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REGULATIONS / RÈGLEMENTS

PROPERTY ASSESSMENT AND TAXATION ACT

R-025-2023
Registered with the Chief Legislative Counsel
2023-10-16

PROPERTY ASSESSMENT REGULATIONS, amendment

The Minister, under section 117 of the *Property Assessment and Taxation Act* and every enabling power, makes the annexed amendments to the *Property Assessment Regulations*.

1. The *Property Assessment Regulations* are amended by these regulations.

2. Section 1 is amended by repealing the definitions of "Alberta Schedule**" and "**Assessment Manual**".**

3. Section 1.01 is repealed.

4. Section 9.1 is repealed.

5. The Schedules 1, 2, 3, 4, 5 and 6 set out in the Schedule to these regulations are added after section 30.

6. Schedules G and H are renamed as Schedules 7 and 8 and are placed after Schedule 6.

7. Subsection 10(4.1) is amended by replacing "Schedule G**" with "**Schedule 7**" wherever it appears.**

8. Subsection 14(2.1) is amended by replacing "Schedule H**" with "**Schedule 8**" wherever it appears.**

9. Schedules A, B, C and D are renamed as Schedules 9, 10, 11 and 12, and are placed after Schedule 8.

10. The following provisions are amended by replacing "Schedule A**" with "**Schedule 9**" wherever it appears:**

(a) paragraph 19(a); and
(b) paragraph 19(b).

11. The following provisions are amended by replacing "Schedule B**" with "**Schedule 10**" wherever it appears:**

(a) subsection 22(2);
(b) subsection 23(4);
(c) section 24; and
(d) subsection 25(2).

12. Section 16 is amended by replacing "Schedules A and B**" with "**Schedules 9 and 10**".**

13. The following provisions are amended by replacing "Schedule C**" with "**Schedule 11**" wherever it appears:**

(a) paragraph 3(3)(b);
(b) paragraph 3(6)(a); and
(c) paragraph 3(6)(c).

14. The following provisions are amended by replacing "Schedule D**" with "**Schedule 12**" wherever it appears:**

(a) paragraph 10(5.4)(c);
(b) paragraph 13(8)(c); and
(c) paragraph 14(7)(c).

15. Schedules E and F are repealed.

16. Paragraph 14(1)(a) is amended by replacing "section 1.190.050**" with "**sections 1.190.020 to 1.190.050**".**

17. The following provisions are amended by replacing "Alberta Schedule**" with "**Schedule**" wherever it appears:**

(a) section 1, under the definition of "base year modifier**";**
(b) subsection 10(1);
(c) paragraph 10(2)(a);
(d) paragraph 10(2)(b);
(e) paragraph 10(2)(d);
(f) paragraph 10(3)(a);
(g) paragraph 10(3)(b);
(h) subsection 10(4);
(i) subsection 10(4.2);
(j) paragraph 10(4.2)(a);
(k) paragraph 10(4.2)(c);
(l) paragraph 10(4.2)(d);
(m) subsection 10(6);
(n) subsection 13(1);
(o) paragraph 13(2)(a);
(p) paragraph 13(2)(b);
(q) subsection 13(3);
(r) subsection 14(1);

(s) paragraph 14(1)(a);
(t) subsection 14(2);
(u) schedule 7; and
(v) schedule 8.

SCHEDULE

Section 5

SCHEDULE 1

Sections 1 and 9.1, paragraphs 10(3)(a) and (b), subsection 10(4), paragraphs 10(4.2)(a), (c) and (d), subsection 13(3), paragraph 14(1)(a) and subsection 14(2)

INTRODUCTION
INDEX

SCHEDULE 1

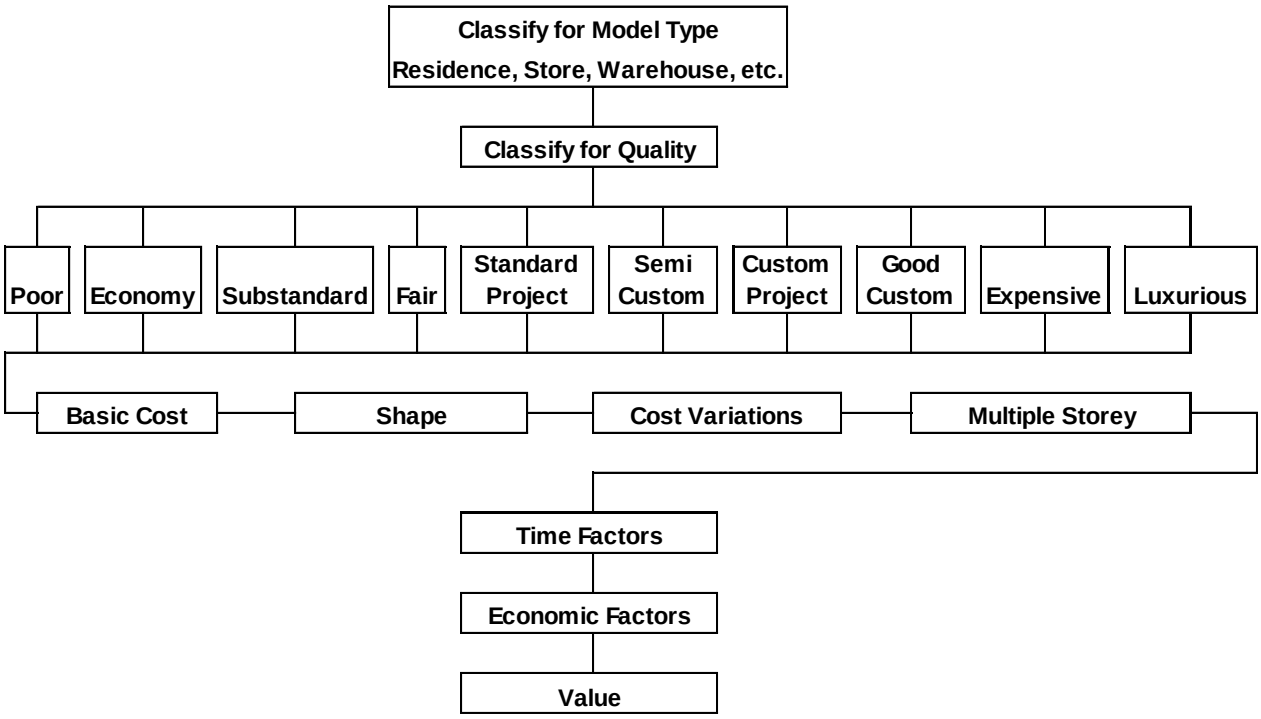
INTRODUCTION

1.050.000 CLASSIFICATION - GENERAL

1.050.010 It is important that the assessor be familiar with the principles which affect the classification of improvements. These principles include factors such as use, design, kind and quality of materials and grade or quality of workmanship. The **Assessment Manual** enables the assessor to assess common types of improvements in a systematic manner by application of predetermined assessment rate schedules which have been segregated into various model type and quality strata. The type stratum is identified by the intended use and basic design of the improvement; the quality stratum is identified by the kinds and quality of the materials and the grade of workmanship in the improvement.

1.050.020 The steps having general application in this **Manual** are as follows:

CLASSIFICATION PROCESS



1.050.030 Accurate classification requires careful attention to the general description and quality specifications detailed in the **Manual** for each classification. Photographs can be effective to give a general indication of building type and quality.

1.070.000 METRIC MEASUREMENTS

1.070.010 INDEX

1.070.020 SI MEASUREMENT

The **Manual**, in concert with Federal and Territorial adoption of SI metric measurement, has been produced to conform to these standard measurements. Therefore, measurements of materials, unit costs, component costs, module costs, base rates, installation rates, adjustments and specialty rates are expressed, whenever possible, in terms of metric measurement units.

1.070.030 Measurement significance in metric units is extremely important and the following rules have been established.

LINEAR MEASUREMENTS:

(1) When converting from Imperial measure to SI metric or when using an SI metric tape or other device to make linear measurements of land or buildings, carry the measurement to two decimals of a metre. This will have the same effect as measuring a building to the nearest centimetre.

(2) For example: the factor to convert feet to metres is 0.3048. If a measurement is 24'3", the calculation will be 24.25 x 0.3048 = 7.391 400 m. Round to 7.39 m.

SQUARE OR SURFACE AREA MEASUREMENTS:

(1) When converting from Imperial measure to SI metric or when calculating area from measurements in SI metric, carry the square measurement to one decimal of a square metre. This will have the same effect as measuring to an area of 1/10 m^2.

(2) For example: the factor to convert square feet to square metres is 0.092 903 or shortened to 0.0929 for our purposes. If an area is 24'3" x 24'3", the calculation will be 24.25 x 24.25 x 0.0929 = 54.631 006 m^2. Round to 54.6 m^2.

(3) If you have measured the area at 7.39 m x 7.39 m, the calculation will be 54.6121 m^2, rounded to 54.6 m^2.

1.070.040 SI UNITS

1.070.041 BASE UNITS

Quantity	Name	Symbol
length	metre	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
amount of substance	mole	mol
luminous intensity	candela	cd

1.070.042 SUPPLEMENTARY UNITS

Quantity	Name	Symbol
plane angle	radian	Rad
solid angle	steradian	sr

1.070.043 DERIVED UNITS WITH SPECIAL NAMES

Quantity	Name	Symbol	Expressed in terms of other Units
absorbed dose of ionizing radiation	gray	Gy	J/kg
activity of radionuclides	becquerel	Bq	s^{-1}
electric capacitance	farad	F	C/V
electric conductance	siemens	S	A/V
electric potential, potential difference, electro-motive force	volt	V	W/A
electric resistance	ohm		V/A
energy, work, quantity of heat	joule	J	N·m
force	newton	N	$m·kg/s^2$
frequency	hertz	Hz	s^{-1}
illuminance	lux	lx	lm/m^2
inductance	henry	H	Wb/A
luminous flux	lumen	lm	cd·sr
magnetic flux	weber	Wb	V·s
magnetic flux density	tesla	T	Wb/m^2
power, radiant flux	watt	W	J/s
pressure, stress	pascal	Pa	N/m^2
quantity of electricity, electric charge	coulomb	C	s·A

1.070.050 CONVERSION FACTORS

Imperial to Metric		Metric to Imperial	
Length			
1 in.	= 25.4 mm	1 mm	= 0.039 37 in
1 ft.	= 0.3048 m	1 m	= 3.280 84 ft.
1 ft.	= 304.8 mm	1 m	= 1.093 61 yd.
1 yd.	= 0.9144 m	1 km	= 49.7097 chain
1 mi.	= 1.609 344 km	1 km	= 0.621 371 mi.
1 chain	= 20.1168 m		
Area			
1 $in.^2$	= 645.16 mm^2	1 mm^2	= 0.001 55 $in.^2$
1 $ft.^2$	= 0.092 903 m^2	1 m^2	= 10.7639 $ft.^2$
1 $yd.^2$	= 0.836 127 m^2	1 m^2	= 1.195 99 $yd.^2$
1 acre	= 0.404 686 ha	1 ha	= 2.471 05 acre
1 $mi.^2$	= 2.589 99 km^2	1 km^2	= 0.386 102 $mi.^2$
Volume, Capacity			
1 fl.oz.	= 28.413 1 mL	1 mL	= 0.035 195 1 fl.oz.
1 pt.	= 568.261 mL	1 L	= 1.759 75 pt.
1 gal.	= 4.546 09 L	1 L	= 0.219 969 gal.
1 $in.^3$	= 16.3871 mL	1 mL	= 0.061 023 7 $in.^3$
1 $in.^3$	= 16.3871 cm^3	1 mm^3	= 61.0237 x 10^{-6} $in.^3$
1 $ft.^3$	= 28.3168 L	1 L	= 0.035 314 7 $ft.^3$
1 $ft.^3$	= 0.028 316 8 m^3	1 m^3	= 35.3147 $ft.^3$
1 $yd.^3$	= 0.764 555 m^3	1 m^3	= 1.307 95 $yd.^3$
1 acre ft.	= 1233.48 m^3	1 m^3	= 0.810 713 x 10^{-3} acre ft
Mass			
1 oz.	= 28.3495 g	1 g	= 0.035 274 oz.
1 lb.	= 0.453 592 kg	1 kg	= 2.204 62 lb.
1 cwt. (long)	= 50.8023 kg	1 tonne	= 19.684 1 cwt.
1 cwt. (short)	= 45.3592 kg	1 tonne	= 22.0462 cwt. (short)
1 long ton	= 1.016 05 t	1 tonne	= 0.984 207 long ton
1 short ton	= 0.907 185 t	1 tonne	= 1.102 311 short ton

Density

1 lb/in.^{2}	= 703.07 kg/m^2	1 kg/m^2	= 0.001 422 lb/in.^{2}
1 lb/ft.^{2}	= 4.882 43 kg/m^2	1 kg/m^2	= 0.204 816 lb/ft.^{2}
1 lb/yd.^{2}	= 0.542 492 kg/m^2	1 kg/m^2	= 1.843 345 lb/yd.^{2}
1 lb/in.^{3}	= 27.6799 t/m^3	1 t/m^3	= 0.036 127 lb/in.^{3}
1 lb/ft.^{3}	= 16.0185 kg/m^3	1 kg/m^3	= 0.062 428 lb/ft.^{3}
1 lb/yd.^{3}	= 0.5933 kg/m^3	1 kg/m^3	= 1.685 555 lb/yd.^{3}

Force (Loads, Pressure, Stress) 1 N/m^2 = 1 Pa

1 lbf.	= 4.448 222 N	1 N	= 0.224 809 lbf.
1 lbf/in.^{2} (kPa)	= 6.894 757 kN/m^2 (kPa)	1 kN/m^2	= 0.145 038 lbf./in.^{2}
1 lbf/ft.^{2} (kPa)	= 0.047 88 kN/m^2 (kPa)	1 kN/m^2	= 20.8854 lb./ft.^{2}

1.070.050 CONVERSION FACTORS CONT'D

Imperial to Metric		Metric to Imperial	
Flow			
1 cu. ft./sec	= 0.028 3168 m^3/s	1 m^3/s	= 35.314 66 cu. ft./sec.
1 cu. ft./min	= 0.471 947 L/s	1 L/s	= 2.188 88 cu. ft./min.
1 gal./min.	= 0.075 768 L/s	1 L/s	= 13.1982 gal./min.
1 gal./hr.	= 0.001 263 L/s	1 L/s	= 791.891 gal./hr.
Speed			
1 ft./sec.	= 0.3048 m/s	1 m/s	= 3.280 84 ft./sec.
1 mi./hr.	= 0.447 04 m/s	1 m/s	= 2.236 94 mi./hr.
1 mi./hr.	= 1.609 344 km/h	1 km/h	= 0.621 371 mi./hr.
Illumination			
1 ft-candle	= 10.763 91 lx	1 lx	= 0.092 903 ft-candle
Energy & Power			
1 Btu (IT)	= 1.055 06 kJ	1 kJ	= 0.947 817 Btu
1 Btu/hr. (IT)	= 0.293 072 W	1 W	= 3.412 13 Btu/hr.
1 kWh	= 3.6 MJ	1 MJ	= 0.277 778 kWh
1 HP(elect)	= 746 W	1 W	= 0.001 34 HP
1 ton(refrig)	= 3.517 kW	1 kW	= 0.284 333 ton (refrig)
Temperature			
^oC	= 5/9 (^oF - 32)	^oF	= 9/5 (^oC + 32)

1.070.060 RULES FOR WRITING SYMBOLS

Symbols are always printed in upright type.

Symbols are never pluralized. Example: 1 g, 45 g, (not 45 gs).

Never use a period after a symbol except at the end of a sentence.

Symbols must always be used in place of full names when used in conjunction with numerals. Example: 5 m (not 5 metres).

Always use a full space between the quantity and the symbol.
Example: 45 g (not 45g).
Exception: When the first character of a symbol is not a letter, no space is left.
Example: 32^{O}C (not 32 C).

Use decimals, not fractions. Example: 0.25 g (not 1/4 g).

A zero is always used before a decimal marker. Example: 0.45 g (not .45 g).

Symbols are always written in lower case, except when the unit is derived from a proper name.
Example: m for metre; h for hour; but N for newton; A for ampere and C for Celsius.
Note: Only Celsius takes a capital when written out in full.

There are no spaces between the prefix and the unit symbol.
Example: kg for kilograms (not k g).

Use a half or full space to separate blocks of 3 digits instead of commas.
Example: 32 568.453 24 (not 32,568.453,24).
Exception: A space is optional with a four-digit number, 1 234 or 1234.

An oblique stroke is always used with symbols rather than the word "per".
Example: km/h (not km per h); however, when written use kilometre per hour (not kilometre hour).

1.070.070 RULES FOR ROUNDING OF DATA

When a figure is to be rounded to fewer digits than the total number of stated digits, the procedure is as follows:

When the first digit discarded is less than five, the last digit retained must not be changed.
Example: 4.321 49 rounded to 4 digits 4.321.

When the first digit discarded is five or greater, the last digit retained must be increased by one unit.
Example: 2.347 76 rounded to 4 digits 2.348.

1.070.080 METRIC MATERIAL MEASUREMENTS

1.070.081 UNSANDED PLYWOOD PANEL PRODUCT

Thickness	
mm	**REPLACES**
7.5	5/16"
9.5	3/8"
12.5	1/2"
15.5	5/8"
18.5	3/4"
20.5	7/8"

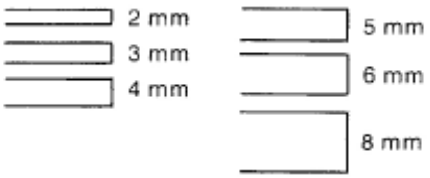
Sanded plywood will be 1.5 mm less for each thickness.

1.070.082 GYPSUM BOARD

Thickness	
mm	**REPLACES**
9.5	3/8"
12.7	1/2"
15.9	5/8"
25.4	1"

1.070.083 GLASS

Thickness **Thickness**



1.070.084 THERMAL INSULATION

BLANKETS			RIGID		
Thickness mm	**RSI**	**REPLACES**	**Thickness mm**	**RSI**	**REPLACES**
73	1.4	R 8	25	0.55	R 3.1
89	2.1	R 12	50	1.10	R 6.2
102	2.5	R 14	75	1.64	R 9.3
152	3.5	R 20	100	2.18	R 12.4
229	4.9	R 28	150	3.28	R 18.6

The thicknesses and RSI values may vary slightly with the manufacturer. R value x 0.1761 = RSI value.

1.070.085 PAINTS AND ADHESIVES

Coverage will be expressed in m^2/L (square metres per litre).

1.070.086 ROOFING

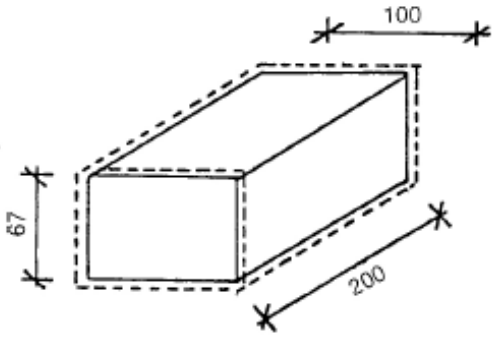
	Width mm	Length mm	Exposure mm	Coverage m²
Standard shingle	336	1 000	143	3 (per 21-piece bundle)
Low Slope shingle	504	991	168	3 (per 18-piece bundle)

Shingles will be sold by the square metre of coverage.

1.070.087 BLOCK MASONRY

Standard Sizes

Width (mm) 90, 140, 190, 240, 290
Height (mm) 90, 190, 290
Length (mm) 190, 390, 590
Joint Thickness 10 mm



1.070.088 BRICK

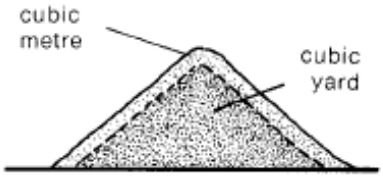
Standard Metric Brick

Dimensions given with
10 mm mortar joint

Brick sizes may vary locally.

1.070.089 AGGREGATE, SAND AND CEMENT

Cement 40 kg per bag
Plaster 25 kg per bag
Hydrated lime 20 kg per bag



Approximate difference in size of heaps

1.070.090 STUDS, JOISTS

Thickness			Face Width		
Actual Dry Dressed (mm)	**Metric Nomenclature**	**REPLACES (Nominal)**	**Actual Dry Dressed (mm)**	**Metric Nomenclature**	**REPLACES (Nominal)**
38.1	38	2"	38.1	38	2"
50.8	51	2 1/2"	63.5	64	3"
63.5	64	3"	88.9	89	4"
76.2	76	3 1/2"	114.3	114	5"
88.9	89	4"	139.7	140	6"
101.6	102	4 1/2"	165.1	165	7"
			184.15	184	8"
			234.95	235	10"
			285.75	286	12"
			336.55	337	14"
			387.35	387	16"

Actual sizes are not changed.

1.070.091 STUD SPACING

600 mm Replaces 24" O.C.
400 mm Replaces 16" O.C.
300 mm Replaces 12" O.C.

1.070.092 BOARDS

Thickness			Face Width		
Actual Dry Dressed (mm)	**Metric Nomenclature**	**REPLACES (Nominal)**	**Actual Dry Dressed (mm)**	**Metric Nomenclature**	**REPLACES (Nominal)**
17.46	17	1"	38.1	38	2"
19.05	19	1"	63.5	64	3"
25.40	25	1 1/4"	88.9	89	4"
31.75	32	1 1/2"	114.3	114	5"
			139.7	140	6"
			165.1	165	7"
			184.15	184	8"
			209.55	210	9"
			234.95	235	10"
			260.35	260	11"
			285.75	286	12"
			336.55	337	14"
			387.35	387	16"

Actual sizes are not changed.

1.070.093 TIMBERS

Thickness			Face Width		
Actual Green (mm)	**Metric Nomenclature**	**REPLACES (Nominal)**	**Actual Green (mm)**	**Metric Nomenclature**	**REPLACES (Nominal)**
114.3	114	5"	114.3	114	5"
139.7	140	6"	139.7	140	6"
165.1	165	7"	165.1	165	7"
190.5	191	8"	190.5	191	8"
215.9	216	9"	215.9	216	9"
241.3	241	10"	241.3	241	10"
292.1	292	12"	292.1	292	12"
342.9	343	14"	342.9	343	14"
393.7	394	16"	393.7	394	16"
444.5	445	18"	444.5	445	18"
495.3	495	20"	495.3	495	20"

Actual sizes are not changed.

1.070.094 REINFORCING STEEL

Deformed Bar Designation Numbers*, Nominal Dimensions**,
Unit Masses.

Bar Designation Number	Nominal Dimensions: Cross Sectional Area mm²	Nominal Dimensions: Diameter mm	Mass (Weight) Per Unit Length Kg/m
10	100	11.3	0.785
15	200	16.0	1.570
20	300	19.5	2.355
25	500	25.2	3.925
30	700	29.9	5.495
35	1 000	35.7	7.850
45	1 500	43.7	11.775
55	2 500	56.4	19.625

* Bar numbers are based on the number of millimetres included in the nominal diameter of the bars.

** The nominal dimensions of a deformed bar are equivalent to those of a plain round bar having the same mass per metre as the deformed bar.

1.070.095 MAXIMUM SPANS FOR STEEL BEAMS in Basements.

Cellars and Crawl Spaces in Dwellings

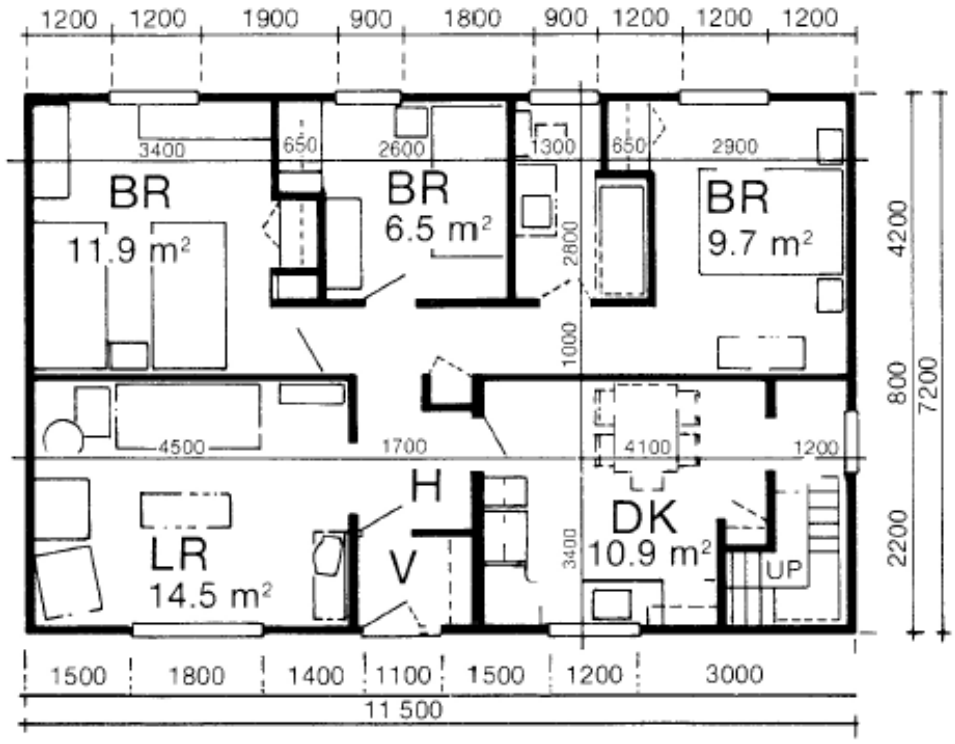
Designation S - I-Shaped Section
Designation W - Wide Flange Section

No. of Storeys	Designation	Depth mm	Mass Per Unit Length kg/m	Span of Floor (Joist) to be Supported: 2.4	3.0	3.6	4.2	4.8
				Span Between Columns				
1	S4 x 7.7	102	11.5	4.06	3.63	3.33	3.07	2.90
	S5 x 10	127	14.9	5.11	4.57	4.19	3.89	3.63
	S6 x 12.5	152	18.6	6.25	5.61	5.16	4.77	4.47
	W6 x 15.5	152	23.1	7.01	6.30	5.77	5.38	5.03
	W8 x 17	203	25.3	8.28	7.47	6.81	6.33	5.87
	S8 x 18.4	203	27.4	8.66	7.80	7.01	6.63	6.20
2	S4 x 7.7	102	11.5	3.08	2.74	2.52	2.34	2.18
	S5 x 10	127	14.9	3.89	3.48	3.18	2.94	2.74
	S6 x 12.5	152	18.6	4.77	4.27	3.91	3.61	3.38
	W6 x 15.5	152	23.1	5.38	4.80	4.39	4.06	3.81
	W8 x 17	203	25.3	6.33	5.66	5.18	4.80	4.50
	S8 x 18.4	203	27.4	6.63	5.96	5.44	5.03	4.72

1.070.096 SHEET METAL

Thickness* mm	REPLACES gauge	
0.5	26	
0.6	24	
0.8	22	
1.0	20	
1.2	18	
1.6	16	
2.0	14	
2.5	12	* most probable thickness

1.070.100 EXAMPLE OF FLOOR PLAN 1:100



Note: All dimensions are given in millimetres unless otherwise indicated.

1.070.110 COMPARATIVE TABLE OF UNITS

Physical Quantity	Common SI Units	SI Symbol	Conversion Factor
Area	square centimetre square metre hectare square kilometre	cm² m² ha km²	1 square inch = 6.4516 cm² 1 square foot = 929.0304 cm² 1 square foot = 0.092 903 04 m² 1 square yard = 0.836 127 4 m² 1 acre = 0.404 685 6 ha 1 square mile = 2.589 988 km²
Concentration	gram per cubic metre kilogram per cubic metre	g/m^3 kg/m^3	1 grain per cubic foot = 2.288 352 g/m^3 1 grain per gallon = 14.2536 g/m^3 1 pound per cubic foot = 16.018 46 kg/m^3 1 pound per gallon = 99.776 37 kg/m^3
Density (Mass per Unit Length)	milligram per metre kilogram per metre	mg/m kg/m	1 tex = 1 mg/m 1 ounce per inch = 1.116 12 kg/m 1 pound per foot = 1.488 16 kg/m
(Mass per Unit Area)	milligram per square metre gram per square metre kilogram per square metre	mg/m^2 g/m^2 kg/m^2	2000 pounds per sq. mi. = 350.265 986 mg/m^2 1 ounce per sq. ft. = 305.152 g/m^2 2000 pounds per acre = 0.224 170 kg/m^2 1 pound per sq. ft. = 4.882 43 kg/m^2
(Mass per Unit Volume)	gram per cubic centimetre kilogram per cubic metre tonne per cubic metre	g/cm^3 kg/m^3 t/m^3	1 pound per cubic in. = 27.679 90 g/cm^3 1 pound per cubic ft. = 16.018 46 kg/m^3 1 ton (short) per cubic yd. = 1.186 553 t/m^3 1 ton (long) per cubic yd. = 1.328 939 t/m^3

1.070.110 COMPARATIVE TABLE OF UNITS - CONT'D

Physical Quantity	Common SI Units	SI Symbol	Conversion Factor
Energy	joule	J	1 erg = 0.1 J
	kilojoule	kJ	1 foot pound-force = 1.355 818 J
	megajoule	MJ	1 calorie (International) = 4.1868 J 1 Btu (International Table) = 1.055 056 kJ 1 Calorie (dietetic) = 4.1855 kJ 1 horsepower hour = 2 684.52 kJ 1 kilowatt hour = 3.6 MJ
Force	newton	N	1 dyne = 10 N
	kilonewton	kN	1 poundal = 0.138 255 N
	meganewton	MN	1 pound-force = 4.448 222 N 1 kilogram-force = 9.806 65 N
Heat (Flow, Capacity, Conductivity)	kilojoule per kilogram	kJ/kg	1 Btu per cubic ft. = 37.2589 kJ/m^3
	kilojoule per kilogram degree Celsius	kJ(kg.^oC)	1 Btu per (cubic ft.^oF) = 67.0661 kJ/(m^3.^oC)
	kilojoule per cubic metre	kJ/m^3	1 Btu per hour = 0.293 072 W
	kilojoule per cubic metre degree Celsius	kJ(m^3 ^oC)	1 Btu per pound = 2.326 kJ/kg
	watt	W	1 Btu per (pound ^oF) = 4.1868 kJ/(kg.^oC)
	watt per square metre	W/m^2	1 calorie per (gram ^oC) = 4.1868 J(g.^oC) 1 Btu per (sq.ft.hr.) = 3.154 60 W/m^2
	watt per metre degree Celsius	W/(m.^oC)	1 Btu ft. per (sq.ft.hr.^oF) = 1.730 74 W/(m.^oC)
	watt per square metre degree Celsius	W/(m^2 ^oC)	1 Btu per (sq.ft.hr. ^oF) = 5.678 29 W/(m^2 ^oC)

1 Specific heat and latent heat are now called specific heat capacity and specific latent heat of fusion.

2 "Kelvin" and "degree Celsius" are interchangeable wherever they are used to indicate a temperature interval.

