

## **PROPRIETARY ITEM: WINDOWSHIELD FZ FIRE SHUTTER**

### **MANUALLY OPERATED COILING FIRE SHUTTER**

#### **PART 1 - GENERAL**

##### **1.01 SUMMARY**

- A. Section Includes:
  - 1. Manually operated system, overhead coiling fire shutter.
  - 2. For small protected openings.
- B. Related Requirements:
  - 1. Load Bearing Header Framing
  - 2. Sill details
  - 3. Finish: Powder coating of specified components.

##### **1.02 REFERENCES**

- A. National Construction Code:
  - 1. NCC 2014/2015
- B. Standards:
  - 1. AS1530.4 – Methods for fire tests on building materials, components and structures, Part 4 Fire-resistance test of elements of construction
  - 2. AS3959 – Construction of buildings in bushfire-prone areas
  - 3. AS1905.2 – Fire Shutters.
  - 4. AS3837– Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter

##### **1.03 SUSTAINABLE DESIGN REQUIREMENTS**

- A. ESD: Comply with sustainable design requirements including, without limitation, submittal and documentation requirements.
- B. Credit/Point Goals Applicable To This Section: In addition to global project credit/point goals:
  - 1. Materials & Resources - construction waste management
  - 2. Materials & Resources - recycled content
  - 3. Materials & Resources - regional materials
  - 4. Indoor Environmental Quality - construction IAQ management plan

##### **1.04 SUBMITTALS**

- A. Comply with Submittal Procedures:
  - 1. NCC Clause C3.4 and AS1905.2.
  - 2. Manufacturers Product data
  - 3. Shop drawings:
    - a. Shutter location and unique identification number
    - b. Include opening dimensions
    - c. Show and identify related work performed under other sections of the specifications
  - 4. Quality Assurance/Control Submittals:
    - a. Site Inspection and Test Plan.
    - b. Manufacturers ISO 9001 Certificate of Accreditation

#### 1.05 CLOSEOUT SUBMITTALS

- A. Comply with Project Closeout:
  - 1. Certificate of Compliance with reference to NCC clause and AS3959 - Evidence of Suitability.
  - 2. Operation and maintenance manual.
  - 3. Manufacturer's warranty.

#### 1.06 QUALITY ASSURANCE

- A. Certifications:
  - 1. AS1530.4 full scale fire test on a complete assembly
  - 2. AS3959 Clause 9.5.2 (b) (i)
  - 3. Laboratory cycle tested on a 3m x 3m complete assembly
- B. Pre-Installation Meeting:
  - 1. Schedule and convene a pre-installation meeting prior to commencement of field operations with representatives of the following in attendance: Owner, Architect, General Contractor, certifier
  - 2. Review substrate conditions, requirements of related work, installation instructions, storage and handling procedures, and protection measures.
  - 3. Document the responsibilities of various parties and deviations from specifications and installation instructions.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Comply with project delivery, storage, and handling requirements.
- B. Comply with manufacturer's instructions.

#### 1.08 WARRANTY

- A. Provide manufacturer's standard one year warranty for Defect Liability Period.
- B. Maintenance and Testing:
  - 1. Perform minimum quarterly maintenance and testing on each fire shutter as required by the manufacturer's warranty, AS1851 - Maintenance.
  - 2. Provide Commissioning documentation including Project name, project address, location and shutter number, number of cycles tested, observations, comments (eg: curtain out of alignment), notes (eg: curtain alignment repaired), Pass/fail.
  - 3. Re-certification after the defect liability period

## PART 2 - PRODUCTS

### 2.01 MANUFACTURED UNITS

- A. Proprietary item; Model Windowshield FZ Fire shutter.
- B. Manufacturer:
  - 1. Smoke Control Systems Pty Ltd
  - 2. Distributed by Smoke Control Systems Pty Ltd, 26 Ferndell St, South Granville, NSW 2142, Australia [www.smokecontrol.com.au](http://www.smokecontrol.com.au)
- C. Label each fire curtain with following information:
  - 1. Manufacturer's name and contact details.
  - 2. Curtain location and unique identification number
  - 3. Fire Resistance Level
  - 4. Date of installation

