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Population Estimates & Projections

Yellowknife

Population Estimates

Revised to July 1, 2000

Population Estimates differ from census counts as they account for individuals not covered by the census. These estimates will be updated annually as new information becomes available.

Yellowknife	1991	1996	1997	1998	1999	2000
Total	16,227	18,301	18,333	17,735	17,567	18,028
Aboriginals	2,761	3,635	3,733	3,832	3,973	4,148
Non-Aboriginals	13,466	14,666	14,600	13,903	13,594	13,880
Males	8,505	9,439	9,457	9,105	9,012	9,239
Females	7,722	8,862	8,876	8,630	8,555	8,789
0 - 4 Years	1,637	1,615	1,513	1,410	1,391	1,429
5 - 9 Years	1,341	1,574	1,622	1,592	1,604	1,640
10- 14 Years	1,216	1,434	1,397	1,392	1,379	1,444
15 - 24 Years	2,774	2,767	2,824	2,661	2,633	2,690
25 - 44 Years	7,246	7,783	7,683	7,258	6,997	593
45 - 59 Years	1,604	2,594	2,724	2,860	2,970	3,093
60 Yrs. & Older	409	534	570	562	593	671

Prepared by NWT Bureau of Statistics

The following information is suppressed:

- *Estimates for communities with a population of 50 or less.*
- *All cell details for communities with a total population of 100 or less.*
- *All cell values of 10 or less.*
- *Unorganized areas.*

Population Projections

Based on July 1, 1999 Estimates

Population projections incorporate assumptions regarding fertility, mortality and migration patterns. These assumptions are reflective of historical patterns, as well as recent trends observed for the Northwest Territories. These estimates will be updated on an annual basis to accomodate the base for the current year as well as any changes in the model assumptions.

Yellowknife	**2004**	**2009**	**2014**	**2019**
Total	18,773	19,977	21,497	22,982
Aboriginals	4,747	5,416	6,202	6,917
Non-Aboriginals	14,026	14,561	15,295	16,065
Males	9,803	10,637	11,592	12,537
Females	8,970	9,340	9,905	10,445
0 - 4 Years	1,339	1,274	1,364	1,444
5 - 9 Years	1,602	1,557	1,563	1,677
10- 14 Years	1,613	1,655	1,664	1,719
15 - 24 Years	2,864	3,260	3,527	3,558
25 - 44 Years	6,698	6,418	6,840	7,308
45 - 64 Years	4,127	4,936	5,136	5,368
65 Yrs. & Older	530	877	1,403	1,908

People & Households

Yellowknife

People

Population

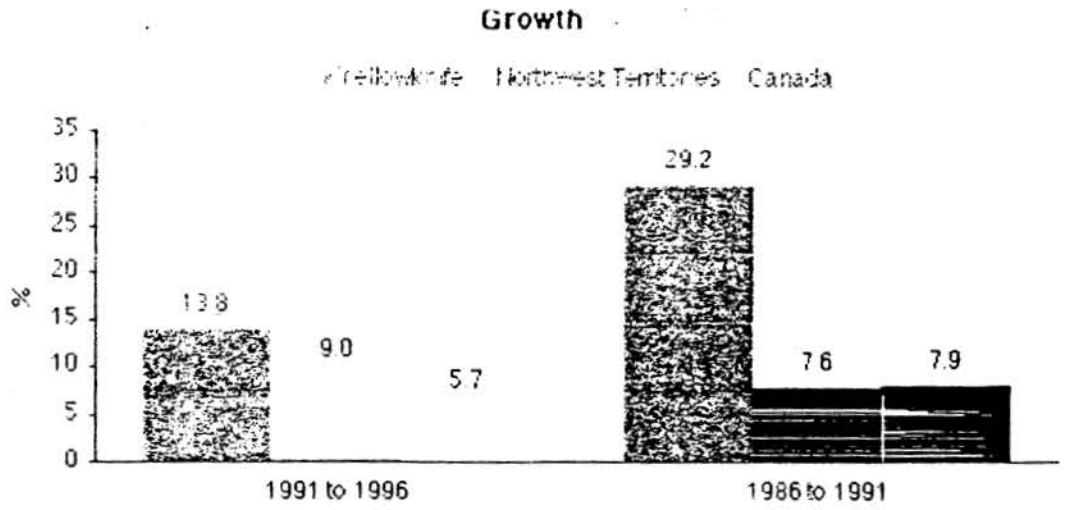
	1996	1991	1986	1981	1976	1971
Population	17,275	15,179	11,753	9,483	8,256	5,867
% Change	13.8	29.2	23.9	14.9	40.7	-

Source: Statistics Canada, Census Years '71-'96 *Prepared by: NWT Bureau of Statistics*

Percent Growth

	1991 to 1996	1986 to 1991
Yellowknife	13.8	29.2
Northwest Territories	9.0	7.6
Canada	5.7	7.9

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*



Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

Age Structure

Yellowknife	1996	1991	1986
Total	17,275	15,179	11,753
0 to 4 Yrs.	1,575	1,505	1,175
5 to 9 Yrs.	1,500	1,280	1,035
10 to 14 Yrs.	1,435	1,195	905
15 to 24 Yrs.	2,560	2,490	2,115
25 to 44 Yrs.	7,250	6,780	5,110
45 to 64 Yrs.	2,655	1,705	1,255
65 Yrs. & Over	290	220	155

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

Percent Distribution, 1996

	Yellowknife	Northwest Territories	Canada
Total	100.0	100.0	100.0
0 to 4 Yrs.	9.1	10.3	6.6
5 to 9 Yrs.	8.7	10.0	6.9
10 to 14 Yrs.	8.3	8.7	6.9
15 to 24 Yrs.	14.8	15.1	13.4
25 to 44 Yrs.	42.0	37.0	32.4
45 to 64 Yrs.	15.4	15.4	21.5
65 Yrs. & Over	1.7	3.5	12.2

Source: Statistics Canada, Census '96

Prepared by: NWT Bureau of Statistics

Ethnic Distribution, 1996

	Yellowknife	Northwest Territories	Canada
Total	100.0	100.0	100.0
Inuit	3.2	10.2	0.1
Dene	9.1	27.8	1.8
Métis	7.1	9.3	0.7
Other Aboriginal	0.2	0.4	0.1
Multiple Aboriginal	0.3	0.4	-
Non-Aboriginal	80.1	51.8	97.2

Source: Statistics Canada, Census '96

Prepared by: NWT Bureau of Statistics

Language

Yellowknife

Mother Tongue	1996	1991	1986
English	14,315	12,780	9,760
Aboriginal Language	595	445	300

Home Language	1996	1991	1986
English	15,970	14,190	10,610
Aboriginal Language	165	80	90

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

Ratio of Home Language to Mother Tongue, for Aboriginal Languages

	1996	1991	1986
Yellowknife	27.7	18.0	30.0
Northwest Territories	51.5	52.2	54.9

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

Religion

Yellowknife

Religious Affiliation, 1991

Persons 15 Yrs. & Over	Number	%
Catholic	5,395	35.7
Protestant	6,085	40.3
Other	425	2.8
No Religious Affiliation	3,205	21.2

Source: Statistics Canada, Census '91 *Prepared by: NWT Bureau of Statistics*

Households & Families

Yellowknife

Family Structure

Yellowknife	1996	1991	1986
Total Families	4,455	3,730	35
Husband & Wife Families	3,850	3,270	30
Lone Male Parent Families	130	95	-
Lone Female Parent Families	480	365	-

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

Comparison of Family Structure, 1996

	Yellowknife	Northwest Territories	Canada
Total	100.0	100.0	100.0
Husband & Wife Families	86.4	83.6	85.5
Lone Male Parent Families	2.9	3.5	2.1
Lone Female Parent Families	10.8	12.8	12.2

Source: Statistics Canada, Census '96 *Prepared by: NWT Bureau of Statistics*

Dwelling & Habitation Statistics

Yellowknife	1996	1991	1986
Occupied Private Dwellings	5,760	4,935	3,860
Average Persons per Dwelling	3.0	3.0	3.0
Dwellings with 5 or More Persons	855	735	570
% With More than 5 Persons	14.8	14.9	14.8

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

Comparison of Dwelling & Habitation Statistics

	Yellowknife	Northwest Territories	Canada
Average Persons per Dwelling	3.0	3.1	2.6
% With More than 5 Persons	14.8	19.0	10.3

Source: Statistics Canada, Census Years '86-'96 *Prepared by: NWT Bureau of Statistics*

To ensure confidentiality, data from the census are independently random rounded by Statistics Canada.
As a result, all numbers from the census end in the digit 0 or 5.
In some cases, this will result in totals that are inconsistent with their sums, particularly in smaller communities.

Last Update: June 21, 1999



Labour Force Activity

Yellowknife

Labour Force Activity

	1996	1991	1986
Population 15 Yrs. & Over	12,700	11,140	8,565
Labour Force	10,845	9,730	7,485
Employed	10,155	9,235	7,105
Unemployed	690	500	380
Not in the Labour Force	1,850	1,410	1,080

Source: Statistics Canada, Census Years '86-'96 *NWT Bureau of Statistics*

Yellowknife Labour Force Rates

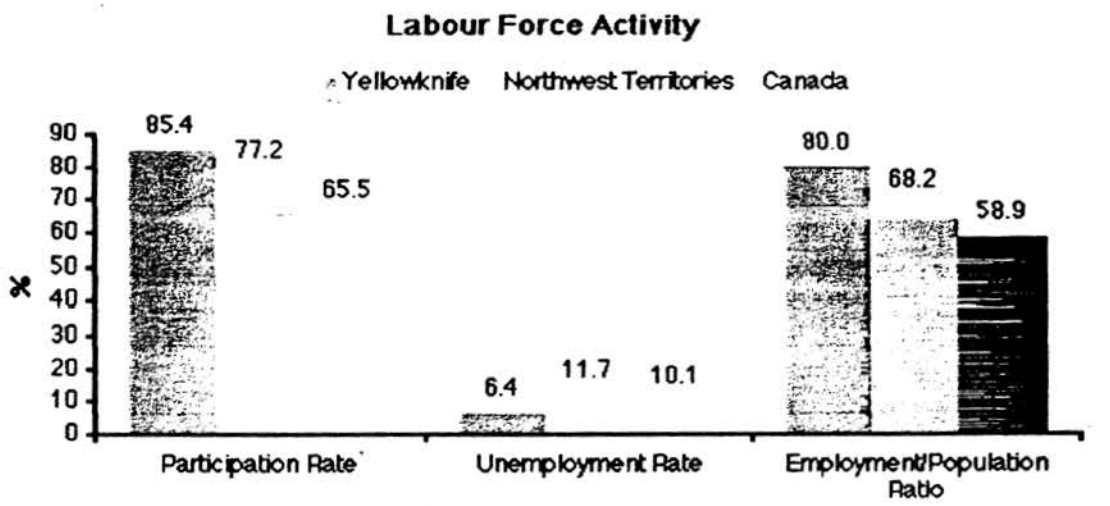
Yellowknife	1996	1994	1991	1989	1986	1984
Participation Rate (%)	85.4	87.5	87.3	87.1	87.4	83.6
Unemployment Rate (%)	6.4	6.8	5.1	4.4	5.1	5.3
Employment/Population Ratio	80.0	81.5	82.9	83.3	83.0	79.2

Sources: Statistics Canada, Census Years '86-'96
GNWT Labour Force Surveys, '84-'94
NWT Bureau of Statistics

Comparison of Labour Force Activity, 1996

	Yellowknife	Northwest Territories	Canada
Participation Rate (%)	85.4	77.2	65.5
Unemployment Rate (%)	6.4	11.7	10.1
Employment/Population Ratio (%)	80.0	68.2	58.9

Source: Statistics Canada, Census '96 *NWT Bureau of Statistics*



Source: Statistics Canada, Census '96 *NWT Bureau of Statistics*

Employment, by Industry

	1996	1991	1986
Goods Producing Industries	1,715	1,645	1,320
Retail & Wholesale Trade	1,200	1,005	800
Government, Education & Health	3,960	4,165	2,825
Other Services	3,835	2,870	2,490

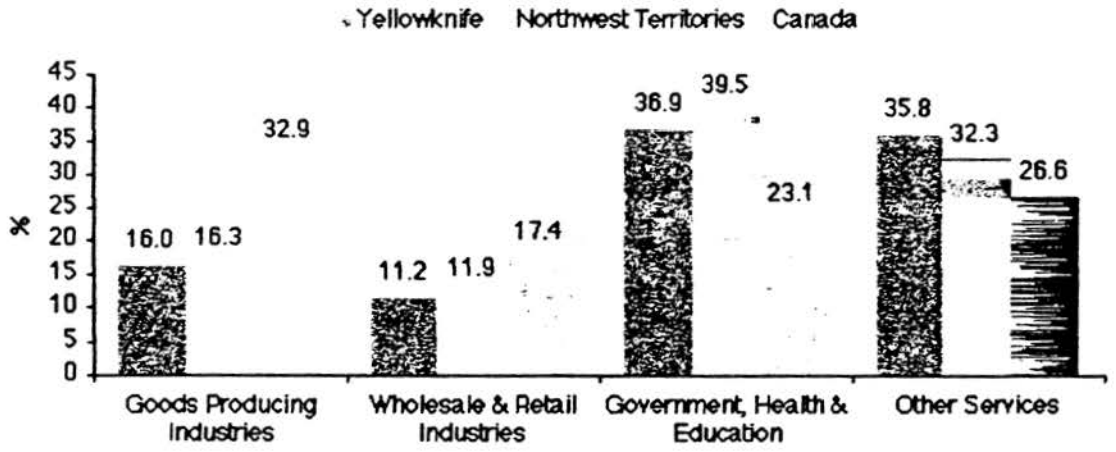
Source: Statistics Canada, Census Years '86-'96 *NWT Bureau of Statistics*

Comparison of Employment by Industry, 1996

	Yellowknife	Northwest Territories	Canada
Goods Producing Industries	16.0	16.3	32.9
Retail & Wholesale Trade	11.2	11.9	17.4
Government, Education & Health	36.9	39.5	23.1
Other Services.	35.8	32.3	26.6

Source: Statistics Canada, Census '96 *NWT Bureau of Statistics*

Employment, by Industry



Source: Statistics Canada, Census '96 *NWT Bureau of Statistics*

Involvement in Traditional Activities

Yellowknife	1993	1988
Hunted or Fished	8.4	1.5
Trapped	1.3	0.6
Arts & Crafts	3.0	1.7

Source: GNWT Labour Force Surveys, '89, '94 *NWT Bureau of Statistics*

Definition of Industry Categories

Goods Producing Industries:	*Agricultural Industries; Fishing & Trapping Industries; Logging & Forestry Industries; Mining (incl. milling); Quarrying & Oil Well Industries; Manufacturing Industries; Construction Industries.*
Wholesale & Retail Industries:	*Wholesale Trade Industries; Retail Trade Industries.*
Government, Education & Health Industries:	*Government Service Industries; Education Service Industries; Health & Social Service*

	Industries.
Other Service Industries:	*Communication and Other Utility Industries; Finance & Insurance Industries; Real Estate & Insurance Agent Industries; Business Service Industries; Accomodation; Food & Beverage Service Industries; Transportation & Storage Industries; Other Service Industries.*

To ensure confidentiality, data from the census are independently random rounded by Statistics Canada.
As a result, all numbers from the census end in the digit 0 or 5.
In some cases, this will result in totals that are inconsistent with their sums, particularly in smaller communities.

Last Update: May 20, 1999

Community Population Estimates

Northwest Territories - July 1, 2000

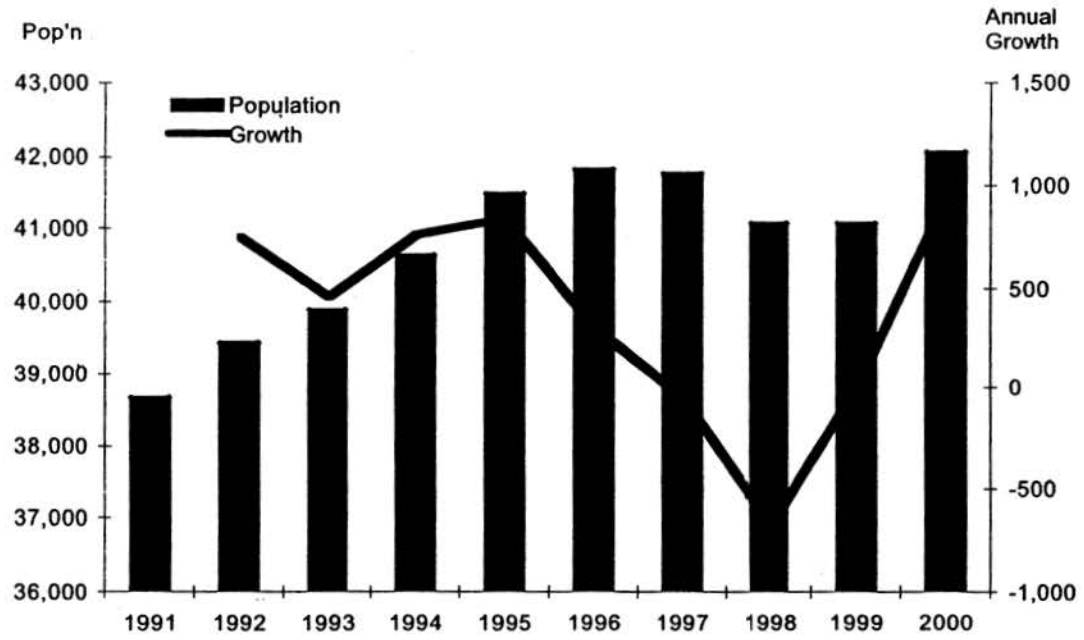
Detailed population estimates by age and sex for the Northwest Territories are produced annually by Statistics Canada. The NWT Bureau of Statistics uses these estimates, in combination with information from a variety of other sources to calculate detailed population estimates by age, sex and ethnicity for every community in the Northwest Territories. Previously released figures are revised annually to incorporate new information in the source files as well as revisions made by Statistics Canada to the territorial estimates. Information on the methodology used to develop these community population estimates can be found at the end of this document.

For further information on community population estimates and information by age, gender and ethnic group visit T-stat, the Bureau of Statistics' electronic dissemination system, at http://www.stats.gov.nt.ca.

Highlights

On July 1, 2000 the population of the Northwest Territories was 42,083 persons. The period from 1999 to 2000 represents the first significant growth in the population of the Northwest Territories over the past four years. A variety of factors including government downsizing and a slowdown in the gold mining industry resulted in population declines for the Northwest Territories during the 1996-97 and 1997-98 periods. The 1998-99 period saw the NWT population begin its recovery. Ongoing development in the diamond industry as well as oil and natural gas exploration have resulted in the population increases observed during the 1999-00 period.

Figure 1 Population & Annual Growth
Northwest Territories, 1991 – 2000



Examining the overall growth of 2.4% for the Northwest Territories during the 1999-00 period by type of community shows that the regional centers of Fort Smith, Hay River & Inuvik had the highest overall growth rate at 2.9%. The growth rate in Yellowknife is estimated at 2.6%, while the remaining smaller communities, less subject to the effects of interprovincial migration, had a growth rate of 1.6%.

Who is in the Population?

Population estimates produced by Statistics Canada and the NWT Bureau of Statistics include people in the population who are residents of the Northwest Territories and do not have a home elsewhere in Canada from which they are temporarily absent.

Therefore temporary residents such as construction crews and residents in mining camps are not included in the population estimates.

The most significant trend that continued to hold true during the 1999-00 period was the aging of the Northwest Territories population. Overall, the population 50 years of age and older grew by 5.5% during the period compared to a 1.7% growth rate for the population under 15 years of age. Since 1991 the proportion of the population 50 & older has increased from 10.5% to 15.0% of the total population. This compares to a decline from 28.7% to 27.5% for the population under 15 years of age.

Aboriginal persons as a proportion of the total population decreased slightly during the 1999-00 period to 50.7% from 50.8%. This slight decrease is a change from recent years as aboriginal persons as a proportion of the total population has been increasing steadily from 47.0% in 1991. The 1999-00 value is a direct result of the higher rates of migration among non-aboriginals, which is one of the major drivers of population growth in the Northwest Territories.

The gender ratio continued to become more balanced in the Northwest Territories as females represented 48.5% of the total population in 2000 compared with 48.3% in 1999 and 47.3% in 1991.

