



QUALIFICATION FILE

BIM Manager- Construction

Short Term Training (STT) Long Term Training (LTT) Apprenticeship

Upskilling Dual/Flexi Qualification For ToT For ToA

General Multi-skill (MS) Cross Sectoral (CS) Future Skills OEM

NCrF/NSQF Level: 6.5

Submitted By:

Construction Skill Development Council of India

Address: Tower 4B, DLF Corporate Park, 201&, 202 4B, Mehrauli-Gurgaon Rd, DLF Phase 3, Gurugram, Haryana 122002

Submitting Body Contact Details:

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Section 1: Basic Details

1. Qualification Name	BIM Manager - Construction																	
2. Sector/s	Construction																	
3. Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved)</i> NA	Qualification Name of existing/previous version: NA																
4. a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA																	
5. National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-6.5-CO-00781-2023-V1-CSDCI	6. NCrF/NSQF Level: 6.5																
7. Award (Certificate/Diploma/Advanced Diploma/ Any Other) <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate																	
8. Brief Description of the Qualification	A BIM Manager – Construction is responsible for the planning, delivery and efficient management of the BIM Execution Plan (BEP). The individual manages different professionals, such as BIM Coordinators and BIM Modelers for the delivery of BIM construction projects and also acts as the intermediary between designers, clients and architects.																	
9. Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	<p>a. Entry Qualification & Relevant Experience:</p> <table border="1" data-bbox="919 1057 1829 1388"> <thead> <tr> <th data-bbox="919 1057 1020 1166">S. No.</th> <th data-bbox="1020 1057 1438 1166">Academic/Skill Qualification (with Specialization - if applicable)</th> <th data-bbox="1438 1057 1829 1166">Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td data-bbox="919 1166 1020 1239">1.</td> <td data-bbox="1020 1166 1438 1239">Pursuing 2nd year of 2-year PG (after 3 year UG Degree)</td> <td data-bbox="1438 1166 1829 1239"></td> </tr> <tr> <td data-bbox="919 1239 1020 1312">2.</td> <td data-bbox="1020 1239 1438 1312">Completed 2-year PG degree (after 4 year UG)</td> <td data-bbox="1438 1239 1829 1312"></td> </tr> <tr> <td data-bbox="919 1312 1020 1356">3.</td> <td data-bbox="1020 1312 1438 1356">Completed 4-year UG program</td> <td data-bbox="1438 1312 1829 1356">1-year relevant experience</td> </tr> <tr> <td data-bbox="919 1356 1020 1388">4.</td> <td data-bbox="1020 1356 1438 1388">Completed 3-years UG</td> <td data-bbox="1438 1356 1829 1388">2-year relevant experience</td> </tr> </tbody> </table>			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	Pursuing 2nd year of 2-year PG (after 3 year UG Degree)		2.	Completed 2-year PG degree (after 4 year UG)		3.	Completed 4-year UG program	1-year relevant experience	4.	Completed 3-years UG	2-year relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																
1.	Pursuing 2nd year of 2-year PG (after 3 year UG Degree)																	
2.	Completed 2-year PG degree (after 4 year UG)																	
3.	Completed 4-year UG program	1-year relevant experience																
4.	Completed 3-years UG	2-year relevant experience																

		<table border="1"> <tr> <td>5.</td> <td>Completed 2-year Diploma after 12th Grade (in any field)</td> <td>3-year relevant experience</td> </tr> <tr> <td>6.</td> <td>Previous relevant Qualification of NSQF Level 6</td> <td>1.5-year relevant experience</td> </tr> <tr> <td>7.</td> <td>Previous relevant Qualification of NSQF Level 5.5</td> <td>3-year relevant experience</td> </tr> </table> <p>b. Age: 21 years</p>	5.	Completed 2-year Diploma after 12th Grade (in any field)	3-year relevant experience	6.	Previous relevant Qualification of NSQF Level 6	1.5-year relevant experience	7.	Previous relevant Qualification of NSQF Level 5.5	3-year relevant experience									
5.	Completed 2-year Diploma after 12th Grade (in any field)	3-year relevant experience																		
6.	Previous relevant Qualification of NSQF Level 6	1.5-year relevant experience																		
7.	Previous relevant Qualification of NSQF Level 5.5	3-year relevant experience																		
10. Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	22	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																		
12. Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																			
13. Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>240</td> <td>270</td> <td>150</td> <td></td> <td>660</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>(Refer Blended Learning Annexure for details)</p>		Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	240	270	150		660	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)															
Classroom (offline)	240	270	150		660															
Online																				
14. Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/2142.9900																			
15. Progression path after attaining the qualification (Please show Professional and Academic progression)	Vertical Progression: Head BIM – Projects- Level 7.0 Horizontal Progression: BIM Manager – Design- Level 6.5																			
16. Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																			

17. Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:	
18. Is the Job Role Amenable to Persons with Disability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", specify applicable type of Disability: <i>Locomotor Disability</i>	
19. How Participation of Women will be Encouraged	To encourage women to participate in BIM job roles, it is important to provide education, mentorship, and networking opportunities, as well as training and development programs. Flexible work arrangements and promoting successful women in BIM can also inspire and encourage women to pursue careers in this field. Creating a culture of inclusion and diversity can help women feel welcome and valued in BIM job roles, through policies and practices that support work-life balance, equal pay and promotion opportunities, and a safe and respectful workplace.	
20. Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Manage health and safety at the workplace	
21. Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
22. Name and Contact Details of Submitting / Awarding Body SPOC <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Neha Sharma Dave Email: neha@csdcindia.org Contact No.: 0124-4513915-18 Ext-22 Website: www.csdcindia.org	
23. Final Approval Date by NSQC: 31/08/2023	24. Validity Duration: 3 Years	25. Next Review Date: 31/08/2026

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory **Training Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Manage bidding for BIM construction projects	CON/N2113, V1	Core	6.5	8	55	95	90	-	240	30	60	-	10	100	40
2.	Manage the BIM construction process	CON/N2114, V1	Core	6.5	10	80	160	60	-	300	30	60	-	10	100	40
3.	Manage health and safety at the workplace	CON/N9003, V1	Non-Core	5.0	1	15	15	-	-	30	40	60	-	-	100	10

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
4.	Employability Skills	DGT/VSQ/N0103, V1	Non-Core	5.0	3	90	-	-	-	90	20	30	-	-	50	10
Duration (in Hours) / Total Marks					22	240	270	150	-	660	120	210	-	20	350	100

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70% (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: 70% (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Graduate (Civil or Mechanical Engineering (8 years) Diploma in (Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree (10 years) ITI/12 th (13 years)
2.	Master Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Graduate (Civil or Mechanical Engineering (8 years) Diploma in (Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree (10 years) ITI in Civil/ Mechanical/Electrical (13 Years)

3.	Tools and Equipment Required for Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If “Yes”, details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	

Section 4: Assessment Related

1.	Assessor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Graduate (Civil Engineering/ Mechanical Engineering (8 years) Diploma in (Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree (10 years) ITI/12th (13 years)
2.	Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Graduate (Civil Engineering/ Mechanical Engineering (8 years) Diploma in (Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree (10 years) ITI/12th (13 years)
3.	Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma in (Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree) (10 years) Graduate (Civil Engineering/ Mechanical Engineering (8 years) ITI in Civil/ Mechanical/Electrical (13 Years) General BA/B.Sc/Ex-Army/12 th (13 Years)
4.	Assessment Mode (Specify the assessment mode)	Online and Offline
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes, Niti Aayog, a central government think tank, believes that BIM can save up to 20% of the project cost simply by reducing the overall construction time. It is trying to use BIM in all kinds of government projects, including housing of all projects, highway construction, greenfield airport projects, metro projects, and even capacity augmentation programs. In terms of adoption rate, India is not very far behind the developed countries that are already using BIM. It will not be late, when we see BIM as an absolute necessity for all projects.
4.	Number of Industry validation provided: 28
5.	Estimated nos. of persons to be trained and employed: Approx. 1500 to 3000 employees over a period of 5 years
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: <i>Approved</i> If “No”, why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	Yes
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Yes
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Yes
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Yes
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	No
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	Yes

