COMPETENCY BASED FRAMEWORK

FOR

ARCHITECT

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1. Background

1.1 About the Ministry

The first organization formed in 1961 to look after the construction was called ***Bhutan Engineering Services***, which in 1966 was renamed the ***Public Works Department (PWD)***. The public works Department, initially under the Ministry of Development and later under Ministry of Social Services was the main builder of infrastructure pertaining to both rural and urban settlements. Later, under the Ministry of Communications, the Department of Roads and the Department of Urban Development and Housing were the two main technical Departments. However, during the re-structuring of the Royal Government, on "Enhancing Good Governance – Promoting Efficiency, Transparency and Accountability" in 1999, one of the recommendations was to restructure the Ministry of Communication. Accordingly, the Ministry of Works and Human Settlement was established in 2003. Today, the ministry has three departments, *Departments of Roads, Department of Engineering Services and Department of Human Settlement functioning* under the ministry.

1.2 Vision of the Agency

To be a dynamic organization leading the nation in building quality and sustainable infrastructure and built environment for socio-economic well-being and happiness.

1.3 Missions of the Agency

To provide safe, reliable and sustainable infrastructure for human settlement and transportation towards balanced regional development embodying the Bhutanese values.

1.4 Core Values

- *Integrity*
- *Innovation*
- *Client focused*
- *Excellence*
- *Team work*
- *Environment friendliness*
- *Appreciation for Bhutanese values*

1.5 Core Functions

The ministry of Works and Human Settlement presently carries out the following functions:

- *Formulate policies and develop plans related to physical infrastructures in the country;*
- *Develop and implement Acts/regulations/standards related to physical infrastructure;*
- *Engage in and coordinate capacity building of technical human resources in the country;*
- *Set policies to promote appropriate construction industry;*
- *Promote research and development that would serve to maintain a synergy between technology, environment and traditional values; and*
- *Develop plans and policies for proper human settlement through growth centers*

2. Competency-Based Framework for Architects

2.1 Introduction

Inefficiency in the administration of human resource capacity building programs by the agencies has been a frequent finding during the periodic HR audit by the Human Resource Audit Division under Royal Civil Service Commission. Furthermore, RCSC's assessment study on effectiveness and efficiency on 'Implementation of HR capacity development programs by the agencies' pointed out a number of issues/drawbacks with the existing practice of implementing HR Capacity Development resulting in the waste of limited resources, lack of return from investment, nepotism and favoritism in the system leading to grievances among civil servants. In view of this, the RCSC has initiated the development of Competency-based framework for various occupational groups with funding support from Austrian Development Agency.

The launch of Competency Based Framework (CBF) for civil service marks a paradigm shift towards a more structured and exhaustive approach of capacity development. It assists agencies in envisioning definite and coherent skill requirements to enhance various human resource functions, particularly in areas such as Performance Management, Succession Planning, Talent Management, and Career Progression.

The Competency-Based Framework for Architects is prepared by task-force members from Ministry of Works and Human Settlement; however, this framework shall be applicable to Architects of all other agencies.

2.2 Purpose

The CBF highlights the knowledge, skills and abilities required for Architects to achieve high level of professional competence and deliver the highest standard services. The framework is developed with the following aim and objectives.

2.3 Aim

Build a fraternity of Architects who are highly knowledgeable, skillful and competent in delivering efficient and effective services of the highest standard.

2.4 Objectives

- To cultivate the culture of identifying skill needs of employees, assisting continuous development, and professionalizing public servants to deliver responsibilities effectively and enhancing efficiency.
- To set the direction for capacity development of public servants at different proficiency levels.
- To ensure that the budget mobilization and utilization is aligned to the Competency-based Framework Human Resource Development plan in pursuit of excellent public service delivery.
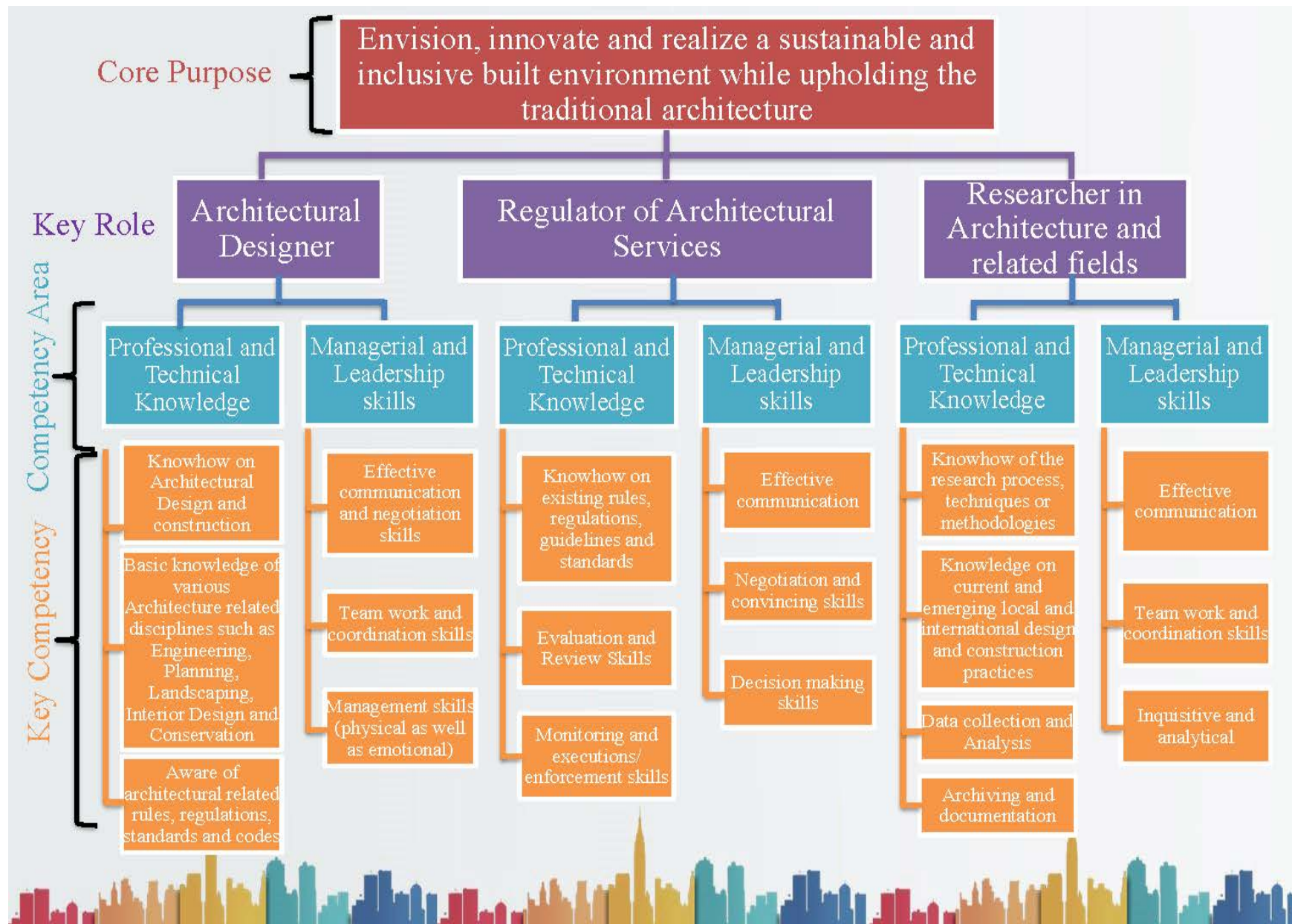
2.5 Framework Development Processes

The development of framework involved identification of Key Roles and Role Profile, Competency Areas, Key Competencies, Behavioral Indicators and Proficiency Levels through a rigorous consultative and inclusive processes with key stakeholders. The following shows the chronological order of events carried out while preparing CBF for Architects:

- **October 12- 16, 2021:** Training of the working group by master trainers
- **November 9-12, 2021:** Workshop on compiling Key Roles and role profile, Competency areas, Key Competencies, Behavioral Indicators and Proficiency levels
- **November 23, 2021:** Validation workshop with domain experts
- **December – January, 2021:** Revision of draft CBF (excluding TNA) and data collection from domain experts on TNA though Questionnaire Survey
- **February 15-19, 2021:** Workshop on finalizing the Training Need Analysis
- **March 1-5, 2021:** Workshop on finalizing the Report
- **March 18, 2021:** Presentation to Ministry's HRC (57th HRC)
- **March 23, 2021:** Presentation to RCSC Focal Commissioner

2.6 Structure

Competency Based Framework for Architects comprises of three key roles, six competency areas, nineteen key competencies and twenty-seven behavioral indicators as shown in the flow chart below. There are four proficiency levels under each BI.

