

Rawlinsons

AUSTRALIAN  
CONSTRUCTION  
HANDBOOK  
2021

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## HOW TO USE THIS HANDBOOK

### BUILDING PRICE INDICES

These indices are a guide to the percentage variation in building costs for each year since 1978. This facilitates the updating of known costs to approximate current levels.

The indices are not valid for housing, small projects or remote country work, nor do they reflect the relative cost differential of the various cities.

The indices generally relate to all construction types, and as such, can only be a guide to specific project types.

### REGIONAL INDICES

Regional indices give an indication of the locality adjustment factor to be applied to the figures of the base city in each state in order to arrive at a figure for country towns.

The respective index figures are a broad indication only of the cost variation and are applicable to the total project cost.

Choice of material, degree of prefabrication and general work load will have a considerable bearing on cost differentials.

### ESTIMATING - BUILDING COSTS PER SQUARE METRE

This provides the average cost range for a wide selection of typical buildings. Whilst square metre costs are recommended for use in initial feasibility studies only, they also provide the base figure in the valuation of buildings, however when so used they should be adjusted as described in the following Elemental Costs of Buildings. It should also be noted that, as the figures given are for a typical building on a flat site, adjustment must be made for such factors as sloping sites, ground conditions, unusual shape and other design considerations.

The costs given are based on the total floor area of all levels, measured between the inner faces of external walls; refer pages [876](#) to [878](#) for measurement of areas.

It is important to refer to page [20](#) for further notes on the use of these costs.

### ESTIMATING - ELEMENTAL COSTS OF BUILDINGS

This assists in the compilation of a more accurate cost per square metre through evaluation and adjustment of the mean figures of the various elements of the foregoing typical buildings, to reflect the particular building being examined. Examples of the major variations from the typical are the likes of special facade treatments, the extent of floor finishes and whether or not the building services include air-conditioning, lifts, etc.

It is important to refer to pages [20](#), [50](#) and [51](#) for further notes on the allowances and use of these costs.

### ESTIMATING - COMPARATIVE COSTS

The more detailed rates given in this section facilitate a finer adjustment of the foregoing elemental figures through the application of unit costs to a particular element i.e. different design treatments such as facades, interior finishes, etc.

The costs given are all-up estimating costs, i.e. they include allowance for labour and minor items. For items not covered in this section it will be necessary to refer to the Detailed Prices section.

## HOW TO USE THIS HANDBOOK

### DETAILED PRICES

These provide a wide range of costs for particular items in all trades and services.

Due care and attention must be given to the explanatory notes for the complete section, page [172](#), and all subsection bullet points and notes.

All rates are supply and install rates unless otherwise noted.

Detailed prices can include specific items of work which, unless stated to the contrary, do not include for other related minor items and labours. When using to compliment the rates of Estimating - Comparative Costs, it will be necessary to make due allowance for such related work. The allowance can vary with particular item and project, but a range of between 5% and 10% would normally suffice.

### GENERALLY

The rates within Rawlinsons Australian Construction Handbook allow for Builders' head office overheads and profit at the following rates (unless otherwise noted) :

Preliminaries, Transportation Systems and Base Material Prices - 0.0%

Electrical and Mechanical Services - 2.5%

All other trades and services - 5.0%.

• • • • •

**When using any of the foregoing figures, at all times the nature and specific requirements of the particular project must be borne in mind.**

## EDITOR'S COMMENT

Melbourne

- The past year has been very different from any other year, not only in Victoria, but indeed around the country and the world. COVID-19 has changed our lives and is still changing so many things around us, including the way that people interact, work, how businesses operate, etc. The various sectors of the construction industry and property market have not been and will not be exempt from this. The COVID-19 effects of 2020 and the uncertain times, are set to continue into 2021, with there being some level of cautious optimism anticipated, by many, at some point in time. In Victoria, a number of construction projects, which stalled during the height of the pandemic, are set to take off again. This will be aided by current low interest rates, which are now at their lowest in living memory. Activity in the civil engineering sector will continue to remain strong and be a driving force within the industry, in the year ahead. Activity in the health sector will also be strong. The industrial sector should capitalise on factors which include low interest rates and the increase in on-line shopping activity. The change in immigration levels, international tourism and reduced number of overseas students, will continue to have their negative effects on the residential, retail, hotel and education sectors. Some sectors of the construction industry, as well as some associated suppliers will see new enterprise bargaining agreements coming into effect and this, in turn, will place additional pressure on construction costs. Activity generally across the construction industry, is anticipated to remain at reasonable levels, albeit that activity in some sectors will continue to soften. Tenders should remain competitive, but with a level of uncertainty continuing to be evident, as a result of COVID-19.

Perth

- After a very unexpected year, Western Australia proved itself to be resilient due to hard border measures introduced by the State government. The State government reduction of 'red-tape' and construction stimulus via major infrastructure projects have in the short term negated some of the negative impacts of the downturn from COVID-19. Locally sourced materials have stabilised in price, whilst some uncertainty remains on internationally sourced materials, components and plant as greater lead and delivery times are subject to each manufacturing countries work place restrictions. Office developments remain on hold as weaker demand has risen from the recent consolidation of office space, especially in the CBD. The advent of remote working has led to a re-assessment of modern working practices. Shopping centre retail during 2020 has seen the on-site progress of refurbishment and expansion continue. Large format retail has endured any downturn, as the sector is predominately home improvement, furniture or electronic good, which all became favourable during lock down. Online retail increased as the COVID-19 restriction commenced and this trend continues. Residentially, Western Australia is experiencing a falling vacancy rate; this coupled with the RBA cash rate of 0.10 per cent will entice developers to recommence some projects.

