

**ROSCOMMON COUNTY COUNCIL**

**PLANNING AND DEVELOPMENT ACT, 2000 (as amended)**

**SECTION 5 - DECLARATION ON DEVELOPMENT AND EXEMPTED DEVELOPMENT**

**NOTIFICATION OF DECISION**

Paul Grennan,  
c/o Tuath Housing,  
37-42 James Place East,  
Dublin 2.

Reference Number: DED 810  
Application Received: 29<sup>th</sup> November, 2024  
Name of Applicant: Paul Grennan  
Agent: Eamon Maguire, KORE Insulation

WHEREAS a question has arisen as to whether the following works; to remove door & porch roof on front elevation at the above address is or is not development and is or is not exempted development at 3 Galway Road, Roscommon Town, Co. Roscommon (F42 NW68), is or is not development and is or is not exempted development:

AND WHEREAS Roscommon County Council, in considering this application, had regard particularly to:

- (a) Sections 2, 3, 4 and 5 of the Planning and Development Act, 2000, as amended
- (b) Articles 6, 9 and 10 of the Planning and Development Regulations, 2001, as amended
- (c) Class 2 of Part 1 of Schedule 2 of the Planning and Development Regulations, 2001 (Exempt Development – General), as amended
- (d) The record forwarded to Roscommon County Council in accordance with subsection (6)(c) of Section 5 of the Planning and Development Acts 2000 as amended.
- (e) The planning history of the site

AND WHEREAS Roscommon County Council, has concluded that

- (a) The works outlined above are development.
- (b) The proposed installation of a solar PV array to the roof as described in this case are exempted developments provided they are installed a minimum of 50cm from the edge of the roof.
- (c) The proposed install of an air source heat pump as described in this case is an exempted development.
- (d) The proposed removal of a door & porch roof on front elevation, replacement of windows and doors with new uPVC windows and doors, new fascia, soffits, guttering and downpipes and install external insulation with render to match the existing house as above fall within the provisions of Section 4(1)(h) of the Planning & Development Act 2000 as amended, which provides as follows: *development consisting of the carrying out of works for the maintenance, improvement or other alteration of any structure, being works which affect only the interior of the structure or which do not materially affect the external appearance of the structure so as to render the appearance inconsistent with the character of the structure or of neighbouring structures;*
- (e) The proposed development individually and in combination with other plans or projects would not be likely to have a significant effect on any European site and that the requirement for AA or EIAR does not apply with respect to the current case.

**NOW THEREFORE:**

By virtue of the powers vested in me by the Local Government Acts 1925 – 2024 and Section 5(2)(a) of the Planning and Development Act 2000 (as amended) and having considered the various submissions and reports in connection with the application described above, it is hereby declared that the said development to remove door & porch roof on front elevation at 3 Galway Road, Roscommon Town, Co. Roscommon, is **an exempted development**, provided that the solar panels are installed a minimum of 50cm from the edge of the roof, as defined within the Planning and Development Act 2000 (as amended) and associated Regulations.

Signed on behalf of the Council:



Alan O'Connell,  
Senior Executive Planner,  
Planning.

Date: 29<sup>th</sup> January 2025

c.c. Agent via email: Eamon Maguire, KORE Insulation  
[eamonmaguire@korsystem.com](mailto:eamonmaguire@korsystem.com)

**ADVICE NOTE**

Solar Panels are to be installed a minimum of 50cm from the edge of the roof.

**ADVICE NOTE**

Any person issued with a Declaration under Section 5 of the Planning and Development Act, 2000 (as amended) may, on payment to An Bord Pleanála of the prescribed fee, refer a Declaration for review within 4 weeks of the date of the issuing of the Declaration.

## Carmel Curley

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**From:** Carmel Curley  
**Sent:** Wednesday 5 February 2025 10:02  
**To:** Eamon Maguire  
**Subject:** DED810 - Notification of Decision  
**Attachments:** DED810 - Notification of Decision.pdf

A Chara,

Please find attached Notification of Decision for DED Application 810 submitted on behalf of Paul Grennan C/O Tuath Housing. Please note that a hard copy will be issued to the applicant via registered post.

Regards,

Carmel

**Carmel Curley, Assistant Staff Officer,  
Planning Department, Roscommon County Council,  
Aras an Chontae, Roscommon, Co. Roscommon, F42 VR98  
☎: (090) 6637100**

✉: [planning@roscommoncoco.ie](mailto:planning@roscommoncoco.ie) | 🌐 [www.roscommoncoco.ie](http://www.roscommoncoco.ie)

**MAP LOCATION**



**Planner's Report on application under  
Section 5 of the Planning and Development Act 2000 (as amended)**

<b>Reference Number:</b>	DED 810
<b>Re:</b>	Application for a Declaration under Section 5 of the Planning & Development Act, 2000, as amended, regarding Exempted Development to remove door & porch roof on front elevation.
<b>Name of Applicant:</b>	Paul Grennan C/O Tuath Housing
<b>Location of Development:</b>	3 Galway Road, Roscommon Town, Co. Roscommon (F42 NW68)
<b>Site Visit:</b>	15/01/2025

**WHEREAS a question has arisen as to whether the following works; to remove door & porch roof on front elevation at the above address is or is not development and is or is not exempted development.**

I have considered this question, and I have had regard particularly to –

- (a) Sections 2, 3, 4 and 5 of the Planning and Development Act, 2000, as amended
- (b) Articles 6, 9 and 10 of the Planning and Development Regulations, 2001, as amended
- (c) Class 2 of Part 1 of Schedule 2 of the Planning and Development Regulations, 2001 (Exempt Development – General), as amended
- (d) The record forwarded to Roscommon County Council in accordance with subsection (6)(c) of Section 5 of the Planning and Development Acts 2000 as amended.
- (e) The planning history of the site

**Site Location & Development Description**

The property is a single story detached dwelling at 3 Galway Road, Roscommon Town, Co. Roscommon. The property is accessed off the N63 road and has a garden area to the rear of the property and parking are to the front. The proposed development consists of the removal of one of the porch roofs and the blocking up of the doorway on the front elevation of the existing dwelling, it is noted on the drawings provided that the same door is already blocked up on the inside of the dwelling. Other proposed works that are indicated on the proposed elevation drawings provided include replacement of windows and doors, new fascia, soffits, guttering and downpipes, installation of solar PV array on front and side elevations, new heat pump and external insulation with render.

There are no European designated sites in, adjoining or in close proximity to the subject site. There is no known heritage related sites/structures in very close proximity to the subject site, as per the Roscommon County Council GIS.

**Archaeological and Cultural Heritage**

No RMP recorded in the likely zone of influence of the proposed development. No Protected structures or structures listed in the National Inventory of Architectural Heritage the likely zone of influence of the proposed development.

## **Appropriate Assessment**

The closest European sites to the site of the proposed development are Ballinturly Turlough SAC/PNHA (Site Code 000588) which is located circa 3.2km to the south and Lough Ree PNHA (Site Code 000440) which is located circa 4.1km to the east of the subject site.

Having regard to the separation distance between the site and the closest Natura 2000 site and the nature of the proposal, there is no real likelihood of significant effects on the conservation objectives of these or other European sites arising from the proposed development. The need for further Appropriate Assessment, therefore, be excluded.

## **Planning History**

As per the Roscommon County Council's Planning Registry, recent planning history traced to the site.

- 16/505 - for change of use of existing Creche facility to domestic dwelling - Conditional
- 12/57 - to extend existing Child Care Facility by way of staff/toilet utility room - Conditional

## **Relevant statutory provisions**

### **Planning and Development Acts 2000 (as amended)**

#### **Section 2. -(1)**

"works" includes any act or operation of construction, excavation, demolition, extension, alteration, repair or renewal and, in relation to a protected structure or proposed protected structure, includes any act or operation involving the application or removal of plaster, paint, wallpaper, tiles or other material to or from the surfaces of the interior or exterior of a structure.

#### **Section 3. -(1)**

In this Act, "development" means, except where the context otherwise requires, the carrying out of any works on, in, over or under land or the making of any material change in the use of any structures or other land.

Section 4(1) of the Act defines certain types of development as being 'exempted development'. Of potential relevance is section 4(1)(h) which provides as follows:

*development consisting of the carrying out of works for the maintenance, improvement or other alteration of any structure, being works which affect only the interior of the structure or which do not materially affect the external appearance of the structure so as to render the appearance inconsistent with the character of the structure or of neighbouring structures;*

Section 4 (2) of the Planning and Development Act provides that the Minister, by regulations, provide for any class of development to be exempted development. The principal regulations made under this provision are the Planning and Development Regulations.

### **Planning and Development Regulations, 2001 as amended**

#### **Article 6 (1)**

Subject to article 9, development of a class specified in column 1 of Part 3 of Schedule 2 shall be exempted development for the purposes of the Act, provided that such development complies with the conditions and limitations specified in column 2 of the said Part 3 opposite the mention of that class in the said column 1.

Article 9 (1) applies;

Development to which article 6 relates shall not be exempted development for the purposes of the Act

viiB) comprise development in relation to which a planning authority or an Bord Pleanála is the competent authority in relation to appropriate assessment and the development would require an appropriate assessment because it would be likely to have a significant effect on the integrity of a European site,

**Class 2 of Part 1 of Schedule 2: Exempted development - General**

Description of Development	Conditions and Limitations
<p><i>CLASS 2</i></p> <p>(c) The placing or erection on a roof of a house, or within the curtilage of a house, or on a roof of any ancillary buildings within the curtilage of a house (this class does not include apartments) of a solar photo-voltaic and/or a solar thermal collector installation.</p>	<ol style="list-style-type: none"><li>1. The distance between the plane of the roof and the solar photo-voltaic or solar thermal collector panels shall not exceed 50cm in the case of a flat roof or 15cm in any other case.</li><li>2. The solar photo-voltaic or solar thermal collector panels shall be a minimum of 50cm from the edge of a roof on which it is mounted.</li><li>3. Any free-standing solar photo-voltaic or solar thermal collector installation shall not be placed or erected forward of the front wall of the house.</li><li>4. The total aperture area of any free-standing solar photo-voltaic and solar thermal collector panels taken together with any other such existing free-standing panels shall not exceed 25 square metres.</li><li>5. The placing or erection of any free-standing solar photo-voltaic or solar thermal collector installation shall not reduce the remaining area of private open space, reserved exclusively for the use of the occupants of the house, to the rear or to the side of the house to less than 25 square metres.</li><li>6. The height of any free-standing solar photo-voltaic or solar thermal collector installation shall not exceed 2.5 metres at its highest point above ground level.</li><li>7. The placing or erection of a solar photo-voltaic or solar thermal collector installation on any wall shall not be exempted development.</li><li>8. The placing or erection of any free-standing solar photo-voltaic or solar thermal collector installation within an Architectural Conservation Area shall only be exempted development if those works would not materially affect the character of the area.</li><li>9. Development under this Class which causes hazardous glint and/or glare shall not be exempted development and any solar photo-voltaic or solar thermal collector panels which are causing hazardous glint and/or glare shall either be removed or be covered until such time as a mitigation plan to address the hazardous glint and/or glare is agreed and implemented to the satisfaction of the Planning Authority.</li></ol>

<p>(d) The installation on or within the curtilage of a house of a ground heat pump system (horizontal and vertical) or an air source heat pump.</p>	<ol style="list-style-type: none"> <li>1. The level of the ground shall not be altered by more than 1 metre above or below the level of the adjoining ground.</li> <li>2. The total area of such a heat pump, taken together with any other such pump previously erected, shall not exceed 2.5 square metres.</li> <li>3. The heat pump shall be a minimum of 50cm from any edge of the wall or roof on which it is mounted.</li> <li>4. No such structure shall be erected on, or forward of, the front wall or roof of the house.</li> <li>5. Noise levels must not exceed 43db(A) during normal operation, or in excess of 5db(A) above the background noise, whichever is greater, as measured from the nearest neighbouring inhabited dwelling.</li> </ol>
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### Assessment:

In accordance with the Planning and Development Act, 2000 Section 3. (1) development is defined as the following: "In this Act, "development" means, except where the context otherwise requires, the carrying out of any works on, in, over or under land or the making of any material change in the use of any structures or other land". The proposed development is considered to be the carrying out of works. Works are defined in the Act as; "works" includes any act or operation of construction, excavation, demolition, extension, alteration, repair or renewal and, in relation to a protected structure....". It is considered that said works constitute development, as defined in Section 3 of the said Act.

The proposed development to install a solar PV array to the roof a dwelling house which, with regard to the compliance with the conditions and limitations of Class 2 of Part 1 of Schedule 2 (Exempted development - General) the following assessment sets out how these apply to the current proposal:

1. Based on the data sheet provided as part of the FI response the proposed solar panels are less than 15cm from the pitched roof.
2. Solar panels to be installed a minimum of 50cm from the edge of the roof.
3. Proposed solar panels are mounted to the roof, therefore N/A.
4. Proposed solar panels are mounted to the roof, therefore N/A.
5. Proposed solar panels are mounted to the roof, therefore N/A.
6. Proposed solar panels are mounted to the roof, therefore N/A.
7. Proposed solar panels are mounted to the roof, therefore N/A.
8. Proposed solar panels are mounted to the roof and not within an ACA, therefore N/A.
9. Onus on applicant to comply with this.

Having reviewed the proposed works in the context of the Conditions and Limitations associated with Class 2 of Part 1 of Schedule 2 of the Planning and Development Regulations, 2001, as amended, the a solar PV array to the roof of a dwelling house as described in this case is considered an exempted development provided they are installed a minimum of 50cm from the edge of the roof.

The proposed development to install an air source heat pump which, with regard to the compliance with the conditions and limitations of Class 2 of Part 1 of Schedule 2 (Exempted development - General) the following assessment sets out how these apply to the current proposal:

1. Proposed air source heat pump not ground heat pump system, therefore N/A.
2. Based on the data sheet provided as part of the FI response the proposed air to water heat pump is less than 2.5m<sup>2</sup>.
3. Onus on applicant to comply with this.
4. Indicated on drawing to be located to the rear of the property.
5. Onus on applicant to comply with this.

Having reviewed the proposed works in the context of the Conditions and Limitations associated with Class 2 of Part 1 of Schedule 2 of the Planning and Development Regulations, 2001, as amended, the install an air source heat pump as described in this case is considered an exempted development.

The proposal includes the removal of a door & porch roof on front elevation, replacement of windows and doors with new uPVC windows and doors, new fascia, soffits, guttering and downpipes and install external insulation with render to match the existing house. These works have considered in the context of Section 4 (1)(h) of the Act, consisting of the carrying out of works for the maintenance, improvement or other alteration of any structure, being works which affect only the interior of the structure or which do not materially affect the external appearance of the structure so as to render the appearance inconsistent with the character of the structure or of neighbouring structures. The proposed works are deemed an exempt development.

With Regard to Article 9 (1)(a) of the Planning and Development Regulations it is reasonable to conclude, on the basis of the information available, that the proposed development individually and in combination with other plans or projects would not be likely to have a significant effect on any European site and that the need for AA does not apply with respect to the current case.

I am satisfied that an Environmental Impact Statement or Appropriate Assessment are not required. It should be noted that any development for which Environmental Impact Assessment or Appropriate Assessment is required shall not be exempted development unless specifically exempted in regulations where there is provision in other legislation for the carrying out of EIA or AA. In addition, the restrictions on exemption Art 9 (1)(a) (viiB) exclude development which would otherwise be exempted development under these regulations where an AA is required.

#### **Recommendation**

**WHEREAS a question has arisen as to remove door & porch roof on front elevation at 3 Galway Road, Roscommon Town, Co. Roscommon, is or is not development and is or is not exempted development, I have considered this question, and I have had regard particularly to –**

- (a) Sections 2, 3, 4 and 5 of the Planning and Development Act, 2000, as amended
- (b) Articles 6, 9 and 10 of the Planning and Development Regulations, 2001, as amended
- (c) Class 2 of Part 1 of Schedule 2 of the Planning and Development Regulations, 2001 (Exempt Development – General), as amended

- (d) The record forwarded to Roscommon County Council in accordance with subsection (6)(c) of Section 5 of the Planning and Development Acts 2000 as amended.
- (e) The planning history of the site

**AND WHEREAS I have concluded that**

- The works outlined above are development.
- The proposed installation of a solar PV array to the roof as described in this case are exempted developments provided they are installed a minimum of 50cm from the edge of the roof.
- The proposed install of an air source heat pump as described in this case is an exempted development.
- The proposed removal of a door & porch roof on front elevation, replacement of windows and doors with new uPVC windows and doors, new fascia, soffits, guttering and downpipes and install external insulation with render to match the existing house as above fall within the provisions of Section 4(1)(h) of the Planning & Development Act 2000 as amended, which provides as follows:

*development consisting of the carrying out of works for the maintenance, improvement or other alteration of any structure, being works which affect only the interior of the structure or which do not materially affect the external appearance of the structure so as to render the appearance inconsistent with the character of the structure or of neighbouring structures;*

- The proposed development individually and in combination with other plans or projects would not be likely to have a significant effect on any European site and that the requirement for AA or EIAR does not apply with respect to the current case.

**AND WHEREAS** I have concluded that the said development to remove door & porch roof on front elevation at 3 Galway Road, Roscommon Town, Co. Roscommon, is an exempted development provided that the solar panels are installed a minimum of 50cm from the edge of the roof. I recommend that a declaration to that effect should be issued to the applicant

Signed: 

Date: 27<sup>th</sup> January 2025

Civil Technician

Signed: 

Date: 27<sup>th</sup> January 2025

Senior Executive Planner











## Carmel Curley

**From:** Eamon Maguire <eamonmaguire@koresystem.com>  
**Sent:** Friday 17 January 2025 10:27  
**To:** Carmel Curley  
**Subject:** RE: DED810 - Paul Grennan C/O Tuath Housing  
**Attachments:** 8.5kw Mitsubishi Electric Monobloc Heat Pump datasheet.pdf; Jinko Trina Solar datasheet.pdf; KORE\_External\_Wall\_datasheet.pdf; StoRend\_datasheet.pdf; StoSilco\_datasheet.pdf; Windows\_datasheet.pdf; Doors\_datasheet.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Hi Carmel,

Please find attached datasheets as requested for

1. Heat pump
2. Solar PV
3. External wall insulation- render finish to match existing
4. Windows and
5. Doors

Feel free to contact me to discuss if you have any queries.

Thanks

Eamon



**From:** Carmel Curley <CCurley@roscommoncoco.ie>  
**Sent:** Thursday 16 January 2025 15:01  
**To:** Eamon Maguire <eamonmaguire@koresystem.com>  
**Subject:** DED810 - Paul Grennan C/O Tuath Housing

A Chara,

Please find attached Further Information request letter for DED Application 810. Please note that a hard copy will be issued to the applicant.

Regards,

Carmel

**Carmel Curley, Assistant Staff Officer,  
Planning Department, Roscommon County Council,  
Aras an Chontae, Roscommon, Co. Roscommon, F42 VR98  
☎: (090) 6637100**

✉: [planning@roscommoncoco.ie](mailto:planning@roscommoncoco.ie) | 🌐 [www.roscommoncoco.ie](http://www.roscommoncoco.ie)

**MAP LOCATION**



Aic  
21-01-2025

Heating

Product Information



# PUZ-WM85VAA(-BS)

Ecodan R32

**Monobloc** Air Source Heat Pump



**R32**

## Key Features:

- A+++ high efficiency system
- Ultra quiet noise levels
- Maintains full heating capacity at low temperatures
- Zero carbon solution
- MELCloud enabled

## Key Benefits:

- Ultra low running cost
- Flexible product placement
- Confident and quick product selection
- Help to tackle the climate crisis
- Remote control, monitoring, maintenance and technical support



**MELCloud**



Manufactured in the UK



037 0033 20 03



**ecodan**<sup>®</sup>  
Renewable Heating Technology

## Heating

## Product Information

PUZ-WM85VAA(-BS)

Ecodan R32

Monobloc Air Source Heat Pump

17 JAN 2025

OUTDOOR UNIT		PUZ-WM85VAA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating	A++
	$\eta_{hp}$	139%
	SCOP (MCS)	3.48
HEAT PUMP SPACE HEATER - 35°C	ErP Rating	A+++
	$\eta_{hp}$	193%
	SCOP (MCS)	4.84
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating	A+
	$\eta_{hp}$	145%
HEATING <sup>2</sup> (A-7W35)	Capacity (kW)	8.5
	Power Input (kW)	3.27
	COP	2.60
OPERATING AMBIENT TEMPERATURE (°C DB)		-20 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA)	45
	Power Level (dBA) <sup>4</sup>	58
WATER DATA	Pipework Size (mm)	28
	Flow Rate (l/min)	24
	Water Pressure Drop (kPa)	15.0
DIMENSIONS (mm)	Width	1050
	Depth	480
	Height	1020
WEIGHT (kg)		98
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz
	Phase	Single
	Nominal Running Current [MAX] (A) <sup>5</sup>	9.1 [22]
	Fuse Rating - MCB Sizes (A) <sup>6</sup>	25
REFRIGERANT CHARGE (kg)	R32 (GWP 675)	2.2 / 1.49
/ CO <sub>2</sub> EQUIVALENT (t)		

### Notes:

<sup>1</sup> Combination with E'PT20X Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511

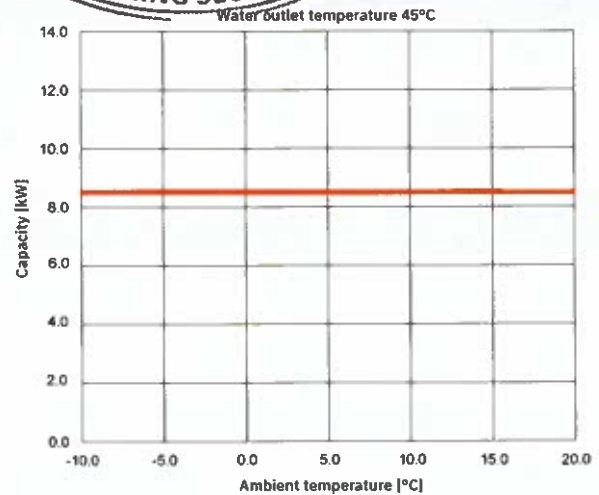
<sup>4</sup> Sound power level tested to BS EN12102

<sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C

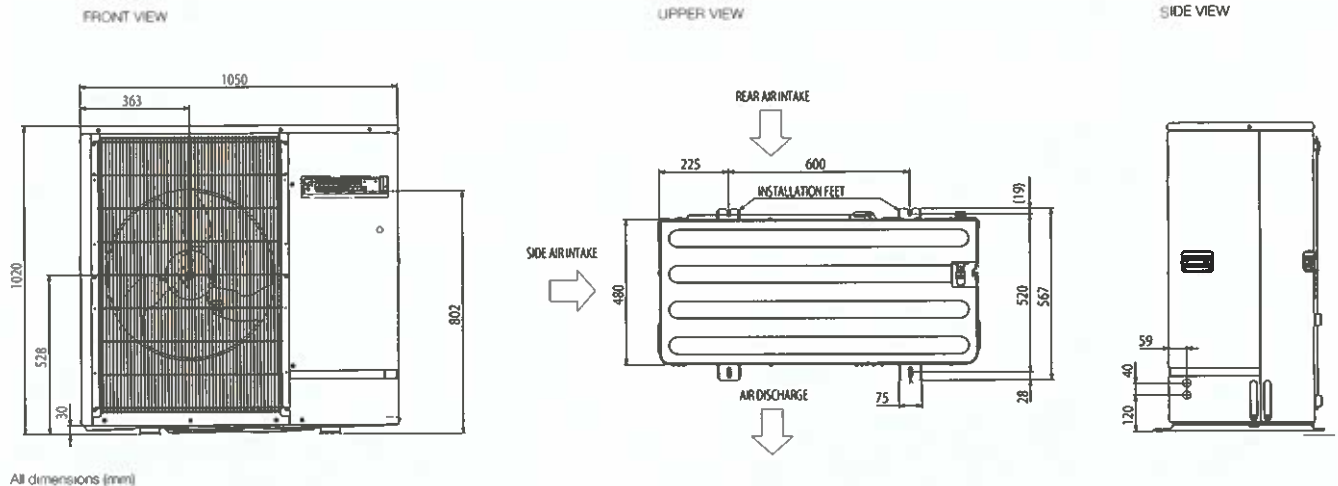
<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2

$\eta_{hp}$  is the seasonal space heating energy efficiency (SSHEE)  $\eta_{wh}$  is the water heating energy efficiency

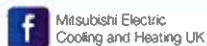
### NOMINAL HEATING CAPACITY



### PUZ-WM85VAA(-BS) DIMENSIONS



Telephone: 01707 282880  
email: heating@meuk.mee.com  
heating.mitsubishielectric.co.uk

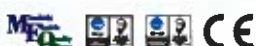


UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division, Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England. Telephone: 01707 282880 Fax: 01707 278881  
IRELAND Mitsubishi Electric Europe, Westgate Business Park, Ballymount, Dublin 24, Ireland. Telephone: (01) 419 8800 Fax: (01) 419 8890 International code: (003531)

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Note: Refer to 'Installation Manual' and 'Instruction Book' for further 'Technical Information'. The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP 2088), R32 (GWP 675), R407C (GWP 1774), R134a (GWP 1430), R513A (GWP 631), R454B (GWP 466), R1234ze (GWP 7) or R1234yf (GWP 4). These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No 626/2011 from IPCC 3rd edition, these are as follows: R410A (GWP 1975), R32 (GWP 550), R407C (GWP 1650) or R134a (GWP 1300).

