

Sash Window – Technical Guide

Introduction

We manufacture all of our windows & doors in-house. We are constantly improving our procedures & processes to ensure the highest quality finish. We have made significant investment to bring large portions of the production process in-house, meaning that when you engage our services everything from the measurements, to the machining, joining, painting and installation will all be done by a member of staff who is employed by our company.

The information contained within this document sets out the specification to which we will manufacture your windows. We have included in this document a variety of drawings and information to outline exactly what you will be getting from us. If you are unsure about any of the information within this document, please ask us to explain. The information within this document is somewhat technical, but we must ensure we specify the exact details that we manufacture to.

Our Sash Windows

We have spent years honing the design and quality of our windows & doors to bring us to the point now where, we believe, we can offer our customers the highest quality product combining aesthetics, traditional styles, security, insulation, longevity and more.

The specifications set out in this document have been refined over the years, with decades of experience going into the final designs.

One of the most important considerations in these designs is the longevity of the products. We understand that replacing your windows is a costly endeavour and our customers would not want to be replacing the same window every 10 years.

We also take traditional designs & styles into account when manufacturing windows & doors, trying to ensure replacement windows are as sympathetic to traditional styles as possible.

Some parts of your new windows may not be the same as your original. This is because we need to combine all of these considerations to ensure we provide the highest quality window, which is exactly what we do.

Types of Sash Window

Sash windows can generally be split into two types, which are the different mechanisms for the windows. These are:

- ❖ Box Sash Window – Also referred to as a weights & cords sash window. Designed to be fitted behind brick reveals, or in properties with exposed box frames.
- ❖ Spiral Balance Sash Window – Designed to be fitted into flush openings (such as dormers)

Most of our casement windows are manufactured to standard section dimensions and details. We also have a variety of options within these standard details.

If specialist, unique or completely bespoke details or sections are required, then this is no issue for us. If you require something completely bespoke or in any way different to what is set out in this document, you should advise a member of our team about this, and they will put you in touch with one of our CAD designers who will work with you to provide a quotation for your bespoke details.

Unless otherwise specified on your quotation or Order Confirmation, your order will be produced to our standard sectional and technical details set out in this document.

Specification

Paint Finish – New Joinery

We apply the following coats to all joinery¹:

- One coats of primer base coat
- Two coats of top coat

We have found that the best paint system available is Teknos, giving the best possible coating & protection of the timber.

Our standard paint finish is called “Clean White” and this is a Teknos White Satin as set out below.

Paint Colour	Finish	Specification
Primer	N/A	Teknos Antique White Anti Stain Aqua 2901 Isolating Primer
White	Gloss	Teknos Aquatop 2600 Clean White Gloss Opaque Top Coat
White	Satin	Teknos Aquatop 2600 Clean White Semi Matt Opaque Top Coat
Colour Match	Gloss	Teknos Aquatop 2600 Colour Match Gloss Opaque Top Coat
Colour Match	Satin	Teknos Aquatop 2600 Colour Match Semi Matt Opaque Top Coat

Our standard paint finish is included as standard.

Dual finish of white gloss & white satin paint, and colour matches are an optional extra.

Any custom paint finish specified, such as Farrow & Ball or Dulux, will be colour matched by Teknos¹.

Paint Finish – Existing Timber/Masonry

On site painting of existing frames or masonry is only included where this is explicitly specified on the quotation/order confirmation paperwork. We do not as standard undertake decoration to existing frames or masonry.

When painting existing frames, we do the following:

- Lightly sand down the existing timber
- Fill as necessary with a two-part filler

¹ Unless otherwise specified on a Quotation or Order Confirmation.

- Lightly sand down
- Apply one coat of Teknos Antique White Anti Stain Aqua 2901 Isolating Primer
- Apply one coat of Teknos Aquatop 2600 Opaque/Semi Matt Top Coat

When painting existing masonry, we do the following:

- Lightly sand down the existing masonry
- Fill as necessary with Touporet Masonry Filler
- Lightly sand down
- Apply two coats of Sandtex Masonry Paint

Draught Proofing

As sash windows are designed to slide within a frame, the best form of draught sealing is a brushpile. Brushpile draught seals are manufactured by Exitex.

Brushpile draught seals have a low friction pile with single polypropylene fin which provides 50% easier sash movement while providing maximum resistance to air and water penetration.

The position these are fitted in are as follows:

Service Type	Position
Sash Replacement (new sashes fitted into existing box frames)	Staff & parting beads.
Complete Replacement (new box frame and sashes)	Concealed draught excluders within the sash stiles.

Please note that with sash replacement services, staff and parting beads are supplied primed in white. Unless we are undertaking full decoration of the existing box frames, we do not paint/top coat the staff or parting beads on site.

Glazing

The standard specification of the glazing in our sash windows is specified below.

	Complete Replacement	Sash Replacement (45mm Sashes)
Internal Pane	4mm Pilkington KA Toughened	4mm Pilkington KA Toughened
Spacer Size	16mm	16mm
Spacer Type	Super Spacer	Super Spacer
Spacer Colour ²	White	White
Gas ³	Argon	Argon
External Pane	4mm Clear Toughened	4mm Clear Toughened
U Value ⁴	1.2	1.2
Glazing Bars	Single pane with applied bars	Single pane with applied bars

² Alternative spacer colours available upon request.

³ Krypton gas available at extra charge.

⁴ Centre pane U Value of the unit.

	Sash Replacement (40mm Sashes)	Sash Replacement (35mm Sashes)
Internal Pane	4mm Pilkington KA Toughened	4mm Pilkington KA Toughened
Spacer Size	10mm	8mm
Spacer Type	Super Spacer	Super Spacer
Spacer Colour ⁵	White	White
Gas ⁶	Argon	Argon
External Pane	4mm Clear Toughened	4mm Clear Toughened
U Value ⁷	1.2	1.2
Glazing Bars	Single pane with applied bars	Single pane with applied bars

Glazing Beads & Bars

As standard, we use a composite external glazing bead and bar.

Where windows are curved on elevation or plan, or where there are bespoke designs, these may be made from an alternative material such as timber, or Tricoya.

