

**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

**Address if different from above:**

*Same as above*

**Tel number(s):** +91-11-46584466

**E-mail address:** standards@csdcindia.org

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

1. Career Map Of Interior & Exterior Finishes Occupation - Annexure 1
2. QP CON/Q1106- Annexure 2

## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Façade Installer - QP CON/Q1106		
<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>	3		
<b>Anticipated volume of training/learning required to complete the qualification.</b>	400 hrs		
<b>Entry requirements / recommendations.</b>	Preferably 5th standard		
<b>Progression from the qualification.</b>	Chargehand Facade Installer L-4		
<b>Planned arrangements for RPL.</b>	Work is under progress		
<b>International Comparability</b>	Comparable with UK Standard and 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/N1116: Carry out checks and measures prior to fixing of stick system, unitized and structural glazing curtain wall	Mandatory	88	3
CON/N1117: Install stick system curtain walls	Mandatory	112	3
CON/N1119: Install structural glazing type of façade installation	Mandatory	112	3
CON/N8001: Work effectively in a team to deliver desired results at the workplace	Mandatory	24	3
CON/N8002: Plan and organize work to meet expected outcomes	Mandatory	16	3
CON/N9001: Work according to personal health, safety and environment protocol at construction site	Mandatory	48	3

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/Q1106- 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

### Façade Installer

### CON/Q1106

### 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 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% 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.

				Marks Allocation	
Assessable Outcome	Assessment criteria	Total Marks	Out Of	Theory	Practical Skills
<b>CON/N1116:</b> <b>Carry out checks and measures prior to fixing of stick system,</b>	PC1. read and interpret sketches and work methodology relevant to façade installation work	<b>100</b>	6	1.2	4.8
	PC2. identify the type of panel material, frames and the method of fixing from work instructions		6	1.2	4.8
	PC3. select tools and equipment as per applicability and check prior to use for safety and serviceability		6	1.2	4.8
	PC4. check that panels are of specified material and type		6	1.2	4.8

<b>unitized and structural glazing curtain wall</b>	and as per specifications				
	PC5. check the glass panels for surface and edge defects	6	1.2	4.8	
	PC6. check for imperfections in the panel and frame members and replace panels which are not fit for installation	5	1	4	
	PC7. check that suitable lifting equipment is in place at point of installation	5	1	4	
	PC8. measure and check the structural adequacy of interface structure so that structure is fit to accommodate wall panels, its connections etc	6	1.2	4.8	
	PC9. check the rigidity of the fixed framed structure /interface	6	1.2	4.8	
	PC10. measure and ensure that sub frame is straight ,aligned and rigid	6	1.2	4.8	
	PC11. carry out straightening of sub frame as per applicability	6	1.2	4.8	
	PC12. check to ensure the joints in frame are as per approved specification	6	1.2	4.8	
	PC13. check and ensure proper cleaning of joints and application of primer on joints as per applicability	6	1.2	4.8	
	PC14. ensure that all wall framing members are in place and secured	6	1.2	4.8	
	PC15. check that gasket and sealant are as per specification	6	1.2	4.8	
	PC16. plan for fixing of panels as per approved and instructed methodology	6	1.2	4.8	
	PC18. check all fixing members are of specified type, size and materials	6	1.2	4.8	
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
	<b>CON/N1117: Install stick system curtain walls</b>	PC1. identify various components of stick build system including hardware components for installation	4	0.8	3.2
		PC2. check and ensure wall members are cut to appropriate length prior to installation	4	0.8	3.2
		PC3. install the vertical mullion over the floor edge with a steel angle as per instructions	4	0.8	3.2
PC4. install mullions at appropriate spacing as per specification		6	1.2	4.8	
PC5. provide expansion joint in vertical mullions as per instructions		5	1	4	
PC6. attach the horizontal mullion (transom) to vertical mullion to create frame opening		5	1	4	
PC7. install corner block at the junction of the vertical mullion and rail		5	1	4	
PC8. place and fix panels in both vision area and spandrel panel cover area as per specification		5	1	4	
PC9. install vision panels in frame opening between floors as per specifications		5	1	4	
PC10. seal the inside of panels using dry gasket or sealant on outside as specified		5	1	4	
PC11. check that each panel is set to plumb and panel joints are uniformly engaged as per requirements		5	1	4	
PC12. hold panels in place using full length pressure plates and aluminum snap caps		4	0.8	3.2	
PC13. adopt appropriate fastening method (clips & screws, backside attachment, etc.) to attach panels with framing members		5	1	4	
PC14. enclose the spandrel area with metal back pan (air		5	1	4	
	<b>100</b>				