Core Purpose

Envision, innovate and realize a sustainable and inclusive built environment while upholding the traditional architecture

Key Role

Architectural Designer

Regulator of Architectural Services

Researcher in Architecture and related fields

Competency Area

Architectural Designer

Professional and Technical Knowledge

Managerial and Leadership skills

Regulator of Architectural Services

Professional and Technical Knowledge

Managerial and Leadership skills

Researcher in Architecture and related fields

Professional and Technical Knowledge

Managerial and Leadership skills

Key Competency

Knowhow on Architectural Design and construction

Basic knowledge of various Architecture related disciplines such as Engineering, Planning, Landscaping, Interior Design and Conservation

Aware of architectural related rules, regulations, standards and codes

Effective communication and negotiation skills

Team work and coordination skills

Management skills (physical as well as emotional)

Knowhow on existing rules, regulations, guidelines and standards

Evaluation and Review Skills

Monitoring and executions/ enforcement skills

Effective communication

Negotiation and convincing skills

Decision making skills

Knowhow of the research process, techniques or methodologies

Knowledge on current and emerging local and international design and construction practices

Data collection and Analysis

Archiving and documentation

Effective communication

Team work and coordination skills

Inquisitive and analytical

2.6.1 Identification of Key Role

The key role is an organized set of behaviors that are crucial to achieve the current and future goals of the Ministry of Works and Human Settlement. Following are the key roles expected to be performed by the Architects:

    a.   Architectural Designer

    b.   Regulator of Architectural Services

    c.   Researcher in Architecture and Related Field

2.6.2 Description of Role Profile

The role profile is the description of roles that Architects are expected to demonstrate in achieving the outcomes of the Ministry of Works and Human Settlement. It defines outcomes and competencies for an individual role. It concentrates on outcomes rather than duties, which provides better guidance than a job description on expectations. It does not constrain Architects to carry out a prescribed set of tasks.

Role Profile of Architects

SN	Key Role	Role Description
1	Architectural Designer	1. Plan, design, manage, and review or oversee construction, development of the built environment for practical, aesthetic, religious, or creative objectives, such as office buildings, theatres, industrial facilities, landscaping, and/or other physical properties. 2. Analyze and/or review consultant firms' construction and renovation plan to ensure all plans are functional, safe, economical, and sufficient to meet the needs of the customers. 3. Coordinate and/ or liaise with various engineering disciplines such as structural system, air-conditioning, heating, and ventilating system, electrical systems, communication systems, plumbing, utility, site, landscaping, and/or related physical structures.

2	Regulator of Architectural services	1. Accord architectural drawing approvals including plumbing and sanitation drawings for all scales of built environment with reference to existing architectural related legislations. 2. Carry out periodic review of architectural related services to ensure that they are developed in compliance with the approved drawings or without deviation at site. This will enable regulators to understand the development trend which may shed light on the need for policy interventions in the field of architecture related legislations. 3. Conduct awareness programs on existing rules and regulations such as Bhutanese architecture guidelines and other related legislation to subsequent/relevant implementing professionals.
3	Researcher in Architecture and Related Field	1. Carry out research and development (R&D) in architecture and related fields so that the architectural projects are in conformity with ever evolving new technologies and concepts such as sustainable, innovative, green and resilient design. 2. Review the set technical standards and guidelines of the country to ensure that they are at par with the international standards and up-to-date with the evolving new technologies and concepts or the international best practices. 3. Study and document the vernacular architecture of Bhutan which includes but not limited to historical structures like Dzongs and Palaces and traditional houses from different parts of the country.

2.6.3 Identification of Competency Areas

The competency is the clustering of key competencies by related behaviors and functions of each role. It comprises a set of Knowledge, Skills and Abilities (KSA) that result in essential behaviors expected from Architects. The framework has identified six competency areas as follows: -

Sl. #	Key Role	Competency Area
1	Architectural Designer	1.1 Professional and Technical Knowledge
		1.2 Managerial and Leadership skills
2	Regulator of Architectural services	2.1 Professional and Technical Knowledge
		2.2 Managerial and Leadership skills
3	Researcher in Architecture and Related Field	3.1 Professional and Technical Knowledge
		3.2 Managerial and Leadership skills

2.6.4 Identification of Key Competencies

The key competency is an observable behavior that indicates the presence of the particular competency. Generally, it is broadly divided as core competency, leadership competency and technical or functional competency. The framework has identified nineteen key competencies as presented below: -

Key Role	Competency Area	Key Competencies	
1. Architectural Designer	1.1 Professional and Technical Knowledge	1.1.1	Knowhow on Architectural Design and construction
		1.1.2	Basic knowledge of various Architecture related disciplines such as Engineering, Planning, Landscaping, Interior Design and Conservation.
		1.1.3	Aware of architectural related rules, regulations, standards and codes
	1.2 Managerial and Leadership skills	1.2.1	Effective communication and negotiation skills
		1.2.2	Team work and coordination skills
		1.2.3	Management skills (physical as well as emotional)
2. Regulator of Architectural services	2.1 Professional and Technical Knowledge	2.1.1	Knowhow on existing rules, regulations, guidelines and standards
		2.1.2	Evaluation and Review Skills
		2.1.3	Monitoring and executions/ enforcement skills
	2.2 Managerial and Leadership skills	2.2.1	Effective communication
		2.2.2	Negotiation and convincing skills
		2.2.3	Decision making skills
Architecture and Relate	3.1 Professional and Technical Knowledge	3.1.1	Knowhow of the research process, techniques or methodologies
		3.1.2	Knowledge on current and emerging local and international design and construction

		practices
		3.1.3 Data collection and Analysis
		3.1.4 Archiving and documentation
	3.2 Managerial and Leadership skills	3.2.1 Effective communication
		3.2.2 Team work and coordination skills
		3.2.3 Inquisitive and analytical

2.6.5   Identification of Behavioral Indicators

The Behavioral Indicators are the description of competencies based on various proficiency levels. It outlines a collection of desired and observable motives, traits and behaviors when executing or carrying out the assigned task. It serves as a tool to guide evaluations of employee performance. The framework has identified twenty-seven behavioral indicators.

Competency Area	Key Competency	Behavioral Indicators
Key Role 1: Architectural Designer		
1. Professional and Technical Knowledge	1.1 Knowhow on Architectural Design and construction	1.1.1 Knowhow on Architectural Design and construction
		1.1.2 Basic knowledge of various Architecture related disciplines such as Engineering, Planning, Landscaping, Interior Design and Conservation.
		1.1.3 Aware of architectural related rules, regulations, standards and codes
	1.2 Basic knowledge of various Architecture related disciplines such as Engineering, Planning, Landscaping, Interior Design and Conservation.	1.2.1 Demonstrate basic knowledge on Architecture related disciplines such as engineering, planning, landscaping, interior design and conservation for effective coordination during design or construction
	1.3 Aware of architectural related rules, regulations, standards and codes	1.3.1 Well versed in building codes, zoning laws, fire regulations and other related ordinances to ensure that the designs are carried out in a lawful & orderly manner

2. Managerial and Leadership skills	2.1 Effective Communication & negotiation skills	2.1.1	Exhibits the ability to communicate in either written, verbal, or graphic representations to present architectural design concepts & drawings.
		2.1.1	Has the capacity to understand customer's needs & negotiate on it to enable well-informed designs & drawings.
	2.2 Team work and coordination skills	2.2.1	Demonstrates effective collaboration with engineering and construction team to ensure that the design becomes real & successful.
		2.2.2	Ability to lead, motivate and inspire team members to increase the efficiency of teamwork.
	2.3 Management skills (physical as well as emotional)	2.3.1	Exhibits the ability to plan, organize & manage every stage of architectural services from designing to construction until its completion
		2.3.2	Displays notable emotional strength in managing workload & stress
	3.2 Managerial and Leadership skills	3.2.1	Exhibits the ability to plan, organize & manage every stage of architectural services from designing to construction until its completion.
		3.1.1	Displays notable emotional strength in managing workload & stress
Role 2: Regulator of Architectural Services			
1. Professional and Technical Knowledge	1.1 Know how on existing rules, regulations, guidelines and standards	1.1.1	Well versed in existing rules, regulations, guidelines and standards to ensure strict compliance
	1.2 Evaluation and Review skills	1.2.1	Ability to carry out the scrutiny and /or review of architectural design and drawings judiciously

