NSW Government
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Parramatta NSW 2150
nabers.gov.au

NABERS Embodied emissions materials form

New non-residential developments must complete this form

From 1 October 2023, all new non-residential developments must report on embodied emissions using this form in NSW, where the NSW government's State Environmental Planning Policy (Sustainable Buildings SEPP) 2022 applies. You must disclose the amounts of key materials at the development application and construction certificate stages.

More on the Sustainable Buildings SEPP

Embodied carbon emissions are generated across the full life cycle of a building from "cradle to grave". Embodied carbon made up 16% of the whole-of-life carbon footprint of Australia's buildings in 2019 [1]. The purpose of this form is to report on material quantities only, to support project team discussions about potential reduction in emissions from key materials. The form does not include embodied emissions factors. This reporting form will be updated to reflect the NABERS Embodied Carbon tool when it's available in 2024.

Step 1: About the building

In the 'About the building' tab, you will add the location, function, and type of building you are planning to construct. You will also need to add information that describes the building, including gross floor area, number of floors, area of carpark, and more. Collecting this information will allow the NSW Government to compare similar buildings.

Step 2: Quantity of materials

In the ‘Quantity of materials’ tab, you will add the amounts of materials that you will use to construct your building. You only need to complete those fields relevant to your building. Leave fields that aren’t relevant to your building blank. We recognise that there will be uncertainty, particularly at DA stage, so please use your best estimates where information is unknown (e.g., based on past projects).

How much do I need to include?

You must include all parts of the building delivered by the main contractor, covering at least 80% of the total materials bill. For example, if you spent $100,000 on materials, you need to include the material amounts of at least $80,000 of those materials in this form.

Wherever possible, consider materials costs only, not labour, plant or equipment. However, where you cannot split out the materials costs, please simply be consistent in the way the costs are reported throughout the spreadsheet.

Enter the **quantity of materials** (excluding labour, plant, equipment, margins and taxes) for:

(1) Structure (substructure and superstructure) within the envelope of the building. Also include any ancillary buildings that are necessary for the main building to function (for example, plant that is in a separate building).

(2) Envelope (cladding, curtain walls, roofing, windows, doors etc.)

(3) Permanent internal walls and doors. At minimum, this should include all structural walls.

(4) External works (hard landscaping, carparks, etc.) outside of the building envelope.

Enter the **cost of materials** (excluding labour, plant, equipment, margins and taxes) for:

(5) Building services (mechanical, electrical, plumbing, vertical transport, etc.) required to run the core of the building. Exclude special equipment required by a particular tenant.

You must enter the amounts of materials in SI units (commonly known as the metric system). These are generally consistent across the various products on the market. However, you might need to convert the units of some materials (for example, convert volume to kg).

Step 3: Certifier details

In the ‘Certifier’ tab you will add the details of the person who has entered data, and the person who has certified the accuracy of the data. The certifier must be a quantity surveyor, designer, engineer or NABERS assessor.

Step 4: Attach to approval

Attach this Excel spreadsheet to your development application or construction certificate application.

The data collected in this form will be used by the NSW Government to inform future policy development.

Help!

If you have general questions about reporting on the embodied emissions of your building, you should contact your local council or consent authority.

If you have technical questions about this spreadsheet, please contact NABERS:
nabers@environment.nsw.gov.au

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[1] Green Building Council of Australia, 2021, https://new.gbca.org.au/news/gbca-news/gbca-and-thinkstep-release-embodied-carbon-report/

Step 1: About the building

Fill out blue cells

Building location and site data	Value	Unit	Note	Comment
Building address	43-61 Turner Road, Gregory Hills			
Postcode	2557		Required	Postcode of building
Town/city	CATHERINE FIELD + 4 other localities		Town/city/suburb/region automated from postcode (may not give exact town name)	Town/city/suburb/region of the building site.
Distance to nearest major city/town		km	Enter for rural/regional locations only	Declare the shortest route by road to your site from the centre of your nearest major city (>100,000 people). The route must be traversable by a semitrailer truck.
Project stage	Development Application		Required	Stage of development
New build or major renovation?	New build		Required	
Brownfield or greenfield site?	Greenfield		Required	

