organizations numbers around 40(3) and indicates an extremely high degree of social activity reflecting the needs of a community who cannot avail themselves of the much broader spectrum of diversion provided by urban centres in the south. As would be expected in a settlement of such size the social functions of the City are centralized in the townsite which provides the hub for all social, religious, economic, educational and recreational activities and acts as a unifying element between these groups.

(4) Ibid.

A further factor strengthening community life is a mutual sense of isolation and a detachment from the world outside. The expression "Outside" is a concept common to most settlements in the North and recurs frequently in social and editorial columns of the local papers.(4) This expression is never used in a nostalgic sense as it is in smaller northern communities - a memory of better times and better places - but an expression of the strong local loyalties of the community as a whole with common problems, who share the same rigorous climate and feel an isolation from the rest of the nation and its problems.

The Department of Citizenship and Immigration lists 418 Indians in Whitehorse - about 20% of all Indians in the territory. The number of Indians of white status cannot be ascertained until 1961 census results are published. They represent 4 tribal groups: Kutchin, Nahanni and Tagish, all formerly nomadic hunting tribes and the Tlingit, a coastal tribe who have migrated inland.

The integration of the Indians into the community is hampered by a language barrier, a lack of education and occupational training. While some have seasonal work trapping in the winter and guiding in the summer the majority have no steady income. Those living in the townsite are in the poorest of the squatter areas in squalid conditions. J.R. Lotz in a report to the Department of Northern Affairs, entitled "The Squatters of Whitehorse" dated August 1961, notes 12% of the squatters were Indian or Indian of white status and among the 69 households (24%) classified as problems (child welfare, indigency, drinking etc.) 46% contained at least one person of Indian ancestry. It has been found in other urban areas that there is a positive correlation between lack of employment, poverty and the social problems which characterize social decay. This is also evident in the study of Whitehorse.

The process of Indian education has only recently accelerated. Three hostels exist for Indian students; two are administered by religious bodies and one by the Department of Citizenship and Immigration housing a total of 150 students. An Association for Indian Advancement, a sympathetic newspaper and many Whitehorse citizens have made the city aware of these problems. A meeting hall for Indians has just been completed.

The study of the squatters previously referred to was carried out in November of 1960 when the squatter population was probably at its annual minimum. 287 households were noted in 10 areas peripheral to the townsite comprising a total of 864 individuals about 1/3 to 1/4 of the whole population of lower Whitehorse.

Although the phenomena of squatters in Whitehorse and the Yukon dates back to the days of the Klondike Gold Rush, the present squatting problem began with the sudden influx of population in 1942. Before the Second World War for example, only 2 squatters lived in the Whiskey Flats area where, during the course of the survey 305 individuals were enumerated - the greatest concentration of squatters in Whitehorse.

No provision was made for the sale of lots during this rapid expansion and no control exerted over housing standards. New arrivals settled where they could, erected some form of shelters, primarily on rail-

Squatters

way or crown land, and, when they vacated, sold the dwellings to newcomers. Approximately 70% of these dwellings are owner-occupied, the remainder rented on a short term basis at substantially lower rates than in the townsite. These dwellings represent a wide variety of types and standards.

Squatters are reasonably permanent elements in the community. At least 2/3 of the squatters have been residents for more than one year and 1/4 for more than 5 years. One third of the households are single men and about 20% composed of married couples with an average of 3.5 children per family. Although nearly 10% of the squatter households earn over \$5,000 a year, the remainder represent a significant concentration of low income earning in the community. This low income group includes approximately 50% of the households earning between \$3,000 and \$5,000 a year; 10% earning less than \$3,000 a year and 30% who have no steady source of income.(5)

Summary

The 1961 population of the metropolitan area was 7,858 persons of which 4,833 were in the city. Assuming a growth rate of about 2.5% to 3% per annum the population would reach 12,500 to 14,000 persons by 1980. The population is separated physically into five groups having strong local loyalties and a wide variety of community organizations.

There is an Indian population totalling 418 persons with their own educational, economic and social problems. Programmes are under way to provide training and social activities that will gradually improve the lot of a people whose traditional skills of hunting and trapping are at odds with the present economic trends of the region.

The squatter land use and relocation problems have been described in this report in the section entitled "Existing Development". The majority of the squatters (80%) are in the low income category and 69 households (24% of the total) are classified as problem families. This segment of the population represent a major health and social problem and a burden on the local welfare services.

Territorial Funds have been allocated for a relocation programme which would relieve this burden but implementation has been held up for lack of local support.

(5) J.R. Lotz: Op. Cit. p.51,
Table VIII, also P. 64 and 65,
Table XIII.

Establishment of Municipalities

(1) Ordinances of the Yukon Territory - 1959. First and Second Sessions, Queen's Printer: Chapter 1, Second Session, p. 36, Section S, (2).

In the Yukon Territory the Commissioner may, upon a request with 60% local support, establish any area as a municipality with a mayor and 3 or 4 aldermen.(1) There are 2 established municipalities in the Yukon, Dawson and Whitehorse. These possess normal municipal powers but contrary to municipalities in provinces, are subject to a form of federal rather than provincial supervision. Because of this Federal and Territorial participation, the local administration is closely related to 3 levels of government, resulting in a wide division of responsibility which is particularly evident in matters relating to urban development.

(2) City of Whitehorse Estimates for Revenue and Expenditures 1961 supplied by J. Thompson City Clerk.

Whitehorse has the normal municipal powers for obtaining revenue, which in 1961 was estimated to be approximately \$650,000 based on 30% from the general tax levy, 30% from other government grants, 25% from service charges and the remaining 15% from licences, permits, fines, tax penalties etc.(2) It has the power to borrow either short term loans up to 75%(3) of the estimated revenue for the current year, or by issuing debentures with the approval of the Commissioner and ratepayers for up to 20% of the taxable assessment.(4)

(3) Ordinance of the Yukon Territory - 1959: Chapter 1, Second Session, p. 50, Section 62 (1).

(4) Op. Cit. p. 51, Section 67.

(5) The Queens University Report on the City of Whitehorse. By Institute of Local Government - Queens University at Kingston 1960.

A study made by the Institute of Local Government, Queens University(5) in 1960 gave comparisons with regard to the taxation of other similar-sized Albertan towns. This was considered valid as Whitehorse had been reassessed in 1957-58 by Albertan assessors. Evidence indicates that while the tax rate is in quite a favourable position, the tax burden per capita levy is very high and increasing each year at a faster rate than the other towns used for comparison. It also indicates a ratio of 70:30 as between business and residential taxation, generally considered better than average proportions. This, however, is not entirely a true reflection of the situation as it is also seen that 80% of the taxes are paid by 10 taxpayers, indicating large areas of land under single holdings, and that a large number of the residential population paid no taxes whatsoever.

Major areas of development around the city which utilize the amenities and facilities of the city and prevent adjacent westward expansion are to a large extent government holdings and therefore not taxable. To expand the municipal boundaries to gain control of this peripheral development on the Alaska Highway would mean an increase of the unbalance of status as between the city and other public authorities with which it must deal in running the community. This would also mean a considerable increase in municipal responsibilities without a corresponding increase in taxation revenue. In the city itself it is significant to note that 45% of the total assessment of land and improvements is untaxable being beyond municipal government control, though this fact is mitigated to some extent by government grants in lieu of taxes.(6)

(6) Queens Report, p. 20.

The city assumes no financial or administrative responsibility for education, (other than collecting a levy for the Territorial Government which is included in the general levy); health, and only partially for police and fire protection services, all generally assumed to be important municipal functions. The municipal services consist for the most part of street construction, heavily financed by Territorial grants; fire-fighting, partially provided by the army; operation of the water and sewer system; refuse collection; street lighting; building inspection, and some smaller functions such as parking control and operation of the dog pound.

Municipal Revenue

Municipal Responsibilities

MUNICIPAL GOVERNMENT

Municipal Responsibilities

Summary

(7) Ordinances of the Yukon Territory - 1959: Op. Cit. Powers and Duties of the Council: p. 50.

Municipal development controls include the normal powers to pass building, zoning, land subdivision by-laws etc.,(7) but these powers do not appear to be fully utilized or firmly implemented in the best interests of the towns overall development.

The local government of the city finds itself weaker in authority than an average municipality, able to undertake large scale works only when financed heavily by other levels of government, and hampered in any long-range comprehensive planning. On the other hand the municipality is relatively new and of the many problems that exist, some are inherited and not of their own making, while others are to be found in any new, small municipality. These problems will reduce in scale as time and the natural growth of population and commercial activity bring increased revenue and municipal responsibility.

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ANALYSIS

This section of the report analyzes and interprets the major problems arising from the survey and leads to the formulation of specific recommendations. The metropolitan area is first discussed as a whole before proceeding to the diagrammatic analysis of major land use components in the more complex built-up area referred to as the lower west townsite.

The present metropolitan area is defined by an Order-in-Council in 1960 as land within a 10 mile radius of the City of Whitehorse and was designed to act as a temporary measure to prevent uncontrolled development pending the preparation of a metropolitan plan. This boundary enclosing approximately 300 sq. miles, includes large areas of little significance to the future development of Whitehorse. If this boundary was to remain unchanged the administration would be required to enforce controls over an excessive area whose only use is for summer cottages and other similar private development. Providing significant areas of interest are protected, this remaining land can be released for private staking.

Boundary

Circulation within the metropolitan area is based almost entirely on the Alaska Highway which passes to one side of the City of Whitehorse and 200' above it on the escarpment. This change of level has resulted in problems of access to the lower townsite due to severe winter conditions and steep gradients. Further problems of access to the lower west townsite will be encountered when Riverdale Subdivision is completed, as the only remaining land suitable for development on the lower level is situated on the east bank north of the hospital area. Its development would require an access through or adjacent to the hospital site and ultimately a more direct access to the west bank if adequate circulation is to be provided for the north-east area of the lower townsite. This access across the river would be costly to build and will require a special study to determine its best location.

Circulation Road

Residential development is scattered throughout the metropolitan area. The greatest concentrations are on the lower west townsite, later described in detail, Riverdale Subdivision, Federal housing development in Upper Whitehorse and in 5 Alaska Highway Subdivisions which are located at intervals for 7 miles along the Alaska Highway.

RESIDENTIAL AREAS
General

These latter subdivisions, all in various stages of growth, are the result of the relatively high cost and limited availability of serviced land on the lower townsite. This dispersed development weakens civic administration and finance by tending to over extend municipal services such as water and sewer, public transportation, fire and police protection and schooling.

Alaska Highway Subdivisions

Of the 8,000 acres now in use in the existing metropolitan area nearly 85% are in military or other federal departmental holdings. A major part of the development in this area is residential and includes subdivisions such as Valleyview, Hillcrest and Camp Takhini, all of which are separate communities bearing little or no relationship to other residential development in the metropolitan area or to each other. They are in many ways an integral part of the Whitehorse community and every encouragement should be given to linking their future growth into a cohesive residential area.

Federal Areas

Riverdale Subdivision has approximately 400 acres of vacant land which is closely related to the lower west townsite. This area could provide land for approximately 7,000 additional people at which time its growth would be physically restricted by a high escarpment and the Yukon River. This is a large area of easily serviced and accessible land and the limited availability of suitable land on the lower townsite makes it necessary to reserve this and other areas adjacent to the municipality for future residential development.

Riverdale

The major commercial development in the metropolitan area is presently concentrated on the lower west townsite. However, normal growth of the metropolitan area will create a growing pressure to establish commercial activity in future residential areas. Such peripheral location on a large scale would tend to weaken the central business district and undermine municipal revenue and administrative control.

COMMERCIAL AREAS

Moreover, commercial development allowed to disperse arbitrarily along the Alaska Highway and on the north and south access roads to the lower townsite will destroy the visual quality of the approaches to Whitehorse and increase the number of accesses onto major arteries thereby creating potential hazards to through traffic.

Highway Commercial

Industrial uses in the metropolitan area fall into two main categories, those related to the transshipment process, which is discussed later in connection with the lower west townsite and federal operations associated with Department of National Defence.

INDUSTRIAL AREAS

The Federal areas often include uses other than those which are industrial in character. However, for purposes of this study they have been classified according to their predominant use. These holdings generally occupy very large areas which bear little relationship to each other or to surrounding development and have to some extent limited the municipalities contiguous expansion.

Federal Areas

No significant areas within easy reach of the Whitehorse Community have been developed for recreational uses. There are however, areas in Metropolitan Whitehorse of great natural beauty and historical interest, which should be preserved for use by the general public. The unrestricted use of these lands by private developers would adversely affect their great potential as tourist attractions and local recreational areas.

PUBLIC OPEN SPACE AND CEMETERIES

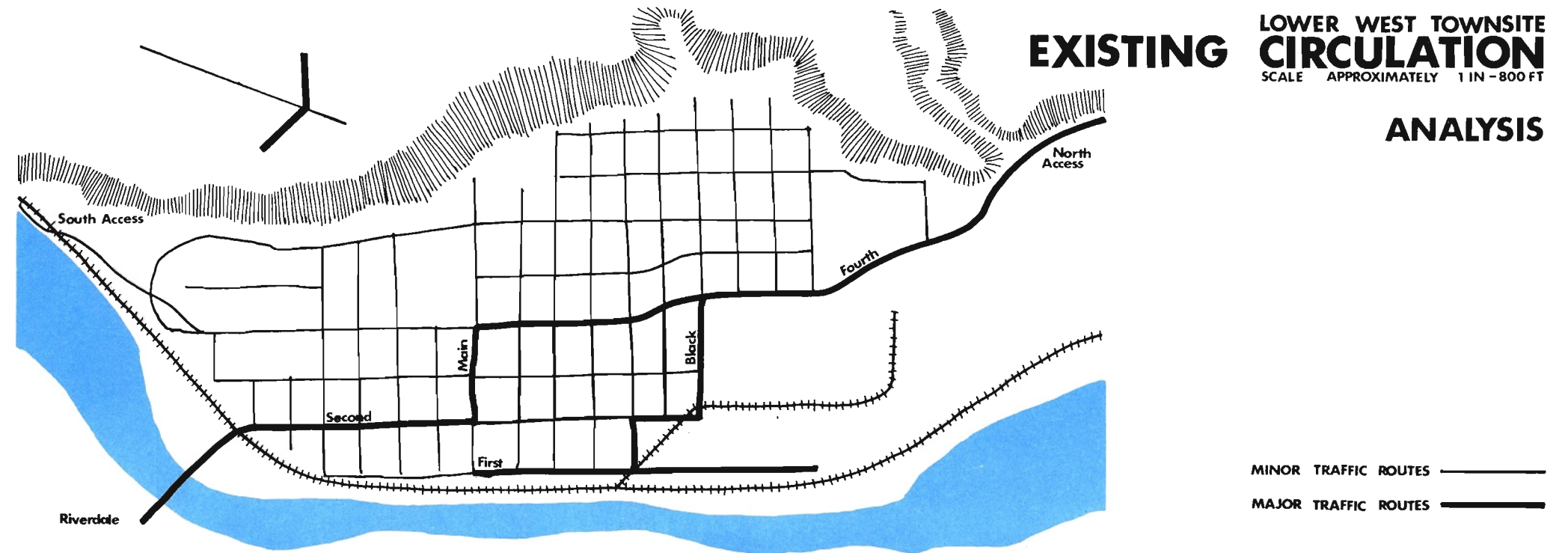
The physical restrictions of the lower townsite necessitate all easily serviced land be developed to its full potential. The use of areas on the lower townsite for cemetery purposes will mean the utilization of large areas of land which could be developed more advantageously for other purposes. The cemetery in Riverdale has recently been reduced in size in accordance with this principle, however the cemetery on the west townsite has been in use for some time and for practical reasons, its use must continue. For future requirements consideration must be given to the siting of additional cemetery space outside the lower townsite so that future development will not be prejudiced.

Cemeteries

At present there are various systems of water and sewer services in the metropolitan area being operated separately by the municipality, army and airforce. The municipal system was designed to serve a population of about 20,000 which is over 3 times the population using these facilities at present. Future development should therefore be planned to encourage the fullest use of existing services.

SERVICES
Water and Sewer

At present raw sewage is discharged into the Yukon River and as the community expands, the danger of water pollution will be greatly increased. The whole matter of services has been the subject of an intensive study by the Engineering Division of the Department of Northern Affairs and National Resources, and it is assumed that this will lead to a relocation of the sewer outlet and a satisfactory method of sewage treatment, which will safeguard the limited reserves of serviceable residential land.



There are two important factors which shape the circulation pattern of the lower west townsite, the existing grid system of streets, and the physical restrictions which limit the City's access to only three points.

The north access from the Alaska Highway down Two Mile Hill and along Fourth Avenue to Main Street is at present the only access generating any significant traffic volume. This road bisects a restricted townsite with a major traffic flow which includes local commercial, residential, industrial and tourist traffic. This mixed traffic with its associated ribbon of commercial development completes the encirclement of the north-east quadrant, and in conjunction with industrial pressure from the north, contributes to its general deterioration. As traffic volume increases on Fourth Avenue its indiscriminate use for all types of traffic may cause congestion and increased accident rates and would encourage the general deterioration of the adjoining areas.

The remaining access from the Alaska Highway approaches from the south and at present generates very little traffic. It is however a potentially important scenic route for tourists and a valuable alternative access for normal vehicular traffic. Its convenient location will encourage truck traffic, which if not prohibited from this southern route will destroy its scenic character and bring industrial traffic through the entire length of the townsite to reach the transshipment area in the north.

The Robert Campbell Bridge has opened the east bank of the river for the hospital and the development of Riverdale Subdivision. The latter will continue to expand and increase the traffic load on Second Avenue which must pass through a left-hand turn at Main or an alternative cross-street to reach Fourth Avenue

North Access

South Access

Riverdale Access

LOWER WEST TOWNSITE - ANALYSIS
CIRCULATION

Riverdale Access

Internal Circulation

and leave town. This is a confused pattern of circulation for major traffic which will eventually cause congestion unless a major urban road can be devised to link the three points of access described above.

The internal circulation on the lower west townsite is in the form of a grid pattern with over 25% of the land used for vehicular movement. There is an unnecessary repetition of flankage streets (those running in a north-south direction) at approximately 320 feet intervals and since nearly all essential services and access are provided by frontage streets such as Main and Steele, considerable land is wasted in the retention of those streets which serve no useful purpose. In addition the excessive number of cross-streets are unsuited to the needs of modern motor traffic and tend to make all roads alike preventing a clear definition of major traffic routes and the separation of conflicting types of traffic.

LOWER WEST TOWNSITE
EXISTING UNDEVELOPED LAND
SCALE APPROXIMATELY 1 IN - 800 FT

ANALYSIS



Approximately 15% of all the land on the lower west townsite is vacant, much of it already serviced. This is comprised of various small privately owned lots throughout the townsite and a large area of land on the south end of the town referred to as Lot 19. In addition almost 10% of the best land on the lower townsite is being utilized for squatter residential uses which add to the municipalities financial and administrative responsibilities yet produce no significant taxes.

Owing to the history of the growth of the town, a great deal of development has occurred in a random pattern resulting in low density development with considerable land wastage. Consolidation and concentration of activity would greatly increase the amount of land which can be made available and would assist the municipality by easing the present administrative and servicing requirements.

