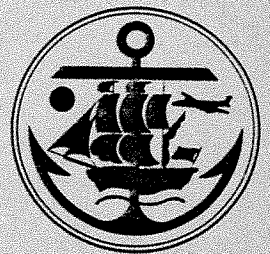


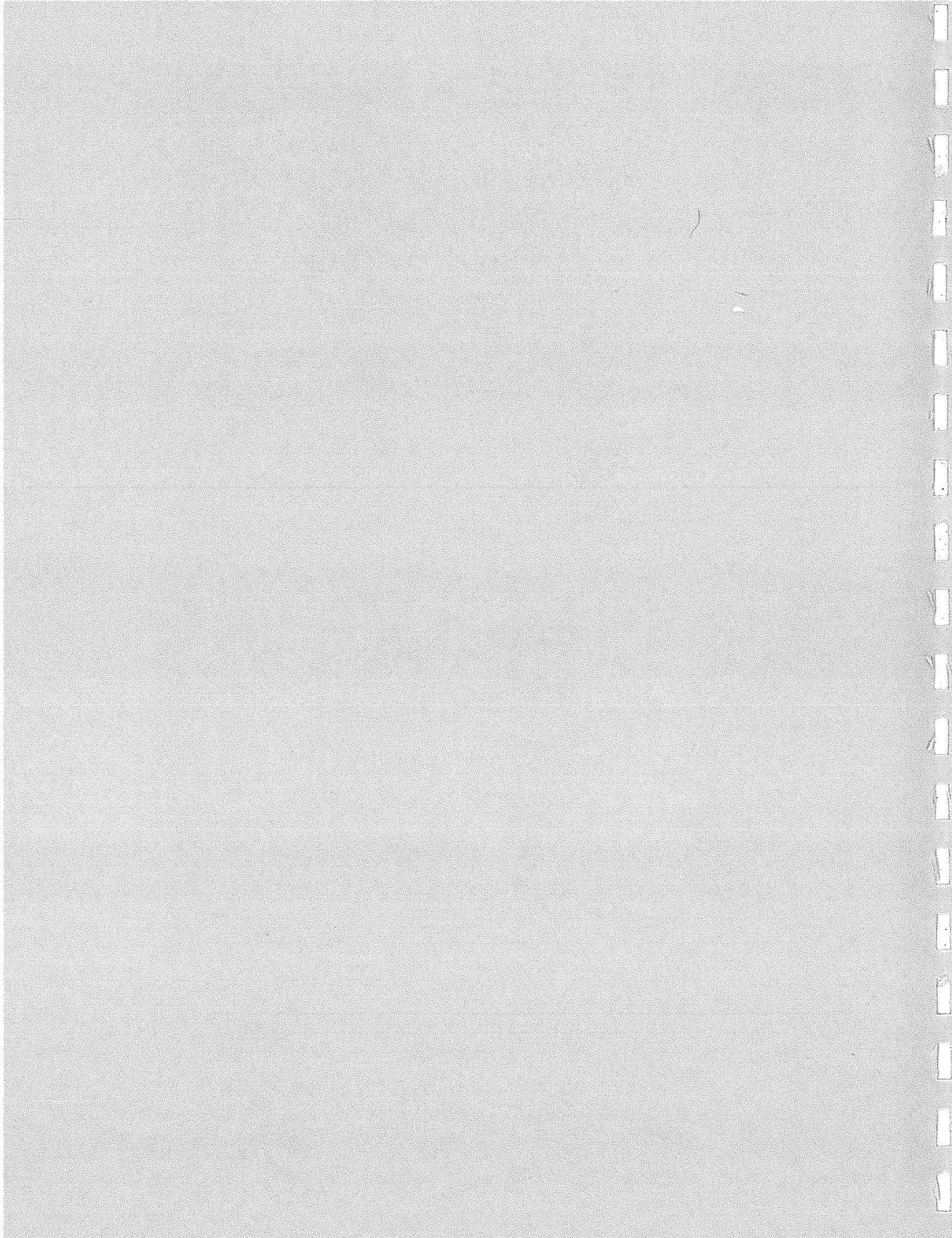
# GEO-REZONING

## Background Information Packet

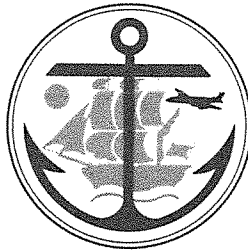
**Northwest Anchorage**



Municipality of Anchorage  
Tony Knowles, Mayor



# Municipality of Anchorage



POUCH 6-650  
ANCHORAGE, ALASKA 99502-0650  
(907) 264-4431

TONY KNOWLES,  
MAYOR

OFFICE OF THE MAYOR

November 1, 1984

Dear Anchorage Citizen:


Holding public hearings on zoning cases by geographic area is bringing about a tremendous change in the manner in which land use decisions are made. It is exciting to be a part of that change.

More than ever before, decision-makers have at their disposal a multitude of statistics and data to aid them in the tough tasks of deciding land use issues. This has become possible with the collection and compilation of information by the Community Planning Department each month for one of the six geographic rezone areas of Anchorage - Eagle River, Northeast, Northwest, Southwest, Southeast, and Turnagain Arm.

Each month a different geographic area is the focus of indepth study. Information about the geographic region is analyzed and presented in a Geo-Rezoning Background Information Packet. This packet serves as a tool for all parties - Boards and Commissions, Assembly, Municipal administration and staff, community councils, and the general public - for assessing land use questions.

With great pleasure, I offer you this document. The intent is to provide a comprehensive picture of Northwest Anchorage as it is today so that we, all of us, can make decisions that will favor the vision of Anchorage we have for tomorrow. Won't you join me in pursuing this vision?

Sincerely,

  
Tony Knowles  
Mayor



**GEOGRAPHIC REZONING  
BACKGROUND INFORMATION PACKET  
NORTHWEST ANCHORAGE  
(UPDATED)**

**PREPARED BY:  
COMMUNITY PLANNING DEPARTMENT  
MUNICIPALITY OF ANCHORAGE  
TONY KNOWLES, MAYOR  
NOVEMBER 1984**



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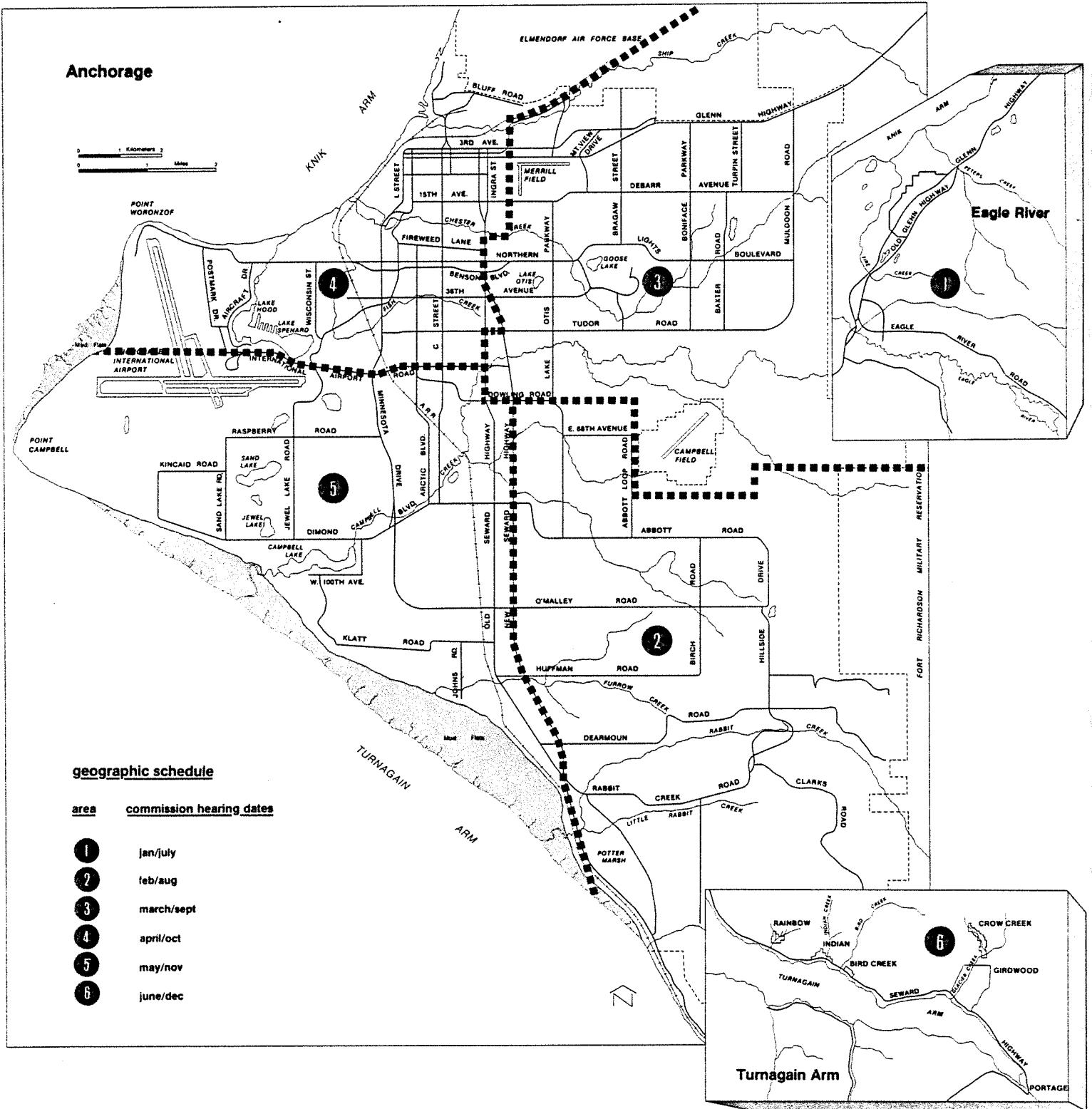
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Municipality of Anchorage-City Areas for Geographic Rezoning  
Figure 1

## INTRODUCTION

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Just over a fifth of Anchorage's population lives in the seven Northwest community councils: Downtown, South Addition, Fairview, North Star, Government Hill, Turnagain, and Spenard. This area encompasses the sites of Anchorage's origins - residential, commercial, transshipment, industrial, and government. It includes Anchorage's two oldest commercial districts, sea port, train depot and airport, as well as the original pioneer homesites and first residential neighborhoods.

By virtue of this, Northwest Anchorage has experienced the recent impacts of Anchorage's rapid population and economic growth twofold. Not only are these neighborhoods accommodating their share of the growing numbers of households moving into Anchorage, they are also immediately affected by our growing Municipality's increasing demands for improved access to and expansion of the major employment and service centers. Meeting these additional demands for land, roads, utilities, public services, and facilities, which are crucial to our Municipality's social and economic welfare, exacts a high toll from the established Northwest neighborhoods. A repeated theme of debates on issues affecting Northwest Anchorage is whether or not the benefits the entire Municipality stands to gain warrant the price these neighborhoods may pay. Rezoning for commercial district expansion, improving airport access, locating the Knik Arm Crossing, and the A-C and I-L couplets, developing Point Woronzof, and siting quasi-institutional facilities are examples of such issues.

Transportation issues are at the forefront here. As growing numbers of outlying residents commute daily to the central employment, commercial, transportation, and transshipment districts located in Northwest, new major highways are being cut through established residential areas. These arterial networks create island neighborhoods isolated from safe access to schools, parks, stores, and each other. Further, as traffic congestion intensifies at the street and highway system's Northwest confluence, accidents increase; 22 of Anchorage's 35 accident prone intersections are located in Northwest.

A major land use issue facing decision-makers for Northwest is the balancing of commercial land use demands against high density residential land needs. Over the last three years, the consumption rate for Northwest residential land was nearly four times greater than that for commercial land. By virtue of their central location, developed utility systems, and access to transit, cultural and recreational facilities, developed parks and greenbelts, and other conveniences, the Northwest neighborhoods encompass much of the best

suited high density residential land in the Municipality. These densely populated neighborhoods, located close to commercial districts, benefit the nearby stores, shops, and restaurants. Nevertheless, high density residential properties adjacent to commercial uses are continually subject to commercial rezoning petitions in this area.

Allowing the continual encroachment of commercial uses into high density residential neighborhoods decreases the amount of land available to meet the apparent heavy demand for dense residential uses and has the potential long-term effect of undermining the quality of the commercial district and the adjacent neighborhoods. Hence, in considering community goals to upgrade especially the smaller commercial centers, like Spenard and Government Hill, the relationship between commercial and residential zones acquires a significance beyond individual demands for specific uses on specific properties.

A second zoning issue prevalent throughout the Northwest area is an outcome of this area's development prior to adoption of local plans and land use regulations. To minimize the number of non-conforming uses when local government put zoning in place, areas were zoned for more dense and higher intensity uses than the established development patterns. Yet, the Comprehensive Plan that followed set out density levels more in concert with existing and community desired uses. Hence, in many cases the allowed uses of the Comprehensive Plan are less intense than those of the underlying zoning. This results in conflicts between people's expectations of what they may legally do with their property and what area residents expect and desire to have happen in their neighborhoods.

Another important consideration in determining the best land use patterns for Northwest Anchorage is this area's formidable natural hazards and constraints. About a third of the total land area is in the two highest seismic risk zone classifications and suffered by far the most damage of any area in Anchorage in the 1964 earthquake. The area also has major wetlands and floodplains. These natural conditions affect individual land owners' development options and bear on the government's decisions to invest public dollars in these sensitive and high risk areas.

This report addresses the above issues and more in summarizing current and projected data on demographics, housing stock, land use, environmental characteristics, and public facilities. It also speaks to adopted Municipal plans and ordinances of special importance in making land use decisions in this area. This information is intended to be used in reviewing rezoning, conditional use, and planning proposals as well as for

capital project planning and setting priorities. Staff case analyses of zoning, conditional uses and platting petitions further draw on this information to examine the case specific relationships and probable impacts. The Community Planning Department will continue to update and expand on the information presented here for use by the community councils, boards, commissions, and assembly in planning for Northwest Anchorage's future.