### 2.02 DESIGN CRITERIA

- A. Head box; 165 H x 165 W mm
- B. Bearing type: Standard support rollers
- C. Side guide; 100 mm x 50mm
- D. Side guide restraint system; Standard bobbin type
- E. Fabric type; 660g/m<sup>2</sup> stainless steel woven fabric, incorporating a coated glass fibre material to reduce radiant heat transmission.
- F. Manually operated deploy/retract system
- G. Bottom bar; Steel incorporating weights
- H. Finishes; Dulux Duralloy colour range (Standard)
- I. Load requirements at head = 20kg/m of width
- J. Load requirements at sides = 15kg/m of height
- K. Mounting orientation
  - 1. Installation Configuration: Housing attached directly to substrate face fixed ONLY.
  - 2. Fabricate and install mounting brackets, hardware, and fasteners needed to attach fire shutter assembly to building structure.

### 2.03 PERFORMANCE CRITERIA

- 1. Fire Resistance Level (FRL): -/30/-
- 2. Group Number for fabric: 1 when tested in accordance with AS3837
- 3. Durability; light duty
- 4. Maximum allowable gap to non-combustible sill 25mm
- 5. Maintenance shall be conducted quarterly by the Manufacturer and/or their nominated representative to the Manufacturers recommendations.

## 2.04 COMPONENTS

- A. Curtain: Windowshield FZ stainless steel, incorporating fiberglass and coated on a single side with polyurethane.
- B. Side Guide Assembly: 1.6mm thick Zinalume mild steel incorporating rivets along its tab for rigidity incorporating a bobbin restraint system.
- C. Housing/Bearing Type: 1.6mm thick galvanized mild steel head box incorporating roller bearings.
- D. Bottom Bar: Steel triangle with concealed weights.
- E. SCS1 Series Thermal Link
  - 1. 72°C activation temperature.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

- A. Examine substrates upon which work will be installed.
  - 1. Verify related work performed under other sections is complete and in accordance with shop drawings.
  - 2. Verify wall surfaces are acceptable for installation of fire shutter system components
  - 3. Verify setout point locations.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.
- C. Commencement of work by installer is acceptance of substrate.

### 3.02 INSTALLATION

- A. Install fire shutter system components in accordance with fire test approvals and manufacturer's installation instructions.
- B. Once installed it shall be demonstrated that the system shall close and open on release/removal of manually operated pulley system.

### 3.03 FIELD QUALITY CONTROL

- A. Field Test 1: Calibration & Commissioning

Follow manufacturer's cycle test procedures prior to application of thermal holding link.

- 1. Conduct a minimum of 3 consecutive, error free cycle tests
- 2. Complete Inspection and Test Plan