1.070.110 COMPARATIVE TABLE OF UNITS - CONT'D

Physical Quantity	Common SI Units	SI Symbol	Conversion Factor
Length	millimetre centimetre metre kilometre	mm cm m km	1 inch = 25.4 mm 1 foot = 30.48 cm 1 yard = 0.9144 m 1 mile = 1.609 344 km
Light (illuminance)	lux kilolux	lx klx	1 foot candle = 10.76391 lx 1 lumen per square foot = 10.76391 lx 1 phot = 10 klx
Mass	milligram gram kilogram tonne	mg g kg t	1 ounce (avoirdupois) = 28.349 523 125 g 1 pound (avoirdupois) = 0.453 592 37 kg 1 ton (short 2000 lb.) = 0.907 184 74 t 1 ton (long 2240 lb.) = 1.016 046 908 8 t
Power	watt kilowatt	W kW	1 Btu (International Table) per hour = 0.293 072 W 1 foot pound-force per second = 1.355 818 W 1 horsepower (550 ft.-lbf/s) = 745.6999 W 1 horsepower (electrical) = 746 W
Pressure	pascal kilopascal Megapascal	Pa kPa MPA	1 pound-force per square foot = 47.880 26 Pa 1 millibar = 100 Pa 1 inch of water (conventional) = 249.089 Pa 1 inch of mercury (conventional) (0^{o}C)= 3.386 39 kPa 1 pound force per square inch (psi) = 6.894 757 kPa 1 atmosphere, technical (= 1 kgf/cm^2) = 98.0665 kPa 1 atmosphere, standard (= 760 torr) = 101.325 kPa

1.070.110 COMPARATIVE TABLE OF UNITS - CONT'D

Physical Quantity	Common SI Units	SI Symbol	Conversion Factor
Temperature	degree Celsius	^{o}C	Celsius temperature = (Fahrenheit temperature -32) x 5/9
	kelvin	K	Celsius temperature = temperature in kelvins - 273.15 Fahrenheit temperature = (1.8 x Celsius temperature) + 32
+Time	second	s	1 min = 60 s
	minute	min	1 h = 3.6 ks
	hour	h	1 d = 86.4 ks
	day	d	1 month (mean, calendar) = 2.628 Ms
	year	a	1 a = 31.536 Ms
	+The terms second, minute, hour, day, month and year remain unchanged in the SI system. Equivalents in seconds (s), kiloseconds (ks) and megaseconds (Ms) have been included as additional information.		
Torque or Moment of Force	millinewton metre	mN.m	1 ounce-force inch = 7.061 552 mN.m
	newton metre	N.m	1 pound-force inch = 7.061 552 mN.m 1 pound-force foot = 1.355 818 N.m
Velocity or Speed	metre per second	m/s	1 foot per second = 0.3048 m/s
	kilometre per hour	km/h	1 mile per hour = 1.609 344 km/h 1 knot (International) = 1.852 km/h
Viscosity	square millimetre per second	mm^2/s	1 strokes - 100 mm^2/s
	square metre per second	m^2/s	1 square inch per second = 645.16 mm^2/s 1 square foot per second = 0.092 903 04 m^2/s

1.070.110 COMPARATIVE TABLE OF UNITS - CONT'D

Physical Quantity	Common SI Units	SI Symbol	Conversion Factor
Volume	cubic metre	m^3	1 barrel (oil, 42 U.S. gallons) = 0.158 987 3 m^3 1 cubic yard = 0.764 555 m^3 1 cunit (100 ft. 3, solid timber) = 2.831 68 m^3 1 cord (128 $ft.^3$) = 3.6246 m^3 1 acre foot = 1233.482 m^3
	cubic centimetre	cm^3	1 cubic inch = 16.387 064 cm^3
	cubic decimetre	dm^3	1 cubic foot = 28.316 85 dm^3
	millilitre	ml	1 fluid ounce (Canadian) = 28.413 062 5 ml
	litre	L	1 fluid ounce (U.S.) = 29.573 53 ml 1 pint (U.S. liquid) = 0.473 176 L 1 pint (Canadian liquid) = 0.568 261 25 L 1 quart (U.S. liquid) = 0.946 353 L 1 quart (Canadian liquid) = 1.136 522 5 L 1 gallon (U.S. liquid) = 3.785 412 L 1 gallon (Canadian liquid) = 4.546 09 L
Volume Rate of Flow	cubic centimetre per second	cm^3/s	1 cubic inch per second = 16.3871 cm^3/s
	cubic decimetre per second	dm^3/s	1 gallon per minute = 75.768 cm^3/s
	cubic metre per second	m^3/s	1 cubic yard per minute = 12.742 58 dm^3/s 1 cubic foot per second = 28.316 85 dm^3/s

NOTE: The following volume per unit area is used in the forest industry:

1 cubic foot per acre = 0.069 972 5 m^3/ha

1 pound per (foot second) = 1 poundal second per square foot
1 slug foot second = 1 pound-force second per square foot

1.080.000 BASE RATES

1.080.001 Base Rates, Installation Rates, Adjustments and Specialty Rates, Module Costs, Component Costs and Unit Costs contained in the **Manual** are representative of **typical construction replacement costs for the year 1983** in the Edmonton area.

1.080.002 The Replacement Cost New concept combines typical quantities and qualities of material and labour to establish benchmark Unit Costs which are combined to produce Component and/or Module Costs which, in turn, are used to produce Base Rates representative of replacement costs for various classes and qualities of improvements.

1.080.003 The concept tends to counterbalance construction costs associated with a particular project due to nontypical construction conditions, delays because of strikes, overtime pay for early completion and other similar circumstances.

1.080.004 Typical overhead and profit margins are included in each Unit Cost and, in turn, are reflected in the hierarchy of other costs and rates contained in the **Manual.** Architectural and/or engineering fees **are included** in the **Base Rates** for each **Model Type** contained in the **Commercial** portion of the **Manual.** Additionally, these fees are displayed, as an **individual component,** within the various **Module Rates** provided for each Model Type classification. Architect and/or engineering fees **are not included** in cost rates provided for **Precalculated Adjustments, Unit Cost Adjustments** or **the Unit Cost and Component Cost** segments of the **Manual.** Therefore when cost adjustments for variations from Model Type specifications are made through application of cost rates for individual components contained within each Module Rate; Precalculated Adjustments, Unit Cost Adjustments, Unit Costs or Component Costs, an appropriate **addition (deduction)** must be made to account for architectural/engineering fees against the additional (or reduced) replacement cost attributable to the variation adjustments.

In the **Residential** portion architectural fees **are trended** into the various cost adjustment rates provided **therefore further adjustments for architectural fees is not required.**

1.080.005 Items considered as overhead expenses include, but are not limited to, the following:

1 temporary site offices and buildings,

2 material handling and warehousing,

3 hoarding, barricades, guardrails, signs and signals, etc.,

4 temporary site services - water, light and power, telephone and sanitary facilities,

5 clean-up - building, windows, site, rubbish removal, etc.,

6 superintendence, inspection and testing,

7 site staff,

8 site protection and first aid,

9 tools, pumps, construction equipment, scaffolding, etc.,

10 cutting, patching, damage repairs,

11 building permits, fire liability and property insurance,

12 head office allocations including, but not limited to: staff, rent, utilities, insurance, licences, property and business taxes, sales promotion, loss of opportunity interest, financing, legal fees, etc.

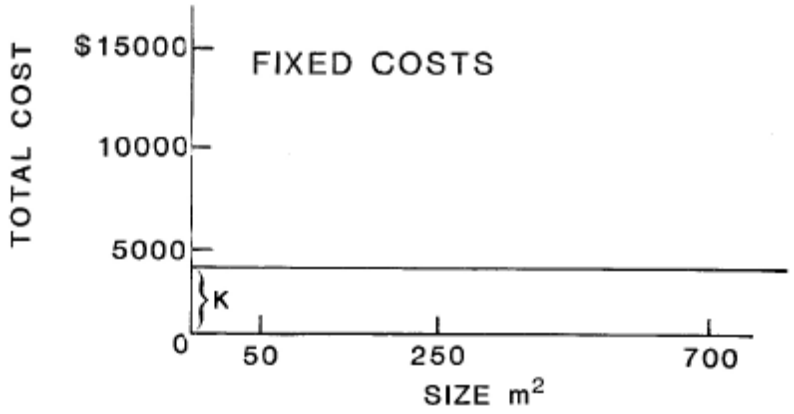
1.080.010 The base rates contained in the **Manual** are predicated on replacement cost estimates made for each class of building at various building sizes. These estimates recognize the relationship between area and total building cost that, given specific assumptions, exists for standard buildings which lie within defined size ranges. The specific assumptions are threefold: first for each size range there are fixed cost items; secondly there are area cost items and thirdly there are trended costs.

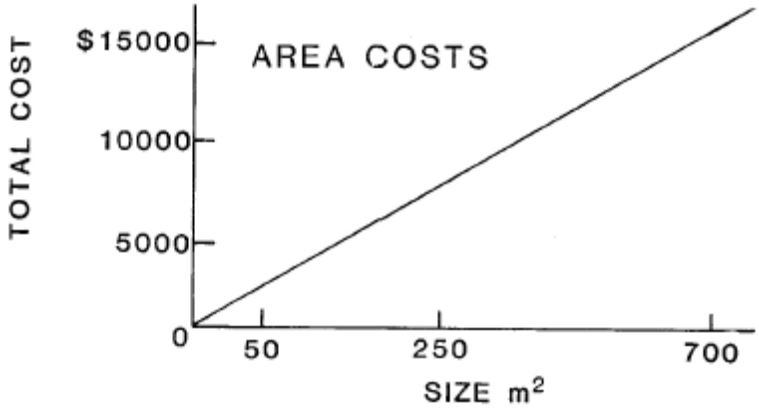
1.080.011 **Fixed Costs** are the cost of building components that remain at a set or fixed cost regardless of building size within a given size range. These fixed costs include components such as exterior doors, entry steps, basement or upper stairwell and stairs, plumbing, chimney and other like items.

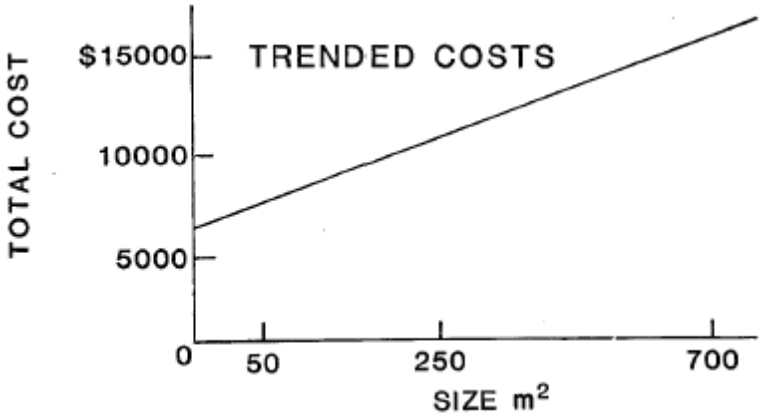
1.080.012 **Area Costs** are those building costs which increase or decrease at a uniform rate per unit in direct proportion to building size. These costs are mainly represented by floor framing and finishing components, ceiling components, roof components - excluding overhang, interior partitions and windows.

1.080.013 **Trended Costs** are those building costs that increase or decrease at a uniform rate per unit as building sizes change but not in direct proportion to the change in size. These costs comprise components such as footings and foundation walls, perimeter walls including interior and exterior finish, roof overhang, interior doors, kitchen cabinets, heating, air conditioning and electrical costs.

1.080.020 The three types of building costs within a given size range are illustrated in the following graphs:







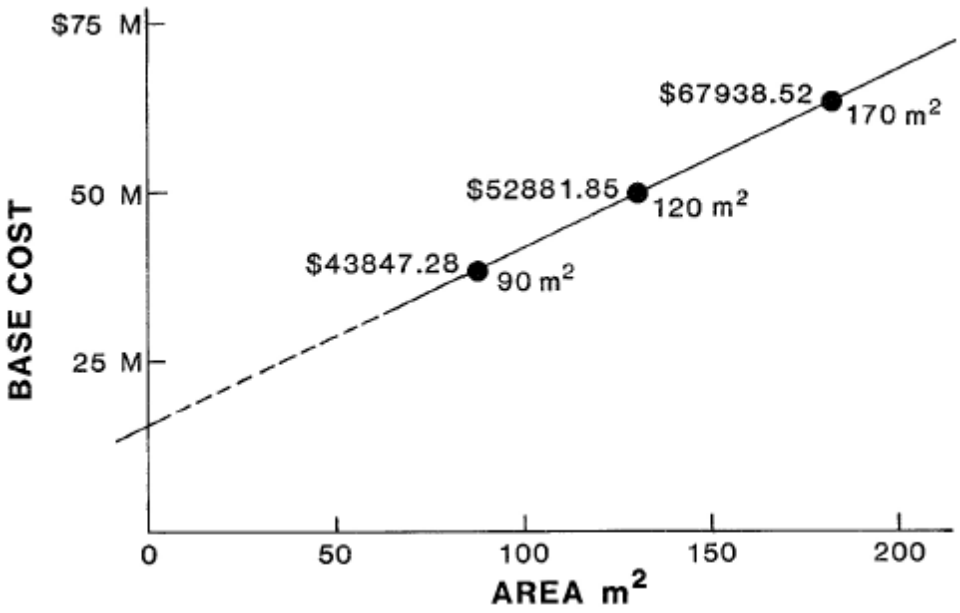
1.080.021 Base Costs in the **Manual** are the result of combining fixed costs with area costs and trended costs as illustrated below:

Component	Fixed Costs	Area Costs	Trended Costs
Site Work	X	X	
Excavation (under building)		X	
Excavation (working space)			X
Footings			X
Foundation Walls			X
Basement Floor		X	
Posts and Beams			X
Stairs	X		
Floor Construction & Finish		X	
Exterior Walls			X
Roof (except overhang)			X
Posts and Beams		X	
Partitions		X	
Baseboards			X
Exterior Doors	X		
Interior Doors			X
Windows		X	
Kitchen Cabinets			X
Plumbing	X		
Heating			X
Electrical			X

1.080.030 The following illustration of **Model Type 003, Quality 04-1 storey and basement** residence, as estimated in detail for purposes of the **Manual**, shows the base cost for 3 sizes at which estimates were made.

Area	**90 m^2**	**120 m^2**	**170 m^2**
Base Cost	$ 43 847.28	$ 52 881.85	$ 67 938.52
Cost/m^2	$ 487.19	$ 440.68	$ 399.64

1.080.031 When these costs are plotted against area, the result is an essentially straight line relationship within a given size range.



1.080.040 To facilitate the computation of building assessments Base Rates in the **Manual** are expressed in the form of a linear equation. A linear equation is a mathematical relationship that contains one constant and one variable. The base cost of a building that is within a specified size range can then be calculated by the following formula:

BASE COST	**=**	**K + (A x AR)**
Where		
K	=	Constant
A	=	Area of Building
AR	=	Area Rate m^2

1.080.041 The Area Rate m^2 for a specified size range is determined as follows:

$$\text{Area Rate } m^2 = \frac{\text{(Base Cost at large size - Base Cost at small size)}}{\text{(Area of large size - Area of small size)}}$$

Using the base costs for the residences shown in 1.240.030, the Area Rate m^2 is:

$$\frac{(\$\ 67\ 938.52 - \$\ 43\ 847.28)}{170\ m^2 - 90\ m^2} = \frac{(\$\ 24\ 091.24)}{80\ m^2} = \$\ 301.14\ m^2$$

1.080.042 It follows that the base cost of a residence, of the same model type and quality, at any size within the size range, can be calculated by adopting the base cost for a specific size and adding or deducting the Area Rate of \$ 301.14/m^2 for the area that is greater or lesser than the size of the chosen base cost structure.

1.080.043 It is apparent from the Cost/Area graph (1.21.031) that if the straight line is extended (dotted line) to the vertical axis, the axis is crossed at a point representing approximately \$16,700 at an effective size of 0.0 m^2. This is illustrated in the following example.

Base cost	90.0 m^2			43 847.28 \$
Subtract	90.0 m^2	@ 301.14 \$	=	27 102.60
Constant (K)	00.0 m^2		=	16 744.68 \$

1.080.044 The use of the constant cost in conjunction with the area rate enables the determination of a base cost assessment valuation, for any given classification at any given size, a simple matter of choosing the appropriate constant cost (K) and adding the product of multiplying the actual area (A) of the improvement times the area rate (AR):

Base Cost = Constant + (Area x Area Rate)

For example: find the base cost of a **Model Type 003, Quality 04** residence at 112.4 m^2.

\$ 16 744.68 + (1124 m^2 x \$ 301.14/m^2) = Base Cost

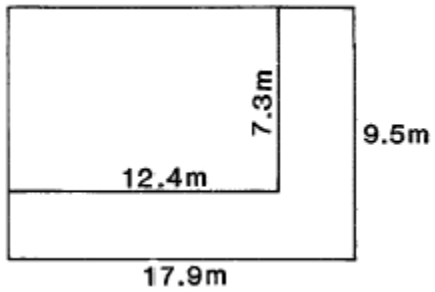
\$ 16 744.68 + \$ 33 848.14 = \$ 50 592.82

The above valuation may be verified as follows:

Base cost at	90.0 m^2			43 847.28
Add	22.4 m^2	@ 301.14 \$	=	6 745.54
Total	72.5 m^2		=	\$ 50 592.82

Note that in the **Manual** the constant has been rounded to \$ 16 700 and the Area Rate to \$ 301 m^2.

1.080.045 An illustration of the **Model Type 003, Quality 04** residence at the small size and with the area extended to the larger size, further demonstrates the effect of the Area Rate.



1.080.046 The 7.3 m x 12.4 m size is a complete residence. If we remove this portion from the illustration we can now see the form which the Area Rate assumes. Having absorbed the two exterior walls within the illustration it represents an L-shaped addition having no exterior walls where the walls within the illustration previously were. Fixed Costs such as plumbing, exterior doors, steps, basement stairs, etc. are not affected by the area rate. Area and Trended costs such as heating, wiring, kitchen cabinets, interior doors, partitions, windows, etc. are extended as required for the larger size.

1.080.047 **There are dangers inherent in the use of Area Rates**. The latter illustration, for example, might have depicted the extension of a warehouse building with a store Area Rate. Neither of these building types contain partitions. It can therefore be visualized that the resulting extended structure will have no interior partitions and it will be necessary to add even for a wall dividing the two sections of the building. Additionally unless we classify the building section having the highest exterior walls as the base building it will be necessary to add for missing exterior wall above the lower section where the two structures join. With exceptions, it is better to select the section having the highest exterior walls as the base building and use the extending Area Rate for the portion having the lower wall height.

1.080.048 Another difficulty arises when we use an Area Rate to evaluate a section of a building within which it is necessary to evaluate fixed costs. This problem will not be encountered in many applications of Area Rates, but one example which brings it out is as follows:

Assume that a large warehouse has an office addition for which it seems convenient to apply an Area Rate. The Area Rate for the office addition would not include the Fixed Cost items such as stairways, if found, or exterior doors. These items would have to be added separately and can be determined from the office rate schedules.

1.090.000 RESIDENTIAL HOUSING

1.090.010 HOUSE TYPES

Fig. A:

A 1-Storey Dwelling is defined as a detached domestic building. The chief advantages are the location of all habitable rooms on one level and the economy with which additions may be made.

Summer Cottages are a temporary residence generally at a vacation resort.

Fig. B:

The Split Level Dwelling combines the advantages of the 1-Storey Dwelling and the 2-Storey Dwelling. With only 6 or 7 steps between each floor level it has good utility.

Fig. C:

The 1 1/2-Storey Dwelling adds a minimum of 50% more floor area to the Standard 1-Storey by reason of a medium to high pitched roof. Rates in the **Manual** for this building type are calculated on 60% of the ground floor area being finished. Adjustment for area and quality of upper finish as shown in the Residential Improvement Assessment (1.28.000) make it unnecessary to value dormers separately.

Fig. D:

The 1 3/4-Storey Dwelling is an obsolete building type. It is almost as expensive to construct as the 2-Storey Dwelling. It provides 100% upstairs floor area with restricted utility as a result of the sloped ceiling. All assessment rates for this building type include upstairs finish. Percentage adjustments for average upper interior sidewall height make it unnecessary to value dormers separately.

Note: The standard height of the upper floor exterior side walls is 1.2 m.

For each 0.3 m height variation from the standard wall height (1.2 m) add or deduct 1% of the base cost computed for the 1 ¾ storey dwelling.

Fig. E:

The 2-Storey Dwelling is compact and therefore easy to heat. Its utility value is generally good considering that a 1-Storey Dwelling needs twice as much roof and foundation area to produce an equal number of square feet.

1.090.020 HOUSE TYPES

A. 1 STOREY

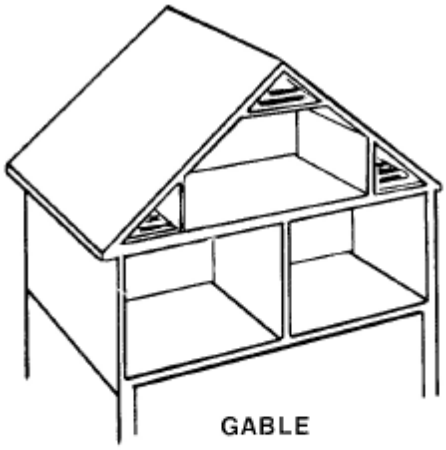
B. SPLIT LEVEL

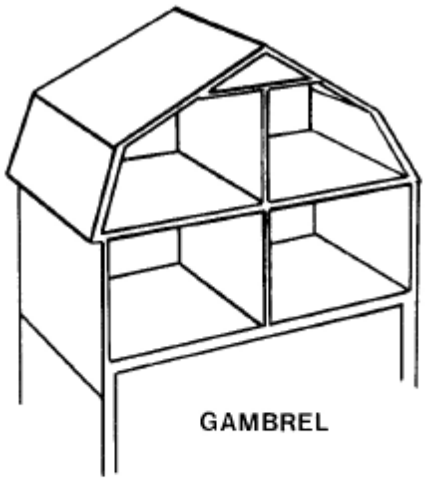
C. 1 ½ STOREY

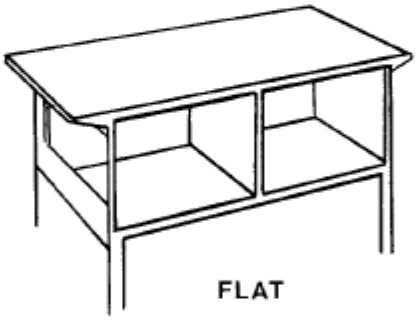
D. 1¾ STOREY

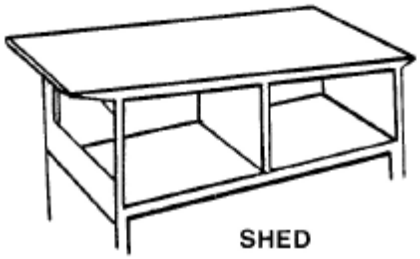
E. 2 STOREY

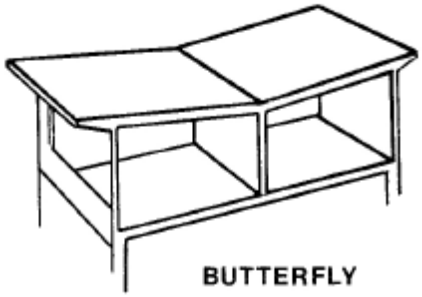
1.090.030 ROOF STYLES











1.100.000 CLASSIFICATION - RESIDENTIAL CLASSES

1.100.010 Single family residential classes contained in the Manual are divided into four broad **architectural age** eras - those of all ages; those built before 1940; after 1940 and energy efficient residences predominately constructed after 1980. These architecturally trended divisions enhance uniformity and aid the classification process. The architectural age rather than the actual age of a residence must receive prime consideration when selecting a classification. This is demonstrated by a residence which, when completed, is in effect old in architectural styling and utility. Conversely, a house may be constructed with styling and utility well ahead of its architectural era. In cases like these the actual age of the building has only a limited influence on the selection of a classification and the effective age of the building must be given consideration when determining depreciation allowances.

1.100.020 The **quality** of a residence is a major factor in the classification process. Each classification contained in the Manual is predicated on a set of material and workmanship specifications, selected through analysis of the existing inventory of residences, considered to be most representative of a particular quality level or benchmark. These sets of criteria produce a series of strata or benchmarks that may be likened to a flight of steps or plateaus in ascending order from the poorest to the best quality of residences. While these benchmarks stratify the total housing inventory into quality group or ranges possessing common features and characteristics yet, in reality, there are a vast array of residences the quality of which fall between and both above or below any one of the quality benchmarks contained in the **Manual**.

1.100.030 Each classification is therefore provided with a **Quality Range** percentage factor to be used as a guide to making adjustments for variation in **quality** that exist between residences that fall to the same classification. This factor is basically concerned with the **quality** of the residence and to a lesser extent with those instances of **quantity** which cannot be adjusted for by rates taken from Installation Rates, Adjustments or Specialty Rates provided for each classification or rates found under Basement Finish, Swimming pools, Garages and Carports or Special Construction segments in Schedule 2 or the Unit Costs in Schedule 3. Items of **quantity**, such as a half bath or a fireplace may be adjusted for by selection of a rate for the appropriate quality of the item from the tables provided and generally are not given further consideration when establishing an adjustment for **quality**.

1.100.040 The **Quality Range** adjustment, a percentage addition or deduction, is applied when the **quality** of the workmanship, materials, design and utility of the subject residence is judged to vary from the typical quality characteristics of the benchmark classification and the typical characteristics of other residences falling within the same benchmark classification. It will be noticed that application of the **Quality Range** percentage factor will not produce a value that meets the value produced by application of the factor for a classification falling either above or below the subject classification. This is because the spread or difference in value between classifications is preponderantly attributable to an increase or decrease in the basic **quality** characteristics of each classification and to a lesser degree the quantity of items included in each classification. Therefore, the prime consideration is placement of the subject residence in the appropriate benchmark classification, then through the **Quality Range** percentage factor modify the value of the subject residence when the quality is judged to fall above or below the benchmark classification. Items of quantity will generally be adjusted for on a per item basis as previously outlined.

1.100.041 A table displaying the key quality characteristics that affect the **Quality Range** between residential classifications is provided in the Residential Unit Cost Schedule of the **Manual** under section 3.090.200. The quality relationships between classifications attributable to the various characteristics are expressed as percentages (minus/ plus) and these may be used as a guide, modified if warranted, to determine the degree (percentage) of **Quality Range** adjustment to be made.

1.100.050 RECORDING DESCRIPTION OF PROPERTY

1.100.051 It is imperative in the classification process that a complete and highly detailed record is made of the descriptive characteristics of each property. There are several significant reasons which highlight the importance of this step in the classification function.

1.100.052 **Basic Classification** - determination of the appropriate benchmark classification hinges on a completely recorded inventory of the **quality** and **quantity** of materials, **quality** of workmanship, and the **quality** of the design and utility of the property.

1.100.053 **Basic Cost Quantity Adjustments** - a complete recorded inventory listing the **quantity** of materials, additional items and special features of the subject property are necessary to trigger adjustments to the Basic Cost for **quantity** items that are either less than or in excess of the respective number or amount of these items included in the Basic Cost.

1.100.054 **Basic Cost Quality Range Adjustments** - complete recorded inventory of the **quality** of materials used, the class of workmanship and finish, special features, architectural details, plan layout and utility of the property are imperative to the Quality Range adjustment process.

1.100.060 It must be noted that a complete inventory description includes the recording of all quality characteristics of the residence even though each by itself may not be sufficient to effect a Quality Range adjustment. However, the aggregate of a number of individuals features may be sufficient to indicate the degree (percentage) by which the value of the property must be adjusted above or below the Base Rate for the classification into which the residence falls.

1.100.061 As mentioned before **Quality** of material and workmanship are the key factor in classification yet quantity items must not be completely discounted even though an individual dollar adjustment may not be made for a particular item in the calculation process. For example brick trim or sky lights are quantity items not added for, per se, when calculating the replacement cost of a Standard Project bungalow (2.003.040) yet, when combined, for example, with other quality features such as upgraded floor covering in some areas of the house, a special feature wall and some above Standard Project quality lighting fixtures, sufficient evidence is produced to discern that this particular residence has some incremental value over and above that attributable to the typical Standard Project residence as characterized by **Manual** specifications for that class of residence. In an instance such as this the additional quality and quantity features are not sufficient to warrant consideration of a higher classification yet the added value must be recognized. The vehicle provided for this purpose is the Quality Range Percentage Adjustment which facilitates making an adjustment to the replacement cost based on a supportable estimate of the degree by which the quality of finish in this particular residence exceeds the specifications for and thus the replacement cost of the typical Standard Project residence.