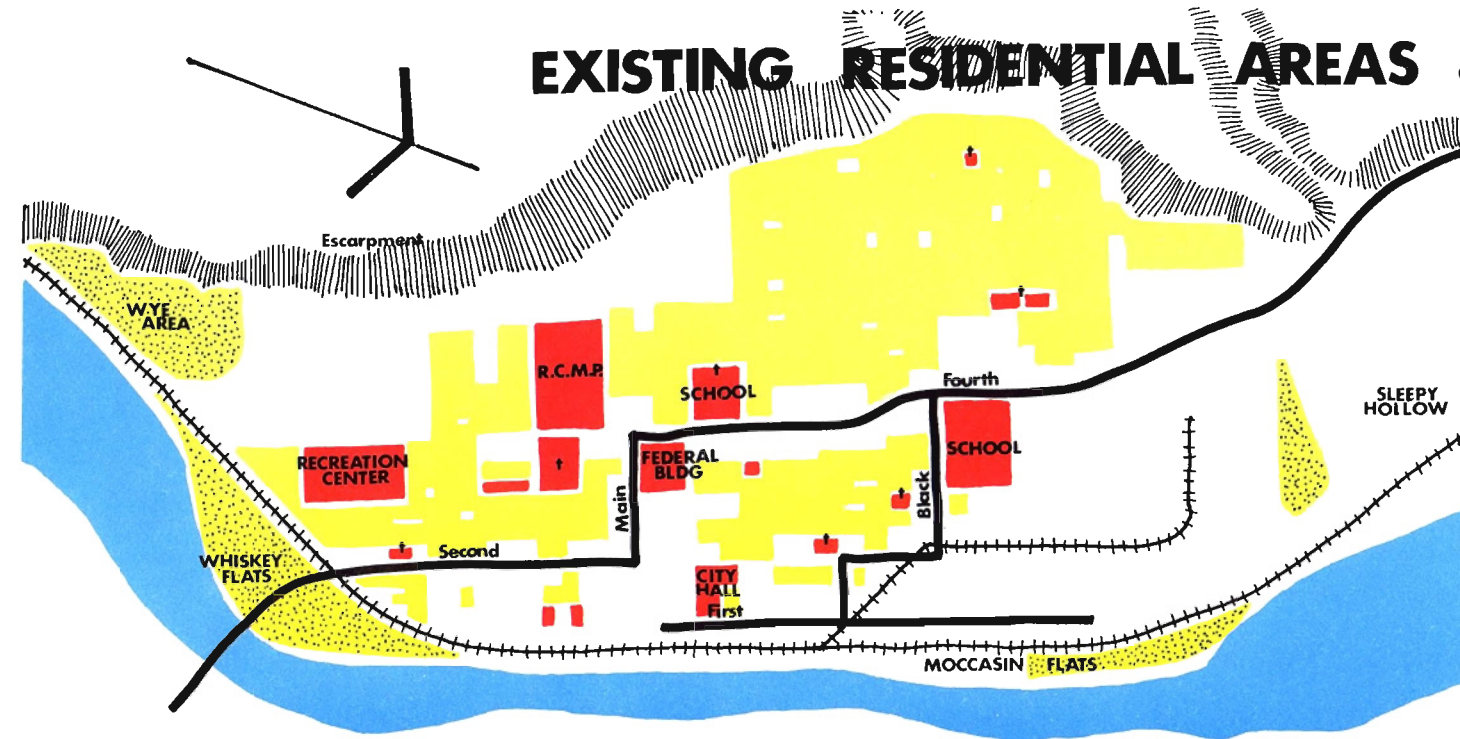
Vacant Land and Squatter Areas

Waste Land Use

EXISTING RESIDENTIAL AREAS & PUBLIC BUILDINGS

LOWER WEST TOWNSITE
SCALE APPROXIMATELY 1 IN - 800 FT

ANALYSIS



- RESIDENTIAL AREAS
- SQUATTER AREAS
- PUBLIC BUILDINGS
- CHURCH

The major roads in town divide the townsite into small pockets of residential land surrounded by commercial and industrial uses, or by an excessive number of major circulation routes. These non-residential uses have encroached into areas east of Fourth Avenue and have tended to isolate the school site and increase general deterioration of the residential areas. With the growing importance of Fourth Avenue conflicting land uses have now begun to creep into the predominantly residential area west of Fourth Avenue. This continual encroachment must be checked if property values are to be preserved and the townsite is to provide an adequate setting for a capital city.

The squatter areas using 10% of the townsite vary in quality of housing from good to very bad. Where bad they present problems of over-crowding, sanitation, fire and police protection and a general health threat to the whole community, and have resulted in creating a social division in the community. Squatting can perhaps never be completely eliminated in northern communities but if the problem of the squatters on the lower townsite is not clearly resolved the situation will worsen and squatters will remain a permanent and substantial part of the town's social and physical structure.

Most of the public buildings in town with the exception of the Federal Building, are generally non-descript, and suffer from lack of landscaping. They are scattered throughout the townsite and unlike public buildings in other capitals make little contribution to the architectural character of the City.

Residential Areas

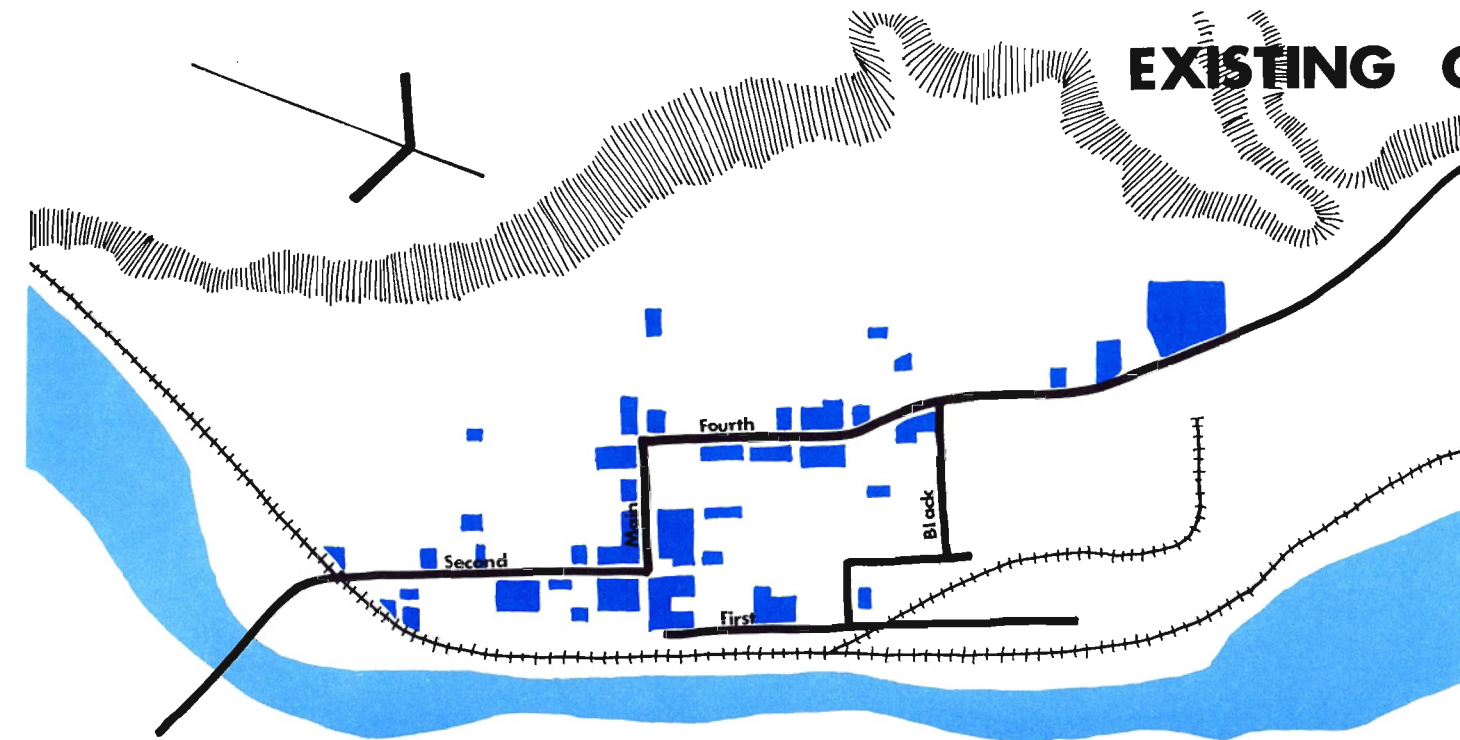
Squatter Areas

Public Buildings

EXISTING COMMERCIAL AREAS

LOWER WEST TOWNSITE
SCALE APPROXIMATELY 1 IN - 800 FT

ANALYSIS



COMMERCIAL AREAS

Growth Pattern

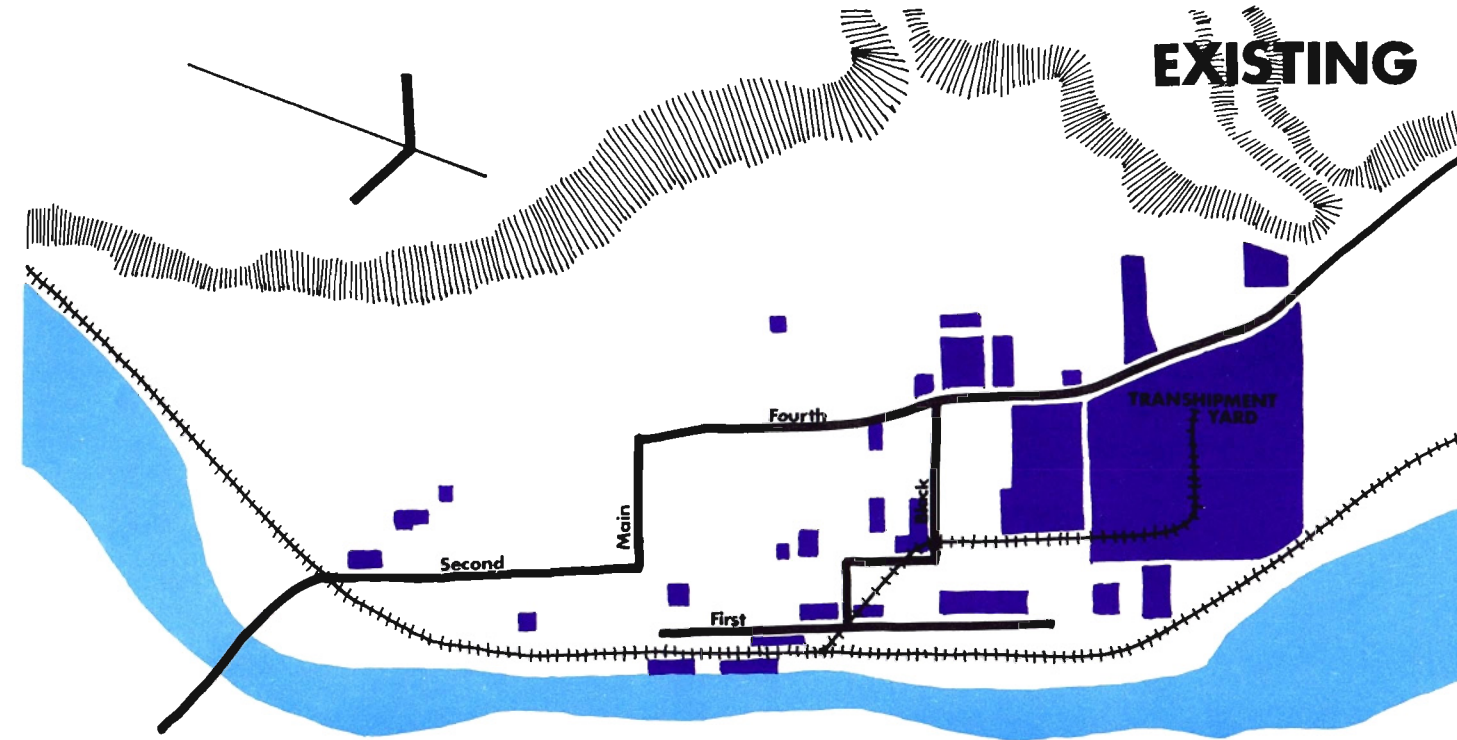
Commercial development has followed the changing major traffic patterns on the townsite. Originally First Avenue was the main commercial street and the hub of town activity, being directly adjacent to the river traffic. With the provision of the airport and a direct road down the escarpment linking it to the townsite, the emphasis was shifted to Main Street. The opening of the Alaska Highway resulted in Fourth Avenue becoming a main access route and a focus for commercial development. With the growth of Riverdale Subdivision, Second Avenue is becoming increasingly important and commercial activity is now beginning to locate on Second Avenue on either side of Main Street.

As a result commercial uses are scattered throughout the lower west townsite in a ribbon form of development. Under pressure from industrial infiltration First Avenue has changed to a warehouse and industrial trucking area; Main Street which is the main pedestrian shopping area, is used as a through access route from Riverdale to the Alaska Highway; and Fourth Avenue is being established as a commercial and industrial area related to vehicular traffic. Further uncontrolled growth will increase the volume of mixed traffic uses on all the main circulation routes on the lower west townsite thereby increasing congestion and difficulty of servicing at all commercial properties.

EXISTING INDUSTRIAL AREAS

LOWER WEST TOWNSITE
SCALE APPROXIMATELY 1 IN - 800 FT

ANALYSIS



INDUSTRIAL AREAS 

Transshipment Area

The Railway

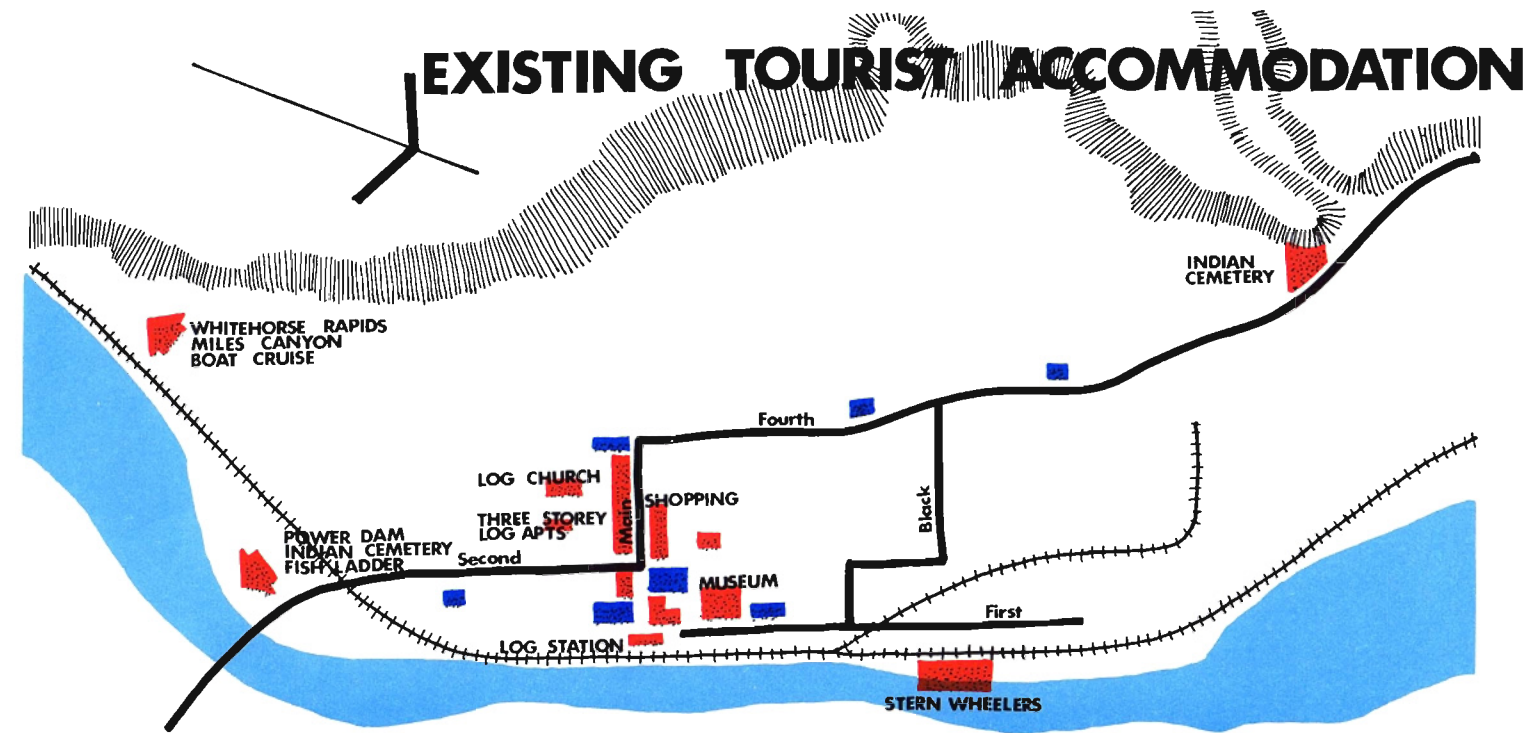
The major industrial use on the townsite is the transshipment activity which utilizes a large area of land at the north end of the municipality. The location of the transshipment area astride the narrow neck of low-lying land at the north end of the built-up area effectively blocks northward expansion of the town to anything but industrial uses. A portion of this area which is sparsely developed and the land north of the transshipment area could well support future industrial expansion if adequate fill and drainage were provided. However much of this land cannot be purchased in small parcels as it is available on a short term lease basis only, with the result that industry, which wishes to locate adjacent to the transshipment and rail facilities is forced to locate on vacant land to the south in the built-up area of the townsite. This introduces heavy industrial traffic into residential and commercial areas and has led to a greater degree of deterioration in the development surrounding the transshipment yards than anywhere else in the City.

The presence of the railway with its ancillary development has tended to isolate the whole of the lower townsite from the Yukon River, one of its greatest visual assets. Ideally the rail facilities should terminate at the south end of the lower townsite to prevent this isolation, however the transshipment function based on the railway cannot be altered radically at present, as it is one of the major economic activities of the City. Moreover should an intercontinental rail system be established it is likely that rail facilities would be required to relocate in Upper Whitehorse, therefore making any plans for relocation at this time premature. Where possible, recommendations have been made which recognize that the railway may relocate in the future, and these implications, with regard to physical development have been considered and allowed for in the plan.

Backyard Industry

In addition to the major industrial uses scattered throughout the townsite, there are various other activities which may be classified as "back-yard industry" and which are quite typical of northern development. Individuals in the City may have any number of interests and the usual method of initial operation is from the home or from any location which offers low overhead costs. This use of land in a residential area has a serious detrimental affect on the character of the neighbourhood, by encouraging trucking and generally accelerating deterioration and must therefore be prevented in the future.

The present location and expansion of industry poses one of the most serious obstacles to the orderly development of the lower west townsite.



**LOWER WEST TOWNSITE
& ATTRACTIONS**
SCALE APPROXIMATELY 1 IN - 800 FT

ANALYSIS

Tourist accommodation and attractions are particularly important to the City because they may expand rapidly and provide a significant increase in local revenue in contrast to other areas of industrial activity where results may only be felt over the long term.

Accommodations are scattered throughout the townsite in areas of mixed use usually related to traffic volume. The siting of these buildings does not therefore take advantage of the dramatic scenery which is one of the main features of the area.