7.	Annexure: Acronym and Glossary (<i>Optional</i>)	Yes
8.	Supporting Document: Model Curriculum (<i>Mandatory – Public view</i>)	Yes
9.	Supporting Document: Career Progression (<i>Mandatory - Public view</i>)	Yes
10.	Supporting Document: Occupational Map (<i>Mandatory</i>)	Yes
11.	Supporting Document: Assessment SOP (<i>Mandatory</i>)	Yes
12.	Any other document you wish to submit:	Yes, LOI is submitted from BEXEL

Annexure 1: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	<ul style="list-style-type: none"> • Process of managing bidding for BIM construction projects • Process of managing the BIM construction process • Process of working according to personal health, safety and environment protocols at a construction site 	<p>As detailed, the entire process followed by BIM Manager-Construction is managing bidding for BIM construction projects, managing the BIM construction process.</p> <p>As the work is routine and is repeated multiple times, the work becomes predictable.</p> <p>As the BIM Manager-Construction is required to perform the task as per the required codes and standards following the method statement available for the task, they have a clear work situation.</p>	6.5

<p>Professional and Technical Skills/ Expertise/ Professional Knowledge</p>	<ul style="list-style-type: none"> • Know the documentation required to bid for BIM construction projects • Know the applicable variable and fixed costs • Know the different stages of a BIM construction project lifecycle • Know the relevant BIM coordination activities • Know the evaluation and development of BIM processes, policies, protocols and workflows • Understand the importance and process of defining a BIM strategy for effective BIM implementation • Know the BIM construction process • Know BIM platforms and coordination of models • Know the daily management of BIM project data sets/workflows 	<p>The knowledge required for BIM Manager-Construction is factual as it is specific and limited to the knowledge of documentation required to bid for BIM construction projects, different stages of a BIM construction project lifecycle, BIM coordination activities, evaluation and development of BIM processes, policies, protocols and workflows etc.</p> <p>therefore, their knowledge is applicable to their field of work only</p>	<p>6.5</p>
<p>Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill</p>	<ul style="list-style-type: none"> • carry out representations to clients during bidding for BIM construction projects • carry out negotiations with clients to win BIM construction projects in profitable deals for the organization • carry out appropriate documentation as per the organizational policies • Arrange the required resources • Manage the purchase of relevant tools and equipment 	<p>As indicated the skill set required to carry out representations to clients during bidding for BIM construction projects, carry out negotiations with clients to win BIM construction projects in profitable deals for the organization, carry out appropriate documentation as per the organizational policies, arrange the required resources</p>	<p>6.5</p>

	<ul style="list-style-type: none"> • Develop the BIM Execution Plan (BEP) for each BIM construction project • Manage the implementation and execution of an organization • carry out the relevant supply chain assessments • support the BIM construction project team in project execution 		
<p>Broad Learning Outcomes/Core Skill</p>	<ul style="list-style-type: none"> • Managing the bidding process for BIM construction projects • Preparation of bidding documents and negotiation with clients • Carrying out contract-related documentation. • Managing the BIM construction process • Preparation and implementation of the BIM strategy. • Managing workplace for safe and healthy work environment 	<p>The job holder is expected to manage the bidding process for BIM construction projects, preparation of bidding documents and negotiation with clients, carry out contract-related documentation, manage the BIM construction process, prepare and implementation of the BIM strategy, managing workplace for safe and healthy work environment</p>	<p>6.5</p>
<p>Responsibility</p>	<p>The individual in this job role will be responsible for the below-mentioned activities:</p> <ul style="list-style-type: none"> • Manage the bidding process • Carry out negotiation and documentation • Ensure the availability of resources • Develop the BIM Execution Plan (BEP) • Manage training and upskilling requirements 	<p>A BIM Manager – Construction is responsible for the planning, delivery and efficient management of the BIM Execution Plan (BEP). The individual manages different professionals, such as BIM Coordinators and BIM Modelers for the delivery of BIM construction projects and also acts as the intermediary between designers, clients and architects.</p>	<p>6.5</p>

	<ul style="list-style-type: none">• Manage BIM construction activities• Carry out the appropriate documentation• Manage training and upskilling needs• Ensure health and safety at work• Manage workplace emergencies		
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NSQC Approved