	1.3 Monitoring and execution/ enforcement skills	1.3.1	Well versed in building codes, zoning laws, fire regulations and other related ordinances to ensure that the designs are carried out in a lawful & orderly manner
2. Managerial and Leadership skills	2.1 Effective Communication	2.1.1	Demonstrates good presentation and speaking skills to conduct effective awareness programs on architectural related rules and regulations
	2.2 Negotiation and Convincing Skills	2.2.1	Exhibits capacity to organize and facilitate the discussions by enabling the parties to understand the issues holistically to build a mediated consensus
		2.2.2	Ability to convince public with full trust and confidence
	3.3 Decision Making Skills	2.3.1	Displays rational, unbiased and well-informed decision-making skills
Role 3: Researcher in Architecture and Related Field			
1. Professional and Technical Knowledge	1.1 Knowhow of the research process and the research techniques or methodologies.	1.1.1	Displays sound knowledge on research process to carry out the research effectively and comprehensively
		1.1.1	Be able to adopt the most appropriate research tools, techniques and methods
	1.2 Knowledge on current and emerging local and international design and construction practices	1.2.1	Demonstrates good knowledge of the existing and emerging concepts and practices in the field of architecture, both locally and internationally
	1.3 Data collection and analysis	1.3.1	Proficient in collection, compilation and analysis of data
	1.4 Archiving or documentation	1.4.1	Proficient in archiving or documenting any historical structures or architecture which may be worth doing
2. Managerial and Leadership	2.1 Effective Communication	2.1.1	Demonstrates good speaking skill while carrying out survey or

skills			presenting research findings or carrying out discussions like focused group discussion
	2.2 Negotiation and Convincing Skills	2.2.1	Demonstrates effective collaboration with research team members to ensure successful completion of research task
		2.2.1	Ability to lead, motivate and inspire team members to increase the efficiency of teamwork.
	2.3 Decision Making Skills	2.3.1	Be inquisitive and analytical in developing the research plan to ensure that the research goal is achieved

2.6.6   Classification of Proficiency Levels

The proficiency level is categorized based on the level of expertise. It describes the level of a competency required to perform a specific job successfully. There is a progression of proficiencies at each level. The proficiency level of Architect is categorized into four levels as:

1. Entry level (P4)
2. Intermediate level (P3)
3. Experienced level (P2)
4. Advanced level (P1)

The framework has identified twenty-seven behavioral indicators across four levels of proficiencies. The proficiency will enable individual officials to distinguish the type of competencies expected in their career path, which will give them an opportunity to enhance competency in achieving current as well future career goals. Further, the proficiency level will set a benchmark for the recruitment and deployment. The proficiency levels of each key competencies are detailed below:

Key Role 1: Architectural Designer			
Competency Area: 1.1. Professional and Technical Knowledge			
Key Competency: 1.1.1. Know how on architectural design and construction			
Behavior Indicator: 1.1.1.1. Displays sound knowledge on design principles, theories, history, etc. in conceiving appropriate design concepts for the built environment.			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Understands basic Design Principles,	Comprehends and explores suitable	Comprehends & explores appropriate	Analyze, Justify and discerns the pros and

| theories, history, etc. and be able to come up with appropriate design concept for a limited range of architectural services under the direction of higher-level professionals. | Design Principles, theories, history, etc. and be able to independently come up with creative & inclusive design concept for medium range of architectural services. | Design Principles, theories, history, etc. and be able to independently come up with creative & inclusive design concept for all scales of architectural services and also supervise the lower level professionals. | cons of certain Design Principles and envisions, develops and recommends better Design principles and solutions relevant to the context. |

Behavior Indicator: 1.1.1.2. Displays sound knowledge and skills on both hand sketches and computer aided drawing and presentation software to translate ideas digitally or on papers and come out with effective presentation.

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses good sketching and software skills to translate design concepts digitally or on papers under the direction of higher-level professionals.	Possesses good sketching and software skills to independently translate design concepts for medium range architectural services digitally or on papers and come up with effective presentation for any level of customers.	Possesses abundant sketching and software skills to translate design concepts for any scale of architectural services digitally or on papers and also be able to supervise the lower level professionals.	Be able to explore, analyze & discerns the pros and cons of various computer aided drawing and presentation software and recommends and introduces better practices.

Behavior Indicator: 1.1.1.3. Displays sound knowledge on building construction, services and materials to oversee the construction.

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Shows keen interest in learning and understanding the basic construction process and supervise the lesser complex projects with the direction from higher professionals	Understands building construction process, building materials and services to supervise and develop building specifications for the medium range of architectural services.	Comprehends & explores the various building construction system to oversee and be able to guide the lower level professionals in coming up with building specifications.	Be able to analyze & discerns the pros and cons of existing construction system, and envisions and recommends appropriate construction methodology and technology

Key Competency: 1.1.2. Basic knowledge of various architecture related disciplines such as engineering, planning, landscaping, Interior Design and Conservation			
Behavior Indicator: 1.1.2.1. Demonstrate basic knowledge on Architecture related disciplines such as engineering, planning, landscaping, interior design and conservation for effective coordination during design or construction			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Be able to effectively liaise or coordinate with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation for small scale or less complex architectural projects	Be able to effectively liaise or coordinate with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation for medium scale architectural projects	Be able to effectively liaise or coordinate with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation for architectural projects of any complexity or scale.	Be able to provide guidance on how to coordinate or resolve coordination issues if any with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation.
Key Competency: 1.1.3. Aware of architectural related rules, regulations, standards and codes			
Behavior Indicator: 1.1.3.1. Well versed in building codes, zoning laws, fire regulations and other related ordinances to ensure that the designs are carried out in a lawful & orderly manner			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Be aware of building codes, zoning laws, fire regulations and other related ordinances and applies them while carrying out architectural design projects under the guidance of higher-level professionals	Be aware and understands building codes, zoning laws, fire regulations and other related ordinances and be able to apply them in small scale or less complex architectural design projects	Be aware and understands building codes, zoning laws, fire regulations and other related ordinances and be able to apply them in architectural design projects of any scale or complexity	Be able to explore, analyze and discerns pros and cons in existing building codes, zoning laws, fire regulations and other related ordinances and accordingly recommends for improvement
Competency Area 1.2. Managerial and leadership			
Key Competency 1.2.1. Effective Communication & negotiation skills			
Behavior Indicator: 1.2.1.1. Exhibits the ability to communicate in either written, verbal, or graphic representations to present architectural design concepts & drawings.			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses basic skills to present the designs	Possesses good command in language	Be eloquent and expressive in	Be able to tailor the mode of

and interprets drawings of limited range of architectural services to customers, contractors, administrators, consultants, engineers and to variety of non-professionals.	and has good skills to present & interprets medium range of architectural services to advisory committees or other larger groups.	presenting and interpreting complex projects to diverse range of customers that involve large number of stakeholders and contractors.	communication that best suits the audience while presenting architectural designs concepts and drawings

Behavior Indicator: 1.2.1.2. Has the capacity to understand customer's needs & negotiate on it to enable well-informed designs & drawings.			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Displays keen interest and actively listens to customer's needs in understanding the design brief and customer's opinion for limited range of architectural services to enable well informed design & drawings.	Listens, observes and interacts with customers to frame appropriate design brief for medium range of architectural services to enable well informed designs & drawings.	Easily understands customer's needs and be able to interact and advice customers in coming up with appropriate design brief for complex projects to enable well informed designs & drawings.	Be able to analyze, envision and develop design brief for diverse range of projects and ensures well informed decisions

Key Competency 1.2.2. Team work and coordination skills			

Behavior Indicator: 1.2.2.1. Demonstrates effective collaboration with engineering and construction team to ensure that the design becomes real & successful			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Actively participates and shows keen interest in learning and understanding the common goal of the team.	Interactively participates & contributes ideas in achieving the common goal of the team.	Be able to tactfully invite active participation of all team members and bridge individual's skills together towards achieving the common goal.	Exhibits high level of understanding the opinion of all team members and be able to give clear guidance & direction to achieve the best out of team