# Northwest Anchorage Community Council Boundaries

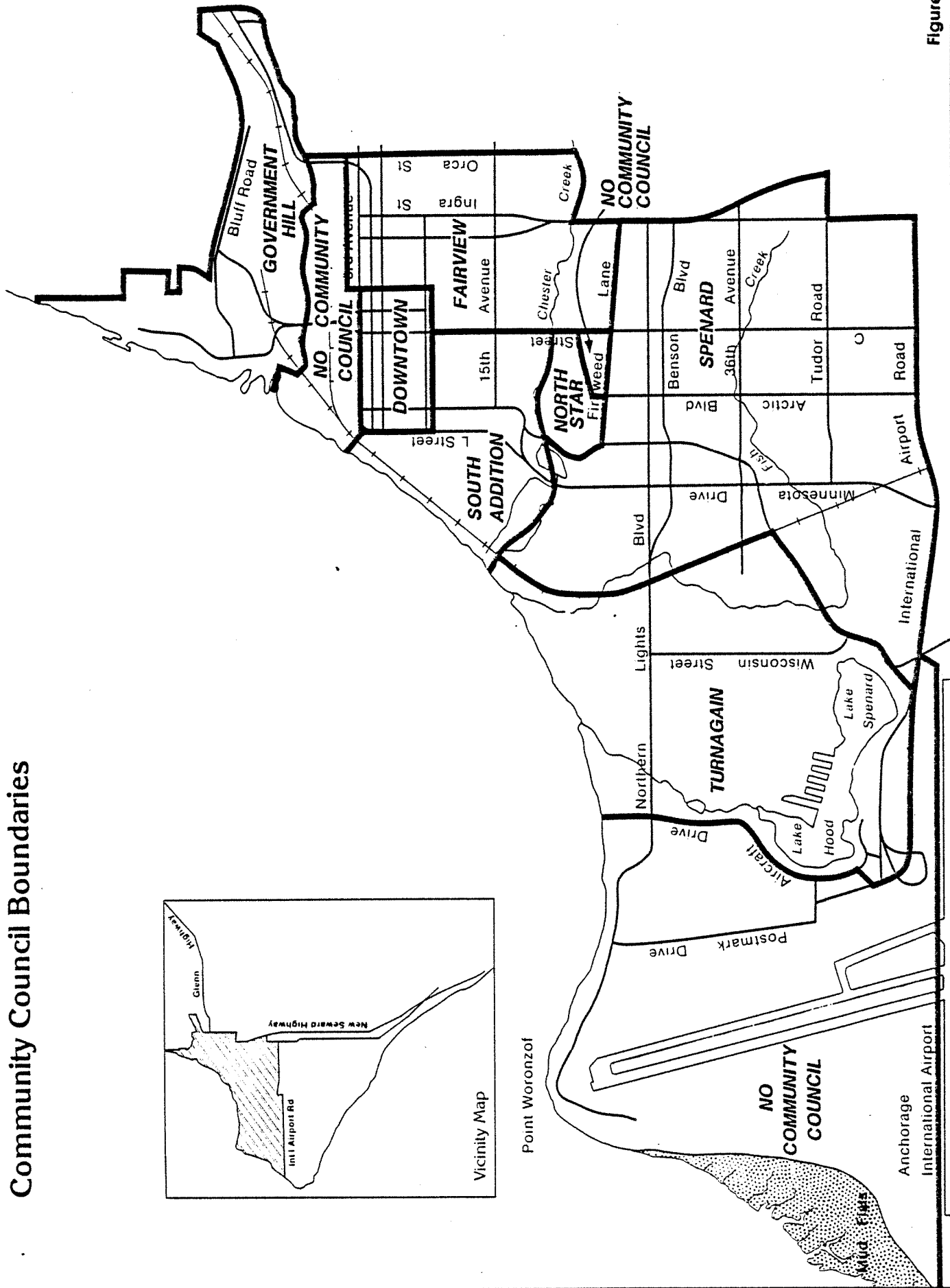
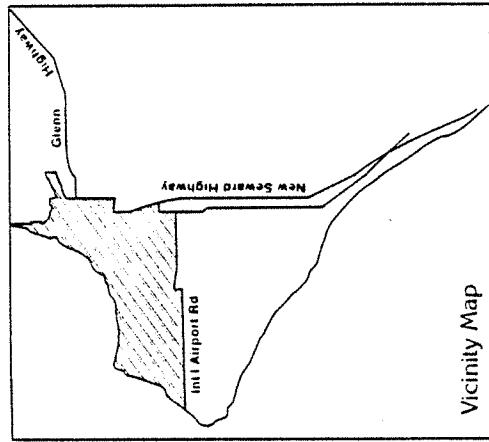


Figure 2

## DEMOGRAPHICS

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Northwest Anchorage is home to just over a fifth of the Municipality's total population. There are seven community councils and three areas outside community council boundaries (Figure 2). Over 75 % of the areas population lives in three community councils - Spenard, Turnagain and Fairview (Table 1). Northwest, home to Anchorage's downtown, has a typical central city character that is reflected in its demographic composition. Census data from 1980 and 1983 show a large percentage of adults, single parents, individuals over 65 and a small percentage of children (Tables 1 and 2). These patterns are typical of city core lifestyles where segments of the population with special needs (single parents, elderly, quasi-institutions) settle near the central city where services and mass transit are more easily accessed than in the suburbs. In addition, the figures reflect the recent trend in Anchorage and cities across the country of childless adults settling near the downtown area close to their workplace and other city amenities.

Adult(s) living in non-family households occupy almost 40% of Northwest's homes compared to approximately 27% for the city as a whole (Table 2). In addition, while half of Anchorage's 1983 households have families with children (Table 2), only 35 percent of Northwest's households have children - the lowest for any Anchorage area. This is another indicator of the large percent of adult population in this part of town.

In Anchorage one fifth of the families with children are headed by single parents. A little under a third of the families with children in Northwest Anchorage are headed by single parents, three-quarters by women and one-quarter by men. This is the largest concentration of single parent families anywhere in the Municipality. Northwest has the smallest percentage of children in the entire Municipality, however, there is wide variation by community council. Government Hill and the areas outside community council boundaries approached the city's average of 35% in 1980, contrasted by the downtown area that only had 8% children. South Addition at 19%, was also significantly below the city's average.

The area's older population is demonstrated by all community councils except Government Hill showing a median age in 1980 greater than the Anchorage median of 26.3 years (Table 1). The Downtown area has the oldest median age of any community council in the Municipality,

TABLE 1  
CENSUS PROFILE  
Northwest Anchorage  
1980

Community Council	Population	Race			Age			Housing			Income						
		Whit. (Percent of Total)	Blk. (Percent of Total)	Asian <sup>2</sup> (Percent of Total)	Other	0-4 (Percent of Total)	5-19 (Percent of Total)	65+ (Percent of Total)	Median Age	Total Housing Units	Persons/Household Average	Vacant Units (Percent)	Housing Value (Dollars)	Average (Dollars)	Below Poverty <sup>3</sup> (Percent)		
Government Hill	1587	72	12	8.4	5.2	2.8	12	31	4.1	25.8	980	2.48	34.6	75,700	30,326	8.9	
Fairview	7420	60	14	18	4.5	3.9	9	29	5.7	27.5	4529	2.15	24.0	67,500	20,823	27.0	
Downtown	1055	80	2.7	12	2.0	2.7	1.6	8.1	10	37.6	719	1.48	19.9	133,300	20,033	7.5	
South Addition	3766	95	0.7	2.0	2.0	0.8	3.9	19	12	34.3	1851	2.16	9.0	92,500	39,668	5.7	
North Star	1826	83	3.5	7.8	3.2	2.3	6.8	27	2.6	28.9	896	2.35	13.2	85,700	31,363	13.8	
Spenard	14845	83	2.8	8.5	2.9	2.3	7.7	29	3.2	27.5	7723	2.31	17.7	80,900	26,160	12.2	
Turnagain	7611	90	1.2	4.3	3.6	1.2	6.6	30	2.5	28.5	3373	2.52	10.9	88,100	32,717	8.0	
Remainder of Area <sup>4</sup>	334	78	8.4	8.1	2.1	3.9	11	32	3.6	27.0	202	2.53	17.5	67,000	28,912	13.5	
----- Northwest Total	38444	81	4.8	8.9	3.3	2.3	7.4	28	4.6	N/A	20,273	2.24	17.9	N/A	N/A	N/A	N/A
Anchorage Total	174431	85	5.3	5.1	2.3	2.0	9.4	35	2.0	26.3	70,363	2.80	13.4	89,100	32,073	10.2	

(1) Native = American Indian, Eskimo, and Aleut  
(2) Asian = Asian and Pacific Islander

(3) Represents the percent of people below 125 percent of the 1979 poverty level. Poverty level varies by family size, number of children and the age of the householder or individual. Examples of 100% poverty level are a single person making \$3686 or a family of two parents and two children making \$7356 in 1979.

(4) Remainder of Area<sup>4</sup> refers to those portions of Northwest Anchorage outside any community council boundaries.

SOURCE: 1980 Neighborhood Statistics Program, U.S. Department of Commerce, Bureau of Statistics.



exceeding the citywide figure by 11.3 years. South Addition is the second oldest population in the city at 8 years over the Municipal median. Fifty percent of Anchorage's senior citizens lived in Northwest Anchorage in 1980 and 45% live here in 1983 (Tables 1 and 2). In 1980 Spenard, South Addition and Fairview had the three largest populations in the city of people over 65 years. Even without the 430 residents of the Pioneers Home in Downtown and Nakoya Center in Spenard, Northwest Anchorage is home to the largest population of senior citizens in the city.

Census data from 1980 shows a wide diversity among Northwest's residents in race. Almost thirty percent of the non-white population in Anchorage lives in Northwest, with over one in four area residents representing a racial minority. In Fairview 40% of the population and almost 30% of Government Hill's population are racial minorities compared with 15% for Anchorage as a whole (Table 1). In 1980, about a third of Anchorage's Native and Asian populations lived in Northwest in addition to a fifth of the city's black citizens.

Northwest Anchorage has some of the wealthiest and poorest communities in the Municipality. South Addition is the wealthiest of the community councils with the highest average income, \$39,668, the lowest percentage of families living below the poverty level, 2.5 percent, and a median housing value of \$92,500. Turnagain community council is the only area in addition to South Addition that is above the Anchorage median income. Fairview is at the opposite end of the spectrum with one of the lowest average incomes, \$20,823, three times the Municipal percentage of families below the poverty level and one of the lowest median housing values in the city, \$67,500. The Downtown area is unique in that the median income in 1980 is the lowest in the city at \$20,033 but the area has the highest median housing value in the city at \$133,300.

In general the area can be characterized as typical central city with very specific areawide patterns in terms of the number of adults, children, and age and income trends. However, there are community council level differences in race, age and income in Northwest that pose special public policy problems for those whose task it is to serve the area's needs. In respect of its demographic diversity, development and social service issues that confront Northwest now and for the future will likely cover a broad spectrum and require flexible and innovative public policy approaches. No single set of policies and programs will suffice in an area with resident populations as diverse as those in Fairview contrasted with those in South Addition.

T A B L E 2  
 DEMOGRAPHIC COMPARISONS of GEOGRAPHIC REZONE AREAS  
 Anchorage  
 1983

	Eagle River	Southeast	Northeast	Northwest	Southwest	Turnagain Arm	Total Anchorage
1. Population (Percent)	9.5	11.8	31.8	21.8	17.3	0.6	92.8 <sup>(a)</sup>
2. Population Growth, 1980-83 (Percent)	71	62	23	31	39	64	32
3. Housing Stock Growth 1980-1983 (Percent)	41	49	10	5.2	27	10	16
4. Vacant Housing Units (Percent)	3.9	2.0	5.0	4.4	3.9	46.0	5.0
5. Households Who Rent Residence (Percent)	22.7	11.7	34.5	63.5	25.0	38.2	32.6
6. Average Persons Per Household	3.4	3.3	2.6	2.4	3.1	2.4	2.9
7. People over 65 <sup>(b)</sup> (Percent)	1.4	1.5	2.1	4.8	1.6	3.0	2.3
8. Children 0-19 Years Old (Percent)	38	36	33	26	36	29	33
9. Number of Households (Includes family, family with children and non-family)	6,418	8,286	25,494	20,258	13,001	594	74,051
10. Family Households (Percent)	87	82	76	61	76	59	73
11. Family Households with Children (Percent)	65	58	52	35	57	39	50
12. Families with Children Headed by a Single Parent (Percent)	10.2	11.9	23.4	30.3	16.7	20.1	20.4
13. Families with Children Headed by Female Single Parent (Percent)	5.1	7.0	17.8	23.0	11.8	13.5	14.7
14. Families with Children headed by Male Single Parent (Percent)	5.1	4.9	5.6	7.5	4.8	6.6	5.7
15. Mean Length (years) of Residence in Anchorage	8.1	7.3	8.1	8.7	8.2	9.1	8.3
16. Mean Years of Education (persons +25)	13.8	14.2	13.8	13.6	13.7	14.1	13.9
17. Median Age	25.9	27.5	26.4	27.4	26.3	29.7	26.8

(a) Source data for population by geographic rezone areas exclude military on-base, group quarters and hotel/motel population, approximately 18,550 people or 7.2% of Anchorage's total population.

(b) Includes senior citizen homes

SOURCE: 1983 Household Survey, Municipality of Anchorage, Community Planning Department.

Northwest has grown by almost 13,000 people since 1980, a 31% increase in the area's total population (Table 3). For the same three-year period, the housing stock increased by only 5.2%, reflecting a substantially lower growth rate than the Municipal average of 16%. The slow growth rate in housing stock compared to population is partially explained by a change in the percent vacant housing units in Northwest from 18.2% in 1980 to 4.4% in 1983. Thus, in addition to a real increase in the number of homes, a large number of vacant housing units were becoming occupied. There were also actual declines in the number of dwelling units in Downtown (-23%), Fairview (-2.4%) and the areas outside community council boundaries (-14%). Housing in Northwest Anchorage is characterized by having the highest percentage of renters in the city. In this area almost two thirds of the housing is occupied by renters, versus a citywide average of one third.

TABLE 3

POPULATION AND HOUSING  
Northwest Anchorage  
1980, 1983

Community Council	Population			Housing Stock		
	1980	1983	Percent Increase	1980	1983	Percent Change
Government Hill	1587	2738	72	980	1377	41
Fairview	7420	10268	38	4529	4419	- 2.4
Downtown	1055	1347	28	719	551	-23
South Addition	3766	4958	32	1851	1972	6.5
North Star	1826	1993	9	896	906	1.1
Spenard	14845	18387	24	7723	7805	1.0
Turnagain	7611	10360	36	3373	4121	22
Remainder of Area <sup>1</sup>	334	334	0	202	174	14
Northwest Total	38444	50385	31	20273	21325	5.2
Anchorage Total	174431	230846	32	70363	81609	16
% of Anchorage Total in Northwest	22	22		29	26	

<sup>1</sup> 'Remainder of Area' are those portions of Northwest Anchorage not included in any community council boundaries. (An example is the area southeast of North Star Community Council).

SOURCE: 1980 Neighborhood Statistics Program, U.S. Department of Commerce, Bureau of the Census

1983 Household Survey, Municipality of Anchorage, Community Planning Department

There is wide variation in both population and housing stock growth rates within Northwest. Government Hill, the fastest growing area in Northwest showed a 72% gain in population and a 41 percent increase in housing stock in the last three years. Turnagain also had substantial gains of 36% population and 22% housing. By contrast North Star showed only a 9% population gain and 1.1% housing growth. Three other areas, as mentioned above had actual declines in housing stock. Northwest and neighboring Northeast Anchorage will probably have population and housing stock growth rates lower than Municipal averages in the future. While the actual numbers of people and homes will increase as the area infills, the growth rates will be lower than those in other parts of the city where large tracts of vacant land still remain.