1.100.070 The detailed inventory of **quality** and **quantity** made for each property becomes the data on which a basic classification is selected, indicates whether or not quality and or quantity variations are to be made when calculating the replacement cost, and is an indicator of depreciation allowances that must be made. The inventory is the credential or documentation of evidence so vital to demonstrate, explain, support and corroborate, to both the property owner and board of revision or Assessment Appeal Tribunal, the processes carried out and the reasons for the valuation decisions made in the determination of the assessment.

1.100.080 The factors that influence the value of property are often subjective, fluid and ever changing. That which is in vogue today and thereby attributes value to a property may not exert the same degree of influence on the value of that particular property next year or several years later. With the advent of recent legislation which provides that the description of a property, as recorded on the assessment form (card) for the current year, may be adopted for purposes of establishing the assessment of the property for a subsequent general assessment being made for the municipality, **without attending on the property**, a complete and fully detailed inventory of all characteristics and features of the property becomes a supreme necessity. Since the factors that affect value and valuation techniques themselves are subject to change, an assessment form which contains insufficient data to support the computation of a new assessment value may necessitate that the property be re-inspected thereby negating the full effective cost advantage to be realized through use of existing recorded assessment criteria.

1.110.000 RESIDENTIAL IMPROVEMENT ASSESSMENT

1.110.010 The following is an example of the computation of an assessment using the **1984 Assessment Manual** for a residence with the specifications listed below.

GENERAL DESCRIPTION

Model Type 003 - Quality 05 - Structure 05 (Single family - after 1940, Semi Custom Project, 1 1/2 storey and basement) with a dormer which effectively increases the upper floor finish to approximately 71% of ground floor area. There is a **Model Type 003 - Quality 05 - Structure 00** addition and a **Model Type 030 – Quality 04 - Structure 28** attached garage with a roof pitch providing for future upper finish of approximately 60% of the ground floor area of the attached garage.

When compared to the **typical** residence falling to this classification the subject residence is observed to have better than typical, for the class, workmanship and quality of materials in respect of some building features - upgraded floor coverings, considerable amount of good wood panelling and bookcases, exterior entrance highlighted by columns and other decorative features and the overall plan and design is better than typical for this class. On the **Quality Range** (-3% to +12%) for this class the subject is judged to rate +5%.

The residence has several other variations - 100% masonry veneer on residence, addition and attached garage; 10 plumbing fixtures including one whirlpool type bath; 2 built in fireplaces on same chase. This house is 7 years old and is in good condition. The assessment of this residence, for the Base Year 1983, would be processed as follows:

1.110.010 DIMENSIONS:

1 1/2 Storey & Bsmt.	003-05-05	7.3 m x 11.0 m = 80.3 m^2
1 storey & Bsmt.	003-05-00	4.9 m x 6.1 m = 29.9 m^2
Attached Garage	030-04-28	7.3 m x 7.3 m = 53.3 m^2

1.110.030 CALCULATIONS:

Base Cost 003-05-05: Constant + Area x Area Rate m^2

K		**$ 22 400**
A x AR m^2:	80.3 m^2 x $ 490/m^2	**+ 39 347**

Adjustments: additional finished area in 1/2 Storey Upper:

Area in Subject (A1):	5.2 m x 11.0 m = 57.2 m^2 (71%)
Area in Base Rate (A2):	4.4 m x 11.0 m = 48.4 m^2 (60%)

Cost: $\frac{\text{(Area A1 - Area A2)}}{0.60}$ x Area Rate m^2

Cost = $\frac{\text{(A1 - A2)}}{0.60}$ x AR m^2

$\frac{(57.2\ m^2 - 48.4\ m^2)}{0.60}$ x $ 159/m^2 **+2 332**

1.110.000 RESIDENTIAL IMPROVEMENT ASSESSMENT - CONT'D

Base Cost 003-05-00: Area x Area Rate m^2	
A x ARm^2: 29.9 m^2 x \$ 331/m^2	**+9 897**
Base Cost 030-04-28: Constant + Area x Area Rate m^2	
K	**+1 680**
A x ARm^2: 53.3 m^2 x \$ 101/m^2	**+5 383**
ADJUSTMENTS: Add 1/2 Storey Upper	
Deduct 1/2 Storey Upper Finish	
Base Cost 003-05-11: Constant + Area x Area Rate m^2	
K	**+1 400**
A x ARm^2: 53.3 m^2 x \$ 159/m^2	**+8 475**
Base Cost 003-05-20: Constant + Area x Area Rate m^2	
K	**370**
A x ARm^2: 53.3 m^2 x \$ 77/m^2	**- 4 104**
Total Base Cost (003-05-05; 003-05-00 and 030-04-28)	**\$ 86 440**
OTHER ADJUSTMENTS:	
Quality Range Adjustment: Total Base Cost x 0.05	
\$ 86 440 x 0.05	**+ 4 322**
Masonry Veneer (1 1/2 St.) + (Att. Gar.):	
Constant + Area x Area Rate m^2	
K	**+ 2 710**
A x ARm^2:(80.3 m^2 + 53.3 m^2) x \$ 29.40/m^2	**+ 3 928**
1 Storey Addition 003-05-00: Area x Area Rate m^2	
A x ARm^2:29.9 m^2 x \$ 22.70/m^2	**+ 679**
Plumbing:	
Fixtures in subject - Fixtures in Base Rate) x Rate per Fixture	
(9 fixtures - 6 fixtures) x \$ 950 each =	**+ 2 850**
Plus 1 whirlpool type fixture	**+ 2 650**
Fireplaces: Number of units x Rate per Unit	
1 Unit	**+ 2 730**
1 additional firebox on same chase	**+ 2 430**

1.110.000 RESIDENTIAL IMPROVEMENT ASSESSMENT - CONT'D

Attached Garage - interior walls and ceiling:

Interior Walls: Constant + Area x Area Rate m^2

K	**+ 120**
A x ARm^2: 53.3 m^2 x $ 2.30/m^2	**+ 122**

Ceiling: Constant + Area x Area Rate m^2

K	
A x ARm^2: 53.3 m^2 x $ 5.80/m^2	**+ 309**

Total Replacement Cost New **$ 109 290**

BASE YEAR REPLACEMENT COST

Base Year: 1983

Base Year Modifier (B.Y.M.): 1.00

Base Year Replacement Cost New (B.Y.R.C.N.):

Total Replacement Cost New x B.Y.M.

$ 109 290 x 1.00 = **Base Year Replacement Cost New** **$ 109 290**

DEPRECIATION

Anticipated Age Life:	70 years
Condition:	Good
Chronological Age:	7 years
Percentage Remaining:	95%

B.Y.R.C.N. x Percentage Remaining = Fair Actual Value

$ 109 290 x 0.95 = **Fair Actual Value (F.A.V.)** **$ 103 820**

ASSESSMENT

F.A.V. x Percentage of F.A.V. (prescribed by regulation)

$ 103 820 x 0.65 = **ASSESSMENT** **$ 67 480**

1.120.000 CLASSIFICATION - COMMERCIAL CLASSES

1.120.010 Commercial buildings can be categorized into a relatively small number of construction classes. The factors that determine a particular class category will usually apply across a broad spectrum of building uses of the same quality of construction. In general, the Commercial portions of the **Manual** consist of a range of classes ranging from Economy to Expensive. Across this range of classes there is a consistent progression in quality of materials, size of bay spacings, dimensions, quality of mechanical and electrical installations, etc. If the designed use and the actual use differ, the rates to be used in estimating the replacement cost new, is determined, in most instances, by design. Occupancy and use influence the final value.

1.120.020 The inclusion of many model types coupled with a range of qualities in the **Manual** provides the means to evaluate a broad range of buildings without resorting to sources other than the **Manual**. This ensures uniform treatment among properties. Specialized buildings for the most part can generally be valued by making variations to existing classes until such time as the specialized classes are provided.

1.120.030 Determining specifications for benchmark classes involves consideration of building codes as well as recording and categorizing building characteristics in the market place.

1.120.040 A surprisingly small number of construction categories tend to arise when analysed according to code requirements respecting material uses. An analysis of wall requirements reveals criteria which tend to differentiate construction classes.

1.120.050 These distinctions are carried into the **Manual** specifications as follows:

BEARING WALL FRAMING

Economy - light wood frame.

Substandard - light mill type wood frame or 140 mm light reinforced/190mm unreinforced concrete block.

Fair - medium mill type wood frame or 190 mm light reinforced concrete block.

Standard - heavy mill type wood frame or 190 mm medium reinforced concrete block.

NON-BEARING WALL FRAMING

Custom & Expensive - concrete or steel columns and beams extending to and around the perimeter;

concrete or steel interior columns and beams combined with reinforced load bearing wall systems.

Exterior Walls: generally non-load bearing unit masonry or other curtain wall systems; in some cases load bearing monolithic concrete, precast concrete panels or other reinforced load bearing wall systems.

1.120.060 Floor and roof construction of bearing wall classes is generally concrete slab at grade level with roof and/or successive floor levels of wood or steel joist systems combined with wood or steel and concrete decking.

1.120.070 Non-bearing classes will generally have concrete slab floors at grade level or suspended floor systems where basements are encountered. Roof and/or successive floor levels consist of either suspended concrete or a combination of steel joists, girders, beams and spandrels with steel and concrete decking.

1.120.080 It is to be emphasized that **the type of framing construction must not be the sole criterion for establishing the classification** of a building. Even though a building may be constructed of load bearing or a combination of load bearing and non-load bearing walls, **some buildings are of custom or expensive quality because of the quality of the framing system itself and the general quality of other building components such as exterior finish, doors and windows, interior finish and electrical and mechanical systems.**

1.130.000 BAY SPANS

1.130.010 One of the design conditions incorporated in the **Manual** rates relates to column and beam spacing. In the commercial section of the **Manual** a specific description of the size of bay spans is provided. The estimates made to derive **Manual** classes were coordinated to these bay spans in such a way as to relate exact increments of these bay spans to both the width and length of building.

Model Type 500, Quality 04, Structure 61 - Warehouse, for example calls for "9.1 m floor and roof spans" meaning 9.1 m joist spans between beams as well as columns spaced at 9.1 m along the length of the beam.

1.130.020 **Manual** classes were developed with beams running along the building length and joists in the direction of building width, to recognize the most economical method of construction.

1.130.030 In its narrowest interpretation the span variation for each building class applies only for the precise materials and economical arrangement of beams and joists employed in classification development.

For example, the Base Cost for a Class 500 - 04 - 61 was developed employing the first mentioned roof material combination under the heading **Roof** namely open web steel joists. Therefore, for a building using beams (e.g. glued laminated beams) running across the building width or in any other more expensive combination (than that for which a classification was developed) it is entirely in order to consider adding for the extra cost, having in mind the esthetic or other added value derived.

1.130.040 Given the design loads of a roof or floor and the materials used in its construction, a mathematical relationship can be observed as the bay spans vary. Experimentation with several actual roof designs of different bay spacings has verified that the results shown under Adjustments for **Spans** are reliable for the design loads and materials represented in the classification. For example, if a building 25 m x 50 m (1 250 m^2) was encountered having joists spanning 12.5 m from a central beam supported at 12.5 m spacing between columns, then an adjustment for larger spans may be computed as follows:

Roof along joist	12.50 m - 9.10 m = 3.40 m		
	3.40 x \$ 1.60/m^2 x 1 250 m^2	=	\$ 6 680
Roof along beam	12.50 m - 9.10 m = 3.40 m		
	3.40 x \$ 0.80/m^2 x 1 250 m^2	=	\$ 3 400
	Total span adjustment		Plus \$ 10 080

1.130.050 Conversely, if the bay spacing between columns and beams are shorter than those specified in the classification, the adjustment may be made by deducting for spans through a similar computation.

1.130.060 In the case of a multiple storey building, the floor spans for the second and successive floors may be adjusted for longer or shorter spans in a similar manner.

1.130.070 On occasion a building will have joists that span the whole width leaving the subject building without any intermediate beams or columns. In this case, the exterior side walls will be treated as beams. Adjustment for joist spans will be made on the basis of the span encountered. However, any variations for column spacing will probably be overlooked on the premise that the central beam and columns have been absorbed by the two sidewalls. As an example, the building described previously with clear span of 25 m would have an adjustment for roof along joists as follows:

Roof along joist	25.00 m - 9.10 m = 15.90 m		
	15.90 x $ 1.60/m^2 x 1 250 m^2	=	$ 31 800
	Span adjustment		Plus $ 31 800

1.140.000 WALL HEIGHTS

1.140.010 Improvements in the **Commercial Sections** of the **Manual** are valued in a similar manner to **Residential** improvements but certain details will require different emphasis. As an example, exterior wall height to roof top exclusive of parapet wall is to be noted on the Assessment Form. For wall heights which vary from the heights specified in the **Manual**, cost variations have been provided. These **wall cost variations** will affect **not only exterior walls but also increase or decrease costs of such items as columns, heat, plumbing, electrical, etc.** Parapet walls have been completely ignored in the **Manual** and must be calculated from **Unit Costs** if they add value.

1.140.020 Versatility of use is a feature of the **Manual**. Where a subject improvement is, for example, a two or more storey building consisting of stores on the main floor and offices or apartments on the "Upper" stories, **different base rate schedules can be used in combination**. "Upper" levels can be valued from the office or apartment rates respectively and added to the value computed for the main floor from store rates.

1.150.000 ARCHITECTURAL AND ENGINEERING FEES

1.150.010 Fees for architects or engineers acting as the prime consultant for a building project includes full professional participation from inception to occupancy and responsibility for the disciplines of architectural, structural, mechanical and electrical design.

1.150.011 The fee is usually calculated as a percentage of the total cost of the work including contractors overhead and profit but not including land costs, the prime consultants fee, or the fees of any other consultants.

1.150.012 In the case of other consultants - structural, mechanical and electrical - the fee is usually calculated as a percentage of the total cost of the work for which the consultant is responsible including the pro-rata share of the contractors overhead and profit.

1.150.013 Fees for normal services of other consultants, as shown, are included within the **Basic Services Fee Schedule** to the extent that the Architect or Prime Consultants consider them to be normal to a specific building type.

1.150.014 Additional fee charges will be incurred when there is a requirement for services in excess of the normal, or the work is of such a nature that the services of a special consultant is deemed necessary.

1.150.015 The following schedule of fees for Basic Services sets out **average percentage rates** charged by the various professional consulting disciplines for services conforming to the building categories described.

1.150.020 BUILDING CLASSIFICATION AND FULL BASIC SERVICES FEE SCHEDULE

Building Category	Prime Consultant Basic Service Fee Rates	Other Consultants Fee Rates		
		Mech.	Elec.	Struct.
Apartments; Row/Cluster/Townhouse; Motels, Motor/Apartment Hotel.	6.6%	5.7%	5.4%	5.2%
Warehouses and Storage (with less than 10% office space)	5.1%	4.2%	4.2%	3.8%
Maintenance/Service Garages, Gas Station, Parking; Commercial/Office Buildings, Stores/Shopping Centers (Tenant layout not included); Cold Storage, Light Industrial.	7.0%	5.9%	5.8%	5.4%
Administrative Office Buildings Bank/Trust Company Facilities; Nursing Homes, Extended Care; Hotel/Complex Motor Hotel; Country/Health Clubs; Warehouse Sales.	7.6%	6.5%	6.2%	6.0%

1.150.020 BUILDING CLASSIFICATION AND FULL BASIC SERVICES FEE SCHEDULE – CONT'D

Building Category	Prime Consultant Basic Service Fee Rates	Other Consultants Fee Rates		
		Mech.	Elec.	Struct.
Terminals-air, rail, freight etc; Swimming Pool, Arenas; Theatres, Funeral Home; City/Town Hall; Bar/Restaurant/Lounge.	8.7%	7.7%	7.4%	6.8%
Hospital/Chronic Care/Clinics; Communication/Computer Centers; Science/Laboratory Buildings; Institutions-Jails/Penitentiary.	8.9%	7.8%	7.5%	6.7%
Custom Residences; Tenant Layout-Stores/Office/Bank; Alteration to existing building.	7.0%	5.9%	5.8%	5.4%
Administrative Office Buildings Bank/Trust Company Facilities; Nursing Homes, Extended Care; Hotel/Complex Motor Hotel; Country/Health Clubs; Warehouse Sales.	10.5%	Negotiated		

Note: The Basic Service Fee Rates in this table relate to buildings and structures falling to the Building Category enumerated. **Where specialty, highly complex or nonconforming structures or improvements are encountered the fee percentage rates may be considerably higher.**

1.150.030 TABLE OF PARTIAL SERVICES

Prime Consultant Basic Services	Stage	Percent of Basic Services Fee Schedule
Schematics Phase: concept sketches; cost estimate; presentation drawings.	1	12 1/2%
Design Development Phase: sketch plans, preliminary drawings and details; outline of specifications; cost estimate after preliminary drawings.	1-2 incl.	25%
Working Drawings and Specs Phase: working drawings and specifications for architectural, structural, electrical, heating, venting, air conditioning, plumbing and drainage.	1-3 incl.	62 1/2%

Prime Consultant Basic Services	Stage	Percent of Basic Services Fee Schedule
Tender Documents Phase: Complete construction plans and specs; cost estimate before tendering.	1-4 incl.	75%
Tendering and Contract Awards Phase: tender call and proposal documents.	1-5 incl.	80%
Construction Field Services Phase: contract documents and administration; checking shop drawings; progress payments and reports; inspection of work; site meetings; warranties and final inspections.	1-6 incl.	100%

1.160.000 PERIMETER/AREA/DESIGN ADJUSTMENTS

1.160.001 For purposes of making a Perimeter/Area Ratio Adjustment or a Perimeter Design Adjustment, or both, as the case may be, the "Total Base Cost" of an improvement means the cost produced by

(1) multiplying the floor areas of the improvement by the applicable Total Base Rates, provided in Schedule 4, adjusted by

(2) adding or deducting any costs attributable to variations in the per floor wall height of the improvement computed in accordance with the appropriate Model Type Precalculated Adjustments for Height provided in Schedule 4.

1.160.002 "Total Base Rates" as referred to in section 1.160.001 are produced when base structure Base Rates are combined with applicable interior finish Base Rates.

1.160.010 PERIMETER/AREA RATIO ADJUSTMENT

1.160.011 Subject to section 1.160.012, 1.160.013 and 1.160.014, if an improvement is classified as a Model Type provided in Schedule 4, its Total Base Cost may be increased or decreased in accordance with the following procedures:

(1) compute the Perimeter/Area Ratio of the improvement in accordance with the formula provided in section 1.160.015,

(2) determine the Size Range in which the area of the improvement falls and the corresponding factor for the Perimeter/Area Ratio of the subject improvement in accordance with the table provided in section 1.160.020,

(3) multiply the Total Base Cost of the improvement by the factor established under subsection (2) to determine the amount of the Perimeter/Area Ratio Adjustment, and

(4) add or deduct the amount computed under subsection (3) to the Total Base Cost.

1.160.012 If an improvement is **circular** or **triangular**, or is a **polygon** with 5 or more equal sides

(1) adopt a Perimeter/Area Ratio of 20.0, and

(2) apply the functions described in section 1.160.011 subsections (2), (3) and (4).

1.160.013 If an improvement is a Model Type 510 Sales Warehouse or 751 Service Station - Bays, 310 Strip Shopping Centers, or 615 or 620 with Sales Warehouse Finish apply the procedures provided in 1.160.011 only if the Perimeter/Area Ratio of each individual sales warehouse bay or service station bay or Strip Shopping Centre Unit, or Sales Warehouse Bay in a Rigid Frame indicates an increase or decrease.

1.160.014 The provision of section 1.160.011 and 1.160.012 **do not** apply if

(1) **the Perimeter/Area Ratio is greater than 18.0 and the indicated increase is considered to be the result of poor design of the improvement;**

(2) the improvement is classified as a Model Type 090, 150, 151, 206, 522, 600, 630, 760, 762, 850, 852, 855, 856, 857, 860, 870, 875, 876, 890, 891, 892.

1.160.015 The Perimeter/Area Ratio of an improvement is computed in accordance with the following formula:

$$\frac{\textbf{(Perimeter of Improvement)}^2}{\textbf{Area of Improvement}} = \textbf{Perimeter/Area Ratio}$$

i.e. Perimeter of Improvement is 223.5 m
Area of Improvement is 1 998.0 m^2

$$\frac{(223.5)^2}{1\,998.0} = \frac{49\,952.25}{1\,998.0} = 25.00$$

The area of the improvement falls within Size Range 4 of the table provided in section 1.160.020 and the indicated Perimeter/Area Ratio Adjustment factor is 1.040.

1.160.016 If the Perimeter/Area Ratio of an improvement falls between any of the Perimeter/Area Ratios displayed in the table (1.160.020), the appropriate factor may be determined by extrapolation.

1.160.017 See section 1.160.026 for an example application of the Perimeter/Area Ratio Adjustment.

1.160.020 PERIMETER/AREA RATIO ADJUSTMENT TABLE

Size Range 1 (0 - 49 m^2)		Size Range 2 (50 to 249 m^2)		Size Range 3 (250 - 699 m^2)	
Perimeter/Area Ratio	**Factor**	**Perimeter/Area Ratio**	**Factor**	**Perimeter/Area Ratio**	**Factor**
16.0	**-0.035**	16.0	**-0.028**	16.0	**-0.022**
17.0	**-0.017**	17.0	**-0.014**	17.0	**-0.011**
18.0	**0.000**	18.0	**0.000**	18.0	**0.000**
19.0	**+0.015**	19.0	**+0.013**	19.0	**+0.010**
20.0	**+0.033**	20.0	**+0.026**	20.0	**+0.020**
21.0	**+0.049**	21.0	**+0.039**	21.0	**+0.030**
22.0	**+0.066**	22.0	**+0.052**	22.0	**+0.040**
23.0	**+0.081**	23.0	**+0.064**	23.0	**+0.049**
24.0	**+0.095**	24.0	**+0.075**	24.0	**+0.058**
25.0	**+0.109**	25.0	**+0.087**	25.0	**+0.067**
26.0	**+0.124**	26.0	**+0.098**	26.0	**+0.076**
27.0	**+0.138**	27.0	**+0.109**	27.0	**+0.085**
28.0	**+0.151**	28.0	**+0.120**	28.0	**+0.093**
29.0	**+0.165**	29.0	**+0.130**	29.0	**+0.102**
30.0	**+0.179**	30.0	**+0.140**	30.0	**+0.110**
32.0	**+0.209**	32.0	**+0.160**	32.0	**+0.127**
34.0	**+0.234**	34.0	**+0.182**	34.0	**+0.141**
36.0	**+0.255**	36.0	**+0.202**	36.0	**+0.157**
38.0	**+0.280**	38.0	**+0.220**	38.0	**+0.171**
40.0	**+0.300**	40.0	**+0.238**	40.0	**+0.185**
45.0	**+0.355**	45.0	**+0.282**	45.0	**+0.220**
50.0	**+0.402**	50.0	**+0.324**	50.0	**+0.252**

1.160.020 PERIMETER/AREA ADJUSTMENT TABLE

Size Range 4 (700 to 1 999 m^2)		Size Range 5 (2000 – 5 499 m^2)		Size Range 6 (5500 to 19 999 m^2)	
Perimeter/Area Ratio	**Factor**	**Perimeter/Area Ratio**	**Factor**	**Perimeter/Area Ratio**	**Factor**
16.0	**-0.013**	16.0	**-0.010**	16.0	**-0.006**
17.0	**-0.006**	17.0	**-0.006**	17.0	**-0.002**
18.0	**0.000**	18.0	**0.000**	18.0	**0.000**
19.0	**+0.007**	19.0	**+0.004**	19.0	**+0.004**
20.0	**+0.012**	20.0	**+0.010**	20.0	**+0.005**
21.0	**+0.018**	21.0	**+0.015**	21.0	**+0.008**
22.0	**+0.024**	22.0	**+0.019**	22.0	**+0.011**
23.0	**+0.030**	23.0	**+0.024**	23.0	**+0.014**
24.0	**+0.034**	24.0	**+0.028**	24.0	**+0.016**
25.0	**+0.040**	25.0	**+0.032**	25.0	**+0.018**
26.0	**+0.046**	26.0	**+0.036**	26.0	**+0.021**
27.0	**+0.051**	27.0	**+0.041**	27.0	**+0.023**
28.0	**+0.056**	28.0	**+0.045**	28.0	**+0.026**
29.0	**+0.061**	29.0	**+0.049**	29.0	**+0.028**
30.0	**+0.065**	30.0	**+0.053**	30.0	**+0.031**
32.0	**+0.074**	32.0	**+0.061**	32.0	**+0.035**
34.0	**+0.085**	34.0	**+0.068**	34.0	**+0.039**
36.0	**+0.094**	36.0	**+0.075**	36.0	**+0.043**
38.0	**+0.102**	38.0	**+0.082**	38.0	**+0.047**
40.0	**+0.110**	40.0	**+0.088**	40.0	**+0.051**
45.0	**+0.130**	45.0	**+0.107**	45.0	**+0.061**
50.0	**+0.150**	50.0	**+0.121**	50.0	**+0.069**

1.160.025 APPLICATION OF PERIMETER/AREA RATIO ADJUSTMENT

1.160.026 Following is an example application of the Perimeter/Area Ratio Adjustment described in section 1.160.011 to 1.160.014.

Assume a warehouse, on concrete slab (4.500.060), with 6.6 metre high perimeter walls; area is 1 800 m^2 with a perimeter of 194 metres. Exterior walls have good face brick veneer over 190 mm reinforced concrete block.

Base Rates (4.500.062)

ST Code 61 - Main Level and Concrete Slab	K $ 42 600	AR 191
ST Code 90 - Warehouse Finish	K 1 100	AR 12
	$ 43 700	$ 203

(1 800 m^2 @ $203/$m^2$ + $43 700) = **Base Cost** **$ 409 100**

Wall Height Variation
6.6 m - 3.0 m (in rate) = 3.6 m

Precalculated Adjustments (4.500.064)

Exterior Wall	K 8 320	AR 7.70
Interior Wall Finish	K 330	AR 0.30
	$ 8 650	$ 8.00

(1 800 m^2 @ $ 8.00 + $ 8 650) 3.6 m +82 980

Total Base Cost $ 492 080

Perimeter/Area Ratio Adjustment

Ratio = $\frac{(194.0)^2}{1\,800.0} = \frac{37\,636.0}{1\,800.0}$ = 20.9 Say 21.0

Factor = 0.018 (Perimeter/Area Ratio 21.0 - Size Range 4)

Total Base Cost x Factor	= Perimeter/Area Ratio Adjustment	
$ 492 080 x 0.018	= **Perimeter/Area Ratio Adjustment**	+ 8 860

Brick Veneer Variation (Component - Base Wall Construction)

Components in Building		Components in Model Type	
2731 Brick	$ 109.00 m^2	2548 Block	$ 87.00 m^2
2528 Back-up Block	72.10 m^2	2703 Paint	7.80 m^2
	$ 181.10 m^2		$ 94.80 m^2

Percentage (Ratio) Increase = $\frac{\text{In Building}}{\text{in Model Rate}}$ - 1.000

$\frac{\$ 181.10}{\$ 94.80}$ = 1.910 - 1.000 = + 0.91 (91%) Increased Cost

1.160.025 APPLICATION OF PERIMETER/AREA RATIO ADJUSTMENT CONT'D

Brick Veneer Variation Cont'd

Wall Height Percentage Increase = Building Height / Model Type Height

6.6 m = 2.20 (220%)
3.0 m

Module Rates - Main Level Structure (MT 500 QU 06 ST 60)

Component	Constant	AR	
2548 Base Wall Constr.	$ 18 790	$ 15.70	
2703 Ext. Wall Finish	1 680	1.40	
	$ 20 470	$ 17.10	
(1 800 m^2 x $ 17.10 + $20 470) x 0.91 x 2.20			+ 102 600

Architect Fees (on adjustments and variations)

Fee = (Cost of Adjustments and Variations) x Fee Percentage
= (Height Variation + Perimeter/Area Adj. + Brick) x %
= ($ 82 980 + $ 8 860 + $ 102 600) x 5.6%
$ 194 440 x 0.056 + 10 890

Total Replacement Cost New **$ 614 430**

1.160.030 PERIMETER DESIGN ADJUSTMENT

1.160.031 Subject to section 1.160.032 if an improvement is classified as a Model Type provided in Schedule 4 and has a perimeter wall floor plan design containing 6 or more intersections the Total Base Cost of the improvement, may be increased in accordance with the following procedures:

(1) determine the number of perimeter wall intersections, both internal and external, and select corresponding factor in accordance with the table provided in section 1.160.035,

(2) multiply the Total Base Cost of the improvement, referred to above, by the factor determined under subsection (1), and

(3) add the product of subsection (3) to the Total Base Cost.

1.160.032 The provisions of section 1.160.031 **do not** apply if

(1) an improvement is **circular** or is a **polygon** with 5 or more equal sides as referred to in section 1.160.012;

(2) **the number of perimeter wall intersections is greater than 6 and the indicated increase is considered to be the result of poor design of the improvement;**

(3) the improvement is a Model Type 522, 600, 630, 760, 762, 850, 852, 855, 856, 857, 860, 870, 875, 876, 890, 891, or 892.

1.160.033 If the number of intersections falls between any of the Number of Intersections displayed in the table (1.160.035), the appropriate factor may be determined by extrapolation.

