

# Sahel Public Realm Rating System Handbook

Design, Construction and Operation

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# **1** Executive summary

Prioritizing accessibility and inclusion in both new and renovated public spaces unlocks a multitude of benefits that enhance community well-being and economic vitality. Accessible and inclusive open areas not only attract businesses and stimulate economic growth but also boost tourism and increase demand for visits, drawing in investors eager to capitalize on these thriving environments.

Accessible and inclusive public realm promote public health by encouraging physical activity, providing safe spaces for exercise and recreation, and fostering social interaction among diverse community members. When areas are designed to be easily navigable for all users, foot traffic increases, creating a vibrant atmosphere where individuals of all abilities can fully engage in community life. Ultimately, these accessible and inclusive public spaces significantly enhance the quality of life for residents and visitors alike. Easy access to essential services, recreational facilities, and cultural amenities leads to more fulfilling lives, improving mental health and overall well-being for individuals and families. Furthermore, accessible environments promote healthier lifestyles and reduce healthcare costs, while features like well-maintained sidewalks and adequate lighting enhance safety and minimize accident risks.

Investments in accessible infrastructure, such as walkable and bike-friendly paths, reduce reliance on cars, thereby decreasing air pollution and traffic congestion. By promoting alternative modes of transportation, these initiatives support efforts to combat climate change and contribute to a more sustainable environment.

For developers, improving accessibility in the public realm presents a valuable opportunity to earn substantial points in rating systems, showcasing their commitment to creating inclusive environments. Achieving this involves implementing various measures, including smooth sidewalks and ramps, accessible parking, clear signage, inclusive amenities, and universal design principles in landscaping. Engaging with accessibility experts and user groups throughout the process ensures that best practices are effectively integrated.

In conclusion, accessible and inclusive open spaces are not only more vibrant but also contribute to a sustainable future, making them essential for the well-being of all users.

# Content

In Sahel Public Realm Rating System: Design, Construction and Operation can be found all the required information to understand and implement the Sahel Public Realm Rating System with the help of the following content:

- **a)** The description of the Sahel Public Realm Rating System, the objectives and its relationship with the Rating Systems for Buildings and for Communities.
- **b)** The methodology used in the system, including the rating system used and the assessment criteria in each of the contained category.
- c) The applicability of the rating system in the public realm's development and redevelopment of assets, as well as renovation projects.
- d) The rating system and the levels that can be achieved.
- e) The certification process, including the registration procedures, pre-certification, certification and renewal.
- f) The key members involved in the certification process.
- g) Finally, after an explanation of the scorecards to be used to guide the design, the implementation of accessibility and universal design, the assessment and the certification, the detailed content of each scorecard is presented being grouped into eleven categories: Inclusive Integrated Design (IID), Transportation Access (TA), Interconnectivity and Circulation (IC), Ergonomic Furniture and Equipment (EFE), Environment Quality and Comfort (EQC), Hygiene and Care (HC), Digital Accessibility (DA), Orientation and Communication (OC), Emergency Systems and Procedures (ESP), Considerate Maintenance (CM) and Use Specific Special Provisions (USSP).

# 2 Introduction

# 2.1 Inclusion: Key to sustainable built environment

More than a billion individuals, accounting for about 15% of the global population<sup>1</sup>, live with some disability. As the population continues to age, this number is expected to rise, leading to more people facing various challenges in the future. This substantial demographic underscores the necessity of developing inclusive environments that cater to a variety of needs. Disabilities encompass a wide spectrum, such as:

- a) Individuals with mobility impairment
- **b)** Individuals with a vision impairment
- c) Individuals with a hearing impairment
- d) Individuals with a cognitive impairment or neurodivergent individuals

A disability can profoundly affect an individual's daily activities and opportunities. Moreover, creating an inclusive and accessible public realm benefits a wide range of user groups, including:

- a) Elderly
- b) Women (pregnant women and nursing mothers) and families with children
- **c)** Individuals with allergies
- d) Obese and bariatric people
- e) Individuals of foreign cultural background

Creating accessible and inclusive open spaces is essential to ensure that everyone can participate fully and safely in society, regardless of their abilities, ages, or backgrounds. Failing to accommodate the diverse needs of the population perpetuates exclusion (Federal Law No. 29 of 2006 Concerning the Rights of People with Special Needs) and impedes social progress.

An accessible and inclusive public realm plays a vital role in promoting environmental sustainability by encouraging eco-friendly modes of transportation, such as walking, cycling, and using public transportation, thereby reducing our reliance on personal vehicles. This shift has a profound impact on the environment, leading to a significant decrease in air pollution and greenhouse gas emissions.

Moreover, accessible and inclusive open spaces have a positive effect on individuals and families, improving mental health and overall well-being. By promoting healthier lifestyles, accessible environments also help reduce healthcare costs. Additionally, well-designed features like well-maintained sidewalks and adequate lighting enhance safety, minimizing the risk of accidents and creating a more secure environment for everyone.

By placing accessibility and inclusivity at the forefront of public realm design, cities can foster more sustainable, equitable, and resilient communities that benefit all citizens. This approach aligns with the United Nations' Sustainable Development Goals (SDGs), which promote inclusive and sustainable development worldwide. By designing public spaces that are accessible and inclusive, cities can make significant strides towards achieving the SDGs, ultimately creating a better quality of life for present and future generations. "Sustainable development is how we must live today if we want a better tomorrow, by meeting present needs without compromising the chances of future generations to meet their needs."<sup>2</sup>

<sup>1</sup> World Health Organization. World report on disability. World Health Organization. Retrieved from September 19, 2023, from <a href="http://www.who.int/publications/i/item/world-report-on-disability">http://www.who.int/publications/i/item/world-report-on-disability</a>

<sup>2</sup> United Nations. (2024, August). What is sustainable development? Retrieved from <a href="https://www.un.org/sustainabledevelopment/blog/2023/08/what-is-sustainable-development/blog/2023/08/what-is-sustainable-development/">https://www.un.org/sustainabledevelopment/</a> blog/2023/08/what-is-sustainable-development/

# 2.2 The Sahel Public Realm Rating System and its objectives

# 2.2.1 The Sahel Rating System

Sahel, which means 'ease' or 'facileness' in Arabic, is an initiative launched by the Department of Municipalities and Transportation (DMT) to develop new assets and redevelop the built environment, and to renovate existing assets in the Emirate of Abu Dhabi, making it more socially sustainable for its residents and visitors.

The Sahel Rating System shall encourage all developers, asset owners and designers to design, create and maintain a built environment that can be used easily, effortless, safely and without facing barriers by all residents and visitors regardless of their needs and according to the 7 Principles of Universal Design developed by Ronald L. Mac.<sup>3</sup>

- a) Equitable use
- b) Flexibility in use
- c) Simple and Intuitive Use
- d) Perceptible information
- e) Tolerance for error
- f) Low physical effort
- g) Size and space for approach and use

This 'People First Paradigm' is an approach that prioritizes the needs and preferences of individuals, placing them at the heart of design and decision-making processes. This paradigm ensures that the unique abilities, challenges, and perspectives of all people are acknowledged and respected across various aspects of life, including technology, infrastructure, policies, and services. It embodies a steadfast commitment to human-centered design.

In alignment with this philosophy, the Sahel Rating System emphasizes the 'Human Scale' in new developments and redevelopments, and in renovation projects. This focus tailors urban environments to align with human senses and mobility, considering how individuals perceive their surroundings and their comfort within both natural and built environments, relative to their size, proportion, and line of sight. In the public realm, this translates to pedestrian-friendly streets, with signage placed in areas that are visible to all, wide sidewalks and street crossings, ample shade, and accessible amenities, fostering a sense of community and connection.

The Sahel Rating System compromises the following documents:

- Sahel Community Rating System: Design, Construction and Operation
- Sahel Public Realm Rating System: Design, Construction and Operation
- Sahel Building Rating System: Design, Construction and Operation

<sup>3</sup> Universal Design Institute. (n.d.). The 7 principles of universal design. Retrieved from September 19, 2023, from <a href="http://www.udinstitute.org/principles">http://www.udinstitute.org/principles</a>

# 2.2.2 Objectives

## 2.2.2.1 Promoting compliance with accessibility regulations

The Sahel Public Realm Rating System has a bold ambition: to not only ensure compliance with accessibility regulations across the public realm, but to exceed them. By championing recommended and best practices, the system strives to create a public realm that is truly inclusive and accessible to all users.

## 2.2.2.2 Encourage the renovation of public realm

Encourage the thoughtful and decisive enhancement of the public realm to meet the evolving needs of all users. Ensure that public spaces are renovated to prioritize accessibility, that existing accessible areas are well-maintained or improved, and that any inaccessible areas are systematically upgraded to promote inclusivity.

## 2.2.2.3 Recognition of services and places based on accessibility levels

The Sahel Public Realm Rating System aims to categorize the built environment based on its accessibility and inclusivity features. This comprehensive framework provides a clear understanding of the level of accessibility offered, empowering users to make informed decisions about their visits and participation in society. Whether a location is wheelchair-accessible, sensory-friendly, or accommodates diverse needs, this recognition enables individuals to choose spaces that cater to their unique requirements, fostering greater inclusion and social participation.

## 2.2.2.4 Creating value for accessible assets

By rating the public realm as accessible and inclusive, the Sahel Public Realm Rating System for public realm seeks to drive demand for these assets, from a minimum standard to a maximum aspiration. By recognizing the value of inclusive open spaces, it incentivizes investment in their development/redevelopment and renovations, ultimately creating a more equitable and diverse built environment that benefits not only individuals with disabilities, but everyone.

## 2.2.2.5 Raising awareness among stakeholders

The Sahel Public Realm Rating System plays a crucial role in educating owners, occupants, designers, and operators about the advantages of accessible and inclusive open spaces. It emphasizes positive impact on quality of life, social inclusion, and overall well-being of the Emirate. By spreading awareness, it fosters a collective commitment to creating spaces that cater to everyone.

# 2.3 The methodology - A robust and consistent cross-tier approach

The system relies on one set of rules covering different aspects of accessible and universal design. It's divided into three tiers: one for buildings, another for the public realm, and a third for communities. This setup ensures assessment integrity while accounting for the differences between these types of assets.

# 2.3.1 Rating tiers

The Sahel Rating System recognizes three tiers of assets which are subject to different administrative processes and stakeholders:

## 2.3.1.1 Buildings

The Sahel Building Rating System provides a tool to determine the level of accessibility in all building types, particularly those meant for public access. The system can also be used to certify various types of dwellings and heritage buildings.

## 2.3.1.2 Public Realm

The Sahel Public Realm Rating System provides a tool to assess the accessibility of designated outdoor spaces and associated facilities, such as playgrounds, public toilets, and kiosks, which are used independently from buildings. The system evaluates urban spaces connecting these areas, including plazas, squares, parks, playgrounds, heritage sites, beaches, gardens, waterfronts, streetscapes, transit hubs, and gateways, while excluding transportation buildings. It may also apply to natural landmarks, environmental preservation areas, or networks of streetscapes. These spaces should function as a cohesive environment, offering a unified user experience.

## 2.3.1.3 Community

The Sahel Community Accessibility Rating System provides a tool to assess the accessibility of community spaces and infrastructure. Its purpose is to integrate accessibility principles into master planning, ensuring a systematic approach to accessibility challenges on a large scale. The system aims to create inclusive environments that support equitable access for all community members.

# 2.3.2 Sahel Public Realm Rating System for development and renovation

#### 2.3.2.1 Focus:

The Sahel Public Realm Rating System for development and renovation is designed to foster welcoming, engaging, accessible, and inclusive public open spaces that prioritize environmental sustainability and connectivity. This objective revolves around the comprehensive enhancement of all public open spaces to meet the needs of every user.

The primary focus is on creating public realms that promote accessibility, inclusivity, and recreational activities for all, fostering social cohesion and providing optimal conditions for interaction and leisure. This includes designing spaces that support both physical and mental well-being, encouraging social engagement, and ultimately enhancing the overall quality of life.

To achieve this goal, the integration of accessibility and inclusivity is crucial at every stage, spanning initial planning to development and ongoing operations. This approach ensures that all public realm users can actively access, utilize and enjoy any or all features and elements available to the greatest extent possible.

For whom it is intended:

- a) Planning stage: The Sahel Public Realm Rating System is available for public realm-scale projects at any stage of planning and design, but no later than the concept design stage.
- **b)** Built environment: The Sahel Public Realm Rating System is designed for public realm projects that were completed in the past or prior to handover after construction.

The Sahel Public Realm Rating System is designed to be used both for new developments/redevelopments and for renovation projects. There is no maximum size of project which may apply for a Sahel Public Realm Rating System.

## 2.3.3 Submission requirements

Submission requirements for each of the stages of the Sahel Public Realm Rating System are outlined under each credit area.

## 2.3.4 Assessment criteria - Categories

People with diverse access needs, whether due to physical or mental conditions, may encounter challenges in various aspects of public city life like transportation, communication, education, employment, or social activities. Hence, the rating system is structured into different thematic categories as mentioned in table to address these issues comprehensively. These categories are interconnected, so applicants should aim to address multiple aspects rather than focusing on just one. This approach demonstrates a holistic and inclusive strategy to enhance the quality of life for everyone.

Within each category listed below, there are sub-categories devoted to different aspects. Within subcategories, the rating system distinguishes between two types of requirements:

- Mandatory being the obligatory minimum for new developments but providing the opportunity to gain credits in existing public spaces.
- Enhanced providing an opportunity to gain credits for "enhanced" provisions hence the differentiation in the title.

#### **Table 1: Rating Categories**

Number	Credit Reference	Credit Title
1	IID	Inclusive Integrated Design
2	ТА	Transportation Access
3	IC	Interconnectivity and Circulation
4	EFE	Ergonomic Furniture and Equipment
5	EQC	Environment Quality and Comfort
6	нс	Hygiene and Care
7	DA	Digital Accessibility
8	ОС	Orientation and Communication
9	ESP	Emergency Systems and Procedures
10	СМ	Considerate Maintenance
11	USSP	Use Specific Special Provisions

# 2.3.5 Applicability of assessment criteria

The certification system checks a broad variety of accessibility aspects as shown above in the criteria. It is however acknowledged that there may be instances where some criteria may not be applicable due to:

• lack of the assessed items within the boundaries of the area to be certified. The areas of the public realm to be renovated should include all services and spaces related (e.g. accessible benches should be submitted together with the accessible path to reach them, the lack of obstacles, accessible sidewalk, etc.).

or

• the nature of certified assets.

Both mandatory and voluntary requirements have a defined applicability. Based on the description of applicability one can confirm if the asset needs to comply with the given criteria or is entitled to gain extra credits.

The applicability refers to public realm types: open spaces and streetscape. It recognizes types of open spaces and streetscapes and their status following the **Standards Guideline for Abu Dhabi Public Realm Design Manual**.

#### Table 2: Public realm types

	Municipal	Neighborhood	Local	Unclassified
Boulevard	City or Town	Commercial or Residential		General (no active frontage)
Avenue	City or Town	Commercial or Residential		General (no active frontage)
Street		City or Town	Commercial or Residential	General (no active frontage)
Access lane			City or Town	General (no active frontage) Commercial or Residential
Programmed space	Emirate and municipality and district level	Neighborhood Programmed space	Local programmed space	
Play, sport and recreation -additional requirements from USSP apply)	Emirate and municipality and district level Play, sport and recreation	Neighborhood Play, sport and recreation	Local play, sport and recreation	

Additionally, applicability may depend on functions present in the open spaces or streetscape which need to meet certain applicability criteria. This is usually the case of criteria from the Use Specific Special Provisions.

It is strongly advised that the certification process starts with an applicability check- determining the list of applicable certification criteria.

# 2.3.6 Rating scores

The certification recognizes the quality of the asset in terms of overall accessibility at the following levels:

Table 3: Sahel Public Realm Rating System levels				
Awarded Rating	Minimum Requirements			
Accessible (R)	In new public open spaces/developments: All mandatory credits Existing public open spaces: Existing buildings: At least all available credit points in mandatory credits.			
Adaptable	In all developments: All mandatory credits + 30% of recommendations or best practices.			
Inclusive	In all developments: All mandatory credits + 60% of recommendations or best practices.			
Exemplar	In all developments: All mandatory credits + at least 90% of recommendations or best practices.			

The scores depend on the number of credits achieved by meeting the applicable criteria defined as percentage.

Meeting mandatory criteria is not awarded with credits in new assets; however, they contribute to the number of applicable requirements.

In renovation projects, credits obtained by meeting mandatory requirements will confirm that all mandatory criteria are met or will identify the gap between the current situation and the requirements that shall be met to achieve all mandatory criteria, identifying aspects that need improvements.

An example of credits given for the Sahel Rating System is given in the table below:

#### Table 4: Credit Scores Summary

Code	Credit section	Credits available	Pre-certificate rating credits	Certificate rating credits
IID	Inclusive Integrated Design	65	25	55
TA	Transportation Access	62	30	32
IC	Interconnectivity and Circulation	38	18	28
EFE	Ergonomic Furniture and Equipment	22	9	17
EQC	Environment Quality and Comfort	21	5	18
нс	Hygiene and Care	25	12	12
DA	Digital Accessibility	29	8	5
ос	Orientation and Communication	23	12	17
ESP	Emergency Systems and Procedures	15	6	12
СМ	Considerate Maintenance	10	2	6
USSP	Use Specific Special Provisions	15	7	7

Total:	325	134	209
Percent:	100%	41%	64%
Pre-certificate rating	Adaptable		
Certificate rating	Inclusive		

The table below summarizes the conditions to be met for each of the Sahel Public Realm Rating levels:

#### Table 5: Rating scores per level

	Accessible	Adaptable	Inclusive	Exemplary
Mandatory requirements met	100%	100% +	100% +	100% +
Recommended & Best Practice requirements met	Minimum	30%	60%	90%

**Result of the example:** The project has met 64% of the applied requirements. As this is above the 60% threshold the proposed score is Inclusive.

# 2.3.7 Rating level to achieve

Both new and existing assets shall aim to reach Sahel Accessible level at pre-certification stage to obtain the municipal permit to build.

In the case of new government and semi government projects, the level to be achieved is Sahel Adaptable.

# 2.3.8 Rating process

## 2.3.8.1 Rating steps

The certification covers the whole life cycle of certified assets and enables confirmation of their accessible character in four steps:

## 2.3.8.2 Registration, enquiry, and applicability check

In the initial certification stage, the project is registered by submitting a digital form to the portal on TAMM.

Once the form is analyzed by the Sahel Rating Team, a meeting is organized between the owner/developer, his Sahel Qualified Professional and the representative of the certifying institution.

Based on the general project information containing data such as location, estimated size and initial design brief, in new developments, or area or services to be renovated, in existing assets, characterizing its primary functions, the owner/developer can confirm with the certifying institution, which rating variant is suitable and what are the applicable credits.

## 2.3.8.3 Pre-certification Rating

Precertification is associated with the design stage and recognizes the intended level of accessibility. The basis for the Pre-certificate is an Accessibility Statement – a document confirming designed accessibility and universal design features and intentions. Pre-certification should support owners/developers in obtaining the necessary permits and funding for creating accessible buildings.

## 2.3.8.4 Certification Rating

Only the assets for which the construction or renovation has been completed, and successfully handed over for operation, are entitled to apply for a certificate, including those of existing public realm assets being renovated. Accessibility is assessed based on as-built documentation, situation, and operational procedures.

For assets of significant accessibility importance, such as public buildings or public realm projects, the certification depends on a successful on-site audit.

## 2.3.8.5 Certificate renewal

The first certificate is valid for 5 years. After that period, to maintain the status of a certified asset the level of accessibility needs to be confirmed.

This is done by submitting the records of maintenance records and users' feedback. The Assessor will then decide the type of assessment required before issuing the renewed certificate.

# 2.3.9 The Sahel Rating System process chart



Figure 1: Certification Rating Chart

# 2.4 Key team members



# 2.4.1 Asset Owner

It is an entity that owns the asset or project and finally applies for the certificate – typically a developer or owner.

The asset owner assumes responsibility for applying for the certificate and signing the Accessibility Statement. This responsibility, including compliance with certification rating criteria, only transfers during a change in asset ownership, regardless of whether the asset is managed by or leased to another party.

# 2.4.2 Asset Developer

An asset developer, which may also be an asset owner, is involved in the process of planning, financing, management and overseeing the construction of a diversity of assets. Overall, developers play a critical role in shaping the asset's function at an early design stage.

# 2.4.3 Sahel Qualified Professional

A Sahel Qualified Professional (SQP) is an individual, who has undertaken a training conducted by the DMT and has passed the assessment. Every project should have an SQP as a team member to follow up on all Sahel rating processes during the project's design, construction and operational stage. Their responsibility is to ensure that the asset fulfils all requirements agreed in the applicability check stage along the precertification rating, certification rating and certification renewal rating process.

# 2.4.4 Assessor

The assessor, a representative appointed by the DMT or accessibility lead, may conduct on-site audits and review design documents and Accessibility Statements. This process shall be agreed upon at the project's inception stage.

The assessors can challenge Accessibility Statements by conducting on-site audits or design reviews.

The DMT shall certify the developments upon confirmation from the Assessor who conducted the Accessibility Statement review or on-site audit of the certified asset.

# 2.4.5 Accessibility Consultant

An individual with expertise in accessibility and inclusive design holds a degree, diploma, or certificate recognized by the relevant certifying institution. Additionally, the accessibility consultant may be accredited by a national or international accreditation or regulatory body, demonstrating a certain level of competence and expertise.

The rating system rewards their contribution to the design or construction process. The main responsibility of the Accessibility Consultant is to provide guidance for the design and asset management team to timely and accurately implement adequate accessibility solutions and this person engages with the Sahel Qualified Professional. The same person can also perform the role of a Sahel Qualified Professional.

# 2.4.6 Accessibility Body

This group may consist of various professionals from different fields, representatives from the administration and/or companies, users with specific needs, or community neighbors who express their needs and expectations regarding a future neighborhood renovation. Accessibility Bodies are consulted when the Accessibility Consultant, Sahel Qualified Professional, Sahel Rating System Assessor, or DMT deem it necessary.

## 2.4.7 Certifying Institution

An organization responsible for maintaining, managing and operating the certification system, providing training and issuing certificates as well as credentials to professionals. The DMT may perform the role of certifying institution.

## Table 6: Qualifications, roles and responsibilities

	Sahel Qualified Professional	Accessibility consultant	Accessibility body
Pre-qualification	<ul> <li>Trained in the Sahel Rating System process in the three tiers (Communities, Public Realm and Buildings), certified by DMT</li> <li>Understanding fundamental principles of universal design.</li> <li>Understanding the Sahel Rating System requirements and the professionals involved to meet them.</li> <li>Desirable: Experienced in multiple building types and urban planning developments, able to propose solutions that cater to diverse abilities and population groups.</li> <li>Field of expertise: (from DMT Specialties and Subspecialties on EPLS)</li> <li>Architecture Engineering</li> <li>Interior Design Engineering</li> <li>Landscaping Engineering</li> <li>Urban Planning</li> <li>Sustainable Architecture</li> <li>Environmental Architecture</li> <li>Building Restoration Engineering</li> <li>Access Engineering, Safety and Evacuation</li> <li>Landscaping Engineering</li> <li>Matocaping Engineering</li> <li>Sustainable Architecture</li> <li>Building Restoration Engineering</li> <li>Access Engineering, Safety and Evacuation</li> <li>Landscaping Engineering</li> <li>Sustainable Architecture</li> <li>Environmental Architecture</li> <li>Building Materials</li> <li>Fire Protection Engineering</li> <li>Management and Building Materials</li> <li>Fire Protection Engineering and Firefighting Systems</li> <li>Engineering of Sanitary Installations</li> </ul>	<ul> <li>Knowledgeable in local legislation, regulations, codes and standards in accessibility and universal design.</li> <li>Experienced in diverse building types and urban planning, capable of assessing the needs of various abilities and disabilities across the spectrum of human functioning.</li> <li>Expert knowledge of industry standards.</li> <li>Field of expertise: (from DMT Specialties and Subspecialties on EPLS) <ul> <li>Architecture Engineering</li> <li>Interior Design Engineering</li> <li>Urban Planning</li> <li>Civil, Construction and Infrastructure Engineering</li> </ul> </li> </ul>	<ul> <li>Individuals or different users groups in the community</li> <li>Accessibility experts</li> <li>Advocacy organizations</li> <li>Government agencies</li> <li>Industry representatives and relevant professionals</li> </ul>

	Sahel Qualified Professional	Accessibility consultant	Accessibility body
Educational background	<ul> <li>Locally recognized bachelor's degree academic qualification in architecture/ landscape/urban planning/ civil engineering.</li> <li>UAE attested educational certificates and international degrees</li> </ul>	<ul> <li>Locally recognized master's degree academic qualification in architecture/landscape/ Urban planning.</li> <li>UAE attested educational certificates and international degrees</li> </ul>	
Experience required	<ul> <li>5 years professional experience within their respective field.</li> <li>n addition to DMT Training Course, basic and general knowledge in accessibility and universal design is a plus.</li> <li>Perform assessments, create reports, and offer advice on respective field.</li> </ul>	<ul> <li>5-10+ years professional specializing in accessibility and universal design in their respective field such as architecture, engineering, urban planning, etc.)</li> <li>Engage in design, assessment, policy development, and training across all domains.</li> <li>Senior level in the field of accessibility either through policy development and/ or standards or as a lead consultant to the professional development of other accessibility professionals.</li> <li>Membership in international organizations with certifications/supporting documents showing Professional Associations (if any)</li> </ul>	
Responsibilities in Sahel Rating System	<ul> <li>For all-sized projects.</li> <li>Organizes and plans community engagement.</li> <li>Client side or nominated within the design or construction team.</li> </ul>	<ul> <li>Extensive technical knowledge and experience.</li> <li>Qualified accessibility expert/consultant.</li> <li>Client side/Nominated within the design or construction team.</li> </ul>	<ul> <li>To champion accessibility initiatives by advocating for the needs of different user groups or other access challenges.</li> </ul>

	Sahel Qualified Professional	Accessibility consultant	Accessibility body	
	<ul> <li>Conducts detailed design reviews of projects including specification and product assessments, site visits and report writing.</li> <li>For existing buildings, conducts audits to identify potential challenges and improvements to pass the rating system</li> <li>Conducts commissioning exercises and provides verification reports.</li> <li>Engaged throughout the project life cycle.</li> <li>Prepares/reviews Accessibility Strategy and Statement and submits to the Assessor</li> <li>Prepares/review project brief.</li> </ul>	<ul> <li>Conducts detailed design reviews of projects including specification and product assessments, site visits and report writing.</li> <li>For existing buildings, conducts audits to identify potential challenges and improvements beyond the minimum standards to score higher points in the rating system.</li> <li>Conducts commissioning exercises with fully equipped tools and provides verification reports.</li> <li>Provides alternative solutions and specialist advice at each project stage.</li> <li>Reviews accessibility strategy and agree with the client.</li> <li>Reviews project brief.</li> <li>Attend meetings with clients, collaborators, stakeholders, and partners.</li> <li>Insured (for liability).</li> </ul>	<ul> <li>Provide firsthand insights and feedback on accessibility features and usability.</li> <li>Attend meetings (use feedback, decisions to be made on local level e.g. surveys)</li> <li>Advise on the use of technologies and test products</li> <li>Consulted for additional advice for local contacts</li> </ul>	
Training background	<ul> <li>DMT Training on the Sahel Rating System and on accessibility.</li> </ul>	<ul> <li>Local and international training certifications with supporting documents (if any).</li> <li>Regular attendance of industry CPDs.</li> </ul>		

# 2.5 Handbook explained – Mandatory requirements

# Handbook explained – Obligatory credits



application level.

#### Figure 3: Handbook Explained - Obligatory credits

# 3 Public Realm

# 3.1 IID.2 Inclusive Integrated Design

This category evaluates how well inclusive design principles are applied, ensuring the design meets the needs of diverse users. It emphasizes integrating inclusive design practices early in the project, including creating an Accessibility Statement, involving accessibility experts and consultants during the design phase, and conducting quality checks on accessibility features and universally designed elements throughout the development of new assets (or redevelopment), and the renovation of existing assets.

#### **Table 7: Inclusive Integrated Design**

IID	Inclusive integrated design	Requirement type	Credit points applicability	
			New assets development/ redevelopment	Existing assets renovation
IID.2.01	Accessibility strategy at the early design stage of the development/renovation	Mandatory	R	75
IID.2.02	Consulted accessibility pre-design statement for development/renovation	Recommended	25	25
IID.2.03	Accessibility Consultant from the early design stage of development/renovation	Recommended	10	10
IID.2.04	Accessibility Consultant at the construction stage of development/renovation	Recommended	30	30
	Total		65	140

# 3.1.1 IID.2.01 Accessibility strategy at the early design stage of development/renovation

### **3.1.1.1** Applicability:

Applicable to:

- a) New developments/redevelopments consisting of streetscape, and public open spaces
- **b)** Renovation of existing streetscape parks and public open spaces.

#### 3.1.1.2 Intent:

To promote accessibility and universal design considerations and goals from the early stage of the development/redevelopment, and renovation.

#### **3.1.1.3** Requirements:

#### Mandatory:

Ideally at pre-design but no later than the concept design stage of development/redevelopment, and renovation of the Sahel Rating process, the Sahel Qualified Professional shall prepare an Accessibility Statement to include the following:

#### a) 10 credits in renovation:

Appointment of a Sahel Qualified Professional who will be responsible for the follow up of the Sahel Public Realm Rating System process, and give guidance to design, construction and management teams at the following appropriate stages:

- i. Design stage:
  - **a.** Set up a team structure and roles (Check if an Accessibility Consultant or Accessibility Body is involved if required) which demonstrate the transition between development stages and manage the contribution from all disciplines when implementing accessibility into the design.
  - **b.** Set up workshops.
  - c. Check drawings and design.
  - **d.** Check all specifications.
  - e. Utilize scorecards and write a report.
  - f. Review and update credit submissions and report on a regular basis throughout the design process.
  - g. Issue the final Pre-certificate credit submission and report to the Assessor.
- ii. Construction stage:
  - a. Set up a team structure and roles (Check if an Accessibility Consultant or Accessibility Body is involved if required) which demonstrate the transition between development stages and manage the contribution from all disciplines when implementing accessibility into the construction.
  - **b.** Set up workshops.
  - c. Address changes or comments received from the Assessor at the design stage.
  - d. Check modified drawings and designs (if applicable).
  - e. Check all specification and samples provided by the contractor.
  - f. Utilize scorecards and write a report.

- **g.** Site visits/assessment and what needs to be modified. To undertake this task, it will be necessary to visit the site at least three times:
  - When space dimensions, levels and slopes are defined.
  - When circulation paths are defined, and all urban furniture and fittings' characteristics are defined.
  - Before the handover.
- **h.** Review and update credit submissions and report on a regular basis throughout the construction process.
- i. Issue the final certification credit submission and report to the Assessor.
- iii. Certificate renewal stage:
  - **a.** Verify that all elements of the sections from CM.2.01 to CM.2.05 are implemented and reviewed annually to ensure ongoing compliance and performance.
  - **b.** Check if, in the event of any changes in structure and/or extensions, the applied chapters TA.2, IC.2, EFE.2, EQC.2, HC.2, DA.2, OC.2, ESP.2 and USSP.2 achieve the minimum credits required.
  - c. Utilize scorecards and write report.
  - **d.** Review and update credit submissions.
  - e. Issue the final renewal certification credit submission to the Assessor.

#### b) 15 credits in renovation:

Provide reports about:

- i. Types of access needs expected amongst all asset users.
- ii. Evidence of compliance with Master Plan specifications (if relevant).
- **iii.** Information on meetings and/or workshops with design team members and relevant stakeholders in relation to the universal design challenges and opportunities.
- **iv.** A brief description of accessible and universal design solutions addressing various user groups which shall cover location and site-specific requirements (e.g., site slope gradients, sun exposure, existing and/or native planting, and heritage status).
- v. Refer to required standards (e.g., DMT manuals, international best practices and other documents to be used which impacts accessibility and universal design).

#### c) 50 credits in renovation:

A breakdown of the timeframe for implementing the development of new assets (or redevelopment) and renovation projects.

#### **3.1.1.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 75.

#### **3.1.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded for renovation projects: **75**.

## 3.1.1.6 Pre-certificate rating submission:

- a) A report outlining the proposed Accessibility Statement at the design stage providing information about the development/renovation in relation to the mandatory requirements, to meet at least the minimal level of Sahel Public Realm Rating System or the minimum requirements to meet at least the rating level that is envisioned.
- **b)** Process chart for the IID developed at project inception, detailing:
  - i. Team structure listing team members and their roles.
  - **ii.** Design milestones and workshops listing participants, goals, expected outcomes, required actions with tasks assignments.
  - **iii.** Methodology for ensuring appropriate stakeholders are involved, including relevant regulatory authorities and permit agencies.
  - iv. Narrative summarizing initial vision, objectives and targets set jointly by the project team for the project.
  - v. Implementation strategy for achieving transition between project stages and project packages.
  - vi. Meeting minutes, action items and team member responsibilities from key
  - vii. workshops held as part of the IID.
  - viii. Narrative highlighting the reasons for any changes from the initial IID process chart.
  - ix. Scorecards and Accessibility Statement to provide proof of achievement.

#### **3.1.1.7** Certificate rating submission:

- a) A comprehensive report confirming that the Accessibility Statement derived at the design stage of the development/renovation has complied with the mandatory and aimed enhanced requirements in the construction and completion stage, meeting at least the minimal level of Sahel Public Realm Rating System or the minimum rating level that is envisioned.
- b) Process chart for the IID developed at construction stage, detailing:
  - i. Team structure listing team members and their roles.
  - **ii.** Construction milestones and workshops listing participants, goals, expected outcomes, required actions with tasks assignments.
  - iii. Methodology for ensuring appropriate stakeholders are involved.
- c) Implementation strategy for achieving transition between project stages and project packages.
- d) Meeting minutes, action items and team member responsibilities from key workshops held as part of the IID.
- e) Narrative highlighting the reasons for any changes from the initial IID process chart and listing successes and challenges during construction stage.
- f) Scorecards and Accessibility Statement to provide proof of achievement.

#### 3.1.1.8 References:

- a) ADG-009 Abu Dhabi Guideline for Engineering Value
- **b)** RIBA Plan of Work: Inclusive Design Overlay
- c) Barrier-free Concept, Germany

# 3.1.2 IID.2.02 Consulted accessibility pre-design and statement for development/renovation

## 3.1.2.1 Applicability:

Applicable to:

- a) All new open spaces and streetscape.
- **b)** All open spaces and streetscapes undergoing renovation.

### 3.1.2.2 Intent:

To ensure that accessibility and universal design considerations and goals are integrated from the predesign stage of development/redevelopment and renovation by engaging Accessibility Bodies, representing diverse user groups, including families, seniors, and individuals with varying abilities and disabilities, and an Accessibility Consultant to ensure that all actions are implemented in a timely manner.

## **3.1.2.3** Requirements:

#### **Recommended:**

At pre-design, the Sahel Qualified Professional prepares an Accessibility Statement providing information that should:

#### For new assets developments/redevelopments:

 a) Be consulted with an Accessibility Consultant at the pre-design stage. The consultation may be a report on an Accessibility Statement proposal with comments and suggestions from the consulting party or minutes from a meeting with the Accessibility Consultant. In either case, the Sahel Qualified Professional and/or design team needs to confirm in writing having consulted an Accessibility Consultant at the pre-design stage.

#### For renovation projects:

- b) Be consulted with an Accessibility Body at the pre-design stage. The consultation may be a report on an Accessibility Statement proposal with comments and suggestions from the consulting party or minutes from a meeting with the Accessibility Body. In either case, the Sahel Qualified Professional and/or design team needs to confirm in writing having consulted an Accessibility Body at the pre-design stage.
- c) Demonstrate that all actions are planned and can be implemented in a timely manner in renovations, including a detailed breakdown of the timeframe for implementing new accessibility and universal design developments or modifications to existing ones, including specific stages and milestones, as in the example that follows:

#### **Table 8: Milestones timeframe for renovations**

Objects	Objectives	Deadlines	
Playgrounds	21 (50%)	2026	
Playgrounds	42 (100%)	2028	
Bus shelters	15 (33%)	2025	
Bus shelters	45 (100%)	2029	
Lighting	450 (50%)	2027	
Lighting	450 (100%)	2029	
Sidewalks and crossings	5432m (100%)	2032	
	190 (100%)		

Once planned, submit each stage of the action plan to Sahel Public Realm Rating System to obtain the precertification and certification rating credits for each stage.

#### Pre-certificate rating credits: 3.1.2.4

## Table 9: IID.2.02 pre-certificate credits

3.1.2.4 Pre-certificate rating credits:		
Table 9: IID.2.02 pre-certificate credits		
Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
25	0	Consult the Accessibility Statement with an Accessibility Consultant at the pre-design stage.
0	5	Consult the Accessibility Statement with an Accessibility Body representing persons with access needs at the pre-design stage.
0	20	Prepare a timeframe from the commencement of project outlining when the accessible and universal design provisions will be implemented in the renovation.

## 3.1.2.5 Certificate rating credits:

#### Table 10: IID.2.02 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
25	0	Demonstrate that any changes made during the pre-design stage will be communicated with the Accessibility Consultant.
0	5	Demonstrate that any changes made during the pre-design stage will be communicated with the Accessibility Body.
0	20	Provide evidence that the project timeline for implementing accessible and universal design provisions in the renovation has been met or explain any changes to the original timeframe and provide an updated implementation schedule.

#### 3.1.2.6 Pre-certificate rating submission:

- a) Report detailing the consultation with an Accessibility Consultant or Accessibility Body representing persons of special needs, families, and the elderly during the pre-design stage, including their expertise (name, portfolio and company's registration or profile) and details of the survey if conducted such as time, date, subject matter, and survey questions, summary of discussions, feedback, and recommendations provided during the consultation.
- **b)** A written record of any adjustments or modifications made to the pre-design based on the consultation.
- c) A policy report detailing the timeframes, action plans and specific milestones to be achieved at each stage.

#### 3.1.2.7 Certificate rating submission:

- **a)** A comprehensive report confirming that the Accessibility Consultant and Accessibility Body have been informed about any changes made in the pre-design stage.
- **b)** Report and handover certificates with start and finish dates of conducted implementation in renovation projects, details confirming the timeframes and milestones achieved at each stage during the construction and completion.

#### **3.1.2.8** References:

- a) ADG-009 Abu Dhabi Guideline for Engineering Value
- b) RIBA Plan of Work: Inclusive Design Overlay
- c) Barrier-free Concept, Germany

# 3.1.3 IID.2.03 Accessibility Consultant from the early design stage of the development/renovation

## 3.1.3.1 Applicability:

Applicable to:

- a) All new open spaces and streetscape.
- **b)** All open spaces and streetscapes undergoing renovation.