Annexure 2: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30 Candidates

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Revit	Nos	30
2	AutoCAD	Nos	30
3	Navisworks	Nos	30
4	Desktop	Nos	30

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Training Kit (Trainer Guide, Presentations)
2. Whiteboard/ Blackboard
3. Marker
4. Projector
5. Working Model

Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Donge Project Management Consultants Pvt. Ltd.	Balkrishna Kulkarni	President	401, Imperial Heights, Akshar Chowk, OP Road, Vadodara	9819657656	Balkrishna.kulkarni@dongrepmc.com	
2	Bimlabs Studio Pvt Ltd	Nishad S	BIM Coordinator	1st Floor, E.K Complex, Main Road Kazhakkuttam, Trivandram, Kerala, India ,695582	9288003645	nishad@bimstudio.net	https://www.linkedin.com/in/nishad-s-979940a7/
3	Bimlabs Global	Shiju Sasidharan	CEO & Founder	2nd Floor, E.K Complex, Main Road Kazhakuttam, Kerala, India, 695582	9744293003	shiju@bimlabs.in	https://www.linkedin.com/in/shiju-sasidharan-a361674a/
4	Build It Better Pvt. Ltd.	Rahul Arora	Principal Architect	Goyal Mansion, Agrasen Bhawan, Behal, Bhiwani Haryana 127028 – India	9568438787	arahul.bib@gmail.com	
5	Farmworks Architects	Shant Bhardwaj	Principal Architect	D-11, Janhitkari Apartment, Vasundhara, Ghaziabad	9958461665	farmworksarchitects.fwa@gmail.com	https://www.linkedin.com/in/shant-bhardwaj-714a9932/

6	Freelance Architect (Individual Consultant)	Garvit Sharma	Architect	A-101 Radha Krishna Lane, Kaushambi, Ghz, U.P.	9971967901	grsharma97@gmail.com	
7	BIM HOUSE GLOBAL PVT. LTD.	Prateek Singhal	Founder & Director	BC-108, L't Floor, Matrix Tower, Sector-132, Noida-201304, Uttar Pradesh	9310812820	psinghal@bimhouseglobal.com	https://www.linkedin.com/in/prateek-singhal-1a3a6b28/
8	BEXEL INDIA CONSULTING	MICHAEL MARSHAL	CEO BEXEL India/BEXEL Gulf	715-A Suite No. 909 Spencer Plaza. Mount Road Anna Salal, Chennai, P.O.Box: 600002	+971 56 525 2752	michael@bexelgulf.com	
9	L&T Construction	BS Mukund	Head - Building Information Modelling (BIM)	Manapakkam, Chennai, Tamil Nadu	8149074358	bsmukund@intecc.com	
10	Virtual Building Studio Pvt Ltd	Sachin Thakre	VP & Head HR	603 – 604, Siddhi Vinayak Towers, Sarkhej – Gandhinagar Hwy, Nr. Kataria Arcade, Makarba, Ahmedabad, 380051	9372631943	Sachin.thakre@virtualbuildingstudio.com	https://www.linkedin.com/in/sachin-thakre-a731bb1a9/
11	Trimble Solutions India Pvt. Ltd.	Mitra Barun Dutta	License Compliance Manager	Shree Sawan Knowledge Park, 4 th Floor, D-507, TTC Industrial Area, MIDC Turbhe, Navi Mumbai	9167730711	mitra.dutta@trimble.com	https://www.linkedin.com/in/mitrabarundutta/