1.160.034 See section 1.160.041 for an example application of the Perimeter Design Adjustment.

1.160.035 PERIMETER DESIGN ADJUSTMENT TABLE

Number of Intersections	Factor	Number of Intersections	Factor
4-6	**0.000**	40	**0.029**
8	**0.007**	42	**0.030**
10	**0.009**	44	**0.031**
12	**0.011**	46	**0.032**
14	**0.013**	48	**0.033**
16	**0.015**	50	**0.034**
18	**0.017**	52	**0.035**
20	**0.019**	54	**0.036**
22	**0.020**	56	**0.037**
24	**0.021**	58	**0.038**
26	**0.022**	60	**0.039**
28	**0.023**	62	**0.040**
30	**0.024**	64	**0.041**
32	**0.025**	66	**0.042**
34	**0.026**	68	**0.043**
36	**0.027**	70	**0.044**
38	**0.028**		

1.160.040 APPLICATION OF PERIMETER DESIGN ADJUSTMENT

1.160.041 Following is an example application of the Perimeter Design Adjustment described in section 1.160.031.

Assume a warehouse, on concrete slab (4.500.060), with 6.6 metre high perimeter walls; area is 1 800 m^2 with a perimeter of 194 metres and 10 designed floor plan intersections. Exterior walls have good face brick over 190 mm reinforced concrete block.

Total Base Cost (see section 1.160.026)	$ 492 080
Add Perimeter/Area Ratio Adjustment (see section 1.160.026)	+ 8 860
Total Base Cost x Factor = Perimeter Design Adjustment	
$ 492 080 x 0.009 = **Perimeter Design Adjustment**	+ 4 430
Add Brick Veneer Variation (see section 1.160.026)	+ 102 600
Add architect fees (on adjustments and variations) ($82 980 + $ 8 860 + $ 4 430 + $ 102 600) x 5.6% $ 198 870 x 0.056	+ 11 135
1983 Replacement Cost New	**$ 619 115**

1.170.000 OVERALL STRUCTURAL HEIGHT ADJUSTMENT

1.170.001 For purposes of making an Overall Structural Height Adjustment

(1) "Total Base Cost" has the same meaning as defined in section 1.160.001;

(2) "components" means

(a) any of the components listed under the heading "Component Description" for each Model Type or combination of Model Types contained in Schedule 4, and

(b) includes any individual or combined Module, Precalculated or Unit Cost Adjustments or Unit Cost additions, deletions, variations or substitutions to, in or of any of the components of the improvement, but

(c) without restricting the generality of clause (b) does not include Unit Costs for items such as freight and passenger elevators, loading docks, scales, produce and meat display cases, vaults and vault doors and other like special construction Unit Costs unless such items, **with the exception of freight and passenger elevators,** are in fact situate on or in an upper level of the improvement.

1.170.010 Subject to section 1.170.015, if an improvement is classified as a Model Type provided in Schedule 4 and has an overall structural height

(1) greater than 3.0 metres above grade, **OR**

(2) greater than 3.0 metres below grade,

the Total Base Cost of the improvement may be increased or decreased by

(3) adding or deducting any costs attributable to a Perimeter/Area Ratio Adjustment and a Perimeter Design Adjustment computed in accordance with section 1.160.001 to 1.160.035 inclusive,

(4) adding or deducting any costs attributable to additions, deletions, variations or substitutions to, in or of any of the components of the improvement **not** included in the computation of the Total Base Cost, (see definition of Total Base Cost - section 1.160.001)

(5) multiplying the cost computed in accordance with subsection (3) and (4) by the appropriate factor for the Adjusted Height of the improvement to determine the amount attributable to the Overall Structural Height Adjustment, and

(6) add the amount computed in accordance with subsection (5) to the cost computed in accordance with subsections (3) and (4).

1.170.011 The appropriate factor referred to in section 1.170.010 (5) shall be determined in accordance with the table provided in section 1.170.025 and the Adjusted Height shall be determined by establishing the Overall Structural Height, in metres, of the improvement below grade **OR** above grade, as the case may be, and adjusting the overall height by deducting 3.0 metres.

1.170.015 If an improvement is classified as a Model Type provided in Schedule 4 and has an overall structural height

(1) greater than 3.0 metres above grade, **AND** greater than 3.0 metres below grade,

the Total Base Cost of the improvement may be increased or decreased by

(2) adding or deducting any costs attributable to a Perimeter/Area Ratio Adjustment and a Perimeter Design Adjustment computed in accordance with section 1.160.001 to 1.160.035 inclusive,

(3) adding or deducting any costs attributable to additions, deletions, variations or substitutions to, in or of any of the components of the improvement not included in the computation of the Total Base Cost, (see definition of Total Base Cost - section 1.160.001),

(4) multiplying the cost computed in accordance with subsections (2) and (3) by the appropriate factor for the Adjusted Height of the improvement to determine the amount attributable to the Overall Structural Height Adjustment, and

(5) add the amount computed in accordance with subsection (4) to the cost computed in accordance with subsections (2) and (3).

1.170.016 The appropriate factor referred to in section 1.170.015 (4) shall be determined in accordance with the table provided in section 1.170.025 and the Adjusted Height shall be determined by establishing the Overall Structural Height, in metres, of the improvement both below grade **AND** above grade and adjusting the overall height by deducting 6.0 metres.

1.170.017 If the adjusted height of an improvement falls between any of the Adjusted Height in Metres displayed in the table (1.170.025), the appropriate factor may be determined by extrapolation.

1.170.018 See section 1.170.030 for example applications of the Overall Structural Height Adjustment.

1.170.025 OVERALL STRUCTURAL HEIGHT ADJUSTMENT TABLE

Adjusted Height in Metres	Factor	Adjusted Height in Metres	Factor	Adjusted Height in Metres	Factor
0.0	**0.000**	78.0	**0.130**	153.0	**0.247**
3.0	**0.008**	81.0	**0.134**	156.0	**0.252**
6.0	**0.016**	84.0	**0.138**	159.0	**0.258**
9.0	**0.024**	87.0	**0.142**	162.0	**0.264**
12.0	**0.032**	90.0	**0.147**	165.0	**0.269**
15.0	**0.038**	93.0	**0.151**	168.0	**0.275**
18.0	**0.044**	96.0	**0.156**	171.0	**0.281**
21.0	**0.049**	99.0	**0.160**	174.0	**0.286**
24.0	**0.055**	102.0	**0.165**	177.0	**0.292**
27.0	**0.061**	105.0	**0.169**	180.0	**0.298**
30.0	**0.066**	108.0	**0.174**	183.0	**0.304**
33.0	**0.070**	111.0	**0.178**	186.0	**0.309**
36.0	**0.075**	114.0	**0.182**	189.0	**0.314**
39.0	**0.079**	117.0	**0.187**	192.0	**0.319**
42.0	**0.084**	120.0	**0.191**	195.0	**0.324**
45.0	**0.087**	123.0	**0.196**	198.0	**0.329**
48.0	**0.091**	126.0	**0.201**	201.0	**0.334**
51.0	**0.094**	129.0	**0.206**	204.0	**0.339**
54.0	**0.098**	132.0	**0.211**	207.0	**0.344**
57.0	**0.101**	135.0	**0.216**	210.0	**0.349**
60.0	**0.105**	138.0	**0.221**	213.0	**0.354**
63.0	**0.109**	141.0	**0.225**	216.0	**0.359**
66.0	**0.114**	144.0	**0.230**	219.0	**0.363**
69.0	**0.118**	147.0	**0.235**	222.0	**0.367**
72.0	**0.122**	150.0	**0.241**	225.0	**0.370**
75.0	**0.126**				

1.170.030 APPLICATION OF OVERALL STRUCTURAL HEIGHT ADJUSTMENT

1.170.031 Following is an example application of the Overall Structural Height Adjustment described in section 1.170.010:

Assume a warehouse, on concrete slab, (4.500.060) with 6.6. metre high perimeter walls; area is 1,800 m^2 with a perimeter of 194 metres and 10 designed floor plan intersections. Exterior walls have good face brick veneer over 190 mm reinforced concrete block. Additional component variations amount to $ 10 250.

Total Base Cost (see section 1.160.026)		**$ 492 080**
Add Perimeter/Area Ratio Adjustment (see 1.160.026)		**+ 8 860**
Add Perimeter Design Adjustment (see 1.160.041)		**+ 4 430**
Add Brick Veneer Variation (see 1.160.026)		**+ 102 600**
Add Component variations and other cost adjustments		**+ 10 250**
	Subtotal	**$ 618 220**

Overall Structural Height Adjustment
(Actual Structural Height less 3.0 metres) = Adjusted Height
6.6 metres - 3.0 metres = 3.6 metres

Adjusted Height Factor (see Table) First 3.0 metres = 0.008
Next 0.6 metres = 0.002
Factor = 0.010

Subtotal x Factor = Overall Structural Height Adjustment

$ 618 220 x 0.010 = **Overall Structural Height Adjustment**	+ 6 180
Add Architect Fees (on adjustments and variations) ($82 980 + $8 860 + $4 430 + $102 600 + $10 250 + $6 180 x 5.6% $ 215 300 x 0.056	+ 12 050
1983 Replacement Cost New	**$ 636 450**

1.170.032 Following is an example application of the Overall Structural Height Adjustment described in section 1.170.015.

The example also shows the proper application sequence of various adjustments to the base cost of an improvement. A chart, complementary to this example (section 1.170.035), may be used as a standard procedures guide to uniformly approach the establishment of the 1983 Replacement Cost New for any building.

Assume office building (4.350.060) with 13 levels above grade (main 3.7 m high, each upper level is 3.0 m high). There are 3 below grade levels of parkade (each 2.6 m high). Area is 750 m^2 per level with a perimeter of 120 metres and 8 designed floor plan intersections. Component variations and other cost adjustments amount to $ 584 450. Passenger elevators amount to an additional $ 355 600.

A BASE COST

Parkade Levels (4.430.062)

3 levels: ST Code 54; Size Range 4

(750 m^2 @ $176 + K $21 500) x 3 $ 460 500

Office Levels (4.350.062)

Main Level: ST Code 61; Size Range 4

(750 m^2 @ $278 + K $71 500) + 280 000

Main Level Finish:

Store finish: ST Code 80; 500 m^2 less 50 m^2 = 450 m^2

(50 m^2 = elevator shaft and stairwell areas)

Size Range 3: (450 m^2 @ $71 + K $3 300) + 35 250

Office finish: ST Code 83; $\frac{250\ m^2}{10}$ = 25 m^2 per office

Size Range 1: (25 m^2 @ $109 + K $1 200) x 10 + 39 250

Upper Levels: ST Code 70; Size Range 4

(750 m^2 @ $184 + K $75 700) x 12 + 2 564 400

Upper Level Finish:

Office finish: ST Code 83; 750 m^2 - 50 m^2 = 700 m^2/level

(50 m^2 = elevator shaft and stairwell areas)

$\frac{700\ m^2}{35}$ = 20 m^2 per office

Size Range 1: (20 m^2 @ $109 + K $1 200) x 35 x 12 + 1 419 600

Base Cost A = $ 4 799 000

1.170.032 CONT"D

B WALL HEIGHT ADJUSTMENT

Precalculated Adjustments (4.300.064, 4.350.064)

Main Level Height: 3.7 m - 3.0 m (in rate) = + 0.7 m
Parkade and Upper Levels: no height variation

Office: Exterior Walls (4.350.064 - Size 4)		
(750 m^2 @ $14.80 + K $14 840) x 0.7 m	+$ 18 158	
Mech. Shafts (2) (K $ 460 x 0.7 m) x 2	+ 644	
Stairwells (2) (K $1 080 x 0.7 m) x 2	+ 1 512	
Stairs (2) (K $ 660 x 0.7 m) x 2	+ 924	
Store: Int. Wall Finish (4.300.064 - Size 3)		
(450 m^2 @ $2.70 + K $1 180) x 0.7 m	+ 1 677	
Wall Height Adjustments	**+ $ 22 915**	**B = + 22 915**

C TOTAL BASE COST (A + B) **C = $ 4 821 915**

D PERIMETER/AREA RATIO ADJUSTMENT (1.160.001 to 1.160.020)

$$\text{Ratio} = \frac{\text{Perimeter}^2}{\text{Area}} = \frac{120.0^2}{750.0} = \frac{14400}{750} = 19.2$$

Factor = 0.008 (Size Range 4, Ratio 19.2)
Adjustment = Total Base Cost **(C)** x Factor

$4 821 915 x 0.008 = **Perimeter/Area Ratio Adjustment** **D = + 38 575**

E PERIMETER DESIGN ADJUSTMENT (1.160.031 to 1.160.035)

8 intersections
Factor = 0.007

Adjustment = Total Base Cost **(C)** x Factor

$4 821 915 x 0.007 = **Perimeter Design Adjustment** **E = + 33 753**

F OTHER ADJUSTMENTS

Add component variations and other cost adjustments, exclude passenger elevators **F = + 584 450**

G ARCHITECT FEES (on adjustments only)

Fee = (Total of Adjustments **B, D, E and F**) x Fee Percentage
($22 915 + $38 575 + $33 753 + $584 450) x 7%
$ 679 693 x 0.07 **G = + 47 579**

H SUBTOTAL (C + D + E + F + G) **H = $ 5 526 272**

1.170.032 CONT'D

I OVERALL STRUCTURAL HEIGHT ADJUSTMENT (1.170.001 to 1.170.25)

Adjusted Height = Actual Building Height minus 6.0 m

Actual Height:
(3 x 2.6 m) + (1 x 3.7 m) + (12 x 3.0 m) = 47.5 m

47.5 m - 6.0 m = 41.5 m (Adjusted Height)
Factor = 0.0832

Adjustment = Sub-total **(H)** x Factor
= $5 526 272 x 0.0832
= **Overall Structural Height Adjustment** **I = + 459 786**

J SPECIAL VARIATIONS

(a) **Add** Passenger Elevator	$ 355 600	
(b) **Add** Architect Fees (on Special Variations only)		
Fee = Special Variation x Fee Percentage		
$ 355 600 x 0.07 (7.0%) = Fee	24 892	
	+ $ 380 492	**J = + $380 492**

K TOTAL 1983 REPLACEMENT COST NEW (H + I + J) **K = $ 6 366 550**

1.170.035 SEQUENTIAL ADJUSTMENT FORMAT

A. Base Cost (including finish modules) A $_____

B. Wall Height Adjustments + B $_____

C. Total Base Cost (A + B) **C** $_____

D. Perimeter/Area Ratio Adjustment (section 1.160.000)

$\left(\frac{\text{Perimeter}}{\text{Area}}\right)^2$ = Ratio

Determine appropriate Ratio Factor in accordance with Size Range of Base Cost. (see section 1.60.020)

((Total Base Cost (**C**)) x Factor = P/A Ratio Adjustment + D $_____

E. Perimeter Design Adjustment (see section 1.160.030)

Select appropriate Factor from section 1.160.035

((Total Base Cost (**C**)) x Factor = Perimeter Design Adjustment + E $_____

F. Other Adjustments

Add or **Deduct** component variations and other cost adjustments excluding unit costs referred to in section 1.170.001 (2) (c). + F $_____

G. Architect fees (on Adjustments **B,D,E, & F** only)
Select fee percentage from appropriate building classification

(Adjustments **B + D + E + F**) x Percentage = Fee + G $_____

H. Subtotal (**C + D + E + F + G**) **Subtotal** **H $_____**

I. Overall Structural Height Adjustment (see section 1.170.000)
Building levels:
Above grade only **OR** below grade only: deduct 3.0 m
Actual Height: measurement from floor of lowest level to roof of highest level
Above grade **AND** below grade: deduct 6.0 m

(Actual Height minus 3.0/6.0m) = Adjusted Height

Select appropriate Factor from section 1.170.025 in accordance with Adjusted Height.

((Subtotal (**H**)) x Factor = Height Adjustment + I $_____

1.170.035 SEQUENTIAL ADJUSTMENT FORMAT

J. Special Equipment/Unit Cost Variations

Special Equipment Cost (see section 1.170.001 (2) (c)) + $_____

Add Architect Fees (on special equipment only)
(Special Equipment Cost) x Percentage = Fee +_____
+ $_____ J + $_____

K. 1983 Replacement Cost New (**H + I + J**) **K $_____**

1.180.000 BASE YEAR MODIFIERS

1.180.010 The Base Year Replacement Cost New of an **improvement**, in the base year of a general assessment, is determined by

(1) computing the 1983 replacement cost new of the improvement in accordance with these Regulations and the Act, and

(2) multiplying the amount computed under subsection (1) by the appropriate improvement factor, for the base year of the general assessment, determined in accordance with section 1.180.050 and, if applicable, sections 1.180.011 and 1.180.015 giving regard to the Improvement Classification of the improvement.

1.180.011 For the purpose of a general assessment conducted in 2023 or later, the appropriate improvement factor applicable to machinery and equipment for the base year of the general assessment is equivalent to the Steel Factor listed in section 1.180.050 for the base year of the general assessment.

1.180.015 The appropriate improvement factor for a year that does not appear in section 1.180.050 is equivalent to the appropriate improvement factor for the previous year.

1.180.050 BASE YEAR MODIFIER FACTOR TABLE (1983 = 1.000)

IMPROVEMENT CLASSIFICATION

Base Year of General Assessment	Residences Factor	Commercial Institutional Factor	Steel Factor	Warehouses Workshops Storage Factor
1983	**1.000**	**1.000**	**1.000**	**1.000**
1984	0.950	0.921	0.952	0.940
1985	0.972	0.955	0.986	0.978
1986	1.040	1.032	1.018	1.036
1987	1.098	1.050	1.037	1.052
1988	1.140	1.092	1.086	1.113
1989	1.223	1.180	1.153	1.195
1990	1.354	1.25	1.232	1.248
1991	1.354	1.355	1.337	1.351
1992	1.37	1.27	1.252	1.274
1993	1.41	1.30	1.28	1.274
1994	1.42	1.32	1.31	1.30
1995	1.42	1.32	1.31	1.33
1996	1.43	1.34	1.33	1.33
1997	1.45	1.36	1.34	1.35
1998	1.50	1.42	1.42	1.36
1999	1.57	1.45	1.47	1.43
2000	1.63	1.50	1.52	1.47
2021	4.89	2.69	2.93	1.51
2022	5.31	2.78	3.02	2.75

Note: The factors shown under the classification Warehouses, Workshops, Storage are intended for application to these and other similar classifications of improvements constructed of Frame, Masonry-Wood, Masonry-Concrete, Masonry-Steel or any combination of those classifications of construction materials.

GUIDELINES FOR APPLICATION OF BASE YEAR MODIFIERS TO VARIOUS IMPROVEMENT CLASSIFICATIONS

GUIDELINES FOR APPLICATION OF BASE YEAR MODIFIERS TO VARIOUS IMPROVEMENT CLASSIFICATIONS

		Factor Category
1.	Schedule 1 – All of Residential Improvements	Residential
2.	Mobile Home Parks	Residential
3.	All Apartments	Commercial
4.	Warehouse with Attached Office	
	(a) Warehouse Portion	Warehouse
	(b) Office Portion	Commercial
5.	Metal Clad Warehouse, Archrib Warehouse	Warehouse
6.	Sales Warehouse	Warehouse
7.	Bulk Elevator Fertilizer Warehouse	Warehouse
8.	Quonset, Agro, Self Framing, Relocatable Metal Oilfield, Rigid Frame and Modular Rigid Frame Metal Warehouses	Steel
9.	Service Stations	Commercial
10.	Bulk Oil	
	(a) Wood Frame and Metal Clad	Warehouse
	(b) Steel Self Frame	Steel
11.	Bulk Oil Offices	Warehouse
12.	Grain Elevators and Annexes	Warehouse
	Elevator Offices	Commercial
	Steel Grain Bins	Steel
13.	Relocatable Buildings (Trailers)	Commercial
14.	Greenhouses	Warehouse
15.	Site Improvements	
	(a) Paving	Commercial
	(b) Fences, Lighting	Steel

Note: In the case of a building or structure that is a composite of 2 or more classifications, a composite index factor may be computed in accordance with the estimated proportion of replacement cost new that each classification in the building or structure bears to the replacement cost new of the whole building or structure.

1.180.060 BASE YEAR MODIFIER FACTOR TABLE (1983 = 1.000)

	FARM LAND CLASSIFICATION		
Base Year of General Assessment	**Dry Arable Factor**	**Dry Pasture Factor**	**Irrigation Factor**
1983	**1.000**	**1.000**	**1.000**
1984	0.977	0.948	0.954
1985	0.943	0.976	0.873
1986	0.864	0.992	0.855
1987	0.772	1.100	0.820
1988	0.818	1.172	0.808
1989	0.771	1.245	0.752
1990	0.853	1.124	0.733

1.180.060 BASE YEAR MODIFIER FACTOR TABLE (1991 = 1.000)

	FARM LAND CLASSIFICATION		
Base Year of General Assessment	**Dry Arable Factor**	**Dry Pasture Factor**	**Irrigation Factor**
1991	1.00	1.00	1.00
1992	1.00	1.00	1.03
1993	1.00	1.00	1.03
1994	1.00	1.00	1.03
1995	1.00	1.00	1.03
1996	1.00	1.00	1.03
1997	1.00	1.00	1.03
1998	1.00	1.00	1.03
1999	1.00	1.00	1.03
2000	1.00	1.00	1.03
2001	1.00	1.00	1.03
2002	1.00	1.00	1.03
2003	1.00	1.00	1.03
2004	1.00	1.00	1.03

1.190.000 COST INDICES

1.190.010 Cost indices are used in the determination of 1983 replacement cost new of an improvement when other means of doing so are not available or are inappropriate.

1.190.020 To determine the 1983 replacement cost new of an improvement, the construction costs of the improvement are multiplied by the appropriate index factor, selected in accordance with sections 1.190.030, 1.190.050 and, if applicable, 1.190.025, for the year the improvement was constructed or erected.

1.190.025 The appropriate index factor for a year that does not appear in section 1.190.050 is equivalent to the appropriate index factor for the previous year.

1.190.030 The concepts of determining typical replacement cost new must be considered in respect of the construction costs of the improvement and the following criteria observed in respect to the selection of an appropriate index factor.

RESIDENCES

Frame means wood framing with stucco, wood or metal siding.

Masonry Veneer means wood framing with masonry veneer.

COMMERCIAL, INSTITUTIONAL AND INDUSTRIAL

Frame means wood framing and walls.

Steel means steel framing, steel walls and all machinery and equipment.

Masonry-Wood means wood framing with masonry walls.

Masonry-Concrete means reinforced concrete framing with masonry walls.

Masonry-Steel means steel framing with masonry walls.

Note: Where combinations of material vary from the above, an average index based on the appropriate indices may be computed if each type of material is present in sufficient quantity to warrant averaging of the indices.

1.190.050 COST INDICES FACTOR TABLE (1983 = 1.000)

	RESIDENCES		COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL		
Year of Construction	**Frame Factor**	**Masonry Veneer Factor**	**Masonry Wood Factor**	**Masonry Concrete Factor**	**Masonry Steel Factor**
1913	17.553	18.202	18.598	17.134	16.742
1914	18.148	18.820	19.233	17.720	17.312
1915	18.490	21.866	19.600	18.054	17.642
1916	17.067	17.700	18.090	16.665	16.284
1917	14.490	15.030	15.360	14.150	13.826
1918	12.608	13.079	13.368	12.314	12.031
1919	11.141	11.555	11.807	10.877	10.626
1920	9.112	9.451	9.660	8.898	8.695
1921	10.109	10.484	10.715	9.870	9.642
1922	10.958	11.367	11.614	10.700	10.456
1923	10.674	11.071	11.312	10.420	10.614
1924	10.803	11.201	11.449	10.546	10.304
1925	10.963	11.372	11.619	10.705	10.459
1926	11.061	11.471	11.725	10.799	10.553
1927	11.647	11.479	11.729	10.799	10.557
1928	10.811	11.215	11.458	10.804	10.318
1929	10.398	10.785	11.018	10.558	9.920
1930	10.758	11.161	11.403	10.153	10.263
1931	11.790	12.021	12.285	10.507	11.058
1932	12.489	12.953	13.239	11.319	11.916
1933	13.094	13.580	13.878	12.197	12.490
1934	12.902	13.378	13.670	12.785	12.305
1935	12.769	13.378	13.533	12.597	12.180
1936	12.404	12.868	13.148	12.468	11.833
1937	11.621	12.052	12.317	12.111	11.088
1938	11.826	12.267	12.532	11.346	11.281
1939	11.723	12.159	12.427	11.548	11.183
1940	11.123	11.532	11.789	11.449	10.610
1941	10.148	10.525	10.757	10.859	9.684
1942	9.285	9.634	9.844	9.909	8.886
1943	8.721	9.061	9.270	9.070	8.493
1944	8.400	8.761	8.692	8.691	8.369
1945	8.266	8.617	8.829	8.567	8.267

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL				
Year of Construction	**Frame Factor**	**Steel Factor**	**Masonry Wood (A) Factor**	**Masonry Concrete (A) Factor**	**Masonry Steel (A) Factor**
1913	16.760	14.738	18.918	16.804	16.159
1914	17.328	15.240	19.565	17.378	15.707
1915	17.656	15.532	19.933	17.708	17.023
1916	16.295	14.336	18.400	16.344	15.713
1917	13.838	12.163	15.624	13.877	13.343
1918	12.043	10.594	13.597	12.076	11.611
1919	10.635	9.354	12.009	10.667	10.254
1920	8.699	7.653	9.826	8.727	8.391
1921	9.653	8.491	10.896	9.681	9.306
1922	10.462	9.202	11.812	10.494	10.090
1923	10.191	8.965	11.509	10.220	9.829
1924	10.314	9.070	11.643	10.342	9.943
1925	10.470	9.211	11.822	10.500	10.094
1926	10.563	9.289	11.932	10.592	10.182
1927	10.567	9.293	11.923	10.596	10.186
1928	10.327	9.082	11.656	10.355	9.955
1929	9.926	8.734	11.206	9.959	9.572
1930	10.273	9.038	11.597	10.304	9.904
1931	11.069	9.737	12.496	11.102	10.671
1932	11.924	10.489	13.464	11.963	11.498
1933	12.502	10.998	14.115	12.540	12.053
1934	12.317	10.834	13.909	12.355	11.921
1935	12.189	10.723	13.762	12.227	11.755
1936	11.844	10.419	13.373	11.877	11.421
1937	11.099	9.761	12.528	11.127	10.701
1938	11.292	9.934	12.749	11.325	10.887
1939	11.195	9.847	12.638	11.228	10.793
1940	10.618	9.342	11.991	10.650	10.237
1941	9.691	8.524	10.941	9.719	9.343
1942	8.868	7.801	10.014	8.896	8.551
1943	8.278	7.633	9.491	8.524	8.227
1944	7.967	7.587	9.211	8.394	8.126
1945	7.803	7.521	9.073	8.306	8.028

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	RESIDENCES		COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL		
Year of Construction	**Frame Factor**	**Masonry Veneer Factor**	**Masonry Wood Factor**	**Masonry Concrete Factor**	**Masonry Steel Factor**
1946	7.812	8.188	8.380	8.464	7.787
1947	6.896	7.283	7.448	7.986	7.054
1948	6.255	6.558	7.127	7.268	6.437
1949	5.975	6.101	6.305	6.615	5.991
1950	5.579	5.760	5.956	5.857	5.782
1951	4.947	5.133	5.337	5.319	5.191
1952	4.774	4.984	5.130	5.062	4.493
1953	4.631	4.792	4.956	4.786	4.733
1954	4.693	4.824	4.983	4.710	4.694
1955	4.681	4.779	4.933	4.662	4.665
1956	4.636	4.684	4.827	4.551	4.531
1957	4.582	4.649	4.782	4.460	4.424
1958	4.548	4.609	4.736	4.421	4.394
1959	4.494	4.578	4.695	4.391	4.368
1960	4.476	4.519	4.639	4.349	4.313
1961	4.476	4.515	4.630	4.331	4.313
1962	4.457	4.497	4.612	4.317	4.230
1963	4.449	4.479	4.589	4.301	4.283
1964	4.222	4.271	4.389	4.137	4.117
1965	4.034	4.092	4.217	3.989	3.943
1966	3.825	3.886	4.022	3.775	3.767
1967	3.581	3.641	3.788	3.553	3.568
1968	3.388	3.459	3.610	3.444	3.445
1969	3.234	3.319	3.478	3.302	3.294
1970	3.040	3.093	3.124	2.978	2.974
1971	2.900	2.967	2.996	2.897	2.736
1972	2.519	2.649	2.726	2.681	2.670
1973	2.337	2.413	2.508	2.488	2.474
1974	2.140	2.202	2.227	2.196	2.186
1975	1.820	1.861	1.914	1.889	1.885
1976	1.563	1.584	1.699	1.682	1.674

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL				
Year of Construction	**Frame Factor**	**Steel Factor**	**Masonry Wood (A) Factor**	**Masonry Concrete (A) Factor**	**Masonry Steel (A) Factor**
1946	7.330	6.978	8.625	7.879	7.522
1947	6.437	6.481	7.725	7.250	6.904
1948	5.876	6.202	6.939	6.627	6.436
1949	5.720	6.211	6.289	6.023	6.102
1950	5.278	6.038	6.019	5.838	5.905
1951	4.632	5.420	5.481	5.365	5.293
1952	4.455	5.076	5.271	5.078	5.019
1953	4.329	4.780	5.042	4.766	4.741
1954	4.418	4.726	5.042	4.619	4.678
1955	4.430	4.685	4.954	4.539	4.620
1956	4.400	4.500	4.807	4.454	4.480
1957	4.341	4.341	4.780	4.374	4.354
1958	4.299	4.254	4.753	4.341	4.307
1959	4.274	4.209	4.703	4.311	4.286
1960	4.236	4.168	4.647	4.264	4.253
1961	4.236	4.144	4.628	4.247	4.240
1962	4.224	4.130	4.610	4.235	4.228
1963	4.215	4.110	4.587	4.218	4.215
1964	4.024	3.942	4.378	4.081	4.060
1965	3.885	3.795	4.207	3.929	3.906
1966	3.715	3.659	4.019	3.731	3.734
1967	3.519	3.350	3.777	3.514	3.553
1968	3.401	3.501	3.607	3.427	3.470
1969	3.268	3.431	3.463	3.975	3.375
1970	2.939	3.101	3.203	2.992	3.033
1971	2.853	2.982	3.082	2.928	2.940
1972	2.642	2.757	2.771	2.710	2.713
1973	2.449	2.587	2.450	2.480	2.529
1974	2.165	2.286	2.216	2.152	2.225
1975	1.869	1.901	1.923	1.825	1.854
1976	1.662	1.668	1.692	1.617	1.641

