

## Certification and testing

The Rossway Safeway Roof Safety Protection system has been tested in accordance with strict criteria laid down by the H&SE. The system must be installed by suitably trained operatives and under test conditions has received the following certification.

Load Test: Proof load was applied in gradual increments  
Design Loading 1.5KN/m<sup>2</sup>

Impact Loading: Testing as detailed in Health and Safety  
Executive Specialist Inspectors Report  
SIR30 (Test included in BS6206, BS1105)

Test 1 - Impact loading of 45kg dropped  
from 1.2m height (energy level  
530 joules)

Result - Pass

Test 2 - For additional assurance in the  
load bearing capabilities the load  
of 45kg was dropped from twice  
the stipulated height of 1.2m to  
2.4m (energy level 1000 joules)

Result - Pass



## Materials and Quality Control

The Rossway Safeway System is constructed of extruded die cast aluminium. This ensures that the system is lightweight and of very high strength characteristics.

When exposed to weather at roof level the units are not prone to corrosion and the reliability of the system for such a safety critical operation is ensured.



### ROSSWAY SAFETY SYSTEMS

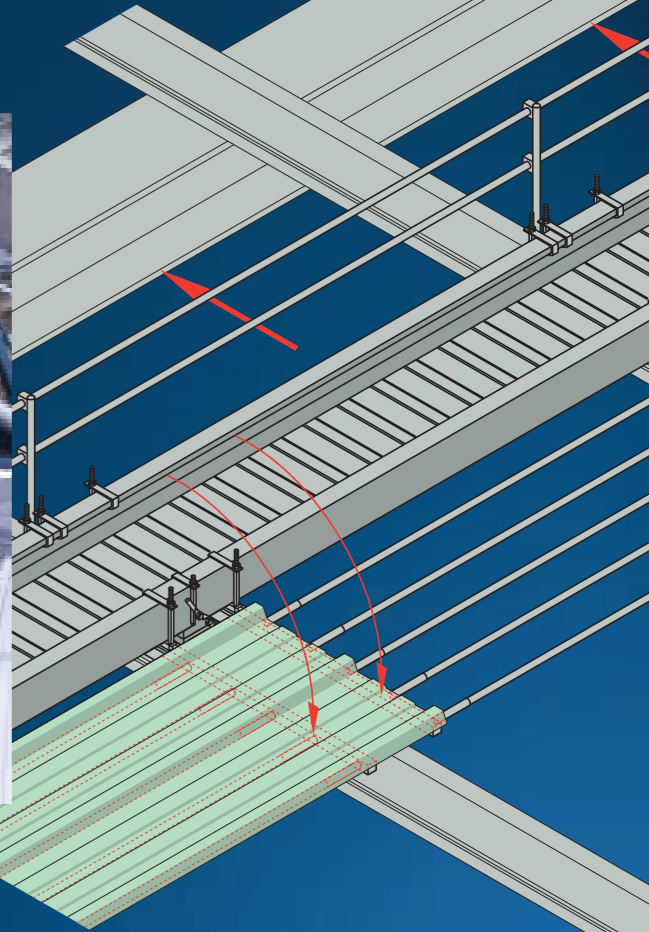
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# Rossway Safeway

## Roof Safety Protection System

The Rossway Safeway Roof Safety Protection System is a major breakthrough in providing safer roofing techniques. It gives the Designer confidence of a tried and tested installation system and ensures operatives are protected against falls when installing roof panels.