							?originalSub domain=in
1 2	Ephicity Lifescience Analytics	Rahul Kumar Kaushik	Manager - Testing	VHPX+XR8, 2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka	8859885973	rahul.kaushik@ephica cy.com	https://ww w.linkedin.c om/in/rahul -kaushik7- 79836699/
1 3	Artificial Intelligence Technologies Ltd.	Rohit Sharma	Sr. Developer	A-21 Kailash Colony, New Delhi - 110048	9927564461	rohit.sharma@aituniv ersal.com	
1 4	Senryaku Consulting	Shiv Shankar Singh	Co-Founder	DLF Ultima, UTC031, Sector 81, Gurugram, Haryana, 122004	9560338881	shivs@senryakuconsul ting.com	https://ww w.linkedin.c om/in/shiv- shanker-s- 393bb78/
1 5	EY (Ernst & Young)	Dilip Kumar	Consultant	6th, 12th & 13th Floor, UB City, Canberra Block No, 24, Vittal Mallya Rd, Bengaluru	8099433640	dilip.kumar..ramathot a@gds.ey.com	https://ww w.linkedin.c om/in/%E2 %96%84dili p-kumar-r- 7a37a338/
1 6	Sopra Steria	Rikan Singh Tomar	Technical Lead	Plot No. 20 & 21, Seaview Special Economic Zone, Building 4, Sector 135, Noida	9599944652	rikan.singh@sopraster ia.com	https://ww w.linkedin.c om/in/rikan -singh- 9442aa84/
1 7	Hansa Cequity	Ankit Sharma	Manager	403 Kohinoor City Mall, B Wing, Commercial Office Towers, 404, Nathani Rd, Kurla West, Mumbai	9819332255	ankit.sharma@hansac equity.com	

18	RDS	Prasad MG	Director - Operations & VDC Consultant	Office No.1A-7, Koratty Infopark, Koratty, Kerala	8138040843	prasad.mg@rdsind.co	https://www.linkedin.com/in/prasadgovind/
19	Arth Design	Shoba Ran	Associate Mgr -HR	301ABK Oblee PlazaOpp. Care Hospital Road No.1Banjara Hills, Hyderabad	9908291188	akanksha.y@arthdesig nbuild.com	https://www.linkedin.com/in/shoba-rani-69837915b/
20	AK Consulting	Nirman Jain	Technical Lead	Bangalore, Karnataka	7042447336	nirmanjain777@gmail.com	
21	Know How Schools	Dipesh Bafna	Partner	Pune, Maharashtra	9405266123	learn@knowhowschools.com	https://www.linkedin.com/in/dipesh-bafna/
22	Samerka Consultants Pvt. Ltd.	Laxmikant B. Umarji	Director	roshwar Krupa Society, Babi Dhuri Marg, NCH Colony, Kanjurmarg East, Mumbai	9820087948	samerkacpl@gmail.com	https://www.linkedin.com/company/samerka-consultants-private-limited/about/
23	Shrikant Gajanan Mhatre - Consulting Engineer & Valuer	Shrikant Gajanan Mhatre	Consulting Engineer & Valuer	Raigad - Maharashtra. 402 107	9689728209	sshri1000@gmail.com	
24	Pipal Tree Ventures Pvt. Ltd.	S. Suresh Reddy P. Rajesh	Project Head – State	Goregaon East, Mumbai, Maharashtra	8247477793 9985282550	sraddey@pipaltreeventures.com	

			Sr. Manager - Training			prajesh@pipaltreeventures.com	
2 5	Jawaharlal Nehru Architecture & Fine Arts	K. Chandrakanth	Asst. Professor	Masab Tank, Hyderabad, Telangana	9293163582	Kchandrakanth.fsp@jnafau.ac.in	
2 6	Feedback Advisory	Kiran Shetty	AVP	Mumbai, Maharashtra	9987031738	kiran@advisoryfeedback.com	
2 7	My Home Group	MVT Satish Kumar	GM – Planning and Development	My Home Hub, Mahapur, Hyderabad, Telangana	9154292348	Satishkumar.mvt@myhomeconstructions.com	
2 8	L&T Construction	DK Sharma	Principal - CSTI	TSIIC Green Industrial Park, Mahabubnagar Telangana	7660986699	deepaks@Intecc.com	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2024	1000	750	150	90	50	40
2025	1000	750	200	140	70	60
2026	1000	750	300	220	80	70

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented: NA

- 1.
- 2.

