

7th October 2020

Mr David McDonnell
Design Manager
Roberts Pizzarotti Pty Ltd
Level 54, Governor Phillip Tower
1 Farrer Place
Sydney NSW 2000

Dear David

Development Consent: SSD9343– Schools at the Meadowbank Education and Employment Precinct (SMEEP)

CC2 Compliance: Above Ground Structure, Balance of Structure – B4

This Certificate covers architectural and interior design for the SMEEP Project and excludes the work of other design disciplines and sub-contractors etc.

Woods Bagot confirm that to the best of our knowledge, and in accordance with the standard level of architectural practice required under the signed Consultancy Agreement, that the architectural elements for the SMEEP Project associated with the CC2 Submission, being the external walls, both concrete and blockwork comply with the relevant requirements of the NCC. We note the balance of the façade materials are specified by Prism Façade Engineers and will be certified by Prism, not Wood Bagot.

Should you have any queries regarding this correspondence, please do not hesitate to contact the undersigned.

Yours sincerely



Ian Lomas
PRINCIPAL

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DECEASED FOUNDERS Edward John Woods FRIBA (1839-1916) Walter Hervey Bagot ARIBA (1880-1963)



Schedule

MA

Masonry

Project number
121394

Project
SMEEP

WOODS BAGOT ©

Deliverable ID

MSP-WB-AR-MA

Revision	Checked	Approved	Date revised	Status
2	AJ	IL	25 September 2020	Design Development

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GENERAL**Scope of works**

Requirement: The works described in this Schedule include but are not limited to:

- the provision of all labour, materials, plant and equipment necessary for the supply and complete installation of all block construction inclusive of all necessary accessories required to complete the work.
- the manufacture, supply and laying of all new masonry units
- all associated cutting of masonry to suit the required details
- the supply and building-on of all necessary miscellaneous fixings, lintels, straps, masonry ties and restraints, flashings, damp-proof courses and control joints and the cleaning of facework on completion.
- supply and installation of compressible fillers, all backing rods, mastics, sealants and fireproofing to vertical and horizontal joints as required by the documents and in accordance with Building Code of Australia requirements.
- all staging and scaffolding required for the work.

Precedence

Worksections: The requirements of this Schedule override conflicting requirements of other worksections of the specification including but not limited to those listed in cross reference.

Cross reference

This schedule is to be read in conjunction with the Specification including but not limited to the following worksection(s):

- 0331 Brick and block construction.
- 0332 Stone masonry.
- 0333 Stone repair.
- 0334 Block construction.
- 0335 Brick construction.
- 0336 Autoclaved aerated concrete construction

This schedule is to be read in conjunction with the Structural Engineer's documents.

Substitutions

Alternatives: If alternatives to the documented products, methods or systems are proposed, submit sufficient information to permit evaluation of the proposed alternatives, including but not limited to:

- Evidence that the performance is equal to or greater than that specified.
- Evidence of conformity to all cited standards
- Evidence of compliance with all relevant statutory requirements, benchmarks, and performance criteria including but not limited to:
 - Fire resistance
 - Thermal performance
 - Acoustic performance
 - WaterMark Certification; and
 - CodeMark Certification
- Evidence of compliance with the ESD requirements of the documented products
- Samples.
- Essential technical information, in English.

Substitutions without evidence: Substitutions made without notice and or without evaluation by the Architect shall be deemed to be non-compliance with the requirements of the Contract

Dimensions

General: Plan dimensions are always shown to the face of the masonry (brickwork or blockwork). Any applied finishes are "outside" the shown dimension and reduce the room dimensions

Notations: The following notations are used in lieu of dimensions:

- The notation FLUSH (on the Drawings) indicates that the face of the masonry is to be aligned with abutting element to facilitate a flush finish.
- The notation ALIGN (on the Drawings) indicates that faces of the masonry are to be aligned across the opening so that they finish aligned.

Contiguity of assemblies

Requirement: The various assemblies specified below frequently combine with and are contiguous with each other. Where assemblies are contiguous the interfaces shall be seamless without any visible demarcation including continuation of bond.

Lintels

Requirements: All lintels in blockwork shall be “bond beams”.

Refer to the Structural Engineers documents for the details of “bond beam” construction.

Control joints:

Requirements: Refer to the Architectural documents, including the drawings, including the drawings referred to in Note 2 above, for the locations of control joints. Control joint in masonry walls are designated BCJ on the drawings.