Tourist attractions are mainly associated with the local areas of dramatic scenery and with historical elements. The latter includes features such as the Sternwheelers and the Museum, both of which are sited in unattractive and relatively inaccessible areas. The scenic areas are outstanding but often lack proper sign-posting, are difficult of access, and lack simple amenities such as benches and railings at viewpoints.

Short term financial return to the City could well depend on the rapidly expanding tourist industry and with reasonably simple measures, the existing wealth of scenery and historic associations can be fully exploited to the benefit of both tourists and local trade.

ACCOMMODATION [Blue rectangle symbol]
ATTRACTIONS [Red rectangle symbol]

Accommodation

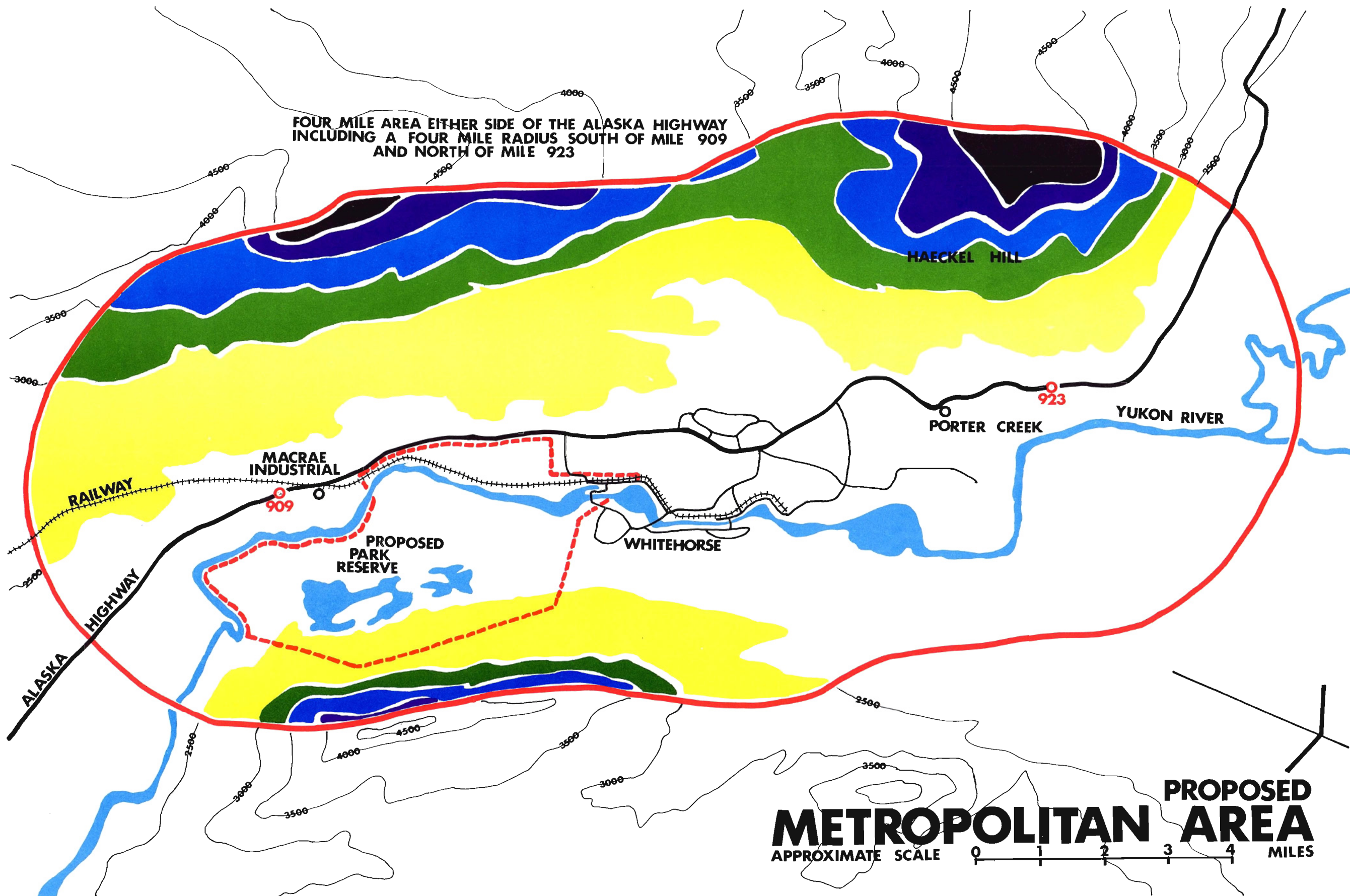
Attractions

RECOMMENDATIONS

This section contains recommendations which are based on the preceding analysis of development. In addition to special proposals involving land use and construction, there are recommendations of a more general nature which contribute to the formulation of an overall policy. Where possible consideration has been given to local characteristics, the desire for political autonomy and the limitations of local financial resources. The general aims of the recommendations are the definition of a Metropolitan Area providing sufficient land for orderly expansion and overall development control; the establishment of major use zones which can expand without undue conflict; and the correction of existing deficiencies of land use and traffic circulation.

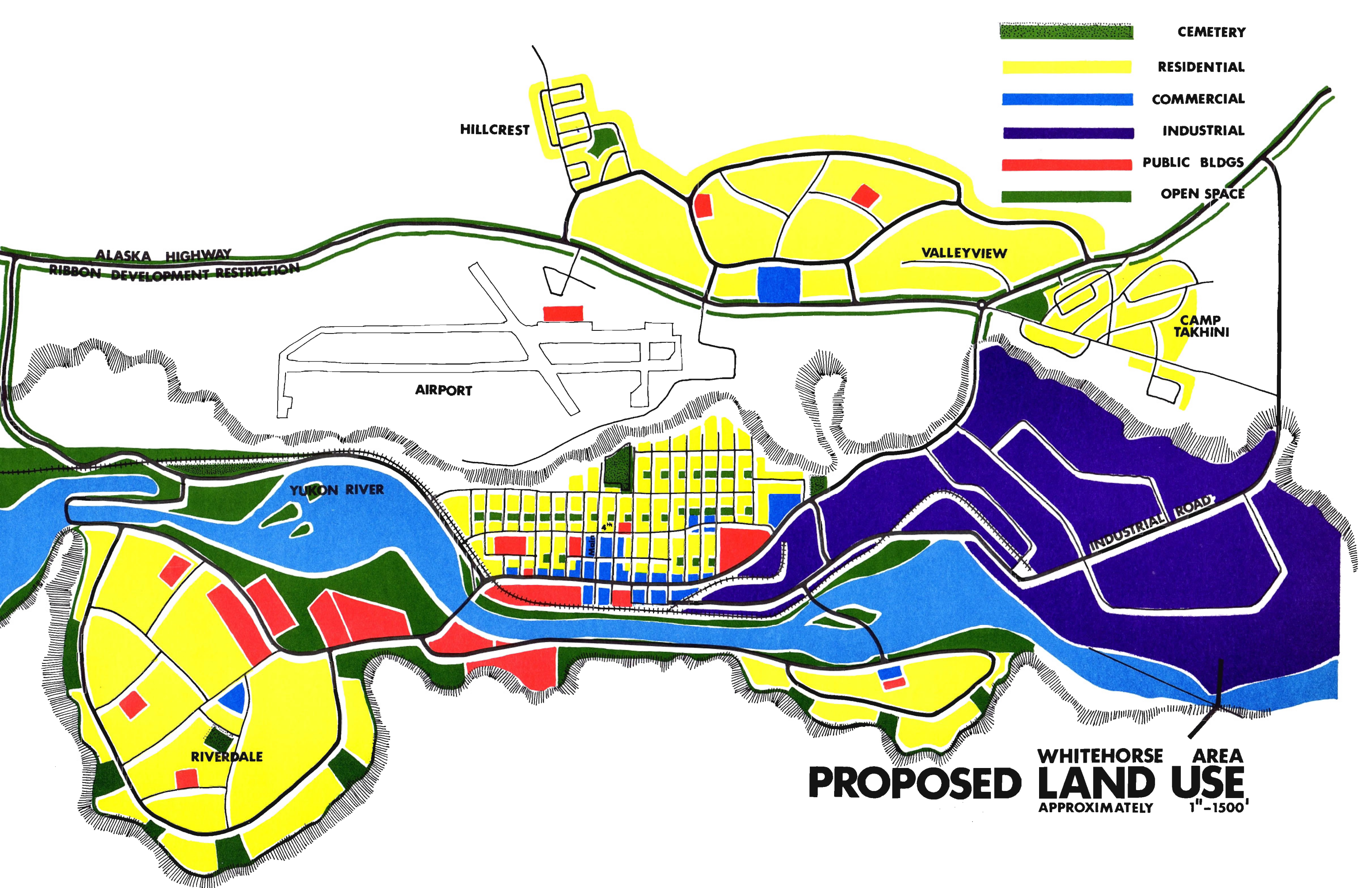
Consideration is first given to recommendations for the general development of the Metropolitan Area as a whole. The majority of these involve the formulation of general policy and long term capital works projects requiring further study in the future. Recommendations for the lower west townsite which generally require more detailed and urgent measures are discussed within the framework of 6 major land use components used previously in the analysis. Each of these components is illustrated in sketch form to show graphically the physical results of implementing the recommendations.

The implications and phasing of each recommendation are then discussed.



METROPOLITAN AREA

APPROXIMATE SCALE 0 1 2 3 4 MILES



- CEMETERY
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC BLDGS
- OPEN SPACE

WHITEHORSE AREA
PROPOSED LAND USE
 APPROXIMATELY 1" = 1500'

METROPOLITAN AREA - PROPOSALS

GENERAL

Recommendation No. 1
Metropolitan Area Boundary

IT IS RECOMMENDED THAT THE PRESENT METROPOLITAN AREA, AS DEFINED BY AN ORDER-IN-COUNCIL, BE REDUCED TO AN AREA WHICH WOULD INCLUDE ALL THE LAND FOR 4 MILES ON EITHER SIDE OF THE ALASKA HIGHWAY BETWEEN MILES 909 AND 923 AND THE AREA DESCRIBED BY A 4 MILE RADIUS DRAWN SOUTH FROM MILE 909 AND NORTH FROM MILE 923.

The distance of 4 miles will ensure a continuing control over all the major areas of interest including all land closely adjacent to the Alaska Highway; areas of existing development; Chadburn Lakes - Miles Canyon Area, and part of Haeckel Hill. This boundary can be simply defined in relation to any particular property. If a 4 mile radius drawn from the property cuts the Alaska Highway at any point between Miles 909 and 923, this property would then be under Metropolitan Whitehorse planning control. This simplified boundary, rather than a more precise surveyed boundary is suggested as more appropriate for a northern community to facilitate both Governmental administration and use by the general public.

This recommendation requires implementation by means of a Territorial Ordinance.

Implementation

IT IS RECOMMENDED THAT THE MUNICIPAL BOUNDARY BE EXTENDED TO INCLUDE ALL THE LAND ON THE LOWER WEST TOWNSITE NORTH OF THE EXISTING BOUNDARY.

Recommendation No. 2
Municipal Boundary Extension

This land is developing as a major industrial area and the municipality should benefit from any tax revenue resulting from future industrial expansion. In general terms this follows recommendations made in the study prepared by Queens University in 1960 which supported a limited boundary extension but recommended against premature inclusion of areas in Upper Whitehorse. However continued growth of the Whitehorse area could significantly alter economic and development patterns in the future and further studies of the municipal boundary should be made at periodic intervals.

This recommendation requires initiation by the municipal council.

Implementation

IT IS RECOMMENDED THAT THE LOCATION OF ALL FUTURE DEVELOPMENT IN FEDERAL AREAS BE CONSIDERED WITH RESPECT TO ITS IMPLICATIONS TO THE ORGANIZED DEVELOPMENT OF THE WHITEHORSE AREA AND WHERE APPLICABLE CONFORM TO THE METROPOLITAN PLAN FOR LAND USE.

Recommendation No. 3
Federal Government Land Use

It is impossible to zone large areas which are in military or other federal department ownership but as these areas form a significant percentage of land around the municipality it is essential that there is co-operation in their development to prevent the negation of planning recommendations which the municipality or Territorial Government is attempting to implement.

This recommendation can be implemented by establishing a close liaison between Municipal, Territorial and Federal representatives with respect to the utilization of any land within the Federal areas.

Implementation

METROPOLITAN AREA - PROPOSALS

CIRCULATION

Recommendation No. 4
Alaska Highway Development

IT IS RECOMMENDED THAT OTHER THAN IN SPECIFIC AREAS REFERRED TO IN THIS STUDY ALL DEVELOPMENT BE PROHIBITED FROM BOTH SIDES OF THE ALASKA HIGHWAY WITHIN THE METROPOLITAN AREA AND BOTH SIDES OF THE NORTH AND SOUTH ACCESS ROADS FROM THE ALASKA HIGHWAY TO THE MUNICIPAL BOUNDARY FOR A DISTANCE OF 750' BEYOND THE EXISTING RIGHT-OF-WAY AND THAT ACCESS TO THESE ROADS BE RESTRICTED TO NO LESS THAN 1500' INTERVALS.

This will prevent a dispersed growth pattern developing with all its attendant problems and ensure the approaches to the City will be preserved in their natural state. By restricting the number of access points hazards to the Alaska Highway circulation within the Metropolitan Area will be reduced.

This recommendation requires implementation by means of a Territorial Ordinance.

Implementation

IT IS RECOMMENDED THAT AN INDUSTRIAL ROAD BE CONSTRUCTED TO LINK THE ALASKA HIGHWAY TO THE NORTHERN INDUSTRIAL AREA ON THE LOWER WEST TOWNSITE BY A ROUTE NORTH OF CAMP TAKHINI.

Recommendation No. 5
Alternative Industrial Access Route

The line of this road would need careful study to avoid any interference with the Royal Canadian Electrical and Mechanical Engineers' operations and other existing development. The new route would provide an alternative access to the lower west townsite at a 6% grade compared to the 9% grade of Two Mile Hill, and would open presently inaccessible land for industrial expansion.

Because of other more urgent capital works, this recommendation should not be implemented at the present time, however an engineering study should be undertaken now to determine the best route for this road. This would best be done by the Territorial Engineering Division in consultation with present users of land adjacent to the proposed route. Following the study adequate measures should be taken to protect the proposed route from being developed for other purposes.

Implementation

IT IS RECOMMENDED THAT A BRIDGE BE PROVIDED LINKING THE NORTH END OF THE CITY TO THE EAST BANK.

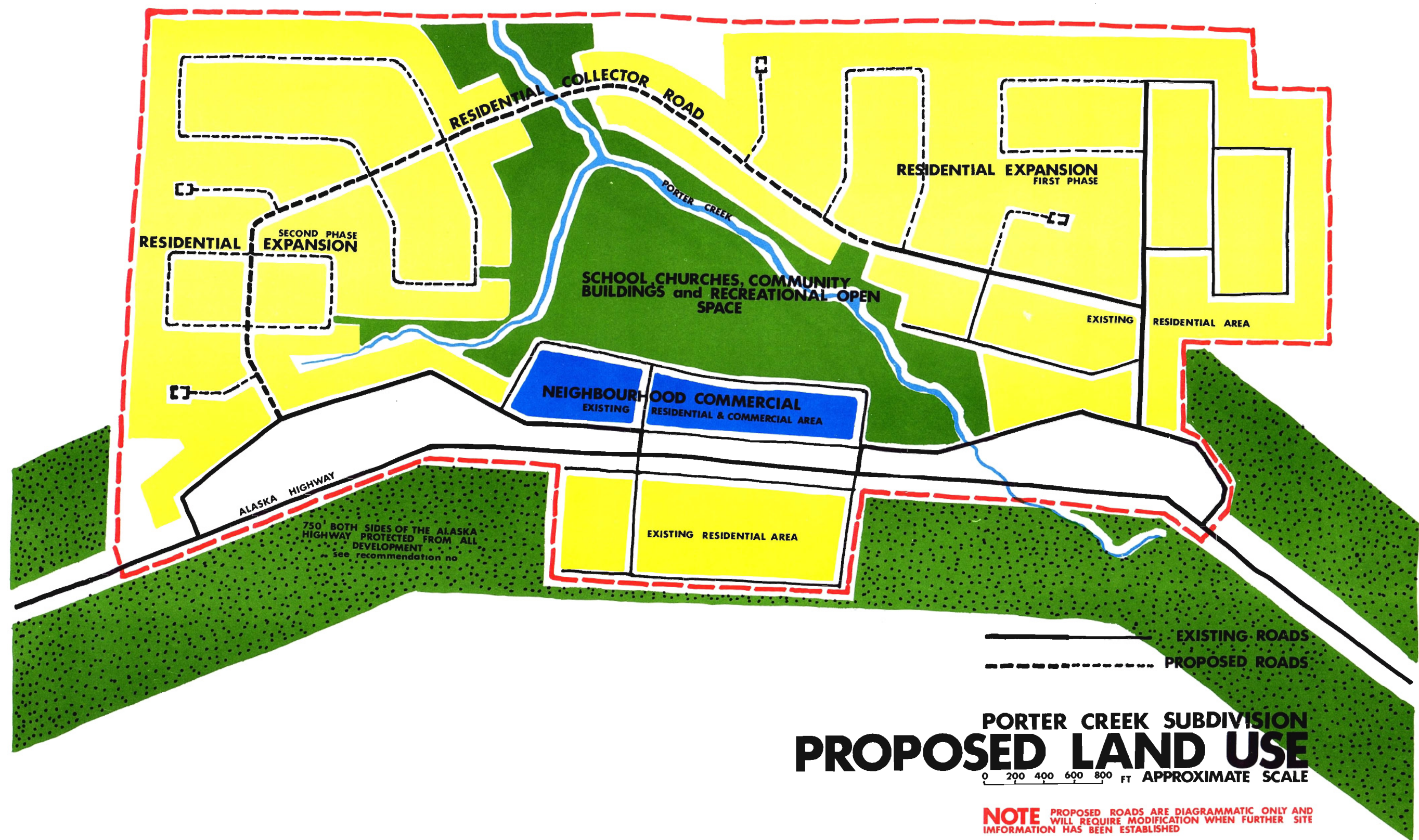
Recommendation No. 6
New Bridge over the Yukon River

This bridge would be essential to ensure that adequate circulation can be provided for the northern area of the lower townsite.

Implementation

The implementation of this recommendation will be required when development of the proposed residential area north of the hospital generates a traffic volume beyond the capacity of the existing bridge. The most feasible and suitable location for the new bridge requires further traffic circulation, engineering and cost studies.

- RESIDENTIAL
- COMMERCIAL
- PUBLIC OPEN SPACE
- RESTRICTED FROM ALL DEVELOPMENT
- BOUNDARY



RESIDENTIAL AREAS
Recommendation No. 7
Alaska Highway Subdivisions

IT IS RECOMMENDED THAT OF THE PRESENT FIVE RESIDENTIAL SUBDIVISIONS ON THE ALASKA HIGHWAY ONLY PORTER CREEK BE ALLOWED TO EXPAND AND THIS ONLY TO A SIZE WHICH CAN SUPPORT MINIMAL COMMUNITY FACILITIES.

The land now available in Riverdale and on the lower west townsite together with areas released in the future, should be sufficient for the estimated total population of 12 - 14,000 by 1980. It is essential that the lower townsite be developed for residential purposes to more fully utilize existing municipal services.

