COMPETENCY STANDARDS & ASSESSMENT GUIDE
FOR
MASONRY

Skills for Employment Investment Program (SEIP)
Finance Division, Ministry of Finance

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INTRODUCTION:

The Skills for Employment Investment Program (SEIP) Project of the Finance Division of the Ministry of Finance has embarked on a project which aims to qualitatively and quantitatively expand the skilling capacity of identified public and private training providers by establishing and operationalizing a responsive skill eco system and delivery mechanism through a combination of well-defined set of funding triggers and targeted capacity support.

Among the many components of the project, one is to promote a Market Responsive Inclusive Skills Training Delivery program. Key priority economic growth sectors identified by government have been targeted by the project to improve current job skills along with up-skilling of the existing workforce to ensure 'required skills to industry standards'. Training providers are encouraged and supported to work with the industry to address identified skills to enable industry growth and increased employment through the provision of market responsive inclusive skills training programs. Priority sectors were identified to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISCs), Employer Associations and Employers.

This document is developed to improve skills in accordance with the job roles and skill sets of the occupation and ensure that the required skills are aligned to industry requirements.

The document details the format, sequencing, wording and layout of the Competency Standard for an occupation which comprised Units of Competence and its corresponding Elements.

OVERVIEW:

A **Competency Standard** is a written specification of the knowledge, skills and attitudes required for the performance of a job or occupation or trade corresponding to the standard of performance required in the workplace.

Competency standard:

- provides a consistent and reliable set of components for training, recognizing and assessing people's skills, and may also have optional support materials.
- enables industry recognized qualifications to be awarded through direct assessment of workplace competencies
- encourages the development and delivery of flexible training which suits individual and industry requirements
- encourages learning and assessment in a work-related environment which leads to verifiable workplace outcomes.

Competency Standards are developed by a working group who comprised national and international process experts and the participation of experts from the industry to identify the competencies required of an occupation in a particular sector.

Competency Standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. Competency Standards acknowledge that people can achieve vocational and technical competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With Competency Standards, training and assessment may be conducted at the workplace or at training organization or any combination of these.

A Unit of Competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of Competency are documented in a standard format that comprises:

- Reference to Industry Sector, Occupational Title and Occupational Description
- Unit code
- Unit title
- Unit descriptor
- Unit of Competency
- Elements and performance criteria
- Variables and range statement
- Evidence guides

Together all the parts of a Unit of Competency:

- Describe a work activity
- Guide the assessor in determining whether the candidate is competent.

Identification and validation of units of competency and elements for this occupation were made by experts of various construction companies in an industry consultative workshop held at the Bangladesh Association of Construction Industry (BACI) on the 14th of February 2016.

Profile of experts and facilitators who participated in the Competency Verification and Validation Workshop are given below:

Competency Verification-Validation Experts:

Name	Company	Job Position
Mr. Nibir Kanti Sarker	Project Builders Ltd(PBL)	Head, Machinery Division
Mr. Faysoluzzaman	Diligent Engineers	Project Engineer
Mr. Md. Samin Yasar	Building Design & Consultant	Site Engineer
Mr. Md. Monirul Islam	National Development Engineers	Project Engineer
Mr. Md. Jalal Mia	Atlanta group of industries	Manager
Engr. Dilip Kumar Sarker	Project Builders Ltd(PBL)	Deputy Chief engineer
Mr. Md. Mohiuddin Ahmed	Samsuddin Mia & Associates Ltd.	Sr. Site Engineer
Mr. Md. Amanulla	Engineer foundation &Consultant	Sr. Engineer
Mr. Md. Khairuzzaman Mia	Asset development and holding Ltd.	Sr. Project Engineer
Mr. Md. Majed Ali	Asset Development & holding	Sr. Project Engineer

Workshop Facilitators:

Emeterio Cedillo, Jr.	SEIP	International Specialist
Md. Ahasan Habib	SEIP	TVET Specialist
Md. Mohiuzzaman	SEIP	Course Specialist

The ensuing sections of this document comprise a description of the respective occupation with all the key components of a Unit of Competency:

- An overview of all Units of Competency for the occupation and their corresponding duration required for completion of training.

- The Competency Standards that include the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

COMPETENCY PROFILE/CHART for
Masonry

UNITS OF COMPETENCY	ELEMENTS			
A. Generic (Basic) Competencies				
PERFORM COMPUTATIONS USING BASIC MATHEMATICAL CONCEPTS (SEIP-CON-MAS-1-G)	Identify calculation requirements in the workplace.	Select appropriate mathematical methods/concepts for the calculation.	Use tool/instrument to perform calculations	
APPLY OCCUPATIONAL HEALTH AND SAFETY (OH&S) PRACTICES IN THE WORKPLACE (SEIP-CON-MAS-2-G)	Identify OHS policies and procedures	Apply personal health and safety practices	Report hazards and risks	Respond to emergencies
COMMUNICATE IN ENGLISH IN THE WORKPLACE (SEIP-CON-MAS-3-G)	Read and understand workplace documents in English	Write simple workplace written communications in English.	Listen and comprehend to English conversation	Perform conversations in English language
OPERATE IN A SELF-DIRECTED TEAM. (SEIP-CON-MAS-4-G)	Identify team goals and processes.	Communicate and cooperate with team members.	Work as a team member	Solve problems as a team member
B. Sector Specific (Common) Competencies				
TRANSLATE DRAWINGS, PLANS AND SPECIFICATIONS (SEIP-CON-MAS-1-S)	Access information from manuals, designs and plans	Interpret drawings and specifications from manuals, designs and plans	Store manuals, designs and plans	
WORK WITH HAND TOOLS AND POWER TOOLS (SEIP-CON-MAS-2-S)	Inspect hand tools and power tools for usability	Use hand tools properly and safely	Operate power tools properly and safely	Clean/maintain hand tools and power tools after use
CARRY OUT MEASUREMENTS AND CALCULATIONS (SEIP-CON-MAS-3-S)	Check usability of measuring devices	Carry out accurate construction work measurements	Execute simple construction work calculations	Clean and maintain measuring instruments
D. Occupation Specific (Course) Competencies				
MAKE MASONRY MORTAR/STUCCO (SEIP-CON-MAS-1-O)	Gather mortar making tools, equipment and materials	Prepare mortar mixing box/containment	Make mortar/stucco	Clean and maintain the work area

CARRY OUT PAVEMENT LAYING WORK (SEIP-CON-MAS-2-O)	Gather pavement laying tools, equipment and materials	Prepare concrete making raw materials	Set up base for paving work	Lay paving bricks/blocks
	Complete the paving work	Clean/maintain the workplace		
PILE STRUCTURAL BRICKS AND BLOCKS (SEIP-CON-MAS-3-O)	Prepare location	Build a concrete footer	Lay brick or block structure	Finish brick or block laying work and curing
	Clean/maintain the workplace			
CARRY-OUT STONE AND BRICK WORKS (SEIP-CON-MAS-4-O)	Gather masonry working tools, equipment and materials at site	Organize bricks/blocks at work site	Create cement mortar/stucco	Prepare for brick/block installation
	Carry out brick/ block installation work			
ACCOMPLISH MASONRY SURFACE PLASTERING (SEIP-CON-MAS-5-O)	Clean the masonry surface area prior to plastering	Mix plaster materials	Apply plaster on plain surfaces	Apply plaster to corners
	Clean/maintain the workplace			
PERFORM PATTERN STONE FINISHING WORK (SEIP-CON-MAS-6-O)	Plan out for pattern stone work	Gather tools, equipment and materials	Mix pattern stone materials	Pour cement mixture
	Complete curing of concrete	Clean/maintain the workplace		

PERFORM WALL PANELING USING BRICKS/STONES (SEIP-CON-MAS-7-O)	Gather tools and materials	Organize for wall paneling works using bricks/stones	Prepare wall surface for brick/stone paneling	Mix mortar/bonding components
	Accomplish wall paneling works	Clean/maintain the workplace		
APPLY WATERPROOFING ACTIVITIES IN CONSTRUCTION (SEIP-CON-MAS-8-O)	Organize work area for waterproofing	Prepare concrete prior to waterproofing	Apply waterproofing material	Perform other waterproofing considerations
	Clean/maintain the workplace			

Units & Elements at Glance:

Generic (Basic) Competencies (46 hrs.)

Code	Unit of Competency	Elements of Competency	**Duration (Hours)**
SEIP-CON-MAS-1-G	Perform Computations Using Basic Mathematical Concepts	1. Identify calculation requirements in the workplace 2. Select appropriate mathematical methods/concepts for the calculation. 3. Use tool/instrument to perform calculations	14
SEIP-CON-MAS-2-G	Apply Occupational Health and Safety (OHS) Practices in the Workplace	1. Identify OHS policies and procedures 2. Apply personal health and safety practices 3. Report hazards and risks 4. Respond to emergencies	10
SEIP-CON-MAS-3-G	Communicate in English in the Workplace	1.Read and understand workplace documents in English 2. Write simple workplace communications in English 3. Listen and comprehend to English conversations 4. Perform conversations in English language	14
SEIP-CON-MAS-4-G	Operate in a Self-Directed Team	1. Identify team goals and work processes 2. Communicate and cooperate with team members. 3. Work as a team member. 4. Solve problems as a team member	8
Total Hour			46

Sector Specific (Common) Competencies (36 hrs.)

Code	Unit of Competency	Elements of Competency	**Duration (Hours)**
SEIP-CON-MAS-1-S	Translate Drawings, Plans and Specifications	1. Access information from manuals, designs and plans 2. Interpret drawings and specifications from manuals, designs and plans 3. Store manuals, designs and plans	16
SEIP-CON-MAS-2-S	Work With Hand Tools and Power Tools	1. Inspect hand tools and power tools for usability 2. Use hand tools properly and safely 3. Operate power tools properly and safely	10

		4. Clean/maintain hand tools and power tools after use	
SEIP-CON-MAS-3-S	Carry Out Measurements and Calculations	1. Check usability of measuring devices 2. Carry out accurate construction work measurements 3. Execute simple construction work calculations 4. Clean and maintain measuring instruments	10
Total Hour			36

OCCUPATION SPECIFIC (CORE) COMPETENCIES (278 HRS.)

Code	Unit of Competency	Elements of Competency	**Duration (Hours)**
SEIP-CON-MAS-1-O	Make Masonry Mortar/Stucco	1. Gather mortar making tools, equipment and materials in line with the work task 2. Prepare mortar mixing box/containment 3. Make mortar/stucco 4. Clean and maintain the work area	22
SEIP-CON-MAS-2-0	Carry Out Pavement Laying work	1. Gather pavement laying tools, equipment and materials 2. Prepare concrete making raw materials 3. Set up base for paving work 4. Lay paving bricks/blocks 5. Complete the paving work 6. Clean/maintain the workplace	40
SEIP-CON-MAS-3-O	Pile Structural Bricks and Blocks	1. Prepare location 2. Build a concrete footer 3. Lay brick or block structure 4. Finish brick or block laying work and curing 5. Clean/maintain the workplace	40
SEIP-CON-MAS-4-O	Carry-out Stone and Brick Works	1. Gather masonry working tools, equipment and materials at site 2. Organize bricks/blocks at work site 3. Create cement mortar/stucco 4. Prepare for brick/block installation 5. Carry out brick/ block installation work 6. Clean/maintain the workplace	40
SEIP-CON-MAS-5-O	Accomplish Masonry Surface Plastering	1.Clean the masonry surface area prior to plastering 2. Mix plaster materials 3. Apply plaster on plain surfaces 4. Apply plaster to corners 5. Clean/maintain the workplace	40
SEIP-CON-MAS-6-O	Perform Pattern Stone Finishing Work	1.Plan out for pattern stone work 2. Gather tools, equipment and materials	32

		3. Mix pattern stone materials 4. Pour cement mixture 5. Complete curing of concrete 6. Clean/maintain the workplace	
SEIP-CON-MAS-7-O	Perform Wall Paneling Using Bricks/Stones	1. Gather tools and materials 2. Organize for wall paneling works using bricks/stones 3. Prepare wall surface for brick/stone paneling 4. Mix mortar/bonding components 5. Accomplish wall paneling works 6. Clean/maintain the workplace	32
SEIP-CON-MAS-8-O	Apply Waterproofing Activities in Construction	1.Organize work area for waterproofing 2.Prepare concrete prior to waterproofing 3.Apply waterproofing material 4.Perform other waterproofing considerations 5.Clean/maintain the workplace	32
Total Hour			278

COMPETENCY STANDARD: MASONRY

A. The Generic (Basic Competencies)

Unit of Competency: **PERFORM COMPUTATIONS USING BASIC MATHEMATICAL CONCEPTS**	**Nominal Duration:** 14 hrs.	**Unit Code:** SEIP-CON-MAS-1-G
Unit Descriptor: This unit of competency requires the knowledge, skills and attitude to perform computations using basic mathematical concepts in the workplace. It specifically includes the tasks of identifying calculation requirements in the workplace, selecting appropriate mathematical method/concept for the calculation and using appropriate instruments tools to carry out calculation.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Identify calculation requirements in the workplace	1.1 **Calculation requirements** are identified from **workplace information.**
2. Select appropriate mathematical methods/concepts for the calculation.	2.1 **Appropriate method** is selected to carry out the calculation requirements.
3. Use tool/instrument to perform calculations	3.1 Calculations are completed using appropriate **tools and instruments.**

Range of variables:

Variable	Range May include but not limited to:
1. Calculation requirements.	1.1 Area 1.2 Height 1.3 Length/Breath/thickness 1.4 Diameter 1.5 Weight 1.6 Capacity 1.7 Time 1.8 Temperature. 1.9 Material usage
2. Workplace information	2.1 Civil Drawing 2.2 Design 2.3 Working drawing 2.4 Verbal instructions 2.5 Job order
3. Appropriate method	3.1 Addition 3.2 Subtraction

	3.3 Division 3.4 Multiplication 3.5 Conversion 3.6 Percentage and ratio calculation 3.7 Simple equation
4. Tools/instruments	4.1 Calculator 4.2 Computer

Curricular Content Guide

1. Underpinning Knowledge	1.1 Numerical concept 1.2 Basic mathematical methods such as addition, subtraction, multiplication and division and percentage. 1.3 Mathematical language, symbols and terminology. 1.4 Measuring units 1.5 Knowledge of computer application
2. Underpinning Skills	2.1 Adding numbers 2.2 Subtracting numbers 2.3 Multiplying numbers. 2.4 Dividing numbers. 2.5 Measuring of linear 2.6 Using of mathematical language, symbols, terminology and technology. 2.7 Measuring of different physical parameter. 2.8 Calculating geometrical parameters: angle, parallelism, perpendicularity, area and volume
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Promptness in carrying out activities 3.3 Tidiness and timeliness 3.4 Respect to peers, sub-ordinates and seniors in workplace 3.5 Environmental concern 3.6 Sincerity and honesty
4. Resource Implications	The following resources must be provided. 4.1 Stationeries 4.2 Consumables 4.3 Calculators 4.4 Computers 4.5 Measuring tape

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Identified calculation requirements from workplace information. 1.2 Selected appropriate method to carry out the calculation requirements. 1.3 Completed calculations using appropriate tools/instruments.

