

N25 ACCESS AND SAFETY EQUIPMENT SPECIFICATION CLAUSES

Free Standing Guardrail Systems

To be read with The Main Contract Preliminaries, General Conditions, Sub-Contract Preliminaries.

MINIMUM CONTRACTOR STANDARD

This equipment is highly specialised and the Tendering Sub-Contractor must provide the following information with the Tender – failure to provide this information will disqualify the Tenderer;

- Evidence of sub contractor's **Professional Indemnity Insurance**, €6.5 million minimum. Professional Indemnity Insurance provided by third parties will not suffice.
- Evidence of **ISO9001 & OHSAS 18001** Quality Systems Accreditation.
- The name of the **Health & Safety Manager** within the organisation and evidence of qualifications.
- Confirmation that the Tendering company has been in the fall prevention industry for at least 10 years.

On request of the architect / design team the Tenderer must forward confirmation of the following:

- Employers Liability Insurance to €13m.
- Public Liability Insurance to €13m.
- Products Liability Insurance to €13m.
- Appropriate Professional Indemnity Insurance to €6.5m as above.
- Three years audited accounts.
- Membership of CIRI
- Membership of Irish Health and Safety associations like NISO, ISHA etc.
- Membership of an Irish based Trade Union.
- Membership of the CFOPS pension / CIF sick pay scheme.
- Names of the proposed installation crew and proof that they are trained as banksmen and have training in Work at Height, particularly Rescue from Height.
- Name of company Safety Representative along with copies of their

certification / qualifications.

- Name and qualifications of the company's FETAC Level 6 Trainer on staff to undertake handover training.
- Names of three projects of equal size completed in Ireland in the last 3 years along with contact names and numbers for reference checks.
- Contact names and telephone numbers for the facilities manager in charge of each of the above three projects, (to check that on-going maintenance contracts are in place and that the installations are fit-for-purpose).

4.01 Reference Documents

The schedule of references is not exhaustive and shall also be supplemented by those listed under each related work section. Note that where a standard comprises a number of parts, the latest issues and amendments of each part shall apply.

The Sub-contractor must comply with all relevant standards, etc. at the time of supply.

EN and B.S. Documents Referred to in this Section Include:

EN13374;	Class A; Temporary Edge Protection Systems – Product Specification, Test Methods.
EN 1993-Eurocode 3	Design of steel structures.
BS729	Hot Dip Galvanise Coatings on Iron and Steel Structures.
EN 1991-1-4	Actions on Structures – Part1-4: General Actions – Wind Actions

HSA documents referred to in work section N25 are:

Health, Safety and Welfare at Work Act 2005 and Regulations as follows;

- Construction Regulations 2013
- General Applications Regulations 2007; Part 4 Working at Height.

4.02 RELATED WORK SECTIONS

X20: Fixings/adhesives

TYPE(S) OF SYSTEM/EQUIPMENT

210 FREE STANDING GUARDRAIL SYSTEM FOR: ROOF AREAS UP TO 10 DEGREE SLOPE

- Drawing reference(s) see Architect's drawing # _____.
- Manufacturer Skyway Safe Access Equipment +353 469241771
- Free standing system raked to 65 degrees, no penetrations allowed through the roof membrane.
- Anchorage device: Recycled polymer counterweights 25kg.
- Front foot: Recycled polymer unit attached to the support leg.
- Overall system length: as per drawing.
- Top rail 1100mm high with mid rail at 550mm high.
- All materials must be Galvanised Mild Steel.
- Support spacing: 2.5m maximum.
- Accessories/other requirements: as subcontractors design.
- System to be installed in accordance with the EN13374 (Class A) by the system manufacturer or a contractor approved by the system manufacturer.
- System must be continuous at all corners and changes of direction or elevation.

215 DESIGN / LAYOUT OF SYSTEMS:

- The Tenderer's submission must allow for 100% safe access to all roof areas unless strictly specified otherwise by the Client.
- The Tenderer must, if necessary, advise that equipment is required in areas where the architect or design team may have missed potentially hazardous areas.
- Furthermore, the Tenderer must highlight on a drawing or in writing any areas of the roof that are not covered by the Tenderer's design with a reason why these areas are not included.

- AutoCAD Drawings must be submitted to the design team for approval. However, note that the architect is not an approving authority. The architect may comment on drawings as submitted for approval but it remains the responsibility of the Tenderer to meet the design requirements of all Health & Safety Regulations and Standards as listed above.

310 INFORMATION TO BE PROVIDED WITH TENDER

Submit the following:

- General arrangements drawing(s) at suitable scales showing the proposed layout of access/safety equipment.
- Proposed details of all necessary fixings and abutments with the building fabric.
- Location, direction and magnitude of all significant loads imposed on the building structure/fabric by the equipment.
- Schedule of builder's work, with drawings as necessary, showing extent and details of all work associated with the installation for which the equipment manufacturer/supplier is not contractually responsible.
- Schedule of special provisions and special attendances by others.
- Confirmation that 100% of the roof areas are covered – if this is not the case the reasons why must be highlighted. Refer to Clause 215 above. No extra work/variations will be entertained by the client/design team at a later stage.