Although it is recommended that residential development be encouraged on the lower townsite, it is realized that at present this area does not offer an economical choice to the buyer as the cost per serviced lot is relatively high. Porter Creek is the most fully developed subdivision on the Alaska Highway and further expansion should be permitted to support a primary school, neighbourhood shopping, and a public transportation service to the City. However, when a maximum size of 1,000-1,200 population has been reached further development should proceed in areas closer to the lower townsite. Crestview has approximately 8-10 lots which are still vacant on which houses should be allowed but only on the understanding that no further development will be permitted in the rest of the subdivision. The other subdivisions, Canyon Crescent, Forest View and Macrae Residential should be closed to further development. People who have bought lots in these areas and have not yet built, should be advised of this recommendation and allowed to resell their land to the Territorial Government.

This recommendation requires implementation by means of a Territorial Ordinance.

Implementation

IT IS RECOMMENDED THAT THE MOST SUITABLE AND EASILY SERVICED LAND ADJACENT TO THE LOWER WEST TOWNSITE BE RESERVED FOR LONG TERM RESIDENTIAL DEVELOPMENT WHICH WILL BE REQUIRED AFTER THE LOWER WEST TOWNSITE, RIVERDALE AND PORTER CREEK SUBDIVISIONS ARE FULLY DEVELOPED.

Recommendation No. 8
Future Residential Areas

There are two areas reasonably close to the lower townsite which, subject to detailed site survey, appear suitable for long term residential development. The first of these is on the east bank north of the Hospital site. Once Riverdale is developed, this will be the only large area remaining at the lower townsite level which can use the full range of established municipal services.

Area North of Hospital

There is an access road from the existing bridge but this will require upgrading. As this road passes close to the hospital, a study should be undertaken to determine if it can be routed close to the river at a lower level to protect the hospital from adverse effects of through traffic. This road can be utilized as the main access in the initial phase of development until a more direct route is constructed from the north end of the lower west townsite across the Yukon River. This area could support approximately 2,500-3,500 persons depending on the density of development.

The second area to be reserved is in Upper Whitehorse at the top of Two Mile Hill and is presently in use as a tank farm. This area is reasonably close to the townsite and subject to detailed site surveys, appears well suited to residential development. Careful planning could bring together two separate Federal residential areas, Hillcrest and Valleyview and help provide a reasonably cohesive residential environment in Upper Whitehorse which would be in range of the existing municipal facilities.

Fuel Tank Farm

Although these areas may not be required within the period of this study, it is essential that they be reserved for this ultimate use to ensure compact development in the future and to allow for an unanticipated demand for large areas of residential land, which might arise, due to economic changes in the Region.

All future residential areas should provide public open space and childrens' playgrounds which are well related to the residential environment. Sites for additional schools which would be required should be set aside and located centrally with respect to the areas they serve and, in the case of primary schools, provide maximum safety of access.

Future Residential Requirements

This recommendation requires implementation by means of a Territorial Ordinance.

Implementation

IT IS RECOMMENDED THAT LIMITED NEIGHBOURHOOD COMMERCIAL DEVELOPMENT BE PERMITTED IN PORTER CREEK, RIVERDALE AND IN THE PROPOSED RESIDENTIAL AREAS NORTH OF THE HOSPITAL AND IN THE VICINITY OF THE FUEL TANK FARM WHEN THE LATTER TWO AREAS HAVE BEEN DEVELOPED TO A SIZE WHICH JUSTIFIES COMMERCIAL DEVELOPMENT.

COMMERCIAL
Recommendation No. 9
Neighbourhood Commercial

It is emphasized that these areas should provide only a minimum of local shopping facilities such as a grocery store, hardware store, drug store and smoke shop and should be provided only when residential areas are sufficiently developed to support them. In addition, a limited number of commercial stores could be allowed in residential areas with controls and qualifications imposed by the responsible government to safeguard the residential environment.

This recommendation requires implementation by means of a municipal by-law and a Territorial Ordinance.

Implementation

IT IS RECOMMENDED THAT AN ALTERNATIVE SITE FOR INDUSTRY BE PROVIDED AT MACRAE INDUSTRIAL SUBDIVISION.

INDUSTRIAL AREAS
Recommendation No. 10
Macrae Industrial Subdivision

The best possible location for industrial development is at the north end of the lower west townsite. However, an alternative site has been provided at Macrae to ensure that those industries wishing to locate outside the lower townsite will not necessarily be lost to the Metropolitan Area. The Macrae subdivision is conveniently situated at a major road and rail intersection. Air and water pollution must however be

guarded against because the site is up river and up wind from the City of Whitehorse and there is no immediate prospect for sewage treatment. Uses which would seem most appropriate would be those in connection with transshipment, storage and service industries such as mill-works metal shops, lumber wholesalers, etc..

This recommendation requires implementation by means of a Territorial Ordinance.

IT IS RECOMMENDED THAT AN AREA REFERRED TO AS THE CHADBURN LAKES - MILES CANYON AREA, SHOULD BE SET ASIDE AS A PARK RESERVE AND PROVISION MADE FOR ITS APPROPRIATE DEVELOPMENT BY THE TERRITORIAL OR MUNICIPAL GOVERNMENTS:

This area contains some of the most attractive lakes in the Region, is well treed and rises sharply on the east providing a spectacular backdrop to the Yukon Valley. It is within 5-10 minutes drive from the lower townsite via a new road built in 1961 and can offer excellent facilities for picknicking, camping and various water sports. Miles Canyon, as well as providing dramatic scenery, has rich historical associations with the Trail of '98 and is perhaps the most attractive area in Metropolitan Whitehorse.

This recommendation requires initiation by the Territorial Government.

Two other areas within Metropolitan Whitehorse offer facilities which could be developed for tourists and residents. One is the area north of the power dam which is now being used for boating and water skiing. The second area is in the vicinity of Haeckel Hill which offers considerable potential for skiing and other winter sports. These areas should be given further study.

IT IS RECOMMENDED THAT AN AREA OF APPROXIMATELY 20 ACRES NORTH - WEST OF THE POWER DAM BE UTILIZED FOR A MUNICIPAL OR TERRITORIAL CEMETERY.

Initial consideration was given to a site north of the existing airport installations directly east of the Canadian National Telecommunications land holdings, however the Department of Transport requires this area to be completely free from all development to avoid interference with their proposed future installations. An alternative area is therefore proposed south of the city between the railway and the south access road. Preliminary investigation indicates this land is presently held by the Crown and should involve no problem of acquisition, however further site studies will be required to confirm the suitability of the area for cemetery uses. The recommended use of this area should not prejudice future recreational uses adjacent to it as the proposed cemetery site is completely enclosed by a major road and the railway tracks and can be further screened by careful landscaping of its perimeter.

This recommendation requires additional studies to confirm the suitability of the site, and subsequent joint negotiations between the Municipal, Territorial and Federal governments.

Recommendation No. 10
Macrae Industrial Subdivision

Implementation

PUBLIC OPEN SPACE AND
CEMETERIES
Recommendation No. 11
Park Reserve

Implementation

Recommendation No. 12
New Cemetery Site

Implementation

METROPOLITAN AREA - PROPOSALS

IT IS RECOMMENDED THAT THE SEWAGE TREATMENT PLANT FOR THE MUNICIPALITY BE LOCATED IN THE NORTHERN AREA OF THE LOWER TOWNSITE.

SERVICES
Recommendation No. 13
Sewage Treatment

A separate study of the water and sewer system by the Department of Northern Affairs and National Resources contains detailed technical and financial recommendations and are therefore omitted from this study.

The above recommendation assumes that some method of sewage treatment will be found essential for the increasing quantities of industrial waste which will otherwise continue to pollute the river. The sewage treatment system should not prejudice future residential development on the level of the lower west town-site. The recommended location will put the sewage treatment in a future industrial area and would place the outlet down river from the built-up area.

This recommendation will require further study by territorial and municipal engineers to determine the best location within the proposed industrial area.

Implementation

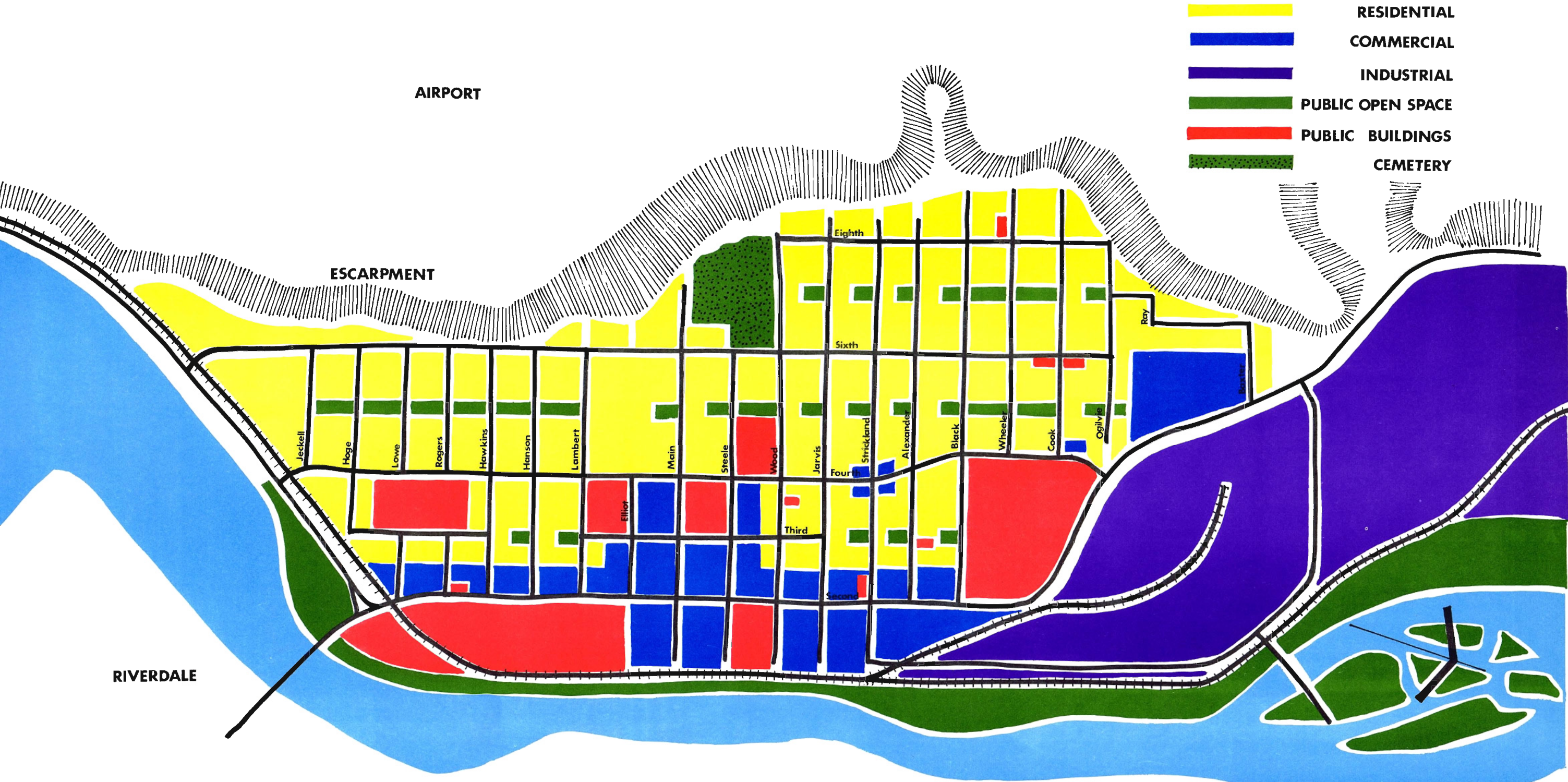
IT IS RECOMMENDED THAT ALL RESIDUAL LAND WITHIN THE METROPOLITAN AREA NOT DESIGNATED FOR SPECIFIC USES SHOULD REMAIN FREE FROM ALL DEVELOPMENT.

Recommendation No. 14
Metropolitan Area Development Control

This recommendation would help ensure contiguous development in specifically designated areas in which adequate community services and amenities could be planned and provided as efficiently as possible. Dispersal of all forms of development throughout the Metropolitan Area would be checked and the governing authorities would be able to plan for future developmental requirements with some degree of certainty.

This recommendation requires implementation by means of a Territorial Ordinance.

Implementation



- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC OPEN SPACE
- PUBLIC BUILDINGS
- CEMETERY

RIVERDALE

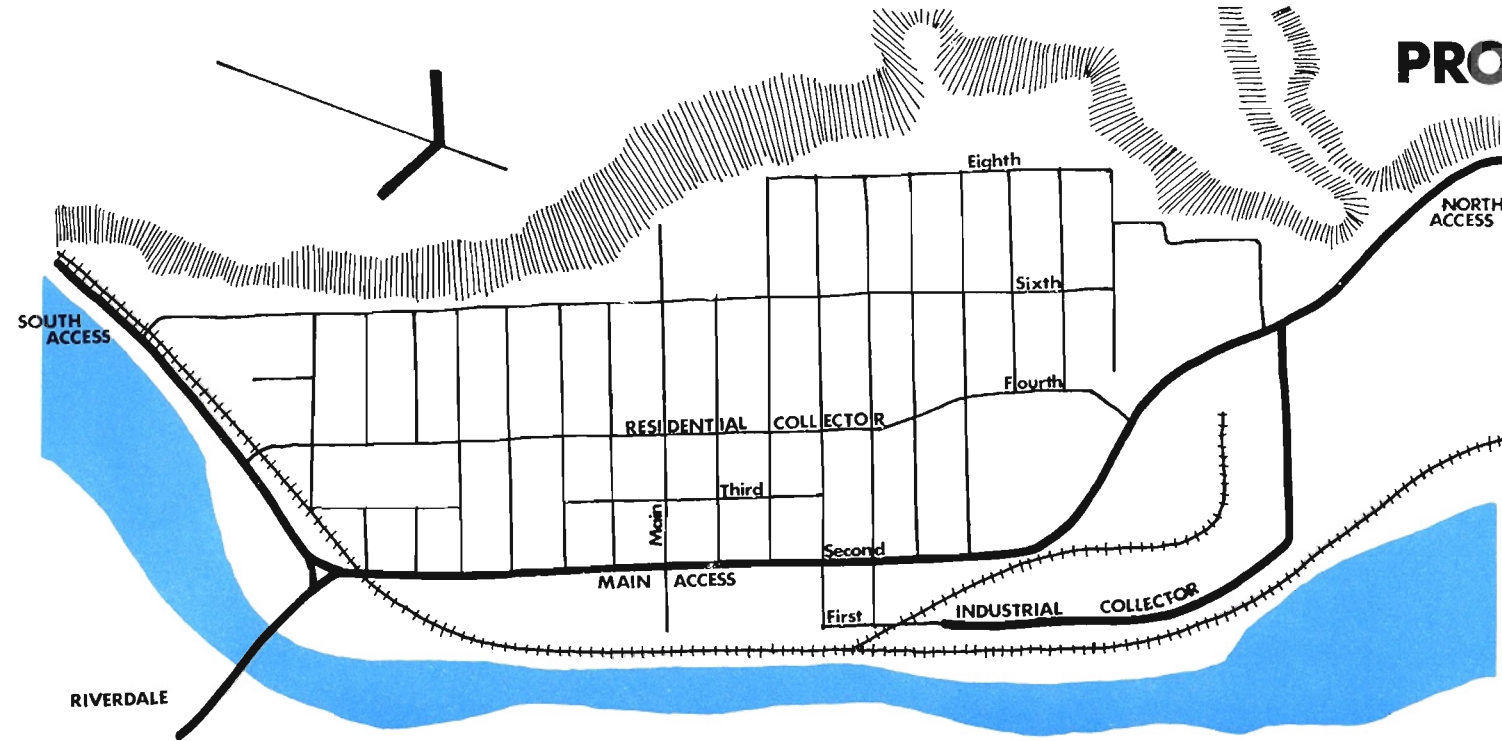
AIRPORT

ESCARPMENT

LOWER WEST TOWNSITE
PROPOSED LAND USE
 SCALE APPROXIMATELY 1" = 500'

LOWER WEST TOWNSITE
PROPOSED CIRCULATION
 SCALE APPROXIMATELY 1 IN - 800 FT

RECOMMENDATIONS



MINOR TRAFFIC ROUTES ———
 MAJOR TRAFFIC ROUTES ———

IT IS RECOMMENDED THAT A NEW ROAD LINKING FOURTH AVENUE TO SECOND AVENUE BE PROVIDED THROUGH LAND NOW BEING VACATED BY 17 WORKS COMPANY.

Recommendation No. 15
 Second Avenue Extension

This recommendation is a major step in establishing an organized system of traffic circulation on the lower west townsite as it would provide one spinal road to accommodate the major traffic flow on the townsite which at present utilizes Fourth and Second Avenues and Main and intervening streets. Commercial development which is dependent on proximity to heavy traffic volume would tend to locate along the new spinal route encouraging the orderly expansion of the central business district without dividing major residential areas or isolating them from school sites on Fourth Avenue. This will tend to arrest the growing commercial ribbon development on Fourth Avenue which has had a considerable blighting influence on adjacent residential areas. Industrial uses which have encroached into the predominantly residential north-east quadrant of the townsite would also be checked by establishing the realigned major road as a physical barrier between the transshipment area and the rest of the City.

The initial phase of this recommendation would provide for the new road through 17 Works Company forming a T-junction with Fourth Avenue. Northbound traffic on Fourth Avenue would be required to stop at the new road junction thus giving priority to through traffic to and from Riverdale via Second Avenue. This would establish a clearly defined major spinal road linking the three main access points to the lower west townsite.

Implementation
 Initial Phase

LOWER WEST TOWNSITE
RECOMMENDATIONS
CIRCULATION

The land necessary for this road extension is privately owned and is presently being leased to the 17 Works Company in connection with the northwest highway system maintenance programme. Facilities on the site, however, are being relocated and immediate negotiations should be undertaken to acquire the land so that it can be made available for this recommendation when the relocation process has been completed.

Implementation
Initial Phase

Survey studies indicate that only five of the 16 businesses located on Fourth Avenue rely heavily on proximity to the main access route. The others rely on adjacent residential trade or are generally unaffected by their location. The initial phase of this recommendation would provide distinct advantages to the commercial development by eliminating the through traffic to and from Riverdale which does not use the facilities on Fourth Avenue and Main Street and only increases congestion. During this phase the natural flow would continue along Fourth Avenue with no physical restriction allowing a gradual familiarization process to be developed in the circulation habits of the townspeople.

The second phase should terminate Fourth Avenue at a T-junction to permit uninterrupted traffic flow from Second Avenue to Two Mile Hill. A small area of land should be acquired to allow a satisfactory merging with the existing roadway and Ogilvie Street should be closed to traffic at its intersection with Fourth Avenue. These alterations to the junction of Fourth Avenue to Second Avenue should be designed to retain satisfactory access for adjacent commercial properties.