# Features of The Rossway Safeway Roof Safety Protection System

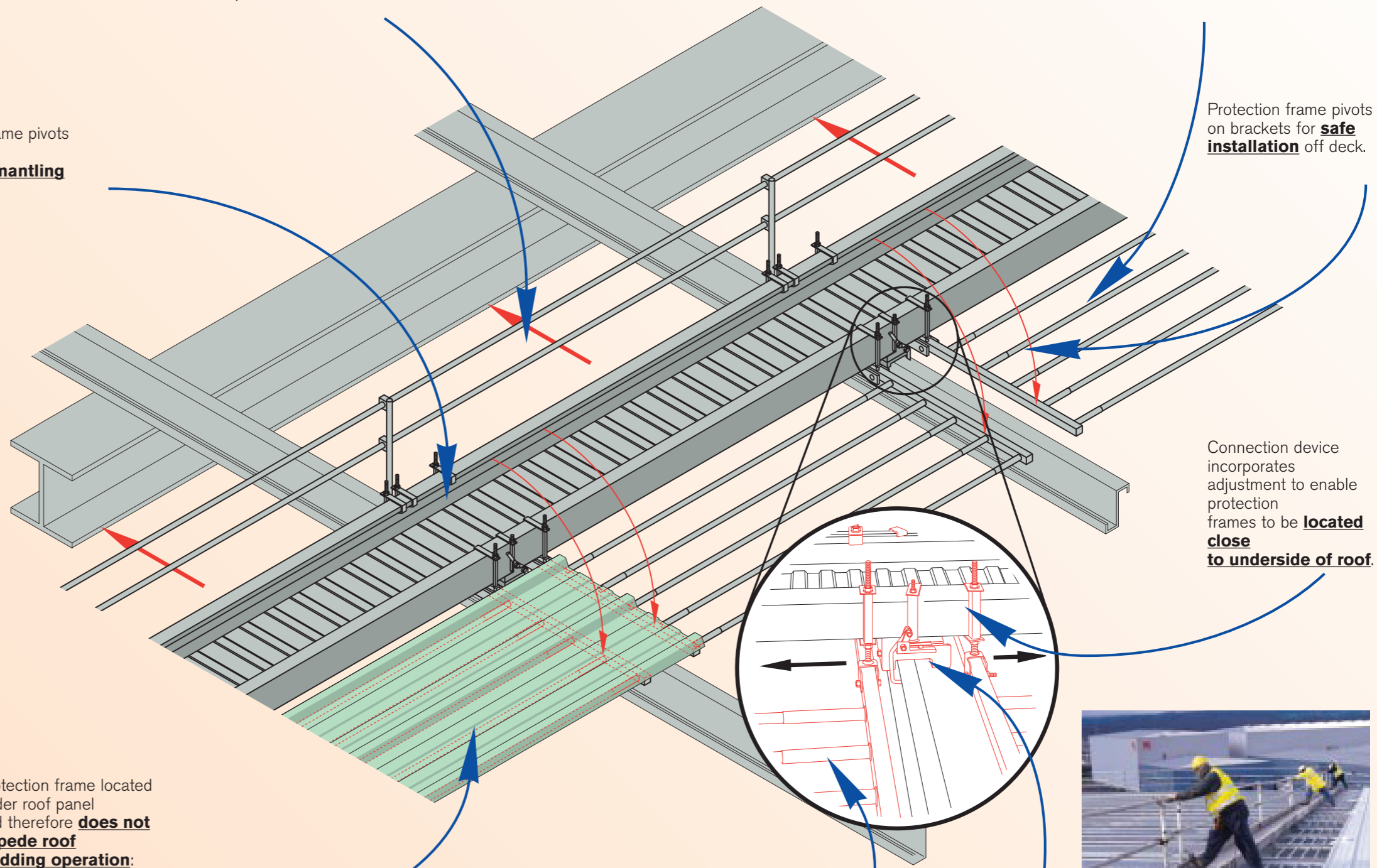
As the major supplier and installer of roofing products, Rossway Dowd Ltd have produced detailed guidance which illustrates practical solutions to eliminate or minimise risks involved in roofing operations. An appreciation of the installation process is required by all parties involved in the procurement and supervision of roof work. This brochure will assist in identifying the key issues to consider and illustrate that correct detailing, specification and installation techniques will play a major role in reducing safety risks in an operation which is potentially the highest risk construction activity, roof work.

Safety, system is **safe and easy to move** along purlins on trolley system with safe access from the platform deck.

protection frames manufactured from extruded aluminium are **strong lightweight and durable**.

Protection frame pivots on brackets for **safe dismantling** off deck.

Protection frame pivots on brackets for **safe installation** off deck.



Connection device incorporates adjustment to enable protection frames to be **located close to underside of roof**.

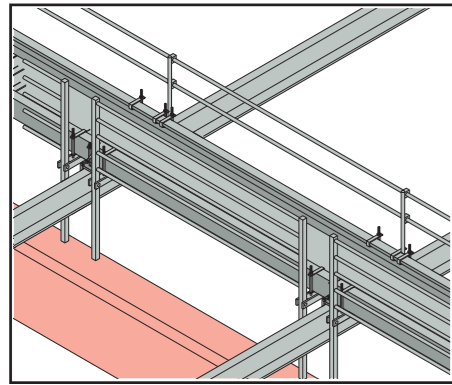
Protection frame located under roof panel and therefore **does not impede roof cladding operation**: offers fall protection to operatives working on roof and on deck.

Adjustment of protection frames to **accommodate varying roof purlin centres**.