Sydney

- New South Wales commenced 2020 heading into its third year of severe drought, with large portions of Australia's eastern seaboard on fire and whispers of an overseas virus that was gathering momentum. By the end of February, most of the fires had been extinguished, but before their embers had cooled, the coronavirus presented a new, fast-evolving and significant challenge to the Australian economy and health system. States also pushed through temporary planning acceleration programmes and brought forward infrastructure, health and education projects, in a bid to keep construction workers in jobs and the broader economy running. As a result of these initiatives, up to the June quarter, the construction industry has survived. This is mainly due to underlying demand and the closing out of projects that were already 'locked in'. Certain sectors, which were already in decline before COVID-19, have been hit hard. The retail sector was already repositioning itself to accommodate consumer trends towards an online marketplace. This shift in strategy has been fast tracked by COVID, as retailers look to reduce their brick-and-mortar presence and digitize their businesses. Residential house approvals have been on a downward trend since 2015. With no inward migration and the unemployment rate forecast to rise, this trend is set to continue in the short to medium term. In mid-August, Master Builders Australia announced its forecast for a twenty-seven per cent decline in new house construction between 2019-2020 and 2020-2021, with Treasury also projecting a drop to 140,000 new homes in the 2020-2021 period from 170,000. As international borders remain closed, the tourism and hospitality sector are relying on domestic demand, and this has been further disrupted by the states and territories closing their internal borders. All of this uncertainty has general contractors seeking to secure future work, and we have witnessed competitive tender returns during the first half of 2020. The sectors that are still relatively busy, such as industrial, healthcare, education and data centres are in a good position to avail of these favourable market conditions. With the effects of COVID having triggered a recession, from which the recovery is expected to be prolonged given the resurgence of the virus, the Australian economy, and by extension the construction industry, faces its greatest challenge in a generation.

## ANTICIPATED BUILDING PRICE ADJUSTMENT, 2021

Prices given in the book are those ruling at the commencement of 2021 with an index of 100.00. To update prices refer to the following, which is a prediction of tender levels taking into account anticipated market conditions.

	31-Dec-20	31-Mar-21	30-Jun-21	30-Sep-21	31-Dec-21
Adelaide					
Brisbane					
Canberra					
Darwin					
Hobart					
Melbourne					
Perth					
Sydney					

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# ESTIMATING

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# ESTIMATING BUILDING COSTS PER SQUARE METRE

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## ESTIMATING

### BUILDING COSTS PER SQUARE METRE

Costs given hereafter should be used for initial feasibility studies only.

Costs given are average prices for typical buildings at December 31, 2020 within the metropolitan areas including allowance for Preliminaries and Builders profit and overheads. ADD additional allowances for increased costs (refer Anticipated Building Price Adjustment page [15](#)) and when referring to country areas (refer Regional Indices pages [834](#) to [844](#)).

Costs given should be adjusted to take account of such factors as sloping sites, foundation problems, high wall to floor ratios, unusual shape and any special design factors where costs can vary considerably from the range given.

Costs are based on the total floor area of all levels measured between the inner faces of external walls.

Costs can provide no more than a rough guide to the probable cost of a building, and whilst in many instances a single rate is sufficient to indicate this ruling average cost, there are many other instances such as banks, function centres, theatres, churches, residential buildings, where costs can vary considerably from the range given.

Costs EXCLUDE parking areas. For basement parking to office buildings, etc. refer to Section 9.3, for open parking areas refer to Section 10.2.

Costs EXCLUDE land, demolitions, balconies, covered ways, external services outside 3.0m from the outside face of the building, external works other than those immediately adjacent to the building, loose or special equipment, furniture, furnishings, legal and professional fees.

For a more detailed breakdown, and to assist in the compilation of a more accurate estimate, refer to Elemental Costs of Buildings pages [49](#) to [105](#). For ease of reference identical item numbers have been used for each section.

Costs exclude the Goods and Services Tax (G.S.T.).

			PER	Adel. \$	Bris. \$	Mel. \$	Per. \$	Syd. \$
1.0	<b>ADMINISTRATION, CIVIC</b>							
1.1	ADMINISTRATIVE							
1.1.1	ADMINISTRATION OFFICE, single storey, standard finishes, subdivisional partitioning to offices, reception, amenities areas, air-conditioning	...	sqm	2445-2635	2095-2260	2395-2580	2445-2635	2485-2680
1.1.2	ADMINISTRATION OFFICE, 2-3 STOREY - standard finishes, subdivisional partitioning to offices, reception, amenities areas, air-conditioning, lift	...	sqm	2770-2985	2640-2845	2680-2885	2800-3015	2825-3050
1.1.3	ADMINISTRATION OFFICE, 3-10 STOREY - standard finishes and facilities to upper levels, good standard to ground level/ reception, sub-divisional partitioning to offices, reception, amenities areas, air-conditioning, lifts, fire sprinklers	...	sqm	3415-3685	3320-3580	3240-3495	3220-3470	3305-3560
1.2	CIVIC							
1.2.1	CITY HALL, 2000 CAPACITY - main hall, lesser hall, library, etc., medium standard finishes, air-conditioning	...	sqm	5585-6020	4885-5265	5555-5985	5705-6150	5920-6385
1.2.2	TOWN HALL, 1000 CAPACITY - main hall, lesser hall, library etc., medium standard finishes, air-conditioning	...	sqm	4380-4725	3875-4175	4250-4580	4480-4830	4510-4860

NOTE - ADD - INCREASED COSTS

- COUNTRY LOADINGS

- REFER PAGES [52](#) AND [53](#) FOR DETAILED ELEMENTAL BREAKDOWN OF ABOVE COSTS

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# ESTIMATING ELEMENTAL COSTS OF BUILDINGS

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This section is intended as a guide to the value of the various elements. The Total cost given is the approximate mean of the cost range for the respective buildings in the previous section BUILDING COSTS PER SQUARE METRE. Identical item numbers have been used for each section.