Where windows are curved on elevation or plan, or where there are bespoke designs, these will be made to a different profile.

Ironmongery

There are a wide array of ironmongery items and finishes available. Our ironmongery catalogue contains the ironmongery items that we stock as standard, but if you see anything you like online that isn't in the catalogue, just let us know and we can discuss this with you.

The ironmongery for your order will be specified on your quote and Order Confirmation. Ensure you double check that this is exactly what you are hoping for.

Sash Restrictors

Please note that sash restrictors are fitted in a standard position as shown in the technical drawings in this document. The sash restrictors are fitted in our workshops and not on site.

Section Details

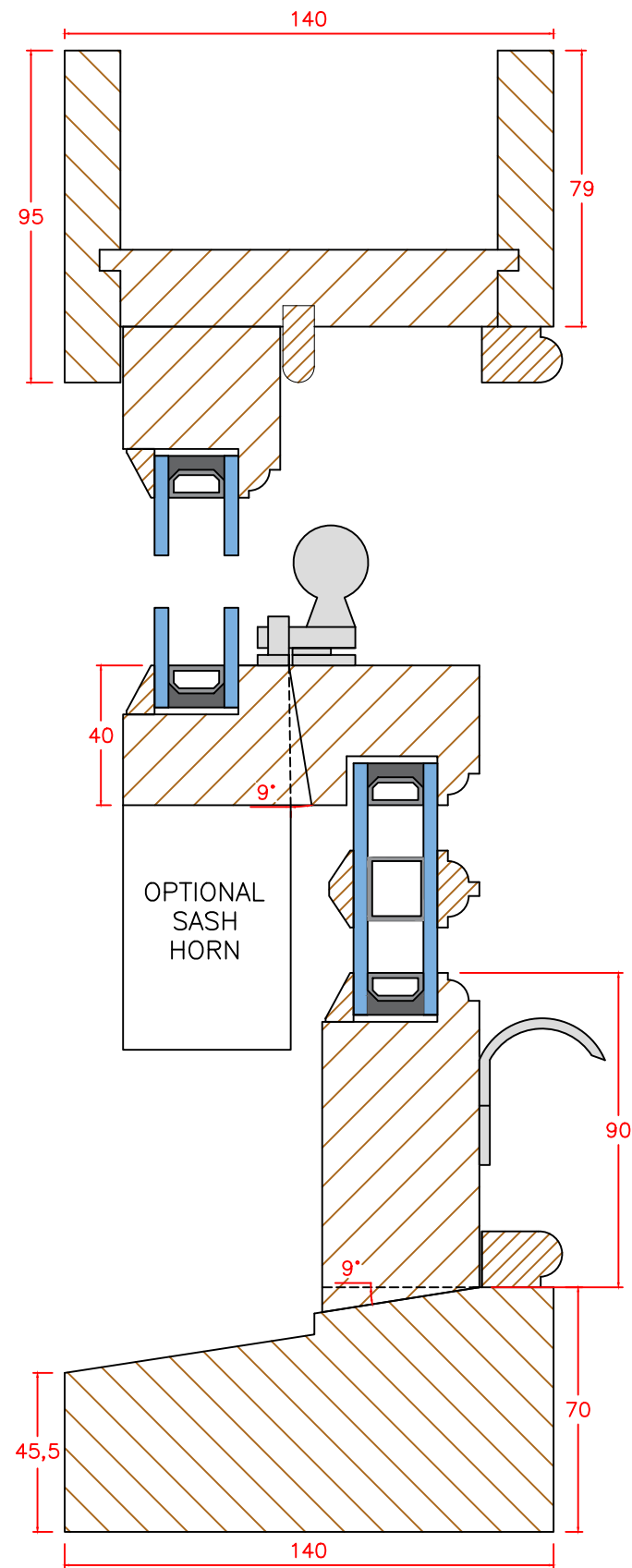
The following pages show standard specification and dimensional details. If you have any questions about this, please ask us and we will be happy to help.

⁵ Alternative spacer colours available upon request.

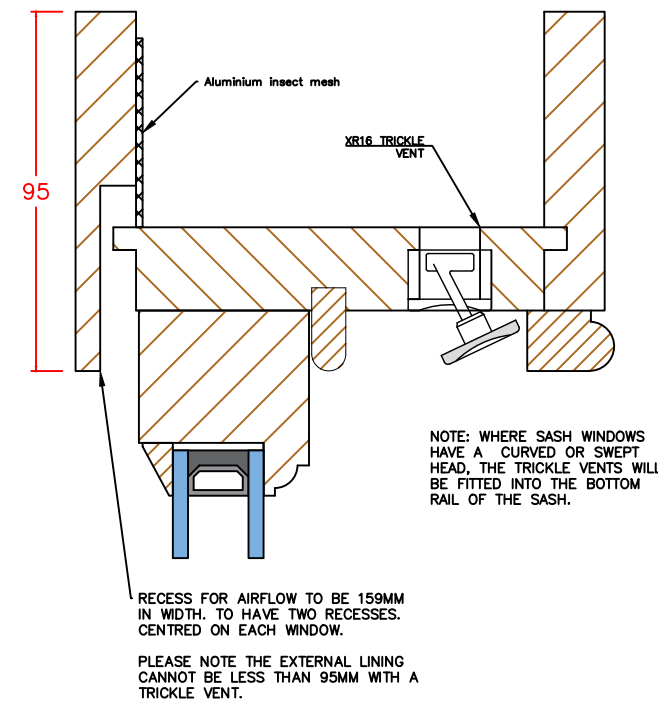
⁶ Krypton gas available at extra charge.

⁷ Centre pane U Value of the unit.