Behavior Indicator: 1.2.2.2. Ability to lead, motivate and inspire team members to increase the efficiency of teamwork.			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Shows excitement and zeal to work and	Be able to lead the team and	Be exemplary in the team to motivate,	Be able to find every possible way to

| motivates colleagues for high level of team spirit | cooperatively works in the best interest of the team. | inspire and energize other colleagues or subordinates | increase the efficiency of the teamwork in accomplishing the team goal |

| **Key Competency 1.2.3.** Management skills (physical as well as emotional) | | | |

| **Behavior Indicator: 1.2.3.1.** Exhibits the ability to plan, organize & manage every stage of architectural services from designing to construction until its completion. | | | |

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Aware of workplan & milestone and be able to deliver architectural services as per the schedule.	Be able to prepare effective work plan for limited & medium range of architectural services from designing to construction until its completion.	Be able to prepare effective work plan for all scales of architectural services from designing to construction until its completion.	Be able to explore, analyze & discerns the pros and cons of work plans and accordingly provides suggestions for improvement

| **Behavior Indicator: 1.2.3.2.** Displays notable emotional strength in managing workload & stress | | | |

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Aware of challenges & hiccups related to work and displays positive attitude in developing emotional stability.	Displays sound level of emotional strength in daily situations related to work.	Remains calm, composed & focused during all levels of crisis and positively shoulders any scale of workload & stress.	Stays in complete control of emotions under any circumstances and be able to counsel lower level professionals.

Key Role 2: Regulator of Architectural Services			
Competency Area: 2.1. Professional and Technical Knowledge			
Key Competency: 2.1.1. Know how on existing rules, regulations, guidelines and standards			
Behavior Indicator: 2.1.1.1. Well versed in existing rules, regulations, guidelines and standards to ensure strict compliance			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Has basic understanding of all architecture related legislations and be able to deliver	Has a clear understanding of all architecture related legislations to deliver the regulatory services	Comprehends and analyzes the pros and cons of existing architecture related legislations and	Visualizes policy impact of existing legislations holistically and accordingly come up

regulatory services under the guidance of higher-level professionals	independently and also be able to supervise subordinates.	accordingly come up with ways to improve through review and amendment.	with necessary directives or new legislations (acts, rules, regulations, standards) as appropriate.

Key Competency: 2.1.2. Evaluation and Review skills			
Behavior Indicator: 2.1.2.1. Ability to carry out the scrutiny and /or review of architectural design and drawings judiciously			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Be able to scrutinize architectural design and drawings judiciously in compliance with all existing rules and regulations with guidance of higher-level professionals	Be able to independently scrutinize architectural design and drawings judiciously in compliance with all existing rules and regulations	Be able to comprehend and analyze the provisions of architectural related rules and regulations for scrutiny of architectural design and drawings	Recommends updating or new proposal of rules and regulations pertaining to architecture to be incorporated while carrying out the scrutiny of architectural design and drawings

Key Competency: 2.1.3. Monitoring and execution/ enforcement skills			
Behavior Indicator: 2.1.3.1. Demonstrates diligence and vigilance in monitoring the developmental activities to ensure execution in compliance with approved design and drawings			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Monitors the developmental activities diligently as per the prescribed monitoring plan to ensure strict compliance with approved design and drawings	Has clear understanding of the monitoring system and be able to guide subordinates to carry out the monitoring tasks	Understands the issues and limitations of monitoring procedure to come up with necessary monitoring plan that best suits the assigned task	Provides technical expertise in formulating the monitoring plans with thorough understanding of policy implications of the existing monitoring system

Competency Area 2.2. Managerial and leadership			
Key Competency 2.2.1. Effective Communication			
Behavior Indicator: 2.2.1.1. Demonstrates good presentation and speaking skills to conduct effective awareness programs on architectural related rules and regulations			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses basic skills to interpret and	Has good command in language and	Be able to articulate and express the issues	Be able to tailor the mode of

communicate the provisions of architectural related rules and regulations under the guidance of higher-level professionals	presentation skills to communicate the provisions of architectural related rules and regulations	and limitations of architectural related rules and regulations effectively	communication that best suits the audience in delivering the information on architectural related rules and regulations

Key Competency 2.2.2. Negotiation and Convincing Skills

Behavior Indicator: 2.2.2.1. Exhibits capacity to organize and facilitate the discussions by enabling the parties to understand the issues holistically to build a mediated consensus

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Understands the mediation and negotiation process and facilitate the mediation and negotiation under the guidance of higher-level professionals	Possesses good mediation and negotiation skills to resolve the conflicting opinions while carrying out the architectural related regulatory services	Be able to create conducive platforms to initiate discussion or mediations among the conflicting parties to arrive at mediated consensus	Has the capacity to comprehend the issues holistically and be able to provide expertise advice on conflicting opinions to arrive at mediated consensus

Behavior Indicator: 2.2.2.2. Ability to convince public with full trust and confidence

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Has the zeal or passion to learn and understand the necessary skills to convince the public	Possesses basic skills to convince public while delivering any architectural regulatory services	Possesses adequate skills to convince public with full trust and confidence while delivering any architectural regulatory services	Has the expertise in convincing the public with full trust and confidence while delivering any architectural regulatory services

Key Competency 2.2.3. Decision Making Skills

Behavior Indicator: 2.2.3.1. Displays rational, unbiased and well-informed decision making skills

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Displays keen interest in understanding the opinion of the general public and take note of the pertinent issues to	Listens, observes and responds to public opinion for comprehensive understanding of the issues to enable well informed decision	Possesses good judgment to assort the views and opinions and accordingly recommend decisions in the best interest of the general public.	Creates and facilitates a conducive environment for discussion with the public to enable the parties to understand the issues holistically

enable well informed decision			and to enable well informed decision

<table>
<tr><td colspan="4" style="background:yellow">Key Role 3: Researcher in Architecture and Related Field</td></tr>
<tr><td colspan="4">Competency Area: 3.1. Professional and Technical Knowledge</td></tr>
<tr><td colspan="4">Key Competency: 3.1.1. Knowhow of the research process and the research techniques or methodologies</td></tr>
<tr><td colspan="4">Behavior Indicator: 3.1.1.1. Displays sound knowledge on research process to carry out the research effectively and comprehensively.</td></tr>
<tr><td>Entry (P4)</td><td>Intermediate (P3)</td><td>Experienced (P2)</td><td>Advanced (P1)</td></tr>
<tr>
<td>Has the ability to carry out a basic research projects under the supervision of experienced researchers</td>
<td>Has the capacity to carry out simple research projects on Architecture and related field independently</td>
<td>Has the capacity to carry out research projects of all scale and complexity and be able to guide or lead the research team</td>
<td>Has the expertise in carrying out research in architecture and related field and be a go-to person for subordinate researchers</td>
</tr>
<tr><td colspan="4">Behavior Indicator: 3.1.1.2. Be able to adopt the most appropriate research tools, techniques and methods</td></tr>
<tr><td>Entry (P4)</td><td>Intermediate (P3)</td><td>Experienced (P2)</td><td>Advanced (P1)</td></tr>
<tr>
<td>Understands the basic research techniques or methods and be able to apply them under the supervision of experienced researchers</td>
<td>Have adequate understanding of the research techniques or methods gained through their experience in the field and apply them accordingly</td>
<td>Be able to understand the pros and cons of different research techniques or methods and accordingly apply them which best suits the project assigned</td>
<td>Envisions, develops or recommends the research technique or method that best suits the research area with their expertise in the field.</td>
</tr>
<tr><td colspan="4">Key Competency: 3.1.2. Knowledge on current and emerging local and international design and construction practices</td></tr>
<tr><td colspan="4">Behavior Indicator: 3.1.2.1. Demonstrates good knowledge of the existing and emerging concepts and practices in the field of architecture, both locally and internationally</td></tr>
<tr><td>Entry (P4)</td><td>Intermediate (P3)</td><td>Experienced (P2)</td><td>Advanced (P1)</td></tr>
<tr>
<td>Be vigilant and curious about the existing and emerging concepts and practices in the field of architecture</td>
<td>Has clear understanding of the existing and emerging concepts and practices in the field of architecture to</td>
<td>Be able to understand the issues and limitations of the existing and emerging concepts and practices in the field of</td>
<td>Has the capacity to explore, identify and analyze the problems or issues in the field of architecture holistically and</td>
</tr>
</table>

to determine prospective research areas	determine prospective research areas	architecture to determine prospective research areas	accordingly discerns the potential research areas