Table 1 Population Estimates, July 1, 1991 - 2000
Northwest Territories, by Selected Characteristics

	2000	1999	1998	1997	1996	1991
Northwest Territories	42,083	41,113	41,114	41,788	41,829	38,689
Aboriginal	21,320	20,899	20,574	20,331	20,142	18,180
Non-Aboriginal	20,763	20,214	20,540	21,457	21,687	20,509
Male	21,691	21,270	21,345	21,758	21,780	20,375
Female	20,392	19,843	19,769	20,030	20,049	18,314
0 - 4 Yrs.	3,618	3,611	3,722	3,992	4,196	4,366
5 - 9 Yrs.	4,210	4,197	4,155	4,153	4,077	3,615
10 - 14 Yrs.	3,730	3,555	3,534	3,497	3,488	3,133
15 - 19 Yrs.	3,212	3,150	3,124	3,228	3,278	3,030
20 - 29 Yrs.	6,922	6,798	6,932	7,144	7,126	8,146
30 - 39 Yrs.	7,852	7,752	7,930	8,288	8,536	7,638
40 - 49 Yrs.	6,217	6,056	5,975	6,028	5,998	4,692
50 - 59 Yrs.	3,669	3,469	3,306	3,090	2,863	2,274
60 Yrs. & Over	2,653	2,525	2,436	2,368	2,267	1,795

Table 2 Population Estimates, July 1, 1991 - 2000
Northwest Territories and Communities

	2000	1999	1998	1997	1996	1991
Northwest Territories	42,083	41,113	41,114	41,788	41,829	38,689
Inuvik Region	10,116	9,832	9,820	9,832	9,919	9,372
Aklavik	748	743	744	749	760	842
Colville Lake	96	97	95	94	89	73
Deline	645	620	628	644	649	594
Fort Good Hope	747	746	737	717	699	646
Fort McPherson	910	896	891	903	912	793
Holman	470	460	454	452	442	383
Inuvik	3,451	3,334	3,287	3,371	3,467	3,393
Norman Wells	882	806	870	832	847	669
Paulatuk	323	309	307	299	297	271
Sachs Harbour	153	150	161	153	140	132
Tsiigehtchic	195	183	171	171	168	151
Tuktoyaktuk	979	979	983	964	972	965
Tulita	506	498	481	473	468	396
Fort Smith Region	31,967	31,281	31,294	31,956	31,910	29,317
Detah	203	203	200	198	194	159
Enterprise	88	82	75	84	87	51
Fort Liard	524	515	498	529	539	517
Fort Providence	837	832	838	824	781	692
Fort Resolution	562	574	578	566	566	534
Fort Simpson	1,273	1,277	1,295	1,299	1,320	1,197
Fort Smith	2,625	2,548	2,481	2,559	2,561	2,616
Hay River	3,835	3,748	3,712	3,762	3,803	3,451
Hay River Reserve	268	268	272	268	265	231
Jean Marie River	X	53	51	52	53	X
Lutselk'e	377	371	354	338	325	304
Nahanni Butte	82	81	80	72	75	90
Rae Lakes	278	284	278	273	262	269
Rae-Edzo	1,864	1,832	1,808	1,769	1,760	1,613
Trout Lake	68	65	67	76	74	72
Wekweti	154	145	150	143	146	131
Wha Ti	476	459	449	439	434	416
Wrigley	183	181	179	183	173	196
Yellowknife	18,028	17,567	17,735	18,333	18,301	16,227

Note: Values less than 50 and unorganized areas are not reported; though they are included in regional and territorial totals.

Methodology Notes

Coverage Adjustment

The most recent census, conducted in 1996, was used to update all population estimates for the provinces and territories from 1971 to the present. After each census a series of coverage studies are conducted that are designed to determine if a person who should have been counted in the census was missed, counted once or more than once. The July 1, 1996 population estimate of 41,829 for the Northwest Territories was derived using results from the most recent coverage studies, along with other adjustments. In total these adjustments increased the census count for the Northwest Territories by 2,157 persons. These population figures are the current base from which all quarterly population estimates from July 1, 1996 to present are derived.

Territorial Population Estimates

On a quarterly basis Statistics Canada releases current population estimates for the Northwest Territories. These estimates are calculated using information on the demographic components of growth (births, deaths and migration) during the period, added to the 1996 census based population estimates. All estimates from July 1, 1996 forward are revised each quarter as data sources providing information on the various demographic components become more complete, as a result it takes approximately two years for a quarterly population figure to mature. In actuality, all quarterly population estimates between July 1, 1996 and July 1, 2001 will not become final until population estimates from the 2001 census are calculated and can be used to correct for any errors in the demographic components of growth during the period. It should be noted that the July 1, 2000 estimates are very preliminary.

Community Population Estimates

As noted, community population estimates are produced by the Bureau of Statistics based on the territorial population estimates released by Statistics Canada. Community population estimates in the Northwest Territories are also based on 1996 community census counts adjusted for undercoverage. Using information extracted from the vital statistics and health care registration files; the demographic components of growth measured by Statistics Canada for the Northwest Territories are allocated to each community. On an annual basis these figures will be revised to reflect changes in the demographic components as measured by Statistics Canada and changes in the information used to allocate the components of growth at a community level.

For more information contact:

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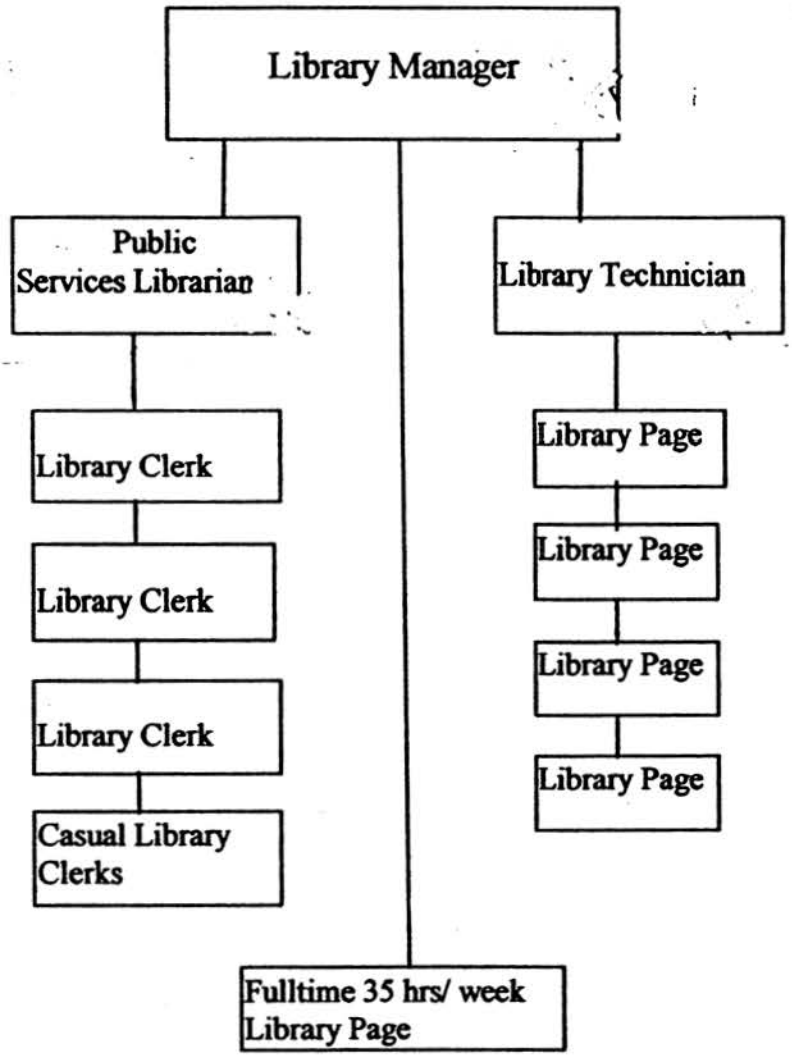
Internet: info@stats.gov.nt.ca

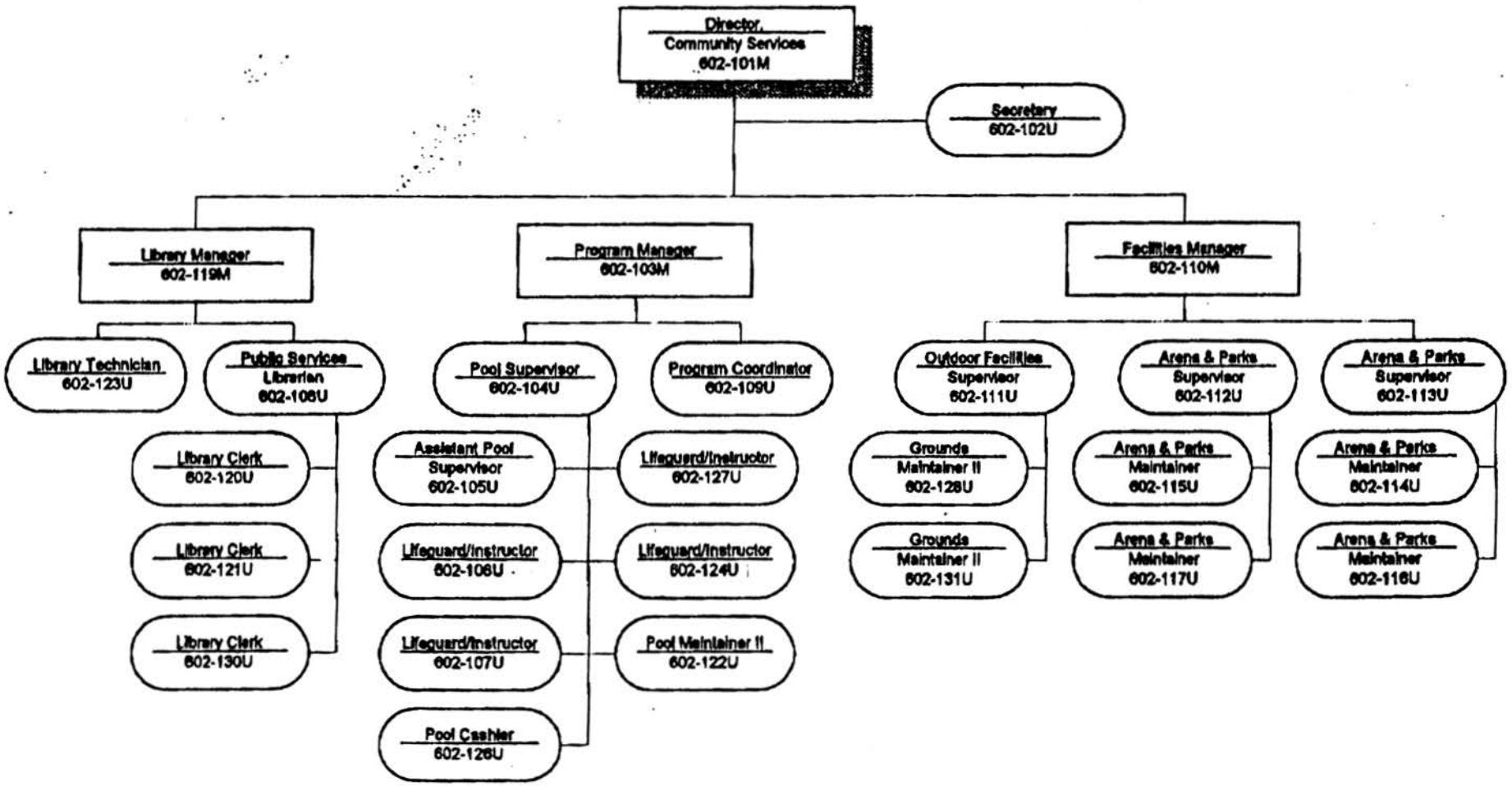
or visit our Web Site at:

http://www.stats.gov.nt.ca

Yellowknife Public Library
Organization Chart



CITY OF YELLOWKNIFE
ORGANIZATION CHART
Community Services



Revised: June 2000
Chart 6
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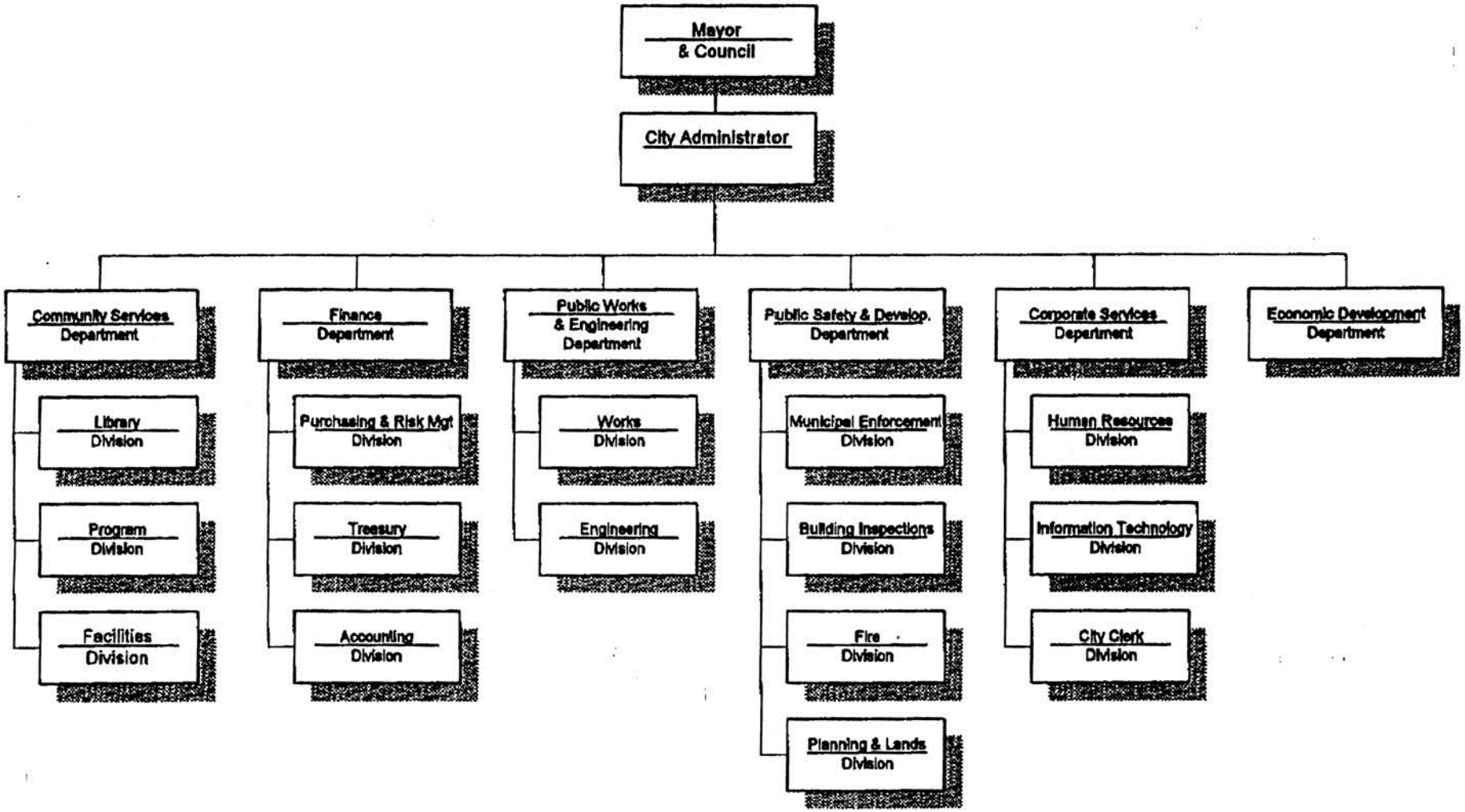
CITY OF YELLOWKNIFE
ORGANIZATION CHART



Revised: June 2000
Chart 1
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Statistics Year End 2000

Soft Cover Additions

Adult Non-Fiction	606
Adult Fiction	261
Junior Non-fiction	203
Junior Fiction	123
French	6
Easy	95
Reference	142
Northern	67
Travel	109
Professional	4

Total 1616

Hard Cover Additions

Adult Non-Fiction	318
Adult Fiction	304
Junior Non-Fiction	228
Junior Fiction	75
French	NA
Easy	242
Reference	43
Northern	10
Travel	NA
Professional	NA

Total 1220

AUDIO VISUAL MATERIAL

KITS–20 **CDS– 20** **ADULT VIDEO– 129**

AUDIO CASSETTES –2 **JUNIOR VIDEO– 14**

GRAND TOTAL --185

DONATIONS

VIDEO–23 **AUDIO– 15**

S.C.–353 **H.C.– 143**

GRAND TOTAL -- 534

DISCARDS

AUDIO– **VIDEO –**

S.C. – **H.C. –**

GRAND TOTAL --919

GRAND TOTAL : BOOKS - 3265 A/V: VIDEOS -166 KITS -20 AUDIO- 37

Statistics Year End 1999

Soft Cover Additions

Adult Non-Fiction	1081
Adult Fiction	196
Junior Non-fiction	117
Junior Fiction	57
French	105
Easy	46
Reference	175
Northern	26
Travel	110
Professional	NA

Total 1913

Hard Cover Additions

Multi	12
Adult Non-Fiction	482
Adult Fiction	270
Junior Non-Fiction	187
Junior Fiction	65
French	242
Easy	168
Reference	58
Northern	8
Travel	NA
Professional	NA

Total 1492

AUDIO VISUAL MATERIAL

KITS–21 **CDS– 66** **ADULT VIDEO– 202**

AUDIO CASSETTES –NA **JUNIOR VIDEO– 74**

GRAND TOTAL -- 363

DONATIONS

VIDEO–52 **AUDIO– 56**

S.C.–499 **H.C.– 285**

GRAND TOTAL -- 892

DISCARDS

AUDIO– 119 **VIDEO – 39**

S.C. – 1439 **H.C. – 1168**

GRAND TOTAL --2765

GRAND TOTAL : BOOKS - 4189 A/V: 471 (VIDEOS -328 KITS -21 AUDIO- 122)

Statistics Year End 1998

Soft Cover Additions	
Adult Non-Fiction	1050
Adult Fiction	318
Junior Non-fiction	136
Junior Fiction	159
French	14
Easy	51
Reference	234
Northern	58
Travel	100
Professional	NA
Total	**2120**

Hard Cover Additions	
Adult Non-Fiction	575
Adult Fiction	412
Junior Non-Fiction	157
Junior Fiction	81
French	2
Easy	132
Reference	101
Northern	14
Board	NA
Professional	NA
Total	**1474**

AUDIO VISUAL MATERIAL

KITS--43 **CDS-- 83** **VIDEO-- 282**

AUDIO CASSETTES --25

GRAND TOTAL --433

DONATIONS

VIDEO--NA **AUDIO-- 112**

S.C.--854 **H.C.-- 390**

GRAND TOTAL -- 1356

DISCARDS

AUDIO 9 **VIDEO --26**

S.C. -- 1486 **H.C. -- 990**

GRAND TOTAL --2511

Statistics Year End 1997

Soft Cover Additions	
Adult Non-Fiction	785
Adult Fiction	380
Junior Non-fiction	163
Junior Fiction	3
French	NA
Easy	17
Reference	133
Northern	8
Travel	121
Professional	NA

Total 1610

Hard Cover Additions	
Adult Non-Fiction	730
Adult Fiction	433
Junior Non-Fiction	15
Junior Fiction	136
French	NA
Easy	122
Reference	84
Northern	5
Travel	1
Professional	NA

Total 1526

AUDIO VISUAL MATERIAL

KITS--1 **CDS-- 20** **VIDEO-- 281**

AUDIO CASSETTES --27

GRAND TOTAL --329

DONATIONS

VIDEO--11 **AUDIO-- 2**

S.C.--93 **H.C.-- 73**

GRAND TOTAL -- 179

DISCARDS

AUDIO-- 33 **VIDEO --25**

S.C. -- 523 **H.C. -- 225**

GRAND TOTAL --806

Circulation Statistics Sorted by General Location of Transaction - Standard

[redacted]: ykl

Locat.		Loans	Renew.	Check-in	Paid fines(qty-tot)		On-site	Transac.
FNL	JVID	1	0	1	0	$0.00	0	2
HQL	AF	4	1	4	2	$2.00	0	11
HQL	ANF	3	0	3	2	$2.80	0	8
HQL	AVID	6	0	6	6	$1.80	0	18
HQL	JKIT	1	0	1	0	$0.00	0	2
HRL	AF	0	0	0	1	$5.00	0	1
HRL	ANF	3	0	3	1	$0.80	0	7
HRL	ATAL	0	2	1	7	$9.60	0	10
INL	AF	0	0	0	5	$15.75	0	5
INL	AMUS	0	0	0	1	$10.00	0	1
INL	ANF	1	0	1	1	$0.25	0	3
INL	AVID	0	0	0	3	$22.00	0	3
INL	EAS	0	0	0	8	$9.95	0	8
INL	JF	0	0	0	3	$16.50	0	3
INL	JNF	0	0	0	2	$11.10	0	2
INL	JVID	0	0	0	4	$4.00	0	4
INL	NOC	0	0	0	1	$0.25	0	1
IQL	ANF	1	0	0	0	$0.00	0	1
JTL	JF	15	0	14	0	$0.00	0	29
MKL	AF	1	0	1	0	$0.00	0	2
MKL	EAS	0	0	0	1	$5.00	0	1
MKL	JKIT	2	0	0	0	$0.00	0	2
QML	JF	0	0	1	1	$5.00	0	2
YKL		683	40	706	280	$385.40	0	1709
YKL	AF	16868	1774	16783	2902	$3,442.60	0	38327
YKL	AKIT	36	8	37	23	$24.10	0	104
YKL	AMUS	1375	94	1351	193	$220.70	0	3013
YKL	ANF	18812	2995	18974	4796	$6,761.60	0	45577
YKL	APBK	158	20	163	42	$66.20	0	383
YKL	ATAL	1261	81	1282	194	$249.50	0	2818
YKL	AVID	8718	34	8714	1094	$4,285.00	0	18560
YKL	EAS	14875	493	14827	1759	$2,130.50	0	31954
YKL	JF	4742	417	4765	901	$1,215.70	0	10825
YKL	JKIT	13	0	13	2	$5.20	0	28
YKL	JMUS	13	4	13	2	$0.90	0	32
YKL	JNF	5128	423	5094	983	$1,432.40	0	11628
YKL	JPBK	273	17	279	53	$80.00	0	622
YKL	JTAL	191	14	202	36	$38.40	0	443
YKL	JVID	6020	10	6009	895	$3,070.00	0	12934
YKL	MULTI	64	2	65	10	$23.40	0	141

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: ykl
From: 2000-01-01 To: 2000-12-31

Locat.	Loans	Renew.	Check-in	Paid fines(qty-tot)		On-site	Transac.
YKL NOC	16	1	14	1	$5.00	0	32
YKL PROF	6	3	6	0	$0.00	0	15
YKL REF	15	10	15	8	$12.20	0	48
YKL TPBK	1724	251	1711	364	$390.20	0	4050
YKL YAF	94	14	101	31	$74.40	0	240
YKL YPBK	11	2	11	3	$8.50	0	27
Total:	81134	6710	81171	14621	$24,043.70	0	183636