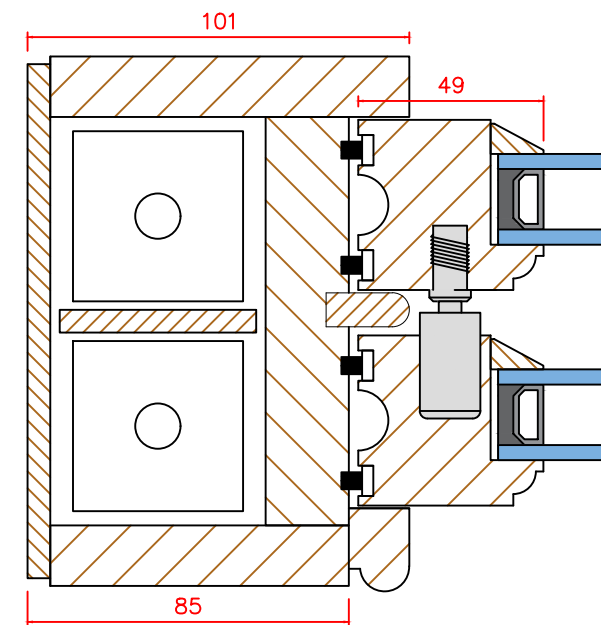
Sections – Head & cill
1:2 @ A3



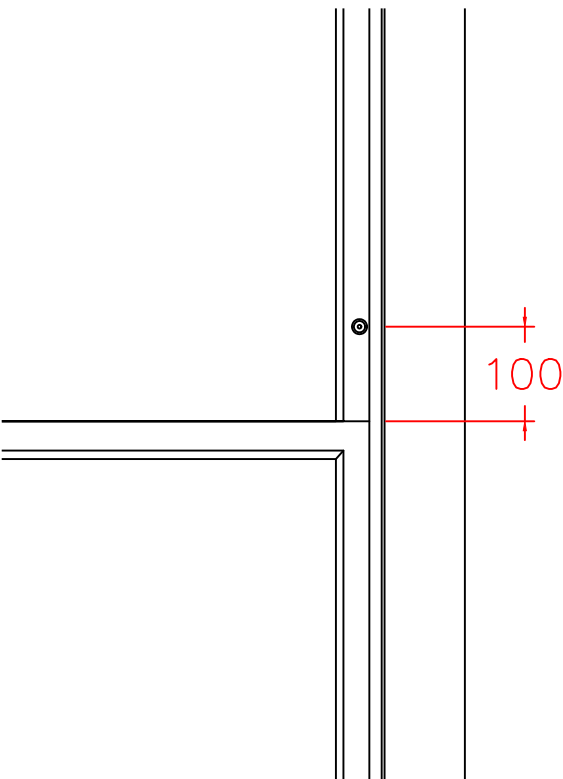
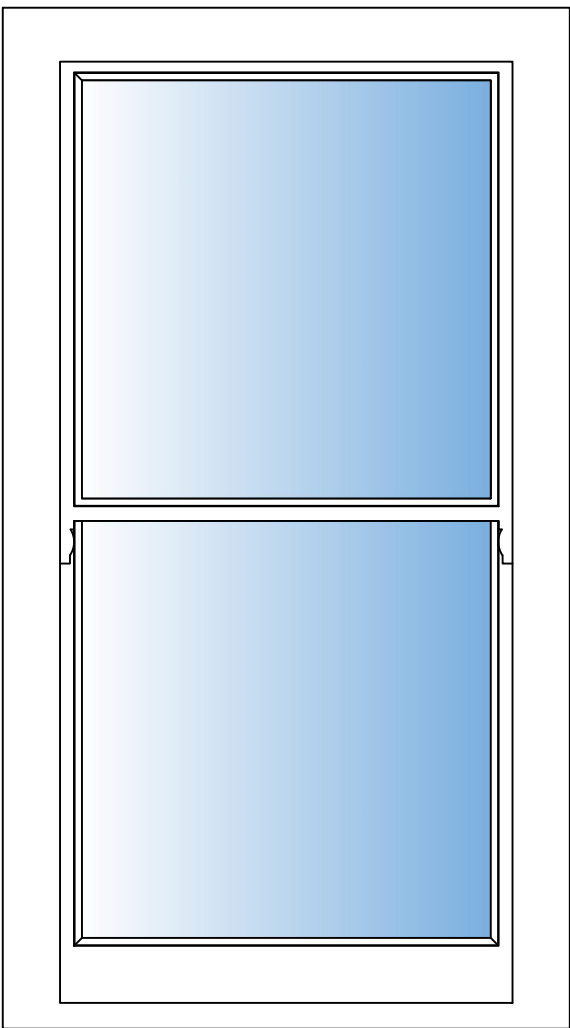
Sections – Head & cill
with trickle vent
1:2 @ A3