2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Oral questioning 2.3 Demonstration.
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **APPLY OCCUPATIONAL HEALTH AND SAFETY (OHS) PRACTICES IN THE WORKPLACE**	**Nominal Duration:** 10 hrs.	**Unit Code:** SEIP-CON-MAS-2-G
Unit Descriptor: This unit covers the knowledge, skills and attitudes required to apply Occupational Health and Safety (OH&S) practices in the workplace. It specifically includes the tasks of identifying OHS policies and procedures, applying personal health and safety practices, reporting hazards and risks and responding to emergencies.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Identify OHS policies and procedures	1.1 **OHS policies** and safe operating procedures are read and understood. 1.2 Safety signs and symbols are identified and followed. 1.3 Emergency response, evacuation procedures and other contingency measures are determined.
2. Apply personal health and safety practices	2.1 OHS policies and procedures are followed and practiced. 2.2 **Personal Protective Equipment (PPE)** is selected and used. 2.3 Personal hygiene is maintained.
3. Report hazards and risks	3.1 **Hazards and risks** are identified, assessed and controlled. 3.2 Incidents arising from hazards and risks are reported to authority. 3.3 Corrective actions are implemented to correct unsafe conditions in the workplace.
4. Respond to emergencies	4.1 Alarms and warning devices are responded. 4.2 **Emergency response plans and procedures** are implemented. 4.3 **First aid procedure** is applied during emergency situations.

Range of Variables

Variable	Range May include but not limited to:
1. OHS policies	1.1 International OHS requirements 1.2 Bangladesh standards for OHS 1.3 Building Code 1.4 Fire Safety Rules and Regulations 1.5 Industry Guidelines
2. Personal Protective Equipment (PPE)	2.1 Apron 2.2 Gas Mask 2.3 Gloves 2.4 Safety shoes 2.5 Helmet 2.6 Face mask 2.7 Overalls

	2.8 Goggles and safety glasses 2.9 Ear plugs 2.10 Sun block 2.11 Chemical/Gas masks
3. Hazards and risks	3.1 Chemical hazards. 3.2 Biological hazards. 3.3 Physical Hazards. 3.3.1 Machine hazards. 3.3.2 Materials hazards. 3.3.3 Tools and Equipment hazards.
4. Emergency response plans and procedures	4.1 Firefighting procedures 4.2 Earthquake response procedures 4.3 Evacuation procedures 4.4 Medical and first aid
5. First aid procedure	5.1 Washing of open wound 5.2 Washing chemically infected area 5.3 Applying bandage 5.4 Tourniquet 5.5 Applying CPR (Cardiopulmonary Resuscitation) 5.6 Taking appropriate medicine

Curricular Evidence Guide:

1. Underpinning Knowledge	1.1 OHS workplace policies and procedures. 1.2 Work safety procedures. 1.3 Emergency procedures. 1.3.1 Firefighting. 1.3.2 Earthquake response. 1.3.3 Explosion response. 1.3.4 Accident response. 1.4 Types of (biological, chemical and physical) and their effects. 1.5 PPE types and uses. 1.6 Personal hygiene practices. 1.7 OHS awareness.
2. Underpinning Skills	2.1 Identifying OHS policies and procedures 2.2 Following personal work safety practices 2.3 Reporting hazards and risks 2.4 Responding to emergency procedures 2.5 Maintaining physical well-being in the workplace 2.6 Performing first aid. 2.7 Performing basic firefighting accessories using fire extinguishers 2.8 Applying basic first aid procedures
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Communication with peers, sub-ordinates and seniors in workplace. 3.3 Promptness in carrying out activities 3.4 Tidiness and timeliness

	3.5 Respect of peers, sub-ordinates and seniors in workplace 3.6 Environmental concern 3.7 Sincere and honest to duties
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 PPEs 4.3 Firefighting equipment 4.4 Emergency response manual 4.5 First aid kits

Assessment Evidence Guide:

4. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Followed OHS policies and procedures. 1.2 Selected and used personal protective equipment (PPE). 1.3 Reported incidents arising from hazards and risks to authority. 1.4 Emergency response plans and procedures are implemented. 1.5 Applied basic first aid procedure.
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Demonstration 2.3 Oral questioning
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **COMMUNICATE IN ENGLISH IN THE WORKPLACE**	**Nominal Duration:** 14 hrs.	**Unit Code:** SEIP-CON-MAS-3-G
Unit Descriptor: This unit covers the knowledge, skills and attitudes required to communicate in English in the workplace. It specifically includes tasks of reading and understanding workplace documents in English, writing simple workplace written communications in English, listening and comprehending to English conversations and performing conversations in English.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Read and understand workplace documents in English	1.1 Workplace documents are read and understood. 1.2 Visual information is interpreted.
2. Write simple workplace communications in English	2.1 Simple **routine workplace documents** are prepared using key words, phrases, simple sentences and **visual aids** are prepared. 2.2 Key information is written in the appropriate places in standard forms.
3. Listen and comprehend to English conversations	3.1 Active listening is demonstrated.
4. Perform conversations in English language	4.1 Conversation is performed in English with peers, customers and management to the required workplace standard.

Range of Variables

Variable	Range May Include but not limited to:
1. Routine workplace documents	1.1 Agenda 1.2 Simple reports such as progress and incident reports 1.3 Job sheets 1.4 Operational manuals 1.5 Brochures and promotional material 1.6 Visual and graphic materials 1.7 Standards 1.8 OHS information 1.9 Signs
2. Visual aids	2.1 Maps 2.2 Diagrams 2.3 Forms 2.4 Labels 2.5 Graphs 2.6 Charts

Curricular Evidence Guide:

1. Underpinning Knowledge	1.1 Read workplace documents in English 1.2 Write simple routine workplace documents in English 1.3 Listen to conversation in English 1.4 Perform conversation in English 1.5 Interaction skills (i.e., teamwork, interpersonal skills, etc.) 1.6 Job roles, responsibilities and compliances
2. Underpinning Skills	2.1 Ability to read and understand workplace documents in English by using appropriate vocabulary and grammar, standard spelling and punctuation 2.2 Ability to write simple routine workplace documents in English such as: Schedules and agenda, job sheets, operational manuals and brochures and promotional material 2.3 Ability of listening in English and interpreting 2.4 Ability to perform conversation in English with peers, customers and management to the required workplace standard 2.5 Work effectively with others 2.5.1 Listening and questioning skills 2.5.2 Ability to follow simple directions
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Promptness in carrying out activities 3.3 Tidiness and timeliness 3.4 Respect to peers, sub-ordinates and seniors in workplace 3.5 Environmental concern 3.6 Sincere and honest to duties
4. Resource Implications	The following resources must be provided: 4.1 Work place Procedure 4.2 Materials relevant to the proposed activity 4.3 All tools, equipment, material and documentation required 4.4 Relevant specifications or work instructions

Assessment Evidence Guide:

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Converse in English with peers and customers 1.2 Made reports of workplace documents in English
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Demonstration 2.3 Oral questioning
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **OPERATE IN A SELF-DIRECTED TEAM**	**Nominal Duration:** 8 hrs.	**Unit Code:** SEIP-CON-MAS-4-G
Unit Descriptor: This unit covers the knowledge, skills and attitudes required to operate in a self-directed team. It specifically includes tasks of identifying team goals and work processes, communicating and cooperating with team members, working and solving problems as a team member.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Identify team goals and work processes	1.1 Team goals and collaborative decision making processes are identified. 1.2 Roles and responsibilities of team members are identified. 1.3 Relationships within team and with other workers are identified.
2. Communicate and cooperate with team members	2.1 Effective interpersonal skills are used to interact with team members and to contribute to activities and objectives. 2.2 Formal and informal **forms of communication** are used effectively to support team achievement. 2.3 Diversity in character is respected and valued in team functioning. 2.4 Views and opinions of other team members are understood and valued. 2.5 Workplace terminology is used correctly to assist communication
3. Work as a team member	3.1 Duties, responsibilities, authorities, objectives and task requirements are identified and clarified with team. 3.2 Tasks are performed in accordance with organizational and team requirements, specifications and workplace procedures. 3.3 Team member's support with other members are made to ensure team achieves goals, awareness and requirements. 3.4 Agreed reporting lines are followed using standard operating procedure.
4. Solve problems as a team member	4.1 Current and potential problems faced by team are identified. 4.2 A solution to the problem is identified. 4.3 Problems are solved effectively and the outcome of the implemented solution is evaluated.

Range of Variables

Variable	Range May Include but not limited to:
1. Forms of communication	1.1 Agenda 1.2 Simple reports such as progress and incident reports. 1.3 Job sheets. 1.4 Operational manuals.

	1.5 Brochures and promotional material. 1.6 Visual and graphic materials. 1.7 Standards. 1.8 OHS information. 1.9 Signs.

Curricular Evidence Guide:

1. Underpinning Knowledge	1.1 Team goals and collaborative decision making processes 1.2 Roles and responsibilities of team members 1.3 Relationships within team and with other workers 1.4 Effective interpersonal skills to interact with team members 1.5 Effective formal and informal forms of communication 1.6 Value of diversity in team functioning. 1.7 Correct use of workplace terminology 1.8 Team's duties, responsibilities, authorities, objectives and task requirements 1.9 Support mechanism to other members of team to ensure achievements of goals. 1.10 Methods of identifying current and potential problems faced by a team 1.11 Effectively problems solving methods and evaluation of outcomes
2. Underpinning Skills	2.1 Identifying team goals and collaborative decision making processes 2.2 Identifying roles and responsibilities of team members 2.3 Identifying relationships within team and with other workers 2.4 Using effective interpersonal skills to interact with team members and to contribute to activities and objectives 2.5 Using formal and informal forms of communication 2.6 Understanding and valuing views and opinions of other team members 2.7 Performing tasks in accordance with organizational and team requirements, specifications and workplace procedures. 2.8 Supporting other members of the team to ensure team achieves goals, awareness and requirements. 2.9 Identifying current and potential problems faced by the team 2.10 Identifying solutions to the problem 2.11 Solving problems effectively and evaluating the outcome of the implemented solution
3. Underpinning Attitudes	3.1 Teamwork 3.2 Promptness in carrying out activities. 3.3 Tidiness and timeliness. 3.4 Respect to peers, sub-ordinates and seniors in workplace. 3.5 Sincere and honest to duties
4. Resource Implications	The following resources must be provided: 4.1 Workplace (simulated or actual)

	4.2 Pens 4.3 Papers 4.4 Work books 4.5 Learning manuals

Assessment Evidence Guide:

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Identified team goals and work processes. 1.2 Communicated and cooperated with team members. 1.3 Worked as a team member. 1.4 Solved problems as a team member.
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Demonstration 2.3 Oral questioning
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

B. The Sector Specific (Common) Competencies

Unit of Competency: **TRANSLATE DRAWINGS, PLANS AND SPECIFICATIONS**	**Nominal Duration:** 16 hrs	**Unit Code:** SEIP-CON-MAS-1-S
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to translate drawings, plans and specifications. It specifically includes the tasks of accessing information from manuals, designs and plans, interpreting drawings and specifications from manuals, designs and plans and storing manuals, designs and plans.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Access information from manuals, designs and plans	1.1 Appropriate **manuals** are identified and accessed. 1.2 Version and date of the manual are checked to ensure up-to-date specifications of tools, equipment, materials and procedures.
2. Interpret drawings and specifications from manuals, designs and plans	2.1 Relevant **drawings** and **specifications** are correctly recognized from manuals, designs and plans. 2.2 Terms and abbreviations are recognized. 2.3 **Signs and symbols** are interpreted.
3. Store manuals, designs and plans	3.1 Manuals, designs and plans are collected and packed. 3.2 Manuals, designs and plans are stored to prevent damage, and ready access and updating of information when required.

Range of Variables

Variable	Range May include but not limited to:
1. Manuals	1.1 Manufacturer's specification manual 1.2 Repair manual 1.3 Maintenance procedure manual 1.4 Periodic maintenance manual 1.5 Quality manual 1.6 Instruction manual
2. Drawings	2.1 Technical drawings 2.2 Sketches
3. Specifications	3.1 Product specifications 3.2 Performance specifications 3.3 Method specifications
4. Signs and symbols	4.1 Refers to all signs and symbols associated in the construction sector

Curricular Content Guide

1. Underpinning Knowledge	1.1 Types of construction manuals 1.2 Identification of signs and symbols 1.3 Identification of units of measurement 1.4 Identification of units of conversion 1.5 Drawings and specifications 1.6 Terms and abbreviations used
2. Underpinning Skills	2.1 Checking version and date of the manual to ensure up-to-date specifications of tools, equipment, materials and procedures 2.2 Identifying relevant drawings and specifications correctly 2.3 Identifying terms and abbreviations 2.4 Identifying signs and symbols 2.5 Interpreting drawings and specifications 2.6 Interpreting schedules, dimensions and specifications contained in the drawings 2.7 Storing manuals
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Orderliness 3.3 Cleanliness
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of construction manuals and literatures 4.3 Pens 4.4 Papers 4.5 Work books

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Checked version and date of the manual to ensure up-to-date specifications of tools, equipment, materials and procedures. 1.2 Identified relevant drawings and specifications correctly. 1.3 Identified terms and abbreviations. 1.4 Identified signs and symbols. 1.5 Interpreted drawings and specifications. 1.6 Interpreted schedules, dimensions and specifications contained in the drawings.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **WORK WITH HAND TOOLS AND POWER TOOLS**	**Nominal Duration:** 10 hrs.	**Unit Code:** SEIP-CON-MAS-2-S
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to work with hand tools and power tools properly and safely. It specifically includes the tasks of inspecting hand tools and power tools for usability, using hand tools properly and safely, operating power tools properly and safely and cleaning/maintaining hand tools and power tools after use.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Inspect hand tools and power tools for usability	1.1 Appropriate tools are selected. 1.2 Application of tools to job requirement is determined. 1.3 Usability of tools are checked and verified. 1.4 **Hand tools** and **power tools** are prepared. 1.5 Sources of power supply for power tools identified.
2. Use hand tools properly and safely	2.1 Appropriate hand tool for the job is used. 2.2 Proper and safe use/operation is applied in the different types of hand tools. 2.3 **Safety precautions** is observed when using hand tools. 2.4 Unsafe or faulty tools are identified and marked for repair.
3. Operate power tools properly and safely	3.1 Power supply outlet and electrical cord are inspected and confirmed safe for use in accordance with established workplace safety requirements. 3.2 Proper sequence of operation is applied in using power tools to produce results. 3.3 Power tools are used safely in accordance to manufacturer's operating specification.
4. Clean/maintain hand tools and power tools after use	4.1 Dust and foreign matters are removed from power tools in accordance to workplace standard. 4.2 Condition of tools is checked after use 4.3 Appropriate lubricant is applied after use and prior to storage 4.4 **Measuring tools** are checked and calibrated. 4.5 Defective tools, instruments, power tools and accessories are inspected and corrected or replaced.