Content availability for previous versions of qualifications: NA

Participant Handbook Facilitator Guide Digital Content Qualification Handbook Any Other:

Languages in which Content is available: NA

Annexure 5: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

Assessment Criteria

NOS Name	CON/N2113: Manage bidding for BIM construction projects			
Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Manage the bidding process</i>	15	25	-	5
PC1. manage the preparation of bidding documents, providing the appropriate technical information to support the bidding process	-	-	-	-
PC2. estimate the requirement of various resources for the delivery of the BIM construction project	-	-	-	-
PC3. ensure all the applicable fixed and variable costs are considered while calculating the costs for the project delivery	-	-	-	-
PC4. carry out representations to clients during bidding for BIM construction projects	-	-	-	-
PC5. ensure the questions and concerns raised by clients are appropriately answered and addressed with the correct and latest information	-	-	-	-
<i>Carry out negotiation and documentation</i>	15	35	-	5
PC6. carry out negotiations with clients to win BIM construction projects in profitable deals for the organization	-	-	-	-
PC7. carry out appropriate documentation as per the organizational policies concerning the BIM construction project contracts	-	-	-	-

PC8. ensure the clients are provided with the necessary information and documents as per the applicable business procedures before commencing the project work	-	-	-	-
NOS Total	30	60	-	10

NOS Name	CON/N2114: Manage the BIM construction process			
Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure the availability of resources</i>	6	10	-	2
PC1. identify the requirement of various resources for the delivery of the BIM construction project	-	-	-	-
PC2. arrange the required resources, following the organization’s procurement process as applicable	-	-	-	-
PC3. ensure the availability of required tools and equipment to the BIM construction project team	-	-	-	-
PC4. manage the purchase of relevant tools and equipment, e.g. BIM software and computer	-	-	-	-
PC5. coordinate with the Information Technology (IT) team to ensure the effective functioning of IT systems	-	-	-	-
PC6. manage the tools and software licenses, ensuring the installation and use of the latest version of appropriate BIM software by the BIM construction team	-	-	-	-
<i>Develop the BIM Execution Plan (BEP)</i>	6	15	-	2

PC7. develop the BIM Execution Plan (BEP) for each BIM construction project through coordination with BIM Coordinators	-	-	-	-
PC8. ensure BIM Execution Plans (BEP) are developed and maintained for each BIM construction project	-	-	-	-
PC9. ensure correct setting up of BIM projects in the BIM software	-	-	-	-
PC10. ensure the availability of the BIM profile with the departments and teams in the organization	-	-	-	-
<i>Manage BIM construction activities</i>	8	15	-	3
PC11. manage the implementation and execution of organization-wide BIM standards and rules	-	-	-	-
PC12. lead the implementation of digital information plans and strategies	-	-	-	-
PC13. identify and ensure the adoption of appropriate best practices in BIM construction activities by the organization	-	-	-	-
PC14. manage the integration of new technologies in the organization’s BIM construction workflows	-	-	-	-
PC15. manage the BIM construction project budgets, maintaining various expenditures within the budget	-	-	-	-
PC16. ensure appropriate changes in the BIM model according to the changes on the site	-	-	-	-
PC17. carry out the relevant supply chain assessments	-	-	-	-
PC18. support the BIM construction project team in project execution	-	-	-	-

PC19. ensure timely delivery of BIM Construction projects	-	-	-	-
PC20. coordinate with planning engineers, Quality Assurance (QA)/ Quality Control (QC) engineers, safety engineers and quality control professionals	-	-	-	-
PC21. lead the relevant meetings to identify project tasks and resolve issues	-	-	-	-
PC22. ensure adherence to the applicable and latest codes and standards by the BIM construction team	-	-	-	-
PC23. audit the BIM construction project team and identify the areas of non-compliance	-	-	-	-
PC24. generate and analyze BIM-based reports for BIM Management solutions	-	-	-	-
<i>Carry out the appropriate documentation</i>	4	10	-	2
PC25. prepare the relevant reports for the stakeholders, e.g. client and BIM Project Head, to measure the implementation of BIM construction projects	-	-	-	-
PC26. present the reports to the stakeholders and discuss them	-	-	-	-
PC27. record and implement the feedback of stakeholders	-	-	-	-
<i>Manage training and upskilling needs</i>	6	10	-	1
PC28. identify the need for training or upskilling the BIM construction project team in specific software programs	-	-	-	-
PC29. organize appropriate training/ upskilling sessions for the relevant BIM team members, e.g. BIM software training and monitor their BIM experience levels	-	-	-	-