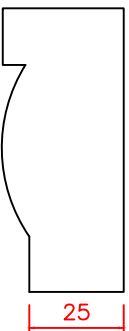
Sections – Jambs
1:2 @ A3



Elevation – External view Sash restrictor positioning



Victorian Horn
1:2 @ A3

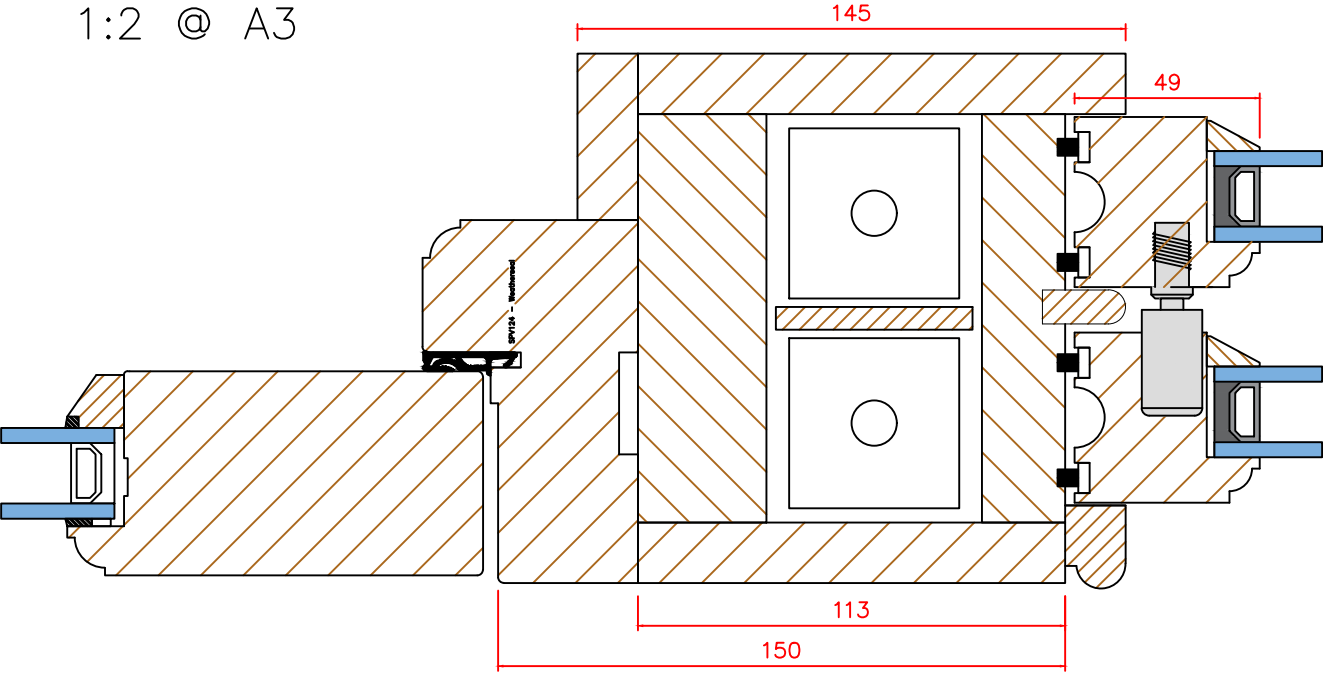


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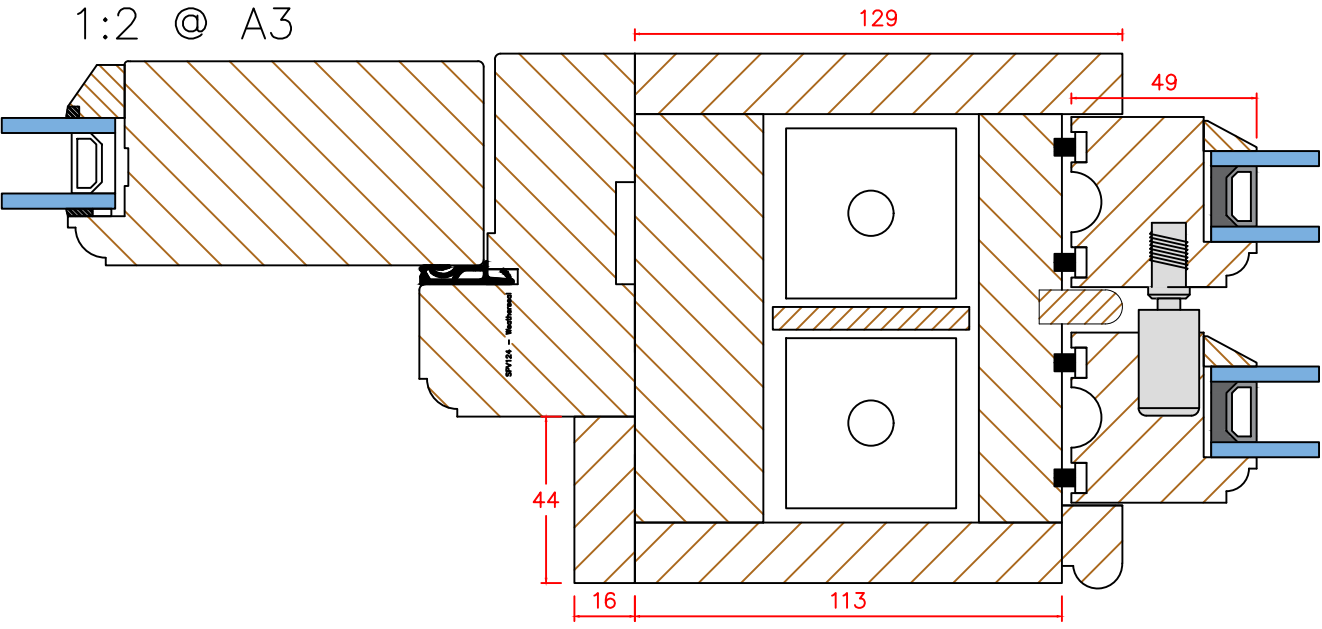
ALL MEASUREMENTS ARE IN MM | DO NOT SCALE FROM THESE DRAWINGS

Drawing Number: SGL-BS-01	
Drawing Name: Traditional Box Sash Window	
Drawing Date: 17.03.2023	
Drawn by: NATHAN SMITH	
Unit 2, Kangley Bridge Road Kangley Business Centre Lower Sydenham, London SE26 5AQ	
T: 020 3576 7500 E: sales@wandsworthsashwindows.com	
SCALE: N/A	REV: C