Refer page [20](#) for notes on what the costs given in BUILDING COSTS PER SQUARE METRE include and exclude.

The estimated costs within this section are those pertaining to SYDNEY, however the cost range of the other cities is given to FACILITATE ADJUSTMENT.

The breakdown into approximate elemental costs enables evaluation and adjustment of the figure used for initial feasibility studies.

For a more detailed assessment of the Elemental Costs of Buildings, it will be necessary to refer to the section COMPARATIVE COSTS, where it is possible to more accurately evaluate the various elements.

**Costs exclude the Goods and Services Tax (G.S.T.).**

## DEFINITION OF ELEMENTS

The following is a general and abridged description of the various components of the elements listed hereafter.

PRELIMINARIES	Normal Builder's preliminaries i.e. plant and scaffolding, offices and sheds, hoardings and fences, temporary services, insurances, notices and fees.
SUBSTRUCTURE	The structurally sound and watertight base upon which to build, including excavation for foundations, piers, piles, column foundations, strip footings, foundation beams, foundation walls, hardcore filling; damp-proofing membranes; ground floor slab structures; subsoil drainage; ducts, pits and service tunnels; entrance steps, ramps and their finishes; structural screeds and toppings; all other work up to but excluding the lowest floor finish.
SUPERSTRUCTURE	<p><b>COLUMNS</b> (Framed buildings) - The upright supports to the upper floors and roof forming part of a framed structure, including internal and external columns from tops of columns to bases; column casings; all protective non-decorative coatings. Exclusions are portal frames (refer Roof); columns to non-framed (load bearing) structures (refer External or Internal Walls).</p> <p><b>UPPER FLOORS</b> - Floor structures above that at the lowest level. All beams; concrete, precast and in-situ floors; timber framed floors; structural screeds and toppings; overhangs and sunhoods integral with floors; steps and ramps in the one floor level; all protective non-decorative coatings.</p> <p><b>STAIRS</b> - The structural connection between two or more floor levels together with associated finishes, including landings; ramps between floor levels; fire escapes; supporting framework; access ladders; spiral staircases; tread, riser, string and soffit finishes; balustrades and handrails.</p> <p><b>ROOF</b> - To provide a structurally sound and watertight covering over the building including portal frames; roof construction; gable and other walls in roof spaces; parapet walls and roof balustrades; thermal insulation; rooflights; eaves, verges and fascias; rainwater goods; internal stormwater drainage runs; all protective non-decorative coatings.</p> <p><b>EXTERNAL WALLS</b> - The vertical enclosure around the building other than 'Windows' and 'External Doors' from Substructure to Roof including structural walls; spandrel, curtain and window walls; external shop fronts; glazed screen walls; columns and isolated piers to non-framed (load bearing) structures; solar screen walls; plant room air flow screens; insulation to external walls; external finishes to columns, slab edges, beams, projecting overhangs and walls. Exclusions are internal finishes to external walls and columns; walls in Roof; doors; sun protection to windows; beams integral with slabs (refer Upper Floors or Roof).</p> <p><b>WINDOWS</b> - Openings in External Walls to provide light and ventilation including flyscreens; louvres; guard grilles; remote control gear; sun protection to windows; curtains, blinds, track and pelmets; window sills and linings; hardware; decoration. Exclusions are rooflights; window walls and glazed screens; solar screen walls; window cleaning equipment.</p> <p><b>EXTERNAL DOORS</b> - The access ways into the building both for pedestrians and vehicles, including frames; linings; glazing; architraves; hardware; panels and highlights over; flydoors; roller shutters; garage doors; fire doors; grille and chain wire doors; gates; service cupboard doors and thresholds; decoration.</p> <p><b>INTERNAL WALLS</b> - Permanent division of internal spaces into separate rooms or to enclose ducts and other non-useable areas, including walls; internal columns and isolated piers to non-framed (load bearing) structures; part height solid walls glazed over to ceiling. Exclusions are Internal Screens and Borrowed Lights; wall finishes; works in Roof.</p> <p><b>INTERNAL SCREENS</b> - To screen off or temporarily divide internal spaces into separate compartments and to allow the transfer of light through Internal Walls including office partitioning; glazed screens; internal shop fronts; fold away and operable walls; chain wire and grille screens; toilet partitions and screen walls; borrowed lights; balustrades and rails not associated with staircases; all finishes and decorations.</p> <p><b>INTERNAL DOORS</b> - Passage ways through Internal Walls, internal screens and partitions and to provide access to other rooms, service cupboards and ducts, including frames, linings; glazing; architraves; pelmets; hardware and door grilles; chain wire and grille doors; toilet doors; strong room doors; fire doors; roller shutters; service cupboard doors; duct access panels; fanlights and panels over and linings to blank openings; decoration.</p>