Second Phase

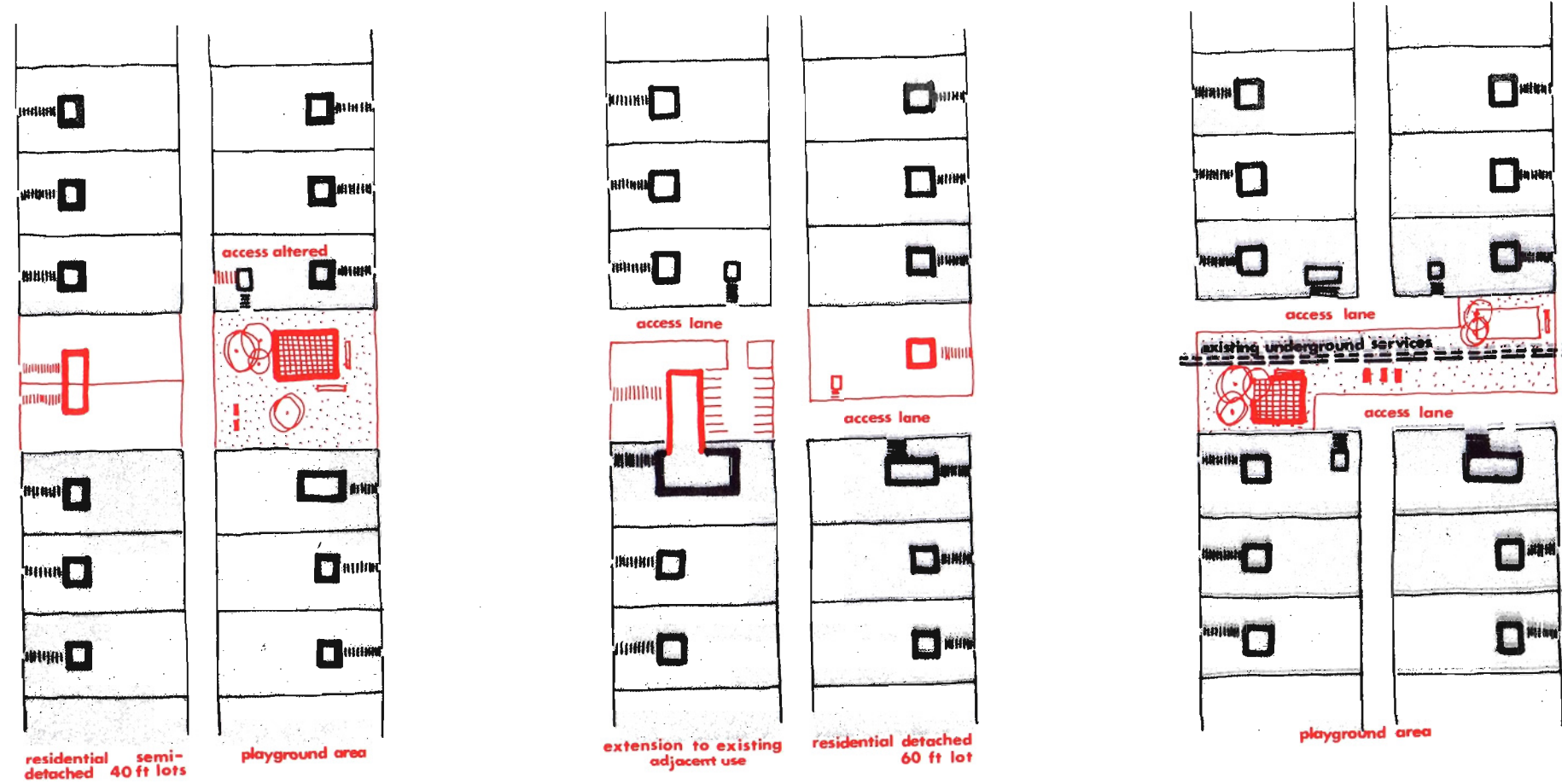
IT IS RECOMMENDED THAT SEVENTH, FIFTH AND PART OF THIRD AND FIRST AVENUES BE CLOSED.

Recommendation No. 16
Street Closures

There is too much land devoted solely for the use of vehicular traffic on the townsite and by closing the above flankage streets, land can be made available for childrens playgrounds closely related to the home, serviced residential lots, parking areas, or extensions to existing adjacent uses. The flow of traffic would be improved with the elimination of unnecessary streets and cross intersections and the town would gain financially from the sale of the residential lots, increased tax revenue and reduction of road maintenance costs.

The survey indicated that street closures had been proposed previously without success, however, in the context of an overall plan of development, the importance of this proposal would be greatly increased. It is essential that each street closure should be examined separately to determine the best possible use of the land with relation to both the needs of adjacent properties and the community as a whole. Most blocks are serviced and accessible from their frontage resulting in only minor problems of access from flankage streets. These access problems can be overcome in the individual design of each closure, some examples of which are suggested on the following page.

Implementation



The initial stage recommends that Seventh Avenue be closed from Wood to Ogilvie Street as a preliminary study indicates this portion to be the least complex of all proposed street closures. It is presently unpaved, unlighted and free from underground services except in two specific cases, between Black and Wheeler and between Wheeler and Cook streets. It is suggested that these latter closures should be used wholly for open space play areas to avoid the problems of easements in private development.

The remaining street closures on Fifth and parts of Third Avenue should be carried out in the Second Phase, or as opportunities permit. Again, each closure should be studied separately and alternative access provided where necessary.

First Avenue closures related directly to the development of the Capital and Municipal Sites depend on the timing of these recommendations. The remaining portion of First Avenue should be closed and used for parking purposes as Second Avenue increases in importance as a major commercial area and the riverfront development programme is implemented.

Initial Phase

Second Phase

LOWER WEST TOWNSITE
RECOMMENDATIONS
CIRCULATION

IT IS RECOMMENDED THAT THE SOUTH ACCESS ROAD INTO THE TOWNSITE BE CONTINUED SOUTH OF THE RAILWAY LINE TO MEET SECOND AVENUE AND THE APPROACH TO THE ROBERT CAMPBELL BRIDGE.

Recommendation No. 17
South Access Road

This recommendation represents the completion of a programme undertaken in 1961 to improve the southern access route from the Alaska Highway to the Municipal Boundary. The proposed section of this road would reroute traffic presently using Fourth Avenue South to Second Avenue, thereby avoiding the duplication of existing problems on Fourth Avenue North. The completion of this route as proposed would be a considerable asset with respect to tourism as it would provide a more attractive and direct route into town and to the scenic areas and other tourist attractions to the south.

The recommended route for this extension to the south access route utilizes Crown Land referred to as South Whiskey Flats and is presently occupied by squatters. A squatter relocation programme is now being undertaken by the Territorial Government and when completed, acquisition of this land should involve no serious problems.

Implementation

Considerable fill will be required, but no serious problems are foreseen as similar work has previously been carried out on other sections of this road.

To ensure the development of a safe and efficient circulation pattern, Fourth and Sixth Avenues should terminate at T-junctions with the new road which will become a continuation of Second Avenue as illustrated on the drawing showing lower west townsite recommendations.

Industrial traffic should be prohibited from using this new route as it would be forced to cross the entire lower townsite to reach the industrial area. Industrial traffic to the lower west townsite should continue to use Two Mile Hill road or the proposed industrial road to the north of Camp Takhini.

IT IS RECOMMENDED THAT A COLLECTOR ROAD BE CONSTRUCTED TO SERVE THE INDUSTRIAL AREA NORTH OF THE CITY.

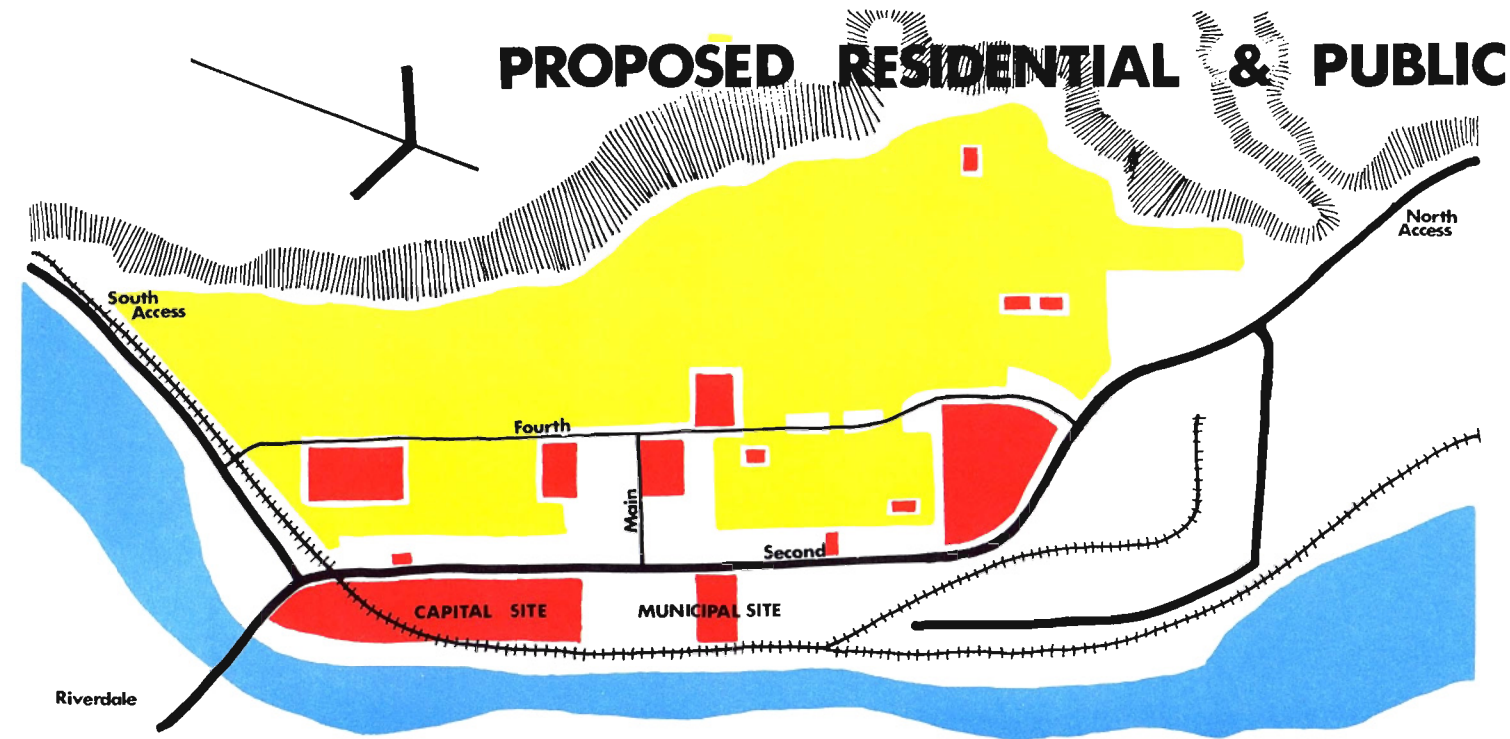
Recommendation No. 18
Industrial Collector Road

This road would allow heavy industrial traffic to reach the warehousing facilities in the vicinity of First Avenue without using other circulation routes through predominantly residential or commercial areas. By rerouting this industrial traffic these areas would no longer hold any attraction to ancillary industrial uses and both new industry and existing industrial uses would be encouraged to locate in the well serviced, easily accessible industrial area.

A right-of-way will be required for this road beyond the existing municipal boundary. It is recommended that additional land to the north of the road which is unused because of drainage or access problems, should be reclaimed and made available for sale to industrial users when the proposed industrial road is completed.

Implementation

The new road can be constructed by upgrading and linking the existing unpaved roads running north from First Avenue and east from Two Mile Hill on the northern municipal boundary.



**LOWER WEST TOWNSITE
BUILDING AREAS**
SCALE: APPROXIMATELY 1 IN - 800 FT

RECOMMENDATIONS

RESIDENTIAL AREAS
PUBLIC BUILDINGS

IT IS RECOMMENDED THAT THE INDUSTRIAL TRUCKING FACILITIES OPPOSITE THE SECONDARY SCHOOL ON FOURTH AVENUE BE RELOCATED AND THE LAND BE MADE AVAILABLE FOR RESIDENTIAL PURPOSES.

Recommendations concerning the major road system have been designed partly to offset the progressive deterioration of the north end of the City due to the intrusion of industrial uses. It is doubtful however if these can be fully effective if the B.Y.N. Depot with its large volume of heavy trucking traffic is retained on Fourth Avenue. For this reason the Depot should be relocated.

The industrial trucking area consists of Block 111 and the south half of Block 112 all of which is owned by private interests. The majority of the area is being used for storage and parking purposes and, other than one maintenance shop, it has few significant improvements. The provision of a new industrial collector road and the completion of the Second Avenue extension should encourage the private interest involved to relocate their facilities voluntarily, especially if some incentive is given by the municipality. Without voluntary relocation the land should be acquired by negotiation with the cost of such acquisition partially offset by utilizing the area for multiple family residential uses.

This recommendation requires negotiation between the municipality and the private interests involved.

Recommendation No. 19
B.Y.N. Truck Park

Implementation

LOWER WEST TOWNSITE
RECOMMENDATIONS
RESIDENTIAL AND PUBLIC
BUILDING AREAS

IT IS RECOMMENDED THAT IMMEDIATE ACTION BE TAKEN BY THE MUNICIPAL TERRITORIAL AND FEDERAL GOVERNMENTS TO STABILIZE THE ESCARPMENT AT THE WESTERN EDGE OF THE LOWER TOWNSITE.

Recommendation No. 20
Escarpment Stabilization

The instability of the escarpment endangers adjoining built-up areas and is an obstacle to the development of a substantial acreage of vacant land. The problem has been the subject of study of both governmental and private bodies, which, in the main suggest a three part programme; the improvement of airport drainage, the provision of a grass cover to the airport surface and reforestation of the escarpment. Airport installations are now being relocated away from the edge of the escarpment and it is essential to the safe and efficient development of the lower west townsite that the remainder of this programme be implemented as soon as possible.

This recommendation requires negotiation between the Municipal, Territorial and Federal Governments.

Implementation

IT IS RECOMMENDED THAT THE AREA REFERRED TO AS LOT 19 BE MADE AVAILABLE FOR RESIDENTIAL DEVELOPMENT.

Recommendation No. 21
Lot 19 Development

The existence of this large vacant area on a restricted townsite constitutes a waste of land resources which tends to increase land prices and limit municipal revenue. Following the stabilization of the escarpment some method should be found to overcome the political and administrative problems so that Lot 19 may be developed as a residential area. This will provide an incentive towards the implementation of other programmes such as the squatter relocation and the riverfront development.

The method of implementing this recommendation is one which will require negotiations between the Municipal and Territorial Governments and the owners of the land.

Implementation

IT IS RECOMMENDED THAT THE LAND BETWEEN THE NORTH AND EAST BOUNDARIES OF THE SECONDARY SCHOOL ON FOURTH AVENUE AND THE PROPOSED EXTENSION TO SECOND AVENUE BE USED AS ADDITIONAL OPEN SPACE FOR THE SCHOOL.

Recommendation No. 22
School Open Space Extension

In the future the secondary school on Fourth Avenue will be altered to accommodate only primary school children. The proposed extension to the open space would allow adequate facilities to be provided for both the school requirements and for general community recreation.

The initial extension of the school's open space between the north boundary of the school and the Second Avenue extension is presently part of the land being utilized by 17 Works Company. Negotiations will be required to acquire this land.

Implementation

LOWER WEST TOWNSITE
RECOMMENDATIONS
RESIDENTIAL AND PUBLIC
BUILDING AREAS

The second phase will require the acquisition of the land between the east boundary of the school site and Second Avenue. This area now has a predominantly industrial use which will become non-conforming in the initial phase of the plan. Prior to entering into negotiations for acquisition of this area, encouragement should be given to the existing users to relocate voluntarily.

Implementation

IT IS RECOMMENDED THAT A FIRE HALL NOW ON THE LAND BEING USED BY 17 WORKS COMPANY BE RELOCATED.

Recommendation No. 23
Fire Hall Relocation

The retention of the Fire Hall in this location would create a potential hazard for primary school children attending the adjacent school on Fourth Avenue. In addition this and the immediate surrounding area will be required at a later stage as a further extension to the school site. Both of the above reasons require immediate consideration be given to the relocation of the Fire Hall.

The relocation of the Fire Hall will depend, for the most part, on the availability of municipal finances, however it is essential to the safety of the children that relocation be completed by the time the school has been changed to accommodate predominantly primary grades.

Implementation

IT IS RECOMMENDED THAT BLOCK 7 BE COMPREHENSIVELY DEVELOPED AS A CIVIC CENTRE INCORPORATING A CITY HALL, ANCILLARY MUNICIPAL BUILDINGS AND AN HISTORIC PARK.

Recommendation No. 24
Municipal Site Development

Although the Civic Centre buildings may not be constructed for some time, Block 7 should be reserved for this purpose and a preliminary design prepared after undertaking a detailed study of the site and surrounding development. The proposed site could become a principle focus for the central business district and the scenic potential of the riverfront.

Consultants should be retained to carry out this work which would provide for the long term requirements of both the municipality and the Historic Society. Development would be in stages as financial resources permitted. The study should include a detailed examination of the condition of buildings in the immediate area, with a view to clearance and redevelopment; preparation of a comprehensive design for a civic centre related to Second Avenue, Main Street and the Yukon River; and the preparation of cost estimates for clearance and redevelopment.

Implementation

The land other than one residential lot is presently owned by the Territorial Government and should present no problem of acquisition for the Municipal Government.

IT IS RECOMMENDED THAT THE AREA REQUESTED BY THE TERRITORIAL GOVERNMENT FOR A NEW PROVINCIAL OR TERRITORIAL CAPITAL SITE BE LOCATED IN THE SOUTH EAST PORTION OF THE LOWER WEST TOWNSITE.

The development of this area would provide an architecturally designed and controlled area on the lower townsite of direct benefit to the municipality, which would be capable of becoming a strong administrative focus of the Yukon Territory. Because of the scope of the development and the financial and technical resources which can be brought to bear on it, the project could have a significant influence on both existing and subsequent development. The site itself is centrally located on the townsite between the Yukon River and a major road artery. The site is easily accessible to the people and can take advantage of existing municipal services and amenities.

Excluding railway land there are approximately 20 acres in this site which can be made available for development. This is considerably less than the area originally under consideration, however previous studies implied a much different concept as to the location, character and general functioning of the capital area. It is the firm belief of this study that a well handled comprehensive development of this site would be considerably more advantageous than a dispersed and more open form of development to both the capital area and the municipality itself. The area should be reserved as soon as possible and protected from development which might prejudice its future use. The usual lot by lot development characteristic of northern settlements should be avoided as the successful implementation of this proposal depends, like the Municipal site on a comprehensive design involving building groups and landscaping of a standard appropriate to a Capital City.

The area is nearly all in private ownership with an assessed value of land and improvements of approximately \$200,000. There are basically two methods by which this land can be reserved for Capital Site Development. The land can be acquired immediately and leased back to the present owners thus avoiding speculative land price increases, or the land can be acquired gradually as it becomes available. The latter method would require interim controls to prevent the sale and resale of land at inflated prices. The method of acquisition must, however, be decided by the appropriate government and this report only recommends that some decision as to the method of acquisition is reached as soon as possible.

Any development plan for the Capital area should carefully consider the section of railway trackage which runs through the site in relation to the overall development. The line is not heavily used and it is suggested that its strong historical associations could be an asset in the design of an exciting and representative Capital area.