Floor area by NCC building classification	Gross (GFA)	Net (NLA/NSA/UFA)	Unit	Note	
Please enter all floor areas relevant to your building. Leave areas blank if not applicable. Please enter Gross Floor Area (GFA) for all building classifications. Please also enter the corresponding net area (Net Lettable Area, Net Sellable Area or Usable Floor Area) where it is commonly used for that building classification.					
Class 1a: Detached residential buildings			m²	Required for Class 1a: Detached residential houses, townhouses	Gross Floor Area (GFA), as defined by the AIQS Australian Cost Management Manual
Class 1b: Boarding houses and hostels			m²	Required for Class 1b: Boarding house, guest house, hostel	Net area (Net Lettable Area, Net Sellable Area, Usable Floor Area), as defined by the PCA's Method of Measurement
Class 2: Multi-unit residential buildings			m²	Required for Class 2: Multi-unit residential, including apartment buildings	
Class 3: Other residential buildings			m²	Required for Class 3: Other residential buildings	
Class 4: Residential inside non-residential			m²	Required for Class 4: Residential building inside a non-residential building, e.g., caretaker residence	
Class 5: Office buildings	2,500		m²	Required for Class 5: Office building	
Class 6: Retail buildings			m²	Required for Class 6: Retail building, e.g., shop, restaurant, café	
Class 7a: Carparks			m²	Required for Class 7a: Carparks	
Class 7b: Warehouse-type buildings	20,000		m²	Required for Class 7b: Warehouses, wholesalers and storage facilities	
Class 8: Industrial buildings			m²	Required for Class 8: Industrial buildings, e.g., factories and workshops	
Class 9a: Healthcare buildings			m²	Required for Class 9a: Healthcare, e.g., hospitals, clinics, day surgeries	
Class 9b: Civic buildings			m²	Required for Class 9b: Civic buildings, e.g., theatres, civic centres, train stations	
Class 9c: Aged care and personal care buildings			m²	Required for Class 9c: Aged care and personal care	
Class 10a: Non-habitable buildings	4,919		m²	Required for Class 10a: Non-habitable buildings including sheds, carports and private garages	
Class 10b: Miscellaneous structures			m²	Required for Class 10b: Miscellaneous structures, including fences, masts, antennas, retaining walls and swimming pools	
Class 10c: Bushfire shelters			m²	Required for Class 10c: Bushfire shelters not attached to a Class 1a building	
Total	27,419	0	m²	Required: Sum of m² inputs must be more than 0.	

Project information	Value	Unit	Note	
Total cost of project	781,955,270	AUD excl. GST	Required	Include labour, materials, transport, plant, equipment and professional fees. Exclude GST, land, finance, escalation and other costs.
Building design life	50	years	Required	If uncertain, enter 50 years
Estimated envelope life		years	Optional	
Estimated replacement cycle for mechanical services		years	Optional	
Estimated replacement cycle for vertical transportation		years	Optional	

Dimensions of the building and the site	Value	Unit	Note	
Site area	90,345	m²	Required	Total area of site to external boundary.
Shared services or infrastructure	No		Required	Indicate if there are shared services that the building utilises, or shared foundations, basement or podium
Building footprint area	17,684	m²	Required	Total floor area of the ground floor measured to the outside edge of the floorplate.
Typical floor area (if different to building footprint area)		m²	Only needed if different to row above	
Typical floor perimeter	442	m	Required	
Area of external carpark (not included in GFA)		m^2	Required. Enter 0 if not applicable.	
Area of external hardstand (not included in GFA)		m^2	Required. Enter 0 if not applicable.	
Area of other hard landscaping (not included in GFA)		m^2	Required. Enter 0 if not applicable.	Include all other impervious areas. For example, patios, paths and driveways (not already included in carparks and hardstands above).
Number of floors/storeys above ground, including ground floor	2	no.	Required	
Number of floors/storeys below ground	0	no.	Required. Enter 0 if not applicable.	
Number of floors/storeys of car parking	0	no.	Required. Enter 0 if not applicable.	
Total height above ground	24	m	Required	Measured from the average finished grade to the highest point of the building, excluding protrusions (lighting rods, masts, chimneys, etc.)

Structural material choices	Value	Unit	Note	
Foundation type	Piles		Required	
Frame type (dominant)	Reinforced concrete		Required	
Suspended floor type (typical)	Post-tensioned concrete		****Precast pre-stressed concrete beams & slab panels (hollowcore)	
Describe low carbon materials specified in your building (e.g. green concrete, low carbon bricks)	Low carbon concrete		Required	
Describe recycled content specified in your building (e.g. recycled steel)			Required	

Step 2: Quantity of materials

Complete all blue cells that are applicable to the building. Leave items that aren't applicable blank.