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	RESIDENCES		COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL		
Year of Construction	**Frame Factor**	**Masonry Veneer Factor**	**Masonry Wood Factor**	**Masonry Concrete Factor**	**Masonry Steel Factor**
1977	1.387	1.397	1.517	1.498	1.496
1978	1.307	1.328	1.373	1.378	1.376
1979	1.158	1.173	1.199	1.221	1.224
1980	1.040	1.052	1.076	1.096	1.100
1981	0.963	0.968	0.975	0.980	0.980
1982	0.933	0.937	0.919	0.924	0.924
1983	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
1984	1.053	1.052	1.084	1.091	1.088
1985	1.027	1.032	1.055	1.048	1.051
1986	1.027	1.032	1.055	1.048	1.051
1987	0.962	0.967	0.987	0.966	0.970
1988	0.907	0.931	0.970	0.948	0.952
1989	0.877	0.903	0.941	0.914	0.914
1990	0.805	0.825	0.898	0.868	0.867
1991	0.786	0.800	0.843	0.819	0.818
1992	0.786	0.778	0.827	0.805	0.809
1993	0.773	0.771	0.808	0.791	0.799
1994	0.746	0.748	0.792	0.778	0.786
1995	0.742	0.741	0.782	0.764	0.767
1996	0.735	0.736	0.77	0.754	0.761
1997	0.695	0.697	0.754	0.738	0.745
1998	0.666	0.668	0.726	0.709	0.714
1999	0.637	0.642	0.701	0.687	0.690
2000	0.614	0.619	0.68	0.665	0.667
2001	0.596	0.600	0.651	0.638	0.639
2002	0.577	0.581	0.629	0.617	0.617
2003	0.614	0.619	0.680	0.665	0.667
2004	0.596	0.600	0.651	0.638	0.639
2005	0.467	0.47	0.548	0.544	0.541
2006	0.416	0.419	0.511	0.507	0.504
2007	0.37	0.372	0.478	0.476	0.471
2008	0.325	0.327	0.448	0.446	0.441
2009	0.321	0.323	0.449	0.446	0.443
2010	0.312	0.314	0.443	0.441	0.438
2011	0.299	0.301	0.434	0.432	0.429
2012	0.282	0.284	0.425	0.424	0.42
2013	0.269	0.279	0.417	0.417	0.414
2014	0.521	0.252	0.409	0.408	0.406
2015	0.241	0.243	0.404	0.405	0.402

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL				
Year of Construction	**Frame Factor**	**Steel Factor**	**Masonry Wood (A) Factor**	**Masonry Concrete (A) Factor**	**Masonry Steel (A) Factor**
1977	1.480	1.529	1.515	1.446	1.484
1978	1.349	1.393	1.357	1.341	1.364
1979	1.179	1.226	1.170	1.189	1.196
1980	1.067	1.097	1.058	1.080	1.084
1981	0.956	0.969	0.963	0.972	0.964
1982	0.909	0.903	0.909	0.912	0.908
1983	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
1984	1.054	1.050	1.076	1.068	1.060
1985	1.016	1.013	1.036	1.028	1.023
1986	1.016	1.013	1.036	1.028	1.023
1987	0.946	0.982	0.958	0.964	0.963
1988	0.924	0.971	0.936	0.948	0.950
1989	0.889	0.925	0.897	0.906	0.906
1990	0.845	0.879	0.849	0.861	0.857
1991	0.796	0.839	0.804	0.818	0.819
1992	0.786	0.819	0.796	0.807	0.812
1993	0.769	0.802	0.780	0.797	0.795
1994	0.754	0.785	0.764	0.782	0.776
1995	0.743	0.767	0.750	0.763	0.757
1996	0.732	0.757	0.740	0.755	0.748
1997	0.717	0.737	0.725	0.741	0.734
1998	0.689	0.704	0.695	0.712	0.703
1999	0.666	0.681	0.670	0.693	0.680
2000	0.646	0.659	0.650	0.673	0.661
2001	0.619	0.630	0.623	0.623	0.635
2002	0.599	0.060	0.603	0.626	0.612
2003	0.646	0.659	0.650	0.673	0.661
2004	0.619	0.630	0.623	0.648	0.635
2005	0.527	0.52	0.531	0.548	0.532
2006	0.491	0.478	0.498	0.513	0.497
2007	0.46	0.446	0.468	0.485	0.468
2008	0.431	0.418	0.441	0.457	0.442
2009	0.431	0.42	0.442	0.458	0.443
2010	0.425	0.414	0.436	0.452	0.438
2011	0.417	0.405	0.428	0.444	0.43
2012	0.408	0.397	0.42	0.436	0.422
2013	0.401	0.392	0.413	0.43	0.416
2014	0.393	0.383	0.405	0.42	0.407
2015	0.39	0.382	0.401	0.416	0.403

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	RESIDENCES		COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL		
Year of Construction	**Frame Factor**	**Masonry Veneer Factor**	**Masonry Wood Factor**	**Masonry Concrete Factor**	**Masonry Steel Factor**
2016	0.239	0.24	0.402	0.403	0.4
2017	0.23	0.231	0.399	0.399	0.396
2018	0.219	0.22	0.392	0.392	0.389
2019	0.226	0.227	0.393	0.391	0.387
2020	0.226	0.227	0.393	0.391	0.387
2021	0.204	0.206	0.379	0.378	0.372
2022	0.188	0.190	0.367	0.365	0.360

1.190.050 COST INDICES FACTOR TABLE CONT'D (1983 = 1.000)

	COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL				
Year of Construction	**Frame Factor**	**Steel Factor**	**Masonry Wood (A) Factor**	**Masonry Concrete (A) Factor**	**Masonry Steel (A) Factor**
2016	0.388	0.379	0.399	0.414	0.401
2017	0.385	0.375	0.394	0.409	0.396
2018	0.378	0.364	0.386	0.4	0.387
2019	0.378	0.362	0.386	0.399	0.387
2020	0.378	0.362	0.386	0.399	0.387
2021	0.366	0.341	0.370	0.379	0.368
2022	0.356	0.331	0.360	0.369	0.359

Note: **(A)** indicates cost indices applicable to warehouses, workshops, storage and similar classifications having limited interior finish and mechanical services

1.200.000 DEPRECIATION INDEX

1.200.030 AGE LIFE TABLES

1.200.031 The age life tables are presented as guides to assist in the consistent determination of normal depreciation. Specific age life tables are included for residences, garages, mobile homes, commercial/industrial buildings and structures and for machinery and equipment used in processing or manufacturing operations.

1.200.035 AGE LIFE TABLE: RESIDENCES, GARAGES, OUTBUILDINGS

CLASS OF CONSTRUCTION	ANTICIPATED AGE LIFE
Inferior wood frame, usually on minimal wood sills - sheds, outbuildings, etc.	**30 years**
Poor wood frame residences, usually on fair wood sills or minimal concrete footings. **Poor** garage or carport.	**40 years**
Economy wood frame residences on foundation or basement. **Substandard** garage or carport.	**50 years**
Substandard wood frame residences on foundation or basement. **Fair** garage or carport.	**55 years**
Fair wood frame residences. **Standard** garage or carport.	**60 years**
Standard or Standard Project wood frame or **Fair** solid unit masonry residences.	**65 years**
Semi Custom Project wood frame or **Standard/Standard Project** solid unit masonry residences. **Custom** garage or carport.	**70 years**
Custom or Custom Project wood frame or **Semi Custom** solid unit masonry residences. **Good Custom** garage or carport.	**75 years**
Good Custom wood frame or **Custom/Custom Project** solid unit masonry residences.	**80 years**
Expensive wood frame or **Good Custom** solid unit masonry residences.	**90 years**
Luxurious	**100 years**

Note: Anticipated Age Life - Summer Cottages

The anticipated age life of a Summer Cottage is determined by adopting the Class of Construction in accordance with this Age Life Table and deducting 5-10 years from the Corresponding Anticipated Age Life when foundations are inadequate for Model Type.

1.200.036 Brick veneer construction must be equated to the appropriate class of construction applicable to the residences as a whole.

1.200.037 Garages or carports integrated within the overall framing and foundation system of the residence must be assigned an age life equal to the age life assigned to the residence.

1.200.040 AGE LIFE TABLE: MOBILE HOMES

CLASS OF CONSTRUCTION	ANTICIPATED AGE LIFE	
	Without Permanent Foundation	**With Permanent Foundation or Basement**
Single Wide Units		
Substandard	**20 years**	**30 years**
Fair	**25 years**	**35 years**
Standard	**30 years**	**40 years**
Double Wide Units		
Fair	**30 years**	**40 years**
Standard	**35 years**	**45 years**
Semi Custom	**40 years**	**50 years**

1.200.045 AGE LIFE TABLE: COMMERCIAL/INDUSTRIAL BUILDINGS AND STRUCTURES

CLASS OF CONSTRUCTION	ANTICIPATED AGE LIFE
Inferior - Poor wood frame, bearing walls; wood sills Minimal concrete footings or equivalent.	**30 years** **40 years**
Economy - Light wood frame, bearing walls; short span wood or light steel interior beams and columns; surface foundations; concrete slab.	**45 years**
Substandard - Wood frame or 140 mm light reinforced/190 mm unreinforced concrete block bearing walls; wood or steel interior beams and columns, light mill type construction in older buildings; surface foundation walls; light reinforced concrete slab.	**50 years**
Fair - Wood frame or 190 mm light reinforced concrete block bearing walls; wood or steel interior beams and columns, medium mill type construction in older buildings; concrete foundation walls or grade beam and piles; light reinforced concrete slab.	**60 years**
Standard – Good Wood Frame or 190 mm medium reinforced concrete block bearing walls; steel interior beams and columns, heavy mill type construction in older buildings; medium reinforced foundation walls or grade beams and piles; light reinforced concrete slab.	**70 years**
Custom - Non-bearing curtain walls with concrete or steel perimeter and interior beams and columns or combination of reinforced bearing walls with concrete or steel interior beams and columns; heavy reinforced foundation walls or grade beams and piles; medium reinforced concrete slab.	**80 years**
Expensive - Non-bearing curtain walls with concrete or fireproofed steel Perimeter and interior beams and columns, well designed column spacing providing excellent flexibility for partition placement and use of floor space; heavy reinforced foundation walls or grade beams and piles; medium reinforced concrete slab.	**100 years**

1.200.046 Despite section 1.200.045, where a building or structure is described in Column 1 of section 1.200.047 labeled "MODEL TYPE" and is of the class of construction described in Column 2 of section 1.200.047 labeled "CLASS OF CONSTRUCTION," the age life shall be determined in accordance with Column 3 of section 1.200.047 labeled "ANTICIPATED AGE LIFE".

1.200.047 AGE LIFE TABLE: ADDITIONAL RULES

MODEL TYPE	CLASS OF CONSTRUCTION	ANTICIPATED AGE LIFE
405 Fast Food Restaurant	Custom	70
870 Relocatable Office	Fair	35
870 Relocatable Office	Standard	40
875 Relocatable Communication	Standard	40
876 Relocatable Metal Oilfield	Standard	40
880 Frame & Fabric Building	Fair	10
880 Frame & Fabric Building	Standard	15
880 Frame & Fabric Building	Custom	20
881 Air Supported Building	Standard	15
882 Post-Tension Buildings	Standard	15
890 Quonset Type Greenhouse	Substandard	15
890 Quonset Type Greenhouse	Fair	20
890 Quonset Type Greenhouse	Standard	25
891 Bowrib Type Greenhouse	Substandard	15
891 Bowrib Type Greenhouse	Fair	20
891 Bowrib Type Greenhouse	Standard	25
891 Gable Type Greenhouse	Substandard	15
891 Gable Type Greenhouse	Fair	20
891 Gable Type Greenhouse	Standard	25

1.200.050 AGE LIFE TABLE: MACHINERY AND EQUIPMENT

CLASS OF MACHINERY AND EQUIPMENT	ANTICIPATED AGE LIFE
Acid Plant	**20 years**
Base Metal Mine	**20 years**
Brewery	**25 years**
Brick Plant	**25 years**
Cannery	**20 years**
Chemical Plant	**20 years**
Cement Plant	**20 years**
Coal Processing Plant	**20 years**
Distillery	**25 years**
Dairy, Creamery	**25 years**
Feed Mill	**25 years**
Fertilizer Plant	**15 years**
Fish Processing Plant	**20 years**
Flour Mill	**25 years**
Gas Processing	**20 years**
Gas Injection	**20 years**
Gas Compression	**20 years**
Gold Mine	**20 years**
Insulation Plant	**20 years**
Meat Packing Plant	**25 years**
Oil Sand Processing Plant	**20 years**
Oilfield Battery	**20 years**
Plywood Manufacturing Plant	**20 years**
Precious Metal or Stones Mine	**20 years**
Pulp Mill	**15 years**
Pelletizing Plant (Feed)	**20 years**
Refinery (Metal)	**15 years**
Refinery (Oil)	**20 years**
Refinery (Sugar)	**20 years**
Roofing Plant	**20 years**
Saw Mill	**20 years**
Seed Cleaning Plant	**25 years**
Soft Drink Plant	**20 years**
Steel Mill	**20 years**
Stud Mill	**20 years**
Sulphur Plant	**15 years**
Telecommunications System	**20 years**
Tire Plant	**15 years**
Wallboard Manufacturing Plant	**20 years**
Water Flood	**20 years**

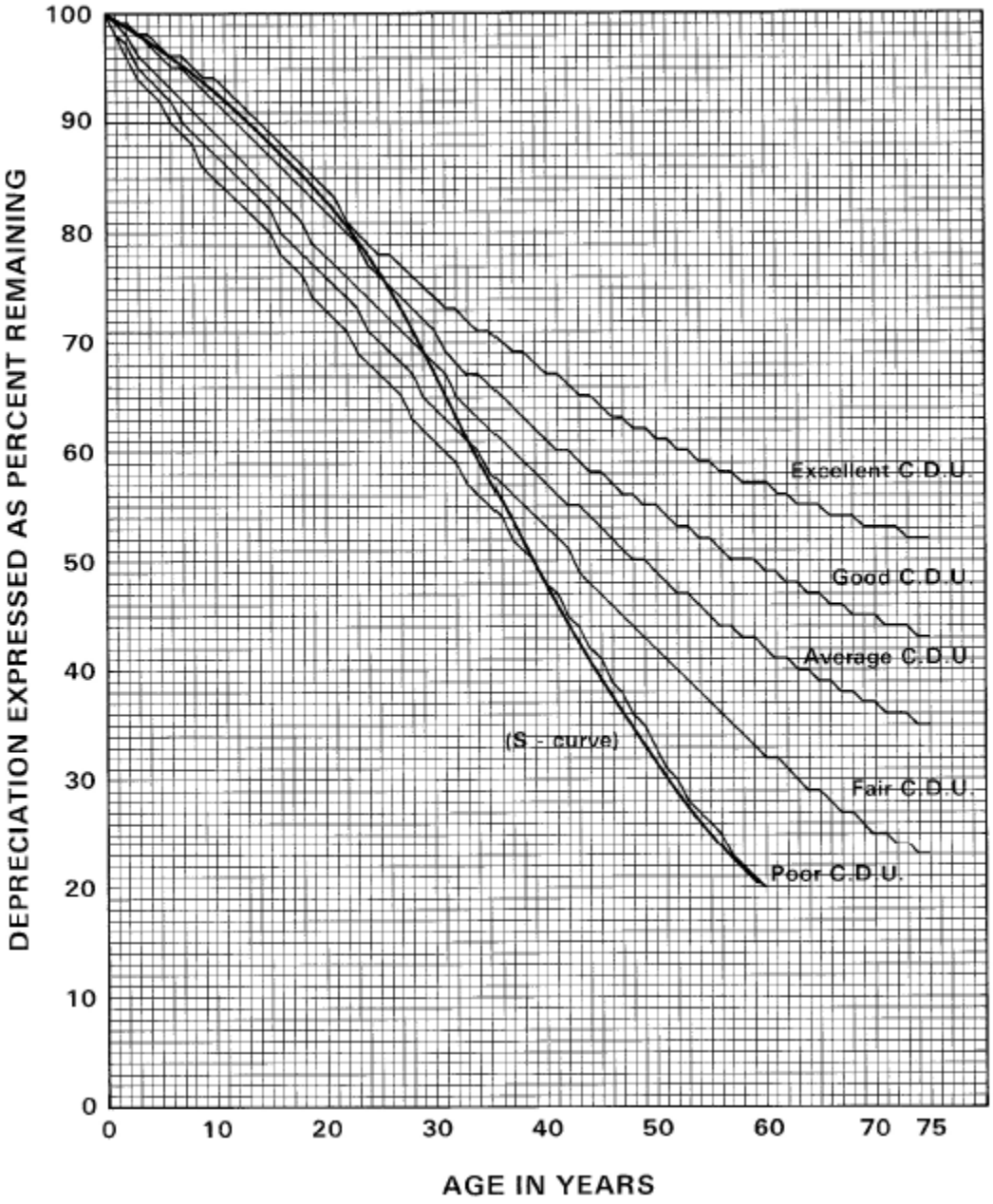
1.200.060 CONDITION, DESIRABILITY AND UTILITY (C.D.U.) RATINGS

1.200.061 The S-curve tables have been modified to permit assessors, in most instances, to use chronological age rather than estimating effective age. The tables show, for each year of age life, a range of five C.D.U. ratings that recognize various levels of overall condition, desirability and utility of an improvement.

C.D.U. RATING DESCRIPTION	RATING
Superior condition; very attractive and highly desirable; components new or as good as new.	**Excellent**
Slight evidence of deterioration in minor components; well maintained; attractive, desirable, and high utility.	**Good**
Normal deterioration for age; moderate maintenance; somewhat less attractive, average to good utility; minor repairs or rehabilitation of some components required.	**Average**
Discernable deterioration; deferred maintenance requiring rehabilitation and/or replacement; reduced utility with signs of structural decay.	**Fair**
Deterioration to a point where major repairs and/or replacements are required.	**Poor**

1.200.062 C.D.U. GRAPH (60 Year Age Life)

Reflecting Condition, Desirability, Utility



1.200.070 REMAINING LIFE: BUILDINGS AND STRUCTURES

1.200.071 Buildings and structures must be depreciated according to the standard Remaining Life tables set out in sections 1.200.081 to 1.200.097. The following implicit assumptions are built into the tables:

only normal physical deterioration and normal functional obsolescence are measured by the tables;

during the initial period of its age life the building is usually well maintained and the annual rate of depreciation is minimal;

as the building ages physical deterioration and functional obsolescence increase the annual rate of depreciation;

near the end of the economic life of the building the annual rate of depreciation declines and approaches zero at the point when its salvage value is reached.

1.200.072 The Remaining Life: Buildings & Structures depreciation tables are applicable to Mobile Homes.

1.200.073 Separate Remaining Life tables for machinery and equipment used in processing or manufacturing operations are provided in section 1.200.120.

1.200.080 REMAINING LIFE TABLES: BUILDINGS & STRUCTURES (expressed as percentage remaining)

1.200.081 10 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	96	95	93	92	90
2	92	90	87	85	83
3	86	84	81	78	76
4	79	77	74	71	68
5	74	71	68	64	61
6	70	65	61	57	54
7	66	60	55	51	45
8	62	56	50	44	36
9	59	52	46	38	27
10	57	49	42	32	20
11	54	46	39	28	
12	53	44	36	24	

1.200.082 15 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	98	97	95	94	93
2	95	94	91	89	88
3	92	90	87	85	83
4	88	86	83	80	78
5	84	82	78	76	73
6	79	77	74	71	68
7	76	73	70	67	63
8	73	68	65	62	59
9	70	65	61	57	54
10	67	61	57	53	48
11	65	58	54	48	42
12	62	56	50	44	36
13	60	53	47	40	30
14	58	51	44	36	25
15	57	49	42	32	20
16	55	47	40	29	
17	54	45	38	27	
18	53	44	36	24	

1.200.083 20 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	98	98	96	95	94
2	96	95	93	92	90
3	94	93	90	88	86
4	92	90	87	85	83
5	89	87	84	82	80
6	86	84	81	78	76
7	83	81	77	75	72
8	79	77	74	71	68
9	77	73	71	68	65
10	74	71	68	64	61
11	72	67	64	61	57
12	70	65	61	57	54
13	68	62	58	54	50
14	66	60	55	51	45
15	64	58	53	47	41
16	62	56	50	44	36
17	61	54	48	41	31
18	59	52	46	38	27
19	58	50	44	35	23
20	57	49	42	32	20
21	55	48	40	30	
22	54	46	39	28	
23	53	45	37	26	
24	53	44	36	24	
25	52	43	35	23	

1.200.084 25 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	98	97	96	95
2	97	96	94	93	91
3	96	94	92	90	88
4	94	92	89	88	85
5	92	90	87	85	83
6	90	88	84	82	80
7	87	85	82	80	78
8	84	83	80	77	74
9	82	80	77	74	71
10	79	77	74	71	68
11	77	74	72	68	65
12	75	72	69	65	62
13	73	69	66	63	59
14	71	67	64	60	56
15	70	65	61	57	54
16	68	63	59	55	50
17	67	61	56	52	47
18	65	59	54	49	44
19	64	57	52	47	40
20	62	56	50	44	36
21	61	54	48	41	32
22	60	53	47	39	28
23	59	51	45	37	25
24	58	50	43	35	22
25	57	49	42	32	20
26	55	48	41	30	
27	54	47	39	29	
28	54	46	38	27	
29	53	45	37	25	
30	53	44	36	24	
31	52	43	35	23	

1.200.085 30 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	98	97	96
2	98	97	95	94	93
3	96	95	93	92	90
4	95	94	91	89	88
5	94	92	89	87	85
6	92	90	87	85	83
7	90	88	85	83	81
8	88	86	83	80	78
9	86	84	81	78	76
10	84	82	78	76	73
11	81	80	76	74	71
12	79	77	74	71	68
13	78	75	72	69	66
14	76	73	70	67	63
15	74	71	68	64	61
16	73	68	65	62	59
17	71	67	63	60	56
18	70	65	61	57	54
19	69	63	59	55	51
20	67	61	57	53	48
21	66	60	55	51	45
22	65	58	54	48	42
23	63	57	52	46	39
24	62	56	50	44	36
25	61	55	49	42	33
26	60	53	47	40	30
27	59	52	46	38	27
28	58	51	44	36	25
29	57	50	43	34	22
30	57	49	42	32	20
31	56	48	41	31	
32	55	47	40	29	
33	54	46	39	28	
34	54	45	38	27	
35	53	45	37	25	
36	53	44	36	24	
37	52	43	35	23	

1.200.086 35 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	98	97	96
2	98	97	96	95	93
3	97	96	94	93	91
4	96	95	92	91	89
5	94	93	90	89	87
6	93	92	89	87	85
7	92	90	87	85	83
8	90	88	85	83	81
9	88	87	83	81	79
10	87	85	81	79	77
11	85	83	80	77	75
12	83	81	78	75	72
13	81	79	76	73	70
14	79	77	74	71	68
15	78	75	72	69	66
16	76	73	70	67	64
17	75	71	68	65	62
18	73	70	67	63	60
19	72	68	65	61	58
20	71	66	63	59	56
21	70	65	61	57	54
22	69	64	59	55	52
23	67	62	57	53	50
24	66	61	56	52	47
25	65	59	54	50	44
26	64	58	53	48	42
27	63	57	51	46	39
28	62	56	50	44	36
29	61	55	49	42	33
30	60	54	47	40	30
31	59	53	46	39	28
32	58	52	45	37	26
33	58	51	44	35	24
34	57	50	43	34	22
35	57	49	42	32	20
36	56	48	41	31	
37	55	47	40	29	
38	55	46	39	28	
39	54	46	38	27	
40	54	45	37	26	
41	53	45	37	25	
42	53	44	36	24	
43	52	43	35	23	
44	52	42	35	22	

1.200.087 40 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	98	98	97
2	98	98	96	96	94
3	97	97	95	94	92
4	96	96	93	92	90
5	95	94	91	90	88
6	94	93	90	88	86
7	93	92	88	86	84
8	92	90	87	85	83
9	90	89	85	83	81
10	89	87	84	82	80
11	87	86	82	80	78
12	86	84	81	78	76
13	84	82	79	77	74
14	83	81	77	75	72
15	81	79	76	73	70
16	79	77	74	71	68
17	78	75	73	70	66
18	77	73	71	68	65
19	75	72	70	66	63
20	74	71	68	64	61
21	73	69	66	63	59
22	72	67	64	61	57
23	71	66	63	59	55
24	70	65	61	57	54
25	69	64	59	56	52
26	68	62	58	54	50
27	67	61	56	52	48
28	66	60	55	51	45
29	65	59	54	49	43
30	64	58	53	47	41
31	63	57	51	45	39
32	62	56	50	44	36
33	61	55	49	42	34
34	61	54	48	41	31
35	60	53	47	39	29
36	59	52	46	38	27
37	58	51	45	36	25
38	58	50	44	35	23
39	57	50	43	34	21
40	57	49	42	32	20
41	56	48	41	31	
42	55	48	40	30	
43	55	47	39	29	
44	54	46	39	28	
45	53	45	38	27	

1.200.087 40 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	53	45	37	26	
47	53	44	37	25	
48	52	44	36	24	
49	52	43	35	23	
50	52	43	35	23	
51	52	42	34	22	
52	51	42	34	22	
53	51	42	34	21	
54	51	42	33	21	
55	51	41	33	20	
56	50	41	33		
57	50	41	32		
58	50	41	32		
59	50	40	32		
60	50	40	32		
61	49	40	31		
62	49	40	31		
63	49	40	31		
64	49	39	31		
65	48	39	31		
66	48	39	30		
67	48	39	30		
68	48	39	30		
69	48	39	30		
70	48	39	30		

1.200.088 45 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	98	98	97
2	99	98	97	96	95
3	98	97	95	94	93
4	97	96	94	92	91
5	96	95	92	91	89
6	95	94	91	89	88
7	94	93	90	88	86
8	93	91	88	86	84
9	92	90	87	85	83
10	91	89	86	83	81
11	89	87	84	82	80
12	88	86	83	80	78
13	87	85	82	79	76
14	85	83	80	77	75
15	84	82	78	76	73
16	82	80	77	74	71
17	81	79	75	73	70
18	79	77	74	71	68
19	78	76	73	70	67
20	77	74	71	68	65
21	76	73	70	67	63
22	75	71	69	65	62
23	74	70	67	64	60
24	73	68	65	62	59
25	72	67	64	61	57
26	71	66	62	59	55
27	70	65	61	57	54
28	69	64	60	56	52
29	68	62	59	54	50
30	67	61	57	53	48
31	66	60	56	51	46
32	65	59	55	50	44
33	65	58	54	48	42
34	64	57	52	47	40
35	63	57	51	45	38
36	62	56	50	44	36
37	61	55	49	43	34
38	61	54	48	41	32
39	60	53	47	40	30
40	59	53	46	38	28
41	59	52	45	37	26
42	58	51	44	36	24
43	58	50	43	34	23
44	57	50	43	33	21
45	57	49	42	32	20

1.200.088 45 YEAR AGE LIFE – CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	56	48	41	31	
47	56	48	41	30	
48	55	47	40	29	
49	55	46	39	28	
50	54	46	39	27	
51	54	45	38	26	
52	53	45	37	25	
53	53	44	36	25	
54	53	44	36	24	
55	52	43	35	23	
56	52	43	35	23	

1.200.089 50 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	98	98	97
2	99	98	97	96	95
3	98	97	96	94	93
4	97	96	94	93	91
5	96	95	93	92	90
6	96	94	92	90	88
7	95	93	90	89	87
8	94	92	89	88	85
9	93	91	88	86	84
10	92	90	87	85	83
11	91	89	86	84	82
12	90	88	84	82	80
13	89	87	83	81	79
14	87	85	82	80	78
15	86	84	81	78	76
16	84	83	80	77	74
17	83	82	78	75	72
18	82	80	77	74	71
19	80	79	75	72	69
20	79	77	74	71	68
21	78	75	73	70	67
22	77	74	72	68	65
23	76	73	70	67	64
24	75	72	69	65	62
25	74	71	68	64	61
26	73	69	66	63	59
27	72	68	65	61	58
28	71	67	64	60	56
29	71	66	62	59	55
30	70	65	61	57	54
31	69	64	60	56	52
32	68	63	59	55	50
33	67	62	57	53	49
34	67	61	56	52	47
35	66	60	55	51	45
36	65	59	54	49	44
37	64	58	53	48	42
38	64	57	52	47	40
39	63	57	51	45	38
40	62	56	50	44	36
41	61	55	49	43	34
42	61	54	48	41	32
43	60	53	48	40	30
44	60	53	47	39	28
45	59	52	46	38	27

1.200.089 50 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	59	51	45	37	25
47	58	50	44	36	24
48	58	50	43	35	22
49	57	49	43	33	21
50	57	49	42	32	20
51	56	48	41	31	
52	55	48	41	30	
53	55	47	40	29	
54	54	47	39	29	
55	54	46	39	28	
56	54	46	38	27	
57	53	45	38	26	
58	53	44	36	25	
59	53	44	36	25	
60	53	44	36	24	
61	52	43	36	24	
62	52	43	35	23	
63	52	43	35	22	
64	52	42	34	22	
65	51	42	34	22	
66	51	42	34	21	
67	51	42	33	21	
68	51	42	33	21	
69	51	41	33	20	
70	50	41	33	20	
71	50	41	32	20	
72	50	41	32	20	
73	50	41	32		
74	50	40	32		
75	50	40	32		
76	49	40	32		
77	49	40	32		
78	49	40	32		
79	49	40	31		
80	49	39	31		
81	49	39			
82	49	39			
83	48	39			
84	48	39			
85	48	39			
86	48	39			
87	48				
88	48				