Implementation

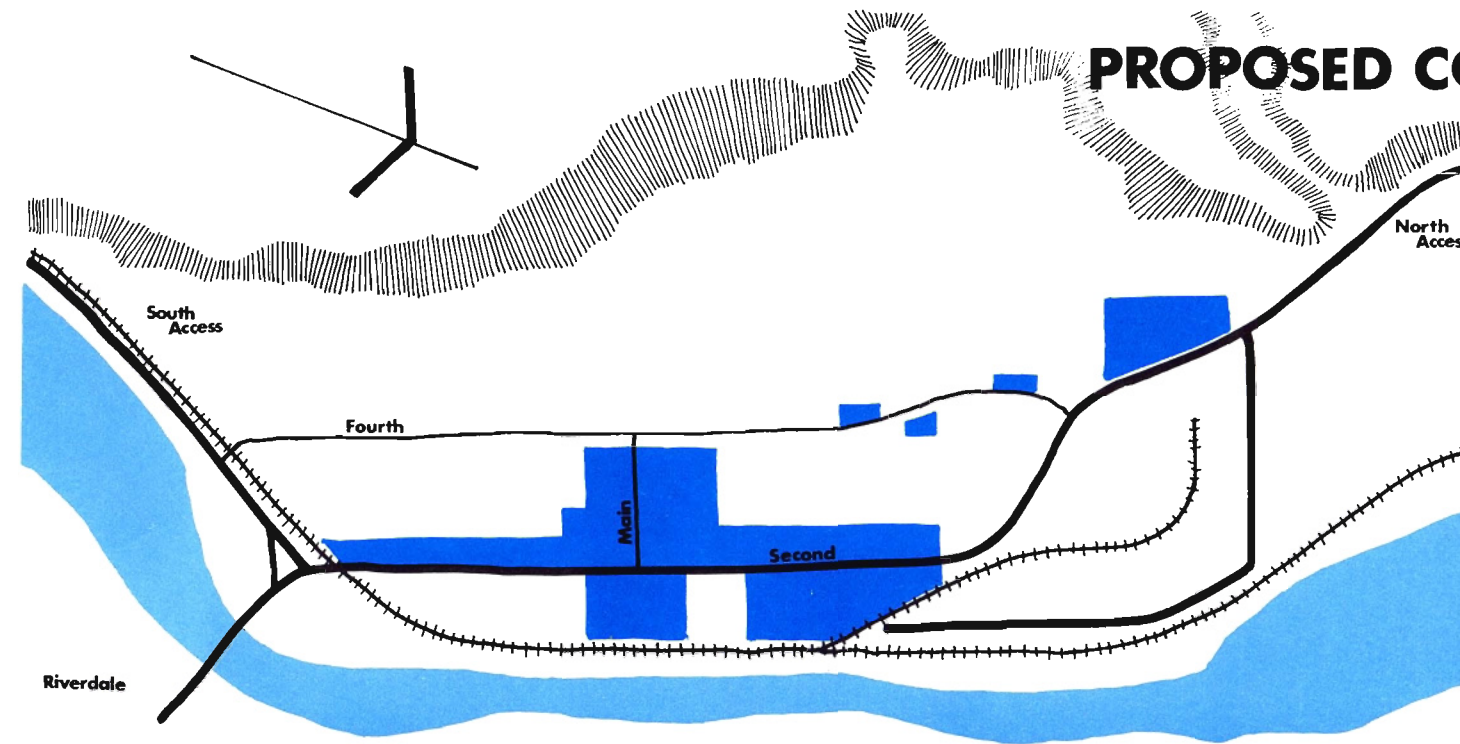
LOWER WEST TOWNSITE
RECOMMENDATIONS
RESIDENTIAL AND PUBLIC
BUILDING AREAS

IT IS RECOMMENDED THAT THE R.C.M.P. SUB-DIVISIONAL FACILITIES AND MUNICIPAL DETACHMENT BE RELOCATED IN THE FEDERAL BUILDING AND THE NEW CITY HALL RESPECTIVELY AND THEIR EXISTING SITE BE RESTRICTED TO RESIDENTIAL USE.

This relocation will depend on R.C.M.P. requirements and the timing of development on the capital and municipal sites which will eventually make space available in the existing Federal Building and the proposed City Hall. The R.C.M.P. would retain their existing site restricting it to residential uses only.

Recommendation No. 26
R.C.M.P. Facilities

Implementation



**LOWER WEST TOWNSITE
PROPOSED COMMERCIAL AREAS**
SCALE APPROXIMATELY 1 IN - 800 FT

RECOMMENDATIONS

COMMERCIAL AREAS

IT IS RECOMMENDED THAT COMMERCIAL DEVELOPMENT BE ENCOURAGED TO LOCATE ON THE LOWER WEST TOWNSITE IN THE PROPOSED COMMERCIAL AREA.

The proposed commercial area would be directly related to Main Street, Second Avenue and the Riverfront. This should encourage the growth of a stronger more compact central business district and encourage the grouping of major buildings to provide a commercial focus appropriate to a territorial capital.

This recommendation requires implementation by means of a municipal by-law.

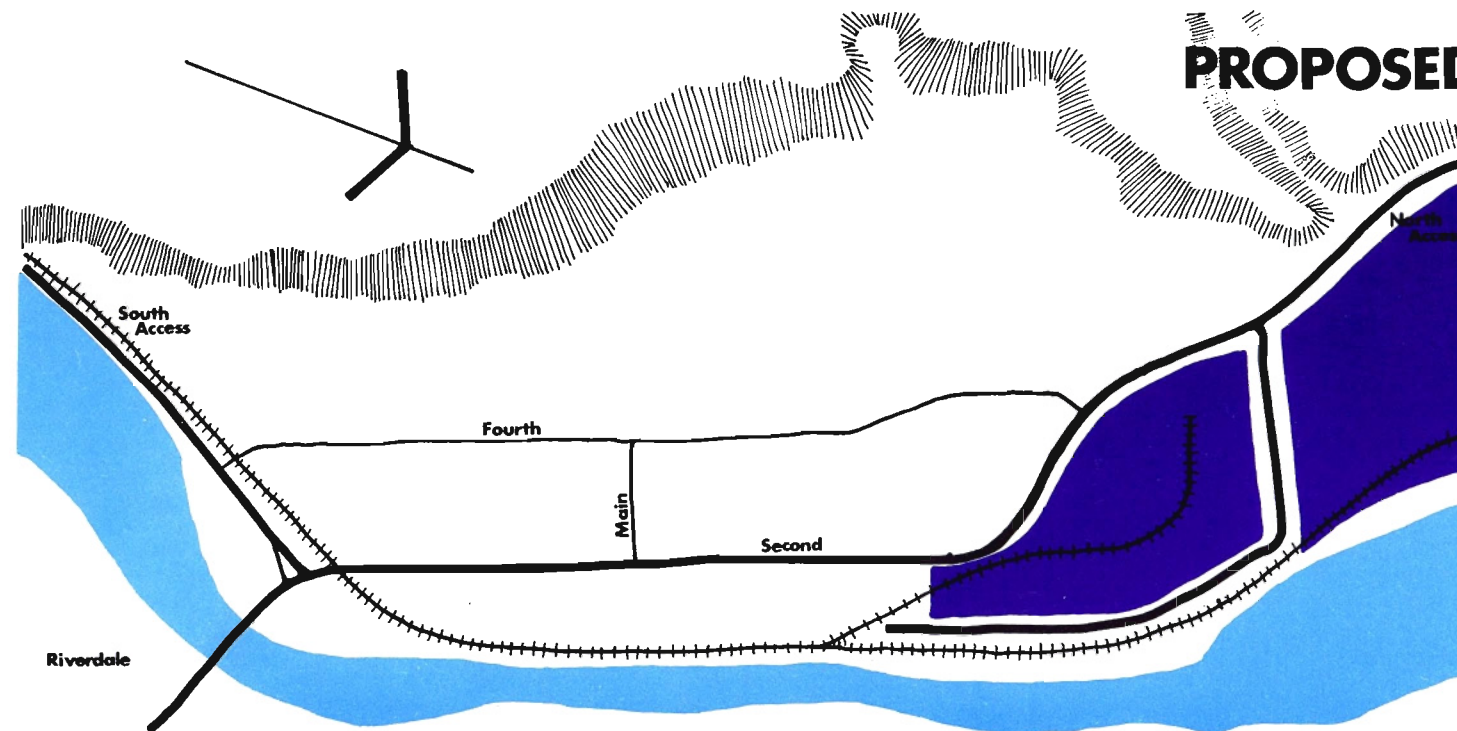
A restricted neighbourhood commercial area will remain at the north end of town due to the large investment in that area at present. Controls however, should be exerted to prevent expansion which would then compete with the main Business District on Second Avenue and Main Street. Other uses in the townsite will become non-conforming and will be allowed to remain but their expansion will be restricted. A limited range of commercial uses, of the corner store variety, will be permitted within residential areas.

Recommendation No. 27
Central Business District
Commercial Development

Implementation

**LOWER WEST TOWNSITE
PROPOSED INDUSTRIAL AREA**
SCALE APPROXIMATELY 1 IN - 800 FT

RECOMMENDATIONS



INDUSTRIAL AREA

IT IS RECOMMENDED THAT ALL INDUSTRIAL DEVELOPMENT ON THE LOWER TOWNSITE BE LOCATED NORTH OF THE PROPOSED SECOND AVENUE EXTENSION.

Recommendation No. 28
Industrial Development

The proposed industrial area will be clearly defined to the south by the proposed Second Avenue extension and will be served by a new industrial collector road. Existing industries on the townsite except those subject to specific proposals become non-conforming uses which may remain while their present use continues with limitations placed on their expansion. However, improved site facilities and access in the industrial area should encourage these industrial uses to relocate.

This recommendation requires implementation by means of a municipal by-law.

Implementation

IT IS RECOMMENDED THAT LAND IN THE PROPOSED INDUSTRIAL AREA BE MADE AVAILABLE FOR PURCHASE IN SMALL PARCELS.

Recommendation No. 29
Industrial Land Purchase

This will provide urgently needed land for small industrial uses which are at present being forced into adjacent residential areas by restrictive leasing policies.

There is some Crown land in the proposed industrial area north of Two Mile Hill at the base of the escarpment which could be subdivided and sold in small parcels. The utilization of this area should present no serious obstacles. Following the implementation of other recommendations, however, the

Implementation

LOWER WEST TOWNSITE
RECOMMENDATIONS
INDUSTRIAL AREAS

most suitable and advantageous area would be the vacant land adjacent to the proposed industrial collector road linking Two Mile Hill to First Avenue. This area is presently held by private interests and every encouragement should be given to the owners to subdivide and make this land available for industrial purchase voluntarily. Failing this negotiations should be undertaken by the municipality to acquire a major portion of this land.

Implementation

The immediate implementation of this recommendation is of vital interest to the orderly development of the Whitehorse area.

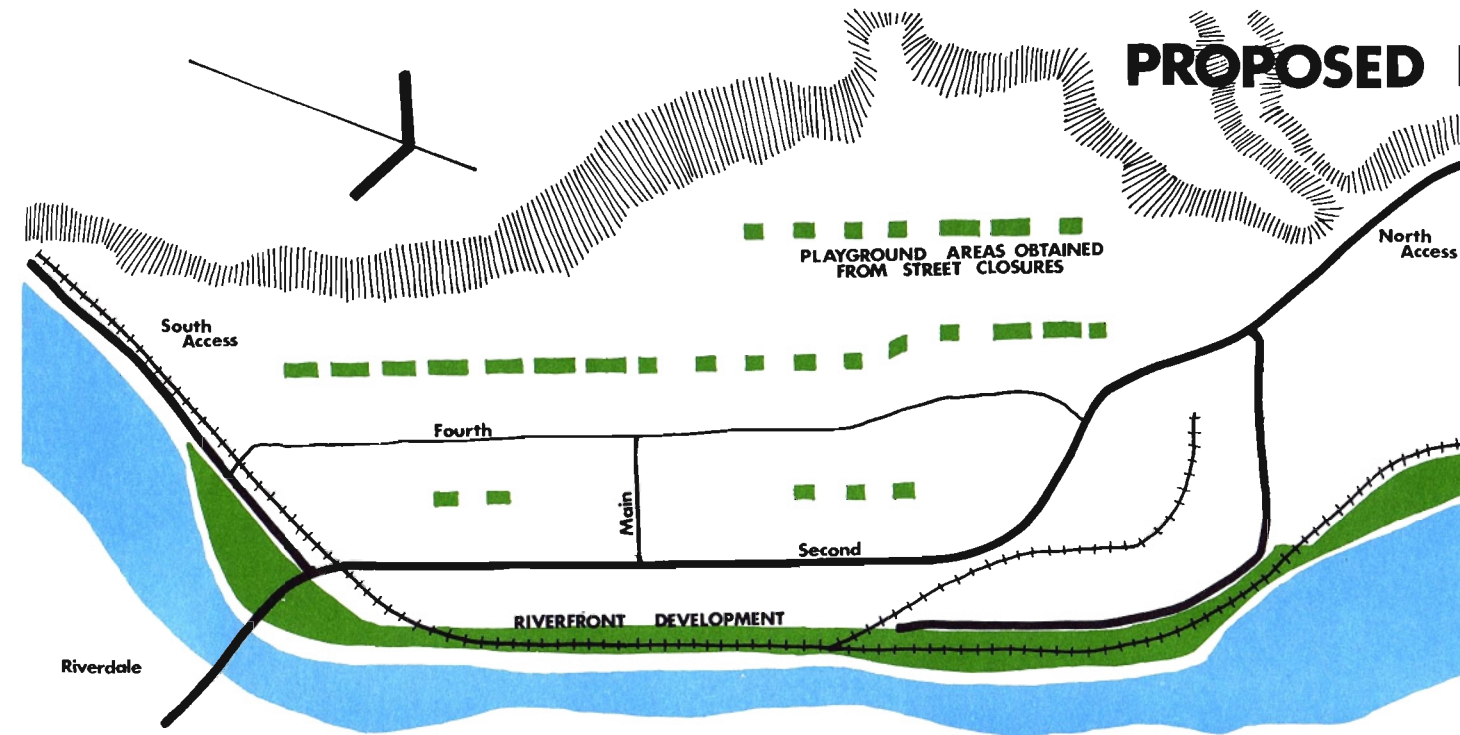
IT IS RECOMMENDED THAT THE LAND RESERVED FOR THE USE OF INDIANS ON THE LOWER WEST TOWNSITE BE MADE AVAILABLE FOR INDUSTRIAL USE WHEN IT IS NO LONGER REQUIRED FOR ITS PRESENT USE.

Recommendation No. 30
Future Industrial Expansion

This is a long term measure and the land would be required only when the other industrial areas are substantially built-up, at which time the area would become unsuitable for residential use of any kind. It is assumed, however, that the present policy of integration will free this land for industrial uses long before the surrounding area is completely utilized.

The implementation of this recommendation requires future negotiation with the Department of Citizenship and Immigration who now control the use of this area.

Implementation



**LOWER WEST TOWNSITE
PROPOSED PUBLIC OPEN SPACE**
SCALE APPROXIMATELY 1 IN - 800 FT

RECOMMENDATIONS

PUBLIC OPEN SPACE 

IT IS RECOMMENDED THAT PART OF THE LAND MADE AVAILABLE BY STREET CLOSURES ON THE LOWER WEST TOWNSITE BE DEVELOPED AS CHILDRENS' PLAYGROUNDS.

Recommendation No. 31
Childrens' Playgrounds

This will offset the shortage of recreational open space for children on the lower west townsite and will provide playground locations close to housing as necessitated by severe climatic conditions.

The provision of a number of small open areas throughout the townsite presents the problem of suitably equipping and maintaining them in a satisfactory manner. It is suggested that this problem may be overcome by interesting the many service organizations in town to assume the responsibility of providing equipment, landscaping and where required, fencing and supervision. The undertaking of this responsibility by service groups should meet with some success as some organizations have previously shown interest when similar areas in town were used in this manner.

Implementation

IT IS RECOMMENDED THAT THE RIVERFRONT AREA FROM SOUTH WHISKEY FLATS TO THE ARMY MAINTENANCE CAMP BETWEEN THE RIVER AND FIRST AVENUE BE CLEARED AND DEVELOPED AS PUBLIC OPEN SPACE.

Recommendation No. 32
Riverfront Development

The Yukon River was once a major traffic artery and therefore has considerable historic interest as well as outstanding scenic appeal and this potentially attractive area should be preserved for the use of residents and tourists. Restoration of the riverfront should therefore be a matter of urgency and should involve a comprehensive relocation and park development programme related to the proposed Capital and Municipal sites and the growth of new commercial areas.

The first area for acquisition, clearance and development extends from South Whiskey Flats to the north end of the Municipal Site, and includes 2 parcels of Crown Land at South and North Whiskey Flats which will become available as the squatters are relocated. The remaining land is privately owned and should be acquired by negotiation.

Implementation

The first phase should include the relocation of existing structures east of First Avenue, excluding the railway station, relocation of one of the Sternwheelers to a site immediately north of the Robert Campbell Bridge in North Whiskey Flats, and a general clearance and maintenance programme.

The railway line presently severs the townsite from the river and negotiations will be required to provide access across the line. Possibly the Railway Company might agree to reduce their right-of-way in the proposed Riverfront Park Development if satisfactory controls and protection of their interests is maintained. The railway station should be considered an integral part of the Riverfront Park Development as its historical associations and the physical appearance of its log siding could add considerable interest to the park area.

IT IS RECOMMENDED THAT THE TERRITORIAL GOVERNMENT ASSUME RESPONSIBILITY FOR THE MAINTENANCE OF THE PUBLIC OPEN SPACE ON BOTH SIDES OF THE YUKON RIVER AS INDICATED ON THE ULTIMATE LAND USE DRAWING.

Recommendation No. 33
Riverfront Parks Maintenance

The development and subsequent maintenance of the riverfront parks are of vital interest to both the City and the Territorial Government as they would provide badly needed public open space on the townsite for residents, tourists, and the central business district, and provide an attractive natural setting for the majority of the institutional and government buildings suitable to a territorial capital. Because of the limited financial resources available to the municipality, however, it is recommended that the City make only a nominal contribution and that the Territorial Government provide the administration and the major contribution of costs towards the maintenance of the riverfront park areas.

This recommendation requires negotiation between municipal and territorial officials, to be initiated by the municipality.

Implementation

IT IS RECOMMENDED THAT, WHENEVER POSSIBLE, THE EXISTING TREE AND SHRUB GROWTH ON BOTH SIDES OF TWO MILE HILL BE RETAINED FROM THE PROPOSED MUNICIPAL BOUNDARY TO BLACK STREET.

Recommendation No. 34
Two Mile Hill Vegetation
Protection

The retention of this vegetation would help preserve an attractive northern approach to the lower townsite and help create a green buffer strip between the industrial area and the road.