Fill out blue cells

Material category	Sub-category 1	Sub-category 2	Sub-category 3	Value	Unit of measure	Comment	AIQS ACMM Code	ICMS3 (Level 3 Codes Construction)
Structure								
The structural parts of the building that are below ground (substructure) and above ground (superstructure). This includes fill below the substructure, foundations, basement levels, suspended floors, wall structure, roof structure, stairs, lift shafts and balconies. It excludes external areas such as hardstands, carparks, patios, etc.								
Coverage of structural material spend	-	-	-		%	Required. Coverage of spend for structural elements entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins.		
Concrete in-situ	≤10 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11	02 or 03
Concrete in-situ	>10 MPa to ≤20 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11	02 or 03
Concrete in-situ	>20 MPa to ≤32 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11	02 or 03
Concrete in-situ (walls)	>40 MPa to ≤50 MPa	-	-	2,700.0	m³	RR=200KG/M3	01_SB or 02-11	02 or 03
Concrete precast (columns)	>50 MPa to ≤65 MPa	-	-	1,900.0	m³	RR=250KG/M3	01_SB or 02-11	02 or 03
Concrete in-situ (topping slab)	>32 MPa to ≤40 MPa	-	-	3,000.0	m³	SL102 MESH	01_SB or 02-11	02 or 03
Concrete in-situ (foundations)	>40 MPa to ≤50 MPa	-	-	1,600.0	m³	RR=160KG/M3	01_SB or 02-11	02 or 03
Concrete in-situ (GF)	>32 MPa to ≤40 MPa	-	-	4,500.0	m³	RR=50KG/M3, PT=8KG/M2	01_SB or 02-11	02 or 03
Concrete precast (beams)	>40 MPa to ≤50 MPa	-	-	3,800.0	m³	PT=25KG/M2, RR=150KG/M3	01_SB or 02-11	02 or 03
Concrete pre-cast panel	(N40 conrete)	-	-	1,300.0	m³	RR=125kg/m3	01_SB or 02-11	02 or 03
Concrete block	Hollow core	-	-	25.0	m³	Enter as cubic metres, calculated as (area in m²) * (thickness in mm / 1000). Please include all block fill concrete and all reinforcing steel in relevant line items above/below.	01_SB	02 or 03
Concrete block/brick	Solid	-	-	90.0	m³	Enter as cubic metres, calculated as (area in m²) * (thickness in mm / 1000)	01_SB	02 or 03
concrete precast (hollowcore)	>40 MPa to ≤50 MPa	-	-	4,600	m³	PT=9KG/M2	01_SB	02 or 03
Mortar	-	-	-		kg		01_SB	02 or 03
Reinforcing steel	Bar & mesh	-	-		kg	**Include all reinforcing steel bar/mesh in the building's structure in this row.** Usually this is calculated as kg/m³ per concrete element and then summed. Example: 10 m³ of 40 MPa concrete @ 100 kg/m³ + 5 m³ of 50 MPa concrete @ 150 kg/m³ = 1,750 kg reinforcing steel.	01_SB or 02-11	02 or 03
Reinforcing steel	Fibre & strand	-	-		kg	**Include all steel fibre reinforcing and steel strand in the building's structure in this row.**	01_SB or 02-11	02 or 03
Structural steel	Hot rolled structural	-	-	500	t	Examples include universal beams, universal columns and welded beams	01_SB	02 or 03
Structural steel	Cold formed structural	-	-		t	Examples include C purlins, Z purlins and all light gauge steel framing	01_SB	02 or 03
Structural steel	Other welded structural	-	-		t		01_SB	02 or 03
Structural steel	Plate	-	-		t	Include any allowance for connections here	01_SB	02 or 03
Structural steel	Sheet	-	-		t		01_SB	02 or 03
Stainless steel	-	-	-		t	Primarily for engineered timber structure connections	02_11	02 or 03
Reinforced concrete piles	Concrete (N40 conrete)	-	-	1,300	m³	Please enter reinforcing steel in the line below. If not known at DA stage, please make your best estimate. If not known at CC stage, please ask your supplier.	01_SB	02 or 03
Reinforced concrete piles	Steel reinforcing			182,000	kg	If not known at DA stage, please make your best estimate. If not known at CC stage, please ask your supplier.	01_SB	02 or 03
Steel piles	-	-	-		t	Where concrete and reinforcing steel are also used, enter these in the rows above.	01_SB	02 or 03
Timber poles/piles	-	-	-		m³	Where concrete and reinforcing steel are also used, enter these in the rows above.	01_SB	02 or 03
Timber (solid)	Sawn softwood	-	-		m³		02_11	02 or 03
Timber (solid)	Sawn hardwood	-	-		m³		02_11	02 or 03
Timber (engineered)	CLT	-	-		m³		02_11	02 or 03
Timber (engineered)	Glulam	-	-		m³		02_11	02 or 03
Timber (engineered)	LVL	-	-		m³		02_11	02 or 03
Timber (engineered)	OSB	-	-		m³	Enter as cubic metres, calculated as (area of wall in m²) * (thickness in mm / 1000)	02_11	02 or 03
Brick	Heat cured	-	-		m³	Enter as cubic metres, calculated as (area of wall in m²) * (thickness in mm / 1000)	02_11	02 or 03
Structural Insulated Panel (SIP)	Steel outer	-	-		m²		01_SB	02 or 03
Structural Insulated Panel (SIP)	Aluminium outer	-	-		m²		01_SB	02 or 03
Structural Insulated Panel (SIP)	Engineered timber outer	-	-		m²		01_SB	02 or 03
Fill	-	-	-		t	Include purchased material only. Exclude site-won material.	01_SB	01
Sand & gravel	-	-	-		t	Include purchased material only. Exclude site-won material and sand/gravel in concrete.	01_SB	01
Waterproofing membrane	Bituminous	-	-		m²		01_SB	01 or 02 or 03
Waterproofing membrane	Polyethylene	-	-		m²		01_SB	01 or 02 or 03
Other structural (Describe and add unit >>)		-	-			Please enter a description for any structural material that does not fit a predefined classification		
Other structural (Describe and add unit >>)		-	-			Please enter a description for any structural material that does not fit a predefined classification		
Other structural (Describe and add unit >>)		-	-			Please enter a description for any structural material that does not fit a predefined classification		
Envelope								
The skin of the building that separates the internal building from the external environment. This includes the roof cladding, wall cladding, windows, doors and internal/external shading. It also includes insulation and the internal wall lining of envelope walls.								