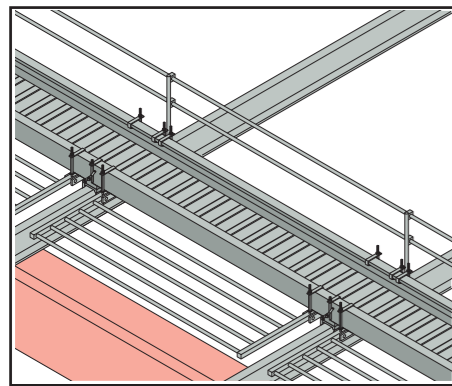
Purlin trolley system enables **ease of movement** along purlins



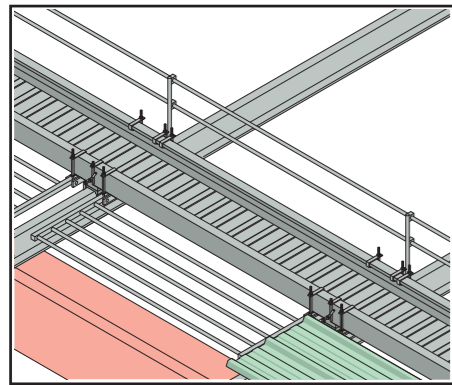
# Installation of Roof Panels with the Rossway Safeway Roof Protection System



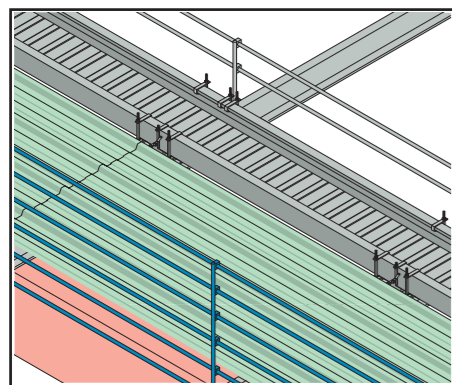
**1** The platform deck with integral double handrail is installed on trolleys running on roof purlins. Trolleys must be located at maximum 4 meter spacings along deck length. Working edge protection installed using deck with handrail for access.



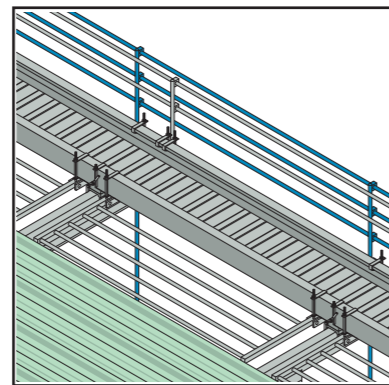
**2** Working edge protection framework pivots or bracket & frame moves from vertical to horizontal position just below top or roof purlins.



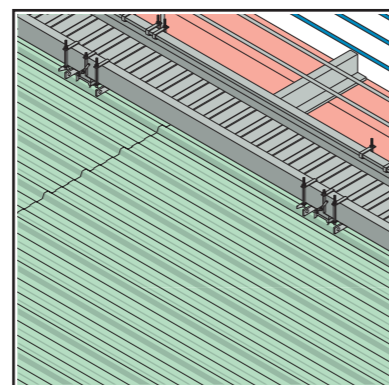
**3** Roof work can now safely proceed using deck with handrail for access at leading edge & Rossway Safeway at working edge



**4** Panels are installed from eaves to ridge in tier width to full slope length.



**5** Subsequent panels are installed from eaves to ridge until end of building is reached and panels are covering framework.



**6** To install the final tier the working edge safety protection device is removed by pivoting on the brackets. The platform deck and handrail is then moved onto the completed roof construction and the final roof tier installed



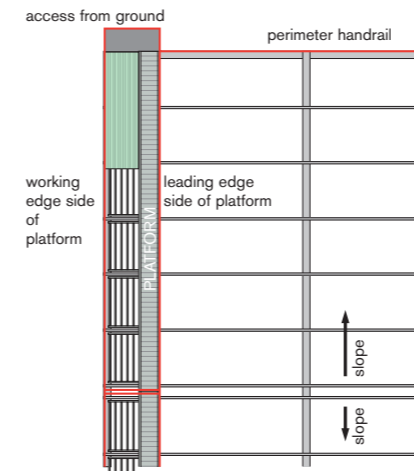
# Loading Materials to Roof Level

To achieve a safe system of work it is necessary to plan all activities prior to undertaking them. The loading of material from ground to roof level is an important activity and thorough consideration must be given to:

- The location of material loaded on to the framework – will this affect the manner in which work can be undertaken at roof level?
- The methods that will be used to load these materials at roof level – safe access will be required at roof level for operatives at roof level to guide and land materials.