1.200.090 55 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	99	98	98
2	99	98	97	97	96
3	98	97	96	96	94
4	97	97	95	94	93
5	97	96	94	93	91
6	96	95	93	91	90
7	95	94	92	90	88
8	94	93	90	89	87
9	94	92	89	88	86
10	93	91	88	86	84
11	92	90	87	85	83
12	91	89	86	84	82
13	90	88	85	83	81
14	89	87	84	81	79
15	88	86	83	80	78
16	87	84	81	79	76
17	86	83	80	78	75
18	84	82	79	76	74
19	83	81	78	75	72
20	82	79	77	74	71
21	81	78	76	72	69
22	79	77	74	71	68
23	78	76	73	70	67
24	77	75	72	69	66
25	76	74	71	67	64
26	76	73	70	66	63
27	75	71	68	65	62
28	74	70	67	64	60
29	73	69	66	62	59
30	72	68	65	61	58
31	71	67	64	60	56
32	70	66	62	59	54
33	70	65	61	57	53
34	69	64	60	56	52
35	68	63	59	55	51
36	68	62	58	54	49
37	67	61	57	52	48
38	66	60	56	51	46
39	65	60	55	50	45
40	65	59	54	48	43
41	64	58	53	47	41
42	64	57	52	46	40
43	63	57	51	45	38
44	62	56	50	44	36
45	62	55	49	43	34

1.200.090 55 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	61	54	49	42	33
47	61	54	48	41	31
48	60	53	47	40	30
49	60	53	46	38	28
50	59	52	46	37	27
51	59	51	45	36	25
52	58	51	44	35	24
53	58	50	43	34	22
54	57	49	43	33	21
55	57	49	42	32	20
56	56	48	42	31	
57	56	48	41	30	
58	55	47	40	29	
59	55	47	40	28	
60	55	46	39	28	
61	54	46	38	27	
62	54	45	38	26	
63	54	45	37	26	
64	53	44	37	25	
65	53	44	36	25	
66	53	44	36	24	
67	53	43	35	24	
68	52	43	35	23	
69	52	43	35	23	

1.200.091 60 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	99	98	98
2	99	99	98	97	96
3	98	98	96	95	94
4	98	97	95	94	93
5	97	96	94	93	92
6	96	95	93	92	90
7	96	95	92	90	89
8	95	94	91	89	88
9	94	93	90	88	86
10	94	92	89	87	85
11	93	91	88	86	84
12	92	90	87	85	83
13	91	89	86	84	82
14	90	88	85	83	81
15	89	87	84	82	80
16	88	86	83	80	78
17	87	85	82	79	77
18	86	84	81	78	76
19	85	83	79	77	74
20	84	82	78	76	73
21	83	81	77	75	72
22	81	80	76	74	71
23	80	79	75	73	69
24	79	77	74	71	68
25	78	76	73	70	67
26	78	75	72	69	66
27	77	74	71	68	65
28	76	73	70	67	63
29	75	72	69	65	62
30	74	71	68	64	61
31	73	69	67	63	60
32	73	68	65	62	59
33	72	67	64	61	57
34	71	67	63	60	56
35	71	66	62	58	55
36	70	65	61	57	54
37	69	64	60	56	52
38	69	63	59	55	51
39	68	62	58	54	50
40	67	61	57	53	48
41	67	60	56	52	47
42	66	60	55	51	45
43	65	59	55	49	44
44	65	58	54	48	42
45	64	58	53	47	41

1.200.091 60 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	63	57	52	46	39
47	63	56	51	45	38
48	62	56	50	44	36
49	62	55	50	43	35
50	61	55	49	42	33
51	61	54	48	41	31
52	60	53	47	40	30
53	60	53	47	39	28
54	59	52	46	38	27
55	59	52	45	37	26
56	58	51	44	36	25
57	58	50	44	35	23
58	57	50	43	34	22
59	57	50	43	33	21
60	57	49	42	32	20
61	56	49	41	32	
62	56	48	41	31	
63	55	48	40	30	
64	55	47	40	29	
65	55	47	39	29	
66	54	46	39	28	
67	54	46	38	27	
68	54	45	38	27	
69	53	45	37	26	
70	53	45	37	25	
71	53	44	36	25	
72	53	44	36	24	
73	52	44	36	24	
74	52	43	35	23	
75	52	43	35	23	
76	52	43	34	22	
77	52	42	34	21	
78	51	42	34	21	
79	51	42	34	21	
80	51	42	33	21	
81	51	42	33	21	
82	51	41	33	20	
83	51	41	33	20	
84	50	41	33	20	
85	50	41	32	20	
86	50	41	32	20	
87	50	41	32		
88	50	40	32		
89	50	40	32		
90	50	40	32		

1.200.091 60 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
91	49	40			
92	49	40			
93	49	40			
94	49	40			
95	49	40			
96	49	39			
97	49	39			
98	49	39			
99	48	39			
100	48	39			
101	48	39			
102	48	39			
103	48	39			

1.200.092 65 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	99	99	98
2	99	99	98	97	96
3	98	98	97	96	94
4	97	97	96	95	93
5	97	97	95	94	92
6	97	96	94	93	91
7	96	95	93	91	90
8	96	95	92	90	89
9	95	94	91	89	87
10	94	93	90	88	86
11	94	92	89	87	85
12	93	91	88	86	84
13	91	90	87	85	83
14	91	89	86	84	82
15	90	88	85	83	81
16	89	87	84	82	80
17	88	86	83	81	79
18	87	86	82	80	78
19	87	85	81	79	76
20	86	84	80	78	75
21	85	83	79	77	74
22	84	82	78	76	73
23	82	81	77	75	71
24	81	79	76	73	70
25	80	78	75	72	69
26	80	77	74	71	68
27	79	76	73	70	67
28	78	75	72	69	66
29	77	74	71	68	65
30	76	73	70	67	64
31	75	72	70	66	63
32	75	71	88	65	62
33	74	70	67	64	60
34	73	69	66	63	59
35	73	69	65	61	58
36	72	68	64	60	57
37	71	67	63	59	56
38	71	66	62	58	55
39	70	65	61	56	54
40	69	64	60	56	52
41	69	63	59	55	51
42	68	63	58	54	50
43	67	62	58	53	49
44	67	61	57	52	47
45	66	61	56	51	46

1.200.092 65 YEAR AGE LIFE – CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	65	60	55	50	45
47	65	59	54	49	43
48	64	59	53	48	42
49	64	58	53	47	40
50	63	57	52	46	39
51	63	57	51	45	37
52	62	56	50	44	36
53	62	56	50	43	35
54	61	55	49	42	33
55	61	54	48	41	32
56	60	54	47	40	31
57	60	53	47	39	29
58	59	53	46	38	28
59	59	52	46	37	26
60	59	52	45	36	25
61	58	51	44	36	24
62	58	50	44	35	23
63	57	50	43	34	22
64	57	49	43	33	21
65	57	49	42	33	20
66	56	48	42	32	
67	56	48	41	31	
68	56	47	41	31	
69	55	47	40	30	
70	55	47	40	29	
71	54	46	39	28	
72	54	46	39	28	
73	54	45	38	27	
74	53	45	38	26	
75	53	44	37	26	
76	53	44	37	25	
77	52	44	37	25	
78	52	43	36	24	
79	52	43	36	24	
80	52	43	35	23	

1.200.093 70 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	99	99	99	99	98
2	99	99	98	97	96
3	98	98	97	96	94
4	98	97	96	95	93
5	97	97	95	94	92
6	97	96	94	93	91
7	96	95	93	92	90
8	96	95	92	91	89
9	95	94	91	90	88
10	94	93	90	89	87
11	94	92	90	88	86
12	93	92	89	87	85
13	92	91	88	86	84
14	92	90	87	85	83
15	91	89	86	84	82
16	90	88	85	83	81
17	89	87	84	82	80
18	88	87	83	81	79
19	88	86	82	80	78
20	87	85	81	79	77
21	86	84	81	78	76
22	85	83	80	77	75
23	84	82	79	76	73
24	83	81	78	75	72
25	82	80	77	74	71
26	81	79	76	73	70
27	80	78	75	72	69
28	79	77	74	71	68
29	78	76	73	70	67
30	78	75	72	69	66
31	77	74	71	68	65
32	76	73	70	67	64
33	75	72	69	66	63
34	75	71	68	65	62
35	74	71	68	64	61
36	73	70	67	63	60
37	73	69	66	62	59
38	72	68	65	61	58
39	71	67	64	60	57
40	71	66	63	59	56
41	70	66	62	58	55
42	70	65	61	57	54
43	69	64	60	56	53
44	69	64	59	55	52
45	68	63	58	54	51

1.200.093 70 YEAR AGE LIFE – CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	67	62	57	53	50
47	67	61	57	53	48
48	66	61	56	52	47
49	66	60	55	51	45
50	65	59	54	50	44
51	65	59	54	49	43
52	64	58	53	48	42
53	64	58	52	47	41
54	63	57	51	46	39
55	62	56	51	45	38
56	62	56	50	44	36
57	61	55	49	43	34
58	61	55	49	42	33
59	60	54	48	41	31
60	60	54	47	40	30
61	59	53	47	39	29
62	59	52	46	39	28
63	59	52	46	38	27
64	58	51	45	37	26
65	58	51	44	36	25
66	58	50	44	35	24
67	57	50	43	34	23
68	57	49	43	34	22
69	57	49	42	33	21
70	57	49	42	32	20
71	56	48	41	31	
72	56	48	41	31	
73	56	47	40	30	
74	55	47	40	29	
75	55	46	39	29	
76	55	46	39	28	
77	54	46	39	28	
78	54	45	38	27	
79	54	45	38	27	
80	54	45	37	26	
81	53	44	37	26	
82	53	44	37	25	
83	53	44	36	25	
84	53	43	36	24	
85	52	43	36	24	
86	52	43	35	23	
87	52	42	35	23	

1.200.094 75 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	100	100	99	99	98
2	99	99	98	98	97
3	99	98	97	97	95
4	98	98	96	96	94
5	98	97	95	95	93
6	97	97	95	94	92
7	97	96	94	93	91
8	96	96	93	92	90
9	96	95	92	91	89
10	95	94	91	90	88
11	95	93	90	89	87
12	94	93	90	88	86
13	93	92	89	87	85
14	92	91	88	86	84
15	91	90	87	85	83
16	91	89	86	84	82
17	90	88	85	83	81
18	89	88	84	82	80
19	89	87	83	81	79
20	88	86	83	81	79
21	87	87	82	79	78
22	86	86	81	79	77
23	86	86	80	78	75
24	85	85	80	77	74
25	84	84	79	76	73
26	83	81	78	75	72
27	82	80	77	74	71
28	81	79	76	73	70
29	80	78	75	72	69
30	80	77	74	71	68
31	79	76	73	70	67
32	78	75	72	69	66
33	77	74	71	68	65
34	77	73	71	68	64
35	76	73	70	67	63
36	75	72	69	66	63
37	75	71	68	65	62
38	74	70	68	64	61
39	73	69	67	63	60
40	73	69	66	62	59
41	72	68	65	61	58
42	72	67	64	60	57
43	71	66	63	59	56
44	71	66	62	58	55
45	70	65	61	57	54

1.200.094 75 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	69	64	60	56	53
47	69	63	60	56	52
48	68	63	59	55	51
49	68	62	58	54	49
50	67	62	57	53	48
51	67	61	56	52	47
52	66	60	56	51	46
53	66	60	55	50	45
54	65	59	54	49	44
55	64	58	53	49	42
56	64	58	53	48	41
57	63	57	52	47	39
58	63	57	52	46	38
59	62	56	51	45	37
60	62	56	50	44	36
61	62	55	50	43	35
62	61	55	49	42	34
63	61	54	49	42	32
64	60	54	48	41	31
65	60	53	47	40	30
66	60	53	47	39	29
67	59	52	46	38	28
68	59	51	46	38	27
69	59	51	45	37	26
70	59	51	45	36	25
71	58	50	44	35	24
72	58	50	44	35	23
73	58	50	43	34	22
74	57	49	43	33	21
75	57	49	42	33	20
76	57	48	42	32	
77	56	48	42	31	
78	56	48	41	31	
79	56	47	41	30	
80	56	47	40	29	
81	55	47	40	29	
82	55	46	39	28	
83	54	46	39	28	
84	54	46	38	27	
85	54	45	38	27	
86	53	45	37	26	
87	53	44	37	26	
88	53	44	37	26	
89	53	44	36	25	
90	52	43	36	25	
91	52	43	36	24	
92	52	43	35	23	

1.200.095 80 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	100	100	99	99	98
2	99	99	98	98	97
3	99	98	97	97	95
4	98	98	96	96	94
5	98	97	95	95	93
6	97	97	95	94	92
7	97	96	94	93	91
8	96	96	93	92	90
9	96	95	92	91	89
10	95	94	91	90	88
11	95	94	90	89	87
12	94	93	90	88	86
13	93	92	89	87	85
14	93	92	88	86	84
15	92	91	87	86	83
16	92	90	87	85	83
17	91	89	86	84	82
18	90	89	85	83	81
19	90	88	84	82	80
20	89	87	84	82	80
21	88	86	83	81	79
22	87	86	82	80	78
23	87	85	81	79	77
24	86	84	81	78	76
25	85	83	80	78	75
26	84	82	79	77	74
27	83	81	78	76	73
28	83	81	77	75	72
29	82	80	77	74	71
30	81	79	76	73	70
31	80	78	75	72	69
32	79	77	74	71	68
33	78	76	73	70	67
34	78	75	73	70	66
35	77	74	72	69	66
36	77	73	71	68	65
37	76	73	70	67	64
38	75	72	70	66	63
39	74	71	69	65	62
40	74	71	68	64	61
41	73	70	67	64	60
42	73	69	66	63	59
43	72	68	65	62	58
44	72	67	64	61	57
45	71	67	63	60	56

1.200.095 80 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	71	66	63	59	55
47	70	65	62	58	55
48	70	65	61	57	54
49	69	64	60	56	53
50	69	64	59	56	52
51	68	63	58	55	51
52	68	62	58	54	50
53	67	62	57	53	49
54	67	61	56	52	48
55	66	60	55	51	46
56	66	60	55	51	45
57	65	59	54	50	44
58	65	59	54	49	43
59	64	58	53	48	42
60	64	58	53	47	41
61	64	57	52	46	40
62	63	57	51	45	39
63	63	56	51	45	37
64	62	56	50	44	36
65	62	55	50	43	35
66	61	55	49	42	34
67	61	54	49	41	32
68	61	54	48	41	31
69	60	53	48	40	30
70	60	53	47	39	29
71	60	52	47	39	28
72	59	52	46	38	27
73	59	52	46	37	26
74	58	51	45	36	25
75	58	51	45	36	24
76	58	50	44	35	23
77	57	50	44	34	22
78	57	50	43	34	21
79	57	49	43	33	21
80	57	49	42	32	20
81	56	49	42	32	
82	56	48	41	31	
83	55	48	41	30	
84	55	48	40	30	
85	55	47	40	29	
86	54	47	39	29	
87	54	46	39	28	
88	54	46	39	28	
89	54	46	38	27	
90	53	45	38	27	

1.200.095 80 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
91	53	45	38	26	
92	53	45	37	26	
93	53	45	37	25	
94	53	44	37	25	
95	53	44	36	24	
96	52	44	36	24	
97	52	44	36	24	
98	52	43	35	23	
99	52	43	35	23	
100	52	43	35	23	

1.200.096 90 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	100	100	99	99	98
2	99	99	98	98	97
3	99	99	98	97	96
4	99	98	97	96	95
5	98	98	96	95	94
6	98	97	95	94	93
7	97	97	94	93	92
8	97	96	94	92	91
9	96	96	93	91	90
10	96	95	92	91	89
11	95	94	92	90	88
12	95	94	91	89	88
13	95	93	90	88	87
14	94	93	90	88	86
15	94	92	89	87	85
16	93	91	88	86	84
17	92	91	88	85	83
18	92	90	87	85	83
19	91	89	86	84	82
20	91	89	86	83	81
21	90	88	85	83	81
22	89	87	84	82	80
23	89	87	84	81	79
24	88	86	83	80	78
25	87	85	82	80	77
26	87	85	82	79	76
27	86	84	81	78	76
28	85	83	80	77	75
29	84	83	79	77	74
30	84	82	78	76	73
31	83	81	77	75	72
32	82	80	77	74	71
33	81	80	76	74	71
34	81	79	75	73	70
35	80	78	75	72	69
36	79	77	74	71	68
37	79	77	73	70	67
38	78	76	73	70	67
39	78	75	72	69	66
40	77	74	71	68	65
41	76	74	71	67	64
42	76	73	70	67	63
43	75	72	69	66	62
44	75	71	69	65	62
45	74	71	68	64	61

1.200.096 90 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	74	70	67	64	60
47	73	69	66	63	59
48	73	68	65	62	59
49	72	68	64	61	58
50	72	67	64	61	57
51	71	67	63	60	56
52	71	66	62	59	55
53	70	65	62	58	55
54	70	65	61	57	54
55	69	64	60	57	53
56	69	64	60	56	52
57	69	63	59	55	51
58	68	62	59	54	50
59	68	62	58	53	49
60	67	61	57	53	48
61	67	61	57	52	47
62	66	60	56	51	46
63	66	60	55	51	45
64	65	59	55	50	44
65	65	59	54	49	43
66	65	58	54	48	42
67	64	58	53	47	41
68	64	57	52	47	40
69	63	57	52	46	39
70	63	57	51	45	38
71	62	56	51	45	37
72	62	56	50	44	36
73	62	55	50	43	35
74	61	55	49	43	34
75	61	55	49	42	33
76	61	54	48	41	32
77	60	54	48	40	31
78	60	53	47	40	30
79	60	53	47	39	29
80	59	53	46	38	28
81	59	52	46	38	27
82	59	52	45	37	26
83	58	51	45	36	25
84	58	51	44	36	24
85	58	51	44	35	24
86	58	50	43	34	23
87	57	50	43	34	22
88	57	50	43	33	21
89	57	49	42	33	21
90	57	49	42	32	20

1.200.096 90 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
91	56	49	42	32	
92	56	48	41	31	
93	56	48	41	31	
94	56	48	41	30	
95	55	47	40	30	
96	55	47	40	29	
97	55	47	40	29	
98	55	46	39	28	
99	54	46	39	28	
100	54	46	39	27	
101	54	46	38	27	
102	54	45	38	26	
103	53	45	37	26	
104	53	45	37	25	
105	53	45	37	25	
106	53	44	36	25	
107	53	44	36	24	
108	53	44	36	24	
109	52	44	36	24	
110	52	43	35	23	
111	52	43	35	23	
112	52	43	35	23	

1.200.097 100 YEAR AGE LIFE

Age	Exc	Good	Aver	Fair	Poor
0	100	100	100	100	100
1	100	100	99	99	98
2	99	99	98	98	97
3	99	99	98	97	96
4	99	98	97	96	95
5	98	98	96	95	94
6	98	97	96	94	93
7	98	97	95	94	92
8	97	96	94	93	91
9	97	96	93	92	90
10	96	95	93	92	90
11	96	95	92	91	89
12	96	94	92	90	88
13	95	94	91	90	87
14	95	93	90	89	87
15	94	93	90	88	86
16	94	92	89	88	85
17	93	92	89	87	85
18	93	91	88	86	84
19	92	91	87	86	84
20	92	90	87	85	83
21	91	90	86	84	82
22	91	89	86	84	82
23	90	88	85	83	81
24	90	88	84	82	80
25	89	87	84	82	80
26	89	87	83	81	79
27	88	86	83	80	78
28	87	85	82	80	78
29	87	85	81	79	77
30	86	84	81	78	76
31	85	84	80	77	75
32	84	83	80	77	74
33	84	82	79	76	73
34	83	82	78	75	72
35	82	81	77	74	71
36	82	80	77	74	71
37	81	79	76	73	70
38	80	79	75	72	69
39	80	78	75	72	69
40	79	77	74	71	68
41	79	76	74	70	67
42	78	75	73	70	67
43	78	75	72	69	66
44	77	74	72	68	65
45	77	73	71	68	65

1.200.097 100 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
46	76	73	70	67	64
47	76	72	70	66	63
48	75	72	69	65	62
49	75	71	69	65	61
50	74	71	68	64	61
51	74	70	67	63	60
52	73	69	66	63	59
53	73	69	66	62	58
54	72	68	65	61	58
55	72	67	64	61	57
56	71	67	64	60	56
57	71	66	63	59	56
58	71	66	62	59	55
59	70	65	62	58	54
60	70	65	61	57	54
61	69	64	60	57	53
62	69	64	60	56	52
63	69	63	59	55	51
64	68	63	59	55	50
65	68	62	58	54	50
66	67	62	57	53	49
67	67	61	57	53	48
68	67	61	56	52	47
69	66	60	56	51	46
70	66	60	55	51	45
71	65	60	55	50	45
72	65	59	54	49	44
73	65	59	54	49	43
74	64	58	53	48	42
75	64	58	53	47	41
76	64	57	52	47	40
77	63	57	52	46	39
78	63	57	51	45	38
79	62	56	51	45	37
80	62	56	50	44	36
81	62	55	50	43	35
82	61	55	49	43	34
83	61	55	49	42	33
84	61	54	48	41	32
85	61	54	48	41	31
86	60	53	48	40	30
87	60	53	47	40	29
88	60	53	47	39	28
89	60	52	46	39	27
90	59	52	46	38	27

1.200.097 100 YEAR AGE LIFE - CONT'D

Age	Exc	Good	Aver	Fair	Poor
91	59	51	46	38	26
92	59	51	45	37	25
93	58	51	45	36	24
94	58	50	44	36	24
95	58	50	44	35	23
96	58	50	43	35	22
97	57	50	43	34	22
98	57	49	43	33	21
99	57	49	42	33	20
100	57	49	42	32	20
101	56	49	42	32	
102	56	48	41	31	
103	56	48	41	31	
104	55	48	41	30	
105	55	48	40	30	
106	55	47	40	29	
107	55	47	40	29	
108	54	47	39	29	
109	54	46	39	28	
110	54	46	39	28	
111	54	46	38	27	
112	54	46	38	27	
113	53	45	38	27	
114	53	45	38	26	
115	53	45	37	26	
116	53	45	37	25	
117	53	44	37	25	
118	53	44	36	25	
119	53	44	36	24	
120	53	44	36	24	
121	52	44	36	24	
122	52	43	36	24	
123	52	43	35	23	
124	52	43	35	23	
125	52	43	35	23	

1.200.100 APPLICATION OF REMAINING LIFE TABLES

1.200.101 To apply the tables and determine the percentage of remaining life the assessor must:

identify the appropriate anticipated age life;

determine the chronological age;

select the appropriate C.D.U. rating.

The indicated percent remaining factor is applied to the replacement cost new of the improvement to obtain an estimate of depreciated replacement cost.

1.200.102 The following examples illustrate standard application of the depreciation tables:

Example 1

A 3 year old Standard Project frame bungalow is observed to have negligible signs of wear and tear and is well maintained.

Anticipated Age Life	65 years
C.D.U. Rating	good to excellent
Overall Percent Remaining	99%

Example 2

A 20 year old Semi-Custom Project frame residence is observed to require a new furnace, hot water tank, floor refinishing, interior and exterior repainting and partial replacement of wood siding.

Anticipated Age Life	70 years
C.D.U. Rating	fair
Overall Percent Remaining	79%

Example 3

A 50 year old Poor frame residence on wood sills is observed to require the replacement of interior finish, mechanical systems, windows, roof, etc. It is uneconomical to remove the deficiencies.

Anticipated Age Life	40 years
C.D.U. Rating	poor
Overall Percent Remaining	20%

1.200.100 APPLICATION OF REMAINING LIFE TABLES – CONT'D

Example 4

A 23 year old Standard Project frame residence is observed to require new furnace, some exterior and interior painting and the shingles require replacement in the near future.

Anticipated Age Life	65 years
C.D.U. Rating	average
Overall Percent Remaining	77%

Example 5

A 60 year old Standard frame residence has received increased maintenance over its physical life. Most of the mill work and interior finish are in excellent condition. There is modern plumbing, wiring, and forced air furnace. It is estimated the shingles were replaced approximately 10 years ago, the house was restucco'd 5 years ago and the windows were replaced with aluminum sash. Over the years, the building has retained its original design.

Anticipated Age Life	65 years
C.D.U. Rating	excellent
Overall Percent Remaining	59%

1.200.103 The foregoing examples are illustrations of the rules for applying the **Manual's** Standard Age Life depreciation tables. In the final analysis, the actual depreciation factor will depend upon observed condition and judgment of the effect of the conditions found.

1.200.104 In some cases, chronological age may be an impractical depreciation indicator. Nevertheless the usefulness of the tables can be retained by using an estimate of effective age rather than chronological age. Major renovations from modernization, remodelling and/or additions, have the effect of extending the remaining life, within the limits of an anticipated age life. When an improvement has extensive renovations, depreciation may be determined as follows:

Where: **a** is normal depreciation, expressed as percent remaining

b is the typical replacement cost of renovation determined from the **Manual**

c is the typical replacement cost of the building determined from the **Manual**

d is the actual depreciation suffered by the renewed building components expressed as percent remaining.

Effective age, or adjusted percent remaining is calculated as follows:

$$\frac{ac - ab + bd}{c}$$

1.200.104 APPLICATION OF REMAINING LIFE TABLES – CONT'D

Example: Two years ago, a 55 year old Standard frame residence received major renovations. This included a large addition, change in floor plan, upgrading of mechanical, upgrading of interior and replacement of exterior finish. It was ascertained that the original replacement cost was $ 23 000 and the total replacement cost including all renovations was $ 52 000.

Solution:

Anticipated Age Life:	65 years	
C.D.U. Rating:	good	
Overall Percent Remaining:	**a**	original structure: 0.54 remaining
	d	renovations: 0.99 remaining
	c	$ 52 000
	b	($ 52 000 - $ 23 000) = $ 29 000

Adjusted percent remaining:

$$\frac{0.54 \times 52\,000 - 0.54 \times 29\,000 + 29\,000 \times 0.99}{52\,000} = 79.1\% \text{ remaining}$$

To estimate effective age, go to the 65 year age life table and find the percentage that is closest to the formula's calculation. For the previous example, the effective age is 24 years in a 65 year life with good C.D.U.

Any further adjustment of depreciation must rest entirely upon how soundly the plan of renovation was conceived and this can be judged by the final result in terms of the whole property. Sometimes what appears to be a renovation may, in fact, be deferred maintenance which might do no more than restore an improvement to its normal state.

1.200.110 REMAINING LIFE: MACHINERY AND EQUIPMENT

1.200.111 The standard remaining life tables for machinery and equipment (1.200.120) are based, essentially, on the declining balance premise of depreciation with the following major modifications:

(1) an immediate depreciation allowance of 25% (75% remaining) is granted to all new machinery and equipment and the allowance remains at this level until the improvement attains an effective age that would have produced a 25% (75% remaining) allowance had the declining balance tables been applicable throughout the life of the improvement;

(2) the declining balance tables are applicable with respect to determining subsequent depreciation allowances when the effective age of the improvement exceeds the age, on the declining balance tables, at which 25% depreciation (75% remaining) is attained;

(3) the declining balance tables continue to be applicable until the improvement attains an effective age that results in a depreciation allowance of 60% (40% remaining) on the declining balance tables. Depreciation is capped at this level and the allowance remains at 60% (40% remaining) so long as the improvement remains in service.

1.200.120 REMAINING LIFE TABLES: MACHINERY AND EQUIPMENT (expressed as percentage remaining)

1.200.121 The following table is a guide to determine depreciation for the various classes of improvements referred to in section 1.200.050.

1.200.122 The various columns in this table correspond to the "Age Life" of the improvement. To determine the age life of an improvement refer to the guide in section 1.200.050 Age Life: Machinery and Equipment.

1.200.123 "Age" in this table refers to the chronological age or the estimated effective age, in years, of the improvement.

AGE LIFE

Age	10 Years	15 Years	20 Years	25 Years	30 Years	35 Years
0	75	75	75	75	75	75
1	75	75	75	75	75	75
2	75	75	75	75	75	75
3	73	75	75	75	75	75
4	66	75	75	75	75	75
5	59	71	75	75	75	75
6	53	66	74	75	75	75
7	48	62	70	75	75	75
8	43	58	66	72	75	75
9	40	54	63	69	74	75
10		50	60	67	71	75
11		47	57	64	69	73
12		44	54	61	67	71
13		41	51	59	64	69
14		40	49	57	62	67
15			46	54	60	65
16			44	52	58	63
17			42	50	56	61
18			40	48	54	59
19				46	53	58
20				44	51	56
21				42	49	54
22				41	47	53
23				40	46	51
24					44	50
25					43	48
26					41	47
27					40	46
28						44
29						43
30						42
31						41
32						40

1.200.130 GLOSSARY

This glossary defines the more common terms used when considering depreciation **as the concept is used in the Manual**.

Addition

The portion of a building added on to the original improvement.

Anticipated Age Life

The period of time over which an improvement is depreciated. Anticipated age life represents the estimated useful life span of an improvement as exemplified by improvements with similar physical and functional characteristics. It is the sum of the age, chronological or effective, and the remaining life of the improvement.

Base Year

The base year for determining the chronological or effective age of an improvement when calculating depreciation is **the year of the general assessment**.

C.D.U.

The overall condition, desirability and utility rating of a building or structure.

Chronological Age

The actual number of years elapsed from the year the improvement was built to the Base Year of the current general assessment.

Deterioration

Physical depreciation is the result of normal wear and tear or structural defects. Deterioration is influenced by the quality of construction, maintenance practices and use.

Effective Age

The estimated age of an improvement based on its present condition, design features and architectural amenities. Effective age may be less than actual age, actual age, or greater than actual age dependent on the interrelationship of the above cited criteria when compared to other improvements providing like functions within a specific anticipated age life group.

Functional Obsolescence

The loss in fair actual value which results from factors inherent in the improvement. Inadequate design, structural inadequacy or super adequacy and outmoded style are potential causes of functional obsolescence.

