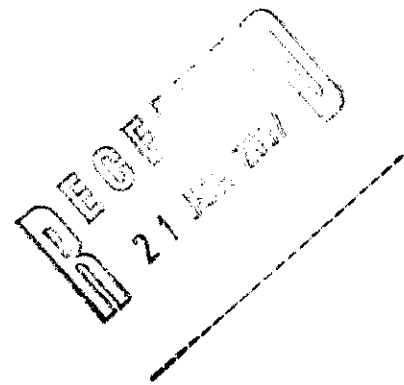


## APPENDIX B

### WINDOW & DOOR PERFORMANCE SPECIFICATION



## WINDOW PERFORMANCE/CRITERIA

### GENERALLY

#### Costs, etc.

- A The Contractor shall, unless otherwise specifically directed, include all costs in connection with Materials and Standards of Workmanship in the rates entered.

#### Definition

- B The initials BS and CP refer to the latest British Standard Specification and British Code of Practice respectively current at the date of tender.

The terms 'approved', 'directed' or 'selected' where used shall mean to the approval, direction or selection respectively of or by the Contract Administrator.

#### Manufacturer's Instructions

- C Where proprietary materials and components are used, they shall, unless otherwise stated, be fixed, incorporated or applied strictly in accordance with the manufacturer's instructions.

#### Standards

- D The whole of the works shall comply with the requirements of the Building Regulations 1985 and subsequent amendments, as appropriate. All works are to be carried out in accordance with the relevant CP.

#### "Take out", "Take Down" and "Strip off"

- E All work described as "take out", "take down", "strip off" or similar expression shall include the removal of all battens, grounds, blocks, plugs or other fixings exposed during removal and, unless otherwise described, include carting away from site.

#### "Make Good"

- F The works "make good" or "making good" shall mean reinstatement of work of any description and in all cases both materials and workmanship are to match existing as far as is practicable. Unless otherwise described, all making good shall be finished flush and level with existing surfaces.

	<p><u>Defects, Dry Rot etc</u></p> <p>A Any defects, fungal decay, insect attack or other decay or infestation discovered shall be reported to the Contract Administrator.</p> <p><u>Workmanship</u></p> <p>B Where workmanship is not fully specified, it shall be in accordance with accepted, good building practice (including the relevant provisions of current BS's and CP's).</p> <p><b><u>REPLACEMENT PVC-U WINDOWS</u></b></p> <p><b><u>GENERALLY</u></b></p> <p><u>Dimensions are approximate</u></p> <p>C The dimensions and sizes of all components and materials given in this Schedule and any Drawings <u>are approximate only</u> and the Contractor shall take and check all individual dimensions and sizes on site before manufacture commences and shall ensure that each component manufactured will correctly fit within the structure to the tolerances and in the manner detailed and specified.</p> <p><u>Errors in Schedules</u></p> <p>D If, during the Pre-Tender inspection, any errors in the Schedules are found (ie., sizes, numbers [omissions or additions], patterns etc.) or the proposed configuration/arrangement is not compatible with the existing structure, then the Contractor shall bring these to the Contract Administrator's attention during the tender period and shall await further instruction in this regard.</p> <p><b>Note: Although the numbers and positions of each window type are identified in the Schedule, it shall be the Contractor's responsibility to check these numbers are correct. The numbers and positions of each window type shall be checked on site and allowances for any discrepancy between the numbers shown on the Schedule and the numbers counted on site shall be made at tender stage and not thereafter.</b></p>			
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<p>A</p> <p>B</p> <p>a)</p> <p>b)</p> <p>c)</p> <p>d)</p> <p>C</p>	<p><u>Drawings</u></p> <p>The Contractor will be required to submit a full set of working drawings for the entire Contract for consideration by the Contract Administrator and Employer before commencing manufacture. The drawings are to include full details of strengthening members, couplings, fixing details (ie., direct or lug), position of fixings, ventilators, cill, jamb and head details etc., for each window type.</p> <p><b><u>MATERIALS ETC</u></b></p> <p><u>Manufacturer</u></p> <p>Supply and fit to manufacturer's instructions, reinforced PVC-u windows. Such windows are to comply with BS7412:1991 using materials in compliance with BS7413:1991. The windows are to be to BS7412 incorporating PAS 011 Security Standard (BS 6735:Part 3).</p> <p>Approved manufacturers/systems :</p> <p>Deceuninck - 1800 Series Casement Windows, Tel. No. 01249 816969</p> <p>LB Plastics - Sheerframe 7000 Casements (Profile Ref: SW1244). Tel. No. 01773 852311</p> <p>Rehau - S.706 Casement System Windows. Tel. No.01753 588500.</p> <p>Kommerling – Gold 70mm Casement Window System. Tel. 01784 464000</p> <p>Only one system is to be used for the whole contract which is to be identified at the time of tender.</p> <p>Colour :        White</p> <p><u>Approved Fabricator / Installer</u></p> <p>Windows must be fabricated and installed by a company approved by the manufacturer.</p>			
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### Design