Coverage of envelope material spend	-	-	-		%	Required. Coverage of spend for the envelope items you have entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins.		
Roof cladding	Profiled steel	-	-		m²	Enter as m² of roof area. Exclude allowances for overlap in the roofing sheets. This row includes all metal-coated and pre-painted steel sheets where steel is the base metal. Examples include: galvanised steel, zinc-aluminium (zincalume) coated steel and zinc-aluminium-magnesium (ZAM) coated steel, whether painted or unpainted.	05_RF	03 or 04
Roof cladding	Profiled aluminium	-	-	11,500	m²	Enter as m² of roof area. Exclude allowances for overlap in the roofing sheets. This row also includes pre-painted aluminium sheets.	05_RF	03 or 04
Roof cladding	Profiled zinc	-	-		m²	Enter as m² of roof area. Exclude allowances for overlap in the roofing sheets. This row also includes pre-painted zinc sheets.	05_RF	03 or 04
Roof cladding	Membrane	-	-		m²	Enter as m² of roof area. Exclude allowances for overlap in the membrane sheets.	05_RF	03 or 04
Roof cladding	Tiles (traditional clay)	-	-		m²	Enter as m² of roof area. Exclude allowances for overlap between the tiles.	05_RF	03 or 04
Roof cladding	Tiles (concrete)	-	-		m²	Enter as m² of roof area. Exclude allowances for overlap between the tiles.	05_RF	03 or 04
Roof cladding	Other (Please describe >>)		-		m²	Please enter a description for any roofing that does not fit a predefined classification	05_RF	03 or 04
Wall cladding	Bricks (heat cured)	-	-		m²	Enter as m² of wall area. Heat-cured bricks use a kiln or furnace to raise the brick temperature above ambient temperature during curing process.	06_EW	03 or 04
Wall cladding	Bricks (air dried)	-	-		m²	Enter as m² of wall area. Air-dried bricks are cured using ambient temperature.	06_EW	03 or 04
Wall cladding	Bricks (under fired)	-	-		m²	Enter as m² of wall area.	06_EW	03 or 04
Wall cladding	Bricks (concrete)	-	-		m²	Enter as m² of wall area	06_EW	03 or 04
Wall cladding	Mortar and render	-	-		kg		06_EW	03 or 04
Wall cladding	Profiled steel	-	-		m²	Enter as m² of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row includes all metal-coated and pre-painted steel sheets where steel is the base metal. Examples include: galvanised steel, zinc-aluminium (zincalume) coated steel and zinc-aluminium-magnesium (ZAM) coated steel, whether painted or unpainted.	06_EW	03 or 04
Wall cladding	Profiled aluminium	-	-	8,100	m²	Enter as m² of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row also includes pre-painted aluminium sheets.	06_EW	03 or 04
Wall cladding	Profiled zinc	-	-		m²	Enter as m² of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row also includes pre-painted zinc sheets.	06_EW	03 or 04
Wall cladding	GRC cladding	-	-		m²	Enter as m² of wall area. GRC = Glass Reinforced Concrete.	06_EW	03 or 04
Wall cladding	Timber weatherboards	-	-		m²	Enter as m² of wall area. Exclude allowances for overlap between weatherboards, offcuts, etc.	06_EW	03 or 04
Wall cladding	Fibre cement board	-	-		m²	Enter as m² of wall area. Exclude allowances for offcuts, etc.	06_EW	03 or 04
Wall cladding	Terracotta	-	-		m²	Enter as m² of wall area. Exclude allowances for offcuts, etc.	06_EW	03 or 04
Wall cladding	Brick tiles / veneers	-	-		m²	Enter as m² of wall area. Exclude allowances for offcuts, etc.	06_EW	03 or 04
Wall cladding	Plasterboard	-	-		m²	Enter as m² of wall area. Exclude allowances for offcuts, etc. Include both external wall linings and internal wall linings for envelope walls.	12_WF or 06_EW	03 or 04