### 3.1.3.2 Intent:

To ensure that Sahel Qualified Professionals and design teams incorporate accessibility expertise throughout the design process, particularly for complex projects, an Accessibility Consultant will be engaged to provide guidance on innovative solutions that exceed the requirements of the Sahel Rating System and align with international best practices. The Accessibility Consultant may also collaborate with an Accessibility Body during the design stage to ensure that diverse perspectives are considered.

## 3.1.3.3 Requirements:

#### **Recommended:**

An Accessibility Consultant shall be appointed for the project's design stage and will be responsible for ensuring that the project is accessible and universally designed following international best practice and considering the latest assistive technology. The Accessibility Consultant with recognized training and practice in accessibility and universal design can also be the Sahel Qualified Professional, if accredited by DMT.

## 3.1.3.4 Pre-certificate rating credits:

#### Table 11: IID.2.03 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
10	10	Appointment of Accessibility Consultant

## 3.1.3.5 Certificate rating credits:

#### Table 12: IID.2.03 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
10	10	Appointment of Accessibility Consultant

## 3.1.3.6 Pre-certificate rating submission:

- a) Contract with an Accessibility Consultant for the subject project with a defined engagement date matching design period.
- **b)** Details of the accessibility professional's qualifications, certifications, and relevant experience.
- c) Brief overview of the Accessibility Consultant role within the design team and their responsibilities in ensuring accessibility compliance.

### **3.1.3.7** Certificate rating submission:

No submission required.

#### 3.1.3.8 References:

- a) ADG-009 Abu Dhabi Guideline for Engineering Value
- b) RIBA Plan of Work: Inclusive Design Overlay
- c) Barrier-free Concept, Germany

# 3.1.4 IID.2.04 Accessibility Consultant at the construction stage of the development/renovation

## 3.1.4.1 Applicability:

Applicable to:

- a) All new open spaces and streetscape.
- **b)** All open spaces and streetscapes undergoing renovation.

#### 3.1.4.2 Intent:

To ensure that Sahel Qualified Professionals and construction teams incorporate accessibility expertise throughout the design process, particularly for complex projects, an Accessibility Consultant will be engaged to provide guidance on innovative solutions that exceed the requirements of the Sahel Rating System and align with international best practices. The Accessibility Consultant may also collaborate with an Accessibility Body during the construction stage and pre-completion checks to ensure that diverse perspectives are considered.

## **3.1.4.3** Requirements:

#### **Recommended:**

An Accessibility Consultant is appointed to perform construction, and pre-completion checks of implemented accessibility and universal design in the buildings. Their responsibility is to ensure that the construction site is accessible, safe and usable for all. If required, the Access Consultant will contact an Accessibility Body.

The requirements for the Accessibility Consultant position are outlined below:

- a) Check shop drawings.
- b) Check material submitted by contractors.
- c) Check mock-up areas and involve an Accessibility Body if required.
- **d)** Advise on accessibility and universal design solutions requested during the construction stage, if required.
- e) Support with pre-completion checks.

#### 3.1.4.4 Pre-certificate rating credits:

#### Table 13: IID.2.04 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
30	30	Confirm that an Accessibility Consultant will be appointed at the construction stage.
# 3.1.4.5 Certificate rating credits:

#### Table 14: IID.2.04 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
30	30	Confirm the appointment of Accessibility Consultant for at the construction stage.

### **3.1.4.6 Pre-certificate rating submission:**

Submit an intent to involve an Accessibility Consultant at the construction stage as part of the report created by the Sahel Qualified Professional to the Assessor.

#### **3.1.4.7** Certificate rating submission:

- a) Contract with an Access Consultant for the subject project with a defined engagement date matching design period.
- **b)** Details of the Accessibility Consultant's qualifications, certifications, and relevant experience.
- **c)** Brief overview of the Accessibility Consultant's role within the design team and their responsibilities in ensuring accessibility compliance.
- **d)** Reports of visits and advice provided throughout the construction stage along with date, time and concerns raised, or agreements made.
- e) Construction report concerning compliance accessibility and universal design.

#### 3.1.4.8 References:

- a) ADG-009 Abu Dhabi Guideline for Engineering Value
- b) RIBA Plan of Work: Inclusive Design Overlay
- c) Barrier-free Concept, Germany

# 3.2 TA.1 Transportation Access

This category assesses the provisions for access and mobility of all users in public and private transportation stops and modes, such as buses, trams, ferries, taxis, and cycles. Transportation Access addresses aspects such as the availability, safety, convenience, and comfort of transportation and parking options, as well as their connections within and between the public realm.

#### **Table 15: Transportation Access**

IID	Inclusive integrated design	Requirement type	Credit points	applicability
			New assets development/ redevelopment	Existing assets renovation
TA.2.01	Accessible parking	Mandatory	R	25
τΔ 2 Ω2	Enhanced accessible parking	Recommended	15	20
17.2.02		Best Practice	30	40
TA.2.03	Accessible non-standard cycle parking	Mandatory	R	8
TA.2.04	Enhanced accessible non- standard cycle parking	Recommended	5	5
TA.2.05	Accessible passenger loading zone and accessible taxi stands	Mandatory	R	15
τα 2.06	Enhanced accessible passenger	Recommended	8	8
17.2.00	stands	Best Practice	4	4
TA.2.07	Accessible e-vehicle charging stations	Mandatory	R	10
TA.2.08	Accessible public transportation stops network	Mandatory	R	5
	Enhanced accessible public	Recommended	2	3
IA.2.09	transportation stops network	Best Practice	2	3
TA.2.10	Accessible public transportation shelter design	Mandatory	R	8
τλ 2 11	Enhanced accessible public	Recommended	4	6
17.2.11	transportation shelter design	Best Practice	4	4
TA.2.12	Accessible public transportation terminals: airports, railways, buses and ferries	Mandatory	R	150
	Total		74	314

# 3.2.1 TA.2.01 Accessible parking

# 3.2.1.1 Applicability:

Applicable to all public open spaces and streetscapes that require parking spaces.

# 3.2.1.2 Intent:

To ensure enough designated parking spaces for private vehicles are provided in open spaces of public-use facilities, to allow equitable and independent access for all users at convenient and accessible locations.

# 3.2.1.3 Requirements:

#### Mandatory:

All accessible parking including standard accessible parking space, ambulant parking space, family parking space, and accessible van parking space within the certification boundary shall be strategically located and planned in accordance with **"Sahel Community Rating System – TA.3.01 Accessible parking"**, in applicable facilities of public use and shall ensure:

#### a) 20 Credits in renovation:

 All mandatory design and provisional requirements for all accessible parking spaces and off-street parking spaces shall be in accordance with "Sahel Building Rating System – TA.1.01 Accessible parking".

#### b) 5 Credits in renovation:

- i. On-street standard accessible parking spaces, shall:
  - a. Be designed where the adjacent sidewalk has the required clear width of 2400mm, provide an access aisle with a minimum width of 1800mm, at the street level along the entire length of the parking space. Access aisles in existing facilities shall have a minimum width of 1500 mm. The access aisle shall connect to an accessible path without encroaching on vehicular travel lanes.
  - **b.** Have a minimum width of 2700 mm and a minimum length of 6100mm (Figures 4).
  - c. Where an access aisle at the rear of the car is envisioned for standard accessible parking spaces, an additional clear length of minimum 1800 mm shall be provided (1500 mm for existing facilities). The access lane shall be at the same level as the parking space it serves.
  - **d.** Alternatively, the adjoining access aisle in on-street parallel parking, shall be allowed to have a minimum width of 1500mm, if there are parallel curb ramps or raised parking spaces provided, at the level of the adjoining accessible path or the sidewalk.
  - e. Ensure the outdoor accessible path the parking space shall not reduce below the minimum width, in accordance with "Sahel Public Realm Rating System IC.2.01 Circulation bases on accessible paths (outdoor)".
  - f. Be shaded if outdoors, with a shading provision in accordance with "Sahel Building Rating System – EQC.2.01 Thermal comfort (outdoor)". The shading structure shall not obstruct the access aisle or the accessible path to the parking space.



Figure 4: On street parking for standard accessible parking space with side access aisle

# **3.2.1.4** Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 25.

# 3.2.1.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 25.

# 3.2.1.6 Pre-certificate rating submission:

- a) Design drawings showing the proposed locations, measurements, and accessibility of standard accessible parking spaces.
- **b)** Detailed specifications of the floor surface, lighting illuminance, slope, location relative to the principal accessible entrance(s), connection to the accessible path, marking, and shading structure for standard accessible parking spaces.
- c) Design details of the access aisle for standard accessible parking space, including its level, location, slip resistance value, length, marking, and design to prevent obstruction of the accessible paths.
- **d)** Design drawings for the signage and marking for each type of parking space, including the symbols, location, dimensions, luminance contrast, and Light Reflectance Value (LRV).
- e) Design drawings and specifications for the exit control devices and parking pay stations, including their location, height, luminance contrast, and LRV.
- f) If off-street parking is envisioned, provide design drawings showing the width of the adjacent sidewalk, the access aisle, and the parking space in accordance with "Sahel Building Rating System TA.1.01 Accessible parking"

### 3.2.1.7 Certificate rating submission:

- **a)** As-built drawings showing the actual implementation of all types of parking spaces, their measurements, components, and accessibility from the accessible path.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) Photographs of the parking spaces, focusing on the accessibility of use, connectivity with the accessible path, marking, signage, exit control devices, and parking pay stations.

# 3.2.1.8 References:

- a) ROW-603 Abu Dhabi Urban Street Design Manual
- b) Abu Dhabi International Building Code, 2013
- c) Abu Dhabi International Accessibility Standards, 2013
- d) DP-306\_Estidama Pearl Building Rating System
- e) DP-307-Estidama Pearl Community Rating System

# 3.2.2 TA.2.02 Enhanced accessible parking

# **3.2.2.1** Applicability:

Applicable to all public open spaces and streetscapes that require parking spaces.

# 3.2.2.2 Intent:

To ensure substantial designated parking spaces for private vehicles are provided in open spaces of publicuse facilities, to allow equitable and independent access for all users at convenient and accessible locations.

# 3.2.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All enhanced requirements (Recommended) should demonstrate that standard accessible parking spaces within the certification boundary should be in accordance with **"Sahel Building Rating System – TA.1.02 Enhanced Accessible parking"**.

### **Best Practice:**

All enhanced requirements (Best Practice) should demonstrate standard accessible parking spaces within the certification boundary of the open space should be in accordance with **"Sahel Building Rating System** – **TA.1.02 Enhanced accessible parking"**.

### 3.2.2.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – TA.1.02 Enhanced accessible parking".

# 3.2.2.5 Certificate rating credits:

Refer to "Sahel Building Rating System – TA.1.02 Enhanced accessible parking".

### 3.2.2.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – TA.1.02 Enhanced accessible parking".

### 3.2.2.7 Certificate rating submission:

Refer to "Sahel Building Rating System – TA.1.02 Enhanced accessible parking".

# 3.2.3 TA.2.03 Accessible non-standard cycle parking

# 3.2.3.1 Applicability:

Applicable to all public open spaces and streetscapes that require cycle parking spaces.

# 3.2.3.2 Intent:

To ensure equitable access to cycle parking for all, providing safety and convenience, fostering independence, and facilitating mobility, ultimately creating inclusive environment and active and healthy lifestyles within the public open spaces and streetscapes through the establishment of sustainable and inclusive modes of travel (Figure 5, 6).

# 3.2.3.3 Requirements:

#### Mandatory:

- a) Each cycle parking facility within the certification boundary shall include accessible non-standard cycle parking spaces in accordance with Abu Dhabi Urban Street Design Manual (ROW 603) and shall be strategically located within an asset in accordance with "Sahel Community Rating System TA.3.03 Accessible non-standard cycle parking".
- b) Accessible non-standard cycle parking spaces when provided, they shall be designed in accordance with "Sahel Building Rating System TA.1.03 Accessible non-standard cycle parking".



Figure 5: Accessible cycle racks on a sidewal



Figure 6: Accessible cycle racks in front of a building

# 3.2.3.4 Pre-certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System TA.1.03 Accessible nonstandard cycle parking".

# 3.2.3.5 Certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded for renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System TA.1.03 Accessible nonstandard cycle parking".

# 3.2.3.6 Pre-certificate rating submission:

- **a)** Design drawings showing the proposed locations, measurements, and accessibility of the non-standard cycle parking spaces.
- **b)** Detailed specifications of the floor surface, lighting illuminance, slope, location relative to the principal accessible entrance(s), connection to the accessible path, and shading structure for all cycle parking spaces.
- c) Design details of the transfer space for each type of cycle parking space, including its level, location, slip resistance value, length, and design to prevent obstruction of the accessible paths.
- **d)** Design drawings for the signage of the non-standard cycle parking space, including the symbols, location, dimensions, luminance contrast, and Light Reflectance Value (LRV).
- e) Design drawings for the installation of accessible showers, lockers and changing rooms (if applicable).
- **f)** Design drawings for the installation of rental vending machines for cycles and equipment, accessible charging stations and air pumps, their location, height, and operable parts.
- g) Design drawings for the installation of cycle stands, their location, dimensions, luminance contrast, and LRV.

# **3.2.3.7** Certificate rating submission:

- a) Updated narrative describing how the project meets the credit requirements, including the implementation of the non-standard cycle parking spaces.
- **b)** As-built drawings showing the actual implementation of all types of cycle parking spaces, their measurements, components, and accessibility from the accessible path.
- c) Updated specifications if any changes were made during the construction stage.
- **d)** Photographs of the cycle parking spaces, focusing on the accessibility of use, connectivity with the accessible path, signage, showers and other amenities.
- e) Photographs of the cycle parking spaces, focusing on the accessibility of use, connectivity with the accessible path, signage, rental vending machines for cycles and equipment, cycle stands, accessible charging stations and air pumps, showers and other amenities.

# 3.2.3.8 References:

- a) ROW-603 Abu Dhabi Urban Street Design Manual
- b) PR-401 Abu Dhabi Public Realm Design Manual
- c) TR-530 Walking and Cycling Master Plan Network Design
- d) ADG-027 Abu Dhabi Guideline Practice to increase opportunities for physical activity in the Emirate of Abu Dhabi
- e) TR-541: Standard Drawing Guidelines
- f) Abu Dhabi International Accessibility Standards, 2013
- g) Abu Dhabi International Building Code, 2013

# 3.2.4 TA.2.04 Enhanced accessible non-standard cycle parking

# 3.2.4.1 Applicability:

Applicable to all public open spaces and streetscapes that require cycle parking spaces.

# 3.2.4.2 Intent:

To ensure equitable access to cycle parking for all, providing safety and convenience, fostering independence, and facilitating mobility, ultimately creating inclusive environment and active and healthy lifestyles within the public open spaces and streetscapes through the establishment of enhanced sustainable and inclusive modes of travel with advanced commitments.

# 3.2.4.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All enhanced requirements (Recommended) should demonstrate that all accessible non-standard cycle parking spaces within the certification boundary should be in accordance with **"Sahel Building Rating System – TA.1.04 Enhanced accessible non-standard cycle parking"**.

# **3.2.4.4 Pre-certificate rating credits:**

Refer to "Sahel Building Rating System – TA.1.04 Enhanced accessible non-standard cycle parking".

### 3.2.4.5 Certificate rating credits:

Refer to "Sahel Building Rating System – TA.1.04 Enhanced accessible non-standard cycle parking".

### 3.2.4.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – TA.1.04 Enhanced accessible non-standard cycle parking".

### 3.2.4.7 Certificate rating submission:

Refer to "Sahel Building Rating System – TA.1.04 Enhanced accessible non-standard cycle parking".

# 3.2.5 TA.2.05 Accessible passenger loading zone and accessible taxi stands

# **3.2.5.1** Applicability:

Wherever a passenger loading zone and taxi stands are present in the public open spaces and streetscapes within the certification boundary, they shall be accessible.

### 3.2.5.2 Intent:

To facilitate safe, efficient, inclusive, and convenient points of access to major public open spaces, by offering momentary loading zones as close as possible to the accessible entrances for all users (Figure 7, 8).

### **3.2.5.3** Requirements:

#### Mandatory:

All accessible passenger loading zone and accessible taxi stands within the certification boundary shall:

#### a) 4 Credits in renovation:

- i. Be designed as an accessible van parking space in accordance with **"Sahel Public Realm Rating System TA.2.01 Accessible parking"** to accommodate vehicles equipped with hoists, lifts, or ramps for loading and unloading passengers.
- **ii.** Be at street level, connected to a pedestrian access route without encroaching on vehicular travel lanes.
- iii. Be strategically located in accordance with "Sahel Community Rating System TA.3.05 Accessible passenger loading zone and accessible taxi stands".

#### b) 2 Credits in renovation:

- i. Have a minimum width of 3400mm and a minimum length of 6100 mm in new facilities of public use, with an adjoining access aisle having a minimum width of 1800 mm. In existing facilities of public use, the adjoining access aisle shall have a minimum width of 1500 mm.
- **ii.** The adjoining access aisle in new facilities shall be allowed to have a minimum width of 1500mm, if there are parallel curb ramps or raised drop-off levels provided.
- iii. The access aisle at the rear of the accessible passenger loading zone and accessible taxi stands for new facilities shall be a minimum length of 2500 mm for new facilities and 2200 mm for existing facilities, allowing for a space to deploy ramps, hoists, lifting devices, etc.

#### c) 1 Credit in renovation:

i. Be accompanied by vertical signage mounted with its bottom edge positioned at a height of 2200 mm above floor level. The signage shall have a minimum width of 300 mm and a minimum height of 450 mm. The signage must include the text "Accessible Passenger Loading Zone" for accessible passenger loading zones.

#### d) 3 Credits in renovation.

Be shaded, when provided outdoors, using either structural (e.g., set back facade, umbrellas) or natural (e.g., trees, bushes) shading elements in accordance with "Sahel Public Realm Rating system – EQC.2.01 Thermal comfort (outdoor)".

#### e) 3 Credits in renovation.

 Accessible taxi stands shall be accompanied by a variety of seating options (with and without arm support and backrest) in accordance with "Sahel Public Realm System – EFE.2.02 Street furniture".

- f) Credits available in the mentioned section.
  - i. Be well lit in accordance with "Sahel Building Rating System EQC.1.11 Lighting and display".

#### g) 2 Credits in renovation.

- i. Queuing lines at accessible taxi stands, if provided, are accessible in accordance with "Sahel Building Rating System – EFE.1.10 Barriers in queuing areas".
- h) No credits available.
  - In existing residential developments with spatial restrictions, the accessible on-street parking spaces (refer to the provisions in "Sahel Public Realm Rating System TA.2.01
     Accessible parking") shall be shared with or alternatively identified as passenger loading zones.



Figure 7: Accessible loading zone plan view



Figure 8: Accessible loading zone

# 3.2.5.4 Pre-certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 15.

# 3.2.5.5 Certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 15.

# **3.2.5.6** Pre-certificate rating submission:

- a) Design drawings showing the proposed locations, measurements, and accessibility of the accessible passenger loading zones and/or accessible taxi stands.
- b) Detailed specifications of the floor surface, lighting illuminance, slope, location relative to the nearest accessible entrance(s), connection to the accessible path, marking, and shading structure of the accessible passenger loading zones and/or accessible taxi stands.
- c) Design details of the access aisle of the accessible passenger loading zone and/or accessible taxi stand, including its level, location, slip resistance value, length, marking, and design to prevent obstruction of the vehicular travel lanes.
- **d)** Design drawings for the signage and marking of the accessible passenger loading zone and/ or accessible taxi stand, including the symbols, location, dimensions, luminance contrast, and Light Reflectance Value (LRV).
- e) Design drawings for the installation of a variety of seating options, their location, height, and operable parts.
- f) Design drawings for queuing lines, if provided.

# 3.2.5.7 Certificate rating submission:

- **a)** As-built drawings showing the actual implementation of the accessible passenger loading zones and/or accessible taxi stands, their measurements, components, and accessibility from the accessible path.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) Photographs of the accessible passenger loading zones and/or accessible taxi stands, focusing on the accessibility of use, connectivity with the accessible path, marking, signage, seating options and queuing lines.

## 3.2.5.8 References:

- a) ROW-603 Abu Dhabi Urban Street Design Manual
- b) Abu Dhabi International Accessibility Standards, 2013

# 3.2.6 TA.2.06 Enhanced accessible passenger loading zone and taxi stands

# **3.2.6.1** Applicability:

Wherever passenger loading zone and taxi stands are present in the public open spaces and streetscapes within the certification boundary, they shall be accessible.

# 3.2.6.2 Intent:

To facilitate safe, efficient, inclusive, and convenient points of access to major public open spaces, by offering momentary loading zones as close as possible to the accessible entrances for all users.

### 3.2.6.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All accessible passenger loading zones should:

- a) Be provided on all the end stops of a public transportation line.
- b) Be accompanied by an accessible drinking fountain, in accordance with "Sahel Public Realm Rating System – EFE.2.06 Drinking fountains".

#### **Best Practice:**

The accessible passenger loading zones and accessible taxi stands should include space for two accessible van parking spots, designated as a loading zone, designed in accordance with the van parking requirements of **"Sahel Building Rating System – TA.1.01 Accessible parking"**.

# 3.2.6.4 Pre-certificate rating credits:

#### Table 16: TA.2.6 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
4	4	Design with an accessible drinking fountain.
4	4	Foresee passengers loading zones at the end of public transportation lines.
		Best Practice:
4	4	Design a loading zone that includes two designated accessible van parking spots.

# 3.2.6.5 Certificate rating credits:

#### Table 17: TA.2.6 certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
4	4	Provide an accessible drinking fountain.
4	4	Provide passengers loading zones at the end of public transportation lines.
		Best Practice:
4	4	Design a loading zone that includes two designated accessible van parking spots.

# 3.2.6.6 Pre-certificate rating submission:

#### **Recommended and Best Practice:**

- a) Design drawings showing the proposed locations, measurements, and accessibility of the accessible passenger loading zones and/or accessible taxi stands.
- **b)** Design details of the access aisle of the accessible passenger loading zone and/or accessible taxi stand, including its level, location, slip resistance value, length, marking, and design to prevent obstruction of the vehicular travel lanes.
- c) Design drawings for the installation of an accessible drinking fountain, its location, height, and operable parts.

### 3.2.6.7 Certificate rating submission:

#### **Recommended and Best Practice:**

- **a)** As-built drawings showing the actual implementation of the accessible passenger loading zones and their proximity with public transportation lines ends, their measurements, components, and accessibility from the accessible path.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) Photographs of the accessible passenger loading zones and/or accessible taxi stands, focusing on the accessibility of use, connectivity with the accessible path, marking, signage, seating options, and drinking fountain.

# 3.2.7 TA.2.07 Accessible e-vehicle charging stations

# **3.2.7.1** Applicability:

Applicable to emirate, municipality, and district-level public open spaces and city and/or town level streetscape, where charging ports are present for long stay and fast-charging.

# 3.2.7.2 Intent:

To ensure the promotion of sustainable transportation within the public realm, the accessible parking facilities shall be complemented by a fraction of accessible charging stations for accessible e-vehicles with convenient, equitable and adequate capacity within the parking spaces.

# 3.2.7.3 Requirements:

#### Mandatory:

If electric vehicle charging stations are envisioned within the certification boundary, they shall be provided and located in accordance with **"Sahel Community Rating System – TA.3.07 Accessible e-vehicle charging stations"**.

Accessible E-vehicle charging stations when provided in public open spaces, shall be designed and planned in accordance with mandatory requirements of **"Sahel Building Rating System – TA.1.07 Accessible e-vehicle charging stations"**, wherever applicable.

# **3.2.7.4 Pre-certificate rating credits**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 10.
- c) For credits breakdown refer to "Sahel Building Rating System TA.1.07 Accessible e-vehicle charging stations"

### 3.2.7.5 Certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded for renovation projects: **10**.
- c) For credits breakdown refer to "Sahel Building Rating System TA.1.07 Accessible e-vehicle charging stations"

#### **3.2.7.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – TA.1.07 Accessible e-vehicle charging stations".

### **3.2.7.7** Certificate rating submission:

Refer to "Sahel Building Rating System – TA.1.07 Accessible e-vehicle charging stations".

#### 3.2.7.8 References:

- a) ROW-603 Abu Dhabi Urban Street Design Manual
- b) Abu Dhabi International Building Code, 2013
- c) Abu Dhabi International Accessibility Standards, 2013

# 3.2.8 TA.2.08 Accessible public transportation stops network

## 3.2.8.1 Applicability:

Applicable to:

- a) All public open spaces of neighborhood level and lower.
- **b)** Streetscapes: Boulevards, avenues, streets, and access lanes.

#### 3.2.8.2 Intent:

To ensure the independent use of public transportation and reduce reliance on single occupancy vehicles by seamlessly integrating an accessible multi-modal transportation system within the public realm, thereby increasing connectivity, accessibility, and minimum convenience for all users (Figure 9).

# 3.2.8.3 Requirements:

#### Mandatory:

The location and planning of public transportation network within the certification boundary shall be in accordance with **"Sahel Community Rating System – TA.3.08 Accessible public transportation stops network"**. All public transportation stops as part of this network shall be accessible and shall:

- a) 1 Credit in renovation:
  - i. Be accompanied by boarding and alighting areas connected to a continuous accessible path.
  - **ii.** Have an area in front of the accessible boarding/deboarding zone with a minimum depth of 3000 mm, measured perpendicular to the edge of the platform, ensuring ample space for ease of movement and lifts or ramps.
  - iii. Be accompanied by accessible boarding/deboarding devices (if present) such as lifts and ramps identified by a color strip with high contrast to their background, extending across the full width of the device or plate. The color strip shall have a minimum luminance contrast in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".



Figure 9: TWSI at a bus shelter

#### b) 1 Credit in renovation:

- i. Be accompanied by Warning TWSI at the open boarding edges of public transportation platforms in accordance with "Sahel Public Realm Rating System OC.2.03 Tactile Walking Surface Indicators (TWSI)".
- **ii.** Have a clear floor space of minimum 900 mm in width and 1500 mm in depth in front of maps, timetables, general information points, and fare machines. Additionally, designated space for walking aids, prams, and assistance animals adjacent to seating areas shall not obstruct maneuvering and circulation spaces or access to fare machines, timetables, and information points.

### c) 1 Credit in renovation:

- Be accompanied by information points presenting route and line information fare details, maps, and operating hours in both large print and diverse multisensory formats in accordance with "Sahel Building Rating System OC.1.01 Signage and other communication elements". Additionally, a QR code shall be provided to direct users to an accessible version of the information as described in "Sahel Community Rating System DA.3.01 Asset webpage" and "Sahel Community Rating System DA.3.03 Asset presence in common use apps".
  - a. Signage, timetables, and maps must feature lettering, elements, and symbols with high contrast to ensure clear visibility and readability with a minimum luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".
  - **b.** Information shall be visible from a point positioned between 900 mm and 1200 mm above the center of the clear floor space of minimum 900 mm in width and 1500 mm in depth in front of the signpost.
- **ii.** Provide real-time passenger information in both visual and audible formats (if applicable), and where public address systems are present providing audible information.
- iii. Provide at least one accessible self-service fare vending, collection, and adjustment machines at every point of entry and exit that is designed to be accessible (wherever self-service fare vending, collection, and adjustment machines are envisioned) as follows:
  - a. Signage and controls on vending and ticketing machines shall be in highly contrasting lettering. Visual characters, QR codes and pictograms shall have a minimum luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
  - **b.** Signage on machines shall be tactile, contain Braille explanations for location and identification of controls.
  - **c.** Fare payment options shall be provided for pre-purchase tickets or provide contact card systems.
  - d. Operable parts shall be in accordance with "Sahel Building Rating System –
     EFE.1.13 Operable parts".
- d) 1 Credit in renovation:
  - Have a variety of accessible seating options with and without armrests and back support, provided close to the accessible boarding/deboarding area in accordance with "Sahel Public Realm System – EFE.2.04 Seating areas".
  - ii. Have at least one accessible litter basket connected to an accessible path in accordance with **"Sahel Public Realm System EFE.2.02 Street furniture"**.
- e) 1 Credit in renovation:
  - i. Be shaded wherever possible, but at least seating options.

#### f) Credits available in the mentioned section:

Have minimum lighting levels in accordance with "Sahel Building Rating System –
 EQC.1.11 Lighting and display" and PR-402: Lighting Manual.

## 3.2.8.4 Pre-certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded for renovation projects: **5**.

## 3.2.8.5 Certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded for renovation projects: **5**.

## 3.2.8.6 Pre-certificate rating submission:

- a) Design drawings illustrating the proposed locations of Warning TWSI, accessible boarding/ deboarding devices, boarding and alighting areas, information points, self-service fare vending machines, seating options, litter baskets and shade.
- **b)** Specifications detailing the design of Warning TWSI, boarding/deboarding devices, information points presenting route and line information fare details, maps, and operating hours and QR code, real-time passenger information in both visual and audible formats, self-service fare vending machines, seating options, litter baskets and shade, including their measurements, luminance contrast, Light Reflectance Value (LRV), and accessibility features.
- **c)** Lighting drawings showing the proposed locations of lighting fixtures and their expected illuminance.

# **3.2.8.7** Certificate rating submission:

- a) As-built drawings showing the location of Warning TWSI, boarding/deboarding devices, boarding and alighting areas, information points presenting route and line information fare details, maps, and operating hours and QR code, real-time passenger information in both visual and audible formats, self-service fare vending machines, seating options, litter baskets and shade including their measurements, components, and accessibility from the accessible path.
- **b)** Updated lighting drawings showing the actual locations of lighting fixtures and their measured illuminance.
- c) Photographs of all elements, focusing on their accessibility of use and connectivity with the accessible path.
- d) Photographs of vital points at night proving sufficient lux values.
- e) If any changes were made during the construction stage, updated specifications detailing those changes.

### 3.2.8.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) TR-520 Technical Circular Bus Stop Design Standards
- d) TR-521 Guide Drawings on Locating Bus Stops on Urban Roads
- e) TR-533 Bus Rapid Transit Planning Standards
- f) TR-534 Bus Services Planning standards
- g) TR-536 Railway Planning Standards
- h) TR-537 Tramways Planning Standards
- i) PR-402: Lighting Manual

# 3.2.9 TA.2.09 Enhanced accessible public transportation stops network

# 3.2.9.1 Applicability:

Applicable to:

- a) Public open spaces of neighborhood level and higher.
- **b)** Streetscapes: Boulevards, avenues, streets, and access lanes.

#### 3.2.9.2 Intent:

To ensure the independent use of public transportation and reduce reliance on single occupancy vehicles by seamlessly integrating an enhanced accessible multi-modal transportation system within the public realm, thereby increasing connectivity, accessibility, and minimum convenience for all users.

### 3.2.9.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All public transportation stops within the certification boundary should be provided as accessible public transportation stops, which should:

- a) Have Guiding TWSI in accordance with the applicable requirements of "Sahel Public Realm Rating System - OC.2.03 Tactile Walking Surface Indicators (TWSI)" and "Sahel Building Rating System – OC.1.03 Tactile Walking Surface Indicators".
- **b)** Have public transportation stops location and route information available in braille.
- c) Provide a maximum walking distance of 150 m calculated by Direct Route Indices Method between public transportation stops and interchanges.

#### **Best Practice:**

All public transportation stops within the certification boundary should be provided as accessible public transportation stops, which should:

a) Have a push button for verbal information at the information points, ensuring that the operable parts are positioned in accordance with "Sahel Building Raying System – EFE.1.10 Enhanced operable parts".

# 3.2.9.4 Pre-certificate rating credits:

# Table 18: TA.2.9 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
0	1	Guiding Tactile Walking Surface Indicators (TWSI) should lead from the sidewalks, pedestrian crossings or pedestrian paths to the information points, schedules and boarding points at public transportation stops and shelters.
1	1	Design all public transportation stops within the certification boundary to have public transportation stops location and route information available in braille.
1	1	Design the network for a maximum of 150 m between transportation means.
		Best Practice:
2	3	Design all public transportation stops within the certification boundary to have a push button for verbal information as required by best practice.

# 3.2.9.5 Certificate rating credits:

# Table 19: TA.2.9 certificate credits

Credit	points	Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
0	1	Demonstrate that Guiding Tactile Walking Surface Indicators (TWSI) lead from the sidewalks, pedestrian crossings or pedestrian paths to the information points, schedules and boarding points at public transportation stops and shelters.
1	1	Design all public transportation stops within the certification boundary to have public transportation stops location and route information available.
1	1	Demonstrate the maximum distance of 150 m between transportation means
		Best Practice:
2	3	Design all public transportation stops within the certification boundary to have a push button for verbal information as required by best practice.

# 3.2.9.6 Pre-certificate rating submission:

#### Recommended:

- **a)** Design drawings illustrating the proposed locations of Guiding TWSI, and distance between public transport interchanges.
- **b)** Specifications detailing the design of Guiding TWSI, Braille to highlight stops location and route information, including their measurements, components, and accessibility from the accessible path.
- c) Design drawings illustrating the proposed locations of public transportation stops and route information in braille.

#### **Best Practice:**

- **a)** Design drawings illustrating the proposed locations of push buttons for verbal information at public transportation stops.
- **b)** Specifications detailing the design of the push buttons, including their height, luminance contrast, and Light Reflectance Value (LRV).
- **c)** Design details ensuring the accessibility of the push buttons, including their height and contrast with the background.

# **3.2.9.7** Certificate rating submission:

#### Recommended:

- **a)** As-built drawings illustrating the locations of Guiding TWSI, and distance between public transportation stops and interchanges.
- **b)** Specifications detailing the design of Guiding TWSI, Braille to highlight stops location and route information, including their measurements, components, and accessibility from the accessible path.
- **c)** Photographs of all elements, focusing on their accessibility of use and connectivity with the accessible path.
- **d)** If any changes were made during the construction stage, updated specifications detailing those changes.

#### **Best Practice:**

- a) As-built documentation confirming the implementation of push buttons for verbal information at public transportation stops.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) Photographs of the push buttons, showcasing features like accessible height and sufficient luminance contrast with the background.

# 3.2.10 TA.2.10 Accessible public transportation shelter design

## **3.2.10.1** Applicability:

Applicable to:

- a) All public open spaces of district level and higher.
- **b)** Street scape: Boulevards, avenues, city and town streets.

#### 3.2.10.2 Intent:

To ensure an accessible and universally designed public transportation shelters within the public realm development, promoting sustainable urban mobility and providing alternatives to car travel to enhance the quality of life for all, while also creating inclusive spaces that accommodate diverse needs, ensuring equal access and enhancing the overall experience for all users.

# 3.2.10.3 Requirements:

#### Mandatory:

All public transportation stops within the applicable certification boundary shall be provided and designed as accessible public transportation shelters (Figures 10, 11, 12), which shall be in accordance with the **"Sahel Community Rating System – TA.3.09 Accessible public transportation shelter design"** and shall:

- a) Be in accordance with "Sahel Public Realm Rating System TA.2.08 Accessible public transportation stops network".
- **b)** Not impede or obstruct the accessible path of travel and pedestrian path.
- c) 1 Credit in renovation:
  - i. Have Guiding and Warning TWSI system (Figure 10) in accordance with "Sahel Public Realm Rating System - OC.2.03 Tactile Walking Surface Indicators (TWSI)".

#### d) 1 Credit in renovation:

Be enclosed from at least side and/or air-conditioned, ensuring a comfortable environment. Air-conditioned shelters shall have an ambient temperature between 24 and 26 degrees Celsius at all times, as in accordance with B Series Bus Shelter – Performance Specifications manual. However, the water taxi stops and ferries stops are not air-conditioned.

#### e) 2 Credit in renovation:

- Have an accessible door with a minimum clear width of 900 mm and in accordance with "Sahel Building Rating System – IC.1.05 Accessible doors, doorways and gates (outdoor and indoor)" if the shelter is fully enclosed.
- **ii.** Have a clear turning circle with a minimum diameter of 1800 mm inside the shelter. Additionally, a clear floor space of minimum 900 mm in width and 1500 mm in depth must be maintained next to the seating options to ensure that walking aids, prams, and assistance animals do not obstruct the required width of the accessible path inside the shelter (Figure 11).

#### f) Credits available in the mentioned section:

i. Have floors and walls surfaces, doors, and furniture with a minimum luminance contrast in accordance with **"Sahel Building Rating System – EQC.1.09 Wall and floor finishes"**.

#### g) 1 Credit in renovation:

- Have glass walls and doors to be clearly defined with continuous visual contrast i. indicators on the glass. These indicators shall be positioned between 900 mm and 1000 mm above the floor on both sides of the door and walls. The manifestation shall have a minimum luminance contrast in accordance with "Sahel Building Rating System - EQC.1.09 Wall and floor finishes".
- h) 1 Credit in renovation:
  - Have clocks (if provided) in accordance with "Sahel Building Rating System OC.1.01 i. Signage and other communication elements".
- i) 2 Credit in renovation:
  - Have at least one accessible ticket control machine, if any are provided (e.g., turnstiles). i. It shall offer a passageway width of at least 900 mm, with its operable parts or barcode scanner positioned in accordance with "Sahel Building Rating System - EFE.1.13 **Operable parts**" of this handbook. A non-turnstile access point shall be available at all operational times.
  - Have information points presenting route and line information fare details, maps, ii. and operating hours in both large print, QR code and diverse multisensory formats and real-time information in accordance with "Sahel Public Realm Rating System -TA.2.08 Accessible public transportation stops network" (Figure 10).





Figure 12: Bus shelter climate-controlled

# 3.2.10.4 Pre-certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 8.

# 3.2.10.5 Certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 8.

# 3.2.10.6 Pre-certificate rating submission:

- a) Design drawings illustrating the proposed locations of public transportation shelters and their components, including Guiding and Warning TWSI, boarding/deboarding devices, boarding and alighting areas, information points presenting route and line information fare details, maps, and operating hours and QR code, real-time passenger information in both visual and audible formats, self-service fare vending machines, seating options, litter baskets, doors, and ticket control machines.
- **b)** Specifications detailing the design of TWSI, boarding/deboarding devices, self-service fare vending machines, seating options, and litter baskets and information points , including their measurements, luminance contrast, Light Reflectance Value (LRV), and accessibility features.
- **c)** Lighting drawings showing the proposed locations of lighting fixtures and their expected illuminance.