# Northwest Anchorage

Vacant Land - 1983

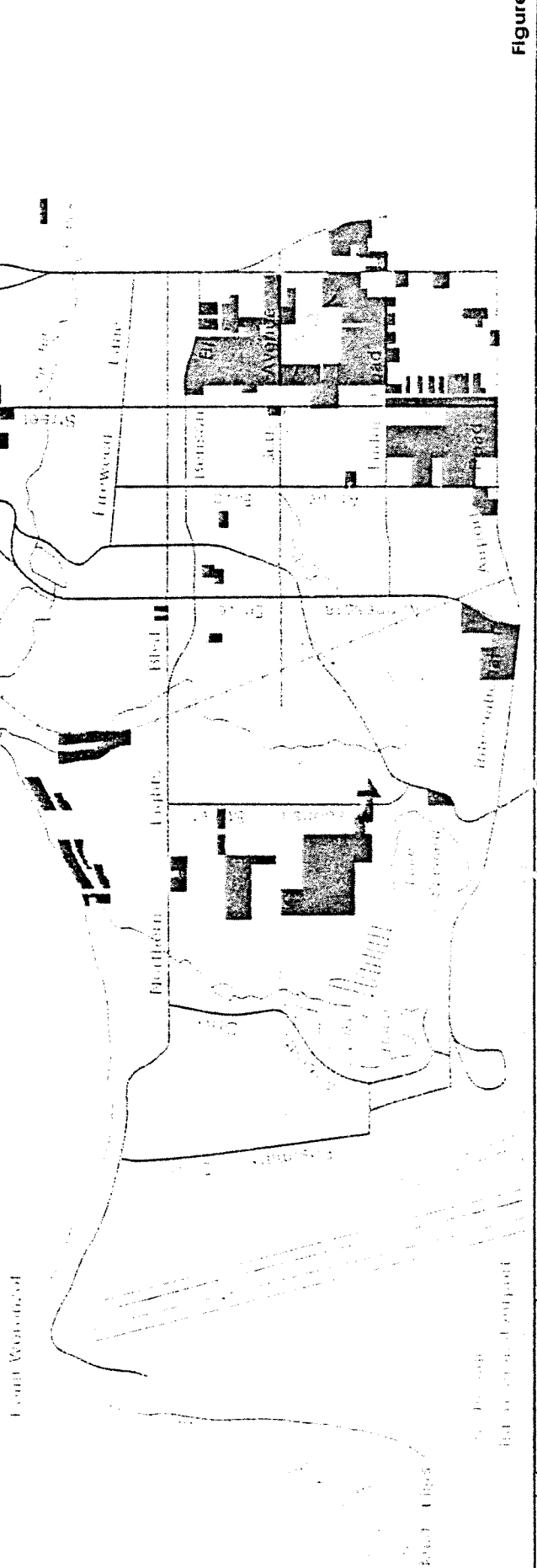
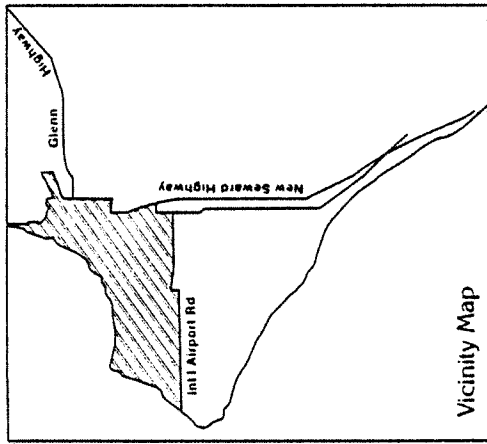


Figure 3

## LAND USE

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The original City of Anchorage, with many of our oldest homesteads and both of our major commercial centers, is in Northwest Anchorage. Downtown's recent development with many new office buildings, public facilities and city amenities along with the midtown area's rapid commercial and business sector expansions, both significantly affect the pattern of land use in Northwest. In the last three years Northwest has led the city in commercial land consumption. Not only are Northwest's residents using these facilities but many of the entire city's citizens travel into Northwest each day. Associated problems for area residents are parking, air quality, the size of roads, traffic, and transitions between expanding business and commercial areas and residential neighborhoods. Commercial uses are found intermingled with older residential areas. There is a growing strip commercial aspect too. Many commercial uses are operating under non-conforming use status. Pressure to expand or legitimize these commercial uses often conflicts with the Comprehensive Development Plan land use designations.

Existing discrepancies between zoning district and Comprehensive Plan densities in many parts of the Northwest will continue to be a source of concern. These discrepancies are largely due to the fact that much of the area's housing was built prior to adoption of local plans and land use regulations. When zoning was established in the early 1950's, many areas were zoned for higher densities than the established development patterns so as to minimize the number of non-conforming uses. Yet the Comprehensive Plan that followed established density levels more in concert with existing and community desired uses. In consequence, density levels of the Comprehensive Plan are less intense than those of underlying zoning in many areas of the Northwest. This results in land use conflicts that will continue to challenge public policy and decision-makers: conflicts between people's expectations of what they may legally do with their property and what area residents expect and desire for the development of their neighborhoods.

Today with the exception of the wetlands west of Wisconsin Street and the area between Benson and International Airport in Midtown, only small tracts of developable, vacant land remain in Northwest Anchorage (Figure 3). This is primarily due to the area's accelerated development during the city's earlier years.

Consequently, residential development in Northwest from this time forward will be best described by what is termed an infilling process - the development of more marginal lands that were passed over during the area's early growth period.

The steady infilling that has now begun to characterize land use patterns in Northwest Anchorage raises major development issues. First, there is increasing pressure for new development in areas with constraining environmental characteristics, such as wetlands and seismically sensitive areas. Development on wetlands will require careful and sensitive design in order to protect critical environmental features and natural drainage functions. This is a particularly significant issue west of Wisconsin Street and in the commercially zoned Midtown areas. In the high and very high seismic risk areas including the bluffs on Cook Inlet, the 'L' Street slide area in downtown, the port and the 4th Avenue buttress area, the Comprehensive Plan "requires the use of engineering specifications sufficient to mitigate potential loss of life and property."

As remaining vacant lands are consumed in Northwest, redevelopment of its older neighborhoods will become increasingly prevalent. Neighborhood revitalization is, in fact, a natural extension of the infilling process. But because residential densities in parts of the Northwest are well below those called for by underlying zoning and/or programmed in the Comprehensive Plan, redevelopment will increasingly favor the replacement of existing single-family housing with higher density multi-family housing. This trend will be particularly marked in the Fairview, Downtown and parts of Spenard areas in consequence of the Comprehensive Plan's strong orientation to concentrate higher densities in the more central sectors of the Anchorage Bowl. This trend will be of increasing concern to area residents who wish to maintain the integrity of traditional single-family development. In order to sensitively balance the community's need for higher density multi-family housing with residents' desires to maintain lower density single-family neighborhoods, attention to land use and buffering policies as well as innovative building, site and traffic circulation designs will be critically important.

In 1980 there were approximately 928 acres of residential land available in Northwest Anchorage. During the last three years 566 acres were developed leaving 362 undeveloped residential acres in 1983 (Table 4). This is an approximate rate of consumption of 189 acres per year. If this rate of residential land consumption continues, the land supply will be gone in two years;

nonetheless, the population is expected to continue to increase in this area. Over three-quarters of the remaining land in Northwest Anchorage is zoned for two family or greater densities (Tables 4 and 5), allowing larger residential populations on smaller amounts of land than in other Anchorage areas. It is also expected that older developed residential areas will be redeveloped at higher densities.

TABLE 4  
LAND USE IN ACRES  
Northwest Anchorage  
1980-1983

	Vacant Acreage 1980	Acres Developed 1980 - 1983	Vacant Acreage 1983
Single-Family	167	84	83
Two-Family	215	125	90
Multi-Family	546	357	189
Total Residential	928	566	362
Commercial	478	145	333
Industrial	207	72	135
Total Commercial	685	217	468

PLI is not included in these figures

Single Family is considered R-1, R-1A, R-5, R-6, R-7, R-8, R-9, R-10  
Two-Family is considered R-2A, R-2D  
Multi-Family is considered R-2, R-3, R-4  
Commercial is considered B-1, B-3, B-4, R-0  
Industrial is considered I-1, I-2

TABLE 5  
LAND USE PATTERN BY ZONING DISTRICT  
Northwest Anchorage  
1980-1983

Zoning District	Vacant Acreage 1980	Acres Developed 1980 - 1983	Vacant Acreage 1983
R-1	17	6	11
R-1A	150	78	72
R-2A	198	112	86
R-2D	17	13	4
R-2	156	99	57
R-3	271	193	78
R-4	76	41	35
D-2	6	6	0
D-3	37	18	19
B-1	24	23	1
B-2A	6	1	5
B-2B	39	16	23
B-2C	14	4	10
B-C	322	74	248
B-4	6	4	2
R-0	65	21	44
I-1	111	0	111
I-2	96	72	24
I-3	-	-	-
TOTAL <sup>a</sup>	1611	781	830

a - Total figures do not include PLI acreage.

Northwest's commercial development during 1980 to 1983 consumed 145 acres leaving a remaining 335 undeveloped commercial acres (Table 4). This is an approximate rate of consumption of 48 acres per year. Industrial development during this time has progressed at an approximate rate of 24 acres per year with 135 acres remaining in 1983.

# Northwest Anchorage

## Areas of High Ground Failure Susceptibility

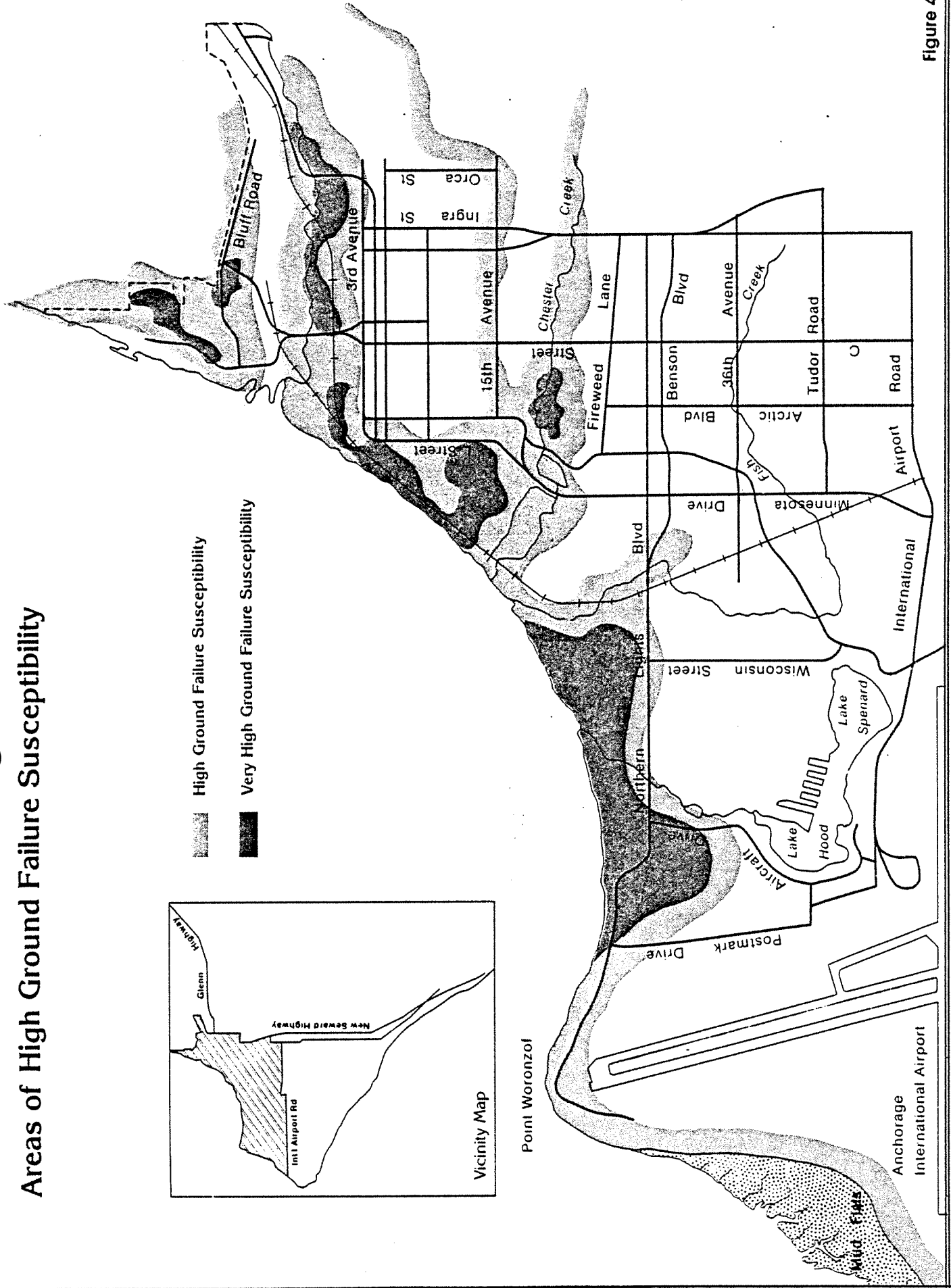


Figure 4



## ENVIRONMENTAL CHARACTERISTICS

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### Slopes and Mass Wasting

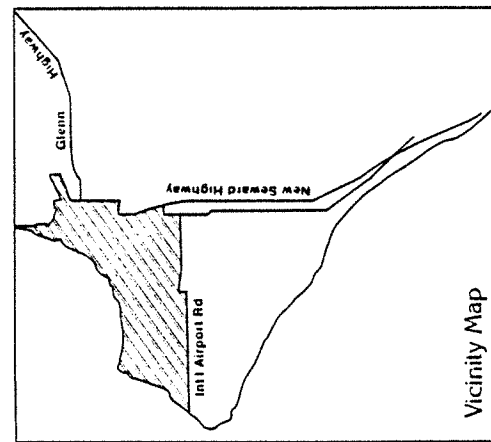
Steep slopes, greater than 25 percent or 14 degrees, may present site development difficulties and are an important factor in mass wasting (avalanches and landslides) and ground failure during earthquakes. Steep slopes in Northwest Anchorage are found along the coast, the south bluff of Westchester Lagoon and the bluffs on either side of Ship Creek, Chester Creek and Fish Creek. Landslides and rapid coastal erosion occur off Pt. Woronzof while slow to moderate coastal erosion occurs off the coast from Pt. Campbell to Westchester Lagoon. There is moderate to high mass wasting potential in Earthquake Park along the coast to, and including, the south bluff of Westchester Lagoon, the bluffs on either side of Fish Creek for about a half mile up stream and north and south of Ship Creek.

### Ground Failure Susceptibility

Northwest Anchorage is the area most damaged in the 1964 earthquake. In 1979, Anchorage contracted with Harding-Lawson geotechnical consultants for a Geotechnical Hazards Assessment Study for the Municipality of Anchorage. This study identified areas of low (Zone 1) to very high (Zone 5) ground failure susceptibility. Potential for ground failure and consequent human and economic disruption and loss depend on the following: 1) geology (bedrock, clay, till, etc.), 2) thickness of sediments, 3) groundwater depth, 4) proximity to a 'low' area (e.g. stream channel, gully), 5) slope and 6) proximity to the earthquake epicenter. The classifications by Harding-Lawson are based on observed and expected seismic response of the soil, geology and topography in Anchorage. Seven areas in Northwest Anchorage are identified as very high (Zone 5) ground failure susceptibility (Figure 2). About a third of the total land area in Northwest Anchorage is in Zone 5 or Zone 4. These areas include the Turnagain residential area, bluffs around Point Woronzof, an area on either side of Arctic on the south slope of Chester Creek, the L Street slide and the South Addition residential area, the Government Hill slide, the Port area slide, and the Fourth Avenue Buttress area. One of the major problems is the presence of Bootlegger Cove Clay under the sands and gravels. During earth shaking this clay liquifies acting as a glide plane along which the land slides. A high ground failure susceptibility rating (Zone 4) also borders all of the above areas in a broad band.

# Northwest Anchorage

## Approximate Wetlands Locations



- 1 Preservation Wetlands
- 2 Conservation Wetlands
- 3 Developable Wetlands
- 4 Special Study

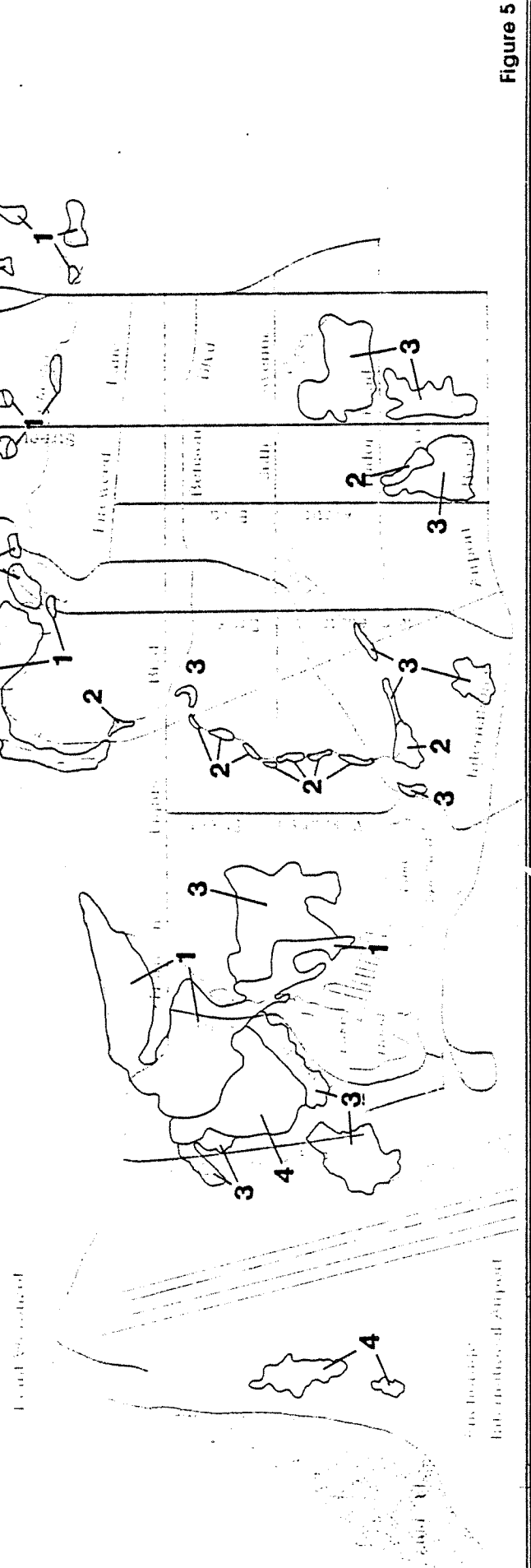


Figure 5

All new buildings over six or ten stories (depending on ground floor footage), that are built in high risk seismic zones must now install seismic monitoring instruments. Buttress work and other measures can minimize earthquake damage in these two risk zones. The Comprehensive Development Plan notes any development in these areas "requires engineering specifications sufficient to mitigate potential loss of life and property." In addition, the Geotechnical Commission is available to act in an advisory capacity.