Wall cladding	Plywood	-	-		m²	Enter as m² of wall area. Exclude allowances for offcuts, etc. Include both external wall linings and internal wall linings for envelope walls.	12_WF or 06_EW	03 or 04
Wall cladding	Other (Please describe >>)		-		m²	Please enter a description for any wall cladding that does not fit a predefined classification	06_EW or 12_WF	03 or 04
Windows & doors	Aluminium frame	Single glazed	-		m²	Include all single glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Aluminium frame	Double glazed	-		m²	Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Aluminium frame	Triple glazed	-		m²	Include all triple glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Timber frame	Single glazed	-		m²	Include all single glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Timber frame	Double glazed	-		m²	Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Timber frame	Triple glazed	-		m²	Include all triple glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	uPVC frame	Single glazed	-		m²	Include all single glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	uPVC frame	Double glazed	-		m²	Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	uPVC frame	Triple glazed	-		m²	Include all triple glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Frameless	Single glazed			m²	Include all single glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Frameless	Double glazed			m²	Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Frameless	Triple glazed			m²	Include all triple glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors	Other (Please describe >>)		-		m²	Please enter a description for any windows or doors that do not fit a predefined classification	07_WW or 08_ED	03 or 04
Curtain wall	Single skin façade	Glazed panel	Single glazed		m²	Please declare all single-skin façade area in this section. All double-skin façade area should be entered in the next section. Include all single glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Curtain wall	Single skin façade	Glazed panel	Double glazed		m²	Include all double glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Curtain wall	Single skin façade	Glazed panel	Triple glazed		m²	Include all triple glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Curtain wall	Single skin façade	Opaque panel	Aluminium cladding		m²		06_EW	03 or 04
Curtain wall	Single skin façade	Opaque panel	GRC cladding		m²	GRC = Glass-fibre Reinforced Concrete	06_EW	03 or 04
Curtain wall	Single skin façade	Opaque panel	Insulated shadow box		m²		06_EW	03 or 04
Curtain wall	Single skin façade	Opaque panel	Brick cladding		m²		06_EW	03 or 04
Curtain wall	Single skin façade	Opaque panel	Stone cladding		m²		06_EW	03 or 04
Curtain wall	Double skin façade	Glazed panel	Single glazed		m²	Please declare all double-skin façade area in this section. Please declare as the area of the curtain wall and do not enter the inner and outer skins twice. Include all single glazing, including standard, toughened, laminated and low-E.	06_EW	03 or 04
Curtain wall	Double skin façade	Glazed panel	Double glazed		m²	The type of glazing refers to the building's envelope wall, not including the outer skin	06_EW	03 or 04
Curtain wall	Double skin façade	Glazed panel	Triple glazed		m²	The type of glazing refers to the building's envelope wall, not including the outer skin	06_EW	03 or 04
Curtain wall	Double skin façade	Opaque panel	Aluminium cladding		m²		06_EW	03 or 04
Curtain wall	Double skin façade	Opaque panel	GRC cladding		m²	GRC = Glass-fibre Reinforced Concrete	06_EW	03 or 04