Effective as of August 2020



# Vertex

BACKSHEET MONOCRYSTALLINE MODULE



PRODUCT: TSM-DE09R  
PRODUCT RANGE: 415-435W

## 435W

MAXIMUM POWER OUTPUT

## 0~+5W

POSITIVE POWER TOLERANCE

## 21.8%

MAXIMUM EFFICIENCY



### Small in size, big on power

- Small form factor. Generate a huge amount of energy even in limited space.
- Up to 435W, 21.8% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection
- Reduce installation cost with higher power bin and efficiency
- Boost performance in warm weather lower temperature coefficient (-0.34%) and operating temperature



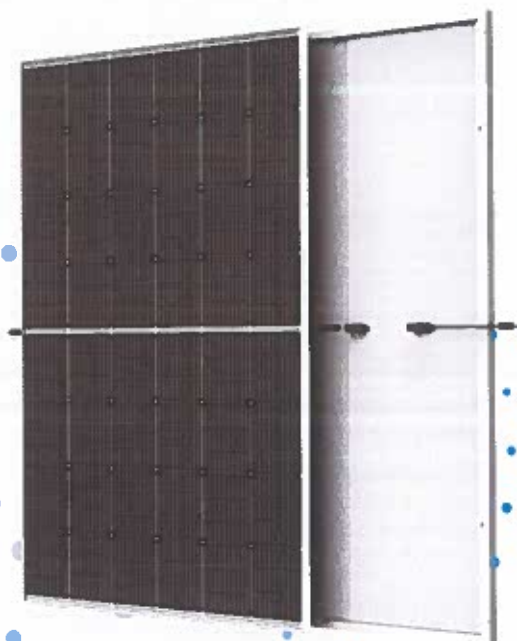
### Universal solution for residential and C&I rooftops

- Designed for compatibility with existing mainstream optimizers, inverters and mounting systems
- Perfect size and low weight. Easy for handling. Economy for transporting
- Diverse installation solutions. Flexible for system deployment

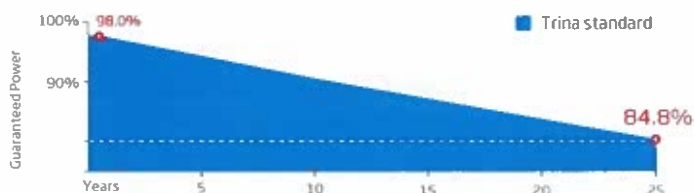


### High Reliability

- 12 year product warranty
- 25 year performance warranty with lowest degradation;
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Mechanical performance up to 6000 Pa positive load and 4000 Pa negative load



### Trina Solar's Backsheet Performance Warranty



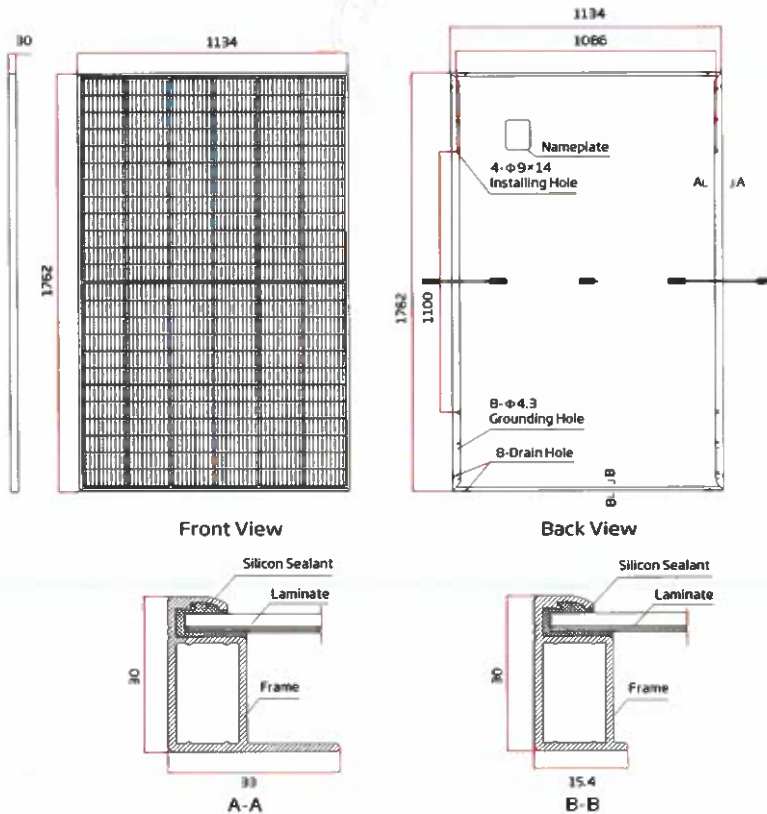
### Comprehensive Products and System Certificates



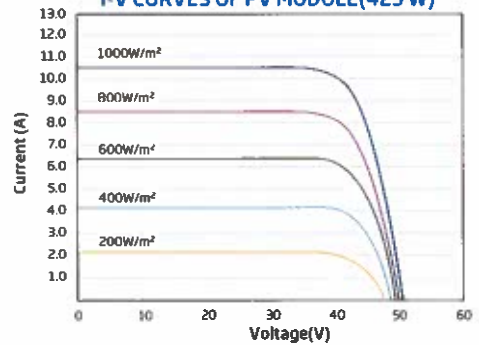
IEC61215/IEC61730/IEC61701/IEC62716  
ISO 9001: Quality Management System  
ISO 14001: Environmental Management System  
ISO14064: Greenhouse Gases Emissions Verification  
ISO45001: Occupational Health and Safety Management System

# Trinasolar

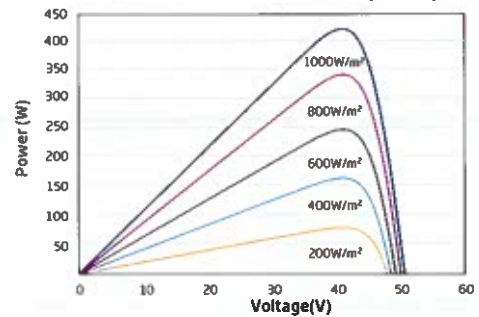
## DIMENSIONS OF PV MODULE(mm)



## I-V CURVES OF PV MODULE(425 W)



## P-V CURVES OF PV MODULE(425W)



## ELECTRICAL DATA (STC)

Peak Power Watts- $P_{max}$ (Wp)*	415	420	425	430	435
Power Tolerance- $P_{max}$ (W)	0 ~ +5				
Maximum Power Voltage- $V_{mp}$ (V)	41.7	42.0	42.2	42.3	42.5
Maximum Power Current- $I_{mp}$ (A)	9.94	10.01	10.08	10.17	10.24
Open Circuit Voltage- $V_{oc}$ (V)	50.0	50.1	50.2	50.3	50.4
Short Circuit Current- $I_{sc}$ (A)	10.55	10.58	10.61	10.64	10.67
Module Efficiency $\eta_m$ (%)	20.8	21.0	21.3	21.5	21.8

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. \*Measuring tolerance: ±1%

## ELECTRICAL DATA (NOCT)

Maximum Power- $P_{max}$ (Wp)	312	317	321	325	329
Maximum Power Voltage- $V_{mp}$ (V)	38.7	39.2	39.5	39.7	40.0
Maximum Power Current- $I_{mp}$ (A)	8.07	8.10	8.13	8.17	8.23
Open Circuit Voltage- $V_{oc}$ (V)	47.1	47.1	47.2	47.4	47.5
Short Circuit Current- $I_{sc}$ (A)	8.50	8.53	8.55	8.60	8.65

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

## MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	144 cells
Module Dimensions	1762×1134×30 mm (69.37×44.65×1.18 inches)
Weight	21.8 kg (48.1 lb)
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	EVA/POE
Backsheet	White
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: 350/280 mm(13.78/11.02 inches) Length can be customized
Connector	MC4 EVO2 / TS4*

\*Please refer to regional datasheet for specified connector.

## TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of $P_{max}$	-0.34%/°C
Temperature Coefficient of $V_{oc}$	-0.25%/°C
Temperature Coefficient of $I_{sc}$	0.04%/°C

## MAXIMUM RATINGS

Operational Temperature	-40 ~ +85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	20A

## WARRANTY

12 year Product Workmanship Warranty  
25 year Power Warranty  
2% first year degradation  
0.55% Annual Power Attenuation

(Please refer to product warranty for details)

## PACKAGING CONFIGURATION

Modules per box: 36 pieces  
Modules per 40' container: 936 pieces

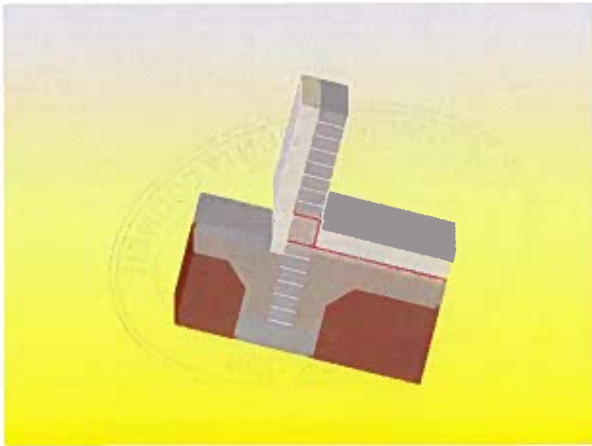


# KORE

## KORE External

### External Insulation Design Guide

# KORE External Insulation System



**KORE**EXTERNAL

## Key Features

- Meets and exceeds buildings regulations
- Suitable for passive house construction
- Installed by insulation experts
- Suitable for use with composite external insulation systems
- Thermal mass benefits from concrete construction



## Application & Description

### Application

KORE External Insulation, together with a composite system, is fixed to the external face of external wall constructions. The product is designed for application on cavity walls, solid walls, hollow block walls, and timber frame walls\*. The product is suitable for use on existing buildings and for new buildings.

### Product Name Guide

Product Name	Application	New Build	Retrofitting
KORE External EPS 70 Silver	External Wall	Yes	Yes
KORE External EPS 70 White	External Wall	Yes	Yes
KORE External EPS 200 White	Plinth & Reveals	Yes	Yes

### Description

KORE External is a high performance expanded polystyrene (EPS) insulation board that is used in conjunction with a composite external thermal insulation system. The product consists of rigid boards cut from moulded blocks of EPS. The blocks are aged for four to six weeks to ensure the product is delivered to site to the exacting tolerances required for external insulation products. KORE External products are available in two grades of material, silver and white, and a range of thicknesses. Our KORE External Plinth board is manufactured to a very high density, EPS200, specifically to insulate the plinth below the damp proof course. EPS200 has very low water absorption properties making it an ideal solution at plinth level.

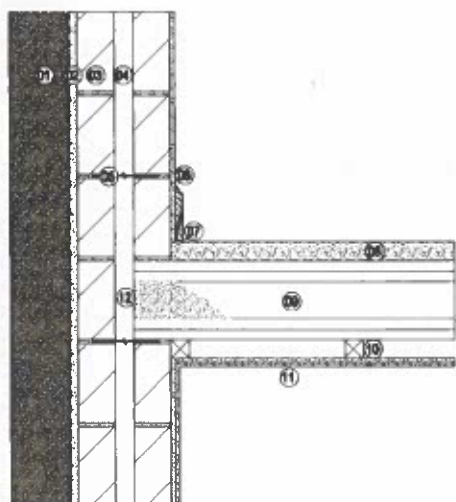
# Typical Construction & U-Value Calculations

## Calculation Assumptions

All U-value calculations are in accordance with BS EN ISO 6946:2007. Unless stated otherwise inner blocks have a thermal conductivity of 1.13W/mK. Internal finishes unless otherwise stated taken as 12.5mm standard plasterboard with 3mm plaster skim on dabs. Conventional surface resistance; direction of heat flow taken as horizontal. Where applicable air layer is taken as unventilated. Unventilated air layer emissivity surfaces were given due consideration. Corrections for air

layers and mechanical fasteners penetrating the insulation layer were considered. A correction factor was applied to calculations for existing buildings. These calculations should act as a guide only. Please contact our technical team for a detailed U-value calculation and condensation risk analysis.

## Detail 1: Cavity Wall Construction - Retrofit Block Inner and Outer Leaf, Plasterboard and Skim Internal Finish, Cavity Empty Unventilated, External Insulation Application



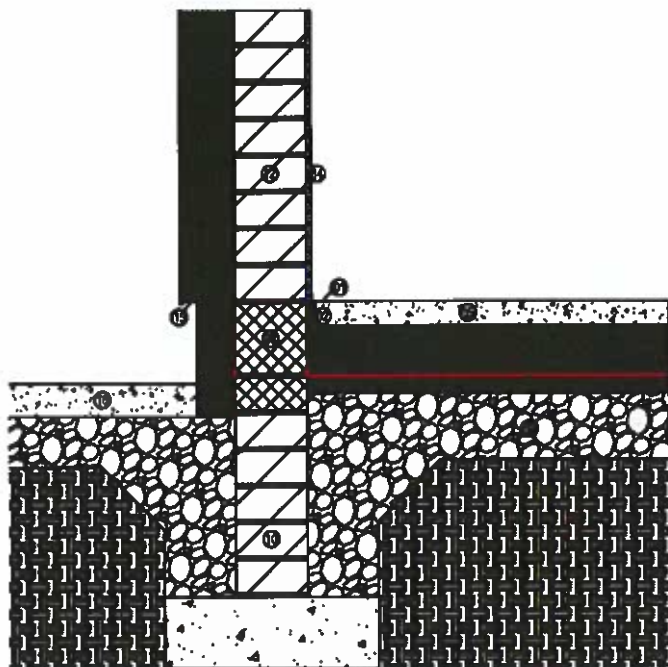
1. KORE External Insulation adhered to wall with adhesive mortar, and external rendering system consisting of a high polymer base coat, reinforcing mesh, silicone primer and silicone render
2. Existing 20mm external render
3. 250mm cavity wall - 100mm concrete block outer leaf, 50mm cavity, and 100mm concrete block inner leaf
4. 50mm unventilated cavity
5. Wall ties to manufacturers specifications and details
6. Existing 13mm internal render
7. Skirting-seal gap between skirting board and the floor using a flexible sealant
8. Screed to concrete flooring manufacturers specifications and details
9. Hollowcore slab to concrete flooring manufacturers specifications and details
10. 50mm x 50mm timber battens fixed to underside of slab
11. 12.5mm plasterboard fixed to battens below hollowcore slab with 12.5mm gypsum render over
12. Airtight membrane draped around end of hollowcore slab during installation and sealed on inside

Existing Buildings		
	Plasterboard, Block, Cavity, Block, Insulation, Render	
Insulation	KORE External EPS70 White	KORE External EPS 70 Silver
	U-Value W/m²K	
100mm	0.30	0.26
120mm	0.26	0.23
150mm	0.22	0.19
175mm	0.20	0.17
200mm	0.17	0.15
250mm	0.14	0.12
300mm	0.12	0.11



# Typical Construction & U-Value Calculations

## Detail 2: Solid Blockwork Wall - Solid Block Wall, Plasterboard and Skim Internal Finish, External Insulation Application



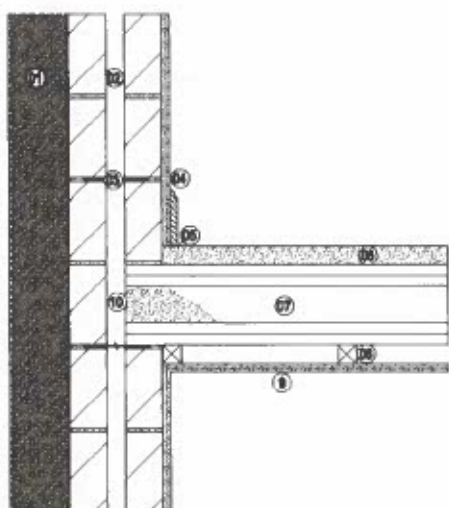
1. Junctions to be taped with airtight tape to ensure air tightness levels are achieved
2. 50mm KORE Floor Perimeter insulation with min U-value of 0.75 W/m<sup>2</sup>k
3. Autoclaved aerated concrete (AAC) block to be used to ensure thermal break is maintained. (maximum thermal conductivity of 0.20 W/mk) AAC block to be suitable for use in foundations in all conditions. Block to be installed so to avoid any effect of moisture on thermal conductivity
4. Radon membrane to be lapped over AAC block and sealed to radon barrier below with radon resisting sealing tape to avoid rising moisture
5. Concrete floor to engineers specifications and details
6. 150mm KORE Floor insulation
7. Radon barrier laid to manufacturers specifications and details
8. 50mm sand blinding
9. Compacted hardcore
10. Foundations and rising walls to Structural Engineers specifications and details
11. Ensure KORE External insulation is installed to 200mm minimum below top of floor level
12. 215mm solid concrete block wall with KORE External insulation
13. KORE External insulation adhered to wall with adhesive mortar and external rendering system consisting of a high polymer base coat, reinforcing mesh, silicone primer and silicone render
14. 15mm internal sand cement render (internal includes airtight parge coat)
15. Galvanised steel base rail with expansion fixings
16. Footpath

New Buildings		
	Plasterboard, Solid Blockwork, Insulation, Render	
Insulation	KORE External EPS70 White	KORE External EPS70 Silver
	U-Value W/m <sup>2</sup> K	
100mm	0.30	0.27
120mm	0.26	0.23
150mm	0.23	0.19
175mm	0.20	0.17
200mm	0.18	0.15
250mm	0.15	0.12
300mm	0.12	0.11



# Typical Construction & U-Value Calculations

## Detail 3: Cavity Wall Construction - Block Inner Leaf, Block Outer leaf, Dense Plasterboard Internal Finish, Cavity Empty Unventilated, External Insulation Application



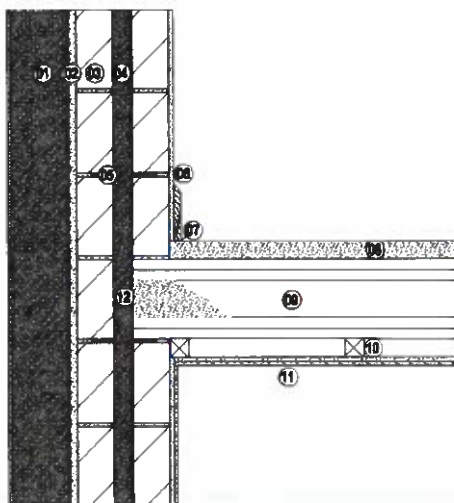
1. KORE External insulation adhered to wall with adhesive mortar and external rendering system consisting of a high polymer base coat, reinforcing mesh, silicone primer and silicone render
2. 250mm cavity wall - 100mm concrete block outer leaf, 50mm cavity and 100mm concrete block inner leaf
3. Wall ties to manufacturers specifications and details
4. 12.5mm plasterboard fixed on internal face of wall with 12.5mm gypsum render over
5. Skirting-seal gap between skirting board and the floor using a flexible sealant
6. Screed to concrete flooring manufacturers specifications and details
7. Hollowcore slab to concrete flooring manufacturers specifications and details
8. 50mm x 50mm timber battens fixed to underside of slab
9. 12.5mm plasterboard fixed to battens below hollowcore slab with 12.5mm gypsum render over
10. Airtight membrane draped around end of hollowcore slab during installation and sealed on inside

New Buildings		
	Plasterboard, Block, Cavity, Block, Insulation, Render	
Insulation	KORE External EPS70 White	KORE External EPS70 Silver
	U-Value W/m²K	
100mm	0.30	0.26
120mm	0.26	0.23
150mm	0.22	0.19
175mm	0.20	0.17
200mm	0.17	0.15
250mm	0.14	0.12
300mm	0.12	0.11



# Typical Construction & U-Value Calculations

## Detail 4: Cavity Wall Construction - Block Inner and Outer Leaf, Dense Plaster Internal Finish, Cavity Pumped KORE Fill Bonded Bead, External Insulation Application



1. KORE External Insulation adhered to wall with adhesive mortar and external rendering system consisting of a high polymer base coat, reinforcing mesh, silicone primer and silicone render
2. Existing 20mm external render
3. 250mm cavity wall - 100mm concrete block outer leaf, 50mm cavity and 100mm concrete block inner leaf
4. 50mm KORE Fill Bonded Bead insulation
5. Wall ties to manufacturers specifications and details
6. Existing 13mm internal render
7. Skirting seal-gap between skirting board and the floor using a flexible sealant
8. Screed to concrete flooring manufacturers specifications and details
9. Hollowcore slab to concrete flooring manufacturers specifications and details
10. 50mm x 50mm timber battens fixed to underside of slab
11. 12.5mm plasterboard fixed to battens below hollowcore slab with 12.5mm gypsum render over
12. Airtight membrane draped around end of hollowcore slab during installation and sealed on inside

New & Existing Buildings		
	Plasterboard, Block, Cavity, Block, Insulation, Render	
Insulation	KORE External EPS70 White	KORE External EPS70 Silver
	U-Value W/m²K	
100mm	0.30	0.26
120mm	0.26	0.23
150mm	0.22	0.19
175mm	0.20	0.17
200mm	0.17	0.15
250mm	0.14	0.12
300mm	0.12	0.11



## Thermal Bridging

TGD Part L of the Irish Building Regulations states that care must be taken to ensure the continuity of insulation and to limit local thermal bridging and that any thermal bridge should not pose a risk of surface or interstitial condensation. KORE

have undertaken a complete thermal bridging analysis of KORE External Insulation at all typical junctions. Please contact our team today to request a copy of these results.