PC30. support the BIM construction team members in their mentoring, coaching and career development	-	-	-	-
NOS Total	30	60	-	10

NOS Name	CON/N9003: Manage health and safety at the workplace			
	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks
Ensure health and safety at work	25	35	-	-
PC1. check and ensure the availability of appropriate and usable Personal Protective Equipment (PPE) at the workplace	-	-	-	-
PC2. use the appropriate PPE according to the nature of work and ensure other personnel also do the same	-	-	-	-
PC3. create awareness regarding health and safety practices at work	-	-	-	-
PC4. follow and promote the appropriate measures to ensure hygiene in the workplace, e.g. regular cleaning and sanitization	-	-	-	-
PC5. coordinate regular workplace audits to ensure safe working conditions	-	-	-	-
PC6. identify health and safety hazards at the workplace and take appropriate preventive measures	-	-	-	-

PC7. report any out-of-authority health and safety issues to the relevant authority for a timely resolution	-	-	-	-
PC8. identify the instances of non-compliance with the health and safety policies and take appropriate measures, e.g. giving feedback to the relevant personnel	-	-	-	-
Manage workplace emergencies	15	25	-	-
PC9. ensure the availability of the updated first aid kit at the workplace	-	-	-	-
PC10. ensure prompt and timely medical attention for any injured/ unwell personnel	-	-	-	-
PC11. arrange for effective training of personnel on emergency procedures	-	-	-	-
PC12. manage workplace emergencies, such as fire, accidents, disease outbreaks or natural calamities following the organizational policies	-	-	-	-
PC13. follow the applicable emergency procedures and ensure the personnel also do the same	-	-	-	-
PC14. ensure the safe use of emergency equipment, e.g. fire extinguishers, according to the manufacturer's instructions	-	-	-	-
PC15. arrange for the emergency equipment to be repaired or replaced, as required	-	-	-	-

PC16. maintain records of workplace emergencies and report them to the relevant authority in compliance with the applicable regulatory requirements	-	-	-	-
NOS Total	40	60	-	-

NOS Name	DGT/VSQ/N0103: Employability Skills – (90 hours)			
Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the current job market requirement and future of work.	-	-	-	-
PC2. identify and explore learning and employability relevant portals	-	-	-	-
PC3. research about the different industries, job market trends, latest skills required and the available opportunities.	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC4. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC5. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC6. recognize the significance of 21st Century Skills for employment	-	-	-	-

PC7. practice the 21st Century Skills such as Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal and professional life	-	-	-	-
PC8. adopt a continuous learning mindset for personal and professional development	-	-	-	-
<i>Basic English Skills</i>	3	4	-	-
PC9. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC11. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-
PC12. identify career goals based on the skills, interests, knowledge, and personal attributes	-	-	-	-
PC13. prepare a career development plan with short- and long-term goals.	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings	-	-	-	-
PC15. use active listening techniques for effective communication	-	-	-	-

PC16. communicate in writing using appropriate style and format based on formal or informal requirements	-	-	-	-
PC17. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC18. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC19. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.	-	-	-	-
PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook	-	-	-	-
PC22. identify common components of salary and compute income, expenses, taxes, investments etc.	-	-	-	-
PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	5	-	-
PC24. operate digital devices and use their features and applications securely and safely	-	-	-	-

PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.	-	-	-	-
PC26. display responsible online behavior while using various social media platforms	-	-	-	-
PC27. create a personal email account, send and process received messages as per requirement	-	-	-	-
PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications	-	-	-	-
PC29. utilize virtual collaboration tools to work effectively	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-
PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC33. identify different types of customers and ways to communicate with them	-	-	-	-
PC34. identify and respond to customer requests and needs in a professional manner	-	-	-	-

PC35. use appropriate tools to collect customer feedback	-	-	-	-
PC36. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC37. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC39. apply to identified job opening using offline /online methods as per requirement	-	-	-	-
PC40. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

Annexure 6: Assessment Strategy

Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SIP
- The batch allocation Matrix prepared for each month based on previous months' performance of AAs, which determines the quantum of Assessment which can be allocated to each AA for a month
- Post allocation of assessment, Assessment agencies send the assessment confirmation to SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process.