	and vapor barrier), with high density glass fiber or mineral fiber insulation within the back pan				
	PC15. fasten and seal the back pan to frame as per specification		5	1	4
	PC16. check that pilot holes are of the appropriate size for fastening process		4	0.8	3.2
	PC17. check that screws and panel clip attachments are secured at the appropriate angle as per the specified procedure		4	0.8	3.2
	PC18. protect all coated surface from damage during handling and installation		4	0.8	3.2
	PC19. carry out weather proofing and provide drainage in the stick system as per specifications		4	0.8	3.2
	PC20. ensure window and door openings are provided as per specification		4	0.8	3.2
	PC21. provide weep holes as per applicability		4	0.8	3.2
	PC22. carry out fixing of all the elements as per acceptable tolerance limit		4	0.8	3.2
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N1119: Install structural glazing type of façade installation</b>	PC1. identify various components of structural glazing system including hardware components for installation	<b>100</b>	5	1	4
	PC2. check and ensure wall members are cut to appropriate length prior to installation		5	1	4
	PC3. check the as built surface for adequacy prior to fixing structural glazing		5	1	4
	PC4. install the vertical mullion over the floor edge with a steel angle as per instructions		5	1	4
	PC5. install mullions at appropriate spacing as per specification		5	1	4
	PC6. provide expansion joint in vertical mullions as per instructions		5	1	4
	PC7. attach the horizontal mullion (transom) to vertical mullion to create frame opening		5	1	4
	PC8. install corner block at the junction of the vertical mullion and rail		5	1	4
	PC9. place and fix panels in both vision area and spandrel panel cover area as per specification		5	1	4
	PC10. install vision panels in frame opening between floors		5	1	4
	PC11. check that each panel is set to plumb and panel joints are uniformly engaged as per requirements		5	1	4
	PC12. hold panels in place using full length pressure plates and aluminum snap caps		5	1	4
	PC13. adopt appropriate fastening method (clips & screws, backside attachment, etc.) to attach panels with framing members		5	1	4
	PC14. create a capless vertical joint system by sealing from outside using silicone sealant as per specification		5	1	4
	PC15. check that pilot holes are of the appropriate size for fastening process		5	1	4
	PC16. check that screws and panel clip attachments are secured at the appropriate angle as per the specified procedure		5	1	4
	PC17. protect all coated surface from damage during handling and installation		4	0.8	3.2
	PC18. carry out weather proofing and provide drainage in the stick system as per specifications		4	0.8	3.2