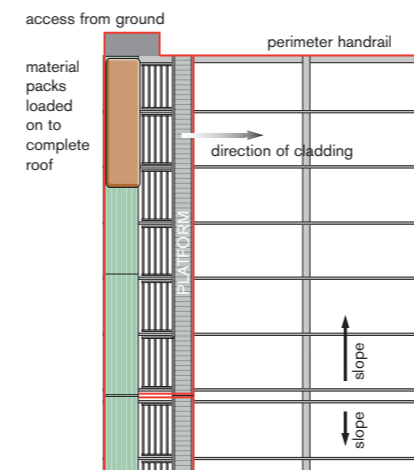
- When located at roof level safe access will be required from material location to final fixing location. It is therefore important to ensure that the loading of materials on to the roof structure is always on the **Working Edge** not the **Leading Edge** side of the platform deck. This ensures materials are always **back loaded** onto the roof covering not **forward loaded** over open structural steelwork. If the materials are incorrectly placed on the leading edge side, safe access from the material location to the working position is not provided.

Furthermore if the materials are loaded incorrectly, either the decks will need to be dismantled or the materials moved on the roof level incurring unnecessary additional risk. The correct loading sequence is indicated with the aid of a diagram of a typical simple portal frame construction as below:

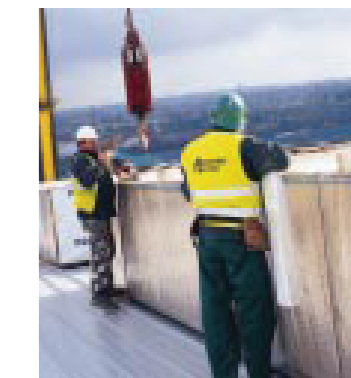
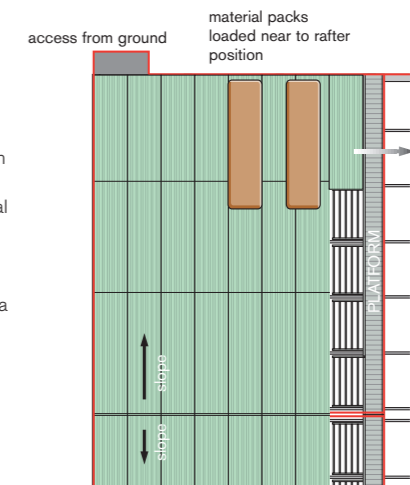


**1** In preparation for the roof loading operation the following works must be completed:

- Suitable access provided from ground to roof level for operatives at location indicated.
- Edge Protection to the perimeter of the building installed to be minimum double edge handrail and in accordance with Health and Safety Statutory Requirements.
- Rossway Safeway Roof Safety Protection System installed. The first tier of roof panels are then craned directly into position and laid from eaves to ridge.



**2** Materials can be loaded directly on to the first tier of roof panels, full fall protection is afforded to the operative whilst off loading this material at roof level. The Roof Safety Protection System is then moved in the direction of roof cladding by a distance of the tier width, usually 1 meter.



**3** The Rossway Safeway Roof Safety Protection System continues to be moved in tier width increments. Each roof tier is fully fixed before advancing to the next with material obtained from the **BACKLOADED** location on the completed roof area.

## Structural Frame

Coordination of all design elements is critical to ensure safety in construction. The SAFEWAY system consists of an aluminium deck on trolleys which are moved along the purlins. To one side of this deck, the leading edge, a double hand rail on posts is attached. To the other side of the deck, the working edge protection is underslung under the purlin zone created when moving the leading edge protection 1 metre being the panel tier width as indicated.

The structural frame must therefore meet the following requirements:

- As shown there must be a clear uninterrupted zone of a minimum 70mm between top of purlin and any anti sag rod system, tie wires or trimming framework.
- The purlins must be continuous over the rafters not between rafters.



## Adjustment between roof purlins

The Rossway Safeway Roof Safety Protection System has been designed to accommodate different purlin centres. The unique frame construction incorporates a sleeve arrangement and the intermediate roof purlins are altered to suit the purlin spacing. Once these are installed within the sleeve arrangement they offer strength rigidity to the working edge protection system.