320 INFORMATION TO BE PROVIDED AFTER ACCEPTANCE OF TENDER:

Detailed AutoCAD drawings to fully describe fabrication and installation as follows:

Drawing content:

- Contractor's name and contact number.
- If third party manufacturers are used provide their name along with model numbers of equipment proposed.
- General arrangement of the complete installation.
- Detailed description on how initial access to the roof is achieved.

- Restricted areas/ other areas not covered by the design and reasons why.
- Full Design Notes with design loads (as applied to the building), notes on use, installation and certification of the systems.

DESIGN/ PERFORMANCE REQUIREMENTS

420 WIND LOADING

- General: Design the access/ safety system to withstand specified wind loads with equipment in position of maximum exposure and in parked position.
- Wind loads: Severe.

430 FINISHING

- General: The equipment as installed must have no irregularities/ projections capable of inflicting personal injury.
- Finished surfaces and edges of all accessible parts: Regular and smooth.

440 DESIGN LIFE/ MAINTENANCE PROGRAMME

- Design life of access/ safety system: Not less than 30 years.
- Schedule for maintenance and for replacement of components: Submit.

FABRICATION, ASSEMBLY AND INSTALLATION

510 FABRICATION AND ASSEMBLY GENERALLY

- Machine cutting, drilling and assembly: Carry out as much as possible in the workshop. Obtain approval for any reassembly on site.
- Dissimilar metal surfaces of assembly components/ supports/ fixings: Isolate to prevent electrolytic or bi-metallic corrosion.

520 PROTECTION

- General: Do not deliver to site any components or assemblies that cannot be installed immediately or unloaded into a suitable well protected storage area.

530 SUITABILITY OF STRUCTURE/ FABRIC

- Visual, geometric and structural survey of supporting structure and fabric: Carry out before commencing installation of access/ safety system. Report immediately if structure/ fabric will not allow required accuracy or structural adequacy or security of fixing.

540 MECHANICAL FIXINGS (Wall connections at rail ends etc.)

- Materials: Unless otherwise recommended by equipment manufacturer:
 - Connecting bolts and other fixings fully accessible for inspection: Mild steel hot dip galvanized to BS 7371-6.
 - Nuts: Tapped after galvanizing.
 - Cast-in anchors and other fixings not accessible for routine inspection: Zinc plated or austenitic stainless steel, grade 1.4401 (316) to BS EN 10088-1.

560 FIXINGS FOR SECURING EQUIPMENT

- Adjustment capability: Adequate three dimensional adjustments to accommodate building structure/ fabric irregularities.

570 FIXING ANCHOR INSTALLATION

- Site drilling or cutting into structure/ fabric: Permitted only in approved locations.
- Distance between all fixing devices and edges of supporting material: Not less than recommended by fixing manufacturer.
- No penetrations of the roof membrane is allowed.

610 IDENTIFICATION AND REGISTRATION LABELS FOR FREE STANDING GUARDRAIL SYSTEMS

- Provision: Provide and fix to each piece of equipment a permanent label giving:
 - Manufacturer's name, address and telephone number.
 - Name and/ or reference code of installation/project.
 - Name of certifying engineer and date of certification.
 - Indicate restriction of use by pictogram or other suitable marking.
 - Any other special features or restrictions.
- Location: In positions such that labels can be easily read.
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810 SERVICE/ MAINTENANCE OF SYSTEM

- General: Following acceptance of the completed installation, service and maintain the equipment for the period stated below as and at intervals recommended by the manufacturer. Such maintenance to include a 'call-out' service during normal working hours to maintain the equipment in an acceptable and safe condition.

- Service/ Maintenance period: As recommended by manufacturer but not more than 12 months between certification visits.

820 OPERATING INSTRUCTIONS

- Equipment and accessories: Where appropriate, mark in such a way that it is possible to identify the correct mode of operation for their safe use.

830 OPERATING AND MAINTENANCE MANUAL (SAFETY FILE)

- General: Before Completion provide, for inclusion in the Building Manual/Safety File, printed instructions and recommended procedures to be established by the Employer for operating and routinely maintaining the equipment. Provide diagrams where appropriate.
- Content:
 - As-built drawings as per clause 840 below.
 - Instructions for pre-use inspections.
 - Comprehensive operating/use instructions, including training required and safety/emergency procedures, if any.
 - Certificates showing that all equipment is certified to governing standards and is fit for use.
 - Servicing and planned maintenance procedures, including assembly instructions where maintenance necessitates dismantling of parts.
 - List of replacement parts, with references if necessary.
 - Recommended procedures for recertifying equipment.

840 AS BUILT DRAWINGS

- General: After commissioning/testing of the equipment and before Completion provide As-Built drawings for inclusion in the Safety File - Number of sets: 2.

Drawing content:

- Contractor's name and contact number.
- Date of Certification/As-Built.
- Equipment Manufacturer's name, model and type numbers.

- General arrangement of the complete installation.
- Detailed description on how initial access to the roof is achieved.
- Restricted areas/ other areas not covered by the design.
- Full Design Notes with design loads (as applied to the building), notes on use, installation and certification of the systems.

End of Section