# 3.2.10.7 Certificate rating submission:

- a) As-built drawings showing the location of Guiding and Warning TWSI, boarding/deboarding devices, boarding and alighting areas, self-service fare vending machines, seating options, doors, litter baskets, ticket control machines and information points presenting route and line information fare details, maps, and operating hours and QR code, real-time passenger information in both visual and audible formats, including their measurements, components, and accessibility from the accessible path.
- **b)** Updated lighting drawings showing the actual locations of lighting fixtures and their measured illuminance.
- **c)** Photographs of all elements, focusing on their accessibility of use and connectivity with the accessible path.
- d) Photographs of vital points at night proving sufficient lux values.
- e) If any changes were made during the construction stage, updated specifications detailing those changes.

# 3.2.10.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) TR-520 Technical Circular Bus Stop Design Standards
- d) TR-521 Guide Drawings on Locating Bus Stops on Urban Roads
- e) TR-533 Bus Rapid Transit Planning Standards
- f) TR-534 Bus Services Planning standards
- g) TR-537 Tramways Planning Standards
- h) B Series Bus Shelter Performance Specifications manual

# 3.2.11 TA.2.11 Enhanced accessible public transportation shelter design

# 3.2.11.1 Applicability:

Applicable to:

- a) All public open spaces of neighborhood level and higher.
- **b)** Street scape: Boulevards, avenues, city and town streets.

#### 3.2.11.2 Intent:

To optimize the accessible and universally designed public transportation shelters within the public realm development, promoting sustainable urban mobility and providing alternatives to car travel to enhance the quality of life for all, while also creating inclusive spaces that accommodate diverse needs, ensuring equal access and enhancing the overall experience for all users.

# 3.2.11.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All public transportation stops within the certification boundary provided as accessible public transportation shelters, should:

- a) Have the enhanced requirements (Recommended) in accordance with "Sahel Public Realm Rating System - TA.2.09 Enhanced accessible public transportation stops network", wherever applicable.
- b) Have additional shaded seating options and additional ischiatic support placed in close proximity to the shelter, especially in high-demand locations. They should have long overhangs for roofs along the orientation of the sun path, that would considerably reduce potentially strong shadows of the Mashrabiya patterns from the shelter walls that can be potentially created.
- c) Have Information points offering route and line details, fare information, maps, and operating hours in a multi-sensory and digital format. This should include captions and sign language interpretation.
- d) Have access to an accessible ticket vending machine, near each bus shelter or free Wi-Fi coverage to provide access to purchasing online tickets or accessible real-time information on the public transportation schedule, bus, tram or ferry arrival as described in "Sahel Community Rating System DA.3.01 Asset webpage" and "Sahel Community Rating System DA.3.03 Asset presence in common use apps" and to hail a bus through app prompt that directs the attention to driver instead of physically hailing the bus.

#### **Best Practice:**

All public transportation stops within the certification boundary provided as accessible public transportation shelters, should:

- **a)** Have an SOS/information button for two-way communication, enabling users to request route information or assistance during emergencies, including the possibility of video calls.
- **b)** Provide SMS based emergency alerts.
- **c)** Have an accessible push button, allowing passengers to signal the driver to stop without the need for physical gestures to hail the correct bus.
- d) Have at least one accessible drinking fountain near the bus shelter as part of the public realm in accordance with "Sahel Public Realm Rating System EFE.2.06 Drinking Fountain".

#### **3.2.11.4** Pre-certificate rating credits:

#### Table 20: TA.2.11 pre-certificate credits

Credit	points	Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
1	3	Design in accordance with <b>"Sahel Public Realm Rating System</b> - TA.2.09 Enhanced accessible public transportation stops network".
1	1	Foresee shaded seat options
1	1	Foresee information points with captions and sign language interpretation
1	1	Foresee WI-FI access
		Best Practice:
1	1	Design all public transportation stops to have an SOS/information button for two-way communication,
1	1	Foresee SMS based communication
1	1	Design an accessible push button, allowing passengers to signal the driver to stop without the need for physical gestures to hail the correct bus.
1	1	Foreseen an accessible drinking fountain either inside the shelter if space permits or outside, located close to the shelter.

# 3.2.11.5 Certificate rating credits:

# Table 21: TA.2.11 certificate credits

Credit	points	Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
1	3	Provide them in accordance with "Sahel Public Realm Rating System - TA.2.09 Enhanced accessible public transportation stops network"
1	1	Provide shaded seat options
1	1	information points with captions and sign language interpretation
1	1	Provide WI-FI access
		Best Practice:
1	1	Provide all public transportation stops to have an SOS/ information button for two-way communication,
1	1	Provide SMS based communication
1	1	Provide an accessible push button, allowing passengers to signal the driver to stop without the need for physical gestures to hail the correct bus.
1	1	Provide an accessible drinking fountain either inside the shelter if space permits or outside, located close to the shelter.

# 3.2.11.6 Pre-certificate rating submission:

#### Recommended:

- a) Design drawings illustrating the proposed locations of public transportation shelters and their components, including Guiding and Warning TWSI, additional shaded seating options such as ischiatic support, and Wi-Fi coverage.
- **b)** Specifications detailing the design of each component, including their measurements, luminance contrast, Light Reflectance Value (LRV), and accessibility features.
- **c)** Design details ensuring the accessibility of each component, including their height, and connection to an accessible path.

#### **Best Practice:**

- **a)** Design drawings illustrating the proposed locations of the SOS/information button, accessible push button, and accessible drinking fountains.
- **b)** Specifications detailing the design of the SOS/information button (including two-way communication and video call features), accessible push button, and accessible drinking fountains, including their measurements and accessibility features.
- **c)** Design details ensuring the accessibility of the SOS/information button, accessible push button, and accessible drinking fountains, including their height and connection to an accessible path.

#### 3.2.11.7 Certificate rating submission:

#### Recommended:

- a) As-built drawings and drawings showing the actual implementation and location of public transportation shelters and their components, including Guiding and Warning TWSI, information points, additional shaded seating options such as ischiatic support, and Wi-Fi coverage.
- **b)** Photographs of all elements, focusing on their accessibility of use and connectivity with the accessible path.
- c) If any changes were made during the construction stage, updated specifications detailing those changes.

#### **Best Practice:**

- **a)** As-built documentation confirming the implementation of the SOS/information button, accessible push button, and accessible drinking fountains.
- **b)** Updated specifications if any changes were made during the construction stage.
- **c)** Photographs of the SOS/information button, accessible push button, and accessible drinking fountains, showcasing features like accessible height and connection to an accessible path. The photographs should focus on the accessibility of use and connectivity with the accessible path.

# **3.2.12** TA.2.12 Accessible public transportation terminals: airports, railways, buses, and ferries

# **3.2.12.1** Applicability:

Applicable to all public terminal buildings and main transportation hubs such as airports, railway stations, bus stations, and ferry terminals.

# 3.2.12.2 Intent:

To ensure that all users are provided access to public means of transportation allowing for equitable, independent and convenient use for all passengers.

# 3.2.12.3 Requirements:

#### Mandatory:

a) All mandatory requirements for the design of accessible public transportation terminals including railways, bus, airports and ferries shall be in accordance with "Sahel Building Rating System – TA.1.08 Accessible public transportation terminals: airports, railways, bus and ferries", wherever applicable.

#### 3.2.12.4 Pre-certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 150.
- c) For credits breakdown refer to "Sahel Building Rating System TA.1.08 Accessible public transportation terminals: airports, railways, bus and ferries"

#### 3.2.12.5 Certificate rating credits

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded for renovation projects: 150.
- c) For credits breakdown refer to "Sahel Building Rating System TA.1.08 Accessible public transportation terminals: airports, railways, bus and ferries".

#### 3.2.12.6 Pre-certificate rating submission:

Refer to **"Sahel Building Rating System – TA.1.08 Accessible public transportation terminals: airports, railways, bus and ferries**".

#### 3.2.12.7 Certificate rating submission:

Refer to "Sahel Building Rating System – TA.1.08 Accessible public transportation terminals: airports, railways, bus and ferries".

#### 3.2.12.8 References:

- a) Design Code for Maritime Infrastructure
- b) Abu Dhabi International Building Code, 2013
- c) Abu Dhabi International Accessibility Standards, 2013
- d) UAE Universal Design Code.

# 3.3 IC.2 Interconnectivity and Circulation

This category assesses how well spaces like pedestrian paths and Sikkak (sidewalks) facilitate connectivity and movement for all users. It looks at factors like accessibility, ease of navigation, and suitability for walking, both indoors and outdoors.

## Table 22: Interconnectivity and Circulation

IID	Interconnectivity and Circulation	Requirement type	Credit points	applicability
			New assets development/ redevelopment	Existing assets renovation
IC.2.01	Circulation based on accessible paths (outdoor)	Mandatory	R	16
IC.2.02	Enhanced circulation based on accessible paths (outdoor)	Recommended	6	16
IC.2.03	Accessible ramps	Mandatory	R	6
IC.2.04	Enhanced accessible ramps	Recommended	6	6
IC.2.05	Accessible cycling infrastructure	Mandatory	R	8
IC.2.06	Enhanced accessible cycling infrastructure	Recommended	4	6
IC.2.07	Rest points	Mandatory	R	13
	Enhanced rost points	Recommended	4	4
10.2.00	Linianced rest points	Best Practice	6	6
IC.2.09	Staircases	Mandatory	R	8
IC 2 10	Enhanced staircases	Recommended	2	4
10.2.10		Best Practice	6	10
IC.2.11	Escalators and travellators	Mandatory	R	10
IC.2.12	Enhanced escalators and travellators	Recommended	4	4
IC.2.13	Elevators and platforms lifts	Mandatory	R	50
10 2 14	Enhanced elevators and platform	Recommended	5	5
10.2.14	lifts	Best Practice	3	3
IC.2.15	Traffic segregation and crossings	Mandatory	R	15
10.2.16	Enhanced traffic segregation and	Recommended	5	8
10.2.10	crossings	Best Practice	5	5
	Total		56	203

# 3.3.1 IC.2.01 Circulation based on accessible paths (outdoor)

# **3.3.1.1** Applicability:

Applicable to all public open spaces and streetscapes.

#### 3.3.1.2 Intent:

To promote public health, decrease dependence on cars, and foster active, independent lifestyles by providing accessible recreational routes, walkable neighborhoods, and generally an improved pedestrian environment, ensuring that all outdoor circulation corridors create a cohesive accessible network within the public realm and seamlessly connect with the surroundings.

#### **3.3.1.3** Requirements:

#### Mandatory:

All primary pedestrian connections within the certification boundary shall:

#### a) 2 credits in renovation:

i. Maintain an adequate, unobstructed minimum clear headroom height of 2200 mm and unobstructed minimum width for outdoors (Figure 13) as required below and from Urban Street Design Manual (ROW-603) for further information:

#### Table 23: Single and double paths widths

Accessible path – Double paths	Minimum width
New assets	2400 mm
Existing assets	1800 mm
Accessible path – Single paths	
New assets	1200 mm
Existing assets	900 mm



Figure 13: Pedestrian path on sidewalk

#### b) 1 credit in renovation:

Additionally, all vehicle entry and exit points (Figure 14), shall:

- **i.** Remain uninterrupted, without allowing vehicles to cross at different levels (such as from street level to underground parking garages).
- **ii.** Ensure the width and slope of the pedestrian path along the sidewalk is not altered at the vehicle crossover.
- **iii.** Ensure TWSI shall not be used where the pedestrian path approaches the crossover as this would incorrectly indicate that this is a pedestrian crossing.
- **iv.** Pedestrian paths shall seamlessly continue across the vehicle crossover, in cases where a sidewalk is intersected by a vehicle entry/exit to a residential dwelling or a building with similarly low vehicle traffic, in order to emphasize pedestrian priority.



Figure 14: Vehicle crossover

#### c) 2 credits in renovation:

Feature adequate curb ramps (Figure 15):

- i. Where curb ramps are provided, they shall be positioned perpendicular to the line of travel of a person crossing the road and directly opposite a curb ramp on the other side, ensuring safe crossing.
- **ii.** Curb ramps shall be positioned in a manner that prevents them from projecting into vehicular traffic lanes, parking spaces, or parking access aisles.
- iii. The surface or any part of the landing shall not include any drain grids or covers that could obstruct the safe and convenient use of the element, and/or drains shall not be raised above street level and shall guarantee the absence of water accumulation in the curb ramp area.
- iv. Curb ramps shall be flush with the street level.
- v. Curb ramps shall be in line with the pedestrian crossing.
- vi. Curb ramps within crosswalks shall match the width of the pedestrian crossing without flaredsides.
- **vii.** Existing constructions with steep flared sides or upstand curbs lacking flared sides shall be covered with street furniture or highlighted using surface markings for improved visibility and safety.
- viii. Curb ramps do not require handrails.
- ix. Curb ramps shall be adequately marked with Warning TWSI positioned at the inner curb line, extending the full width of the ramp. Warning TWSI shall be in accordance with "Sahel Building Rating System OC.1.03. Tactile Walking Surface Indicators (TWSI)".

- In new constructions, the slope of curb ramps shall not exceed 1:16 (rounded to 6%).
   In existing constructions, the slope of curb ramps shall not exceed 1:12 (rounded to 8%).
- xi. The cross-fall of the curb ramp shall not exceed 1:50 (2 %).
- **xii.** The clear width of curb ramps not integrated into street crossings shall be a minimum of 1200 mm.
- xiii. In new constructions, the slope of flares (flared sides) shall not exceed 1:12 (rounded to 8 %). In existing constructions, the slope of flares (flared sides) shall not exceed 1:10(10%).
- xiv. In new constructions, the landing for curb ramps shall measure a minimum of 1800 mm by 1800 mm. In existing constructions with no barriers, the landing shall be a minimum of 1200 mm by 1200 mm. In existing constructions with a barrier present, the landing shall have a minimum depth of 1500 mm.
- xv. Have adequate slip-resistance value including landings in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".





#### d) 1 credit in renovation:

- Have an adequate floor surface on all its components (e.g., paths, elevators, ramps, if any) in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes" and shall:
  - **a.** If present, have joints between paving material that do not exceed 3 mm.
  - **b.** Made of low-heat conductivity material in settings of outdoor barefoot walking (beaches, hotel gardens, waterparks, or near swimming pools).
- ii. Changes in level shall not exceed 5 mm. For changes greater than 5 mm, beveled slopes shall be provided, with a maximum slope ratio of 1:2 (50%) for height changes from 5 mm to 13 mm.

- iii. Not allow hazards to protrude into the accessible path unsafely:
  - a. Objects with leading edges within the cane sweep range (300 mm to 650 mm above floor level) can protrude into the accessible path, provided that the adequate width of the route is maintained, adequate passing space is provided, and the dimension of the object exceeds a diameter of 500 mm at 300 mm from ground level and 100 mm when its height is 650 mm or more, intermediate objects must follow this diameter to height ratio.
  - **b.** Objects with leading edges within the range from 650 mm to 2200 mm can protrude a maximum of 100 mm into the accessible path as long as adequate width is maintained or adequate passing space is provided. Alternatively, objects with leading edges within the range from 650 mm to 2200 mm protruding more than 100 mm into the accessible path shall either extend to the floor level or be accompanied by a warning border raised at least 300 mm above floor level.
  - **c.** Objects with leading edges above the head clearance (2200 mm and above) can protrude any amount into the accessible path.

#### e) 1 credit in renovation.

i. Provide adequate guardrails along potential hazards (e.g., hazardous objects, steep slopes, level differences) in accordance with the Abu Dhabi International Building Code, 2013, which shall:

### Table 24: Guardrails

Height	1200 mm (minimum) and not climbable.
Withstand a horizontal uniformly distributed force	3.0 kN/m
Continuous base height (when used as a protective barrier)	100 mm
Openings	100 mm (maximum)
Illuminance contrast	in accordance with <b>"Sahel Building Rating System</b> – EQC.1.09 Wall and floor finishes".

- **a.** Features a handrail, if the guardrail is designed to offer support to pedestrians.
- **b.** Not feature horizontal bars/features enabling children to climb them.
- c. Be smooth, free of sharp edges, non-abrasive, and possess low heat conductivity.

#### f) 1 credit in renovation:

- i. Feature utility covers, grates, and drain grids (if present), that do not pose a hazard. All utility covers, grates and drain grids present on the accessible path shall:
  - **a.** Be flush with the floor/ground surface or be installed with a maximum height difference of 5 mm with the floor/ground surface.
  - **b.** Be glare and slip-resistant.
  - **c.** Not feature openings wider than 13 mm in width or diameter, as applicable. Any lateral openings in the surface shall be perpendicular to the path of travel.

### g) Credits available in the mentioned section:

i. Have an adequate luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".

#### h) Credits available in the mentioned section:

- i. Have a slip resistance in accordance with **"Sahel Building Rating System EQC. 1.09** Wall and floor finishes".
- **ii.** Not use crushed gravel, fine crushed rejects, packed soil or other natural materials along non-natural paths.

#### i) 3 credits in renovation:

- i. Feature adequate ramps in accordance with **"Sahel Building Rating System IC.1.07** Accessible ramps".
- ii. If provided, have doors/gate with minimum features in accordance with "Sahel Building Rating System – 1.05 Accessible doors, doorways and gates (outdoor and indoor)".

#### j) 2 credits in renovation:

i. Be connected to accessible picnic areas, nature trails, garden beds, barbecue pits and their litter baskets and hot ash bins.

#### k) 3 credits in renovation:

i. Be connected to accessible picnic areas, nature trails, garden beds, barbecue pits and their litter baskets and hot ash bins.

### **3.3.1.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 16.

### **3.3.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 16.

### 3.3.1.6 Pre-certificate rating submission:

- a) Brief narrative describing how the project meets the credit requirements, including the location and number of accessible paths planned and the components that they will consist of.
- **b)** Drawings showing the location of accessible paths, their measurements, and components (curb ramps, paths).
- c) Specifications detailing the design of each component

# **3.3.1.7** Certificate rating submission:

- a) As-built drawings showing the location of accessible paths, their measurements, and components (curb ramps, paths).
- b) Photographs of the accessible paths, (curb) ramps
- c) Updated specifications if any changes were made during the construction stage.

### 3.3.1.8 References:

- a) Abu Dhabi International Building Code, 2013
- **b)** Abu Dhabi International Accessibility Code
- c) PR-405 Mosque Design Regulations
- d) PR-401 Abu Dhabi Public Realm Design Manual
- e) ROW-603 Abu Dhabi Urban Street Design Manual
- f) TR-530 Walking and Cycling Master Plan-Network Design
- g) TR-511\_Manual on Uniform Traffic Control Devices
- h) TR-518 Roadside Design Guide, TR-518 Roadside Design Guide
- i) TR-514\_Road Geometric Design Manual

# 3.3.2 IC.2.02 Enhanced circulation based on accessible paths (outdoor)

# **3.3.2.1** Applicability:

Applicable to all public open spaces and streetscapes.

## 3.3.2.2 Intent:

To promote public health, decrease dependence on cars, and foster active, independent lifestyles by providing accessible recreational routes, walkable neighborhoods, and generally an improved pedestrian environment, ensuring that all outdoor circulation corridors create a cohesive and enhanced accessible network within the public realm and seamlessly connect with the surroundings.

### 3.3.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All accessible paths should feature an adequate floor/ground surface:

- a) Tactile and luminance contrast should be provided at the edge of the walking path in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
   b) Bupping clopes loss than 1:20 (E%) should be provided instead of ramps.
- **b)** Running slopes less than 1:20 (5%) should be provided instead of ramps

# 3.3.2.4 Pre-certificate rating credits:

#### Table 25: IC.2.02 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	6	Design the edge of the walking path with tactile and luminance contrast.
3	6	Design all running slopes to comply with the recommended requirements.
## 3.3.2.5 Certificate rating credits:

#### Table 26: IC.2.02 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	6	Confirm the edge of the walking path with tactile and luminance contrast.
3	6	Confirm all running slopes to comply with the recommended requirements.

#### 3.3.2.6 Pre-certificate rating submission:

#### **Recommended:**

- a) Brief narrative describing how the project meets the credit requirements, including sidewalk contrast and running slopes.
- **b)** Drawings showing the measurements and location of accessible paths, slopes and materials used.
- c) Specifications detailing the design of each component.

#### **3.3.2.7** Certificate rating submission:

#### **Recommended:**

- **a)** Updated narrative describing how the project meets the credit requirements, including sidewalk contrast and running slopes.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) As-built drawings showing the measurements and location of accessible paths, slopes and materials used.
- d) Photographs of the accessible paths and slopes.

## 3.3.3 IC.2.03 Accessible ramps

#### **3.3.3.1** Applicability:

Applicable to all public open spaces and streetscape with outdoor and indoor circulation routes.

#### 3.3.3.2 Intent:

To ensure that, in case of level changes that cannot be solved with slopes or elevators, all major areas within the asset, are linked to circulation spaces through accessible ramps, both indoors and outdoors, enabling equitable access for all users to the available services.

#### **3.3.3.3** Requirements:

#### Mandatory:

All applicable mandatory requirements for public ramps within the certification boundary shall be in accordance with **"Sahel Building Rating System – IC.1.07 Accessible ramps"**.

#### **3.3.3.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 6.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.07 Accessible ramps".

#### 3.3.3.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 6.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.07 Accessible ramps".

#### **3.3.3.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – IC.1.07 Accessible ramps".

#### 3.3.3.7 Certificate rating submission:

Refer to "Sahel Building Rating System – IC.1.07 Accessible ramps".

#### 3.3.3.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) DP-305\_Safety and Security Planning Manual

# 3.3.4 IC.2.04 Enhanced accessible ramps

## **3.3.4.1** Applicability:

Applicable to all public open spaces and streetscape with outdoor and indoor circulation routes.

## 3.3.4.2 Intent:

To ensure that, in case of level changes that cannot be solved with slopes or elevators, all major areas within the asset are linked to circulation spaces through accessible ramps, both indoors and outdoors, enabling equitable access for all users to the available services.

#### 3.3.4.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All recommended requirements for public ramps within the certification boundary should be in accordance with **"Sahel Building Rating System - IC.1.08 Enhanced accessible ramps".** 

#### 3.3.4.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.08 Enhanced accessible ramps".

#### 3.3.4.5 Certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.08 Enhanced accessible ramps".

#### **3.3.4.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System - IC.1.08 Enhanced accessible ramps".

#### 3.3.4.7 Certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.08 Enhanced accessible ramps".

# 3.3.5 IC.2.05 Accessible cycling infrastructure

#### **3.3.5.1** Applicability:

Applicable to all public open spaces and streetscapes with cycle infrastructure.

#### 3.3.5.2 Intent:

To ensure that cycle tracks/lanes form a continuous, safe, inclusive, and connected network that allows cyclists and micro-mobility users to travel seamlessly within the public realm development.

#### 3.3.5.3 Requirements:

#### Mandatory:

All cycle tracks/lanes within the certification boundary shall be in accordance with **Urban Street Design Manual (ROW-603)**, and **Walking and Cycling Master Plan (TR-530)** and shall:

- a) Follow the master plan requirements (if relevant)
- b) 1 credit in renovation:
  - i. Have an unobstructed minimum clear headroom height of 2400 mm and unobstructed minimum width as specified below:

#### Table 27: Cycling lines width

Lane	Minimum width
One way cycle track (New)	2000 mm
One way cycle track (existing)	1500 mm
Two -way cycle track (new)	3000 mm
Two -way cycle track (existing)	2000 mm

#### c) 1 credit in renovation.

- i. Be formed by cycle tracks/lanes that create a connected, safe, and accessible network that allows cyclists and micro-mobility users to travel between:
  - a. Emirate, municipality, and district-level public open spaces and waterfronts.
  - **b.** City or town level streetscape.
  - c. Residential areas.
  - **d.** Cultural heritage facilities.
  - e. Major transportation hubs.
  - f. Central Business districts.
  - g. Corporate business district.
  - h. Non-vehicular zones (or pedestrian zones).

#### d) 1 credit in renovation:

i. Be independent from pedestrians and by a minimum separation of 1500 mm from the car lanes.

#### e) 2 credits in renovation:

- i. Have a tactile strip separating cycle track from pedestrian paths (Figure 17). The strip shall be 300mm wide in new constructions and 100mm wide in existing constructions.
- ii. Be designed for speed limit of 20 or 25 Km/h.

#### f) 1 credit in renovation:

i. Have maximum running slope for gradients:

#### Table 28: Maximum running slope

Length of the cycle track	Maximum running slope of the cycle track
150 m	1:50 (2%)
100 m	1:40 (2.5%)
80 m	1:33 (rounded to 3%)
60 m	1:28 (rounded to 3.5%)
50 m	1:25 (4%)
40 m	1:22 (rounded to 4.5%)
30 m	1:20 (5%)

#### g) 1 credit in renovation.

**i.** Have cycle symbol markings on the appropriate side at all entry/exit points and intersections with sidewalks or other shared routes.

#### h) 1 credit in renovation:

i. Have an adequate floor/ground surface, which shall be in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".



Figure 16: One-way cycle tracks with car lanes and sidewalks segregation



Figure 17: One-way cycle track with tactile strip for pedestrian segregation

#### **3.3.5.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 8

#### 3.3.5.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded for renovation projects: 8

#### **3.3.5.6 Pre-certificate rating submission:**

- a) A brief narrative describing the design approach and features of the cycle tracks/lanes.
- **b)** Drawings showing compliance with master plan requirements (if relevant), minimal cycle track width, independence from car lanes and sidewalks
- c) Drawings illustrating compliance with the specified maximum running slopes.

#### 3.3.5.7 Certificate rating submission:

- **a)** Updated narrative describing any changes made during construction and confirming the adherence to design specifications.
- **b)** As-built drawings showing compliance with master plan requirements (if relevant), minimal cycle track width, independence from car lanes and sidewalks
- c) As-built drawings illustrating compliance with the specified maximum running slopes.
- **d)** Photographs of the completed cycle tracks, highlighting key design features, gradients, and separation from car lanes and sidewalks.

#### 3.3.5.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) PR-401 Abu Dhabi Public Realm Design Manual
- d) ROW-603 Abu Dhabi Urban Street Design Manual
- e) TR-530 Walking and Cycling Master Plan-Network Design
- f) TR-511\_Manual on Uniform Traffic Control Devices
- g) TR-518 Roadside Design Guide, TR-518 Roadside Design Guide
- h) TR-514\_Road Geometric Design Manual-1

# 3.3.6 IC.2.06 Enhanced accessible cycling infrastructure

#### **3.3.6.1** Applicability:

Applicable to all public open spaces and streetscapes with cycle infrastructure.

#### 3.3.6.2 Intent:

To ensure that cycle tracks/lanes form an optimized continuous, safe, inclusive, and connected network that allows cyclists and micro-mobility users to travel seamlessly within the public realm development.

#### 3.3.6.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All cycle tracks/lanes within the certification boundary should:

- a) Be formed by cycle tracks/lanes that form a connected, safe, and accessible network that allows cyclists and micro-mobility users to travel between nature trails.
- **b)** Demonstrate that the cycling network considers various types of cycles e.g. trailer cycle, e-cycle, accessible e-cycle, handcycles, or cargo cycle within the entire development.
- c) Rest points shall be integrated with the cycle tracks/lanes, for cyclists to take rest in accordance with "Sahel Public Realm Rating System IC.2.07 Rest points".
- d) Have adequate lighting for cycle tracks/lanes in accordance with "Sahel Building Rating System EQC.1.12 Enhanced lighting and display".
- e) Have a minimum width of 2000 mm for One-way cycle tracks and 4000 mm for Two -way cycle tracks.

#### **3.3.6.4 Pre-certificate rating credits:**

#### Table 29: IC.2.06 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
1	2	Design the cycling path connecting natural trails with consideration of various types of bikes within the entire development
2	2	Design rest points at regular intervals
1	2	Design the required lighting intensity and provide an enlarged width for the cycle track.

#### **3.3.6.5** Certificate rating credits:

#### Table 30: IC.2.06 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
1	2	Confirm the cycling path connecting natural trails with consideration of various types of bikes within the entire development
2	2	Confirm the presence of rest points at regular intervals
1	2	Confirm the provision of the required lighting intensity and provide an enlarged width for the cycle track.

#### **3.3.6.6 Pre-certificate rating submission:**

- a) A brief narrative describing the design approach and features of the cycle tracks/lanes and rest points.
- **b)** Drawings illustrating compliance with the specified minimum widths and lighting.

#### **3.3.6.7** Certificate rating submission:

- **a)** Updated narrative describing any changes made during construction and confirming the adherence to design specifications.
- **b)** As-built drawings illustrating compliance with the specified minimum widths and rest points.
- c) Photographs of the completed cycle tracks/lanes highlighting key design features and lighting.

## 3.3.7 IC.2.07 Rest points

#### **3.3.7.1** Applicability:

Applicable to all public open spaces and streetscapes.

#### 3.3.7.2 Intent:

To enable all users to enjoy views, relax and take a rest, which would create a more enjoyable, inviting, and inclusive public realm, with the support of an efficient accessible pedestrian circulation network.

#### **3.3.7.3** Requirements:

#### Mandatory:

All rest point (Figure 18) requirements shall be in accordance with **Public Realm Design Manual (PR-401)** and shall:

#### a) 2 credits in renovation:

- i. Have 100 m distance between each rest points in streetscapes calculated by Direct Route Indices Method.
- ii. Be set back from the main route to allow free passage.

#### b) 2 credits in renovation:

- i. Have a clear floor space of minimum 900 mm in width and 1500 mm in depth on the side of the seating, including the possibility of shoulder alignment.
- **ii.** Have a clear turning circle with a minimum diameter of 1800 mm, not overlapping with the required minimum width of the accessible path.

#### c) 3 credits in renovation:

i. Be provided with seats in accordance with "Sahel Public Realm Rating System – EFE.2.04 Seating areas".

#### d) 1 credit in renovation:

- Have an adequate floor/ground surface which shall be in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes". and shall:
  - **a.** Be provided on an even surface with a cross-fall slope of a maximum of 1:50 (2 %) around bench and wheelchair space.

#### e) 1 credit in renovation:

i. Have their location become cane-detectable (e.g. a tactile floor finish).

#### f) 2 credits in renovation:

- i. Be shaded.
- ii. Have all touchable surfaces made with non-overheating weather-resistant materials.
- iii. Location in accordance with "Sahel Community Rating System IC.3.04 Rest Points".
   Follow the master plan requirements (if present).

#### g) 2 credits in renovation:

- i. Additionally, at least 30% of rest points in parks, sidewalks (litter baskets only) and beaches shall:
  - **a.** Feature additional equipment such as a litter basket, and a drinking fountain.



#### Figure 18: Outdoor rest point

#### **3.3.7.4 Pre-certificate rating credits:**

a) This is a requirement for new assets. There are no credit points awarded.

b) Credit points awarded for renovation projects: 13

#### 3.3.7.5 Certificate rating credits:

a) This is a requirement for new assets. There are no credit points awarded.

b) Credit points awarded for renovation projects: 13

#### **3.3.7.6 Pre-certificate rating submission:**

- a) Brief narrative describing how the project meets the credit requirements, including location and number of rest points and their design in the planned development.
- **b)** Drawings showing the location of rest points, their measurements, components, and the distances between them.

#### 3.3.7.7 Certificate rating submission:

- **a)** Updated narrative describing how the project meets the credit requirements, including location and number of rest points and their design in the planned development.
- **b)** As-built drawings showing the location of rest points, their measurements, components, and the distances between them.
- c) Photographs of the rest points.

#### 3.3.7.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) PR-405 Mosque Design Regulations
- d) PR-401 Abu Dhabi Public Realm Design Manual
- e) ROW-603 Abu Dhabi Urban Street Design Manual
- f) TR-530 Walking and Cycling Master Plan-Network Design
- g) TR-511\_Manual on Uniform Traffic Control Devices
- h) UAE Universal Design Code

# 3.3.8 IC.2.08 Enhanced rest points

## **3.3.8.1** Applicability:

Applicable to all public open spaces and streetscapes.

#### 3.3.8.2 Intent:

To enable all users to enjoy views, relax and take a rest, which would create a more enjoyable, inviting, and inclusive public realm, with the support of an efficient accessible pedestrian circulation network.

#### 3.3.8.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

A maximum of every 50 m of an outdoor accessible path intended for walking, a rest point shall be provided. Each rest point should:

- a) Have adequate lighting in accordance with "Sahel Public Realm Rating System EQC.2.09. Enhanced lighting and display".
- **b)** Additionally, at least 30% of rest points in parks and beaches shall feature additional equipment such as an electrical charging station, an air pump (if outdoors), detectable QR codes for wayfinding, and additional information.

#### **Best Practice:**

- a) Additional rest points should be placed strategically to offer rest from challenges such as gradients/stairs. One rest point 20 m before and one after the challenging element.
- b) Additionally, at least 50 % of rest points (not less than one) should:
  - i. Provide seating for children.
  - ii. Provide bariatric seating (minimum width 700 mm, minimum working load 350 kg).
  - iii. Provide ischiatic support.

Additionally, at least 50% of rest points in parks and beaches shall:

**iv.** Feature additional equipment such as litter baskets, drinking fountain, electrical charging station, an air pump (if outdoors), detectable QR codes for wayfinding, and additional information.

## 3.3.8.4 Pre-certificate rating credits:

### Table 31: IC.2.08 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
3	3	Design all outdoor rest points at recommended intervals with enhanced lighting.
1	1	Design 30% with additional equipment.
	·	Best Practice:
2	2	Design additional rest points to provide rest from challenges. The credit is awarded automatically if the asset does not feature any challenges.
4	4	Design at least 50 % of the rest points with additional seat types and additional equipment.

## **3.3.8.5** Certificate rating credits:

#### Table 32: IC.2.08 certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
3	3	Provide outdoor rest points at recommended intervals with enhanced lighting.
1	1	Provide 30% with additional equipment.
		Best Practice:
2	2	Install additional rest points to provide rest from challenges. The credit is awarded automatically if the asset does not feature any challenges.
4	4	Provide at least 50 % of the rest points with additional seat types and additional equipment.

## 3.3.8.6 Pre-certificate rating submission:

#### Recommended:

- a) Brief narrative describing how the project meets the credit requirements, including location and quantity of rest points and their design in the planned development.
- **b)** Drawings showing the location of rest points, their measurements, components, and the distances between them.
- c) Detail drawings of the rest points proving additional equipment.

#### **Best Practice:**

a) Detail drawings showing the rest points to be provided for challenges and the presence of ischiatic support, seating for children, and seating for bariatric persons on selected rest points. Location drawings and/or documentation proving an adequate number of rest points equipped with ischiatic support, and/or children/bariatric seating.

#### 3.3.8.7 Certificate rating submission:

#### Recommended:

- **a)** Updated narrative describing how the project meets the credit requirements, including location and number of rest points and their design in the planned development.
- **b)** As-built drawings showing the location of rest points, their measurements, components, and the distances between them.
- c) Photographs of the rest points.
- d) As-built detail drawings of the rest points proving additional equipment.

#### **Best Practice:**

- a) As-built detail drawings of the rest points provided in challenges.
- **b)** As-built location drawings and/or documentation proving an adequate number of rest points equipped with ischiatic support, and/or children/bariatric seating, as well as additional rest points.

#### 3.3.9 IC.2.09 Staircases

#### 3.3.9.1 **Applicability:**

Applicable to all public open spaces and streetscape with stairs.

#### 3.3.9.2 Intent:

To ensure that staircases used in open public-use facilities (Figures 19, 20) are designed prioritizing safety, inclusivity, and seamless navigation, allowing individuals to move effortlessly and securely within the public realm.

#### 3.3.9.3 **Requirements:**

#### Mandatory:

All applicable mandatory requirements for public stairs within the certification boundary shall be in accordance with "Sahel Building Rating System - IC.1.13 Staircases".



Figure 19: Exterior stairs

Figure 20: Head clearance

#### Pre-certificate rating credits: 3.3.9.4

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.13 Staircases".

#### 3.3.9.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.13 Staircases".

#### 3.3.9.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.13 Staircases".

#### 3.3.9.7 **Certificate rating submission:**

Refer to "Sahel Building Rating System - IC.1.13 Staircases".

#### 3.3.9.8 **References:**

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code

# 3.3.10 IC.2.10 Enhanced staircases

## 3.3.10.1 Applicability:

Applicable to all public open spaces and streetscape with stairs.

#### 3.3.10.2 Intent:

To ensure that staircases used in open public-use facilities are designed prioritizing safety, inclusivity, and seamless navigation, allowing individuals to move effortlessly and securely within the public realm.

#### 3.3.10.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All recommended requirements for stairs accessible to the public should be in accordance with "Sahel Building Rating System - IC.1.14 Enhanced staircases".

#### **Best Practice:**

All best practice requirements for stairs accessible to the public should be in accordance with "Sahel Building Rating System - IC.1.14 Enhanced staircases".

#### 3.3.10.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.14 Enhanced staircases".

#### **3.3.10.5** Certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.14 Enhanced staircases".

#### 3.3.10.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.14 Enhanced staircases".

#### 3.3.10.7 Certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.14 Enhanced staircases".

## **3.3.11.1** Applicability:

Applicable to all public open spaces and streetscapes if provided.

#### 3.3.11.2 Intent:

To promote independent lifestyles by providing vertical and horizontal circulation routes, ensuring a cohesive accessible network within the public realm and seamlessly connect with the surroundings.

#### 3.3.11.3 Requirements:

#### Mandatory:

All applicable mandatory requirements for escalators and travellators within the certification boundary shall be in accordance with **"Sahel Building Rating System - IC.1.15 Escalators and travellators"**.

#### **3.3.11.4** Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.15 Escalators and travellators".

#### **3.3.11.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.15 Escalators and travellators".

#### 3.3.11.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.15 Escalators and travellators".

#### 3.3.11.7 Certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.15 Escalators and travellators".

#### 3.3.11.8 References:

a) Abu Dhabi International Building Code, 2013

# 3.3.12 IC.2.12 Enhanced escalators and travellators

#### **3.3.12.1** Applicability:

Applicable to all public open spaces and streetscapes if provided.

#### 3.3.12.2 Intent:

To promote independent lifestyles by providing vertical and horizontal circulation routes, ensuring a cohesive accessible network within the public realm and seamlessly connect with the surroundings.

#### 3.3.12.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All applicable recommended requirements for escalators and travellators within the certification boundary shall be in accordance with **"Sahel Building Rating System - IC.1.16 Enhanced escalators and travellators"**.

#### 3.3.12.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.16 Enhanced escalators and travellators".

#### 3.3.12.5 Certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.16 Enhanced escalators and travellators".

#### 3.3.12.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.16 Enhanced escalators and travellators".

#### 3.3.12.7 Certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.16 Enhanced escalators and travellators".

# 3.3.13 IC.2.13 Elevators and platform lifts

## 3.3.13.1 Applicability:

Applicable to all public open spaces and streetscapes (figures 21) with accessible vertical circulation such elevators and platform lifts.

#### 3.3.13.2 Intent:

To promote independent lifestyles by providing accessible vertical circulation routes, ensuring a cohesive accessible network within the public realm and seamlessly connect with the surroundings.