END OF SECTION

# SCS PRODUCT TEMPLATE - SCS-WS-TEMP WINDOWSHIELD FIRE CURTAIN



**ATTENTION: TECHNICAL REQUIREMENTS FOR THIS PROJECT**



No	DESCRIPTION	REQUIREMENT	RESPONSIBILITY
1	WORKS DONE BY OTHERS	ALL DETAILS PERTAINING TO WORK BY OTHERS IS AN ADVISEMENT ONLY AND IT IS THE RESPONSIBILITY OF THE SUPPLIER AND INSTALLER OF THE ITEM/S TO CONFIRM COMPLIANCE TO ITS SUITABILITY FOR THE PURPOSE AND TO CERTIFY ITS COMPLIANCE TO THE REQUIRED FRL TO THE SATISFACTION OF THE FE OR CERTIFIER.	BUILDER, ARCHITECT, OTHER TRADES
2	SHOP DRAWINGS	APPROVAL OF SHOP DRAWINGS (SIGNITURE AND DATE) IS REQUIRED TO BE RETURNED TO SMOKE CONTROL SYSTEM BEFORE MANUFACTURE CAN COMMENCE.	BUILDER, ARCHITECT
3	DELIVERIES TO SITE	IF REQD, FORKLIFT TO BE MADE AVAILABLE.	BUILDER
4	VERTICAL MOVEMENT OF PRODUCT	IF REQD, CRANE SHALL BE AVAILABLE TO SMOKE CONTROL SYSTEMS AT AGREED TIME OF DELIVERY. IF THIS IS NOT AVAILABLE, THIS MAY INCUR EXTRA CHARGES.	BUILDER
5	STORAGE	SUFFICIENT CLEAR FLOOR SPACE TO BE MADE AVAILABLE IMMEDIATELY ADJACENT TO EACH INSTALLATION LOCATION.	BUILDER
6	ACCESS TO WORKFACE (INSTALLATION)	ADEQUATE WORKING AREA REQD., MIN 500mm FROM SYSTEM TO STRUCTURE IS IDEAL. SUBJECT TO SITE CONDITIONS.	BUILDER
7	BALUSTRADES (WHERE PRESENT)	BALUSTRADES MUST NOT INTERFERE WITH THE OPERATION OF CURTAIN IN ANY WAY. MIN. 100mm FROM SYSTEM TO BALUSTRADE OFFSET IS IDEAL.	BUILDER
8	ACCESS PANELS (INSTALATION WITHIN CEILING CAVITY OR EAVES)	REASONABLY SIZED ACCESS PANELS THAT WOULD ALLOW A TECHNICIAN TO SERVICE THE FIRE CURTAIN WILL BE REQUIRED WHERE ACCESS TO HEAD BOX IS RESTRICTED.	BUILDER, CEILING CONTRACTOR
9	ACTIVATION	BOUNDARY CONTROL: WINDOWSHIELDS ARE ACTIVATED VIA A THERMALLY TRIGGERED FUSIBLE LINK. FLAME ZONE: WINDOWSHIELDS ARE OPERATED VIA A MANUAL CABLE WINDER.	OWNER, RFS
10	CERTIFICATON	WITNESS TESTING, FINAL COMMISSIONING & HANDOVER	SMOKE CONTROL SYSTEMS

## DRAWING INDEX

SHEET	DESCRIPTION	REV
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0202	FLAME ZONE - CLOSE UP DETAILS	-

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REV	CHK	REASON	DATE
-	IR	FOR INFORMATION ONLY	19/05/2016

## INFORMATION ONLY



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 SOUTH GRANVILLE NSW 2142

**WESTERN AUSTRALIA:**  
**AUSTRALIAN FIRE CONTROL**  
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 UNIT 2, 71-73 BRANT RD  
 KELMSCOTT WA 6997