## DEFINITION OF ELEMENTS (cont'd)

FINISHES	<p><b>WALL</b> - To finish and decorate all interior faces of Columns, External Walls, and Internal Walls, including finishes to internal faces of external walls and columns; acoustic wall linings; extra costs involved for face bricks and off form concrete; splashbacks and dados. Exclusions are finishes to Internal Screens; skirtings and cornices; all external finishes to external walls and columns.</p> <p><b>FLOOR</b> - To provide a satisfactory finish to Upper Floors and Substructure for walking on, including all preparatory work and finishing; skirtings; screeds; timber floor finishes; dividing strips; mats and matwells; duct and pit covers; carpeting used as a permanent floor finish; timber and other finishes to concrete floors. Exclusions are structural screeds and toppings; landing and stair finishes; trafficable roof covering.</p> <p><b>CEILING</b> - To finish and decorate all internal soffits of Upper Floors and Roof over rooms, including preparatory work; suspended false ceilings; proprietary suspended ceiling systems; acoustic ceiling linings; extra costs involved for off form concrete; ceiling manholes; framing to bulkheads and cornices. Exclusions are eaves soffits; stair and landing soffits.</p>
FITTINGS	<p><b>FITMENTS</b> - To fit out the building with built-up fitments and fixed items included in the main contract, including benches; cupboards; shelving; racks; seats; counters; chalk-boards; notice boards; signs and name plates; coat rails and hooks; mirrors; wall hatches; daises and stages. Exclusions are loose furniture and furnishings; curtains and blinds; Special Equipment.</p> <p><b>SPECIAL EQUIPMENT</b> - To provide items of equipment of unitary, commercially available type and/or a type not covered by other elements, including the likes of window cleaning, gymnasium, mortuary and photographic equipment; audio-visual aids; laboratory, laundry, kitchen and central sterile services department (C.S.S.D.) type equipment; dental and workshop equipment; boiling water units; laboratory stills; special black-out facilities; bed pan washers; linen and refuse disposal equipment; refrigerators and refrigerated drinking water coolers; incinerators; sanitary incinerators; circulating fans; specified Builders work in connection with this equipment. Exclusions are cool rooms and process cooling, fire fighting equipment; Sanitary Fixtures.</p>
SERVICES	<p><b>PLUMBING</b> - To fit out the building with normal sanitary fixtures together with hot and cold water services and soil and waste plumbing systems together with all associated ancillaries. Exclusions are rainwater disposal systems and external services from the outside face of the building.</p> <p><b>MECHANICAL</b> - Comprises air conditioning, evaporative cooling, mechanical ventilation, specialist hospital services and the like, reticulated steam and hot water systems.</p> <p><b>FIRE</b> - To detect and/or extinguish fires, including sprinklers and other automatic extinguishing systems; fire indicator board; manual and automatic fire alarm installations; fire fighting equipment; hydrant installations and hose reels and cupboards; hand appliances. Exclusions are fire doors and fire proofing.</p> <p><b>ELECTRICAL</b> - To provide all light and power and emergency light and power, power outlets and light fittings, including main distribution board; sub-mains and distribution boards; emergency lighting systems; power sub-mains to mechanical equipment, etc.; systems such as telephone, internal telephone, public address, call, emergency warning and intercommunication, personal paging, clock and/or bell, TV antenna and closed circuit TV.</p> <p><b>TRANSPORTATION</b> - To transport personnel and/or goods from floor to floor or area to area including all lifts, hoists and conveyor systems; escalators; all associated equipment and work other than structural building work.</p> <p><b>SPECIAL SERVICES</b> - To provide services or installations not covered by other elements.</p>
EXTERNAL SERVICES	Covering sewer and stormwater drainage, water supply, etc. between and up to 3.0 metres from the outside face of the building.
CONTINGENCY	Being the contract contingency.

## 1.0 ADMINISTRATION, CIVIC

### 1.1 ADMINISTRATIVE

ELEMENT			1.1.1 Administration Office Single Storey		1.1.2 Administration Office 2-3 Storey		1.1.3 Administration Office 3-10 Storey	
			\$/sqm	%	\$/sqm	%	\$/sqm	%
PRELIMINARIES	...	...	283.00	10.9	346.00	11.8	475.00	13.8
SUBSTRUCTURE	...	...	129.50	5.0	94.25	3.2	75.75	2.2
SUPERSTRUCTURE								
Columns	...	...	-	-	49.25	1.7	60.50	1.8
Upper Floors	...	...	-	-	221.00	7.5	296.75	8.6
Staircase	...	...	-	-	40.25	1.4	38.75	1.1
Roof	...	...	287.25	11.1	145.25	4.9	70.00	2.0
External Walls )	...	...	359.75	13.9	377.25	12.8	438.50	12.8
Windows )	...	...						
External Doors	...	...	34.50	1.3	34.00	1.2	10.25	0.3
Internal Walls	...	...	74.75	2.9	92.25	3.1	92.25	2.7
Internal Screens	...	...	117.75	4.6	119.75	4.1	103.50	3.0
Internal Doors	...	...	29.50	1.1	33.50	1.1	32.25	0.9
FINISHES								
Wall	...	...	62.00	2.4	69.00	2.4	69.75	2.0
Floor	...	...	111.25	4.3	113.00	3.8	108.50	3.2
Ceiling	...	...	88.75	3.4	89.25	3.0	90.00	2.6
FITTINGS								
Fitments	...	...	78.50	3.1	78.50	2.7	71.75	2.1
Special	...	...						
SERVICES								
Plumbing	...	...	174.75	6.8	185.50	6.3	173.00	5.0
Mechanical	...	...	437.00	16.9	444.75	15.1	562.00	16.4
Fire	...	...	44.25	1.7	44.25	1.5	122.75	3.6
Electrical	...	...	198.00	7.7	226.50	7.7	237.25	6.9
Transportation	...	...	-	-	54.50	1.9	211.50	6.2
Special	...	...	-	-	-	-	-	-
EXTERNAL SERVICES	...	...	9.75	0.4	8.50	0.3	9.00	0.3
CONTINGENCY	...	...	64.75	2.5	73.50	2.5	86.00	2.5
TOTAL (Mean cost - SYDNEY)	...	...	2585.00	100.0	2940.00	100.0	3435.00	100.0
Cost Range : Adelaide	...	...	2445-2635		2770-2985		3415-3685	
Brisbane	...	...	2095-2260		2640-2845		3320-3580	
Canberra	...	...	2625-2825		2970-3205		-	
Darwin	...	...	2460-2660		2830-3060		-	
Hobart	...	...	2600-2800		2930-3155		-	
Melbourne	...	...	2395-2580		2680-2885		3240-3495	
Perth	...	...	2445-2635		2800-3015		3220-3470	
Sydney	...	...	2485-2680		2825-3050		3305-3560	

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# ESTIMATING COMPARATIVE COSTS

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### EXPLANATORY NOTES :

This section is intended as a guide to the comparative unit costs of different design treatments within the various building elements so that, by selection or interpolation, elemental building costs can be obtained which specifically reflect the given sizes, proportions, etc. of any project.