Range of Variables

Variable	Range May include but not limited to:	
1. Hand tools	1.1 Adjustable spanners 1.2 Auger bits 1.3 Bars (crow and pitch) 1.4 Bench vise 1.5 Bolt cutters 1.6 C-clamp 1.7 Chisels 1.8 Crosscut saws	1.21 Pliers 1.22 Plumb bob 1.23 Punches 1.24 Rip saw 1.25 Scrapers 1.26 Screwdrivers 1.27 Sealant Gun 3 1.28 Shovel/Spades

	1.9 Die and stock 1.10 Drill bits 1.11 Files of all cross-sectional shapes and types 1.12 Gouges 1.13 Grin let 1.14 Hacksaw 1.15 Hammer 1.16 Hand drill 1.17 Hand saw 1.18 Measuring Tapes 1.19 Nips 1.20 Paint Brushes/Rollers	1.29 Sledge Hammers 1.30 Sockets 1.31 Spanners and Wrenches 1.32 Spatula/Putty Knives 1.33 String Lines 1.34 Taps 1.35 Trowels and Floats 1.36 Vice grip 1.37 Wire Cutters 1.38 Wood Planners 1.39 Picks/Mattocks
2. Power tools	2.1 Power drills 2.2 Nail guns 2.3 Angle grinders 2.4 Pneumatic wrenches 2.5 Grinders 2.6 Nibblers 2.7 Jack hammer	2.8 Threading machine 2.9 Sanders machine 2.10 Planers 2.11 Routers 2.12 Pedestal drills 2.13 Grinders
3. Safety precautions	3.1 Use of appropriate PPEs 3.2 Proper hand, feet and eye coordination 3.3 Safe condition of electrical outlets, cords and lamps 3.4 Working environment 3.5 Safe operating condition of hand tools and power tools 3.6 Awareness to OH&S requirements	
4. Measuring instruments	4.1 Measuring tape 4.2 Hose level 4.3 Water level 4.4 Caliper 4.5 Steel rule 4.6 Protractor 4.7 Tri-square	

Curricular Content Guide

1. Underpinning Knowledge	1.1 Types of tools, functions and use 1.2 Types of Hand tools and their proper use and techniques 1.3 Types of Power tools, use and safe handling method 1.4 Technical application of tools 1.5 Procedures in the use of hand tools and power tools 1.6 Policies and procedures for occupational health and safety 1.7 Use of PPE 1.8 Handling of tools and equipment 1.9 Reporting and documentation 1.10 Preventive maintenance 1.11 Methods and techniques 1.12 Quality procedures 1.13 Storage procedures

2. Underpinning Skills	2.1 Using appropriate hand tool for the job 2.2 Observing safety precautions when using hand tools 2.3 Using power tools correctly and safely in accordance to manufacturer's operating specification. 2.4 Checking condition of tools after use 2.5 Applying appropriate lubricant on hand tools and power tools after use and prior to storage 2.6 Inspecting and correcting or replacing defective tools, instruments, power tools and accessories 2.7 Storing Tools and power tools safely in appropriate location
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Environmental concerns 3.3 Eagerness to learn 3.4 Tidiness and timeliness 3.5 Concern to proper use of tools 3.6 Orderliness
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of construction hand tools and power tools 4.3 Pens 4.4 Papers 4.5 Work books 4.6 Tools and power tools operating and maintenance manuals

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Used appropriate hand tool for the job. 1.2 Observe safety precautions when using hand tools. 1.3 Used power tools safely in accordance to manufacturer's operating specification. 1.4 Cleaned and maintained hand tools and power tools after use and prior to storage. 1.5 Inspected and corrected or replaced defective tools, instruments, power tools and accessories. 1.6 Stored tools and power tools safely in appropriate location.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **CARRY OUT MEASUREMENTS AND CALCULATIONS**	**Nominal Duration:** 10 hrs.	**Unit Code:** SEIP-CON-MAS-3-S
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to carry-out measurements and calculations. It specifically includes the tasks of checking usability of measuring devices, carrying out accurate construction work measurements, executing simple construction work calculations and cleaning and maintaining measuring instruments.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Check usability of measuring devices	1.1 Appropriate **measuring device** is selected for the job. 1.2 Applications of measuring device is determined. 1.3 Usability of measuring device is checked and verified. 1.4 Measuring device is prepared.
2. Carry out accurate construction work measurements	2.1 Measurements are obtained using appropriate measuring device. 2.2 **Systems of measurements** are identified and converted where necessary. 2.3 Results are confirmed and recorded.
3. Execute simple construction work calculations	3.1 Simple calculations involving **four basic mathematical operations** are executed. 3.2 Other operations are used to complete tasks in construction works. 3.3 Appropriate formulas for calculating quantities of materials are selected. 3.4 Calculations are performed and verified. 3.5 Material quantities are calculated. 4.6 Results are interpreted and communicated to authority.
4. Clean and maintain measuring instruments	4.1 Dust and foreign matters are removed from measuring instrument. 4.2 Check condition of instrument. 4.3 Apply appropriate lubricant after use and prior to storage. 4.4 Measuring instruments are checked and calibrated. 4.5 Store instrument in accordance to workplace procedure.

Range of Variables

Variable	Range May include but not limited to:
1. Measuring device	1.1 Micrometers 1.2 Slide calipers 1.3 Steel tape (measuring tape) 1.4 Steel rule 1.5 Tri-square

	1.6 Carpenter's square 1.7 Water level 1.8 Hose level 1.9 Thermometers 1.10 String
2. Systems of measurements	2.1 ISO standard 2.2 English system 2.3 Metric system
3. Four basic mathematical operations	3.1 Addition 3.2 Subtraction 3.3 Multiplication 3.4 Division

Curricular Content Guide

1. Underpinning Knowledge	1.1 Types and principles of operation of measuring devices 1.2 The ISO standard of measurements 1.3 Methods of measurement and calculation 1.4 Fraction and decimals 1.5 Linear measurement 1.6 Units of conversion and conversion factors in measurements 1.7 Dimensioning and fits and tolerances 1.8 Calculating ratio and proportion 1.9 Care in the use of measuring devices
2. Underpinning Skills	2.1 Selecting appropriate measuring device for the job 2.2 Checking and verifying usability of measuring device 2.3 Obtaining measurements using appropriate measuring device. 2.4 Confirming measurements and recording results 2.5 Carrying out simple calculations involving four basic mathematical operations 2.6 Calculating material quantities 2.7 Interpreting and communicating results to authority 2.8 Cleaning and storing measuring instruments
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace.
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of measuring and checking tools/instruments 4.3 Pens 4.4 Papers 4.5 Work books 4.6 Measuring tools operating and maintenance manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Selected appropriate measuring device for the job 1.2 Checked and verified usability of measuring device 1.3 Obtained measurements using appropriate measuring device. 1.4 Confirmed measurements and recorded results 1.5 Carried out Simple calculations involving four basic mathematical operations 1.6 Calculated Material quantities 1.7 Interpreted and communicated Results to authority
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

C. Occupation Specific (Core) Competencies

Unit of Competency: **MAKE MASONRY MORTAR/STUCCO**	**Nominal Duration:** 22 hrs.	**Unit Code:** SEIP-CON-MAS-1-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to make masonry mortar/stucco. It specifically includes the tasks of gathering mortar making tools, equipment and materials, preparing mortar mixing box/containment, making mortar/stucco and cleaning/safekeeping the work area.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Gather mortar making tools, equipment and materials in line with the work task	1.1 **PPE** are selected and used. 1.2 **Tools, equipment & materials** are selected and gathered properly. 1.3 Tools, equipment & materials are checked for usability and quality.
2. Prepare mortar mixing box/containment	2.1 Mortar mixing box/containment is cleaned. 2.2 Mortar mixing box/containment is prepared.
3. Make mortar/stucco	3.1 Sand and cement ratio are maintained and measured. 3.2 Materials are laid on mortar mixing box/containment as per instruction. 3.3 Sand, cement and water are mixed in accordance with specification. 3.4 **Transport** is used to carry materials at the working place.
4. Clean and maintain the work area	4.1 Tools & equipment are cleaned and stored in its proper storage. 4.2 Mixing box/containment is cleaned. 4.3 Waste materials are disposed in proper place.

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Safety helmet 1.2 Safety shoes 1.3 Hand gloves 1.4 Apron
2. Tools, equipment & materials	2.1 Tools; 2.1.1 Measuring box 2.1.2 Sieve 2.1.3 Shovel 2.1.4 Pan 2.1.5 Bucket 2.1.6 Mug 2.2 Equipment

	2.2.1 Mixer 2.2.2 Mixing box 2.3 Materials 2.3.1 Cement 2.3.2 Sand 2.3.3 Gravel 2.3.4 Water 2.3.5 Cotton rag
3. Transport	3.1 Pail: plastic/metal 3.2 Trolley 3.3 Wheel borrow 3.4 Rickshaw van 3.5 Low bed truck

Curricular Content Guide

1. Underpinning Knowledge	1.1 Mortar mixing tools and equipment and their function 1.2 Mortar mixing ratio 1.3 Mortar preparation procedure
2. Underpinning Skills	2.1 Selecting and using PPE 2.2 Selecting and gathering tools, equipment & materials 2.3 Preparing platform area as per workplace requirements 2.4 Maintaining sand and cement ratio measurement 2.5 Mixing sand, cement and water are maintained 2.6 Cleaning Tools & equipment 2.7 Cleaning platform area 2.8 Disposing waste materials in designated place
3. Underpinning Attitudes	3.1 Patience 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Tidiness and timeliness 3.6 Respect for rights of peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Mortar preparation equipment, tools and materials 4.3 Work instruction sheet

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Selected and gathered tools, equipment and materials. 1.2 Prepared platform area as per workplace requirements. 1.3 Maintained and measured sand and cement ratio. 1.4 Mixed sand, cement and water. 1.5 Cleaned tools and equipment. 1.6 Cleaned platform area.

	1.7 Disposed waste materials in designated place.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **CARRY OUT PAVEMENT LAYING WORK**	**Nominal Duration:** 40 hrs.	**Unit Code:** SEIP-CON-MAS-2-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to carry-out pavement laying work in construction sector. It specifically includes the tasks of gathering pavement laying tools, equipment and materials, preparing raw materials for concrete making, setting up base for paving work, laying paving bricks/blocks and completing the paving work.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Gather pavement laying tools, equipment and materials	1.1 **PPE** is selected and used. 1.2 **Tools and equipment** are gathered, checked and prepared. 1.3 Bricks, paving tiles/blocks are selected, collected and gathered at work site. 1.4 Mortar/grouting materials are selected, collected and gathered.
2. Prepare concrete making raw materials	2.1 Site for mixing of raw materials is identified and located. 2.2 Tools and equipment are carried to the work site. 2.3 Brick/Paving tiles or blocks are cut into specified sizes by power saw or paving tile cutters. 2.4 Mortar/grout making raw materials are carried to work site.
3. Set up base for paving work	3.1 Base is selected in accordance with building plan. 3.2 Unnecessary materials are removed from the base site. 3.3 Forms for pavement making are built in accordance with workplace requirement. 3.4 Appropriate type of sand is placed on the base in accordance with workplace requirements. 3.5 Base is leveled and tampered in accordance with workplace specification.
4. Lay paving bricks/blocks	4.1 Paving line is set and aligned in the work site. 4.2 Paving line and perpendicular lines are set up at two ends of the line. 4.3 Paving bricks/blocks are positioned and leveled.
5. Complete the paving work	5.1 Gap between blocks or bricks are filled up with appropriate **fillers.** 5.2 Final level check is made and correction is carried out where necessary. 5.3 Unnecessary materials are removed and cleaned from blocks or bricks. 5.4 Curing time is observed before use of the newly built pavement.
6. Clean/maintain the workplace	6.1 Tools and equipment are cleaned. 6.2 Workplace is cleaned. 6.3 Waste materials are disposed in its designated/proper place.

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Skull guard/helmet 1.2 Dust musk 1.3 Goggles 1.4 Safety shoes 1.5 Apron 1.6 Hand Gloves
2. Tools and equipment	2.1 Tools 2.1.1 Measuring Tape (30m) 2.1.2 Tri- square 2.1.3 Pocket tape (3m) 2.1.4 Claw hammer / crow bar 2.1.5 Shovel 2.1.6 Center pins 2.1.7 Water tube level 2.1.8 Water level (precision) 2.1.9 Masonry Trowel 2.1.10 Concrete pans 2.2 Equipment 2.2.1 Trolley 2.2.2 Van 2.2.3 Mixing board 2.2.4 Concrete mixing machine 2.2.5 Tiles, brick and block cutter
3. Concreting raw materials	3.1 Cement 3.2 Sand 3.3 Gravel 3.4 Water 3.5 Wood forms 3.6 Metal forms 3.7 Plastic forms 3.8 Cotton rags
4. Fillers	4.1 Sand 4.2 Cement grout 4.3 Polyurethane concrete crack sealant 4.4 Polymer based sealers

Curricular Content Guide

1. Underpinning Knowledge	1.1 Different types of paving work 1.2 Quality of materials used for paving work 1.3 Tools, equipment and machinery used for paving work 1.4 Procedure of setting blocks/tiles for paving work 1.5 Methods and techniques of performing paving works

	1.6 Different types of filler materials for grouting/filling of gaps between blocks/tiles. 1.7 Procedure of preparing and filling gaps
2. Underpinning Skills	2.1 Selecting, collecting and gathering bricks, paving tiles and blocks at work site 2.2 Gathering tools, equipment and materials to prepare for paving 2.3 Cutting brick, paving tiles and blocks into specified sizes by power saw or paving tile cutters 2.4 Mixing cement, sand and water for grouting using appropriate ratio 2.5 Levelling base according to specifications 2.6 Setting-up paving line and aligning in the work site 2.7 Placing and levelling paving blocks/tiles 2.8 Preparing and using cement grouting as per instruction 2.9 Filling-up gaps between blocks or bricks/tiles with appropriate fillers 2.10 Cleaning tools, equipment and worksite 2.11 Disposing waste materials in its designated/proper place
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of paving work tools and equipment 4.3 Paving work materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Paving work instruction manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate ensures: 1.1 Brick, paving tiles and blocks are cut into specified sizes by power saw or paving tile cutters. 1.2 Base is leveled and tampered in accordance with specification. 1.3 Concreting raw materials are mixed for grouting using appropriate ratio. 1.4 Mixed concrete is poured, floated and cured on the base in accordance to set specification. 1.5 Paving bricks/blocks are positioned and leveled. 1.6 Gap between blocks or bricks are filled up with appropriate fillers.

