

Singapore

Quarterly construction cost review





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Singapore Market Overview

The Ministry of Trade and Industry (MTI) announced that Singapore's economy expanded by 7.1% on a year-on-year basis in 3Q2021, a reversal from the 5.8% contraction in the same period a year ago but still slower than the 15.2% growth recorded in 2Q2021. MTI forecast Singapore's GDP growth to be "around 7.0%" in 2021 and "3.0% to 5.0%" in 2022.

The construction sector grew by 66.3% on a year-on-year basis in 3Q2021, slowing from the 117.5% expansion in 2Q2021. The strong growth was attributed to the increase in both public and private sectors' construction activities and the low base effects due to the slow resumption of construction activities which resulted from the COVID-Safe Restart Criteria implemented on 2 June 2020. In absolute terms, the value-added of the construction sector remained 21.1% below its pre-COVID level in 3Q2019.

The construction sector is expected to see some recovery in terms of labour shortage with the easing of border restrictions on the entry of migrant workers from South Asia and Myanmar. However, it will take time to address the shortfall in labour and to recover to pre-COVID level. With rising concerns over the Omicron variant globally, the Ministry of Manpower (MOM) announced the ceasing of entry of Construction, Marine Shipyard and Process (CMP) S Pass

and Work Permit Holders (WPHs), as well as other dormitory-bound work pass holders, via Vaccinated Travel Lanes (VTLs). However, employers can still bring in such workers under MOM's entry approval or ongoing industry initiatives for the CMP sectors. This new measure will inevitably delay the recovery from prevailing labour shortage.

The recovery of the economy's various sectors is expected to remain uneven in 2022. Barring the materialisation of downside risks, MTI forecast Singapore's economy to grow by "3.0% to 5.0%" in 2022.

Arcadis Singapore's tender price index (TPI) for 3Q2021 is assumed to remain unchanged from 2Q2021 in view of a lack of representative data due to insufficient tenders for new works in 3Q2021. It is also anticipated that construction cost in the next quarter is likely to increase moderately due to higher materials cost.

MARKET MOVEMENT



ECONOMY

Indicator	Q3/19 - Q3/20	Q2/20 - Q2/21	Q3/20 - Q3/21
GDP Growth per annum	(-) 5.8%	(+) 15.2%	(+) 7.1%
Inflation Rate (CPI) per annum	Sep 19 - 20 (-) 0.01%	Jun 20 - 21 (+) 2.4%	Sep 20 - 21 (+) 2.5%

Source: Ministry of Trade and Industry



SUPPLY & DEMAND

Indicator	Q3/20	Q2/21	Q3/21
BCA Construction Demand	S\$3.55 Bn	S\$9.00 Bn	S\$7.77 Bn
BCA Construction Output	S\$3.36 Bn	S\$6.26 Bn	S\$6.59 Bn

Source: Building and Construction Authority



BASIC COSTS

Indicator	Jul 21	Aug 21	Sep 21
BCA Concrete Price Index	133.5	134.1	134.4
BCA Steel Reinforcement Price Index	144.1	145.1	144.2

Source: Building and Construction Authority



CONSTRUCTION COST TREND

Indicator	Q3/20	Q2/21	Q3/21
BCA Tender Price Index	102.7 [^]	116.1	119.2
Arcadis Singapore Tender Price Index	100.2 [#]	119.2	119.2 ^{##}

Source: Building and Construction Authority

[^] The TPI sub-indices for 3Q20 (all except Public Residential) are assumed unchanged from 1Q20 in view of a lack of representative data due to insufficient tenders for new works awarded during this period.

[#] Arcadis Singapore TPI for 3Q20 is assumed unchanged from 1Q20 in view of a lack of representative data due to insufficient tenders.

^{##} Arcadis Singapore TPI for 3Q21 is assumed unchanged from 2Q21 in view of a lack of representative data due to insufficient tenders for new works in 3Q21.



1 Market Analysis

Singapore's Construction Demand

According to the Building and Construction Authority (BCA)'s data as at 3 December 2021, total construction demand (based on actual contracts awarded) increased by 119% on a year-on-year basis to \$7.8 billion in 3Q2021 partly due to the low base in 3Q2020, but it declined by 14% compared to 2Q2021.

Public sector construction demand increased by 180% year-on-year to \$4.9 billion in 3Q2021. Compared to the previous quarter, however, it declined by 14% mainly due to a 40% reduction in civil engineering construction demand following a strong expansion in 2Q2021 from the award of various Land Transport Authority's MRT contracts. Construction demand for public sector residential, commercial, industrial, and institutional & others building developments, on the other hand, increased from 2Q2021.

Similarly, private sector construction demand increased by 61% on a year-on-year basis to \$2.9 billion in 3Q2021. Compared to 2Q2021, all development types except for residential declined, resulting in a 13% reduction in new contract volume.

Key Construction Material Prices

Based on BCA's data, the average market prices of cement, steel bars, granite, and ready-mixed concrete increased in 3Q2021 on a quarter-on-quarter basis.

The average price of steel bars (16-32mm high tensile) in 3Q2021 has been on an upward trend since September 2020. According to BCA, the average market price of steel bars increased marginally by 0.4% from \$1,101.20 per tonne in June 2021 to \$1,105.40 per tonne in September 2021. This change was backed by strong rebar demand coupled with low global supply which was partly caused by China's measures to curb steel output to achieve carbon neutrality. On a year-on-year basis, average market price of steel bars increased by 54% from \$717.80 per tonne.

Similarly, the average market price of ready-mixed concrete (Grade 40 Pump) increased by 4% from \$99.70 per cubic metre in June 2021 to \$104.10 per cubic metre in September 2021. It also increased by 10% compared to the previous year's average market price of \$94.50 per cubic metre.

According to data from the London Metal Exchange, copper price declined by 3% from US\$9,612 per tonne in June 2021 to US\$9,323 per tonne in September 2021. Aluminium price, on the other hand, continued an upward trend rising 16% from US\$2,439 per tonne in June 2021 to US\$2,839 per tonne in September 2021. On a year-on-year basis, copper and aluminium prices increased 39% and 63%, respectively.

