S 1.0.2 SUMNER® Adhered Masonry Veneers (SAMV) Written Specification v3

1. **GENERAL**

SAMV supplies a Fibre Cement Sheet cladding to which is adhered thin masonry.
SAMV has been issued the BEAL Appraisal Certificate #2305.

Documents

1.1 DOCUMENTS REFERRED TO
Documents referred to in this section are:

NZBC B1/AS1	Structure general, 2.0
Masonry NZBC E2/AS1	External Moisture
AS/NZS 2908.2	Cellulose-cement products - Flat
sheet NZS 3604	Timber-framed buildings
NZS 4210	Masonry construction, materials and workmanship

1.2 MANUFACTURER'S DOCUMENTS
SUMNER® and other manufacturer's and supplier's documents relating to work in this section are:
SUMNER® Technical Manual PTS v5
SUMNER Product Technical Statement
SUMNER BEAL Appraisal

Copies of the above literature are available at:

Web:	www.sumnerschist.co.nz
Email:	james@sumnerschist.co.nz
Telephone:	09 579 3326
Facsimile:	09-579 7308

Warranties

1.3 WARRANTY - MANUFACTURER/SUPPLIER
Provide a limited material manufacturer/supplier warranty:

15 years	Materials supplied fir for use

1.4 WARRANTY – ISSUED BY
INSTALLER warranty:

15 years	For installation and weather tightness

Requirements

1.5 QUALIFICATIONS
Installers to be experienced in the installation of SAMV. If requested provide evidence of qualification / experience prior to commencing work.

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and products.

1.7 SAMPLES
Refer to the general section 1270 CONSTRUCTION for details of how samples will be reviewed.

Compliance information (Additional options available)

1.8 INFORMATION REQUIRED FOR CODE COMPLIANCE Provide the following compliance documentation: -

- SAMV Appraisal or PTS

NOTE

- Builder will provide PS3 for fitment of pre-cladding.
- Masonry installer will provide PS3 for adhering decorative finish.

Performance - Wind (design by contractor)

1.9 DESIGN PARAMETERS WIND - DESIGN BY CONTRACTOR Design the installation to the Extra High Wind loading.

- Download report from: www.sumnerschist.co.nz/documents/specs/BTS1921 Weathertightness of the SumnerSchist Cladding_21052019.pdf

1.10 MAXIMUM HEIGHT
SUMNER® Schist may be used under general conditions to maximum height of 3 stories, and on chimneys to a maximum height of 10.0m.

2. PRODUCTS

SUMNER® Cavity System Materials

2.1 SUMNER® CAVITY BATTENS
45mm x 18mm thick SUMNER® vertical and horizontal cavity battens manufactured from PVC. Batten lengths; horizontal 550mm, vertical 1200mm.

2.2 SUMNER® BOARD
9mm thick SUMNER® high density fibre cement sheet to AS/NZS 2908.2.
Sheet size 2400mm x 1200mm.

2.3 FASTENERS - TIMBER FRAME
10g x 60mm stainless steel 316 CSK square drive screws.

2.4 FASTENERS - METAL FRAME
10g x 60mm stainless steel 410 CSK philips self drill screws.

2.5 FASTENERS - MASONRY
BACKING 65mm SUMNER® HPS
M6 anchors.

2.6 SUMNER® PRIME
Designed for site preparation of substrates that are to receive stone adhesive.

2.7 SUMNER® BOARD TAPE

SUMNER® Flexible Flashing
Tape.

2.8 L-FIXING BRACKETS
SUMNER® stainless steel fixing brackets, fixed with 32mm stainless steel screws.

2.9 SUMNER® GRIP PLUS ADHESIVE
Two part adhesive specifically designed for heavy weight veneer classification.

THIN MASONRY FINISHES

2.10 Masonry Veneer
Non-load bearing decorative masonry finishes. These can be panels, tiles or loose masonry with a maximum thickness of 60mm.

2.12 SOLID L CORNERS
SUMNER® formed L shaped corners to give a continued effect on corners and columns.

2.13 NATURAL ENDS
SUMNER® panels extending past the end of the column to overlap panel on the return face, to give a continued effect on corners and columns.

2.14 CAPPINGS
SUMNER® capping stones and sills.

2.15 L ANGLE TRIMS
SUMNER® L angle trims for windows and doors and other but-to details.

3. EXECUTION

Conditions

3.1 HANDLING AND STORAGE OF MATERIALS
Store all stone and adhesives indoors and elevated off concrete floors.

3.2 PRE-INSTALLATION REQUIREMENTS
Check work previously carried out and confirm it is of the required standard for this part of the work.
Moisture content: 18% maximum

3.3 TOLERANCES
To NZS 4210, table 2.2 Maximum tolerances.

3.4 MEASURE MATERIALS
Measure materials accurately by weight or volume using suitably calibrated equipment.

3.5 WET WEATHER
Keep stone dry at all times prior to laying. Protect the top row of uncompleted stone walls. Protect freshly laid stonework during interruption through rain and at completion of each day's work.