### Wetlands

Freshwater wetlands are classified as preservation, conservation or development in the Anchorage Wetlands Management Plan. This is the plan that provides guidance for the relative value of wetlands tracts. Wetlands values include: [1] providing ecosystems that support fish and wildlife, [2] regulating and modulating surface water flows, [3] protecting waterbodies from erosion and reducing the velocity of flood waters or waves, and [4] purifying water. Wetlands within Northwest Anchorage are either the open patterned complex (Turnagain Bog) or the non-patterned complex (along Chester Creek) (Figure 2a). Wetlands classified development are of less ecologic value and can be developed with the least restriction. Conservation wetlands may be developed but are subject to several controls designed to maintain wetland functions as much as possible. Preservation wetlands are generally not subject to development except for minimal path development and road-utility facilities. The intention of this designation is to preserve the natural functions and environment of the wetlands.

A large privately owned wetland classified 'developable' is located in the mid-town and Turnagain residential areas. Another development wetland is located on State owned airport land. Patches of conservation wetlands are located along Ship Creek and in the Spenard-Turnagain area of Fish Creek. Preservation wetlands have been designated in strips and patches along Chester Creek, Campbell Creek and the Fish Creek estuary. Most of these areas are already within green-belt parks. The large wetland next to and south of Earthquake Park and the Bentzen Lake wetland have both been designated preservation. The resource values in these two areas warrant continued protection. Two special study wetlands located at the airport and Point Woronzof are being managed in preservation status until agreement can be reached on their eventual designation.

# Northwest Anchorage Areas Meriting Special Attention (AMSA)

(Reference: Anchorage Coastal Management Plan)

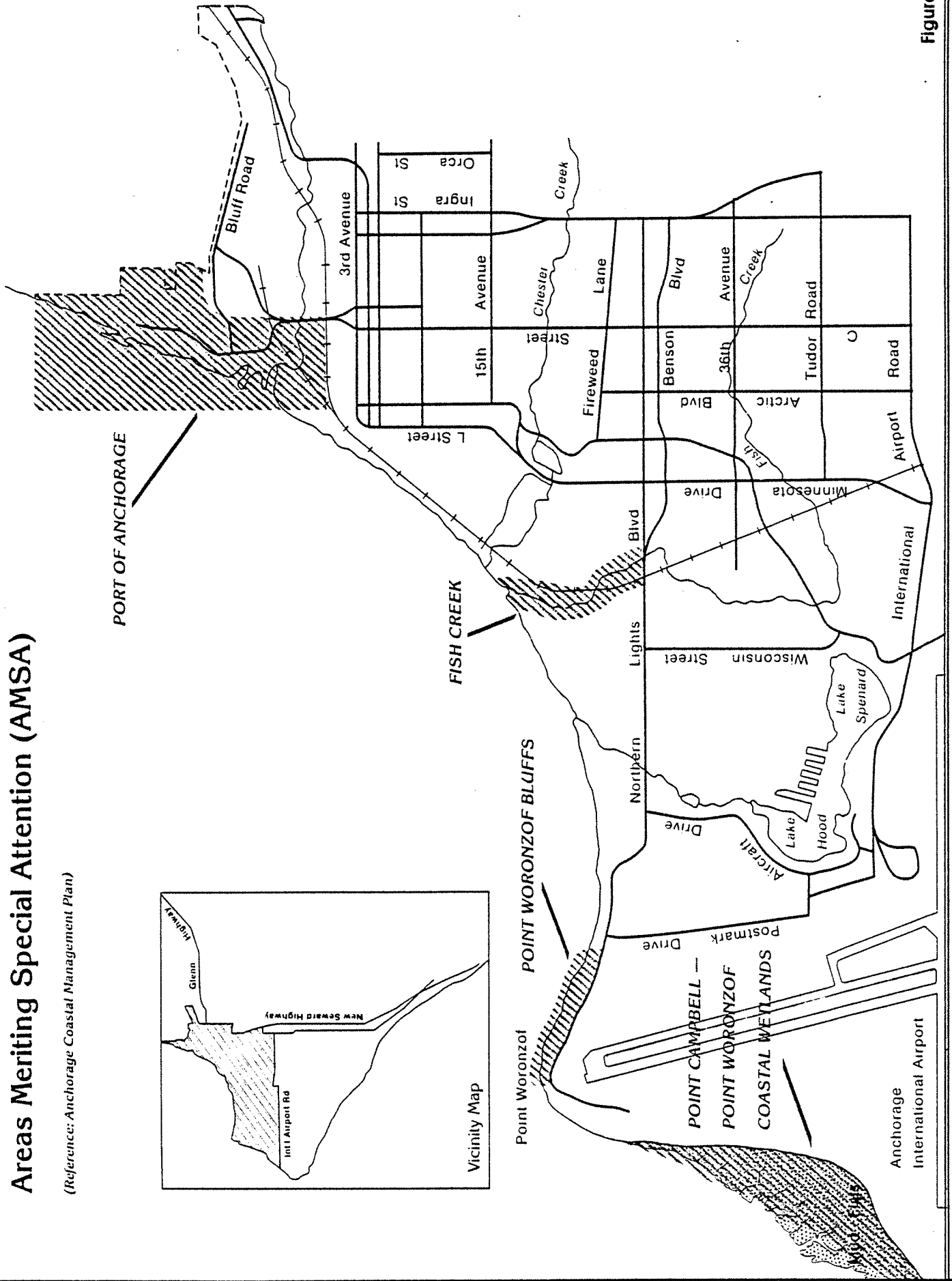
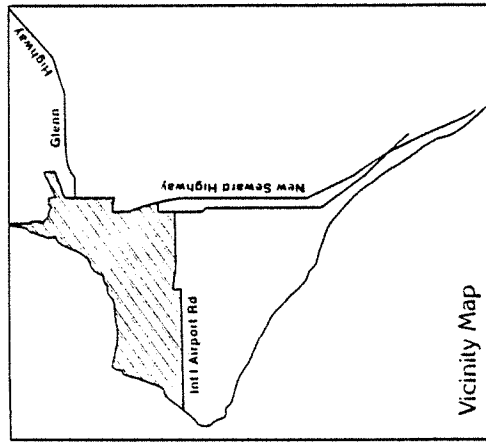


Figure 6

## Floodplains

Parts of Ship Creek, Chester Creek and Fish Creek have been developed as greenbelt parks protecting the floodplain and lending a sense of beauty and space to this urbanized region. Hood Creek's (draining Lake Hood) 100-year floodplain occurs on lots between Wendy's Way and Woronzof Drive. A wide floodplain in several segments is shown for Fish Creek, although potential flooding may not be that great due to the steep banks. Finally, coastal flooding is widespread involving extensive industrial areas at the mouth of Ship Creek.

## Areas Meriting Special Attention - Coastal Zone Management Plan

The Anchorage Coastal Management Plan has created Areas Meriting Special Attention (AMSA's) to recognize and manage areas with unique values or fragile characteristics. There are four AMSA's in Northwest Anchorage (Figure 3): Fish Creek, Point Campbell-Point Woronzof coastal wetlands, the Port, and Point Woronzof bluff. Policies guiding management in these areas are in the Anchorage Coastal Management Plan.

Fish Creek's primary values are as a coastal wetland, scenic area, nature study and open space. Present and anticipated conflicts are the presence of trash, car tires, etc. and poor drainage due to blockages of Fish Creek. The Coastal Zone Management Plan suggests the area be restored and cleared up to protect the hydrologic flow, enhance the habitat productivity and aesthetic values. The remaining AMSA's provide open space, ecologic habitat and other recreational values in addition to the industrial functions the Port provides.

## Wildlife

This heavily urbanized area still has wildlife habitat and abundant viewing opportunities. Protecting the water quality of the streams where anadromous fish occur will protect the fisheries and allow continued enjoyment for the viewing public. Blackfish are found in Fish Creek and Hood Lake/Lake Spenard. Ship, Campbell and Chester Creeks are all anadromous fish streams used in salmon migration, spawning and rearing. Ship Creek has King, Chum, Pink and Coho salmon as well as rainbow trout. Campbell Creek also maintains stocks of Pink, King and Coho salmon.

Wetlands in the airport area and south of Tudor and west of C Street provide nesting and brood rearing grounds for birds. Bird feeding areas occur in the tidal flats particularly those south of Pt. Woronzof, Westchester Lagoon and at the mouth of Ship Creek. A preservation wetlands designation for the special study areas by the airport and Point Woronzof wetlands where bird nesting and feeding occurs will help protect these resources. Moose, bears wandering south from Elmendorf and Ft. Richardson, and small mammals have been seen in the Ship Creek valley.

### Winds

Northerly winds over 100 mph affect areas adjacent to Knik Arm during the winter when cold arctic air masses replace the prevailing southerly winds. These winds generally do not affect residential areas. The open expanse of land in the airport area is subject to both these northerly winds and the channeled winds from Turnagain Arm. These latter winds are less severe but still potentially destructive (e.g. 50 mph.)

## PARKS, TRAILS AND OPEN SPACE

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### Overview

Establishment of a balanced parks, trails and open space system is important to maintaining the overall quality of life in Northwest Anchorage as it undergoes steady infilling. The area is fortunate to have the Chester Creek greenbelt, Delaney Park, Fairview Recreation Center and Spenard Lake area, that together supply critically needed parks, recreation facilities and bike trails to serve both local and citywide residents (Figure 7). However, many portions of Northwest are deficient in neighborhood and community parkland. It is important that vacant land or land in areas undergoing redevelopment be assured for these types of parks now lest the opportunity vanish. As Northwest infills and the population grows the need for parkland will only become more pressing.

Parkland needs for Anchorage are based, in part, on a series of recreation standards developed by the National Recreation and Park Association in the early 1970's (Table 6). These standards relate recommended park acreage allocations to the population of an area. The Municipality has employed these standards for several years to systematically establish park acquisition and development needs. In this report they are used to quantify current and projected parkland needs in the Northwest Anchorage area (Table 7).

The total park, greenbelt and open space acreage in Northwest is 618 acres (Table 7). Almost two-thirds of this acreage is in greenbelts and open space areas. These areas provide important recreation opportunities for area residents, however, there is an existing and projected deficiency to the year 2000 in close-to-home mini and neighborhood parkland and in community parks that typically feature recreation facilities. Areas with urgent problems are the rapidly developing vicinity west of Wisconsin Street in Turnagain and the Fairview community.

A deficiency in mini and neighborhood parkland is a problem found throughout Northwest except in a few areas in Government Hill and Spenard. At present the entire area is short of the recommended standard by approximately 17 acres. By the year 2000, the area could be deficient relative to the standard by at least 86 acres.

TABLE 6  
PARK RECREATION STANDARDS

Park Type	Acres Needed 1000 People	Size Range	Population Served	Service Area	Typical Facilities	Examples in Northwest
Mini Parks		2500 sf or to 1 acre	500- 2,500	Sub- Neighborhood	Swings, climbing bars, surfaced area, benches	Barbara St. Park, Fairview Park, Ship Creek Overlook Park
Neighborhood	2.5	5-20 acres	2,000-10,000	1/4-1/2 mi. radius	Swings, etc. paved courts play fields, benches	Kiwanis Fish Creek Park, Lloyd Steele Park, Sun- set Park
Community	2.5	20-100 acres	10,000-50,000	1/2-3 mile radius	Contact with nature, sports fields, tennis facilities	Delaney Park
Large Urban	5.0	+ 100 acres	1 per 50,000	within 1/2 hr. drive	Golf, trails, nature center, swim, sport facilities	Charles Smith Memorial Park, Sullivan Park
Regional	20.0	+ 160 acres	Entire pop. in smaller comm.	within 1 hr. drive	Trails, camping, swim	Kincaid Park
Greenbelt	10.0	+ 500 acres	Entire pop.	1/2-3 mi. radius		Chester Creek Greenbelt, Orca Park

The areawide shortage of community parkland is presently 50 acres with a year 2000 projection of 116 acres needed. Many existing parks also need recreation equipment. In addition with the large percentage of adults in Northwest (see Demographic's Section) there is a need for adult recreation facilities like tennis courts and space where one can relax, have a picnic, go jogging and enjoy natural surroundings.



T A B L E 7

PARK NEEDS BY DISTRICT NUMBER  
Northwest Anchorage  
1983, 2000

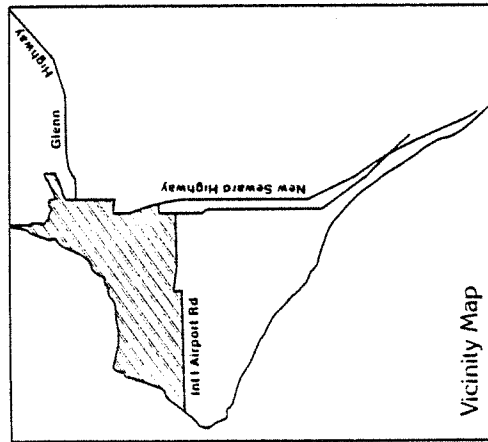
District Number <sup>a</sup>	1983 Population	Total <sup>b</sup> Park Acreage	Existing Park Acres		Existing Shortage or Surplus Park Acreage at 2.5 acres/1000 people		Projected Population at Saturation Level Year 2000	Projected Shortage or Surplus Park Acreage at 2.5 acres/1000 people - Year 2000	
			Neighborhood and Mini	Community	Neighborhood and Mini	Community		Neighborhood	Community
3	597	6.2	0.2	0.0	+ 1.3	- 1.5	730	- 0.3	- 1.8
4	2,731	15.4	15.2	0.0	+ 8.4	- 6.8	4,260	+ 4.5	- 10.6
6	2,260	43.1	2.8	34.3	- 2.8	+28.7	1,630	- 1.3	+ 30.2
7	2,604	17.15	2.3	0.0	- 4.2	- 6.5	3,030	- 5.3	- 7.6
8	2,354	17.0	2.0	14.7	- 3.9	+ 8.8	3,570	- 6.9	- 5.8
9	3,980	86.7	0.6	0.0	- 9.4	-10.0	7,430	-18.0	- 18.6
10	4,815	46.6	11.0	0.0	- 1.1	-12.0	6,380	- 5.0	- 16.0
14	3,585	61.3	11.9	0.0	+ 3.0	- 9.0	4,160	+ 1.5	- 10.4
15	3,670	65.8	0.0	10.9	- 9.2	+ 1.7	6,100	-15.3	- 4.4
18	48	143.2	6.9	0.0	+ 6.8	- 0.1	-0-	+ 6.9	0.0
19	6,407	26.7	8.0	18.7	- 8.1	+ 2.7	10,100	-17.3	+ 6.6
20	6,941	53.9	29.4	0.0	+12.1	-17.4	8,800	+ 7.4	- 22.0
21	5,294	2.7	2.7	0.0	-10.5	-13.2	8,730	-19.1	- 21.8
22	360	0.0	0.0	0.0	0.0	- 0.9	360	- 0.0	- 0.9
26	4,669	15.5	15.5	0.0	+ 3.8	-11.7	8,970	- 6.9	- 22.4
27	1,223	16.7	0.0	0.0	- 3.1	- 3.1	4,190	-10.5	- 10.5
TOTAL	51,540	617.95	108.5	78.6	-16.9	-50.3	78,440	-85.6	-116.0

(a) Numbers refer to Transportation Districts within Northwest Anchorage. District numbers roughly correspond to community council areas as follows: Government Hill - Districts 4, northern half of 5; Downtown - District 6; Fairview - Districts 9, 10, eastern third of 6, eastern half of 15; South Addition - Districts 7, 8; North Star - western half of District 15; Spenard - Districts 21, 22, 26, 27, eastern half of 14, eastern two-thirds of 20; Turnagain - Districts 19, western half of 14 and eastern third of 18.