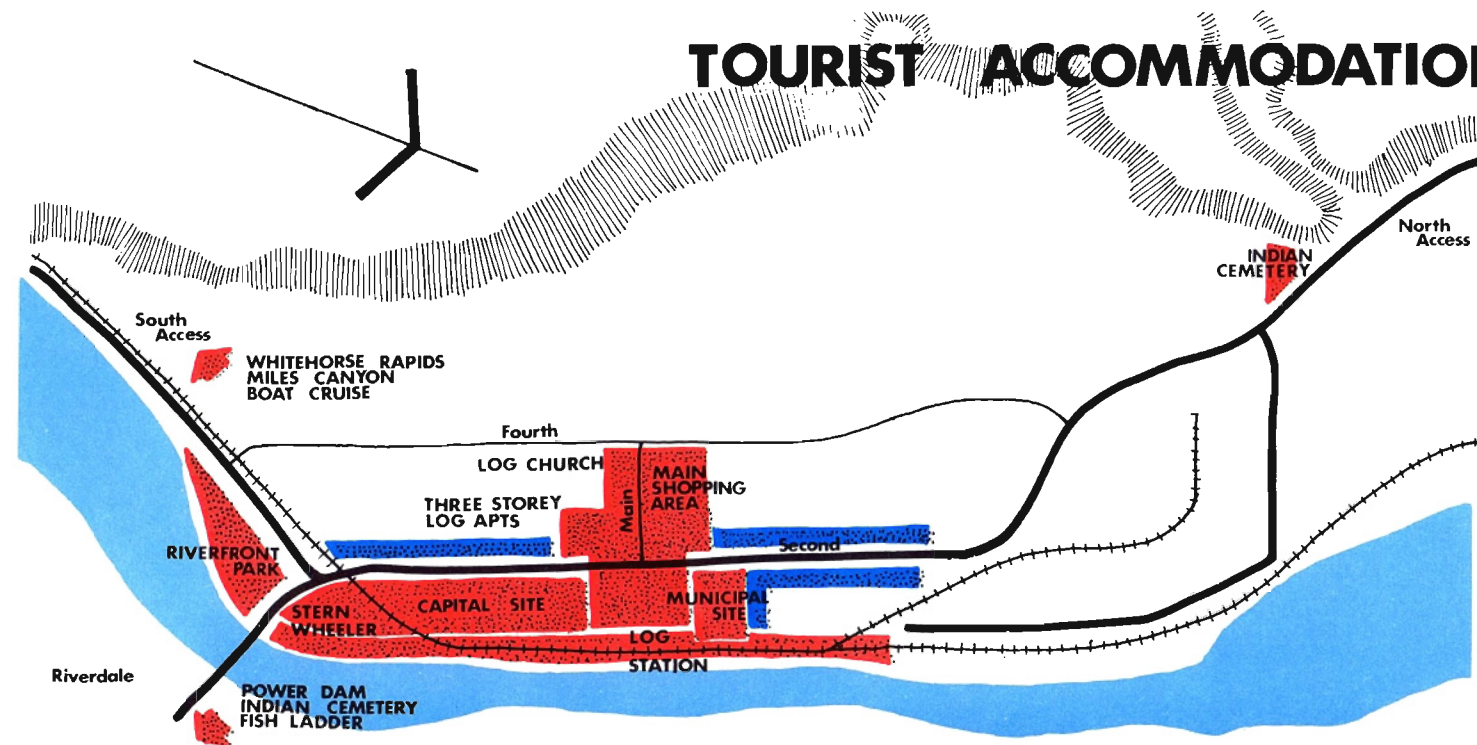
The implementation of this recommendation requires co-operation from all future developers locating on or adjacent to Two Mile Hill Road.

Implementation

TOURIST ACCOMMODATION

LOWER WEST TOWNSITE & ATTRACTIONS
SCALE APPROXIMATELY 1 IN - 800 FT

RECOMMENDATIONS



ACCOMMODATION 
ATTRactions 

IT IS RECOMMENDED THAT SIMPLE AMENITIES SUCH AS WASTE BASKETS, BENCHES, DRINKING FOUNTAINS, SIGN-POSTING, DESCRIPTIVE PLAQUES ETC., BE PROVIDED NEAR MAJOR TOURIST ATTRACTIONS.

Recommendation No. 35
Tourist Amenities

Tourist attractions including the new civic center, historic park, proposed capital area, sternwheelers and central shopping area would all be related to the riverfront park development and would thus begin to form a concentration of tourist interests in a lively and attractive area. The provision of inexpensive amenities would do much to enhance the tourist attractions and the character of the entire central area.

The cost of providing simple amenities should be relatively small and it is suggested that the local tourist organization might encourage some of the many service groups to participate in implementing this recommendation.

Implementation

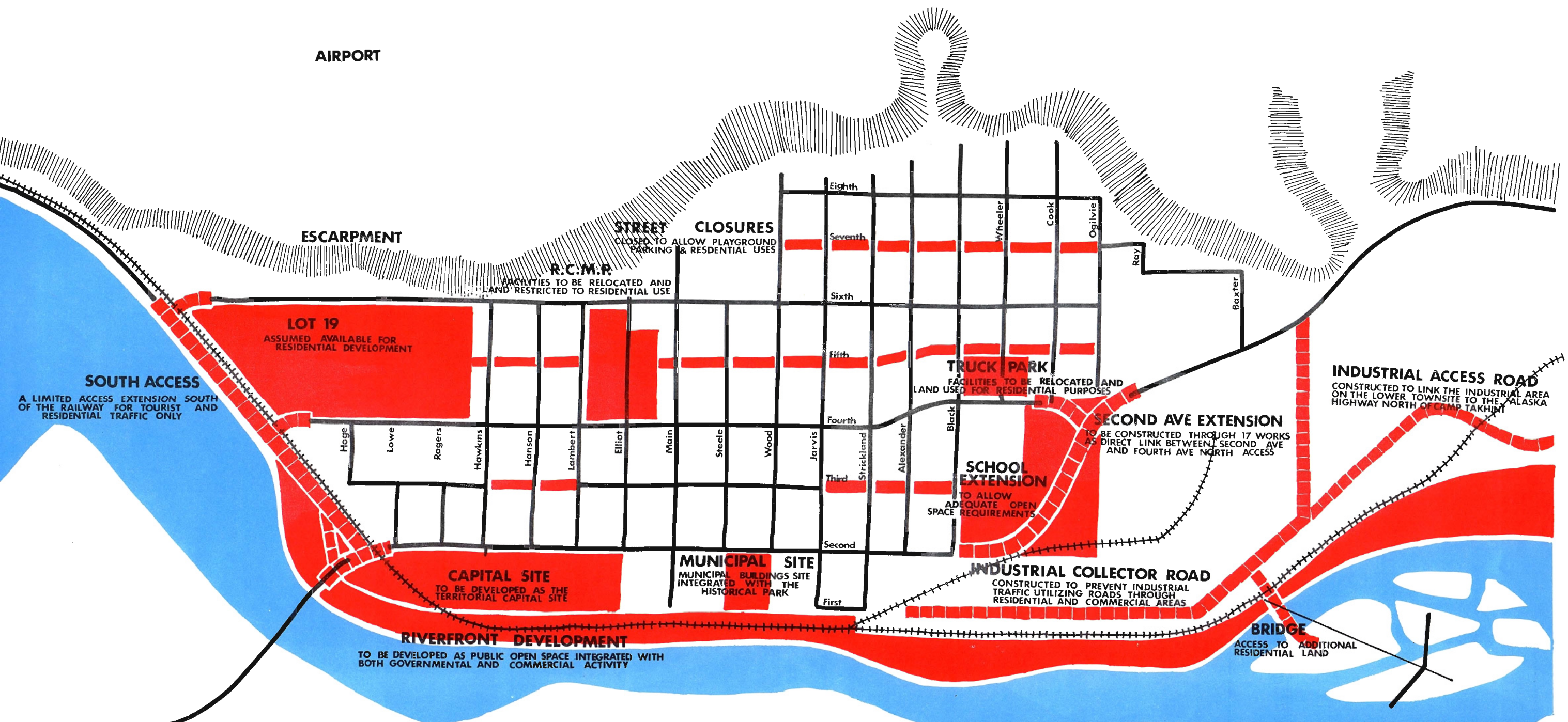
IT IS RECOMMENDED THAT EXPROPRIATION PROCEDURES BE CONSIDERED IF NEGOTIATIONS TO ACQUIRE PRIVATELY HELD LAND FOR THE PURPOSE OF IMPLEMENTING THE PLAN ARE UNSUCCESSFUL.

Recommendation No. 36
Expropriation

The recommendations included in this report in many ways represent the minimum course of action that should be followed to ensure an orderly and attractive community. Some of the most important recommendations require acquisition of privately held land and should negotiations with the owners of this land be unsuccessful consideration should be given to expropriation. This procedure is used in other municipalities throughout Canada and has proved successful in ensuring land is utilized for its highest and best use for the betterment of the whole community.

IT IS RECOMMENDED THAT THE METROPOLITAN PLAN BE REVIEWED EVERY 5 YEARS OR WHENEVER ANY REGIONAL DEVELOPMENT OCCURS WHICH COULD SUBSTANTIALLY AFFECT THE DEVELOPMENT OF THE WHITEHORSE AREA.

Recommendation No. 37
Review of Plan



AIRPORT

ESCARPMENT

STREET CLOSURES
CLOSED TO ALLOW PLAYGROUND
PARKING & RESIDENTIAL USES

R.C.M.P.
FACILITIES TO BE RELOCATED AND
LAND RESTRICTED TO RESIDENTIAL USE

LOT 19
ASSUMED AVAILABLE FOR
RESIDENTIAL DEVELOPMENT

SOUTH ACCESS

A LIMITED ACCESS EXTENSION SOUTH
OF THE RAILWAY FOR TOURIST AND
RESIDENTIAL TRAFFIC ONLY

TRUCK PARK
FACILITIES TO BE RELOCATED AND
LAND USED FOR RESIDENTIAL PURPOSES

INDUSTRIAL ACCESS ROAD
CONSTRUCTED TO LINK THE INDUSTRIAL AREA
ON THE LOWER TOWNSITE TO THE ALASKA
HIGHWAY NORTH OF CAMP TAKHIM

SECOND AVE EXTENSION
TO BE CONSTRUCTED THROUGH 17 WORKS
AS DIRECT LINK BETWEEN SECOND AVE
AND FOURTH AVE NORTH ACCESS

SCHOOL EXTENSION
TO ALLOW
ADEQUATE OPEN
SPACE REQUIREMENTS

MUNICIPAL SITE
MUNICIPAL BUILDINGS SITE
INTEGRATED WITH THE
HISTORICAL PARK

INDUSTRIAL COLLECTOR ROAD
CONSTRUCTED TO PREVENT INDUSTRIAL
TRAFFIC UTILIZING ROADS THROUGH
RESIDENTIAL AND COMMERCIAL AREAS

CAPITAL SITE
TO BE DEVELOPED AS THE
TERRITORIAL CAPITAL SITE

RIVERFRONT DEVELOPMENT

TO BE DEVELOPED AS PUBLIC OPEN SPACE INTEGRATED WITH
BOTH GOVERNMENTAL AND COMMERCIAL ACTIVITY

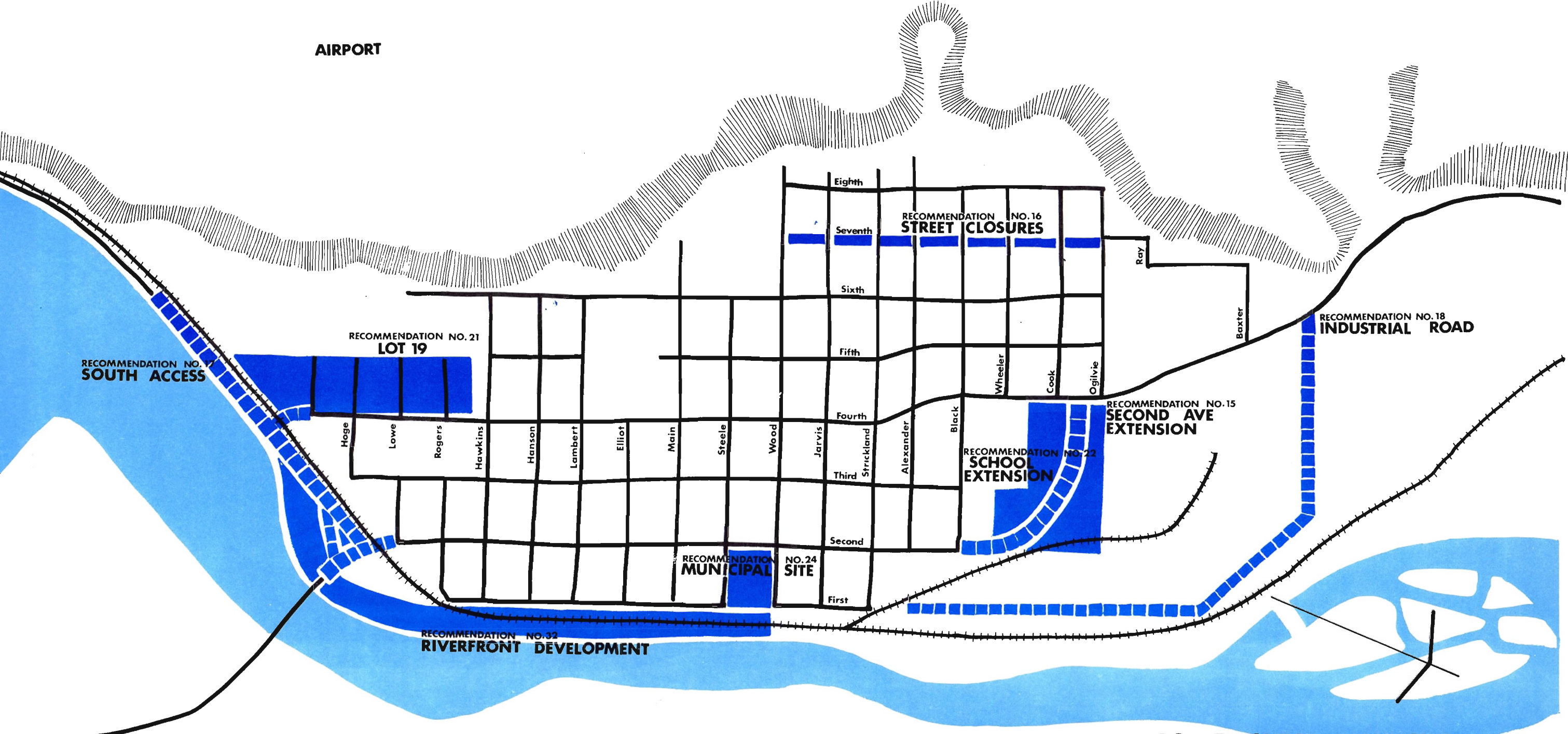
BRIDGE
ACCESS TO ADDITIONAL
RESIDENTIAL LAND

RIVERDALE

**LOWER WEST TOWNSITE
RECOMMENDATIONS**
SCALE APPROXIMATELY 1" = 500'

INITIAL PHASE

AIRPORT



RECOMMENDATION NO. 17
SOUTH ACCESS

RECOMMENDATION NO. 21
LOT 19

RECOMMENDATION NO. 16
STREET CLOSURES

RECOMMENDATION NO. 15
SECOND AVE
EXTENSION

RECOMMENDATION NO. 18
INDUSTRIAL ROAD

RECOMMENDATION NO. 22
SCHOOL
EXTENSION

RECOMMENDATION NO. 24
MUNICIPAL
SITE

RECOMMENDATION NO. 32
RIVERFRONT DEVELOPMENT

RIVERDALE

**LOWER WEST TOWNSITE
RECOMMENDATIONS**

SCALE APPROXIMATELY 1" = 500'

SECONDARY PHASE



LOWER WEST TOWNSITE RECOMMENDATIONS

SCALE APPROXIMATELY 1" = 500'

The statutory powers required to implement the metropolitan plan should be provided by the adoption of a Municipal By-law by the City Council for the area within the municipality, and a Territorial Ordinance by the Territorial Council for that area beyond the Municipality but within the proposed Metropolitan Area. The Municipal By-law and Territorial Ordinance form a separate part of the study and are not included in this report.

The appointment of a Zoning Administrator is a matter of urgency because the Metropolitan Plan cannot become effective without the exercise of specific regulatory powers under a Zoning By-law or Ordinance. Effective administration will involve knowledge of the plan and interpretation of its principles, together with close liaison between Municipal, Territorial and Federal Governments, all of whom have significant responsibilities within the proposed Metropolitan Area. The duplication of technical staff in such a small and relatively remote area would be both costly and inefficient. Under these circumstances a system tried successfully in other small Canadian Municipalities should work for Whitehorse. This involves the appointment of one Zoning Administrator for the whole Metropolitan Area with the agreement of the City and Territorial Councils.

Such an arrangement would be initiated by an agreement or exchange of letters between the two governments and should be subject to periodic review to allow for revisions to the joint system by either government where necessary. Under this arrangement the Zoning Administrator would be responsible to the Commissioner for work carried out in the Territory and to the Mayor and Council for operations within the City boundary.

A cost sharing system could be worked out whereby the Territory billed the City on a regular basis for a proportion of the costs which would be small enough to come within the City budget, but large enough to encourage responsible participation and a degree of independence. It would be advisable to have office accommodation available for this operation both within the Territorial Building and City Hall. Once the Official Plan has received formal approval by both levels of government, subsequent amendments should be made only with the consent of the Commissioner.

The City of Whitehorse may eventually grow large enough to support its own planning department without undue financial strain or sacrifice of professional standards. It must be emphasized, however, that the premature establishment of a separate municipal planning department, lacking the financial resources to attract qualified technical staff, might prejudice the orderly growth of the Whitehorse Area and undermine the provisions of the Metropolitan Plan.

CAPITAL WORKS - INITIAL PHASE
APPROXIMATE COSTS

Approximate costs have been tabulated for the initial phase only as costs may vary significantly in short periods of time according to the particular circumstances. In addition changing regional factors may require modification to secondary phase recommendations which would consequently radically alter all cost programming done at this time. Although the following costs have been estimated with reference to similar work in the north, it is emphasized that they are approximate and should be used only as a general indication of the capital expenditure required.

<u>Recommendation</u>	<u>Works</u>	<u>Land Ownership</u>	<u>Approximate Municipal Cost</u>	<u>Approximate Territorial Cost</u>	<u>Comments</u>
12 New Cemetery Site	To include: acquisition of approximately 18 Acres; design and survey of cemetery plots; construction of gravel access roads and lighting.	Crown	Shared Cost Approximately \$ 2,000		Based only on preliminary site data.
15 Second Ave. Extension (First Phase)	To include: acquisition of 100' right-of-way; construction of paved road 42' shoulder to shoulder approximately 1,100'; provision of 4' gravel pedestrian walkway (other than road shoulder) one side only; lighting.	Private	Shared Cost Approximately \$60,000 Excluding price of land		—
16 Street Closures	To include: barriers, to vehicular traffic; lanterns.	Crown	Approximate Cost \$200	—	Further costs may be accrued as the future use of each closure is determined. Considerable financial gain should be achieved by the sale of some of street closures for private development purposes.
17 South Access Road	To include: acquisition of 100' right-of-way; construction of gravel road 44' width shoulder to shoulder approximately 2,500'; lighting.	Crown	Shared Cost Approximately \$20,000		Further engineering studies will be required to determine the additional amount and cost of road-bed fill for this section of road.