	1.7 Final level check is made and correction is effected where necessary. 1.8 Tools and equipment are cleaned and waste materials are disposed in its designated/proper place.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **PILE STRUCTURAL BRICKS AND BLOCKS**	**Nominal Duration:** 40 hrs.	**Unit Code:** SEIP-CON-MAS-3-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to pile structural bricks and blocks to build structures for construction. It specifically includes the tasks of preparing the location, building a concrete footer, laying brick or block structure, finishing brick or block laying work and curing and cleaning/maintaining the workplace.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Prepare location	1.1 Plans are read and interpreted. 1.2 **PPE** is collected and used. 1.3 **Tools and equipment** are selected and prepared. 1.4 **Materials** are selected and prepared. 1.5 Building lines are located in accordance with building plan. 1.6 Location of brick structure and block structure based on reference lines of building is established for proper alignment and dimension. 1.7 Horizontal and vertical guide for brick and block is installed.
2. Build a concrete footer	2.1 Lumber and form boards are installed in accordance to **building plan.** 2.2 Form boards are leveled as possible. 2.3 Width and depth of the footer is set in accordance to workplace specification. 2.4 Concrete mix or mortar is poured into the form boards.
3. Lay brick or block structure	3.1 Bricks and blocks are laid on the line at minimum allowance of 1/16 inch and reinforcing bar is installed. 3.2 Mortars are spread and filled on the base and gaps of bricks and blocks. 3.3 Bricks and blocks are positioned and laid. 3.4 Bricks and blocks are leveled during in each course using appropriate levelling device.
4. Finish brick or block laying work and curing	4.1 When laying bricks, 2 inches of mortar is spread on the center area of the row of bricks and use a brick trowel to separate mortar into 2 lines. 4.2 Two mortar joint spacers are placed on each side edge using the center of the masonry block or brick as a reference. 4.3 Block or brick is placed halfway onto the spacer and is tapped until it seats firmly down. 4.4 Same procedure is continued for each course and level is checked periodically. 4.5 The wall or structure is regularly checked using plumb. 4.6 Brick and block structure is cured in accordance with workplace specification. 4.7 Completed work is reported for final checking.

5. Clean/maintain the workplace	5.1 Tools and equipment are cleaned. 5.2 Work place is cleaned in accordance with workplace requirements. 5.3 Waste materials are disposed in proper place.

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Skull guard/helmet 1.2 Dust musk 1.3 Goggles. 1.4 Safety shoes 1.5 Safety gloves 1.6 Proper working clothes 1.7 Body harness/Safety belt
2. Tools & equipment	2.1 Tools 2.1.1 Measuring Tape (30m) 2.1.2 Tri- square 2.1.3 Pocket tape (3m) 2.1.4 Claw hammer / crow bar 2.1.5 Shovel 2.1.6 Center pins 2.1.7 Water tube level 2.1.8 Water level (precision) 2.1.9 Plumb bob 2.1.10 Masonry Trowel 2.1.11 Point trowel 2.1.12 Concrete pans 2.2 Equipment 2.2.1 Truck 2.2.2 Trolley 2.2.3 Pick up 2.2.4 Van 2.2.5 Concrete mixing board
3. Materials	3.1 Cement 3.2 Sand 3.3 Gravel 3.4 Paving brick 3.5 Blocks 3.6 Cotton rags 3.7 Concrete
4. Building Plan	4.1 Civil Drawings 4.2 Scale 4.3 Measurement 4.4 Electrical plans 4.5 Architectural plans

	4.6 Masonry plan

Curricular Content Guide

1. Underpinning Knowledge	1.1 Plan interpretation 1.2 Proper use of PPEs 1.3 Building lay-out 1.4 Horizontal and vertical line setup 1.5 Brick and block laying procedure and techniques 1.6 Mortar spreading procedure and technique 1.7 Form work installation
2. Underpinning Skills	2.1 Locating building lines 2.2 Establishing location of brick structure and block structure based on reference lines of building for proper alignment and dimension 2.3 Installing horizontal and vertical guide for brick and block 2.4 Marking the lay-out of brick and block structure correctly 2.5 Laying bricks and blocks on the line at minimum allowance of 1/16 inch and installing reinforcing bar 2.6 Spreading and filling mortars on the base and gaps of bricks and blocks 2.7 Checking plumb and level constantly during brick and block laying 2.8 Making final checks to ensure that work is accurate 2.9 Ensuring that curing is done properly 2.10 Cleaning work area and storing, tools and equipment in its designated storage area
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Tools and equipment 4.3 Materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Instruction manual

Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Marked the lay-out of brick and block structure correctly. 1.2 Poured concrete mix or mortar into the footer form boards. 1.3 Placed two mortar joint spacers on each side edge using the center of the masonry block or brick as a reference. 1.4 Placed block or brick halfway onto the spacer and tapped until it seats firmly down. 1.5 Cured brick and block structure in accordance with workplace specification. 1.6 Cleaned tools and equipment and disposed waste materials in accordance to workplace policy.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: CARRY-OUT STONE AND BRICK WORKS	Nominal Duration: 40 hrs	Unit Code: SEIP-CON-MAS-4-O

Unit Descriptor:

This unit covers the knowledge, skills and attitudes required for a worker to carry-out stone works and brick works. It specifically includes the tasks of gathering masonry working tools, equipment and materials at site, organizing bricks/blocks at work site, creating cement mortar/stucco, preparing for brick/block installation, carrying-out brick/ block installation works and cleaning/maintaining the workplace.

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Gather masonry working tools, equipment and materials at site	1.1 **PPE** is selected & used. 1.2 Masonry working **tools, equipment** and **materials** are gathered and checked for usability/quality. 1.3 Transport is used for carrying materials. 1.4 Scaffolding is set for masonry works.
2. Organize bricks/blocks at work site	2.1 Bricks/blocks are cleaned and soaked in accordance to specification. 2.2 Quality of bricks are checked and segregated. 2.3 Bricks/blocks are organized at work site in accordance to workplace requirements.
3. Create cement mortar/stucco	3.1 Quality of cement, sand and water are determined. 3.2 Ratio of sand, cement and water are determined in accordance with **Construction plan** and specification 3.3 Sand, cement and water are mixed in accordance to workplace requirement/specification.
4. Prepare for brick/block installation	4.1 Centre lines of the brick/block work for construction is measured and marked as per drawing. 4.2 Level marks are obtained to set out complicated levels from given reference. 4.3 Different levels of building structure are obtained by transferring levels from one point to the other using spirit level or dumpy level. 4.4 Linear and angular measurements are marked as required. 4.5 Offset measurements are taken and checked according to drawing or instructions given. 4.6 String lines are established using threads to facilitate trenching without disturbing the set out marks.
5. Carry out brick/ block installation work	5.1 Bricks/blocks are watered for laying as per instruction. 5.2 Cement mortar are applied uniformly. 5.3 Bricks/blocks are laid and aligned along the set out lines following specified bond patterns. 5.4 Brick closer and bats are used to various standard shapes and sizes as required when laying.

	5.5 Brick joints are filled up with mortar/stucco for better adhesion. 5.6 Brick courses are aligned vertically & horizontally as per drawing/plan. 5.7 Racking out of brick joints are done as per instruction.
6. Clean/maintain the workplace	6.1 Tools and equipment are cleaned. 6.2 Work place is cleaned. 6.3 Waste materials are disposed in proper place.

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Skull guard/helmet 1.2 Dust musk 1.3 Goggles 1.4 Safety shoes 1.5 Safety gloves 1.6 Proper working clothes 1.7 Body harness/Safety belt
2. Tools & equipment	2.1 Tools 2.1.1 Measuring Tape (30m) 2.1.2 Tri- square 2.1.3 Pocket tape (3m) 2.1.4 Claw hammer / crow bar 2.1.5 Shovel 2.1.6 Center pins 2.1.7 Water tube level 2.1.8 Water level (precision) 2.1.9 Masonry Trowel 2.1.10 Point trowel 2.1.11 Concrete pans 2.2 Equipment 2.2.1 Truck 2.2.2 Trolley 2.1.1 Pick up 2.1.2 Van 2.1.3 Cement mixer 2.1.4 Cement mixing board
3. Materials	3.1 Cement 3.2 Sand 3.3 Gravel 3.4 Clean Water 3.5 Paving brick 3.5.1 1st class 3.5.2 2nd class 3.5.3 3rd class

	3.6 Cotton rags
4. Construction plan	4.1 Civil Drawings 4.2 Scale 4.3 Measurement specification 4.4 Electrical plans 4.5 Architectural plans 4.6 Masonry plan/ Layout Plan

Curricular Content Guide

1. Underpinning Knowledge	1.1 Different types of paving work 1.2 Quality of materials used for paving work 1.3 Tools, equipment and machinery used for paving work 1.4 Procedure of setting blocks/tiles for paving work 1.5 Methods and techniques of performing paving works 1.6 Different types of filler materials for grouting/filling of gaps between blocks/tiles
2. Underpinning Skills	2.1 Selecting, collecting and gathering bricks, paving tiles and blocks at work site 2.2 Gathering tools, equipment and materials to prepare for paving 2.3 Cutting brick, paving tiles and blocks into specified sizes by power saw or paving tile cutters 2.4 Mixing cement, sand and water for grouting using appropriate ratio 2.5 Levelling base according to specifications 2.6 Setting-up paving line and aligning in the work site. 2.7 Placing and levelling paving blocks/tiles 2.8 Preparing and using cement grouting as per instruction 2.9 Filling-up gaps between blocks or bricks/tiles with appropriate fillers 2.10 Cleaning tools, equipment and worksite 2.11 Disposing waste materials are in its designated/proper place
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness 3.6 Orderliness 3.7 Respect to peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of tools and equipment 4.3 Materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Instruction manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Cut bricks and blocks into specified sizes by power saw or paving tile cutters. 1.2 Mixed cement, sand and water for grouting using appropriate ratio. 1.3 Leveled base according to specifications. 1.4 Set-up paving line and alignment in the work site. 1.5 Placed and leveled paving bricks/blocks. 1.6 Prepared and used cement grouting as per instruction. 1.7 Filled-up gaps between bricks/blocks with appropriate fillers. 1.8 Cleaned tools, equipment and worksite while waste materials are disposed in its designated/proper place.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **ACCOMPLISH MASONRY SURFACE PLASTERING**	**Nominal Duration:** 40 hrs	**Unit Code:** SEIP-CON-MAS-5-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to accomplish masonry surface plastering for construction. It specifically includes the tasks of cleaning the masonry surface area prior to plastering, mixing plaster materials, applying plaster on plain surfaces, applying plaster to corners and cleaning/maintaining the workplace.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria **Bold and underlined** words are detailed in the range of variables
1. Clean the masonry surface area prior to plastering	1.1 Appropriate **PPE** is gathered and used. 1.2 Scaffolding is prepared as required. 1.3 **Tools, equipment** and **materials** are selected and prepared. 1.4 Racking out of joints and chipping are performed as required. 1.5 Surface is cleaned and washed for plastering.
2. Mix plaster materials	2.1 **Foreign materials** and larger particles are separated from sand with the help of sieve/screen. 2.2 Required quantity of sand is measured and keep them in a dry and plane place. 2.3 Cement is spread on sand with the right quantity in accordance to specification. 2.4 Dry cement and sand is mixed the until the mixture is uniform. 2.5 Water is gradually added and mixed to form the specified consistency.
3. Apply plaster on plain surfaces	3.1 Mortar is applied on masonry surface. 3.2 Surface level is checked using appropriate leveling tools. 3.3 Uneven surface is scratched and repeat while plaster is still soft. 3.4 Wooden trowel and wetted foam is used to finish the surface. 3.5 Finished plastered surface is cured in accordance to workplace specification.
4. Apply plaster to corners	4.1 **Corner plastering tools** are gathered. 4.2 Enough amount of plaster is applied to a corner area. 4.3 Corner is initially set using a flat trowel. 4.4 Setting the corner is finished using a corner trowel. 4.5 Check alignment, perpendicularity, angularity and adjusted where necessary. 4.6 Finished plastered corner is cured in accordance to workplace specification.
5. Clean/maintain the workplace	5.1 Tools and equipment are cleaned. 5.2 Work place is cleaned. 5.3 Waste materials are disposed in proper place.