# Specification Guidelines

## Building Standards

KORE External Insulation can satisfy the requirements of the Irish Building Regulations as outlined in:

- Part L - Conservation of Fuel and Energy - Dwellings (2011)
- Part L - Conservation of Fuel and Energy - Buildings other than Dwellings (2008)

## Environmental

Expanded Polystyrene is BRE Green Guide A+ Rated.

## Water Vapour Control/Condensation

Consideration must be given to the risk of condensation when designing thermal elements. In accordance with BS 2550:2002 Code of Practice for the control of condensation in buildings, a condensation risk analysis should be carried

out. Contact the KORE technical department for further details.

## Fire Stops

Current building regulations and standards should be considered in full when detailing fire stops for the building.

## Detailed Specification Guide

Full specification guide is available on [www.kore-system.com](http://www.kore-system.com)



# On Site

## Installation Guidelines: Insulated Rendering Systems

It is recommended that the installation guidance from the render system manufacturer be consulted before installing products on site. Specific render systems require specific installation approaches that need due consideration. The guidance outlined below can be used in conjunction with the render system information.

- The surface of the wall to which KORE External insulation is to be mechanically fixed must be free of water repellents, dust, dirt, efflorescence and other harmful contaminant or materials that may interfere with the adhesive bond. Projecting mortar or concrete parts must be removed. A bedding compound can be used to even the surface of the wall before fixing the insulation.
- Mechanically fixed insulation boards should be fixed with a minimum of 5 fixings per board or 7 per m/sq. It is recommended that the most thermally advanced fixings should be used to fix the insulation board while not compromising on the required pull out strength.
- KORE External insulation boards must be butted tightly together.
- At openings and external corners insulation board edges should be mechanically fixed at a minimum of 300mm centres.
- To minimise the effects of cold bridging, KORE External Plinth Insulation should be installed below the DPC level and where practicable, extend below ground level.
- The insulate thickness and detailing at floor level/below DPC to be in accordance with requirements contained in the appropriate Technical Guidance Document as per relevant Building Regulations.
- Window and door reveals must be insulated to minimise the effects of cold bridging in accordance with the recommendations of the Acceptable Construction Details Document published by DoEHLG, to achieve an R-value of 0.6m<sup>2</sup>K/W.
- For retrofitting applications care must be taken to reduce thermal bridging at window cill details. The KORE EPS Cill significantly reduces the thermal bridging factor. Contact our team for further details.

## Installation Guidelines: Insulated Cladding Systems

It is important to note that the method of installation of KORE External Insulation will depend on the facing or cladding system used on the building. It is recommended that the installation guidance from the cladding system manufacturer be consulted before installing products on site.

- In typical applications the wall is battened either horizontally or vertically, using treated timber.
- The timber is fixed at appropriate centres to provide the necessary support for the cladding or tile battens.
- KORE External insulation is cut to fit tightly between the battens and should be wedged into position. Where an air gap is required between the insulation and the cladding, the insulation board must be pinned in place using corrosion free fixings.
- Next a breathable sarking felt is placed over the insulation. The edges and joints are sealed.
- To satisfy building regulations a second layer of KORE External insulation is fixed over the battens. Where this is the case it is essential to ensure that the cladding system is efficiently fixed back to the main wall to prevent downward drag of cladding. A double counter batten system should be considered. In this case the battens on the main wall must be in the same orientation as the cladding battens.
- The specified cladding system is installed as per the manufacturer's recommendations and guidelines.

### Cutting

On-site trimming of boards where necessary to maintain continuity of insulation is easily executed using a fine tooth saw or builder's knife. Care must be taken to maintain the thickness, flatness and squareness of the board to achieve close butting of joints and continuity of insulation

### Packaging and Storage

KORE External insulation boards must be protected from prolonged exposure to sunlight and should be stored under cover in their original wrapping, not in contact with ground moisture and raised above ground level. Care must be taken to avoid contact with solvents and with materials containing volatile organic components such as tar and newly treated timber.



# Product and Technical Details

## Properties

### Type

KORE External insulation is supplied as EPS70 and EPS200 as defined in IS EN 13163:2012. Reaction to Fire Class E, containing a flame retardant additive. KORE External insulation is aged material.

### Density

KORE External EPS70 Silver: 15kg/m<sup>3</sup>

KORE External EPS70 White: 15kg/m<sup>3</sup>

KORE External EPS200 White: 30kg/m<sup>3</sup>

### Thermal Conductivity

The thermal conductivity of KORE External insulation products are in accordance with IS EN 13163:2012 and EN 12667 Thermal Performance of building materials and products - determination of thermal resistance by means of guarded hot plate and heat flow meter method.

KORE External EPS70 White: 0.037 W/mK

KORE External EPS70 Silver: 0.031 W/mK

KORE External EPS200 White: 0.032 W/mK



### Thermal Resistance

Thermal resistance, known as the R-value, varies with the thickness of the insulation. To calculate the thermal resistance (m<sup>2</sup>.K/W) divide the thickness of the insulation by its thermal conductivity and round down the result to the nearest 0.05.

	KORE External EPS 70 White	KORE External EPS70 Silver	KORE External Plinth EPS200 White
Thickness Insulation (mm)	Thermal Resistance (m <sup>2</sup> .K/W)		
50mm	1.35	1.61	1.56
60mm	1.62	1.94	1.88
70mm	1.89	2.26	2.19
80mm	2.16	2.16	2.50
90mm	2.43	2.90	2.81
100mm	2.70	3.23	3.12
120mm	3.24	3.87	3.75
150mm	4.05	4.84	4.69
175mm	4.73	5.65	5.47
200mm	5.41	6.45	6.25
250mm	6.76	8.06	7.81
300mm	8.11	9.67	9.38

# Product and Technical Details

## Durability

The KORE External insulation and KORE External Plinth insulation is rot-proof, water repellent and durable.

## Behaviour in Fire

When properly installed, the insulation is protected by the cladding or other facing material and will have no adverse effect on either the surface spread of flame or the fire resistance of the wall. Any necessary fire performance is provided by the facing material.

## Dimensions

Standard Size: 1.200m x .600m

Standard Thickness:

EPS70 White and Silver - 100mm, 120mm, 150mm, 175mm, 200mm, 250mm, 300mm

EPS200 White - 10mm, 20mm, 30mm, 40mm, 50mm, 60mm, 70mm, 80mm, 90mm, 100mm

## Tolerances

In accordance with IS EN 13163:2012 and BS EN 13499:2003 the following tolerance apply to KORE External EPS70 Silver, KORE External EPS70 White and KORE External EPS200 White

Characteristic	Level/Class/Limit Value	Value (mm)	Standard
Thickness	T1	±1mm	EN823
Length	L2	±2mm	EN822
Width	W2	±2mm	EN822
Squareness	S2	±2mm	EN824
Flatness	P5	±5mm	EN825

## Dimensional Stability

KORE External EPS70: In accordance with IS EN 13163:2012 and EN 1603, dimensional stability, DS(N)2, Declared Value ±0.2%.

KORE External EPS70: In accordance with IS EN 13163:2012 and EN 1604, dimensional stability under specified temperature and humidity conditions, DS(70,-)1, Declared Value 1%.

KORE External EPS70: In accordance with IS EN 13163:2012 and EN 1603, dimensional stability, DS(N)2, Declared Value, ±0.2%.

KORE External EPS200: In accordance with IS EN 13163:2012 and EN 1604, dimensional stability under specified temperature and humidity conditions, (DS200,-)1, Declared Value 1%.

## Compressive Strength

KORE External EPS70: In accordance with IS EN 13163:2012 and EN 826, compressive strength at 10% deformation, CS(10)70, declared value 82kPa.

KORE External EPS200: In accordance with IS EN 13163:2012 and EN 826, compressive strength at 10% deformation, CS(10)200, declared value 206kPa.

## Bending Strength

KORE External EPS70: In accordance with IS EN 13163:2012 and EN 12089, bending strength, BS115, declared value ≥115.

KORE External EPS200: In accordance with IS EN 13163:2012 and EN 12089, bending strength, BS200, declared value, ≥200.

## Tensile Strength

KORE External EPS70: In accordance with IS EN 13163:2012 and EN 1607, tensile strength perpendicular to the surface, TR150, declared value ≥150kPa.

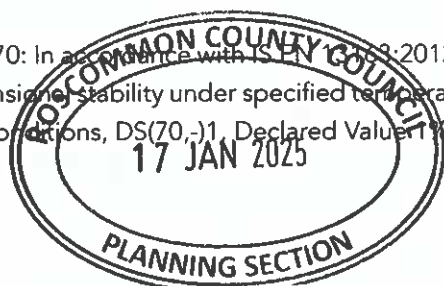
KORE External EPS200: In accordance with IS EN 13163:2012 and EN 1607, tensile strength perpendicular to the surface, TR150, declared value ≥150kPa.

## Certification

KORE External Insulation should be used in conjunction with an approved NSAI Render System.

## Standards

KORE External Insulation is manufactured to BS EN 13163:2012 and BS EN 13499:2003 under Quality System approved to EN ISO 9001:2008 Quality Management.



# Technical Services

Contact our team today for:

- U-value calculations
- Condensation risk analysis
- Determination of exposure zone
- Accredited drawings and details
- Thermal bridging analysis results
- Temperature factor analysis
- Any other project specific requirements

## Other Products to Consider

KORE External Insulation can be installed with a wide range of other KORE products, whether new build or retrofitting existing buildings. KORE's products are suitable for Passive House builds.

- KORE's Passive Slab Insulated Foundation System
- KORE's Floor Insulation System
- KORE Lock for Cold and Warm Pitched Roofs
- KORE Loft Insulated Attic Flooring System
- KORE's Range of Draught Proofing Products
- KORE's Wall and Roof Ventilation Products
- KORE's Hot and Cold Water Lagging Jackets
- KORE's Pipe Insulation

## Contact Details

P + 353 49 4336998 F 049 4336823  
E [info@kore-icf.com](mailto:info@kore-icf.com) W [www.kore-system.com](http://www.kore-system.com)

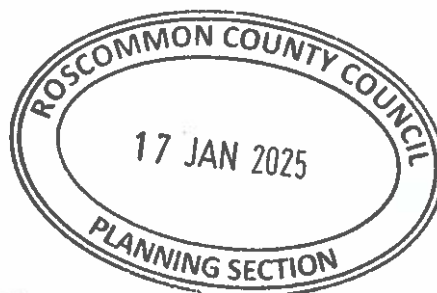
The Green  
Kilnaleck  
Co. Cavan

Facebook: [www.facebook.com/KOREIreland](https://www.facebook.com/KOREIreland)  
Twitter: [www.twitter.com/KORESsystem](https://www.twitter.com/KORESsystem)

## Disclaimer

The information contained in this document is to the best of our knowledge, true and accurate. However, any recommendations of suggestions contained within are without guarantees as the conditions of use are beyond our control. Recommendations for use should be verified for suitability and compliance with actual requirements specifications and any applicable laws and regulations. KORE technical literature and our Agreement certificates are all available for download for our website [www.kore-system.com](http://www.kore-system.com). Airpacks Ltd t/a KORE reserves the right to amend product specifications without prior notice. Please check that the copy of this literature is current by contacting the KORE marketing department.





**KORE**EXTERNAL

A Product of  **AIRPACKS**

The Green, Kilnaleck, Co. Cavan, Ireland



**StoRend**  
Render systems





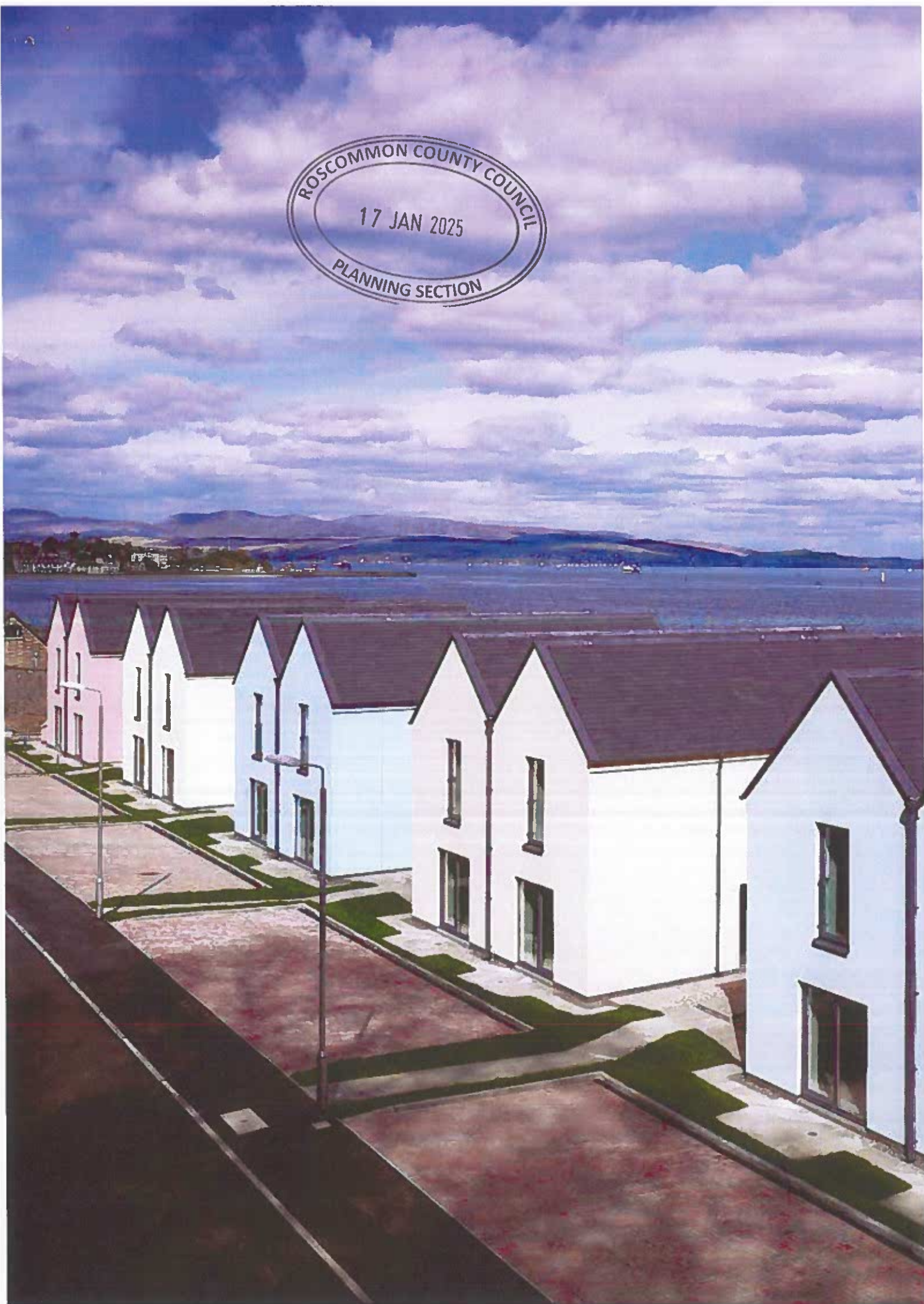
## Exceptional performance. Stunning results.

For over 50 years, Sto has been synonymous with render. This reputation is based on our commitment to innovation, maintaining the highest quality standards and investing in cutting-edge research and development.

Sto render systems allow you the flexibility to realise your most demanding designs, whether flat or curved, concave or convex, white or vibrantly coloured.

By specifying Sto thin-coat synthetic renders, you avoid the problems associated with conventional cementitious renders, such as cracking and colour fading. Sto renders feature greater durability, exceptional flexibility and are through-coloured to reduce maintenance requirements.

Specify Sto and you can be sure of a beautiful solution that will stay looking good for years – an attractive prospect for developers and end users alike.



## The benefits of synthetic render

In 1955, Sto became the first company to develop synthetic renders for commercial use. Using an acrylic or silicone resin base, graded aggregates and water, Sto renders are thin, durable and have a wide range of benefits over traditional renders.

### Crack resistance

The binders in Sto synthetic renders are highly flexible, providing much better resistance to surface cracks than traditional cement-based renders.

### Excellent adhesion

Sto synthetic renders can be applied to a wide variety of substrates, including onto concrete and masonry, synthetic and mineralic rendered surfaces and StoVentec render carrier boards.

### Weather resistant

All renders provide a certain level of weather protection for buildings. Sto cement-free renders are polymeric, allowing them to repel water far better than traditional thick coat renders.

### Vapour permeable

Sto synthetic renders have been specially formulated to allow the render to breathe.

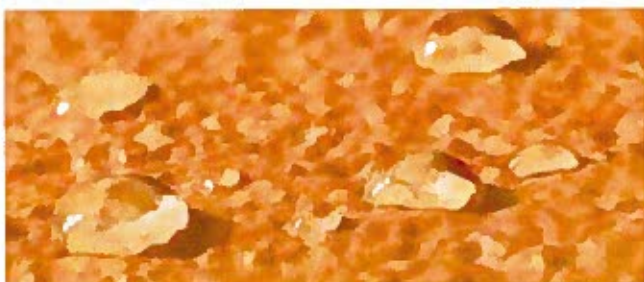
### Prevention of algae and fungus growth

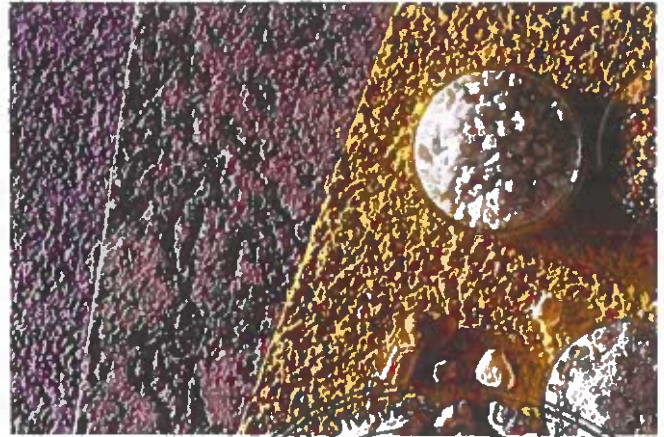
The growth of algae and fungus on facades can be an ongoing problem for building owners, causing unattractive staining, increasing maintenance costs and, if left untreated, damaging the fabric of the building.

While algae and fungus can be treated with biocides, this is only a short-term solution and can have a negative impact on the environment.

The revolutionary StoLotusan render finish creates a superhydrophobic surface that sheds water naturally. When it rains, loose dirt is washed from the walls. Without dirt or water, algae and fungus are unable to survive on the surface.

Our investment in innovative solutions to everyday problems is just one reason we have been setting industry standards for over 50 years.





## StoColor System: An architectural palette

Years in development, the StoColor System has been refined to suit the specific needs of architecture. Rigorously tested in all weather conditions, you can rest assured that our 800 colours will maintain their attractive appearance for many years.

The StoColor System espouses the human perception of colour. It is based primarily on the colours yellow, orange, red, violet, blue and green. These six sections are mixed to form the 24 basic tones, and each basic tone is assigned five colour rows with a gradient of light to dark.

This guarantees the StoColor System's high degree of functionality, designed in line with the aesthetic colour requirements in construction.

### Lighting effects

There can be a vast difference in how colours appear depending on the time of day, or how light is dispersed within the surrounding environment. Sto colours have been individually selected to minimise these tonal differences caused by lighting effects.

### Through-coloured

Mineralic renders have to be overpainted to achieve a wider range of colours, but even minor wear and tear exposes the unpainted render underneath. Sto renders are through-coloured, so everyday wear does not affect the appearance of the facade.

### Lightfastness

All pigmented materials run the risk of fading under exposure to heat and ultraviolet light. The extent of colour fade depends upon the type and quality of pigment, the binder composition and the levels of UV exposure.

Naturally occurring mineralic and inorganic pigments provide the strongest lightfastness, their colour depending upon the particular metal compounds present in the ground where they are mined. Organic pigments, derived from vegetable or animal matter, have the greatest propensity to fade and should be avoided in facade applications.

Advances in technology have allowed the production of synthetic pigments, allowing for bright colours with lightfast qualities, although they can be more expensive to manufacture.

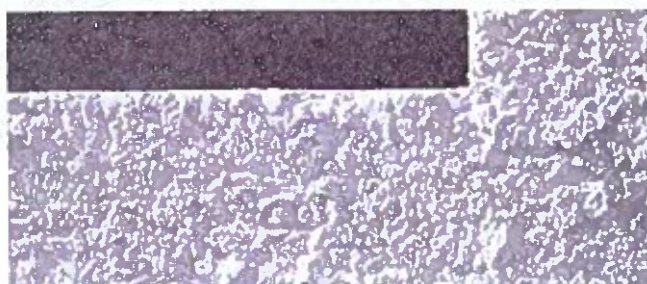
In line with our commitment to quality, Sto only uses the highest grade pigments available. Where possible, we use lightfast inorganic materials, but where a stronger, brighter colour is required, we use the very best synthetic pigments.

Test standards for colour stability are largely unreliable and place focus on the textile industries. In order to provide reliable data for facade coatings, Sto performs long-term weathering tests at measuring stations in a variety of climates around the world.

When you select a colour from the StoColor System, you can be sure that it will be an enduring element of the building's design. Sto Technical Consultants are available to offer advice on colour and product choice to ensure optimum durability.

