

# Construction Cost Guide



# 2012

**Altus Group** In 2005, Altus brought together the most trusted and respected names in real estate and development advisory services to create a complete and focused platform to better serve a broad client base. Currently, Altus leads the industry in offering professional real estate advisory services, data solutions and intelligence about an organization's assets, generating a wealth of knowledge and insight.

## Cost Consulting & Project Management

As members of your project team, we offer unparalleled expertise in construction cost consulting and development project management to help you deliver your project on time and on budget. We do this by employing a structured cost budgeting, cost monitoring and alternate planning process. This means an enhanced return on investment and better management of cost risk for our clients.

Altus has earned an enviable reputation within the construction and real estate industries because we have invested in understanding those industries like no other consulting group. With local insight, we are globally equipped to drive forward client projects.

We provide clients solutions through the following services:

- Cost Monitoring
- Cost Planning and Control
- Public Private Partnership (P3)
- Infrastructure
- Development Management
- Property Condition Assessments and Reserve Funds
- Claims, Legal Support and Scheduling



As a trusted source of cost management and project management consulting expertise, accurate capital cost analysis and market information, we can help your organization meet – and exceed – its objectives.

### Who?

A seasoned team of professionals who combine deep local understanding with global reach to provide clients with necessary decision-making information on construction costs and trends.

### What?

A wealth of experience and broad base of knowledge to offer our clients' projects the leading industry advantage.

### Where?

We are where our clients are and want to be – with local insight, we are globally equipped to drive their projects forward.

### Why?

A commitment to providing clients with measurable results that enhances their ability to make choices with clarity and confidence, while maximizing value.

### How?

An innovative, team-based approach guided by proprietary information and expert advice to enhance traditional professional services.

**Our Advantage Is Your Advantage** Our advantage is rooted in superior market intelligence, specialized expertise and over 50 years of demonstrated experience.

We maintain one of the largest, most up-to-date databases of construction cost information, thereby ensuring that our experts have access to accurate, time-sensitive information on a range of public and private projects, even those in the planning or development stage. Through the partnerships within our company – Realty Tax, Research, Valuation & Advisory and ARGUS Software – we constitute Canada’s leading depository of cost, valuation and tax information.

## Notes On Correct Use Of Cost Data

### 1. Guide Only

The construction cost data contained herein is of a general nature only and subject to confirmation with respect to specific circumstances.

The unit rates for the building types described are an average range only for that particular type of building. The unit rates assume that a level, open site exists with no restrictions from adjoining properties. It is assumed that stable soil conditions prevail. Average-quality finishes (unless otherwise stated), both to the exterior and interior, are also assumed.

Judgment factors must be applied within the average range to allow for:

- |                                   |   |
|-----------------------------------|---|
| ■ Quality                         | ■ Type of contract                              |
| ■ Location                        | ■ Extent of site works                          |
| ■ Building shape, size and height | ■ Design method                                 |
| ■ Topography and soil conditions  | ■ User requirements                             |
| ■ Schedule                        | ■ Procurement advantage of developer/contractor |
| ■ Site restrictions               |   |
| ■ Market conditions               |   |

### 2. Construction Cost Escalation/De-Escalation

An “escalation allowance” is a contingency (usually a percentage) added to the estimated construction estimate to allow for inflation in labour and material costs between the date of the estimate and the contract award. As the project moves closer to the onsite start date, the contingency reduces, reflecting the reduced risk of escalating costs.

As we prepare this 2012 Guide, we are seeing a return of cost escalation for a number of trades. This brings new cost challenges. Accordingly, it is even more imperative than ever to have a detailed construction estimate prepared in order to obtain an accurate projection of your project construction costs.