**VICTORIA OFFICE**  
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 336 SETTLEMENT RD  
 THOMASTOWN VIC 3074

**NEW ZEALAND**  
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 LEVEL 4, 369 QUEEN ST  
 AUCKLAND NZ 1010

**PROJECT**  
 SCS-WS-TEMP  
 WINDOWSHIELD TEMPLATE  
 TYP. SHOP DRAWING

CLIENT

TITLE  
COVER PAGE

SUB SET (CATEGORY)  
**00 - SPECIFICATIONS**  
 DRAWING NUMBER  
**SCS-WS-TEMP-0001**  
 DRAWN BY  
**IGOR REBENKO**

ISSUE STATUS:  
**FOR INFORMATION**  
 START DATE  
 19/05/2016

SCALE  
 N/A

@A2

WINDOWSHIELD FIRE CURTAIN	HEAD BOX & BOTTOM BAR	GALVANISED STEEL	- /60/-	HEAD BOX	POWDER COATING TO DULUX DURALLOY COLOURS IS INCLUDED. OTHER NON-STANDARD COLOURS OR GRADES WILL INCUR AN EXTRA CHARGE UNLESS STATED OR AGREED UPON OTHERWISE  WILL COME IN RAW GALVANISED FINISH IF COLOUR IS NOT PROVIDED BY CLIENT
	SIDE GUIDES	GALVANISED STEEL		SIDE GUIDES	
	FABRIC	1100°C RATED		BOTTOM BAR	
SYSTEM	COMPONENT	MATERIALS	FRL	COLOUR/FINISH	
<b>PRODUCT SPECIFICATIONS</b>					