Key Competency: 3.1.3. Data collection and analysis

Behavior Indicator: 3.1.3.1. Proficient in collection, compilation and analysis of data

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Be able to collect and compile data as per the prescribed format and has basic knowledge of data analytic tools	Be able to prepare data collection formats and carries out basic analysis of the data	Has the capacity to carry out advanced data analysis with most appropriate analytic tool	Has the expertise in carrying out data collection as well as analysis

Key Competency: 3.1.4. Archiving or documentation

Behavior Indicator: 3.1.4.1. Proficient in archiving or documenting any historical structures or architecture which may be worth doing

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Has basic understanding and knowledge on archiving or documentation and be able to carry out the task under the guidance of supervisor	Competent in archiving or documenting any historical structures or architecture which may be worth archiving or documenting	Be able to identify the historical structures or architecture which may be worth archiving or documenting and accordingly recommend to do so	Has the expertise in archiving or documenting historical structures or related architecture with thorough understanding of its objectives and policy implications

Competency Area 3.2. Managerial and leadership

Key Competency 3.2.1. Effective Communication

Behavior Indicator: 3.2.1.1. Demonstrates good speaking skill while carrying out survey or presenting research findings or carrying out discussions like focused group discussion

Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses basic skills to interpret and communicate the survey questionnaire and research findings	Has good command in language and presentation skills to communicate the survey questionnaire and research findings	Be able to articulate and express the issues and limitations of survey questionnaire and research findings effectively	Be able to tailor the mode of communication that best suits the audience in carrying out the survey questionnaire or deliberating the research findings

Key Competency 1.2.2. Team work and coordination skills			
Behavior Indicator: 3.2.2.1. Demonstrates effective collaboration with research team members to ensure successful completion of research task			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Actively participates and shows keen interest in learning and understanding the common goal of the team.	Interactively participates & contributes ideas in achieving the common goal of the team.	Be able to tactfully invite active participation of all team members and bridge individual's skills together towards achieving the common goal.	Exhibits high level of understanding the opinion of all team members and be able to give clear guidance & direction to achieve the best out of team
Behavior Indicator: 3.2.2.2. Ability to lead, motivate and inspire team members to increase the efficiency of teamwork.			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Shows excitement and zeal to work and motivates colleagues for high level of team spirit	Be able to lead the team and cooperatively works in the best interest of the team.	Be exemplary in the team to motivate, inspire and energize other colleagues or subordinates	Be able to find every possible way to increase the efficiency of the teamwork in accomplishing the team goal
Key Competency 3.2.3. Inquisitive and analytical			
Behavior Indicator: 3.2.3.1. Be inquisitive and analytical in developing the research plan to ensure that the research goal is achieved.			
Entry (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Displays keen interest with perseverance in understanding the research plan and research goal with guidance from higher level professionals	Be able to independently develop research questionnaires and organized research plans to achieve the set research goal	Be able to analytically review the research questionnaires, research plan and research goals and supervise the subordinates in carrying out the research comprehensively	Has the capacity to comprehend the issues and limitations of the research holistically and be able to provide expert advice in the research field

2.7. Training Needs Analysis

The Training Need is the differences between desired capability and current capability. The Training Needs Analysis is the process of recognizing the skill gaps and needs of training. It is the procedure to determine whether the training will bring out the solution to the problem. It ensures that training is targeting the correct competencies, the correct employees and the needs of the Ministry. The training can reduce, if not eliminate, the gap by equipping the Architects with knowledge and skills. It should be the shared responsibility of employees and Ministry to build and enhance their capability and competency.

The training needs analysis is carried out in consultation with the stakeholders through interview, survey and Focus Group Discussion. The questionnaire consists of both closed and open-ended questions. The questionnaire is based on twenty-seven behavioral indicators of different proficiency levels on Likert Scale of "Competent" and "Not Competent" followed by open ended questions asking the likely reasons for 'Not Competent" and suggest interventions to address the gap. The behavioral indicators were assessed by proficiency level to identify the performance gaps.

Training Needs Assessment at Entry Proficiency Level (P4)

Key Role 1: Architectural Designer				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
1.1. Know how on architectural design and construction	Understands basic Design Principles, theories, history, etc. and be able to come up with appropriate design concept for a limited range of architectural services under the direction of higher level professionals.	Not Competent	Lack of design experience and exposure	On the job training (design exercise). Exposure (case studies) Mentoring
	Possesses good sketching and software skills to translate design concepts digitally or on papers under the direction of higher level professionals.	Not Competent	No formal training and access to state-of-the-art architectural software	Training on state-of-the-art architectural related software
	Shows keen interest in learning and understanding the basic construction process and supervise the lesser complex projects with the direction from higher professionals	Not Competent	Lack of practical knowledge and field experience	On the job training. Exposure to construction sites (attachment with experienced professionals)
1.2. Basic knowledge of various architecture	Be able to effectively liaise or coordinate with	Not Competent	Only the basics of mentioned related	Classroom training (specialization)

related disciplines such as engineering, planning, landscaping, Interior Design and Conservation	professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation for small scale or less complex architectural projects		disciplines are included in the architecture programme	On the Job Training
1.3.Aware of architectural related rules, regulations, standards and codes	Be aware of building codes, zoning laws, fire regulations and other related ordinances and applies them while carrying out architectural design projects under the guidance of higher level professionals	Not Competent	Mostly educated abroad and lacks knowledge on national policies or architectural related rules, regulations and guidelines	On the job training like awareness workshops. Mentoring Orientation
1.4.Effective Communication & negotiation skills	Possesses basic skills to present the designs and interprets drawings of limited range of architectural services to customers, contractors, administrators, consultants, engineers and to variety of non-professionals	Competent		
	Displays keen interest and actively listens to customer's needs in understanding the design brief and customer's opinion	Competent		

Key Competencies	Description of Proficiency Level	Performance (competent/Not competent)	Likely reason for performance gap	Methods of Intervention/Training Requirement
	for limited range of architectural services to enable well informed design & drawings.			
1.5.Team work and coordination skills	Actively participates and shows keen interest in learning and understanding the common goal of the team.	Competent		
	Shows excitement and zeal to work and motivates colleagues for high level of team spirit	Competent		
1.6.Management skills (physical as well as emotional)	Aware of work plan & milestone and be able to deliver architectural services as per the schedule.	Not Competent	Lack of formal training or experience in project management	Classroom training
	Aware of challenges & hiccups related to work and displays positive attitude in developing emotional stability.	Not Competent	Lack of specific training on emotional intelligence. Stressful nature of job	Classroom training. Mentoring.
Key Role 2: Regulator of Architectural Services				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.1.Know how on existing rules,	Has basic understanding of all architecture related	Not Competent	Mostly educated abroad and lacks	On the Job training Job orientation.

regulations, guidelines and standards	legislations and be able to deliver regulatory services under the guidance of higher level professionals		knowledge on national policies or architectural related rules, regulations and guidelines	Mentorship.
2.2.Evaluation and Review skills	Be able to scrutinize architectural design and drawings judiciously in compliance with all existing rules and regulations with guidance of higher-level professionals	Not Competent	Lack of knowledge on existing rules, regulation and guidelines. Lack of knowledge on review process	On the job training. Job orientation Mentoring
2.3.Monitoring and execution/ enforcement skills	Monitors the developmental activities diligently as per the prescribed monitoring plan to ensure strict compliance with approved design and drawings	Competent		
2.4.Effective communication	Possesses basic skills to interpret and communicate the provisions of architectural related rules and regulations under the guidance of higher level professionals	Competent		
2.5.Negotiation and convincing skills	Understands the mediation and negotiation process and facilitate the mediation and negotiation under the	Not Competent	No formal training or experience in mediation and negotiation	Classroom training.

	guidance of higher level professionals			
	Has the zeal or passion to learn and understand the necessary skills to convince the public	Competent		
2.6. Decision making skills	Displays keen interest in understanding the opinion of the general public and take note of the pertinent issues to enable well informed decision	Competent		
Key Role 3: Researcher in Architecture and Related Field				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.8. Knowhow of the research process and the research techniques or methodologies.	Has the ability to carry out a basic research projects under the supervision of experienced researchers	Not Competent	Lack of knowledge/training/experience on the research process. Limited platform to carry out research	Classroom training Create research platform
	Understands the basic research techniques or methods and be able to apply them under the supervision of experienced researchers	Not Competent	Limited knowledge about various research tools, methods or techniques	Classroom training