3.6 COLD WEATHER CONSTRUCTION
When air temperature is below 10°C take the precautions required by NZS 4210: 2.18 Cold weather construction.

3.7 HOT WEATHER CONSTRUCTION
When air temperature is above 32°C, or there is a drying wind and lower temperatures, take the precautions required by NZS 4210: 2.19 Hot weather construction.

3.8 KEEP FACE WORK CLEAN
Keep clean during erection and until completion of the contract works. Turn back scaffold boards at night and during heavy rain. Do not rub face work to remove stains.

Application - generally

3.9 INSTALLATION MANUAL
Carry out all work in accordance with SUMNER® Technical and Installation Manual.

3.10 COLOUR MIXING
Check all stone panels delivered to site for colour variation, prior to commencing work. Ensure stone panels are thoroughly blended from several pallets to ensure an even colour spread throughout the work.

3.11 UNIFORMITY
Carry up work with no portion more than 1500 mm above another at any time.

3.12 BONDING
Lay masonry to the required bonding.

Surface preparation

3.13 SURFACE PREPARATION - SUMNER® BOARD
The SUMNER® Board should be dry and free of all dust, paint or other surface contaminants before the commencement of the masonry veneer installation.

Installation

3.14 INSTALL SUMNER® BATTENS TO SUBSTRATE
Fix SUMNER® battens to substrate to NZBC E2/AS1: 9.0 Wall claddings, and in accordance with the SUMNER® Technical and Installation Manual, vertically at 600mm centres, horizontally across top and bottom plates, with 75mm x 3.14 galvanized flat head nails over the wall wrap and flashings.
Ensure that the substrate is suitable for the veneer application, has been installed to the SUMNER® requirements, and to NZBC B1/AS1.

3.15 INSTALL SUMNER® BOARD
Fix SUMNER® board over battens in accordance with the SUMNER® Technical and Installation Manual, minimum clearance 100mm above exterior paving.

3.16 PRIME AND TAPE
Apply SUMNER® Prime to all surfaces that are to receive adhesive. Apply SUMNER® Tape to all sheet joints, corners and details in accordance in accordance with the SUMNER® Technical and Installation Manual. Tape vertical and inter-storey junctions.

3.17 FORM TEMPORARY FOOTING
Form a level temporary timber framed footing fixed to the concrete foundation for the first course to start on.

3.18 INSTALL SUMNER® PANELS - FIRST COURSE
Mix SUMNER® GRIP PLUS strictly in accordance with the SUMNER® Technical and

Installation Manual. Starting from an external corner, apply the adhesive to the wall, 1 course high, with a 12mm notched trowel. Butter a thin coat of adhesive to the backside of a short natural end panel. Press the panel into the adhesive on the wall, leaving the panel overhanging the corner by the thickness of the stone. Continue this process along the wall, using the standard SUMNER® panels, hard butting the panels together (no grout between the joints). For the return wall, butt a standard SUMNER® panel into the back of the overhanging natural end.
It is important to note that the corner should alternate on every course to avoid seeming.

3.19 INSTALL SUMNER® PANELS - SECOND AND SUBSEQUENT COURSES
Using screws fix the SUMNER® facade panel fixing bracket so that it sits hard on top of the 1st course.
Install the fixings at 600mm centres horizontally and vertically using a 32mm screw;
Horizontally - fix 1 SUMNER® fixing to every stud.
Vertically - set out a vertical chalk line and fix 1 SUMNER® fixing at 600mm vertically.

Continue laying the courses, staggering the joints from that of the previous course.
On the bottom edge of the panels (to be laid), where the SUMNER® L-Fixing bracket will be located, use the angle grinder to check out a seat to the SUMNER® fixing, so as the panels can hard butt with the 1st course.

3.20 FORM INTERNAL CORNER
To form a clean joint in the internal corner, cut a 45 degree mitre on the standard panel and return.

3.21 FORM EXTERNAL CORNERS - SOLID L CORNERS
Lay preformed L shaped stones. Cladding is in modular predefined lengths. Check dimensions before starting work to ensure the corners will work.

3.22 FORM EXTERNAL CORNERS - OVERLAP NATURAL ENDS
Use pre-selected panels with minimal face variation and butt them hard into the short natural ends, which extend past the end of the corner. Alternate courses. Use a string line or similar to ensure that the exposed edge of the corner is flush and plumb and that none of the panels sit back too far.

Flush mounted windows and doors

3.23 FORM FLUSH MOUNTED WINDOW AND DOOR JAMBS
Create staggered jointing to window and door jambs by alternating natural short and long end panels on each course. Lay as a standard panel, butting the natural end of the panel up to the edge of the joinery.

3.24 FORM FLUSH MOUNTED WINDOW AND DOOR HEADS
Screw a SUMNER® facade panel fixing bracket above the window and door head flashing allowing 5mm for drainage (from the cavity), to sit in the centre of where a standard panel will be located.