Looking ahead, material prices are likely to remain high due to supply chain disruptions, increased global demand, and global energy price increase. The global demand will be driven by plans to ramp up infrastructure spending to stimulate economic growth in many countries while the global increase in energy prices will add pressure to production cost.

Construction Labour

On 1 September 2021, MOM in partnership with the Singapore Contractors Association Ltd. (SCAL) introduced a six-month retention scheme for experienced WPHs to help companies in the construction sector meet manpower needs for their businesses, preserve their core capabilities, and emerge stronger from COVID-19 pandemic.

The scheme covers workers whose employment got terminated and wish to continue working in Singapore. SCAL will facilitate job matching between WPHs and employers, as well as mediate to ensure a transparent and beneficial transfer process for both parties. The scheme allows all employers to have a fair opportunity in hiring workers. It will be in place until 28 February 2022, subject to further review.

On 30 October 2021, MOM announced that the Change of Employer (COE) without consent period for WPHs will be shifted to the end of contract from 8 November 2021. WPHs will remain employed under their original employers until their work permits expire. Subsequently, work permits may be extended for a 30-day period subject to mutual agreement between WPHs and employers. WPHs may look for new employers without the need for the original employers' consent during this 30-day period. Employers can retain workers in employment for up to 30 days. Should there be no agreement between workers and employers to extend work permits by 30 days, the workers will be enrolled in the retention scheme, and SCAL will facilitate job matching within 30 days. This adjustment to the COE without consent period will be in place as long as the retention scheme is in force.

The Government has taken steps to alleviate labour shortages by easing border restrictions on migrant workers and implementing the above support measures. Labour cost is likely to stabilise as labour shortages improve.

With the discovery of the Omicron variant of the COVID-19 virus, many countries imposed stricter border controls to better detect and reduce the risk of transmission. On 4 December 2021, MOM announced the ceasing of entry of CMP S Pass and WPHs, as well as other dormitory-bound work pass holders, via VTLs. However, employers can still bring in such workers under MOM's entry approval or ongoing industry initiatives for the CMP sectors.

As the risk of the Omicron variant remains unknown, stricter border controls will inevitably aggravate labour shortages. As such, the road to recovery remains a bumpy one.

Revised BCA Green Mark Criteria for New and Existing Buildings - Green Mark: 2021 (GM: 2021)

On 9 September 2021, BCA issued a circular revising the BCA Green Mark (GM) standard for New and Existing Residential and Non-Residential buildings. The revised GM scheme (GM: 2021) aims to raise energy performance standards and place greater emphasis on other sustainability outcomes in buildings to meet key targets in the Singapore Green Plan 2030.

GM: 2021 came into effect on 1 November 2021. All building criteria — i.e., Green Mark for Non-Residential Buildings 2015 (GM NRB: 2015), Green Mark for Residential Buildings 2016 (GM RB: 2016), and Green Mark for Existing Non-Residential Buildings 2017 (GM ENRB: 2017) — will be streamlined into one scheme. GM: 2021 will supersede GM NRB: 2015, GM RB: 2016, and GM ENRB: 2017.

GM: 2021 has 2 main changes:

- Aggressively raising energy efficiency standard with the aim of mainstream delivery of Super Low Energy (SLE) buildings;
- Aligning with the United Nations (UN) Sustainable Development Goals (SDGs) to cover key sustainability outcomes. Under GM: 2021, the criteria have been restructured to two broad categories: (1) energy efficiency (only prerequisite) and (2) sustainability sections covering intelligence, health and wellbeing, whole life carbon, maintainability and resilience.

Built Environment Transformation Gross Floor Area Incentive Scheme

To encourage greater adoption of enhanced Construction Industry Transformation Map (ITM) standards in areas of digitalisation, productivity, and sustainability ("ITM Outcome Requirements") in private sector developments, BCA and Urban Redevelopment Authority (URA) jointly launched the Built Environment Transformation Gross Floor Area (BE Transformation GFA) Incentive Scheme on 24 November 2021. Under this scheme, developers/building owners can enjoy up to 3% additional GFA beyond the Master Plan Gross Plot Ratio for delivering the stipulated ITM Outcome Requirements in their building development on private sites of at least in 5,000 square metre GFA.

The BE Transformation GFA Incentive Scheme is applicable to development proposals for a five-year period from 24 November 2021 to 23 November 2026. Proposals which have obtained planning permission but have not commenced superstructure works may also be eligible on a case-by-case basis. It is also applicable for new developments on sites launched for public tender under the Government Land Sales (GLS) Programme on and prior to 31 March 2022. Developers/building owners can enjoy up to 2% bonus GFA beyond the maximum allowable intensity stipulated in the Technical Condition of Tender for the respective sale sites. Similarly, proposals on GLS sites that have obtained planning permission but have not commenced superstructure works may also be eligible on a case-by-case basis.

From 2Q2022, enhanced ITM Outcome Requirements will be required for GLS sites as part of the land tender's conditions, and the BE Transformation GFA Incentive Scheme will no longer apply for such sites when the enhanced requirements take effect.

The types of developments that are eligible for the BE Transformation GFA Incentive Scheme are shown in the table below:

Residential	Condominium and flat developments
Non-residential	Commercial, industrial and institutional developments, such as office, retail, business parks, community building, hotel, hospital, or white site developments
Mixed use	Any combination of the above
All others	To be assessed based on merits of proposal

For more information, please refer to BCA and URA's Joint Circular No. BCA/ITM GFA/2021-11-ES dated 24 November 2021 on "Built Environment Transformation Gross Floor Area Incentive Scheme".



