

**QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY**

**Name and address of submitting body:**

**Construction Skill Development Council of India**

**Address:-** 204, Aashirwad Complex, D-1, Green Park, New Delhi - 110016

**Tel:** +91-11-46584466

**Name and contact details of individual dealing with the submission**

**Name:** Ms. Jancy Mathew

**Position in the organisation:** Head Standards and Research

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*Same as above*

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**List of documents submitted in support of the Qualifications File**

1. Career Map Of Interior & Exterior Finishes Occupation - Annexure 1
2. QP CON/Q1108- Annexure 2

## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Chargehand Façade Installer - QP CON/Q1108		
<b>Body/bodies which will assess candidates</b>	<ul style="list-style-type: none"> <li>• MCG</li> <li>• Star Projects</li> </ul>		
<b>Body/bodies which will award the certificate for the qualification.</b>	CSDCI		
<b>Body which will accredit providers to offer the qualification.</b>	CSDCI		
<b>Occupation(s) to which the qualification gives access</b>	Interior & Exterior Finishes		
<b>Proposed level of the qualification in the NSQF.</b>	4		
<b>Anticipated volume of training/learning required to complete the qualification.</b>	600 hrs		
<b>Entry requirements / recommendations.</b>	Preferably 8th standard		
<b>Progression from the qualification.</b>	Foreman Facade Installer L-5		
<b>Planned arrangements for RPL.</b>	Work is under progress		
<b>International Comparability</b>	Comparable with Australia Standard		
<b>Formal structure of the qualification</b>			
<b>Title of unit or other component</b> (include any identification code used)	<b>Mandatory/ Optional</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
CON/N1124: Read and interpret drawing specifications and carry out layout marking for façade installation works	Mandatory	136	4
CON/N1118: Install unitized curtain walls	Mandatory	160	4
CON/N1125: Fix Façade Installation for Sloped / Curved Glazing	Mandatory	160	4
CON/N8001: Work effectively in a team to deliver desired results at the workplace	Mandatory	48	4
CON/N8002: Plan and organize work to meet expected outcomes	Mandatory	48	4
CON/N9001: Work according to personal health, safety and environment protocol at construction site	Mandatory	48	4

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

1. QP CON/Q1108- Annexure 2

## SECTION 1

## ASSESSMENT

**Name of assessment body:**

If there will be more than one assessment body for this qualification, give details.

- MCG
- Star Projects

**Will the assessment body be responsible for RPL assessment?**

Give details of how RPL assessment for the qualification will be carried out and quality assured.

The RPL assessment will be carried out through screening, identifying the skills gaps, provide bridge training to cover the competency gap and then conduct final assessment of the candidates.

**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:**

Assessment is done through third parties who are affiliated to CSDCI as Assessment Body. Assessors are trained & certified by CSDCI through Training of Trainers program. The assessment involves two processes. The first process is gathering the evidence of the competency of individuals. The second part of the assessment process is the judgement as to whether a person is competent or not. The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- Where the assessment will take place i.e. context of the assessment (workplace/simulation)
- The criteria for decision making i.e. those aspects that will guide judgements and
- Where appropriate, any supplementary criteria used to make a judgement on the level of performance.

The assessment is conducted through theory, viva voce and practical.

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

**Not Applicable**

## ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as per the assessment criteria. Insert the required number of rows.

## CRITERIA FOR ASSESSMENT OF TRAINEES

### Chargehand Façade Installer

### CON/Q1108

### Construction Skill Development Council Of India

#### Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% individually in each NOS
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.
7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
9. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified timeframe set by SSC.
10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

		<b>Marks Allocation</b>			
<b>Assessable Outcome</b>	<b>Assessment criteria</b>	<b>Total Marks</b>	<b>Out Of</b>	<b>Theory</b>	<b>Practical Skills</b>
<b>CON/N1124: Read and interpret drawing specifications</b>	PC1. read and interpret the details from architectural drawings relevant to façade installations	<b>100</b>	9	2.7	6.3
	PC2. read and understand the scope of work including type of façade, brackets, anchors, insulations, vapour barrier, pressure equalization, smoking and fire barrier, secondary framing		9	2.7	6.3