2.9.	Knowledge on current and emerging local and international design and construction practices	Be vigilant and curious about the existing and emerging concepts and practices in the field of architecture to determine prospective research areas	Not Competent	Lack of exposure and experience	Classroom training. Exposure to best practices (ex-country or in-country)
2.10.	Data collection and analysis	Be able to collect and compile data as per the prescribed format and has basic knowledge of data analytic tools	Competent		
2.11.	Archiving or documentation	Has basic understanding and knowledge on archiving or documentation and be able to carry out the task under the guidance of supervisor	Not Competent	Lack of knowledge/experience/ opportunity/skill in archiving	Classroom training
2.12.	Effective communication	Possesses basic skills to interpret and communicate the survey questionnaire and research findings	Competent		
2.13.	Team work and coordination skills	Actively participates and shows keen interest in learning and understanding the common goal of the team.	Competent		
		Shows excitement and zeal to work and motivates	Competent		

	colleagues for high level of team spirit			
2.14. Inquisitive and analytical	Displays keen interest with perseverance in understanding the research plan and research goal with guidance from higher level professionals	Competent		

Training Needs Assessment at Intermediate Proficiency Level (P3)

Key Role 1: Architectural Designer				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.1.Know how on architectural design and construction	Comprehends and explores suitable Design Principles, theories, history, etc. and be able to independently come up with creative & inclusive design concept for medium range of architectural services.	Not Competent	Limited design experience and exposure	On the job training (design exercise). Exposure (case studies) Mentoring
	Possesses good sketching and software skills to independently translate design concepts for medium range architectural services digitally or on papers and	Not Competent	No formal training and access to state-of-the-art architectural software	Training on state-of-the-art architectural related softwares

	come up with effective presentation for any level of customers.			
	Understands building construction process, building materials and services to supervise and develop building specifications for the medium range of architectural services.	Not Competent	Limited knowledge about construction materials or construction techniques. Limited practical experience on site	On the job training. Exposure to new construction materials and techniques (best practices)
1.2. Basic knowledge of various architecture related disciplines such as engineering, planning, landscaping, Interior Design and Conservation	Be able to effectively liaise or coordinate with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation for medium scale architectural projects	Not Competent	Only the basics of mentioned related disciplines are included in the architecture programme	Classroom training (specialization) On the Job Training
1.3. Aware of architectural related rules, regulations, standards and codes	Be aware and understands building codes, zoning laws, fire regulations and other related ordinances and be able to apply them in small scale or less complex architectural design projects	Competent		
1.4. Effective Communication &	Possesses good command in language and has good skills	Competent		

negotiation skills	to present & interprets medium range of architectural services to advisory committees or other larger groups.			
	Listens, observes and interacts with customers to frame appropriate design brief for medium range of architectural services to enable well informed designs & drawings.	Competent		
1.5.Team work and coordination skills	Interactively participates & contributes ideas in achieving the common goal of the team.	Competent		
	Be able to lead the team and cooperatively works in the best interest of the team	Competent		
1.6.Management skills (physical as well as emotional)	Be able to prepare effective work plan for limited & medium range of architectural services from designing to construction until its completion.	Not Competent	Lack of formal training or experience in project management.	Classroom training.
	Displays sound level of emotional strength in daily situations related to work.	Not Competent	Lack of specific training on emotional intelligence. Stressful nature of job	Classroom training. Mentoring.

Key Role 2: Regulator of Architectural Services				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.1. Know how on existing rules, regulations, guidelines and standards	Has a clear understanding of all architecture related legislations to deliver the regulatory services independently and also be able to supervise subordinates	Competent		
2.2. Evaluation and Review skills	Be able to independently scrutinizes architectural design and drawings judiciously in compliance with all existing rules and regulations	Competent		
2.3. Monitoring and execution/ enforcement skills	Has clear understanding of the monitoring system and be able to guide subordinates to carry out the monitoring tasks	Competent		
2.4. Effective communication	Has good command in language and presentation skills to communicate the provisions of architectural related rules and regulations	Competent		
2.5. Negotiation and	Possesses good mediation	Not Competent	No formal training on	Classroom training.

convincing skills	and negotiation skills to resolve the conflicting opinions while carrying out the architectural related regulatory services		mediation and negotiation	
	Possesses basic skills to convince public while delivering any architectural regulatory services	Competent		
2.6.Decision making skills	Listens, observes and responds to public opinion for comprehensive understanding of the issues to enable well informed decision	Competent		
Key Role 3: Researcher in Architecture and Related Field				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
3.1.Knowhow of the research process and the research techniques or methodologies.	Has the capacity to carry out simple research projects on Architecture and related field independently	Not Competent	Lack of knowledge/training/experience on the research process. Limited platform to carry out research	Classroom training Create research platform
	Have adequate understanding of the research techniques or methods gained through their	Not Competent	Limited knowledge about various research tools, methods or	Classroom training

	experience in the field and apply them accordingly		techniques	
3.2.Knowledge on current and emerging local and international design and construction practices	Has clear understanding of the existing and emerging concepts and practices in the field of architecture to determine prospective research areas	Not Competent	Limited exposure and experience	Classroom training. Exposure to best practices (ex-country or in-country)
3.3.Data collection and analysis	Be able to prepare data collection formats and carries out basic analysis of the data	Not Competent	Lack of formal training on data collection and analysis	Classroom training.
3.4.Archiving or documentation	Competent in archiving or documenting any historical structures or architecture which may be worth archiving or documenting	Not Competent	Lack of knowledge/experience/ opportunity/skill in archiving	Classroom training.
3.5.Effective communication	Has good command in language and presentation skills to communicate the survey questionnaire and research findings	Competent		
3.6.Team work and coordination skills	Interactively participates & contributes ideas in achieving the common goal of the team.	Competent		
	Be able to lead the team and cooperatively works in the	Competent		

	best interest of the team.			
3.7.Inquisitive and analytical	Be able to independently develop research questionnaires and organized research plans to achieve the set research goal	Not Competent	Limited knowledge/experience/ platform to develop research questionnaires and research plans	Classroom training Create research platform

Training Needs Assessment at Experienced Proficiency Level (P2)

Key Role 1: Architectural Designer				
Key Competencies	Description of Proficiency Level	Performance (competent/Not competent)	Likely reason for performance gap	Methods of Intervention/Training Requirement
1.1.Know how on architectural design and construction	Comprehends & explores appropriate Design Principles, theories, history, etc. and be able to independently come up with creative & inclusive design concept for all scales of architectural services and also supervise the lower level professionals.	Competent		
	Possesses good sketching and software skills to translate design concepts digitally or on papers under the direction of higher level professionals.	Not Competent	No formal training and access to state-of-the-art architectural software	Training on state-of-the-art architectural related softwares

	Possesses abundant sketching and software skills to translate design concepts for any scale of architectural services digitally or on papers and also be able to supervise the lower level professionals.	Competent		
1.2. Basic knowledge of various architecture related disciplines such as engineering, planning, landscaping, Interior Design and Conservation	Be able to effectively liaise or coordinate with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation for architectural projects of any complexity or scale.	Competent		
1.3. Aware of architectural related rules, regulations, standards and codes	Be aware and understands building codes, zoning laws, fire regulations and other related ordinances and be able to apply them in architectural design projects of any scale or complexity	Competent		
1.4. Effective Communication & negotiation skills	Be eloquent and expressive in presenting and interpreting complex projects to diverse range of customers that involve large number of	Competent		

	stakeholders and contractors.			
	Easily understands customer's needs and be able to interact and advice customers in coming up with appropriate design brief for complex projects to enable well informed designs & drawings.	Competent		
1.5. Team work and coordination skills	Be able to tactfully invite active participation of all team members and bridge individual's skills together towards achieving the common goal.	Competent		
	Be exemplary in the team to motivate, inspire and energize other colleagues or subordinates	Competent		
1.6. Management skills (physical as well as emotional)	Be able to prepare effective work plan for all scales of architectural services from designing to construction until its completion.	Competent		
	Remains calm, composed & focused during all levels of crisis and positively shoulders any scale of workload & stress.	Not Competent	Lack of specific training on emotional intelligence. Stressful nature of job	Classroom training. Mentoring.