Curtain wall	Double skin façade	Opaque panel	Insulated shadow box		m²		06_EW	03 or 04
Curtain wall	Double skin façade	Opaque panel	Brick cladding		m²		06_EW	03 or 04
Curtain wall	Double skin façade	Opaque panel	Stone cladding		m²		06_EW	03 or 04
Curtain wall	Other (Please describe >>)		-		m²	Please enter a description for any curtain wall that does not fit a predefined classification	06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Glazed section	Single glazed		m²	Include all single glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Glazed section	Double glazed		m²	Include all double glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Glazed section	Triple glazed		m²	Include all triple glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Opaque section	Aluminium cladding		m²		06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Opaque section	GRC cladding		m²	GRC = Glass-fibre Reinforced Concrete	06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Opaque section	Insulated shadow box		m²		06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Opaque section	Brick cladding		m²		06_EW	03 or 04
Stick-framed wall system	Aluminium frame	Opaque section	Stone cladding		m²		06_EW	03 or 04
Stick-framed wall system	Steel frame	Glazed section	Single glazed		m²	Include all single glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system	Steel frame	Glazed section	Double glazed		m²	Include all double glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system	Steel frame	Glazed section	Triple glazed		m²	Include all triple glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system	Steel frame	Opaque section	Aluminium cladding		m²		06_EW	03 or 04
Stick-framed wall system	Steel frame	Opaque section	GRC cladding		m²	GRC = Glass-fibre Reinforced Concrete	06_EW	03 or 04
Stick-framed wall system	Steel frame	Opaque section	Insulated shadow box		m²		06_EW	03 or 04
Stick-framed wall system	Steel frame	Opaque section	Brick cladding		m²		06_EW	03 or 04
Stick-framed wall system	Steel frame	Opaque section	Stone cladding		m²		06_EW	03 or 04
Stick-framed wall system	Other (Please describe >>)		-		m²	Please enter a description for any wall system that does not fit a predefined classification	06_EW	03 or 04
Wall louvre system	Aluminium	-	-		m²		06_EW	03 or 04
External shading system	Aluminium frame	Aluminium cladding	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Aluminium frame	GRC cladding	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000). GRC = Glass-fibre Reinforced Concrete.	06_EW	03 or 04
External shading system	Aluminium frame	Terracotta cladding	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Aluminium frame	Stone cladding	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Aluminium frame	Pre-cast concrete	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Aluminium frame	Timber	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Aluminium frame	Glass (opague)	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Aluminium frame	Steel	-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
External shading system	Other (Please describe >>)		-		m²	Please enter as m² of shaded area = linear metres * (width in mm / 1000)	06_EW	03 or 04
Roller doors	Steel profile	-	-		m²	Please note unit is square metres, not quantity	08_ED	03 or 04
Roller doors	Hardwood over steel	-	-		m²	Please note unit is square metres, not quantity	08_ED	03 or 04
Roller doors	Softwood over steel	-	-		m²	Please note unit is square metres, not quantity	08_ED	03 or 04
Revolving doors	Glass/aluminium/steel	-	-		no.		08_ED	03 or 04
Fire-rated doors	Engineered timber	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	08_ED	03 or 04
Fire-rated doors	Steel	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	08_ED	03 or 04
Fire-rated doors	Aluminium/glass	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	08_ED	03 or 04
Insulation	Glass wool / fibreglass	-	-		m²	Please include both wall and ceiling insulation	05_RF or 06_EW	03 or 04
Insulation	Stone wool	-	-		m²	Please include both wall and ceiling insulation	05_RF or 06_EW	03 or 04
Insulation	Polyester	-	-		m²	Please include both wall and ceiling insulation	05_RF or 06_EW	03 or 04
Insulation	Expanded polystyrene	-	-		m²	Please include both wall and ceiling insulation	05_RF or 06_EW	03 or 04
Insulation	Other (Please describe >>)		-		m²	Please include both wall and ceiling insulation	05_RF or 06_EW	03 or 04
Other (Please describe and add unit >>)		-	-			Please enter a description for any envelope material that does not fit a predefined classification		
Other (Please describe and add unit >>)		-	-			Please enter a description for any envelope material that does not fit a predefined classification		
Other (Please describe and add unit >>)		-	-			Please enter a description for any envelope material that does not fit a predefined classification		