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: YKL
From: 1999-01-01 To: 1999-12-31

Locat.		Loans	Renew.	Check-in	Paid fines(qty-tot)		On-site	Transac.
BRL	JNF	1	0	1	0	$0.00	0	2
FNL	JNF	1	0	1	0	$0.00	0	2
HQL	AF	1	0	1	0	$0.00	0	2
HQL	ANF	3	0	2	1	$0.30	0	6
HQL	AVID	0	0	1	0	$0.00	0	1
HQL	EAS	1	0	1	0	$0.00	0	2
HQL	JF	2	0	1	0	$0.00	0	3
HRL	AF	1	1	2	1	$2.40	0	5
HRL	ANF	0	0	1	2	$7.80	0	3
HRL	ATAL	0	0	0	0	$0.00	0	0
HRL	JF	1	0	1	1	$0.40	0	3
INL	AF	4	2	6	7	$6.85	0	19
INL	AMUS	0	0	0	1	$0.75	0	1
INL	ANF	1	0	4	15	$69.05	0	20
INL	AVID	0	0	1	8	$34.00	0	9
INL	EAS	1	0	2	6	$35.00	0	9
INL	JF	0	0	0	0	$0.00	0	0
INL	JNF	0	0	0	1	$0.10	0	1
INL	NOC	0	0	0	1	$0.75	0	1
IQL	JVID	1	0	1	1	$5.00	0	3
JAL	ANF	1	0	1	0	$0.00	0	2
JTL	ANF	1	0	1	0	$0.00	0	2
JTL	JF	26	1	26	0	$0.00	0	53
KRL	ANF	1	0	1	0	$0.00	0	2
MKL	AF	0	2	2	1	$1.20	0	5
MKL	ANF	1	0	1	0	$0.00	0	2
NWL2		1	1	1	1	$0.20	0	4
YKL		922	105	976	409	$433.40	0	2412
YKL	AF	19120	1958	19269	3399	$3,529.30	1	43747
YKL	AKIT	37	8	35	16	$14.20	0	96
YKL	AMUS	1779	69	1794	206	$234.80	0	3848
YKL	ANF	22654	3415	23132	5970	$7,192.70	0	55171
YKL	APBK	162	16	160	19	$24.50	0	357
YKL	ATAL	1460	79	1463	201	$241.10	0	3203
YKL	AVID	11527	91	11545	1360	$4,987.00	0	24523
YKL	EAS	16149	355	16150	1696	$1,845.50	0	34350
YKL	JF	4880	486	4915	1026	$1,351.40	0	11307
YKL	JKIT	14	0	14	5	$3.90	0	33
YKL	JMUS	24	2	25	5	$9.80	0	56
YKL	JNF	5936	464	6089	1239	$1,657.70	0	13728

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: YKL
From: 1999-01-01 To: 1999-12-31

Locat.	Loans	Renew.	Check-in	Paid fines(qty-tot)		On-site	Transac.
YKL JPBK	375	31	385	78	$73.10	0	869
YKL JTAL	317	11	313	51	$63.10	0	692
YKL JVID	7363	30	7421	1086	$3,457.00	0	15900
YKL MULTI	78	2	90	5	$8.20	0	175
YKL NOC	23	4	25	3	$8.40	0	55
YKL PROF	2	0	2	0	$0.00	0	4
YKL REF	39	8	40	14	$15.80	0	101
YKL TPBK	1525	213	1550	374	$366.30	0	3662
YKL YAF	150	29	157	34	$69.50	0	370
YKL YANF	1	0	1	0	$0.00	0	2
YKL YPBK	7	0	10	1	$0.70	0	18
Total:	94593	7383	95620	17244	$25,751.20	1	214841

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: ykl [redacted]

Locat.		Loans	Renew.	Check-in	Paid fines (qty-tot)		On-site	Transac.
BRL	ANF	0	0	1	1	$5.00	0	2
HQL		0	0	1	2	$5.10	0	3
HQL	AF	2	0	2	0	$0.00	0	4
HQL	EAS	1	0	1	0	$0.00	0	2
HQL	JNF	2	0	2	2	$2.80	0	6
HRL		2	0	2	0	$0.00	0	4
HRL	ANF	2	0	2	2	$6.20	0	6
HRL	EAS	0	0	1	1	$4.10	0	2
INL	AF	0	0	0	0	$0.00	0	0
INL	ANF	0	3	0	1	$0.40	0	4
INL	AVID	0	1	0	0	$0.00	0	1
INL	EAS	1	0	0	0	$0.00	0	1
INL	JVID	0	0	0	0	$0.00	0	0
IQL	ANF	1	0	1	0	$0.00	0	2
JAL	ANF	2	0	2	0	$0.00	0	4
JAL	JNF	1	0	1	0	$0.00	0	2
JTL	JF	10	0	10	0	$0.00	0	20
MKL	AF	2	2	4	0	$0.00	0	8
MKL	ANF	0	0	0	1	$1.00	0	1
MKL	JNF	0	0	0	1	$5.00	0	1
QML	JF	1	0	0	0	$0.00	0	1
YKL		1202	138	1218	396	$418.40	0	2954
YKL	AF	19648	2089	19619	2773	$3,204.50	0	44129
YKL	AKIT	31	16	31	12	$12.60	0	90
YKL	AMUS	1677	76	1653	155	$192.40	0	3561
YKL	ANF	24953	3484	24902	5043	$6,777.50	0	58382
YKL	APBK	199	30	199	45	$63.40	0	473
YKL	ATAL	1252	82	1260	131	$152.70	0	2725
YKL	AVID	10952	69	10914	1067	$4,497.00	0	23002
YKL	EAS	15803	565	15868	1397	$1,513.20	0	33633
YKL	JF	4810	552	4773	798	$1,164.00	0	10933
YKL	JKIT	12	1	13	4	$12.00	0	30
YKL	JMUS	15	2	14	1	$4.10	0	32
YKL	JNF	6588	534	6533	1142	$1,598.50	0	14797
YKL	JPBK	382	34	377	69	$98.50	0	862
YKL	JTAL	275	16	276	29	$22.60	0	596
YKL	JVID	9166	24	9145	1003	$3,341.00	0	19338
YKL	MULTI	89	4	77	5	$10.60	0	175
YKL	NOC	23	1	27	2	$0.30	0	53
YKL	PROF	5	1	5	2	$0.40	0	13

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: ykl
From: 1998-01-01 To: 1998-12-31

Locat.	Loans	Renew.	Check-in	Paid fines(qty-tot)		On-site	Transac.
YKL REF	34	2	30	6	$7.10	0	72
YKL TPBK	1642	337	1656	270	$316.20	0	3905
YKL YAF	181	29	168	26	$42.30	0	404
YKL YANF	1	0	1	0	$0.00	0	2
YKL YPBK	18	4	18	4	$7.50	0	44
Total:	98985	8096	98807	14391	$23,486.40	0	220279

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: ykl [redacted]

Locat.		Loans	Renew.	Check-in	Paid fines (qty-tot)		On-site	Transac.
BRL	AF	1	0	1	0	$0.00	0	2
BRL	ANF	4	0	2	1	$2.40	0	7
BRL	JTAL	1	0	1	0	$0.00	0	2
CBL		1	0	1	0	$0.00	0	2
CPL	AF	1	0	1	0	$0.00	0	2
CPL	ANF	1	0	1	0	$0.00	0	2
HQL		2	1	1	1	$2.10	0	5
HQL	AF	3	0	3	1	$0.40	0	7
HQL	AMUS	0	0	1	0	$0.00	0	1
HQL	ANF	1	0	2	2	$7.90	0	5
HQL	AVID	3	0	2	0	$0.00	0	5
HQL	JF	1	0	1	0	$0.00	0	2
HQL	JNF	1	0	1	0	$0.00	0	2
HQL	JTAL	1	0	1	0	$0.00	0	2
HRL		0	0	0	1	$5.00	0	1
HRL	AF	4	0	4	3	$6.90	0	11
HRL	ANF	26	0	26	0	$0.00	0	52
HRL	ATAL	1	0	1	1	$3.70	0	3
HRL	EAS	1	0	0	4	$14.80	0	5
HRL	JF	1	0	1	2	$7.30	0	4
HRL	JNF	0	4	2	1	$5.00	0	7
INL		0	0	1	1	$4.50	0	2
INL	AF	0	1	1	0	$0.00	0	2
INL	ANF	0	0	0	3	$8.25	0	3
INL	AVID	4	0	4	0	$0.00	0	8
INL	EAS	4	0	4	0	$0.00	0	8
INL	JNF	1	0	1	0	$0.00	0	2
INL	JVID	0	0	0	1	$2.00	0	1
IQL	AF	1	0	1	1	$2.20	0	3
JTL2		1	0	1	0	$0.00	0	2
KRL	AVID	0	0	0	1	$0.10	0	1
KRL	JNF	1	0	1	1	$1.20	0	3
MKL	ANF	2	0	2	0	$0.00	0	4
MKL	EAS	1	1	2	2	$2.70	0	6
MKL	JF	1	0	1	0	$0.00	0	2
NWL	JNF	1	0	1	0	$0.00	0	2
YKL		1740	171	1777	676	$815.30	0	4364
YKL	AF	22337	2134	22320	3228	$3,617.35	0	50019
YKL	AKIT	16	3	13	6	$3.60	0	38
YKL	AMUS	1290	66	1293	199	$245.90	0	2848

Circulation Statistics Sorted by General Location of Transaction - Standard

General location of transaction: ykl
From: 1997-01-01 To: 1997-12-31

Locat.	Loans	Renew.	Check-in	Paid fines(qty-tot)		On-site	Transac.
YKL ANF	28106	3756	28040	6037	$8,426.15	0	65939
YKL APBK	246	20	244	50	$70.30	0	560
YKL ATAL	1107	67	1103	147	$203.05	0	2424
YKL AVID	12695	57	12702	1280	$5,345.00	0	26734
YKL EAS	19351	769	19439	1905	$2,296.90	0	41464
YKL JF	6144	624	6179	994	$1,379.70	0	13941
YKL JKIT	4	0	4	3	$6.50	0	11
YKL JMUS	13	1	13	2	$1.30	0	29
YKL JNF	8039	871	8012	1533	$1,894.80	0	18455
YKL JPBK	539	58	553	97	$165.80	0	1247
YKL JTAL	310	33	325	85	$117.30	0	753
YKL JVID	11784	30	11808	1152	$3,905.00	0	24774
YKL MULTI	183	11	171	17	$12.70	0	382
YKL NOC	40	4	34	3	$6.90	0	81
YKL PROF	3	8	4	8	$14.50	0	23
YKL REF	53	7	59	7	$12.20	0	126
YKL TPBK	1854	172	1814	312	$352.80	0	4152
YKL YAF	390	49	390	96	$156.70	0	925
YKL YANF	2	1	2	0	$0.00	0	5
YKL YPBK	44	0	41	5	$18.80	0	90
Total:	116361	8919	116413	17869	$29,145.00	0	259562

SUNCORP VALUATIONS LTD.

SUNCORP VALUATIONS LTD.
(COST ANALYSIS)

BUILDING: LIBRARY
LOCATION: CITY OF YELLOWKNIFE
YELLOWKNIFE, NWT

APP: 061-002

Effective Date	Aug-99
Cost Sq. Ft.	42.1
Cost Sq. Meter	453.2

DATE BUILT: 1990
SIZE: 21746 SF OR 2020.52
ROOMS: LIBRARY, CONFERENCE ROOMS, OFFICES & WORKROOM
CLASSIFICATION: F
CONSTRUCTION: THIS APPRAISAL COVERS THE COST OF THE LEASHOLD IMPROVEMENTS ASSOCIATED WITH THE LIBRARY SPACE.

EXCLUSIONS:

DESCRIPTION	CRN	CRNLD
EXCAVATION & BACKFILL	-	-
CONCRETE FOOTINGS OR PILES	-	-
CONCRETE GRADE BEAMS BELOW GR.	-	-
REINFORCING STEEL	-	-
INDIRECT CONSTRUCTION COSTS	-	-
ARCHITECT FEES	-	-
TOTAL EXCLUSIONS	0	0

NOTE: We recommend that your insurance broker be consulted to determine if these insurance exclusions apply to your specific policy coverage.

INSURABLES:

CONCRETE FOUNDATIONS	-	-
CONCRETE WALLS	-	-
CONCRETE SLABS	-	-
REINFORCING STEEL	-	-
STRUCTURAL AND MISCELL. STEEL	-	-
CARPENTRY AND LUMBER	915,567	686,675
MILLWORK & HARDWARE	-	-
MASONRY AND GLASS BLOCK	-	-
METAL DOORS AND WINDOWS	-	-
FLOOR FINISHES	-	-
TERRAZZO AND CERAMIC TILES	-	-
ACOUSTIC TILE AND PLASTER	-	-
PLASTER AND STUCCO	-	-
PAINTING AND GLAZING	-	-
ROOFING AND SHEET METAL	-	-
FIRE PROTECTION	-	-
ELEVATOR	-	-
SITE IMPROVEMENTS	-	-
PLUMBING AND FIXTURES	-	-
SEWERAGE AND DRAINAGE	-	-
H.V.A.C.	-	-
WIRING AND FIXTURES	-	-
INDIRECT CONSTRUCTION COSTS	-	-
ARCHITECT OR ENG FEES	0	0
TOTAL INSURABLES	915,567	686,675
TOTAL EXCLUSIONS	0	0

SUMMARY:

TOTAL VALUATION	915,567	686,675

CITY OF YELLOWKNIFE
INVENTORY OF SPECIFIED MACHINERY AND EQUIPMENT
AUGUST 1999

cost replaced new

BUILDING	RM#	ROOM NAME	QTY	DESCRIPTION	MANUFACTURE	MODEL	SERIAL #	CRN	CRNLD
061-002				LIBRARY - YELLOWKNIFE, NWT				-	
061-002		CHECK OUT DESK	2	CHAIR, STENO ARM				400	
061-002		CHECK OUT DESK	1	TERMINAL, COMPUTER KEYBOARD	LINR	MC5		1,375	
061-002		CHECK OUT DESK	2	BARCODE READER, PEN C/W SOFTWARE AND ACCESS	INTERMEC	9510		1,799	
061-002		CHECK OUT DESK	1	BOX, MOBILE BOOK DROP				344	
061-002		CHECK OUT DESK	1	PRINTER	EPSON	LQ570+		613	
061-002		CHECK OUT DESK	1	HAND, SIDE				88	
061-002		CHECK OUT DESK	1	BOOKCASE, 4'X16' DOUBLE LIBRARY				975	
061-002		CHECK OUT DESK	1	TERMINAL, COMPUTER KEYBOARD	LINK	MCT		1,375	
061-002		CHECK OUT DESK	1	CABINET, 2 DRAWER METAL FILE				266	
061-002		CHECK OUT DESK	1	TYPEWRITER, PORTABLE, ELECTRONIC	SMITH CORONA	DLX100		563	
061-002		CHECK OUT DESK	2	CABINET, 24"-2 DRAWER METAL, CASSETTE				200	
061-002		CHECK OUT DESK	1	CABINET, METAL CD DISK		42"-3 DRAWER		131	
061-002		CHECK OUT DESK	1	BOOK SECURITY GATE SYSTEM C/W DESEVITIZER SYSTEM AND ACCESSORIES	ID SYSTEM			11,875	
061-002		CHECK OUT DESK	1	STOOL, KIK STEP				50	
061-002		CHECK OUT DESK	2	BOOK TRUCK, METAL				625	
061-002		CHECK OUT DESK	2	TABLE, TRAP				225	
061-002		CHECK OUT DESK	1	TABLE		30X60"		200	
061-002		CHECK OUT DESK	1	CHAIR, UPHOLSTERED STACKING SIDE				44	
061-002		CHECK OUT DESK	1	TABLE, SMALL TRAP				113	
061-002		CHECK OUT DESK	1	PLAQUE, BRONZE COMMEMORATIVE - ALLOWANCE				625	
061-002		CHECK OUT DESK	1	LOT OF MISC. EQUIPMENT & SUPPLIES				563	
061-002		CHECK OUT DESK	1	NOTE: THE LIBRARY CHANGE DESK HAS BEEN CONSIDERED AS PART OF THE LEASEHOLD IMPROVEMENTS				-	
061-002		LIBRARY	3	BOOK TRUCK, METAL				938	
061-002		LIBRARY	1	REFERENCE BOOK METAL - ALLOWANCE	ARCTIC BIBLIOGRAPHY	14UD1		1,313	
061-002		LIBRARY	5	TABLE, DOUBLE PEDESTAL, LIBRARY		30X60"		1,875	
061-002		LIBRARY	17	CHAIR, UPHOLSTERED, LIBRARY ARM				3,400	
061-002		LIBRARY	2	EXTINGUISHER, WATER PUMP				75	
061-002		LIBRARY	1	SHELF, 108" - 7 TIER METAL WELL LIBRARY				625	
061-002		LIBRARY	2	SHELF, 108" - 7 TIER DOUBLE METAL LIBRARY				2,363	
061-002		LIBRARY	1	EXTINGUISHER, DRY CHEMICAL 2.5LB		2.5 LB.		38	
061-002		LIBRARY	14	STUDY CARREL, SINGLE LIBRARY C/W ELECTRICAL OUTLET				5,688	
061-002		LIBRARY	15	CHAIR, UPHOLSTERED, LIBRARY ARM				3,000	

CITY OF YELLOWKNIFE
INVENTORY OF SPECIFIED MACHINERY AND EQUIPMENT
AUGUST 1999

BUILDING	RM#	ROOM NAME	QTY	DESCRIPTION	MANUFACTURE	MODEL	SERIAL #	CRN	CRNLO
061-002		LIBRARY	2	TABLE, END, LIBRARY				263	
061-002		LIBRARY	8	SHELF, 36" - 5 TIER METAL PERIODICAL				2,250	
061-002		LIBRARY	1	STAND, MOBILE MAGAZINE		42X48"		250	
061-002		LIBRARY	4	STOOL, KIK STEP				200	
061-002		LIBRARY	1	SHELF, 36" - 7 TIER METAL WALL LIBRARY				2,205	
061-002		LIBRARY	7	SHELF, 15' - 7 TIER DOUBLE METAL LIBRARY				13,755	
061-002		LIBRARY	2	SHELF, 12' - 7 TIER DOUBLE METAL LIBRARY				3,150	
061-002		LIBRARY	4	CHAIR, UPHOLSTERED STACKING SIDE				175	
061-002		LIBRARY	5	SHELF, - 108" - 5 TIER DOUBLE METAL LIBRARY				3,938	
061-002		LIBRARY	1	SHELF, 36" - 5 TIER METAL LIBRARY				281	
061-002		LIBRARY	1	SHELF, 108" - 5 TIER METAL LIBRARY				788	
061-002		LIBRARY	4	STAND, 6 UNIT REVOLVING TOWER PAPERBACK BOOK				1,250	
061-002		LIBRARY	1	SHELF, 18" - 5 TIER METAL WALL LIBRARY				1,575	
061-002		LIBRARY	1	SHELF, 15' - 5 TIER DOUBLE METAL LIBRARY				1,406	
061-002		LIBRARY	1	SHELF, 36" - 5 TIER DOUBLE METAL LIBRARY				281	
061-002		LIBRARY	2	SHELF, 12' - 5 TIER DOUBLE METAL LIBRARY				2,250	
061-002		LIBRARY	2	SHELF, 15' - 5 TIER METAL WALL LIBRARY				2,663	
061-002		LIBRARY	2	SHELF, 15' - 7 TIER DOUBLE METAL LIBRARY				3,930	
061-002		LIBRARY	1	SHELF, 72" - 7 TIER DOUBLE METAL LIBRARY				788	
061-002		LIBRARY	2	SHELF, 36" - 7 TIER DOUBLE METAL LIBRARY				788	
061-002		LIBRARY	2	SHELF, 108" - 7 TIER DOUBLE METAL LIBRARY				2,363	
061-002		LIBRARY	3	STAND, 4 UNIT REVOLVING TOWER PAPERBACK BOOK				638	
061-002		LIBRARY	1	STAND, 36X54" HORIZONTAL CD DISK DISPLAY				300	
061-002		LIBRARY	1	STAND, SINGLE REVOLVING TOWER, CASSETTE DISPLAY				199	
061-002		LIBRARY	3	STAND, 42X66" PAPERBACK REFERENCE BOOK				2,863	
061-002		LIBRARY	2	STAND, AUDIO BOOK		48X60"		800	
061-002		LIBRARY	1	STAND, AUDIO BOOK		24X60"		225	
061-002		LIBRARY	1	STAND, BOOK TABLE DISPLAY C/W CENTRE TACKBOARD		24X42"		150	
061-002		LIBRARY	1	BOOKCASE, WALL MOUNT LIBRARY		30X72"		206	
061-002		LIBRARY	1	TABLE, MOBILE VIDEO DISPLAY		24X72"		625	
061-002		LIBRARY	16	CHAIR, UPHOLSTERED STACKING SIDE				656	
061-002		LIBRARY	2	CHAIR, UPHOLSTERED LIBRARY ARM				400	