## Inspirational finishes

Render is the ideal building material to realise the breadth of your creativity. Available in a vast range of colours and textures, render provides flexibility for your most demanding or simple designs.



### Stolit

Our competence in facade systems was founded on the classic acrylic render Stolit, which has undergone over 40 years of refinement. A balanced formulation and high quality raw materials provide Stolit with outstanding qualities in application, building characteristics and individual design.

#### Features & benefits

- Available in the full 800 colours of the StoColor System, including bright, vibrant colours.
- Extremely low water absorption.
- Optimum adhesion to the substrate.
- High elasticity.
- Exceptional resistance to mechanical stress.
- Exceptional colour stability following the drying process – does not require an equalisation coat.
- High whiteness for brilliant facades.



### StoSuperlit

An incredibly robust acrylic render with exposed aggregate for a natural stone aesthetic. StoSuperlit can be applied over entire surfaces or as a highlight on entrance axes, balconies and plinths.

#### Features & benefits

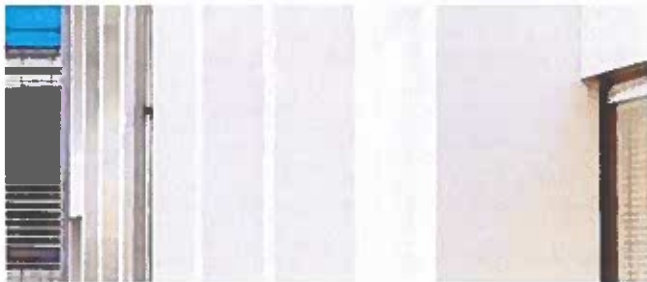
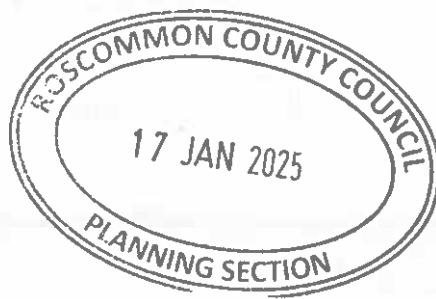
- High resistance to mechanical stress
- High elasticity
- Good water permeability
- High weather resistance

#### Colour options

The StoSuperlit colour collection was inspired by nature. The colorits have been matched so mixtures similar in appearance to stone or granite can be used for highlight areas, and lighter mixtures used for broad surfaces.

## Sto renders at a glance

	Base	Color range	Grain sizes	Textures
<b>Stolit</b>	Acrylic resin	Full (800)	1.5, 2.0, 3.0, 6.0 mm	Stippled, Rilled, Freestyle
<b>StoSuperlit</b>	Acrylic resin	Natural stone (13)	2.0 mm	Natural stone aggregate
<b>StoSilo</b>	Silicone resin	Limited (493)	1.5, 2.0, 3.0 mm	Stippled, Rilled, Freestyle
<b>StoLotusan</b>	Silicone-modified acrylic resin	Limited (493)	1.5, 2.0, 3.0 mm	Stippled, Freestyle

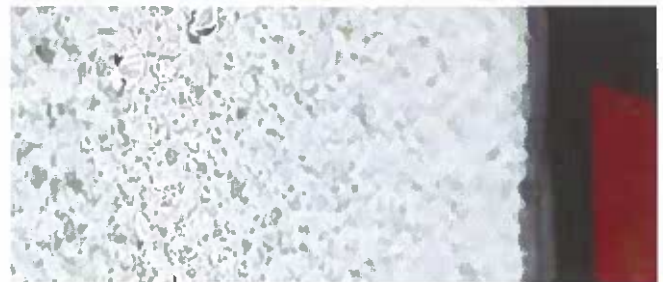


## StoSilco

Silicone resin render StoSilco provides high levels of water repellence. Such renders are frequently used in highly exposed areas for their superior protection against weathering and damp.

### Features & benefits

- Very good CO<sub>2</sub> and water vapour permeability, increasing the rate of moisture transfer and evaporation for a breathable wall.
- Highly water repellent.
- Resistant to aggressive atmospheres.
- Resistant to algae and fungus growth.



## StoLotusan

A breakthrough in render technology.

StoLotusan is the only render with the patented Lotus-Effect®, demonstrating unbeatable water and dirt repellence, and providing the best natural protection against algae growth.

As StoLotusan cures, the surface forms a unique microstructure similar to that found on the lotus leaf, greatly reducing the surface contact of water and dirt particles. Every time it rains, the rainwater simply beads off the facade, picking up loose dirt particles as it goes.

### Features & benefits

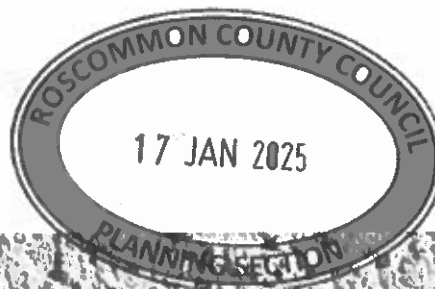
- Water and dirt are unable to grip the surface, so the facade is cleaned every time it rains.
- Very good CO<sub>2</sub> and water vapour permeability.
- Provides the best natural resistance to algae and fungus growth.

Vapour permeability	Water repellence	Flexibility
●●	●	●●●
●●	●	●●
●●●	●●	●●
●●●	●●●	●●●

Key: ● Minimum ●● Medium ●●● Maximum

## Stippled render

Stolit K, StoSilco K, StoLotusan K



A classic finish for synthetic renders. The even texture helps to give the finished substrate a flatter aspect when compared to a smooth, floated surface which can highlight even minor trowel marks. The stippled texture can also help to promote effective water shedding in rainy weather.

**Grain sizes (mm):** 1.5, 2.0, 3.0, 6.0

**Products:** Stolit K, StoSilco K, StoLotusan K

Sto advises the use of 2.0 grain size or above to ensure an even appearance. 6.0 grain size available in Stolit K only.

## Rilled render

Stolit R, StoSilco R.



An attractive drag finish for synthetic renders with the appearance of a scratch plaster. The rilled texture helps to give the finished substrate a flatter and more even appearance.

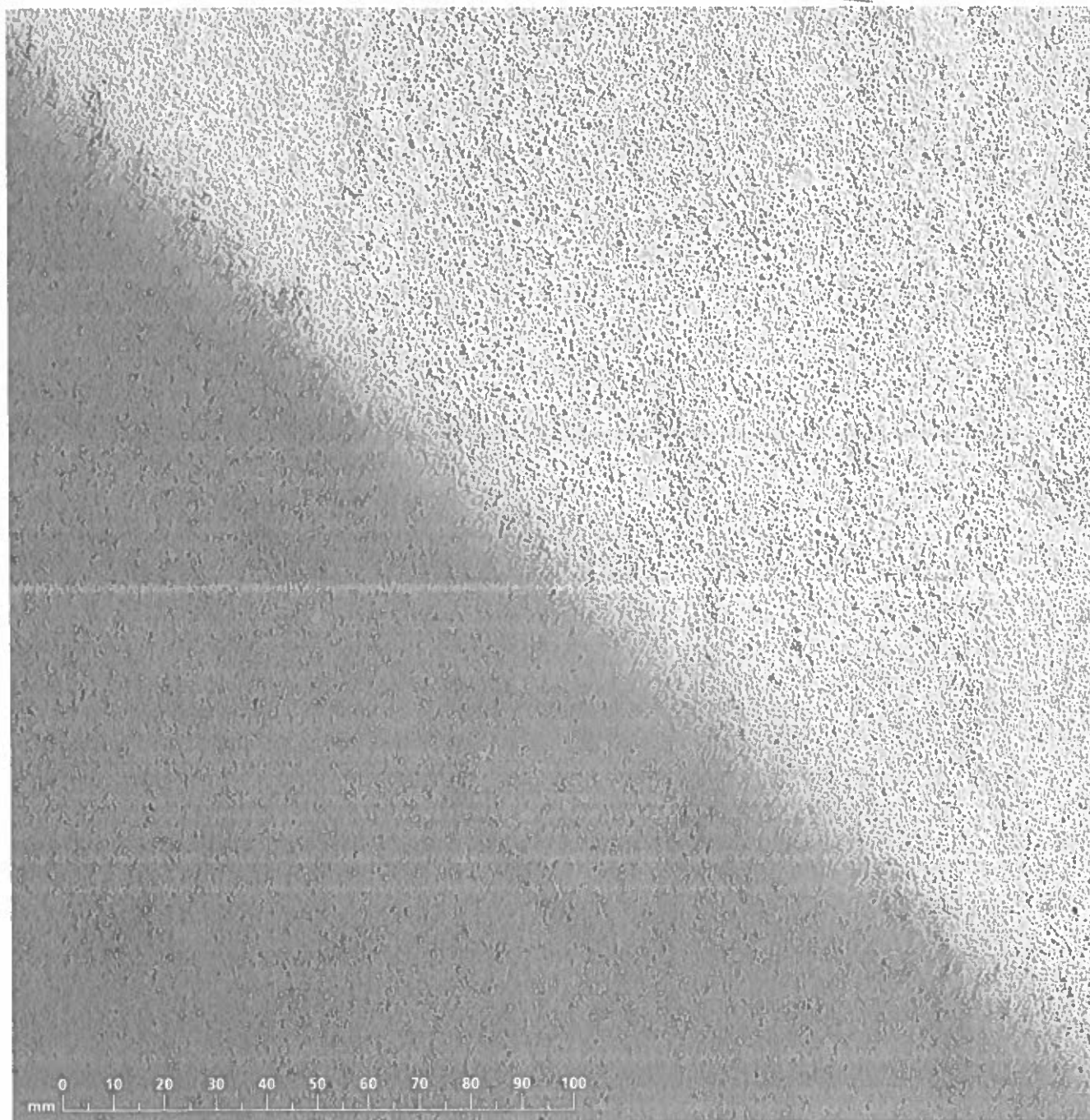
**Grain sizes (mm):** 1.5, 2.0, 3.0, 6.0

**Products:** Stolit R, StoSilco R

Sto advises the use of 2.0 grain size or above to ensure an even appearance. 6.0 grain size available in Stolit R only.

## Freestyle special effect render

Stolit MP, StoSilco MP, StoLotusan MP



If a unique, bespoke facade finish is required, MP renders are the ideal solution. The material can be rubbed up to give a near smooth texture or provide a variety of textures for the facade.

### Products:

Stolit MP, StoSilco MP, StoLotusan MP

The MP finish is a specialist technique requiring highly skilled applicators. Please contact Sto for more information.

## Exposed aggregate render StoSuperlit



An attractive, multicoloured finish with a heavy texture and natural stone aggregate, ideal for high impact areas and splash zones below the damp-proof course. Available in 13 aggregate colour combinations, the finish can be used for selected areas or over the entire elevation.

**Grain sizes (mm):** 2.0  
**Products:** StoSuperlit K

# Render systems







Choosing which render system meets your needs depends on a number of factors, such as substrate type and risk of movement. Sto systems are designed to handle a wide range of situations, from ideal building conditions to highly problematic substrates.

Our position as a market leader in render has been achieved by developing systems based upon the needs of our customers.

All Sto render systems can be finished in any of the Sto synthetic render top coats, providing weather resistant, through-coloured protection in a wide range of colours and textures.

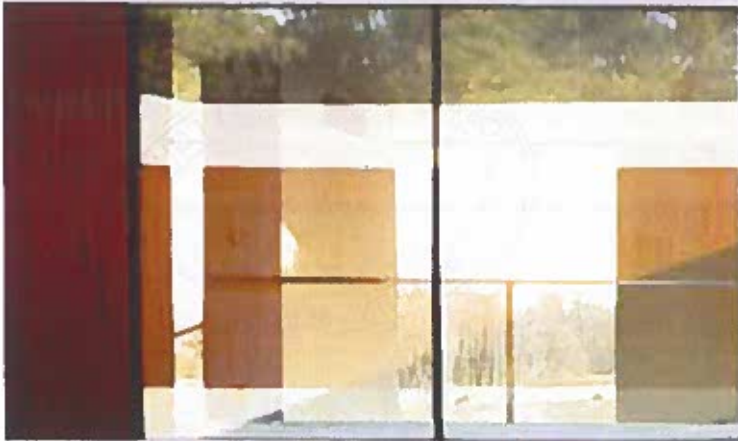
Our technical team is available to discuss the most appropriate system for your needs, as well as detailing requirements specific to your project.



Substrate	Masonry, brickwork, blockwork		Porous/smooth (e.g. aerated concrete)		Damaged substrates	
System						
	StoRend Flex Cote	StoRend Cote	StoRend Fibre Plus	StoRend Fibre	StoRend Flex	StoReno
Project Type	New build / Refurb	New build / Refurb	New build / Refurb	New build / Refurb	New build / Refurb <sup>1</sup>	Refurb
Cost	●●●	●	●●●	●●	●●	●●●
Adhesion	●●	●●	●●●	●●●	●●	●●●
Levelling	●●●	●●●	●●●	●●●	●	●●
Crack resistance	●●●●	●	●●●	●●	●●●	●●●

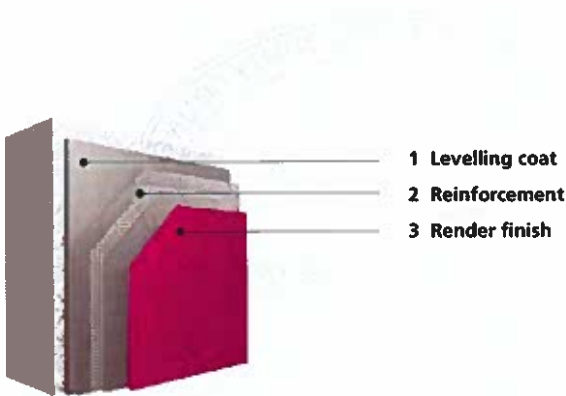
<sup>1</sup> Ideally suited for refurb

●●●● Maximum    ●●● High    ●● Medium    ● Low



# StoRend Flex Cote

The flagship reinforced render system, setting the industry benchmark for over 25 years.



System components	
Levelling coat	StoLevell Cote cement-based, polymer modified levelling coat
Reinforcement	StoArmat Classic cement free, flexible reinforcing render with Sto-Glass Fibre Mesh embedded into StoArmat Classic while wet
Render finish	Stolit, StoSuperlit, StoSilco, StoLotusan synthetic, through-coloured, low maintenance render finishes. Other finishes are also available



Dental Clinic, Obihiro, Japan

Our flagship synthetic render system has set the industry benchmark for over 25 years, using only the highest quality materials to provide exceptional crack resistance, weather protection and a durable, good looking render finish.

The cement free StoArmat Classic, combined with a glass fibre mesh, provides up to 15 times more crack resistance than traditional cement based reinforcement. StoArmat Classic is more cost effective than similar products on the market and is still the highest performing reinforcing coat available.

StoRend Flex Cote is strong enough to render over existing surface cracks and bridge joints between dissimilar substrates with the correct Sto detailing (Please refer to Sto Technical Services for more information).

StoRend Flex Cote provides all of the benefits of synthetic render finishes, for weather resistant, breathable and through coloured surfaces with low maintenance requirements.

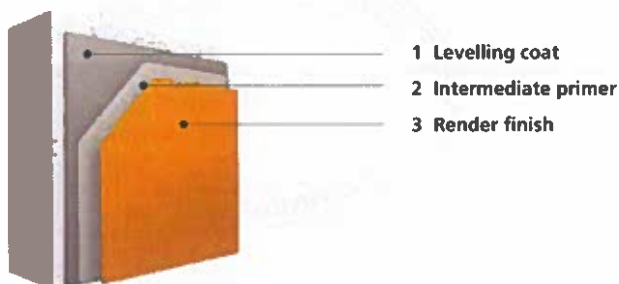
StoRend systems use specialist materials applied by trained, registered Sto applicators. Please consult your regional Technical Consultant for more details.

## System overview

- Area of application**
- Brickwork, blockwork and masonry substrates.
  - Suitable for new build and refurbishment.
- Features**
- Levelling coat for correcting irregularities in the substrate, up to 20mm in a single application.
  - Reinforcing coat and mesh provide more than 15 times the crack resistance of conventional mineralic renders.
  - Resistant to weathering.
  - Vapour permeable.
- Appearance**
- Available in up to 800 colours (depending on choice of finish).
  - Through-coloured for lower maintenance.
  - Stippled (K), rilled (R) and freestyle (MP) textures and a range of grain sizes available (depending on choice of finish).
- Application**
- Levelling uneven substrates adds cost to the system. Blockwork should be constructed to fair-face tolerances.
  - Ready-to-use components.
  - Standard detail drawings available on request.
  - Selected Sto products are available using QS technology for winter working in temperatures as low as +1°C.

# StoRend Cote

Cost-effective levelling system with attractive render finish.



## System components

Levelling coat	StoLevell Cote cement-based, polymer modified levelling coat.
Intermediate primer	Sto-Primer filled, pigmented intermediate coat for render finishes.
Render finish	Stolit, StoSuperlit, StoSilco, StoLotusan synthetic, through-coloured, low maintenance render finishes. Other finishes are also available.



Office Building SP8, Neuss, Germany

**Where the benefits of through-coloured, weatherproof, low maintenance synthetic renders are desired, but cost is a major issue for the project, StoRend Cote is the ideal render system.**

The StoRend Cote system has been designed for projects where the risk of substrate movement is minimal. If there is a risk, the StoRend Flex Cote system should be used.

Substrate preparation is essential to ensure correct functioning of the system. The levelling of uneven blockwork will add additional cost to the system. The substrate should therefore be constructed as true as possible, ideally to fair-face tolerances.

StoRend systems use specialist materials applied by trained, registered Sto applicators. Please consult your regional Technical Consultant for more details.

## System overview

### Area of application

- Brickwork, blockwork and masonry substrates.
- Suitable for new build and refurbishment.

### Features

- Levelling coat for correcting irregularities in the substrate, up to 20mm in a single application.
- Resistant to weathering.
- Vapour permeable.

### Appearance

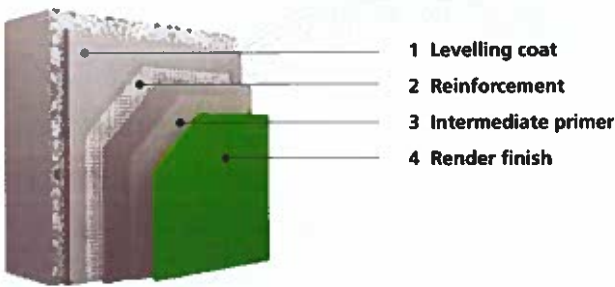
- Available in up to 800 colours (depending on choice of finish).
- Through-coloured for lower maintenance.
- Stippled (K), rilled (R) and freestyle (MP) textures and a range of grain sizes available.

### Application

- Levelling uneven substrates adds cost to the system. Blockwork should be constructed to fair-face tolerances.
- Ready-to-use components.
- Standard detail drawings available on request.
- Selected Sto products are available using QS technology for winter working in temperatures as low as +1°C.

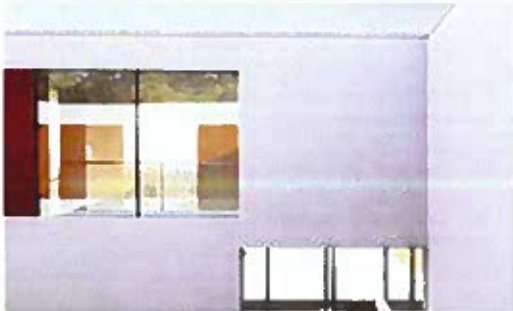
# StoRend Fibre Plus

Synthetic render system with modified levelling coat and reinforcement for application onto smooth/porous substrates.



## System components

Levelling coat	StoLevell Reno cement-based, fibre reinforced levelling coat.
Reinforcement	Sto-Glass Fibre Mesh embedded into StoLevell Reno while wet.
Intermediate primer	Sto-Primer filled, pigmented intermediate coat for render finishes.
Render finish	Stolit, StoSuperlit, StoSilco, StoLotusan synthetic, through-coloured, low maintenance render finishes. Other finishes are also available.



Atrium House, private house, Poland

**StoRend Fibre Plus is a high quality render system from Sto using a fibre reinforced levelling coat combined with a tough, flexible reinforcing mesh to yield exceptional levels of crack resistance.**

Designed for use on porous or smooth substrates with poor adhesion, such as aerated concrete.

The combination of high polymer content and fibres in the levelling coat provide greater adhesion characteristics. They have the added benefit of slowing down the rate at which the substrate will suck water out of the levelling coat, which can lead to unwanted surface defects, such as crazing.

Sto-Glass Fibre Mesh is embedded into the levelling coat to provide additional crack resistance up to 5 times greater than a conventional cement-based system.

Substrate preparation is essential to ensure correct functioning of the system. The levelling of uneven blockwork will add additional cost to the system. The substrate should therefore be constructed as true as possible, ideally to fair-face tolerances.

StoRend systems use specialist materials applied by trained, registered Sto applicators. Please consult your regional Technical Consultant for more details.

## System overview

- Area of application**
- Smooth or porous substrates.
  - Suitable for new build and refurbishment.

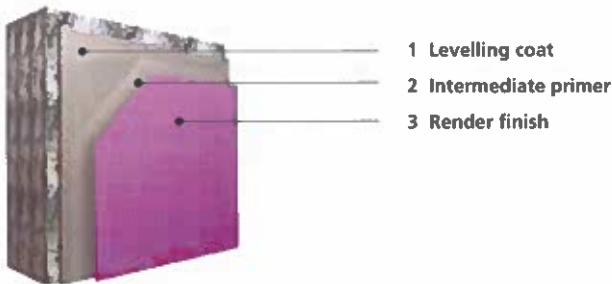
- Features**
- Levelling coat for correcting irregularities in the substrate, up to 20mm in a single application.
  - Fibre reinforcement plus mesh provide improved crack resistance caused by thermal movement or mechanically induced stress.
  - Resistant to weathering.
  - Vapour permeable.

- Appearance**
- Available in up to 800 colours (depending on choice of finish).
  - Through-coloured for lower maintenance.
  - Stippled (K), rilled (R) and freestyle (MP) textures and a range of grain sizes available.

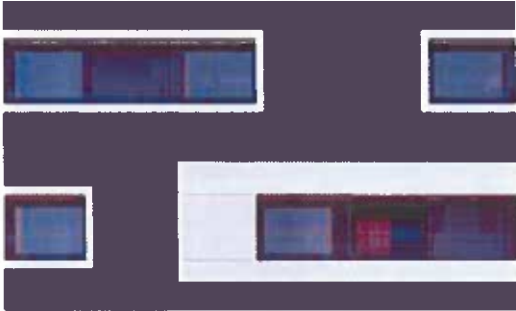
- Application**
- Levelling uneven substrates adds cost to the system. Blockwork should be constructed to fair-face tolerances.
  - Ready-to-use components.
  - Standard detail drawings available on request.
  - Selected Sto products are available using QS technology for winter working in temperatures as low as +1°C.