**and carry out layout marking for façade installation works**

elements, operable vents etc			
PC3. read and understand manufacturer's specification regarding the elements of frame and panel and their installation	9	2.7	6.3
PC4. read and understand method statement and shop drawings for installation	9	2.7	6.3
PC5. check that structure is designed to accommodate wall panels and report any discrepancies to the superiors	9	2.7	6.3
PC6. carry out field measurements for wall framing members on exterior surface of structure	9	2.7	6.3
PC7. calculate corner panel width as per appropriate methodology	10	3	7
PC8. identify whether panels should be laid vertically or horizontally as per drawing requirements	9	2.7	6.3
PC9. prepare and mark a grid layout for installing the façade	9	2.7	6.3
PC10. provide markings for cutouts in panels			
PC11. maintain appropriate provisions for doors, windows, etc. as applicable to the facade	9	2.7	6.3
PC12. estimate type, shape and quantity of panels required to install the facade	9	2.7	6.3
	<b>Total</b>	<b>100</b>	<b>30</b>
			<b>70</b>
PC1. identify various components of unitized curtain wall system including hardware components for installation	8	1.6	6.4
PC2. check and ensure wall members are cut to appropriate length prior to installation	8	1.6	6.4
PC3. carry out assembling of glass and aluminum curtain wall as per applicability as yard	8	1.6	6.4
PC4. identify appropriate lifting device as per applicability	8	1.6	6.4
PC5. ensure appropriate lifting devices for lifting glass panels to various floors	8	1.6	6.4
PC6. install the prefabricated and assembled panels in shingle fashion, starting from the bottom of the building and going around each floor and up the building	10	2	8
PC7. fasten the panel using fasteners as per specifications	8	1.6	6.4
PC8. apply joint sealant as per specification	8	1.6	6.4
PC9. install different type of unitized curtain wall system as per applicability	10	2	8
PC10. ensure window and door openings are provided as per specification	8	1.6	6.4
PC11. attach pressure plates and cover as per applicability	9	1.8	7.2
PC12. ensure drainage track is free from debris	8	1.6	6.4

**CON/N1118:  
Install unitized  
curtain walls**

**100**

<b>CON/N1125: Fix Façade Installation for Sloped / Curved Glazing</b>		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
	PC1. read and interpret schematic drawings for façade installation	<b>100</b>	7	2.1	4.9
	PC2. read and understand method statement and scope of work for façade installation		7	2.1	4.9
	PC3. check that panels are of correct material and type, as per specifications, to handle moisture, sunlight and other elements		7	2.1	4.9
	PC4. check that panels are not damaged, and replace panels which are not fit for installation		7	2.1	4.9
	PC5. mark points as per the profile of the sloped /curved glazing for fixing façade on sloped/curved surfaces		7	2.1	4.9
	PC6. verify that a functioning weep system is present		7	2.1	4.9
	PC7. verify that openings for glazing are correctly sized and within tolerance		7	2.1	4.9
	PC8. install glass, sealants, gaskets and other glazing materials using the recommendations of manufacturers		8	2.4	5.6
	PC9. verify that insulating glass (IG) unit secondary seal is compatible with glazing sealants		7	2.1	4.9
	PC10. install setting blocks in rabbets as per requirements		7	2.1	4.9
	PC11. provide bite on glass, minimum edge and face clearances and glazing material tolerances as per requirements		7	2.1	4.9
	PC12. provide weep system as per drawing/requirements in the façade system		8	2.4	5.6
	PC13. set glass lights in each series with uniform pattern, draw, bow and similar characteristics		7	2.1	4.9
	PC14. check that the weight of the glass unit is distributed along the edge rather than at the corner		7	2.1	4.9
	<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>	
<b>CON/N8001: Work effectively in a team to deliver desired results at the workplace</b>	PC1. pass on work related information/ requirement clearly to the team members	<b>100</b>	7	2	5
	PC2. inform co-workers and superiors about any kind of deviations from work		7	2	5
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		10	3	7
	PC4. receive instructions clearly from superiors and respond effectively on same		7	2	5
	PC5. communicate to team members/subordinates for appropriate work technique and method		10	3	7
	PC6. seek clarification and advice as per requirement and applicability		7	2	5
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		27	8	19