Key Role 2: Regulator of Architectural Services				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.1. Know how on existing rules, regulations, guidelines and standards	Comprehends and analyzes the pros and cons of existing architecture related legislations and accordingly come up with ways to improve through review and amendment.	Competent		
2.2. Evaluation and Review skills	Be able to comprehend and analyze the provisions of architectural related rules and regulations for scrutiny of architectural design and drawings	Competent		
2.3. Monitoring and execution/ enforcement skills	Understands the issues and limitations of monitoring procedure to come up with necessary monitoring plan that best suits the assigned task	Competent		
2.4. Effective communication	Be able to articulate and express the issues and limitations of architectural related rules and regulations effectively	Competent		

Key Competencies	Description of Proficiency Level	Performance (competent/Not competent)	Likely reason for performance gap	Methods of Intervention/Training Requirement
2.5. Negotiation and convincing skills	Be able to create conducive platforms to initiate discussion or mediations among the conflicting parties to arrive at mediated consensus	Not Competent	No formal training on mediation and negotiation	Classroom training.
	Possesses adequate skills to convince public with full trust and confidence while delivering any architectural regulatory services	Competent		
2.6. Decision making skills	Possesses good judgment to assort the views and opinions and accordingly recommend decisions in the best interest of the general public.	Competent		
Key Role 3: Researcher in Architecture and Related Field				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
3.1. Knowhow of the research process and the research techniques or methodologies.	Has the capacity to carry out research projects of all scale and complexity and be able to guide or lead the research team	Not Competent	Lack of knowledge/training/experience on the research process. Limited platform to carry out research	Classroom training Create research platform
	Be able to understand the pros and cons of different	Not Competent	Limited knowledge about various research	Classroom training

	research techniques or methods and accordingly apply them which best suits the project assigned		tools, methods or techniques	
3.2.Knowledge on current and emerging local and international design and construction practices	Be able to understand the issues and limitations of the existing and emerging concepts and practices in the field of architecture to determine prospective research areas	Competent		
3.3.Data collection and analysis	Has the capacity to carry out advanced data analysis with most appropriate analytic tool	Not Competent	Lack of formal training on data collection and analysis	Classroom training
3.4.Archiving or documentation	Be able to identify the historical structures or architecture which may be worth archiving or documenting and accordingly recommend to do so	Not Competent	Lack of knowledge/experience/ opportunity/skill in archiving	Classroom training
3.5.Effective communication	Be able to articulate and express the issues and limitations of survey questionnaire and research findings effectively	Competent		
3.6.Team work and coordination skills	Be able to tactfully invite active participation of all	Competent		

	team members and bridge individual's skills together towards achieving the common goal.			
	Be exemplary in the team to motivate, inspire and energize other colleagues or subordinates	Competent		
3.7.Inquisitive and analytical	Be able to analytically review the research questionnaires, research plan and research goals and supervise the subordinates in carrying out the research comprehensively	Not Competent	Limited knowledge/experience/ platform to review research questionnaires and research plans	Classroom training Create research platform

Training Needs Assessment at Advanced Proficiency Level (P1)

Key Role 1: Architectural Designer				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
1.1.Know how on architectural design and construction	Analyze, Justify and discerns the pros and cons of certain Design Principles and envisions, develops and recommends better Design principles and solutions relevant to the context.	Competent		

	Be able to explore, analyze & discerns the pros and cons of various computer aided drawing and presentation software and recommends and introduces better practices.	Not Competent	Change of drafting medium from traditional blueprints to computer aided Designs	Training on state-of-the-art architectural related software
	Be able to analyze & discerns the pros and cons of existing construction system, and envisions and recommends appropriate construction methodology and technology.	Competent		
1.2. Basic knowledge of various architecture related disciplines such as engineering, planning, landscaping, Interior Design and Conservation	Be able to provide guidance on how to coordinate or resolve coordination issues if any with professionals from relevant fields such as engineering, planning, landscaping, interior design and conservation.	Competent		
1.3. Aware of architectural related rules, regulations, standards and codes	Be able to explore, analyze and discerns pros and cons in existing building codes, zoning laws, fire regulations and other related ordinances and accordingly recommends	Competent		

	for improvement			
1.4.Effective Communication & negotiation skills	Be able to tailor the mode of communication that best suits the audience while presenting architectural designs concepts and drawings	Competent		
	Be able to analyze, envision and develop design brief for diverse range of projects and ensures well informed decisions	Not Competent	Diverse range of project could include many different fields for which the specialization by one person is impossible. Absence of inter-ministerial transfer.	Job rotation among/within different organizations
1.5.Team work and coordination skills	Exhibits high level of understanding the opinion of all team members and be able to give clear guidance & direction to achieve the best out of team	Competent		
	Be able to find every possible ways to increase the efficiency of the teamwork in accomplishing the team goal	Competent		
1.6.Management skills (physical as well as emotional)	Be able to explore, analyze & discerns the pros and cons of work plans and accordingly provides	Competent		

	suggestions for improvement			
	Stays in complete control of emotions under any circumstances and be able to counsel lower level professionals.	Not Competent	Lack of specific training on emotional intelligence. Stressful nature of job	Classroom training.

Key Role 2: Regulator of Architectural Services				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.1.Know how on existing rules, regulations, guidelines and standards	Visualizes policy impact of existing legislations holistically and accordingly come up with necessary directives or new legislations (acts, rules, regulations, standards) as appropriate.	Competent		
2.2.Evaluation and Review skills	Recommends updating or new proposal of rules and regulations pertaining to architecture to be incorporated while carrying out the scrutiny of architectural design and drawings	Competent		
2.3.Monitoring and execution/ enforcement skills	Provides technical expertise in formulating the monitoring plans with	Not Competent	Unaware of advanced monitoring system	Exposure to advanced monitoring system

	thorough understanding of policy implications of the existing monitoring system			
2.4.Effective communication	Be able to tailor the mode of communication that best suits the audience in delivering the information on architectural related rules and regulations	Competent		
2.5.Negotiation and convincing skills	Has the capacity to comprehend the issues holistically and be able to provide expertise advice on conflicting opinions to arrive at mediated consensus	Not Competent	No formal training on mediation and negotiation	Classroom training.
	Has the expertise in convincing the public with full trust and confidence while delivering any architectural regulatory services	Competent		
2.6.Decision making skills	Creates and facilitates a conducive environment for discussion with the public to enable the parties to understand the issues holistically and to enable well informed decision	Competent		

Key Role 3: Researcher in Architecture and Related Field				
Key Competencies	**Description of Proficiency Level**	**Performance (competent/Not competent)**	**Likely reason for performance gap**	**Methods of Intervention/Training Requirement**
2.1.Knowhow of the research process and the research techniques or methodologies.	Has the expertise in carrying out research in architecture and related field and be a go-to person for subordinate researchers	Not Competent	Lack of knowledge/training/experience on the research process. Limited platform to carry out research	Classroom training Create research platform
	Envisions, develops or recommends the research technique or method that best suits the research area with their expertise in the field.	Not Competent	Limited knowledge about various research tools, methods or techniques	Classroom training
2.2.Knowledge on current and emerging local and international design and construction practices	Has the capacity to explore, identify and analyze the problems or issues in the field of architecture holistically and accordingly discerns the potential research areas	Competent		
2.3.Data collection and analysis	Has the expertise in carrying out data collection as well as analysis	Not Competent	Lack of formal training on data collection and analysis	Classroom training
2.4.Archiving or documentation	Has the expertise in archiving or documenting historical structures or	Not Competent	Lack of knowledge/experience/ opportunity/skill in	Classroom training

	related architecture with thorough understanding of its objectives and policy implications		archiving	
2.5.Effective communication	Be able to tailor the mode of communication that best suits the audience in carrying out the survey questionnaire or deliberating the research findings	Competent		
2.6.Team work and coordination skills	Exhibits high level of understanding the opinion of all team members and be able to give clear guidance & direction to achieve the best out of team	Competent		
	Be able to find every possible ways to increase the efficiency of the teamwork in accomplishing the team goal	Competent		
2.7.Inquisitive and analytical	Has the capacity to comprehend the issues and limitations of the research holistically and be able to provide expert advice in the research field	Not Competent	Limited experience/platform to become an expert in the research field	Classroom training Create research platform

2.8.   List of Mandatory Training and Developing Learning Objectives

The framework has highlighted the likely reasons of the gaps and interventions were proposed above. In order to provide capacity building program, the following are the expected learning objectives. The respective proficiency level officials will be able to achieve the objectives mentioned against each of the training.