Permanent internal walls and doors

Walls and doors within the building that are either structural or designed to be permanent.

Coverage of material spend on permanent internal walls and doors					%	Enter the % coverage of spend for the items you have entered below. There is no minimum requirement: enter what you know. This should include all structural walls. Exclude head contractor preliminaries and margins.		
Interior wall (permanent)	Steel (light framing)	-	-		t		09_NW	03 or 04
Interior wall (permanent)	Timber framing	-	-		m³		09_NW	03 or 04
Interior wall (permanent)	AAC panel (reinforced)	-	-		m²	Panels of autoclaved aerated concrete (AAC) with reinforcing steel. E.g., Hebel.	09_NW or 12_WF	03 or 04
Interior wall (permanent)	Concrete-filled steel panel	-	-		m²	Panels made from a steel sheet outer with an aerated concrete core. E.g., Speedpanel.	09_NW or 12_WF	03 or 04
Interior wall (permanent)	Plasterboard	-	-		m²	Enter as single-layer equivalent. If using 2 layers, multiply the area by 2.	09_NW or 12_WF	03 or 04
Interior wall (permanent)	Plywood	-	-		m²	Enter as single-layer equivalent. If using 2 layers, multiply the area by 2.	09_NW or 12_WF	03 or 04
Interior wall (permanent)	Fibre cement sheet	-	-		m²	Enter as single-layer equivalent. If using 2 layers, multiply the area by 2.	09_NW or 12_WF	03 or 04
Interior wall (permanent)	Insulation	-	-		m²		09_NW or 12_WF	03 or 04
Interior wall (permanent)	Glass	-	-		m²		09_NW or 12_WF	03 or 04
Interior wall (permanent)	Other (Please describe >>)		-		m²	Please enter a description for any internal wall that does not fit a predefined classification	09_NW or 12_WF	03 or 04
Internal door (permanent)	Aluminium/glass	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	11_ND	03 or 04

Internal door (permanent)	Timber/glass	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	11_ND	03 or 04
Internal door (permanent)	Timber solid lightweight	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	11_ND	03 or 04
Internal door (permanent)	Fire resistant	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	11_ND	03 or 04
Internal door (permanent)	Steel	-	-		no.	Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2.	11_ND	03 or 04
Internal door (permanent)	Other (Please describe >>)		-		no.	Please enter a description for any internal door that does not fit a predefined classification	11_ND	03 or 04
Other (Please describe and add unit >>)		-	-			Please enter a description for any material that does not fit a predefined classification		
Other (Please describe and add unit >>)		-	-			Please enter a description for any material that does not fit a predefined classification		
Other (Please describe and add unit >>)		-	-			Please enter a description for any material that does not fit a predefined classification		

Services

					Unit of measure			
Building services included within the main building contract. If the building components that are the subject of the development application or the construction certificate are base building only, then only enter these items. If you cannot split services by type, please enter them all in the "Other services" category at the bottom. Enter all values as material costs in dollars.								
Mechanical services	-	-	-	6,972,366	AUD excl. GST	Where possible, enter material costs excluding labour, plant, equipment, margins and taxes	28_SS	05
Vertical transportation	-	-	-	813,708	AUD excl. GST	Where possible, enter material costs excluding labour, plant, equipment, margins and taxes	28_SS	05
Electrical services	-	-	-	43,293,233	AUD excl. GST	Electrical services including the main power supply, backup generators, security and communications. Excluding solar installations. Where possible, enter material costs excluding labour, plant, equipment, margins and taxes.	26_LP	05
Solar photovoltaic installations	-	-	-		AUD excl. GST	Where possible, enter material costs excluding labour, plant, equipment, margins and taxes	26_LP_LPGP	05
Plumbing/hydraulic services	-	-	-	1,937,910	AUD excl. GST	Where possible, enter material costs excluding labour, plant, equipment, margins and taxes	18_PD and 19_WS	05 or 06
Fire services				4,206,006	AUD excl. GST	Where possible, enter material costs excluding labour, plant, equipment, margins and taxes	25_FPSS04 or 39 XWAW_03 or 41_XF	05
Other services (Please describe)		-	-	8,498,974	AUD excl. GST	Please group all other services here, meaning that coverage will always be 100% for services. Enter only the material costs (excluding labour, plant, equipment, margins and taxes).	29_SS or multiple	