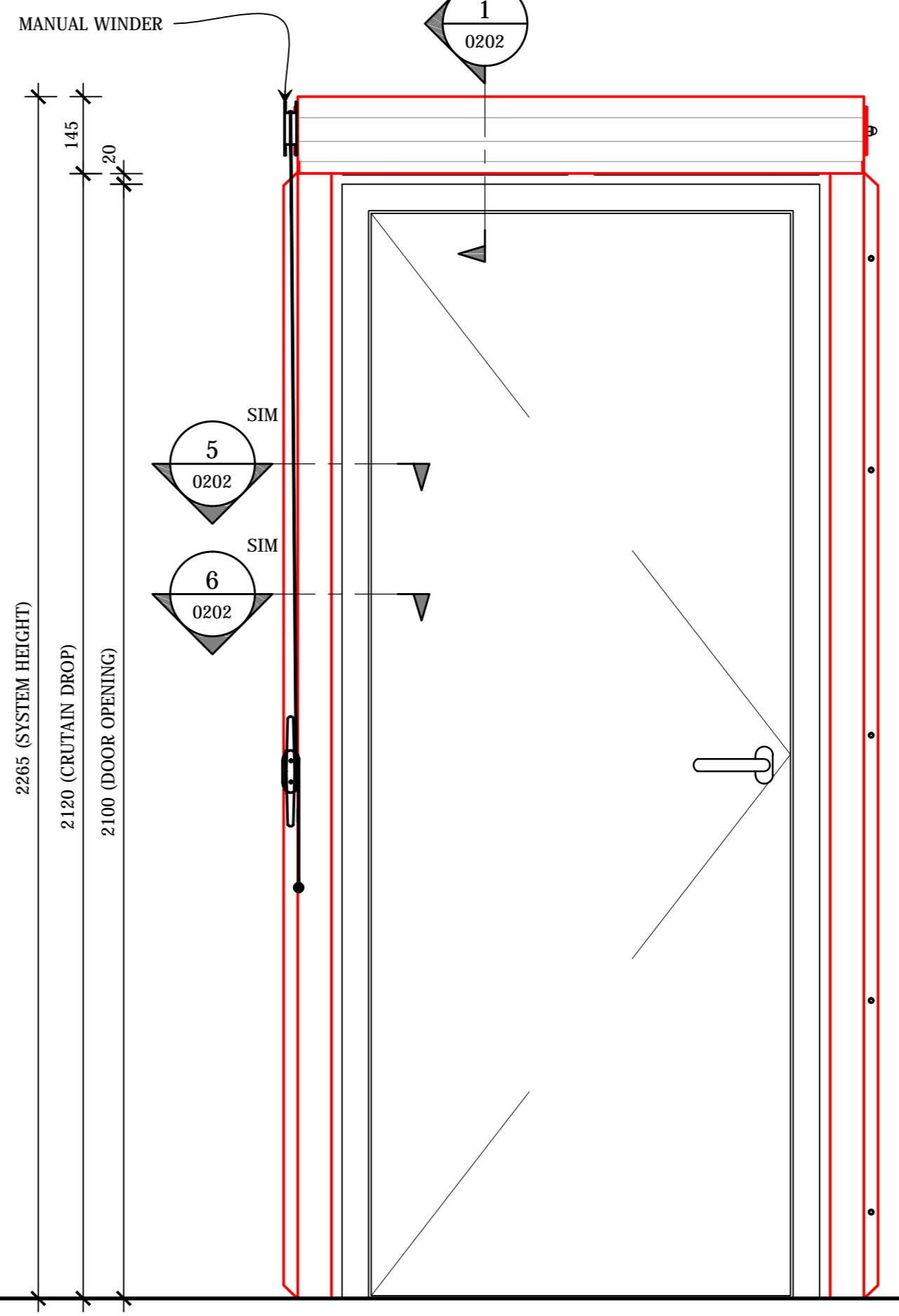
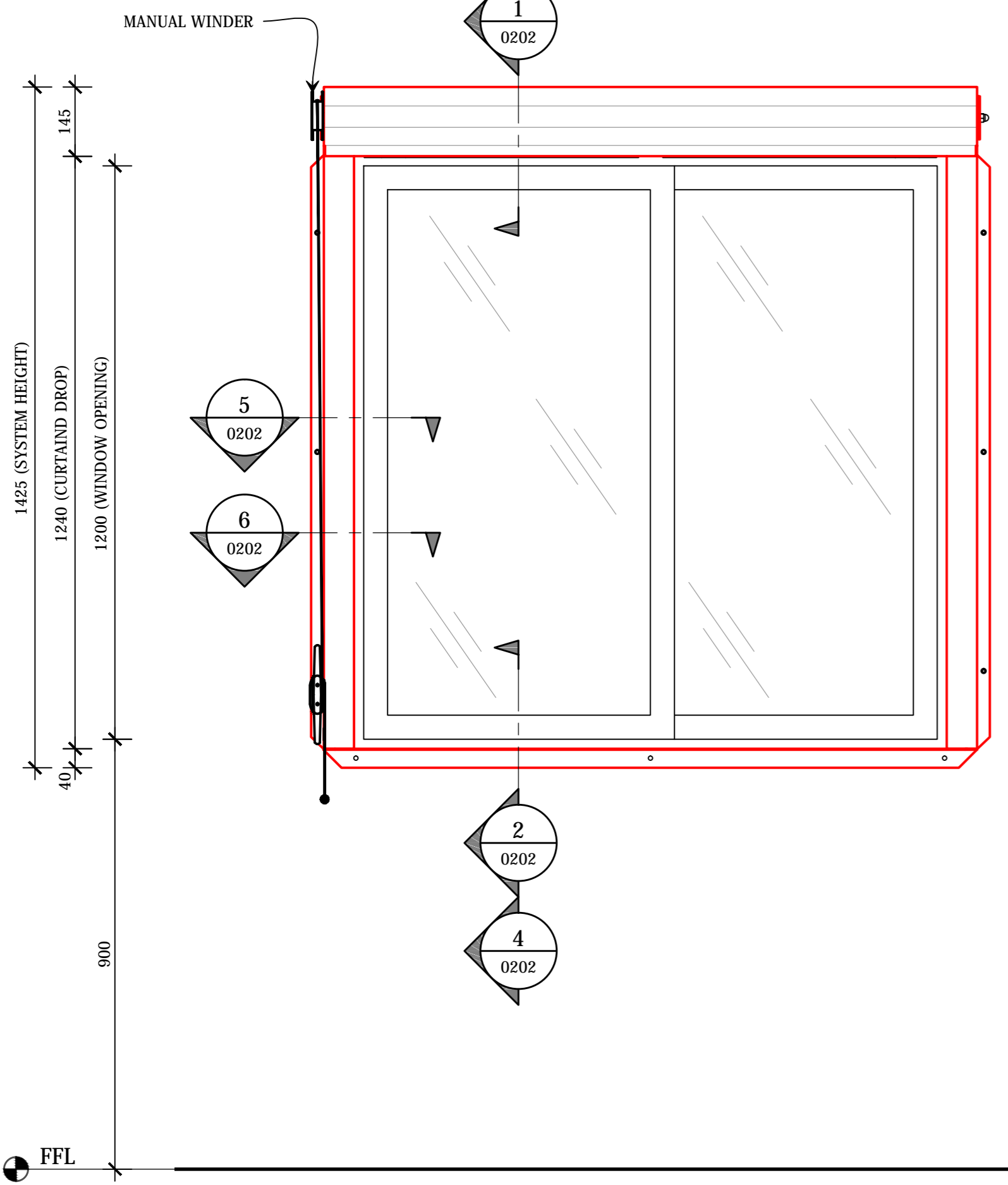
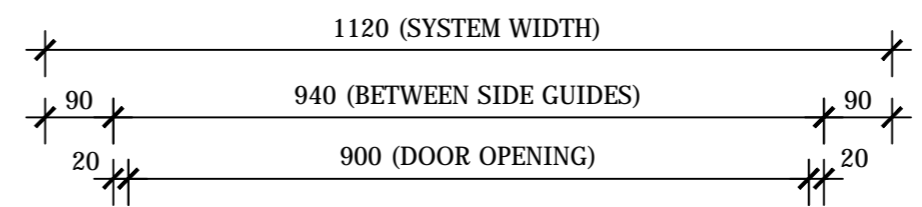
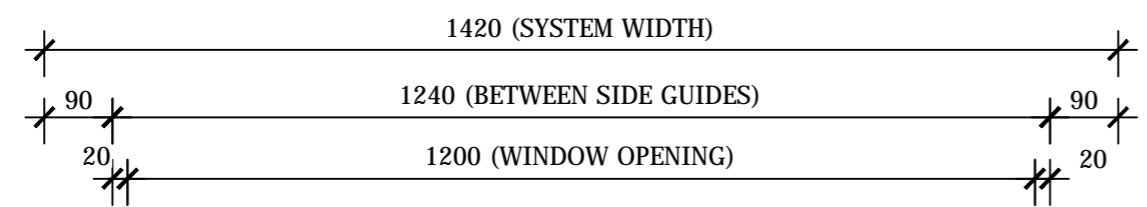
FILE: SCS-WS-TEMP.dwg --- PLOTTED ON 20/05/2016 BY IGOR REBENKO