2 Approximate Building Costs

Singapore

BUILDING TYPE	S\$/m ² CFA
RESIDENTIAL	
Terraced Houses	2,850 - 3,150
Semi-Detached Houses	3,100 - 3,550
Detached Houses	3,600 - 4,800
Average Standard Condominium	2,200 - 2,400
Above Average Standard Condominium	2,500 - 3,300
Luxury Condominium	3,400 - 5,000
OFFICE	
Average Standard Offices	2,850 - 3,150
Prestige Offices	3,200 - 3,450
COMMERCIAL	
Shopping Centres, Average Quality	3,200 - 3,300
Shopping Centres, High Quality	3,400 - 3,700
CAR PARKS	
Multi-Storey Car Parks	1,100 - 1,550
Basement Car Parks	1,550 - 2,100
INDUSTRIAL	
Flatted Light Industrial Buildings	1,500 - 1,650
Flatted Heavy Industrial Buildings	1,700 - 2,300
Single Storey Industrial Buildings	1,400 - 1,550
Flatted Warehouses	1,400 - 1,550
Single Storey Warehouses	1,300 - 1,550
HOTEL (INCLUDING FURNITURE AND FITTINGS)	
3-Star Hotels	3,550 - 3,900
4-Star Hotels	3,850 - 4,450
5-Star Hotels	4,550 - 5,100
HEALTH	
Private Hospitals	4,550 - 4,800
Polyclinics, Non Air-conditioned	1,950 - 2,150
Nursing Homes, Non Air-conditioned	1,950 - 2,250
Medical Centres	3,500 - 3,700

The above costs are at 3rd Quarter 2021 levels.

Notes:

The construction costs above serve only as a guide for preliminary cost appraisals and budgeting. It must be understood that the actual cost of a building will depend upon the design, site conditions and many other factors and may vary from the figures shown. The costs per square metre are based on **Construction Floor Areas (CFA)** measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, plant rooms, water tanks and the like.

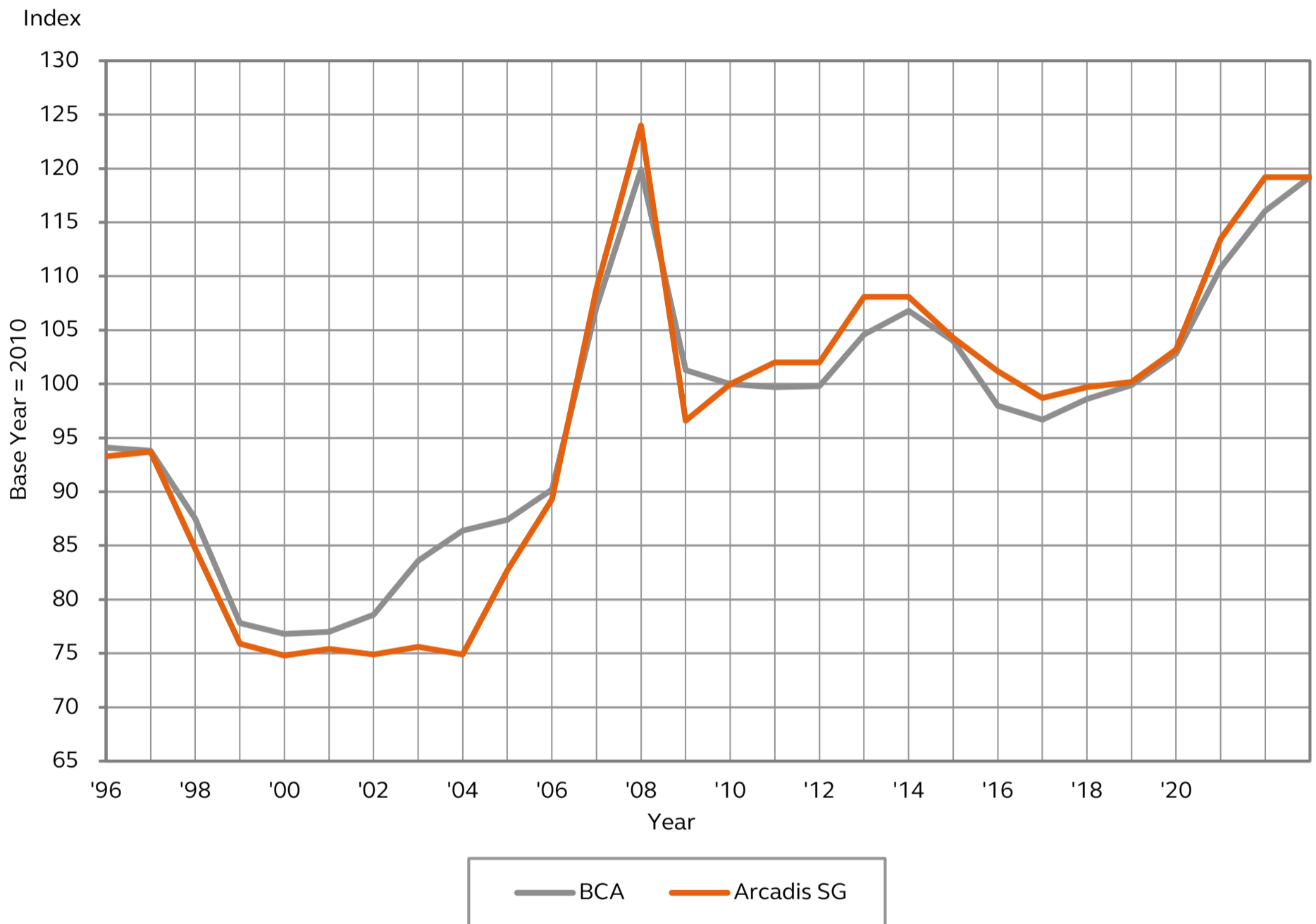
All buildings are assumed to have no basements (unless otherwise stated) and are built on flat ground with normal soil conditions. The costs exclude the following:

- Professional fees
- Authorities' plan processing charges
- Land cost
- Financing charges
- Site inspectorate
- Administrative expenses
- Legal cost & disbursements
- Demolition of existing building(s)
- Furniture and fittings (unless otherwise stated)
- Operating equipment
- External works
- Prefabricated Prefinished Volumetric Construction (PPVC) / Prefabricated Bathroom Units (PBUs) / Structural steel structure
- Cross Laminated Timber (CLT) / Glued Laminated Timber (Glulam)
- BCA Green Mark Gold and above
- Cost escalation
- Goods and Services Tax



3 Tender Price Index Singapore

Arcadis Singapore TPI is a measure of the comparative tender price movements based on the projects handled by Arcadis Singapore Pte Ltd. The TPI reflects the tender price level of contracts let out over the years. Other than material and labour costs, it takes into account the elements of competition, risk and profits.



Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BCA*	100.0	99.7	99.8	104.6	106.8	104.0	98.0	96.7	98.6	99.9
Arcadis SG^	100.0	102.0	102.0	108.1	108.1	104.3	101.2	98.7	99.7	100.2

Year	2020	1Q21	2Q21	3Q21
BCA*	102.8	110.8	116.1	119.2
Arcadis SG^	103.2	113.5	119.2	119.2#

Source: * Building and Construction Authority (BCA TPI based on average for the whole year)

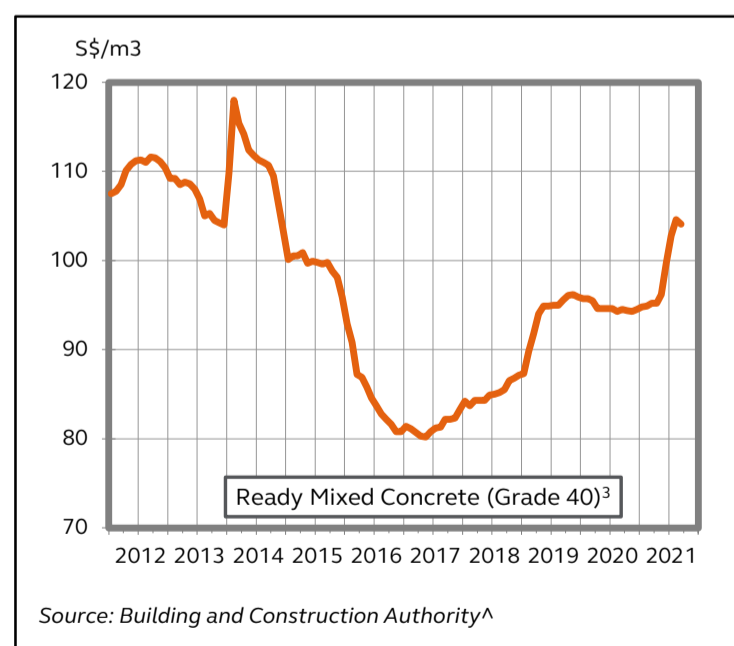
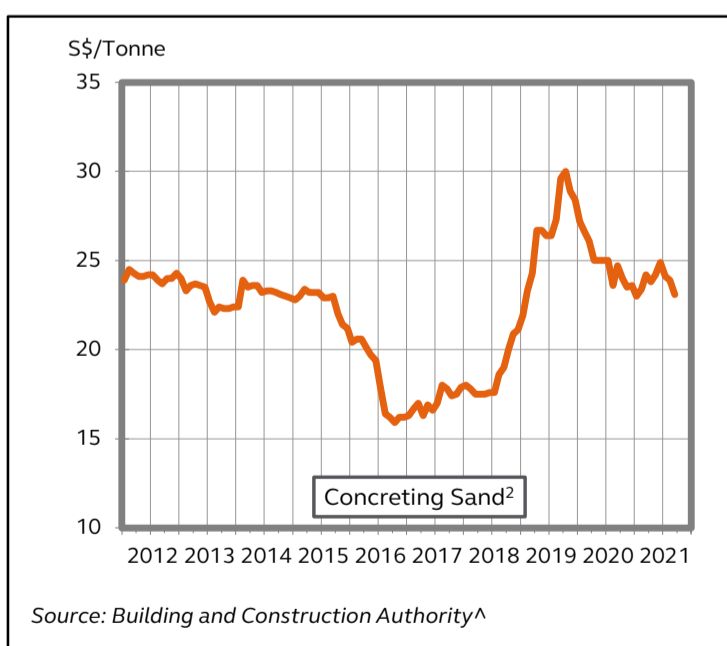
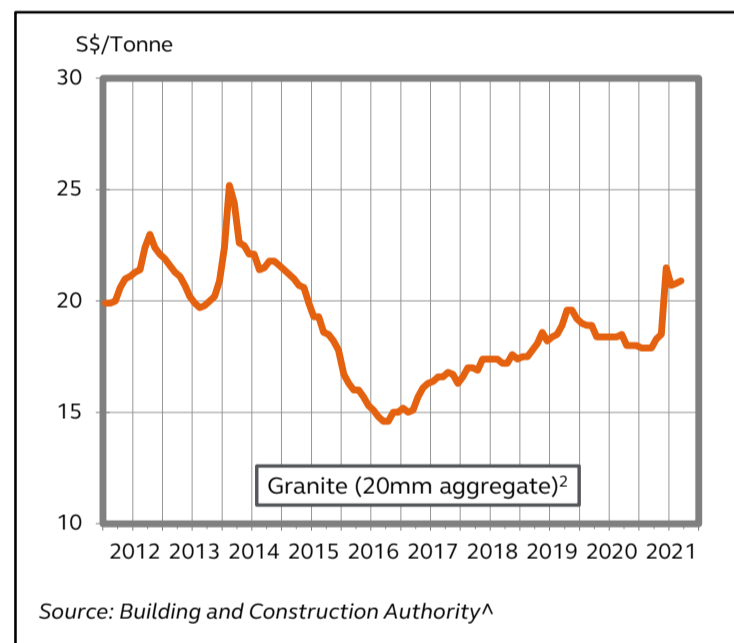
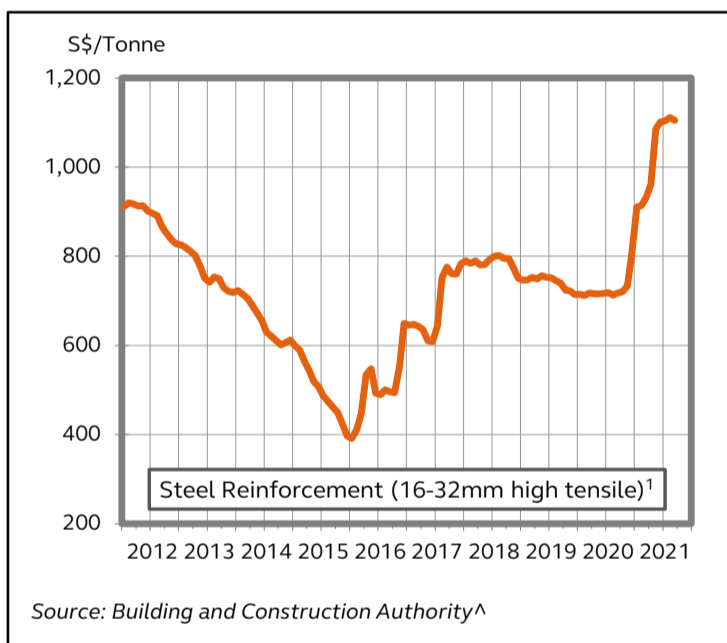
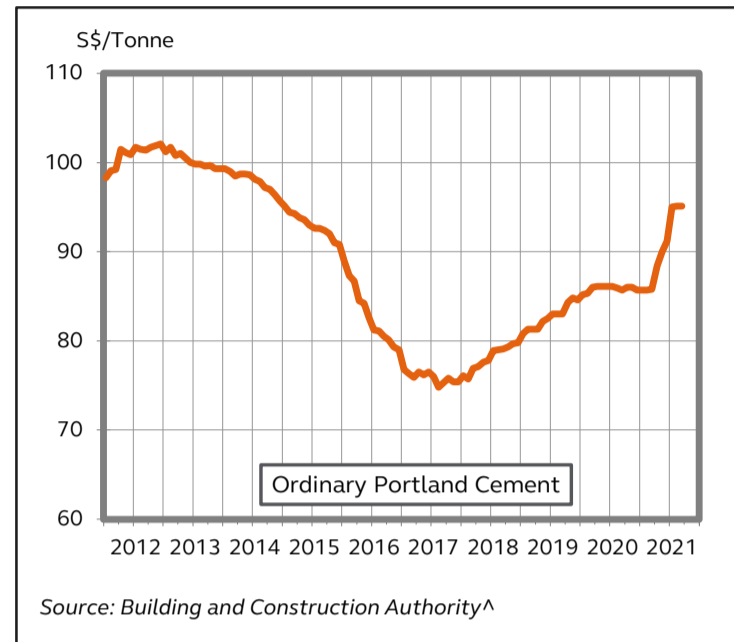
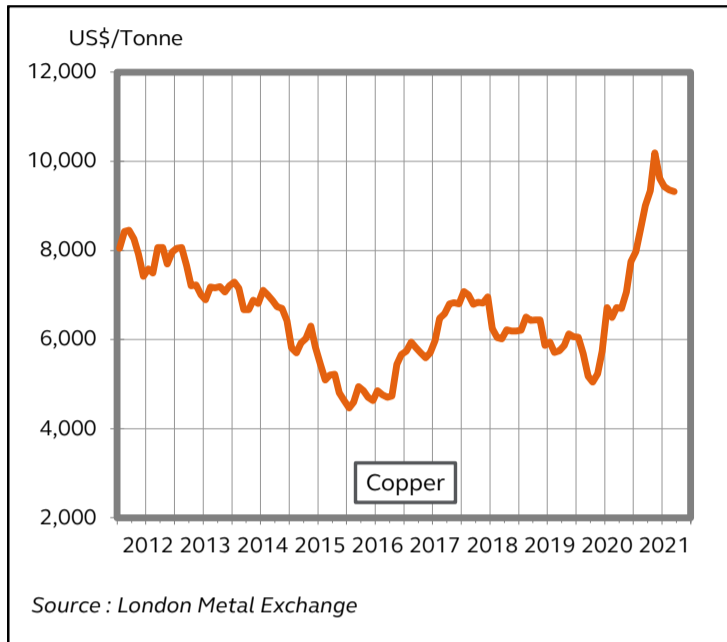
^ From 2009 onwards, Arcadis Singapore TPI based on 4th Quarter Index