External works

The materials associated with hard landscaping and outbuildings on the site but outside the building envelope. This includes hardstands, carparks, driveways, covered walkways, decks, patios, awnings, fences, gates, etc. Soft landscaping should be excluded.								
Coverage of spend on external works	-	-	-		%	Required. Coverage of spend for external works (excluding soft landscaping) entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins.		
Asphalt	-	-	-		t		33_XR	07
Concrete in-situ	≤10 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	33_XR or 34_XN or 35_XB or 36_XL	07
Concrete in-situ	>10 MPa to ≤20 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	33_XR or 34_XN or 35_XB or 36_XL	07
Concrete in-situ	>20 MPa to ≤32 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	33_XR or 34_XN or 35_XB or 36_XL	07
Concrete in-situ	>32 MPa to ≤40 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	33_XR or 34_XN or 35_XB or 36_XL	07
Concrete in-situ	>40 MPa to ≤50 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	33_XR or 34_XN or 35_XB or 36_XL	07
Concrete in-situ	>50 MPa	-	-		m³	Please enter reinforcing steel as part of "Reinforcing steel" below	33_XR or 34_XN or 35_XB or 36_XL	07
Pavers, bricks and blocks	Concrete	-	-		m²		33_XR	07
Pavers, bricks and blocks	Clay	-	-		m²		33_XR	07
Reinforcing steel	Bar & mesh	-	-		kg	**Include all reinforcing steel bar/mesh in the external works in this row.** Usually this is calculated as kg/m³ per concrete element and then summed. Example: 10 m³ of 40 MPa concrete @ 100 kg/m³ + 5 m³ of 50 MPa concrete @ 150 kg/m³ = 1,750 kg reinforcing steel.	33_XR or 34_XN or 35_XB or 36_XL	07
Reinforcing steel	Fibre & strand	-	-		kg	**Include all steel fibre reinforcing and steel strand in the external works in this row.**	33_XR or 34_XN or 35_XB or 36_XL	07
Structural steel	-	-	-		t		02_11	07
Structural aluminium	-	-	-		t	Includes structures, louvre systems, etc.	35_XB	07
External roof/wall cladding	Polycarbonate	-	-		m²	Enter as profiled polycarbonate sheet that would ordered, including allowance for overlap	35_XB	07
External roof/wall cladding	PVC	-	-		m²	Enter as profiled PVC sheet that would ordered, including allowance for overlap	35_XB	07
External roof/wall cladding	Bitumen sheet	-	-		m²	Enter as bituminous sheet that would ordered, including allowance for overlap	35_XB	07
External roof/wall cladding	Steel profile	-	-		m²	Enter as profiled steel sheet that would ordered, including allowance for overlap	35_XB	07
Fill	-	-	-		t	Include purchased material only. Exclude site-won material.	33_XR or 34_XN or 35_XB or 36_XL	07
Sand & gravel	-	-	-		t	Include purchased material only. Exclude site-won material and sand/gravel in concrete.	33_XR or 34_XN or 35_XB or 36_XL	07
Timber (solid)	Sawn softwood	-	-		m³		33_XR or 34_XN or 35_XB or 36_XL	07
Timber (solid)	Sawn hardwood	-	-		m³		33_XR or 34_XN or 35_XB or 36_XL	07
Timber (engineered)	CLT	-	-		m³		33_XR or 34_XN or 35_XB or 36_XL	07
Timber (engineered)	Glulam	-	-		m³		33_XR or 34_XN or 35_XB or 36_XL	07
Timber (engineered)	LVL	-	-		m³		33_XR or 34_XN or 35_XB or 36_XL	07
Timber (engineered)	OSB	-	-		m³		33_XR or 34_XN or 35_XB or 36_XL	07
Fabric (awning/sunshade)					m²		35_XB or 36_XL	07
Other (Please describe and add unit >>)		-	-			Please enter a description for any external works that does not fit a predefined classification		
Other (Please describe and add unit >>)		-	-			Please enter a description for any external works that does not fit a predefined classification		
Other (Please describe and add unit >>)		-	-			Please enter a description for any external works that does not fit a predefined classification		

Step 3: Certifier details

Fill out blue cells

The material quantities must be determined through an itemised list of building materials (such as a bill of quantities) and certified by a quantity surveyor, designer, engineer or NABERS Assessor.

Person that completed this form	Value	Note
Name	Richard Andews	Required
Company	ARUP	Required
ABN	76625912665	
Profession	Associate	Required
Qualification or registration	BSc (Hons) Mathematics, University of Leeds	Required

Person that certified the details in this form	Value	Note
Name	Richard Andews	Required
Company	ARUP	Required
ABN	76625912665	
Profession	Associate	Required
Qualification or registration	BSc (Hons) Mathematics, University of Leeds	Required

Confirmation of certification	Value	Note
Are 80% of material costs captured for the building's structure, envelope and external works?	Yes	Required
If no - why not?		

Additional comments from data provider

Additional comments of certifier

Attach this Excel spreadsheet to your development application or construction certificate application.