**NOTES:**

1. WINDOW/DOOR SIZES ARE NOMINAL
2. MAXIMUM WINDOW/DOOR OPENING IS 2.7m WIDE x 2.5m HIGH. ANY WINDOWS/DOORS ABOVE THESE DIMENSIONS WILL BE REQUIRED TO BE MOTORISED WINDOWSHIELD M SYSTEMS.
3. AWNING TYPE WINDOWS AND DOORS MUST OPEN AWAY FROM WINDOWSHIELD SYSTEM.

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REV	CHK	REASON	DATE
-	IR	FOR INFORMATION ONLY	19/05/2016



**1** FRONT ELEVATION - VIEW FROM OUTSIDE  
**WINDOWSHIELD OVER WINDOW**  
 SCALE 1:10 @ A2

**2** FRONT ELEVATION - VIEW FROM OUTSIDE  
**WINDOWSHIELD OVER DOOR**  
 SCALE 1:10 @ A2

**INFORMATION ONLY**



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PROJECT  
**SCS-WS-TEMP**  
**WINDOWSHIELD TEMPLATE**  
**TYP. SHOP DRAWING**  
 CLIENT

TITLE  
**FRONT ELEVATIONS**  
**FLAME ZONE**

SUB SET (CATEGORY)  
**02 - FLAME ZONE**

DRAWING NUMBER  
**SCS-WS-TEMP-0201**

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ISSUE STATUS:  
**FOR INFORMATION**

START DATE  
**19/05/2016**

SCALE  
**AS SHOWN @A2**