- A. The design of the replacement system shall be the responsibility of the Contractor in terms of compliance with this Specification or standard stated herein. The pattern and arrangement (handing) of openings of replacement windows are to be provided (as identified in the Window Schedule or drawings(s)).
- B. The Contractor is to carry out a survey of each property to ascertain the correct dimensions and sizes of each and every existing window opening. The survey will also identify where insulation panels conceal internal fittings, kitchen units, internal blockwork, etc., which would prevent internal beading of the panel. The Contractor will be responsible for ensuring that the new windows are square and central within each opening.
- C. The onus for ensuring that the design criteria given in the aforementioned British Standards (and manufacturer's instructions) are adhered to, is with the Contractor. If for any reason the configuration, arrangement and/or size of any member or opening light detailed or on drawings is at variance with these documents, then the Contractor must inform the Contract Administrator during the tender period. Under no circumstances should such windows be manufactured.
- D. Where narrow windows are encountered (ie., below 340mm width measured between reveals), then the manufactured replacement may be a fixed light. However, the Contractor must include for an in glaze-in proprietary ventilator such as Brookvent DG1500, as manufactured by Brook Design Hardware Limited, or equal approved.

### Make-up Pieces

- E. The use of make-up pieces may be necessary in some cases. Make-up pieces should be constructed from multi-chamber PVC-u profiles secured to the outer frame by steel fixings and sealed to the frame.
- F. The use of make-up pieces should be limited to special design circumstances (eg., where recessed reveals or curved heads are encountered) and they should not be used as a means of standardising manufacturing sizes.

A

**Existing PVC-u Windows**

**During a survey of a property, existing PVC-u windows may be encountered and under no circumstances are these to be measured and replaced.**

**'Structural/Windows'**

B

Some existing windows may be load bearing. The onus is on the Contractor to identify such circumstances and to ensure that the manufactured replacement acts in similar fashion. The Contractor should include for all necessary temporary supports. No claim for additional payment will be allowed consequent upon any misunderstanding or lack of knowledge of any such matter.

**Existing Window Openings**

C

Some window openings may not contain lintels. However, experience has shown that windows may be replaced with the need for providing such lintels. Obviously, great care must be exercised when removing existing windows in these circumstances and replacement windows must be designed to act structurally. If the Contractor feels that the replacement windows cannot be achieved without the provision of lintels in these cases, then he should inform the Contract Administrator when he submits his tender.

**Pilot Property**

D

The Employer reserves the right to request that a pilot property be re-windowed in advance of full manufacture. The Contractor is to price accordingly.

**Restriction of Initial Opening**

E

All side hung casements and top hung lights which are the main opening, must be provided with factory fitted restrictors which restrict initial opening to no more than 100mm. Such restrictors must be simple to operate and to override (without the use of a tool) and must re-engage automatically when shutting a fully open light. Top hung fanlights within the same unit as a side hung casement are to have standard friction hinges.