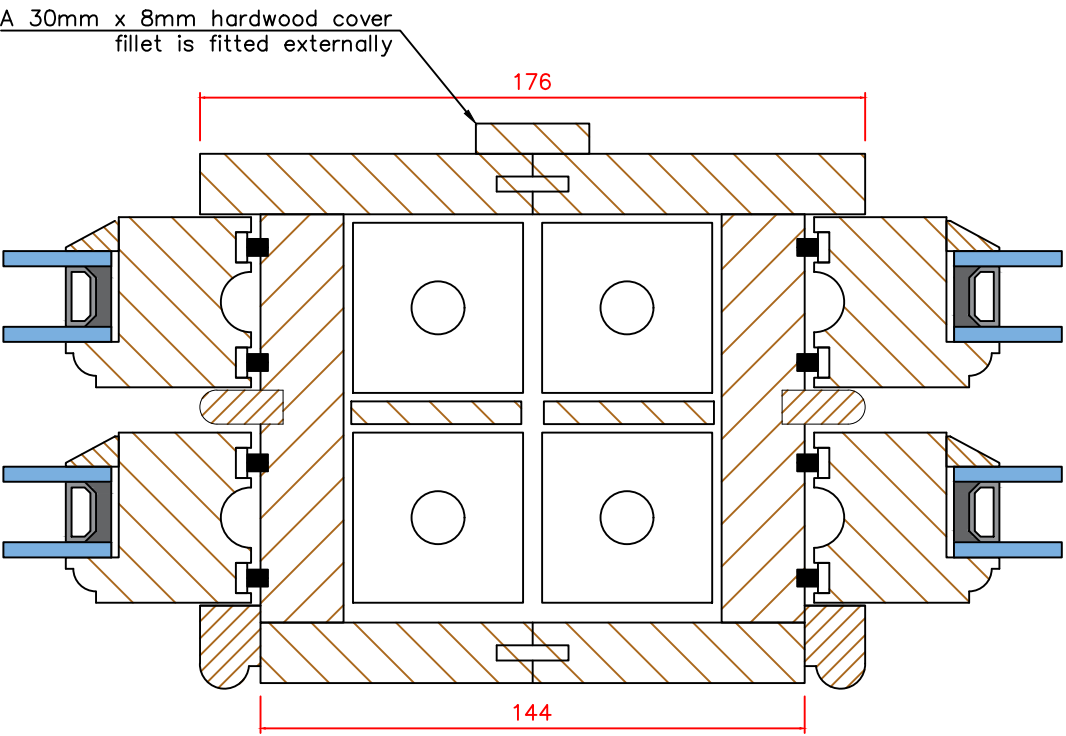
Sections – Open in door with sash sidelights
1:2 @ A3



Sections – Open out door with sash sidelights
1:2 @ A3

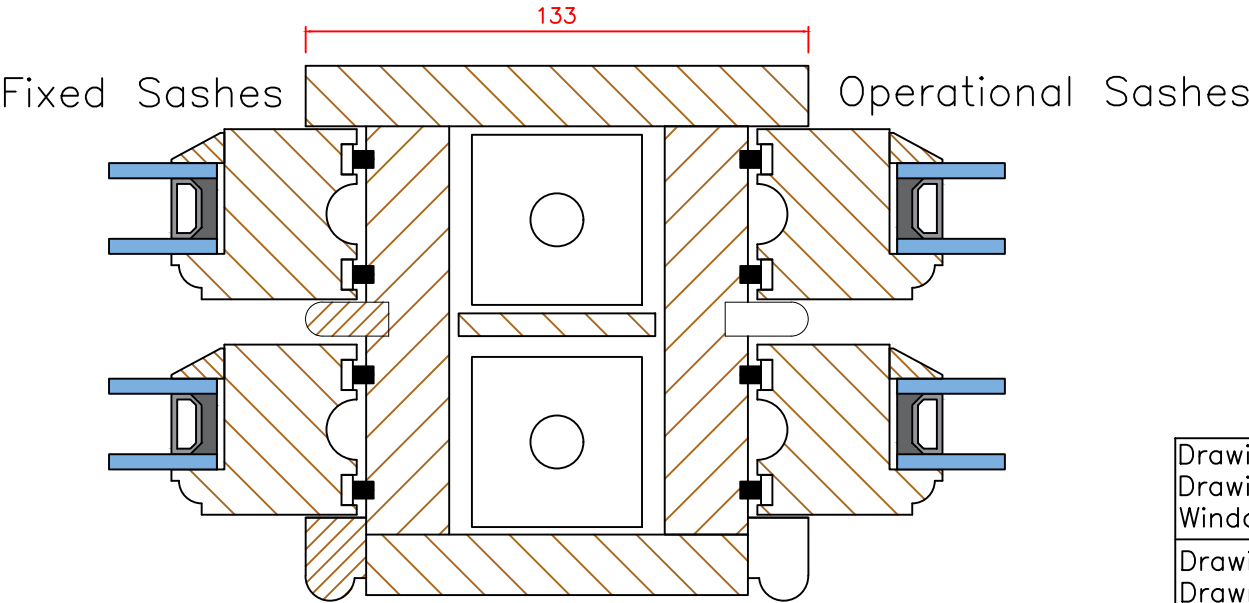


Sections – Mullion
1:2 @ A3



*The 176mm above can be increased, but it cannot be decreased as this dimension is required to allow the sashes to open.