# StoRend Fibre

Synthetic render system with modified levelling coat for application onto smooth and porous substrates.



System components	
Levelling coat	StoLevell Reno cement-based, fibre reinforced levelling coat.
Intermediate primer	Sto-Primer filled, pigmented intermediate coat for render finishes.
Render finish	Stolit, StoSuperlit, StoSilco, StoLotusan synthetic, through coloured, low maintenance render finishes. Other finishes are also available.



B&B Hotel, Hamburg, Germany

**A modified, fibre reinforced levelling system from Sto, designed for improved adhesion to porous and smooth substrates, such as aerated concrete.**

The combination of high polymer content and fibres in the levelling coat provide greater adhesion characteristics. They have the added benefit of slowing down the rate at which the substrate will suck water out of the levelling coat, which can lead to unwanted surface defects, such as crazing.

The StoRend Fibre system has been designed for projects where the risk of substrate movement is minimal. If there is a risk, the StoRend Fibre Plus system should be used.

Substrate preparation is essential to ensure correct functioning of the system. The levelling of uneven blockwork will add additional cost to the system. The substrate should therefore be constructed as true as possible, ideally to fair-face tolerances.

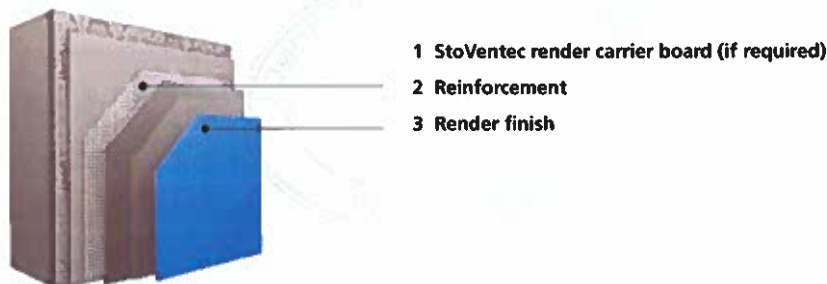
StoRend systems use specialist materials applied by trained, registered Sto applicators. Please consult your regional Technical Consultant for more details.

## System overview

- Area of application**
  - Porous substrates.
  - Suitable for new build and refurbishment.
  - Not suitable for joint bridging.
- Features**
  - Levelling coat for correcting irregularities in the substrate, up to 20mm in a single application.
  - Fibre reinforcement provides improved crack resistance caused by thermal movement or mechanically induced stress.
  - Resistant to weathering.
  - Vapour permeable.
- Appearance**
  - Available in up to 800 colours (depending on choice of finish).
  - Through-coloured for lower maintenance.
  - Stippled (K), rilled (R) and freestyle (MP) textures and a range of grain sizes available.
- Application**
  - Levelling uneven substrates adds cost to the system. Blockwork should be constructed to fair-face tolerances.
  - Ready-to-use components.
  - Standard detail drawings available on request.
  - Selected Sto products are available using QS technology for winter working in temperatures as low as +1°C.

# StoRend Flex

Synthetic render system for the renovation of existing render substrates or for application onto StoVentec carrier boards.



## System components

Render carrier board (if required)	StoVentec 12mm carrier board made from recycled glass granulate.
Reinforcement	StoArmat Classic cement free, flexible reinforcing render with Sto-Glass Fibre Mesh embedded into StoArmat Classic while wet.
Render finish	Stolit, StoSuperlit, StoSilco, StoLotusan synthetic, through-coloured, low maintenance render finishes. Other finishes are also available.



Westbourne Grove Canal Building, London

**StoRend Flex is a highly flexible and crack resistant synthetic render system designed for the refurbishment of existing rendered substrates or for application onto the StoVentec render carrier board.**

The system uses StoArmat Classic; an acrylic reinforcing coat which is up to 15-times more flexible than traditional cement-based reinforcing coats, when combined with Sto Glass Fibre Mesh. StoArmat Classic has helped revolutionise our approach to the design of render systems. StoArmat Classic is manufactured far more cost effectively than similar products from competitors and is still the highest performing reinforcing coating available to date.

StoRend Flex offers all of the system benefits expected of acrylic render systems, such as completely weather proof, breathable and through coloured, low maintenance surfaces.

As a thin coat render system, please ensure that all surfaces are completely level before application. If surfaces require levelling, StoRend Flex Cote should be used in preference.

StoRend systems use specialist materials applied by trained, registered Sto applicators. Please consult your regional Technical Consultant for more details.

## System overview

### Area of application

- Render carrier board or existing level render substrates.
- Ideal for refurbishment projects.

### Features

- Reinforcing coat and mesh provide more than 15 times the crack resistance of conventional mineralic renders.
- Can be used to bridge existing cracks and board joints (expansion joints through the wall must be mirrored)
- Resistant to weathering.
- Vapour permeable.

### Appearance

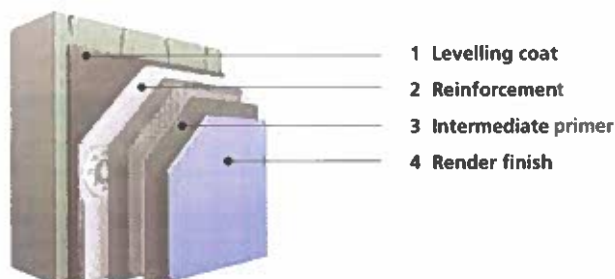
- Available in up to 800 colours (depending on choice of finish).
- Through-coloured for lower maintenance.
- Stippled (K), rilled (R) and freestyle (MP) textures and a range of grain sizes available.

### Application

- If applying to levelled render, the substrate must be primed. If using StoVentec carrier board, no primer is required.
- Ready-to-use components.
- Standard detail drawings available on request.
- Selected Sto products are available using QS technology for winter working in temperatures as low as +1°C.

# StoReno

Reinforced and dowelled synthetic render system for the renovation of damaged render or external wall insulation systems.



## System components

Adhesive bedding coat	StoLevell Uni adhesive coat for fixing StoReno Plan carrier board.
Carrier board	StoReno Plan recycled glass carrier board with dowel recesses, reinforced with glass fibre mesh on both sides.
Reinforcement	StoArmat Classic cement free, flexible reinforcing render with Sto-Glass Fibre Mesh embedded into StoArmat Classic while wet.
Render finish	Stolit, StoSuperlit, StoSilco, StoLotusan synthetic, through-coloured, low maintenance render finishes. Other finishes are also available.

**StoReno is an innovative system for the renovation of render and external wall insulation systems, avoiding the disruption caused by demolition and removal.**

The StoReno system ensures the sustained reliability of facades, even on problematic substrates. The system is relatively thin, meaning that existing elements such as window sills can usually be left in place.

The functional core of the StoReno system is the StoReno Plan render carrier board, which consists of 96% recycled glass granulate. It is laminated on both sides with glass fibre mesh and incorporates a dowel fitting strip.

A range of through-coloured, ready-to-use synthetic render finishes serve as top coats.



Private house, Horgen, Switzerland

## System overview

### Area of application

- Damaged render and external wall insulation.
- Ideal for refurbishment projects.

### Features

- Reinforcing coat and mesh provide more than 15 times the crack resistance of conventional mineralic renders.
- Can be used to bridge existing cracks and board joints (expansion joints through the wall must be mirrored)
- Resistant to weathering.
- Vapour permeable.

### Appearance

- Available in up to 800 colours (depending on choice of finish).
- Through-coloured for lower maintenance.
- Stippled (K), rilled (R) and freestyle (MP) textures and a range of grain sizes available.

### Application

- Ready-to-use components.
- Standard detail drawings available on request.
- Selected Sto products are available using QS technology for winter working in temperatures as low as +1°C.

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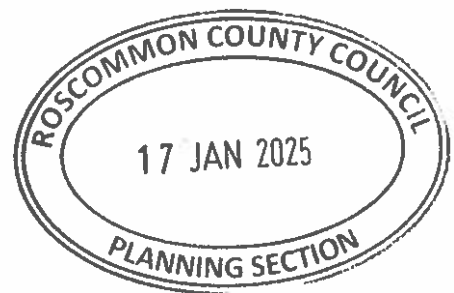
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## Technical Data Sheet

### StoSilco® MP

Silicone resin finishing render as free-style textured render



#### Characteristics

##### Area of application

- exterior
- on masonry, insulated and rainscreen cladding facades with a base coat
- on mineral and organic substrates
- not suitable for horizontal or sloping surfaces that are exposed to weather conditions

##### Properties

- render in accordance with EN 15824
- genuine silicone resin render for reliable application and long-lasting facades
- A2-s1, d0 in accordance with EN 13501-1
- with encapsulated film protection
- very high CO<sub>2</sub> and water vapour permeability
- highly weather-resistant
- hydrophobic capillary effect
- highly water-repellent
- water-dilutable
- with high-quality marble grains made of natural deposits

##### Appearance

- as free-style textured render
- as a float-finished, fine textured render
- as sanded fine textured render (deviating colour shade)

##### Information/notes

- see Services/Silo overview in the product guide or price list
- if the selected colour shade has a light reflectance value  $\geq 15$ , no additional finishing coat is necessary
- with float-finished, washed fine textured renders, a double paint coat may be necessary to equalise the colour shade

#### Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Density	EN ISO 2811	1.7 - 1.9 g/cm <sup>3</sup>	
Diffusion-equivalent air layer thickness	EN ISO 7783	0.16 - 0.18 m	V2 medium



## Technical Data Sheet

### StoSilco® MP

Water permeability rate w	EN 1062-1	< 0.05 kg/(m <sup>2</sup> h <sup>0.5</sup> )	W3 low
Water vapour diffusion- equivalent air layer thickness μ	EN ISO 7783	110 - 140	V2 medium
Reaction to fire	EN 13501-1	A2-s1, d0	
Thermal conductivity	DIN 4108	0.7 W/(m·K)	

The characteristic values stated are average values or approximate values. Due to the natural raw materials in our products, the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended use.

#### Substrate

##### Requirements

The substrate must be firm, dry, clean, load-bearing, and free from sinter layers, efflorescence and release agents.  
Damp or not fully cured substrates can lead to defects in the following coatings, e.g. bubble formation, cracks.

If using the product as a thin-layer, float-finished, fine textured render, it is necessary to apply additional levelling coats of substrate filler.

For areas in external wall insulation systems with a change in material, e.g. a fire strip or fire flash-over protection, first fill these and then apply the base coat.

Layer thicknesses in the external wall insulation system:

- complete render system: at least 4 mm
- The base coat under the fine plaster finish should be thicker than 3.0 mm.
- Recommendation: Apply additional layers to level the base coat and prevent markings from the substrate.

##### Preparations

Check whether existing coatings are load-bearing. Remove any non load-bearing or structurally weak coatings.

#### Application

##### Application conditions

Do not apply the material in intense, direct sunlight or onto heated substrates.

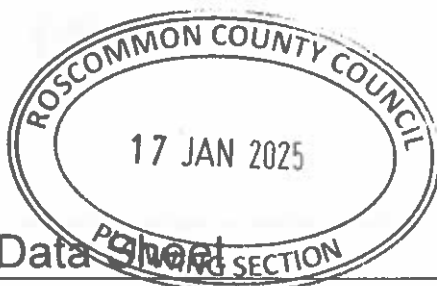
Avoid strong air movements during application and during the first phase of drying, otherwise increased shrinkage cracks and pores may develop in the coating.

##### Application temperature

Lowest temperature of substrate and air: +5 °C  
Highest temperature of substrate and air: +30 °C

##### Material preparation

Preparing the material:  
- Depending on weather and substrate conditions, use as little water as possible to achieve application consistency.  
- Stir the material well before application.



## Technical Data Sheet StoSilco® MP

If applying the material by machine or pump:

- Adjust the application consistency.
- Do not dilute intensely tinted material, or only use very little water.
- Too much dilution impairs the properties of the material, e.g. with regard to application, hiding power, colour shade intensity.

Consumption	Type of application	Approx. consumption	
	fine texture	1.50	kg/m <sup>2</sup>
	medium texture	2.50	kg/m <sup>2</sup>
	coarse texture	4.00	kg/m <sup>2</sup>

Material consumption depends on the application, substrate, and consistency, among other factors. The stated consumption values are only to be used as a guide. If required, determine precise consumption values on the basis of the specific project.

Coating build-up	<p>Primer:</p> <p>Depending on the type and condition of the substrate, it may be necessary to apply consolidating, absorbency-regulating prime coatings.</p> <p>Intermediate coat on load-bearing, mineral substrates:</p> <p>If using on a mineral substrate, we recommend using an absorbency-equalising and adhesion-promoting intermediate coat.</p> <p>Note:</p> <p>If intermediate coats are omitted, this can impair the application properties and the product's appearance.</p> <p>Products: StoPrep Miral, Sto-Primer, or StoPrep Isol Q (alkalinity-isolating)</p> <p>Intermediate coat on load-bearing, organic substrates:</p> <p>Recommendation: If the colour shade of the finishing render differs significantly from the colour shade of the substrate, apply an intermediate coat that aligns the colour shades.</p> <p>Products: Sto-Primer or StoPrep Isol Q (alkalinity-isolating)</p>
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Application	<p>manually, by machine</p> <p>As a rule, it is necessary to manually rework the freshly applied finishing render in order to achieve the desired texture and functionality.</p> <p>Apply the product evenly with a rust-free steel trowel. Layer thickness: min. 1 mm, in places max. 5 mm. Depending on the desired surface texture, use e.g. a plastering trowel, a brush, a texturing roller, a bucket trowel, a spatula, or a sponge for texturing.</p> <p>Recommendation for applying a float-finished fine textured render surface:</p> <p>Step 1: Apply a finishing render with a stippled texture in 1.5 grain onto the</p>
-------------	--

# Technical Data Sheet

## StoSilco® MP



prepared substrate using a rust-free steel trowel, and lightly trowel it off. Then evenly work superfluous render paste and texturing grains into the surface using a plastic trowel. Allow the surface to dry. Remove protruding grain tips using a wide spatula.

Step 2: Using the free-style textured render as fine textured render: Apply the free-style textured render in an even layer approx. 1 mm thick. Briefly leave the surface to start to harden and then float-finish evenly with a latex sponge float. Regularly moisten the latex sponge float with water during the float-finishing.

Float-finished or washed free-style textured render surfaces offer less protection from algae and fungus. Recommendation: In order to optimally protect the surface, apply a double paint coat, e.g. of StoColor Lotusan® G.

The tools mentioned are recommendations only.

### Drying, curing, ready for next coat

The product dries physically, in that water evaporates. Higher layer thicknesses (> 2 mm), higher substrate moisture and humidity, condensation, low temperatures, and low air exchange can prolong the drying time depending on the project.

During unfavourable weather conditions, apply suitable protective measures (e.g. protection against rain) to any facade surface which is to be treated or which has been freshly completed.

At drying conditions of approx. +20 °C air and substrate temperature, 65 % relative humidity, and depending on the subsequent coating (diffusion-equivalent air layer thickness), the product is over-coatable after 24 hours at the earliest.

### Cleaning the tools

Clean tools with water immediately after use.

### Notes, recommendations, special information, miscellaneous

Entrapped air can lead to blisters. Only model the render using dry tools. Danger of staining.

### Delivery

#### Colour shade

white, tintable in accordance with the StoColor System

Colour stability: Weathering, intensity of UV radiation, and moisture penetration change the surface over time. Visible changes in colour shade are possible. This change process is influenced by material and project conditions. Recommendation: A build-up of additional paint coats improves the colour stability of intense and/or very dark colour shades.



## Technical Data Sheet

### StoSilco® MP

#### Texturing grain:

Natural white marble types are used as texturing grain. The natural graining of the marble can become partially visible and appear as darker texture grain in the finishing render.

With light clear (and especially clear yellow) colour shades, the colour of the texturing grain can shine through the finishing render across an area. In very rare cases, marble grain can cause isolated markings due to natural ingredients, e.g. pyrite.

Both effects are due to the basic appearance of a marble-filled finishing render and attest to the natural properties of the raw materials used. This is an inherent property.

#### Colour accuracy:

Different weather and project conditions influence colour shade accuracy and colour shade uniformity. Avoid the following conditions (a - d) in every case:

- a) uneven absorbency of the substrate
- b) different levels of substrate moisture over an area
- c) partly very different alkalinity and/or substances in the substrate
- d) direct sunlight with sharp, clear shadows on a still-damp coating

#### Washout of processing aids:

If water such as condensation, fog, or rain comes into contact with not fully dry coatings, processing aids may be released from the coating and build up on the surface. Whether the effect is strongly visible or not depends on the intensity of the colour shade. This does not influence the product quality. The effects disappear when the surface is exposed to further weathering.

<b>Tintable</b>	Possible to tint with max. 1 % StoTint Aqua.
<b>Possible special options</b>	There are no special settings for this product.
<b>Packaging</b>	pail
<b>Storage</b>	
<b>Storage conditions</b>	Store in tightly sealed original containers in cool and frost-free conditions. Protect from direct sunlight.
<b>Storage life</b>	<p>Provided the storage conditions are adhered to, the quality of the product in its unopened, original container is guaranteed until the maximum storage life has expired. The storage life can be deduced from the batch number of the container.</p> <p>Batch number explanation: Number 1 = the last number of year, numbers 2 + 3 = a calendar week example: 6450013223 – storage life until week 45 of 2026</p> <p>Use promptly after opening. Incorporated contamination can shorten the shelf-life, e.g. due to a soiled tool.</p>



# Technical Data Sheet

## StoSilco® MP

### Certificates/approvals

ETA-09/0058	StoTherm Classic® 5 (EPS and StoArmat Classic plus/StoArmat Classic plus QS) European Technical Assessment
ETA-09/0266	StoTherm Classic® 8 (timber frame construction - EPS and StoArmat Classic/Classic plus) European Technical Assessment
ETA-20/0465	StoTherm Classic® 11 (EPS and StoArmat Classic HD + StoAdditiv HD) European Technical Assessment
ETA-09/0288	StoTherm Classic® 5 (MW/MW-L and StoArmat Classic plus/StoArmat Classic plus QS) European Technical Assessment
ETA-18/0582	StoTherm Classic® 8 (timber frame construction - MW/MW-L and StoArmat Classic S1/StoLevell Classic + QS/Sto-RFP QS + European Technical Assessment
ETA-20/0480	StoTherm Classic® 11 (MW/MW-L and StoArmat Classic HD + StoAdditiv HD) European Technical Assessment
ETA-12/0533	StoTherm Classic® 10 (MW/MW-L and StoArmat Classic S1) European Technical Assessment
ETA-05/0130	StoTherm Vario 1 (EPS and StoLevell Uni) European Technical Assessment
ETA-06/0045	StoTherm Vario 3 (EPS and StoLevell Novo) European Technical Assessment
ETA-06/0107	StoTherm Vario 4 (EPS and StoLevell Duo) European Technical Assessment
ETA-03/0037	StoTherm Vario 5 (EPS and StoLevell Alpha) European Technical Assessment
ETA-12/0561	StoTherm Vario 7 (EPS and StoLevell FT) European Technical Assessment
ETA-19/0443	StoTherm Vario 8 (timber frame construction - EPS and StoLevell Duo/StoLevell Duo plus/StoLevell Uni/StoLevell Novo/StoLevell FT) European Technical Assessment
ETA-09/0231	StoTherm Mineral 1 (MW/MW-L and StoLevell Uni) European Technical Assessment
ETA-07/0027	StoTherm Mineral 3 (MW/MW-L and StoLevell Novo) European Technical Assessment
ETA-13/0901	StoTherm Mineral 5 (MW/MW-L and StoLevell FT) European Technical Assessment
ETA-07/0023	StoTherm Mineral 6 (MW/MW-L and StoLevell Duo/StoLevell Duo Plus) European Technical Assessment
ETA-13/0581	StoTherm Mineral 8 (timber frame construction - MW-L and StoLevell Uni/StoLevell Novo, fixing: bonded) European Technical Assessment



## Technical Data Sheet

### StoSilco® MP

ETA-08/0303	StoTherm Wood 1 (timber frame construction - soft wood fibre and StoLevell Uni/StoLevell FT/StoLevell Novo, fixing anchor-fixed) European Technical Assessment
ETA-09/0304	StoTherm Wood 2 (timber frame construction - soft wood fibre and StoLevell Uni/StoLevell FT, anchor/adhesive) European Technical Assessment
ETA-06/0197	StoTherm Cell European Technical Assessment
ETA-09/0267	StoTherm Resol European Technical Assessment
ETA-13/0580	StoTherm Resol Plus European Technical Assessment
ETA-17/0041	StoTherm PIR European Technical Assessment
ETA-17/0406	StoVentec R European Technical Assessment

#### Identification

Product group

Render

#### Composition

In accordance with the VdL directive (German Paint and Printing Ink Association) on coating materials for buildings  
polymer dispersion  
silicone resin emulsion  
titanium dioxide  
mineral extenders  
aluminium hydroxide  
silicate extenders  
water  
aliphatics  
glycol ether  
anti-foaming agents  
dispersing agent  
thickener  
wetting agents  
coating protection agent based on OIT / diuron  
storage protection agent based on BIT/MIT (1:1)

#### Safety

This product is subject to compulsory labelling in accordance with the current EU regulation.  
Observe the Safety Data Sheet!  
Safety instructions refer to the ready-to-use, unapplied product.

May cause an allergic skin reaction. Avoid breathing vapours. Wear protective gloves. If skin irritation or rash occurs: Get medical advice/ attention. Take off

## Technical Data Sheet

### StoSilco® MP

contaminated clothing and wash it before reuse. Contents/container to be disposed of through approved disposal contractor or taken to municipal collection point.

**EUH211**

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

#### Special notes

The information in this Technical Data Sheet serves to ensure the product's intended use, or its suitability for use, and is based on our findings and experience. Users are nevertheless responsible for establishing the product's suitability and use. Applications not specifically mentioned in this Technical Data Sheet are permissible only after prior consultation. Where no approval is given, such applications are at the user's own risk. This applies in particular when the product is used in combination with other products.

When a new Technical Data Sheet is published, all previous Technical Data Sheets are no longer valid. The latest version is available on the Internet.