## Using the Roof Safety Protection System

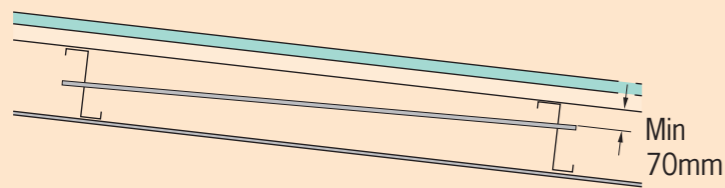
The sequence of installation outlined in this brochure is specific to certain criteria:- a single span partial frame. Where the criteria differ (i.e. multi-span portal frames) the same principals outlined will apply, however additional fall or edge protection may be required. The system provides protection to the panel tier width (generally 1 metre wide) during installation.

Therefore before the Rossway Safeway System is advanced to the next tier width the panels must be fully fixed to achieve a non fragile status. The stage at which each component of the roof construction becomes non fragile must be determined by direct consultation with the roof system manufacturer. This is of major importance in multi-part built-up construction including light gauge metal liner panels and in plain rooflight constructions.

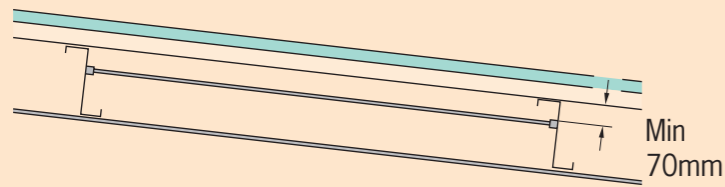


**Warning:** The system has been designed and tested as a fall protection device for emergency use only. It must not be used for operatives to gain access to work locations. Materials must not be stored on the system imposing any additional loads. If any damage occurs to the units they must be replaced immediately before any further roof work commences.

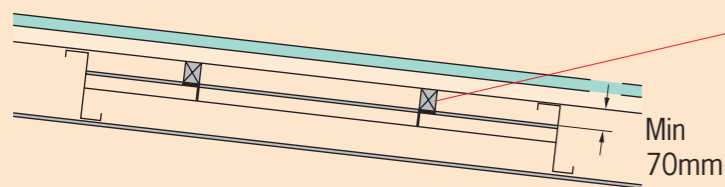
Specific steelwork requirements for the ROSSWAY SAFEWAY ROOF SAFETY PROTECTION SYSTEM.



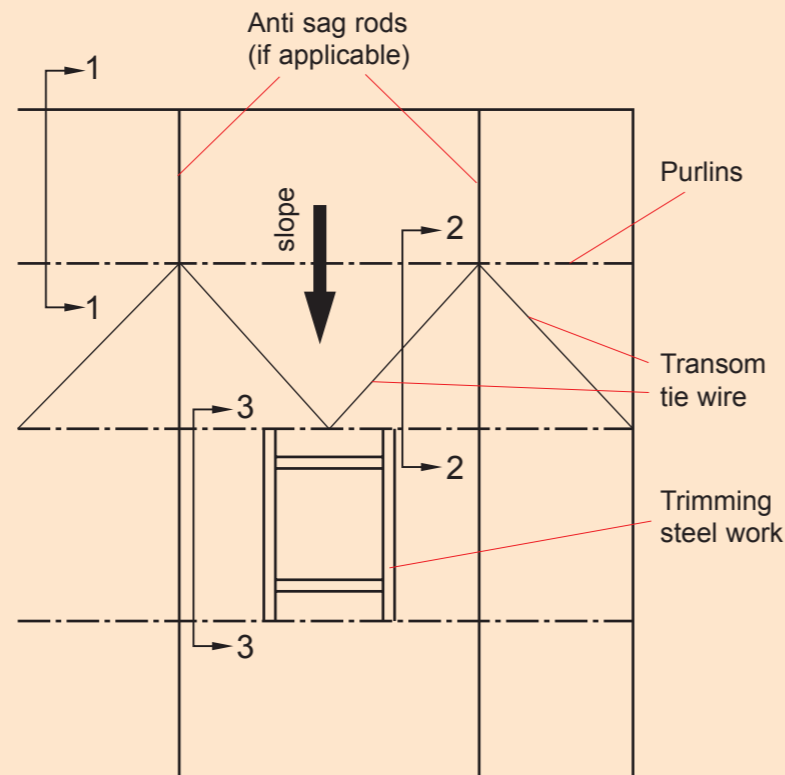
Section 1-1 Purlin anti sag rods



Section 2-2 Transom tie wire



Section 3-3 Trimming frame where trimmers are installed before roof



Indicative plan on steelwork at roof level

**Note:** Installation sequence (Trimming frames)

- Roof installed with trimming frames min. 70mm below top of purlin.
- Opening formed in roof.
- Pack fixed between trimmer and underside of roof.