The costs given are all-up estimating costs, i.e. they include allowance for labours and other minor items. Builder's head office overheads and profits have been included at approximately 5% (except for electrical and mechanical services at 2.5%).

Costs exclude the Goods and Services Tax (G.S.T.).

SUBSTRUCTURE	UNIT	Adel. \$	Bris. \$	Mel. \$	Per \$	Syd. \$
--------------	------	-------------	-------------	------------	-----------	------------

The following site soil conditions have been assumed :

Adelaide - Clay  
Brisbane - Clay  
Melbourne - Clay  
Perth - Sand  
Sydney - Clay

REDUCED LEVEL EXCAVATION )

BASEMENT EXCAVATION ) Refer Detailed

DEWATERING ) Prices pages

PILES AND PIERS ) [211](#) to [221](#)

SHEET PILING, ETC. ) ... Note

## FOUNDATION BEAMS

25 MPa concrete in foundation beam including reinforcement (75 kg/cum), formwork, excavation of equal depth, planking and strutting :

Foundation beams generally	...	cum	1060.00	1020.00	1130.00	870.00	1140.00
Foundation beam size -							
450mm wide x 600mm deep	...	m	288.00	277.00	307.00	236.00	309.00
450mm wide x 750mm deep	...	m	359.00	345.00	382.00	294.00	385.00
600mm wide x 750mm deep	...	m	423.00	407.00	448.00	351.00	457.00

## COLUMN FOUNDATIONS

25 MPa concrete in column foundation including reinforcement (40 kg/cum), formwork, excavation of equal depth, planking and strutting

... cum 638.00 624.00 685.00 538.00 708.00

ADD extra for :

Excavation twice depth of foundation

... cum 125.50 106.00 120.50 77.20 118.50

## STRIP FOOTINGS

25 MPa concrete in strip footing including reinforcement (20 kg/cum), formwork, excavation of equal depth, planking and strutting

... cum 567.00 534.00 574.00 453.00 612.00

ADD extra for :

Excavation twice depth of footing

... cum 162.50 138.00 138.50 420.00 148.00

## RAFT FOUNDATIONS

25 MPa concrete in raft foundation including reinforcement (100 kg/cum) and formwork

... cum 573.00 582.00 606.00 552.00 664.00

## FILLING

Clean sand filling compacted in layers, under ground slab :

150mm deep	...	sqm	11.50	10.70	9.05	3.95	11.05
250mm deep	...	sqm	19.20	17.90	15.15	6.60	18.45
500mm deep	...	sqm	38.40	35.80	30.30	13.20	36.90
1000mm deep	...	sqm	76.80	71.50	60.50	26.40	73.70

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# DETAILED PRICES

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The Detailed Prices are indicative average prices for reasonable quantities of work and would apply to projects in excess \$1,500,000 and having average site conditions. For works in the CBD it will be necessary to make due allowance to cover the particular requirements of the project especially in respect of site restrictions, productivity and allowances applicable to major works.

Prices, unless otherwise described, are for the completely installed item of work including Builders' overheads and profit normally applying at the commencement of 2021. Whilst including for site allowance at the average rate per hour, they do not include any other special allowances such as structural and height allowances etc.

The prices in the Detailed Prices have been set to reflect current sensible pricing levels with, where appropriate, an adjustment that reflects reasonable discounting of materials.

No allowance has been included in the prices of the respective trade sections for Builder's Preliminaries items such as site establishment, supervision, large plant, scaffolding, temporary services, notices and fees, insurances, etc.; whilst the prices for the various trades and services sections include allowance for their own minor Preliminaries items (i.e. small tools and hand plant and supervision), separate provision must be made for Builder's Preliminaries items as previously described in order to arrive at a realistic total cost.

**As prices can differ appreciably because of the nature and specific requirements of each particular contract, it is not recommended that they be used for quotations without checking in detail the requirements of the contract.**

**Costs exclude the Goods and Services Tax (G.S.T.).**

**In these Detailed Prices the allowance for Builders' head office overheads and profit that has been included is (unless otherwise noted) :**

<b>Preliminaries, Transportation Systems and Base Material Prices</b>	<b>-</b>	<b>0.0%</b>
<b>Electrical and Mechanical Services</b>	<b>-</b>	<b>2.5%</b>
<b>All other trades and services</b>	<b>-</b>	<b>5.0%</b>

## DETAILED PRICES

### CONCRETE WORKS

	UNIT	Adel. \$	Bris. \$	Mel. \$	Per. \$	Syd. \$
--	------	-------------	-------------	------------	------------	------------

#### BASE PRICES

Concrete, delivered to site :

20 MPa	... cum	162.00	130.00	180.00	170.00	220.00
25 MPa	... cum	169.00	135.00	190.00	175.00	226.00
32 MPa	... cum	178.00	140.00	200.00	182.00	234.00
40 MPa	... cum	188.00	150.00	210.00	192.00	245.00
50 MPa	... cum	203.00	170.00	230.00	212.00	270.00
60 MPa	... cum	221.00	190.00	255.00	232.00	288.00