<b>CON/N8001: Work effectively in a team to deliver desired results at the workplace</b>	PC19. ensure window and door openings are provided as per specification		4	0.8	3.2
	PC20. provide weep holes as per applicability		4	0.8	3.2
	PC21. carry out fixing of all the elements as per acceptable tolerance limit		5	1	4
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
	PC1. pass on work related information/ requirement clearly to the team members		10	2	8
	PC2. inform co-workers and superiors about any kind of deviations from work		5	1	4
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		5	1	4
	PC4. receive instructions clearly from superiors and respond effectively on same		5	1	4
	PC5. communicate to team members/subordinates for appropriate work technique and method		5	1	4
	PC6. seek clarification and advice as per requirement and applicability		10	2	8
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		30	6	24
	PC8. work together with co-workers in a synchronized manner		30	6	24
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
	<b>CON/N8002: Plan and organize work to meet expected outcomes</b>	PC1. understand clearly the targets and timelines set by superiors		10	2
PC2. plan activities as per schedule and sequence			10	2	8
PC3. provide guidance to the subordinates to obtain desired outcome			10	2	8
PC4. plan housekeeping activities prior to and post completion of work			10	2	8
PC5. list and arrange required resources prior to commencement of work			10	2	8
PC6. select and employ correct tools, tackles and equipment for completion of desired work		<b>100</b>	10	2	8
PC7. complete the work with allocated resources			10	2	8
PC8. engage allocated manpower in an appropriate manner			10	2	8
PC9. use resources in an optimum manner to avoid any unnecessary wastage			5	1	4
PC10. employ tools, tackles and equipment with care to avoid damage to the same			5	1	4
PC11. organize work output, materials used, tools and tackles deployed,			5	1	4
PC12. processes adopted to be in line with the specified standards and instructions			5	1	4
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N9001: Work according to personal health, safety and environment</b>	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority		5	1	4
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		5	1	4
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	<b>100</b>	10	2	8
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at		5	1	4

**protocol at  
construction  
site**

site			
PC5. identify near miss , unsafe condition and unsafe act	5	1	4
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	2	8
PC7. handle all required tools, tackles , materials & equipment safely	5	1	4
PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	5	1	4
PC9. install and apply properly all safety equipment as instructed	15	3	12
PC10. follow safety protocol and practices as laid down by site EHS department	15	3	12
PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes	10	2	8
PC12. apply ergonomic principles wherever required	10	2	8
<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</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. 14/08/2017

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.

**Façade Installer QP CON/Q1106**

<b>Process required</b>	<b>Professional Knowledge</b>	<b>Professional Skills</b>	<b>Core Skills</b>	<b>Responsibility</b>	<b>Level</b>
<p>Job holder performs works which requires limited range of activities which are routine in nature and requires limited sets of skill. Work includes carrying out preparatory works prior to fixing stick system and structural glazing curtain wall, install stick system and structural glazing type of facade installation etc.</p> <p>The above activities are of a limited range and routine at construction sites</p>	<p>Job holder is expected to have knowledge about different types of facade installation tools, materials, components and equipments, their standard size, and their use along with basic maintenance.</p> <p>Job holder is expected to read and understand sketches/ routine working drawings/instructions provided for facade installation works.</p>	<p>Job holder is expected to demonstrate skills for a narrow range of application which are routine and repetitive in nature like use of hand &amp; power tools for installing stick system curtain walls and structural glazing type of facade installation as per standard procedure as per supervisors directives</p> <p>The workman is also expected to adopt safety measures applicable to his work and surrounding such as use of personal protective equipments, fixing of barricades, fixing of fall protection etc.</p>	<p>Job holder is expected to have good reading and writing skills in at least one language. Job holder should apply basic principle of measurement, arithmetic calculation to determine the quantity of material required for stick system and structural glazing type of facade installation, measurement of daily work done etc.</p> <p>Job holder is also expected to read and understand sketches for facade installation works, sign boards, safety rules and shall be able to orally communicate clearly and effectively with team members in at least one language.</p>	<p>Job holder has some responsibility for own work within defined limit and always work under close supervision of trade senior for performing assigned task within time and with quality following standard working procedures and safety. The job holder needs to undergo quality checks for the assigned task by the superior</p> <p>(Refer professional skills for details of work)</p>	3
<b>Level 3</b>	<b>Level 3</b>	<b>Level 3</b>	<b>Level 3</b>	<b>Level 3</b>	