Modernization

The replacement in current style of outmoded features of the improvement. Modernization reduces the effective age and extends the remaining life of the improvement.

1.200.130 GLOSSARY - CONT'D

Normal Depreciation

The loss in fair actual value arising from those factors that lead to the normal deterioration and functional obsolescence of an improvement. The depreciation tables in the **Manual** reflect normal depreciation.

Physical Life

The number of years the improvement is expected to remain in existence; physical life may exceed economic life.

Rehabilitation

Rehabilitation is the restoration of a property to satisfactory condition without changing the plan, form, or style of an improvement. Rehabilitation involves painting, sanding and refinishing floors, carpentry repairs and the like.

Remaining Life

The estimated period of time from the date of the assessment to the end of the economic life of the improvement.

Remodelling

Remodelling is the correction of functional deficiencies by changing the plan, form, or style. The effective age of an improvement is reduced as a result of remodelling.

Replacement Cost New

The cost to replace an improvement with a modern unit in new condition and of equivalent utility. The older residential classifications in the **Manual** are developed with current standards of construction and anything that is overadequate or of inferior quality has been treated as excess cost or given functional obsolescence. Replacement costs in the Manual are predicated on typical construction costs for the year 1983.

SCHEDULE 2

Subsection 10(1), paragraphs 10(2)(a) and (d) and subsections 10(6) and 14(1)

RESIDENTIAL IMPROVEMENTS

INDEX

BASEMENT FINISH	
Poor	**2.015.000**
Fair	**2.015.030**
Semi Custom	**2.015.050**
Custom	**2.015.060**
Information	**2.015.900**
SWIMMING POOLS	
Fair	**2.020.030**
Standard	**2.020.040**
Custom	**2.020.060**
Expensive	**2.020.080**
Information	**2.020.900**
SWIMMING POOL BUILDINGS	
Fair	**2.022.030**
Standard	**2.022.040**
Custom	**2.022.060**
Expensive	**2.022.080**
Swimming Pool Building Information	**2.022.900**
GREENHOUSES	
Substandard	**2.025.020**
Fair	**2.025.030**
Standard	**2.025.040**
Custom	**2.025.060**
Greenhouse Information	**2.025.900**
SOLARIUMS	
Fair	**2.026.030**
Standard	**2.026.040**
Custom	**2.026.060**
Expensive	**2.026.080**
Solarium Information	**2.026.900**
GARAGES	
Poor	**2.030.000**
Substandard	**2.030.020**
Fair	**2.030.030**
Standard	**2.030.040**
Custom	**2.030.060**
Good Custom	**2.030.070**
Garage & Carport Information	**2.030.900**
MULTIPLE GARAGES	
Substandard	**2.031.020**
Fair	**2.031.030**
Standard	**2.031.040**
Custom	**2.031.060**
CARPORTS	
Poor	**2.035.000**
Substandard	**2.035.020**
Standard	**2.035.040**
Custom	**2.035.060**
Good Custom	**2.035.070**

CARPORTS

Poor	**2.035.000**
Substandard	**2.035.020**
Standard	**2.035.040**
Custom	**2.035.060**
Good Custom	**2.035.070**

SINGLE WIDE MOBILE HOMES

Substandard	**2.040.020**
Fair	**2.040.030**
Standard	**2.040.040**
Mobile Home Information	**2.040.900**

DOUBLE WIDE MOBILE HOMES

Fair	**2.045.030**
Standard	**2.045.040**
Semi Custom	**2.045.050**

MOBILE HOME PARKS

Substandard	**2.048.020**
Fair	**2.048.030**
Standard	**2.048.040**
Custom	**2.048.060**

SUMMER COTTAGES

Poor	**2.050.000**
Economy	**2.050.010**
Substandard	**2.050.020**
Fair	**2.050.030**
Standard	**2.050.040**
Semi Custom	**2.050.050**
Custom	**2.050.060**
Information	**2.050.900**

SUMMER COTTAGES - CEDAR/LOG

Fair	**2.052.030**
Standard	**2.052.040**
Semi Custom	**2.052.050**
Custom	**2.052.060**

DUPLEX/FOURPLEX HOUSING

Substandard	**2.060.020**
Fair	**2.060.030**
Standard	**2.060.040**
Semi Custom	**2.060.050**
Custom	**2.060.060**
Good Custom	**2.060.070**
Information	**2.060.900**

MULTIPLE HOUSING

Substandard	**2.070.020**
Fair	**2.070.030**
Standard	**2.070.040**
Semi Custom	**2.070.050**
Custom	**2.070.060**
Good Custom	**2.070.070**
Information	**2.070.900**

2.000.010 RESIDENTIAL IMPROVEMENT CLASSIFICATION KEY

CLASSIFICATION CODING

MODEL TYPE ☐☐☐ **QUALITY** ☐☐ **STRUCTURE** ☐☐

Code	Description
001	Single Family - All Ages
002	Single Family - Before 1940
003	Single Family - After 1940
004	Single Family - After 1970
005	Single Family - After 1980
008	Single Family - Cedar/Log
015	Basement Finish
020	Swimming Pools
022	Swimming Pool Buildings
025	Greenhouses
026	Solariums
030	Garages
031	Multiple Garages
035	Carports
040	Single Wide Mobile Homes
045	Double Wide Mobile Homes
048	Mobile Home Parks
050	Summer Cottages
052	Summer Cottages - Cedar/Log
060	Duplex Housing
061	Fourplex Housing
070	Multiple Housing - Side by Side
071	Multiple Housing - Back to Back

Code	Description
00	Poor
01	Economy
02	Substandard
03	Fair
04	Average
05	Semi Custom
06	Custom
07	Good Custom
08	Expensive
09	Luxurious

Code	Description
00	One Storey & Basement
01	One Storey Basementless
02	Split Entry
03	Split Level
04	Split Level & Crawl Space
05	1 1/2 Storey & Basement
06	1 1/2 Storey Basementless
07	1 3/4 Storey & Basement
08	1 3/4 Storey Basementless
09	2 Storey & Basement
10	2 Storey Basementless
11	1/2 Storey Upper
12	3/4 Storey Upper
13	1 Storey Upper
14	A-Frame & Basement
15	A-Frame Basementless
16	Open Veranda
17	Closed Veranda
18	Main Level Finish
19	1 Storey Upper Finish
20	1/2 Storey Upper Finish
21	3/4 Storey Upper Finish
22	Lower Level Finish
23	Lower Level Unit
24	Non Suite
25	Suite
26	1 Storey Upper Unit
27	Detached
28	Attached
30	Non-Diving
31	Diving
33	Foundationless
34	Foundation - Basementless
35	Basement
40	Site
45	1 Storey & Slab on Grade
46	1 1/2 Storey & Slab on Grade
47	1 3/4 Storey & Slab on Grade
48	2 Storey & Slab on Grade
49	A-Frame & Slab on Grade

2.001.000 MODEL TYPE 001 **Quality Range**
QUALITY 00 **-10% to +21%**

ALL AGES - POOR

2.001.001 GENERAL DESCRIPTION

This class provides the minimum in shelter and falls far short of meeting building requirements. It is basically square or rectangular in shape and the interior has a minimum number of rooms and no hallway. It uses the poorest quality of materials and has inferior workmanship. The total finished floor area for this class is often less than 60 m^2.

2.001.002 QUALITY DESCRIPTION

EXTERIOR - Roofing: Rolled roofing, cheapest grade composition or wood shingles; little or no eave overhang. **Walls:** Composition shingles, cheapest grade wood siding, plywood or equivalent; little or no insulation.

INTERIOR - Walls & Ceilings: Cheapest wallboard or equivalent. **Floors:** Cheapest grade linoleum, plywood or equivalent. **Cabinets & Trim:** Little or no kitchen cabinets; no trim. **Doors & Windows:** Cheapest quality doors, nil closet; cheapest windows.

MECHANICAL - Plumbing: 4 economy quality fixtures, no accessories; no vanities. **Heating:** Nil. **Electrical:** Basic wiring, little or no light fixtures, minimal outlets.

2.001.003 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey Basementless	**01**	**$ 3 800**	**$ 95**

2.001.005 ADJUSTMENTS

		K	AR m^2
Concrete Slab on grade	**deduct**	**$ 0**	**$ 3.10**
Plumbing (rate includes 4 fixtures) per fixture	**add or deduct**	**320**	**0.00**
Heating (total finished floor area) minimum heat including gas line and chimney	**add**	**110**	**4.80**

2.001.006 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
030	**00**	**27**	**Detached Garage (Poor)**			
			Base Rate		**$ 720**	**$ 52.00**
			Interior Finish			
			walls	**add**	**60**	**1.20**
			ceiling	**add**	**0**	**2.00**
			Concrete Slab – nil	**deduct**	**0**	**11.80**
			Electrical - nil	**deduct**	**0**	**3.40**

2.001.010 MODEL TYPE 001 **Quality Range**
QUALITY 01 **-12% to +9%**

ALL AGES - ECONOMY

2.001.011 GENERAL DESCRIPTION

Usually found in old urban neighbourhoods or rural areas, this class represents low cost housing that seldom meets building requirements. It is basically square or rectangular in shape and the interior has an inadequate floor plan consisting of small rooms with little or no hallway. Materials and workmanship are economy grade with very little attention given to exterior and interior finishing. The total finished floor area for this class generally ranges from 40 to 80 m^2.

2.001.012 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition or wood shingles or equivalent; little or no eave overhang. **Walls:** Plain stucco, economy grade wood siding, shingles or equivalent; minimum insulation.

INTERIOR - Walls & Ceilings: Unfinished gypsum wallboard, economy grade prefinished wallboard, donna conna or equivalent. **Floors:** Economy grade tile, wood, or equivalent. **Cabinets & Trim:** Poor to economy grade kitchen cabinets; little or no trim. **Doors & Windows:** Economy grade doors; economy grade checkrail windows or equivalent.

MECHANICAL - Plumbing: 4 economy to substandard quality fixtures, little or no accessories; little or no vanities. **Heating:** Economy gravity heat or equivalent. **Electrical:** Minimum wiring; economy to substandard light fixtures.

2.001.013 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 9 400**	**$ 162**
1 Storey Basementless	**01**	**8 100**	**133**
1 1/2 Storey & Basement	**05**	**9 800**	**242**
1 1/2 Storey Basementless	**06**	**8 500**	**212**
1 3/4 Storey & Basement	**07**	**10 500**	**255**
1 3/4 Storey Basementless	**08**	**9 200**	**226**
2 Storey & Basement	**09**	**11 400**	**258**
2 Storey Basementless	**10**	**10 100**	**229**
1/2 Storey Upper	**11**	**300**	**80**
3/4 Storey Upper	**12**	**1 100**	**94**
1 Storey Upper	**13**	**1 900**	**97**

2.001.014 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 60**	**$ 34**

2.001.015 ADJUSTMENTS

		K	AR m^2
Concrete Slab on grade	**deduct**	**$ 630**	**$ 5.60**
Plumbing (rate includes 4 fixtures) per fixture	**add or deduct**	**430**	**0.00**
Heating (total finished floor area) heat - nil	**deduct**	**160**	**6.80**

2.001.016 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
015	**00**	**24**	**Basement Finish (Poor)**			
			Per Room	**add**	**$ 140**	**$ 21.00**
030	**00**	**27**	**Detached Garage (Poor)**			
			Base Rate		**$ 720**	**$ 52.00**
			Interior Finish			
			walls	**add**	**60**	**1.20**
			ceiling	**add**	**0**	**2.00**
			Concrete Slab – nil	**deduct**	**0**	**11.80**
			Electrical – nil	**deduct**	**0**	**3.40**
035	**00**	**28**	**Attached Carport (Poor)**			
			Base Rate		**$ 250**	**$ 23.00**
			Concrete Slab	**add**	**0**	**11.80**
			Ceiling	**add**	**0**	**4.20**
			Electrical	**add**	**0**	**3.40**

2.001.020 MODEL TYPE 001 **Quality Range**
QUALITY 02 **-7% to +8%**

ALL AGES - SUBSTANDARD

2.001.021 GENERAL DESCRIPTION

This class provides for low to moderate cost housing where building requirements are only occasionally satisfied. It is basically square or rectangular in shape and the interior has a simple floor plan consisting of relatively small rooms with little or no hallway. Finishing materials are of substandard quality and no attention is given to decorative features. The total finished floor area for this class generally ranges from 50 to 120 m^2.

2.001.022 QUALITY DESCRIPTION

EXTERIOR - **Roofing:** Composition or wood shingles; minimal eave overhang, open soffits are common. **Walls:** Low grade stucco, substandard wood siding or equivalent.

INTERIOR - **Walls & Ceilings:** Gypsum wallboard, substandard prefinished wallboard, donna conna or equivalent. **Floors:** Substandard tile or equivalent, occasional use of substandard carpet. **Cabinets & Trim:** Low grade painted kitchen cabinets; low grade baseboards and trim. **Doors & Windows:** Low grade hollow core doors; low grade wood combination windows, checkrail with storms or equivalent.

MECHANICAL - **Plumbing:** 4 substandard quality fixtures and accessories; little or no vanities. **Heating:** Gravity heat or equivalent. **Electrical:** Minimum wiring, substandard light fixtures.

2.001.023 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 11 700**	**$ 205**
1 Storey Basementless	**01**	**10 300**	**175**
1 1/2 Storey & Basement	**05**	**12 300**	**310**
1 1/2 Storey Basementless	**06**	**10 900**	**279**
1 3/4 Storey & Basement	**07**	**13 000**	**335**
1 3/4 Storey Basementless	**08**	**11 600**	**305**
2 Storey & Basement	**09**	**13 900**	**341**
2 Storey Basementless	**10**	**12 500**	**311**
1/2 Storey Upper	**11**	**600**	**104**
3/4 Storey Upper	**12**	**1 300**	**130**
1 Storey Upper	**13**	**2 300**	**136**

2.001.024 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 170**	**$ 49**

2.001.025 ADJUSTMENTS

		K	AR m^2
Concrete Slab on grade	**deduct**	**$ 630**	**$ 8.00**
Plumbing (rate includes 4 fixtures) per fixture	**add or deduct**	**560**	**0.00**
Heating (total finished floor area) heat - nil	**deduct**	**320**	**13.70**

2.001.026 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
015	**00**	**24**	**Basement Finish (Poor)**			
			Per Room	**add**	**$ 140**	**$ 21.00**
030	**02**	**27**	**Detached Garage (Substandard)**			
			Base Rate		**$ 1 490**	**$ 75.00**
			Interior Finish			
			walls	**add**	**110**	**2.30**
			ceiling	**add**	**0**	**3.90**
			Heating	**add**	**100**	**4.10**
			Concrete Slab – nil	**deduct**	**0**	**12.50**
			Electrical – nil	**deduct**	**0**	**4.80**
035	**00**	**28**	**Attached Carport (Poor)**			
			Base Rate		**$ 250**	**$ 23.00**
			Concrete Slab	**add**	**0**	**11.80**
			Ceiling	**add**	**0**	**4.20**
			Electrical	**add**	**0**	**3.40**

2.002.030 MODEL TYPE 002 **Quality Range**
QUALITY 03 **-5% to +7%**

BEFORE 1940 - FAIR

2.002.031 GENERAL DESCRIPTION

This class provides average quality housing for the era in which they were built with moderate cost as the primary consideration. The exterior, although often characterized by entrance porches or verandas, is basically square or rectangular in shape. It has a simple floor plan, finishes are normally limited to fair quality materials and there is usually no attention given to decorative features. The total finished floor area for this class generally ranges from 70 to 140 m^2.

2.002.032 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition or wood shingles; minimal eave overhang. **Walls:** Stucco, narrow or drop wood siding, shingles or equivalent.

INTERIOR - Walls & Ceilings: Plaster or equivalent; textured ceilings are typical and ceiling heights can range up to 3 m. **Floors:** Fair grade sheet vinyl, hardwood or equivalent.
Cabinets & Trim: Approximately 2 to 4 m of low grade painted kitchen cabinets; low grade baseboards, simple trim. **Doors & Windows:** Fair grade doors; fair grade wood combination windows with storms or equivalent.

MECHANICAL - Plumbing: 4 old style fair quality fixtures and accessories; vanities are not common.
Heating: Gravity or equivalent. **Electrical:** Old style wiring, old style low grade fixtures, a minimum number of outlets.

2.002.033 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 13 200**	**$ 243**
1 Storey Basementless	**01**	**12 000**	**213**
1 1/2 Storey & Basement	**05**	**13 900**	**363**
1 1/2 Storey Basementless	**06**	**12 800**	**333**
1 3/4 Storey & Basement	**07**	**14 800**	**393**
1 3/4 Storey Basementless	**08**	**13 700**	**363**
2 Storey & Basement	**09**	**15 800**	**404**
2 Storey Basementless	**10**	**14 700**	**374**
1/2 Storey Upper	**11**	**400**	**120**
3/4 Storey Upper	**12**	**1 700**	**150**
1 Storey Upper	**13**	**2 700**	**161**
Open Veranda	**16**	**400**	**101**
Closed Veranda	**17**	**900**	**167**

2.002.034 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 220**	**$ 60**

2.002.035 ADJUSTMENTS

		K	AR m^2
Concrete Slab on grade	**deduct**	**$ 1 040**	**$ 9.80**
Plumbing (rate includes 4 fixtures) per fixture	**add or deduct**	**670**	**0.00**
Heating (total finished floor area) old style hot water	**add**	**740**	**7.40**
Fireplace – Built in fair metal fireplace; interior wall finished with gypsum wallboard and little or no decorative facing **or** substandard to fair masonry fireplace	**add**	**1 450**	**0.00**
Fireplace – Free Standing fair metal	**add**	**950**	**0.00**

2.002.036 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
015	**00**	**24**	**Basement Finish (Poor)**			
			Per Room	**add**	**$ 140**	**$ 21.00**
030	**02**	**27**	**Detached Garage (Substandard)**			
			Base Rate		**$ 1 490**	**$ 75.00**
			Interior Finish			
			walls	**add**	**110**	**2.30**
			ceiling	**add**	**0**	**3.90**
			Heating	**add**	**100**	**4.10**
			Concrete Slab – nil	**deduct**	**0**	**12.50**
			Electrical – nil	**deduct**	**0**	**4.80**
035	**02**	**28**	**Attached Carport (Substandard)**			
			Base Rate		**$ 400**	**$ 31.00**
			Concrete Slab	**add**	**0**	**12.50**
			Ceiling	**add**	**0**	**4.50**
			Electrical	**add**	**0**	**3.70**

2.002.040 MODEL TYPE 002 **Quality Range**
QUALITY 04 **-5% to +16%**

BEFORE 1940 - STANDARD

2.002.041 GENERAL DESCRIPTION

This class provided better than average quality housing for the era in which they were built. The exterior style often includes entry porches or verandas and limited attention is given to architectural detail or ornamentation. It has a functional floor plan which usually consists of fairly spacious rooms and a minimum number of built-in features. Finishes are normally average quality materials and a limited number of decorative features are evident. The total finished floor area for this class generally ranges from 90 to 170 m^2.

2.002.042 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition or wood shingles; eaves may have some decorative ornamentation on fascia or gables. **Walls:** Average grade stucco, wood siding or equivalent.

INTERIOR - Walls & Ceilings: Plaster or equivalent; textured ceilings are typical and ceiling heights can range up to 3 m. **Floors:** Average grade sheet vinyl, hardwood or equivalent. **Cabinets & Trim:** Approximately 3 to 6 m of fair grade kitchen cabinets; fair grade baseboards and trim. **Doors & Windows:** Average quality doors; average quality wood combination windows or equivalent.

MECHANICAL - Plumbing: 4 old style average quality fixtures and accessories; little or no vanities. **Heating:** Fair forced air or equivalent. **Electrical:** Old style average quality fixtures and an adequate number of outlets.

2.002.043 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 15 800**	**$ 284**
1 Storey Basementless	**01**	**14 300**	**250**
1 1/2 Storey & Basement	**05**	**16 900**	**421**
1 1/2 Storey Basementless	**06**	**15 300**	**388**
1 3/4 Storey & Basement	**07**	**17 800**	**457**
1 3/4 Storey Basementless	**08**	**16 300**	**424**
2 Storey & Basement	**09**	**18 900**	**471**
2 Storey Basementless	**10**	**17 300**	**438**
1/2 Storey Upper	**11**	**1 000**	**138**
3/4 Storey Upper	**12**	**2 000**	**173**
1 Storey Upper	**13**	**3 000**	**187**
Open Veranda	**16**	**500**	**121**
Closed Veranda	**17**	**1 000**	**194**

2.002.044 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 230**	**$ 66**

2.002.045 ADJUSTMENTS

		K	AR m^2
Concrete Slab on grade	**deduct**	**$ 1 190**	**$ 16.30**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**2 770**	**24.50**
1 1/2 Storey	**add**	**2 770**	**33.70**
1 3/4 Storey	**add**	**4 160**	**36.70**
2 Storey	**add**	**5 550**	**42.20**
Plumbing (rate includes 4 fixtures) per fixture	**add or deduct**	**820**	**0.00**
Heating/Air Conditioning (total finished floor area)			
old style hot water	**add**	**700**	**5.60**
fair air conditioning	**add**	**460**	**9.60**
Fireplace – Built in			
average metal fresh air fireplace and accessories; interior wall finished with gypsum wallboard, masonry veneer or wood panelling **or** average quality masonry fireplace with limited features	**add**	**2 350**	**0.00**
each additional firebox on same chase	**add**	**2 130**	**0.00**
Fireplace – Free Standing			
average metal	**add**	**1 250**	**0.00**

2.002.046 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
015	**03**	**24**	**Basement Finish (Fair)**			
			Per Room	**add**	**$ 350**	**$ 47.00**
030	**04**	**27**	**Detached Garage (Standard)**			
			Base Rate		**$ 2 020**	**$ 106.00**
			Interior Finish			
			walls	**add**	**170**	**3.40**
			ceiling	**add**	**0**	**5.80**
			Heating	**add**	**220**	**9.60**
			Concrete Slab – nil	**deduct**	**0**	**19.40**
			Electrical – nil	**deduct**	**0**	**5.40**
035	**04**	**28**	**Attached Carport (Substandard)**			
			Base Rate		**$ 680**	**$ 39.00**
			Concrete Slab	**add**	**0**	**19.40**
			Ceiling	**add**	**0**	**10.10**
			Electrical	**add**	**0**	**4.10**

2.002.060 MODEL TYPE 002 **Quality Range**
QUALITY 06 **-11% to +10%**

BEFORE 1940 - CUSTOM

2.002.061 GENERAL DESCRIPTION

This class provided good to expensive quality housing for the era in which they were built. The exterior style is usually complimented with architectural features or decorative ornamentation. Large verandas or covered entrance ways are common with large or stylish columns. The interior design is usually spacious and built-in features are evident. Good quality materials are used for finishes, attention to detail is noticeable as well as a fair number of decorative features. The total finished floor area for this class generally ranges from 110 to 260 m^2.

2.002.062 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition or wood shingles; attractive eaves with attention to detail or ornamentation. **Walls:** Good grade stucco, wood siding or equivalent; ornamental trim is popular as a decorative feature.

INTERIOR - Walls & Ceilings: Plaster, gypsum wallboard or equivalent; textured ceilings with accentuated bordering is common and ceiling heights can range up to 3 m. **Floors:** Good grade sheet vinyl, hardwood, carpet or equivalent; occasional use of quarry tile or equivalent. **Cabinets & Trim:** Approximately 4 to 8 m of average quality kitchen cabinets; occasional built-in cabinets; good grade baseboards and trim with attention to detail. **Doors & Windows:** Good quality doors; good grade wood combination windows or equivalent.

MECHANICAL - Plumbing: 4 to 9 old style good quality fixtures and accessories; average grade vanities. **Heating:** Average hot water or equivalent. **Electrical:** Old style good quality fixtures.

2.002.063 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 33 400**	**$ 342**
1 Storey Basementless	**01**	**30 400**	**311**
1 1/2 Storey & Basement	**05**	**37 000**	**526**
1 1/2 Storey Basementless	**06**	**34 000**	**495**
1 3/4 Storey & Basement	**07**	**39 600**	**580**
1 3/4 Storey Basementless	**08**	**36 700**	**550**
2 Storey & Basement	**09**	**43 300**	**596**
2 Storey Basementless	**10**	**40 300**	**565**
1/2 Storey Upper	**11**	**3 600**	**184**
3/4 Storey Upper	**12**	**6 200**	**238**
1 Storey Upper	**13**	**9 900**	**254**
Open Veranda	**16**	**600**	**147**
Closed Veranda	**17**	**1 400**	**238**

2.002.064 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 670**	**$ 93**

2.002.065 ADJUSTMENTS

		K	AR m^2
Concrete Slab on grade	**deduct**	**$ 640**	**$ 8.10**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**5 480**	**10.20**
1 1/2 Storey	**add**	**5 480**	**16.10**
1 3/4 Storey	**add**	**8 220**	**14.20**
2 Storey	**add**	**10 950**	**15.20**
Plumbing (rate includes 4 fixtures) per fixture	**add or deduct**	**950**	**0.00**
Heating/Air Conditioning (total finished floor area)			
average air conditioning	**add**	**460**	**21.60**
average forced air	**deduct**	**1 120**	**13.20**
average forced air and air conditioning	**deduct**	**540**	**1.20**
Fireplace – Built in good metal fresh air fireplace and accessories; exterior chased and interior wall finished with good quality masonry veneer			
or			
good masonry fireplace with limited features	**add**	**2 350**	**0.00**
each additional firebox on same chase	**add**	**2 130**	**0.00**
Fireplace – Free Standing good metal	**add**	**2 000**	**0.00**

2.002.066 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
015	**03**	**24**	**Basement Finish (Fair)**			
			Per Room	**add**	**$ 350**	**$ 47.00**
030	**04**	**27**	**Detached Garage (Standard)**			
			Base Rate		**$ 2 020**	**$ 106.00**
			Interior Finish			
			walls	**add**	**170**	**3.40**
			ceiling	**add**	**0**	**5.80**
			Heating	**add**	**220**	**9.60**
			Concrete Slab – nil	**deduct**	**0**	**19.40**
			Electrical – nil	**deduct**	**0**	**5.40**
035	**04**	**28**	**Attached Carport (Substandard)**			
			Base Rate		**$ 680**	**$ 39.00**
			Concrete Slab	**add**	**0**	**19.40**
			Ceiling	**add**	**0**	**10.10**
			Electrical	**add**	**0**	**4.10**

2.003.030 MODEL TYPE 003 **Quality Range**
QUALITY 03 **-6% to +5%**

AFTER 1940 - FAIR

2.003.031 GENERAL DESCRIPTION

This class provides for fair quality housing with affordability a prime consideration. Built to satisfy the basic housing market, it barely meets minimum building requirements. Basically square or rectangular in shape, the exterior on older styles of this house is generally plain while newer styles usually have a common or repetitious design. The floor plan and room sizes are adequate, finishes are of fair to average quality materials and there is little or no attention given to decorative features. The total finished floor area for this class generally ranges from 70 to 130 m^2.

2.003.032 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition shingles or equivalent; minimal eave overhang, plywood or aluminum soffits and fascia. **Walls:** Fair to average grade stucco, aluminum or equivalent; limited amounts of imitation masonry, wood siding or equivalent may be used as a decorative feature; asbestos shakes or fair quality wood siding may be encountered on older styles.

INTERIOR - Walls & Ceilings: Gypsum wallboard or equivalent; sprayed or textured ceilings are typical. **Floors:** Fair to average quality carpet, resilient tile or equivalent; hardwood may be encountered in older styles. **Cabinets & Trim:** Approximately 2 to 4 m of fair grade premanufactured kitchen cabinets, painted plywood or equivalent; fair quality baseboards and trim. **Doors & Windows:** Fair quality hollow core doors; fair quality aluminum windows or equivalent, wood checkrail windows may be encountered in older styles.

MECHANICAL - Plumbing: 4 fair quality fixtures and accessories; little or no vanities. **Heating:** Fair forced air. **Electrical:** Fair to average quality light fixtures, an adequate number of outlets.

2.003.033 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 14 300**	**$ 260**
1 Storey Basementless	**01**	**12 900**	**228**
Split Entry	**02**	**14 400**	**269**
Split Level	**03**	**14 900**	**368**
Split Level & Crawl Space	**04**	**17 500**	**412**
1 1/2 Storey & Basement	**05**	**15 100**	**387**
1 1/2 Storey Basementless	**06**	**13 700**	**355**
1 3/4 Storey & Basement	**07**	**16 000**	**420**
1 3/4 Storey Basementless	**08**	**14 600**	**388**
2 Storey & Basement	**09**	**17 000**	**431**
2 Storey Basementless	**10**	**15 600**	**400**
1/2 Storey Upper	**11**	**800**	**127**
3/4 Storey Upper	**12**	**1 700**	**160**
1 Storey Upper	**13**	**2 700**	**172**

2.003.034 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 220**	**$ 62**
Lower Level Finish	**22**	**530**	**99**

2.003.035 ADJUSTMENTS

		K	AR m^2
Concrete Slab			
on grade	**deduct**	**$ 1 370**	**$ 12.60**
under crawl space (for basementless extensions)	**add**	**0**	**17.00**
Plumbing (rate includes 4 fixtures)			
per fixture	**add or deduct**	**670**	**0.00**
whirlpool bathtub	**add**	**1 530**	**0.00**
Heating/Air Conditioning (total finished floor area)			
fair air conditioning	**add**	**460**	**9.60**
Fireplace – Built in			
fair metal fireplace; interior wall finished with gypsum wallboard and little or no decorative facing			
or			
substandard to fair masonry fireplace	**add**	**1 450**	**0.00**
Fireplace – Free Standing			
fair metal	**add**	**950**	**0.00**
Sauna			
average quality	**add**	**875**	**318.00**

2.003.036 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
015	**03**	**24**	**Basement Finish (Fair)**			
			Per Room	**add**	**$ 350**	**$ 47.00**
030	**02**	**27**	**Detached Garage (Substandard)**			
			Base Rate		**$ 1 490**	**$ 75.00**
			Interior Finish			
			walls	**add**	**$ 110**	**$ 2.30**
			ceiling	**add**	**0**	**3.90**
			Heating	**add**	**100**	**4.10**
			Concrete Slab – nil	**deduct**	**0**	**12.50**
			Electrical – nil	**deduct**	**0**	**4.80**
			Attached Garage (Substandard)			
			Base Rate		**$ 980**	**$ 65.00**
			Interior Finish			
			walls	**add**	**90**	**1.60**
			ceiling	**add**	**0**	**3.90**
			Heating	**add**	**100**	**4.10**
			Concrete Slab – nil	**deduct**	**0**	**12.50**
			Electrical – nil	**deduct**	**0**	**4.80**

MT	QU	ST	Description		K	AR m^2
035	**02**	**28**	**Attached Carport (Substandard)**			
			Base Rate		**$ 400**	**$ 31.00**
			Concrete Slab	**add**	**0**	**12.40**
			Ceiling	**add**	**0**	**4.50**
			Electrical	**add**	**0**	**3.70**

2.003.040 MODEL TYPE 003 **Quality Range**
QUALITY 04 **-5% to +4%**

AFTER 1940 - STANDARD PROJECT

2.003.041 GENERAL DESCRIPTION

This class is a standard project home which meets and occasionally exceeds minimum building requirements. The exterior usually has a typical style that is generally rectangular in shape. The floor plan is functional, finishes are normally limited to average quality pre-manufactured or standard materials and a minimum number of decorative features may be encountered. The total finished floor area for this class generally ranges from 90 to 190 m^2.