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061-002		LIBRARY	1	TABLE, READING C/W CENTRE SHELF		48X96"		1,375	
061-002		LIBRARY	2	CABINET, 4 DRAWER METAL FILE				713	
061-002		LIBRARY	1	CABINET, 5 DRAWER LATERAL FILE				715	
061-002		LIBRARY	4	TABLE, LIBRARY COMPUTER TRAP		42X96"		2,200	
061-002		LIBRARY	1	PRINTER, LASER	APPLE	LASERWRITER M0156	A6320UZ	1,740	
061-002		LIBRARY	1	COMPUTER SYSTEM, MONITOR ACCESS	APPLE, NXTEC	486	60302707	2,288	
061-002		LIBRARY	1	EXTINGUISHER, WATER PUMP				38	
061-002		LIBRARY	1	PRINTER, INK JET	CANON	BJC240	17102	233	
061-002		LIBRARY	1	TABLE, LOW LEG, 6 SIDED		48"		250	
061-002		LIBRARY	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM		P5-133		1,870	
061-002		LIBRARY	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM		P-133		1,870	
061-002		LIBRARY	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM	VTECH	PLATINUM	36309	1,870	
061-002		LIBRARY	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM		P5-133		1,870	
061-002		LIBRARY	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM	IBM	350-P100		1,870	
061-002		LIBRARY	1	DESK, SMALL MOBILE COMPUTER				171	
061-002		LIBRARY	1	PHOTOCOPIER C/W COIN OPERATION UNIT	XEROX	BOOKMARK 35		27,800	
061-002		LIBRARY	3	BOOKCASE, LIBRARY		36X48"		900	
061-002		LIBRARY	1	REFERENCE BOOK JET	CANADIAN INDEX			1,595	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	WORLD BOOK	22 VOLUMES		1,845	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	ACADEMIC AMERICAN	21 VOLUMES		1,000	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	BRITANNIA	30 VOLUMES		2,250	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	JUDAICA	16 VOLUMES		938	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	MCGRAW HILL	20 VOLUMES		688	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	SCIENCE & TECHNOLOGY	15 VOLUMES		525	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	POPULAR SCIENCE	8 VOLUMES		438	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	AMERICANNA	28 VOLUMES		1,313	
061-002		LIBRARY	2	ENCYCLOPEDIA SET	CANADIANNA	4 VOLUMES		450	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	NEW BOOK	21 VOLUMES		938	
061-002		LIBRARY	1	DICTIONARY SET	WORLD BOOK	2 VOLUMES		313	
061-002		LIBRARY	1	REFERENCE BOOK NET	THOMAS REGISTER			1,500	
061-002		LIBRARY	1	DICTIONARY SET	OXFORD ENGLISH	20 VOLUMES		688	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	COLLECTIBLES	16 VOLUMES		688	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	WORLD BOOK	22 VOLUMES		1,063	
061-002		LIBRARY	360	BOOK, COMPUTER REFERENCE				10,500	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	CHILDCRAFT	15 VOLUMES		406	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	JUNIOR	5 VOLUMES		288	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	PEOPLE AND PLACES	6 VOLUMES		250	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	LANDS AND PEOPLE	6 VOLUMES		463	
061-002		LIBRARY	1	ENCYCLOPEDIA SET	HORIZON CANADA	8 VOLUMES		438	
061-002		LIBRARY	1,500	BOOK, REFERENCE				97,500	

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061-002		LIBRARY	100	SHELVING, LINEAR FEET OF ADJACENT LIBRARY				1,750	
061-002		LIBRARY	1	LOT OF MISC. INFORMATION SIGNS - ALLOWANCE				2,500	
061-002		LIBRARY	6,500	BOOK, INTERMEDIATE LIBRARY				212,500	
061-002		LIBRARY	5,000	BOOK, PAPERBACK				35,000	
061-002		LIBRARY	21,000	BOOK, LIBRARY				630,000	
061-002		LIBRARY	2,000	BOOK, NORTHERN LIBRARY				80,000	
061-002		LIBRARY	8,100	BOOK, LIBRARY				324,000	
061-002		LIBRARY	1,200	BOOK, ASIAN LIBRARY				48,000	
061-002		LIBRARY	1,500	BOOK, FRENCH LIBRARY				56,000	
061-002		LIBRARY	1,200	BOOK, FRENCH EASY READER				24,000	
061-002		LIBRARY	2,600	TAPE, PROGRAMMED VIDEO				78,000	
061-002		LIBRARY	950	TAPE, CASSETTE				14,250	
061-002		LIBRARY	465	DISK, CD STEREO				9,300	
061-002		LIBRARY	200	AUDIO BOOK				5,000	
061-002		LIBRARY	1	LOTS OF PERIODICALS - ALLOWANCE				24,000	
061-002		CHILDREN LIBRARY	2	STAND, 6 UNIT, REVOLVING TOWER VIDEO TAPE				626	
061-002		CHILDREN LIBRARY	1,200	TAPE, PROGRAMMED VIDEO				36,000	
061-002		CHILDREN LIBRARY	4	CHAIR, UPHOLSTERED STACKING SIDE				260	
061-002		CHILDREN LIBRARY	2	TABLE, SMALL 24" LOW LEG CHILD C/W 3 CHAIRS				626	
061-002		CHILDREN LIBRARY	1	TABLE, LOW LEG CHILD C/W 4 CHAIRS		24X48"		225	
061-002		CHILDREN LIBRARY	1	BOOKCASE, LIBRARY C/W SLOPED TOP		30X72"		378	
061-002		CHILDREN LIBRARY	2	BOOKCASE, DOUBLE LIBRARY C/W SLOPED TOP		30X72"		756	
061-002		CHILDREN LIBRARY	2	STAND, 24" - 3 TIER CHROME REVOLVING POCKET BOOK				626	
061-002		CHILDREN LIBRARY	250	AUDIO BOOK, CHILD				8,000	
061-002		CHILDREN LIBRARY	2	BOOKCASE, 144" - 4 TIER LIBRARY C/W SLOPED TOP				1,300	
061-002		CHILDREN LIBRARY	2	BOOKCASE, 144" - 2 TIER LIBRARY C/W SLOPED TOP				600	
061-002		CHILDREN LIBRARY	1	TABLE, LOW LEG 4 PLACE CHILD READING		48"		250	
061-002		CHILDREN LIBRARY	4	CHAIR, SMALL PLASTIC CHILD REVOLVING				356	
061-002		CHILDREN LIBRARY	60	TAPE, CASSETTE				1,125	
061-002		CHILDREN LIBRARY	1	BOOKCASE, 36" - 2 TIER DOUBLE LIBRARY C/W SLOPED TOP				75	
061-002		CHILDREN LIBRARY	5,000	BOOK, CHILDREN LIBRARY				85,000	
061-002		CENTRAL BOOK CHECKOUT	1	DESK, CENTRAL LIBRARY, CHARGE - PART OF TENANT IMPROVEMENTS				-	
061-002		CENTRAL BOOK CHECKOUT	1	CHAIR, STENO ARM				200	
061-002		CENTRAL BOOK CHECKOUT	2	CHAIR, UPHOLSTERED STACKING SIDE				125	
061-002		CENTRAL BOOK CHECKOUT	1	BARCODE READER, PEN C/W ACCESSORIES	INTERMEC	9510		875	
061-002		CENTRAL BOOK CHECKOUT	3	TERMINAL, COMPUTER	LINK	MC6		3,300	

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061-002		CENTRAL BOOK CHECKOUT	3	TABLE, CORNER COMPUTER		42"		600	
061-002		CENTRAL BOOK CHECKOUT	1	COMPUTER SYSTEM, C/W MONITOR AND CD ROM	GATEWAY 2000	40X2-66	3799377	1,870	
061-002		CENTRAL BOOK CHECKOUT	1	LAN UNIT, RADIO WAVE	RADIO LAN			500	
061-002		CENTRAL BOOK CHECKOUT	1	PRINTER, INK JET	EPSON	COLOR 640		599	
061-002		CENTRAL BOOK CHECKOUT	1	PRINTER, INK JET	CANON	BJC4100	X91517	475	
061-002		CENTRAL BOOK CHECKOUT	1	MICROFICHE READER, PRINTER C/W ACCESSORIES	MINOLTA	RP8052		20,000	
061-002		CENTRAL BOOK CHECKOUT	1	CABINET, 24" - 6 DRAWER METAL MICROFILM				263	
061-002		CENTRAL BOOK CHECKOUT	250	MICROFILM				10,000	
061-002		CENTRAL BOOK CHECKOUT	1	MICROFILM SET, PRINCE OF WALES HERITAGE CENTRE				1,500	
061-002		CENTRAL BOOK CHECKOUT	90	SHELVING, LINEAR FEET OF ADJACENT METAL LIBRARY				1,375	
061-002		CENTRAL BOOK CHECKOUT	1	ENCYCLOPEDIA SET	WORLD BOOK	22 VOLUMES		1,063	
061-002		CENTRAL BOOK CHECKOUT	1	ENCYCLOPEDIA SET	CHAMBERS	15 VOLUMES		583	
061-002		CENTRAL BOOK CHECKOUT	1	REFERENCE BOOK SET	BOOKS IN PRINT			1,875	
061-002		CENTRAL BOOK CHECKOUT	1	LOT OF MISC. EQUIPMENT & SUPPLIES				625	
061-002		MEETING ROOM A	17	TABLE, TRAP				2,763	
061-002		MEETING ROOM A	70	CHAIR, UPHOLSTERED STACKING SIDE				4,375	
061-002		MEETING ROOM A	10	CHAIR, STACK				375	
061-002		MEETING ROOM A	1	TABLE, DOUBLE PEDESTAL, LIBRARY		30X72"		375	
061-002		MEETING ROOM A	1	URN, COFFEE		30 CUP		44	
061-002		MEETING ROOM A	1	LOT OF MISC. EQUIPMENT & SUPPLIES				250	
061-002		MEETING ROOM A	1	COFFEE MAKER		10 CUP		50	
061-002		STORAGE ROOM	2	TYPEWRITER, ELECTRIC, OBSOLETE	IBM			125	
061-002		STORAGE ROOM	1	SHELF, 36" - 3 TIER METAL LIBRARY				188	
061-002		STORAGE ROOM	1	SHELF, 36" - 5 TIER METAL LIBRARY				281	
061-002		STORAGE ROOM	1	CASH REGISTER, OBSOLETE	SANYO			125	
061-002		STORAGE ROOM	1	LOT OF MISC. OLD COMPUTER EQUIPMENT IN STORAGE - ALLOWANCE				625	
061-002		STORAGE ROOM	1	LOT OF MISC. EQUIPMENT AND SUPPLIES IN STORAGE - ALLOWANCE				875	
061-002		A.V. STORAGE	1	TABLE, STACK		30X60"		125	
061-002		A.V. STORAGE	1	CART, AUDIO VISUAL				219	
061-002		A.V. STORAGE	1	PROJECTOR, OVERHEAD	3M	213	522388	350	
061-002		A.V. STORAGE	2	PRESENTATION STAND, FOLDING				350	
061-002		A.V. STORAGE	1	PRESENTATION STAND, FOLDING				175	
061-002		A.V. STORAGE	1	PROJECTOR, SLIDE	KODAK	4600	166033	719	
061-002		A.V. STORAGE	1	SHELF, 30" - 5 TIER METAL WALL LIBRARY				238	
061-002		A.V. STORAGE	1	PROJECTOR, 16 MM	B&H	1592		1,500	
061-002		A.V. STORAGE	1	PROJECTOR, 16 MM	B&H	1592	2256005	1,500	
061-002		A.V. STORAGE	1	PROJECTOR, 16 MM, OBSOLETE	B&H			63	
061-002		A.V. STORAGE	1	SCREEN, 70" PROJECTOR				219	

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061-002		A.V. STORAGE	1	PUPPET THEATRE, FOLDING				296	
061-002		A.V. STORAGE	1	PROJECTOR, 8 MM, OBSOLETE	B&H	MX-32		63	
061-002		A.V. STORAGE	1	LOT OF MISC. EQUIPMENT & SUPPLIES				438	
061-002		BOOK DROP ROOM	1	BOX, SMALL DEPRESSIBLE BOOK DROP				625	
061-002		BOOK DROP ROOM	1	BOX, BOOK DEPRESSIBLE DROP COVER				625	
061-002		BOOK DROP ROOM	1	DOLLY, 2 WHEEL				150	
061-002		JANITOR ROOM	1	MISC. MERRIT EQUIPMENT AND SUPPLIES				625	
061-002		JANITOR ROOM	1	NOTE: THE REMAINING EQUIPMENT IN THIS ROOM IS NON-OWNED.				-	
061-002		ELECTRICAL ROOM	1	TELEPHONE SYSTEM	TOSHIBA	STRATA DK16		10,000	
061-002		ELECTRICAL ROOM	1	POWER SUPPLY	GANDALF	MUX2000		1,375	
061-002		ELECTRICAL ROOM	1	MODEM	GANDALF	LDS309A		375	
061-002		EMPTY OFFICE	1	DESK, DOUBLE PEDESTAL, METAL OFFICE				625	
061-002		EMPTY OFFICE	1	CART, AUDIO VISUAL				219	
061-002		EMPTY OFFICE	1	TELEVISION, COLOR MONITOR	SHARP	CC2652G	619082	813	
061-002		EMPTY OFFICE	1	TAPE RECORDER, VIDEO	TOSHIBA	M-260C	25607779	406	
061-002		EMPTY OFFICE	1	PROJECTOR, 16 MM, OBSOLETE	B&H			63	
061-002		EMPTY OFFICE	1	COMPUTER SYSTEM C/W MONITOR, KEYBOARD & ACCESS.	GATEWAY 2000	4SX-33V	2003999	1,850	
061-002		EMPTY OFFICE	1	COMPUTER SYSTEM C/W MONITOR, KEYBOARD & ACCESS.	GATEWAY 2000	4SX-33V	1155591	1,850	
061-002		EMPTY OFFICE	1	COMPUTER SYSTEM C/W MONITOR, KEYBOARD & ACCESS.	GATEWAY 2000	4SX-33V		1,850	
061-002		EMPTY OFFICE	2	CHAIR, UPHOLSTERED STACKING SIDE				125	
061-002		EMPTY OFFICE	1	MONITOR, OBSOLETE				63	
061-002		EMPTY OFFICE	1	LOT OF MISC. EQUIPMENT & SUPPLIES				250	
061-002		LIBRARY MANAGER	1	DESK, SINGLE PEDESTAL OFFICE C/W RETURN				625	
061-002		LIBRARY MANAGER	1	CHAIR, STENO ARM				200	
061-002		LIBRARY MANAGER	1	CALCULATOR	SHARP	EL1607R		131	
061-002		LIBRARY MANAGER	1	CABINET, 5 DRAWER LIBRARY CARD				563	
061-002		LIBRARY MANAGER	1	CALCULATOR	SHARP	CS-1612		131	
061-002		LIBRARY MANAGER	2	MONITOR	PROVIEW	PV-1564		875	
061-002		LIBRARY MANAGER	1	MONITOR	APPLE	M5011	F8412XQ	313	
061-002		LIBRARY MANAGER	1	CHAIR, UPHOLSTERED OFFICE				275	
061-002		LIBRARY MANAGER	1	CHAIR, UPHOLSTERED STACKING SIDE				63	
061-002		LIBRARY MANAGER	1	BOOKTRUCK, SMALL METAL				156	
061-002		LIBRARY MANAGER	1	SHELF, 36" - 3 TIER METAL WELL LIBRARY				169	
061-002		LIBRARY MANAGER	1	PRINTER, LASER	HP	LJ1100		625	
061-002		LIBRARY MANAGER	1	COMPUTER SYSTEM - OUT AT THE TIME OF APPRAISAL				1,850	
061-002		LIBRARY MANAGER	1	COSTUMER, METAL				81	
061-002		LIBRARY MANAGER	1	LOT OF MISC. RESOURCE MATERIAL				625	
061-002		LIBRARY MANAGER	1	LOT OF MISC. EQUIPMENT & SUPPLIES				313	

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061-002		PUBLIC SERVICE LIBRARIAN	1	DESK, DOUBLE PEDESTAL, METAL OFFICE				626	
061-002		PUBLIC SERVICE LIBRARIAN	1	CHAIR, UPHOLSTERED OFFICE				276	
061-002		PUBLIC SERVICE LIBRARIAN	1	HARD DRIVE, EXTERNAL	RODIME			631	
061-002		PUBLIC SERVICE LIBRARIAN	1	MONITOR	APPLE	M0001A		312	
061-002		PUBLIC SERVICE LIBRARIAN	1	CABINET, 5 DRAWER LATERAL FILE				725	
061-002		PUBLIC SERVICE LIBRARIAN	1	CHAIR, UPHOLSTERED STACKING ARM				69	
061-002		PUBLIC SERVICE LIBRARIAN	1	SHELF, 36" - 3 TIER METAL LIBRARY				169	
061-002		PUBLIC SERVICE LIBRARIAN	1	SHELF, 36" - 4 TIER METAL LIBRARY				225	
061-002		PUBLIC SERVICE LIBRARIAN	1	LOT OF MISC. RESOURCE MATERIAL				750	
061-002		PUBLIC SERVICE LIBRARIAN	1	LOT OF MISC. EQUIPMENT & SUPPLIES				313	
061-002		PERIODICAL STORAGE	1	STOOL				50	
061-002		PERIODICAL STORAGE	330	SHELVING, LINEAR FEET OF FIXED LIBRARY				5,775	
061-002		PERIODICAL STORAGE	1,400	BOOK, LIBRARY				35,000	
061-002		PERIODICAL STORAGE	1	MONITOR, OBSOLETE	APPLE	M0001A		63	
061-002		PERIODICAL STORAGE	1	LAMINATOR, 5" CARD	GBC			113	
061-002		PERIODICAL STORAGE	1	LOT OF MISC. EQUIPMENT & SUPPLIES				188	
061-002		STATIONERY STORAGE	1	LADDER, 8' ALUMINUM STEP				138	
061-002		STATIONERY STORAGE	1	STOOL, KIK STEP				50	
061-002		STATIONERY STORAGE	1	MIRROR, PARABOLIC SECURITY				188	
061-002		STATIONERY STORAGE	75	SHELVING, LINEAR FEET OF ADJACENT LIBRARY				1,313	
061-002		STATIONERY STORAGE	1	LOT OF MISC. OFFICE AND STATIONERY SUPPLIES				1,875	
061-002		MEDIA OFFICE	1	DESK, SINGLE PEDESTAL, OFFICE C/W RETURN				438	
061-002		MEDIA OFFICE	1	CHAIR, STENO				200	
061-002		MEDIA OFFICE	1	TERMINAL, COMPUTER KEYBOARD	LINK	MCT		1,375	
061-002		MEDIA OFFICE	1	GHETTO BLASTER C/W CD PLAYER	VENTURER	CD196		150	
061-002		MEDIA OFFICE	1	TABLE		30X60"		171	
061-002		MEDIA OFFICE	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM	TOUCH	EN7232	636167	1,875	
061-002		MEDIA OFFICE	1	PRINTER, INK JET	EPSON	COLOR 440	150758	800	
061-002		MEDIA OFFICE	1	LADDER, 4' ALUMINUM STEP				94	
061-002		MEDIA OFFICE	1	BOOK TRUCK, METAL				438	
061-002		MEDIA OFFICE	1	DESK, SMALL, SINGLE PEDESTAL METAL OLD				188	
061-002		MEDIA OFFICE	1	CHAIR, UPHOLSTERED ARM				200	
061-002		MEDIA OFFICE	1	CABINET, 5 DRAWER LATERAL FILE				725	
061-002		MEDIA OFFICE	3	SHELF, 30" - 5 TIER METAL				563	
061-002		MEDIA OFFICE	1	CABINET, 2 DRAWER METAL FILE				88	
061-002		MEDIA OFFICE	1	DOLLY, 4 WHEEL BOOK				219	
061-002		MEDIA OFFICE	1	PAPER CUTTER, 12"				113	
061-002		MEDIA OFFICE	1	LOT OF MISC. RESOURCE MATERIAL				1,500	
061-002		MEDIA OFFICE	1	LOT OF MISC. ACTIVITIES, EQUIPMENT AND SUPPLIES				750	

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061-002		MEDIA OFFICE	1	LOT OF MISC. EQUIPMENT & SUPPLIES				625	
061-002		MEDIA CENTRE	1	EXTINGUISHER, DRY CHEMICAL 2.5LB		2.5 LB.		38	
061-002		MEDIA CENTRE	1	SHELF, 36" - 12 TIER WOOD LIBRARY				675	
061-002		MEDIA CENTRE	1	SHELF, 72" - 5 TIER METAL LIBRARY				563	
061-002		MEDIA CENTRE	2	BOOK TRUCK, WOOD				1,063	
061-002		MEDIA CENTRE	1	BOOK TRUCK, METAL				438	
061-002		MEDIA CENTRE	2	DESK, DOUBLE PEDESTAL, METAL OFFICE				1,260	
061-002		MEDIA CENTRE	3	CHAIR, STENO ARM				600	
061-002		MEDIA CENTRE	1	TABLE, END				131	
061-002		MEDIA CENTRE	1	TYPEWRITER, PORTABLE, ELECTRONIC	SMITH CORONA	VTX100		563	
061-002		MEDIA CENTRE	2	DESK, MOBILE METAL TYPING				350	
061-002		MEDIA CENTRE	6	SHELF, 30" - 6 TIER WOOD LIBRARY				1,688	
061-002		MEDIA CENTRE	1	LADDER, 8' ALUMINUM STEP				175	
061-002		MEDIA CENTRE	1	GHETTO BLASTER	SANYO	M9716		119	
061-002		MEDIA CENTRE	1	DESK, SMALL SINGLE PEDESTAL OFFICE				313	
061-002		MEDIA CENTRE	1	CHAIR, UPHOLSTERED ARM				144	
061-002		MEDIA CENTRE	2	CHAIR, UPHOLSTERED OFFICE				556	
061-002		MEDIA CENTRE	1	CHAIR, STENO				200	
061-002		MEDIA CENTRE	1	BOOK TRUCK, METAL				313	
061-002		MEDIA CENTRE	1	SHELF, 18" - 6 TIER METAL WALL LIBRARY				1,890	
061-002		MEDIA CENTRE	1	ENCYCLOPEDIA SET	WORLD BOOK	22 VOLUMES		1,063	
061-002		MEDIA CENTRE	1	ENCYCLOPEDIA SET	WEAPONS AND WAR FARE	22 VOLUMES		688	
061-002		MEDIA CENTRE	1	ENCYCLOPEDIA SET	BRITANNIA	30 VOLUMES		2,250	
061-002		MEDIA CENTRE	1	DESK, 30" MOBILE COMPUTER				256	
061-002		MEDIA CENTRE	1	ENCYCLOPEDIA SET	NATIVE CHILDREN	25 VOLUMES		406	
061-002		MEDIA CENTRE	1	CABINET, METAL FLAT FILE		46" - 5		219	
061-002		MEDIA CENTRE	1	TV COLOR C/W VCR UNIT	PANASONIC	AG550		688	
061-002		MEDIA CENTRE	1	TV COLOR C/W VCR UNIT	PANASONIC	AG550	D00087	688	
061-002		MEDIA CENTRE	1	TAPE RECORDER, VIDEO	SONY	CDPC705.		406	
061-002		MEDIA CENTRE	1	TYPEWRITER, PORTABLE ELECTRONIC	SMITH CORONA	XL1900		563	
061-002		MEDIA CENTRE	1	TAPE RECORDER, VIDEO	REALISTIC	CTR-69		281	
061-002		MEDIA CENTRE	1	DECODER, CLOSED CAPTION	TELECAPTION	4000		3,125	
061-002		MEDIA CENTRE	1	CHANNEL CHANGER, EXTERNAL TELEVISION	VIEWSTAR			313	
061-002		MEDIA CENTRE	1	DRILL, CORDLESS	MAKITA	6012HD		375	
061-002		MEDIA CENTRE	1	FACSIMILE MACHINE	SHARP	FO-3350	60101589	2,000	
061-002		MEDIA CENTRE	1	HEATER, ELECTRIC FLOOR				94	
061-002		MEDIA CENTRE	1	COMPUTER SYSTEM C/W MONITOR AND CD ROM	APPLE	96	6555QT	1,879	
061-002		MEDIA CENTRE	1	COMPUTER SYSTEM C/W MONITOR & ACCESSORIES	GATEWAY 2000	45X-33V	1195589	1,650	
061-002		MEDIA CENTRE	1	PRINTER	EPSON	2250		1,250	
061-002		MEDIA CENTRE	1	PRINTER	PANASONIC	KXP1123		625	