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Ehrenbachstr. 1  
79780 Stühlingen / Germany  
Phone: +49 7744 57-0  
Fax: +49 7744 57-2178  
Infoservice.export@sto.com  
www.sto.com





## ENERGY RATING CERTIFICATE – A RATED WINDOW

Code: CENSolutions Simulation Report Spectus 0.8 44mm

The address of the windows installed at:	David Scully (Tuath RENO) 1 New Estate, Clonygowan, Tullamore, Offaly.
Installed by:	Joe Rowley Windows Ltd
Issue Date:	07/05/2024
Total no. of windows supplied that are BFRC Rated:	10 No. White PVC Casements

Are certified by the British Fenestration Rating Council (BFRC) to be compliant with relevant sections of the Building Regulations applicable at the date of installation

BFRC Licence Number:	3723
BFRC Simulation report Number:	BR14/013
Product Name:	Frames Direct Elite A Rated
Product Type:	uPVC Window
BFRC Rating Band:	A
Thermal Transmittance (U window):	0.8 W/m <sup>2</sup> K
Solar Factor (g window):	0.29
Solar Energy Transmittance G <sub>L</sub> :	0.47



### Supplier details:

Supplier Name:	Frames Direct Ltd.
Supplier Address:	Straboe, Buncrana, Co.Donegal.
Supplier Telephone:	003537 493638888
Supplier Fax:	003537 49362203
Supplier Email Address:	info@framesdirect.ie

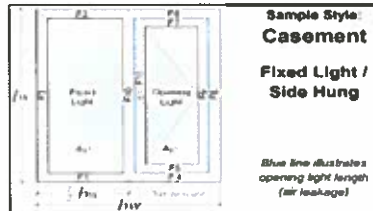


## Excerpt from BFRC Energy Rating Report number BR14/013:

### THERMAL SIMULATION REPORT



CENSOLUTIONS



Report Number: **BR14/013**  
Report Date: **04 July 2014**  
Project Details: **Frames Direct Spectus 44mm Triple Glazed Window**

Issue No 22.1: 11/03/2013

**THIS SPREADSHEET IS THE PROPERTY OF THE BFRC AND CAN ONLY BE USED IN CONJUNCTION WITH A BFRC LICENCE**

Input Values:  
Yellow input, green intermediary, blue final. X DP is no of decimal places to enter

Frame offset	No
Nominal 4mm etc to SDP, others 10P	
<b>Glazing dimensions and properties:</b>	
Thickness of pane 1	4 mm
Pane 1/2 distance	18 mm
Gas fill (1/2)	Argon 99%
Thickness of pane 2	4 mm
Complete next 3 cells for TGI IGU	
Pane 2/3 distance	18 mm
Gas fill (2/3)	Argon 99%
Thickness of pane 3	4 mm
Glazing Trans - SDP	0.528 W/(m² K)
g-value - ZDP	0.47

Thermal transmittance of window from hot box test	
U <sub>w</sub> - ZDP	0.528 W/(m² K)

Window Dimensions:		Area	
Section	Length (m)	Width (m)	No. gasket
Fixed Light	1.3600	0.6220	0.7069
Opening light	1.2660	0.4280	0.5418
Total glazing, A <sub>g</sub>		1.2518	1.2518
Frame	(m)	(m)	(m²)
F1	0.8150	0.0800	0.0341
F2	0.8150	0.0800	0.0341
F3	1.4800	0.0800	0.0852
F4	0.8150	0.0800	0.0341
F5	0.5220	0.0470	0.0223
F6	0.8150	0.0800	0.0341
F7	0.5220	0.0470	0.0223
F8	1.4800	0.0800	0.0852
F9	1.3600	0.0470	0.0617
F10	1.4800	0.0800	0.0852
F11	1.3600	0.0470	0.0617
Total Frame, A <sub>f</sub>		0.5685	0.5685
Total Window, A <sub>w</sub>		1.8204	1.8204
Percentage fixed light glaze area		39.00%	39.00%
Percentage opening light glaze area		29.77%	29.77%
Percentage glaze area (total)		68.76%	68.76%

Solar Factor, g-value:	F <sub>g</sub> 0.8
	g <sub>a</sub> 0.29

U <sub>airtight</sub>	No bars, or attached bars 0.85
	Single cross bar in IGU 1.8
	Multiple cross bar in IGU 1.1
	Glazing bar (Georgian bar) 1.3

BFRC Rating	Label	EWER	Window
kWh/(m²·yr)	Index	Rating Scale	Rating
0 to <10	A+	A+	A
10 to <15	A	A	A
15 to <20	B	B	A
20 to <25	C	C	A
25 to <30	D	D	A
30 to <35	E	E	A
35 to <40	F	F	A

Frame dimensions:		Frame width, b <sub>f</sub> (mm)	Gasket protrusion, b <sub>g</sub> (mm)	Frame & gasket width, b <sub>fg</sub> (mm)
All frame values round to nearest 1mm, gaskets to 1DP				
F1 fixed sill	(b <sub>f</sub> )	60	0.0	60.0
F2 fixed head		60	0.0	60.0
F3 fixed jamb		60	0.0	60.0
F4 fixed sash sill		60	n/a	60.0
F5 moving sash sill		47	0.0	47.0
F6 fixed sash head		60	n/a	60.0
F7 moving sash head		47	0.0	47.0
F8 fixed sash jamb		60	n/a	60.0
F9 moving sash jamb		47	0.0	47.0
F10 fixed mullion		66	0.0	66.0
F11 moving mullion		47	0.0	47.0
Total gasket area		0	0	0

Frame conductance:		All L values to 4DP, All U values to 2DP	
Section	Frame width, b <sub>f</sub> (mm)	W/(m² K)	b <sub>g</sub> (mm)
F1 fixed sill	60	0.1885	190
F2 fixed head	60	0.1885	190
F3 fixed jamb	60	0.1885	190
F4 fixed sash sill	60	0.2558	190
F5 moving sash sill	47	0.2558	190
F6 fixed sash head	60	0.2558	190
F7 moving sash head	47	0.2558	190
F8 fixed sash jamb	60	0.2639	190
F9 moving sash jamb	47	0.2639	190
F10 fixed mullion	66	0.4205	380
F11 moving mullion	47	0.4205	380

Frame:	Section	Frame width, b <sub>f</sub> (m)	Frame U-value, U <sub>f</sub> (W/(m² K))	Frame area, A <sub>f</sub> (m²)	Frame heat loss, HU (W/K)	Linear length, L <sub>f</sub> (m)	Justification heat loss, H <sub>j</sub> (W/K)
F1 fixed sill	0.0600	0.9228	0.0341	0.0315	0.5220	0.0184	0.0184
F2 fixed head	0.0600	0.9228	0.0341	0.0315	0.5220	0.0184	0.0184
F3 fixed jamb	0.0600	0.9228	0.0852	0.0785	0.0315	1.3600	0.0429
F4 fixed sash sill	0.1070	1.1484	0.0564	0.0847	0.0308	0.4280	0.0132
F5 moving sash sill	0.1070	1.1484	0.0564	0.0847	0.0308	0.4280	0.0132
F6 fixed sash head	0.1070	1.2221	0.1489	0.1795	0.0308	1.2660	0.0388
F7 moving sash head	0.1070	1.2221	0.1489	0.1795	0.0308	1.2660	0.0388
F8 fixed sash jamb	0.1130	1.3649	0.1554	0.2121	0.0616	1.3130	0.0809
F9 moving sash jamb	0.1130	1.3649	0.1554	0.2121	0.0616	1.3130	0.0809
Totals			0.5686	0.6627		0.2218	

Air Leakage loss:	
Air leakage at 50 Pa per hour & per unit length of opening light (BS 6375-1) - ZDP	0.00 m³/(m·h)
Opening light length	3.7840 m
Total air leakage	0.000 m³/h
Heat loss = 0.0185 L <sub>50</sub>	0.00 W/(m²·K)

Other parameters needed for calculation, taken from simulations.			$d_p = d_s = 0.044$ m
$A_p = 0.035$ W/(m·K)	$R_{ss} = 0.04$ K/W	$R_{\infty} = 0.13$ m <sup>2</sup> K/W	
$R_p = 1.2571$ m <sup>2</sup> K/W	$R_{\infty} = 1.4271$ K/W	$U_p = 0.7007$ W/(m <sup>2</sup> ·K)	

BFRC Rating =	5.17
218.6g <sub>airtight</sub> - 68.5 × (U <sub>airtight</sub> + Effective L <sub>50</sub> ) =	
Climate zone is:	UK

Thermal transmittance, W/(m² K)	U <sub>airtight</sub> 0.8
Solar factor	g <sub>a</sub> 0.29
Window air leakage heat loss, W/(m² K)	L <sub>50</sub> 0.00

Simulator Name: **Brendan Ruddy** BFRC Certified Simulator **049**





# ENERGY RATING CERTIFICATE – A RATED WINDOW

Code: CENSolutions Simulation Report Spectus 0.8 44mm

## BFRC window product matrix confirmation:

Newspaper House, 40 Rushworth Street, London, SE1 0RB  
enquiries@bfrc.org  
+44 (0) 20 7403 9200



Thursday 25th January 2018

Frames Direct Ltd,  
Straboe,  
Buncrana,  
Co. Donegal

Dear Mr Conmy,

Following recent changes submitted by ER Certification, please see BFRC matrix below confirming your current BFRC Simplified Energy Licences and associated simulation report numbers.

### BFRC WINDOW PRODUCT MATRIX

Customer BFRC account no.	M238
Customer account name	Frames Direct Ltd
Independent Agency	ER Certification

Description	A++		A+		A		B		C	
	License No.	Product Name	License No.	Product Name	License No.	Product Name	License No.	Product Name	License No.	Product Name
PVC U Casement	3409	Else A++ Rated	3366	Else A+ Rated	3729	Else A Rated	3725	Else B Rated	5268	Else C Rated
	2288		2254	2286	2234	2295	1667	1668	2280	2280
Vertical Sliding Window										
Tilt & Turn										

If you require any changes to be made to your product matrix, please feel free to contact BFRC at [enquiries@bfrc.org](mailto:enquiries@bfrc.org)

Kind Regards,  
Natalie Gent



Company number 05649431

Registered in England & Wales

[www.bfrc.org](http://www.bfrc.org)

A Helix Group Company

**Report in Accordance with  
BS EN ISO 10077-1:2006**

## **Thermal Performance of Windows, Doors & Shutters**

### **Calculation of Thermal Transmittance Part 1: Simplified Method**

**CONFIDENTIAL**

Report reference:	CU11096-2
Issue date:	11 <sup>th</sup> August 2011
Prepared for:	Mike O'Sullivan Profile Developments Glin County Limerick
Prepared by:	Michael Handley



*This document is confidential and remains the property of Build Check Ltd*

*The legal validity of this report can only be claimed on presentation of the complete report and electronic information if applicable.*

## 1 Introduction

This document details the thermal performance of the Profile Developments Palladio Composite Door which was commissioned by Mike O'Sullivan of Profile Developments. The frame profile results detailed below are provided from methods contained in BS EN ISO 10077-1:2006 by computer simulation using LBL THERM 5.2 software and validated against proofs in Annex D of BS EN ISO 10077-2:2003

The Palladio Doorset in this analysis measures 974 mm x 2047 mm.

## 2 Summary of Results

### 2.1 Frame thermal transmittance (In accordance with BS EN ISO 10077-1:2006)

Frame Profile	Frame Thermal Transmittance ( $U_f$ )
Head & Cill	1.4 W/(m <sup>2</sup> ·K)
Jamb	1.4 W/(m <sup>2</sup> ·K)
Glazing Casette	0.68 W/(m <sup>2</sup> ·K)

### 2.2 Linear thermal transmittance (In accordance with BS EN ISO 10077-1:2006)

Frame Profile	Linear Thermal Transmittance ( $\psi$ )
Head & Cill	0.027 W/(m·K)
Jamb	0.026 W/(m·K)
Glazing Edge Glass side	0.25 W/(m·K)
Glazing Edge Panel side	0.036 W/(m·K)

### 2.3 Centre pane U-Value of glazing calculated in accordance with BS EN 673:1998

Door Panel	Centre panel U-value ( $U_g$ )
Nominal dimensions 65mm door slab consisting of 1.2mm ABS skin to each side of Glass Reinforced Polyurethane Foam monocoque with 5.5mm outer thickness each side and webbing through it's centre.	0.57 W/m <sup>2</sup> K

### 2.4 Centre pane U-Value of glazing calculated in accordance with BS EN 673:1998

Panel unit	Centre pane U-value ( $U_g$ )
Nominal dimensions 4-12-4-12-4 Triple glazed unit with uncoated clear float glass and air filled cavities separated by Edgetech Super Spacer warm edge spacer bar with 5mm Butyl secondary seal.	1.9 W/m <sup>2</sup> K



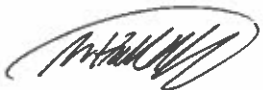
The legal validity of this report can only be claimed on presentation of the complete report and electronic information if applicable.

**2.5 U-Value thermal performance of the door ( $U_w$ ) in accordance with EN ISO 10077-1:2006 is:**

**0.94 W/m<sup>2</sup>K**

All profile and PSI calculations are in accordance with BS EN ISO 10077-2:2003

### 3 Authorisation

	<b>Issued by:</b>
<b>Signature:</b>	
<b>Name:</b>	Michael Handley
<b>Title:</b>	Senior Engineer



*The legal validity of this report can only be claimed on presentation of the complete report and electronic information if applicable.*



Comhairle Contae  
Ros Comáin  
Roscommon  
County Council



Paul Grennan,  
C/O Tuath Housing,  
37-42 James Place East,  
Dublin 2.

Date: 16<sup>th</sup> January 2025  
Ref: DED 810

Re: Application for a Declaration under Section 5 of the Planning & Development Act 2000 (as amended), regarding Exempted Development.  
Development: WHEREAS a question has arisen as to whether the removal of a door & porch roof on front elevation at 3 Galway Road, Roscommon Town, Co. Roscommon, F42 NW68, is or is not development and is or is not exempted development.

\*\*\*\*\*

A Chara,

Further to your application received on the 29<sup>th</sup> November 2024 and in order for the Planning Authority to determine as to whether the removal of a door & porch roof on front elevation at 3 Galway Road, Roscommon Town, Co. Roscommon, F42 NW68 is or is not development and is or is not exempted development, you are requested to submit the following further information:

1. Provide a data sheet/specification of the proposed heat pump.
2. Provide a data sheet/specification of the proposed solar panels.
3. Provide a data sheet/specification of the proposed external insulation and render system detailing the external finish to the dwelling.
4. Provide further information in relation to the replacement windows and doors detailing the proposed material and style.

Consideration of your application is being deferred pending compliance with this request for further information. When replying please quote Planning Reference Number **DED 810**

**Note:** Replies to this communication must be by way of original documents.

Mise le meas,

Alan O'Connell,  
Senior Executive Planner,  
Planning.

cc agent via email: Eamon Maguire, KORE Insulation  
[eamonmaguire@koresystem.com](mailto:eamonmaguire@koresystem.com)

**Planner's Report on application under  
Section 5 of the Planning and Development Act 2000 (as amended)**

<b>Reference Number:</b>	DED 810
<b>Re:</b>	Application for a Declaration under Section 5 of the Planning & Development Act, 2000, as amended, regarding Exempted Development to remove door & porch roof on front elevation.
<b>Name of Applicant:</b>	Paul Grennan C/O Tuath Housing
<b>Location of Development:</b>	3 Galway Road, Roscommon Town, Co. Roscommon (F42 NW68)
<b>Site Visit:</b>	15/01/2025

**WHEREAS a question has arisen as to whether the following works; to remove door & porch roof on front elevation at the above address is or is not development and is or is not exempted development.**

I have considered this question, and I have had regard particularly to –

- (a) Sections 2, 3, 4 and 5 of the Planning and Development Act, 2000, as amended
- (b) Articles 6, 9 and 10 of the Planning and Development Regulations, 2001, as amended
- (c) Class 2 of Part 1 of Schedule 2 of the Planning and Development Regulations, 2001 (Exempt Development – General), as amended
- (d) The record forwarded to Roscommon County Council in accordance with subsection (6)(c) of Section 5 of the Planning and Development Acts 2000 as amended.
- (e) The planning history of the site

**Site Location & Development Description**

The property is a single story detached dwelling at 3 Galway Road, Roscommon Town, Co. Roscommon. The property is accessed off the N63 road and has a garden area to the rear of the property and parking are to the front. The proposed development consists of the removal of one of the porch roofs and the blocking up of the doorway on the front elevation of the existing dwelling, it is noted on the drawings provided that the same door is already blocked up on the inside of the dwelling. Other proposed works that are indicated on the proposed elevation drawings provided include replacement of windows and doors, new fascia, soffits, guttering and downpipes, installation of solar PV array on front and side elevations, new heat pump and external insulation with render.

There are no European designated sites in, adjoining or in close proximity to the subject site. There is no known heritage related sites/structures in very close proximity to the subject site, as per the Roscommon County Council GIS.

**Archaeological and Cultural Heritage**

No RMP recorded in the likely zone of influence of the proposed development. No Protected structures or structures listed in the National Inventory of Architectural Heritage the likely zone of influence of the proposed development.

## **Appropriate Assessment**

The closest European sites to the site of the proposed development are Ballinturly Turlough SAC/PNHA (Site Code 000588) which is located circa 3.2km to the south and Lough Ree PNHA (Site Code 000440) which is located circa 4.1km to the east of the subject site.

Having regard to the separation distance between the site and the closest Natura 2000 site and the nature of the proposal, there is no real likelihood of significant effects on the conservation objectives of these or other European sites arising from the proposed development. The need for further Appropriate Assessment, therefore, be excluded.

## **Planning History**

As per the Roscommon County Council's Planning Registry, recent planning history traced to the site.

- 16/505 - for change of use of existing Creche facility to domestic dwelling - Conditional
- 12/57 - to extend existing Child Care Facility by way of staff/toilet utility room - Conditional

## **Relevant statutory provisions**

### **Planning and Development Acts 2000 (as amended)**

#### **Section 2. -(1)**

"works" includes any act or operation of construction, excavation, demolition, extension, alteration, repair or renewal and, in relation to a protected structure or proposed protected structure, includes any act or operation involving the application or removal of plaster, paint, wallpaper, tiles or other material to or from the surfaces of the interior or exterior of a structure.

#### **Section 3. -(1)**

In this Act, "development" means, except where the context otherwise requires, the carrying out of any works on, in, over or under land or the making of any material change in the use of any structures or other land.

Section 4(1) of the Act defines certain types of development as being 'exempted development'. Of potential relevance is section 4(1)(h) which provides as follows:

*development consisting of the carrying out of works for the maintenance, improvement or other alteration of any structure, being works which affect only the interior of the structure or which do not materially affect the external appearance of the structure so as to render the appearance inconsistent with the character of the structure or of neighbouring structures;*

Section 4 (2) of the Planning and Development Act provides that the Minister, by regulations, provide for any class of development to be exempted development. The principal regulations made under this provision are the Planning and Development Regulations.

### **Planning and Development Regulations, 2001 as amended**

#### **Article 6 (1)**

Subject to article 9, development of a class specified in column 1 of Part 3 of Schedule 2 shall be exempted development for the purposes of the Act, provided that such development complies with the conditions and limitations specified in column 2 of the said Part 3 opposite the mention of that class in the said column 1.

Article 9 (1) applies:

Development to which article 6 relates shall not be exempted development for the purposes of the Act

viiB) comprise development in relation to which a planning authority or an Bord Pleanála is the competent authority in relation to appropriate assessment and the development would require an appropriate assessment because it would be likely to have a significant effect on the integrity of a European site,

**Initial Planning Assessment:**

Following a review of the documents submitted and site inspection there are varies elements of the proposed works that require further information such as the proposed solar panels and heat pump, external insulation and finish to render, material and style of proposed windows and doors.

Accordingly, a further Information request will be made in this regard.

**Recommendation:**

Please provide the below information:

- Provide a data sheet/specification of the proposed heat pump.
- Provide a data sheet/specification of the proposed solar panels.
- Provide a data sheet/specification of the proposed external insulation and render system detailing the external finish to the dwelling.
- Provide further information in relation to the replacement windows and doors detailing the proposed material and style.

Signed:



Date: 16<sup>th</sup> January 2025

Civil Technician

Signed:



Date: 16<sup>th</sup> January 2025

Senior Executive Planner













Comhairle Contae  
Ros Comáin  
Roscommon  
County Council



Paul Grennan,  
C/O Tuath Housing,  
37-42 James Place East,  
Dublin 2.

Date: 4<sup>th</sup> December 2024  
Planning Reference: DED 810

Re: Application for a Declaration under Section 5 of the Planning & Development Act 2000  
(as amended), regarding Exempted Development.

Development: Permission to remove door & porch roof on front elevation under the Planning &  
Development Act (Exempt Development) Regulations 2018 at 3 Galway Road,  
Roscommon Town, Co. Roscommon, F42 NW68.

\*\*\*\*\*

A Chara,

I wish to acknowledge receipt of your application which was received on the 29<sup>th</sup> November 2024, for a Declaration under Section 5 of the Planning & Development Act 2000 (as amended), regarding Exempted Development along with the appropriate fee in the sum of €80.00, Receipt No. L01/0/23177 dated 4<sup>th</sup> December 2024, receipt enclosed herewith.

**Note:** Please note your Planning Reference No. is **DED 810**  
This should be quoted in all correspondence and telephone queries.

Mise le meas,

  
Alan O'Connell  
Senior Executive Planner,  
Planning Department.

cc agent via email: Eamon Maguire  
[eamonmaguire@koresystem.com](mailto:eamonmaguire@koresystem.com)

Roscommon County Council  
Aras an Chontae  
Roscommon  
09066 37100

04/12/2024 11:52:39

Receipt No 1.01/0/231877

TUATH HOUSING ASSOCIATION  
C/O EAMON MAGUIRE  
CORE INSULATION  
THE GREEN, KILNALECK  
CO. CAVAN

EXEMPTED DEVELOPMENT

PLANNING APPLICATION FEES	80.00
GOODS	80.00
VAT Exempt/Non-vatable	
DED 810	

Total : 80.00 EUR

Tendered  
Credit/Debit Card 80.00  
2120

Change : 0.00

Issued By : Bernadine Duignan  
From : Central Cash Office

**Sharon Kelly**

---

**From:** Customer Service  
**Sent:** Friday 29 November 2024 10:43  
**To:** Planning Department  
**Subject:** FW: 3 Galway Road- section 5 planning application  
**Attachments:** 241129\_section 5 application.pdf; 50436881\_3152920\_471006\_a4\_PP\_1.pdf; 241129\_Roscommon\_01-existing elevations.pdf; 241129\_Roscommon\_02-proposed elevations.pdf; 241129\_Roscommon\_03-block plan.pdf; 241129\_Roscommon\_04-location plan.pdf

**From:** Eamon Maguire <eamonmaguire@koresystem.com>  
**Sent:** Friday 29 November 2024 10:22  
**To:** Customer Service <customerservice@roscommoncoco.ie>  
**Subject:** 3 Galway Road- section 5 planning application



To whom it may concern,

Please find attached section 5 planning application for **3 Galway Road, Roscommon Town, Co. Roscommon F42NW68**

Could you please contact me on [REDACTED], and I will pay €80 fee over the phone.