CAPITAL WORKS - INITIAL PHASE
APPROXIMATE COSTS

<u>Recommendation</u>	<u>Works</u>	<u>Land Ownership</u>	<u>Approximate Municipal Cost</u>	<u>Approximate Territorial Cost</u>	<u>Comments</u>
18 Industrial Collector	To include: acquisition of 100' right-of-way; construction of gravel road 36' shoulder to shoulder approximately 4,000'; provision of water and sewer; lighting.	Private	Shared Cost Approximately \$108,000 Excluding price of land		—
20 Excarpment Stabilization	Programming by Others	—	Costing by Others		—
21 Lot 19 Development	To include: acquisition of approximately 25 Acres; construction of gravel road 28' width shoulder to shoulder; provision of water, sewer and lighting services; and survey costs.	Private	Shared Cost Approximately \$92,000 plus price of land		Partial Recovery of Costs would be obtained by the sale of subdivided lots for private development.
22 School Open Space Extension	To include: acquisition of approximately 1 1/2 Acres of land; provision of approximately 1,200' fencing; and landscaping.	Private	—	Approximate Cost \$7,000 plus price of land.	—
24 Municipal Site Development	Study of site and surrounding area with view to a comprehensive plan for development.	Territorial 1 Residential lot privately owned	Approximate Cost \$6,000	—	—
25 Capital Site Development	To include: - acquisition of land	Private	—	Costs to be determined when method of land acquisition has been established	—

CAPITAL WORKS - INITIAL PHASE
APPROXIMATE COSTS

<u>Recommendation</u>	<u>Works</u>	<u>Land Ownership</u>	<u>Approximate Municipal Cost</u>	<u>Approximate Territorial Cost</u>	<u>Comments</u>
29 Industrial Land Purchase	Private land: To include acquisition of approximately 6 Acres; subdivision survey costs.	Private	Major cost will be price of land.	—	Servicing of water and sewer costs given in Recommendation 18 - assumes Municipal boundary has been extended to include this area.
	Government land: To include acquisition of approximately 10 Acres; construction of gravel road 28' shoulder to shoulder approximately 1,200'; subdivision survey costs; provision of water and sewer and lighting services.	—	Approximate Cost \$35,000	—	Assumes Municipal boundary has been extended to include this area. Recovery of costs should be obtained by the sale of subdivided lots in both private and Government areas.
30 Childrens' Playgrounds	To include provision of equipment, paving, fencing, landscaping etc.	Crown	Costs to be borne by others		—
32 Riverfront Development	To include: Preparation of plan; and acquisition of approximately 20 Acres of land.	18 Acres Crown 2 Acres Private	—	\$3,000 Plus price of land.	Further costs such as land clearance, demolition of buildings, grading, fill and landscaping to be determined following preparation of plan.
35 Tourist Amenities	To include: provision of waste baskets, benches, drinking fountains, sign-posting and descriptive plaques etc.	—	Costs to be borne by others		—

SUMMARY OF RECOMMENDATIONS
GENERAL POLICY

IT IS RECOMMENDED THAT THE PRESENT METROPOLITAN AREA, AS DEFINED BY AN ORDER-IN-COUNCIL, BE REDUCED TO AN AREA WHICH WOULD INCLUDE ALL THE LAND FOR 4 MILES ON EITHER SIDE OF THE ALASKA HIGHWAY BETWEEN MILES 909 AND 923 AND THE AREA DESCRIBED BY A 4 MILE RADIUS DRAWN SOUTH FROM MILE 909 AND NORTH FROM MILE 923.

Recommendation No. 1
Metropolitan Area Boundary

IT IS RECOMMENDED THAT THE MUNICIPAL BOUNDARY BE EXTENDED TO INCLUDE ALL THE LAND ON THE LOWER WEST TOWNSITE NORTH OF THE EXISTING BOUNDARY.

Recommendation No. 2
Municipal Boundary Extension

IT IS RECOMMENDED THAT THE LOCATION OF ALL FUTURE DEVELOPMENT IN FEDERAL AREAS BE CONSIDERED WITH RESPECT TO ITS IMPLICATIONS TO THE ORGANIZED DEVELOPMENT OF THE WHITEHORSE AREA AND WHERE APPLICABLE CONFORM TO THE METROPOLITAN PLAN FOR LAND USE.

Recommendation No. 3
Federal Government Land Use

IT IS RECOMMENDED THAT OTHER THAN IN SPECIFIC AREAS REFERRED TO IN THIS STUDY ALL DEVELOPMENT BE PROHIBITED FROM BOTH SIDES OF THE ALASKA HIGHWAY WITHIN THE METROPOLITAN AREA AND BOTH SIDES OF THE NORTH AND SOUTH ACCESS ROADS FROM THE ALASKA HIGHWAY TO THE MUNICIPAL BOUNDARY FOR A DISTANCE OF 750' BEYOND THE EXISTING RIGHT-OF-WAY AND THAT ACCESS TO THESE ROADS BE RESTRICTED TO NO LESS THAN 1500' INTERVALS.

Recommendation No. 4
Alaska Highway Development

IT IS RECOMMENDED THAT OF THE PRESENT FIVE RESIDENTIAL SUBDIVISIONS ON THE ALASKA HIGHWAY ONLY PORTER CREEK BE ALLOWED TO EXPAND AND THIS ONLY TO A SIZE WHICH CAN SUPPORT MINIMAL COMMUNITY FACILITIES.

Recommendation No. 7
Alaska Highway Subdivisions

IT IS RECOMMENDED THAT THE MOST SUITABLE AND EASILY SERVICED LAND ADJACENT TO THE LOWER WEST TOWNSITE BE RESERVED FOR LONG TERM RESIDENTIAL DEVELOPMENT WHICH WILL BE REQUIRED AFTER THE LOWER WEST TOWNSITE, RIVERDALE AND PORTER CREEK SUBDIVISIONS ARE FULLY DEVELOPED.

Recommendation No. 8
Future Residential Areas

IT IS RECOMMENDED THAT LIMITED NEIGHBOURHOOD COMMERCIAL DEVELOPMENT BE PERMITTED IN PORTER CREEK, RIVERDALE AND IN THE PROPOSED RESIDENTIAL AREAS NORTH OF THE HOSPITAL AND IN THE VICINITY OF THE FUEL TANK FARM WHEN THE LATTER TWO AREAS HAVE BEEN DEVELOPED TO A SIZE WHICH JUSTIFIES COMMERCIAL DEVELOPMENT.

Recommendation No. 9
Neighbourhood Commercial

IT IS RECOMMENDED THAT AN ALTERNATIVE SITE FOR INDUSTRY BE PROVIDED AT MACRAE INDUSTRIAL SUBDIVISION.

Recommendation No. 10
Macrae Industrial Subdivision

SUMMARY OF RECOMMENDATIONS
GENERAL POLICY

IT IS RECOMMENDED THAT AN AREA REFERRED TO AS THE CHADBURN LAKES - MILES CANYON AREA, SHOULD BE SET ASIDE AS A PARK RESERVE AND PROVISION MADE FOR ITS APPROPRIATE DEVELOPMENT BY THE TERRITORIAL OR MUNICIPAL GOVERNMENTS.

Recommendation No. 11
Park Reserve

IT IS RECOMMENDED THAT THE SEWAGE TREATMENT PLANT FOR THE MUNICIPALITY BE LOCATED IN THE NORTHERN AREA OF THE LOWER TOWNSITE:

Recommendation No. 13
Sewage Treatment

IT IS RECOMMENDED THAT ALL RESIDUAL LAND WITHIN THE METROPOLITAN AREA NOT DESIGNATED FOR SPECIFIC USES SHOULD REMAIN FREE FROM ALL DEVELOPMENT.

Recommendation No. 14
Metropolitan Area Development
Control

IT IS RECOMMENDED THAT COMMERCIAL DEVELOPMENT BE ENCOURAGED TO LOCATE ON THE LOWER WEST TOWNSITE IN THE PROPOSED COMMERCIAL AREA.

Recommendation No. 27
Central Business District
Commercial Development

IT IS RECOMMENDED THAT ALL INDUSTRIAL DEVELOPMENT ON THE LOWER TOWNSITE BE LOCATED NORTH OF THE PROPOSED SECOND AVENUE EXTENSION.

Recommendation No. 28
Industrial Development

IT IS RECOMMENDED THAT, WHENEVER POSSIBLE, THE EXISTING TREE AND SHRUB GROWTH ON BOTH SIDES OF TWO MILE HILL BE RETAINED FROM THE PROPOSED MUNICIPAL BOUNDARY TO BLACK STREET.

Recommendation No. 34
Two Mile Hill Vegetation
Protection

IT IS RECOMMENDED THAT EXPROPRIATION PROCEDURES BE CONSIDERED IF NEGOTIATIONS TO ACQUIRE PRIVATELY HELD LAND FOR PURPOSES OF IMPLEMENTING THE PLAN ARE UNSUCCESSFUL.

Recommendation No. 36
Expropriation

IT IS RECOMMENDED THAT THE METROPOLITAN PLAN BE REVIEWED EVERY 5 YEARS OR WHENEVER ANY REGIONAL DEVELOPMENT OCCURS WHICH COULD HAVE A DIRECT OR INDIRECT AFFECT ON THE WHITEHORSE AREA.

Recommendation No. 37
Review of Plan

IT IS RECOMMENDED THAT AN AREA OF APPROXIMATELY 20 ACRES NORTHWEST OF THE POWER DAM BE UTILIZED FOR A MUNICIPAL OR TERRITORIAL CEMETERY.

PHASE 1
Recommendation No. 12
New Cemetery Site

IT IS RECOMMENDED THAT THE SOUTH ACCESS ROAD INTO THE TOWNSITE BE CONTINUED SOUTH OF THE RAILWAY LINE TO MEET SECOND AVENUE AND THE APPROACH TO THE ROBERT CAMPBELL BRIDGE.

Recommendation No. 17
South Access Road

SUMMARY OF RECOMMENDATIONS
CAPITAL WORKS

IT IS RECOMMENDED THAT A COLLECTOR ROAD BE CONSTRUCTED TO SERVE THE INDUSTRIAL AREA NORTH OF THE CITY.

Recommendation No. 18
Industrial Collector Road

IT IS RECOMMENDED THAT LAND IN THE PROPOSED INDUSTRIAL AREA BE MADE AVAILABLE FOR PURCHASE IN SMALL PARCELS.

Recommendation No. 29
Industrial Land Purchase

IT IS RECOMMENDED THAT A NEW ROAD LINKING FOURTH AVENUE TO SECOND AVENUE BE PROVIDED THROUGH LAND NOW BEING VACATED BY 17 WORKS COMPANY.

PHASE 1 AND 2
Recommendation No. 15
Second Avenue Extension

IT IS RECOMMENDED THAT SEVENTH, FIFTH AND PART OF THIRD AND FIRST AVENUES BE CLOSED.

Recommendation No. 16
Street Closures

IT IS RECOMMENDED THAT IMMEDIATE ACTION BE TAKEN BY THE MUNICIPAL TERRITORIAL AND FEDERAL GOVERNMENTS TO STABILIZE THE ESCARPMENT AT THE WESTERN EDGE OF THE LOWER TOWNSITE.

Recommendation No. 20
Escarpment Stabilization

IT IS RECOMMENDED THAT THE AREA REFERRED TO AS LOT 19 BE MADE AVAILABLE FOR RESIDENTIAL DEVELOPMENT.

Recommendation No. 21
Lot 19 Development

IT IS RECOMMENDED THAT THE LAND BETWEEN THE NORTH AND EAST BOUNDARIES OF THE SECONDARY SCHOOL ON FOURTH AVENUE AND THE PROPOSED EXTENSION TO SECOND AVENUE BE USED AS ADDITIONAL OPEN SPACE FOR THE SCHOOL.

Recommendation No. 22
School Open Space Extension

IT IS RECOMMENDED THAT BLOCK 7 BE COMPREHENSIVELY DEVELOPED AS A CIVIC CENTRE INCORPORATING A CITY HALL, ANCILLARY MUNICIPAL BUILDINGS AND AN HISTORIC PARK.

Recommendation No. 24
Municipal Site Development

IT IS RECOMMENDED THAT THE AREA REQUESTED BY THE TERRITORIAL GOVERNMENT FOR A NEW PROVINCIAL OR TERRITORIAL CAPITAL SITE BE LOCATED IN THE SOUTH EAST PORTION OF THE LOWER WEST TOWNSITE.

Recommendation No. 25
Capital Site Development

SUMMARY OF RECOMMENDATIONS
CAPITAL WORKS

IT IS RECOMMENDED THAT PART OF THE LAND MADE AVAILABLE BY STREET CLOSURES ON THE LOWER WEST TOWNSITE BE DEVELOPED AS CHILDRENS' PLAYGROUNDS.

Recommendation No. 31
Childrens' Playgrounds

IT IS RECOMMENDED THAT THE RIVERFRONT AREA FROM SOUTH WHISKEY FLATS TO THE ARMY MAINTENANCE CAMP BETWEEN THE RIVER AND FIRST AVENUE BE CLEARED AND DEVELOPED AS PUBLIC OPEN SPACE.

Recommendation No. 32
Riverfront Development

IT IS RECOMMENDED THAT THE TERRITORIAL GOVERNMENT ASSUME RESPONSIBILITY FOR THE MAINTENANCE OF THE PUBLIC OPEN SPACE ON BOTH SIDES OF THE YUKON RIVER AS INDICATED ON THE ULTIMATE LAND USE DRAWING.

Recommendation No. 33
Riverfront Parks Maintenance

IT IS RECOMMENDED THAT SIMPLE AMENITIES SUCH AS, WASTE BASKETS, BENCHES, DRINKING FOUNTAINS, SIGN-POSTING, DESCRIPTIVE PLAQUES ETC., BE PROVIDED NEAR MAJOR TOURIST ATTRACTIONS.

Recommendation No. 35
Tourist Amenities

IT IS RECOMMENDED THAT AN INDUSTRIAL ROAD BE CONSTRUCTED TO LINK THE ALASKA HIGHWAY TO THE NORTHERN INDUSTRIAL AREA ON THE LOWER WEST TOWNSITE BY A ROUTE NORTH OF CAMP TAKHINI.

PHASE 2
Recommendation No. 5
Alternative Industrial Access
Route

IT IS RECOMMENDED THAT A BRIDGE BE PROVIDED LINKING THE NORTH END OF THE CITY TO THE EAST BANK.

Recommendation No. 6
New Bridge over the Yukon
River

IT IS RECOMMENDED THAT THE INDUSTRIAL TRUCKING FACILITIES OPPOSITE THE SECONDARY SCHOOL ON FOURTH AVENUE BE RELOCATED AND THE LAND BE MADE AVAILABLE FOR RESIDENTIAL PURPOSES.

Recommendation No. 19
B.Y.N. Truck Park

IT IS RECOMMENDED THAT A FIRE HALL NOW ON THE LAND BEING USED BY 17 WORKS COMPANY BE RELOCATED.

Recommendation No. 23
Fire Hall Relocation

SUMMARY OF RECOMMENDATIONS
CAPITAL WORKS

IT IS RECOMMENDED THAT THE R.C.M.P. SUB-DIVISIONAL FACILITIES AND MUNICIPAL DETACHMENT BE RELOCATED IN THE FEDERAL BUILDING AND THE NEW CITY HALL RESPECTIVELY AND THEIR EXISTING SITE BE RESTRICTED TO RESIDENTIAL USE.

Recommendation No. 26
R.C.M.P. Facilities

IT IS RECOMMENDED THAT THE LAND RESERVED FOR THE USE OF INDIANS ON THE LOWER WEST TOWNSITE BE MADE AVAILABLE FOR INDUSTRIAL USE WHEN IT IS NO LONGER REQUIRED FOR ITS PRESENT USE.

Recommendation No. 30
Future Industrial Expansion

GLOSSARY OF TERMS - WHITEHORSE

An area including all land within 4 miles of the Centre line of the Alaska Highway from mileposts 909 to 923 and terminated by a 4 mile radius of these points.	Proposed Metropolitan Area
An area including all land within a 10 mile radius of First Avenue and Rogers Streets in the City of Whitehorse.	Existing Metropolitan Area
The built-up area between the west bank of the Yukon River and the escarpment. The area includes Lot 19 and Whiskey Flats to the south and the transshipment area at the northern extremity.	Lower West Townsite
The area between the escarpments on both sides of the Yukon River, including the lower west townsite, Riverdale Subdivision and the potential housing area north of the hospital.	Lower Townsite
All land within the Municipal boundary at the time of the survey in July 1961.	City of Whitehorse
Any building or group of buildings for Federal Government purposes.	Federal Development
The White Pass and Yukon Railway which follows the west bank of the Yukon River in the Metro area terminating in Whitehorse and Skagway.	The Railway
The Northwest Highway System.	Alaska Highway
The City of Whitehorse.	The Municipality
The Yukon River.	The River
The six subdivisions adjacent to the Alaska Highway at Macrae, Canyon Crescent, Porter Creek, Crest-view and Forest View.	Alaska Highway Subdivisions
The Steep Bank approximately 200 feet high between the lower west townsite and the airport.	The Escarpment
An area used predominantly for housing purposes.	Residential Area
An area used predominantly for retail trade.	Commercial Area
An area in which land or buildings are used predominantly for manufacturing, processing, transportation and associated storage (including truck parks) and maintenance. Industrial maintenance includes welding, vulcanizing and major auto or truck repairs.	Industrial Area
An area at the north end of the City in which the majority of railway freight is transferred to and from truck traffic.	Transshipment Area

An area east of Two Mile Hill used by R.C.E.M.E.	Army Maintenance Depot
Land available for public use owned and maintained by the Municipal or Territorial Governments.	Public Open Space
Land which has been subdivided into lots adjacent to sewer and water mains.	Serviced Land
The area containing oil storage tanks utilized by British Yukon Navigation to west of the Alaska Highway between Hillcrest and Valleyview residential subdivisions.	Fuel Tank Farm
Two Mile Hill road from the Alaska Highway to Fourth Avenue.	North Access Route
The road running south from Lot 19 past the Northern Canada Power Commission power dam to the Alaska Highway.	South Access Route
Vacant land with no apparent use.	Undeveloped Land
The area of approximately 25 acres of land at the south end of the lower west townsite which is subdivided and serviced but not yet developed.	Lot 19
Settlers who have no legal title to the land they occupy or who rent a dwelling house whose owner has no legal title to the land on which the dwelling stands.	Squatters
The building bounded by Third and Fourth Avenues, Main and Steele Streets.	Federal Building
The Whie Pass and Yukon Railway also known as the British Yukon Navigation Company.	Railway Company
Small scale industrial activity located in residential areas which because of noise, smell or other nuisance, may contribute to the deterioration of residential property.	Backyard Industry
Outstanding scenic features, area of historical interest and other local attractions which have a tourist appeal.	Tourist Attractions
Hotels, motels, restaurants and other trades which mainly depend for their livelihood on feeding and accommodating tourists.	Tourist Accommodations
The area at the north end of the lower west townsite between Two Mile Hill and the Yukon River extending from the transshipment area to the land held for Indians by Department of Citizenship and Immigration.	Northern Industrial Area
Schools, churches, halls, recreation areas and other social amenities serving residential areas.	Community Facilities
A survey of physical features, land use and development, supported by background economic, administrative and social studies.	Planning Survey

GLOSSARY OF TERMS - WHITEHORSE

A process in which facts arising from the survey are linked together and used to indicate problems and provide a factual basis for the formulation of proposals.

Planning Analysis

The area of greatest concentration of retail trade and office accommodation usually characterized by the highest property values.

Central Business District

An area of general physical deterioration situated between Fourth Avenue, the Yukon River, Main Street and the transshipment area.

North East Quadrant