ADD extra for :

Cartage in excess of 20km	... km/cum	3.00	2.80	3.00	2.75	3.00
Loads less than 3.5 cum (average)	... cum	40.00- 45.00	75.00	40.00- 60.00	45.00	95.00

Reinforcement :

Deformed bar reinforcement, cut to size and delivered and including rolling margin, chairs and tie wire	... t	1750.00	1400.00	1475.00	1475.00	1560.00
---	-------	---------	---------	---------	---------	---------

ADD extra for :

Placing and fixing in position	... t	850.00	990.00	1000.00	875.00	910.00
--------------------------------	-------	--------	--------	---------	--------	--------

SL92 fabric supply only, full sheets

SL92 fabric supply only, full sheets	... sqm	7.40	5.76	8.10	6.06	8.19
SL72 ditto	... sqm	4.70	3.82	5.25	3.92	5.10

SL62 ditto	... sqm	3.70	3.06	4.20	3.10	4.03
------------	---------	------	------	------	------	------

### CONCRETE

Prices for concrete are based on ready-mixed concrete prices and include for delivery to site, handling and placing in position, as well as an allowance for wastage and loss during handling and placing. Refer page [238](#) for additional allowances to be made for pumping, samples and testing

... Note

#### UNREINFORCED CONCRETE 25 MPa

Blinding layer, 50mm thick	... cum	248.00	222.00	360.00	336.00	433.00
Column or pier foundation (in ground)	... cum	245.00	255.00	281.00	261.00	336.00
Strip footing (in ground)	... cum	245.00	255.00	281.00	261.00	336.00
Slabs and thickening on fill :						
N.E. 150mm thick	... cum	250.00	226.00	306.00	285.00	367.00
150/300mm thick	... cum	250.00	222.00	302.00	281.00	363.00
Machine bases and the like	... cum	253.00	230.00	340.00	317.00	409.00
Plinths, kerbs and steps	... cum	253.00	230.00	340.00	317.00	409.00
Cavity wall filling	... cum	368.00	340.00	422.00	395.00	500.00

#### REINFORCED CONCRETE 25 MPa

Foundation beams	... cum	244.00	256.00	283.00	263.00	340.00
Column or pier foundation (in ground)	... cum	248.00	259.00	285.00	264.00	341.00
Strip footing (in ground)	... cum	261.00	259.00	285.00	264.00	341.00
Raft foundation	... cum	231.00	256.00	272.00	253.00	326.00

## DETAILED PRICES

### GLAZING

Prices are based on average pane sizes up to 2.4sqm and on glazing to metal or wood with beads and mastic or neoprene strips

UNIT	Adel. \$	Bris. \$	Mel. \$	Per. \$	Syd. \$
------	-------------	-------------	------------	------------	------------

Prices are for site glazing. For shop glazing further discounting of glass could reduce the prices by 10 to 35%

... Note

Glazing to metal or wood with putty :

Deduct \$3.00/sqm

... Note

### CLEAR FLOAT GLASS

Glazing to metal or wood :

3.00mm	... sqm	97.00	97.00	99.00	99.00	101.00
4.00mm	... sqm	107.00	107.00	108.00	111.00	110.00
5.00mm	... sqm	120.00	119.00	125.00	122.00	123.00
6.00mm	... sqm	125.00	124.00	129.00	129.00	127.00
8.00mm	... sqm	166.00	167.00	169.00	169.00	170.00
10.00mm	... sqm	188.00	182.00	186.00	192.00	189.00
12.00mm	... sqm	218.00	212.00	218.00	222.00	222.00

Tinted, refer to Solar Control Glass

... Note

### FIGURED ROLLED GLASS

Glazing to metal or wood :

White -

3.00mm	... sqm	106.00	106.00	99.00	111.00	110.00
5.00mm	... sqm	115.00	115.00	118.00	122.00	118.00
6.00mm	... sqm	125.00	124.00	129.00	129.00	127.00

Amber, bronze, grey -

3.00mm	... sqm	124.00	123.00	129.00	129.00	127.00
5.00mm	... sqm	143.00	142.00	145.00	145.00	146.00
6.00mm	... sqm	155.00	151.00	155.00	153.00	156.00

### WIRED GLASS

Glazing to metal or wood :

White obscure, 6mm

White obscure, 6mm	... sqm	159.00	156.00	160.00	162.00	162.00
Coloured obscure, 6mm	... sqm	191.00	191.00	190.00	184.00	192.00
Clear plate, 6mm	... sqm	236.00	230.00	235.00	242.00	239.00

Coloured obscure, 6mm

Clear plate, 6mm

**ELECTRICAL SERVICES**

	Adel. Bris. Melb. Per. Syd. \$
UNIT	

**PRICE PER POINT****DOMESTIC LIGHTING**

Prices include accessories and wiring from switchboard but EXCLUDE switchboard, RCD+MCB/RCBO and luminaires

...	Note
...	Note
Single light point :	
With 1-one way switch	Point      75.00-96.00
With 2-two way switches, spaced 10m apart	Point      158.00-200.00
With 2-two way switches and 1-intermediate	
Switch (6m between switches)	Point      240.00-305.00

ADD extra for :

Additional light point (commonly switched)	Point      21.00-30.00
Dimmer (for suitable LED/incandescent light) in lieu of switch	Each      35.00-43.00

LUMINAIRES (Lighting fittings) :

Refer to the following typical luminaires; alternatively refer to LUMINAIRES pages [588](#) to [598](#)

...	Note
Domestic Luminaires -	
Average cost of luminaire installed excluding circuitry :	
600mm long batten with prismatic lens	Each      55.00-120.00
1200mm long batten with prismatic lens	Each      55.00-120.00
Multi light pendant	Each      150.00-305.00
Traditional pendant	Each      165.00-370.00
Fancy pendant	Each      165.00-1245.00
Ceiling mounted fitting	Each      35.00-200.00
Downlight	Each      30.00-125.00
"Do it yourself" lampholder type glass bowl diffuser	Each      15.00-50.00
Exterior wall bracket	Each      45.00-235.00
Exterior floodlight	Each      30.00-250.00

**COMMERCIAL LIGHTING**

Prices include accessories and wiring from switchboard but EXCLUDE switchboard, RCD+MCB/RCBO and luminaires

...	Note
Circuits are TPS cabled where viable, otherwise circuits are PVC conducted.	