Sections – Venetian Mullion
1:2 @ A3

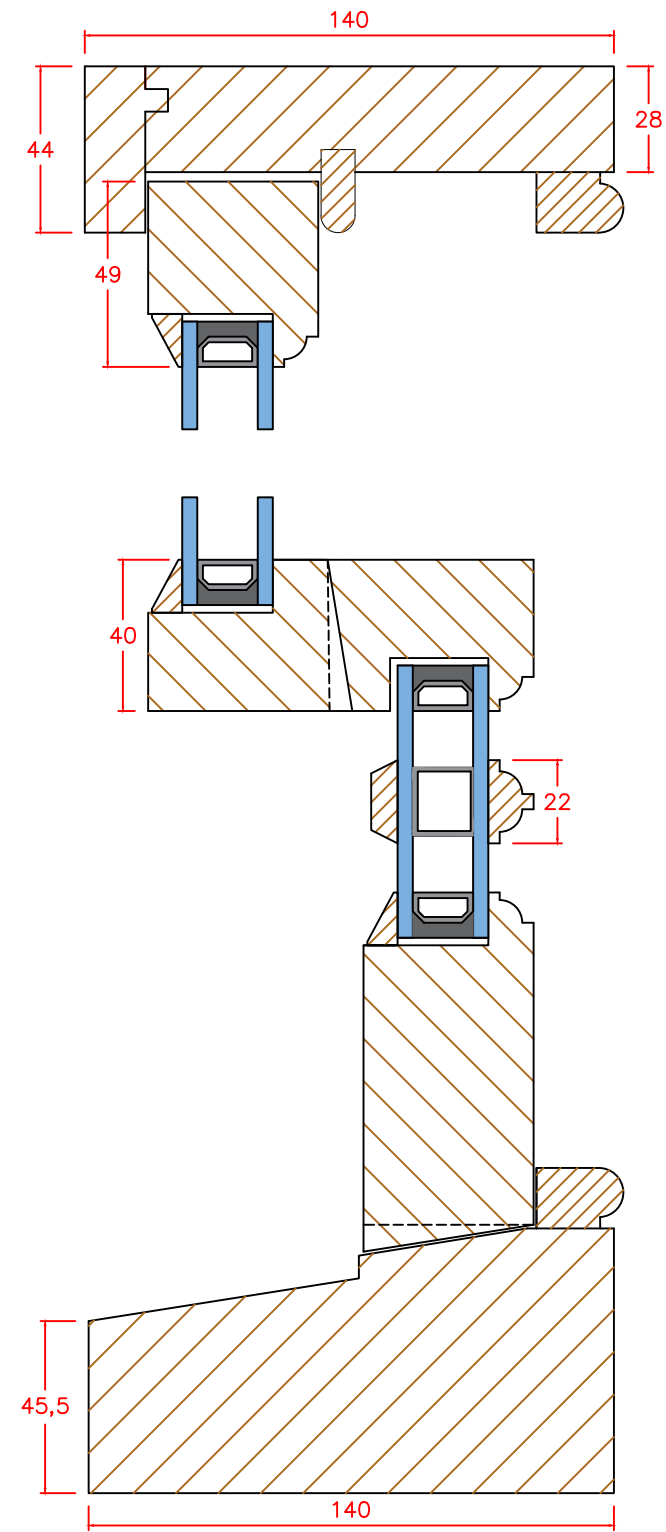


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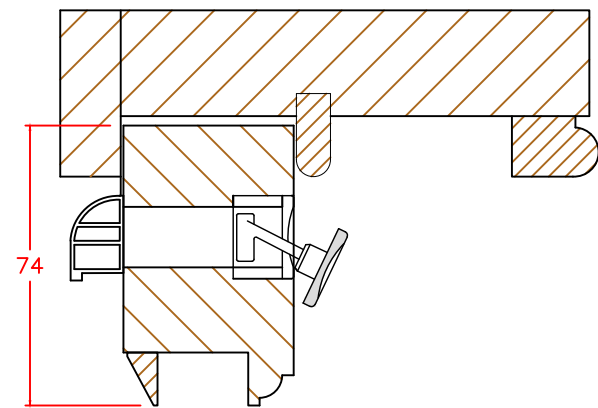
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Drawing Number: SGL-BS-02	
Drawing Name: Traditional Box Sash Window	
Drawing Date: 17.03.2023	
Drawn by: NATHAN SMITH	
Unit 2, Kangley Bridge Road Kangley Business Centre Lower Sydenham, London SE26 5AQ	
T: 020 3576 7500 E: sales@wandsworthsashwindows.com	
SCALE: N/A	REV: C

