



Jabatan Kerja Raya Malaysia

Standard Kompetensi Pensijilan Arkitek Seni Bina Lestari

16 Januari 2020

TITLE	Seni Bina Lestari
UNIT 1	Tahap 2 (intermediate) – Demonstrate knowledge and understanding of the principles of basic Green Building Design (GBD).
ELEMENT 1.1	Able to design and describe basic Green Building Design.

PERFORMANCE CRITERIA		RANGE OF VARIABLES
1.0	The scope of basic GBD covers as follows: <ul style="list-style-type: none"> i. Overall concept of Green Building ii. Passive design elements iii. Active design elements iv. Best practise 	Activities may be carried out by candidate or by other,s within the team for whom candidate has responsibility. * Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify paramater/parameters)
EVIDENCE REQUIREMENTS * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge.	
2.0	Supporting evidence	

TITLE	Seni Bina Lestari
UNIT 1	Tahap 2 (intermediate) – Demonstrate knowledge and understanding of the principles of basic Green Building Design (GBD).
ELEMENT 1.2	Able to understand 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/GreenRE/pHJKR) ii. International Rating Tool (LEED/BREEAM/Green Mark etc.) iii. Local Standard (MS 1525:2014) iv. International Standard (if any)	Activities may be carried out by candidate or by other,s within the team for whom candidate has responsibility. * Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify paramater/parameters)
EVIDENCE REQUIREMENTS * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge.	
2.0	Supporting evidence	

TITLE	Seni Bina Lestari
UNIT 2	Tahap 3 (competent) – Apply architectural knowledge and understanding of High Performance Building (HPB) design. Understand and undertake HPB design by using green building standards and building energy simulation (BES) software.
ELEMENT 2.1	Able to design HPB.

PERFORMANCE CRITERIA		RANGE OF VARIABLES:
1.0	The scope of HPB design elements covers: <ul style="list-style-type: none"> i. Interior ii. Exterior iii. Environmental iv. Best Practice 	Activities may be carried out by candidate or by other,s within the team for whom candidate has responsibility. * Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify paramater/parameters)
EVIDENCE REQUIREMENTS * (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.	

TITLE	Seni Bina Lestari
UNIT 2	Tahap 3 (competent) – Apply architectural knowledge and understanding of High Performance Building (HPB) design. Understand and undertake HPB design by using green building standards and building energy simulation (BES) software.
ELEMENT 2.2	Able to perform BES and energy analysis for designed HPB.

PERFORMANCE CRITERIA		RANGE OF VARIABLES:
1.0	Building Energy Analysis covers: <ul style="list-style-type: none"> i. Energy ii. Solar & daylighting iii. Thermal Analysis iv. Natural Ventilation v. Carbon Emission 	Activities may be carried out by candidate or by other,s within the team for whom candidate has responsibility. * Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards. (identify paramater/parameters)
EVIDENCE REQUIREMENTS * (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)	

TITLE	Seni Bina Lestari
UNIT 3	Tahap 4 (proficient) – Provide evidence of consultation/advice on HPB design and green project management. Use advanced BES software such as BIM.
ELEMENT 3.1	Able to consult and evaluate building energy performance and life-cycle-cost of HPB.

PERFORMANCE CRITERIA		RANGE OF VARIABLES:
1.0	<p>The scope of consultation & evaluation consist of:</p> <ul style="list-style-type: none"> i. Life Cycle Cost of Green Building ii. Facilities Management (FM) of Green Building iii. Energy Audit for Retrofitting iv. Energy Management System (EnMS15001) 	<p>Activities may be carried out by candidate or by other,s within the team for whom candidate has responsibility.</p> <p>* Resources, Environment, Key personnel, Duration, effort, sequences, software, green standards.</p> <p>(identify paramater/parameters)</p>
EVIDENCE REQUIREMENTS * (Identify evidence of competency at this element)		
1.0	Underpinning knowledge.	
2.0	<p>Supporting evidence: Written evidences of activities (MyCREST/GBI/pHJKR assessor submittals)</p> <p>Recognized Green Building Expert Certification.</p>	