#### 3.3.13.3 Requirements:

#### Mandatory:

All applicable mandatory requirements for elevators and platform lifts within the certification boundary shall be in accordance with **"Sahel Building Rating System - IC.1.17 Elevators and platform lifts (indoor and outdoor)"**.



Figure 21: Exterior elevator

#### 3.3.13.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **50**.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.17 Elevators and platform lifts (indoor and outdoor)".

#### 3.3.13.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **50**.
- c) For credits breakdown refer to "Sahel Building Rating System IC.1.17 Elevators and platform lifts (indoor and outdoor)".

#### 3.3.13.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.17 Elevators and platform lifts (indoor and outdoor)".

#### **3.3.13.7** Certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.17 Elevators and platform lifts (indoor and outdoor)".

#### 3.3.13.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code

# 3.3.14 IC.2.14 Enhanced elevators and platform lifts

#### **3.3.14.1** Applicability:

Applicable to all public open spaces and streetscapes with accessible vertical circulation such elevators and platform lifts.

#### 3.3.14.2 Intent:

To promote independent lifestyles by providing accessible vertical circulation routes, ensuring a cohesive accessible network within the public realm and seamlessly connect with the surroundings.

#### 3.3.14.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All applicable recommended requirements for elevators and platform lifts within the certification boundary should be in accordance with **"Sahel Building Rating System - IC.1.18 Enhanced elevators and platform lifts (indoor and outdoor)"**.

#### **Best Practice:**

All applicable best practice requirements for elevators and platform lifts within the certification boundary should be in accordance with **"Sahel Building Rating System - IC.1.18 Enhanced elevators and platform lifts (indoor and outdoor)"**.



Figure 22: Best practice dimensions of exterior elevator

#### 3.3.14.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.18 Enhanced elevators and platform lifts (indoor and outdoor)".

#### 3.3.14.5 Certificate rating credits:

Refer to "Sahel Building Rating System - IC.1.18 Enhanced elevators and platform lifts (indoor and outdoor)".

#### **3.3.14.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System - IC.1.18 Enhanced elevators and platform lifts (indoor and outdoor)".

#### **3.3.14.7** Certificate rating submission:

Refer to "Sahel Building Rating System - IC.1.18 Enhanced elevators and platform lifts (indoor and outdoor)".

#### **3.3.15.1** Applicability:

Applicable to all public open spaces and streetscapes.

#### 3.3.15.2 Intent:

To ensure protection and convenience for pedestrians, by reducing pedestrian-vehicular conflicts and by designing safe sidewalks and car lanes segregations within the open public-use developments.

#### 3.3.15.3 Requirements:

#### Mandatory:

Traffic segregation shall be in accordance with Urban Street Design Manual (ROW-603), Standard Drawing Guideline (TR-541) and Pavement Design Manual (TR-513) and:

#### a) 6 credits in renovation:

- i. Sidewalks and cycle tracks, and car lanes shall be separated using different materials, and/or surface color (Figure 23).
- ii. Additionally, all pedestrian crossings shall be in accordance with Urban Street Design Manual (ROW-603) and Standard Drawing Guideline (TR-541) and shall:
  - a. Be designed as accessible paths.
  - **b.** Be located on or near desired lines for movement so that they are safe, direct, convenient, and easy to use for pedestrians and cyclists.
  - **c.** Have a minimum width of 4000 mm and aligned with curb ramp (if present) in areas where pedestrians, cyclists, and micro-mobility aids share the same crossing, to accommodate all users safely.
  - d. Be clearly signposted and identified through signage, as well as detectable via Warning TWSIs in accordance with "Sahel Public Realm Rating System – OC.2.03 Tactile Walking Surface Indicators (TWSI)" and "Sahel Building Rating System – OC.1.03 Tactile Walking Surface Indicators (TWSI)"
  - e. Be both visually and audibly discernible where they are controlled and signaled.
  - f. Be perpendicular (not diagonal) to the sidewalk and crossing car lane (for new construction).
  - g. Have detectable warnings (e.g. cane-detectable street furniture) against all obstacles and traps in existing pedestrian crossings.
  - **h.** Have no obstacles blocking the view of pedestrians, cyclists, and drivers to each other at the intersections.
  - i. Have a maximum cross fall of 2 %.
  - **j.** If designed as a bridge or underpass, it shall have a minimum width of 3000 mm without segregation of pedestrian and cycle traffic, and a minimum width of 5000 mm for the adjacent sidewalk and cycle track. Bridges shall be shaded, and both bridges and underpasses shall be designed to ensure accessibility for all users.
  - **k.** Have curb ramps, curb cuts and raised pedestrian crossings that are part of a continuous, safe and accessible path.



Figure 23: Car, cycle and pedestrian segregation

Additionally, all refuge islands shall:

#### b) 3 credits in renovation:

- i. The refuge island (Figure 24, 25) shall be levelled with the street and have a minimum width of 2000 mm and a minimum depth of 2000 mm to accommodate the passage of two users simultaneously, but it shall be at least as wide as the crossing itself.
- ii. In existing constructions where the depth of the refuge island is less than 1200 mm, Warning TWSI shall be provided across the entire width of the pedestrian path within the refuge island, in accordance with "Sahel Building Rating System - OC.1.03 Tactile Walking Surface Indicators (TWSI)".
- iii. Be equipped with a button control system at crossing points.

Additionally, all signals shall be in accordance with **Traffic Signals and Electronic Warning and Information Systems Manual (TR-529)** and shall:

#### c) 3 credits in renovation:

- i. At controlled crossings, be equipped with a button control system to ensure safe crossing and facilitate pedestrian clearance at an appropriate speed.
- ii. Have pedestrian signal push buttons mounted at a height in accordance with **"Sahel Building Rating System –** EFE.1.13 Operable parts".
- iii. Have a tactile arrow at the button, indicating the direction towards the street crossing.
- iv. Ensure that the access to the push button is designed to be accessible and sufficiently large to be pressed by various body parts other than just fingers (including the arm, fist, etc.)
- v. Ensure that signaling information shall be presented in a multi-sensory manner, including auditory, visual, to ensure accessibility for all individuals.
- vi. Have a push button with a minimum luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
- **vii.** Have push buttons appropriately signed by incorporating tactile layouts of the pedestrian crossing to convey information, direction, and aid in wayfinding for all users.
- **viii.** Be adjusted to accommodate a standard walking speed of a maximum of 0.8 m/s. This speed is suitable for accommodating all users, ensuring safety and accessibility across diverse pedestrian scenarios. In locations where reducing the standard walking speed below 0.8 m/s is not feasible, there shall be implemented motion sensors to detect pedestrian movement automatically.

Additionally, all crossing surfaces within the certification boundary shall:

#### d) 3 credits in renovation:

- Be firm, stable, slip-resistant and glare-free, and have a maximum cross fall of 1:50 (2 %).
- ii. Have adequate slip-resistance value in accordance with **"Sahel Building Rating System** EQC.1.09 Wall and floor finishes".
- iii. Crossing surfaces shall be free of any obstructions and any floor surface elevations shall be maximum 5 mm in height to ensure a smooth accessible path. Elevations between 5mm and a maximum of 10mm shall be beveled.
- iv. Additionally, all TWSI, shall be in accordance with "Sahel Public Realm Rating System OC.2.03 Tactile Walking Surface Indicators (TWSI)" and "Sahel Building Rating System - OC.1.03 Tactile Walking Surface Indicators (TWSI)".



# Figure 24: Raised street crossing with refuge island



Figure 25: Street crossing with Warning TWSI

## 3.3.15.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 15.

#### 3.3.15.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **15**.

#### 3.3.15.6 Pre-certificate rating submission:

- a) Design drawings illustrating the separation of sidewalks, cycle tracks, and car lanes with different materials and surface colors.
- b) Documentation detailing the accessibility features of pedestrian crossings, including detectable warnings, Warning TWSIs, curb ramps, unobstructed views, refuge islands and buttons at controlled crossings
- c) Drawings outlining the design of bridges or underpasses, ensuring a handbook-compliant width for adjacent pedestrian and cycle traffics shading, and accessibility.

## 3.3.15.7 Certificate rating credits:

#### Table 33: IC.2.15 Certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
1	2	Design raised crossings
1	1	Design shading at crossings and islands
1	2	Procure countdown signals
1	1	Design adequate lighting
		Best Practice:
1	1	Foresee vibrating signals
1	1	Foresee audible pedestrian signals (APS) with controllable volume settings
2	2	Foresee personalized auditory and vibratory cues about traffic lights through smartphone applications
1	1	Design separation from cycle tracks by either the use of curbs or the unpaved surface of a minimum width of 500 mm and enhanced signalization.

#### 3.3.15.8 Certificate rating submission:

- a) As-built drawings confirming the implemented measures for separating traffic.
- **b)** As-built documentation confirming the specifications for bridges or underpasses, including width, shading, and accessibility features.
- c) Photographs emphasizing the actual implementation of accessible features at pedestrian crossings.

#### 3.3.15.9 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) PR-405 Mosque Design Regulations
- d) PR-401 Abu Dhabi Public Realm Design Manual
- e) ROW-603 Abu Dhabi Urban Street Design Manual
- f) TR-530 Walking and Cycling Master Plan-Network Design
- g) TR-511\_Manual on Uniform Traffic Control Devices
- h) TR-518 Roadside Design Guide, TR-518 Roadside Design Guide
- i) TR-514\_Road Geometric Design Manual-1
- j) Pavement Design Manual (TR-513)
- k) Traffic Signals and Electronic Warning and Information Systems Manual (TR-529)

#### **3.3.16.1** Applicability:

Applicable to all public open spaces and streetscapes.

#### 3.3.16.2 Intent:

To ensure protection and convenience for pedestrians, by reducing pedestrian-vehicular conflicts and by designing an enhanced and safe sidewalk, cycle track, and car lane segregations within the open public-use developments.

#### 3.3.16.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All pedestrian crossings should:

- a) Be raised
- **b)** Have shading at intersections and refuge islands.
- c) Feature signals with a countdown clock.
- d) Be uniformly and adequately illuminated, including the refuge island, free from any glare or harsh lighting as required in "Sahel Building Rating System EQC.1.12 Enhanced lighting and display".

#### **Best Practice:**

All sidewalks within the certification boundary should:

- a) Feature vibration signals
- **b)** Feature audible pedestrian signals (APS) with controllable volume settings and scheduling using directional speakers
- c) Feature personalized auditory and vibratory cues about traffic lights through smartphone applications (GPS & Bluetooth)
- **d)** Have a separation from cycle track by either the use of curbs or the unpaved surface of a minimum width of 500 mm.

## **3.3.16.4** Pre-certificate rating credits:

## Table 34: IC.2.16 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
1	2	Design raised crossings
1	1	Design shading at crossings and islands
1	2	Confirm the provision of countdown signals
1	1	Design adequate lighting
		Best Practice:
1	1	Provide vibrating signals
1	1	Provide audible pedestrian signals (APS) with controllable volume settings
2	2	Provide personalized auditory and vibratory cues about traffic lights through smartphone applications
1	1	Design separation of cycle track by either the use of curbs or the unpaved surface of a minimum width of 500 mm and enhanced signalization.

## 3.3.16.5 Certificate rating credits:

#### Table 35: IC.2.16 certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
1	2	Confirm the provision of raised crossings
1	1	Confirm the provision of shading at crossings and islands
1	2	Confirm the provision of countdown signals
1	1	Design adequate lighting
		Best Practice:
1	1	Confirm the provision of vibrating signals
1	1	Confirm the provision of audible pedestrian signals (APS) with controllable volume settings
2	2	Confirm the provision of personalized auditory and vibratory cues about traffic lights through smartphone applications
1	1	Confirm the separation from cycle track by either the use of curbs or the unpaved surface of a minimum width of 500 mm and enhanced signalization.

## 3.3.16.6 Pre-certificate rating submission:

#### **Recommended:**

- a) Design drawings illustrating the separation of pedestrian, cycle, and car traffic with different materials and surface colors.
- **b)** Documentation detailing the accessibility features of pedestrian crossings, including detectable warnings, unobstructed views, and refuge islands.
- c) Design drawings illustrating the provision of shading at pedestrian crossings, intersections, and refuge islands.
- **d)** Documentation confirming the inclusion of signals with a countdown feature at pedestrian crossings.

#### **Best Practice:**

- a) Detail drawings showing enhanced traffic separation.
- **b)** Technical documentation of the enhanced signalization to be installed.

#### 3.3.16.7 Certificate rating submission:

#### **Recommended:**

- a) As-built drawings confirming the implemented measures for separating traffic.
- **b)** Photographs emphasizing the actual implementation of accessible features at pedestrian crossings.
- **c)** As-built drawings confirming the implementation of shading at pedestrian crossings and intersections.
- **d)** Photographs showcasing the installed signals with a countdown feature at pedestrian crossings.

#### **Best Practice:**

- a) As-built detail drawings showing enhanced traffic separation.
- **b)** Technical documentation of the enhanced signalization installed.

# **3.4 EFE.2 Ergonomic Furniture and Equipment**

This category evaluates the provision of Ergonomic Furniture and Equipment for all users in public facilities. It includes aspects such as functionality, adaptability, comfort, and support of furniture and equipment.

#### Table 36: Ergonomic Furniture and Equipment

EFE	Ergonomic Furniture and Equipment	Requirement type	Credit points	applicability
			New assets development/ redevelopment	Existing assets renovation
FFF 2 01	Enhanced, accessible charging stations for wheelchairs and	Recommended	6	8
LI L.2.01	personal vehicles	Best Practice	2	2
EFE.2.02	Street furniture	Mandatory	R	10
FEE 2 03	Enhanced street furniture	Recommended	3	6
LI L.2.05		Best Practice	3	5
EFE.2.04	Seating areas	Mandatory	R	3
EFE.2.05	Enhanced seating areas	Recommended	3	3
EFE.2.06	Drinking fountains	Mandatory	R	4
EFE.2.07	Enhanced drinking fountains	Recommended	4	4
EFE.2.08	ATMs and vending machines	Mandatory	R	3
EFE.2.09	Telephones	Mandatory	R	2
EFE.2.10	Barriers in queuing areas	Mandatory	R	2
EFE.2.11	Reception counters and desks	Mandatory	R	3
EFE.2.12	Enhanced reception counters and desks	Recommended	2	2
EFE.2.13	Operable parts	Mandatory	R	2
EFE.2.14	Enhanced operable parts	Recommended	1	1
	Total		24	60

# 3.4.1 EFE.2.01 Enhanced, accessible charging stations for wheelchairs and personal vehicles

#### **3.4.1.1** Applicability:

Applicable to district level, municipality level and emirate level public open spaces such as parks and playgrounds. It is not appliable to the streetscape.

#### 3.4.1.2 Intent:

To ensure that publicly accessible charging stations for electric wheelchairs and scooters in public realm developments are prioritizing safety, inclusivity, and usability, providing essential and advanced features accessible for all users (Figure 26).

#### 3.4.1.3 Requirements:

#### **Recommended:**

The asset provides a minimum of one publicly accessible charging station for electric wheelchairs and scooters which should:

- a) Be provided in a location which should:
  - i. Be adjacent to and connected with an accessible path.
  - **ii.** Be at designated places as applicable (e.g., parks, cultural, venues, airports, beaches, and picnic areas).
  - iii. Be shaded.
- b) Provide operable parts and charging cables which should be in accordance with "Sahel Building Rating System - EFE.1.13 Operable parts".
- c) Provide a clear turning circle with a minimum diameter of 1800 mm in front of the charging station.
- d) Be clearly identified with signage in accordance with "Sahel Building Rating System OC.1.01. Signage and other communication elements" which should:
  - i. Have a minimum width of 300 mm and a minimum height of 450 mm floor level.
  - Have a luminance contrast between the text/pictogram and its background, and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".
- e) Accommodate for plug types A, B, and G, mounted at a height between 400 and 1200 mm above floor level, to cover most assistive electric mobility charging plug types and have the cables mounted overhead, with operating instructions which are easy to read and perform.

#### **Best Practice:**

- a) Be supervised, feature surveillance and/or provide a lock for security reasons.
- **b)** Provide an air pump.
- c) Provide a wheelchair parking space of a minimum of 900 mm by 1500 mm outside of the clear turning circle with a minimum diameter of 1800 mm.



Figure 26: Electric wheelchair charging station

## 3.4.1.4 Pre-certificate rating credits:

#### Table 37: EFE.2.01 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
2	2	Design the appropriate location
0	2	Design in accordance with <b>"Sahel Building Rating System -</b> EFE.1.13 Operable parts".
1	1	Design an additional clear turning circle with a minimum diameter of 1800 mm.
1	1	Design the appropriate signage
2	2	Design for different plug types.
		Best Practice:
2	2	Design the accessible charging stations to include supervision, designated wheelchair space, and an air pump.

#### 3.4.1.5 Certificate rating credits:

#### Table 38: EFE.2.01 certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
2	2	Provide the appropriate location
0	2	Be in accordance with <b>"Sahel Building Rating System - EFE.1.13</b> Operable parts".
1	1	Provide an additional clear turning circle with a minimum diameter of 1800 mm.
1	1	Provide the appropriate signage
2	2	Provide different plug types.
		Best Practice:
2	2	Demonstrate that the accessible charging stations to include supervision, designated wheelchair space, and an air pump.

#### 3.4.1.6 Pre-certificate rating submission:

#### **Recommended:**

- a) Design drawings showing the accessible charging station location, measurements, components, and access from the accessible path.
- **b)** Specifications detailing the type, form, and materials used for the charging station are required.
- c) Design details of the charging station, including its operable parts, charging cables, operating instructions, signage, and luminance contrast.

#### **Best Practice:**

- a) Design details of the accessible wheelchair floor space, including its measurements and location relative to the charging station.
- **b)** Air pumps design details and surveillance provisions.

#### 3.4.1.7 Certificate rating submission:

#### **Recommended:**

- a) As-built drawings showing the location of the charging station, its measurements, components, and accessibility from the accessible path.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) Photographs of the charging station, focusing on its accessibility, and connectivity with the accessible path.
- d) Photographs of the charging station at night proving sufficient lux values.

#### **Best Practice:**

- a) Photographs of the wheelchair floor space and air pumps, showcasing its features and accessibility.
- **b)** Documents that demonstrate surveillance.
# 3.4.2 EFE.2.02 Street furniture

# **3.4.2.1** Applicability:

Applicable to all public open spaces and streetscapes that have street furniture.

# 3.4.2.2 Intent:

To develop a strategy for street furniture (e.g., litter baskets, picnic tables, outdoor seating tables, barriers, and bollards) that would play a crucial role in shaping the public realm through its functionality and inclusivity for all users, and seamlessly connect with the accessible neighborhoods.

# 3.4.2.3 Requirements:

## Mandatory:

All street furniture within the public realm shall be in accordance with **Public Realm Design Manual (PR-401)** and shall:

#### a) 1 Credits in renovation:

- i. Be provided in a location (Figure 27) which shall:
  - a. Be clear of visual clutter.
  - **b.** Be adjacent to and connected with an accessible path.
  - **c.** Not be positioned within the circulation space of the continuous accessible path of travel.

#### b) 1 Credit in renovation:

- i. Be cane-detectable or adequately marked with Warning TWSI where they pose an obstacle, which shall be in accordance with "Sahel Public Realm Rating System OC.2.03 Tactile Walking surface Indicators (TWSI)".
- ii. Have surface materials which shall:
  - a. Be smooth, free of sharp edges, non-abrasive, and possess low heat conductivity.b. Minimize or avoid reflections and glare to ensure comfort for pedestrians.

#### c) 2 Credits in renovation:

i. Have adequate operable parts (e.g., controls, switches) which shall be in accordance with "Sahel Building Rating System - EFE.1.13 Operable parts".

#### d) Credits available in the mentioned section:

 If operable or present in circulation space, shall have a minimum luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".

#### e) 1 Credit in renovation.

- i. Bollards shall be placed with a minimum distance of 1200 mm between them. In relation to other obstacles, they shall either contrast visually or feature a contrasting strip positioned at 150 mm from the top edge of the bollard to aid detection by pedestrians and motorists. The strip shall have a minimum width of 100 mm. Luminance contrast and Light Reflectance Value (LRV) of the bollard and contrasting strip shall be in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
- Chains between bollards or queuing barriers shall be avoided. Alternatively, luminance contrast and Light Reflectance Value (LRV) shall be attached to dividable chains to enhance visibility in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".

#### f) 1 Credit in renovation:

- i. Have decorative fountains and works of art (if installed) that shall:
  - **a.** Incorporate color and texture contrast along their edges, covering the entire length or perimeter.
  - **b.** Have mindful designs to avoid creating tripping hazards or obstacles to pedestrians.
  - c. Have a detectable edge with a minimum height of 100 mm.

#### g) 1 Credits in renovation:

- Additionally, picnic areas (Figure 28) within the public realm shall be provided in accordance with "Sahel Community Rating System – EFE.3.01 Street furniture" and shall:
  - a. Be shaded.
  - b. Have tables, seating and floor surface in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".
  - c. Have at least one or 5% of the picnic tables provided with the minimum requirements in accordance with **"Sahel Public Realm Rating System EFE.2.04 Seating areas"**.
  - **d.** Have a clear floor space of minimum 900 mm in width and 1500 mm in depth for forward approach.
  - e. Have seats provided with the minimum requirements for accessible seating area.
  - **f.** Have seats allowing direct transfer with a clear floor space of minimum 900 mm in width and 1500 mm in depth on either side of the seat.

#### h) 1 Credit in renovation:

- i. Additionally, accessible barbecue pits, within the public realm shall:
  - a. Have floor surface in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
  - b. Have at least one or 5% of the barbecue pits accessible.
  - **c.** Have a clear ground space of 1200 mm around the barbecue pit, with an additional clear turning circle with a minimum diameter of 1800 mm at the front.
  - **d.** Be provided with a clear floor space of minimum 900 mm in width and 1500 mm in depth centered on pit for a parallel approach to the cooktop. Knee clearance under a barbecue pit shall be avoided unless protective measures are in place to prevent burns and abrasions.
  - e. Have a cooking surface height between 700-800 mm.
  - **f.** Be connected to an accessible picnic area through an accessible path.
  - **g.** For gas or electric barbecues, control buttons shall be positioned in the front and designed to eliminate the need for reaching across burners.

## i) 1 Credit in renovation:

- i. Additionally, garden beds, if provided, within the public realm shall:
  - a. Have floor surface in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
  - **b.** Have at least one or 5% of the garden beds accessible for forward approach.
  - c. Have accessible storage space
  - d. Have water faucet accessible in accordance with "Sahel Building Rating System EFE.1.13 Operable parts".
  - e. Have clear space of 1800 mm in width, provided on all usable sides of the garden bed.
  - **f.** Avoid toxic plants, allergic triggering plants and/or plants with thorns and sharp edges.
  - **g.** Have sufficient clearance underneath of at least 450 mm deep and at least 700 mm above ground level.

## j) 1 Credit in renovation:

- i. Additionally, all litter basket within the public realm shall:
  - a. Have opening and operable parts in accordance with "Sahel Building Rating System EFE.1.13 Operable parts".
  - **b.** Be connected to an accessible path and not placed within it, with a minimum clear floor space of 900 mm in width and 1500 mm in depth, to allow for a forward approach.
  - c. Be placed at high foot fall and thoroughfare area with distances:
    - High footfall areas at every 25 m
    - Low footfall at every 50 m





Figure 27: Street furniture at parks

Figure 28: Furniture at picnic areas

# 3.4.2.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.

# 3.4.2.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.

# 3.4.2.6 Pre-certificate rating submission:

- **a)** A brief narrative describing how the project meets the credit requirements, including the location and design of street furniture objects.
- **b)** Design drawings showing the location of street furniture objects, their measurements, components, and accessibility from the accessible path
- c) Specifications detailing the materials used for street furniture, their heat conductivity, reflectance values and their resistance to weather conditions.
- **d)** Design details of bollards, chains, picnic areas, barbecue pits, garden beds, and litter basket, including their measurements, materials, and accessibility features.
- e) Specifications detailing the cane-detectability/ Warning TWSI indicators, including their pattern, luminance contrast, and surrounding surfaces.

# 3.4.2.7 Certificate rating submission:

- a) An updated narrative describing how the project meets the credit requirements, including the location and design of street furniture objects.
- **b)** As-built drawings showing the location of street furniture objects, their measurements, components, and accessibility from the accessible path
- c) Updated specifications if any changes were made during the construction stage.
- **d)** Photographs of the street furniture objects, focusing on the accessibility of use and connectivity with the accessible path.
- e) Photographs of bollards, chains, picnic areas, barbecue pits, and litter baskets, showcasing their features and accessibility.
- f) Photographs of vital points of accessible paths at night proving sufficient lux values.

## 3.4.2.8 References:

- a) Abu Dhabi International Accessibility Code
- **b)** PR-401 Abu Dhabi Public Realm Design Manual
- c) ROW-603 Abu Dhabi Urban Street Design Manual
- d) TR-530 Walking and Cycling Master Plan-Network Design

# 3.4.3 EFE.2.03 Enhanced street furniture

# **3.4.3.1** Applicability:

Applicable to all public open spaces and streetscapes that have street furniture.

## 3.4.3.2 Intent:

To develop a strategy for street furniture (e.g., litter baskets, picnic tables, outdoor seating tables, barriers, and bollards) that would play a crucial role in shaping the public realm through its functionality and inclusivity for all users, and seamlessly connect with the accessible neighborhoods.

## 3.4.3.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

- a) Have adequate lighting in accordance with "Sahel Building Rating System EQC.1.12 Enhanced lighting and display".
- **b)** Additionally, picnic areas within the public realm shall:
  - i. Have at least one or 10% of the picnic tables provided with the minimum requirements for accessible tables.
  - ii. Be provided a continuous and accessible path to and from an accessible toilet located within 100 m.
  - iii. Be provided with charging station for electric mobility aids and/or personal devices.
  - iv. Be provided with accessible drinking water fountain/bottle filling station.
- c) Additionally, all barbecue pits within the public realm shall:
  - i. Have at least one 10% of the barbecue pits accessible.
  - **ii.** Be provided with a continuous and accessible path to and from family toilet located within 100 m, a wheelchair or personal device charging station, and an accessible drinking water fountain.
- d) Additionally, garden beds within the public realm shall:
  - i. Be provided with a variety of seating options and have a clear floor space of minimum 900 mm in width and 1500 mm in depth for transfer and connected to an accessible path.
- e) Additionally, all litter baskets within the public realm shall:
  - i. Have a clear turning circle with a minimum diameter of 1800 mm, in front of a group of recycling bins.
  - **ii.** Provide clearly marked bins with divisions for different types of waste (e.g., organic, plastic) using text, color, tactile information, or braille to identify each container (if present). Provide a clear instruction panel with an accompanying map indicating the location of each type of receptacle adjacent to each set of litter baskets or recycling containers.
  - iii. Litter baskets sets/recycling stations are consistently placed along the accessible path.

#### **Best Practice:**

- a) Additionally, all public art within the public realm should be accompanied by descriptive signage which also includes braille and tactile information in accordance with "Sahel Building Rating System OC.1.01 Signage and other communication elements",
- **b)** Additionally, picnic areas within the public realm shall:
  - i. Have at least one or 15% of the picnic tables provided with the minimum requirements for accessible tables.
  - **ii.** Be provided a continuous and accessible path to and from a family/inclusive family toilet located within 100m.
  - iii. Be provided with accessible parking spaced within 30m.
- c) Additionally, all barbecue pits within the public realm shall:
  - i. Be provided with a continuous and accessible path to accessible parking spaces located within 30m.
- d) Additionally, garden beds within the public realm shall:
  - i. Be provided with accessible drinking water fountains/bottle filling stations next to the garden beds.
  - **ii.** Be provided a continuous and accessible path to and from an accessible toilet located within 100 m.
  - iii. Have 10% or at least 1 garden bed that is shaded and has leg clearance of 700 mm (height) and 450 mm (depth), and a clear floor space of minimum 900 mm in width and 1500 mm in depth for forward approach.
  - iv. Have 10% or at least 1 garden bed that has a base mounted at a height of 400 mm with its highest part at 800 mm and has a clear floor space of minimum 900 mm in width and 1500 mm in depth for side approach (when beds are available for touching, smelling, eating).

## 3.4.3.4 Pre-certificate rating credits:

#### Table 39: EFE.2.03 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
0	1	Design appropriate lighting for operable parts.
1	2	Design the recommended improvements in picnic areas.
1	2	Design the recommended improvements for barbecue pits and garden beds.
1	1	Foresee litter baskets designed and placed according to recommendations.
		Best Practice:
1	1	Foresee signage and tactile information
1	2	Design the best practice improvements in picnic areas.
1	2	Design recommended paths and amenities for barbecue pits and garden beds.

# 3.4.3.5 Certificate rating credits:

#### Table 40: EFE.2.03 certificate credits

Credit	points	Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
0	1	Provide appropriate lighting for operable parts.
1	2	Provide the recommended improvements in picnic areas.
1	2	Provide the recommended improvements for barbecue pits and garden beds.
1	1	Provide litter baskets designed and placed according to recommendations.
		Best Practice:
1	1	Provide signage and tactile information
1	2	Provide the best practice improvements in picnic areas.
1	2	Provide recommended paths and amenities for barbecue pits and garden beds.

# 3.4.3.6 Pre-certificate rating submission:

#### **Recommended:**

- a) A brief narrative describing how the project meets the credit requirements, including the location and design of street furniture objects.
- **b)** Design drawings showing the location of street furniture objects, their measurements, components, and accessibility from the accessible path
- c) Specifications detailing the materials used for street furniture, their heat conductivity, and their resistance to weather conditions.
- **d)** Lighting drawings showing the location and type of lighting for operable parts of street furniture, with details on their illuminance levels.
- e) Design details of bollards, chains, seating, tables, and litter baskets, barbecues, garden beds, picnic areas, including their measurements, materials, and accessibility features.
- f) Specifications detailing signage and tactile information to be provided.

#### **Best Practice:**

No additional information required.

# 3.4.3.7 Certificate rating submission:

#### Recommended:

- **a)** An updated narrative describing how the project meets the credit requirements, including the location and design of street furniture objects.
- **b)** As-built drawings showing the location of street furniture objects, their measurements, components, and accessibility from the accessible path (when relevant).
- c) Updated specifications if any changes were made during the construction stage.
- **d)** Photographs of the street furniture objects, focusing on the accessibility of use and connectivity with the accessible path.
- e) Photographs of bollards, chains, seating, tables, and litter baskets, barbecues, garden beds, picnic areas, showcasing their features and accessibility.
- **f)** As-built lighting drawings showing the actual location and type of lighting for operable parts of street furniture, with details on their illuminance levels.
- g) Photographs of vital points of accessible paths at night proving sufficient lux values.
- h) Photographs of public art, showcasing signage and tactile information (if applicable).

#### **Best Practice:**

No additional information required.

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# 3.4.4 EFE.2.04 Seating areas

## **3.4.4.1** Applicability:

Applicable to all public open spaces and streetscapes.

## 3.4.4.2 Intent:

To develop a strategy for seating areas that would play a crucial role in shaping the public realm through its functionality and inclusivity for all users, and seamlessly connect with the accessible neighborhoods (Figure 29).

## **3.4.4.3** Requirements:

#### Mandatory:

All seating areas within the public realm shall be in accordance with **"Abu Dhabi International Accessibility Standards, 2013"** and shall:

#### a) 1 Credit in renovation:

- i. Provide shaded seating areas after no more than 100 m along the accessible path, picnic areas, garden beds, and near assistance animal areas (if applicable), passenger loading zones and taxi stands, as well as quiet areas, accessible toilets/inclusive family toilet facilities, and shoe racks in front of religious buildings, transportation stops and shelters.
- ii. Provide a seating option for at least one person.

#### b) 1 Credit in renovation.

- i. Have a seat height ranging between 400 mm to 450 mm above ground level.
- ii. Have a seat depth ranging between 400 mm and 450 mm.
- **iii.** Provide a backrest between 400 mm and 460 mm high, measured from the seat surface to the top of the backrest (if present).
- iv. Provide at least one seating option with armrests and be in accordance with "Sahel Public Realm Rating System – IC.2.07 Rest points".

#### c) 1 Credit in renovation:

- **i.** Additionally, all accessible tables provided at seating areas within the public realm shall, if applicable:
  - **a.** Have a maximum height of 800 mm above ground level, measured to the table top surface.
  - **b.** Have a minimum clear space of 700 mm in height and 450 mm in depth for legs underneath the table.
  - **c.** Provide a clear floor space of minimum 900 mm in width and 1500 mm in depth for a forward approach on at least one side of the table, where the accessible leg space is available underneath.
  - **d.** Have 900 mm wide clear spaces provided on all remaining usable sides of the table.



Figure 29: Benches with different seating options

## 3.4.4.4 Pre-certificate rating credits:

a) This is a requirement for new assets. There are no credit points awarded.

b) Credit points awarded by renovation projects: 3.

## **3.4.4.5** Certificate rating credits:

a) This is a requirement for new assets. There are no credit points awarded.

b) Credit points awarded by renovation projects: 3.

## 3.4.4.6 Pre-certificate rating submission:

- a) A brief narrative describing how the project meets the credit requirements, including the location and design of seating areas.
- **b)** Design drawings showing the location of seating areas, their measurements, components, and accessibility from the accessible path (when relevant).
- c) Specifications detailing the materials used for seating areas, their heat conductivity, and their resistance to weather conditions.

## **3.4.4.7** Certificate rating submission:

- a) An updated narrative describing how the project meets the credit requirements, including the location and design of seating areas.
- **b)** As-built drawings showing the location of seating areas, their measurements, components, and accessibility from the accessible path (when relevant).
- c) Updated specifications if any changes were made during the construction stage.
- **d)** Photographs of the seating areas, focusing on the accessibility of use and connectivity with the accessible path.

## 3.4.4.8 References:

- a) Abu Dhabi International Accessibility Code
- b) PR-401 Abu Dhabi Public Realm Design Manual
- c) ROW-603 Abu Dhabi Urban Street Design Manual
- d) TR-530 Walking and Cycling Master Plan-Network Design

# 3.4.5 EFE.2.05 Enhanced seating areas

# **3.4.5.1** Applicability:

Applicable to all public open spaces and streetscapes.

## 3.4.5.2 Intent:

To develop a strategy for seating areas that would play a crucial role in shaping the urban environments through its enhanced functionality and inclusivity for all users, and seamlessly connect with the accessible neighborhoods.

## 3.4.5.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All seating areas within the public realm shall provide seating with space for a minimum of two persons. Seating options shall have a variety of seats with and without armrests.

## 3.4.5.4 Pre-certificate rating credits:

#### Table 41: EFE.2.05 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	3	Design seating areas with space for a minimum of two persons.

# 3.4.5.5 Certificate rating credits:

Table 42: EFE.2.0	05 certificate	credits
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Credit	points	Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	3	Confirm that the seating areas with space for a minimum of two persons.

# 3.4.5.6 Pre-certificate rating submission:

- a) A brief narrative describing how the project meets the credit requirements, including the location and design of enhanced seating areas.
- **b)** Design drawings showing the location of seating areas with their measurements, components, and accessibility from the accessible path (when relevant).

## 3.4.5.7 Certificate rating submission:

- a) An updated narrative describing how the project meets the credit requirements, including the location and design of seating areas.
- **b)** As-built drawings showing the location of seating areas, their measurements, components, and accessibility from the accessible path (when relevant).
- c) Updated specifications if any changes were made during the construction stage.
- **d)** Photographs of the seating area focusing on the accessibility of use for two persons and connectivity with the accessible path.

# 3.4.6 EFE.2.06 Drinking fountains

# **3.4.6.1** Applicability:

Applicable to open spaces with play and sports facilities (e.g., active recreation) and streetscapes (avenues and boulevards).

# 3.4.6.2 Intent:

In all parks and open spaces with play and sports facilities, ensure the access to drinking water to all.

## 3.4.6.3 Requirements:

#### Mandatory:

At least 50 % of drinking fountains within the public realm shall be designed to be accessible and located in accordance with **"Sahel Community Rating System – EFE3.03 Drinking fountains"**.

All accessible drinking fountains provided within the public realm shall be in accordance with Abu Dhabi International Accessibility Standards, 2013 and Public Realm Design Manual (PR-401) and shall:

#### a) 2 credits in renovation:

- i. Shall be located on an accessible path with a minimum clear floor space of 900 mm in width and 1500 mm in depth, centered in front of the fountain to allow for a forward approach. This requirement applies to both lower and higher drinking fountains.
- **ii.** Provide accessible drinking fountains at two different heights: one at a lower height suitable for users in seated positions, individuals of shorter stature, and children, and another at an upper height suitable for standing users.
- **iii.** Have the following features of an accessible drinking fountain designed and provided at a lower height which shall:
  - **a.** Provide sufficient clear knee and toe clearance underneath the drinking fountain of a minimum height of 700 mm above floor/ground level and for at least a depth of 450 mm, for a forward approach.
  - **b.** Provide spout outlets which shall:
    - Be positioned a maximum of 900 mm above floor level.
    - Be located a minimum of 400 mm from the vertical support.
    - Be located maximum of 120 mm from the front edge of the drinking fountain, including bumpers.
    - Provide sufficient water pressure to achieve a water stream at least 100 mm high.
    - Provide a water stream with a maximum angle of 30° where the spouts are located within 75 mm in front of the drinking fountain, measured horizontally from the front of the drinking fountain.
    - Provide a water stream with a maximum angle of 15° where the spouts are located between 75 mm and 125 mm in front of the drinking fountain, measured horizontally from the front of the drinking fountain.

- iv. Have the following features of an accessible drinking fountain designed and provided at a higher height where the spout outlets shall:
  - **a.** Be positioned between 950 mm to 1100 mm above floor/ground level.
  - **b.** Be located a minimum of 120 mm from the front edge of the drinking fountain, including bumpers.
  - **c.** Provide sufficient water pressure to achieve a water stream at least 100 mm high.
  - **d.** Provide a water stream with a maximum angle of 30° where the spouts are located within 75 mm in front of the drinking fountain, measured horizontally from the front of the drinking fountain.
  - **e.** Provide a water stream with a maximum angle of 15° where the spouts are located between 75 mm and 125 mm in front of the drinking fountain, measured horizontally from the front of the drinking fountain.
- v. Provide a sufficient visual contrast between the drinking fountain and its surroundings which shall be in accordance with **"Sahel Building Rating System EQC.1.09 Wall and floor finishes"**.
- vi. When equipped, bottle fillers shall be positioned between 900 mm and 1200 mm above floor level.

#### b) 2 credits in renovation:

- i. Have adequate operable parts of controls including that of bottle fillers in accordance with **"Sahel Building Rating System EFE.1.13 Operable parts"** and shall be:
  - **a.** Located centrally to the front of the unit or were located to the side.
  - **b.** Controllable either manually by hand or automated.
  - c. Have a luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".