2. Testing Environment:

- A combination of Theory and practical/demonstration test is deployed to assess knowledge and Skill respectively of Learners.
- Assessment is conducted at Training center in in-person/offline mode
- For Skill assessment, environment is simulated to create a realistic Working Environment that should replicate the key features of the workplace. In job roles, where it is difficult to replicate the same, the OJT assessment is implemented.
- During the practical task, trainees are assessed on their workmanship, quality of finished product, time management, etc., based on the performance criteria (PC), knowledge and understanding and their professional and soft skills as specified in the qualification pack.
- Knowledge assessment is done through closed ended questions up to level 4 and from level 5 onwards, it is mixture of open ended and closed ended questions

3. Assessment Quality Assurance levels/Framework

- Assessment criteria is developed for each QP which acts as a guide for developing question set /banks
- Sample questions aligned with Assessment criteria for each QP are developed by SSC and validated by industry
- Taking reference of Assessment criteria and Sample Questions, AAs create the question bank which is further validated by SSC
- Questions are mapped to the specified assessment criteria
- It is mandatory that Assessor and Trainer must be ToA certified & ToT Certified respectively
- Continuous Monitoring through virtual and In-person mode are conducted to ensure the assessment is conducted as per stipulated process
- Process and Technical audit of assessment batches by quality team are conducted to avoid the errors in assessment process

- A well -defined comprehensive framework of NON-COMPLIANCE MATRIX is defined and implemented to identify the non-compliance made by assessor and AA and punitive actions are taken correspondingly.
- The capacity building sessions are conducted regularly for assessors and assessment agencies to update them about best practices in assessment

4. Types of evidence or evidence-gathering protocol:

- Post Assessment, the evidences are uploaded by Assessor to assessment agency and further assessment agency to SSC as per stipulated TAT
- Evidences are broadly the photographic and video graphic in nature
- Assessment agencies upload the evidence on SIP and detailed evidence on SSC digital platform (ZoHO)
- Evidences are; NOS wise-Geotagged photographs and videos of Theory Test & Practical Tasks, Attendance sheet, result summary sheet, group photographs.

5. Method of verification or validation:

- The process and technical audit of assessment batches are done by SSC
- Attendance of each candidate is verified and it is ensured that only those candidates are assessed by assessors who are meeting the stipulated minimum percentage of attendance
- The result of each candidate is verified, it is verified that that result on SIP are matching with respect to summary sheet submitted by AAs
- Under detailed technical audit for sample of batches, the knowledge and skill assessment results for each candidate is checked in technical aspect.
- All the evidences of batches are preserved on server of SSC digital platform

On the Job:

- On job training (OJT), candidates undergo training and leaning at actual workplace for a fixed period of time and a certain weightage of assessment is allocated out of total skill weightage of Qualification Pack for undergoing OJT as stipulated by CSDCI. This OJT score and assessors' end point score are combined to arrive at final Marking/grading of trainees' skill test. The OJT score is determined by Supervisor of company under which candidates undergo on job training.

Annexure 7: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf

Annexure 8: Occupational Map

Sub-Sectors	Building Information Modeling			
Occupations	Design	Construction	Operations	<u>Occupation 3-Common</u>
Occupation # (01-99)				
Level 8	Global/ Country Head, Chief General Managers			
Level 7.0	Head - BIM Projects			
Level 6.5	BIM Manager - Design	BIM Manager - Construction	BIM Manager - Operations	
Level 6.0	BIM Coordinator - Design	BIM Coordinator - Construction	BIM Coordinator - Operations	
	BIM Designer – Interior Design and VR Integration	4D BIM Planner – Planning & Monitoring	7D BIM Creator - BIM & IoT Integration	
		5D BIM Planner – Cost Planning and Monitoring	6D BIM Creator – Sustainability	
			BIM Expert – Scan to BIM	
Level 5.0	BIM Technician – Object creation	BIM Technician – Safety Planning		
Level 4.5		Project Soft-landing Executive		

Level 4.0	BIM Modeler Elective 1: MEP Elective 2: – Structural and Formwork Elective 3: Architecture & Landscaping			
Level 3.0				
Level 2.0				
Level 1.0				

NSQC

Annexure 9: Career Progression