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Skull guard/helmet 1.2 Dust musk 1.3 Goggles 1.4 Safety shoes 1.5 Safety gloves 1.6 Proper working clothes 1.7 Body harness/Safety belt
2. Tools & equipment	2.1 Tools 2.1.1 Measuring Tape (30m) 2.1.2 Tri- square 2.1.3 Pocket tape (3m) 2.1.4 Claw hammer / crow bar 2.1.5 Shovel 2.1.6 Water tube level 2.1.7 Water level (precision) 2.1.8 Masonry Trowel 2.1.9 Point trowel 2.1.10 Concrete pans 2.2 Equipment 2.2.1 Truck 2.2.2 Trolley 2.2.3 Pick up 2.2.4 Van 2.2.5 Mixing platform
3. Materials	3.1 Cement 3.2 Sand 3.3 Water 3.4 Cotton rags 3.5 Concrete
4. Foreign materials	4.1 Plastic 4.2 Paper 4.3 Leaves 4.4 Stone 4.5 Wood Scrap
5. Corner plastering tools	5.1 Plaster hawk 5.2 Wooden flat trowel 5.3 Metal flat trowel 5.4 Corner trowel 5.5 Pointed trowel

Curricular Content Guide

1. Underpinning Knowledge	1.1 Safe work practices and first aid regulations 1.2 Materials staging procedure

	1.3 Chipping and racking methods/techniques 1.4 Surface sweeping and watering 1.5 Mortar preparation 1.6 Plastering procedure and techniques 1.7 Plastered surface leveling procedure and techniques
2. Underpinning Skills	2.1 Preparing scaffolding as required 2.2 Selecting and preparing tools, equipment and materials 2.3 Staging materials properly and must be free from any foreign matters 2.4 Performing racking out of joints and chipping as required. 2.5 Preparing surface for plastering 2.6 Screening sand and cement mixture before applying water 2.7 Preparing mortar as per specified ratio of sand, cement and clean water 2.8 Applying distribution of mortar on the surface evenly and leveled 2.9 Curing plastering surface as required 2.10 Setting jamb 2.11 Preparing sill and set 2.12 Checking and adjusting right angle, acute angle and obtuse angles
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of tools and equipment 4.3 Materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Instruction manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Prepared surface for plastering. 1.2 Screened sand and cement mixture before applying water. 1.3 Mixed dry cement and sand with water until the mixture is uniform and within specified consistency. 1.4 Applied cement plaster on masonry surface. 1.5 Checked surface level using appropriate leveling tools. 1.6 Finished setting the corner using a corner trowel

	1.7 Checked alignment, perpendicularity, angularity. and adjusted where necessary. 1.8 Cured plastered surfaces and corner in accordance to workplace specification.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **PERFORM PATTERN STONE FINISHING WORK**	**Nominal Duration:** 32 hrs.	**Unit Code:** SEIP-CON-MAS-6-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to perform pattern stone finishing work in construction. It specifically includes the tasks of planning out for pattern stone work, gathering tools, equipment and materials, mixing pattern stone materials, pouring cement mixture, completing curing of concrete and cleaning/maintaining the workplace.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Plan out for pattern stone work	1.1 Elevations, sections and detailed drawings are interpreted and information gathered related to pattern stone work. 1.2 Materials, equipment and man-hours are estimated for completing the job. 1.3 Cement, sand, coarse aggregate and water are checked. 1.4 Quantity of materials are determined.
2. Gather tools, equipment and materials	2.1 **PPE** are selected and used. 2.2 **Tools, equipment** and **materials** are selected and gathered. 2.3 **Pattern Stone** materials are gathered and organized in work area.
3. Mix pattern stone materials	3.1 Mixing location is identified and suitable place is located. 3.2 Effect of sand bulking is rectified. 3.3 Volume of water is obtained according to given water cement ratio. 3.4 Sample of concrete is taken, test cubes are made and slump test is performed under direct supervision. 3.5 Proper transporting method of concrete is used. 3.6 **Concrete admixtures** are identified and used in accordance to workplace requirements
4. Pour cement mixture	4.1 Formwork is checked. 4.2 Setting time of cement is identified. 4.3 Cement mixture is placed in layers and vibrated to avoid air trapping. 4.4 Pattern stone surface is finished. 4.5 Poured cement mixture is leveled using appropriate leveling device.
5. Complete curing of concrete	5.1 Curing of concrete is completed in accordance to workplace requirements.
6. Clean/maintain the workplace	6.1 Tools and equipment are cleaned and stored. 6.2 Work area is cleaned. 6.3 Waste materials are disposed in proper place.

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Skull guard/helmet 1.2 Dust musk. 1.3 Goggles. 1.4 Safety shoes. 1.5 Safety gloves 1.6 Proper working clothes 1.7 Body harness/Safety belt
2. Tools & equipment	2.1 Tools 2.1.1 Measuring Tape (30m) 2.1.2 Tri- square 2.1.3 Pocket tape (3m) 2.1.4 Claw hammer / crow bar 2.1.5 Shovel 2.1.6 Center pins 2.1.7 Water tube level 2.1.8 Water level (precision) 2.1.9 Masonry Trowel 2.1.10 Point trowel 2.1.11 Concrete pans 2.2 Equipment 2.2.1 Truck 2.2.2 Concrete mixer 2.2.3 Concrete pump 2.2.4 Trolley 2.2.5 Pick up 2.2.6 Van 2.2.7 Concrete mixing board
3. Materials	3.1 Ordinary Portland Cement 3.2 Coarse Sand 3.3 Fine Sand 3.4 Coarse aggregate 3.5 Anchor bolts and nuts 3.6 Mould oil 3.7 Bars of variable size 3.8 Admixture 3.9 Water 3.10 Cloth 3.11 Cement 3.12 Sand 3.13 Mortar 3.14 Cotton rags
4. Concrete admixtures	4.1 Retarders 4.2 Accelerator

Curricular Content Guide

1. Underpinning Knowledge	1.1 Elevation, sections and drawing interpretation 1.2 Tools, equipment and materials estimation methods 1.3 Cement, sand, brick chips and water checking 1.4 Materials testing and staging 1.5 Columns and lintel making procedures 1.6 Pre-fabricated shutter making by steel and timber 1.7 Types of concrete admixtures and their functions 1.8 Steel bar bending and cutting procedures 1.9 Band bar positioning 1.10 Sand bulking 1.11 Time setting of cement compactness
2. Underpinning Skills	2.1 Estimating materials, equipment and man-hours for completing the job. 2.2 Checking cement, sand, metal and water availability for concrete work. 2.3 Preparing samples for testing and sent to the laboratory. 2.4 Selecting and gathering tools, equipment and materials 2.5 Obtaining volume of water according to given water cement ratio 2.6 Performing and slump test under direct supervision. 2.7 Using accelerators and retarders 2.8 Checking shuttering for strength, leaks and attending to corrections. 2.9 Identifying the setting time of cement 2.10 Placing concrete in layers and vibrating to avoid air trapping 2.11 Finishing concrete surface 2.12 Completing curing of concrete 2.13 Cleaning work area and storing tools and equipment
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of tools and equipment 4.3 Materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Instruction manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Planned out for pattern stone work in accordance with workplace requirements. 1.2 Selected and gathered tools, equipment and materials in accordance with job requirements. 1.3 Mixed stone materials in accordance with workplace requirements. 1.4 Mixed concrete admixtures in accordance with workplace requirements. 1.5 Poured and leveled cement mixture using appropriate leveling device. 1.6 Completed curing of concrete in accordance with workplace requirements. 1.7 Cleaned work area and stored tools and equipment.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **PERFORM WALL PANELING USING BRICKS/STONES**	**Nominal Duration:** 32 hrs..	**Unit Code:** SEIP-CON-MAS-7-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to perform wall paneling using bricks/stones. It specifically includes the tasks of gathering tools and materials, organizing for wall paneling works using bricks/stones, preparing wall surface for brick/stone paneling, mixing mortar/bonding components, accomplishing wall paneling works, and cleaning/maintaining the workplace.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Gather tools and materials	1.1 **Tools and equipment** are collected for the brick/stone paneling work. 1.2 **Materials** are collected and organized at work site. 1.3 Scaffolding is installed to stock bricks/stones at heights.
2. Organize for wall paneling works using bricks/stones	2.1 **PPE** are collected and used. 2.2 Plans and drawings are interpreted. 2.3 Materials are checked for usability/quality.
3. Prepare wall surface for brick/stone paneling	3.1 Wall surfaces are free of **foreign materials.** 3.2 Brick/stones used for paneling is clean. 3.3 Wall surfaces are cleaned and primed.
4. Mix mortar/bonding components	4.1 Cement mortar/bonding materials are prepared. 4.2 mortar components are Mixed in accordance to workplace specification. 4.3 Quality of cement mortar is checked and qualified.
5. Accomplish wall paneling works	5.1 Setting time of cement is identified. 5.2 Appropriate **bonding material** for brick/stone paneling is identified and used in accordance with specification 5.3 Bricks/stone paneling base is soaked in water. 5.4 Cement mortar/adhesives are applied uniformly for bricks/stone paneling work. 5.5 Bricks/stone are installed on walls/panels considering the required lay out/design in accordance with workplace specification. 5.6 Closer and bats for brick/stone paneling are used. 5.7 Groves are filled up with cement mortars for better adhesion. 5.8 Level/alignment is regularly checked and adjusted where necessary.
6. Clean/maintain the workplace	6.1 Tools and equipment are cleaned and stored. 6.2 Work area is cleaned. 6.3 Waste materials are disposed in proper place.

Range of Variables

Variable	Range May include but not limited to:
1. Tools & equipment	1.1 Tools 1.1.1 Measuring Tape (30m) 1.1.2 Tri- square 1.1.3 Pocket tape (3m) 1.1.4 Claw hammer / crow bar 1.1.5 Shovel 1.1.6 Center pins 1.1.7 Water tube level 1.1.8 Water level (precision) 1.1.9 Masonry Trowel 1.1.10 Point trowel 1.1.11 Concrete pans 1.2 Equipment 1.2.1 Truck 1.2.2 Concrete mixer 1.2.3 Cement mixing board 1.2.4 Concrete pump 1.2.5 Trolley 1.2.6 Pick up
2. Materials	2.1 Machine cut brick /stones 2.2 Cement 2.3 Sand 2.4 water 2.5 Adhesives/bonding materials
3. PPE	3.1 Skull guard/helmet 3.2 Dust musk. 3.3 Goggles. 3.4 Safety shoes. 3.5 Safety gloves 3.6 Proper working clothes 3.7 Body harness/Safety belt
4. Foreign materials	4.1 Dust 4.2 Oil 4.3 Sand 4.4 Cement 4.5 Dirt
5. Bonding material	5.1 Mortar: Cement-Lime-sand mixture 5.2 Pozzolanic fly ash 5.3 Davco bonding products

Curricular Content Guide

1. Underpinning Knowledge	1.1 Mortar components mixing procedure

	1.2 Method/techniques of qualifying cement mortar mixture 1.3 Types of bonding material used for brick/stone paneling 1.4 Procedure and techniques of cement mortar/adhesives application 1.5 Techniques of installing bricks/stone on walls/panels 1.6 Setting time of cement/bonding material 1.7 Procedure of leveling/aligning brick/stone paneling installation 1.8 Workplace requirements for work area cleaning storing of tools and equipment and disposing waste materials
2. Underpinning Skills	2.1 Mixing mortar components in accordance to workplace specification 2.2 Checking and qualifying the quality of cement mortar 2.3 Identifying and using appropriate bonding material for brick/stone paneling in accordance to specification 2.4 Applying cement mortar/adhesives uniformly for bricks/stone paneling work 2.5 installing Bricks/stone on walls/panels considering the required lay out/design in accordance with workplace specification 2.6 Identifying setting time of cement/bonding material 2.7 Checking level/alignment regularly and adjusting where necessary 2.8 Cleaning work area, storing tools and equipment and disposing waste materials in proper place
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of brick/stone paneling work tools and equipment 4.3 Work materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Paneling work instruction manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Mixed mortar components in accordance to workplace specification. 1.2 Checked and qualified the quality of cement mortar. 1.3 Identified and used appropriate bonding material for brick/stone paneling in accordance to specification.

	1.4 Applied cement mortar/adhesives uniformly for bricks/stone paneling work. 1.5 Installed bricks/stone on walls/panels considering the required lay out/design in accordance with workplace specification. 1.6 Identified setting time of cement/bonding material. 1.7 Checked level/alignment regularly and adjusted where necessary. 1.8 Cleaned work area, stored tools and equipment and disposed waste materials in proper place.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **APPLY WATERPROOFING ACTIVITIES IN CONSTRUCTION**	**Nominal Duration:** 32 hrs.	**Unit Code:** SEIP-CON-MAS-8-O
Unit descriptor: This unit covers the knowledge, skills and attitudes required for a worker to apply waterproofing activities in construction. It specifically includes the tasks of organizing work area for waterproofing, preparing concrete prior to waterproofing, applying waterproofing material, performing other waterproofing considerations and cleaning/maintaining the workplace.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Organize work area for waterproofing	1.1 **PPE** is selected and used. 1.2 Work instructions and operational details are obtained for relevant information, planning and preparation. 1.3 Signage and barricade requirements are identified and removed. 1.4 **Tools and equipment** are selected. 1.5 **Materials** appropriate to the work application are identified, obtained & prepared. 1.6 Environmental requirements are identified and conformed.
2. Prepare concrete prior to waterproofing	2.1 Drawings are examined for performance requirements and design requirements. 2.2 Work site is visited and work requirements are confirmed. 2.3 Waterproofing work is determined in relation to structural elements. 2.4 Waterproofing materials are identified. 2.5 Repairs to damaged areas are made. 2.6 Application of bond-breaker and waterproofing installation is identified. 2.7 Potential faults, contingencies and techniques are identified.
3. Apply waterproofing material	3.1 Waterproofing material is checked for conformity and compatibility with substrate material. 3.2 Substrates to be waterproofed are prepared. 3.3 Substrates are prime coated with waterproofing material. 3.4 Flashings are prepared and ready for placement and fixing. 3.5 Reinforcing material is set out and cut for waterproofing junctions and surface requirements. 3.6 Waterproofing membrane is prepared for installation. 3.7 Waterproofing material is mixed or prepared. 3.8 Waterproofing materials are applied. 3.9 Quality of works is checked and defects are rectified.
4. Perform other waterproofing considerations	4.1 Finishing requirements are applied in accordance to waterproofing plan. 4.2 Suitable roof sealer is applied if cast is used in place of concrete.

	4.3 Drainage is checked to be functional for proper flow of water.
5. Clean/maintain the workplace	4.1 Tools and equipment are cleaned and stored. 4.2 Work area is cleaned. 4.3 Waste materials are disposed in proper place

Range of Variables

Variable	Range May include but not limited to:
1. PPE	1.1 Skull guard/helmet 1.2 Dust musk. 1.3 Goggles. 1.4 Safety shoes. 1.5 Safety gloves 1.6 Proper working clothes 1.7 Body harness/Safety belt
2. Tools & equipment	2.1 Tools 2.1.1 Measuring Tape (30m) 2.1.2 Tri- square 2.1.3 Pocket tape (3m) 2.1.4 Hammer 2.1.5 Shovel 2.1.6 Cold chisel 2.1.7 Levelling hose 2.1.8 Spirit level 2.1.9 Masonry Trowel 2.1.10 Pointed trowel 2.1.11 Foam / Sponge 2.1.12 Concrete pans 2.1.13 Wooden float 2.1.14 Steel float 2.1.15 Brush 2.1.16 Nylon string 2.1.17 Plumb bob 2.2 Equipment 2.2.1 Sand blasting equipment 2.2.2 Mixing board 2.2.3 Edger / Grinder 2.2.4 Scaffolding / ladder 2.2.5 Truck 2.2.6 Concrete mixer 2.2.7 Concrete pump 2.2.8 Trolley 2.2.9 Pick up
3. Materials	3.1 Cement 3.2 Concrete 3.3 Sand (screened)

	3.4 Stone/brick chips 3.5 Waterproofing reagent 3.6 Water 3.7 Roof sealer

Curricular Content Guide

1. Underpinning Knowledge	1.1 Work instruction and operational detail 1.2 Signage and barricade identification 1.3 Drawings interpretation 1.4 Bond breaker application 1.5 Water proofing procedures and techniques 1.6 Potential faults identification techniques 1.7 Water proofing materials checking method and technique 1.8 Water proofing membrane preparation 1.9 Water proofing materials mixing
2. Underpinning Skills	2.1 Obtaining work instructions and operational details for relevant information, planning and preparation. 2.2 Selecting and gathering PPEs, waterproofing materials, tools and equipment 2.3 Identifying application of bond-breaker and waterproofing installation 2.4 Checking waterproofing material for conformity and compatibility with substrate material 2.5 Preparing substrates to be waterproofed 2.6 Prime coating substrates with waterproofing material. 2.7 Preparing flashings and ready for placement and fixing. 2.8 Preparing waterproofing membrane for installation. 2.9 Mixing or preparing waterproofing material 2.10 Applying waterproofing materials 2.11 Checking Quality of works and rectifying defects 2.12 Cleaning work area and storing tools and equipment
3. Underpinning Attitudes	3.1 Cleanliness/tidiness 3.2 Commitment to occupational health and safety practices 3.3 Environmental concerns 3.4 Eagerness to learn 3.5 Timeliness and orderliness 3.6 Respect for rights of peers and seniors in workplace 3.7 Orderliness
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Different types of waterproofing work tools and equipment 4.3 Waterproofing materials and consumables 4.4 Pens 4.5 Papers 4.6 Work books 4.7 Waterproofing work instruction manual

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Identified application of bond-breaker for waterproofing installation 1.2 Prepared substrates to be waterproofed 1.3 Prime coated substrates with waterproofing material. 1.4 Mixed or prepared waterproofing material 1.5 Applied waterproofing materials 1.6 Quality of works is checked and defects are rectified 1.7 Applied finishing requirements in accordance to waterproofing plan 1.8 Applied suitable roof sealer if cast is used in place of concrete for slabs
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

END OF COMPETENCY STANDARD

Assessment Guide

A Framework for Effective Assessment

Masonry

How to Use this Assessment Guide

- This Assessment Guide presents need-to-know information for Assessors and others who want to know more about the assessment process. A handy Table of Contents Guide on the next page shows you where to look.