(b) Total includes acreage in mini, neighborhood, community, urban and regional parks, and open space.

# Northwest Anchorage

## Existing Parks, Trails and Open Space



- █ Parks and Open Space  
(See Table 8 for index)
  - Existing Municipal Bike Trail
  - - - Existing State Bike Trail
  - ..... Bike Trail Scheduled for Construction
- (Data from Parks & Trails in Anchorage)

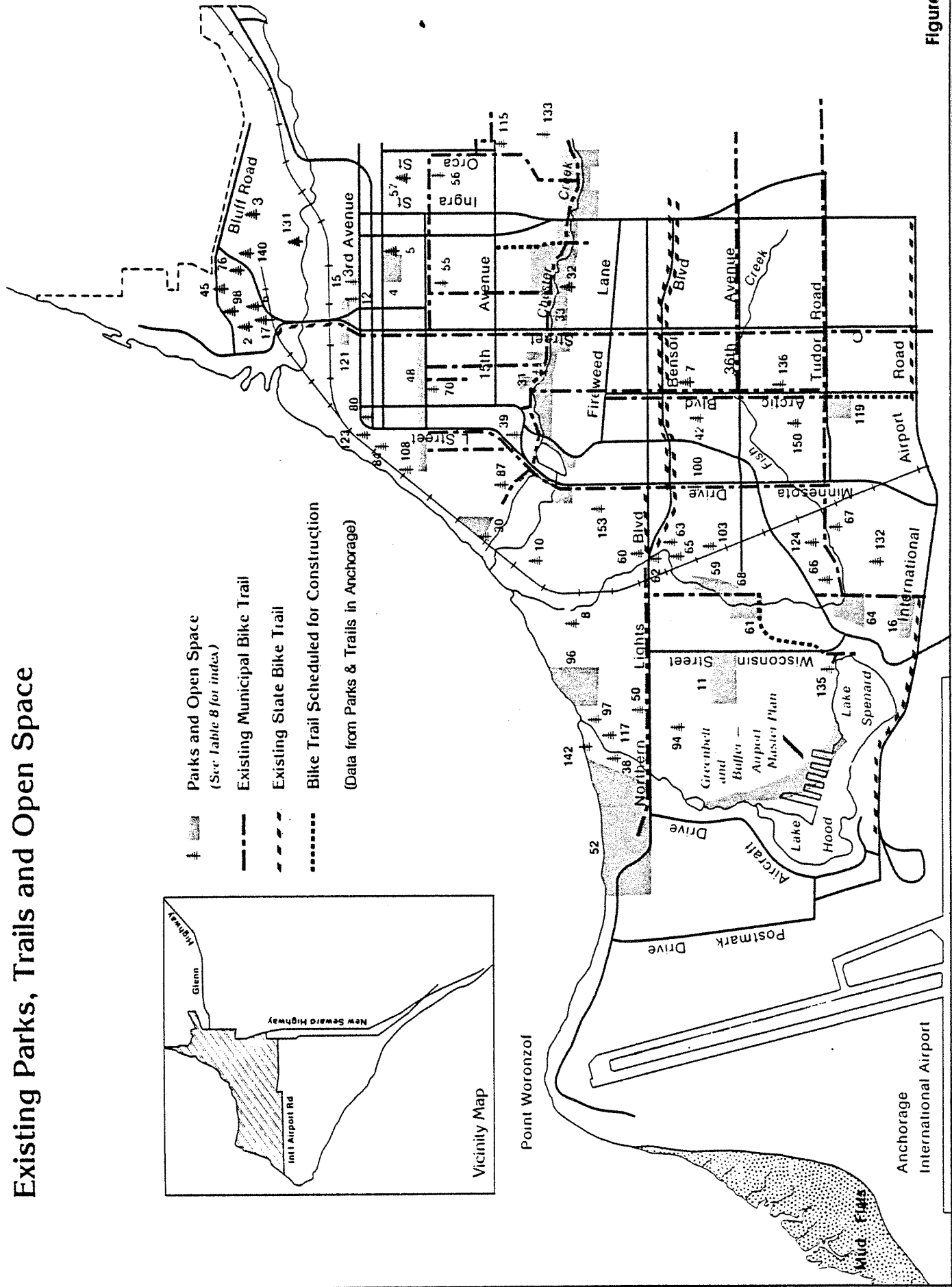


Figure 7

TABLE 8

## NORTHWEST ANCHORAGE PARKS, OPEN SPACE and TRAILS

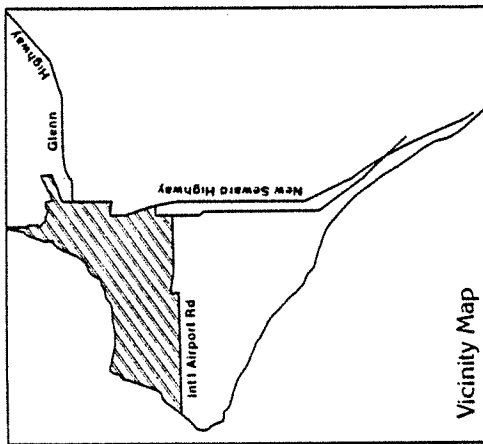
NO.	N A M E	ACRES	TYPE
2	Al Miller Memorial Park	0.95	M
3	Alderwood Park	3.24	M
4	Anchorage Memorial Cemetary	16.57	S
5	Willow Housing Playground	0.24	M
6	Anderson Park	0.09	OS
7	Arctic Benson Park	2.04	M
8	Arctic Circle Park	0.30	OS
10	Atwood Park	0.80	OS
11	Baito Seppala Park	18.70	C
12	Barrow St. Park	0.91	M
15	Ben Crawford Memorial Park	1.00	M
16	Bentzen Lake Park	10.54	OS
17	Brown's Point Park	0.24	M
30	Westchester Lagoon/Sullivan Park	89.28	U
31	Valley-of-the-Moon	21.78	C
32	Charles Smith Memorial Park	109.79	U
33	Eastchester Park	86.75	N
38	Clay Park	1.31	M
39	Coffey Park	0.08	OS
42	Cope Street Park	0.67	M
45	Cunningham Park	0.06	OS
48	Delaney Park	34.27	C
50	Didlika Park	0.40	M
52	Earthquake Park	136.32	OS
54	Elderbery Park	1.46	M
55	Fairbanks Park	0.32	M
56	Fairview Park	0.96	M
57	Fairview Community Center Park	2.06	S
59	Barbara Street Park	3.21	M
60	Huntington Park	2.31	OS
61	Kiwanis Fish Creek Park	5.91	N
62	La Honda Park	0.77	OS
63	Little Park	0.25	M
64	Northwood Park	15.07	N
65	Old Hermit Park	1.36	M
66	Red Bridget Park	1.91	M
68	Woodland Park	7.98	N
70	Frontierland Park	2.0	M
76	Harvard Park	4.65	N
80	Hostetler Park	0.17	M
87	Kedaya Park	0.24	M
94	Lloyd Steele Park	5.00	N
96	Lyn Ary Park	10.21	N
97	Marston Drive Park	0.39	OS
98	McKinley View Park	0.69	M
100	Minnesota Park	3.92	M
103	Murial Park	0.16	M
108	Nulbay Park	0.57	M
115	Orca Park	0.15	OS
117	Peters Park	0.19	OS
119	Pop Carr Park	9.08	N
121	Quyana Park	12.00	OS
123	Resolution Park	0.75	M
124	Roosevelt Park	0.50	M
131	Ship Creek Overlook Park	0.24	M
132	Sisterhood Park	3.48	M
135	Spenard Beach Park	6.88	N
136	Springer Street Park	4.64	M
140	Sunset Park	5.45	N
142	Telequana Park	1.50	OS
150	Wilson Street Park	1.78	M
153	Dempsey Anderson Ice Arena		


OS = Open Space  
M = Mini-Park  
N = Neighborhood Park  
C = Community Park  
U = Urban Park  
S = Special Park


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# Northwest Anchorage

## Potential Park/Trail Acquisitions or Leases and Facility Improvements



 Existing park where recreation facility will be improved or built 1984-85.

 Proposed Coastal Trail

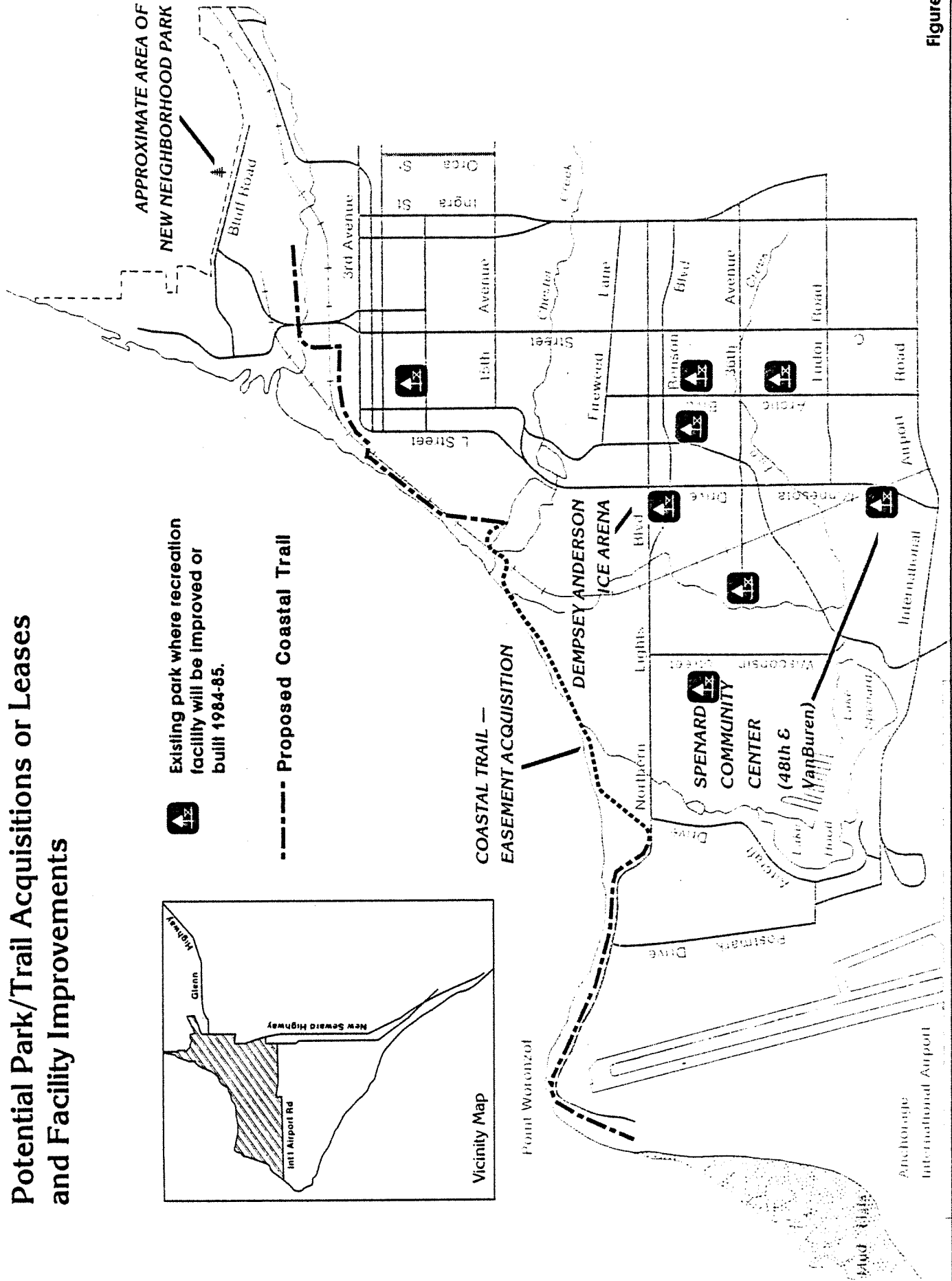


Figure 8

In order to help correct current and projected deficiencies, build and improve recreation facilities and enhance trail and bike linkages between parks, there are several programmed improvements occurring (Figure 8).

The Spenard Community Center will help meet the active recreation needs of local and citywide children and adults alike. The Center is now scheduled to open in mid-September. Emphasis on greenbelt and trail acquisitions and improvements will afford people of all ages opportunity to jog, bike, walk and ski along such corridors. The coastal trail will pass through the Turnagain, South Addition and Government Hill areas. In addition low key lighting is scheduled for installation along the Fish Creek bike path and an extension of the path is planned to Lake Spenard. Along Chester Creek bike path lighting is planned by Mulcahy Stadium, a new bridge is being constructed at Buckner Street and the bridge by Mulcahy is being replaced.

At Springer Street and Arctic-Benson Parks in Spenard, new recreation facilities being built include a playground, picnic area, playfield and a basketball court. A soccer field is being constructed at Balto Seppula in Turnagain. The Cope Street Park's playground is being upgraded this summer. Major improvements are occurring at Delaney Park Strip. These include three more tennis courts being installed, renovations on the figure skating and hockey rink area and the basketball courts, heating in the changing area being improved and the addition of men's and women's showers, lockers and saunas. Acreage for a new neighborhood park in Government Hill has recently been acquired. Finally, next year Valley of the Moon Park in Fairview will be renovated. Existing and proposed greenbelt systems in Northwest are described below.

#### Fish Creek Greenbelt

Much of Fish Creek has been built up and over during the course of Anchorage's development. In consequence, a great portion of its length runs through culverts or has lost its appearance as a natural stream course. Reclamation of some areas of Fish Creek would be a worthwhile process.

The foremost opportunity for a Fish Creek Greenbelt is that segment of this stream which lies west of Minnesota Drive. This corridor would be a relatively narrow one because of the extensive development near the stream. A bike trail currently exists along some of the stream, connecting most of the area between Minnesota Drive and Northern Lights Boulevard. The Greenbelt may be extended beyond Northern Lights Boulevard to join the coastal trail at the Fish Creek estuary. That tidal marsh is virtually undisturbed and is designated for protection for its education, open space and recreation values.

### The Ship Creek Greenbelt

The Ship Creek Greenbelt would extend approximately 10 miles from the mouth of Ship Creek towards the headwaters of the creek and Arctic Valley. Three major land owners, the Alaska Railroad, Elmendorf Air Force Base and Ft. Richardson Military Reservation, control the land upon which the greenbelt could be realized. Whereas other open space systems require land acquisition, the Ship Creek Greenbelt will largely be implemented when cooperative agreements can be reached between the Municipality and the major agencies controlling the land.