Core grouting:

Complete fill the block cores as follows:

- immediately adjacent every door jamb (jamb core),
- either side of control joints,
- either side of isolation joints.

Fill the cores with mortar as the work proceeds.

Wall ties:

Requirements: Wall ties shall be Brunswick Sales MFA 3/3 P, MFA3/3 FB and other variants, or Abey Alligator Expansion Ties, as required by the location and abutments.

Masonry cement mortar mix table: Cement, lime, sand ratios (by volume)

Mortar class to AS 3700	Cement, lime, sand ratios (by volume)			Water thickener
	Clay	Concrete	Calcium silicate	
Masonry cement				
M3	1:0:4	1:0:4	n/a	Yes
M4	1:0:3	n/a	n/a	Yes

Cement (GP/GB) mortar mix table: Cement, lime, sand ratios (by volume)

Mortar class to AS 3700	Cement, lime, sand ratios (by volume)			Water thickener
	Clay	Concrete	Calcium silicate	
M2	1:2:9	n/a	n/a	No
M3	1:1:6	1:1:6	n/a	Optional
M3	1:0:5	1:0:5	1:0:5	Yes
M4	1:0.5:4.5	1:0.5:4.5	n/a	Optional
M4	1:0:4	1:0:4	1:0:4	Yes
M4	1:0-0.25:3	1:0-0.25:3	n/a	Optional

Mortar mix table

Mortar class to AS 3700	Cement, lime, sand ratios (by volume)		Water thickener
	Concrete	Calcium silicate	
Portland cement			
M3	1:1:6	n/a	Optional
M4	1:0.5:4.5	n/a	Optional

Acoustic installations

General: Preserve the sound reduction properties of Rw rated walls by sealing flanking sound transmission paths during installation, including junctions between walls and other building surfaces, air gaps around doorsets, recesses and cut-outs for services. Avoid cut-outs next to or back-to-back with each other.

Sealing methods: Use appropriate sealing methods, such as purpose-made solid profiled inserts, durable resilient gaskets or closed cell foam strips. Provide solid resilient materials in preference to foamed materials whenever possible.

Bond

Type: Stretcher bond unless specifically scheduled otherwise.

Existing work: Rod and bond to match existing.

Rods

Set-out: Construct masonry to the following rods:

- 75 mm high units: 7 courses to 600 mm.
- 90 mm high units: 6 courses to 600 mm.
- 190 mm high units: 3 courses to 600 mm.

Building in

Embedded items: Build in wall ties and accessories as the construction proceeds. If it is not practicable to obtain the required embedment wholly in the mortar joint in hollow masonry units, fill appropriate cores with grout or mortar.

Services: Co-ordinate masonry construction with all services, including:

- building in of cables/conduits for electric strikes, read switches, GPOs light switches etc;
- provision of openings for services elements such as light fittings, ductwork, pipework, ventilation outlets, detectors sprinklers, loudspeakers and the like; and
- location of control joints and ductwork wall penetrations

Steel door frames: Fill the backs of jambs and heads solid with mortar as the work proceeds.

Holes and chases

General: If holes and chases are required in masonry walls, provide proposals.

Facework: Do not chase.

Approval: Do not chase without prior approval.

Horizontal chases in load-bearing walls: 500 maximum.

Chasing

Requirements: Unless otherwise permitted, chasing of blockwork shall be to the **Concrete blockwork chasing table** and subject to the following limitations:

- Chasing may only be carried out in core-filled hollow blocks or solid blocks which are not designated as structural.
- Parallel chases on opposite faces of a wall shall not be closer than 600 mm to each other.

Concrete blockwork chasing table

Block thickness (mm)	Depth of chase (maximum mm)
190	35
140	25
90	20

Joints and cutting

Set out bricks or blocks with joints of uniform width and minimise cutting of masonry units.

- Holes, sleeves and chases: Build in during erection.
- Joint thickness: 10 mm.
- Joint finish: Refer to finishes documents to determine final wall finish.
- Paint finish: Ironed joints with 15 rod.
- Render finish: Struck flush joints.
- Plasterboard lining: Struck flush joints.

Wall tie spacing

General: In addition to the requirements of AS 3700 clause 4.10 or AS 4773 space wall tiles as follows:

- Not more than 600 mm in each direction.
- Adjacent to vertical lateral supports.
- Adjacent to control joints.
- Around openings.

