

DISIPLIN ARKITEK

[E10]

KOMPETENSI  
SENI BINA LESTARI



P  
I  
A  
W  
A  
I  
A  
N

KERANGKA

**PENSIJILAN**

PELAKSANA

**2024**



**KEPERLUAN SKOP PENGETAHUAN DAN KRITERIA PRESTASI**

**BIDANG KOMPETENSI : SENI BINA LESTARI**  
**TAHAP : TAHAP 2 - ASAS**

TITLE		SENI BINA LESTARI
<b>UNIT 1</b>		<b>TAHAP 2 (BASIC)</b> – Demonstrate knowledge and understand the principles of Green Building Design, GBD.
<b>ELEMENT 1.1</b>		Able to understand and describe the principles of Green Building Design, GBD.
PERFORMANCE CRITERIA		RANGE OF VARIABLES
1.0	The scope of basic GBD covers as follows: i. Overall concept of Green Building ii. Passive design elements iii. Active design elements iv. Best practice	Activities may be carried out by candidate or by others within the team for whom candidate has responsibility. *Resources, environment, key personnel, duration, effort, sequences, software, green standards. (identify parameter/parameters)
<b>EVIDENCE REQUIREMENTS</b> * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge	
2.0	Supporting evidence	
<b>ELEMENT 1.2</b>		Able to understand and describe Green Building Rating Tools and Standards
PERFORMANCE CRITERIA		RANGE OF VARIABLES
1.0	The identified Green Building Rating tools and standards are as follows: i. Local rating tool (MyCREST/GBI/Green RE/pH JKR) ii. International Rating Tool (LEED/BREEAM/Green Mark etc.) iii. Local Standard (MS 1525:2019) iv. International Standard (if any)	Activities may be carried out by candidate or by others within the team for whom candidate has responsibility. *Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify parameter/parameters)
<b>EVIDENCE REQUIREMENTS</b> * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge	
2.0	Supporting evidence	

## KEPERLUAN SKOP PENGETAHUAN DAN KRITERIA PRESTASI

**BIDANG KOMPETENSI** : SENI BINA LESTARI  
**TAHAP** : TAHAP 3 - KOMPETEN

<b>TITLE</b>	<b>SENI BINA LESTARI</b>	
<b>UNIT 2</b>	<b>TAHAP 3 (COMPETENT)</b> – Apply architectural knowledge and implement GBD by using green building rating tools, green building standards and building energy simulation (BES) software.	
<b>ELEMENT 2.1</b>	Able to design green building	
<b>PERFORMANCE CRITERIA</b>		<b>RANGE OF VARIABLES</b>
1.0	The scope of GBD elements covers: i. Interior ii. Exterior iii. Environmental iv. Best Practice	Activities may be carried out by candidate or by others within the team for whom candidate has responsibility. *Resources, Environment, Key personnel, duration, effort, sequences, software, green standards. (identify parameter/parameters)
<b>EVIDENCE REQUIREMENTS</b> * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge.	
2.0	Supporting evidence : BES software energy analysis report (i.e. Energy Plus, Green Building Studio, IESVE), green building rating submission report etc.	
<b>ELEMENT 2.2</b>	Able to perform BPS and energy analysis for designed green building	
<b>PERFORMANCE CRITERIA</b>		<b>RANGE OF VARIABLES</b>
1.0	Building Energy Analysis covers: i. Energy ii. Solar and daylighting iii. Thermal Analysis iv. Natural Ventilation v. Carbon Emission	Activities may be carried out by candidate or by others within the team for whom candidate has responsibility. *Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify parameter/parameters)
<b>EVIDENCE REQUIREMENTS</b> * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge.	
2.0	Supporting evidence : BES software (i.e. Energy Plus, Green Building Studio, IESVE)	

**KEPERLUAN SKOP PENGETAHUAN DAN KRITERIA PRESTASI**

**BIDANG KOMPETENSI** : SENI BINA LESTARI  
**TAHAP** : TAHAP 4 - MAHIR

<b>TITLE</b>	<b>SENI BINA LESTARI</b>	
<b>UNIT 3</b>	<b>Tahap 4 (proficient)</b> – Provide evidence of consultation/advice on GBD and green project management. Use advanced BPS software such as BIM.	
<b>ELEMENT 3.1</b>	Able to consult, evaluate and analyse building energy performance and life-cycle-cost of GBD	
	<b>PERFORMANCE CRITERIA</b>	<b>RANGE OF VARIABLES</b>
1.0	The scope of consultation & evaluation consist of: i. Life Cycle Cost of Green Building ii. Facilities Management (FM) of Green Building iii. Energy Audit for Retrofitting iv. Energy Management System (EnMS15001)	Activities may be carried out by candidate or by others within the team for whom candidate has responsibility. *Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify paramater/parameters)
	<b>EVIDENCE REQUIREMENTS</b> * (Identify evidence of competency at this element)	
1.0	Underpinning knowledge.	
2.0	Supporting evidence: Written evidences of activities (MyCREST/GBI/pHJKR assessor submittals) Recognized Green Building Expert Certification.	