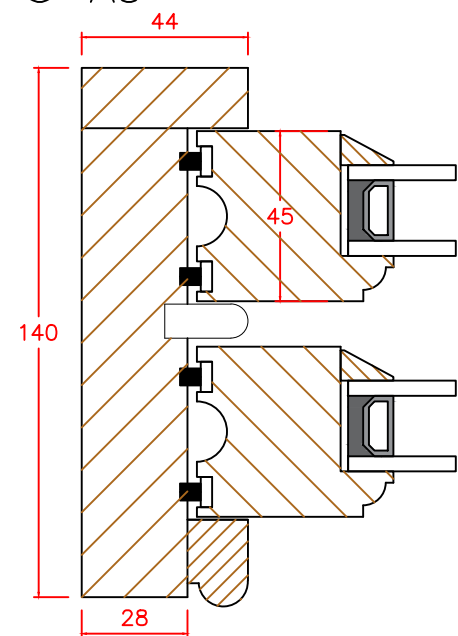
Sections – Head & cill
1:2 @ A3



Sections – Head & cill
with trickle vent
1:2 @ A3

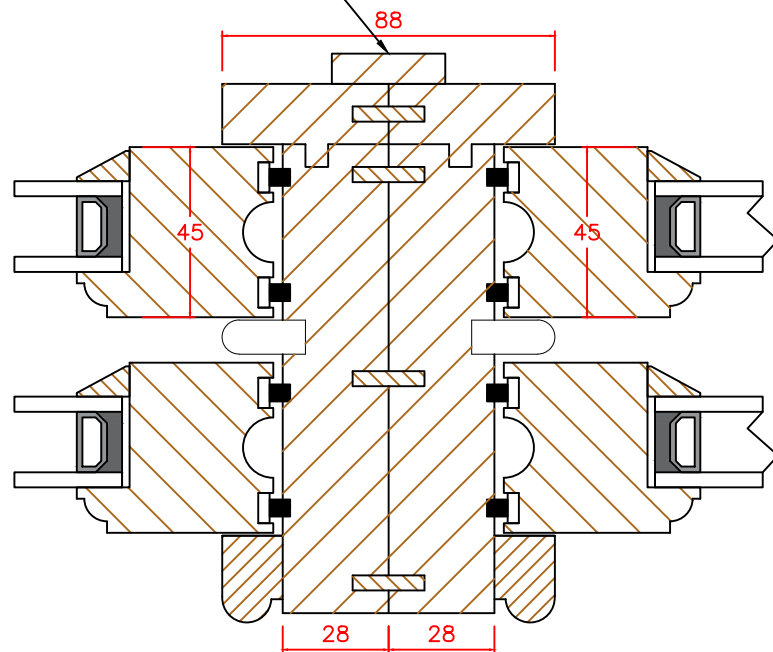


Sections – Jambs
1:2 @ A3



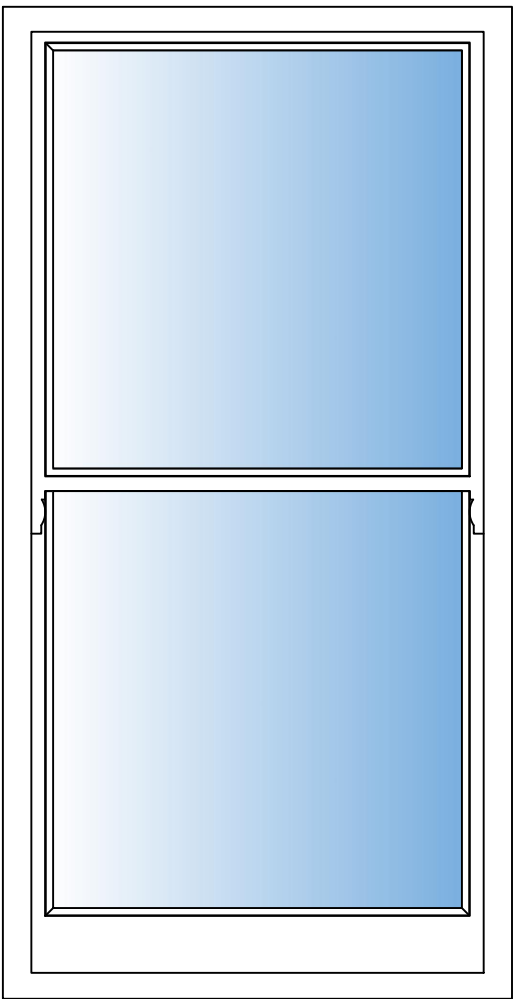
Sections – Mullion
1:2 @ A3

A 30mm x 8mm hardwood cover
fillet is fitted externally



*The 88mm below can be increased,
but it cannot be decreased as this
dimension is required to allow the
sashes to open.

Elevation – External view



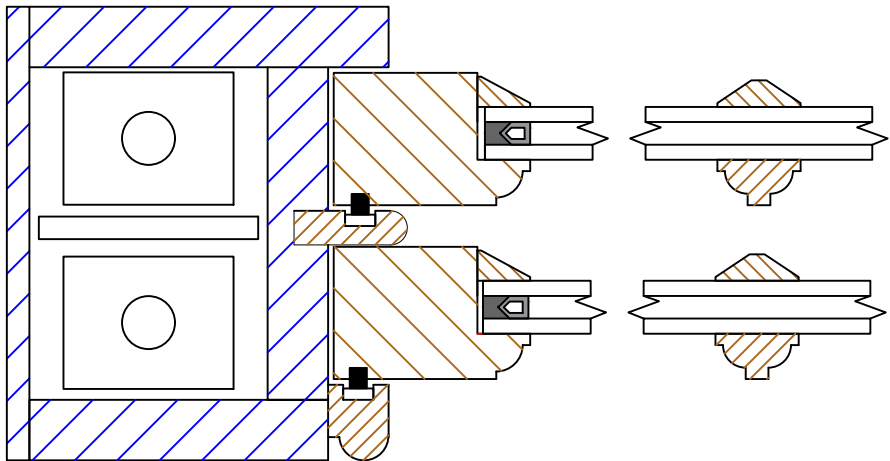
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ALL MEASUREMENTS ARE IN MM | DO NOT SCALE FROM THESE DRAWINGS

Drawing Number: SGL-BS-03	
Drawing Name: Traditional Spiral Sash Window	
Drawing Date: 17.03.2023	
Drawn by: NATHAN SMITH	
Unit 2, Kangley Bridge Road Kangley Business Centre Lower Sydenham, London SE26 5AQ	
T: 020 3576 7500 E: sales@wandsworthsashwindows.com	
SCALE: N/A	REV: C

Sections – Sash replacement thicknesses
1:2 @ A3

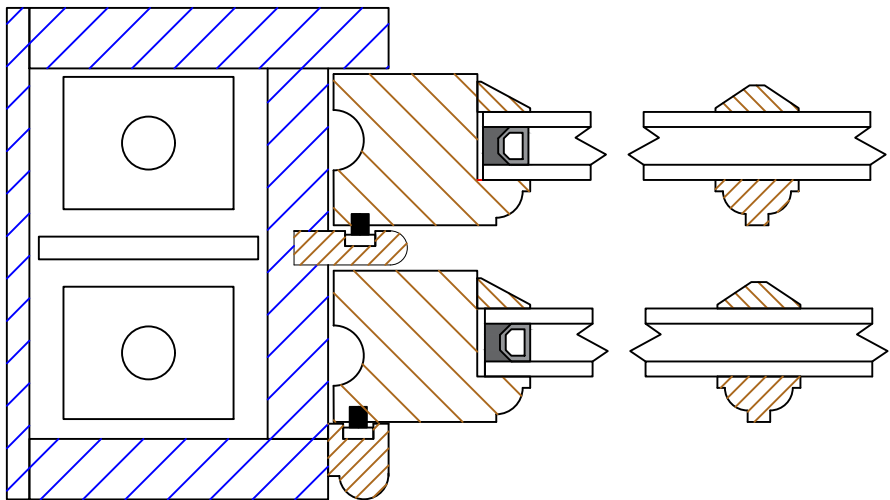
35mm thick sashes



Note: Unless otherwise specified, blue shaded areas will not be replaced.

The spacing dimensions between sashes and beads can vary on replacement sashes due to the make up of the existing box frame. Dimensions supplied on this document are setting out the manufacture profile of new joinery, and do not dictate the precise dimensions of spacing in the existing frames.