CITY OF YELLOWKNIFE
INVENTORY OF SPECIFIED MACHINERY AND EQUIPMENT
AUGUST 1999

BUILDING	RM#	ROOM NAME	QTY	DESCRIPTION	MANUFACTURE	MODEL	SERIAL #	CRN	CRN/LD
061-002		MEDIA CENTRE	2	CD ROM DRIVE CHANGER	PIONEER	DRM-600		1,125	
061-002		MEDIA CENTRE	2	DESK, 46" - 2 STATION COMPUTER				1,013	
061-002		MEDIA CENTRE	2	TABLE, COMPUTER		30X48"		825	
061-002		MEDIA CENTRE	1	STAND, MOBILE PRINTER				144	
061-002		MEDIA CENTRE	1	COMPUTER SYSTEM C/W MONITOR & ACCESSORIES	IBM	8555-081	BTT29	1,650	
061-002		MEDIA CENTRE	1	PRINTER, INK JET	CANON	BJC210	87049	250	
061-002		MEDIA CENTRE	1	PRINTER	CITOH	C315	100472	500	
061-002		MEDIA CENTRE	2	TERMINAL, COMPUTER KEYBOARD	LINK	MC5		2,750	
061-002		MEDIA CENTRE	1	COMPUTER SYSTEM MONITOR & CD ROM - FILESERVER	TOUCH	EN7232	836169	6,050	
061-002		MEDIA CENTRE	1	PRINTER, INK JET	EPSON	COLOR 600		900	
061-002		MEDIA CENTRE	1	BARCODE READER, PEN C/W ACCESSORIES	INTERMEC	9510		1,125	
061-002		MEDIA CENTRE	1	ROUTES, NETWORK	BAYSTACK	CV1000		3,126	
061-002		MEDIA CENTRE	1	HUB, 4 PORT NETWORK				188	
061-002		MEDIA CENTRE	1	HUB, RADIO LAN LINK	RADIOLAN			313	
061-002		MEDIA CENTRE	1	MODEM, HIGH SPEED	PAIR GAIN			1,375	
061-002		MEDIA CENTRE	3	COMPUTER SYSTEM - OBSOLETE				330	
061-002		MEDIA CENTRE	1	LOT OF MISC. STATIONERY SUPPLIES				1,875	
061-002		MEDIA CENTRE	1,200	BOOK, LIBRARY				30,000	
061-002		MEDIA CENTRE	1	LOT OF MISC. EQUIPMENT & SUPPLIES				438	
061-002		STAFF ROOM	1	TABLE		30X60"		171	
061-002		STAFF ROOM	6	CHAIR, UPHOLSTERED ARM				863	
061-002		STAFF ROOM	1	COAT RACK, 24" VALET				75	
061-002		STAFF ROOM	1	COFFEE MAKER		10 CUP		100	
061-002		STAFF ROOM	1	MICROWAVE OVEN	GE			156	
061-002		STAFF ROOM	1	REFRIGERATOR, SMALL	JIL			313	
061-002		STAFF ROOM	1	HOT PLATE, 2 BURNER				63	
061-002		STAFF ROOM	1	WHITEBOARD, MONTHLY PLANNER				313	
061-002		STAFF ROOM	1	LOT OF MISC. KITCHEN EQUIPMENT AND SUPPLIES				188	
061-002		STAFF ROOM	1	LOT OF MISC. EQUIPMENT & SUPPLIES				188	

Yellowknife Public Library Furniture and Equipment List-Public Area:

Tables:

2 @ 26 in. x 60 in.
4 @ 44 in. x 95 in.
4 @ 28 in. x 46 in.
5 @ 30 in. x 60 in.
1 @ 41 in. x 41 in. (children's)
6 @ 20 in. x 20 in. (white plastic)
3 @ 2 ft. diameter (children's)

Chairs:

Children's area-16
Adult-67

Carrels:

9 @ 39 in. x 60 in.
4 @ 38 in. x 50 in.
1 @ 48in. x 90 in.

Talking Books:

2 @ 49 in. w. x 59 in. h x 13 in. d.
1 @ 24 in. w. x 59 in. h. x 13 in. d.

Shelving:

8 @ 36 in. x 76 in.
1 @ 24 in. x 26 in. x 42 in.
1 @ 21 in. x 62 in.
1 @ 26 in. x 40 in. x 80 in. (videos)
1 @ 38 in. x 39 in. x 39 in. (cd's)
1 @ 29 in. x 31in. x 54 in. (cd's)
1 @ 23 in. x 44 in. x 52 in. (New Materials)

Book Shelves:

Northern Collection & Multilingual- (semi-fixed):

3 @ 5 ft. x 50 in. x 14 in. depth-single sided.
Display cabinet above: 5ft. x 34 in. w. x 14 in. depth
7 @ 37 in. w. x 49 1/2 in. h. x 16 in. depth-1 bay (3 shelves each)
4 @ 37 in. w. x 49 1/2 in. h x 16 in. depth-4 bays (3 shelves each)
1 @ 24 in. w. x 49 1/2 in. h x 16 in. depth-1 bay (3 shelves)
1 @ 30 in. w. x 49 ½ in. x 16 in. depth- 1 bay (3 shelves)
1 @ 36 in. w. x 49 1/2 in. x 16 in. depth-1 bay (3 shelves)
3 @ 36 in. w. x 49 1/2 in. h. x 16 in. depth-3 bays (3 shelves each)
-all of the above single-sided.

Adult Fiction:

All Shelving Double- Sided:

3 bays/6 shelves ea.: 104 in. w. x 84 ½ in. h. x 23 in. depth
5 bays/6 shelves ea.: 82 in. w. x 84 ½ in. h. x 23 in. depth
3 bays/ 6 shelves ea.: 32 in. w. x 74 ½ in. h. x 23 in. depth
4 bays/ 6 shelves ea. 146 ½ in. w. x 74 ½ in. h. x 23 in. depth
2 bays/ 6 shelves ea. 62 ½ in. w. x 74 ½ in. h. x 23 in. depth
1 bay/ 6 shelves ea. 38 ½ in. w. x 74 ½ in. h. x 23 in. depth
4 bays/6 shelves ea. 146 ½ in. w. x 74 ½ in. x 23 in. depth
5 bays/6 shelves ea. 181 ½ in. w. x 74 ½ in. x 23 in. depth

Periodical Index Table:

90 in. wide
53 in. high
48 in. depth

French Collection:

Single Sided:
3 bays/ 6 shelves ea. : 104 ½ in. x 84 ½ in.x 12 ½ in. depth

Double Sided:
3 bays/ 6 shelves 104 ½ in. w. x 84 ½ in. h. x 23 in. depth
1 bay/6 shelves 32 ½ in. w. x 84 ½ in. h. x 23 in. depth
3 bays/ 6 shelves 104 ½ in. x 84 ½ in. h. x 23 in. depth

Newspaper Stands:

1 @ 46 in. wide x 66 in. height x 22 in. depth
1 @ 28 in wide x 42 ½ in. h. x 24 in. depth

Adult Nonfiction:

Single Sided:
6 bays/ 6 shelves ea. 220 in. w. x 84 in. h. x 12 ½ in. depth

Double Sided:
4 bays/6 shelves 134 ½ in. w. x 84 in. h. x 23 in. depth
6 of 5 bays/ 6 shelves 158 ½ in. w. x 84 in. height x 23 in. depth.

Travel:

2 @ 24 ½ in w. x 70 in. height x 9 in. depth
2 @ 45 ½ in. wide x 70 in. height x 9 in. depth

Cassette Holders:

2 @ 65 in. height x 12 in. diameter x 16 in. sq. base.

Paperbacks:

2 – six shelf towers-each with four pockets: 4 ¾ in. x 8 ¼ in. height x 4 ¾ in. depth
3 - four shelf towers-same measurements as above.

Book Shelf:

36 in. w. x 78 ½ in. h. x 6 ½ depth

Photocopier:

48 in. w. x 44 in. h. x 35 in. depth
Adjacent table: 25 ½ in. w. x 29 in. h. x 22 in. diameter

Vertical File Folder Cabinets:

2 @ 18 in. w. x 52 ½ in. h. x 26 ¾ in. depth.

Annual Report Cabinet:

1 @ 36 in. w. x 65 in. h. x 18 in. depth

Micro Reader:

22 in. w. x 51 in. height x 29 ½ depth

Microfiche Cabinet:

25 in. w. x 38 ¼ in. h. x 28 ¼ in diameter

Book Carts:

3 @ 28 ¼ in. w. x 48 ½ in. h. x 17 in. depth

Big Books- Single Sided:

5 bays/ 4 shelves ea. 184 ½ in w. x 84 ½ in. h. x 13 in. depth

Reference:

_(different sections separated by pillars.)

Double Sided :

4 bays/ 4 shelves ea. 140 in. w. x 64 ½ in. h. x 31 in. depth
5 bays/ 3 shelves ea. 158 ½ in. w. x 64 ½ in. h. x 31 in. diameter

Ref. Desk Area:

70 in. w. x 36 in. h. x 36 in. depth

Telephone Book Shelving:

3 bays/3 shelves: 108 in. w. x 42 in. h. x 30 in. depth

Atlas & Tourism Material:

4 bays/ 6 shelves-double sided: 140 in. wide x 43 ½ in. h.

Encyclopedias:

5 bays/ 3 shelves ea. Double sided : 161 ½ in. w. x 43 ½ in. h.

Junior Collection: (pillars separating):

6 bays/ 13 shelves double sided: 110 ½ in. w. x 64 ½ in. h x 23 in. d.

2 bays/ 4 shelves 56 ½ in. w. x 64 ½ in. h. x 23 in. depth.

6 bays/ 24 shelves single sided 214 in. w. x 64 ½ in. h. x 12 ½ in. depth.

1-6 shelf tower (dimens. above)
1-4 shelf tower (dimens. above)

Magazine Rack:

1 @ 37 ½ in. w. x 72 in. h. x 17 ½ in. depth

Easy Room:

2- 6 shelf towers (video racks)
Kinderbox for board books: 25 in. w. x 23 in. h. x 23 in. depth

2- books on tape racks: 60 in. tall x 21 in. diameter

1 bay/ 2 shelves double sided : 38 ½ in. w. x 42 ½ in. h. x 29 in. diameter

4 bays/3 shelves double sided 123 in. w. x 56 in. h. x 29 in. depth

2 bays/2 shelves double sided 74 ½ in. w. x 42 ½ in. h. x 29 in. depth x 2.

French Easy Section:

Single shelf- same as above except for 15 ½ in. depth.

Technical Services

Library Tech./ Other staff member's office.

1 Computer - upright pc, monitor
1 printer
1 table (this houses the computer, table 30 inches by 5 feet)

1 desk: Library Technician's desk - 3 parts (has side area with drawer, upper area with slots over main desk , main desk has a drawer which can hold file folders)
Main desk 32 inches by 5 feet
Side area 20 inches by 42 inches
Upper area 1 foot by 5 feet

3 sets of steel shelving - 12 in. (w) by 42 in. (l) by 58 in. (h)

1 Filing cabinet (5 drawer -18 in. (w) by 36 in. (l) by 64 in.(h))
Holds legal hanging file folders.

1 set of shelves - 2 shelves, 15 in. (w) by 37 in. (l) by 42 in. (h)

1 desk - Other Staff member - 29 in. (w) by 40 in. (l) by 30 in. (h)

1 book cart

2 chairs

Items Usage

steel shelving is used to store material for programs
- filing cabinet is used to store publisher's catalogues , with top shelf used for programming plans
- library technician uses the computer for purchasing, acq, cataloguing, word processing, etc.
- library technician's desk is used for programming, cataloguing, storage of stats, library page info, etc...
- other desk is used by another staff member for processing audio visual materials, paper cutting, pencil sharpening, etc...
- shelving is used to store professional collection dealing with cataloguing and programming.
-book trolley is used to house books for cataloguing, programming.

Technical Services

Main Tech. Area

3 computers
3 printers
1 network printer
1 fax machine
2 video/tv units
2 typewriters
1 shredder
3 books carts (small)
3 Book carts (large)
Filing cabinet

Computer desks - have 2 that are 21 in. (w) by 54 ½ in. (l) by 32 in. (h)
Have 2 that are 29 ½ in. (w) by 48 in. (l) by 29 ½ in (h)

Printer table - 26 ½ in. (w) by 25 in. (l) by 28 in. (h)

Desk - 24 ¼ in. (w) by 45 in. (l) by 29 in. (h)
Side table - 18 in. (w) by 36 in. (l) by 27 in. (h)
(this desk is used by clerk for processing college/university calendars , telephone books, etc.)

Desk- 36 in. (w) by 72 in. (l) by 29 in. (h)
(this desk is used by clerk for ILLs)

Desk - 30 in. (w) by 60 in. (l) by 28 ½ in (h)
Side table - 16 in. (w) by 21 in. (l) (can open to 41 in.) By 28 in. (h)
Table - 19 in. (w) by 28 in. (l) by 20 in. (h)
Filing cabinet - 18 in. (w) by 18 in. (l) by 28 in. (h)
Side table -17 ½ in. (w) by 36 in. (l) by 27 in. (h)
(used by clerk for checking orders recvd, filing orders, processing, etc.)

Display cabinet - 36 in. (w) by 47 in. (l) by 29 in. (h)

** these bookshelves are able to be moved, can be unbolted from walls.

Bookshelf (5 units) - 220 in. (w) by 12 in. (d) by 96 in. (h)
(this is used for donations, an extra copies of books in our collection, portion of multilingual collection)
Bookshelf (4 units) -128 in. (w) by 15 in. (d) by 108 in. (h)
(used to hold newspapers)
2 bookshelves - 42 in. (w) by 8 ¾ in. (d) by 108 in. (h)
(one holds CNIB material, the other books for our professional development collection)
Shelving unit (2 units attached) - 72 in. (w) by 20 in. (d) by 84 in. (h)
(used to hold extra copies of books, jackets)
Bookshelf - 24 in. (w) by 9 ½ in. (d) by 35 ½ in. (h)
(used to hold videos)
Bookshelf - 33 in. (w) by 10 ½ in. (d) by 76 in. (h)
(used to hold donated videos, CDs, etc.)

Items usage

Two of the computers are used to connect to Multilis for entering ACQ , signing out ILLS. These computers can also access the Internet.
The other computer is used for ILLs, E-mail, Word processing, making posters, etc... Each of these computers has a printer attached to it.
Video/Tv units used for checking videos for damage.
Desks and shelves have been discussed above as to their usage.

Technical Services

Storage areas :

Library has two storage areas in Tech. Services. With mainly built in shelving.
One area is used for storing part of the multilingual collection and back issues of magazines.
The other area is used for housing processing supplies, office supplies, etc.
This area has some shelving that potentially may be removable.
4 shelves - 36 in. (w) by 20 in. (d) by 108 in. (h)

Staff Lounge/ processing area:

Table/ 6 chairs - 30 in. (w) by 60 in. (l) by 29 in. (h)
Coffeemaker
Small microwave
Small Fridge
Coat rack
Built in shelves for storing, plates , crockpots, coffee supplies, trays, etc.

The total collection space for Sampleville will be 6,140 square feet.

Contents

Step 2
Reader Seating Space

One common, broad recommendation is that a library should provide five reader seats for every 1,000 people in its service area. More detailed guidelines in other planning manuals usually suggest allocating reader seating on a sliding scale, decreasing the number of seats provided per 1,000 population as the total population increases.

The following reader seating schedule based on a library's design population is recommended for use with this space planning outline.

Population	Seats per 1,000 population
1,000	22.50
2,500	14.25
5,000	10.00
10,000	7.00
25,000	4.50
50,000	3.00
100,000	2.25
250,000	1.50
500,000	1.00

For a library with a design population that falls between these benchmarks, the recommended number of seats per 1,000 would be calculated somewhere between the respective seating recommendations. A library serving 22,000 people falls between the 10,000 and 25,000 benchmarks, and its recommended seating level should fall somewhere in the range of 7.00 and 4.50 seats per 1,000 population, say 4.90 seats per 1,000 population.

This recommendation only establishes a base or starting point for further consideration. Depending on a library's mission and service emphases, it may be appropriate to adjust the recommendation up or down. For instance, if a library's service profile emphasizes delivering popular materials, it may encourage patrons to browse through the collections and select material to be charged out and read at home;

Leighton McCarthy

From: Deborah Bruser <dbruser@city.yellowknife.nt.ca>
To: <libplan@telusplanet.net>
Cc: <libplan@telusplanet.nt>
Sent: Thursday, May 10, 2001 3:56 PM
Subject: YPL response.....

Dear Leighton,

It was good to hear from you and I hope that the following information helps. Eileen should be in touch soon with regard to your questions about the collection breakdown and number of books per capita.

I have limited head count data but will list representative data below:

March, 2000 15,477
April, 2000 9,901
May, 2000 11,257
June, 2000 8,896
July, 2000 9,834
August 10,944
September, 2000 11,135
October, 2000 13,435

****
I hope that this information is what you are after-I can dig out daily stats. if you would prefer not to exrapolate from these.

Staffing:

6 Full Time Equivalents
1 Page-35 hours/week
Part-Time Page Positions (4)-working a total of approximately 88 hours
1 Full Time summer student: May-August
*we also call in casual people to fill in when others are sick.

****
PLease let me know if we can be of further assistance.

Deborah Bruser

THE SEVEN DEADLY SINS OF PUBLIC LIBRARY ARCHITECTURE

This is an outline of a program presented by Fred Schlipf and John Moorman at the Public Library Association national conference in Kansas City on March 12, 1998.

After the conference, several librarians asked us for information on our talk. Unfortunately, our handouts included only a list of the seven deadly sins and our names, addresses, and phone numbers.

Because our handouts were too short to be of much help, we've expanded our list of sins to include a more detailed outline of our talk, including both the seven deadly sins and a list of some of the examples we provided of each sin.

We hope you will find the outline helpful.

It's important to emphasize, however, that the handout contains only a list of topics. We've mentioned some of the things we think are the most common mistakes made in library architecture, but we haven't explained why we think they are mistakes, how they can be avoided, and what can be done once the mistakes have been made. Unfortunately, many of the problems listed here are complex and deserve detailed explanation, so in some cases the outline may be of very limited value.

We also want to emphasize that our list of sins is a very incomplete list of the things that tend to go wrong in library building projects, reflecting the fact that we needed to fit our presentation into about 60 minutes.

If you want more information, audio tapes of the PLA presentations are available through Teach 'Em, 160 East Illinois St., Suite 300, Chicago, IL 60611 (1-800-225-3775).. However, we are not able to lend our slides or provide copies of them, and some parts of the tape may be hard to understand without the accompanying illustrations.

We very much appreciate your interest in our talk. If you have questions, feel free to call us. We are also available to make similar presentations on other occasions.

1. BAD LIGHTING

Glare

Direct glare

Indirect glare (veiling reflectance)

Glare from natural light

Glare from artificial light

Uneven lighting

Badly-lighted perimeters and corners

Dark surfaces, particularly walls and ceilings

Inefficient lighting

Inflexible lighting

Lighting systems with slow restrike times in areas (like meeting rooms) where lights need to be switched off and on frequently

Noisy lighting

Esoteric technology

Skylights

Downlighting (the truly great evil)

2. INFLEXIBILITY

Inadequate floor loading

Bearing walls

Incorrect column spacing in modern modular architecture

Permanent objects in the way

Insufficient data conduit and electrical outlets

Access points to data conduit and electricity that place limits on space usage

Non-expandible buildings, due to lack of adjacent land or to designs that defy additions

Architectural solutions to furniture problems

3. BAD LOCATION

Entrances far from parking

Locations with entrances in areas people hesitate to frequent, especially after dark

Location too close to schools

Locations adjacent to other government buildings rather than retail shopping areas.