Thanks,  
Eamon

Eamon Maguire  
Façade Design Engineering Lead  
**KORE Insulation**  
The Green, Kilnaleck, Co. Cavan.  
T +353 49 430 9192  
[www.kore-system.com](http://www.kore-system.com)

**KORE**  
Build Better, Together.

Please note that I may be sending this email outside your working hours and I do not expect a response or action outside your own working hours



Comhairle Contae  
Ros Comáin  
Roscommon  
County Council



Áras an Chontae,  
Roscommon,  
Co. Roscommon.

Phone: (090) 6637100

Email: [planning@roscommoncoco.ie](mailto:planning@roscommoncoco.ie)

## **Roscommon County Council**

### **Application for a Declaration under Section 5 of the**

### **Planning & Development Act 2000 (as amended), regarding Exempted Development**

Name of Applicant(s)	Paul Grennan c/o Tuath Housing
Name of Agent	Eamon Maguire
Nature of Proposed Works	removal of a door & porch roof on front elevation
Location & Address of Subject Property to include, Eircode (where applicable), Townland & O.S No.	3 Galway Road, Roscommon Town, Co. Roscommon F42NW68 ITM 586841, 763015
Floor Area: a) Existing Structure b) Proposed Structure	a) 135m <sup>2</sup> b) n/a
Height above ground level:	n/a
Total area of private open space remaining after completion of this development	total area of private open space will remain unaltered after completion of the works
Roofing Material (Slates, Tiles, other) (Specify)	tiles

## Roscommon County Council

### Application for a Declaration under Section 5 of the



Proposed external walling (plaster, stonework, brick or other finish, giving colour)	rendered blockwork
Is proposed works located at front/rear/side of existing house.	front elevation to be altered
Has an application been made previously for this site	no
If yes give ref. number (include full details of existing extension, if any)	n/a
Existing use of land or structure	domestic dwelling
Proposed use of land or structure	domestic dwelling
Distance of proposed building line from edge of roadway	13m
Does the proposed development involve the provision of a piped water supply	n/a
Does the proposed development involve the provision of sanitary facilities	n/a

### Planning & Development Act 2000 (as amended), regarding Exempted Development

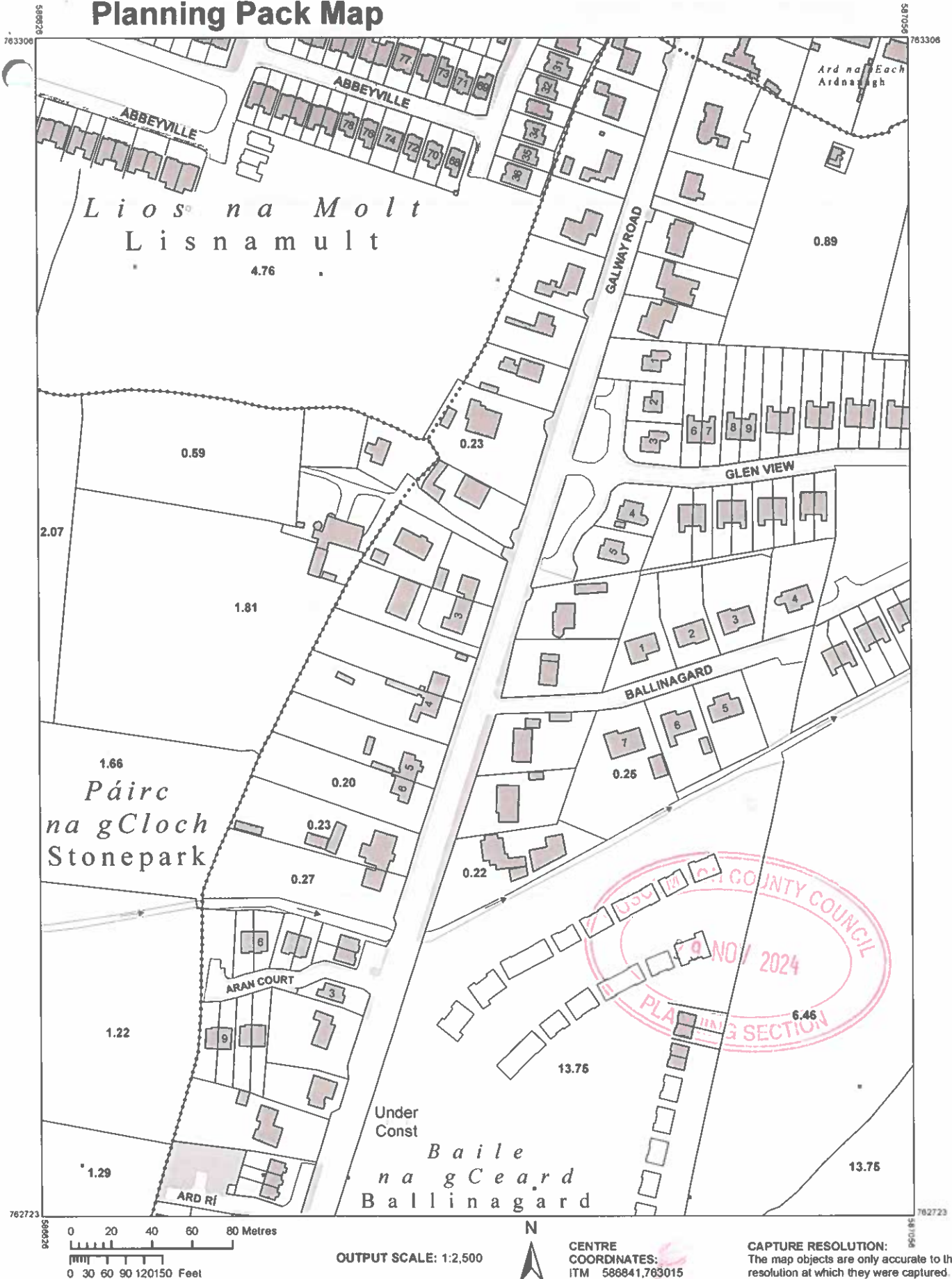
Signature: Eamon Maguire

Date: 29 Nov 2024

**Note:** This application must be accompanied by: -

- (a) €80 fee
- (b) Site Location map to a scale of 1:2500 clearly identifying the location
- (c) Site Layout plan to the scale of 1:500 indicating exact location of proposed development
- (d) Detailed specification of development proposed

# Planning Pack Map



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CENTRE  
COORDINATES:  
ITM 588841.783015

PUBLISHED:  
28/11/2024

MAP SERIES:  
1:1,000  
1:2,500

ORDER NO.:  
50436881\_1

MAP SHEETS:  
2550-14  
2550-D

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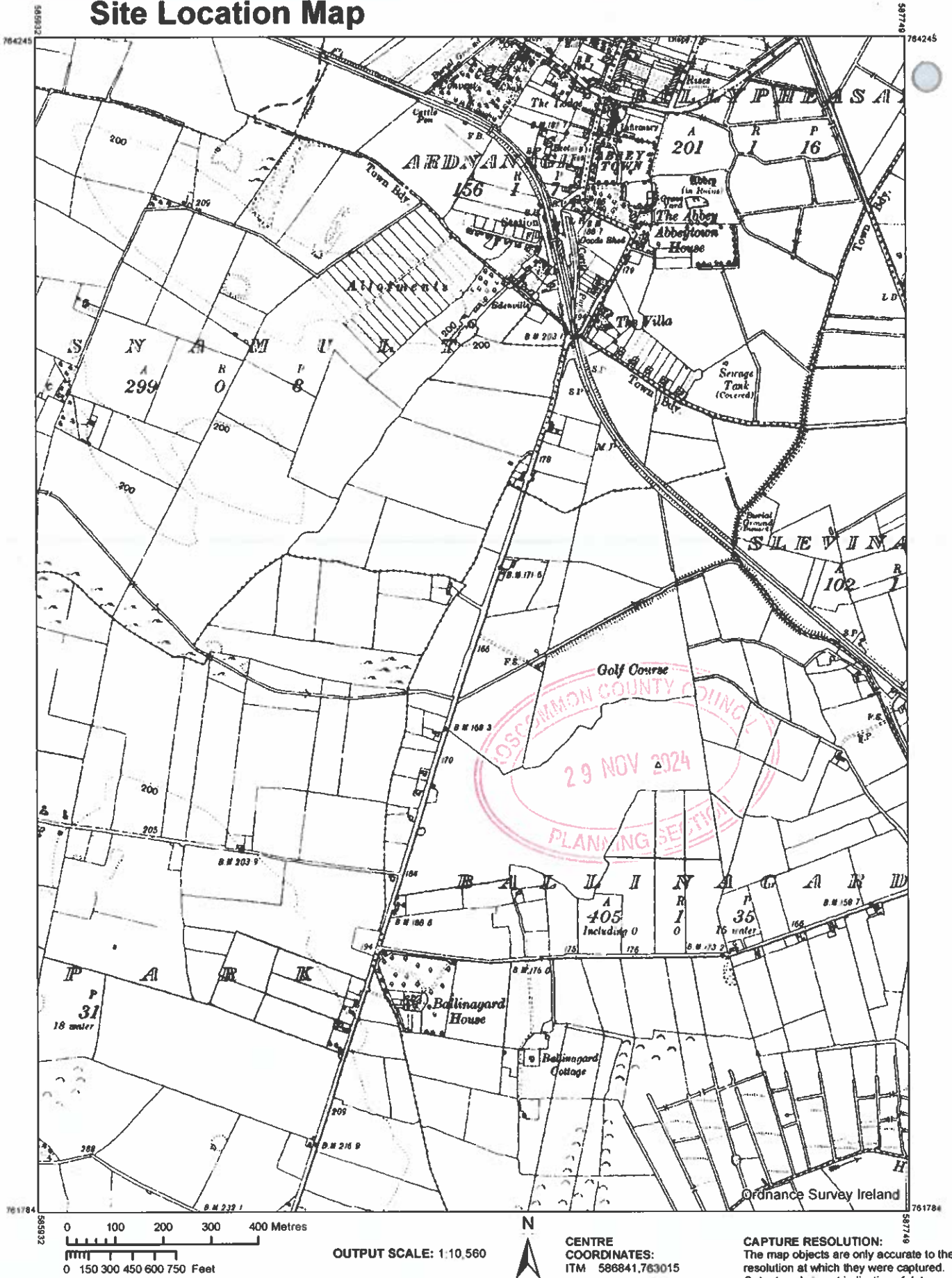
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# Site Location Map



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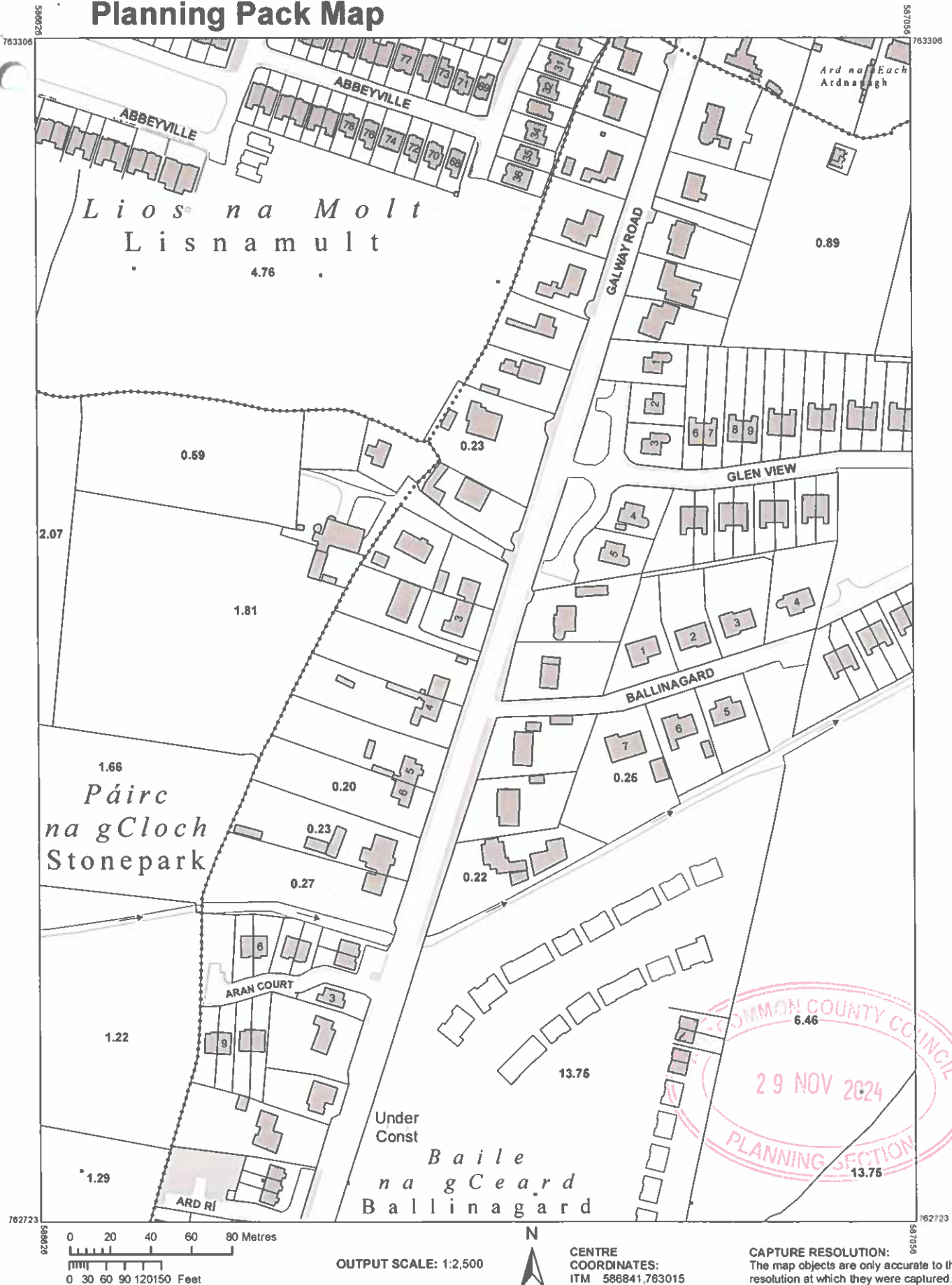
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# Planning Pack Map



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OUTPUT SCALE: 1:2,500

CENTRE COORDINATES:  
ITM 586841,763015

PUBLISHED:  
28/11/2024

MAP SERIES:  
1:1,000  
1:2,500

ORDER NO.:  
50436881\_1

MAP SHEETS:  
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[www.tailte.ie](http://www.tailte.ie)

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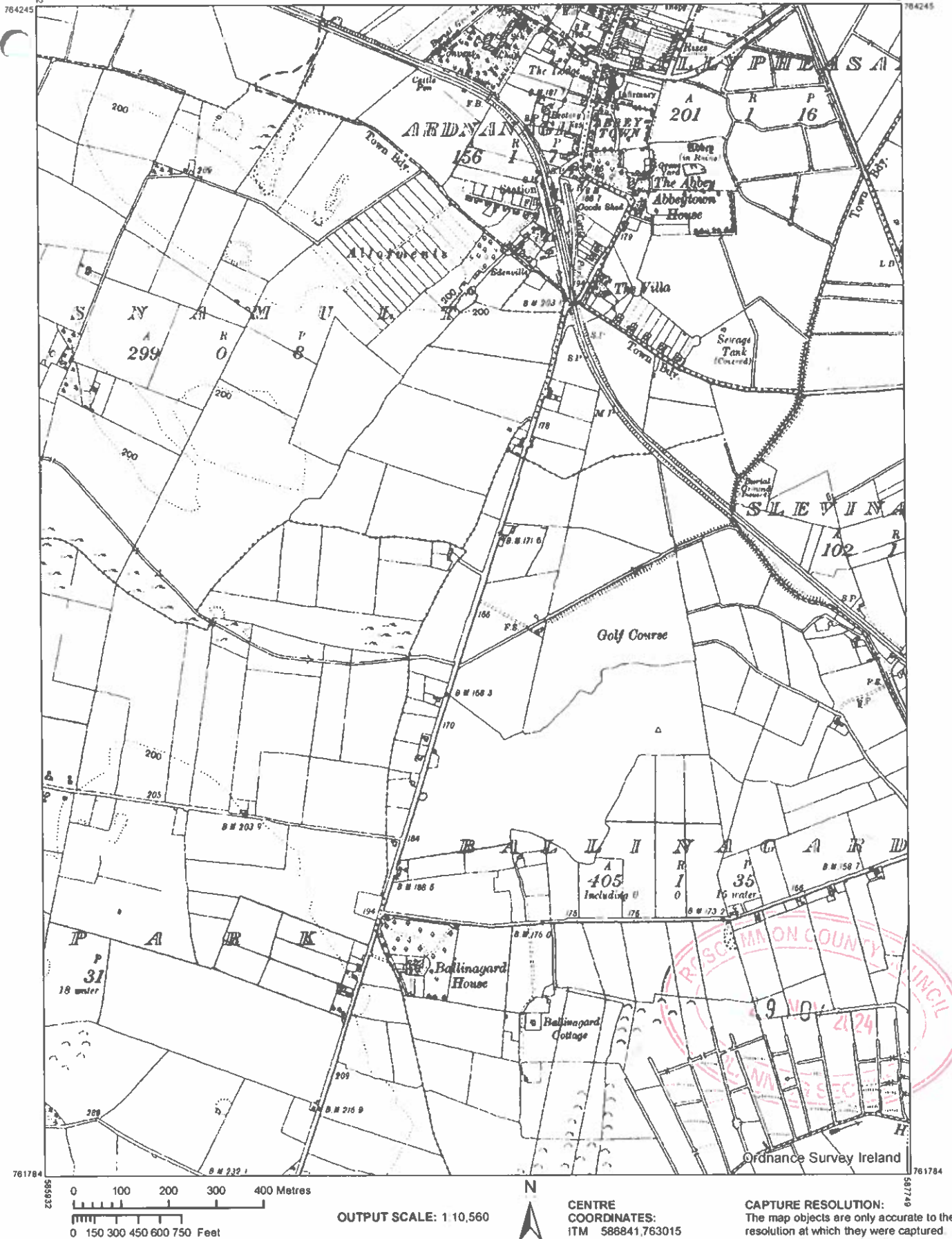
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# Site Location Map