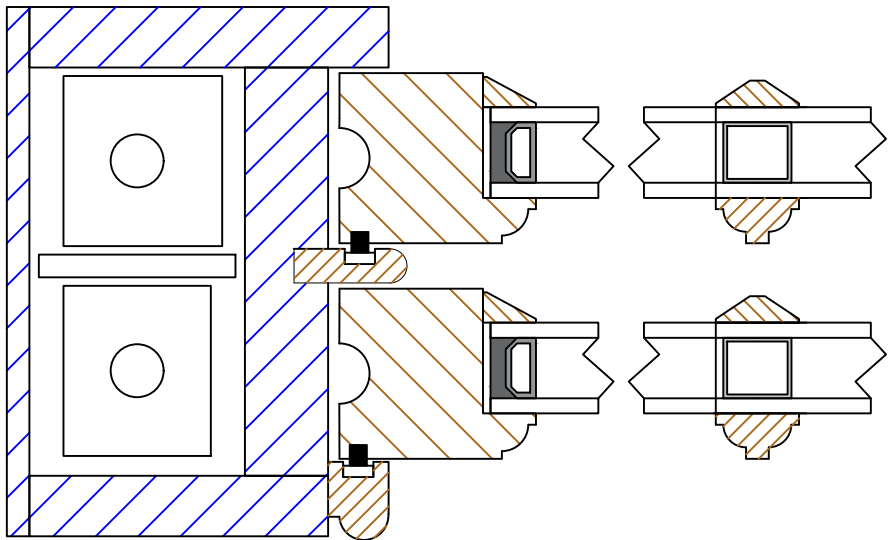
40mm thick sashes



When carrying out sash replacement works, draught seals are fitted to the staff and parting beads and not the sash stiles, as they are in a complete replacement.

Duplex bars between double glazed units are only used in 45mm or thicker sashes, as shown. The external glazing bead and glazing bar profile and size remains the same across all sash thicknesses, with only the unit thickness changing.

45mm thick sashes



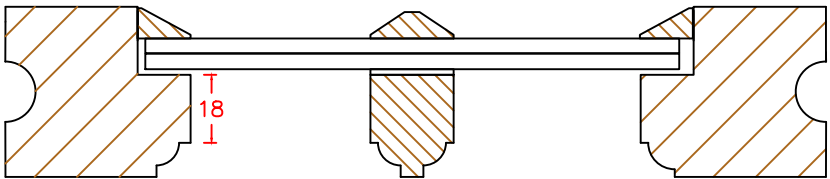
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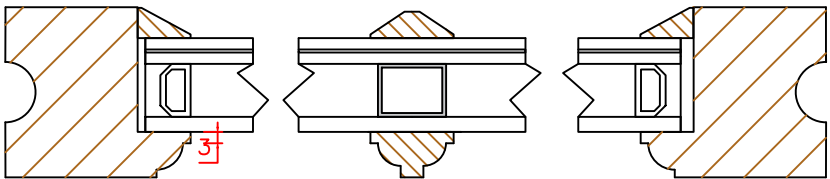
Drawing Number: SGL-BS-04	
Drawing Name: Traditional Box Sash Window	
Drawing Date: 17.03.2023	
Drawn by: NATHAN SMITH	
Unit 2, Kangley Bridge Road Kangley Business Centre Lower Sydenham, London SE26 5AQ	
T: 020 3576 7500 E: sales@wandsworthsashwindows.com	
SCALE: N/A	REV: C

Sections – Glazing & bead comparisons
1:2 @ A3

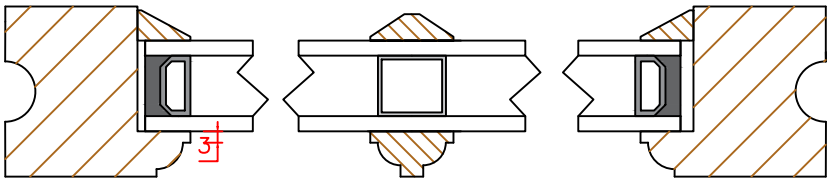
Square head sashes



8.3mm LandVac



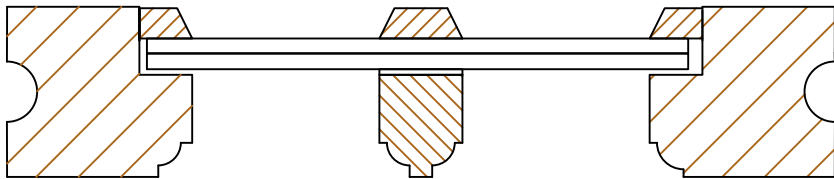
Acoustic Double Glazed



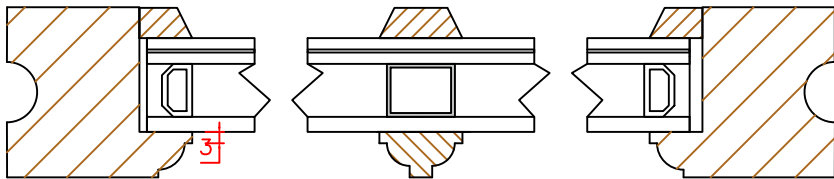
Standard Double Glazed

Where sashes have a square top rail (i.e. not curved or swept), we use an Exiwood Composite glazing bead and bar system externally to the profile shown above.

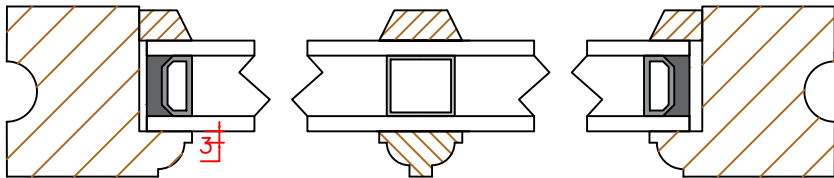
Swept/curved head sashes



8.3mm LandVac



Acoustic Double Glazed



Standard Double Glazed

Where sashes have a curved or swept top rail, or where "bespoke bead" is specified on the quotation document, we will use a timber or tricoya bead externally to the profile shown above.

In the drawings shown, we have used the example of 45mm thick sashes. Where 35mm or 40mm sashes are required, the depth of the spacer bar, the flat on the ovolo moulding internally or external bead depth will be reduced.

Acoustic glass is only possible in 45mm sashes.

In 35mm and 40mm sashes with standard double glazing, the bead depth & ovolo flat depth is maintained and the spacer between the glass is reduced.

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Drawing Number: SGL-BS-05	
Drawing Name: Traditional Box Sash Window	
Drawing Date: 17.03.2023	
Drawn by: NATHAN SMITH	
Unit 2, Kangley Bridge Road Kangley Business Centre Lower Sydenham, London SE26 5AQ	
T: 020 3576 7500 E: sales@wandsworthsashwindows.com	
SCALE: N/A	REV: C