## 3.4.6.4 Pre-certificate rating credits:

a) This is a requirement for new assets. There are no credit points awarded.

b) Credit points awarded by renovation projects: 4.

## **3.4.6.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 4.

#### 3.4.6.6 Pre-certificate rating submission:

- a) Design drawings showing the locations, components, and accessibility features of all accessible drinking fountains.
- **b)** Specifications detailing the luminance contrast, operating force, operability height, knee and toe clearance (if relevant), spout locations, and water stream angles of all accessible drinking fountains.
- **c)** Design details of all accessible bottle fillers, including their location, operable parts of controls, and luminance contrast.

# 3.4.6.7 Certificate rating submission:

- **a)** As-built drawings showing the locations, measurements, components, and accessibility features of all accessible drinking fountains within the public realm.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) As-built drawings showing the clear knee and toe space underneath all accessible drinking fountains for a forward approach (if relevant).
- **d)** Photographs of all accessible drinking fountains, showcasing their locations, luminance contrast, operable parts of controls, knee and toe clearance (if relevant), spout locations and water stream angles.
- e) Photographs of all bottle fillers, showcasing their location, operable parts of controls, and luminance contrast.

#### 3.4.6.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) PR-401 Abu Dhabi Public Realm Design Manual

# 3.4.7 EFE.2.07 Enhanced drinking fountains

# 3.4.7.1 Applicability:

Applicable to open spaces with play and sports facilities (e.g., active recreation) and streetscapes (avenues and boulevards).

# 3.4.7.2 Intent:

To ensure consistent access to drinking water, seamless connection, and significantly convenient locations, between increased number of pedestrian amenities for all users within the public realm.

## 3.4.7.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

- a) All (100%) of drinking fountains within the public realm should be designed to be accessible and located in accordance with "Sahel Community Rating System – EFE3.04 Enhanced drinking fountains".
- **b)** Provide a drinking bowl separate from the accessible drinking fountain for the use of assistance animals (Figures 30).
- c) Drinking fountains are provided not further than 20 m from outdoor gyms, sports fields, and exercise equipment.
- d) Have adequate operable parts of controls including that of bottle fillers in accordance with "Sahel Building Rating System - EFE.1.14 Enhanced operable parts".



Figure 30: Drinking fountain with a bowl for assistance animals

# 3.4.7.4 Pre-certificate rating credits:

#### Table 43: EFE.2.07 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
2	2	Foresee 100% of accessible fountains with assistance animal bowl near stops and exercise facilities
2	2	Specify all operating parts require a maximum operating force of 15 N or less and have the appropriate height.

## 3.4.7.5 Certificate rating credits:

#### Table 44: EFE.2.07 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
2	2	Provide 100% of accessible fountains with assistance animal bowl near stops and exercise facilities
2	2	Guarantee that all operating parts require a maximum operating force of 15 N or less and have the appropriate height.

## 3.4.7.6 Pre-certificate rating submission:

- a) Design drawings showing the locations, components, and accessibility features of all drinking fountains, and the provision of a bowl for assistance animals.
- **b)** Specifications detailing the luminance contrast, operating force, operability height, knee and toe clearance, spout locations, and water stream angles of all drinking fountains.
- c) Design details of all bottle fillers, including their location, operable parts of controls, and luminance contrast.

## **3.4.7.7** Certificate rating submission:

- **a)** As-built drawings showing the locations, measurements, components, and accessibility features of all drinking fountains within the public realm.
- **b)** Updated specifications if any changes were made during the construction stage.
- **c)** As-built drawings showing the clear knee and toe space underneath all drinking fountains for a forward approach.
- **d)** Photographs of all drinking fountains, showcasing their locations, luminance contrast, operable parts of controls, knee and toe clearance (if relevant), spout locations, water stream angles, and the provision of a drinking bowl for assistance animals.
- e) Photographs of all bottle fillers, showcasing their location, operable parts of controls, and luminance contrast.

# 3.4.8 EFE.2.08 ATMs and vending machines

## **3.4.8.1** Applicability:

Applicable to all public open spaces and streetscapes Automatic Teller Machines (ATM) and vending machines.

## 3.4.8.2 Intent:

To ensure that ATMs and vending machines located in public open spaces and streetscapes are equitable and inclusive for users of all dimensions and mobility levels.

## 3.4.8.3 Requirements:

#### Mandatory:

All ATMs and vending machines within the public realm shall be in accordance with **"Sahel Building Rating System – EFE.1.08 ATMs and vending machines"**.

## **3.4.8.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.08 ATMs and vending machines".

#### **3.4.8.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.08 ATMs and vending machines".

#### **3.4.8.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – EFE.1.08 ATMs and vending machines".

#### 3.4.8.7 Certificate rating submission:

Refer to "Sahel Building Rating System – EFE.1.08 ATMs and vending machines".

#### 3.4.8.8 References:

a) Abu Dhabi International Accessibility Standards, 2013

# 3.4.9 EFE.2.09 Telephones

## **3.4.9.1** Applicability:

Applicable to all public open spaces and streetscapes with telephones booths/stands.

#### 3.4.9.2 Intent:

To ensure that public telephones located in public open spaces and streetscapes are equitable and inclusive for users of all dimensions and mobility levels.

#### 3.4.9.3 Requirements:

#### Mandatory:

All telephones within the public realm shall be in accordance with **"Sahel Building Rating System – EFE.1.09 Telephones"**.

#### **3.4.9.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.09 Telephones".

#### **3.4.9.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.09 Telephones".

#### 3.4.9.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – EFE.1.09 Telephones".

#### 3.4.9.7 Certificate rating submission:

#### Refer to "Sahel Building Rating System – EFE.1.09 Telephones".

#### 3.4.9.8 References:

a) Abu Dhabi International Accessibility Standards, 2013

# **3.4.10.1** Applicability:

Applicable to public open spaces with queuing areas with queuing areas such as information points, reception areas, ticket sales and check points, that have barriers.

# 3.4.10.2 Intent:

To ensure that barriers in queuing areas available within the public realm are equitable and inclusive for users of all dimensions and mobility levels.

# 3.4.10.3 Requirements:

## Mandatory:

All applicable mandatory requirements for barriers in queuing areas within the certification boundary shall be in accordance with **"Sahel Building Rating System - EFE.1.10 Barriers in queuing areas"**.

## 3.4.10.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.10 Barriers in queuing areas".

## **3.4.10.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.10 Barriers in queuing areas".

## 3.4.10.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - EFE.1.10 Barriers in queuing areas".

## 3.4.10.7 Certificate rating submission:

#### Refer to "Sahel Building Rating System - EFE.1.10 Barriers in queuing areas".

## 3.4.10.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- **b)** PR-401 Abu Dhabi Public Realm Design Manual
- c) ROW-603 Abu Dhabi Urban Street Design Manual
- d) Abu Dhabi International Building Code, 2013

# **3.4.11.1** Applicability:

Applicable to all public open spaces with service desk counters such as information points, ticket sales, receptions, check-out counters, etc.

# 3.4.11.2 Intent:

To ensure that service counters offer equitable and inclusive are equitable and inclusive for users of all dimensions and mobility levels.

# 3.4.11.3 Requirements:

## Mandatory:

All applicable mandatory requirements for reception desks and counters within the certification boundary shall be in accordance with **"Sahel Building Rating System - EFE.1.11 Reception counters and desks"**.

## 3.4.11.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.11 Reception counters and desks".

## **3.4.11.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.11 Reception counters and desks".

## 3.4.11.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - EFE.1.11 Reception counters and desks".

## 3.4.11.7 Certificate rating submission:

Refer to "Sahel Building Rating System - EFE.1.11 Reception counters and desks".

## 3.4.11.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code

# 3.4.12 EFE.2.12 Enhanced reception counters and desks

## **3.4.12.1** Applicability:

Applicable to all buildings with service desk counters such as information points, ticket sales, receptions, check-out counters, etc.

## 3.4.12.2 Intent:

To ensure that service counters offer equitable and inclusive are equitable and inclusive for users of all dimensions and mobility levels.

## 3.4.12.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All applicable recommended requirements for enhanced reception counters and desks within the certification boundary shall be in accordance with **"Sahel Building Rating System – EFE.1.12 Enhanced reception counters and desks"**.

## 3.4.12.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – EFE.1.12 Enhanced reception counters and desks".

#### **3.4.12.5** Certificate rating credits:

Refer to "Sahel Building Rating System – EFE.1.12 Enhanced reception counters and desks".

#### 3.4.12.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – EFE.1.12 Enhanced reception counters and desks".

#### 3.4.12.7 Certificate rating submission:

Refer to "Sahel Building Rating System – EFE.1.12 Enhanced reception counters and desks".

# 3.4.13 EFE.2.13 Operable parts

# **3.4.13.1** Applicability:

Applicable to all parts of furniture, equipment and devices that imply a physical interaction between the person and the object.

## 3.4.13.2 Intent:

To ensure that all operable parts being part of spaces used by people are comfortably accessible to all users.

## 3.4.13.3 Requirements:

#### Mandatory:

All applicable mandatory requirements for operable parts within the certification boundary shall be in accordance with **"Sahel Building Rating System - EFE.1.13 Operable parts"**.

## 3.4.13.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.13 Operable parts".

## 3.4.13.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System EFE.1.13 Operable parts".

## **3.4.13.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System - EFE.1.13 Operable parts".

## 3.4.13.7 Certificate rating submission:

Refer to "Sahel Building Rating System - EFE.1.13 Operable parts".

## 3.4.13.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) UAE Universal Design Code

# 3.4.14 EFE.2.14 Enhanced operable parts

# **3.4.14.1** Applicability:

Applicable to all parts of furniture, equipment and devices that imply a physical interaction between the person and the object.

## 3.4.14.2 Intent:

To ensure that all operable parts being part of spaces used by people are comfortably accessible to all users.

## 3.4.14.3 Requirements:

#### **Recommended:**

All applicable recommended requirements for operable parts within the certification boundary shall be in accordance with **"Sahel Building Rating System - EFE.1.14 Enhanced operable parts"**.

## 3.4.14.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System - EFE.1.14 Enhanced operable parts".

## 3.4.14.5 Certificate rating credits:

Refer to "Sahel Building Rating System - EFE.1.14 Enhanced operable parts".

#### 3.4.14.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System - EFE.1.14 Enhanced operable parts".

## 3.4.14.7 Certificate rating submission:

Refer to "Sahel Building Rating System - EFE.1.14 Enhanced operable parts".

# 3.5 EQC.2 Environment Quality and Comfort

This category evaluates how comfortable and welcoming the environment is for individuals with diverse access needs. It considers factors like lighting, temperature, noise levels, air quality, and visual aesthetics.

#### Table 45: Environment Quality and Comfort

EQC	Environment Quality and Com- fort	Requirement type	Credit points applicability	
			New assets development/ redevelopment	Existing assets renovation
EQC.2.01	Thermal comfort (outdoor)	Mandatory	R	5
	Enhanced thermal comfort	Recommended	4	5
LQC.2.02	(outdoor)	Best Practice	6	8
EQC.2.03	Air quality	Mandatory	R	5
EQC.2.04	Enhanced air quality	Recommended	1	1
EQC.2.05	Enhanced acoustics	Recommended	1	1
EQC.2.06	Wall and floor finishes	Mandatory	R	5
EQC.2.07	Enhanced wall and floor finishes	Recommended	4	6
EQC.2.08	Lighting and display	Mandatory	R	3
	Enhanced lighting and display	Recommended	5	5
LQC.2.09	Linianced lighting and display	Best Practice	1	1
EQC.2.10	Quiet area	Mandatory	R	5
EQC.2.11	Enhanced quiet area	Recommended	3	5
EQC.2.12	Enhanced view out	Recommended	3	5
	Total		28	60

# 3.5.1 EQC.2.01 Thermal comfort (outdoor)

## 3.5.1.1 Applicability:

Applicable to all public open spaces and streetscapes.

## 3.5.1.2 Intent:

To ensure outdoor thermal comfort and reduce discomfort caused by temperature or humidity during transitional and extreme months, implement shading in public open spaces and streetscapes to enhance functionality, including rest points, public transportation stops, and pedestrian paths.

## **3.5.1.3** Requirements:

#### Mandatory:

Demonstrate a strategy for the provision of shading points within the certification boundary which shall include:

#### a) 3 Credits in renovation:

i. Rules for the minimum coverage of specific areas within the assessed public realm require the provision of shading at 1 PM, as stated in Estidama Pearl Rating System: LC-R4, and as shown in the table below.

#### Table 46: Shade to be provided in different areas.

Areas of public realm	Final shade provision (%)
Standard accessible parking, accessible van /family parking/ambulant parking if more than 10 parking spots	100%
Public open spaces (e.g., courtyards)	60%
Primary and secondary paths, including pedestrian bridges	75%
Signal controlled street crossings	100%
Cycle tracks	50%
Outdoor rest points including seating options at taxi stands, bus stops, quiet areas, picnic areas,	100%
ATMs and vending machines if a cover is not provided	100%
Beach huts, and lounge areas in beach facilities	5%
Playgrounds	90%

#### b) 2 Credits in renovation:

- i. The shading shall:
  - **a.** Be either structural or through landscape, if natural form is not harmful to touch or induce allergic reaction(s).
  - **b.** Not cast strong and patterned shadows.
  - c. Shading from trees shall be measured at 3 years growth.
  - **d.** When shaded using structural means, the outer cover of the shade material shall meet the Solar Reflectance Index (SRI) of 29.

## **3.5.1.4** Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 5.

## **3.5.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **5**.

## 3.5.1.6 Pre-certificate rating submission:

- a) Narrative describing the design approach, shading sources and types, and expected benefits for the comfort and safety of users.
- **b)** Drawings showing the proposed locations and dimensions of the shading elements along the exterior accessible paths, parking, and public open spaces.
- c) Specifications and details of the shading elements, including their materials, features, and maintenance requirements. If natural form, type of tree/plant, and growth maturity.
- **d)** Plan and tabulated results showing achievement of % of shading of applicable spaces at 1 PM on the Equinox and Summer Solstice.

# 3.5.1.7 Certificate rating submission:

- **a)** Updated narrative describing the implementation of the shading elements, including any changes or modifications made during the construction stage.
- **b)** As-built drawings showing the accurate locations and dimensions of the shading elements along the exterior accessible paths, parking, rest points, playgrounds, beach facilities and public open spaces.
- c) Photographs of the shading elements, showcasing their effectiveness, durability, and aesthetics.
- **d)** Verification report confirming that the shading elements meet the requirements and provide adequate shade for the users.

## 3.5.1.8 Credits awarded:

This is a requirement. There are no credit points awarded.

## 3.5.1.9 References:

- a) PR-405: Mosque Design Regulations
- b) PR-401: Public Realm Design Manual
- c) ROW-603: Abu Dhabi Urban Street Design Manual
- d) Estidama Pearl Rating System
- e) TR-534: Bus Services Planning standards
- f) TR-535: Metro Planning Standards
- g) TR-536: Railway Planning Standards
- h) TR-537: Tramways Planning Standards
- i) Abu Dhabi International Accessibility Standards, 2013

# 3.5.2 EQC.2.02 Enhanced thermal comfort (outdoor)

## **3.5.2.1** Applicability:

Applicable to all public open spaces and streetscapes.

## 3.5.2.2 Intent:

To ensure outdoor thermal comfort and reduce discomfort caused by temperature or humidity during transitional and extreme months, implement shading in public open spaces and streetscapes to enhance functionality, including rest points, public transportation stops, and pedestrian paths.

## 3.5.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

Demonstrate a strategy for the provision of shading points within the certification boundary which should include:

a) Rules for minimum coverage of specific areas within the assessed community, which require at least the provision of shading as stated in Estidama Pearl Rating System: LC-9 at 1 PM and as shown in the table below:

#### Table 47: Shade to be provided in additional areas.

Areas of public realm	Final shade provision (%)
Beach huts, and lounge areas in beach facilities	10%
Seating in assembly areas	60%
Pedestrian crossing	100%
Charging station for electric wheelchairs and scooters	100%

**b)** All outdoor accessible paths, at intervals no longer than 50 m apart should provide a misting/humidifying systems during times of extreme heat.

# 3.5.2.4 Pre-certificate rating credits:

#### Table 48: EQC.2.02 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	4	Design a strategy to increase the shaded surfaces.
3	4	Designed misting/humidifying systems no longer than 50m apart for all exterior accessible outdoor routes within certification boundary

## 3.5.2.5 Certificate rating credits:

#### Table 49: EQC.2.02 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	4	Demonstrate the implementation of the strategy to increase the shaded surfaces
3	4	Confirmed that the constructed project provided misting/ humidifying systems no longer than 50m apart for all outdoor accessible paths within the certification boundary.

# 3.5.2.6 Pre-certificate rating submission:

#### Recommended:

a) Narrative describing the design approach, the shading sources and types, and the expected benefits for the comfort and safety of the users.

- **b)** Drawing showing the proposed locations and dimensions of the shading and misting/ humidifying elements along the exterior accessible paths.
- c) Specifications and details of the shading and misting/humidifying elements, including their materials, features, maintenance.

#### 3.5.2.7 Certificate rating submission:

#### **Recommended:**

- a) Updated narrative describing the implementation, the shading sources and types, and the achieved benefits for the comfort and safety of the users.
- **b)** As-built drawing showing the proposed locations and dimensions of the shading and misting/humidifying elements along the exterior accessible paths.
- c) Photographs of the shading and misting/humidifying elements, showcasing their effectiveness, durability, and aesthetics.
- **d)** A verification report confirming that the shading and misting/humidifying elements meet the requirements and provide adequate shade and cooling for the users.

# 3.5.3 EQC.2.03 Air quality

# **3.5.3.1** Applicability:

Applicable to all public open spaces and streetscapes.

## 3.5.3.2 Intent:

To ensure the delivery of fresh and clean air the open public spaces to mitigate health risks for individuals prone to respiratory issues, such as those with allergies or other health concerns related to air pollution and odors.

## **3.5.3.3** Requirements:

#### Mandatory:

The asset shall provide safe air quality for all its users in accordance with **Estidama Pearl Rating System: LS-R5** and by:

#### a) 3 Credits in renovation.

- i. Preserving outdoor green spaces.
- Providing dedicated smoking areas within the public open spaces that shall be in accordance with the Public Realm Design Manual (PR-401) and Urban Street Design Manual (ROW-603) and shall:
  - **a.** Have either a designated and enclosed smoking areas or an outdoor dedicated smoking area which shall:
    - Be located at a distance of at least 25 m away from all entrances, playgrounds, picnic areas, children play areas, and other heavy pedestrian traffic areas, calculated by Direct Route Indices Method.
    - Be appropriately ventilated.
    - Be provided with seating areas in accordance with **"Sahel Public Realm System EFE.2.02 Street furniture"**.
    - Be provided with clear signage in accordance with "Sahel Public Realm Rating System OC.2.01 Signage and communication elements".
    - Be provided with adequate lighting.
- iii. Additionally, an outdoor dedicated smoking area within public open space which shall:
  - **a.** Have screens or buffer zones with low-maintenance landscaping elements such as trees and shrubs to enhance the aesthetics of smoking area while providing buffer from wind and views to other public open spaces users.

#### b) 2 Credits in renovation.

- i. Establishing prohibited smoking zones, which shall include:
  - **a.** All areas, which are part of an accessible path.
  - **b.** All areas, which are a part of publicly accessible amenities.
  - **c.** All public toilets and sanitary rooms.
  - **d.** All public service areas.
  - e. All Sikkak.

## **3.5.3.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **5**.

# 3.5.3.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 5.

# 3.5.3.6 Pre-certificate rating submission:

- a) Drawings showing the location and boundaries of the smoking prohibition zones, as well as the signage and enforcement measures to be implemented.
- b) Drawings showing the enclosed smoking area with seating area
- c) List of the accessible paths, publicly accessible amenities, public toilets and sanitary rooms, and public service areas that are included in the smoking prohibition zones.

## 3.5.3.7 Certificate rating submission:

- **a)** As-built drawings showing the location and boundaries of the smoking prohibition zones, as well as the signage and enforcement measures that are in place, drawings of enclosed smoking area with seating area.
- **b)** Updated narrative covering the strategy to preserve and expand green vegetation outdoors.
- c) Photographs of the smoking prohibition zones, showcasing the compliance with the category requirements and the accessibility for all users.

## 3.5.3.8 Credits awarded:

This is a requirement. There are no credit points awarded.

## 3.5.3.9 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- **b)** ADG-027: Abu Dhabi Guideline Practice to increase opportunities for physical activity in the Emirate of Abu Dhabi
- c) PR-403: Design Manual Minimum Requirements for Private School Facilities
- d) PR-404: Design Manual Standards and Criteria for School Facilities
- e) TR-534: Bus Services Planning standards
- f) TR-535: Metro Planning Standards
- g) TR-536: Railway Planning Standards
- h) TR-537: Tramways Planning Standards
- i) Estidama Pearl Rating System

# 3.5.4 EQC.2.04 Enhanced air quality

# **3.5.4.1** Applicability:

Applicable to all public open spaces and streetscapes.

## 3.5.4.2 Intent:

To ensure the delivery of fresh and clean air the open public spaces to mitigate health risks for individuals prone to respiratory issues, such as those with allergies or other health concerns related to air pollution and odors.

## **3.5.4.3** Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

Dedicated smoking areas should be placed away from public gathering spaces such as primary pedestrian corridors, beaches, nature trails.

## 3.5.4.4 Pre-certificate rating credits:

#### Table 50: EQC.2.04 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
1	1	Design dedicated smoking areas should be placed away from public gathering spaces such as primary pedestrian corridors, beaches, nature trails.

## 3.5.4.5 Certificate rating credits:

#### Table 51: EQC.2.04 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
1	1	Confirm that dedicated smoking areas are placed away from public gathering spaces such as primary pedestrian corridors, beaches, nature trails.

# 3.5.4.6 Pre-certificate rating submission:

#### **Recommended:**

- **a)** Drawings showing the location, and boundaries of the smoking prohibition zones, as well as the signage and enforcement measures to be implemented.
- **b)** List of the accessible paths, publicly accessible amenities, public toilets and sanitary rooms, and public service areas that are included in the smoking prohibition zones.

## 3.5.4.7 Certificate rating submission:

#### **Recommended:**

- **a)** As-built drawings showing the location and boundaries of the smoking prohibition zones, as well as the signage and enforcement measures that are in place.
- **b)** Updated narrative covering the strategy to preserve and expand green vegetation outdoors.
- c) Photographs of the smoking prohibition zones, showcasing the compliance with the category requirements and the accessibility for all users.

# 3.5.5 EQC.2.05 Enhanced acoustics

# **3.5.5.1** Applicability:

Applicable to all public open spaces designed for recreation. It is not applicable to streetscapes.

## 3.5.5.2 Intent:

To create acoustic conditions that align with sensitivity and privacy requirements, prevent disturbances and communication issues, and enhance privacy and sound quality for all users in public open spaces.

## 3.5.5.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits should ensure the following:

#### Recommended:

- a) The prevailing background noise level shall be Lden < 60 dB during daytime- between 7 AM and 8 PM.
- b) The prevailing background noise level shall be Lden < 50 dB during nighttime- between 8 PM and 7 AM.
- c) Sound-absorbing materials and surfaces shall be incorporated into the design of public open spaces, such as acoustic paving, permeable surfaces, and insulated walls, to minimize reverberation and control sound reflections.

## **3.5.5.4 Pre-certificate rating credits:**

#### Table 52: EQC.2.05 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
1	1	Plan measures to ensure that noise levels within the certification boundary are aligned with recommended requirements.

## 3.5.5.5 Certificate rating credits:

#### Table 53: EQC.2.05 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
1	1	Confirm the measures to ensure that noise levels within the certification boundary are aligned with recommended requirements.

# 3.5.5.6 Pre-certificate rating submission:

#### Recommended:

- **a)** Narrative describing how the project plans to meet acoustic conditions describing current noise level, their sources and planned adequate measures.
- **b)** Specification of material that will be used and its sound-absorbing properties.

## 3.5.5.7 Certificate rating submission:

#### **Recommended:**

- a) Narrative describing how the project meets acoustic conditions.
- **b)** Up-to-date acoustic map showing noise level with required limits for all area within certification boundary or an acoustic report confirming noise levels within required limits for all area within certification boundary showing locations of measurements in representative locations.
- c) Specification of material that has been used and its sound-absorbing properties.
# 3.5.6 EQC.2.06 Wall and floor finishes

# **3.5.6.1** Applicability:

Applicable to all public open spaces and streetscapes.

# 3.5.6.2 Intent:

To support self-guided orientation and reduce stress, by providing necessary contrasts and limiting patterns or color combinations, ensuring a calm and easily navigable environment.

# 3.5.6.3 Requirements:

The asset shall establish a visual environment suitable for users who are sensitive to light or have visual impairments or neurodivergent conditions in accordance with **"Sahel Building Rating System – EQC.1.09 Wall and floor finishes"**.

Additionally, the minimum slip-resistance values for flooring in different environments using shoes shall be in accordance with **"Sahel Building Rating System – EQC.1.09 Wall and floor finishes"**.

Floor finishes intended for barefoot use shall be made from materials with low heat conductivity to reduce heat absorption when exposed to sunlight.

# **3.5.6.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 5.
- c) For credits breakdown refer to "Sahel Building Rating System EQC.1.09 Wall and floor finishes".

#### 3.5.6.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 5.
- c) For credits breakdown refer to "Sahel Building Rating System EQC.1.09 Wall and floor finishes".

#### **3.5.6.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".

#### 3.5.6.7 Certificate rating submission:

Refer to "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".

#### 3.5.6.8 References:

a) Abu Dhabi International Building Code, 201

# 3.5.7 EQC.2.07 Enhanced wall and floor finishes

# **3.5.7.1** Applicability:

Applicable to all public open spaces and streetscapes.

# 3.5.7.2 Intent:

To support self-guided orientation and reduce stress, by providing necessary contrasts and limiting patterns or color combinations, ensuring a calm and easily navigable environment.

# 3.5.7.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

In all publicly accessible areas within the certification boundary wall and floor finishes should be in accordance with **"Sahel Building Rating System – EQC.1.10 Enhanced wall and floor finishes"** and should have:

a) No highly reflecting materials on large surfaces such as sidewalks, solid fences, gates, or large street furniture/equipment (e.g., polished metal, high-gloss tiling, or glazing causing an effect of a large mirror).

# 3.5.7.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – EQC.1.10 Enhanced wall and floor finishes".

# **3.5.7.5** Certificate rating credits:

Refer to "Sahel Building Rating System – EQC.1.10 Enhanced wall and floor finishes".

# 3.5.7.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – EQC.1.10 Enhanced wall and floor finishes".

# 3.5.7.7 Certificate rating submission:

Refer to "Sahel Building Rating System – EQC.1.10 Enhanced wall and floor finishes".

# 3.5.8 EQC.2.08 Lighting and display

# **3.5.8.1** Applicability:

Applicable to all public open spaces and streetscapes.

# 3.5.8.2 Intent:

To ensure adequate illuminance levels for visibility, safety, and overall accessibility including street lighting, advertising and decorative lighting design solutions, and its effects on the overall ambiance, safety and functionality of public open spaces and sidewalks.

# 3.5.8.3 Requirements:

#### Mandatory:

All lighting and displays present within the certification boundary shall be in accordance with **"Sahel Building Rating System – EQC.1.11 Lighting and display"** and PR-402\_Lighting Manual

#### **3.5.8.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For Credits breakdown refer to "Sahel Building Rating System EQC.1.11 Lighting and display".

#### **3.5.8.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For Credits breakdown refer to "Sahel Building Rating System EQC.1.11 Lighting and display".

#### 3.5.8.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – EQC.1.11 Lighting and display".

#### 3.5.8.7 Certificate rating submission:

Refer to "Sahel Building Rating System – EQC.1.11 Lighting and display".

#### 3.5.8.8 References:

- a) Abu Dhabi International Building Code, 2013
- **b)** Abu Dhabi International Accessibility Code
- c) Abu Dhabi Storefront Design Manual
- d) Commercial Signage Regulations
- e) PR-402: Lighting Manual
- f) Estidama Pearl Rating System

# 3.5.9 EQC.2.09 Enhanced lighting and display

# **3.5.9.1** Applicability:

Applicable to all public open spaces and streetscapes.

# 3.5.9.2 Intent:

To ensure adequate illuminance levels and placement of advertising and decorative lighting design solutions for visibility, and overall accessibility that complies with operational timings to mitigate its effects on the overall ambiance, safety and functionality within public open spaces.

# **3.5.9.3** Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All recommended requirements for lighting and displays present within the certification boundary should be in accordance with **"Sahel Building Rating System – EQC.1.12 Enhanced lighting and display"** and should:

a) Have adequate lighting that shall not cause any glare at accessible areas with illuminance levels as follows:

#### Table 54: Schedule of lighting levels

Area	Minimum illuminance level (lux)	Lighting approach and notes
Public transportation stop	30 lux* 20 lux**	Internal; directly above external maps and signage. Around the stops and boarding areas Measured on the floor surface
Beaches and pools promenades and paths	30 lux * 110 lux **	Internal; directly above external maps and signage. Potential hazards (steps and ramps)
Picnic areas	110 lux	If artificial lights are provided Measured on the dining surface
Gangways	110 lux	Measured on the floor surface

#### **Best Practice:**

All best practice requirements for lighting and displays present within the certification boundary should be in accordance with **"Sahel Building Rating System – EQC.1.12 Enhanced lighting and display"**.

# **3.5.9.4 Pre-certificate rating credits:**

Refer to "Sahel Building Rating System – EQC.1.12 Enhanced lighting and display".

# **3.5.9.5** Certificate rating credits:

Refer to "Sahel Building Rating System – EQC.1.12 Enhanced lighting and display".

# 3.5.9.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – EQC.1.12 Enhanced lighting and display".

# **3.5.9.7** Certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – EQC.1.12 Enhanced lighting and display".

#### **Best Practice:**

Refer to "Sahel Building Rating System – EQC.1.12 Enhanced lighting and display".

# 3.5.10 EQC.2.10 Quiet area

# 3.5.10.1 Applicability:

Applicable to all public realms, such as parks, playgrounds, outdoor event areas, and transportation interchanges at the district level and above.

## 3.5.10.2 Intent:

To ensure the provision of accessible quiet areas for all users in public realm developments, designed to offer a calm, private, and comfortable environment with adequate features providing a sensory refuge to overstimulation (Figure 31).

# 3.5.10.3 Requirements:

#### Mandatory:

Provide a publicly available quiet area that shall:

#### a) 2 Credits in renovation:

- i. Be connected to an accessible path.
- ii. Be located away from areas with high pedestrian traffic and commotion
- iii. Playground shall be divided into distinct areas for louder and quieter activities.

#### b) 2 Credits in renovation:

- i. Have fencing/walls or soft divisions (can be closed, or semi-closed)
- ii. Be shaded or covered.

#### c) 1 Credit in renovation:

i. Have good air quality, and reduced noise levels.



Figure 31: Quiet area in garden

#### 3.5.10.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **5**.

# 3.5.10.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **5**.

# 3.5.10.6 Pre-certificate rating submission:

- a) Narrative describing quiet area's purpose, location, and accessibility features.
- **b)** Drawings of the quiet area, showing its dimensions, layout, and components.
- **c)** Material concept for street furniture and elements that the quiet area meets, along with the corresponding specifications or calculations.

# 3.5.10.7 Certificate rating submission:

- a) Statement of the implementation of the quiet area, and any changes or deviations from the original design.
- **b)** As-built drawings of the quiet area, showing its dimensions, layout, and components.
- c) Updated material for street furniture that the quiet area meets, along with the corresponding measurements or reports.
- d) Photographs of the quiet area' focusing on the surface finishes and location.

# 3.5.11 EQC.2.11 Enhanced quiet area

# **3.5.11.1** Applicability:

Applicable to all public realms, such as parks, playgrounds, outdoor event areas, and transportation interchanges at the district level and above.

## 3.5.11.2 Intent:

To ensure the provision of accessible quiet areas for all users in public realm developments, designed to offer a calm, private, and comfortable environment with adequate features providing a sensory refuge to overstimulation.

# 3.5.11.3 Requirements:

#### **Recommended:**

Provide a minimum of two publicly available quiet areas (one for men and one for women and children) that shall:

a) Be available in parks, sport hubs, sport and leisure facilities larger than 2000 sqm.

# 3.5.11.4 Pre-certificate rating credits:

#### Table 55: EQC.2.11 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	5	Design the recommended number and location of quiet areas

# 3.5.11.5 Certificate rating credits:

#### Table 56: EQC.2.11 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	5	Provide the recommended number and location of quiet areas

# 3.5.11.6 Pre-certificate rating submission:

- a) Narrative describing quiet area's purpose, location, and accessibility features.
- **b)** Drawings of the quiet area, showing its dimensions, layout, and components.
- **c)** Material concept for street furniture and elements that the quiet area meets, along with the corresponding specifications or calculations.

# 3.5.11.7 Certificate rating submission:

- a) Statement of the implementation of the quiet area, and any changes or deviations from the original design.
- **b)** As-built drawings of the quiet area, showing its dimensions, layout, and components.
- c) Updated material for street furniture that the quiet area meets, along with the corresponding measurements or reports.
- d) Photographs of the quiet area' focusing on the surface finishes and location.

# 3.5.12 EQC.2.12 Enhanced view out

# **3.5.12.1** Applicability:

Applicable to:

- a) Public Open spaces at the level of the district and higher.
- **b)** Streetscapes: Boulevards, avenues, city and town streets.

## 3.5.12.2 Intent:

To enhance mental comfort by providing views of natural landscapes or significant heritage objects, thereby enriching the visual and emotional experience for all individuals.

# 3.5.12.3 Requirements:

#### **Recommended:**

Within the certification boundary, public realm assets shall offer accessible viewing points on natural landscapes or high-value heritage objects which shall:

- a) Have the best possible viewpoints to observe the interesting points (Figures 32, 33).
- **b)** Be accessible and connected to an accessible path.
- c) Featuring a rest point in accordance with "Sahel Public Realm Rating System IC.2.07 Rest points".
- d) Featuring guardrails in accordance with "IC.2.01 Circulation based on accessible paths (outdoor)". If handrails are provided, they shall:
  - i. Made from low-heat conductivity material.
  - ii. Exhibiting a minimum luminance contrast and Light Reflectance Value (LRV) in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
  - iii. The diameter of handrails shall range from 30 mm to 45 mm.
  - iv. Provided at a height between 850 mm and 950 mm above floor level for the higher handrail and between 600 mm and 750 mm for the lower handrail.
- e) Ensure unobstructed views below the rail for seated individuals.



Figure 32: Guardrail at a viewing point designed to provide safety while minimizing visual obstruction



Figure 33: Viewing point with binocula

# 3.5.12.4 Pre-certificate rating credits:

#### Table 57: EQC.2.12 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	5	Designed a public realm asset with accessible viewing points on natural landscapes or high heritage value objects.

# 3.5.12.5 Certificate rating credits:

#### Table 58: EQC.2.12 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	5	Confirmed that the public realm asset has accessible viewing points on natural landscapes or high heritage value objects.

# 3.5.12.6 Pre-certificate rating submission:

- a) Drawings showing the accessible path to the viewing points, the dimensions and layout of the viewing points, and the location and design of the rest points.
- **b)** Accessibility specifications and details, such as the slope, width, and surface of the accessible path, guardrail, dimensions of the accessible part of the viewing points, the provision of guardrails and seating.

# 3.5.12.7 Certificate rating submission:

- **a)** As-built drawings showing the final implementation of the viewing points, the accessible path, guardrails and the rest points.
- **b)** Photographs of the viewing points, showcasing the accessibility features, the natural or heritage views, and the connectivity with the accessible path.

# 3.6 HC.2 Hygiene and Care

This category examines the provision of hygiene facilities such as restrooms, showers, and changing rooms. Hygiene and Care include aspects such as type, coverage and location.

#### Table 59: Hygiene and Care

нс	Hygiene and Care	Requirement type	Credit points applicability	
			New assets development/ redevelopment	Existing assets renovation
HC.2.01	Accessible toilet rooms	Mandatory	R	10
	Enhanced Accessible toilet	Recommended	5	8
110.2.02	rooms	Best Practice	5	8
HC.2.03	Family toilets	Mandatory	R	10
HC.2.04	Enhanced family toilets	Recommended	5	8
HC.2.05	Baby feeding rooms	Mandatory	R	4
HC.2.06	Enhanced baby feeding rooms	Recommended	2	2
		Best Practice	4	4
HC.2.07	Accessible shower rooms	Mandatory	R	10
HC.2.08	Enhanced accessible shower rooms	Recommended	2	3
		Best Practice	2	3
	Total		25	70

# **3.6.1 HC.2.01 Accessible toilet rooms**

# **3.6.1.1** Applicability:

Applicable to all public open spaces and streetscape with the provision of public toilets.

# 3.6.1.2 Intent:

To provide equitable access for all users to essential facilities such as public toilets, that are seamlessly integrated and located close to other accessible facilities within overall public realm.

# **3.6.1.3** Requirements:

#### Mandatory:

#### a) 10 Credits in renovation.

All accessible toilet spaces including standard accessible toilets, children's toilets and ambulant accessible toilets within the public realm and facilities of public use shall be located in accordance with "Sahel Building Rating System – HC.1.01 Accessible toilet rooms".

Define a minimum number and capacity for all types of accessible public toilet rooms in accordance with **"Sahel Building Rating System – HC.1.01 Accessible toilet rooms"**, when provided within the public realm and facilities of public use, wherever applicable and in accordance with **"Sahel Building Rating System – HC.3.01 Accessible toilet rooms"**.

All accessible toilet spaces including standard accessible toilets, and ambulant accessible toilets including their accessories, wherever provided within the public realm and facilities of public use, shall be designed in accordance with **"Sahel Building Rating System – HC.1.01** Accessible toilet rooms", and shall:

- i. Require accessible public toilets to be located on accessible paths.
- **ii.** Be positioned so that they do not obstruct pedestrian paths, cycling tracks, or any other public right-of-way elements, thereby maintaining unimpeded access for all users.
- **iii.** If applicable, at the occasion of an outdoor event, portable accessible toilets shall be provided.

Children's toilets when provided within public open spaces such as playgrounds, sports arenas and recreational parks shall be in accordance with **"Sahel Building Rating System – HC.1.01 Accessible toilet rooms"**.

# **3.6.1.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.01 Accessible toilet rooms".

#### **3.6.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **10**.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.01 Accessible toilet rooms".