Badly lighted exteriors

Need for two entrances in order to serve both drivers and pedestrians

Locations that would be bad for retail

4. COMPLEX MAINTENANCE

Examples include:

Bad floor coverings

Bad HVAC

Too many different lamps or unusual lamps

Unnecessarily inaccessible light fixtures

Trouble-prone rest rooms

5. INSUFFICIENT WORK AND STORAGE SPACE

No provision for staff growth

Unrealistic predictions of storage needs

Use of offices for storage

6. BAD SECURITY

Bad sight lines

Multiple entrances

Aisles that run the wrong direction for supervision

Adult pathways through children's services areas

Private rest rooms

Places to spit

Frightening dropoffs

Failure to take advantage of oversight possibilities through service desk and office placement

No provision for theft control systems

Book returns that lead inside the library

Dead-end book aisles

7. SIGNATURE ARCHITECTURE

Excess ceremonial space

Ornamental, free-standing staircases

Awkward or unusable interior spaces, resulting from creative but impractical footprints

Badly matched expansions

Unexpected problems with untested architectural systems

Prepared by:

Frederick A. Schlipf, Director
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Urbana IL 61801-3283
tel: 217-367-4057
fax: 217-367-4061

Leighton

PLA 1996
LIBRARY ACCESS VS SECURITY

Presenters: Andrea & David Michaels

Americans prize their ability to roam the collections of the majority of their public and academic libraries. Free and easy access allows chance encounters with materials or resources which may stimulate ideas far afield from those found through traditional searches of catalogs or databases. The time saved in quickly perusing a text to judge its appropriateness or worth is highly valued, but access also increases risks to the collections, to staff, and to library users.

Awareness and knowledge of the issues and a collaborative response by administration and facility designers may help your library prevent or find solutions to such problems.

MAIN ISSUES AND PROBLEMS

Problem patrons or non-patrons who cause or commit the following:

- Steal or deface materials
- Cause disturbances or perpetrate anti-personnel offenses:
  Commit rape, molestation, kidnapping, murder, robbery, drug use/trafficking
- Verbalize disputes
- Vandalize premises, commit arson
- Penetrate non-public zones
- Misuse restrooms
- Occupy facility after hours
- Abuse technology

SOLUTIONS

- Good space planning and architecture which: Optimizes visual surveillance, creates good stack orientation, for maximum supervision, minimizes remote and secluded spaces, creates core areas at perimeter

SOLUTIONS (Continued)

- One entrance/exit point near service desk or greeter station
- Generous glazing of publicly used rooms: individual and group studies, conference rooms, quiet studies, A-V areas, local history, copier rooms, vending lounges
- Good lighting of all areas, including walls and corridors
- Security sensing screens/turnstiles/gates
- Greeters
- Alarmed emergency exits
- Appropriate fenestration from staff work areas onto public spaces
- Security code or electronic access to non-public area
- Staff lockers and lockable personal drawers at work stations
- Policies for staff response to various scenarios
- Direct sight lines from service desk to entrance and restrooms
- Clear circulation patterns
- Reflective surfaces to augment sight lines
- Open cubicles to house patrons' personal items
- Motion detectors with alarms — storage areas, ceiling plenums, mechanical rooms, rare material areas
- An attractive interior with easy-to-maintain surfaces, corners, and edges
- Strategic locations for highest-traffic functions: copiers, children's entry, popular materials browsing
- Attachment of equipment to furniture
- Good exterior lighting for parking, staff entrance, surrounding landscape
- No walls or alcoves which could hide lurkers

SOLUTIONS (Continued)

- Surveillance cameras and monitors
- Roving security guards
- Staff areas located to promote staff surveillance of remote public areas
- Sufficient staff to actually monitor areas within their view

Library Buildings, or Virtual Libraries?

by Margaret Beckman

Writing in the introduction of his 1987 book on information technology and space planning, Richard Boss noted that it is imperative that librarians who are planning new facilities make provision for technologies, since "technologies influence all aspects of facilities planning: the amount of space, electric power requirements, lighting, furniture design, etc."[1] Almost a decade later, recently constructed Canadian libraries demonstrate that attention is finally being paid to Boss' admonition, although glaring omissions can still be found.

There are several reasons for this lack of attention to the requirements of information technology when planning a new or renovated library building. Inadequate funds may be of primary importance. Equally damaging may be the overpowering influence of an architect more interested in the monumentality of his design than in understanding the implications of new technologies as the library moves into the 21st century. At the same time, the librarian may be insufficiently knowledgeable about information technologies, and his relationship to library space and functionality, to provide the positive, even aggressive, direction that may be necessary if a successful library is to result. Emphasis on the responsiveness of the library's design to the needs of future resources and users, as well as to the demands of operational efficiency and service effectiveness, is the librarian's responsibility.

One of the most important and negative influences on library facility planning, noted at the present time by librarians throughout Canada, is the assumption being made by city, university, or government and other institutional administrators, that libraries, as

Photo: Richmond Hill Central Library

Richmond Hill Public Library, Richmond Hill, Ont.

they now exist, will soon be extinct. They have been convinced that libraries, with their costly collections, staff and facilities, can and will be replaced by a network of electronic databases within the very near future. But, as Richard De Gennaro pointed out in a recent interview with *Library Journal*, there will be a need to maintain the traditional library "for a long, long time, at the same time as developing the digital or electronic library."[2] Availability of electronic materials, conversion of existing print collections to digital format, and storage for irreplaceable archival collections are elements that must be in place before a totally electronic library is feasible. As well, the already difficult problems of copyright and licensing fees must be solved. It should also be recognized that print publications, whether the older collections not considered appropriate for digitization, or the popular current reading in the public library, will continue to have a place in some libraries for a considerable length of time.

Acceptance of the place of print resources in our libraries for at least the next two decades does not deny the existence of the developing electronic and even virtual libraries. It is envisaged that transition to the paperless library will occur in at least two phases. First, the electronic library, which is described as a "resource area comprising space, people, and facilities but where there may not be a book in sight,"[3] will gradually replace our present print-oriented libraries. Then the virtual library, which "implies a universality of access by anyone from anywhere"[4] will take over. The virtual library is really an infrastructure of global communications networks that makes the access possible, with no necessity for a centralized physical entity, and certainly no need for printed books.

The prototype for this latter library is in operation and is being further developed at De Montfort University, Milton Keynes campus, near Leicester, United Kingdom. The British Library and IBM assisted with the funding of a document imaging project that created electronic versions of the required course materials; co-operation with publishers produced the needed electronic periodicals. In 1992, the material necessary for the first semester was on compact disks, and each student was supplied with a palm-held computer with disk drive. By 1994, the 'library collection' was accessible via the campus network, and there were workstations, both computer and printer, where the students could connect. No library facility, as we know it, exists.

Whether or not Canadian librarians are ready for an immediate move to this virtual library, it should be recognized that a phased transition to some version of the electronic library is imminent. What are the implications for library physical facilities that will need to respond, even gradually, to this direction?

Flexibility

First, it would appear to be flexibility. Space that is initially planned for traditional bookstack ranges must be capable of conversion to accommodation for electronic resources, or for library users and the facilities and services that they will require. Since future library users will all need access to networks, printers and file servers, a flexible distribution system for the computer and network infrastructure will be required within the building. As Richard Bazillion and Connie Braun point out, "no point on any floor should be further than three feet from a potential connection",[5] whether this is located in columns, walls or mid-floor. Such distribution can be accomplished in several ways, each with a different cost. Conduit can be embedded in a grid in the structural floor, or placed in wire trays above or just below the ceiling. The whole building can be constructed with a raised floor, or a flat wire system can be placed under carpet tiles. Whatever method is selected, the grid or system that is provided should be more extensive than the initial requirements indicate, with space for expansion of both conduit and junction boxes provided.[6]

This assumption, that all library spaces must be able to change from the function originally planned, has implications for the placement of internal walls and for floor loading capacity. For example, future expansion of the reference area, as it accommodates increased electronic resources and their necessary access and equipment stations, may require space for a larger desk and more staff offices or work areas. The need to maintain appropriate functional relationships between resources and services, as well as the security requirement of good sight lines throughout the area, implies that the building design should include as few walls or other obstructions as possible. Demountable partitions, which can permit a work area to be moved or expanded, are an easy and satisfactory solution. The possible use of open access compact shelving, either initially or at some time in the future, suggests that all floors be provided with the necessary floor loading capacity: 250 pounds per square foot.

Flexibility is also required for lighting systems and floor treatments. The practice of many architects to design one lighting system for collection areas and another for user and staff areas has no place in a library that may have to convert those spaces to other uses. Defining a functional area by its floor treatment, for example, carpet for reading or

study areas and tile for bookstack ranges, is also unacceptable, since the floor covering chosen may not be suitable for the area's next functional assignment.

Attention must be paid to the need for flexibility in the building's structural elements: the columns, the modular bays that they define, and the ceiling heights. Again, consistency provides the capacity for future change. Structural bays should be square so that bookstack ranges or carrels can be placed in either direction, and columns should be spaced at a minimum of 22.5 feet, centre to centre, with 30 feet recommended. This latter ensures that library furnishings, such as the three-foot wide, double-faced sections of the collection ranges, or a standard carrel or reference table (also based on a three-foot module) can fit into the bays and provide appropriately sized aisles and cross aisles without any wasted spaces. Other structural elements, such as walls enclosing washrooms or stairwells, would be placed at the building perimeter, so that interference with future functional relationships can be avoided.

Flexibility will be of particular significance in the design and location of the circulation desk and work area. The introduction and use of patron self-charging (with systems such as 3M SelfCheck) will escalate, and the function of the circulation desk and staff will change. In academic libraries, the trend is to combine the reserve collection (including many electronic and other non-print media) with standard circulation tasks, and the flexibility of design which will be needed to accommodate these changes must be recognized.

Space requirements

Space requirements for a library building that will gradually change from a print to electronic orientation are also subject to change. Although current space standards or formula can continue to be used, they require adjustments to adequately accommodate electronic resources and services. For example, there is a need for larger work spaces for technology-oriented users, and while there may be fewer staff members in some functions in the future (e.g., circulation or technical services), they will require larger workstations as well.

It is anticipated that most users of the electronic library, whether academic, public or special, will be bringing their own computers (notebook or a future manifestation) with them. The 24-by-36-inch work area, found in either the standard undergraduate carrel or at the traditional reference table, is not adequate for the computer-equipped library patron. In 1987, Boss recommended that a work space of 30 by 42 inches be provided for a minimum of 25 per cent of academic or special library users and 10 per cent of public library users.[7] In 1996, it would appear appropriate to recommend that a much larger percentage of user stations, perhaps all except informal and group study/teaching spaces, be of this larger size.

This increase in total space for user accommodation can be kept under control through design and location of the workstations. Carrels arranged in circular or beehive clusters, or carrels with extended shrouds placed in various side-by-side or back-to-back arrangements, can keep the space per workstation under the 35 square feet recommended for the new larger workstations when located individually. It should be noted that wire management features will need to be provided for all workstations, whether individual carrel or multi-station table. Informal reading facilities will also need to accommodate electronic publications: many users may still wish to relax while reading the local newspaper, even if it is in an electronic format!

Since library staff members will also require more space per person, it will be essential that a definition of the number and type of positions, projected for 20 years, be established during the planning process. Overall formulas used to derive the necessary space for staff and services, for example, 25 per cent of the total of collections and user accommodation space in an academic library, will continue to be valid. However, the commonly used formula of 150 square feet per person for projected staff numbers, including space at service desks, shipping and receiving, staff amenities and in-staff offices and work rooms, is inadequate. Consideration should be given to increasing that space to 200 or 225 square feet[8] as the basis for determining space for individual staff members and their various service functions.

Another space issue that must be considered, as current collections make the transition from print to digital, is the use of open access compact shelving, or of remote co-operative storage, for retention of the less used print collections, such as older periodical or documents, which are less likely to be converted to digital format. The relationship of such compact shelving collections to the retained print and electronic resources must be determined. It will be essential, therefore, for library planners to project the immediate and future size and character of each collection component (e.g., monographs, periodicals, documents, reference), ensuring that the building can accommodate the transition to an electronic library without difficulty or additional costs.

A projection of total collection space requirements is essential before the architect can prepare a preliminary estimate of project costs. The determination of how

quickly each collection component will move to electronic format, if ever, and what amount of space should be allocated, and where, will not be easy. The importance of flexibility in building design begins to acquire a new meaning!

Changing patterns of use and service

The wired workstation is being enhanced by the wired library user, as patrons increasingly bring notebook computers, and even peripherals, to the library. This change in how the library is used has implications for more than just the amount of space required. Student complaints about uncomfortable chairs and unacceptable ambient noise from open atriums is not uncommon, even in recently constructed libraries. Users are spending more time, not less, in the library because their wired workstations allow them to perform many more tasks: complete papers can be researched, written, edited, and transmitted to teacher or distant colleague, from the library carrel or table.

This new library user requires a comfortable environment, with an ergonomic chair and the carrel or table work surface at a suitable height. He should also be protected from distraction and from the noise of fellow keyboard users, a requirement that can be met through acoustical control and appropriate building design. Hard wall and ceiling surfaces should be avoided, and carpet is a necessity for all flooring. Monumental multi-level light wells or galleries should either be enclosed or not included as a building design feature. Sufficient glare-free light, correctly positioned and subject to modification, whether at individual carrels or multi-station tables, is also required. Task lighting and power and communications outlets at every user station is recommended.

Some, if not all, new library users will require assistance and/or instruction in the use of unfamiliar resources, services, or equipment. Instruction in the use of technology-based resources, or 'electronic research skills' to faculty students, professional clients or the general public will require at least one well-equipped technology training room within the reference area. Adjacency to the CD-ROM towers or other electronic resources is essential for both reference librarians and the users. Rooms suitable for instructing up to eight library users are recommended, and more than one may be necessary. A larger orientation or group training room, in both academic and public libraries, may continue to be required, as group introduction to electronic services such as the Internet is desirable.

A misconception that has gained favour recently with university or city administrators has linked library instructional facilities with the instructional services offered by computer professionals. It should be emphasized that the instructional role of the librarian is diminished if the technology training room is located at a distance from the reference resources, or is shared with other functions or staffs.

Conclusion

This has been a very brief introduction to some of the issues facing library space planners as the information highway becomes the road to the future. Fortunately, there are mileposts along the way. Visits to new libraries, attendance at library building workshops, and a thorough knowledge of the professional facility-planning literature can be of great assistance. Finally, the best preparation for facilities planning is, as Boss suggests, "for librarians to become and remain technology literate." ◆

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Planning Public Libraries:

The Views of Architects and Librarians

Ann Curry and
Zena Henriquez

Librarians and architects envision and experience the process of planning a new public library very differently. This divergence is crucial because the degree of harmony between the two professionals influences the final success of the new building they are designing. In general, a librarian brings an intimate knowledge of the library's functions and requirements to the project, while an architect contributes creative artistic talent and building expertise. In a well-run project, both professionals participate in the creative effort. According to Canadian library building consultant Albert Bowron, "The most successful libraries reflect, in their final design, an amalgam of many ideas, both practical and aesthetic —compromises hammered out in many often-difficult discussions."[1]

Designing a new public library has always been a complex challenge for librarians and architects because the building must assume numerous diverse roles and serve customers in all age groups, from toddlers to seniors. In Canada and the United States, most citizens view public libraries as evolving democratic institutions symbolizing a society's commitment to information access and lifelong learning.[2] As such, most public libraries contain traditional shelving areas for materials, but they also may contain group and reception areas such as meeting places, study halls, information bureaus, distribution centers, museums, art galleries, and theaters. In the 1990s, the increasing need to accommodate nontraditional space such as retail outlets, halls, and community-outreach centers within a public-library building has immeasurably complicated both planning and execution.

While public libraries provide for group functions, customers also expect them to be sanctuaries for individuals seeking refuge from social, political, and psychological distractions: quiet, more private areas should also be available. Library customers vary in age, education, ethnic background, and aesthetic preferences, but despite this kaleidoscope of users, a public-library building must somehow address the needs of all community members. The exterior design should welcome customers from all groups, and the interior should make them feel comfortable and at ease. Customers must be able to recognize quickly the library's layout and its finding aids, such as reference desks and catalog terminals so they can confidently begin their search for materials and information. Overall, customers react positively to buildings that greet them warmly and treat them with respect by responding to the reason for their library visit. A nega-

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tive reaction may result in the customer not visiting the library again, which defeats the purposes of both the architect and the librarian.

A successful planning process is key to ensuring that a new building receives kudos from its customers, a fact recognized in articles about the design process in both library and architecture literature.[3] Absent from the literature, however, is an examination of the attitudes and expectations of the key players in this process—the librarians and architects—a gap that this article seeks to fill.[4]

Purpose

This article compares and contrasts the experiences and perceived roles of librarians and architects in the library-design processes of recently completed branch public libraries in three library systems in the Greater Vancouver area of British Columbia. The project was an exploratory-directed study within the University of British Columbia (UBC) School of Library, Archival, and Information Studies. These illustrations will provide librarians and architects with information regarding the complexities of working relationships within the design process and alert them to areas where conflicting points of view may emerge. In addition, the project's unique comparison of librarians' and architects' views gives new insight into the design and planning process and reveals the interdisciplinary perspective inherent in all public-library building projects.

Six individual, face-to-face interviews approximately one hour in length were conducted during the summer of 1996. These interviews took place with the one librarian and one architect principally involved in the design and planning of each of three new public libraries: the Newton Branch of Surrey Public Library System, the Parkgate Branch of North Vancouver District Public Library System, and the Renfrew Branch of the City of Vancouver Public Library System.[5]

Twenty-seven questions about library design and planning were grouped under specific aspects of the design process: the project team, initial programming and planning stages, the design program, interior design, and project completion. General questions regarding the overall process and a request for additional comments closed each interview.

Librarians and architects were asked the same questions in order to facilitate drawing comparisons between professional views. Respondents were often asked to elaborate on their answers. Interviews were tape-recorded and transcribed.

Results

The opinions expressed by the respondents highlight important differences and similarities between the library and architecture professions with respect to the design process, and are invaluable in illuminating areas warranting further study. The librarians shared similar views on various aspects of the design process, as did the architects. The views of the two groups, however, often differed substantially. Respondent quotations are identified in the results section as being made by a librarian (Lib) or an architect (Arc).

The Project Team

The first step in the planning process is the selection of those who will be responsible for overseeing the building process—the project team that represents the stakeholders. In this study, the "client" on the team refers to those representing the library—the librarians and any library board members appointed to the team. The "project manager" is usually an individual employed by the city, district, or municipality (often trained as an architect or engineer) who represents the client group and confers with the architect, the interior designer, and any other consultants working on behalf of the client. The responsibilities of the "architect" on the team are usually clear and prescribed by the laws governing that profession, but those of the client members of the team vary considerably from project to project.

All three projects had similar project teams, but differences were evident in librarians' and architects' perceptions of their roles and the roles of other team members. All three architects were very clear about the composition of the team, the project manager's role, and the chain of command.

The opinions expressed by the respondents highlight important differences and similarities between the library and architecture professions.

> A project manager is basically a term used to describe a person who would basically interface between the client and us. And so in this case it would be the fellow from the [city's] planning department. He was the project manager. Then I would be his liaison. I would be the project architect. And under me, then, I would have the consultants, and the project manager would, on the other hand, look at being sure the user groups would all be involved in the project and available to talk to me. (Arc)

Selecting a site is the first step that gives physical reality to a building project.

The librarians were less certain about the composition of the team and the responsibilities of various team members. They perceived varying degrees of project manager involvement in conferring with the architect and voiced no expectations about a procedural norm. In two cases, the librarians were very satisfied with the flow of information, but in one case it appears that the project manager, for whatever reason, failed to provide the degree of leadership and guidance expected, prompting the librarian to communicate directly with the architect.

> It [our relationship with the project manager] was as satisfying as we could make it. If you really leave it to the city, you don't get much information and we have always said this, that we are the ones who really spearheaded the project. So I was always on the team and neither the project manager nor the architect resisted that. (Lib)

The three project teams in the study differed in degrees of efficiency: some were better organized than others, more skilled at communicating information, encouraged greater participation, and established better rapport among team members. All three librarians indicated that they worked hard, often under trying circumstances, to remain full participants in the planning process and to gain the respect of other team members. When asked to identify her most difficult team issue, one librarian responded:

> Trying to stay within the process because when you're dealing with so many people, such as city engineers and city managers, they assume that they are the experts, that they know [everything]. The hardest thing is to stay, not just in communication, but to be part of the process so you are involved in day-to-day discussions and, in fairness to the city, we really did. There was some rubbing, I think, and I don't want to go into those things. (Lib)

The librarians and architects approached project team participation from different perspectives in this study. With their greater experience overseeing building projects, the architects were more articulate about the planning process and had no hesitation about stating their roles, the roles of others, and their "right" to a place on the team. The librarians were less confident and less forward about the legitimacy of their roles and their contribution to the team. In all three cases, the role of the librarian was shaped by the chain of command established within the individual project team. In all cases, the librarians secured their positions in that chain with strength of commitment and insistence on being heard. Librarians may be involved in building projects only once or twice in their careers, so this unfamiliarity with the process is understandable. However, this lack of knowledge can jeopardize a librarian's ability to contribute to a project team, a competency that all three librarians considered crucial. Although much information exists about library planning and the responsibilities of building teams,[6] only one of the librarians reported consulting the literature to gain information about library planning and project teams.