Single light point :

With 1-one way light switch -	
In service area, toilet, tea room, store room	Point      98.00-126.00
In display area, public area, lobby	Point      128.00-178.00
In plant room, plumbing duct	Point      142.00-188.00
In undercover car parking (PVC conducted)	Point      176.00-245.00

## DETAILED PRICES

### MECHANICAL SERVICES

UNIT	Adel. Bris. Melb.
	Per. Syd.
	\$

#### GAS HEATERS

Prices include standard installation and flue where required	...	Note	
Log / embers fire place with heat resistant viewing glass door			
Indoor (30MJ/8.3kWh or 28000 BTU/hr)	...	sum	2,850.00-6,000.00
Outdoor 1100mm x 500mm (47MJ/13kWh or 45000 BTU/hr)	...	sum	4,200.00-8,000.00
Overhead radiant heater, mounted 2.5metres (minimum) above floor :			
12 MJ (3.4kW or 11,000 BTU/hr) -			
Manual, cord operated	...	Sum	770.00-840.00
Automatic, 240V operated	...	Sum	1,000.00-1,080.00
24 MJ (6.7kW or 23,000 BTU/hr) -			
Manual, cord operated	...	Sum	780.00-860.00
Automatic, 240V operated	...	Sum	1,125.00-1,230.00
40 MJ (11.1kW or 38,000 BTU/hr) -			
Manual, cord operated	...	Sum	960.00-1,065.00
Automatic, 240V operated	...	Sum	1,305.00-1,425.00
48 MJ (13.3kW or 46,000 BTU/hr) -			
Manual, cord operated	...	Sum	1,260.00-1,380.00
Automatic, 240V operated	...	Sum	1,440.00-1,575.00
ADD extra for :			
Durable stainless steel outer case	...	sum	198.00-230.00
Floor mounted radiant heater with fan assistance :			
25 MJ (6.9kW or 24,000 BTU/hr) -			
Unflued, console type	...	Sum	1,095.00-1,200.00
Flued, inbuilt type	...	Sum	1,575.00-1,775.00
33 MJ (9.2kW or 31,000 BTU/hr) -			
Flued, console type	...	Sum	1,750.00-1,975.00
Wall furnace convection heater with fan assistance, time switch and thermostatic control - surface mounted console type with concealed flue :			
26 MJ (7.2kW or 25,000 BTU/hr) -			
Manual	...	Sum	1,950.00-2,200.00
Automatic	...	Sum	2,050.00-2,350.00
40 MJ (11.1kW or 38,000 BTU/hr) -			
Manual	...	Sum	2,100.00-2,400.00
Automatic	...	Sum	2,250.00-2,550.00
Portable radiant convector type heater with flexible hose and bayonet connector :			
15 MJ (4.2kW or 14,000 BTU/hr)	...	Each	870.00-1,035.00
18 MJ (5kW or 17,000 BTU/hr)	...	Each	900.00-1,080.00
21 MJ (5.8kW or 20,000 BTU/hr)	...	Each	910.00-1,095.00
25 MJ (6.9kW or 24,000 BTU/hr)	...	Each	940.00-1,125.00
Outdoor heater (4.5m radius) including gas bottle	...	Each	540.00-750.00

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# LABOUR AND PLANT CONSTANTS

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## LABOUR AND PLANT CONSTANTS

The labour constants given are for the major items of on-site works for which prices are given in the Detailed Prices section.

An examination of the Detailed Prices indicates that, in certain instances, considerable variation can occur in the constants for the respective cities. This can sometimes be due to the differing output of Sub-Contractor's labour compared with the labour employed directly by the Contractor or to the established labour factors of a particular city.

In using the constants, it must be appreciated that each Contractor will have his own opinion as to what the constant should be on variables such as the type of job, site conditions, location and scope for mechanical plant use. For these reasons, the following constants are intended as an average guide only.

<b>EXCAVATION</b>	UNIT	Tradesman Hours	Labourer Hours
-------------------	------	--------------------	-------------------

### EXCAVATION AND BACKFILLING

Hand excavation in :

Trenches N/E 1.00m deep -

in sand	...	cum	1.50
in medium soil	...	cum	2.50
in heavy soil	...	cum	3.50

Loading and removal :

in sand	...	cum	0.60
in medium soil	...	cum	0.80
in heavy soil	...	cum	1.00

Wheel N/E 50.00m, spread and level

...	cum	1.00
-----	-----	------

Backfilling and compaction

...	cum	0.60
-----	-----	------

Machine excavation and backfilling in :

Trenches N/E 1.00m deep in medium soil

...	cum	*0.20
-----	-----	-------

\*ADD :

Backhoe + operator	- 0.20 hours/cum
F/E loader + operator	- 0.08 hours/cum
Tipper + operator	- 0.10 hours/cum
Vibrating plate	- 0.10 hours/cum

### SURFACE TREATMENTS

Compaction of :