2.003.042 QUALITY DESCRIPTION

EXTERIOR - **Roofing:** Composition shingles or equivalent; boxed eaves are typical with plywood or aluminum soffits and fascia. **Walls:** Most common is average grade stucco, aluminum siding or equivalent; masonry veneer or wood siding is occasionally used as a decorative feature.

INTERIOR - **Walls & Ceilings:** Gypsum wallboard; sprayed or textured ceilings are typical. **Floors:** Average quality carpet or equivalent, corlon or equivalent is usually found in the kitchen and bathroom. **Cabinets & Trim:** Approximately 3 to 6 m of average quality premanufactured or standard veneer kitchen cabinets; standard baseboards and trim. **Doors & Windows:** Average quality hollow core doors; standard aluminum or average quality wood checkrail windows.

MECHANICAL - **Plumbing:** 4 to 7 average quality fixtures and accessories; average quality premanufactured or standard veneer vanities. **Heating:** Average forced air. **Electrical:** Average quality fixtures; an adequate number of outlets.

2.003.043 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 16 700**	**$ 301**
1 Storey Basementless	**01**	**15 000**	**266**
Split Entry	**02**	**17 100**	**316**
Split Level	**03**	**17 700**	**425**
Split Level & Crawl Space	**04**	**20 400**	**474**
1 1/2 Storey & Basement	**05**	**17 800**	**447**
1 1/2 Storey Basementless	**06**	**16 100**	**413**
1 3/4 Storey & Basement	**07**	**18 800**	**487**
1 3/4 Storey Basementless	**08**	**17 000**	**452**
2 Storey & Basement	**09**	**19 800**	**502**
2 Storey Basementless	**10**	**18 100**	**468**
1/2 Storey Upper	**11**	**1 000**	**146**
3/4 Storey Upper	**12**	**2 000**	**186**
1 Storey Upper	**13**	**3 100**	**201**

2.003.044 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 230**	**$ 68**
Lower Level Finish	**22**	**560**	**109**

2.003.045 ADJUSTMENTS

		K	AR m^2
Concrete Slab			
on grade	**deduct**	**$ 1 410**	**$ 14.30**
under crawl space (for basementless extensions)	**add**	**0**	**18.30**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**2 770**	**24.50**
Split Level or Split Entry	**add**	**4 160**	**31.10**
1 1/2 Storey	**add**	**2 770**	**33.70**
1 3/4 Storey	**add**	**4 160**	**36.70**
2 Storey	**add**	**5 550**	**42.20**
Plumbing (rate includes 4 fixtures)			
per fixture	**add or deduct**	**820**	**0.00**
whirlpool bathtub	**add**	**1 780**	**0.00**
Heating/Air Conditioning (total finished floor area)			
fair air conditioning	**add**	**460**	**9.60**
Fireplace – Built in			
average metal fresh air fireplace and accessories; interior wall may be finished with gypsum wallboard, masonry veneer or wood panelling			
or			
average quality masonry fireplace with limited features	**add**	**2 350**	**0.00**
each additional firebox on same chase	**add**	**2 130**	**0.00**
Fireplace – Free Standing			
average metal	**add**	**1 250**	**0.00**
Sauna			
average quality	**add**	**875**	**318.00**
Hot Tub			
average quality	**add**	**6 020**	**0.00**
Lofts			
1 1/2 Storey - loft area	**deduct**	**0**	**54.00**
1 3/4 Storey - loft area	**deduct**	**0**	**77.00**
2 Storey - loft area	**deduct**	**0**	**90.00**
Cathedral Ceilings			
classify and calculate cathedral area as a 1 Storey structure, and	**add**	**0**	**40.00**

2.003.046 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
			Basement Finish			
015	**03**	**24**	**(Fair)**			
			Per Room	**add**	**$ 350**	**$ 47.00**
			Detached Garage			
030	**04**	**27**	**(Standard)**			
			Base Rate		**$ 2 020**	**$ 106.00**
			Interior Finish			
			walls	**add**	**$ 170**	**$ 3.40**
			ceiling	**add**	**0**	**5.80**
			Heating	**add**	**220**	**9.60**
			Concrete Slab – nil	**deduct**	**0**	**19.40**
			Electrical – nil	**deduct**	**0**	**5.40**
			Attached Garage			
030	**04**	**28**	**(Standard)**			
			Base Rate		**$ 1 680**	**$ 101.00**
			Interior Finish			
			walls	**add**	**120**	**2.30**
			ceiling	**add**	**0**	**5.80**
			Heating	**add**	**220**	**9.60**
			Concrete Slab – nil	**deduct**	**0**	**19.40**
			Electrical – nil	**deduct**	**0**	**5.40**
			Attached Carport			
035	**04**	**28**	**(Standard)**			
			Base Rate		**$ 680**	**$ 39.00**
			Concrete Slab	**add**	**0**	**19.40**
			Ceiling	**add**	**0**	**10.10**
			Electrical	**add**	**0**	**4.10**

2.003.050 MODEL TYPE 003 **Quality Range**
QUALITY 05 **- 5% to +19%**

AFTER 1940 - SEMI CUSTOM PROJECT

2.003.051 GENERAL DESCRIPTION

This class is basically standard project housing upgraded with better finishing materials. To make the exterior attractive, some breaks in the roof line may occur. The floor plan is functional and will usually include one or more built-in feature. Finishes are average to good quality materials and a minimum number of decorative features are normally encountered. The total finished floor area for this class generally ranges from 110 to 210 m^2.

2.003.052 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition shingles or equivalent; boxed eaves are typical with plywood or aluminum soffits and fascia. **Walls:** Most common is average to good grade stucco, aluminum siding or equivalent; wood siding or limited quantities of masonry veneer may be used as a decorative feature.

INTERIOR - Walls & Ceilings: Gypsum wallboard, small quantities of average to good quality wood panelling or other decorative features may be found in the main rooms. **Floors:** Average to good quality carpet or equivalent. **Cabinets & Trim:** Approximately 4 to 8 m of average to good quality premanufactured or semi-custom veneer kitchen cabinets; average to good quality baseboards and trim. **Doors & Windows:** Average to good quality premanufactured doors; average to good quality aluminum, vinyl or checkrail windows.

MECHANICAL - Plumbing: 4 to 9 average to good quality fixtures and accessories; average to good quality premanufactured or semi-custom veneer vanities. **Heating:** Average forced air. **Electrical:** Average to good quality fixtures.

2.003.053 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 21 100**	**$ 331**
1 Storey Basementless	**01**	**19 100**	**295**
Split Entry	**02**	**21 700**	**349**
Split Level	**03**	**22 400**	**475**
Split Level & Crawl Space	**04**	**25 200**	**524**
1 1/2 Storey & Basement	**05**	**22 400**	**490**
1 1/2 Storey Basementless	**06**	**20 500**	**454**
1 3/4 Storey & Basement	**07**	**23 500**	**540**
1 3/4 Storey Basementless	**08**	**21 600**	**504**
2 Storey & Basement	**09**	**24 700**	**559**
2 Storey Basementless	**10**	**22 800**	**523**
1/2 Storey Upper	**11**	**1 400**	**159**
3/4 Storey Upper	**12**	**2 500**	**209**
1 Storey Upper	**13**	**2 500**	**228**

2.003.054 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 370**	**$ 77**
Lower Level Finish	**22**	**700**	**126**

2.003.055 ADJUSTMENTS

		K	AR m^2
Concrete Slab			
on grade	**deduct**	**$ 310**	**$ 4.50**
under crawl space (for basementless extensions)	**add**	**0**	**18.90**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**2 710**	**22.70**
Split Level or Split Entry	**add**	**4 060**	**29.40**
1 1/2 Storey	**add**	**2 710**	**29.40**
1 3/4 Storey	**add**	**4 060**	**33.50**
2 Storey	**add**	**5 420**	**40.20**
Cedar Shakes or Masonry Tile	**add**	**310**	**12.50**
Plumbing (rate includes 4 fixtures)			
per fixture	**add or deduct**	**950**	**0.00**
whirlpool bathtub	**add**	**2 650**	**0.00**
Heating/Air Conditioning (total finished floor area)			
pulse forced air	**add**	**80**	**11.90**
average air conditioning	**add**	**580**	**12.00**
average hot water	**add**	**1 120**	**13.20**
average hot water and air conditioning	**add**	**1 580**	**34.80**
Fireplace – Built in			
average to good metal fresh air fireplace and accessories; interior wall finished with masonry veneer or equivalent			
or			
average to good masonry fireplace with limited features	**add**	**2 730**	**0.00**
each additional firebox on same chase	**add**	**2 430**	**0.00**
Fireplace – Free Standing			
average to good metal	**add**	**1 600**	**0.00**
Sauna			
average quality	**add**	**875**	**318.00**
Hot Tub			
average quality	**add**	**6 020**	**0.00**
Lofts			
1 1/2 Storey - loft area	**deduct**	**0**	**61.00**
1 3/4 Storey - loft area	**deduct**	**0**	**88.00**
2 Storey - loft area	**deduct**	**0**	**102.00**
Cathedral Ceilings			
classify and calculate cathedral area as a 1 Storey structure, and	**add**	**0**	**43.00**

2.003.056 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
			Basement Finish			
015	**05**	**24**	**(Semi Custom)**			
			Per Room	**add**	**$ 450**	**$ 74.00**
			Detached Garage			
030	**04**	**27**	**(Standard)**			
			Base Rate		**$ 2 020**	**$ 106.00**
			Interior Finish			
			walls	**add**	**$ 170**	**$ 3.40**
			ceiling	**add**	**0**	**5.80**
			Heating	**add**	**220**	**9.60**
			Concrete Slab – nil	**deduct**	**0**	**19.40**
			Electrical – nil	**deduct**	**0**	**5.40**
			Attached Garage			
030	**04**	**28**	**(Standard)**			
			Base Rate		**$ 1 680**	**$ 101.00**
			Interior Finish			
			walls	**add**	**120**	**2.30**
			ceiling	**add**	**0**	**5.80**
			Heating	**add**	**220**	**9.60**
			Concrete Slab – nil	**deduct**	**0**	**19.40**
			Electrical – nil	**deduct**	**0**	**5.40**
			Attached Carport			
035	**04**	**28**	**(Standard)**			
			Base Rate		**$ 680**	**$ 39.00**
			Concrete Slab	**add**	**0**	**19.40**
			Ceiling	**add**	**0**	**10.10**
			Electrical	**add**	**0**	**4.10**

2.003.060 MODEL TYPE 003 **Quality Range**
QUALITY 06 **-10% to +9%**

AFTER 1940 - CUSTOM PROJECT

2.003.061 GENERAL DESCRIPTION

This class provides for good quality housing which is normally a project home but on occasion is custom built. The exterior generally has an attractive style and breaks in the roof line are common. The interior design may show some originality and regularly contains a minimum number of built-in features. Finishes are usually good quality premanufactured or custom built materials and a limited number of decorative features are normally encountered. The total finished floor area for this class generally ranges from 140 to 250 m^2.

2.003.062 QUALITY DESCRIPTION

EXTERIOR - Roofing: Composition shingles or equivalent; attractive soffits and fascia. **Walls:** Good grade stucco, wood siding or equivalent; masonry veneer commonly used as a decorative feature.

INTERIOR - Walls & Ceilings: Gypsum wallboard; limited use of good quality wood panelling or other decorative features. **Floors:** Good quality carpet or equivalent; hardwood or equivalent is common in older styles; occasional use of quarry tile or equivalent. **Cabinets & Trim:** Approximately 4 to 8 m of good quality pre-manufactured or custom veneer kitchen cabinets; good quality baseboards and trim. **Doors & Windows:** Good quality pre-manufactured doors; good quality pre-manufactured or custom built windows.

MECHANICAL - Plumbing: 6 to 11 good quality fixtures and accessories; good quality pre-manufactured or custom veneer vanities. **Heating:** Good forced air. **Electrical:** Good quality fixtures; minimal use of special effect lighting may be encountered.

2.003.063 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 45 700**	**$ 380**
1 Storey Basementless	**01**	**42 100**	**343**
Split Entry	**02**	**48 500**	**410**
Split Level	**03**	**50 600**	**562**
Split Level & Crawl Space	**04**	**56 800**	**603**
1 1/2 Storey & Basement	**05**	**49 400**	**581**
1 1/2 Storey Basementless	**06**	**45 800**	**544**
1 3/4 Storey & Basement	**07**	**52 000**	**640**
1 3/4 Storey Basementless	**08**	**48 400**	**603**
2 Storey & Basement	**09**	**55 700**	**656**
2 Storey Basementless	**10**	**52 000**	**619**
1/2 Storey Upper	**11**	**3 600**	**201**
3/4 Storey Upper	**12**	**6 300**	**260**
1 Storey Upper	**13**	**9 900**	**276**

2.003.064 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 670**	**$ 97**
Lower Level Finish	**22**	**2 100**	**152**

2.003.065 ADJUSTMENTS

		K	AR m^2
Concrete Slab			
under crawl space (for basementless extensions) **Note:** equate concrete slab on grade to basementless rate	**add**	**$ 0**	**$ 23.50**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**5 480**	**10.20**
Split Level or Split Entry	**add**	**8 220**	**10.20**
1 1/2 Storey	**add**	**5 480**	**16.10**
1 3/4 Storey	**add**	**8 220**	**14.20**
2 Storey	**add**	**10 950**	**15.20**
Cedar Shakes or Masonry Tile	**add**	**310**	**12.50**
Plumbing (rate includes 8 fixtures)			
per fixture	**add or deduct**	**1 400**	**0.00**
whirlpool bathtub	**add**	**2 200**	**0.00**
Heating/Air Conditioning (total finished floor area)			
pulse forced air	**add**	**0**	**8.50**
average air conditioning	**add**	**580**	**12.00**
average hot water	**add**	**1 040**	**9.80**
average hot water and air conditioning	**add**	**1 500**	**31.40**
Fireplace – Built in			
good metal fresh air fireplace and accessories; exterior chase and interior wall finished with good quality masonry veneer **or**			
good masonry fireplace with limited features	**add**	**4 480**	**0.00**
each additional firebox on same chase	**add**	**3 300**	**0.00**
Fireplace – Free Standing			
good metal	**add**	**2 000**	**0.00**
Sauna			
custom	**add**	**1 165**	**424**
Hot Tub			
custom	**add**	**7 570**	**0.00**
Lofts			
1 1/2 Storey - loft area	**deduct**	**0**	**71.00**
1 3/4 Storey - loft area	**deduct**	**0**	**102.00**
2 Storey - loft area	**deduct**	**0**	**119.00**
Cathedral Ceilings			
classify and calculate cathedral area as a 1 Storey structure, and	**add**	**0**	**50.00**

2.003.066 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
			Basement Finish			
015	**06**	**24**	**(Custom)**			
			Per Room	**add**	**$ 550**	**$ 104.00**
			Detached Garage			
030	**06**	**27**	**(Custom)**			
			Base Rate		**$ 3 040**	**$ 141.00**
			Interior Finish			
			walls	**add**	**$ 390**	**$ 8.00**
			ceiling	**add**	**0**	**13.60**
			Heating	**add**	**280**	**12.00**
			Cedar Shakes	**add**	**140**	**12.50**
			Concrete Slab – nil	**deduct**	**0**	**20.40**
			Electrical – nil	**deduct**	**0**	**11.30**
			Attached Garage			
030	**06**	**28**	**(Custom)**			
			Base Rate		**$ 2 620**	**$ 125.00**
			Interior Finish			
			walls	**add**	**280**	**5.10**
			ceiling	**add**	**0**	**13.60**
			Heating	**add**	**280**	**12.00**
			Cedar Shakes	**add**	**70**	**12.50**
			Concrete Slab – nil	**deduct**	**0**	**20.40**
			Electrical – nil	**deduct**	**0**	**11.30**
			Attached Carport			
035	**06**	**28**	**(Custom)**			
			Base Rate		**$ 1 360**	**$ 53.00**
			Concrete Slab	**add**	**0**	**20.40**
			Ceiling	**add**	**0**	**14.60**
			Electrical	**add**	**0**	**4.30**
			Cedar Shakes	**add**	**70**	**12.50**

2.003.070 MODEL TYPE 003 **Quality Range**
QUALITY 07 **-7% to +12%**

AFTER 1940 - GOOD CUSTOM

2.003.071 GENERAL DESCRIPTION

This class provides for a good to expensive quality of housing which is normally custom or contract built and, on occasion, may be constructed under the supervision of an architect. To make the exterior attractive, the style may be innovative and breaks in the roof line are common. The interior design, which usually shows some originality, includes a limited number of built-in features and fairly spacious rooms. Finishes in this class are normally best quality pre-manufactured or good custom materials. A moderate number of decorative features are regularly encountered and attention to detail may be evident. The total finished floor area for this class generally ranges from 170 to 300 m^2.

2.003.072 QUALITY DESCRIPTION

EXTERIOR - Roofing: Wood shakes; attractive soffits and fascia. **Walls:** Good grade stucco, wood siding or equivalent; good to expensive masonry veneer commonly used as a decorative feature.

INTERIOR - Walls & Ceilings: Gypsum wallboard, plaster or equivalent; good to expensive wood panelling or equivalent frequently used as a decorative feature. **Floors:** Good to expensive quality carpet, hardwood or equivalent; moderate use of quarry tile or equivalent is common. **Cabinets & Trims:** Approximately 5 to 9 m of best quality pre-manufactured or good custom veneer kitchen cabinets; good to expensive quality baseboards and trim, often with attention to detail. **Doors & Windows:** Best quality pre-manufactured or good custom built doors and windows.

MECHANICAL - Plumbing: 7 to 13 good to expensive quality fixtures and accessories; best quality pre-manufactured or good custom vanities. **Heating:** Good forced air. **Electrical:** Good to expensive quality fixtures; limited use of special effect lighting and a variety of standard and specialty outlets.

2.003.073 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 61 300**	**$ 464**
1 Storey Basementless	**01**	**57 300**	**425**
Split Entry	**02**	**65 000**	**500**
Split Level	**03**	**68 000**	**697**
Split Level & Crawl Space	**04**	**74 300**	**738**
1 1/2 Storey & Basement	**05**	**65 900**	**711**
1 1/2 Storey Basementless	**06**	**61 900**	**673**
1 3/4 Storey & Basement	**07**	**69 300**	**785**
1 3/4 Storey Basementless	**08**	**65 300**	**746**
2 Storey & Basement	**09**	**73 700**	**803**
2 Storey Basementless	**10**	**69 700**	**765**
1/2 Storey Upper	**11**	**4 600**	**247**
3/4 Storey Upper	**12**	**8 100**	**321**
1 Storey Upper	**13**	**12 500**	**340**

2.003.074 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 910**	**$ 126**
Lower Level Finish	**22**	**3 010**	**197**

2.003.075 ADJUSTMENTS

		K	AR m^2
Concrete Slab			
under crawl space (for basementless extensions) **Note:** equate concrete slab on grade to basementless rate	**add**	**$ 0**	**$ 23.50**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**4 530**	**8.00**
Split Level or Split Entry	**add**	**6 790**	**7.90**
1 1/2 Storey	**add**	**4 530**	**12.60**
1 3/4 Storey	**add**	**6 790**	**10.90**
2 Storey	**add**	**9 050**	**11.70**
Composition Shingles	**deduct**	**310**	**12.50**
Plumbing (rate includes 8 fixtures)			
per fixture	**add or deduct**	**1 830**	**0.00**
whirlpool bathtub	**add**	**2 820**	**0.00**
Heating/Air Conditioning (total finished floor area)			
pulse forced air	**add**	**0**	**8.50**
average air conditioning	**add**	**580**	**12.00**
average hot water	**add**	**1 040**	**9.80**
average hot water and air conditioning	**add**	**1 500**	**31.40**
space pack or hydro pulse	**add**	**2 560**	**40.20**
space pack or hydro pulse and air conditioning	**add**	**3 140**	**52.20**
Fireplace – Built in			
expensive metal fresh air fireplace and accessories; exterior chase and interior wall finished with expensive masonry veneer **or** good to expensive masonry fireplace with custom features	**add**	**7 450**	**0.00**
each additional firebox on same chase	**add**	**5 180**	**0.00**
Fireplace – Free Standing			
good metal	**add**	**2 000**	**0.00**
Sauna			
custom	**add**	**1 165**	**424**
Hot Tub			
custom	**add**	**7 570**	**0.00**
Lofts			
1 1/2 Storey - loft area	**deduct**	**0**	**86.00**
1 3/4 Storey - loft area	**deduct**	**0**	**119.00**
2 Storey - loft area	**deduct**	**0**	**143.00**
Cathedral Ceilings			
classify and calculate cathedral area as a 1 Storey structure, and	**add**	**0**	**61.00**

2.003.076 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
			Detached Garage			
030	**07**	**27**	**(Good Custom)**			
			Base Rate		**$ 4 210**	**$ 180.00**
			Interior Finish			
			walls	**add**	**$ 390**	**$ 8.00**
			ceiling	**add**	**0**	**13.60**
			Heating	**add**	**280**	**12.00**
			Composition Shingles	**deduct**	**140**	**12.50**
			Concrete Slab – nil	**deduct**	**0**	**28.20**
			Electrical – nil	**deduct**	**0**	**11.30**
			Attached Garage			
030	**07**	**28**	**(Good Custom)**			
			Base Rate		**$ 3 460**	**$ 157.00**
			Interior Finish			
			walls	**add**	**280**	**5.10**
			ceiling	**add**	**0**	**13.60**
			Heating	**add**	**280**	**12.00**
			Composition Shingles	**deduct**	**70**	**12.50**
			Concrete Slab – nil	**deduct**	**0**	**28.20**
			Electrical – nil	**deduct**	**0**	**11.30**
			Attached Carport			
035	**07**	**28**	**(Good Custom)**			
			Base Rate		**$ 1 610**	**$ 72.00**
			Concrete Slab	**add**	**0**	**28.20**
			Ceiling	**add**	**0**	**14.60**
			Electrical	**add**	**0**	**4.30**
			Composition Shingles	**deduct**	**70**	**12.50**

2.003.080 MODEL TYPE 003 **Quality Range**
QUALITY 08 **-10% to +8%**

AFTER 1940 - EXPENSIVE

2.003.081 GENERAL DESCRIPTION

This class provides for an expensive quality of housing which is contract built under the supervision of an architect. Commonly situated on large sites in prime residential neighbourhoods, this class is usually multi-level in nature with the exterior often having fairly large window areas and a unique roof style. Exterior finishes are selected for their attractiveness and durability and may consist of limited amounts of costly ornamentation. The interior design is normally innovative with a considerable number of built-in features. Rooms, which often include special purpose rooms, are usually spacious. Finishes are normally selected from expensive materials, attention to detail is evident and many decorative features are encountered. The total finished floor area for this class is generally over 250 m^2.

2.003.082 QUALITY DESCRIPTION

EXTERIOR - Roofing: Good wood shakes, masonry tiles or equivalent; attractive soffits and fascia with attention to detail. **Walls:** Expensive stucco, wood siding, masonry veneer or equivalent finished in an attractive appearance.

INTERIOR - Walls & Ceilings: Gypsum wallboard, plaster or equivalent; stylish use of expensive hardwoods, tiles or equivalent as a decorative feature. **Floors:** Expensive carpet or hardwood; frequent use of quarry tile, ceramic tile or equivalent. **Cabinets & Trim:** Spacious kitchens comprising of expensive kitchen cabinets; frequent built-in cabinets; expensive baseboards and trim with attention to detail. **Doors & Windows:** Expensive solid core doors with specialty hardware; expensive windows.

MECHANCIAL - Plumbing: Numerous expensive fixtures with specialty accessories; expensive vanities. **Heating:** Average hot water; air conditioning is common. **Electrical:** Detailed wiring with expensive fixtures including frequent use of special effect lighting; specialty outlets.

2.003.083 BASE RATES

	STRUCTURE CODE	K	AR m^2
1 Storey & Basement	**00**	**$ 95 000**	**$ 633**
1 Storey Basementless	**01**	**89 800**	**590**
Split Entry	**02**	**101 900**	**675**
Split Level	**03**	**106 100**	**971**
Split Level & Crawl Space	**04**	**113 800**	**1 022**
1 1/2 Storey & Basement	**05**	**104 500**	**961**
1 1/2 Storey Basementless	**06**	**99 300**	**918**
1 3/4 Storey & Basement	**07**	**107 600**	**1 078**
1 3/4 Storey Basementless	**08**	**102 400**	**1 035**
2 Storey & Basement	**09**	**114 300**	**1 113**
2 Storey Basementless	**10**	**109 100**	**1 070**
1/2 Storey Upper	**11**	**9 500**	**327**
3/4 Storey Upper	**12**	**12 700**	**445**
1 Storey Upper	**13**	**19 300**	**479**

2.003.084 INSTALLATION RATES

	STRUCTURE CODE	K	AR m^2
1/2 Storey Upper Finish	**20**	**$ 2 390**	**$ 183**
Lower Level Finish	**22**	**4 220**	**296**

2.003.085 ADJUSTMENTS

		K	AR m^2
Concrete Slab			
under crawl space (for basementless extensions) **Note:** equate concrete slab on grade to basementless rate	**add**	**$ 0**	**$ 25.80**
Masonry Veneer (100% exterior wall)			
1 Storey	**add**	**3 500**	**5.80**
Split Level or Split Entry	**add**	**5 260**	**5.80**
1 1/2 Storey	**add**	**3 500**	**7.20**
1 3/4 Storey	**add**	**5 260**	**6.20**
2 Storey	**add**	**7 010**	**8.10**
Composition Shingles	**deduct**	**310**	**12.50**
Plumbing (rate includes 10 fixtures)			
per fixture **Note:** an adjustment for whirlpool bathtubs is not required for this class	**add or deduct**	**2 500**	**0.00**
Heating/Air Conditioning (total finished floor area)			
good air conditioning – nil	**deduct**	**500**	**27.00**
good forced air	**deduct**	**1 540**	**36.80**
good forced air and air conditioning	**deduct**	**810**	**21.80**
pulse forced air	**deduct**	**1 540**	**28.30**
pulse forced air and air conditioning	**deduct**	**810**	**13.30**
space pack or hydro pulse	**add**	**1 020**	**3.40**
space pack or hydro pulse and air conditioning	**add**	**1 750**	**18.40**
Fireplace – Built in			
expensive masonry fireplace with attention given to design and workmanship	**add**	**10 450**	**0.00**
each additional firebox on same chase	**add**	**6 850**	**0.00**
Sauna			
custom	**add**	**1 165**	**424**
Hot Tub			
custom	**add**	**7 570**	**0.00**
Lofts			
1 1/2 Storey - loft area	**deduct**	**0**	**100.00**
1 3/4 Storey - loft area	**deduct**	**0**	**146.00**
2 Storey - loft area	**deduct**	**0**	**168.00**
Cathedral Ceilings			
classify and calculate cathedral area as a 1 Storey structure, and	**add**	**0**	**87.00**

2.003.086 SPECIALTY RATES

MT	QU	ST	Description		K	AR m^2
			Detached Garage			
030	**07**	**27**	**(Good Custom)**			
			Base Rate		**$ 4 210**	**$ 180.00**
			Interior Finish			
			walls	**add**	**$ 390**	**$ 8.00**
			ceiling	**add**	**0**	**13.60**
			Heating	**add**	**280**	**12.00**
			Composition Shingles	**deduct**	**140**	**12.50**
			Concrete Slab – nil	**deduct**	**0**	**28.20**
			Electrical – nil	**deduct**	**0**	**11.30**
			Attached Garage			
030	**07**	**28**	**(Good Custom)**			
			Base Rate		**$ 3 460**	**$ 157.00**
			Interior Finish			
			walls	**add**	**280**	**5.10**
			ceiling	**add**	**0**	**13.60**
			Heating	**add**	**280**	**12.00**
			Composition Shingles	**deduct**	**70**	**12.50**
			Concrete Slab – nil	**deduct**	**0**	**28.20**
			Electrical – nil	**deduct**	**0**	**11.30**
			Attached Carport			
035	**07**	**28**	**(Good Custom)**			
			Base Rate		**$ 1 610**	**$ 72.00**
			Concrete Slab	**add**	**0**	**28.20**
			Ceiling	**add**	**0**	**14.60**
			Electrical	**add**	**0**	**4.30**
			Composition Shingles	**deduct**	**70**	**12.50**