

Proposal to develop an apprenticeship standard

L3: Curtain Walling Installer

Title of occupation

Curtain Walling Installer

UOS reference number

ST0802

Core and options

No

Level of occupation

Level 3

Route

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Typical duration of apprenticeship

None

Target date for approval

31 March 2019

Resubmission

No

Occupational profile

This occupation is found in...

The Construction Sector. Curtain Walling is integral part of the building external envelope. Curtain walling installers work predominantly in the commercial market but there is a growing market for curtain wall screens on higher end residential projects. Usually manufactured from aluminium, it offers a lightweight framework which is fixed back to the building structure into which a range of infills can be inserted. These infill can be glass, panels window units, ventilation and acoustic elements. Systems are available using Timber and Steel. Installation can cover health, education, retail, commercial and leisure sectors and can range from simple single storey retail screens to multi storey, high rise office and residential developments. Manufacturers/Installers can range in size from small owner/manager businesses to large multi sited operations with turnover in excess of £20 million.

The broad purpose of the occupation is...

To install curtain wall systems to form all or part of the external envelope of a building. Curtain wall systems are structurally capable of spanning multiple floors. They can offer a continuous glazed façade covering the full height of the building. The installation process includes fixing of the primary system, securing the infill materials and applying all the perimeter abutment products following The Centre for Window and Cladding Technology (CWCT) guidelines and systems' manuals.

In their daily work, an employee in this occupation interacts with...

Other members of the installation team, (the nature of the product necessitates a minimum of 2 people and quite often larger teams of 4 or 6 personnel). Site managers and/or Installation managers. The Client, main contractor and/or architect. Design team members, other external envelope contractors, the system supplier and façade consultants. This is usually a site-based occupation and can involve working at extreme heights including the use of specialist access plant to handle and install the products. The installer may work directly for the system fabricator or work for a specialist installation company. The installers will travel to where the work/site is located. This can involve working away for a period of time and staying in local accommodation for the duration of the work programme. Working hours are generally between 7-8.00 am until 5-6.00 pm but may involve additional hours to maintain the project programme. Sometimes, depending on site access/usage during normal working hours, the installers may be required to work night shifts and weekend shifts.

An employee in this occupation will be responsible for...

Working with a team ensuring they have the correct access, tools, plant and materials to carry out the installation. This may involve different parts of the building being worked on at one time. They will be responsible for the setting out and fixing of the main grid work in accordance with the approved drawings and works instructions. They will normally work under an Installation Manager, Project Manager and/or Site Manager who will task them with different duties during the project programme. On smaller projects they may work unsupervised due to the simpler nature of the installation being carried out. The work may also include the fitting of doors and windows into the curtain wall grid. They will also be responsible for continued professional development achieving additional training/qualifications such as International Powered Access Federation (IPAF), Prefabricated Access Suppliers and Manufacturers Association (PASMA) which will allow them to perform high-level work.

Transferability

The Institute expects that being competent in the duties you have listed in this proposal will mean that an individual will be able to undertake the occupation in all relevant types of employer. Please outline the steps you have taken to ensure that this will be the case.

Once fully competent in the installation of curtain walling products the learner should have the skills to follow systems manuals or work instructions/specification in any curtain wall installation company large or small. They will have the skills and knowledge to work on a variety of systems which will allow them to work at a variety employers. The installation of curtain wall systems is a specialised area of the construction industry, the skills and behaviours involved will allow a fully competent person to work on almost any construction site.

Stand-alone occupation

Please confirm that the proposed apprenticeship relates to a stand-alone occupation and explain how it will fit in with any associated apprenticeship standards.

The installation of curtain wall systems is a specialised area in the construction industry. A fully competent person would have in depth knowledge of the processes involved in installing external envelopes. They would have specialised knowledge of building regulations that are

Proposal to develop an apprenticeship standard L3: Curtain Walling Installer (continued)

required when working on high risk buildings. They have the ability to work at heights that most construction workers would not work at. The overlap between Curtain walling and fenestration installation is minimal. Although they are both installing fenestration products. In fenestration installation the product will be installed in a prepared aperture, however in curtain walling they are installed into a frame. The knowledge of building regulations and legislations are a much more important requirement in curtain walling as you can have a larger effect on a lot more people. There are no current standards in development that would be an overlap with curtain wall installation.