Arcadis Singapore TPI for 3Q21 is assumed unchanged from 2Q21 in view of a lack of representative data due to insufficient tenders for new works in 3Q21.



4 Materials Singapore

Basic Construction Materials



Notes:

¹ Prices of rebar other than 16-32mm dimensions may subject to surcharge

¹ With effect from Jan 2015, the market prices of rebar (without cut & bend) are based on fixed price supply contracts with contract period 1 year or less

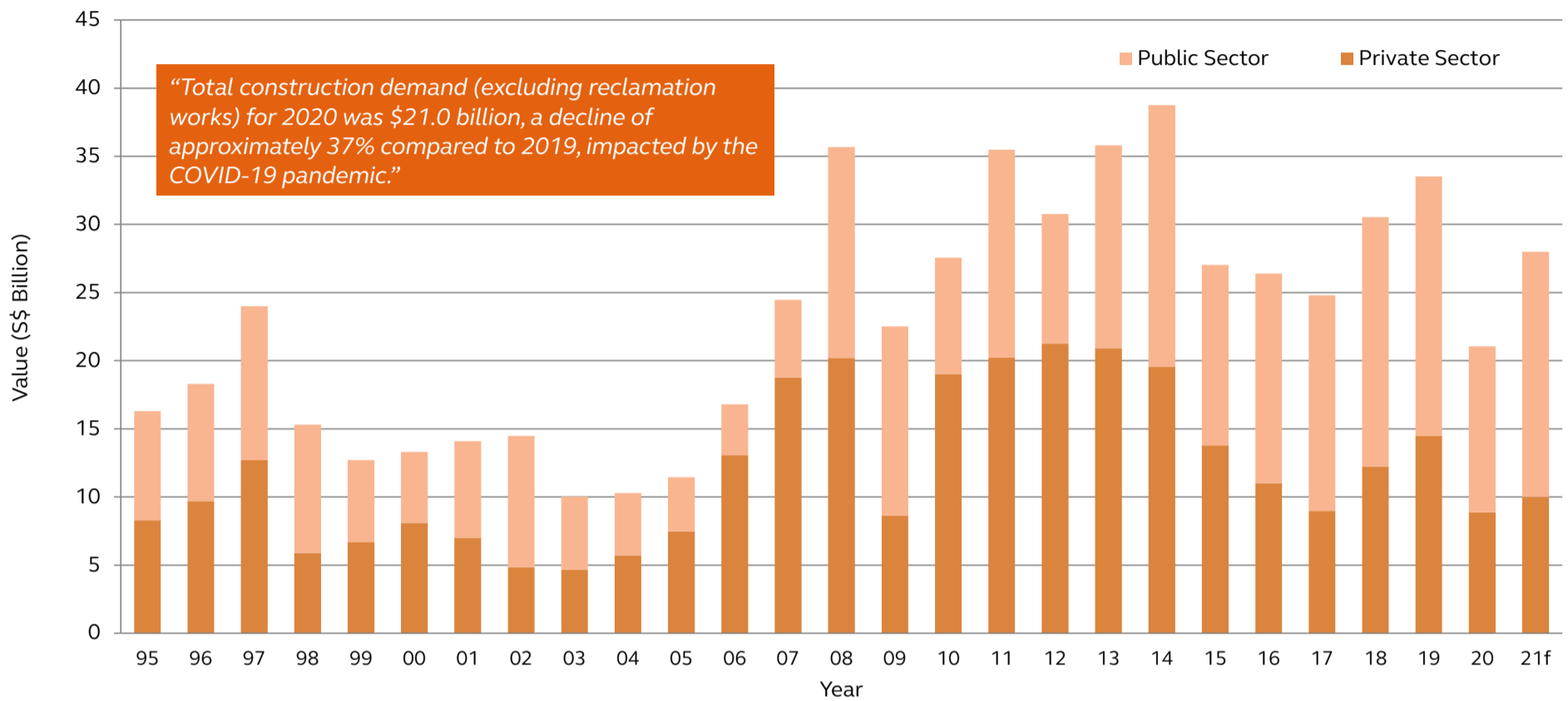
² Prices of granite and concreting sand exclude local delivery charges to concrete batching plants

³ The market prices of ready mixed concrete are based on contracts with non-fixed price, fixed price and market retail price for Grade 40 pump

[^] In view of the lack of business transactions for materials due to a stoppage/slowdown of most construction activities on the back of the Covid-19 fallout, the BCA construction material market prices in May, Jun and Jul 2020 (except for rebar prices in Jun and Jul 2020) are assumed unchanged from those of Apr 2020



5 Construction Demand Singapore



BCA Construction Demand (Excludes Reclamation Works) (S\$ Billion)												
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Private Sector	8.3	9.7	12.7	5.9	6.7	8.1	7.0	4.8	4.6	5.7	7.5	13.1
Public Sector	8.0	8.6	11.3	9.4	6.0	5.2	7.1	9.6	5.4	4.6	4.0	3.7
Total Value	16.3	18.3	24.0	15.3	12.7	13.3	14.1	14.5	10.0	10.3	11.5	16.8

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Private Sector	18.8	20.2	8.6	19.0	20.2	21.2	20.9	19.5	13.8	11.0	9.0	12.2
Public Sector	5.7	15.5	13.9	8.6	15.3	9.5	14.9	19.2	13.3	15.4	15.8	18.3
Total Value	24.5	35.7	22.5	27.6	35.5	30.8	35.8	38.8	27.0	26.4	24.8	30.5

	2019	2020	2021f	1Q21	2Q21	3Q21
Private Sector	14.5	8.9	8.0-10.0	2.4	3.4	2.9
Public Sector	19.0	12.2	15.0-18.0	3.5	5.6	4.9
Total Value	33.5	21.0	23.0-28.0	5.9	9.0	7.8

Source: Building and Construction Authority as at 3 December 2021

Notes:

1. Construction demand refers to the total value of construction contracts awarded. It is a leading market indicator for the construction industry.
2. f - denotes forecast



6 Approximate Building Costs For Major Cities

Asia

BUILDING TYPE	Shanghai	Beijing	Guangzhou/ Shenzhen	Chongqing/ Chengdu
	RMB/ m ² CFA			
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	3,171 - 3,615	2,885 - 3,327	2,868 - 3,162	2,816 - 3,261
- Full fit	5,185 - 5,714	4,565 - 5,014	4,475 - 4,925	4,305 - 5,084
Apartments, high rise, high end				
- Shell and core	3,812 - 4,129	3,437 - 4,986	2,993 - 3,896	3,481 - 4,509
- Full fit	11,707 - 12,759	11,056 - 12,590	7,202 - 7,880	6,951 - 8,681
Terraced houses, average standard				
- Shell and core	3,550 - 3,851	3,330 - 3,889	2,982 - 3,285	3,507 - 4,194
- Full fit	7,163 - 7,800	6,533 - 7,079	6,582 - 7,632	5,934 - 6,968
Detached houses, high end				
- Shell and core	5,220 - 5,769	5,015 - 5,581	4,151 - 4,572	4,596 - 5,246
- Full fit	12,596 - 13,360	12,555 - 13,101	12,625 - 14,347	7,551 - 8,577
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	6,650 - 8,790	6,510 - 8,766	6,193 - 6,900	6,854 - 7,877
High rise offices, prestige quality	8,544 - 11,688	10,578 - 14,397	9,137 - 11,021	8,643 - 11,488
Out-of-town shopping centre, average standard	N/A	4,866 - 6,504	5,967 - 6,547	5,543 - 7,015
Retail malls, high end	8,544 - 11,688	8,801 - 12,113	8,668 - 12,118	8,233 - 11,364
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	2,051 - 2,507	2,009 - 2,451	2,290 - 2,731	3,402 - 4,231
Owner operated factories, low rise, light weight industry	3,170 - 3,965	3,886 - 4,454	N/A	N/A
HOTELS				
Budget hotels - 3-star, mid market	7,276 - 8,873	7,198 - 8,871	7,923 - 8,715	7,421 - 9,072
Business hotels - 4/5-star	11,722 - 15,874	12,270 - 16,196	12,805 - 18,280	13,301 - 16,454
Luxury hotels - 5-star	15,852 - 18,952	15,618 - 20,100	17,409 - 19,187	16,372 - 19,467
OTHERS				
Underground/basement car parks (<3 levels)	5,436 - 7,578	5,560 - 6,113	4,054 - 6,470	3,266 - 4,524
Multi storey car parks, above ground (<4 levels)	2,786 - 3,889	3,347 - 3,382	2,892 - 3,193	2,604 - 3,183
Schools (primary and secondary)	4,154 - 5,244*	3,872 - 4,999*	3,245 - 3,570*	3,453 - 3,803*
Students' residences	3,042 - 4,147	2,738 - 3,872	2,050 - 2,262	2,417 - 3,457
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	7,008 - 8,606	6,631 - 6,687	5,656 - 6,222	5,447 - 5,971
General hospitals - public sector	10,707 - 13,805	8,717 - 10,916	8,569 - 10,711	8,705 - 10,778