# **3.6.1.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – HC.1.01 Accessible toilet rooms".

# **3.6.1.7** Certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.01 Accessible toilet rooms".

#### 3.6.1.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) Abu Dhabi Public Toilet Planning and Regulation Manual
- d) UAE Universal Design Code

# 3.6.2 HC.2.02 Enhanced accessible toilet rooms

# **3.6.2.1** Applicability:

Applicable to all public open spaces and streetscape with public toilets.

# 3.6.2.2 Intent:

To provide equitable access for all users to essential facilities such as public toilets, that are seamlessly integrated and located close to other accessible facilities within overall public realm.

# 3.6.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

# **Recommended:**

All enhanced requirements (Recommended) for accessible toilets including independent accessible toilet compartments should be in accordance with the **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**, wherever applicable.

# **Best Practice:**

All enhanced requirements (Best Practice) for accessible toilets including ambulant urinals, and ambulant toilets should be in accordance with **"Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms"**, wherever applicable.

# 3.6.2.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms".

# **3.6.2.5** Certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms".

# 3.6.2.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms".

# 3.6.2.7 Certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.02 Enhanced accessible toilet rooms".

# 3.6.3 HC.2.03 Family toilets

# **3.6.3.1** Applicability:

Applicable to public open spaces at district level and higher. It is not applicable to streetscape.

## 3.6.3.2 Intent:

To provide equitable access to essential facilities such as family toilets, usable by people of all ages, sizes, abilities, and family compositions, seamlessly integrated with other accessible facilities and the overall public realm.

#### **3.6.3.3** Requirements:

#### Mandatory:

#### a) 10 Credits in renovation.

- All family toilets within the certification boundary shall be located and provided (by quantity) in accordance with "Sahel Community Rating System HC.3.03 Family toilets" and in buildings of public use in accordance with "Sahel Building Rating System HC.1.03 Family toilets".
- **ii.** All family toilets within the certification boundary shall be designed in accordance with **"Sahel Building Rating System HC.1.03 Family toilets"**, wherever applicable.

#### 3.6.3.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.03 Family toilets".

#### 3.6.3.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **10**.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.03 Family toilets".

#### 3.6.3.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.03 Family toilets".

#### 3.6.3.7 Certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.03 Family toilets".

#### **3.6.3.8** References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) UAE Universal design Code
- d) Abu Dhabi Public Toilet Planning and Regulation Manual
- e) PR-401: Public Realm Design Manual

# 3.6.4 HC.2.04 Enhanced family toilets

# **3.6.4.1** Applicability:

Applicable to public open spaces at district level and higher. It is not applicable to streetscape.

# 3.6.4.2 Intent:

To provide enhanced equitable access to essential facilities such as family toilets, usable by people of all ages, sizes, abilities, and family compositions, seamlessly integrated with other accessible facilities and the overall public realm.

# **3.6.4.3** Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All enhanced requirements (Recommended) for family toilets should be in accordance with **"Sahel Building Rating System – HC.1.04 Enhanced family toilets"**, wherever applicable.

# 3.6.4.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.04 Enhanced family toilets".

# 3.6.4.5 Certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.04 Enhanced family toilets".

# **3.6.4.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – HC.1.04 Enhanced family toilets".

# 3.6.4.7 Certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.04 Enhanced family toilets".

# 3.6.5 HC.2.05 Baby feeding rooms

# **3.6.5.1** Applicability:

Applicable to all public open spaces such as playgrounds and recreation facilities. It is not applicable to streetscape.

# 3.6.5.2 Intent:

To ensure provision of accessible and well-equipped baby feeding rooms throughout various public-use facilities, offering essential amenities prioritizing the accessibility, safety and comfort for both guardians and babies.

# **3.6.5.3** Requirements:

#### Mandatory:

Baby feeding rooms in a public open space shall be provided in accordance with UAE Universal Design Code, 2017 and Abu Dhabi Public Toilets Manual, such as:

- a) Facilities of public use (government facilities).
- b) Urban and public open spaces (parks, gardens and playgrounds)
- c) water parks and public beaches
- **d)** Major transportation interchanges such as airports and other international, emirate and interregional transportation hubs.
- e) Recreational facilities (resorts/spa's, amusement and theme parks, public beaches and swimming pools, assembly areas).

At least one baby feeding room within the certification boundary shall be designed in accordance with **"Sahel Building Rating System – HC.1.05 Baby feeding rooms"**, wherever applicable.

# **3.6.5.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 4.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.05 Baby feeding rooms".

#### **3.6.5.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 4.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.05 Baby feeding rooms".

#### **3.6.5.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – HC.1.05 Baby feeding rooms".

#### 3.6.5.7 Certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.05 Baby feeding rooms".

#### 3.6.5.8 References:

- a) UAE Universal design Code
- b) Abu Dhabi Public Toilet Planning and Regulation Manual

# 3.6.6 HC.2.06 Enhanced baby feeding rooms

# 3.6.6.1 Applicability

Applicable to all public open spaces such as playgrounds and recreation facilities. It is not applicable to streetscape.

## 3.6.6.2 Intent:

To ensure provision of accessible and well-equipped baby feeding rooms throughout various public-use facilities, offering essential amenities prioritizing the accessibility, safety and comfort for both guardians and babies.

#### 3.6.6.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All enhanced requirements (Recommended) for baby feeding rooms should be in accordance with **"Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms"**, wherever applicable.

#### **Best Practice:**

All enhanced requirements (Best Practice) for baby feeding rooms should be in accordance with **"Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms"**, wherever applicable.

#### 3.6.6.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms".

#### **3.6.6.5** Certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms".

#### 3.6.6.6 Pre-certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms".

#### **Best Practice:**

Refer to "Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms".

#### **3.6.6.7** Certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms".

#### **Best Practice:**

Refer to "Sahel Building Rating System – HC.1.06 Enhanced baby feeding rooms".

# 3.6.7 HC.2.07 Accessible shower rooms

# **3.6.7.1** Applicability:

Applicable to all public open spaces with water-based activities in their program (e.g., parks, swimming and wading pools, public beaches, water parks), end of ride facilities for cycling tracks and playgrounds with water features). It is not applicable to streetscapes.

# 3.6.7.2 Intent:

To ensure that public shower facilities are provided with equitable access by implementing accessible and inclusive features for all users within the public realm.

# 3.6.7.3 Requirements:

#### Mandatory:

All accessible shower rooms within the certification boundary shall be designed in accordance with **"Sahel Building Rating System – HC.1.07 Accessible shower rooms and bathrooms"**, wherever applicable.

# **3.6.7.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.07 Accessible shower rooms and bathrooms".

#### **3.6.7.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **10**.
- c) For credits breakdown refer to "Sahel Building Rating System HC.1.07 Accessible shower rooms and bathrooms".

# 3.6.7.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.07 Accessible shower rooms and bathrooms".

#### 3.6.7.7 Certificate rating submission:

Refer to "Sahel Building Rating System – HC.1.07 Accessible shower rooms and bathrooms".

#### 3.6.7.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) UAE Universal Design Code
- d) Abu Dhabi Public Toilet Planning and Regulation Manual

# 3.6.8 HC.2.08 Enhanced accessible shower rooms

# **3.6.8.1** Applicability:

Applicable to all public open spaces with water-based activities in their program (e.g., parks, swimming and wading pools, public beaches, water parks), end of ride facilities for cycling tracks and playgrounds with water features). It is not applicable to streetscapes.

# 3.6.8.2 Intent:

To ensure that public shower facilities are provided with equitable access by implementing accessible and inclusive features for all users within the public realm.

#### 3.6.8.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All enhanced requirements (Recommended) for accessible shower rooms should be in accordance with **"Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms"**, wherever applicable.

#### **Best Practice:**

All enhanced requirements (Best Practice) for accessible shower rooms should be in accordance with **"Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms"**, wherever applicable.

#### 3.6.8.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms".

#### 3.6.8.5 Certificate rating credits:

Refer to "Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms".

#### 3.6.8.6 Pre-certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms".

#### **Best Practice:**

Refer to "Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms".

#### 3.6.8.7 Certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms".

#### **Best Practice:**

Refer to "Sahel Building Rating System – HC.1.08 Enhanced accessible shower rooms and bathrooms".

# 3.7 DA.2 Digital Accessibility

This category assesses how accessible digital technologies and services are for all users in public settings, including websites, apps, and programs. It looks at factors like ease of use, readability, compatibility, and security to ensure Digital Accessibility for all.

## Table 60: Digital Accessibility

DA	Digital Accessibility	Requirement type	Credit points applicability	
			New assets development/ redevelopment	Existing assets renovation
DA.2.01	Asset webpage	Mandatory	R	3
	Enhanced asset webnage	Recommended	3	3
DA.2.02	Linianced asset webpage	Best Practice	2	2
DA.2.03	Asset presence in common use apps	Mandatory	R	2
	Enhanced asset anns	Recommended	5	5
DA.2.04	Ennanced asset apps	Best Practice	4	4
DA.2.05	Digital maps/navigation systems (non-GPS)	Mandatory	R	R
	Enhanced digital maps/	Recommended	4	4
DA.2.00	avigation systems (non-GPS)	Best Practice	4	4
DA.2.07	Online user feedback platform	Mandatory	R	2
DA.2.08	Enhanced online user feedback platform	Recommended	2	2
		Best Practice	2	2
DA.2.09	Enhanced Wi-Fi access	Best Practice	3	3
DA.2.10	Augmented experience for heritage sites	Mandatory	R	8
	Enhanced augmented experience for heritage sites	Recommended	6	6
DA.2.11		Best Practice	10	10
	Total		45	60

# 3.7.1 DA.2.01 Asset webpage

# **3.7.1.1** Applicability:

Applicable to all public open spaces of district level and higher. It is not applicable for streetscapes.

# 3.7.1.2 Intent:

To ensure that all facilities of public use in the public realm development have accessible web pages with vital information accessible for all.

This is achieved by conforming to the Web Content Accessibility Guidelines (WCAG) 2.2, which are structured into three levels of accessibility:

- Level A (Basic Accessibility): Ensures non-text content has text alternatives, all functionality is accessible via keyboard, and content is correctly parsed.
- Level AA (Mid-Level Accessibility): Ensures adequate contrast, text readability, multiple ways to navigate, language of content parts can be determined, and error suggestions are provided.
- Level AAA (High-Level Accessibility): Provides enhanced accessibility with sign language interpretation, enhanced contrast, no content flashing more than three times per second, detailed link purposes, and mechanisms for defining unusual words.

# 3.7.1.3 Requirements:

#### Mandatory:

#### a) 3 Credits in renovation projects:

i. The asset shall feature an AA level WCAG-compliant web page which shall be in accordance with "Sahel Community Rating System – DA.3.01 Asset webpage".

#### 3.7.1.4 Pre-certificate rating credits:

- a) This is a **requirement** for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **3**.
- c) For credits breakdown refer to "Sahel Community Rating System DA.3.01 Asset webpage".

#### **3.7.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Community Rating System DA.3.01 Asset webpage".

# **3.7.1.6 Pre-certificate rating submission:**

Refer to "Sahel Community Rating System – DA.3.01 Asset webpage".

#### **3.7.1.7** Certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.01 Asset webpage".

# 3.7.2 DA.2.02 Enhanced asset webpage

# **3.7.2.1** Applicability:

Applicable to all public open spaces of neighborhood level and higher. It is not applicable for streetscapes.

# 3.7.2.2 Intent:

To ensure that all facilities of public use in the public realm development have accessible web pages with vital information accessible for all.

This is achieved by conforming to the Web Content Accessibility Guidelines (WCAG) 2.2, which are structured into three levels of accessibility:

- Level A (Basic Accessibility): Ensures non-text content has text alternatives, all functionality is accessible via keyboard, and content is correctly parsed.
- Level AA (Mid-Level Accessibility): Ensures adequate contrast, text readability, multiple ways to navigate, language of content parts can be determined, and error suggestions are provided.
- Level AAA (High-Level Accessibility): Provides enhanced accessibility with sign language interpretation, enhanced contrast, no content flashing more than three times per second, detailed link purposes, and mechanisms for defining unusual words.

# 3.7.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

# **Recommended:**

The design of the recommendations to enhance the asset webpage shall be in accordance with **"Sahel Community Rating System – DA.3.02 Enhanced asset webpage"**.

# **Best Practice:**

The design of the best practice to enhance the asset webpage shall be in accordance with "Sahel Community Rating System – DA.3.02 Enhanced asset webpage".

# 3.7.2.4 Pre-certificate rating credits:

Refer to "Sahel Community Rating System – DA.3.02 Enhanced asset webpage".

# **3.7.2.5** Certificate rating credits:

Refer to "Sahel Community Rating System – DA.3.02 Enhanced asset webpage".

# 3.7.2.6 Pre-certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.02 Enhanced asset webpage".

# 3.7.2.7 Certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.02 Enhanced asset webpage".

# **3.7.3** DA.2.03 Asset presence in common use apps

# **3.7.3.1** Applicability:

Applicable to all public open spaces higher than municipal and emirate level (e.g., cultural and nature parks).

## 3.7.3.2 Intent:

To guarantee that accessibility information of public spaces is provided in common use navigation apps like Onwani or Google Maps, among others.

#### 3.7.3.3 Requirements:

#### Mandatory:

#### a) 2 Credits in renovation:

 All mandatory design and provisional requirements to guarantee the information about accessibility in public spaces shall be in accordance with "Sahel Community Rating System – DA.3.03 Asset presence in common use apps".

#### **3.7.3.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Community Rating System DA.3.03 Asset presence in common use apps".

#### **3.7.3.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Community Rating System DA.3.03 Asset presence in common use apps".

#### 3.7.3.6 Pre-certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.03 Asset presence in common use apps".

#### 3.7.3.7 Certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.03 Asset presence in common use apps".

# 3.7.4 DA.2.04 Enhanced asset apps

# **3.7.4.1** Applicability:

Applicable to all public open spaces of municipal and emirate level (e.g., cultural and nature parks).

# 3.7.4.2 Intent:

To develop an asset app that ensures all facilities in the public realm are streamlined to provide access to resources and information, accessible to all individuals, fostering inclusivity and empowerment.

# 3.7.4.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All recommended designs and provisional requirements to guarantee the information about accessibility in public spaces shall be in accordance with **"Sahel Community Rating System – DA.3.04 Enhanced asset apps"**.

#### **Best Practice:**

All best practice designs and provisional requirements to guarantee the information about accessibility in public spaces shall be in accordance with **"Sahel Community Rating System – DA.3.04 Enhanced asset apps"**.

# 3.7.4.4 Pre-certificate rating credits:

Refer to "Sahel Community Rating System – DA.3.04 Enhanced asset apps".

# 3.7.4.5 Certificate rating credits:

Refer to "Sahel Community Rating System – DA.3.04 Enhanced asset apps".

# 3.7.4.6 Pre-certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.04 Enhanced asset apps".

# 3.7.4.7 Certificate rating submission:

Refer to "Sahel Community Rating System – DA.3.04 Enhanced asset apps".

# 3.7.5 DA.2.05 Digital maps/navigation systems (non-GPS)

# **3.7.5.1** Applicability:

Applicable to all public open spaces of municipal and emirate level (e.g., cultural and nature parks).

# 3.7.5.2 Intent:

To ensure that additional navigation systems or maps provided by the asset are accessible.

# **3.7.5.3** Requirements:

#### Mandatory:

The asset shall include kiosks listed on a static map with search and routing options, which shall:

- a) Include clear visual and audio directions to services.
- **b)** Include locations searchable by type (toilets, quiet area, fountains, etc.).
- c) Include turn-by-turn navigation steps with audio instructions.

# 3.7.5.4 Pre-certificate rating credits:

This is a requirement for new and renovation projects. There are no credit points awarded.

# **3.7.5.5** Certificate rating credits:

This is a requirement for new and renovation projects. There are no credit points awarded.

# 3.7.5.6 Pre-certificate rating submission:

- **a)** A specification of a navigation system (kiosks) that feature functionalities as described in requirements in, compliant with an AA level WCAG Framework 2.2.
- **b)** A Statement by the owner of the asset confirming that the asset will have a navigation system meeting an AA level WCAG Framework 2.2 and featuring functionalities as described in the requirements.

# 3.7.5.7 Certificate rating submission:

- a) Report confirming the operation of navigation system (kiosks) that feature functionalities as described in requirements.
- b) A Digital Accessibility Compliance statement issued by an auditor on behalf of the owner of the asset that the available navigation system (kiosks) meets an AA level WCAG Framework 2.2.

# 3.7.6 DA.2.06 Enhanced digital maps/navigation systems (non-GPS)

# **3.7.6.1** Applicability:

Applicable to emirate and municipality level public open spaces.

## 3.7.6.2 Intent:

To ensure that additional navigation systems or maps provided by the asset are accessible and follow either recommended or best practice.

#### 3.7.6.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

a) The asset should feature an online interactive map available on the website which should follow the recommendations that are in accordance with "Sahel Building Rating System – DA.1.06 Enhanced digital maps/navigation systems (non-GPS)".

#### **Best Practice:**

a) The asset should feature an online interactive map available on the website which should follow the best practices that are in accordance with "Sahel Building Rating System – DA.1.06 Enhanced digital maps/navigation systems (non-GPS)".

#### **3.7.6.4 Pre-certificate rating credits:**

Refer to "Sahel Building Rating System – DA.1.06 Enhanced digital maps/navigation systems (non-GPS)".

#### 3.7.6.5 Certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.06 Enhanced digital maps/navigation systems (non-GPS)".

#### 3.7.6.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.06 Enhanced digital maps/navigation systems (non-GPS)".

#### 3.7.6.7 Certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.06 Enhanced digital maps/navigation systems (non-GPS)".

# 3.7.7 DA.2.07 Online user feedback platform

# **3.7.7.1** Applicability:

Applicable to:

- a) All public open spaces of district level and higher.
- **b)** Streetscapes: City and town boulevards and avenues.

## 3.7.7.2 Intent:

To ensure that the asset offers digital options via web for the mandatory asset user feedback collection in accordance with "Sahel Building Rating System – DA.1.07 Online users feedback platform".

# 3.7.7.3 Requirements:

#### Mandatory:

#### a) 2 Credits in renovation:

i. All mandatory design and provisional requirements to guarantee the online users' feedback shall be in accordance with **"Sahel Building Rating System – DA.1.07 Online users feedback platform"**.

#### 3.7.7.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System DA.1.07 Online users feedback platform".

#### **3.7.7.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System DA.1.07 Online users feedback platform".

#### 3.7.7.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.07 Online users feedback platform".

#### 3.7.7.7 Certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.07 Online users feedback platform".

# 3.7.8 DA.2.08 Enhanced online user feedback platform

# 3.7.8.1 Applicability:

Applicable to:

- a) All public open spaces: Emirate, municipality, and district level
- **b)** Streetscapes: City or town-level boulevards and avenues.

## 3.7.8.2 Intent:

To ensure that the asset offers digital options via web for the mandatory asset user feedback collection in accordance with **"Sahel Building Rating System – DA.1.07 Online users feedback platform"**.

#### 3.7.8.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

The asset should feature the recommendations in accordance with: "Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform".

#### **Best Practice:**

The asset should feature the best practices in accordance "Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform".

#### 3.7.8.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform".

# 3.7.8.5 Certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform".

#### 3.7.8.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform".

#### 3.7.8.7 Certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.08 Enhanced online user feedback platform".

# 3.7.9 DA.2.09 Enhanced Wi-Fi access

# 3.7.9.1 Applicability:

Applicable to:

- a) All public open spaces of district level and higher.
- **b)** Streetscapes: City and town boulevards and avenues.

## 3.7.9.2 Intent:

To propose a comprehensive plan for enhancing internet-based aids (e.g., navigation tools, communication with care, translation) free of charge, in open public spaces, ensuring seamless connectivity and inclusivity for all users.

# 3.7.9.3 Requirements:

#### Recommended:

The asset should feature the recommendations in accordance with "Sahel Building Rating System – DA.1.09 Enhanced Wi-Fi access".

# 3.7.9.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.09 Enhanced Wi-Fi access".

# 3.7.9.5 Certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.09 Enhanced Wi-Fi access".

# 3.7.9.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.09 Enhanced Wi-Fi access".

# 3.7.9.7 Certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.09 Enhanced Wi-Fi access".

# 3.7.10 DA.2.10 Augmented experience for heritage sites

# 3.7.10.1 Applicability:

Applicable to:

- a) All public open spaces of district level and higher.
- **b)** Streetscapes: City and town boulevards and avenues.

## 3.7.10.2 Intent:

To ensure an equitable access to experiences by providing an alternative augmented experiences for all asset users of heritage spaces which may not be fully physically accessible due to their historic character.

# 3.7.10.3 Requirements:

#### Mandatory:

Heritage sites with limitations to full physical accessibility due to their historic character (sites of emirate or municipal significance) shall:

#### a) 8 Credits in renovation:

i. Provide a web-based virtual walkthrough solution in accordance with **"Sahel Building** Rating System – DA.1.10 Augmented experience for heritage sites".

#### 3.7.10.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System DA.1.10 Augmented experience for heritage sites".

#### 3.7.10.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System DA.1.10 Augmented experience for heritage sites".

# 3.7.10.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.10 Augmented experience for heritage sites".

# 3.7.10.7 Certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.10 Augmented experience for heritage sites".

# 3.7.11 DA.2.11 Enhanced augmented experience for heritage sites

# 3.7.11.1 Applicability:

Applicable to:

- a) All public open spaces of district level and higher.
- **b)** Streetscapes: City and town boulevards and avenues.

## 3.7.11.2 Intent:

To ensure advanced equitable access to experiences by providing an alternative augmented experiences for all asset users of heritage spaces which may not be fully physically accessible due to their historic character.

# 3.7.11.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

Provide a web-based virtual walkthrough solution following the recommendations in accordance with "Sahel Building Rating System – DA.1.11 Enhanced augmented experience for heritage sites".

#### **Best Practice:**

Provide a web-based virtual walkthrough solution following the best practices in accordance with **"Sahel Building Rating System – DA.1.11 Enhanced augmented experience for heritage sites"**.

#### 3.7.11.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.11 Enhanced augmented experience for heritage sites".

# 3.7.11.5 Certificate rating credits:

Refer to "Sahel Building Rating System – DA.1.11 Enhanced augmented experience for heritage sites".

#### 3.7.11.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.11 Enhanced augmented experience for heritage sites".

#### 3.7.11.7 Certificate rating submission:

Refer to "Sahel Building Rating System – DA.1.11 Enhanced augmented experience for heritage sites".

# 3.8 OC.2 Orientation and Communication

This category assesses the facilitation of Orientation and Communication for people with varying access needs in public settings, such as events, traveling, education. Orientation and Communication include aspects such as signage, wayfinding, information, and interaction of Orientation and Communication systems.

## **Table 61: Orientation and Communication**

ос	Orientation and Communication	Requirement type	Credit points applicability	
			New assets development/ redevelopment	Existing assets renovation
OC.2.01	Signage and other communication elements	Mandatory	R	20
	Enhanced signage and other communication elements	Recommended	6	6
00.2.02		Best Practice	2	4
OC.2.03	Tactile Walking Surface Indicators (TWSI)	Mandatory	R	12
OC.2.04	Enhanced Tactile Walking Surface Indicators (TWSI)	Recommended	4	6
OC.2.05	Tactile maps and raised floor plans	Mandatory	R	12
OC.2.06	Enhanced tactile maps and raised floor plans	Recommended	8	8
		Best Practice	3	3
OC.2.07	Enhanced Information points	Recommended	5	5
	Total		28	76

# 3.8.1 OC.2.01 Signage and other communication elements

# **3.8.1.1** Applicability:

Applicable to all types of public open spaces and pedestrian routes (streetscape) leading to public transportation stops and stations, and major buildings or facilities of public use.

## 3.8.1.2 Intent:

To design and implement a comprehensive and intuitive signage system that promotes wayfinding, safety, and accessibility, ensuring seamless and confident navigation for all users.

#### **3.8.1.3** Requirements:

#### Mandatory:

#### a) 20 Credits in renovation:

- Signage shall assist people in independent and group-led wayfinding at all public settings, both indoor and outdoor spaces, and shall be provided in accordance with "Sahel Building Rating System OC.1.01 Signage and other communication elements" and "Sahel Community Rating System OC.3.01 Wayfinding and communication strategy", wherever applicable. Additionally, when provided in public open spaces, they shall ensure:
  - a. All street signages and their characters shall be in accordance with the Addressing System Standards Manual Volume V (TR 506-4).
  - b. All identity signage in cemeteries and burial grounds shall be in accordance with Abu Dhabi Cemetery Development and Regulation Manual.
  - **c.** Signage shall be provided in all areas, to denote the functionality of the accessible space such as (but not limited to):
    - Cycle symbol markings provided at entry points, exit points, and intersections with sidewalks/other shared routes
    - Pedestrian crossing signposted including push buttons at crossings incorporating tactile symbols
    - Main entrances

#### **3.8.1.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **20**.
- c) For credits breakdown refer to "Sahel Building Rating System OC.1.01 Signage and other communication elements".

#### **3.8.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **20**.
- c) For credits breakdown refer to "Sahel Building Rating System OC.1.01 Signage and other communication elements".

#### **3.8.1.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – OC.1.01 Signage and other communication elements".

#### **3.8.1.7** Certificate rating submission:

Refer to "Sahel Building Rating System – OC.1.01 Signage and other communication elements".

# 3.8.1.8 References:

- a) Abu Dhabi International Building Code, 2013
- **b)** Abu Dhabi International Accessibility Standards, 2013.
- c) UAE Universal Design Code


# 3.8.2 OC.2.02 Enhanced signage and other communication elements

# **3.8.2.1** Applicability:

Applicable to all types of public open spaces and pedestrian routes (streetscape) leading to public transportation stops and stations, and major buildings or facilities of public use.

# 3.8.2.2 Intent:

To design and implement a comprehensive and intuitive signage system that enhances wayfinding, safety, and accessibility, ensuring seamless and confident navigation for all users.

# 3.8.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

The enhanced requirements (Recommended) for QR codes and labels should be in accordance with **"Sahel Building Rating System – OC.1.02 Enhanced signage and other communication elements"**.

#### **Best Practice:**

When provided outdoors, the QR codes and labels should:

a) provide the street name of where the QR code is situated via audio once the QR code is scanned.

# 3.8.2.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – OC.1.02 Enhanced signage and other communication elements".

# 3.8.2.5 Certificate rating credits:

Refer to "Sahel Building Rating System – OC.1.02 Enhanced signage and other communication elements".

#### **3.8.2.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – OC.1.02 Enhanced signage and other communication elements".

#### 3.8.2.7 Certificate rating submission:

Refer to "Sahel Building Rating System – OC.1.02 Enhanced signage and other communication elements".

# 3.8.3 OC.2.03 Tactile Walking Surface Indicators (TWSI)

## **3.8.3.1** Applicability:

Applicable to all types of public open spaces and pedestrian routes leading to the entrances of public transportation stops and stations, and major buildings or facilities of public use.

#### 3.8.3.2 Intent:

To ensure that paths linking the facilities and key points of interest within the public realm provide a continuous and consistent guiding system allowing for safe and inclusive navigation for all users.

#### 3.8.3.3 Requirements:

#### Mandatory:

Tactile Walking Surface Indicators (TWSI) when provided in public open spaces shall be in accordance with **Abu Dhabi Urban Street Design Manual (ROW-603)** and **Abu Dhabi Standard Drawings Guidelines (TR 541)**. Within the public realm, they are provided of two types:

- a) Warning tactile walking surface indicators, which draws awareness to important objects, potential hazards and facilities, etc.
- **b)** Guiding tactile walking surface indicators, which provides continuous directional information for navigation.

#### c) 5 credits in renovation:

- i. Warning TWSI shall be located:
  - **a.** By ramps, ramps, steps, stairs, and escalators and other potential hazards, placed 300mm away from the level change or hazard. The depth of the Warning TWSI shall be between 600 mm and 800 mm.
  - **b.** By curb ramps, pedestrian, cycle, and micro-mobility crossings are positioned at the inner curb line and extend 600 mm to 800 mm from the inner curb line.
  - **c.** At the open boarding edges of public transportation platforms facing the vehicles (Figure 34), and by track crossing of public transportation, positioned at the inner curb line and extends 600mm to 800 mm from the boarding edge and run the full length of the platform.
  - **d.** If cannot be highlighted otherwise using other tactile forms and visual contrast, Warning TWSI shall be provided:
    - By an object or obstruction along the path of travel.
    - By street furniture such as seating options
    - By shared walking and cycle tracks, along the edge of the accessible path, meeting the cycle path.

#### d) 5 credits in renovation:

- i. Both, Warning TWSI and Guiding TWSI shall be located:
  - a. At open squares without defined walking paths.
  - **b.** At the metro, tramway, and ferry stations, starting at the entrance and continuing to all essential accessible services and amenities such as vending machines, service counters, etc.
  - c. At station/termini doors leading to each gate and accessible services.
  - **d.** At traffic lights, to help locate the push-button control or the tactile walk signal for pedestrian traffic lights, or both, case-by-case.



Figure 34: TWSI at sidewalk and bus stop

#### e) 2 credits in renovation:

- All TWSI when provided outdoors in public open spaces, shall be designed in accordance with "Sahel Building Rating System OC.1.03 Tactile Walking Surface Indicators", including the design of Warning and Guiding TWSI and shall:
  - a. Need to be consistent with the masterplan requirements (if relevant), in accordance with "Sahel Community Rating System OC.3.01 Wayfinding and communication strategy".

# **3.8.3.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 12.

# **3.8.3.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 12.

# 3.8.3.6 Pre-certificate rating submission:

- a) Design documentation detailing the proposed features for TWSI, including specifications for easily detectable features, slip resistance, logical and sequential installation, consistency, durability, smooth surroundings, and gap limitations.
- **b)** Drawings illustrating the layout, locations, and dimensions of the TWSI, showcasing compliance with the specified features.
- c) Specifications for materials and fixtures used in TWSI, ensuring they meet the required standards.

# **3.8.3.7** Certificate rating submission:

- a) Updated design documentation confirming the implemented features for TWSI, including easily detectable features, slip resistance, logical and sequential installation, consistency, durability, smooth surroundings, and gap limitations.
- **b)** As-built drawings showcasing the actual layout, locations, and dimensions of TWSI, demonstrating compliance with the specified features.
- c) Photographs of key areas featuring TWSI demonstrating compliance with accessibility standards.

# 3.8.3.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Code
- c) Abu Dhabi Pedestrian Pathway Paving Strategy
- d) TR 541-1 Abu Dhabi Standard Drawings Guidelines Part 1
- e) TR 541-2 Abu Dhabi Standard Drawings Guidelines Part 2
- f) TR-535 Metro Planning Standards
- g) TR-536 Railway Planning Standards
- h) ROW-603: Abu Dhabi Urban Street Design Manual

# 3.8.4 OC.2.04 Enhanced Tactile Walking Surface Indicators (TWSI)

# **3.8.4.1** Applicability:

Applicable to all types of public open spaces and pedestrian routes (streetscape) leading to public transportation stops and stations, and major buildings or facilities of public use.

# 3.8.4.2 Intent:

To ensure that paths linking the facilities and key points of interest within the public realm provide a continuous and consistent guiding system allowing for safe and inclusive navigation for all users.

## 3.8.4.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

Both, Warning TWSI and Guiding TWSI should be located:

- a) From the sidewalks, pedestrian crossings or pedestrian paths leading to the information points, schedules and boarding point at bus/tram stops and shelters.
- **b)** Along the route from the closest car park to the main entrance of the asset and tactile maps.
- c) When other types of tactile differences are not provided.
- **d)** Designated seating areas or accessible facilities such as drinking water fountains in public open spaces, when other types of tactile differences cannot be provided.

# **3.8.4.4 Pre-certificate rating credits:**

#### Table 62: OC.2.04 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
4	6	Design TWSI at the recommended locations (where relevant).

#### **3.8.4.5** Certificate rating credits:

#### Table 63: OC.2.04 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
4	6	Implementation of TWSI at the recommended locations (where relevant).

# 3.8.4.6 Pre-certificate rating submission:

#### **Recommended:**

- a) Design documentation detailing the proposed features for TWSI, including specifications for easily detectable features, slip resistance, logical and sequential installation, consistency, durability, smooth surroundings, and gap limitations.
- **b)** Drawings illustrating the layout, locations, and dimensions of the TWSI, showcasing compliance with the specified features.
- c) Specifications for materials and fixtures used in TWSI, ensuring they meet the required standards.

### **3.8.4.7** Certificate rating submission:

#### **Recommended:**

- a) Updated design documentation confirming the implemented features for TWSI, including easily detectable features, slip resistance, logical and sequential installation, consistency, durability, smooth surroundings, and gap limitations.
- **b)** As-built drawings showcasing the actual layout, locations, and dimensions of TWSI, demonstrating compliance with the specified features.
- c) Photographs of key areas featuring TWSI demonstrating compliance with accessibility standards.

# 3.8.5 OC.2.05 Tactile maps and raised floor plans

# 3.8.5.1 Applicability:

Applicable to all open spaces of district level and higher. It is not applicable for streetscapes.

# 3.8.5.2 Intent:

To ensure that all users are provided with equitable access to the information of spatial layouts of the public open space via accessible tactile maps or plans equipped with essential elements and appropriately placed within the public realm.

# **3.8.5.3** Requirements:

#### Mandatory:

#### a) 12 Credits in renovation.

- All mandatory requirements for the design and provisions of tactile maps and plans shall be in accordance with "Sahel Building Rating System – OC.1.05 Tactile maps and raised floor plans" (Figure 35) and shall be located at:
  - **a.** The accessible main entrances or reception of public open spaces (e.g., recreational open spaces, sports arenas, nature trails, playground, beaches, natural waterbodies, heritage sites) and transportation facilities.



Figure 35: Tactile map

# 3.8.5.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **12**.
- c) For credits breakdown refer to "Sahel Building Rating System OC.1.05 Tactile maps and raised floor plans".

# **3.8.5.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **12**.
- c) For credits breakdown refer to "Sahel Building Rating System OC.1.05 Tactile maps and raised floor plans".

# **3.8.5.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – OC.1.05 Tactile maps and raised floor plans".

# **3.8.5.7** Certificate rating submission:

Refer to "Sahel Building Rating System – OC.1.05 Tactile maps and raised floor plans".

### 3.8.5.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) UAE Universal Design Code
- d) PR-401: Abu Dhabi Public Realm Design Manual
- e) ROW-603: Abu Dhabi Urban Street Design Manual
- f) DP-305: Safety and Security Planning Manual
- g) TR-536 Railway Planning Standards

# 3.8.6 OC.2.06 Enhanced tactile maps and raised floor plans

# 3.8.6.1 Applicability:

Applicable to all open spaces of municipality level and higher. It is not applicable for streetscapes.

## 3.8.6.2 Intent:

To ensure that all users are provided with equitable access to the information of spatial layouts of the public open space via accessible tactile maps or plans equipped with enhanced essential elements and appropriately placed within the public realm.

### 3.8.6.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All tactile maps and plans should:

**a)** Be accompanied at all instances where directional or visual maps are provided to address navigation within the certification boundary.

#### **Best Practice:**

All tactile maps and plans provided at a public open space should

- a) Be shaded.
- b) Be located at all assets above 2000 sqm.

# **3.8.6.4 Pre-certificate rating credits:**

#### Table 64: OC.2.06 pre-certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
8 8		Ensure that all tactile maps and plans within the certification boundary are designed and planned to be located as per the recommended requirements.
'		Best Practice:
3	3	Ensure that all tactile maps and plans within the certification boundary are shaded and planned to be in assets as per the best practice requirements.

# 3.8.6.5 Certificate rating credits:

### Table 65: OC.2.06 certificate credits

Credit points		Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
8 8		Confirm that all tactile maps and plans within the certification boundary are implemented and constructed as per the recommended requirements.
		Best Practice:
3	3	Confirm that all tactile maps and plans within the certification boundary are shaded and implemented on all locations as per the best practice requirements.

### **3.8.6.6 Pre-certificate rating submission:**

- a) Design documentation detailing the proposed features for tactile maps and plans, including specifications for location, essential information, illuminance levels, height, orientation, legend placement, and the inclusion of recessed Braille locators.
- **b)** Drawings illustrating the layout and dimensions of the tactile maps and plans, showcasing compliance with the specified features.
- c) Specifications for materials and fixtures used in tactile maps and plans, ensuring they meet the required standards.

#### **Best Practice:**

a) Additional documentation detailing the use of shading above the tactile map.

# **3.8.6.7** Certificate rating submission:

- **a)** Updated design documentation confirming the implemented features for tactile maps and plans, including location, essential information, illuminance levels, height, orientation, legend placement, and the inclusion of recessed Braille locators.
- **b)** As-built drawings showcasing the actual layout and dimensions of tactile maps and plans, demonstrating compliance with the specified features.
- c) Updated documentation of materials and fixtures used in tactile maps and plans, confirming their adherence to the required standards.
- **d)** Verification of the proper functioning of specific features, such as illuminance levels, height, orientation, legend placement, and the inclusion of recessed Braille locators.
- e) Photographs of key areas featuring tactile maps and plans such as location, essential information, illuminance levels, height, orientation, and the inclusion of Braille locators, demonstrating compliance with accessibility standards.

#### **Best Practice:**

a) Updated documentation detailing the use of shading above the tactile map.

# 3.8.7 OC.2.07 Enhanced information points

# 3.8.7.1 Applicability:

Applicable to all public open spaces of municipality level and higher, including heritage sites, nature trails, parks and beaches. It is not applicable for streetscapes.

# 3.8.7.2 Intent:

To ensure equitable access to information for all users in public open spaces by providing accessible, and strategically placed information points throughout the public realm.

# 3.8.7.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

### **Recommended:**

Information points should be provided in enhanced public open spaces and should be in accordance with **"Sahel Building Rating System – OC.1.10 Information points"**.

# 3.8.7.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – OC.1.10 Information points".

# 3.8.7.5 Certificate rating credits:

Refer to "Sahel Building Rating System – OC.1.10 Information points".

# **3.8.7.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – OC.1.10 Information points".

# 3.8.7.7 Certificate rating submission:

Refer to "Sahel Building Rating System – OC.1.10 Information points".

# 3.9 ESP.2 Emergency Systems and Procedures

This category examines the preparation and response to emergency situations in public areas, such as fire, flood etc. Emergency Systems and Procedures include aspects such as alert, evacuation, rescue, and recovery of Emergency Systems and Procedures considering all users.