Duty	Criteria for measuring performance	OTJ training (days)
Interpret drawings, specifications, risk assessments, method statements, programmes, systems manuals, regulations and standards. Ensure the product it is compliant with the specification regarding limitations e.g. fire resistant or acoustic.	<ul style="list-style-type: none"> ☐ Product specification meets the standards set out in the main project specification. ☐ All drawings have been checked and approved by the Architect. ☐ Method statements and risk assessments have been checked and accepted by the main contractor. 	6
Receive, unload, check, safely store and transport materials to site for installation following good handling practices and safe use of handling equipment/plant preventing injury or damage.	<ul style="list-style-type: none"> ☐ Ensure the checklists are fulfilled to required standard ☐ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☐ Compliance with manufacturers instructions when using handling equipment/plant 	8
Carry out visual checks on delivered materials for quality, complete delivery, and correct fabrication and machining.	<ul style="list-style-type: none"> ☐ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. ☐ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☐ Ensure compliance with specification and working drawings. 	8
Select the appropriate tools and equipment for work including access and safety equipment. Inspect all hand/power tools and lifting equipment/plant, where required, is in satisfactory condition to be used.	<ul style="list-style-type: none"> ☐ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. ☐ Work in accordance to all relevant regulations and legislations. ☐ Compliance with manufacturers instructions when using handling equipment/plant 	5
Inspect the site, ensuring relevant access, power and structure is available to allow the installation to start.	<ul style="list-style-type: none"> ☐ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☐ Work in accordance to all relevant regulations and legislations. ☐ Suitable powered access for ground conditions. 	4
Set out curtain walling including obtaining relevant grid lines and datum levels from main contractor and adjust for any irregularities. System may require temporary fixings prior to being lined, levelled and plumbed and final fixing taking place.	<ul style="list-style-type: none"> ☐ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☐ Work in accordance to all relevant regulations and legislations. ☐ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	5
Install grid work including mullions and transoms on vertical applications, purlins and rafters on sloped applications. Fix the gridwork to the structure in accordance with specifications and approved drawings making allowance for dissimilar materials and fire stops if required. Following system suppliers' recommendations and CWCT guidelines.	<ul style="list-style-type: none"> ☐ Work in accordance to all relevant regulations and legislations. ☐ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	7
Apply and seal air seal gaskets within the system and relevant sealing pieces and thermal breaks.	<ul style="list-style-type: none"> ☐ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	3

Duty	Criteria for measuring performance	OTJ training (days)
Conduct interim inspection of plumb line and level in accordance with specifications and systems manuals and carry out any remedial work required.	<ul style="list-style-type: none"> ☑ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	2
Apply relevant setting blocks/support pieces to ensure correct load transfer.	<ul style="list-style-type: none"> ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	4
Install infill materials and products using temporary pressure plate according to the systems☑ manual and CWCT guidelines.	<ul style="list-style-type: none"> ☑ Work in accordance to all relevant regulations and legislations. ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	7
Apply the perimeter closure products to head, cill and jambs of the screens to integrate with the adjacent trades prior to final periphery seal application. These may include pocket closers, balancer profiles, Ethylene Propylene Diene Monomer (EPDM) carriers and pressed metal closure profiles etc.	<ul style="list-style-type: none"> ☑ Work in accordance to all relevant regulations and legislations. ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	3
Secure the infills in place using appropriate methods e.g. toggles and/or pressure plates to the correct torque setting according to systems manuals.	<ul style="list-style-type: none"> ☑ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines 	3
Apply decorative face caps, gaskets or weather seals according to specification and systems manuals.	<ul style="list-style-type: none"> ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	3
Conduct interim and final inspections of the workmanship, ensuring drainage and ventilation is clear and functioning and the work is correct to specification and systems manuals.	<ul style="list-style-type: none"> ☑ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☑ Work in accordance to all relevant regulations and legislations. ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	7
Clean and handover to customer including main contractors, clients, architects, fabrication specialists, fa☑ade specialist.	<ul style="list-style-type: none"> ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	2
Complete any relevant documentation such as; sign off documents and/or handover documents for main contractors, site/product specific check lists, time sheets for additional works, and operation and maintenance manuals.	<ul style="list-style-type: none"> ☑ Work in accordance to all relevant regulations and legislations. ☑ Follow systems manuals, working drawings, company procedures, specifications and CWCT guidelines. 	4
Comply with commercial, contractual, environmental obligations and consumer awareness.	<ul style="list-style-type: none"> ☑ Compliance with health and safety, including manual handling and personal protective equipment (PPE) ☑ Work in accordance to all relevant regulations and legislations. 	5