The above costs are at 3rd Quarter 2021 levels.



6 Approximate Building Costs For Major Cities

Asia

BUILDING TYPE	Hong Kong	Macau	Singapore	Kuala Lumpur
	USD/ m ² CFA (See also exchange rates per U.S. dollar below)			
	HK\$ 7.79	MOP 7.98	S\$ 1.35	RM 4.19
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	N/A	1,886 - 2,795	N/A	N/A
- Full fit	3,030 - 3,504	2,428 - 2,971	1,630 - 1,780	315 - 625 \$
Apartments, high rise, high end				
- Shell and core	N/A	2,795 - 4,192	N/A	N/A
- Full fit	3,928 - 4,570	3,391 - 5,182	2,520 - 3,705	720 - 1,495
Terraced houses, average standard				
- Shell and core	N/A	3,310 - 4,111	N/A	N/A
- Full fit	4,146 - 4,788	4,138 - 4,938	2,110 - 2,335	225 - 370 \$\$
Detached houses, high end				
- Shell and core	N/A	4,002 - 5,766	N/A	N/A
- Full fit	6,059 up	5,047 - 6,566	2,665 - 3,555	765 - 1,045
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	3,004 - 3,440&	2,795 - 3,609	2,110 - 2,335@	600 - 800 \$\$\$
High rise offices, prestige quality	3,594 - 4,134	3,609 - 3,948	2,370 - 2,555@	935 - 1,355 \$\$\$\$
Out-of-town shopping centre, average standard	2,978 - 3,479	2,633 - 3,948	2,370 - 2,445	545 - 760
Retail malls, high end	3,851 - 4,583	4,138 - 4,992	2,520 - 2,740	700 - 1,070
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	N/A	N/A	965 - 1,150	325 - 460
Owner operated factories, low rise, light weight industry	2,311 - 2,901	N/A	N/A	435 - 550
HOTELS				
Budget hotels - 3-star, mid market	3,813 - 4,056	3,677 - 4,165	2,630 - 2,890	1,025 - 1,495
Business hotels - 4/5-star	3,941 - 4,596	4,992 - 5,970	3,370 - 3,780	1,340 - 2,315
Luxury hotels - 5-star	4,596 - 5,250	5,970 - 7,055	3,370 - 3,780	1,955 - 2,605
OTHERS				
Underground/basement car parks (<3 levels)	3,261 - 3,890	2,184 - 3,201	1,150 - 1,555	315 - 560
Multi storey car parks, above ground (<4 levels)	1,951 - 2,311	1,207 - 1,588	815 - 1,150@@	220 - 365
Schools (primary and secondary)	2,542 - 2,734*	2,415 - 2,795	N/A	255 - 325 \$\$\$\$\$
Students' residences	2,901 - 3,261	1,913 - 2,225	1,965 - 2,075	300 - 385 \$\$\$\$\$\$
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	3,800 - 4,326	N/A	2,405 - 2,555	605 - 770
General hospitals - public sector	4,827 - 5,327	N/A	3,370 - 3,555	850 - 1,230

Singapore: Rates are nett of GST
The above costs are at 3rd Quarter 2021 levels.



6 Approximate Building Costs For Major Cities

Asia

BUILDING TYPE	Bangkok	Bangalore	Manila	Ho Chi Minh
	USD/ m ² CFA (See also exchange rates per U.S. dollar below)			
	BAHT 32.74	INR 74.08	PHP 50.96	VND 23,450
DOMESTIC				
Apartments, high rise, average standard				
- Shell and core	538 - 687	560 - 625	N/A	N/A
- Full fit	739 - 876	635 - 715	1,043 - 1,379	662 - 821
Apartments, high rise, high end				
- Shell and core	626 - 812	815 - 980	N/A	N/A
- Full fit	986 - 1,213	955 - 1,160	1,422 - 2,505	842 - 965
Terraced houses, average standard				
- Shell and core	305 - 397	370 - 405	N/A	N/A
- Full fit	462 - 568	440 - 465	944 - 1,156	446 - 524
Detached houses, high end				
- Shell and core	535 - 764	485 - 525	N/A	N/A
- Full fit	801 - 968	575 - 615	1,835 - 3,112	509 - 621
OFFICE/COMMERCIAL				
Medium/high rise offices, average standard	817 - 970	495 - 552	964 - 1,259	774 - 895
High rise offices, prestige quality	1,023 - 1,311	620 - 675	1,396 - 1,776	892 - 1,216
Out-of-town shopping centre, average standard	698 - 903	485 - 540	821 - 1,022	N/A
Retail malls, high end	937 - 988	675 - 745	1,120 - 1,569	723 - 946
INDUSTRIAL				
Industrial units, shell only (Conventional single storey framed units)	545 - 682	400 - 465	547 - 705	317 - 400
Owner operated factories, low rise, light weight industry	N/A	425 - 500	735 - 924	359 - 474
HOTELS				
Budget hotels - 3-star, mid market	1,278 - 1,413	895 - 995	1,224 - 1,514	1,436 - 1,757
Business hotels - 4/5-star	1,635 - 1,874	1,395 - 1,675	1,397 - 2,316	N/A
Luxury hotels - 5-star	1,907 - 2,214	1,765 - 1,955	1,932 - 3,669	1,813 - 2,175
OTHERS				
Underground/basement car parks (<3 levels)	613 - 817	315 - 345	610 - 947	657 - 784
Multi storey car parks, above ground (<4 levels)	204 - 334	260 - 285	489 - 743	422 - 463
Schools (primary and secondary)	N/A	325 - 365	719 - 993	555 - 606
Students' residences	N/A	365 - 405	760 - 978	555 - 713
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	N/A	660 - 700	1,212 - 1,764	821 - 877
General hospitals - public sector	N/A	715 - 790	1,459 - 1,705	N/A