	<p><u>Ironmongery</u></p> <p>A. The Contractor is to include for all necessary ironmongery. The quantity, location and fixing of ironmongery is to be in accordance with manufacturer's instructions. Ironmongery to be satin Chrome/silver finish, unless stated otherwise under 'Hardware/Ironmongery' below.</p> <p><u>Security</u></p> <p>B The casement windows are to comply in all respects with BS 7412 incorporating PAS011 Standard (BS 6375: Part 3), except where specifically identified under "Hardware/Ironmongery" below. The Contractor will be responsible for contacting the manufacturer to ascertain all requirements to ensure compliance.</p> <p><u>Trims/Architraves/Nosings and Window Boards</u></p> <p>C The Contractor is to included for all necessary finishing trims, both internal and external. Such trims are to be of white structural foamed PVC-u with co-extruded PVC-u skin. Internally, trims are to be of minimum dimensions necessary to ensure satisfactory masking of joint. Where window frames finish flush with the existing internal wall finish, an architrave/skirting section is to be provided to the perimeter, with neat mitred joints at changes of direction.</p> <p>D Trims to be sealed to new window frame and to surrounding structure. All labours to be included. Where windows finish flush with internal wall finish architrave trims are to be provided.</p> <p>E Supply and install white PVC-u bull nosed window board covers to project a minimum 25mm beyond face of plastered wall, fixed and sealed all in accordance with the manufacturer's recommendations.</p> <p><u>Curtain Wire Hooks</u></p> <p>F The Contractor is to provide 2 no. round head screws for curtain wire fixing per window. Where window types comprise one or more units coupled together, 2 no. screws are to be provided for each unit.</p>				
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	<b><u>GLAZING</u></b>				
A	Windows are to be glazed with hermetically sealed double glazing units 20mm thick. Such glass is to be of two 4mm sheets of clear glass (with the exception of bathrooms and WCs, where obscure glass shall be used for the inner pane, the outer being clear) with a 12mm air cavity, having an aluminium spacer tube containing a desiccant sealed with a cured sealant and a protective edge tape. The cavity is to be hermetically sealed and dehydrated. Glazing is to be by the knock-on principle with neoprene gaskets 'glazed out'. All glazing beads are to be internal with integral preformed external glazing stops.				
B	Toughened safety glass shall be provided to satisfy the requirements of Part N1 and N2 of the Building Regulations with regard to glazing in windows, doors, glazing adjacent to doors and low level glazing.				
C	Where required, safety glass shall comply with BS 6262. The glass shall be clearly marked in a position visible after glazing with the following : <ul style="list-style-type: none"> <li>a) The British Standard Number BS 6262</li> <li>b) Identification of the materials such as 'L' for laminated, 'T' for toughened or 'P' for plastics.</li> <li>c) Classification of materials - A, B or C</li> <li>d) Name or identifying mark of the manufacturer or the company last cutting the material if the original mark is lost in cutting.</li> </ul> <u>Leaded Lights / Glazing Bars</u>				
D	Where indicated on the drawings, mock leaded lights or glazing bars are to be provided.  <u>Obscured Glazing</u>				
E	Pattern of obscured glass to be <b>STYPOLLITE</b>				



## **VENTILATION**

- A Ventilation by means of strip ventilators is to be provided to all rooms. The Contractor must comply with the relevant requirements of Approved Document F of the Building Regulations and where applicable, BS 5440: Part 2 : 1989.
- B All vents shall be finished in white, and shall be compatible to the entire PVC-u window and components therein.
- C Controllable ventilation to provide 8000mm<sup>2</sup> area is to be provided to all windows. Kitchens, bathrooms and rooms containing gas boilers are to have permanent ventilators, the remainder are to be hit/miss. Where properties contain gas boilers, it will be the Contractor's responsibility to ascertain the ventilation requirements to suit each boiler.
- Note: Where gas boilers are present within properties, the Contractor is to verify that the level of ventilation is adequate for the boiler. The provision of written confirmation from the Gas Board will be required for each property.**
- D Ventilators are to be Brookvent SM1200 or SM1000 to suit application (manufactured by Brook Design Hardware Ltd. Tel. No. 01232 616505), or equal approved, provided above window heads. Consideration will be given to alternative methods of ventilation. Where gas appliances are present the vent shall be from the Brookvent GV range sized to suit appliance, with white finish.
- E The installation of permanent ventilators into the frame should be designed so that there is no risk of vapour entering the window from void. Any sleeves provided are to fit accurately into prepared grooves and be fully bonded to the frame.
- F Details of the proposed ventilators are to be included on the Contractors Working Drawings.