- If you want the basics of assessment, its key terms and definitions, in a Question & Answer (Q&A) format, see Section One.

- If you want a knowledge of who does what, the key roles and responsibilities involved in assessment, see Section Two.

- If you want a "toolbox" of tools and templates, that you can select from depending on your assessment need, see Section Three.

- If you want to look at working samples of completed assessment tools, see the Appendices.

Table of Contents

Section One: Q&A linked to Key Terms & Definitions

1.23 Describe the kinds of Assessment Methods that can be used for Evidence gathering purposes
1.24 What kinds of Assessment Methods can be used for Evidence gathering

1.25 Define the term “evidence gathering tools” giving examples
1.26 Define the term “portfolio.”
1.27 Outline a 6-step method for preparing an evidence plan.

1.28 Outline the steps (sequence of activities) involved in developing an assessment tool.
1.29 Describe the four dimensions of competency.

Section Two: Roles and Responsibilities

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Section Three: Tools and Templates

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Assessment Guide

Section One: Objectives linked to Key Terms & Definitions

Define assessment.

Assessment is a systematic process of collecting proof or evidence on whether or not a candidate has demonstrated competence in the performance of a work-related activity/task that is directly linked to a performance standard. The assessment confirms that the individual can perform to the standard expected in the workplace and/or the nationally approved competency standard.

Give an example of assessment.

A helpful example in this regard is the driving test. The driver must prove his competence to drive by demonstrating to the driving assessor his ability to do so. The driving assessor uses a checklist to assess the candidate and make the necessary recommendations, based on the evidence he has collected in observing the candidate's driving. S/He either records/recommends that the candidate is ***competent*** or ***not yet competent.***

What is the purpose of assessment?

The Purpose of Assessment is to confirm that a trainee can perform competently to the standards expected in the workplace.

What is Assessment based on?

- An effective Assessment is based on a Competency Standard.
- A Competency Standard describes the skills, knowledge, and attitudes needed to perform effectively in the workplace, not the classroom.

Define the term "competency."

Competency is the ability to do a task successfully. Aspects of competency include:

- The capacity to perform tasks to the required standard consistently
- The ability to respond to different needs in the workplace
- The ability to plan and integrate a variety of tasks to attain a work outcome
-

Describe what makes up a competency standard.

It must be noted that a competency standard is made up of individual units of competency that include elements of competency as well as the performance criteria needed to accomplish them.

Define the term "Assessment tool."

An assessment tool is, in effect, an evidence-gathering tool. It contains both the instrument used for the assessment and instructions for gathering evidence in the assessment process. As an assessment instrument it contains the context and conditions for the assessment; tasks to be administered to the learner; an outline of the evidence to be gathered for the learner; the criteria for judging the evidence; and the necessary housekeeping records for recording and reporting requirements.

Describe the difference between Conventional Testing & Competency Based Assessment.

Conventional Testing	CBT Assessment
• Emphasis on knowledge/memorization • Teachers/Training Providers have main role • Theory & practical Tests can become outdated • High cost & central control • Relatively inflexible	• Based on competency standards • Involve industry partners in crucial role • Assessment based on demonstration of work skills rather than classroom knowledge • Flexible delivery • Competencies widely recognized • Guidelines & Templates used

Describe briefly what makes up an assessment system.

An Assessment System must be understood as a well-coordinated set of documented policies and procedures, including assessment materials and tools, that ensure assessments are consistently valid, reliable, flexible, fair, and safe.

Define the purpose of the Assessor role.

The role of Assessor is the heart and soul of effective competency based assessment. Without this pivotal role, determining the competency of the trainee is mere guesswork.

Note:

- The Industry Assessor will be asked to provide specs and practical demonstration tests from his workplace that will provide the evidence for determining competency.
- The importance of this input cannot be overemphasized for it best matches and tests the required performance criteria from the Standard.

Describe the basic questions that an Assessor must ask when planning an Assessment.

Planning an Assessment: What Needs to Happen?

- Determine which Units of Competency need to be assessed?
- Determine what Assessment Methods will be used?
- Determine what evidence-based tools (specs) need to be developed by the Assessor to guide the assessment?
- Determine how long it will take?
- Determine when the assessment will occur?
- Determine where the assessment will take place?
- Determine how it will be recorded?

Give some Assessor Requirements/Competencies.

Requirements/Competencies of an Assessor-

- The ability to use assessment tools to gather evidence effectively is essential, adjusting the language where necessary to reflect the language/literacy/numeracy levels of the workplace and not to exceed them in order to ensure learner understanding. This will also entail an ability to respond to learner needs such as responding to learner disability.

- The skill to develop specifications and practical tests, based on performance criteria, that provide evidence of competency that will fast track the assessment process.
- The ability to clearly demonstrate current industry skills and competencies relevant to the Standard.

- The Assessor is selected/appointed by Industry to act as an Assessor because of his proven competencies.
- Knows what needs to be done to assess the performance criteria
- Demonstrates a high level of expertise in the technical area to be examined
- Can provide constructive feedback

Define the challenges of the Assessor Role.

Assessor Role: Challenges

- Needs to be objective and unbiased
- Must have interpersonal skills to relax nervous candidates or deal with those who are aggressive or emotional
- Must have ability to deal with those who have literacy problems or difficult dialect

Review some basic need-to-know elements concerning assessment.

Assessment Basics: Need to Know Elements

- Assessment to be conducted by Industry Assessor selected by industry
- Industry assessor must be familiar with units of competency outlined in the course standards
- Industry Assessor should drafts specs that reflect industry requirements for trainees and that are based on critical aspects of competency
- Industry assessor is responsible for making final judgment of **competent** or **not yet competent**
- Trainer will assist industry assessor
- Trainees must demonstrate competence based on the units of competency outlined in the standards

- All resources related to units of competency must be made available prior to the assessment event, e.g., tools, equipment, materials

Describe the trainer's role in the assessment process.

The Trainer acts as a primary resource for the Assessor and acts as a Facilitator.

Trainer ensures:

- All industry required tools, equipment, and materials are available for the assessment
- The training venue is booked and has sufficient space for demonstrations/tasks
- That all logistics such as admission slips, signature sheets, and records are readily available for distribution and collection
- That all teaching materials and Standard documents and Assessment tools are ready for the Assessor

Discuss the importance of principles of assessment and what is involved.

Principles of Assessment Table

Key Principles	Relevance/Meaning
Valid	Ensures assessment aligned with the Unit of Competency and is based on evidence that shows the learner can demonstrate skills and knowledge in other similar contexts (workplace)
Reliable	Evidence presented for assessment is consistently interpreted regardless of the Assessor
Flexible	Assesses competencies held by the learner regardless of where they have been acquired; reflects the individual learner's needs
Fair	The individual learner's needs or disability is considered in the assessment process; the learner is provided with information about the assessment process and given the opportunity to challenge the result of the assessment if warranted
Safe	

	The assessor has inspected the venue for assessment and determined that it is safe for all involved and that emergency evacuations are in place if needed

Define the term "evidence."

Evidence is information that is gathered and matched against a Unit of Competency to provide proof of competency.

State the different forms of evidence that can be collected.

Different forms of evidence that can be collected are-

- **Direct** such as demonstration test, or observation of Candidate
- **Indirect** such as Candidate's self-assessment or third party reports such as an employer interview

Describe and outline what is involved in "rules of evidence" and why they are important.

Rules of Evidence Table

Rules of Evidence	Meaning
Valid	The assessor is given assurance that the learner possesses the skills, knowledge, and attitudes described in the Unit of Competency and related assessment requirements
Sufficient	The assessor is assured that the quality, quantity, and relevance of the evidence is sufficient to enable a judgment to be made on the learner's competency
Authentic	The assessor is assured that the evidence provided for assessment is the learner's own work
Current	The assessor is assured that the assessment evidence demonstrates current competency of the learner. This evidence must be from the present or very recent past.

Describe the purpose of evidence gathering tools.

The Purpose of evidence gathering tools are-

- To help candidates understand what is expected of them
- To provide a focus for the assessment
- To identify what is needed to verify competency

State the use of the evidence guide.

The evidence guide provides useful advice on Unit of Competency assessment and must be read in conjunction with the performance criteria, required underpinning skills/knowledge/attitudes, range statement, and the critical aspects of competency for the Standard.

State why assessment evidence is important.

Evidence is the information gathered that provides proof that the performance criteria of a unit of competency has been met. Evidence can take many forms:

- **Observation:** watching the trainee perform
- **Questioning:** asking the trainee questions
- **Demonstration of specific skills:** seeing how the trainee performs a procedure or creates a final product
- **Examining** previous work the trainee has done

Describe the kinds of Assessment Methods that can be used for Evidence gathering purposes.

Various kinds of Assessment Methods can be used for Evidence gathering purposes. A wide range of assessment methods are available for Evidence- gathering purposes. Assessment methods are not limited to those listed below. The greater the range of assessment methods applied, the better the accuracy of the assessment.

Assessment Methods Table

Methods	Examples
Direct Observation of Candidate	Actual real-time activities in the workplace Work activities in a simulated workplace/training center
Questioning	Written questions; interviews; self-evaluation with questions; verbal questioning; questionnaires
Evidence compiled by Candidate	Portfolio; collection of work samples; products with supporting documentation; logbooks; information about life experience
Methods	Examples
Review of Product	Work samples and products; products as a result of a demonstration test/spec
Third Party Feedback	Reports/testimonials from Employers and Supervisors; evidence of training; interviews with Employers and Supervisors

Advice to the Assessor: use these methods and examples as a means of making your assessment valid, reliable, flexible, fair, and safe.

Define the term "evidence gathering tools" and give some examples of these tools.

Evidence gathering tools are the actual instruments that the Assessor uses to collect evidence. Evidence may be collected through:

- Demonstration of work activity

- Observation Checklist
- Question List
- Third party reports e.g. supervisor to verify consistent performance
- Review of candidate's portfolio
- Verifying the Candidate's capacity to deal with contingencies (unexpected things that come up)
- Written test

Define the term "portfolio."

A collection of evidence that may be presented by the Candidate to an Assessor to prove the Candidate's competence at a job or task.

What are some examples of Portfolio Evidence?

- Training results and certificates
- Training workbooks
- References from employers
- Job description and work experience
- Photos and videos
- Work journals
- Awards
- Work samples
- Letters and memos

Outline a 6-step method for preparing an evidence plan.

Steps in Preparing an Evidence Plan (Sequence of Steps to Follow)-

The Evidence Plan is the most important planning tool for an Assessor. A good evidence plan generates a list of the evidence that the Assessor must gather when conducting the assessment for a specific Unit of Competency. The following 6-Point Method for preparing an Evidence Plan provides a useful sequence of inter-related steps to follow:

1. Select Unit of Competency for assessment
2. Read full Unit of Competency
3. Identify evidence requirements based on:
    a. Elements and Performance Criteria
    b. Dimensions of Competence

c. Underpinning skills knowledge
d. Critical aspects of competency

4. Develop a list of evidence requirements
5. Identify best ways of collecting evidence (tools)
6. Document evidence plan

Outline the steps (sequence of activities) involved in developing an assessment tool.

Following are the steps (sequence of activities) involved in developing an assessment tool:

1. Select the Unit of Competency
2. Read the Unit of Competency
3. Identify the required evidence: critical aspects of competency
4. Identify the evidence gathering method
5. Complete the evidence plan
6. Select the appropriate template
7. Complete the template
8. Check the evidence gathering tools against the evidence plan and Unit of Competency
9. Check the tool with another Assessor for his opinion

Describe the four dimensions of competency.

Task Skills: the capacity to perform tasks in the workplace and demonstrate competence that meets the required Standard;

Task Management Skills: the ability to plan and integrate several tasks simultaneously that achieve a desired work outcome such as those skills involved in budgeting for a work operation, securing supplies and equipment for the work operation, completing the task in a timely, cost-effective manner, and ensuring safety practices are followed throughout;

Contingency Management Skills: the ability to respond to crises and breakdowns in the workplace, such as accidents and emergency situations that are unanticipated and require immediate action and resolution;

Job/Role Environment Skills: the capacity to own the responsibilities and expectations of the work environment that involves working with others effectively and participating in creating a work culture where all can contribute their best within the parameters of their job role

Assessment Guidelines

Section Two: Roles and Responsibilities

The Assessment System: Planning Guide for the Assessor

An Assessment System must be understood as a well-coordinated set of documented policies and procedures, including assessment materials and tools, that ensure assessments are consistently valid, reliable, flexible, fair, and safe.

Competency Assessment is a systematic process of collecting proof or evidence on whether or not a candidate has demonstrated competence in the performance of a work-related activity/task that is directly linked to a performance standard. The assessment confirms that the individual can perform to the standard expected in the workplace and/or the nationally approved competency standard.

Each **Unit of Competency** contained in a Standard describes a distinct part of a Mason's work and job profile. Within each Unit of Competency, the following components appear:

- Unit Title
- Unit Descriptor
- Elements of Competency
- Performance Criteria
- Range of Variables
- Evidence Guide

As a prelude to conducting assessments, the Assessor must be thoroughly familiar with all of the particulars and details of the Unit of Competency that is being assessed. This is a "must" for the role of the Assessor. He must be especially familiar with the Evidence Guide for gathering critical information.