In conjunction with the preservation of the greenbelt, a bike trail and pedestrian path system have been contemplated from Glenn Highway to the mouth of Ship Creek. It has been proposed that the bike trail be located on the south side of the creek so as to least intrude into military lands.

### Chester Creek Greenbelt

The Chester Creek Greenbelt has largely been accomplished from its mouth at Westchester Lagoon to the Goose Lake area. In the proposed Open Space Plan, extensions of the Chester Creek Greenbelt system along the South Fork of Chester Creek are depicted to provide a future greenbelt through the University area and make a connection to Russian Jack Springs Park.

### The West Turnagain Open-Space Corridor

A system of "greenbelt and buffer lands" were retained between the the airport complex and the western edge of the Turnagain community in the International Airport Master Plan (Figure 5). A limited recreation corridor should be provided through this system. It would start with the existing bike trail west of Jewel Lake Road, then circle Spenard Lake. The corridor would connect to Airport "buffer" space just south of Northern Lights and connect with Earthquake Park. This link would provide a good bike trail connection between the Coastal Trail and the Connors Lake vicinity.

## PUBLIC FACILITIES

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### Schools

Ten elementary schools, two junior high schools, one high school, and one optional junior-senior high complex (without boundaries) are located in Northwest Anchorage (Figure 9). Two of the elementary schools have optional programs without attendance boundaries. Rogers Park Elementary school, which is not physically located in Northwest Anchorage, draws a significant enrollment from the Northwest area.

As Table 9 shows, elementary schools in the Spenard-Turnagain area are currently overcrowded. The Anchorage School District has programmed classroom additions at Northwood and North Star. However, these additions may not meet the demand for classroom space and a new elementary school in Spenard-Turnagain may be needed by the late 1990's. At other Northwest Anchorage elementary schools, current and projected enrollments are below capacity.

Junior high schools in the Northwest area have space available for additional students at present. West Senior High School is currently overcrowded; this condition is expected to continue into the future but could be somewhat alleviated by redistricting between West, East and Bartlett High Schools. School District staff notes that West is able to tolerate some overcrowding without serious impacts on the program. Steller School, an optional program without boundaries, is near its capacity. Scheduled renovation may resolve some of the crowding problems.

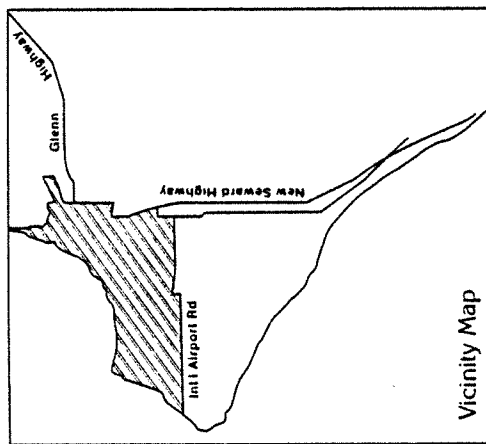
### Scheduled Downtown Facility Improvements





There are several Municipal, State and private improvements for the Central Business District scheduled to begin in the summer of 1984 (Figure 10). Municipal projects are the Museum, Pedestrian Amenities, Town Square, Performing Arts Center (construction beginning 1985) and parking garages at 6th and 'G' Street and 5th and 'C' Street.

# Northwest Anchorage Schools

Relationship of 1983 Enrollment to Current Building Capacity

(See Table One for detailed capacity information)



-  Elementary Schools Below Capacity
-  Elementary Schools Above Capacity
-  Junior & Senior Highs Below Capacity
-  Junior & Senior Highs Above Capacity

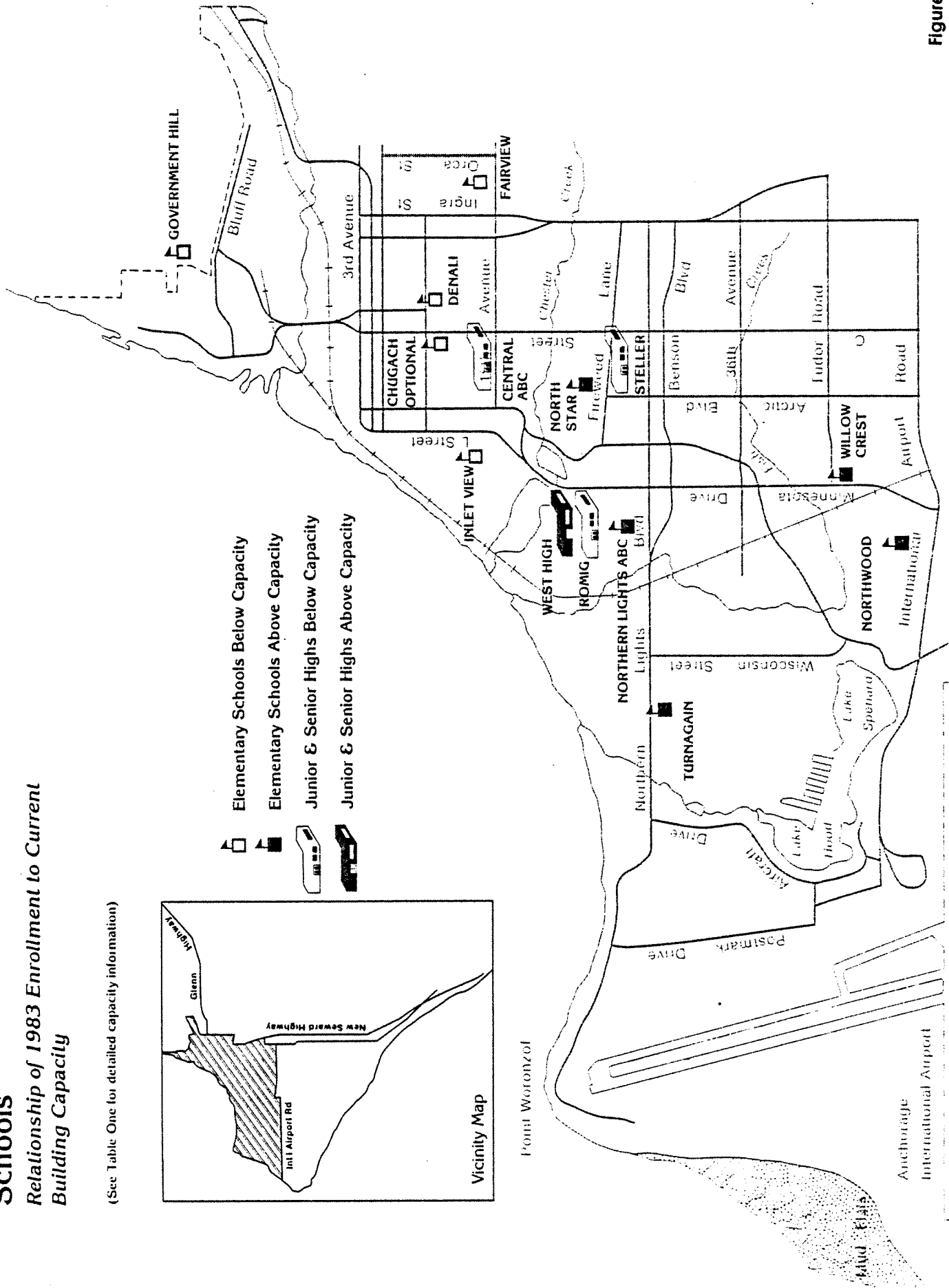


Figure 9



TABLE 9  
SCHOOL CAPACITY AND ENROLLMENT

Northwest Anchorage  
1983-84

Type and Name	Student Capacity	Enrollment 9/30/83	Additional or Deficient Student Capacity
Elementary:			
Chugach optional (no boundary)	273	222	51
Denali	588	254	334
Fairview	378	351	27
Government Hill	378	357	21
Inlet View	273	251	22
North Star	336	419	-83
Northern Lights ABC (no boundary)	336	399	-63
Northwood	420	431	-11
Rogers Park	483	383	100
Turnagain	504	568	-64
Willow Crest	483	491	-8
Secondary:			
Central ABC	864	801	63
Romig	936	776	160
Steller (no boundary)	approx 200	215	approx. -15
West	1,656	1,891	-235

nw2/mt9

# Central Business District Scheduled Downtown Improvements

- ① Pedestrian Amenities
- ② Town Square Park
- ③ Parking Facility
- ④ Anchorage Historical and Fine Arts Museum
- ⑤ Performing Arts Center
- ⑥ State Office Complex

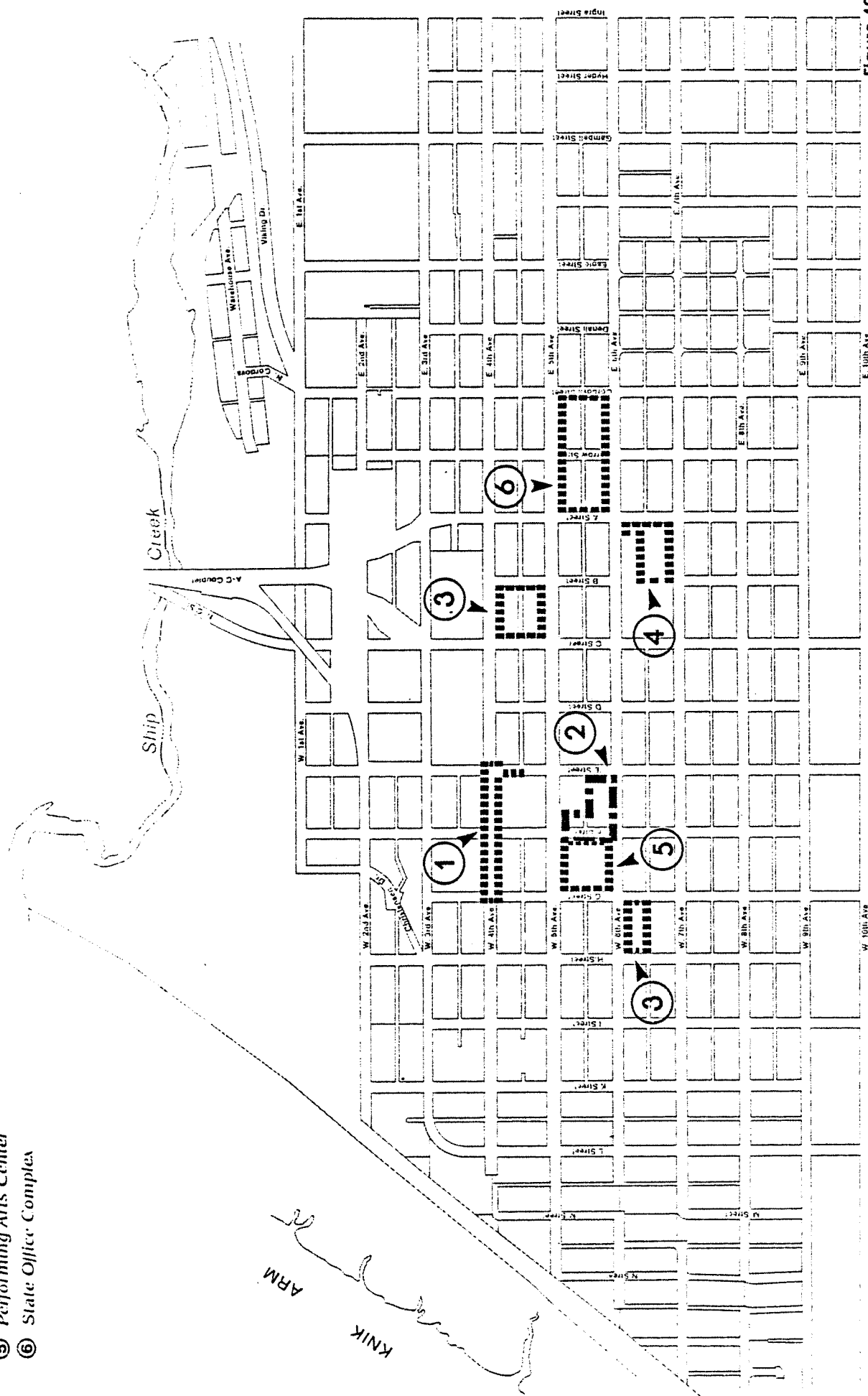


Figure 10

## Water

The entire Northwest Anchorage area is served by Anchorage Water and Wastewater Utility (AWWU). The existing water transmission and distribution system is sufficient to serve this area, although there may be some areas lacking sufficient fire flow capacity. In those instances, private development would be required to meet Fire Department standards through any of a variety of means (booster pumps, sprinkler systems, loop systems, etc.)

AWWU is in the process of replacing old wood stave water pipe in the eastern section of Downtown. This replacement program will continue until all of the wood stave pipe has been replaced.

The Eklutna project guarantees there will be an adequate water supply for projected future growth. AWWU is having a technical study done this year which will identify the most effective methods of transmitting water from the Eklutna Project through the Municipality. The results could possibly lead to further capital improvements to the water system in this area.

## Wastewater

All of Northwest Anchorage is within the wastewater service area. The wastewater system consists of the Pt. Woronzof Treatment Plant and an extensive collection system of interceptors and trunks. Portions of the sewerage system in Northwest Anchorage receive the heaviest wastewater flows in Anchorage due to its location between the rest of the Anchorage Bowl and the treatment plant. Also, because the oldest development in Anchorage is located in this area, portions of the sewerage system are also quite old.

AWWU has been in the process of upgrading and replacing many of the existing trunk and interceptor lines. Most important are the Knik Interceptor and a number of its feeder trunks which serve the area north of Chester Creek.

The Chester Creek pump station and force main is also being planned for up-grading in the near future. The pump station is located next to the tidal flats near the mouth of Chester Creek. The force main generally runs southward from the pump station to Northern Lights Boulevard along Fish Creek and the Alaska Railroad right-of-way.

A major collection system south of Chester Creek is the Fish Creek Trunk. This trunk line follows Fish Creek and serves the Spenard area. Much of this trunk line is constructed from corrugated metal pipe and is at or near capacity. Consequently, AWWU is planning to construct a bypass in the middle portion of the line in order to provide relief to the lower portion. This bypass project, called the Fish Creek Sanitary Sewer Diversion Project, would consist of placement of a diversionary line from the Alaska Railroad right-of-way westward along the alignment of 44th Avenue right-of-way extended to Wisconsin Street. At Wisconsin Street, the diversionary line would be connected to an existing 84 inch interceptor. This project is already funded. Construction will begin as soon as the necessary easement acquisitions are completed.

Future sewerage projects in Northwest Anchorage are anticipated to be major expansion and upgrade of the treatment plant at Pt. Woronzof, and rehabilitation/replacement of older segments of existing trunk systems where corrugated metal and asbestos cement pipe are in use.

## TRANSPORTATION

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### Road and Highway Conditions

Rapid residential, commercial and industrial growth throughout the Municipality is taxing the existing road network. In Northwest Anchorage, transportation is a concern as increasing numbers of residents pass through the area in transit to Downtown and Midtown. As population increases, so has congestion, traffic and accidents on major thoroughfares. These problems and on-going and proposed projects and programs to resolve them are the prime focus of the following discussions.

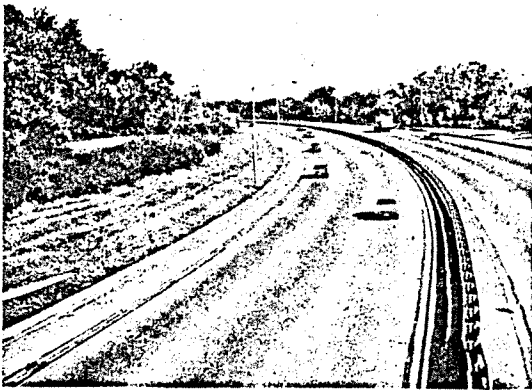
Northwest Anchorage's transportation boundaries are defined by the Gambell/Ingra Streets couplet (that becomes Seward Highway) on the east, International Airport Road to the south, Elmendorf Air Force Base on the north and the Knik Arm and International Airport to the west. Northern Lights and Benson Boulevards and Tudor Road are the major east-west arterials within Midtown and 5th, 6th, and 15th Avenues are the major east-west arterials through the Central Business District. Minnesota Drive (which becomes the I/L couplet) and the A/C Couplet are the other major north-south arterials, as well as Spenard Road. Many smaller streets interconnect Northwest's neighborhood transportation system.