## **Table 66: Emergency Systems and Procedures**

ESP	Emergency Systems and Proce- dures	Requirement type	Credit points applicability	
			New assets development/ redevelopment	Existing assets renovation
FSP 2 01	Enhanced SOS points	Recommended	3	3
LJ1.2.01		Best Practice	3	3
ESP.2.02	Accessible emergency routes, and areas of assembly	Mandatory	R	8
ESP.2.03	Enhanced accessible emergency routes and areas of assembly	Recommended	3	3
ESP.2.04	Accessible public address systems	Mandatory	R	4
ESP.2.05	Enhanced accessible public address systems	Recommended	3	3
ESP.2.06	Evacuation plans for persons with access needs (procedure)	Mandatory	R	8
ESP.2.07	Enhanced evacuation plans for persons with access needs (procedure)	Recommended	3	3
	Total		15	35

# 3.9.1 ESP.2.01 Enhanced SOS points

# **3.9.1.1** Applicability:

Applicable to public open spaces, programmed spaces, recreation spaces and key risk points at district level and higher.

## 3.9.1.2 Intent:

To develop an enhanced network of accessible SOS points ensuring that all persons in distress can easily report their location and ask for assistance within the public realm.

## **3.9.1.3** Requirements:

#### **Recommended:**

An SOS point system should be provided within 350m (within a 5 to 10-minute walk) calculated via the Direct Route Indices Method, in at least:

- a) Public transportation stops and stations (if present).
- **b)** Pedestrian overpass/underpass.

All SOS point systems should:

Follow technical requirements with reference to "Sahel Building Rating System – ESP.1.01 SOS points".

#### **Best Practice:**

An SOS point system should be provided within 600m (within a 10 to 15-minute walk) calculated via the Direct Route Indices Method. in at least:

- a) Recreational open spaces
- **b)** Beaches, and waterfronts.
- c) All enhanced requirements (Best Practice) for SOS points should be in accordance with "Sahel Building Rating System – ESP.1.02 Enhanced SOS points".

# **3.9.1.4** Pre-certificate rating credits:

# Table 67: ESP.2.01 pre-certificate credits

Credit points		Requirements	
New Assets development / redevelopment	Renovation projects	Recommended:	
	3	Design SOS points with multisensory two-way communication systems, strategically located in a greater number of public areas.	
3		Design SOS for the recommended places and with a push button with an audio output according to recommended requirements.	
		Design an SOS point with two visual and audible two-way communication solutions.	
	·	Best Practice:	
		Design SOS points with multisensory two-way communication systems, strategically located in a greater number of public areas.	
3	3	Design equivalent information of SOS points with embossed symbols.	
		Design an SOS point with two visual and audible two-way communication solutions.	

# 3.9.1.5 Certificate rating credits:

#### Table 68: OC.2.06 certificate credits

Credit	points	Requirements
New Assets development / redevelopment	Renovation projects	Recommended:
	3	Confirm the exact locations of increased number of SOS points with multisensory two-way communication systems in bus stops and underpasses/overpasses.
3		Confirm SOS for the recommended places and with a push button with an audio output according to recommended requirements.
		Confirm installation of SOS point with two visual and audible two-way communication solutions.
		Best Practice:
	3	Confirm exact locations of increased number of SOS points with multisensory two-way communication systems in recreational open spaces, beaches, and waterfronts
3		Confirm equivalent information of SOS points with embossed symbols.
		Confirm installation of SOS point with two visual and audible two-way communication solutions.

# **3.9.1.6 Pre-certificate rating submission:**

#### **Recommended:**

- **a)** Design drawings illustrating the proposed locations of SOS points in elevators/platform lifts and elevator landings and underpasses, and public transportation stations.
- **b)** Detailed specifications of the SOS point systems, including the height of operable parts, the formats of information provided, and the features of the two-way communication solution.
- c) Design details of the handsets, if utilized, including the size of keys and numbers and the contrast between the numbers and the keypad.
- **d)** Detailed specifications of the SOS point systems, including the height of operable parts, the formats of information provided, and the features of the two-way communication solution.
- e) Design details of the handsets, if utilized, including the size of keys and numbers and the contrast between the numbers and the keypad.
- f) Detailed specifications of the SOS point systems, including the push button with an audio output.

#### **Best Practice:**

- a) Design drawings illustrating the proposed locations of SOS points in open spaces, beaches, and waterfronts.
- **b)** Detailed specifications of the SOS point systems, including the embossed symbols.
- c) Design a SOS point with two visual and audible two-way communication solutions

# **3.9.1.7** Certificate rating submission:

#### **Recommended:**

- **a)** As-built documentation confirming the implementation of SOS points in the designated areas.
- **b)** Updated specifications if any changes were made during the construction stage.
- **c)** Photographs of the SOS points, showcasing features like the height of operable parts, the formats of information provided, the features of the two-way communication solution, and the design of the handsets if utilized.
- **d)** Documentation of system tests, demonstrating the functionality of the two-way communication solution, including the text-based chat function, the voice connection with the emergency call center, the hearing enhancement system, the CCTV intercom, and the method of sending and receiving SMS messages from the SOS point.
- e) As-built documentation confirming the implementation of SOS points in the designated areas.
- f) Updated specifications if any changes were made during the construction stage.
- **g)** Photographs of the SOS points, showcasing features like the height of operable parts, the formats of information provided, the features of the two-way communication solution, and the design of the handsets if utilized.
- h) Documentation of system tests, demonstrating the functionality of the two-way communication solution, including the text-based chat function, the voice connection with the emergency call center, the hearing enhancement system, the CCTV intercom, and the method of sending and receiving SMS messages from the SOS point.
- i) Updated specifications including the push button with an audio output; (if any changes were made during the construction stage).

#### **Best Practice:**

- **a)** As-built documentation confirming the implementation of SOS points in the designated areas.
- **b)** Updated specifications including the embossed symbols (if any changes were made during the construction stage).
- c) Confirm the implementation of a SOS point with two visual and audible two-way communication solutions.

# **3.9.2.1** Applicability:

Applicable to all public open spaces at district level and higher.

# 3.9.2.2 Intent:

To ensure that accessible and inclusive emergency routes and areas of assembly are provided within the open public facilities that can accommodate the safety and needs of all users.

# **3.9.2.3** Requirements:

#### Mandatory:

- a) All mandatory requirements for accessible and safe evacuation routes shall be in accordance with "Sahel Building Rating System ESP.1.03 Accessible emergency routes, areas of refuge, and areas of assembly", wherever applicable.
- b) All mandatory requirements for accessible and safe areas of assembly and accompanying alarm systems shall be in accordance with "Sahel Building Rating System ESP.1.03 Accessible emergency routes, areas of refuge, and areas of assembly", wherever applicable.

# 3.9.2.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System ESP.1.03 Accessible emergency routes, areas of refuge, and areas of assembly".

# 3.9.2.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System ESP.1.03 Accessible emergency routes, areas of refuge, and areas of assembly".

# 3.9.2.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – ESP.1.03 Accessible emergency routes, areas of refuge, and areas of assembly".

# **3.9.2.7** Certificate rating submission:

Refer to "Sahel Building Rating System – ESP.1.03 Accessible emergency routes, areas of refuge, and areas of assembly".

# 3.9.2.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- b) Abu Dhabi International Building Code, 2013
- c) UAE Fire and Life Safety Code of Practice

# 3.9.3 ESP.2.03 Enhanced accessible emergency routes and areas of assembly

# **3.9.3.1** Applicability:

Applicable to all public open spaces at district level and higher.

# 3.9.3.2 Intent:

To ensure that accessible and inclusive emergency routes and areas of assembly are provided within the open public facilities with enhanced features that can accommodate the safety and needs of all users.

### 3.9.3.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All enhanced requirements (Recommended) for accessible and safe areas of assembly should be in accordance with "Sahel Building Rating System – ESP.1.04 Enhanced accessible emergency routes, areas of refuge, and areas of assembly".

# 3.9.3.4 Pre-certificate rating credits:

#### Table 69: ESP.2.03 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	3	Design areas of assembly with seating, shading with passenger loading zone, and located up-wind of the asset from the most common or prevailing wind direction.

#### 3.9.3.5 Certificate rating credits:

#### Table 70: ESP.2.03 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	3	Confirm the implementation of areas of assembly with seating, shading with passenger loading zone, and located up-wind of the asset from the most common or prevailing wind direction.

# 3.9.3.6 Pre-certificate rating submission:

#### Recommended:

- **a)** Detailed specifications of the areas of assembly, including the location, signage designs, and lighting designs, including the provision of seating, shelter, and passenger loading zones, and the location relative to the wind direction.
- b) Detailed specifications of the audible alarms
- c) Emergency protocols and information in Arabic and English.

#### **Recommended:**

- a) Updated specifications if any changes were made during the construction stage.
- **b)** Photographs of the areas of assembly, signage designs, and lighting designs.

# 3.9.4 ESP.2.04 Accessible public address systems

# 3.9.4.1 Applicability:

Applicable to public transportation stations, recreational open spaces, other play facilities such as public beaches, sporting venues, and other large public gathering areas at district level and higher where PA systems are in place.

### 3.9.4.2 Intent:

To ensure that information by public announcement systems is distributed and received equally by all users within the public realm.

# 3.9.4.3 Requirements:

#### Mandatory:

PA systems located in open spaces within the asset boundary are designed to be accessible which shall:

a) Be in accordance with "Sahel Building Rating System – ESP.1.05 Accessible public address systems" wherever applicable.

#### **3.9.4.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 4.

## **3.9.4.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.b) Credit points awarded by renovation projects: 4.
- **3.9.4.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – ESP.1.05 Accessible public address systems" wherever applicable.

# 3.9.4.7 Certificate rating submission:

Refer to "Sahel Building Rating System – ESP.1.05 Accessible public address systems", wherever applicable.

#### 3.9.4.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- b) Abu Dhabi International Building Code, 2013
- c) UAE Fire and Life Safety Code of Practice
- d) UAE Universal Design Code

# 3.9.5 ESP.2.05 Enhanced accessible public address systems

# **3.9.5.1** Applicability:

Applicable to public transportation stops, recreational open spaces, other play facilities such as public beaches, sporting venues, and other large public gathering areas at district level and higher.

## 3.9.5.2 Intent:

To ensure that information by public announcement systems is distributed and received equally by all users through advanced features within the public realm.

#### 3.9.5.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All enhanced requirements (Recommended) for accessible PA Systems located in open spaces within the asset boundary should be in accordance with **"Sahel Building Rating System – ESP.1.06 Enhanced accessible public address systems"**.

### **3.9.5.4 Pre-certificate rating credits:**

Refer to "Sahel Building Rating System – ESP.1.06 Enhanced accessible public address systems".

### **3.9.5.5** Certificate rating credits:

Refer to "Sahel Building Rating System – ESP.1.06 Enhanced accessible public address systems".

#### 3.9.5.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – ESP.1.06 Enhanced accessible public address systems".

#### 3.9.5.7 Certificate rating submission:

Refer to "Sahel Building Rating System – ESP.1.06 Enhanced accessible public address systems".

# 3.9.6 ESP.2.06 Evacuation plans for persons with access needs (procedure)

# **3.9.6.1** Applicability:

Applicable to all public open spaces of district level and higher.

# 3.9.6.2 Intent:

To ensure that accessible and inclusive evacuation procedures and equipment is provided within the open public facilities that can accommodate the safety and needs of all users.

# 3.9.6.3 Requirements:

#### Mandatory:

### a) 4 Credits in renovation:

i. To ensure necessary training procedures, aligned with UAE Fire and Life Safety Code of Practice for the staff are provided, in carefully considering accessibility, safety, capacity, and legal requirements during the evacuation procedures for individuals who may require assistance. The procedures for emergency evacuation for persons with access needs required to be followed shall be in accordance with "Sahel Building Rating System – ESP.1.07 Evacuation plans for persons with access needs (procedure)", wherever applicable.

### b) 4 Credits in renovation:

i. All mandatory requirements for evacuation plans within the asset boundary shall be in accordance with "Sahel Building Rating System – ESP.1.07 Evacuation plans for persons with access needs (procedure)", wherever applicable.

# 3.9.6.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System ESP.1.07 Evacuation plans for persons with access needs (procedure)".

# **3.9.6.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System ESP.1.07 Evacuation plans for persons with access needs (procedure)".

# **3.9.6.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – ESP.1.07 Evacuation plans for persons with access needs (procedure)".

# **3.9.6.7** Certificate rating submission:

Refer to "Sahel Building Rating System – ESP.1.07 Evacuation plans for persons with access needs (procedure)".

# 3.9.6.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- b) Abu Dhabi International Building Code, 2013
- c) UAE Fire and Life Safety Code of Practice

# 3.9.7 ESP.2.07 Enhanced evacuation plans for persons with access needs (procedure)

# **3.9.7.1** Applicability:

Applicable to all open spaces and streetscapes.

# 3.9.7.2 Intent:

To ensure that accessible and inclusive evacuation procedures and equipment is provided within the open public facilities with enhanced features that can accommodate the safety and needs of all users.

## 3.9.7.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

a) All enhanced requirements (Recommended) for evacuation plans within the asset boundary should be in accordance with "Sahel Building Rating System – ESP.1.08 Enhanced evacuation plans for persons with access needs (procedure)", wherever applicable.

### 3.9.7.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – ESP.1.08 Enhanced evacuation plans for persons with access needs (procedure)".

#### 3.9.7.5 Certificate rating credits:

Refer to "Sahel Building Rating System – ESP.1.08 Enhanced evacuation plans for persons with access needs (procedure)".

# 3.9.7.6 Pre-certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – ESP.1.08 Enhanced evacuation plans for persons with access needs (procedure)".

#### **3.9.7.7** Certificate rating submission:

#### Recommended:

Refer to "Sahel Building Rating System – ESP.1.08 Enhanced evacuation plans for persons with access needs (procedure)".

# 3.10 CM.2 Considerate Maintenance

This category evaluates the quality and performance of asset maintenance and management throughout the lifespan of the public realm. Considerate Maintenance includes aspects such as proficiency, reliability, and transparency of maintenance activities.

#### Table 71: Considerate Maintenance

СМ	Considerate Maintenance	Requirement type	Credit points	applicability	
			New assets development/ redevelopment	Existing assets renovation	
CM.2.01	Accessibility focused maintenance	Mandatory	R	8	
CM.2.02	Enhanced accessibility focused maintenance	Recommended	2	4	
CM.2.03	Safe zone under construction or maintenance	Mandatory	R	3	
CN4 2 04	Enhanced safe zone under	Recommended	2	2	
CIVI.2.04	construction or maintenance	Best Practice	2	2	
CM.2.05	User feedback collection	Mandatory	R	2	
CN4 2 06	Enhanced user feedback	Recommended	2	2	
CIVI.2.00	collection (survey)	Best Practice	2	2	
	Total		10	25	

# **3.10.1.1** Applicability:

Applicable to all open spaces and streetscapes.

# 3.10.1.2 Intent:

To establish mechanisms and procedures for monitoring and evaluating the effectiveness and continued functionality of a facility of public-use, to improve the quality of life, accessibility, safety, and overall well-being within the public realm.

# 3.10.1.3 Requirements:

#### Mandatory:

#### a) 8 Credits in renovation

The asset shall develop a public realm operations and maintenance manual and public realm logbook that includes a monitoring, maintenance, and cleaning program for the facility and staff-training schedules to ensure its accessibility features are in good condition and operable. The program requirements shall be in accordance with **"Sahel Building Rating System – CM.1.01 Accessibility focused maintenance"** for the applicable aspects to public realm.

### **3.10.1.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System CM.1.01 Accessibility focused maintenance".

#### **3.10.1.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System CM.1.01 Accessibility focused maintenance".

#### **3.10.1.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – CM.1.01 Accessibility focused maintenance".

#### 3.10.1.7 Certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.01 Accessibility focused maintenance".

#### 3.10.1.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- b) Abu Dhabi International Building Code, 2013
- c) UAE Universal Design Code

# 3.10.2.1 Applicability:

Applicable to all open spaces and streetscapes.

# 3.10.2.2 Intent:

To establish an optimized mechanisms and procedures for monitoring and evaluating the effectiveness and continued functionality of a facility of public-use, to improve the quality of life, accessibility, safety, satisfaction, and overall well-being within the public realm.

# 3.10.2.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

The asset should undertake the annual inspections every three months and records of the maintenance problems encountered, and solutions implemented shall be kept, being submitted for the certificate renewal and develop a scent-free, allergy-friendly cleaning and maintenance program to ensure the comfort of persons with respiratory issues, chemical sensitivities, and allergies. The program requirements should be in accordance with **"Sahel Building Rating System – CM.1.02 Enhanced accessibility focused maintenance"**.

# 3.10.2.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – CM.1.02 Enhanced accessibility focused maintenance".

# 3.10.2.5 Certificate rating credits:

Refer to "Sahel Building Rating System – CM.1.02 Enhanced accessibility focused maintenance".

# 3.10.2.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.02 Enhanced accessibility focused maintenance".

#### 3.10.2.7 Certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.02 Enhanced accessibility focused maintenance".

# **3.10.3.1** Applicability:

Applicable to all open spaces and streetscapes.

# 3.10.3.2 Intent:

To establish mechanisms and procedures for monitoring and evaluating the continued functionality of a facility of public-use during construction and renovations, to improve the quality of life, accessibility, safety, satisfaction, and overall well-being within the public realm.

# 3.10.3.3 Requirements:

#### Mandatory:

#### a) 3 Credits in renovation:

 The asset shall develop an accessible and safe zone under construction or maintenance program to ensure the safety and accessibility of the asset during renovation/ maintenance works. The program requirements shall be in accordance with "Sahel Building Rating System – CM.1.03 Safe zone under construction or maintenance".

# 3.10.3.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Building Rating System CM.1.03 Safe zone under construction or maintenance".

#### **3.10.3.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 3.
- c) For credits breakdown refer to "Sahel Building Rating System CM.1.03 Safe zone under construction or maintenance".

# 3.10.3.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.03 Safe zone under construction or maintenance".

# 3.10.3.7 Certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.03 Safe zone under construction or maintenance".

#### 3.10.3.8 References:

- a) Abu Dhabi International Building Code, 2013
- b) Abu Dhabi International Accessibility Standards, 2013
- c) UAE Universal Design Code

# 3.10.4 CM.2.04 Enhanced safe zone under construction or maintenance

# **3.10.4.1** Applicability:

Applicable to all open spaces and streetscapes.

## 3.10.4.2 Intent:

To establish an optimized mechanisms and procedures for monitoring and evaluating the continued functionality of a facility of public-use during construction and renovations, to improve the quality of life, accessibility, safety, satisfaction, and overall well-being within the public realm.

### 3.10.4.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

The asset should develop an accessible and safe zone under construction or maintenance program to ensure the safety and accessibility of the asset during renovation/maintenance works. The program requirements should be in accordance with **"Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance"**.

#### **Best Practice:**

The asset should develop an accessible and safe zone under construction or maintenance program to ensure the safety and accessibility of the asset during renovation/maintenance works. The program should be in accordance with **"Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance"**.

# 3.10.4.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance".

#### 3.10.4.5 Certificate rating credits:

Refer to "Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance".

#### 3.10.4.6 Pre-certificate rating submission:

#### Recommended:

Refer to "Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance".

#### **Best Practice:**

Refer to "Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance".

# 3.10.4.7 Certificate rating submission:

# **Recommended:**

Refer to **"Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance"**.

# Best Practice:

Refer to **"Sahel Building Rating System – CM.1.04 Enhanced safe zone under construction or maintenance"**.

# **3.10.5.1** Applicability:

Applicable to all open spaces and streetscapes.

# 3.10.5.2 Intent:

To ensure all users have access to report issues, drawbacks, or feedback about an accessible service or facility within the public realm.

# 3.10.5.3 Requirements:

### Mandatory:

#### a) 2 Credits in renovation.

i. The asset shall develop a system that allows users to leave feedback or complaints regarding accessibility in a physical format (e.g., by filling in a form). The system shall be in accordance with "Sahel Building Rating System – CM.1.05 User feedback collection".

# **3.10.5.4 Pre-certificate rating credits:**

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System CM.1.05 User feedback collection".

### **3.10.5.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 2.
- c) For credits breakdown refer to "Sahel Building Rating System CM.1.05 User feedback collection".

# 3.10.5.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.05 User feedback collection".

# 3.10.5.7 Certificate rating submission:

Refer to "Sahel Building Rating System – CM.1.05 User feedback collection".

#### 3.10.5.8 References:

a) Abu Dhabi International Building Code, 2013

# 3.10.6.1 Applicability:

Applicable to:

- a) Streetscape: Boulevards, avenues.
- **b)** Open spaces: Programmed spaces, recreation spaces and play facilities of district level and higher.

### 3.10.6.2 Intent:

To ensure all users can report issues, drawbacks, or provide feedback about accessible services or facilities within the public realm through an enhanced system of surveys initiated by the asset owner or manager to measure user satisfaction and gratification.

### 3.10.6.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

Develop a program of accessibility surveys. The program requirements should be in accordance with "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

#### **Best Practice:**

Develop a draft of a program of accessibility surveys including a procedure for publication of the survey results.

#### 3.10.6.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

#### 3.10.6.5 Certificate rating credits:

Refer to "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

#### 3.10.6.6 Pre-certificate rating submission:

#### **Recommended:**

Refer to "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

#### Best Practice:

Refer to "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

#### 3.10.6.7 Certificate rating submission:

#### Recommended:

Refer to "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

#### **Best Practice:**

Refer to "Sahel Building Rating System – CM.1.06 Enhanced user feedback collection (survey)".

# 3.11 USSP.2 Use Specific Special Provisions

This category assesses the provision of amenities applicable only to special typologies such as Mosques, Workplaces, Public Parks, Beaches etc. with a special consideration for persons with varying access needs. Use Specific Special Provisions include aspects such as availability, accessibility, and suitability of special provisions.

#### Table 72: Use Specific Special Provisions

USSP	Use Specific Special Provisions	Requirement type	Credit points	applicability
			New assets development/ redevelopment	Existing assets renovation
	Enhanced service animal relief	Recommended	6	6
0551.2.01	areas	Best Practice	2	2
USSP.2.02	Accessible assembly areas and audiences	Mandatory	R	8
	Enhanced accessible assembly	Recommended	5	5
0339.2.05	areas and audiences	Best Practice	3	3
USSP.2.04	Accessible changing rooms	Mandatory	R	4
USSP.2.05	Enhanced accessible changing rooms	Recommended	2	2
USSP.2.06	Accessible playgrounds and play areas	Mandatory	R	10
USSP.2.07	Enhanced accessible playgrounds and play areas	Recommended	3	3
USSP.2.08	Accessible pools	Mandatory	R	10
	Enhanced accessible nools	Recommended	6	6
0551.2.05		Best Practice	20	20
USSP.2.10	Accessible gymnasiums	Mandatory	R	8
USSP.2.11	Enhanced accessible gymnasiums	Recommended	8	8
USSP.2.12	Accessible courts and sports fields	Mandatory	R	20
USSP.2.13	Enhanced accessible courts and sports fields	Recommended	4	4
USSP.2.14	Accessible camping facilities	Mandatory	R	6

USSP	Use Specific Special Provisions	Requirement type	Credit points	applicability
			New assets development/ redevelopment	Existing assets renovation
USSP.2.15	Enhanced accessible camping facilities	Recommended	14	14
USSP.2.16	Water bodies	Mandatory	R	10
USSP.2.17	Beaches	Mandatory	R	10
USSP.2.18	Accessible nature trails	Mandatory	R	12
USSP.2.19	Enhanced accessible nature trails	Recommended	10	10
USSP.2.20	Accessible gangways	Mandatory	R	5
USSP.2.21	Accessible amusement and thematic parks	Mandatory	R	150
	Total		83	336

# 3.11.1 USSP.2.01 Enhanced service animal relief areas

# 3.11.1.1 Applicability:

Applicable to:

- a) Sites of national importance (e.g., nature parks, historic areas).
- b) Amusement parks, beaches, parks.

### 3.11.1.2 Intent:

To provide accessible, clean, and well-maintained relief areas for service animals accompanying their handlers, which should be strategically located and designed to support the health and well-being of the service animals and their handlers, thereby promoting inclusivity and accessibility.

# 3.11.1.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits should be in accordance with **"Sahel Building Rating System – USSP.1.01 Enhanced service animal relief areas"**.

### 3.11.1.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.01 Enhanced service animal relief areas".

### **3.11.1.5** Certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.01 Enhanced service animal relief areas".

### 3.11.1.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.01 Enhanced service animal relief areas".

#### 3.11.1.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.01 Enhanced service animal relief areas".

# 3.11.2 USSP.2.02 Assembly areas and auditoriums

# **3.11.2.1** Applicability:

Applicable to all open spaces with assembly areas and auditoriums. Not applicable to streetscapes.

# 3.11.2.2 Intent:

To ensure inclusivity and accessibility in assembly areas by providing a well-designed, accessible assembly areas that accommodate all audience members, promoting ease of access and a welcoming environment for everyone.

# **3.11.2.3** Requirements:

# Mandatory:

All assembly areas and auditoriums within the certification boundary shall be in accordance with **"Sahel Building Rating System – USSP.1.02 Accessible assembly areas and auditoriums"**.

# 3.11.2.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.02 Accessible assembly areas and auditoriums".

# **3.11.2.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.02 Accessible assembly areas and auditoriums".

# 3.11.2.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.02 Accessible assembly areas and auditoriums".

# 3.11.2.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.02 Accessible assembly areas and auditoriums".

# 3.11.2.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- **b)** Abu Dhabi International Building Code, 2013
- c) UAE Universal Design Code
# 3.11.3 USSP.2.03 Enhanced assembly areas and auditoriums

# 3.11.3.1 Applicability:

Applicable to all open spaces with assembly areas and auditoriums. Not applicable to streetscapes.

# 3.11.3.2 Intent:

To ensure inclusivity and accessibility in assembly areas by providing a well-designed, accessible assembly areas that accommodate all audience members, promoting ease of access and a welcoming environment for everyone.

# 3.11.3.3 Requirements:

All designs, drawings and specifications of the development/redevelopment or renovation within the certification boundary, submitted for pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All recommended requirements for assembly areas and auditoriums accessible to the public should be in accordance with **"Sahel Building Rating System – USSP.1.03 Enhanced accessible assembly areas and auditoriums"**.

#### **Best Practice:**

All best practice requirements for assembly areas and auditoriums accessible to the public should be in accordance with **"Sahel Building Rating System – USSP.1.03 Enhanced accessible assembly areas and auditoriums"**.

## **3.11.3.4 Pre-certificate rating credits:**

Refer to "Sahel Building Rating System – USSP.1.03 Enhanced accessible assembly areas and auditoriums".

# 3.11.3.5 Certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.03 Enhanced accessible assembly areas and auditoriums".

## 3.11.3.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.03 Enhanced accessible assembly areas and auditoriums".

## 3.11.3.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.03 Enhanced accessible assembly areas and auditoriums".

# **3.11.4.1** Applicability:

Applicable to:

- a) All open spaces featuring sports and recreation facilities requiring a change of clothes for asset users (e.g., swimming pools, SPAs).
- **b)** All facilities with accessible showers.

## 3.11.4.2 Intent:

To ensure providing a well-designed, accessible changing rooms in public areas, ensuring convenience, privacy, and ease of use for all users.

## 3.11.4.3 Requirements:

#### Mandatory:

At least 5% of changing room compartments, with a minimum of one, shall be designed to be accessible where changing rooms are envisioned.

All accessible changing room compartments within the certification boundary shall be in accordance with "Sahel Building Rating System – USSP.1.04 Accessible changing rooms and lockers".

## 3.11.4.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 4.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.04 Accessible changing rooms and lockers".

## 3.11.4.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 4.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.04 Accessible changing rooms and lockers".

## **3.11.4.6 Pre-certificate rating submission:**

Refer to "Sahel Building Rating System – USSP.1.04 Accessible changing rooms and lockers".

## 3.11.4.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.04 Accessible changing rooms and lockers".

## 3.11.4.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- b) Abu Dhabi International Building Code, 2013

# 3.11.5 USSP.2.05 Enhanced accessible changing rooms

## **3.11.5.1** Applicability:

Applicable to:

- a) All open spaces featuring sports and recreation facilities requiring a change of clothes for asset users (e.g., swimming pools, SPAs).
- **b)** All facilities with accessible showers.

#### 3.11.5.2 Intent:

To ensure providing an improved accessible changing room in public areas, ensuring convenience, privacy, and ease of use for all users.

## 3.11.5.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All recommended requirements for changing rooms accessible to the public should be in accordance with "Sahel Building Rating System – USSP.1.05 Enhanced accessible changing rooms and lockers".

#### 3.11.5.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.05 Enhanced accessible changing rooms and lockers".

#### 3.11.5.5 Certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.05 Enhanced accessible changing rooms and lockers".

#### 3.11.5.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.05 Enhanced accessible changing rooms and lockers".

#### 3.11.5.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.05 Enhanced accessible changing rooms and lockers".

# 3.11.6.1 Applicability:

Applicable to all public open spaces featuring playgrounds and play areas (particularly childcare facilities). Not applicable to streetscapes.

#### 3.11.6.2 Intent:

To ensure that playgrounds within the public realm development are accessible, inclusive, and safe, providing a welcoming and engaging environment for all potential users regardless of their ages and their carers to enjoy and interact comfortably.

#### 3.11.6.3 Requirements:

#### Mandatory:

When provided, all playgrounds and play areas shall be in accordance with Abu Dhabi International Accessibility Standards, 2013 and Public Realm Design Manual (PRDM) and shall:

#### a) 2 Credits in renovation:

- i. Have play equipment that is accessible for all potential users and their carers/ supervisors. The play equipment shall allow potential users, regardless of any limitations, to use at least 50 % of individual and group expected activities.
- **ii.** Be accessible via an accessible path linking the entrance, parking, public transit stops and drop-off areas to the playground and to every play area such as interactive water features or sensory gardens. Additionally, accessible paths shall be provided within the elevated and ground-level play components, including entry and exit points of the play components. The clear unobstructed width of the path of travel shall be a minimum of 2400 mm for new and 1800 mm for existing paths with a height clearance of a minimum of 2200 mm.
- **iii.** Consists only of areas that are easily perceptible and well-structured, incorporating a multisensory wayfinding information system. This may include the use of various flooring surface materials and tactile maps.
- iv. Feature materials which are low heat-conductive and visually contrasting from surrounding surfaces and other play elements. Play equipment, platforms, steps, handrails and transfer supports shall have a minimum luminance contrast in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".
- v. Feature no sharp edges and projections in the playground.
- vi. Feature shaded seating areas overlooking the play areas, connected to an accessible path, with minimal visual obstructions. A clear floor space of minimum 900 mm in width and 1500 mm in depth for a wheelchair user, including shoulder alignment, various seating arrangements and types of seating with armrests and back support or both shall be included.

#### b) 2 Credits in renovation:

- i. Feature strategically located wheelchair charging stations, BBQ pits, an inclusive family toilet, litter baskets/hot ash bins, and drinking water fountains integrated into the continuous accessible path and accessible to all users.
- **ii.** Be shaded either naturally or with the use of shading devices. The same applies to cycle tracks/lanes and seating areas (if provided).
- iii. Feature adequate floor surface:
  - a. The floor surfaces of playgrounds and play areas shall be firm, stable, slip-resistant and glare-free, (e.g. pour-in-place, rubber mats/tiles and artificial grass). The slip resistance values in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
  - b. Playground floor surfaces shall highlight potential hazards such as around swings. The luminance contrast value (LRV) between potential hazards and their background shall be in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
- iv. Playground floor surfaces that differentiate specific areas, such as loud and quiet zones, shall have a minimum luminance contrast in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".

#### c) 2 Credits in renovation:

- i. Provide separate zones (or separate playgrounds within the same certification boundary) for at least two age groups from the following: 0-2 years, 2-7 years, 7-14 years and +14 years, equipped with age-appropriate amenities.
- **ii.** Offer a diverse range of play equipment, strategically distributed throughout the playground, providing at least two different experiences of play such as, but not limited to:
  - **a.** Physical experience: climbing (e.g. rope nets, rock-climbing ropes, structures with wide ramps, low transfer platforms and handrails).
  - **b.** Physical experience: swinging (e.g. bucket seats, swing platforms, rope swing).
  - **c.** Physical experience: spinning (e.g. merry-go-rounds with ramps or lowered entry points).
  - **d.** Physical experience: adapted sports and games (e.g. wheelchair basketball, goalball, boccia, table tennis).
  - e. Multi-sensory experience: tactile (e.g. tactile panels, tactile puzzles, braille game boards, water and sand games, tactile paths).
  - f. Multi-sensory experience: auditory (e.g. musical instruments, interactive sound panels, speaking tubes or whisper dishes).
  - g. Multi-sensory experience: visual (e.g. art installations, kaleidoscope panels).
  - **h.** Social experience: cooperative play (e.g. multi-user swings or seesaws, team-based games).
  - i. Social experience: parallel play (e.g. adjacent play structures that allow for side-byside play without direct interaction, such as sandbox areas with multiple stations for individual or small group play).
- iii. Incorporate knee and toe recesses for play equipment and tables requiring a forward approach. The clearance underneath the equipment shall measure at least 700 mm in height and 450 mm in depth.
- iv. Include no materials producing electrostatic discharges that may deprogram hearing aids, especially in equipment requiring sliding. In existing playgrounds, such materials are allowed to be adequately marked with symbols and explanatory text.
- v. Not feature handrail extensions for ramps with a rise greater than 150 mm, as they may restrict access to the play component.

- vi. Where handrails are provided, they shall have an adequate form and dimensions:
  - **a.** The gripping surface of the handrail shall be circular, with an outer diameter ranging from 25mm to 40mm. The handrail must provide an equivalent gripping surface when the gripping surface is noncircular.
  - **b.** The height of the handrail gripping surface shall be positioned between 600mm and 750mm above the ramp surface.
- **vii.** Provide a clear turning circle with a minimum diameter of 1800 mm on the same level as play components, both for elevated and ground-level elements. Where swings are provided, the clear turning circle shall be located immediately adjacent to the swing.

#### d) 2 Credits in renovation.

- i. Feature adequate ground-level play components:
  - **a.** At least one of each type of play component shall be accessible and be located on an accessible path.
  - **b.** The accessible path connecting ground level play components shall have a running slope not steeper than 1:20 (5 %).
  - c. If ramps are included, their running slope shall be in accordance with "Sahel Building Rating System – IC.1.07 Accessible ramps".
- ii. Feature adequate elevated-level play components:
  - **a.** At least 50 percent of the elevated-level play components shall be on an accessible path.
  - **b.** The clear width of accessible paths connecting elevated play components shall be 900 mm minimum for retrofits and 1000 mm for new constructions.
  - **c.** Ramp runs connecting elevated play components shall have a maximum rise of 300 mm with handrails.
  - **d.** Transfer platforms shall be provided where a transfer is intended from wheelchairs or other mobility aids to the elevated component.
  - **e.** These transfer platforms shall have a level surface of 350 mm minimum in depth and 600 mm minimum in width.
  - f. The tops of the transfer platforms shall be 280 mm minimum and 450 mm maximum in height above the floor.
  - **g.** An unobstructed transfer space, measuring 900 mm by 1500 mm, shall be provided adjacent to the transfer platform. The minimum length dimension of 1500 mm for the transfer space must be centered on and parallel to the 600 mm minimum length side of the transfer platform.
  - **h.** At least one means of support, such as a handhold, shall be provided to assist with transferring.
  - i. Transfer steps shall be provided where movement is intended from transfer platforms to levels with elevated play components required to be on accessible paths.
  - j. Each transfer step shall be 200 mm maximum in height.
  - **k.** Each transfer step shall have a level surface measuring a minimum of 350 mm in depth and 600 mm in width.
  - **I.** At least one means of support, such as a handhold, guard or handrail, shall be provided along the transfer step.

#### e) 2 Credits in renovation:

- i. Feature adequate soft-contained play structures:
  - **a.** Where three or fewer entry points are provided for soft-contained play structures, at least one entry point shall be on an accessible path. Where four or more entry points are provided for soft-contained play structures, at least two entry points shall be on an accessible path.
  - **b.** Transfer systems, such as platforms or steps, shall be utilized as part of the accessible path for soft-contained play structures.
  - c. Feature adequate playground-sensory areas and equipment:
  - **d.** Playgrounds shall be divided into distinct areas for loud and quiet activities. Each quiet zone shall be designed to accommodate one to two children.
  - **e.** Play spaces and equipment shall engage multiple senses through color, texture, sound, movement, vibration, water, lighting, and even smell.
  - **f.** Tactile play components must offer a range of touch experiences, including smooth, soft, hard, rough, grainy, and uneven textures, allowing children to engage with them using their palms or feet.

## 3.11.6.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.

## 3.11.6.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.

## 3.11.6.6 Pre-certificate rating submission:

- a) A brief narrative describing how the project meets the requirements for accessible playgrounds and play areas.
- **b)** Design drawings showing the proposed locations of play equipment, accessible paths, sensory areas, and other amenities.
- c) Detailed specifications of the play equipment, materials used, and their compliance with the requirements.
- **d)** A strategy document outlining how the playground will cater to different age groups and provide diverse play experiences.

# **3.11.6.7** Certificate rating submission:

- a) An updated narrative describing how the built project meets the requirements for accessible playgrounds and play areas.
- **b)** As-built drawings showing the final locations of play equipment, accessible paths, sensory areas, and other amenities.
- c) Updated specifications if any changes were made during the construction stage.
- **d)** Photographs of the playground, focusing on the accessibility of play equipment, the connectivity of accessible paths, lighting levels at night, and other key features.
- e) Documentation of any strategies implemented, such as how the playground caters to different age groups and provides diverse play experiences. This could include user feedback, observational studies, or other forms of evaluation.

# 3.11.6.8 References:

- a) Abu Dhabi International Accessibility Code
- b) Abu Dhabi International Building Code, 2013
- c) PR-403 Design Manual Minimum Requirements for Private School Facilities
- d) UAE Universal Design Code

# 3.11.7 USSP.2.07 Enhanced accessible playgrounds and play areas

# 3.11.7.1 Applicability:

Applicable to all public open spaces featuring playgrounds and play areas (particularly childcare facilities). Not applicable to streetscapes.

# 3.11.7.2 Intent:

To ensure that playgrounds within the public realm are accessible, inclusive, and safe, providing a welcoming and engaging environment for all potential users and their caretakers, to enjoy and interact comfortably.

# 3.11.7.3 Requirements:

All designs, drawings and specifications of the development/redevelopment or renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

In the playground, at least one area should feature natural elements like raised plant beds and sensory gardens, with at least five different non-toxic and non-allergenic species such as Coral Vine, Lavender Trumpet, Jade Plant, Moss Rose, and Creeping Daisy. Additionally, aromatic herbs like basil, thyme, and jasmine can enhance sensory experiences. Plants with loose parts, like bark or leaves, should be placed away from main paths to avoid hazards, ensuring a safe and interactive environment for all users.