### 3. Construction Costs Only

The unit costs outlined herein cover construction costs only. In all commercial developments, the project budget must also include for development or “soft” costs. These would include some or all of the following:

- |                                      |                                |
|--------------------------------------|--------------------------------|
| ■ Land and related costs             | ■ Levies                       |
| ■ Architectural and engineering fees | ■ Tenant incentives            |
| ■ Government registered programs     | ■ Permits and DCCs             |
| ■ Insurance and bond costs           | ■ Purchaser upgrades           |
| ■ Legal fees                         | ■ Appraisals                   |
| ■ Special design consultants         | ■ Soil and environmental tests |
| ■ Special equipment and furnishings  | ■ Land surveys                 |
| ■ Management costs                   | ■ Realty taxes                 |
| ■ Site services outside the property | ■ Broker commissions           |
| ■ Interest charges and lender’s fees | ■ Contingencies                |
| ■ Marketing and advertising          |                                |

## 4. Correct Measurement & Use Of Square Foot

In preparing a “cost per square foot” guide, we must be clear on how we define the area used as the denominator to calculate this value. We have adapted the Canadian Institute of Quantity Surveyors’ definition, which dictates:

1. Measure each floor to the outer face of the external walls;
2. No deductions for openings at stairs, elevators or vertical ducts are made;
3. A deduction is made for a non-service vertical protrusion, e.g., atrium space;
4. Mezzanine floors are generally included;
5. Balconies are excluded; enclosed solariums in residential condominiums are included;
6. Sloping and stepped floors (auditoriums/movie theatres) are measured flat; and,
7. Exclude all external covered walkways.

The values calculated by building types that usually have underground parking (condominiums, offices and hotels) allow for an underground parking component of 30%. Rates for buildings where parking is not common (schools, hospitals and retail) will need parking costs added; based on the “parking garage rate” in the guide.

## 5. Federal & Provincial Sales Taxes

The unit costs provided exclude Goods & Services Tax (GST) and Harmonized Sales Tax (HST), but include Provincial Sales Tax where applicable. For further information please contact our offices directly at [cost@altusgroup.com](mailto:cost@altusgroup.com).

## Cost Data Parameters

Measurement & Application Of Cost Per Square Foot (\$/Sq. Ft.)

Floor area above-grade is traditionally known as Gross Liveable Area (GLA), while the combined above and below-grade floor area is traditionally referred to as Gross Floor Area (GFA). To simplify calculation estimates, unit costs should be applied only to Gross Liveable Area (GLA) – under the assumption that GLA averages 70% of GFA. Unit costs should be applied to the 70,000-square-foot GLA as follows:

Applied Example: A 7-storey office (100,000 sq. ft.) building in Toronto:

Area of Building	Below Grade	30,000 sq. ft.	30%
	Above Grade	70,000 sq. ft.	70%
	Total (GFA)	100,000 sq. ft.	100%

Approximate cost is 70,000 sq. ft. x \$175 - \$230 = \$12,250,000 - \$16,100,000

Notes: 1. All costs are in Q1 2012 dollars. 2. Unit costs cover construction costs only – all development or “soft” costs are excluded. 3. Rates are based on average standards and should only serve as basic guidelines. There is no substitute for a detailed estimate. 4. Unit prices exclude GST/HST. 5. Please refer to the Altus Group Cost Consulting Canadian Centre Index for individual city averages.

### Altus Group Cost Consulting Canadian Centre Index (Provincial)

<b>British Columbia (Indexed to Vancouver)</b>		4. Barrie	105
1. Victoria	108	5. Toronto	112
2. Vancouver	100	Downtown Core	112
3. Whistler	120	GTA	100
4. Southern Interior	95	6. Eastern (Kingston, Cornwall)	110
5. Northern Interior	115	7. Ottawa	99
<b>Western/Prairies (Indexed to Calgary)</b>		8. North (Sudbury, Thunder Bay, Trans Canada Corridor)	125
1. Calgary	100	<b>Quebec (Indexed to Montreal)</b>	
2. Edmonton	97	1. Montreal	100
3. Regina/Saskatoon	105	2. Quebec City	95
4. Winnipeg	108	<b>Maritimes (Indexed to Halifax)</b>	
<b>Ontario (Indexed to GTA)</b>		1. Halifax	100
1. Southwestern Ontario		2. St. John’s, Newfoundland	113
Windsor	107	<b>NWT/Nunavut (Indexed to GTA)</b>	
London	98	1. Yellowknife	190
Tri-City (Cambridge, Kitchener, Waterloo)	99	2. Iqaluit	240
2. Hamilton and Surrounding Areas	103	3. Remote Communities	275
3. Niagara Peninsula	103		