	PC8. work together with co-workers in a synchronized manner		27	8	19
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>CON/N8002: Plan and organize work to meet expected outcomes</b>	PC1. understand clearly the targets and timelines set by superiors	<b>100</b>	7	2	5
	PC2. plan activities as per schedule and sequence		7	2	5
	PC3. provide guidance to the subordinates to obtain desired outcome		10	3	7
	PC4. plan housekeeping activities prior to and post completion of work		7	2	5
	PC5. list and arrange required resources prior to commencement of work		10	3	7
	PC6. select and employ correct tools, tackles and equipment for completion of desired work		10	3	7
	PC7. complete the work with allocated resources		10	3	7
	PC8. engage allocated manpower in an appropriate manner		10	3	7
	PC9. use resources in an optimum manner to avoid any unnecessary wastage		10	3	7
	PC10. employ tools, tackles and equipment with care to avoid damage to the same		7	2	5
	PC11. organize work output, materials used, tools and tackles deployed,		7	2	5
	PC12. processes adopted to be in line with the specified standards and instructions		7	2	5
			<b>Total</b>	<b>100</b>	<b>30</b>
<b>CON/N9001: Work according to personal health, safety and environment protocol at construction site</b>	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	<b>100</b>	7	2	5
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		7	2	5
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable		10	3	7
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		7	2	5
	PC5. identify near miss , unsafe condition and unsafe act		7	2	5
	PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including: <ul style="list-style-type: none"> <li>• Head Protection (Helmets)</li> <li>• Ear protection</li> <li>• Fall Protection</li> <li>• Foot Protection</li> <li>• Face and Eye Protection</li> <li>• Hand and Body Protection</li> <li>• Respiratory Protection (if required)</li> </ul>		10	3	7

PC7. handle all required tools, tackles , materials & equipment safely		7	2	5
PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines		7	2	5
PC9. install and apply properly all safety equipment as instructed		13	4	9
PC10. follow safety protocol and practices as laid down by site EHS department		13	4	9
PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes		7	2	5
PC12. apply ergonomic principles wherever required		7	2	5
	<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>



## SECTION 2

### EVIDENCE OF NEED

**What evidence is there that the qualification is needed?**

Please refer to the attached list of job roles and occupations identified in construction sector. These job roles have been derived through extensive industry interactions facilitated from 10 workshops and various site visits conducted and interaction with 500+representatives from different construction sector organizations all over the country.

**What is the estimated uptake of this qualification and what is the basis of this estimate?**

As per survey the incremental Manpower Gap between 2008 and 2022 found out to be 459000 under Interior & Exterior Finishes Occupation

**What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?**

QPs for Job Roles of various related SSC's were studied to ensure that there is no duplicity.

**What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?**

Standards department of CSDCI will do periodic review and monitor the industry feedbacks, Training Partners feedback on the qualification and will incorporate them appropriately at the designated revision time.

The revision of this qualification is scheduled after 2 years i.e. 23/08/2017

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. List of job roles

## SECTION 3

### SUMMARY EVIDENCE OF LEVEL

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

Generic NOS is/are linked to the overall authority attached to the job role.

**Chargehand Façade Installer QP CON/Q1108**

Process required	Professional Knowledge	Professional Skills	Core Skills	Responsibility	Level
<p>The job holder works with a clear choice to carry out execution of highly skilled work such as installation of sloped and curved glazing for facade installation on various structures in a familiar environment and carries out work which is predictable and routine in nature.</p> <p>The work includes reading and interpreting drawing specification, marking layout for facade installation, installation of unitised curtain wall system ,sloped/curved glazing for facade installation etc which require application of specialized skills.</p>	<p>Job holder is expected to have factual knowledge of methodology and complexity of works for carrying out various types of facade installation works such as installation of unitised curtain wall system and sloped/curved glazing system. This knowledge enables the job holder to optimise resources, materials and tools along with carrying out specialized facade installation works.</p>	<p>The job holder is expected to demonstrate and carry out routine and repetitive works such as carrying out installation of unitised curtain wall and sloped /curved glazing faced installation etc using appropriate tools by applying quality concept.</p> <p>The job holder recalls and demonstrates practical skills acquired over a period of time for carrying out specialized facade installation works using appropriate rules and tools.</p>	<p>The job holder is expected to communicate clearly and concisely to co-workers regarding plan and process of work to ensure that facade installation activities take place in a planned and synchronized manner. The job holder is expected to apply knowledge of reading, writing to read &amp; interpret specifications, standards and drawings for facade installation works, make notes, receive work targets, plan and decide the sequence of work. The job holder also applies basic arithmetic and geometry to calculate quantities of facade installation material for unitised curtain wall installation works .Also the job holder applies this knowledge of geometry to carry out sloped/curved glazing installation processes as per set procedures.</p>	<p>The job holder is responsible for own work and learning. The job holder is also responsible for the outcome of work ensuring completion of work as per desired quality and within agreed time schedule.</p> <p>The job holder is responsible for selecting appropriate material for facade installation, marking of layout for facade installation, checking and confirming type installation and achieving the desired slope/curve for glazing facade installation etc using techniques.</p> <p>The job holder enables own learning by carrying out specialized facade installation works using set procedures and standards.</p>	<p align="center">4</p>

Level 4	Level 4	Level 4	Level 4	Level 4	
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**OTHER EVIDENCE OF LEVEL** [This need only be filled in where evidence other than primary outcomes was used to allocate a level] (**Optional**)

Summary of other evidence (if used): **Not applicable.**

## SECTION 4

### EVIDENCE OF RECOGNITION OR PROGRESSION

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

Please refer to attached career path as per annexure 1 which clearly define the clear career path.