Site Selection

Selecting a site is the first step that gives physical reality to a building project. It is also frequently the most "difficult, time-consuming, and politicized decision that will be made during a library construction project."[7] The complications encountered with site selection are a good indicator of the major issues, pitfalls, and relationship tensions that may arise during the rest of the project.[8] Municipalities often choose public-library sites from an inventory of available city land. The three libraries examined in this article already had the sites selected prior to architect involvement, but sometimes the client engages the services of an architect and engineers to conduct site feasibility studies or to settle specific zoning issues, a complication for which librarians should be prepared. In this study, only the Renfrew Library required an architect to report on the acceptability of the site chosen by both the city and its park's board:

> The first stage was to deal with the feasibility of the building on the particular site

that had been selected. The site that had been selected was a Vancouver Park Board site in front of the community center. The park board's attitude was, "Well, we're in the business of park land, not building buildings on park land." And so there was an apparent conflict between the goals of the park board and the goals of the library. It was our job as urban designers to show how a library of that scale could work with the community center and enhance the park site. (Arc)

Despite their arrival on the project teams after the sites had been determined, neither of the other two architects expressed dissatisfaction with the timing. One said that "it is generally desirable in some kinds of projects to enter the process earlier," but maintained that later involvement did not affect one's view of a project.

Although the literature sometimes recommends community involvement in the site selection process,[9] only one librarian reported a high degree of community participation:

With the selection of the site and with, to some extent, the building itself, there was community process involved where there were a number of public meetings held in this community to get feedback from the public on what they wanted, where possible locations would be. (Lib)

Architect Selection

According to Bowron, "the choice of an architect . . . is arguably the most important decision a librarian or library authority can make, once the decision to . . . build has been taken."[10] For the majority of library building projects, architect selection is done through a request-for-proposal process to ensure fairness. Architects respond to newspaper advertisements that invite proposals for the library design and construction. The library building committee then reviews these proposals, shortlists perhaps four to six of the best candidates, and interviews them. When selecting an architect, the committee should consider relevant experience, design capabilities, and perhaps most important, compatibility with other team members. This is important because representatives from the committee will be working closely with the architect for two to four years, which is a typical time period for planning, designing, and constructing a new public-library branch. Once the committee has selected an architect, they notify all those who responded to the request for proposals and negotiate a contract with the chosen firm.

All three libraries used the request-for-proposal process. In their interview responses about selection procedures, however, all three librarians remembered their grave concerns that this process would actually furnish an architect capable of capturing the librarians' visions for the building. The architects, on the other hand, focused on the complexity of the process when a number of parties are involved.

There was a shortlist of seven firms who were then interviewed by a committee consisting of representatives from the library board, the library administration, the park board, the planning department, and people from the city, who are in fact the owners of the building—the library is a tenant here and the city really owns it and so there was quite a large committee to choose the architect. (Arc)

The Building Program

The purpose of a building program is to articulate clearly the proposed functions of a new building in order to give an architect sufficient information to begin the project. A building program establishes the basic elements of the library plan and typically includes an overview of spaces required and the functional relationships between those spaces. It often prescribes minimum size requirements for various collections, the public-service areas, and the nonpublic work operations. It can also include specifics about desired levels of lighting, acoustics, and general decor.[11] Responsibility for preparing a building program varies from project to project. In some cases, a library consultant is hired specifically for this purpose, while in others, the chief librarian, the library building committee, or (rarely) the project architect undertakes the task. In this study, librarians and library board members created the building programs for two libraries, while for the third, an outside consultant was hired. In all three cases, the architects stressed the importance of a comprehensive and accurate building program.

What you generally do is begin by coming to understand what the client's expectations are. It includes especially qualitative things. And that was stressed by the library committee very much—that there

A building program establishes the basic elements of the library plan.

were certain characteristics they wanted this library to have. They wanted it to be accessible—that was a very important consideration. They didn't want it to alienate the community. They didn't want it to have an institutional or authoritarian character. They wanted it to be very non-intimidating. . . . They didn't view it as a place that housed books. They viewed it as a place where people gathered and had access to library resources, but it wasn't an archive. So that there was not a preciousness about the books—so natural light was not a problem. When we were taking the list of spaces . . . they were organized in a way which is intended to reflect attitudes about accessibility. (Arc)

In concert with the architects, all three librarians emphasized the significance of a good building program: they envisioned it as a strange combination of abstract description and painstaking detail, difficult to articulate, but essential to the success of the project.

We drafted it and handed it to the architect. I had this picture, listening to my users. I knew what my community wanted because I was signing out the books and helping their kids after school, so I was given the job of writing the vision of the new branch. We took it piece by piece and described step-by-step all the facilities' component requirements like earthquake-proof adjustable metal shelves, everything. What you're doing is literally building the building in your head. And we walked through it, over and over again, so we made sure that nothing was forgotten. Nothing. What plugs we want, what special requirements we want. And then we handed this to the architects and said, "here." They were thrilled to bits, by the way. (Lib)

It is in the exterior- and interior-design stages of the project that the architect's role is foremost.

Design Process

It has been argued that "the architect's usefulness begins when the building program is completed and approved by the sponsoring institution."[12] While some architects may disagree with this statement, the literature and data from this study clearly indicate that it is in the exterior- and interior-design stages of the project that the architect's role is foremost. The three architects all commented extensively on the importance of harmonizing the exterior design with the building site. In two cases, surrounding green landscapes of grass or trees provided inspiration, but the site of the Newton Library presented a more challenging design context.

Developing a building which felt right for the Newton site was the most difficult design issue because the relatively neutral, flat, suburban situation which that building is in doesn't give you anything. The site, in a sense, had little to contribute to the building. When you have a context that's relatively mute and doesn't offer much, then one of the major things that you respond to isn't there. (Arc)

To design interior spaces, an architect translates the parameters from the building program into a schematic building design, which frequently utilizes bubble diagrams to clarify relationships between library departments. Within a good project team, much consultation about square footage and department proximities occurs at this stage to clarify ideas and intentions. Surprises still occur, however. A librarian may discover, for example, that supposedly clear instructions in a building program have been misinterpreted by an architect.

The first plan—I still remember it because it was such a jolt. The part of the library you see that juts out like the prow of a ship, they had made that into a *mezzanine*. Well, I was beside myself when I saw the plan. I was just . . . I was stunned. I mean, I thought they read this [the building program], the whole bit. I was going to say something but I was just so stunned I couldn't say anything. Well, fortunately my boss [the chief librarian] just went "Aaahhhhhhh . . . you can't do that!" And she was a very forceful lady, and I didn't have to say anything. (Lib)

Cost estimates are made once an architect completes preliminary exterior and interior design drawings. The architect then works closely with the client to ensure that all requirements of the building program are met and that projected costs remain within budget. The initial bubble-diagram sketches evolve into floor plans, which are then translated into three-dimensional architectural models. As compromises are made and costs are checked, the design (in almost every case) changes. In this manner, the design is refined until the client group and the architect achieve a consensus on the overall design of the library building.[13] All architects and librarians agreed that a "give-and-take" process was necessary to achieve a successful design.

Ideally, all members of the project team remain very involved with both the exterior and interior design of the building. In the projects described here, how-

ever, the exterior remained largely the architects' domain while the librarians concentrated their attention on interior design and contributed little to the shaping of the exterior.

> The exterior of the building was the architect's vision because he was creating something which he felt was compatible to our community, a benchmark for the city. . . . But interior spaces, we were *really* involved. (Lib)

> The outside, really, I didn't have a whole lot of say. The inside, yes. . . . (Lib)

Although the librarians in this study were generally pleased with the exteriors of their buildings, this "hands off" attitude could pose problems for public librarians if commonly held, because a library exterior conveys such important symbolic messages to the public about the institution's purpose and its (hoped-for) relevance to society. Few librarians in the 1990s would be pleased with a 1920s Carnegie facade or a forbidding concrete bunker designed by a misguided architect. In addition, some exterior architectural features can pose unanticipated maintenance problems that become the librarian's responsibility, a predicament that underscores the need for extensive client input into the building exterior. In one library, the city park board insisted that having a pond on the roof would provide, from the aesthetic point of view, a landscape feature essential to the site as a whole. According to the librarian, however:

> The pond on the roof is probably the most obvious problem. The library was not entirely happy with having to meet the [park board's] condition, and certainly it has proven to be rather a millstone around our necks in terms of maintenance. This year really is the first full calendar year where we've had to shut the ponds off in the wintertime, then get them up and running in the summertime, so the building is still to some extent in its shakedown period. In order to get the building built and to use park-board land, the pond was something that the library had to agree to. But we're not entirely happy about it because it does stress our maintenance staff considerably and will be an added expense. (Lib)

Library Interiors

The librarians have the greatest input during the design of the library interior because they possess specialized knowledge and expertise about library processes in general and about their library's special requirements.[14] Some of the key elements in interior design are lighting, integration of information technology, furnishings, acoustics, and ventilation: problems often arise because sufficient attention is not paid to these elements before the library is constructed.[15]

Lighting

Library lighting has received significant attention in both library and architecture literature.[16] Most libraries require different types of lighting in specialized areas, and the desirable combination of artificial and natural lighting is difficult to achieve. Library lighting is not only a particularly complex problem but also a controversial one. Architects, illumination engineers, librarians, ophthalmologists, and even readers differ in their opinions on the best library lighting in terms of quality, function, aesthetics, intensity, and cost.[17]

Problem lighting areas within the library include bookstacks, individual study carrels, group-study tables, high-ceiling areas, and lighting for the visually impaired. To deal with these problems, librarians should be knowledgeable about the numerous kinds of lighting available (such as illuminated ceilings, indirect lighting, diffused light, direct light, and natural light) and the different types of light bulbs (e.g., incandescent, fluorescent, high-intensity discharge, halogen) used by each lighting type. Public-library lighting is further complicated by the fact that library users' visual acuity covers a broad spectrum. Poor lighting and glare from too much lighting can be annoying and distracting. Scattered or diffused light is easiest on the eyes, but is a difficult effect to achieve.[18] From an environmental perspective, librarians and architects must act responsibly to implement a lighting system that will be energy efficient, as well as easy to maintain over the long term. Overall, lighting has the unique ability to influence the environment and create mood, and is therefore a crucial, but often underemphasized, consideration in interior design.

> In every library we went to, we checked out the lighting. And I've seen libraries where it is dark in the stacks. Does that make sense? Lighting was number one here. And also we stressed practicality again. That you can (a) replace the light

[Lighting] is therefore a crucial, but often underemphasized, consideration in interior design.

When librarians and architects were asked if any issues pertaining to information technology surfaced during the design of their library, [they] noted that future technology requirements should have been *more* of an issue.

> bulb and (b) that you can afford them. You can have some exotic lighting. One library that was just built before this one has these very interesting lighting things that come out of the pillars. I got a private VIP tour from the librarian and off the record she asked me, "How are we going to change the bulbs?" Too difficult, and a major, major thing. (Lib)

This conflict between the architect's vision for aesthetic lighting and the librarian's desire for easy maintenance surfaced in several comments:

> Maintenance becomes difficult because of all the high ceilings—it's difficult to reach the lights. I have still to find an architect who says: "Oh, I will compromise my vision because it's going to be cheaper for you to maintain." (Lib)

Information Technology

Planners must give special consideration to the design requirements for information technology because of the rapid rise in library use of personal computers, local-area networks, online databases, and the Internet. The architect and engineers must ensure that the requisite wiring capability not only accommodates the present information technology needs of the library, but also anticipates future needs by providing adequate cabling for future growth (e.g., cable trays).[19] When librarians and architects were asked if any issues pertaining to information technology surfaced during the design of their library, members from both groups, but particularly librarians, noted that future technology requirements should have been *more* of an issue.

> I think that information technology has progressed so quickly that things are not big enough to accommodate all the wires that we're going to need to run the computer system. So we didn't even predict that well enough. (Lib)

> It's interesting how innocent we were in the computer requirements and how the whole thing was designed. This library is out of date. And as much as I'm very proud of this building, if I were doing it again today, there are aspects I would change, knowing what I know now. (Lib)

Planning for the location of cable conduits can be problematic, especially if information is not disseminated to everyone on the project team. In one of the libraries studied, a serious problem occurred because bookshelving was being bolted to the floor directly over a technology cable conduit in the subflooring, which necessitated costly disruptive changes in bookstack arrangements.

Furnishings and Carpeting

Furnishings and carpeting for the library should complement and interact harmoniously with the lighting in the building. For example, tables with matte (as opposed to glossy) finishes are preferred as they reduce glare. Recent literature on choosing furniture emphasizes ergonomic characteristics, and the librarians echoed this concern. According to one, "This is where staff members are physically doing their jobs hour after hour after hour, and they pay for it with their bodies." Durable carpeting that complements the overall interior design of the library should be chosen with a view to minimizing environmental hazards (e.g., off-gassing, allergies). All three of the architects were concerned about the fumes given off by new carpets and furniture: two of them were pleased with their choices, while the third expressed some doubts.

> You know, the furniture was custom designed, and I think we might have missed a few things in some of the glue in the furniture. I'm pretty sure that some of the furniture gassed-off and was a little bit objectionable to some people, . . . especially when we mocked up a table that was brand new . . . it actually gave us a headache. Anyway, we were aware of those issues. (Arc)

In two of the three libraries, furniture was purchased mainly from commercial dealers, while in the third the design of the furniture came as part of the whole package.

> All the furniture is custom designed or special purchased. The amount of time the architects spent getting the right carpet—everything had to be just right for their concept! With most buildings, the architects don't even bother to choose the furniture [but] there was no way the architect was going to have anyone else do the furniture. (Lib)

The library literature notes that the circulation desk design often causes the most headaches,[20] an observation supported by this research. The circulation desk elicited the most comments from librarians, and in two of three cases, the comments were largely negative.

> So I got a [circulation] desk and it looks

very nice, but it's practically useless. I think there should be an expert out there studying circulation desks—it's a costly area, a lot of people work at it. They're all a problem in every library I've visited and they are a pain in the neck. (Lib)

The thing we agonized over *most* in the interior was how to design a circulation desk that was ergonomically good and met all our needs in terms of functionality. It's personal preference to some extent, and so to come up with the ideal circulation desk for every single individual staff member who may work at it, and then also fit it in with the rest of the building—that was probably the thorniest issue of all the ones I had to deal with. We had a lot of great ideas which sounded great on paper, [but] despite all of the effort that was put into it, I wish we could have come up with a better product than we did. (Lib)

Acoustics

High-traffic areas in a library present many acoustical problems because sound has the nasty habit of traveling from busy areas such as circulation and reference desks to quieter areas designed for study and reading. Architects may try to deal with this issue by using irregular room shapes or textured ceilings and walls that scatter sound waves. Hard surfaces, like wood and tile, cause sound to reverberate, while soft surfaces, like carpet, wall coverings, and draperies, absorb and/or dampen sound. One of the best methods of controlling sound in libraries is to install acoustical paneling specifically designed to absorb sound. None of the architects mentioned acoustical concerns, but it was a concern of two of the librarians.

Noise is an issue. The building is not a quiet building. With the high ceilings and exposed concrete and wood, we find that voices tend to reverberate, so when we have a large number of students in, which we often do, you have to go and say, "I know you're not talking that loudly but could you try and keep it down a little bit more?" Also, sound at the circulation desk. Staff find it difficult there when answering the phone. If there's a lot of ambient noise in the building, they'll have difficulty hearing people. Noise from the foyer tends to come in if somebody's talking on the pay phone out there. So it's not disastrous, but it's an issue, and apparently I understand it was discussed by the building committee in the early planning stages—they sort of wondered about that—and the architect said, "Oh no, it should be fine," but in fact we could probably do with a little more sound baffling than we have. (Lib)

Heating, Ventilation, and Air Conditioning

Research clearly shows that the quality of heating, ventilation, and air conditioning, or HVAC, in any building has noticeable effect on its inhabitants.[21] The hum of a fan or white noise from a ventilation system can be very annoying. Workers in a poorly ventilated building can suffer from headaches, and those with asthma or allergies suffer in dusty environments. A library that is too cold or too hot will be inhospitable to patrons and unworkable for staff, while a library that is too dry will be destructive to the books it houses.

With the HVAC system, compromise had to be made in order to come in within budget and that has created some problems in terms of heating and air conditioning in this building. It doesn't balance quite as nicely as it might have if we'd gone with the Rolls Royce or Cadillac system. This office, for example, is quite cold, as is the staff room, both in the winter when the heat is on and in the summer when the air conditioning is on. And that's partly because it's connected to the same air-handling unit that covers the east side of the public area. So to get the heat in the open area right it ends up not being balanced correctly in the smaller, more enclosed areas. (Lib)

Windows that can be opened play havoc with an HVAC system and can pose security problems, but are considered a plus by staff members desiring a "fresh-air" environment. One librarian was convinced that her staff was healthier because of the carefully chosen fresh-air intake and filter system and because the windows could be opened. In another library, however, a communication breakdown about the window screens caused a problem: the architect appeared to be satisfied with the screens in the design; the librarian was not.

There are openable windows in the space, so it's not a hermetically sealed building. They've got screens on them so they can't throw books out, but you can open the windows, which you can't do in many libraries. (Arc)

The screens that go over the opening windows were something we were not entirely happy with. We had specified that we needed some kind of screening over the windows because it's a security issue. If you're going to have windows that open

in the public area you've got to ensure that people can't throw books out of the windows. So we had specified some kind of screening, but to be perfectly frank, everybody within the library was quite horrified when we saw what we'd gotten. The architect firm designed them to mirror some of the architectural elements and the furniture elements, but we weren't anticipating the solidity of them. We were expecting more of a mesh-type screen that would be almost invisible. I'm trying to remember if we'd even seen a drawing. Whatever we had seen, we weren't anticipating what we got. They looked like something in a prison. And we actually did talk to the architect about whether they could be redone. It ended up that we're living with that. (Lib)

Summary

Several key points emerged from the interviews. First, all three librarians spoke more extensively than the architects did about the need for personal flexibility, compromise, and diplomacy. The librarians alluded frequently to the different agendas of people on the committee and emphasized that tradeoffs were necessary if the project was to move forward. They were particularly cognizant of the complications produced by time and budget constraints, which made negotiated, practical decisions even more essential.

> For one thing, it's always a group process, and it isn't like "I am the owner of this building. I say what I want and I get it." You know, it's a system. It's design by committee. So there's always compromise, just in terms of even within the organization itself. (Lib)

In contrast, the architects emphasized the need for a strong, singular vision, which could be diluted by "too many cooks." They rarely spoke about team dynamics—perhaps because of their greater focus on the creative processes that are often solitary in nature.

Second, the librarians' lack of knowledge about the building planning process lessened their ability to assume a strong role in the process. All three librarians said that the process was unfamiliar, but unfortunately, only one appeared to take advantage of the guidance available in library and architectural literature. They recognized that an indiscriminate dependence on the talents and recommendations of design professionals could result in problems, but were unclear about how they could balance the situation. They admitted that they were sometimes hesitant to voice opinions because of uncertainty about planning procedures, but they were very aware of the importance of participating: "You must fight for your share of the turf!"

Planning a new library facility is one of the most challenging opportunities a librarian is likely to face. Unfortunately, few library schools include library design courses in their curriculum.[22] Librarians involved in the design of a new public library facility must obtain the requisite skills in the workplace, usually by touring recently completed libraries and public buildings. The third major point to emerge from the data was the different "spin" that librarians and architects place on visiting other facilities to obtain ideas. All three librarians were adamant that touring other buildings to get ideas about successful and disastrous design features was important: one librarian even journeyed to libraries, hotel lobbies, bookstores, and coffee bars all along the Canadian and U.S. west coast to get ideas about vibrant yet inviting public spaces and took photographs to document her discoveries.

In contrast, the architects placed far less emphasis on bringing in ideas from other buildings and were more focused on creating fresh, innovative interpretations of public-library facilities that would make a personal statement. They were not interested in producing an amalgam of features from other buildings. One architect felt strongly that the project librarian had visited too many libraries resulting in a "wish list" of features, which could not all be integrated into a new building with unity and originality.

The final major point that emerged from the data was an overall difference in perception between the architects and librarians about the nature of the building itself. Throughout the interviews, the architects concentrated on building form, the librarians on building function. The architects emphasized the "look" of the building exterior and interior, while the librarians were most concerned with "use." This is certainly understandable given that the librarians are the continuing tenants of the building, but it appears that this form/function viewpoint difference exists even in the initial plan-

Planning a new library facility is one of the most challenging opportunities a librarian is likely to face.

ning stages, and leads to a communication gap that both architects and librarians must recognize.

In all three cases, even before the ground was broken for the new building, the librarians were concerned about how successfully the new building would serve the clientele, how the building would cope with increased demands for services, how successfully the building could assist the librarians in fighting for scarce budget dollars. In each case, the librarians envisioned the new library filled with satisfied customers, who (unfortunately) begin to cause wear and tear on the building as soon as it opens.

The architects continued to see the building in much more static, symbolic terms throughout the process. They described what the building "is," while the librarians described what the building "does." The librarians were passionate about the societal needs their libraries filled and the importance for their buildings to "fight, not just exist" in the city landscape. They envisioned their libraries within the broad context of public library philosophy; for example, they hoped their buildings would contribute to safeguarding the future of the public library as an institution, but worried about the building's future in times of budget cuts and branch closures. The architects did not associate the building design with these wider issues, nor should they be expected to. But both groups should be aware of the potential misunderstandings that might result from these different viewpoints. By necessity, the librarians focused more on the successful interior functioning of the building over the long term, while the architects focused on the successful form of the building after construction.

Although many differences between librarians and architects were evident in their opinions, two crucial similarities were clear: a shared excitement with the process of planning and constructing a new library building, and a mutual appreciation for each other's skills and commitment. With an awareness of these important common factors and foreknowledge of possible areas of misunderstanding revealed in this research, librarians faced with a building project can participate more ably and confidently in the planning process.