## **DOORS**

- G Unless otherwise stated, doors where illustrated are to be PVC-u 2XGG pattern with toughened glazing, as detailed in the Window Schedule. Inward opening doors are to be provided with weatherboard/drip trim. Details to be shown on the Contractor's drawings.
- H Front and rear doors are to be provided with multi-point security locking system with lockable centre deadbolt and latch. Doors are to be fitted with SAA lever/lever handles.

A	<p>Doors are to be provided with fully weathered thresholds. The provision of thresholds/bottom frame members are not to increase the height of the existing step measured externally from ground/balcony level to the top surface of the existing threshold. Level access/low threshold details, where applicable, will be identified within the Schedule of Works.</p> <p><b><u>HARDWARE/IRONMONGERY - DECEUNINK</u></b></p>				
B	<p>The hardware/ironmongery (available from Triton Hardware Ltd. Tel. No. 01206 562400) will be as follows :</p> <p><b>SIDE HUNG CASEMENTS :</b></p> <ul style="list-style-type: none"> <li>i) Securistyle Vector Plus VP5 Friction Hinge.</li> <li>ii) Auto Latch Casement Restrictor and Pin</li> <li>iii) Maco Shootbolt and Mushroom Head Espagnolette with Night Vent facility *</li> <li>iv) Medway 'Push to Release' Espagnolette Handle (key-locking). Colour : Silver</li> </ul>				
C	<p><b>TOP HUNG FANLIGHTS :</b></p> <ul style="list-style-type: none"> <li>v) Securistyle Vector Plus VPT Friction Hinge</li> <li>vi) Maco Shootbolt and Mushroom Head Espagnolette with Night Vent Facility *</li> <li>vii) Medway 'Push to Release' Espagnolette Handle</li> </ul> <p>* This product is at variance with PAS 011 Standard.</p>				
D	<p><b><u>DOORS</u></b></p> <ul style="list-style-type: none"> <li>viii) Maco Door Lock (Lift Lever) with finger bolt locking mechanism.</li> <li>ix) 2 no. pairs Schuring 3V Mini Hinges (White).</li> <li>x) Maco Lever/Lever Handle. Colour: Silver.</li> <li>xi) Letter box A4 size, colour Silver and Door Numerals.</li> </ul> <p><b><u>HARDWARE /IRONMONGERY - L. B. PLASTICS</u></b></p>				
E	<p>The hardware / ironmongery will be as follows :</p>				

<p>A</p> <p>B</p> <p>C</p>	<p><b>SIDE HUNG CASEMENTS :</b></p> <p>i) Securistyle Defender Restrictor Hinge (Austenitic) with offset fixing holes to suite L B Plastics profile.</p> <p>ii) Shoot Bar Espagnolette (Ref. SW 71135 Series).</p> <p>iii) Push-Button Espagnolette Locking Handle, Colour : Silver (Ref. SW 71073 Series).</p> <p>iv) Security jaws (Ref. SW 70973 and SW 70974)</p> <p><b>TOP HUNG FANLIGHTS :</b></p> <p>v) Sheerframe HP Hinge (Ref. SW 71170)</p> <p>vi) Shoot Bar Espagnolette (Ref. SW 71135)</p> <p>vii) Push-Button Espagnolette Locking Handle, Colour : Silver (Ref. SW 71073).</p> <p>viii) Security Jaws (Ref. SW 70973 and SW 70974)</p> <p><b>DOORS:</b></p> <p>ix) Fuhr Security Door Lock, lift lever (latch, dead bolt and 4 hooks), Ref. SW 71271, with 4 hook and Centre Keep Set (Ref. SW 71266).</p> <p>x) Cylinder (Ref. SW 71267) Colour: Silver.</p> <p>xi) Lever/Lever Handle (Ref. SW 70862) Colour: Silver</p> <p>xii) Security Hinges (Ref SW 708 44).</p> <p>xiii) Security Jaws (Ref. SW 70973 and SW 70974)</p> <p>xiv) Letter Box - A4 size fixed through mid rail. Colour: Silver.</p> <p>xv) Door Numerals.</p>				
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**HARDWARE / IRONMONGERY - REHAU**

A The hardware / ironmongery (available from Titon Hardware Ltd Tel. No.01206 562400) will be as follows :

**SIDE HUNG CASEMENTS :**

- i) Securistyle Vector Plus VP5 Friction Hinge
- ii) Auto latch Casement Restrictor and Pin
- iii) Maco Shootbolt and Mushroom Head Espagnolette and Night Vent facility \*
- iv) Medway 'Push to Release' Espagnolette Handle.