The three sample assessment tools found below focus on the critical aspects of competency that can provide the required evidence to determine competency- the evidence guide. These sample assessment tools are as follows:

- Demonstration Checklist
- Observation Checklist
- Oral Questions Checklist

The duties of the Assessor include:

- Covering all of the key elements of the Unit of Competency under assessment
- Applying rigorously the Evidence Guide for the Unit of Competency as this contains the method and context of assessment, resources required for the assessment, the critical aspects of competency, and the required underpinning knowledge, skills, and attitudes
- Developing specifications (specs) for the task sheet for Demonstration as required
- Requiring the candidate to perform project tasks that cover interrelated units of competency-known as a "clustering."
- Making what can be termed "reasonable adjustments" for candidates with disabilities or for example, those candidates with regional dialects that prove difficult to understand

Note: These "reasonable adjustments" may involve reconfiguring a simulated workplace site so that a candidate's disability does not impede the assessment process, or for example, finding someone who can understand a regional dialect and assist the Assessor with essential communication skills.

Roles and Responsibilities of Assessor

Prior to any assessment, the Assessor should follow the specific instructions below to ensure a well-planned assessment event. In most cases s/he will be assisted by a Trainer. Nevertheless, s/he should make certain that good preparation has taken place for the assessment event.

1. Visit the assessment venue or workplace to ensure an adequate work area or platform containing:

- Sufficient space for working- ensure square meters of work space enough for task to be carried out effectively and safely
- Fire extinguisher and safety equipment within reach
- Emergency procedures in place
- All necessary tools, equipment, and materials ready at hand
- All necessary machinery in good working order

2. Assessment is drawn and extracted from the relevant Unit of Competency based on an approved Standard and on an Evidence plan that clearly focuses on critical aspects of competency.

3. The duration of time to assess the demonstration is clearly indicated, for example, 3 hours. This information is shared with the Candidate along with other pertinent information such as the

sequence of tasks that he must follow, and the fact that he will be closely observed as the tasks are performed.

4. After the Candidate has performed the task, the Assessor will provide feedback to the Candidate on his performance.

5. The responsibility on finally deciding whether or not the Candidate was Competent or Not Yet Competent belongs to the accredited Assessor.

6. At the conclusion of the assessment, the Assessor will provide feedback on whether or not the Candidate was Competent or Not Yet Competent. S/He will also share information on next steps. These next steps include where to obtain the certificate related to the assessment or, if unsuccessful, how to re-try for competency within a specified period of time.

Roles and Responsibilities of Trainer

Prior to the assessment, you will have studied and become familiar with the Competency Standard for the industry occupation. You will also have met with or contacted the Assessor beforehand and discussed preparations and arrangements for the assessment. Your role will be to facilitate the assessment process and ensure all necessary resources are available, assisting the Assessor wherever possible. For example, once a draft spec has been produced by the Assessor, you will ensure it is fully consistent with the evidence plan and copied appropriately for use by both the Assessor and Candidate.

In addition to a confirming a suitable training venue and time, you will ensure that:

- Sufficient space is allotted for task work- square meters of work space enough for demonstration tasks to be carried out effectively and safely
- Fire extinguisher and safety equipment within reach if necessary
- Emergency procedures in place
- All necessary tools, equipment, and materials ready at hand
- All necessary machinery in good working order

Your duties include:

- **notifying** the Assessor and candidates of planned assessment events and their location
- **advising and assisting** the Assessor on planned assessment events
- **collecting** admission slips and signature sheets for assessment events
- **ensuring** all required forms and reporting mechanisms are in place and ready for distribution to the Assessor and to the Candidate

- **ensuring** all requisite forms are duly signed and forwarded to the SEIP Office, or certifying body
- **responding** to candidate queries and concerns such as re-assessment procedures
- **reconfiguring** workplace simulations so that candidates with disabilities are able to participate fully and without impediment
- **working** closely with the SEIP contact to ensure a successful assessment event

Roles and Responsibilities of Candidate

Prior to the assessment, you will have studied and become familiar with the Competency Standard for your industry.

1. Initially, you will be given information on the task you are to perform, and the estimated time you will require to perform it. These tasks are based on the critical aspects of competency related to the performance criteria within the approved Competency Standard.

Given the necessary instructions, and/or a task-related spec and the necessary tools, materials, and equipment, you will carry out and complete a work task. You will observe that there is:

- Sufficient space for working- square meters of work space enough for task to be carried out effectively and safely
- Fire extinguisher and safety equipment within reach if necessary
- Emergency procedures in place
- All necessary tools, equipment, and materials ready at hand
- All necessary machinery in good working order

2. Assessment is drawn and extracted from the relevant Unit of Competency based on the approved Competency Standard and on an Evidence plan (proof of competence) developed by the Assessor that clearly focuses on critical aspects of competency. The Evidence plan will be based on critical assessment tools such as demonstration/task; observation; oral questions.

3. The duration of time to assess the demonstration should be clearly indicated, for example, 3 hours. This information will be given to you along with other pertinent information such as the procedure or sequence of tasks that you must follow. It is important to note that you will be closely observed and assessed throughout the duration of your demonstration. You will be given time to ask questions and request clarification. You will also be given 10 minutes to familiarize yourself with the resources to be used in the assessment.

4. Based on your performance in demonstrating the task, you will be assessed by the Assessor to be Competent or Not Yet Competent. Regardless of the result you will be given feedback from the Assessor on your performance and the next steps.

5. After you have performed the task, the Assessor will provide feedback to you on your performance.

6. The responsibility on finally deciding whether or not you are Competent or Not Yet Competent belongs to the accredited Assessor.

7. At the conclusion of the assessment, the Assessor will provide feedback on whether or not you have been assessed to be **Competent** or **Not Yet Competent**. Both your signatures will be required on the Assessment Form. You will also be allowed to make comments on the Assessor's decision. The Assessor will then share information on next steps. These next steps include where to obtain the certificate related to the successful assessment or, if unsuccessful, how to re-try for competency within a specified period of time.

Section Three: Tools and Templates

This toolbox of Tools and Templates offers a wide range of assessment tools that will facilitate evidence gathering and other assessment-related needs. Evidence gathering, however, should not be limited to these tools and templates alone. The toolbox should be revised or expanded as necessary, to include other tools and templates that are deemed relevant.

- Demonstration Checklist
- Observation Checklist
- Oral Questions Checklist
- Evidence Plan (Overall Summary)
- Assessor Job Sheet and Specifications (Spec) Form
- Competency Assessment Results
- Assessor Planning Checklist Tool
- All About Questioning Techniques for Use in Assessment
- Quick Guide to Conducting Competency Assessments
- Assessor's Quick Start

Demonstration Checklist

Candidate's name:	
Assessor's name:	
Qualification:	
Project-Based Assessment Title	
Units of competency covered:	
Date of assessment:	
Time of assessment:	
Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐

Observation Checklist

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:			
Code:			
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec-if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist

Candidate's name:	
Assessor's name	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	
Reference Standard:	

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for competent/non yet competent.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

Feedback to Candidate:

Candidate's overall performance was (circle):	Satisfactory	Not Satisfactory
The Candidate's underpinning knowledge was (circle):	Satisfactory	Not Satisfactory

Assessor Signature:	Date:
Candidate Signature:	Date:

EVIDENCE PLAN: Overall Summary

QUALIFICATION:	
Project-Based Assessment Title	
Units of competency covered	

Ways in which evidence will be collected: [tick the column] The evidence must show that the candidate	Observation with Questioning	Demonstration with Questioning	Written Examination	Portfolio
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				

Assessor Job Sheet and Specifications (Spec) Form

This Spec is in reference to the_____ Standard, and has been developed by an Industry Representative/Assessor.

The Result* indicates either C for Competent, or NYC for Not Yet Competent.

Unit of Competency	Elements Reviewed	Critical Aspects of Competency Covered	Result*: C/NYC

JOB #1 Procedure for Developing Specification (Spec): List the steps involved in performing the task/spec successfully. It will cover, in logical order, the critical aspects of competency listed above that will determine if the candidate is **Competent** or **Not Yet Competent.**

1.	
2.	
3.	
4.	
5.	

Tools and Equipment Required for Spec completion: List all tools, equipment, and materials required in completing Job #1:

Tools	Equipment	Materials

Assessor Name: Date:

Competency Assessment Results

Candidate's name:	
Assessor's name	
Qualification Title:	
Date of Assessment:	
Assessment Venue:	
Reference Standard:	
Unit of Competency:	

Assessment Unit	Competent	Not Yet Competent

Assessor's Recommendation and Comments:

Overall Assessment:

Yes: The Candidate successfully met the required evidence/standards and demonstrated all of the competencies necessary for certification in the Qualification and Units of Competency listed above.

No: The Candidate did not meet the evidence requirements. Re-assessment is recommended.

Assessor Signature:	Date:
Candidate Signature:	Date:
Assessment Center Manager Signature:	

ASSESSMENT PLANNING CHECKLIST TOOL

Assessor's name:	
Date:	

Directions: Circle the 'Yes' or 'No' response to each item.

1.	The Assessor is familiar with the unit(s) of competency being assessed	Yes	No
2.	The Assessor has verified that the workplace or training center has the correct equipment, machinery, tools, and materials necessary to complete all of the relevant aspects of the unit of competency	Yes	No
3.	The Assessor has ensured that all materials and equipment were assembled and arranged in advance.	Yes	No
4.	The Assessor has all the necessary tools, templates, and specifications needed to assess the trainee including a variety of assessment tools covering practical demonstration, observation, oral question, and (where necessary) written tests relevant to the competency specified in the standard	Yes	No
5.	The Assessor has met with the trainer prior to the assessment event to discuss his/her role.	Yes	No
6.	The Assessor will discuss the performance test with the trainee and address any concerns prior to giving the test	Yes	No
7.	The Assessor will discuss and record with the trainee the results of their performance	Yes	No

Action to be taken on "No" responses:

General Guidelines for Effective Questioning

- Keep questions short and focused on one key concept
- Ensure that questions are structured
- Test the questions to check that they are not ambiguous
- Use `open-ended questions such as `what if...?' and `why...?' questions, rather than closed questions
- Keep questions clear and straight forward and ask one at a time
- Use words that the candidate is able to understand
- Look at the candidate when asking questions
- Check to ensure that the candidate fully understands the questions
- Ask the candidate to clarify or re-phrase their answer if the assessor does not understand the initial response
- Confirm the candidate's response by repeating the answer back in his/her own words
- Encourage a conversational approach with the candidate when appropriate, to put him or her at ease
- Use questions or statements as prompts for keeping focused on the purpose of the questions and the kind of evidence being collected
- Use language at a suitable level for the candidate
- Listen carefully to the answers for opportunities to find unexpected evidence
- Follow up responses with further questions, if useful, to draw out more evidence or to make links between knowledge areas
- Compile a list of acceptable responses to ensure reliability of assessments

Recording responses

When using oral questioning, you may need a tool that has a structured approach (see below) and also enables you to record a candidate's responses. If the candidate's response is insufficient the assessor should record why on the recording sheet or checklist. This provides information that can be used later, if necessary, to explain to the candidate where he or she needs to develop their skills and/or knowledge to achieve the required competence.

Recording sheet for oral questioning (template)

Candidate's Name		
Assessor or Observer's Name		
Unit of Competency)		
Code		
Date of Assessment		
Location		
Task/Procedure		
Questions to be Answered by candidate	Response/Answer*	Satisfactory (Yes/No)
What would you do if …		
What would you do if …		
What would you do if …		
How do you …		
What are …		
Why did you… (Clarification)		
Follow up Questions		
The candidate's knowledge was:	Satisfactory Unsatisfactory	
Feedback to candidate:		
Candidate signature:	Date:	
Assessor/Observer's Signature:	Date:	

ASSESSOR GUIDE TO CONDUCTING COMPETENCY ASSESSMENTS

1. BEFORE THE ASSESSMENT	2. DAY OF ASSESSMENT	3. DURING THE ASSESSMENT	4. POST ASSESSMENT
- Review unit(s) of competency to be			

assessed especially evidence to be collected against performance criteria - Ensure the workplace or training center complies with all safety requirements and that high risk areas are clearly marked - Identify/request essential assessment resources: • tools and equipment • supplies and materials • personal protective equipment • print resources and rating sheets • Have trainees contacted if they have to bring any resources for the assessment, e.g. logbook	-Verify attendance through signed attendance sheet - Provide overview of what is to happen throughout day Orient the trainees to: • purpose of assessment • qualification to be assessed • assessment procedures to be followed • address needs of trainees and provide information on evidence requirements and assessment process • make all announcements just before start of assessment	Give clear instructions to trainees on what they are required to do: • time limits and expectations • all equipment and tools must be of the same quality for all trainees • written and verbal instructions translated into local dialects as needed • encourage questions • avoid providing any assistance to trainees during assessment • stop process if accident imminent • keep focused on evidence being valid, reliable, fair, flexible, and safe • Record details of evidence collected	Provide feedback on outcome of assessment process re: • give clear feedback on assessment decision • provide information on overcoming any gaps in competency assessment • provide opportunity to discuss assessment process and outcome **Prepare required assessment reports:** • all rating sheets signed by trainee as well as Assessor • maintain records of assessment procedures, evidence collected, and assessment outcome • verify assessment results/outcomes with training center **Prepare** recommendations for issuance of national certificate

Assessor's Quick Start

1. Identify the Unit(s) of Competency from the Program Standard that you are going to assess.

2. Review the Critical Aspects of Competency from the Unit of Competency that will be the basis of your Evidence Guide.

3. Select the Assessment Tools that you will use to gather evidence.
    i. Demonstration Checklist
    ii. Observation Checklist
    iii. Oral Questions Checklist

4. Create spec sheet(s) for the Unit of Competency to be examined.

5. Review the assessment procedure with the Candidate and ask if there are any questions.

6. Complete the assessment using the assessment tools in the order above. You are free to use other tools as well if you wish.