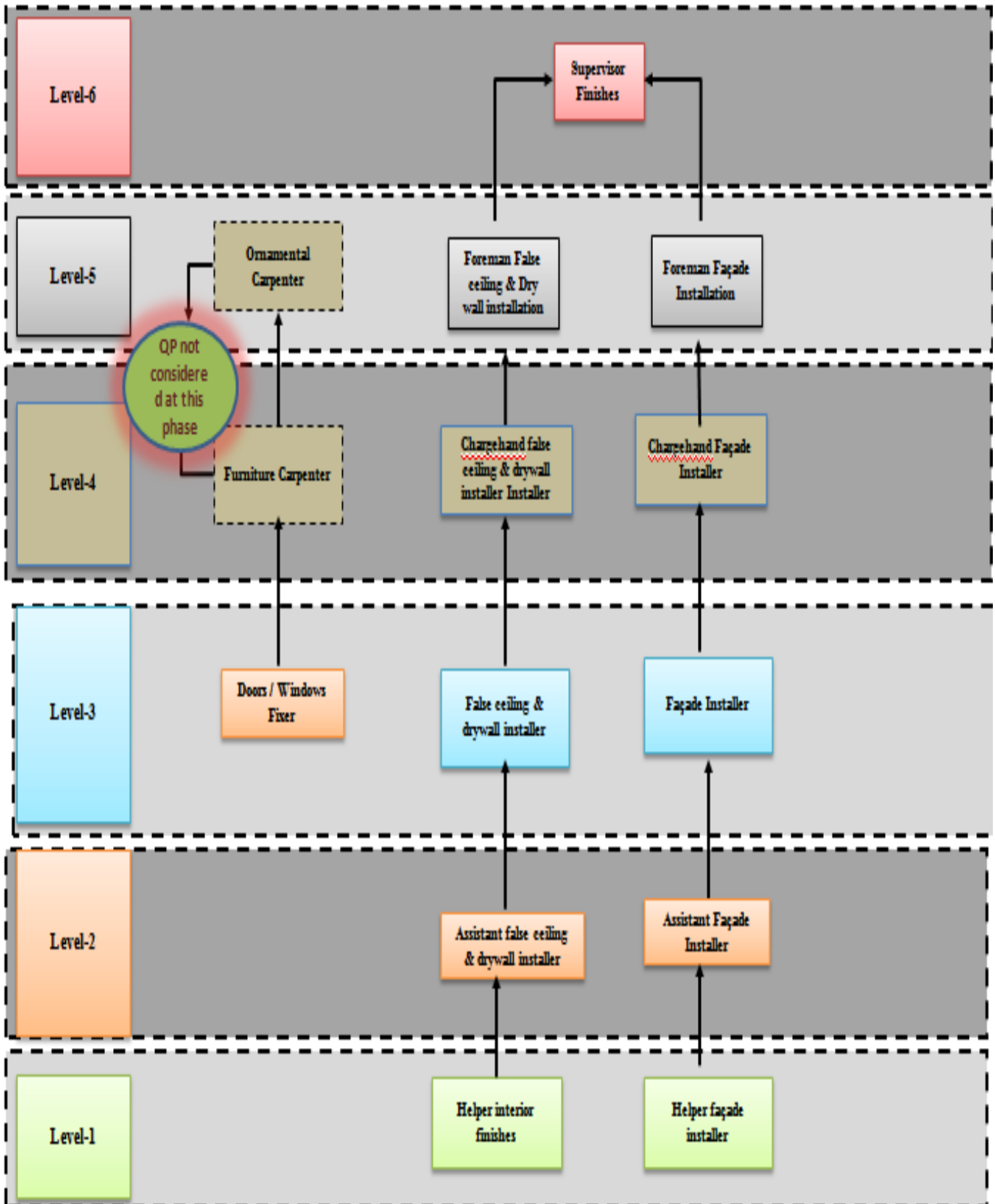
Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. Annexure 1
  - Overall Career map
  - Career map of Interior & Exterior Finishes Occupation
2. QP CON/Q1108- Annexure 2

Annexure 1

Career Map



Annexure 2- QP CON/Q1108