**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.

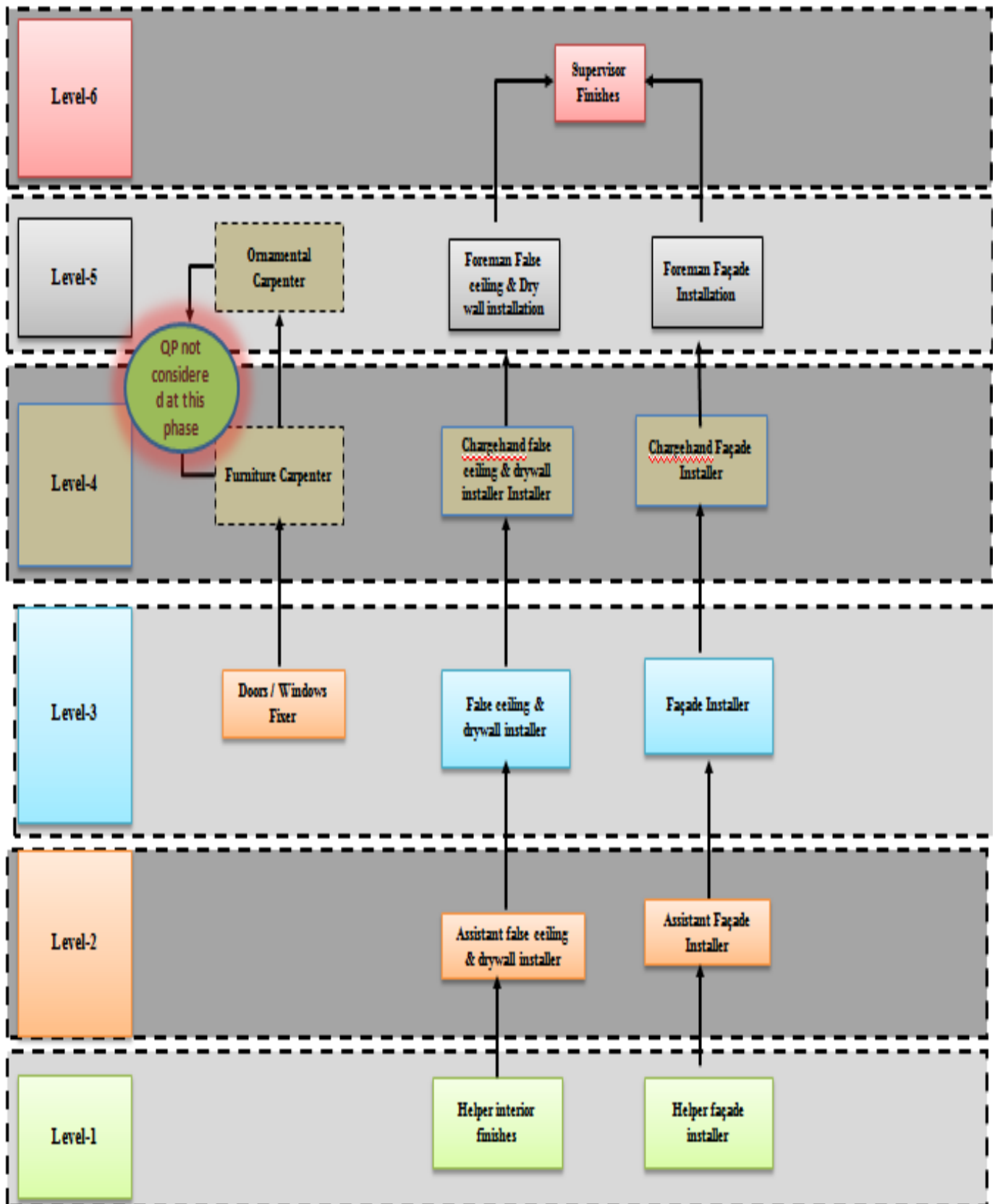
Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. Annexure 1
  - Overall Career map
  - Career map of Interior & Exterior Finishes Occupation
2. QP CON/Q1106- Annexure 2

Annexure 1

Career Map



Annexure 2- QP CON/Q1106