BUILDING TYPE		\$/Sq. Ft.	VANCOUVER			CALGARY			EDMONTON			TORONTO (GTA)		
OFFICE BUILDINGS	Under 5 Storeys		180	-	210	170	-	195	165	-	190	160	-	210
	5 - 10 Storeys		195	-	250	180	-	220	175	-	215	175	-	230
	10 - 20 Storeys		225	-	280	210	-	240	200	-	235	185	-	260
	20 - 30 Storeys		270	-	350	230	-	280	220	-	270	220	-	275
	Over 30 Storeys		n/a	-	n/a	265	-	340	250	-	330	250	-	335
SHOPPING CENTRES/RETAIL	Strip Plaza		85	-	115	100	-	145	105	-	145	85	-	140
	Enclosed Mall		190	-	250	185	-	275	180	-	270	175	-	220
	Anchor/Department Store		150	-	200	145	-	195	145	-	190	125	-	170
	Supermarket		150	-	180	145	-	195	145	-	190	110	-	150
	Discount Store		100	-	115	100	-	130	95	-	130	85	-	120
SCHOOLS & COLLEGES	Elementary		180	-	200	150	-	195	145	-	190	150	-	170
	High School		200	-	250	185	-	250	180	-	245	160	-	190
	Technical/Vocational School		250	-	300	235	-	300	230	-	295	215	-	290
	Universities & Colleges		280	-	350	275	-	375	270	-	370	325	-	425
HOSPITALS	Chronic Care		320	-	420	325	-	425	320	-	415	330	-	430
	Active Treatment/Acute Care		450	-	600	450	-	625	445	-	615	450	-	625
	Laboratories (Level 1 & 2)		450	-	550	425	-	575	415	-	560	415	-	550
SENIORS' HOUSING	Congregate Care/Long-Term Care		220	-	300	195	-	275	190	-	275	200	-	260
	Assisted Living		185	-	240	175	-	240	170	-	240	155	-	200
HOTELS	Budget		135	-	190	140	-	180	135	-	180	130	-	165
	Four-Star Full Service		190	-	280	195	-	250	190	-	245	200	-	260
	Luxury		300	-	450	275	-	375	270	-	365	290	-	400
PARKING GARAGES	Free Standing (Above Grade)		60	-	80	65	-	80	65	-	75	45	-	75
	Underground		75	-	90	80	-	115	75	-	115	85	-	140
RESIDENTIAL CONDOMINIUMS & APARTMENTS	Basic Quality		170	-	210	155	-	215	150	-	205	165	-	190
	Medium Quality		195	-	240	210	-	250	200	-	240	190	-	240
	High Quality		240	-	290	245	-	330	235	-	315	240	-	450
	Point Towers - 50 to 80 Storeys (Medium Quality)		260	-	350	n/a	-	n/a	n/a	-	n/a	260	-	330