> It was very exciting and very tiring. I would love to do it again. And I have to say that the architects were great to work with. I hear it's not always the experience, but these fellows who were assigned to us were wonderful. We knew they were listening. (Lib)

> The key to a good building is the client. A good architect, without a good client, can't do a good building. And so, I think that the successful qualities of this building, ultimately, have to be chalked up to the [librarian's] credit. (Arc)

The librarians were passionate about the societal needs their libraries filled.

References and Notes

1. Albert Bowron, "The Architect and the Librarian," *Canadian Library Journal* 48 (June 1991): 163.
2. Nolan Lushington and James M. Kusak, *The Design and Evaluation of Public Library Buildings* (Hamden, Conn.: Shoestring Pr., 1991).
3. Richard C. McCarthy, *Designing Better Libraries: Selecting and Working with Building Professionals* (Fort Atkinson, Wisc.: Highsmith, 1995); Ellsworth Mason, *Mason on Library Buildings* (Metuchen, N.J.: Scarecrow, 1980).
4. Gerald Prodrick, "Canadian Library Buildings: Historical Perspective and Current Scene," *Canadian Library Journal* 39 (Aug. 1982): 201.
5. Newton Branch opened in 1992, has 15,000 square feet, and 1996 circulation was 752,000. Parkgate Branch opened in 1994, has 15,000 square feet, and 1996 circulation was 399,000. Renfrew Branch opened in 1994, has 16,000 square feet, and 1996 circulation was 660,000.
6. McCarthy, *Designing Better Libraries*; Raymond M. Holt, *Planning Library Buildings and Facilities: From Concept to Completion* (Metuchen, N.J.: Scarecrow, 1989).
7. Lee B. Brawner and Donald K. Beck, Jr., *Determining Your Public Library's Future Size: A Needs Assessment and Planning Model* (Chicago: ALA, 1996).
8. Holt, *Planning Library Buildings and Facilities*, 7.
9. Richard B. Hall, *Financing Public Library Buildings* (New York: Neal-Schuman Pub., 1994).
10. Bowron, "The Architect and the Librarian": 163.
11. Holt, "Appendix D," in *Planning Library Buildings and Facilities*.
12. Holt, *Planning Library Buildings and Facilities*, 65.
13. Matthew J. Simon and George Yourke, "Building a Solid Architect-Client Relationship," *Library Administration & Management* 1 (June 1987): 100–104.
14. Aaron Cohen and Elaine Cohen, *Design-*

	YES	NO	N/A

M. Interior Signage

1. Do signs meet ADA requirements (see section 5)? ___ ___ ___
   Comments: _____

2. Has the sign system been integrated into the building design and furniture selection process (architecture, color, etc.)? ___ ___ ___
   Comments: _____

3. Is there consistency in signage throughout the building? (Signs that serve the same function throughout the building should have the same shape, size, layout, type size, and placement.) ___ ___ ___
   Comments: _____

4. Are the signs of good design? (Typeface, size, spacing of letters, contrast, use of symbols, and color should all be considered.) ___ ___ ___
   Comments: _____

5. Are the sizes of signs proportional to distance from users and are signs sequentially positioned to facilitate self-service? ___ ___ ___
   Comments: _____

6. Are the signs well lighted, easy to read, and positioned for a clear view? ___ ___ ___
   Comments: _____

7. Do signs use terminology consistently? (Only one term should be applied to any one area, service, etc.) ___ ___ ___
   Comments: _____

8. Is the text of the sign clearly and accurately written in order to communicate the intended message effectively and positively? ___ ___ ___
   Comments: _____

	YES	NO	N/A
9. Is the signage system flexible enough that, as conditions change, signs can be changed or moved easily?	___	___	___
Comments: _____			
10. Is redundancy avoided? (Too many signs, all providing the same message, can be as bad as no sign at all.)	___	___	___
Comments: _____			
11. Are signs positioned and designed to avoid injuries (sharp corners, height, etc.)?	___	___	___
Comments: _____			
12. Are signs reasonably vandal proof?	___	___	___
Comments: _____			
13. Is the exterior monument sign(s) identifying the library positioned so that it is easy to read when approaching the library? (A sign perpendicular to the road is easier to read than a sign parallel to the road.)	___	___	___
Comments: _____			
14. Is there a directory identifying major library services and their locations?	___	___	___
Comments: _____			
15. Are directional signs available leading patrons to different departments and placed at logical decision points?	___	___	___
Comments: _____			
16. Are there signs on doors and at the entrances to departments to identify the function or service within that room or area?	___	___	___
Comments: _____			
17. Are there signs to highlight temporary collections and services or to announce events taking place in the library?	___	___	___
Comments: _____			

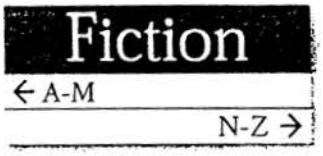
	YES	NO	N/A
18. Are there signs that can be easily changed on the end panels of stacks to identify which books are shelved in that range?	___	___	___
Comments: _____			
19. Are there signs to provide critical information about regulations, warnings, procedures, instructions, and hours?	___	___	___
Comments: _____			
20. Are instructional signs available for catalog use?	___	___	___
Comments: _____			

N. Workroom/Offices

1. Are there individual workstations for all staff?	___	___	___
Comments: _____			
2. Are there adequate workstations for library volunteers?	___	___	___
Comments: _____			
3. Are workstations free from distractions?	___	___	___
Comments: _____			
4. When required for team activities, are some workstations designed to foster communication among staff?	___	___	___
Comments: _____			
5. Are there lockers and/or coat closets where personal items can be stored and secured for staff and volunteers?	___	___	___
Comments: _____			
6. Is there adequate at-hand storage space?	___	___	___
Comments: _____			

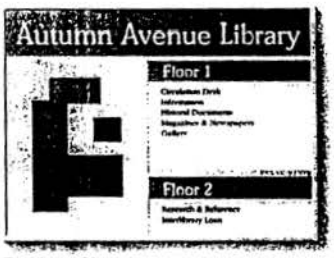
The sign systems pictured below include the basic signs required in different types of facilities. Please consult this handbook and contact your local ASI Affiliate to determine the product solution to meet your specific needs.

Libraries



Range Finder

Room Control (In Use)

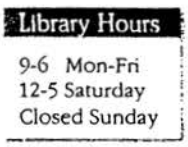


Library Directory

Overhead ID or Directional

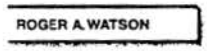
Personnel ID

Restroom ID

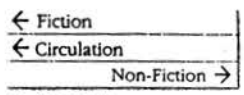


Operating Hours

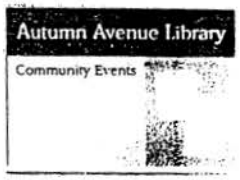
Personnel ID with Number



Personnel ID



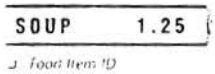
Directional



Announcement Board

Food Service

Nutrition Information Board



Food Item ID


No Smoking Sign, Desk or Wall

Overhead ID

Restroom ID

Manager On Duty

Menu Board

Hospitality

Guestroom Number Plaque

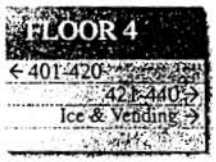
Room ID

Code Elevator Prohibition

Restroom ID

Manager On Duty

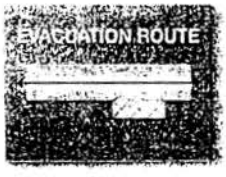
Entry Prohibition



Floor Directional

Meeting Room

Meeting Room Directory



Code Evacuation Map


Projecting Room ID

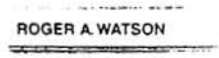

No Smoking Sign, Desk or Wall

Facility Locator Map

Code Stairwell

Logo at Registration Desk

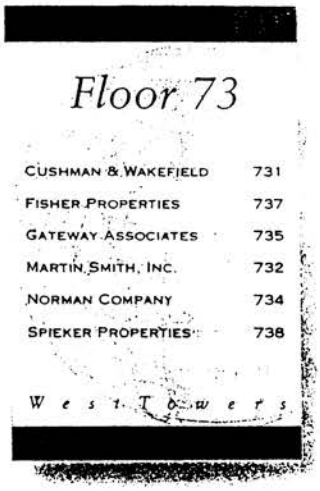
Personnel ID with Room Number

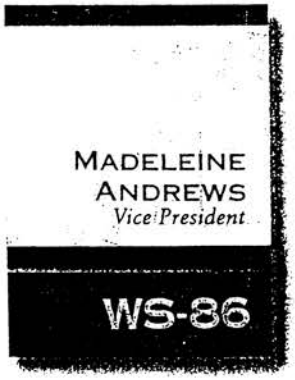


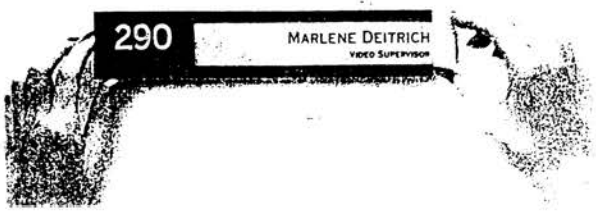
Personnel ID

WS Series
Window Signs

SignFax: 005





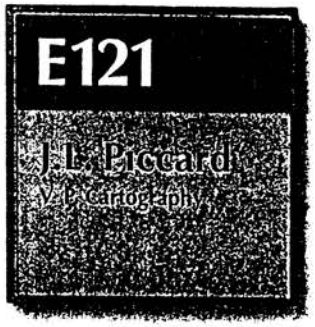


The *WS Series* integrates tactile lettering and Braille with changeable, computer generated graphics. While the ADA-Ready™ component is permanent, the protected paper insert can be replaced and updated in-house.

- Thin Profile
- *ASI Inhouse* Template Software for Macintosh and MS Windows
- Perforated Paper Insert Stock
- Graphic Application Options:
  - Text: Surface Screened, *LTV Series* Vinyl Letters, Computer Generated Paper Inserts
  - ADA-Ready™: *ASI InTouch, ASI SignEtch 1, ASI Intac, ASI EmBoss*
- Colors: 65 Standard Colors (custom available)

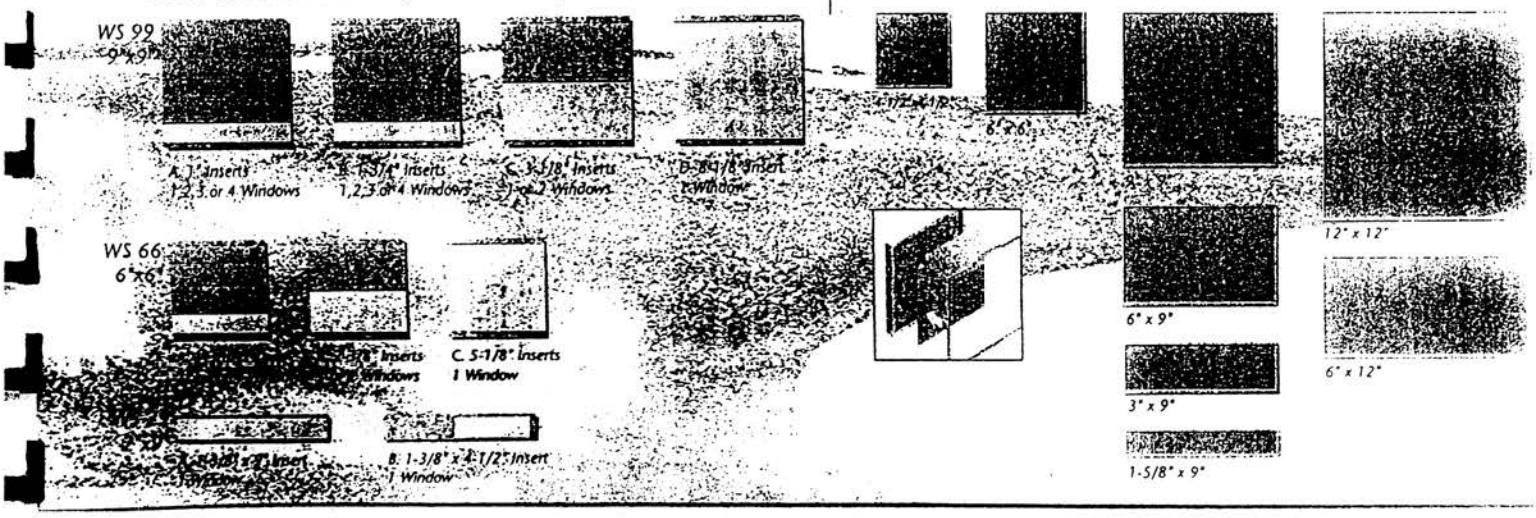
ASInhouse Classic

SignFax: 0



The *ASI Inhouse Classic Series* presents a traditional framed appearance while allowing instant, economical on-site updates.

- *ASI Inhouse* Template Software for Macintosh and MS Windows
- Perforated Paper Insert Stock
- Graphic Application Options:
  - Text: Surface Screened, *LTV Series* Vinyl Letters, Computer Generated Paper Inserts
  - ADA-Ready™: *ASI InTouch, ASI SignEtch 1, ASI Intac, ASI EmBoss*
- Colors: 65 Standard Colors (custom available)



Inhouse Updateable Interior Sign Systems

INTERIOR 20 PaperFlex

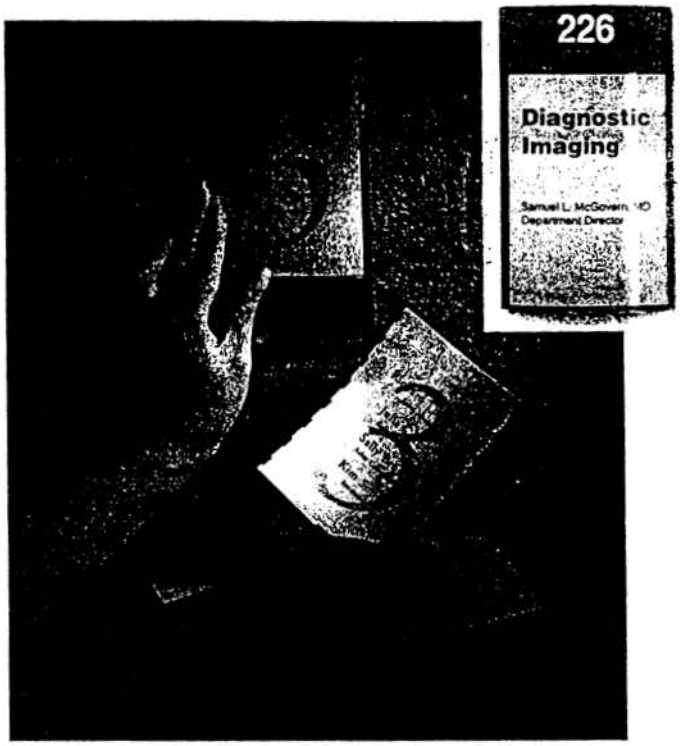
SignFax: 003

INTERIOR 20 *PaperFlex*, a new extension of the INTERIOR 20 Series, utilizes paper insert modules, creating a versatile in-house updateable system.

- Reduces Maintenance and Replacement Costs
- In-house Control
- Modules are Interchangeable from One Sign to Another
- *ASI Inhouse* Template Software for Macintosh and MS Windows
- Perforated Paper Insert Stock
- Panel Options: Permanent, Interchangeable, ADA-Ready and *PaperFlex* Updateable Panels
- Mounting Options: Wall, Suspended, Projecting, Countertop, Floorstand, Partition
- Graphic Application Options:
  - Text: Surface Screened, *LTV Series* Vinyl Letters, Computer Generated Paper Inserts
  - ADA-Ready™: *ASI InTouch, ASI SignEtch 1, ASI EmBoss*
- Colors: 120 Standard Colors (custom available)

PANORAMA

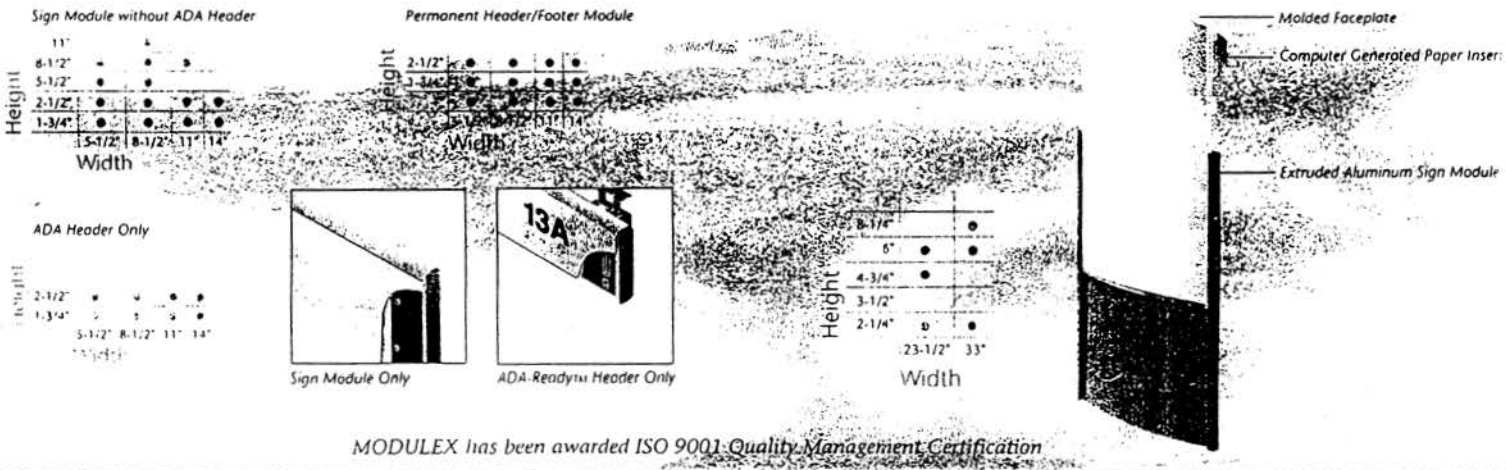
SignFax: 004



As part of a total solution, PANORAMA features a curved face design with a unique removable lens and hidden locking device, enabling quick in-house updates.

- *ASI Inhouse* Template Software for Macintosh and MS Windows
- Perforated Paper Insert Stock
- Panel Options: Permanent, PaperFlex
- Mounting Options: Wall, Partition
- Graphic Application Options:
  - Text: Surface Screened, *LTV Series* Vinyl Letters, Computer Generated Paper Inserts
  - ADA-Ready™: *ASI InTouch, ASI SignEtch 1, ASI EmBoss*
- Colors: 120 Standard Colors (custom available)

PANORAMA is also featured on the Front and Back Covers of this Handbook



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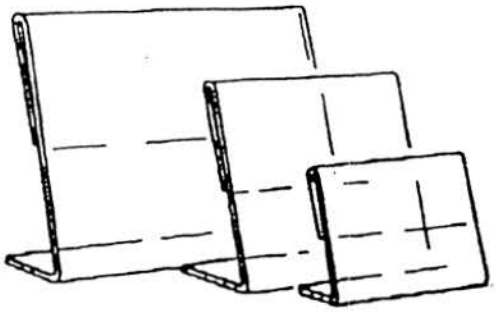
CLEAR ACRYLIC SIGN HOLDERS

HORIZONTAL SLANT BACK SIGN HOLDER

Clear Acrylic Single Sided

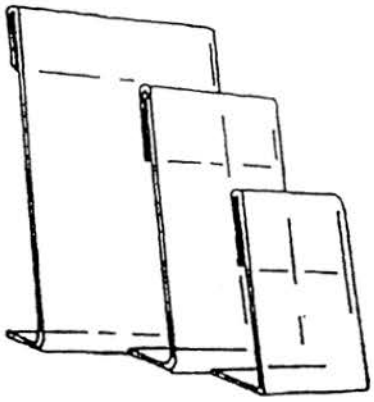


SS1H
5 ½" x 7"

SS2H
7"X11"

VERTICAL SLANT BACK SIGN HOLDER

Clear Acrylic
Single sided

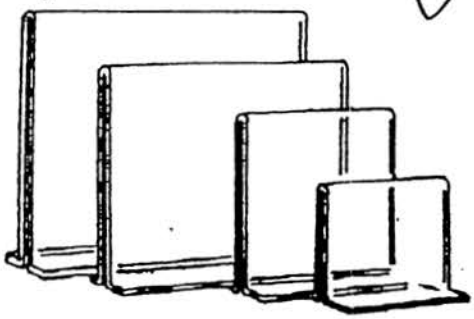


SS1V
11" X 7"

7"X 5 ½"

HORIZONTAL COUNTER TOP SIGN HOLDER

Clear Acrylic Double Sided

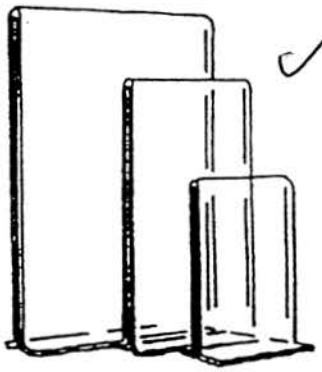


DS2H
7"X11"

DS1H
5 ½" X 7"

VERTICAL COUNTER TOP SIGN HOLDER

Clear Acrylic
Double sided



VSAB07
8 ½" X 11"

DS2V
11"X7"

DS1V
7"X5 ½"

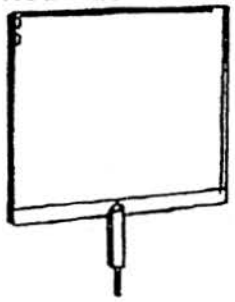
DOUBLE SIDED SIGN HOLDER

Horizontal — Clear

with 1-1/2"
threaded stem

018-PTH57
51/2" x 7"

018-PTH711
7" x 11"



DOUBLE SIDED SIGN HOLDER - VERTICAL

Clear Acrylic

003-U2V
11" x 7"

003-U3V
14" x 11"