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02 SCHEDULE

MA:01 190 Concrete Blockwork (2hr Fire Rated)

Performance:	This assembly is required to achieve an FRL of 120/120/120.	
Reference:	Conform to the requirements of the Boral <ul style="list-style-type: none">– Masonry Design Guide - Structural, Fire and Acoustics - New South Wales - Book 1– Masonry Design Guide – Masonry Block and Bricks - New South Wales - Book 2.	
Masonry units:	Boral Core-Fill Natural - Series 200 blocks Colour: Standard grey Complete with all accessories and cut blocks necessary to complete the work and including: <ul style="list-style-type: none">– 20. 91 Double “U” Block (390x190x190mm nominal).– 20.92 Corner and End (390x190x190mm nominal).– 20.03 Half End (190x190x190mm nominal).– 20.15 Lintel (190x190x190 nominal).	
Mortar:	Class:	M3 and M4.
	Colour:	To match block colour.
Finish:	Generally:	Facework.
	Concealed:	Common where the blockwork is to receive an applied finish (render, plasterboard, tiles etc.).
Lintel:	Refer to Lintols .	
Joints:	Facework:	Ironed to all visible faces (where paint finish or exposed) Flush struck joint where applied finish required (ie tile)
	Common:	Cut flush.
Control joints:	Product:	Single component fire rated polyurethane sealant. Bostik Fireban One
	Backing rod:	Closed cell foam backing rod to both sides of control joints. All gaps are to be completely filled to ensure the integrity of the fire rating
	Width:	10mm nominal.
Structural:	Refer to the Structural Engineers documentation for details of core filling and reinforcement.	

MA:02 190 concrete blockwork

Performance:	This assembly is not required to achieve any particular fire performance.	
Reference:	Conform to the requirements of the Boral <ul style="list-style-type: none">– Masonry Design Guide - Structural, Fire and Acoustics - New South Wales - Book 1– Masonry Design Guide – Masonry Block and Bricks - New South Wales - Book 2.	
Masonry units:	Boral Core-Fill Natural - Series 200 blocks Colour: Standard grey Complete with all accessories and cut blocks necessary to complete the work and including: <ul style="list-style-type: none">– 15. 91 Double “U” Block (390x190x140mm nominal).– 15.22 Corner and End (390x190x140mm nominal).– 15.03 Half End (190x190x140mm nominal).	

		– 15.15 Lintel (190x190x140 nominal).
Mortar:	Class:	M3 and M4.
	Colour:	To match block colour.
Finish:	Generally:	Facework.
	Concealed:	Common where the blockwork is to receive an applied finish (render, plasterboard, tiles etc.).
Lintel:		Refer to Lintols .
Joints:	Facework:	Ironed to all visible faces (where paint finish or exposed)
		Flush struck joint where applied finish required (ie tile)
	Common:	Otherwise cut flush.
Control joints:	Product:	Single component polyurethane sealant Seal N Flex 1 Polyurethane Sealant
	Backing rod:	Closed cell foam backing rod to both sides of control joints
	Width:	10mm nominal.

MA:03 140 concrete blockwork

Performance:		This assembly is not required to achieve any particular fire performance.
Reference:		Conform to the requirements of the Boral <ul style="list-style-type: none"> – Masonry Design Guide - Structural, Fire and Acoustics - New South Wales - Book 1 – Masonry Design Guide – Masonry Block and Bricks - New South Wales - Book 2.
Masonry units:		Boral Core-Fill Natural - Series 150 blocks
	Colour:	Standard grey
		Complete with all accessories and cut blocks necessary to complete the work and including: <ul style="list-style-type: none"> – 15.91 Double “U” Block (390x190x140mm nominal). – 15.22 Corner and End (390x190x140mm nominal). – 15.03 Half End (190x190x140mm nominal). – 15.15 Lintel (190x190x140 nominal).
Mortar:	Class:	M3 and M4.
	Colour:	To match block colour.
Finish:	Generally:	Facework.
	Concealed:	Common where the blockwork is to receive an applied finish (render, plasterboard, tiles etc.).
Lintel:		Refer to Lintols .
Joints:	Facework:	Ironed to all visible faces (where paint finish or exposed)
		Flush struck joint where applied finish required (ie tile)
	Common:	Otherwise cut flush.
Control joints:	Product:	Single component polyurethane sealant Seal N Flex 1 Polyurethane Sealant
	Backing rod:	Closed cell foam backing rod to both sides of control joints
	Width:	10mm nominal.