	Point Towers - 50 to 80 Storeys (High Quality)		330	-	400	n/a	-	n/a	n/a	-	n/a	310	-	500
TOWNHOUSES	Row (Medium Quality)		90	-	110	95	-	130	95	-	130	85	-	115
	Stack (Medium Quality)		110	-	135	115	-	150	115	-	150	115	-	150
	Walk-Up Timber Frame (Basic)		130	-	150	95	-	130	95	-	125	75	-	125
	Walk-Up Timber Frame (Medium)		145	-	170	125	-	150	120	-	145	100	-	140
	Walk-Up Timber Frame (High)		180	-	240	145	-	195	140	-	190	145	-	210
HOUSES	Speculative (Basic Quality)		100	-	165	100	-	120	100	-	120	75	-	105
	Speculative (Medium Quality)		165	-	225	110	-	155	110	-	150	90	-	175
	Speculative (High Quality)		225	-	350	190	-	290	185	-	285	210	-	350
	Custom Built		400	-	1,000	300	-	750	290	-	710	300	-	1,000
LIGHT ENGINEERING FACTORIES & WAREHOUSES (LIGHT INDUSTRIAL)	28' Clear Height (20,000 - 50,000 Sq.Ft.)		80	-	100	75	-	95	70	-	90	70	-	90
	28' Clear Height (50,000 - 100,000 Sq.Ft.)		75	-	95	75	-	90	70	-	85	60	-	75
	28' Clear Height (100,000 - 200,000 Sq.Ft.)		70	-	90	70	-	80	65	-	75	50	-	65
SITE SERVICING (Includes Underground Storm, Sewer, Water, Hydro, Earthworks, Curbs, Asphalt Roadways & Sidewalks)	Local Roads - 8m Road Width (Per Metre)		2,500	-	3,200	2,500	-	3,100	2,500	-	3,100	2,800	-	3,500
	Arterial Roads - 9m Road Width (Per Metre)		2,700	-	3,800	2,700	-	3,700	2,700	-	3,700	3,000	-	4,100
	Arterial Roads - 12m Road Width (Per Metre)		3,500	-	4,100	3,400	-	4,100	3,400	-	4,100	3,800	-	4,500
	Private Roads - 6m Road Width (Per Metre)		2,100	-	2,500	2,000	-	2,600	2,000	-	2,600	2,300	-	2,900
	Residential Row Townhouses (Per Unit)		17,500	-	25,000	18,000	-	25,000	18,000	-	25,000	19,700	-	27,800
	Industrial (Per Acre)		115,000	-	165,000	112,000	-	170,000	112,000	-	170,000	127,900	-	192,800
	Commercial (Per Acre)		150,000	-	225,000	150,000	-	250,000	150,000	-	250,000	172,500	-	283,600