Trenches, pits and the like

...	sqm	0.08
-----	-----	------

Ground under slabs

...	sqm	0.05
-----	-----	------

Level and grade surface

...	sqm	0.05
-----	-----	------

### MEMBRANES

Plastic film underlay

...	sqm	0.06
-----	-----	------

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# BUILDING INDICES

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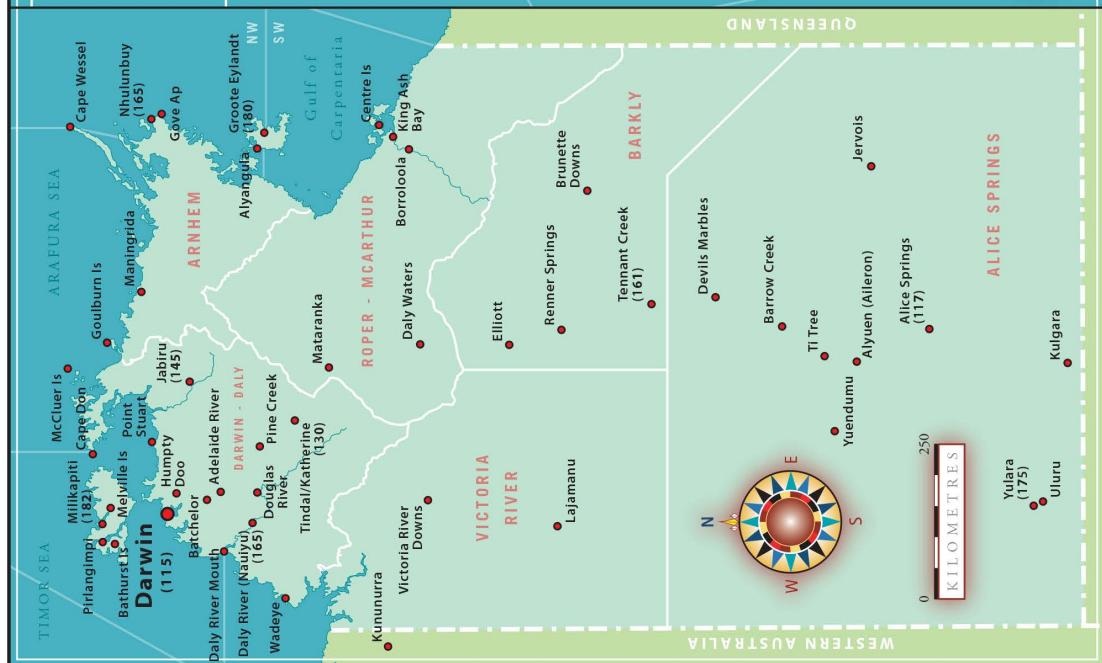
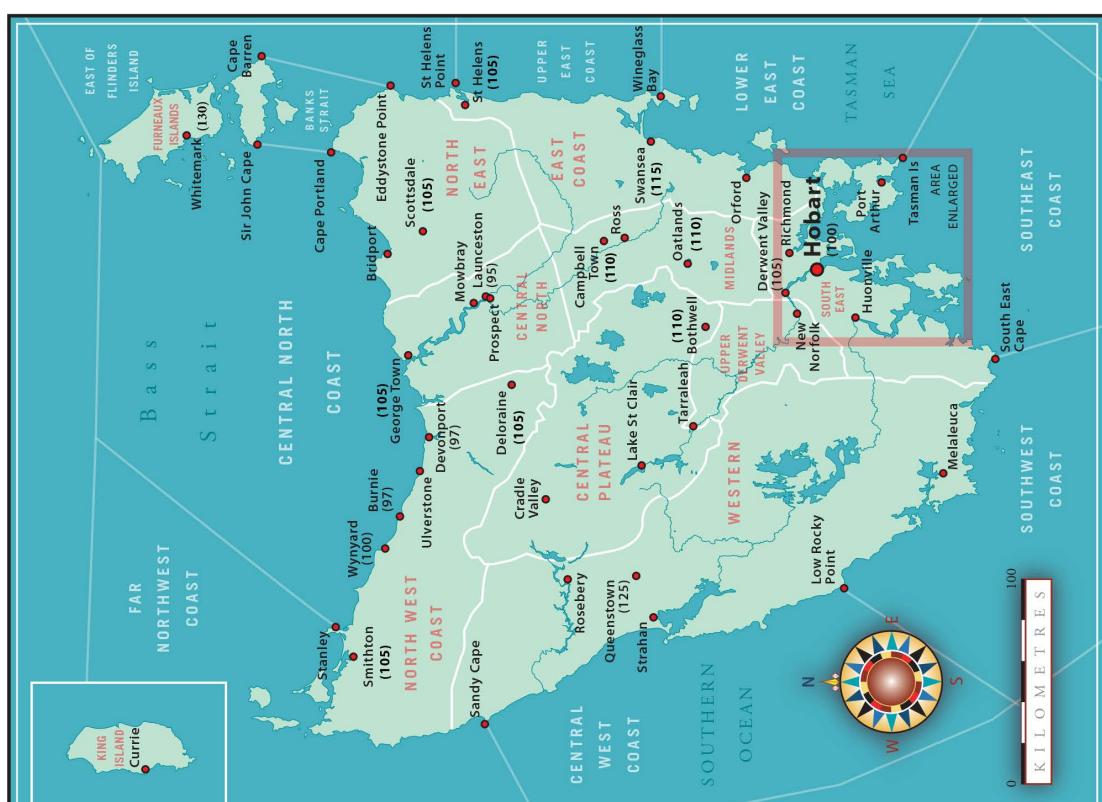
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## REGIONAL INDICES NORTHERN TERRITORY AND TASMANIA

Base - HOBART 100



Base - ADELAIDE 100