Bangkok: Rates are nett of VAT.
 Bangalore: Rates are nett of GST.
 Manila: Rates include 12% VAT.
 Ho Chi Minh: Rates are nett of VAT.
 The above costs are at 3rd Quarter 2021 levels.



6 Approximate Building Costs For Major Cities

Asia

BUILDING TYPE	OUTLINE SPECIFICATION
DOMESTIC	
Apartments, high rise, average standard	<u>Shell and core</u> , including finishes to public area, but <u>excluding</u> finishes to apartment units <u>Full fit</u> , with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings and loose furniture
Apartments, high rise, high end	<u>Shell and core</u> , including finishes to public area, but <u>excluding</u> finishes to apartment units <u>Full fit</u> , good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings and loose furniture
Terraced houses, average standard	<u>Shell and core</u> , joined houses in row(s), <u>excluding</u> garden, parking, finishes and fittings to house interior <u>Full fit</u> , joined houses in row(s), with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings, loose furniture, garden and parking
Detached houses, high end	<u>Shell and core</u> , good quality facade, <u>excluding</u> garden, parking, finishes and fittings to house interior <u>Full fit</u> , good quality provisions, with air-conditioning, kitchen cabinets and home appliances, but <u>excluding</u> decorative light fittings, loose furniture, garden and parking
OFFICE / COMMERCIAL	
Medium/high rise offices, average standard	RC structure, curtain wall, including public area fit-out, tenant area with raised floor/ carpet, painted wall and false ceiling
High rise offices, prestige quality	
Out-of-town shopping centre, average standard	Including public area fit-out and M&E, but <u>excluding</u> shop fit-out
Retail malls, high end	
INDUSTRIAL	
Industrial units, shell only (Conventional single storey framed unit)	RC structure with steel roof and M&E to main distribution, but <u>excluding</u> a/c, heating and lighting
Owner operated factories, low rise, light weight industry	RC structure, including small office with simple fit-out and M&E, but <u>excluding</u> a/c and heating
HOTELS	
Budget hotels - 3-star, mid market	1) Interior decoration 2) Furniture (fixed and movable) 3) Special light fittings (chandeliers, etc.) 4) Operating Supplies and Equipment (OS&E) <u>excluded</u>
Business hotels - 4/5-star	
Luxury hotels - 5-star	
OTHERS	
Underground/basement car parks (<3 levels)	RC structure
Multi storey car parks, above ground (<4 levels)	RC structure, natural ventilation, no facade enclosure
Schools (primary and secondary)	Including fit-out and a/c, but <u>excluding</u> educational equipment
Students' residences	Including fit-out, loose furniture and a/c
Sports clubs, multi purpose sports/leisure centres (dry sports) with a/c and including FF&E	Dry sports (no swimming pool) and are for 'leisure centre' type schemes including main sports hall, ancillary sports facilities, changing and showers, restaurant / cafe, bar, etc. Costs include a/c, Furniture, Fittings and Equipment (FF&E)
General hospitals - public sector	<u>Excluding</u> medical and operating equipment

Notes :

- The costs for the respective categories given above are averages based on fixed price competitive tenders. It must be understood that the actual cost of a building will depend upon the design and many other factors and may vary from the figures shown.
- The costs per square metre are based on Construction Floor Areas (CFA) measured to the outside face of the external walls / external perimeter including lift shafts, stairwells, balconies, plant rooms, water tanks and the like.
- All buildings are assumed to have no basements (except otherwise stated) and are built on flat ground, with normal soil and site conditions. The cost excludes site formation works, external works, land cost, professional fees, finance and legal expenses.
- The standard for each category of building varies from region to region and do not necessarily follow that of each other.
- "Shell and core" generally covers ONLY base building elements. "Shell" refers to overall structure and foundations, exterior walls, floors and roof, completing with common areas, staircases, lift shafts, service ducts and fire services systems to local statutory requirements. "Core" refers to fully-fitted public areas (like lobbies, corridors and lavatories) and M&E main plant and upfeed, with tenant or occupant areas unfurnished.
- "Full fit" buildings should complete with all elements that allow the buildings to be ready for operation, including public and tenants' (or occupants') areas (i.e. with ALL finishes, fittings and M&E distributions).
- Fluctuation in exchange rates may lead to changes in construction costs expressed in U.S. dollars.
- Shanghai, Beijing, Guangzhou/Shenzhen, Chongqing/Chengdu: * Public authority standard, no a/c and complete with basic external works.
- Hong Kong: & Excluding raised floor/ carpet and false ceiling but including screeded floor and painted ceiling * Public authority standard, no a/c and complete with basic external works.
- Singapore: @ Excluding carpet @@ Open on all sides with parapet.
- Kuala Lumpur: \$ 6-12 units per floor, 46m² - 83m² per unit; excluding air-conditioning equipment, kitchen cabinets and home appliances \$\$ Excluding air-conditioning, kitchen cabinets and home appliances \$\$\$ Exclude Tenant fit-out and raised floor \$\$\$\$ Exclude Tenant fit-out \$\$\$\$\$ Standard government provisions \$\$\$\$\$\$ University standard.
- The data for Bangalore / India is provided by Arkind LS Private Limited, an Arcadis Alliance Partner.



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