MA:04 90 concrete blockwork

Performance:	This assembly is not required to achieve any particular fire performance.	
Reference:	Conform to the requirements of the Boral <ul style="list-style-type: none"> - Masonry Design Guide - Structural, Fire and Acoustics - New South Wales - Book 1 - Masonry Design Guide – Masonry Block and Bricks - New South Wales - Book 2. 	
Masonry units:	Boral Core-Fill Natural - Series 100 blocks Colour: Standard grey Complete with all accessories and cut blocks necessary to complete the work and including: <ul style="list-style-type: none"> - 15.91 Double “U” Block (390x190x140mm nominal). - 15.22 Corner and End (390x190x140mm nominal). - 15.03 Half End (190x190x140mm nominal). - 15.15 Lintel (190x190x140 nominal). 	
Mortar:	Class:	M3 and M4.
	Colour:	To match block colour.
Finish:	Generally:	Facework.
	Concealed:	Common where the blockwork is to receive an applied finish (render, plasterboard, tiles etc.).
Lintel:	Refer to Lintols .	
Joints:	Facework:	Ironed to all visible faces (where paint finish or exposed) Flush struck joint where applied finish required (ie tile)
	Common:	Otherwise cut flush.
Control joints:	Product:	Single component polyurethane sealant Seal N Flex 1 Polyurethane Sealant
	Backing rod:	Closed cell foam backing rod to both sides of control joints
	Width:	10mm nominal.

MA:05 190 Concrete Blockwork (1hr Fire Rated)

Performance:	This assembly is required to achieve an FRL of 60/60/60.	
Reference:	Conform to the requirements of the Boral <ul style="list-style-type: none"> - Masonry Design Guide - Structural, Fire and Acoustics - New South Wales - Book 1 - Masonry Design Guide – Masonry Block and Bricks - New South Wales - Book 2. 	
Masonry units:	Boral Core-Fill Natural - Series 200 blocks Colour: Standard grey Complete with all accessories and cut blocks necessary to complete the work and including: <ul style="list-style-type: none"> - 20.91 Double “U” Block (390x190x190mm nominal). - 20.92 Corner and End (390x190x190mm nominal). - 20.03 Half End (190x190x190mm nominal). - 20.15 Lintel (190x190x190 nominal). 	
Mortar:	Class:	M3 and M4.
	Colour:	To match block colour.
Finish:	Generally:	Facework.
	Concealed:	Common where the blockwork is to receive an applied finish (render, plasterboard, tiles etc.).

Lintel:	Refer to Lintols .
Joints:	Facework: Ironed to all visible faces (where paint finish or exposed) Flush struck joint where applied finish required (ie tile) Common: Cut flush.
Control joints:	Product: Single component fire rated polyurethane sealant. Bostik Fireban One Backing rod: Closed cell foam backing rod to both sides of control joints. All gaps are to be completely filled to ensure the integrity of the fire rating Width: 10mm nominal.
Structural:	Refer to the Structural Engineers documentation for details of core filling and reinforcement.

MA:06 140 Concrete Blockwork (1hr Fire Rated)

Performance:	This assembly is required to achieve an FRL of 60/60/60.
Reference:	Conform to the requirements of the Boral <ul style="list-style-type: none"> - Masonry Design Guide - Structural, Fire and Acoustics - New South Wales - Book 1 - Masonry Design Guide – Masonry Block and Bricks - New South Wales - Book 2.
Masonry units:	Boral Core-Fill Natural - Series 150 blocks Colour: Standard grey Complete with all accessories and cut blocks necessary to complete the work and including: <ul style="list-style-type: none"> - 15.91 Double “U” Block (390x190x140mm nominal). - 15.22 Corner and End (390x190x140mm nominal). - 15.03 Half End (190x190x140mm nominal). - 15.15 Lintel (190x190x140 nominal).
Mortar:	Class: M3 and M4. Colour: To match block colour.
Finish:	Generally: Facework. Concealed: Common where the blockwork is to receive an applied finish (render, plasterboard, tiles etc.).
Lintel:	Refer to Lintols .
Joints:	Facework: Ironed to all visible faces (where paint finish or exposed) Flush struck joint where applied finish required (ie tile) Common: Cut flush.
Control joints:	Product: Single component fire rated polyurethane sealant. Bostik Fireban One Backing rod: Closed cell foam backing rod to both sides of control joints. All gaps are to be completely filled to ensure the integrity of the fire rating Width: 10mm nominal.
Structural:	Refer to the Structural Engineers documentation for details of core filling and reinforcement.

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