7. Determine whether Candidate is **Competent** or **Not-Yet-Competent**

8. Complete all necessary record sheets.

9. Give feedback to the Candidate.

Demonstration Checklist: Make Masonry Mortar/Stucco

Candidate's name:	
Assessor's name:	
Qualification:	Masonry

Project-Based Assessment Title	
Units of competency covered:	Make Masonry Mortar/Stucco
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Wear proper protective equipment (PPE) for task.	☐	☐	☐
2. Review spec sheet and collect all tools and equipment and materials.	☐	☐	☐
3. Set up work area materials safely.	☐	☐	☐
4. Mix sand, cement, and water according to spec.	☐	☐	☐
5. Test for consistency in compliance to spec.	☐	☐	☐
6. Clean and store all materials and equipment used.	☐	☐	☐
7. Dispose of waste materials safely.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Make Masonry Mortar/Stucco

Candidate's name:	
Assessor's name:	
Date of Assessment:	

Unit of Competency:	Make Masonry Mortar/Stucco		
Code:	**SEIP-CON-MAS-1-0**		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Practice appropriate safety measures throughout			
2. Wore personal protective equipment for the work performed			
3. Identify and selected correct tools for the task at hand			
4. Identify and selected correct materials and equipment			
5. Follow correct procedure for preparing mortar box			
6. Lay materials on mortar box			
7. Mix sand, cement, and water in proper ratio			
8. Test mortar/stucco consistency against spec			
9. Clean and return all tools/equipment to storage area			
10. Dispose of waste materials properly			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:		Date:	
Assessor's Signature:		Date:	

Oral Questions Checklist: Make Masonry Mortar/Stucco

Candidate's name:	

Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Make Masonry Mortar/Stucco
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Why is it important to check the quality of tools, equipment, and materials?		
2. What environmental concerns are associated with mortar work?		
3. Why is it important to follow procedures in work of this kind?		
4. Why is maintaining the work area useful in a busy environment?		
5. Is there a standard mortar mixing ratio?		
6. How important is transport to making mortar?		
7. Why is communication important in this work operation?		
8. Is the time involved in \task arrangement and setting up a job cost-effective?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Carry Out Pavement Laying Work

Candidate's name:	
Assessor's name:	

Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Carry Out Pavement Laying Work
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Wear proper protective equipment (PPE) for task.	☐	☐	☐
2. Review spec sheet and collect all essential tools and equipment and materials.	☐	☐	☐
3. Set up work area materials safely.	☐	☐	☐
4. Cut brick, paving tiles, and blocks into specified sizes using power saw or paving tile cutters.	☐	☐	☐
5. Level base and tamp in accordance with specs.	☐	☐	☐
6. Mix concreting raw materials for grouting using appropriate ratio.	☐	☐	☐
7. Pour, float, and cure mixed concrete on base in accordance to set spec.	☐	☐	☐
8. Position and level paving bricks/blocks.	☐	☐	☐
9. Fill gap between blocks or bricks with proper fillers.	☐	☐	☐
10. Conduct final level check and correct where necessary.	☐	☐	☐
11. Clean and store all tools and equipment used.	☐	☐	☐
12. Dispose of waste materials safely in designated place.	☐	☐	☐

Observation Checklist: Carry Out Pavement Laying Work

Candidate's name:	

Assessor's name:	
Date of Assessment:	
Unit of Competency:	Carry Out Pavement Laying Work
Code:	**SEIP-CON-MAS-2-0**
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	NO
1. Practice appropriate safety measures throughout		
2. Wear personal protective equipment for the work.		
3. Identify and selected correct tools for the task.		
4. Position and level paving bricks/blocks appropriately		
5. Follow correct procedure for preparing grout ratio		
6. Level base according to spec		
7. Fill gap between bricks/blocks with proper filler		
8. Conduct final level check and correct		
9. Clean and return all tools/equipment to storage area.		
10. Dispose of waste materials properly.		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		
Candidate's Signature:		Date:
Assessor's Signature:		Date:

Oral Questions Checklist: Carry Out Pavement Laying Work

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Carry Out Pavement Laying Work
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Why is a commitment to occupational health and safety fundamental?		
2. What safety concerns are associated with using a power saw?		
3. Why is it important to take extra time in levelling and tamping the base?		
4. Why is the final level check important?		
5. Is there a standard grout mixing ratio?		
6. How important is transport to carrying out pavement laying work?		
7. Why is communication important in this work operation?		
8. Is the time involved in task arrangement and setting up a job worth the effort?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Pile Structural Bricks And Blocks

Candidate's name:	
Assessor's name:	

Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Pile Structural Bricks And Blocks
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Mark the lay-out of brick and block structure correctly	☐	☐	☐
2. Pour concrete mix or mortar into the footer form boards	☐	☐	☐
3. Place two mortar joints spacers on each side edge using the center of the masonry block or brick as a reference	☐	☐	☐
4. Place block or brick halfway onto the spacer and tap until it seats firmly down	☐	☐	☐
5. Continue same procedure for each course and ensure level is checked periodically	☐	☐	☐
6. Cure brick and block structure in accordance with workplace spec	☐	☐	☐
7. Clean tools and equipment and dispose of waste materials in accordance with workplace policy	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Pile Structural Bricks and Blocks

Candidate's name:	

Assessor's name:			
Date of Assessment:			
Unit of Competency:	Pile Structural Bricks And Blocks		
Code:	**SEIP-CON-MAS-3-0**		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Practice necessary safety measures throughout			
2. Wore personal protective equipment for the work.			
3. Identify and selected correct tools for the task.			
4. Mark the lay-out structure properly.			
5. Follow correct procedure for laying structure.			
6. Check level periodically			
7. Cure brick/block structure in accord with spec			
8. Report completed work for final checking			
9. Clean and return all tools/equipment.			
10. Dispose of waste materials properly.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Pile Structural Bricks and Blocks

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Pile Structural Bricks And Blocks
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Why is a commitment to wearing PPE important?		
2. Why is maintaining a clean, uncluttered work area important during the work operation ?		
3. Why is it important to wear body harness/safety belt on some tasks?		
4. Why is installing form boards in accord with a building plan necessary?		
5. Why is proper curing important?		
6. How important is regularly checking the structure with a plumb bob?		
7. Why is communication important in this work operation?		
8. Is the extra time involved in setting up a job worth the effort?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	Date:
Candidate Signature:	Date:

Demonstration Checklist: Carry-Out Stone and Brick Works

Candidate's name:	
Assessor's name:	
Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Carry-Out Stone and Brick Works
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Cut bricks and blocks into specified sizes using power saw/paving tile cutters	☐	☐	☐
2. Mix cement, sand, and water for grouting using appropriate ratio	☐	☐	☐
3. Level base according to specs	☐	☐	☐
4. Place and level paving bricks/blocks	☐	☐	☐
5. Prepare and use cement grouting as per spec	☐	☐	☐
6. Fill up gaps between bricks/blocks with appropriate fillers	☐	☐	☐
7. Clean tools and equipment and dispose of waste materials in accordance with workplace policy	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Carry-Out Stone and Brick Works

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Unit of Competency:	Carry-Out Stone and Brick Works
Code:	**SEIP-CON-MAS-4-0**
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	**NO**
1. Cut bricks and blocks into specified sizes using power saw/paving tile cutters		
2. Mix cement, sand, and water for grouting using appropriate ratio		
3. Level base according to specs		
4. Place and level paving bricks/blocks		
5. Prepare and use cement grouting as per spec		
6. Fill up gaps between bricks/blocks with appropriate fillers		
7. Clean tools and equipment and dispose of waste materials in accordance with workplace policy		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		

Candidate's Signature:	Date:
Assessor's Signature:	Date:

Oral Questions Checklist: Carry-Out Stone and Brick Works

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Carry-Out Stone and Brick Works
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Why is a commitment to occupational health and safety fundamental?		
2. What safety concerns are associated with using a power saw?		
3. Why is it important to take extra time in levelling and tamping the base?		
4. Why is the final level check important?		
5. Is there a standard grout mixing ratio?		
6. How important is transport to carrying out pavement laying work?		
7. Why is communication important in this work operation?		
8. Is the time involved in task arrangement and setting up a job worth the effort?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Accomplish Masonry Surface Plastering

Candidate's name:	
Assessor's name:	
Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Accomplish Masonry Surface Plastering
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Prepare surface for plastering	☐	☐	☐
2. Screen sand and cement mixture before applying water	☐	☐	☐
3. Mix dry cement and sand with water until the mixture is uniform and within specified consistency	☐	☐	☐
4. Apply cement plaster on masonry surface	☐	☐	☐
5. Check surface level using appropriate levelling tools	☐	☐	☐
6. Finish setting the corner using a corner trowel	☐	☐	☐
7. Check alignment, perpendicularity, angularity, and adjust where necessary	☐	☐	☐
8. Cure plastered surfaces and corner in accordance to workplace spec	☐	☐	☐
9. Clean and maintain the workplace, returning all tools, equipment, and materials to their proper storage place.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Accomplish Masonry Surface Plastering

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Unit of Competency:	Accomplish Masonry Surface Plastering
Code:	**SEIP-CON-MAS-5-0**
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	NO
1. Prepare surface for plastering		
2. Screen sand and cement mixture before applying water		
3. Mix dry cement and sand with water until the mixture is uniform and within specified consistency		
4. Apply cement plaster on masonry surface		
5. Check surface level using appropriate levelling tools		
6. Finish setting the corner using a corner trowel		
7. Check alignment, perpendicularity, angularity, and adjust where necessary		
8. Cure plastered surfaces and corner in accordance to workplace spec		
9. Clean and maintain the work site		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		
Candidate's Signature:		Date:
Assessor's Signature:		Date:

Oral Questions Checklist: Accomplish Masonry Surface Plastering

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Accomplish Masonry Surface Plastering
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Why is a commitment to occupational health and safety fundamental?		
2. What safety concerns are associated with using a power saw?		
3. Why is it important to take extra time in levelling and tamping the base?		
4. Why is the final level check important?		
5. Is there a standard grout mixing ratio?		
6. How important is transport to carrying out pavement laying work?		
7. Why is communication important in this work operation?		
8. Is the time involved in task arrangement and setting up a job worth the effort?		
9. Why is it important to make the extra effort to clean and maintain the workplace both during the work operation and afterwards?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Perform Pattern Stone Finishing Work

Candidate's name:	
Assessor's name:	
Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Perform Pattern Stone Finishing Work
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Perform slump test under direct supervision.	☐	☐	☐
2. Check formwork for strength, leaks, and attend to corrections.	☐	☐	☐
3. Place cement mixture in layers and vibrate to avoid air trapping.	☐	☐	☐
4. Finish concrete surface.	☐	☐	☐
5. Level poured cement mixture using appropriate levelling device.	☐	☐	☐
6. Complete curing of concrete.	☐	☐	☐
7. Clean work area and store tools and equipment.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Perform Pattern Stone Finishing Work

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Unit of Competency:	Perform Pattern Stone Finishing Work
Code:	**SEIP-CON-MAS-6-0**
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec-if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	**NO**
1. Perform slump test under direct supervision.		
2. Check formwork for strength, leaks, and attend to corrections.		
3. Place cement mixture in layers and vibrate to avoid air trapping.		
4. Finish concrete surface.		
5. Level poured cement mixture using appropriate levelling device.		
6. Complete curing of concrete.		
7. Clean work area and store tools and equipment.		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		

Candidate's Signature:	Date:
Assessor's Signature:	Date:

Oral Questions Checklist: Perform Pattern Stone Finishing Work

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Perform Pattern Stone Finishing Work
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. What is the purpose of concrete admixtures?		
2. What procedure is used for estimating labour and material costs?		
3. What are common types of admixtures and their functions?		
4. Why is it important to dispose of waste materials properly?		
5. How often should formwork be checked?		
6. What is the purpose of accelerators and retarders?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Perform Wall Paneling Using Bricks/Stones

Candidate's name:	
Assessor's name:	
Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Perform Wall Paneling Using Bricks/Stones
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Mix mortar components in accord with spec	☐	☐	☐
2. Check the quality of cement mortar	☐	☐	☐
3. Identify and use appropriate boning material for brick/stone paneling in accord with spec	☐	☐	☐
4. Apply cement mortar/adhesives uniformly	☐	☐	☐
5. Install bricks/stones on walls/panels incorporating required design in accord with spec	☐	☐	☐
6. Identify setting time of cement/bonding material	☐	☐	☐
7. Check level/alignment regularly and adjust as necessary	☐	☐	☐
8. Clean work area ensuring storage of tools and equipment and disposal of waste materials properly	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Perform Wall Paneling Using Bricks/Stones

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Perform Wall Paneling Using Bricks/Stones		
Code:	**SEIP-CON-MAS-7-0**		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Mix mortar components in accord with spec			
2. Check the quality of cement mortar			
3. Identify and use appropriate boning material for brick/stone paneling in accord with spec			
4. Apply cement mortar/adhesives uniformly			
5. Install bricks/stones on walls/panels incorporating required design in accord with spec			
6. Identify setting time of cement/bonding material			
7. Check level/alignment regularly and adjust as necessary			
8. Clean work area ensuring storage of tools and equipment and disposal of waste materials properly			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:		Date:	

Assessor's Signature:	Date:

Oral Questions Checklist: Perform Wall Paneling Using Bricks/Stones

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Perform Wall Paneling Using Bricks/Stones
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. What are the common types of bonding material used for wall paneling?		
2. Why it important to determine the specific setting time for cement mortar and adhesives?		
3. Why is it important to check the quality of the cement mortar?		
4. Why is it important to clean and prime wall surfaces?		
5. How do you go about estimating the materials and man-hours required for a job?		
6. What different modes of transportation are used to haul materials?		
7. What tool and materials are used to level/align work in progress?		
8. What personal protective equipment is commonly used in this type of work?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Apply Waterproofing Activities in Construction

Candidate's name:	
Assessor's name:	
Qualification:	Masonry
Project-Based Assessment Title	
Units of competency covered:	Apply Waterproofing Activities in Construction
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Identify type and application of bond-breaker for waterproofing installation	☐	☐	☐
2. Prepare substrates to be waterproofed	☐	☐	☐
3. Prime coated substrates with waterproofing material	☐	☐	☐
4. Mix/prepare waterproofing material	☐	☐	☐
5. Apply waterproofing materials	☐	☐	☐
6. Check quality of work and rectify defects	☐	☐	☐
7. Apply finishing requirements in a accord with waterproofing plan	☐	☐	☐
8. Apply suitable roof sealer if cast is used in place of concrete for slabs	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Apply Waterproofing Activities in Construction

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Apply Waterproofing Activities in Construction		
Code:	**SEIP-CON-MAS-8-0**		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Identify type and application of bond-breaker for waterproofing installation			
2. Prepare substrates to be waterproofed			
3. Prime coated substrates with waterproofing material			
4. Mix/prepare waterproofing material			
5. Apply waterproofing materials			
6. Check quality of work and rectify defects			
7. Apply finishing requirements in a accord with waterproofing plan			
8. Apply suitable roof sealer if cast is used in place of concrete for slabs			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Apply Waterproofing Activities in Construction

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Apply Waterproofing Activities in Construction
Reference Standard:	Masonry

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Why is communication (work instructions) important prior to starting work?		
2. What personal protective equipment is essential for safety in this type of work?		
3. Does the waterproofing material have to be compatible with the substrate material?		
4. Why is preparing a waterproofing membrane important?		
5. Why is signage important in this work operation?		
6. Is it important to visit the work site prior to starting work?		
7. What is sand blasting equipment used for?		
8. Why is a commitment to occupational health and safety of prime importance?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**