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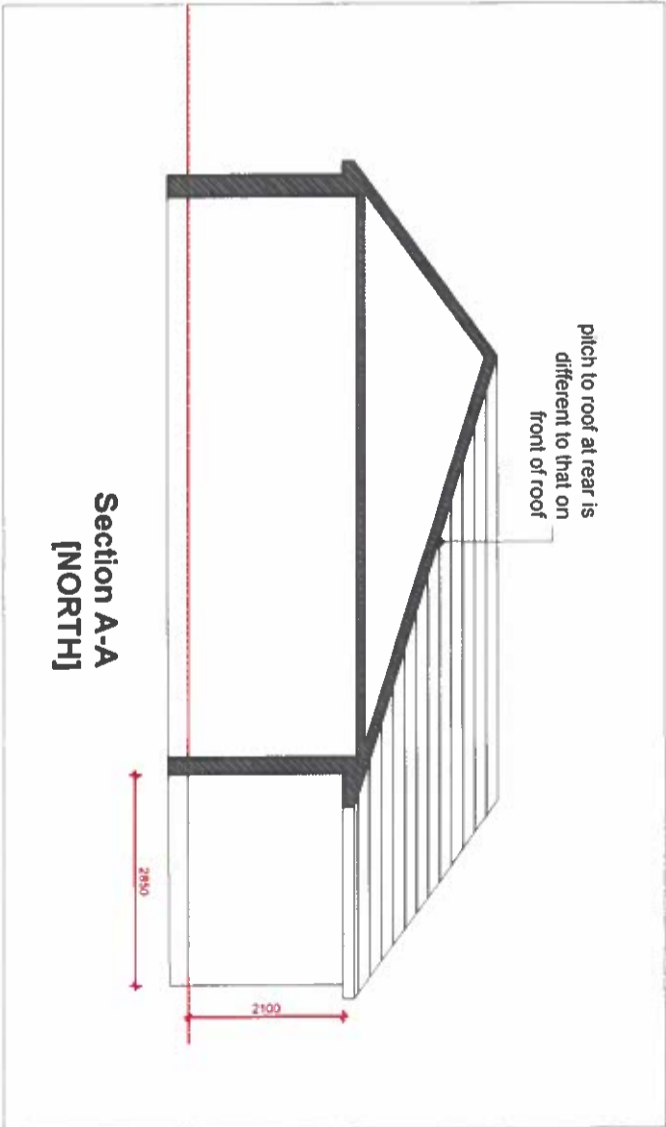
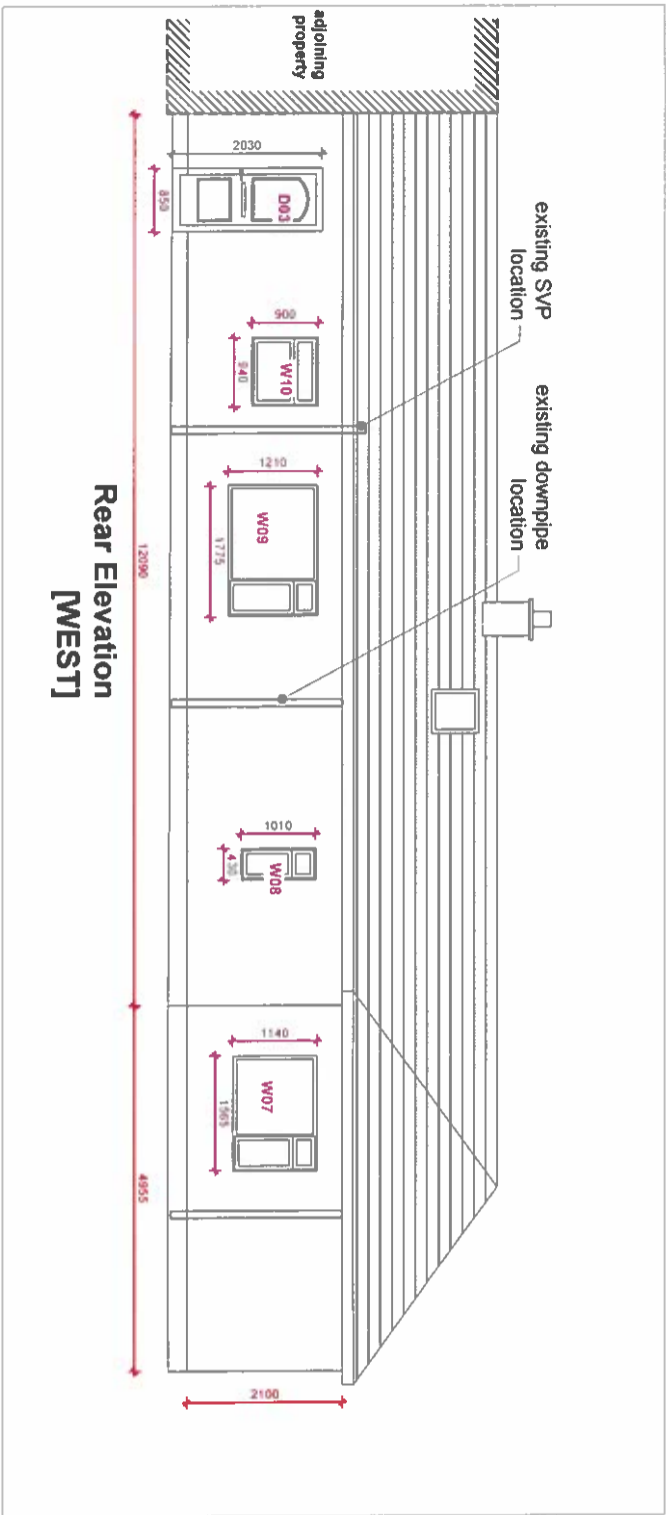
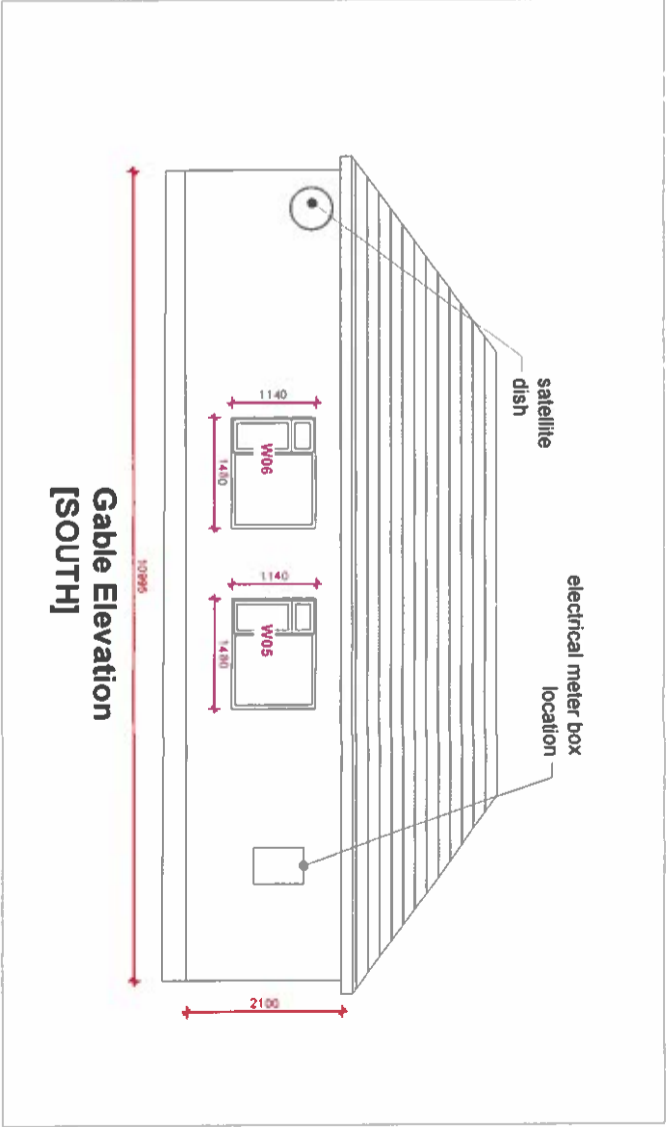
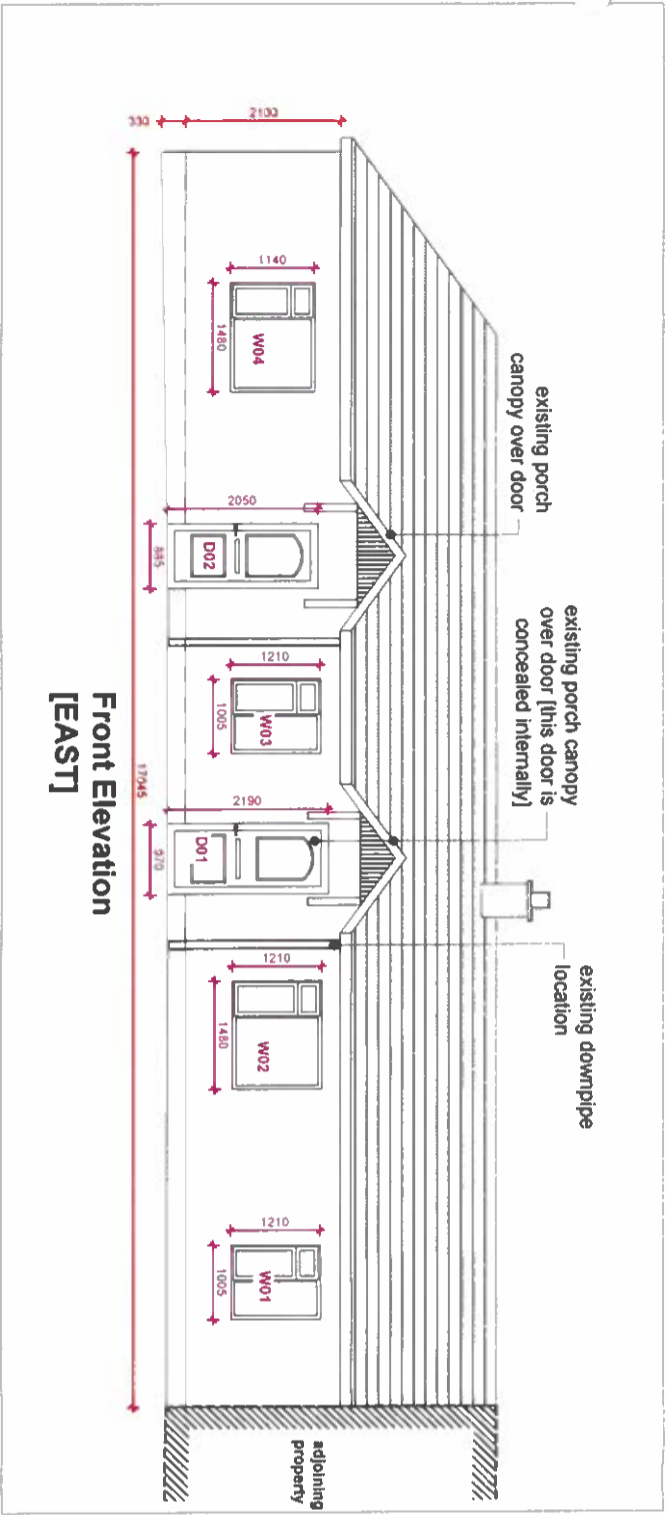
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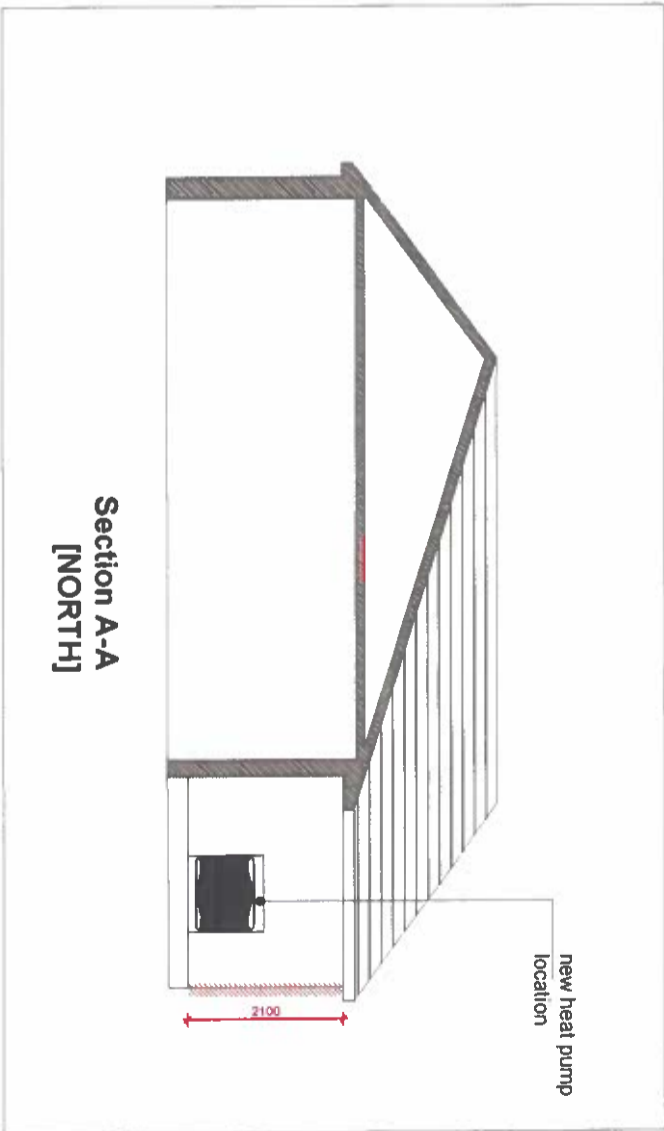
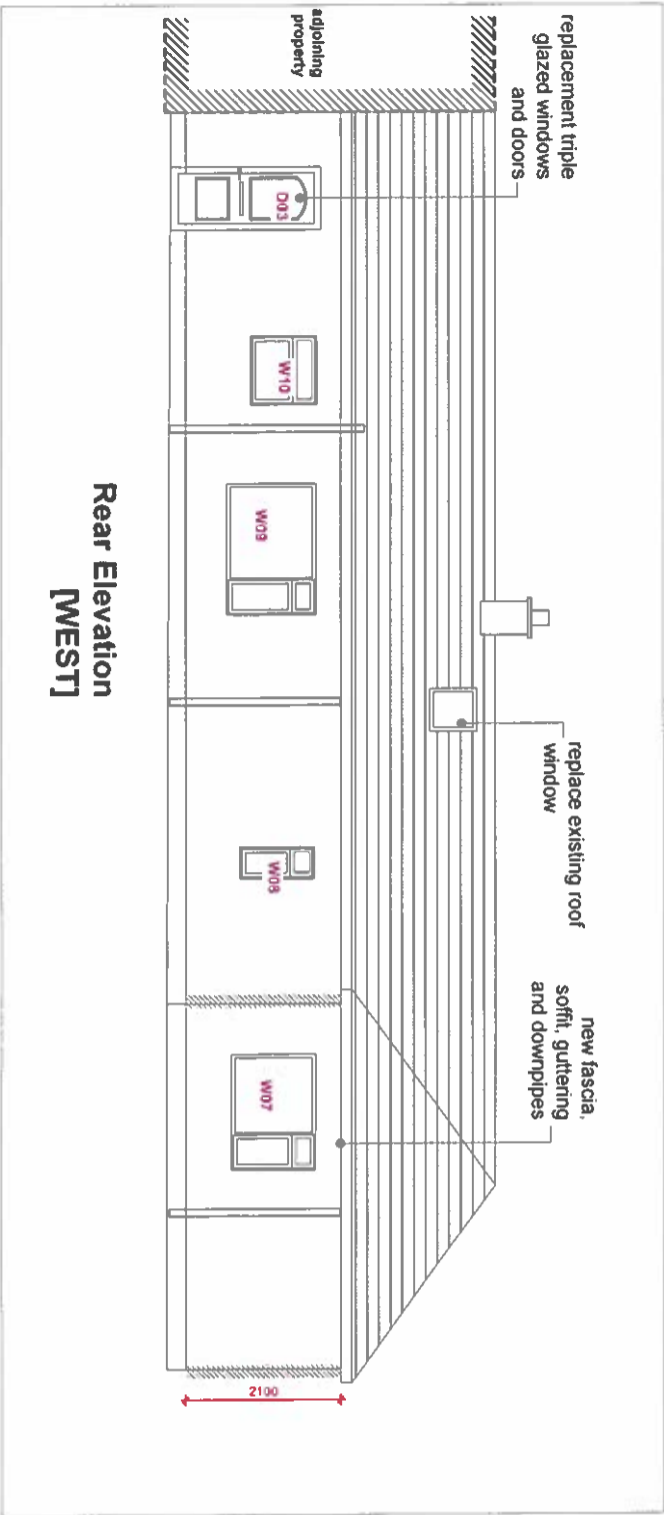
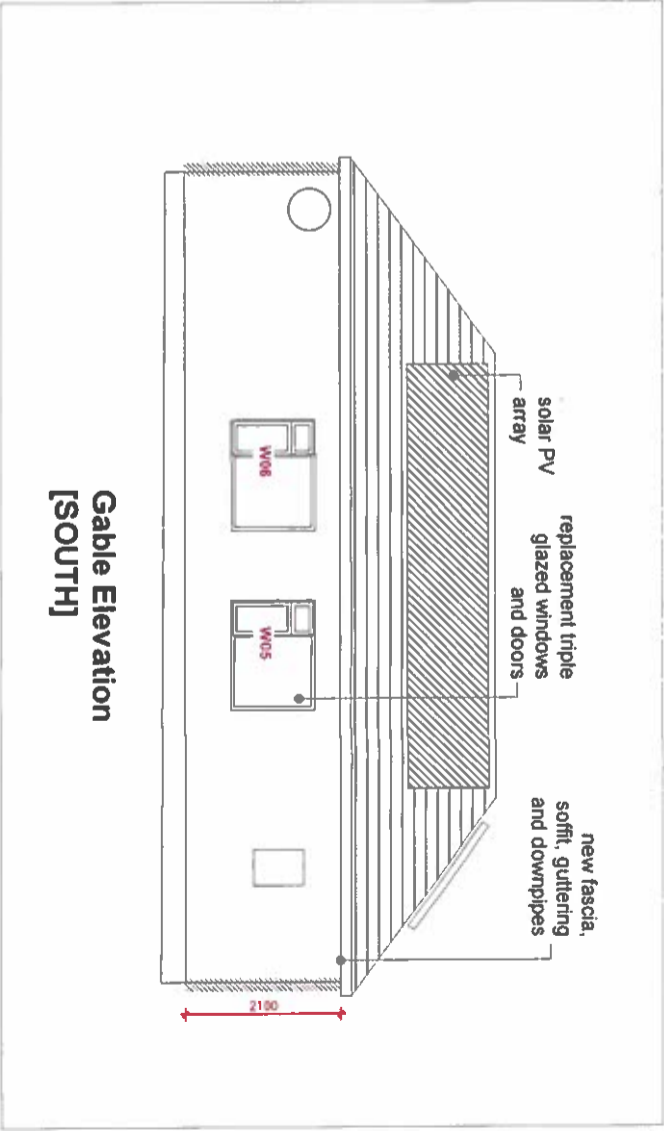
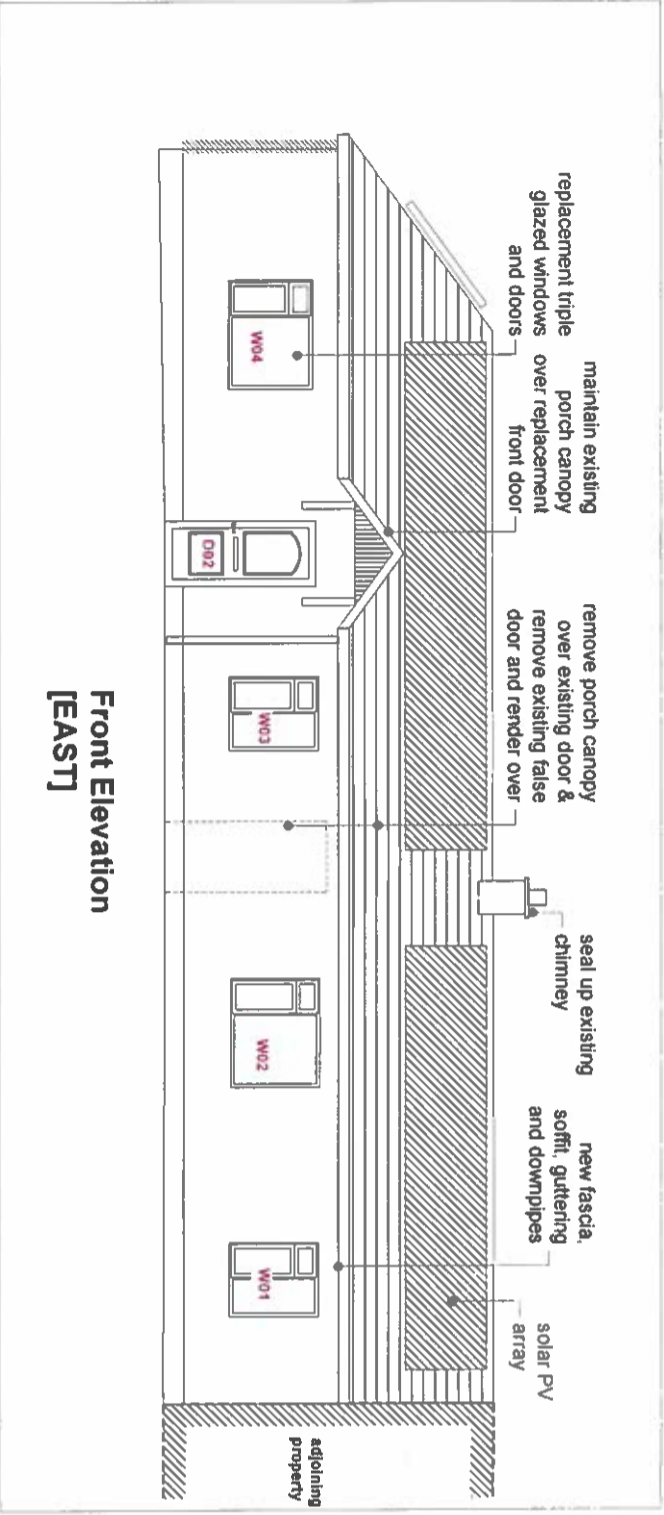
Project : 3 Galway Road, Roscommon, Co. Roscommon

Drawing Title: EXISTING ELEVATIONS & FLOOR PLAN

Drawn by: EM Checked by: PK Date: 31 Oct 2024

Drawing N°: 241128\_01 Rev: 0

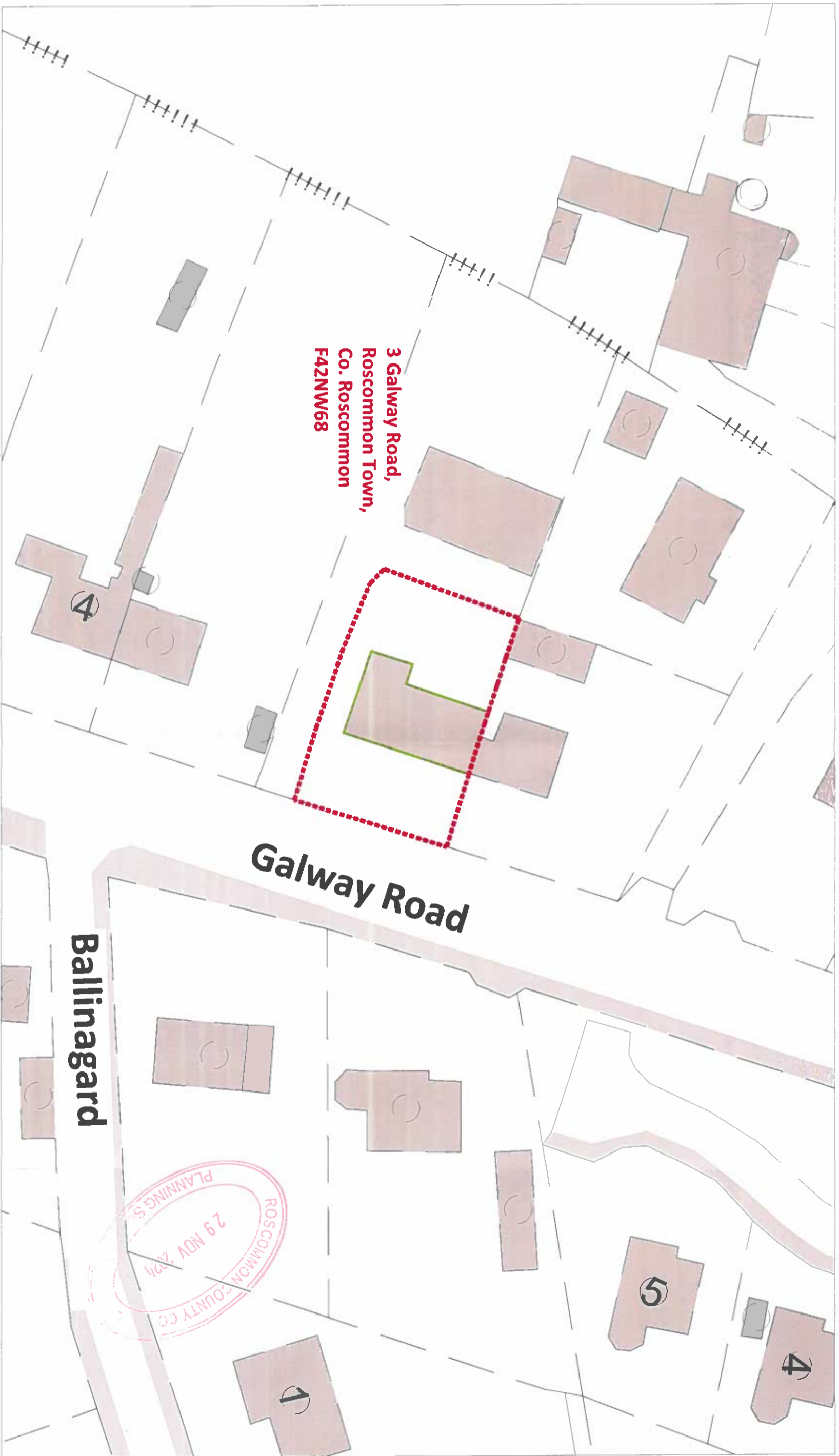
Scale: 1:100 @ A3 Drawn by: Eamon Maguire



- all elevations to existing dwelling to be upgraded:
1. external insulation and render system
  2. replacement windows and external doors
  3. new fascia, guttering, downpipes
  4. solar PV panels to front and gable elevations



Project : 3 Galway Road, Roscommon, Co. Roscommon			
Drawing Title: PROPOSED ELEVATIONS			
Drawn by: EM	Checked by: PK	Date: 31 Oct 2024	
Drawing N°.: 241128_02	Rev: 0		
Scale: 1:100 @ A3	Drawn by: Eamon Maguire		



3 Galway Road,  
Roscommon Town,  
Co. Roscommon  
F42NW68

Galway Road

Ballinagard



Project : 3 Galway Road, Roscommon, Co. Roscommon

Drawing Title: Block Plan

Drawn by: EM Checked by: PK Date: 31 Oct 2024

Drawing N°: 241128\_03 Rev: 0

Scale: 1:500 @ A3 Drawn by: Eamon Maguire