BUILDING TYPE		\$/Sq. Ft.	OTTAWA			MONTREAL			HALIFAX			ST. JOHN'S		
OFFICE BUILDINGS	Under 5 Storeys		165	-	210	145	-	190	140	-	170	155	-	190
	5 - 10 Storeys		175	-	220	150	-	215	150	-	180	170	-	220
	10 - 20 Storeys		190	-	250	165	-	255	160	-	200	190	-	250
	20 - 30 Storeys		210	-	295	205	-	280	170	-	210	200	-	280
	Over 30 Storeys		n/a	-	n/a	240	-	350	n/a	-	n/a	n/a	-	n/a
SHOPPING CENTRES/RETAIL	Strip Plaza		95	-	150	75	-	150	95	-	115	105	-	130
	Enclosed Mall		170	-	210	160	-	205	150	-	190	165	-	220
	Anchor/Department Store		130	-	160	105	-	160	125	-	150	140	-	165
	Supermarket		115	-	150	100	-	130	110	-	150	120	-	165
	Discount Store		95	-	120	80	-	110	95	-	115	105	-	130
SCHOOLS & COLLEGES	Elementary		150	-	190	145	-	175	220	-	260	240	-	285
	High School		180	-	220	155	-	180	230	-	270	255	-	310
	Technical/Vocational School		230	-	280	205	-	270	200	-	260	220	-	290
	Universities & Colleges		270	-	340	275	-	350	230	-	280	255	-	320
HOSPITALS	Chronic Care		340	-	445	320	-	410	280	-	350	310	-	385
	Active Treatment/Acute Care		475	-	655	465	-	665	400	-	520	440	-	570
	Laboratories (Level 1 & 2)		395	-	550	410	-	510	330	-	430	365	-	475
SENIORS' HOUSING	Congregate Care/Long-Term Care		190	-	275	160	-	270	150	-	230	165	-	255
	Assisted Living		150	-	195	125	-	190	130	-	180	145	-	200
HOTELS	Budget		130	-	185	130	-	185	140	-	180	155	-	200
	Four-Star Full Service		190	-	255	185	-	250	170	-	210	210	-	250
	Luxury		255	-	395	260	-	420	210	-	270	260	-	330
PARKING GARAGES	Free Standing (Above Grade)		55	-	80	45	-	75	80	-	95	90	-	110
	Underground		95	-	150	65	-	110	100	-	120	110	-	135
RESIDENTIAL CONDOMINIUMS & APARTMENTS	Basic Quality		165	-	185	140	-	165	120	-	140	135	-	160
	Medium Quality		185	-	210	165	-	205	145	-	170	165	-	185
	High Quality		210	-	275	205	-	325	175	-	230	190	-	250
	Point Towers - 50 to 80 Storeys (Medium Quality)		n/a	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a
	Point Towers - 50 to 80 Storeys (High Quality)		n/a	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a
TOWNHOUSES	Row (Medium Quality)		85	-	120	80	-	115	75	-	110	100	-	120
	Stack (Medium Quality)		110	-	175	105	-	145	100	-	150	120	-	165
	Walk-Up Timber Frame (Basic)		75	-	125	75	-	120	70	-	120	75	-	125
	Walk-Up Timber Frame (Medium)		100	-	145	95	-	145	90	-	140	130	-	145
	Walk-Up Timber Frame (High)		145	-	220	140	-	195	125	-	180	150	-	200
HOUSES	Speculative (Basic Quality)		75	-	110	70	-	100	70	-	120	75	-	135
	Speculative (Medium Quality)		90	-	160	90	-	150	90	-	150	140	-	165
	Speculative (High Quality)		200	-	370	195	-	325	160	-	250	175	-	260
	Custom Built		325	-	865	315	-	655	n/a	-	n/a	n/a	-	n/a
LIGHT ENGINEERING FACTORIES & WAREHOUSES (LIGHT INDUSTRIAL)	28' Clear Height (20,000 - 50,000 Sq.Ft.)		80	-	100	70	-	95	80	-	95	90	-	110
	28' Clear Height (50,000 - 100,000 Sq.Ft.)		70	-	85	55	-	85	85	-	100	95	-	120
	28' Clear Height (100,000 - 200,000 Sq.Ft.)		60	-	75	50	-	75	90	-	110	100	-	130
SITE SERVICING (Includes Underground Storm, Sewer, Water, Hydro, Earthworks, Curbs, Asphalt Roadways & Sidewalks)	Local Roads - 8m Road Width (Per Metre)		2,800	-	3,600	2,700	-	3,400	2,500	-	3,200	2,700	-	3,500
	Arterial Roads - 9m Road Width (Per Metre)		3,000	-	4,200	2,900	-	4,100	2,700	-	3,600	2,900	-	4,000
	Arterial Roads - 12m Road Width (Per Metre)		3,900	-	4,600	3,700	-	4,500	3,500	-	4,200	3,800	-	4,600
	Private Roads - 6m Road Width (Per Metre)		2,300	-	2,900	2,200	-	2,800	2,000	-	2,500	2,200	-	2,800
	Residential Row Townhouses (Per Unit)		21,000	-	28,400	19,100	-	27,100	17,500	-	25,000	19,000	-	27,500
	Industrial (Per Acre)		131,300	-	194,300	122,500	-	184,500	112,000	-	170,000	120,000	-	185,000
	Commercial (Per Acre)		178,500	-	288,800	165,100	-	271,400	150,000	-	250,000	165,000	-	275,000