In Northwest as throughout Anchorage, roadway conditions are principally determined by two factors: [1] the number of vehicles traveling a given segment of road during a typical day, also referred to as Average Daily Traffic (ADT), and [2] the physical parameters of a roadway (i.e. number of lanes and width per lane). Combining these two factors makes it possible to derive a relative measure of a road's ability to efficiently carry traffic, termed the Level of Service (LOS).

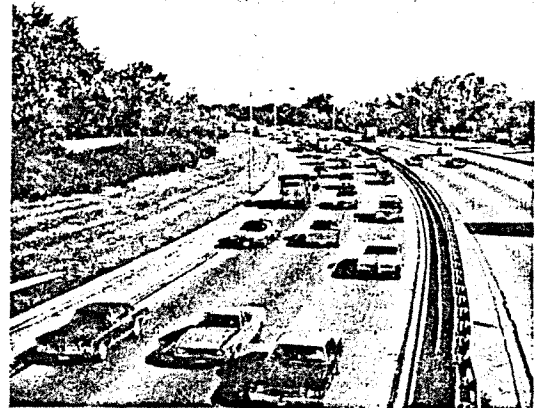
Levels of Service ratings for roadways and intersections range from A-F with 'A' the highest and most desirable condition, and 'F' the least efficient and least desirable. The photographs included here show LOS ratings for roadways, and Table 10 lists LOS characteristics for roadways and intersections. A 'D' rating is generally regarded as the lowest acceptable Level of Service in urban areas. Roads or intersections with ratings of 'D', 'E' or 'F' are problem areas.

Average Daily Traffic (ADT) counts in 1982 for major roadways in Northwest Anchorage's residential and Downtown areas are shown on Figures 10 and 11. Roadways and intersections with service problems (LOS) are seen in Figure 13.

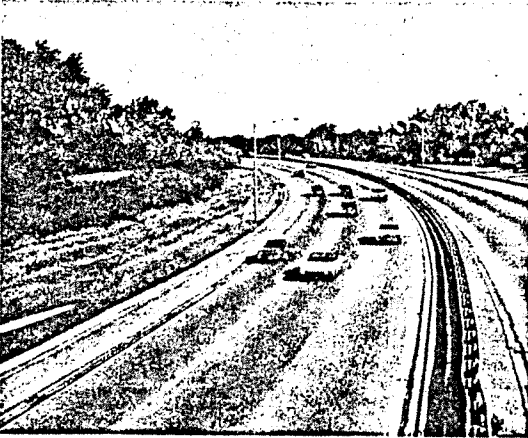
## ROADWAY LEVEL OF SERVICE CONDITIONS



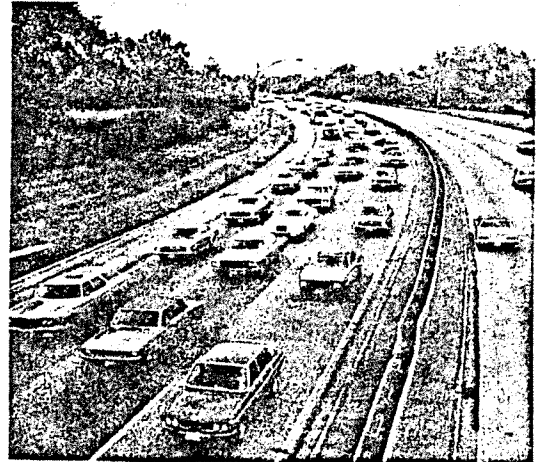
Level of service A as viewed looking up stream on a typical freeway indicating no physical restrictions on operating speeds. SOURCE: Illinois Department of Transportation.



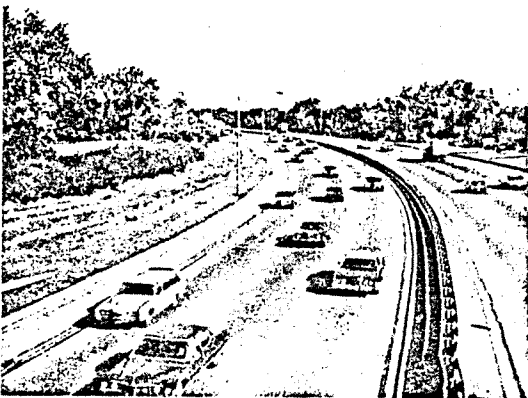
Level of service D as viewed looking up stream on a typical freeway indicating approaching unstable flow, little freedom to maneuver, and condition tolerable for short periods. SOURCE: Illinois Department of Transportation.



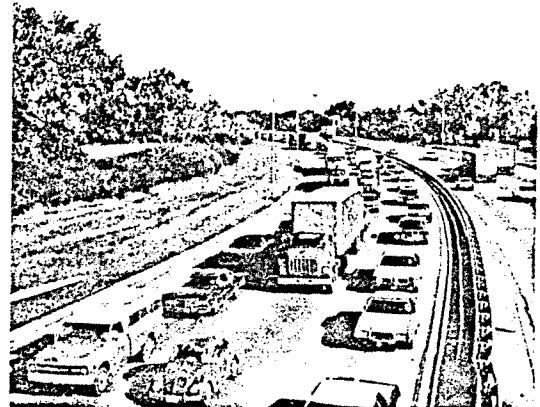
Level of service B as viewed looking up stream on a typical freeway indicating stable flow with few restrictions on operating speed. SOURCE: Illinois Department of Transportation.



Level of service E as viewed looking up stream on a typical freeway indicating unstable flow, lower operating speeds than level D and some momentary stoppages. SOURCE: Illinois Department of Transportation.



Level of service C as viewed looking up stream on a typical freeway indicating stable flow, higher volume, and more restrictions on speed and lane changing. SOURCE: Illinois Department of Transportation.



Level of service F as viewed looking up stream on a typical freeway indicating forced flow operation at low speeds where the highway acts as a storage area and there are many stoppages. SOURCE: Illinois Department of Transportation.

TABLE 10

Level of Service for Roadways

- A. Free flow with low volumes, speeds controlled by posted limits.
- B. Stable flow, drivers have reasonable freedom to select speed and lane of operation.
- C. Stable flow, most drivers restricted in their freedom to select speed or change lanes.
- D. Approaching unstable flow, with little freedom to maneuver.
- E. Capacity, unstable flow, momentary disruptions and stoppage.
- F. Forced flow, short and long stoppages, low speeds.

Level of Service for Signalized Intersections

- A. No vehicle waits longer than one red indication.
- B. Occasionally the green phase is fully utilized.
- C. Occasionally drivers may have to wait more than one red indication, some backup.
- D. Approaching instability with substantial delays during short peaks within rush hour.
- E. Capacity, the most vehicles that can be accommodated, full utilization of every green phase, substantial dependence on good coordination between adjacent signals, long queues of vehicles waiting, delay may be up to several cycles.
- F. Jammed conditions, long delays.

NOTE: LOS definitions are derived from the 1982 Anchorage Area Traffic Report prepared by Alaska Department of Transportation and Public Facilities (ADOT/PF).





# Central Business District Average Daily Traffic Counts — 1982

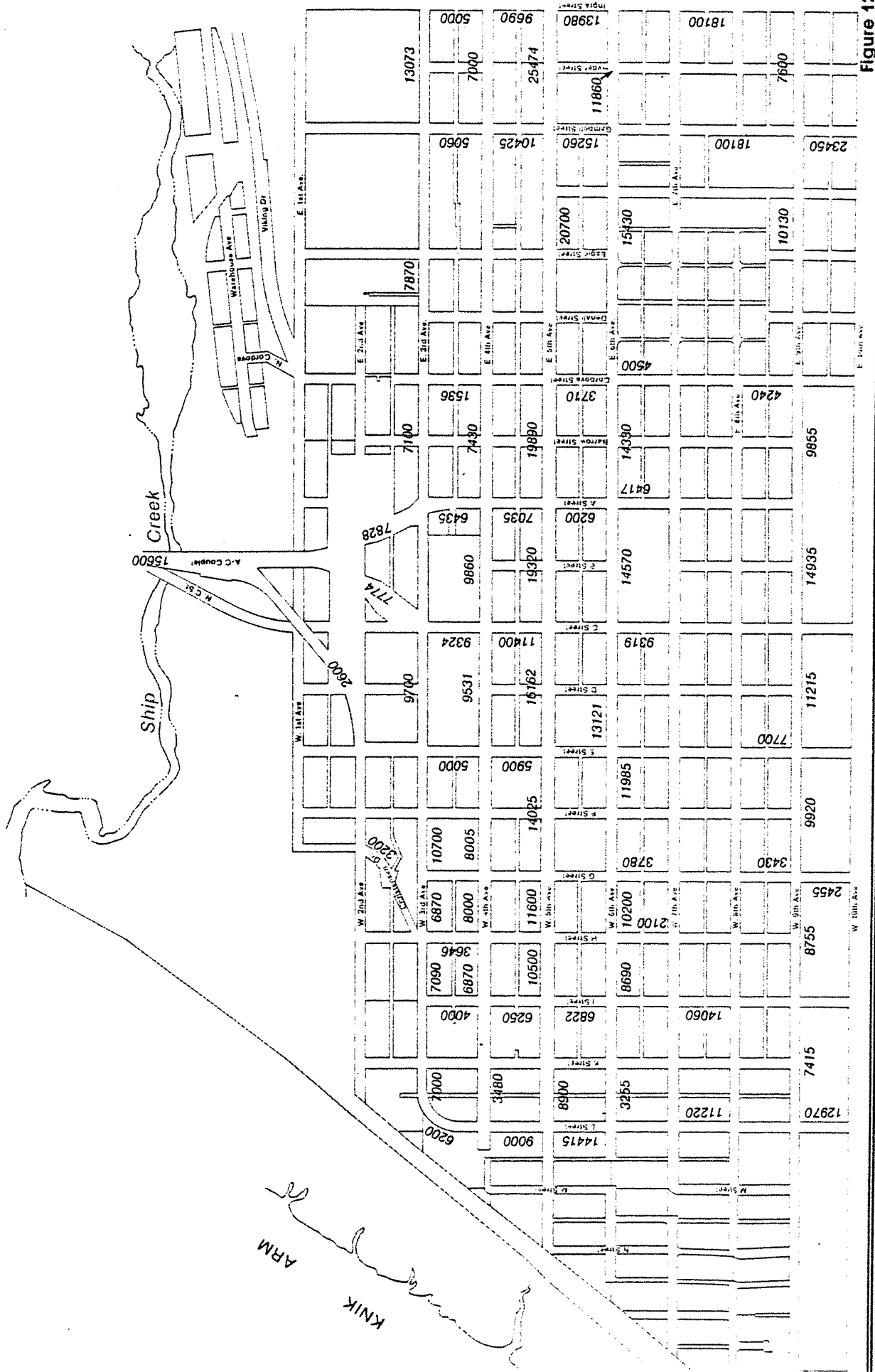
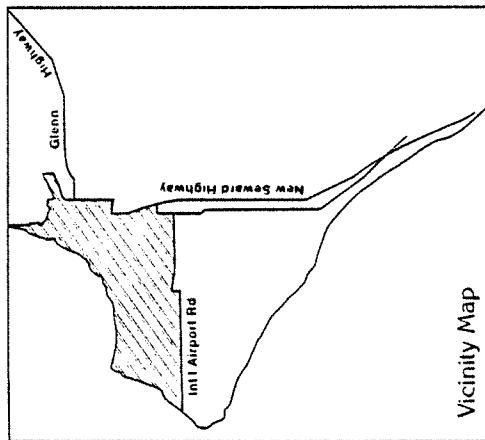


Figure 12

# Northwest Anchorage

## Roadway and Intersectional Deficiencies: Peak Hour Level of Service



### Intersections

- D
- E/I

### Street Sections

- ▬ D
- ▬ E/F

(for explanation of terms see text)

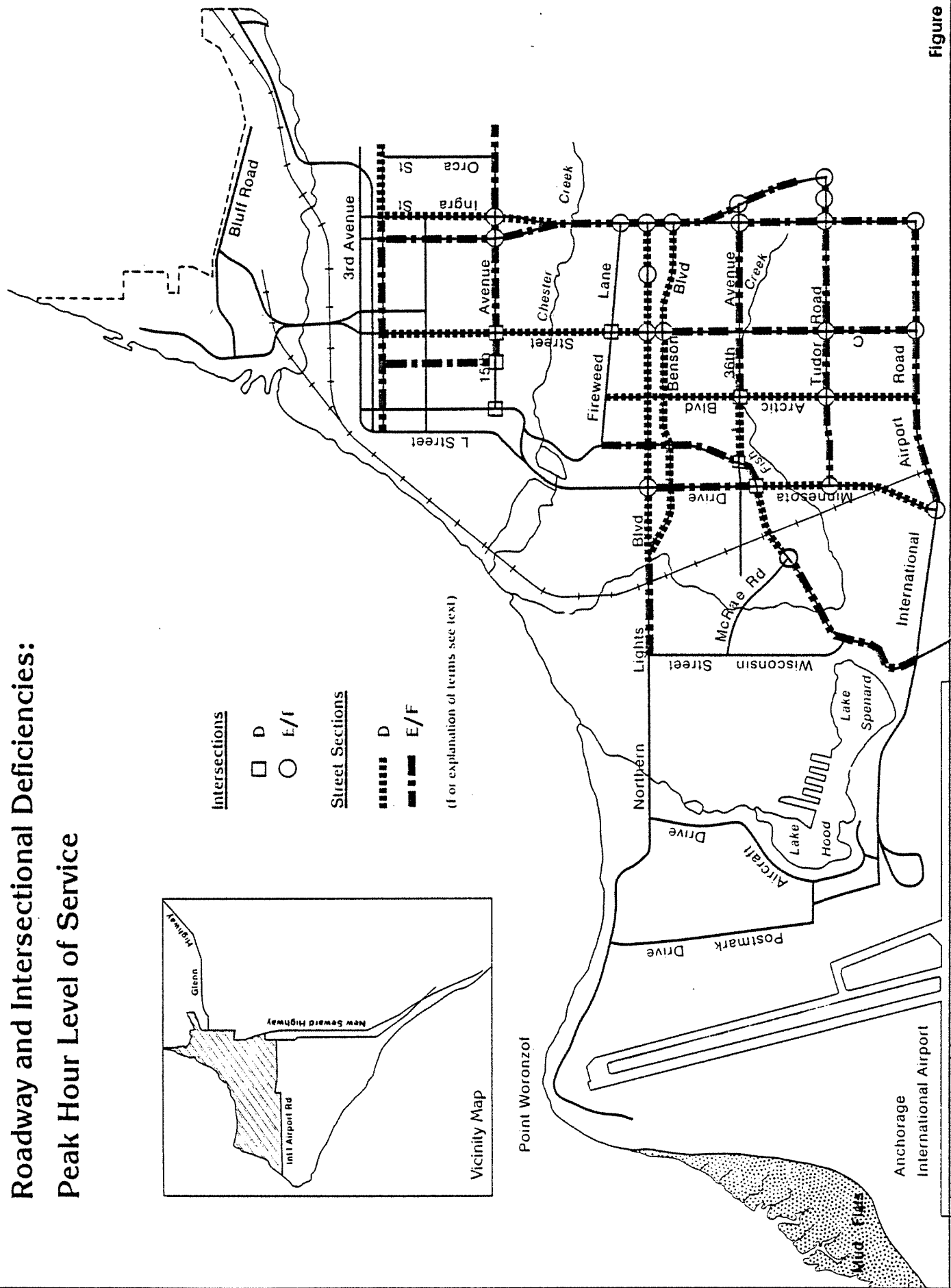


Figure 13

The principal problem areas or deficiencies in Northwest are on 15th Avenue, Northern Lights and Benson Boulevard, 36th Street, Tudor Street, the Gambell/Ingra couplet south of Northern Lights, Spenard Road and at several intersections.