	Entry Proficiency Level (P4)		
Sl. #	**Methods of Intervention/Training Requirement**	**Learning Objectives**	**Priority**
1	Induction course on existing and evolving design concepts or principles such as sustainable architecture, Green design, resilient design, etc.	• To enhance design skills and creativity	1
2	Training on software required for architectural modelling, texturing and materials, lighting, rendering and walk-throughs (AutoCAD, SketchUp, Revit, Lumion, 3Ds-Max, Blender, etc.)	• To be able to effectively translate design concepts digitally for effective presentation to customers	1
3	Training on landscaping, planning, interior design and conservation	• To be able to effectively liaise or coordinate with professionals from relevant fields	3
4	Training on Project management	• To be able to manage architectural projects effectively	2
5	Training on emotional intelligence	• To develop sound level of emotional control	3
6	Induction course on architectural related rules, regulations & guidelines	• To be well versed in existing rules, regulations, guidelines and standards to ensure strict compliance • To align professional practice with national policies	1
7	Research on existing and emerging best design concepts and practices such as climate responsive building technologies and energy efficient buildings including construction	• To be able to design climate responsive and energy efficient buildings	2

Sl. #	Methods of Intervention/Training Requirement	Learning Objectives	Priority
	materials		
8	Training on research tools, techniques and processes including data collection and analysis	• To have clear understanding about the research process • To be able to choose the most preferred/appropriate research technique or method • To be able to prepare data collection formats and carry out t basic data analysis	3
9	Training on Archiving and documentation including digital techniques (both audio and visual)	• To be able to archive or document the architecture of historical or heritage values using the most appropriate medium/technique.	3
Intermediate Proficiency Level (P3)			
Sl. #	**Methods of Intervention/Training Requirement**	**Learning Objectives**	**Priority**
1	Training on software required for architectural modelling, texturing and materials, lighting, rendering and walk-throughs (AutoCAD, SketchUp, Revit, Lumion, 3Ds-Max, Blender, etc.)	• To be able to effectively translate design concepts digitally for effective presentation to customers	1
2	Crash course on landscaping, planning, interior design and conservation	• To be able to effectively liaise or coordinate with professionals from relevant fields	3
3	Training on Project management	• To be able to manage architectural projects effectively	2
4	Crash course on emotional intelligence	• To develop sound level of emotional control	3
5	Research on existing and emerging best design concepts and practices such as climate responsive building technologies and energy efficient buildings including construction materials	• To be able to design climate responsive and energy efficient buildings	2
6	Training on research tools, techniques and processes including data collection	• To have clear understanding about the research process	3

Sl. #	Methods of Intervention/Training Requirement	Learning Objectives	Priority
	and analysis	• To be able to choose the most preferred/appropriate research technique or method • To be able to carry out in-depth data analysis	
7	Training on Archiving and documentation including digital techniques (both audio and visual)	To be able to archive or document the architecture of historical or heritage values using the most appropriate medium/technique.	3

Experienced Proficiency Level (P2)			

Sl. #	Methods of Intervention/Training Requirement	Learning Objectives	Priority
1	Training on software required for architectural modelling, texturing and materials, lighting, rendering and walk-throughs (AutoCAD, SketchUp, Revit, Lumion, 3Ds-Max, Blender, etc.)	• To be able to effectively translate design concepts digitally for effective presentation to customers	1
2	Training on Project management	• To be able to manage architectural projects effectively	2
3	Crash course on emotional intelligence	• To develop sound level of emotional control	3
4	Research on existing and emerging best design concepts and practices such as climate responsive building technologies and energy efficient buildings including construction materials	• To be able to design climate responsive and energy efficient buildings	2
5	Training on research tools, techniques and processes including data collection and analysis	• To have clear understanding about the research process • To be able to choose the most preferred/appropriate research technique or method • To be able to carry out in-depth data analysis	3
6	Training on Archiving and documentation including digital techniques (both audio and visual)	• To be able to archive or document the architecture of historical or heritage values	3

Sl. #	Methods of Intervention/Training Requirement	Learning Objectives	Priority
		using the most appropriate medium/technique.	
Advanced Proficiency Level (P1)			
1	Training on software required for architectural modelling, texturing and materials, lighting, rendering and walk-throughs (AutoCAD, SketchUp, Revit, Lumion, 3Ds-Max, Blender, etc.)	• To be able to effectively translate design concepts digitally for effective presentation to customers	1
2	Training on Project management	• To be able to manage architectural projects effectively	2
3	Crash course on emotional intelligence	• To develop sound level of emotional control	3
4	Research on existing and emerging best design concepts and practices such as climate responsive building technologies and energy efficient buildings including construction materials	• To be able to design climate responsive and energy efficient buildings	2
5	Advanced Training on research tools, techniques and processes including data collection and analysis	• To have clear understanding about the research process • To be able to choose the most preferred/appropriate research technique or method • To be able to carry out in-depth data analysis	3
6	Training on Archiving and documentation including digital techniques (both audio and visual)	To be able to archive or document the architecture of historical or heritage values using the most appropriate medium/technique.	3

2.9. List of Mandatory Long-Term Training (Specialization)

Sl. No.	Course Title	Priority			No. of Slots
		Immediate (2020-21)	Medium (2021-22)	Long-term (2023++)	
1.	Masters in Sustainable Architecture		Yes		
2.	Masters in Landscape Architecture		Yes		
3.	Masters in Architecture		Yes		
4.	Masters in Urban Design			Yes	
5.	Masters in Construction Management			Yes	
6.	Masters in Architectural Science- Audio and Acoustics, high performance buildings			Yes	

2.10. Implementation of Competency based Framework

The implementation of training and other CDI has to be based on the mandatory **Methods of Intervention/Training Requirement** listed in section under the training needs analysis (**Section 2.7**) and **list of Mandatory Training and Developing Learning Objectives** under section 2.8 of this document. The mandatory list of training/other method of intervention includes all the interventions that are found to be "Not Competent" under the Training Needs Analysis. However, for implementation, it has to be prioritized based on the following:

a. Most critical area of intervention without its intervention will lead to non-performance
b. Interventions which are reflected as "Not Competent"
c. Availability of the resource allocation

For implementation, the prioritization has to be done on the annual basis by the concerned Department/Division and the HR Division of the agencies.

2.11. Recommendations

The following recommendations are proposed for effective implementation of this framework:

- The trainings should be planned properly in a structured manner, taking into account of the competencies at different proficiency levels inferenced through Training Need Analysis (TNA) of this framework.

- The prioritization of the training, both short term and long term including any kind of interventions reflected in this framework should be adopted strictly in close coordination with the HRD of concerned agencies.

- Disseminate this 'Competency Based Framework for Architects' to all Architects of different agencies.

- Conduct the Training Need Analysis (TNA) of Architects at different proficiency levels periodically and accordingly update/revise this CBF as per the changing need.

- For the purpose of cost-effectiveness, the interventions listed in the framework could be implemented through inhouse orientation, on the job training or online classes wherever possible.

3.   Conclusion

The Ministry of Works and Human Settlement with a vision to be a dynamic organization leading the nation in building quality and sustainable infrastructure and built environment for socio-economic well-being and happiness, it is imperative that professionals in the agency be groomed with required knowledge, skills and abilities to achieve high level of professional competence through certain mechanisms like competency based framework for this matter, so as to deliver an efficient and effective services of highest standard. Therefore, it is a timely intervention by the Royal Civil Service Commission in initiating the Competency-Based Framework for Architects.

The CBF for Architects has three key roles, six competency areas, nineteen key competencies and twenty-seven behavioral indicators with four proficiency levels. The working group has undergone several rounds of meeting and presentation with domain experts and relevant authorities to arrive at this stage of framework. The framework has identified the competencies required by Architects at different proficiency levels and also the gaps, if any, through training need analysis (TNA) carried out with survey questionnaire. Accordingly, interventions are proposed in the form of class room training, job orientation, refresher course and etc. as deemed appropriate based on the response of survey questionnaire. Furthermore, the long-term trainings are also proposed on priority basis through holistic consideration of TNA findings.

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