B **TOP HUNG FANLIGHTS :**

- v) Securistyle Vector Plus VPT Friction Hinge
- vi) Maco Shootbolt and Mushroom Head Espagnolette and Night Vent facility \*
- vii) Medway 'Push to Release' Espagnolette Handle

\* This product is at variance with PAS 011 Standard

C **DOORS:**

- xii) Maco Door Lock (lift lever) with finger bolt locking mechanism
- xiii) 2 no. pairs HAPS Flag Hinge
- xiv) Maco Lever/Lever Handle. Colour: Silver.
- xv) Letter Box - 14 size fixed through mid rail. Colour: Silver
- xvi) Door Numerals

	<p><b><u>HARDWARE / IRONMONGERY - Kommerling</u></b></p> <p>A The hardware / ironmongery (available from Titon Hardware Ltd Tel. No.01206 562400) will be as follows :</p> <p><b>SIDE HUNG CASEMENTS :</b></p> <ul style="list-style-type: none"> <li>i) Securistyle Vector Plus VP5 Friction Hinge</li> <li>ii) Auto latch Casement Restrictor and Pin</li> <li>iii) Maco Shootbolt and Mushroom Head Espagnolette and Night Vent facility *</li> <li>iv) Medway 'Push to Release' Espagnolette Handle.</li> </ul> <p>B <b>TOP HUNG FANLIGHTS :</b></p> <ul style="list-style-type: none"> <li>v) Securistyle Vector Plus VPT Friction Hinge</li> <li>vi) Maco Shootbolt and Mushroom Head Espagnolette and Night Vent facility *</li> <li>vii) Medway 'Push to Release' Espagnolette Handle</li> </ul> <p>* This product is at variance with PAS 011 Standard</p> <p>C <b>DOORS:</b></p> <ul style="list-style-type: none"> <li>xii) Maco Door Lock (lift lever) with finger bolt locking mechanism</li> <li>xiii) 2 no. pairs HAPS Flag Hinge</li> <li>xiv) Maco Lever/Lever Handle. Colour: Silver.</li> <li>xv) Letter Box - 14 size fixed through mid rail. Colour: Silver</li> <li>xvi) Door Numerals</li> </ul> <p><u>Glazing</u></p> <p>D Glazing to door and screens is to be hermetically sealed double glazed unit having toughened safety glass as necessary as previously described for the windows.</p>			
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	<u>Door/Screen Frame Profile &amp; Furniture/Hardware</u>			
A	The Contractor is to include for all necessary ironmongery. The quantity, location and fixing of ironmongery is to be in accordance with the manufacturer's instructions. Ironmongery to be of a satin chrome/silver finish :			
	<u>Locks/Keys</u>			
B	All units are to be provided with 3 no. keys and hand to each tenant.			
	<u>Fixing</u>			
C	The fixing of the door/screen shall be as detailed for the replacement PVC-u windows.			
	<u>Sealants</u>			
D	All sealing is to be carried out with low modulus silicone sealant, Arbosil 1096 or equal approved, as detailed for replacement PVC-u windows.			
	<u>Panels</u>			
E	Insulation panels to doors and screens are to comprise a phenolic foam core, faced internally and externally with BSC Colorcoat Plastisol coated steel, both sides to be leather grain finish.			
F	Inner and outer face colours - white - RAL 9010. Overall panel thickness to be the maximum permissible for the selected sections profile. Panel edges shall comprise square sealed edges achieved by folding out face of the steel across the edge and then folding over the other face to achieve two skins of steel which shall be pop riveted at centres not exceeding 450mm.			
G	Panels should be fixed with glazing beads, unless otherwise indicated, in which case double sided security tape (e.g. Rubbo tape by Ralli-Bondite Ltd) shall be used when installing the panels.			
H	Panels are to be manufactured by Siderise Limited, Tel No: 0181 549 6389, or equal approved (details of alternative to be provided with tender).			
J	For integrity in the case of fire, it is a requirement that all four sides of each panel are mechanically fixed to the adjacent profiles. Details of fixings must be shown on the drawings.			