Accident frequency is also related to general highway operations characteristics. According to a Municipal report prepared by the Division of Traffic Engineering, 35 intersections in Anchorage have a high frequency of accidents. Twenty-two of these are in Northwest Anchorage. During 1981 there were 709 accidents recorded at the following intersections:

- International Airport Road/Spenard Road
- Minnesota/Tudor
- Minnesota/Spenard
- Minnesota/Benson
- Minnesota/Northern Lights
- Spenard/36th Avenue
- Spenard/Benson
- Spenard/Northern Lights
- Arctic Boulevard/Benson
- Arctic Boulevard/Northern Lights
- Arctic Boulevard/Fireweed
- C Street/Fireweed
- C Street/36th Avenue
- Seward Highway/Tudor (Interchange)
- Seward Highway/Benson
- Seward Highway/Fireweed
- 15th Avenue/C Street
- 15th Avenue/Gambell
- 15th Avenue/Ingra
- 9th Avenue/Gambell Street
- 6th Avenue/I Street
- 6th Avenue/Ingra Street

Using information on current average daily traffic volumes (Figures 11 and 12), Level of Service ratings (Figure 13), data on high frequency accident locations, and projected daily traffic volumes for the year 2001 (Figures 14 and 15), two planning efforts by the Municipality attempt to resolve and prevent major transportation problems: [1] the Official Streets and Highways Plan (OSHP), and [2] the Long Range Transportation Element (LRE). On the basis of the OSHP and the LRE reports, a package of priority transportation projects to meet the community's current and anticipated roadway needs has been developed. This is embodied in the Anchorage Accelerated Roadway Program (AARP) (Figure 16). From year-to-year, the ability of the Municipality and/or Alaska Department of Transportation and Public



# Central Business District Average Daily Traffic — Year 2001

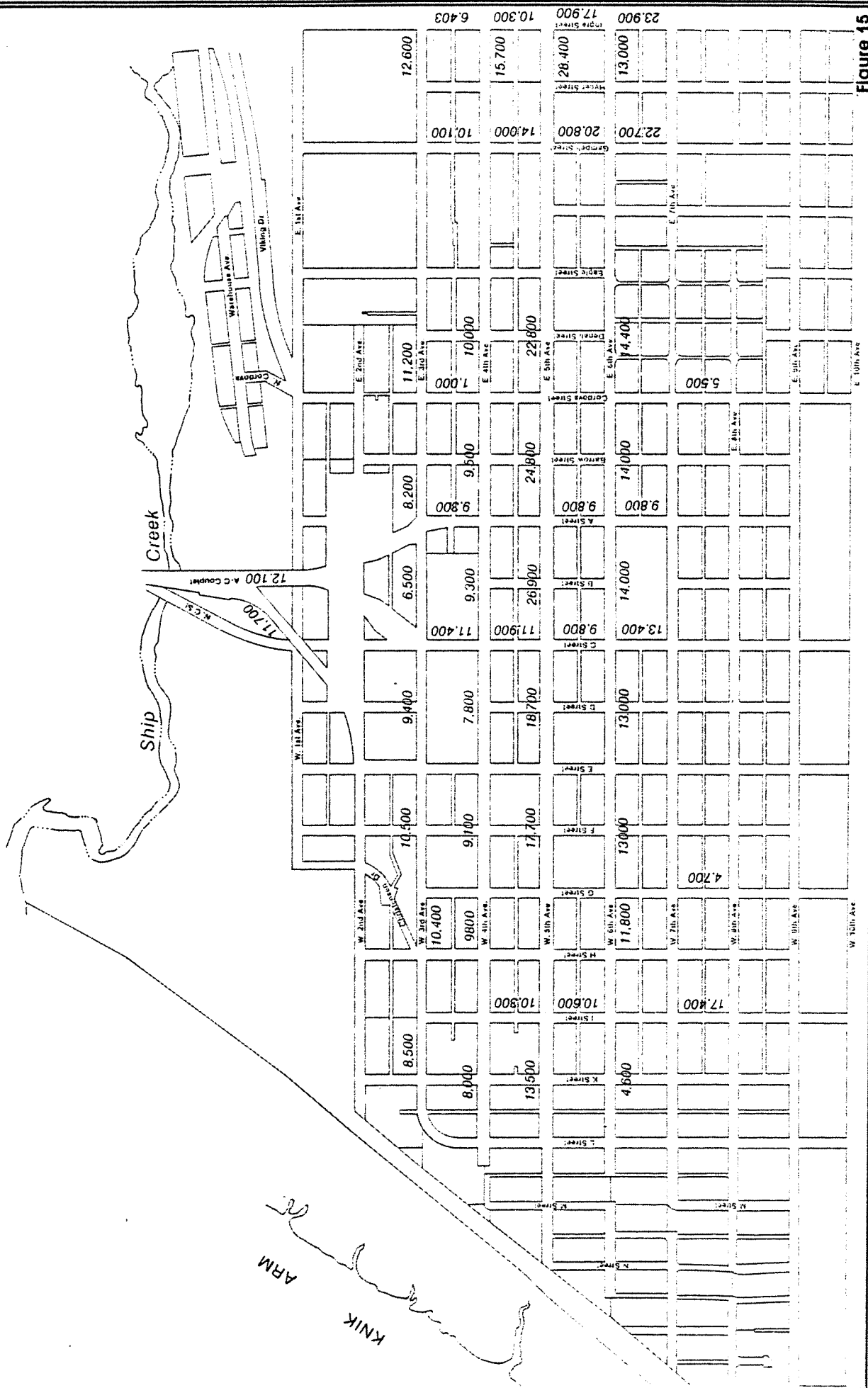


Figure 15



Facilities to construct priority road projects identified in the AARP is largely dependent on funding approval from the State Legislature or Federal government. Although identified in the AARP as a pressing road improvement need, a particular project cannot be constructed until funds are approved by the State and/or Federal governments, or until alternative funding sources are identified. Discussed below are AARP road improvement projects currently programmed for Northwest Anchorage. It is anticipated that construction of these projects will generally improve service levels in the Northwest sector, and resolve many of the area's most significant traffic deficiencies.

- ° W. Northern Lights - (300' east of R.R.) Forest Park to Wisconsin as a Major Arterial.
- ° W. Northern Lights - Grade separation at Railroad crossing.
- ° Spenard Road - (McRae) R.R. crossing to International Airport Road as a Minor Arterial.
- ° 36th Avenue - Arctic Boulevard to Spenard Road as a Minor Arterial.
- ° W. Northern Lights - Wisconsin to Aero Avenue as a Minor Arterial.

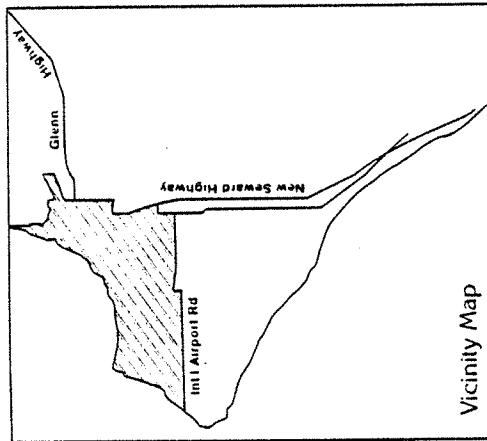
Further roadway improvements for Northwest have been identified as part of the Long Range Transportation Element Plan (LRE). These projects are also shown in Figure 16. Although not scheduled for immediate construction, it is expected that these improvements which are inventoried in the LRE, but not yet programmed in the AARP, will be completed by the year 2001.

### Mass Transportation

Northwest Anchorage's downtown area contains the central point or transfer center of the entire People Mover Transit System (Figure 17). Everyone of the twenty-five bus routes operated by People Mover serves at least some section of Northwest Anchorage. Bus routes operate in a north-south direction on Spenard Road, Minnesota Drive, Arctic Blvd., 'C' Street and the Seward Highway. East-west service is provide on 5th-6th Avenues, Fireweed Lane, Northern Lights-Benson, 36th Avenue and Tudor Road. the transit system operates weekdays from 6AM to 10PM. Saturday service hours are from 8AM to 9PM.

# Northwest Anchorage

## Transit Routes



-  Bus Routes
-  Route Turnaround

Transit Center Located at  
6th Ave. and "G" St.  
(All Routes Except 93  
Start Here.)

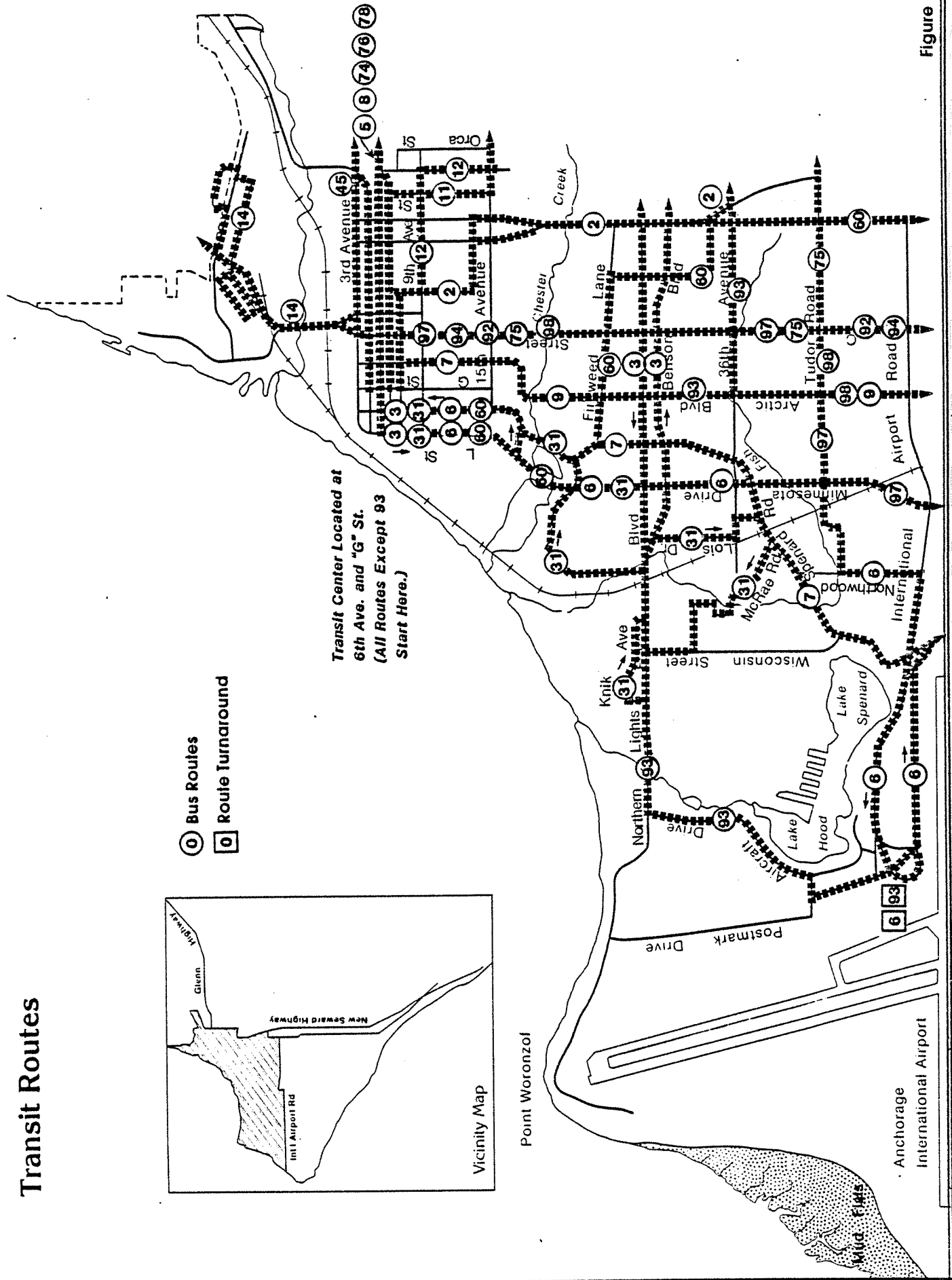


Figure 17



TABLE 11  
TRANSIT ROUTES  
Northwest Anchorage  
1984

R O U T E	WEEKDAYS				SATURDAY		Major Generators Served
	Number Of Buses During		Frequency Between Buses		Number of Buses	Freq. Between (Min.)	
	Peak Hours	Off-Peak Hours	(Minutes)				
			Peak	Off-Peak			
3 Muldoon	5	3	15	40	3	40	Bartlett High, East High, Providence Hosp., UAA, ACC, West High, Downtown
6 Int'l. Airport	1	1	60	60	1	60	Airport, Downtown
7 Jewel Lake	2	2	45	45	2	50	Dimond Center, Downtown
9 Arctic	2	2	40	50	2	40	Dimond High, Downtown
14 Elmendorf	2	1	30	60	1	60	Elmendorf, Downtown
31 Turnagain	2	1	30	60	1	60	West High, Downtown
75 Ft. Richardson	5	3	20	40	2	60	Fort Richardson, Downtown
92 DeArmoun	1	1	110	120	1	120	Downtown, Service High, Dimond Center
94 Huffman	1	0	80	-	0	-	Downtown, Huffman Business Park, Dimond Center
97 Dimond Center	1	1	80	120	1	80	Downtown, Dimond Center, Dimond High
98 Bayshore	1	0	65	-	0	1	Downtown
93 Midtown	2	1	30	60	1	120	Boniface Center, New Library, ACC, UAA, Providence, Airport

nw2/mt11

There is no service on Sundays or major holidays. Northwest Anchorage contains three unique service areas for transit. The residential areas of Northwest, require one type of service. Downtown and Midtown both require different strategies for service.

The residential areas in Northwest contain many of Anchorage's older established neighborhoods with residents who represent a wide range of socio-economic conditions. These residents tend to take advantage of the variety of services available living so close to town. This makes Northwest a productive area for transit service. Some of the most heavily used bus in the system such as Routes 3 and 7 get many of their passengers from Northwest Anchorage. Because there is a large amount of new development in the South Turnagain area that is not currently served by transit, an evaluation is occurring of ways to better serve this area by utilizing existing routes and service hours.

Midtown, with its many large office complexes and retail shopping centers is rapidly growing in importance as an employment center. The sprawling nature of Midtown development and relative ease of parking in Midtown present a challenge for Transit Service. As Midtown has grown, transit has tried to accommodate the need for crosstown service by using Routes 3 and 93 to provide a high level of service on Northern Lights/Benson. The use of transfers, an essential part of serving areas such as Midtown, is handicapped by the lack of frequent service on many bus routes.

Transit is also an important component in the Downtown transportation system. The current transit system carries 8.3% of all person trips during the morning peak hours downtown. This roughly translates into the equivalent of 1,150 all-day parking spaces and 2-1/2 highway lanes. As Downtown continues to grow, transit will have to play a larger role in the area as space, financial and environmental limitations, make building parking garages increasingly difficult.

Carpooling is an alternative transportation option in this area as throughout the Municipality. Anchorage currently has one of the worst carbon monoxide problems in the country. The Municipality's Carpool Program was developed as one response to growing concerns over air quality and the level of traffic congestion during peak hours. The Transit Department is working with major employers, particularly in Downtown, to promote carpool and bus pass programs. Anchorage's carpooling service matches commuters with similar routes and work schedules and is available by calling 279-8646.

Do you have any suggestions for ways to improve this background information packet? Your comments or suggestions on the packet or issues in Northwest Anchorage would be appreciated.

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Community Planning Department  
Pouch 6-650  
Anchorage, Alaska 99502