3.25 FORM FLUSH MOUNTED WINDOW SILLS
Cut a 15° mitre to the top of a standard panel; adhere to the backing, leaving a 55mm space below the bottom of the joinery. Cut a 15° mitre to the back edge of the capping stone, adhere stone to backing. The top edge of the stone should sit 2mm - 3mm below the edge of the joinery. Do not obstruct joinery weep holes.

Deep reveal windows and doors

3.26 FORM DEEP REVEAL WINDOW AND DOOR JAMBS
Set the windows with the edge of the joinery having a 40mm clearance from the internal

corner of the masonry reveal. Treat the corner of the reveal the same as an external corner. Butt the edge of the panel into the internal corner of the reveal.

3.27 FORM DEEP REVEAL WINDOW AND DOOR HEADERS
Screw a SUMNER® facade panel fixing bracket to the edge of the masonry reveal in the centre of where a standard panel will be located. Adhere standard panels.

3.28 FORM DEEP REVEAL WINDOW SILLS
Form a plastered bevel to allow the sill to be laid at 15°. Allow to dry for 24 hours. Cut a 15° mitre to the top edge of the standard panel and finish at the edge of the sill reveal. Cut a 15° mitre to the back edge of the SUMNER® capping stone, coat cut face and plastered sill with adhesive and adhere the capping to the sill as per panels.

Set the height of the joinery including the 50mm thick capping stone, not to obstruct the joinery weep holes. Height will depend on the depth of the reveal, giving allowance for the 15° bevel.

Stone columns

3.29 FORM EXTERNAL SOLID-L CORNERS
Lay preformed L shaped stones. Cladding is in modular predefined lengths. Check column dimensions before starting work to ensure the corners will work.

3.30 FORM EXTERNAL CORNERS - OVERLAP NATURAL ENDS
Use pre-selected panels with minimal face variation and butt them hard into the short natural ends, which extend past the end of the column. Alternate courses. Use a string line or similar to ensure that the exposed edge of the corner is flush and plumb and that none of the panels sit back too far.

Completion

3.31 PROGRESSIVE CLEANING
Clean off all contaminants from the face work immediately after they occur.

3.32 LEAVE
Leave work to the standard required by following procedures.

3.33 REMOVE
Carefully remove all masking tape from joinery and the temporary timber footing from the foundation. Place in main rubbish disposal area on site.

4. SELECTIONS

4.1 SUMNER® CAVITY BATTENS

Brand:	SUMNER®
Size:	VERMINI 550 horizontal: 550 x 18mm
	VERMINI 1200 vertical: 1200 x18mm

4.2 SUMNER® BOARD

Brand:	SUMNER®
Type:	Fibre cement sheet
Size:	2400mm x 1200mm x 9mm
Fixing Method:	Normal or Heavy weight screw fixing centers.

4.3 SUMNER® PRIME

Brand:	SUMNER® Prime

4.4 SUMNER® BOARD TAPE
Brand: SUMNER® Flexible Flashing Tape

4.5 SUMNER® L-FIXING BRACKETS

4.6 Brand: SUMNER®
Material: Stainless steel mechanical fixings and 32mm screws

4.7 SUMNER® GRIP PLUS ADHESIVE
Brand: SUMNER® Grip (Part A powder, Part B liquid)

4.8 SUMNER® LEDGE SERIES SCHIST
PANELS Brand: SUMNER®
Stone type: SUMNER® ~
Panel size: 152mm height x 610mm length x 30mm thick
(75kg/m²) Corners: ~
Bonding pattern: Stretcher bond

4.9 SUMNER® TRADITIONAL SERIES SCHIST
PANELS Brand: SUMNER®
Stone type: SUMNER® ~
Panel size: 200mm height x 565mm length x 30mm thick
(75kg/m²) Corners: ~
Bonding pattern: Stretcher bond

4.10 SUMNER® BLUESTONE SERIES LOOSE
STONE Brand: SUMNER®
Stone type: ~
Stone thickness: 30mm - 50mm thick
(91.9kg/m²) Corners: natural ends
Bonding pattern: Stretcher bond

4.11 SUMNER® LOOSE SERIES

4.12 STONE Brand: SUMNER®
Stone type: ~
Stone thickness: 35mm thick (89.9kg/m²)
Corners: ~
Bonding pattern: Stretcher bond

4.13 SUMNER® SANDSTONE SERIES LOOSE
STONE Brand: SUMNER®
Stone type: ~
Stone thickness: 15mm thick (50kg/m²)
Corners: natural ends
Bonding pattern: Stretcher bond

4.14 SUMNER® SILLS AND CAPPINGS Brand: SUMNER®
Stone type: As required
Dimensions: As required

4.15 SUMNER® L ANGLE
TRIMS Brand: By Others
Dimensions: As Required