# Brief Description Of Building Types

## 1. Office Buildings

The costs given are for speculative office buildings. Basic mechanical and electrical services, washrooms, and finishing of ground floor entrance lobby and elevator lobbies to upper floors are included. The cost of tenant partitioning and finishes, with the exception of ceiling and column finishes, are excluded. The cost of finishing this space can fluctuate widely between \$50 – \$90/sq.ft. depending on the density of partitioning and the quality of finishes.

## 2. Shopping Centres/Retail

The cost of providing parking facilities (traditionally grade-level parking) is excluded from the unit cost provided. The CRU space is considered shell. The public space is finished.

## 3. Schools & Colleges

The costs given exclude any allowance for fixtures, furnishings and equipment (FF&E), and for building and site supplementary costs.

## 4. Hospitals

With more than 40 subcategories of space types available in hospitals, the mix of costs can fluctuate significantly depending on the type of facility being constructed, the mix of beds to surgeries and building configuration. Parking is excluded.

## 5. Seniors' Housing

Costs can fluctuate significantly depending on whether the facility is operated for a profit or is community based, the level of care and the services provided to residents.

## 6. Hotels

The costs may exclude any allowance for fixtures, furnishings and equipment (FF&E), but each operator has its own definition. The cost for a budget hotel assumes no restaurant or bar facilities and minimal meeting/conference areas. The costs of four-star and luxury full-service hotels include dining and conference facilities, spa services and special-use lounges.

## 7. Parking Garages

The costs for below-grade parking garages assume that temporary support to the excavated sides of the proposed garage is required. For above-grade garages, the area of the roof should be excluded from the floor area calculations, notwithstanding that this may be usable area. The "efficiency" of garages (space/car) is also a useful cost guideline.

## 8. Residential Condominiums & Apartments

The costs provided are for high-rise residential. The square-foot costs of condominiums vary significantly depending on the unit size, quality of finishes, complexity of design, location and services provided within the building.

## 9. Townhouses

The floor area of the basement and garage should be excluded from the calculation of the applicable floor area to be used with the unit rate provided.

## 10. Houses

As with townhouses, the area of the basement and garage should be excluded. Prices vary significantly depending on the number and type of units constructed in the development, as well as the quality of the project.

## 11. Light Engineering Factories & Warehouses (Light Industrial)

The costs given assume that the façade is finished on three sides with architectural block and one side with facebrick. The warehouse space is “shell”, but heated. Mezzanine area excluded. A finished office component comprising approximately 15% of the area is included.

## 12. Site Servicing

The rates for residential site servicing are based on costs per centre line of road and allow for underground storm, sewer, water and hydro services, earthworks, curbs, asphalt roadways and sidewalks. Items such as berms, retaining walls, noise barrier fences, entrance features, storm ponds, landscaping and external services are excluded. The higher end of the specified range should be used for municipalities, which require crusher run limestone in lieu of granular materials for the base road construction and/or where curb or road sub drains are required. Arterial road costs may be partially recoverable from the local municipality or region. The rates for townhouse servicing are provided on a per unit basis. The rates for industrial and commercial site servicing are provided on a per acre basis.

**Altus Group** Altus Group leads the global real estate industry in delivering data and information about an organization’s assets, generating a wealth of knowledge and insight. With a staff of over 1,700, Altus has a network of over 70 offices in 14 countries worldwide, including Canada, UK, Australia, Asia and the United States. We operate five interrelated Business Units, bringing years of expertise together into one comprehensive platform: *Research, Valuation and Advisory; Cost Consulting and Project Management; Realty Tax Consulting; Geomatics; and ARGUS Software.*

### Other Services Include:

#### Research, Valuation and Advisory

- Annual property/ portfolio valuation, acquisition and disposition strategy
- Financial due diligence
- Specialized market research
- Demographic forecasting and analysis

#### Geomatics

- Oil & gas related surveys
- Land settlement and cadastral surveys
- Construction surveys
- 3D laser scanning and mapping
- GPS and LIDAR

#### Realty Tax Consulting

- Assessment appeal (including expert witness)
- Tax due diligence
- Vacancy rebate counsel
- Ongoing property tax management and budgeting

#### ARGUS Software

- Asset and portfolio management
- Asset valuation
- Appraisal management
- Budgeting, forecasting
- Leasing management



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