Ensure play equipment offers three types of play experiences:

- a) Physical: climbing, swinging, spinning
- **b)** Multi-sensory: tactile, auditory, visual
- c) Social: cooperative, parallel play

# 3.11.7.4 Pre-certificate rating credits:

## Table 73: USSP.2.07 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	3	Design all playgrounds within the certification boundary that provides interaction with natural features including a variety of plants with loose parts to encourage explorative play, ensuring the use of non-toxic, non-allergenic plants. Design the play area to provide three types of experiences.

# 3.11.7.5 Certificate rating credits:

#### Table 74: USSP.2.07 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
3	3	Confirmed the implementation of all playgrounds within the certification boundary according to the recommended requirements.

## 3.11.7.6 Pre-certificate rating submission:

- **a)** A brief narrative describing how the project meets the recommended requirements for accessible playgrounds and play areas.
- **b)** Design drawings showing the proposed locations of play equipment to provide different play experiences.

## 3.11.7.7 Certificate rating submission:

- a) An update narrative describing how the project meets the recommended requirements for accessible playgrounds and play areas.
- **b)** As-built drawings showing the locations of play equipment to provide different play experiences.
- c) Photographs of the playground areas.

# 3.11.8 USSP.2.08 Accessible pools

# 3.11.8.1 Applicability:

Applicable to all public open spaces with outdoor swimming pools accessible to public.

## 3.11.8.2 Intent:

To ensure an accessible and universally design of swimming pools within the public realm by incorporating physical access provisions, safety measures, and inclusive facilities for all users.

## 3.11.8.3 Requirements:

#### Mandatory:

Accessible sports swimming and recreation pools within the certification boundary shall be in accordance with **"Sahel Building Rating System – USSP.1.08 Accessible pools"**.

#### 3.11.8.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credit breakdown refer to "Sahel Building Rating System USSP.1.08 Accessible pools".

## **3.11.8.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.
- c) For credit breakdown refer to "Sahel Building Rating System USSP.1.08 Accessible pools".

## 3.11.8.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.08 Accessible pools".

## 3.11.8.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.08 Accessible pools".

#### 3.11.8.8 References:

- a) Abu Dhabi International Accessibility Code
- b) Abu Dhabi International Building Code, 2013
- c) UAE Universal Design Code

# 3.11.9 USSP.2.09 Enhanced accessible pools

# 3.11.9.1 Applicability:

Applicable to all public open spaces with outdoor swimming pools accessible to public.

# 3.11.9.2 Intent:

To ensure an accessible and universally design of swimming pools within the public realm by incorporating enhanced physical access provisions, safety measures, and inclusive facilities for all users.

## 3.11.9.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All recommended requirements for pools accessible to the public should be in accordance with **"Sahel Building Rating System – USSP.1.09 Enhanced accessible pools"**.

#### **Best Practice:**

All best practice requirements for pools accessible to the public should be in accordance with **"Sahel Building Rating System – USSP.1.09 Enhanced accessible pools"**.

## 3.11.9.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.09 Enhanced accessible pools".

## **3.11.9.5** Certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.09 Enhanced accessible pools".

## 3.11.9.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.09 Enhanced accessible pools".

## 3.11.9.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.09 Enhanced accessible pools".

# **3.11.10.1** Applicability:

Applicable to all public open spaces with outdoor gymnasiums and fitness equipment accessible to the public.

## 3.11.10.2 Intent:

To provide an accessible gymnasium within the public realm, encompassing features like inclusive equipment, easy navigation, and safety measures to accommodate all users.

## **3.11.10.3** Requirements:

#### Mandatory:

All accessible gymnasiums within the certification boundary shall be in accordance with **"Sahel Building Rating System – USSP.1.10 Accessible gymnasiums"**.

#### **3.11.10.4** Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.10 Accessible gymnasiums".

#### **3.11.10.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 8.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.10 Accessible gymnasiums".

#### 3.11.10.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.10 Accessible gymnasiums".

## 3.11.10.7 Certificate rating submission:

#### Refer to "Sahel Building Rating System – USSP.1.10 Accessible gymnasiums".

#### 3.11.10.8 References:

- a) Abu Dhabi International Accessibility Code
- b) Abu Dhabi International Building Code, 2013
- c) Abu Dhabi Guideline Practice to increase opportunities for physical activity in the Emirate of Abu Dhabi (ADG-027).

# 3.11.11 USSP.2.11 Enhanced accessible gymnasiums

# 3.11.11.1 Applicability:

Applicable to all public open spaces with outdoor gymnasiums and fitness equipment accessible to the public.

## 3.11.11.2 Intent:

To provide an accessible gymnasium within the public realm, encompassing enhanced provisions of features like inclusive equipment, easy navigation, and safety measures to accommodate all users.

## 3.11.11.3 Requirements:

All designs, drawings and specifications of the development/redevelopment or renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All recommended requirements for gymnasiums accessible to the public should be in accordance with "Sahel Building Rating System – USSP.1.11 Enhanced accessible gymnasiums".

## 3.11.11.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.11 Enhanced accessible gymnasiums".

## 3.11.11.5 Certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.11 Enhanced accessible gymnasiums".

## **3.11.11.6** Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.11 Enhanced accessible gymnasiums".

# 3.11.11.7 Certificate rating submission:

#### Recommended:

Refer to "Sahel Building Rating System – USSP.1.11 Enhanced accessible gymnasiums".

# 3.11.12 USSP.2.12 Accessible courts and sports fields

# 3.11.12.1 Applicability:

Applicable to all public open spaces with outdoor courts and sports fields accessible to the public.

## 3.11.12.2 Intent:

To ensure accessible outdoor courts and sports fields by providing a strategically designed and maintained facility to offer an accessible sport opportunity for all.

## 3.11.12.3 Requirements:

#### Mandatory:

All sports fields and courts within the certification boundary shall be accessible in accordance with **"Sahel Building Rating System – USSP.1.12 Accessible courts and sports fields"**.

#### 3.11.12.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 20.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.12 Accessible courts and sports fields".

#### 3.11.12.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 20.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.12 Accessible courts and sports fields".

#### 3.11.12.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.12 Accessible courts and sports fields".

#### 3.11.12.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.12 Accessible courts and sports fields".

#### 3.11.12.8 References:

- a) Abu Dhabi International Accessibility Code
- b) Abu Dhabi International Building Code, 2013
- **c)** Abu Dhabi Guideline Practice to increase opportunities for physical activity in the Emirate of Abu Dhabi (ADG-027).

# 3.11.13 USSP.2.13 Enhanced accessible courts and sports fields

# 3.11.13.1 Applicability:

Applicable to all public open spaces with outdoor courts and sports fields accessible to the public.

#### 3.11.13.2 Intent:

To ensure accessible outdoor courts and sports fields by providing a strategically designed and maintained facility to offer an accessible sport opportunity for all.

#### 3.11.13.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### **Recommended:**

All sports fields and courts within the certification boundary should be accessible in accordance with "Sahel Building Rating System – USSP.1.13 Enhanced accessible courts and sports fields".

#### 3.11.13.4 Pre-certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.13 Enhanced accessible courts and sports fields".

#### 3.11.13.5 Certificate rating credits:

Refer to "Sahel Building Rating System – USSP.1.13 Enhanced accessible courts and sports fields".

#### 3.11.13.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.13 Enhanced accessible courts and sports fields".

## 3.11.13.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.13 Enhanced accessible courts and sports fields".

# 3.11.14.1 Applicability:

Applicable to all public open spaces that provide opportunities for camping and that are accessible to the public.

# 3.11.14.2 Intent:

To establish accessible camping facilities within the public realm, ensuring inclusivity and equitable access in adherence to universal design, provision of accessible amenities and accommodation promoting an enjoyable outdoor environment experience for all users.

# 3.11.14.3 Requirements:

## Mandatory:

## a) 6 Credits in renovation:

**i.** Ensure that at least 5% or a minimum of one accessible camping site/service is provided, where camping sites are present.

## **3.11.14.4** Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 6.

## 3.11.14.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 6.

## 3.11.14.6 Pre-certificate rating submission:

a) Drawings showing the layout of the camping facilities, indicating the accessible paths, tent pads, platforms, camping shelters, and outdoor constructed features. The drawings must also detail the slope measurements, and the materials used for tent paths.

## 3.11.14.7 Certificate rating submission:

- **a)** As-built drawings depicting the actual layout of the camping facilities, including the accessible paths, tent pads, platforms, camping shelters, and outdoor constructed features, with precise measurements and specifications.
- b) Photographs showcasing the accessible camping units, highlighting the features such as the level tent pads or platforms, outdoor constructed features, signage with the International Sign for Accessibility, and the continuous accessible path. Photos must also show the accessible parking spaces and any raised tent platforms with their edge protection.

## 3.11.14.8 References:

a) Abu Dhabi International Accessibility Code, 201

# 3.11.15 USSP.2.15 Enhanced accessible camping facilities

## 3.11.15.1 Applicability:

Applicable to all public open spaces that provide opportunities for camping and that are accessible to the public.

#### 3.11.15.2 Intent:

To establish accessible camping facilities within the public realm, ensuring inclusivity and equitable access in adherence to optimized universal design, provision of accessible amenities and accommodation promoting an enjoyable outdoor environment experience for all users.

#### 3.11.15.3 Requirements:

#### **Recommended:**

All designs, drawings and specifications of the development/redevelopment or renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

All camping facilities designed to be accessible should:

- a) Be connected to a continuous accessible path route connected to accessible tent pads, platforms or camping shelters (if present) (Figure 36).
- b) When tent pads or platforms are present, shall:
  - i. At least 20%, with a minimum of two tent pads or platforms, must be level, with a maximum cross slope of 1:50 (2 %) in any direction.
  - **ii.** When the surface of the tent path is constructed of materials other than asphalt, concrete, or boards, slopes shall be no steeper than 1:20 (5 %).
- c) Provide tent pads and platforms (if present) which shall:
  - i. Have a clear minimum space of 1200 mm on all usable sides to assist with erecting and accessing tents.
  - ii. Be at least 3000 mm wide by 3600 mm deep.
- d) Provide raised tent platforms (if present) which shall:
  - i. Have a maximum seat height between 450-500 mm above ground level.
  - **ii.** Ensure all tent platforms designed to be accessible should provide edge protection a minimum of 100 mm above ground level
  - iii. Where edge protection is provided, it shall not obstruct access to the platform.
  - iv. Be identified through signage.
- e) Ensure electric power outlets and charging stations are provided adjacent to tent pads and platforms.
- **f)** Ensure camp shelters for transient accommodation or cover have a clear floor space of minimum 900 mm in width and 1500 mm in depth at a height of 450 x 500 mm for transfer.
- **g)** Ensure camp shelters with roll-in access have level access and provide a clear turning circle with a minimum diameter of 1800 mm.
- **h)** Have signage which shall display the International Sign for Accessibility (ISA) in van and RV accessible parking spaces where there are five or more designated parking spaces.
- i) Provide a choice of units comparable to and integrated with those available to all other asset users.

- j) Provide a minimum of one type of outdoor constructed feature provided at each location designed to be accessible. Outdoor constructed features shall include, but not limited to (if present):
  - i. Picnic tables.
  - ii. Fire rings, fireplaces and grills.
  - iii. Benches.
  - iv. Litter baskets and recycling containers.
  - v. Toilets and showers.
  - vi. Beach and boating access.
  - vii. Camping utility connections, water hydrants, drinking fountains and outdoor rinsing showers.
  - viii. Telescope and periscopes.
- k) Provide a minimum of one accessible parking space for RVs (recreational vehicle), one accessible parking space for vehicles other than RVs in accordance with "Sahel Building Rating System TA.1.01 Accessible parking", and if present, an accessible tent pad, tent platform, and camp shelter.



# Figure 36: Accessible camping area

# 3.11.15.4 Pre-certificate rating credits:

#### Table 75: USSP.2.15 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
2	2	Design accessible paths to facilities
2	2	Design tends pads following the recommendations
1	1	Foresee accessible signage
4	4	Design at least one accessible unit per type
2	2	Design at least one accessible outdoor feature
3	3	Design at least one accessible parking for RVs and one for other vehicles.

# 3.11.15.5 Certificate rating credits:

#### Table 76: USSP.2.15 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
2	2	Provide accessible paths to facilities
2	2	Provide tends pads following the recommendations
1	1	Provide accessible signage
4	4	Provide at least one accessible unit per type
2	2	Provide at least one accessible outdoor feature
3	3	Provide at least one accessible parking for RVs and one for other vehicles.

## 3.11.15.6 Pre-certificate rating submission:

#### **Recommended:**

- a) Drawings showing the layout of the camping facilities, indicating the accessible path routes, tent pads, platforms, camping shelters, and outdoor constructed features. The drawings should also detail the slope measurements, and the materials used for tent paths.
- **b)** Drawings indicating the placement of signage for accessible camping facilities and the design of tent platforms with the specified edge protection.

# 3.11.15.7 Certificate rating submission:

#### **Recommended:**

- a) As-built drawings depicting the actual layout of the camping facilities, including the accessible path routes, tent pads, platforms, camping shelters, and outdoor constructed features, with precise measurements and specifications.
- **b)** Photographs showcasing the accessible camping units, highlighting the features such as the level tent pads or platforms, outdoor constructed features, signage with the International Sign for Accessibility, and the continuous accessible path route. Photos should also show the accessible parking spaces and any raised tent platforms with their edge protection.
- **c)** As-built drawings depicting the actual placement of signage and the construction details of tent platforms with edge protection.
- **d)** Photographs showcasing the signage for accessible camping facilities and the edge protection on tent platforms, focusing on their compliance with the specified requirements.

# 3.11.16 USSP.2.16 Water bodies

# **3.11.16.1** Applicability:

Applicable to all open spaces with water bodies accessible to the public. Not applicable to streetscapes.

## 3.11.16.2 Intent:

To ensure that recreational water bodies in the public realm are safe, accessible and enjoyable for all users, promoting inclusive leisure activities and enhancing the users' well-being.

## 3.11.16.3 Requirements:

#### Mandatory:

Water bodies accessible to public shall feature the following elements:

Banks of water bodies, which shall:

#### a) 2 Credits in renovation:

- i. Be accessible via an accessible path with accompanying facilities like car parking, public transportation stops, passenger drop-off areas, toilets, drinking fountains, shower rooms, locker and storage rooms and seating, as well as emergency egress and refuge assembly areas (whichever is present). Accessible paths shall be dimensioned considering users on sport wheelchairs in particular: corridors and pedestrian routes of minimum 2000mm width.
- ii. Have entry points/doors/gates provided along the managed shoreline at least every 800 m.
- iii. Feature accessible paths which:
  - **a.** Are firm, stable, slip-resistant, and glare-free, providing a firm foothold and good wheel grip durable surface.
  - **b.** Are suitable for comfortable barefoot walking of low heat conductivity and, depending on drop-off size protected edges (drops between 25 mm to 150 mm shall be beveled with a slope of 1:2 (50%); drops bigger than 150 mm shall feature edge protection of 100 mm minimum.
  - c. Are durable.

#### b) 2 Credits in renovation:

- i. Provide accessible equipment and spaces such as:
  - **a.** Boat slips (if present) which shall:
    - Be provided in a number adequate to the total number of slips in the facility as required, 2% and at least one.
    - Provide minimum 2000 mm clear space in width that extends the full length of the boat slips or boarding
    - Be dispersed throughout the various types of slips provided.
    - Have edge protection of maximum 100 mm high or 50mm deep at continuous clear opening.

#### c) 2 Credits in renovation:

- i. Boarding piers (Figures 37, 38) at launch ramps (if present) which shall:
  a. Be provided in at least 10 percent as accessible but not less than one
- ii. Piers (if present) which shall:
  - **a.** Provide at least one clear turning circle with a minimum diameter of 1800 mm (may overlap with the accessible path and clear floor or ground space)
  - b. Contain at least one continuous clear opening of 2000 mm minimum in width each 3000 mm of linear pier edge serving boat slips or boarding piers
  - **c.** Provide places offering fishing places (Figure 39) for all with a clear floor space of minimum 900 mm in width and 1500 mm in depth and railings (if provided) that are lowered to 600 mm or less in height measured from the deck or ground. The lowered railings need to constitute at least 25% of the overall railing length.



Figure 39: Accessible fishing Pier

#### d) 1 Credits in renovation:

- i. Gangways (if present), shall:
  - **a.** Have a maximum slope of 1:16 (rounded to 6%) for gangways not longer than 24000 mm.
  - **b.** Have a maximum cross slope of 1:50 (2%) if a part of an accessible path.
  - c. handrail extensions are not required when connecting with transition plates
  - d. Landings are not required, if transition plates are provided.
  - **e.** Have transition plates with landing at the non-gangway and when transition plate slope exceeds 1:20 (5%).
- ii. Boardwalks (if present) which shall:
  - a. Be equipped with a drinking fountain at the shore end.

#### e) 3 Credits in renovation:

- i. Viewing points (if present) (Figures 40, 41) which shall:
  - **a.** Provide a clear floor space of minimum 900 mm in width and 1500 mm in depth and railings not higher than 850 mm from deck or ground.
  - **b.** Extend 300 mm minimum beyond the inside face of the railing.
  - **c.** Provide toe clearance at railings of minimum 750 mm in width and 250 mm above the deck or ground.
  - **d.** Provide at least one clear turning circle with a minimum diameter of 1800 mm (may overlap with the accessible path and clear floor or ground space).



Figure 40: Viewing Point

Figure 41: Viewing point with binocular

- f) Facilities for water activities and swimming (if present) which shall:
  - i. Offer at least one accessible water access point of minimum 2000 mm width and in case of lakes a floating rope.
  - ii. Be accompanied and connected via accessible path with:
    - a. Public toilets.
    - **b.** Changing rooms.
    - c. Showers.
    - d. Inclusive family toilet (new facilities only).
    - e. Baby feeding room (new facilities only).

# 3.11.16.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **10**.

# 3.11.16.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **10**.

# 3.11.16.6 Pre-certificate rating submission:

- a) A comprehensive narrative detailing how the design meets the accessibility requirements for banks of water bodies, including the design and location of facilities and accessible paths.
- **b)** Design drawings showing the layout of the accessible path, including dimensions, surface materials, and the location of accompanying facilities such as car parking, public transportation stops, and toilets.
- c) Detailed drawings of entry points/doors/gates along the shoreline, including their frequency and any exemptions due to terrain.
- d) Specifications for accessible equipment and spaces, including boat slips, boarding piers, piers, gangways, boardwalks, viewing points, and facilities for water activities and swimming.
- e) Documentation of compliance with code requirements for the number and dispersion of boat slips and boarding piers.

# 3.11.16.7 Certificate rating submission:

- a) An updated narrative reflecting any changes made during construction and confirming that the project meets the accessibility requirements for banks of water bodies.
- **b)** As-built drawings showing the final implementation of the accessible path, facilities, and equipment.
- c) Photographs highlighting the accessibility features of the route and facilities, including the slip-resistant surface, edge protection, clear space at boat slips, and accessible water access points.
- **d)** Evidence of compliance with the required width of corridors and pedestrian routes, especially for users on sport wheelchairs.
- e) Verification of the presence and accessibility of facilities such as toilets, changing rooms, showers, inclusive family toilets, and baby feeding rooms (for new facilities).

# 3.11.16.8 References:

- a) Abu Dhabi International Accessibility Code
- b) UAE Universal Design Code

# 3.11.17 USSP.2.17 Beaches

# **3.11.17.1** Applicability:

Applicable to all open spaces with beaches accessible to the public. Not applicable to private beaches.

## 3.11.17.2 Intent:

To provide public beaches that prioritize safety, accessibility, and inclusivity for all visitors, fostering a welcoming environment where everyone can enjoy the beach activities.

## **3.11.17.3** Requirements:

#### Mandatory:

All beaches accessible to all members of the public, located within the certification boundary shall be accessible. Accessible beaches shall:

#### a) 2 Credits in renovation:

- i. Be accessible via an accessible path with accompanying facilities like car and cycle parking, public transportation stops, passenger drop-off areas, toilets, drinking fountains, shower rooms, locker and storage rooms, seating and first aid room, as well as emergency egress and refuge assembly areas (whichever is present). Accessible paths shall be dimensioned considering users on sport wheelchairs in particular: corridors and pedestrian routes of minimum 2000mm width in new developments and 1800 mm for existing.
- ii. Have entry points/doors/gates provided along the managed shoreline at least every 800 m.
- iii. Feature accessible beach routes which:
  - **a.** Are firm, stable, slip-resistant and glare-free, providing a firm foothold and good wheel grip durable surface.
  - **b.** Are suitable for comfortable barefoot walking of low heat conductivity and, depending on drop-off size protected edges (drops between 25 mm to 150 mm shall be beveled with a slope of 1:2 (50%); drops bigger than 150 mm shall feature edge protection of 100 mm minimum.
  - **c.** Are durable.

#### b) 2 Credits in renovation:

- i. Provide at least one water access point (Figure 42) the following type (Independent access shall be prioritized):
  - a. An accessible ramp in accordance with "Sahel Building Rating System IC.1.07 Accessible ramps".
  - **b.** An accessible pier with a hoist.
  - c. An accessible track system with a chair.



- - ii. Provide floating rope at each water access point.
  - iii. Provide an accessible path in combination with a floatable beach wheelchair.

#### c) 2 Credits in renovation:

- i. Ensure beach huts, lounge areas, and shading devices are accessible, placed along an accessible path, and that at least 5% of these facilities are provided.
- **ii.** Provide accessible counters and at least one sales and information point (if present) at every entrance. Counters to include loop systems for hearing impaired users.

#### d) 4 Credits in renovation:

- i. Be accompanied by the following facilities within maximum 100 m from high tide line and arrival points such as passenger drop off zones, parking, public transportation stops:
  - a. Public toilets.
  - **b.** Changing rooms.
  - c. Lockers.
  - d. Family toilet (new facilities only).
  - e. Baby feeding room (new facilities only).
  - f. Shaded rest points.
  - g. Outdoor rinsing showers (Figure 43) and foot wash.
  - **h.** Appropriate street furniture including but not limited to litter baskets.



#### Figure 43: Outdoor shower

#### **3.11.17.4** Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **10**.

#### 3.11.17.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 10.

#### 3.11.17.6 Pre-certificate rating submission: s

- a) A detailed description of how the design meets the accessibility requirements for beaches, including the design and location of facilities and accessible paths.
- **b)** Drawings showing the layout of the accessible path, dimensions, surface materials, and the location of accompanying facilities such as car parking and public transportation stops.
- c) Drawings of entry points along the shoreline, including their frequency and any exemptions due to terrain.
- d) Specifications for the beach routes, including materials, surface stability, and edge protection.
- e) Details of the types of water access points provided, such as ramps, piers, and track systems, including design specifications and compliance with independent access priorities.
- **f)** Documentation of the design and location of facilities within 100 m of the high tide line and arrival points, including toilets, changing rooms, and shaded rest points.

#### 3.11.17.7 Certificate rating submission:

- a) Updated description reflecting any changes made during construction and confirming that the project meets the accessibility requirements for beaches.
- **b)** Final implementation of the accessible path, facilities, and equipment.
- c) Photographs highlighting the accessibility features of the route and facilities, including the slip-resistant surface, water access points, and accessible counters.
- d) Proof of adequate lighting levels on promenades and paths adjacent to beach areas, ensuring a minimum of 30 lux at night and 100 lux at potential hazards.

#### 3.11.17.8 References:

- a) Abu Dhabi International Accessibility Code
- b) UAE Universal Design Code

# **3.11.18.1** Applicability:

Applicable to all open spaces with nature trails accessible to the public.

## 3.11.18.2 Intent:

To ensure strategically designed nature trails that offer adequate features accessible to all guests and visitors, providing equal and inclusive opportunities for enjoyable outdoor activities.

## **3.11.18.3** Requirements:

#### Mandatory:

All main nature trails (connecting the main points of interest) shall be designed as accessible. An accessible nature trail shall:

- a) 2 Credits in renovation:
  - i. Have accessible parking (Figure 44) connected to the trailhead in accordance with "Sahel Building Rating System TA.1.01 Accessible parking".

#### b) 2 Credits in renovation:

- i. Have accessible toilets provided connected to the parking area and the trailhead with an accessible path.
- **ii.** Accessible toilets shall have an inclusive family toilet and both gender accessible stalls and toilet rooms, where applicable.

#### c) 2 Credits in renovation:

- i. Provide accessible information, warning and wayfinding signage and tactile maps, located at the trailhead to indicate the accessibility of the trail. Including the availability of facilities such as seating, barriers such as steps where these are unavoidable. It shall also provide length of the trail or trail segment defining type of trail surface, typical and minimum trail tread width, typical and maximum trail grade, typical and maximum trail cross slope along the accessible path, as applicable.
- **ii.** Provide tactile signs and symbols throughout the trail at least at the trailhead, intersections, level changes (steps, steep slopes), points of interest, and the trail end.
- **iii.** Provide information (e.g., in form of free-standing signage) about vegetation and/or animal and heritage sites accessible via/from an accessible path.
- iv. Use signs to mark any dead-ends, inaccessible sites (due to e.g., heritage/environmental value) at the closest intersection and provide a clear turning circle with a minimum diameter of 1800 mm at the intersection and the end of the accessible path:
  - **a.** The signs shall have a minimum width of 300 mm and a minimum height of 450 mm.
  - **b.** The signs shall have a luminance contrast in accordance with **"Sahel Building Rating System EQC.1.09 Wall and floor finishes"**.

#### d) 2 Credits in renovation:

- Provide accessible picnic tables, barbecue grills, benches, and seating areas along the trail in accordance with "Sahel Public Realm Rating System – EFE.2.02 Street furniture".
- ii. Provide an accessible path to link the trailhead, the main points of interest and the trail end. If the route is manmade, it shall have a width of 2000 mm for new assets, and 1800 mm for existing assets, as applicable. In natural trails there shall be a minimum width of 900 mm.
- iii. Not allow for passing space to be part of any resting/waiting area that may also be provided.

#### e) 2 Credits in renovation:

- i. Have guardrails, at least 1200 mm high in viewing areas. The guardrails cannot be easily climbable and shall have sufficient strength and stiffness to withstand a horizontal uniformly distributed force of 3 kN/m. Where guardrails are provided with edge protection, the edge protection shall be provided on both sides along the entire length of the guardrails to a min height of 100 mm above ground surface. Openings in guardrails shall not exceed 100 mm.
- ii. Ensure handrails, surfaces and outdoor furniture shall have a luminance contrast in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
- iii. Provide handrails of low heat conductivity.

#### f) 2 Credits in renovation:

- i. Ensure a clear floor space of minimum 900 mm in width and 1500 mm in depth is provided, and/or the viewing point height does not exceed 850mm above ground/ deck (where railing is provided, and/or deck is less than 300mm deep).
- **ii.** Ensure a separate accessible telescope/periscope is available for use from both standing and seated positions at each distinct viewing location, and/or that seated position telescopes provide adequate knee and toe clearance.
- iii. Ensure toe clearance width is less than 750mm, and height is less than 250mm.
- iv. Ensure the edge is at least 300mm in front of the rail or barrier. This can be either an extension of the edge in front of the barrier, or the barrier can be set back 150mm from the edge deck or ground. If railings are present, at least one unobstructed vision space shall be provided.
- v. Have ground surfaces on accessible paths to be firm, stable, slip-resistant and glarefree, (e.g., paving or asphalt for highly developed areas and crushed gravel, fine crusher rejects, packed soil, or other natural materials for less developed areas).
- vi. Have adequate slopes:
  - a. On natural paths, cross slopes shall not exceed 1:33 (3%), on built paths 1:50 (2%).
  - k. Running slopes shall be maximum 1:20 (5%). It is allowed for short distances to have a maximum 1:10 (10%) running slope if it is followed by a resting area minimum 1500 mm long with a maximum 1:33 (3%) running slope in all directions.
  - **c.** Drainage slopes shall be carefully planned to avoid unnecessary waterlogging of paths.
- vii. Provide an accessible drinking water fountain and litter baskets at the trailhead accessible via/from an accessible path.
- viii. Provide a rest point every 100 m of the accessible path of nature trail, by the map at the trail head, and at main points of interest (e.g., viewing areas, heritage sites).
- ix. Ensure openings in ground surfaces on manmade routes do not exceed 12 mm and any elongated openings are oriented perpendicular to the direction of travel.
- **x.** Ensure obstacles on ground surfaces on natural routes do not exceed 50 mm in width (e.g., tree roots).



Figure 44: Trail head and accessible parking

# 3.11.18.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **12**.

#### 3.11.18.5 Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 12.

#### 3.11.18.6 Pre-certificate rating submission:

- a) Design drawings illustrating the proposed locations of accessible parking, toilets, information points, tactile signs and symbols, accessible paths, clear turning circles, rest points, drinking water and litter baskets.
- **b)** Specifications detailing the design of accessible toilets, information points, tactile signs and symbols, accessible paths, clear turning circles, rest points, drinking water and litter baskets.
- c) Details of the proposed materials for handrails and guardrails, surfaces, and outdoor furniture.
- d) Details of the proposed ground surfaces on accessible paths.
- e) Drawings of the proposed slopes on natural and built paths.
- f) Details of the proposed luminance contrast and Light Reflectance Value (LRV) for signs, handrails, surfaces, and outdoor furniture.

## 3.11.18.7 Certificate rating submission:

- **a)** As-built documentation confirming the implementation of accessible parking, toilets, information points, tactile signs and symbols, accessible paths, clear turning circles, rest points, drinking water and litter baskets in designated areas.
- **b)** Updated specifications if any changes were made during the construction stage.
- c) Photographs of accessible parking, toilets, information points, tactile signs and symbols, accessible paths, clear turning circles, rest points, drinking water and litter baskets
- **d)** Photographs of the ground surfaces on accessible paths, showcasing the firmness and stability of the surfaces.
- e) As-built drawings of the slopes on natural and built paths, showcasing the adequacy of the slopes.
- **f)** Photographs of the signs, handrails, surfaces, and outdoor furniture, showcasing the luminance contrast and Light Reflectance Value (LRV).
- **g)** Photographs of the rest points every 100 m of the accessible path of nature trail, by the map at the trail head, and at main points of interest (e.g., viewing areas, heritage sites).

# 3.11.18.8 References:

- a) TR-530 Walking and Cycling Master Plan-Network Design
- b) Abu Dhabi International Accessibility Code
- c) Abu Dhabi International Building Code, 2013

# 3.11.19.1 Applicability:

Applicable to all open spaces with nature trails accessible to the public.

# 3.11.19.2 Intent:

To ensure strategically designed nature trails that offer enhanced and improved features accessible to all guests and visitors, providing equal and inclusive opportunities for enjoyable outdoor activities.

## 3.11.19.3 Requirements:

All designs, drawings and specifications of the development/renovation within the certification boundary, submitted for Pre-certificate and certificate rating credits shall adhere to mandatory requirements, in addition to the following:

#### Recommended:

All main nature trails (connecting the main points of interest) should be designed as accessible. An accessible nature trail should:

- a) Feature accessible sightseeing facilities (e.g., birdwatching, nature hides, viewing windows), if provided.
  - i. Viewing windows should be provided at a variety of heights to be accessible for persons of various statures (e.g., adults/children, standing/seating)
- **b)** Ensure overnight accommodation (if provided) is accessible and connected to accessible parking.
- **c)** Feature accessible alternatives to provided services, which aren't accessible to all (e.g., cycle, camel, or horse rides). The alternatives could be, but are not limited to, alternative products, architectural solutions or technical aids.
- **d)** Provide contact information at trailheads to allow reporting damages, safety hazards, or vandalism on the trail.
- e) Provide the opportunity to experience the natural environment through touch, hearing and smell, where feasible.
- **f)** Provide an accessible drinking water point (e.g., drinking fountain) and litter baskets at viewing platforms and picnic areas (if present).
  - i. The trail, the drinking water point, and litter basket should be linked with an accessible path.
- g) Provide dog waste bags and litter baskets at the trailhead.

# 3.11.19.4 Pre-certificate rating credits:

#### Table 77: USSP.2.19 pre-certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
2	2	Foresee sightseeing facilities
3	3	Design accessible overnight accommodation and activities
2	2	Design sensory experiences and foresee contact information
2	2	Foresee accessible drinking fountains
1	1	Foresee dog facilities and litter baskets

## 3.11.19.5 Certificate rating credits:

#### Table 78: USSP.2.19 certificate credits

Credit points		Requirements
New assets development / redevelopment	Renovation projects	Recommended
2	2	Provide sightseeing facilities
3	3	Provide accessible overnight accommodation and activities
2	2	Provide sensory experiences and contact information
2	2	Provide accessible drinking fountains
1	1	Provide dog facilities and litter baskets

# 3.11.19.6 Pre-certificate rating submission:

#### **Recommended:**

a) Design drawings illustrating the proposed locations of sightseeing facilities in variety of heights, accessible alternatives to provided services and experiences, contact information at trailheads, and street furniture including drinking water fountains and litter baskets.

## 3.11.19.7 Certificate rating submission:

#### **Recommended:**

- a) As-built drawings illustrating the proposed locations of sightseeing facilities in variety of heights, accessible alternatives to provided services and experiences, contact information at trailheads, and street furniture including drinking water fountains and litter baskets.
- b) Updated specifications if any changes were made during the construction stage.
- c) Photographs of sightseeing facilities, accessible alternatives to provided services and experiences, contact information at trailheads, and street furniture including drinking water fountains and litter baskets.

# **3.11.20.1** Applicability:

Applicable to all gangways to be used to access ferries, water taxis, vessels and boats for public use.

# 3.11.20.2 Intent:

To ensure that all gangways connect piers to any kind of boat for public use allowing equitable, independent and convenient access to all passengers.

# **3.11.20.3** Requirements:

#### Mandatory:

a) 5 Credits in renovations:

Gangways shall fulfil the following requirements, in accordance with Abu Dhabi International Accessibility Code:

- i. When intersecting with the jetty surface, a 15mm high (maximum) beveled edge is provided.
- ii. Slope should be less than 1:16 (rounded to 6%) in new gangways, and less than 1:12 (rounded to 8%) in the existing ones.
- iii. The slope of a transition plate shall be less than 1:20 (5%), but the plate does not have a landing at the non-gangway end of the transition plate
- iv. Floor surfaces shall be firm, stable, slip-resistant, and glare-free. The slip resistance value shall be in accordance with "Sahel Building Rating System EQC.1.09 Wall and floor finishes".
- v. The cross fall shall not exceed 1:50 (2%) maximum.
- vi. Gangways shall have an edge protection of 100 mm in height installed along the ramp run.
- vii. Gangways with a rise exceeding 150 mm shall feature handrails on both sides at two different heights:
  - **a.** The height of handrails shall range between 850 mm and 950 mm for the higher handrail and between 600 mm and 750 mm for the lower handrail.
  - **b.** Shall have a 300 mm of horizontal extension of the handrails.
  - c. Handrails shall exhibit a minimum luminance contrast in accordance with "Sahel Building Rating System – EQC.1.09 Wall and floor finishes".
  - **d.** All handrail materials shall be of low heat conductivity.
  - **e.** The gripping surface of handrails shall have a diameter ranging from 30 mm to 45 mm.
- viii. Gangways shall have a minimum lighting level in accordance with "Sahel Public Realm Rating System – EQC.2.09 Enhanced lighting and display".

## 3.11.20.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- **b)** Credit points awarded by renovation projects: **5**.

## **3.11.20.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 5.

# 3.11.20.6 Pre-certificate rating submission:

a) Design drawings showing the proposed locations and measurements of gangways.

# 3.11.20.7 Certificate rating submission:

- a) As-built drawings showing the proposed locations and measurements of gangways.
- **b)** Photographs of installed gangways.

# 3.11.20.8 References:

- a) Abu Dhabi International Accessibility Standards, 2013
- **b)** UAE Universal Design Code.

# 3.11.21 USSP.2.21 Accessible amusement and thematic parks

## 3.11.21.1 Applicability:

Applicable to all public open spaces that feature various attractions, such as rides and games, as well as other events for entertainment purposes.

## 3.11.21.2 Intent:

To ensure that amusement and thematic parks offer enjoyable experiences for all users, providing inclusivity and equitable access to all attractions and activities addressed to the public.

## 3.11.21.3 Requirements:

#### Mandatory:

All accessible amusement and thematic parks within the certification boundary shall be in accordance with "Sahel Building Rating System – USSP.1.16 Accessible amusement and thematic parks".

#### 3.11.21.4 Pre-certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 150.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.16 Accessible amusement and thematic parks".

#### **3.11.21.5** Certificate rating credits:

- a) This is a requirement for new assets. There are no credit points awarded.
- b) Credit points awarded by renovation projects: 150.
- c) For credits breakdown refer to "Sahel Building Rating System USSP.1.16 Accessible amusement and thematic parks".

#### 3.11.21.6 Pre-certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.16 Accessible amusement and thematic parks".

## 3.11.21.7 Certificate rating submission:

Refer to "Sahel Building Rating System – USSP.1.16 Accessible amusement and thematic parks".

#### 3.11.21.8 References:

- a) Abu Dhabi International Building Code, 2013
- **b)** Abu Dhabi International Accessibility Code
- c) UAE Universal Design Code
# 4 **Glossary and acronyms:**

**Accessible/Accessibility** refers to design or features that allow easy use and interaction for people of all ages, faith, cultures, gender, abilities and disabilities people with disabilities. It ensures that everyone can access and use a space, product, or service effectively regardless of their abilities.

Accessibility advisor: a senior-level technical professional specializing in accessibility and inclusion within the built environment who will provide expert guidance throughout the project cycle. They oversee larger scale projects and are deeply involved in addressing complex technical challenges and intricacies such as renovating existing structures, addressing unique design considerations for diverse user groups, and resolving accessibility-related disputes or issues that arise during the project lifecycle. This role requires advanced knowledge and experience in accessibility regulations, standards, and best practices across various domains such as architecture, engineering, construction, and urban planning.

Accessibility body: a collaborative entity that includes representatives from diverse stakeholder groups, such as persons with disabilities, accessibility experts, advocacy organizations, government agencies, industry representatives, and relevant professionals. Its primary purpose is to champion accessibility initiatives by advocating for the needs of different user groups or other access challenges.

**Accessible non-standard cycle parking** refers to cycle parking that is wider and is designed to be used by individuals utilizing larger or non-traditional cycles such as cargo cycles, handcycles, or recumbent cycles. Such parking areas are easily reachable and navigable for all users.

Accessible parking: refers to designated parking spaces specifically designed to accommodate individuals with disabilities and families with a stroller with different access needs, providing them with convenient and barrier-free access to facilities and services. The following extended designated accessible parking spaces are provided as types of accessible parking spaces:

- **Standard accessible parking space** refers to designated parking spaces intended for individuals who have disabilities and qualify for a disabled parking permit.
- Ambulant parking space refers to designated parking spaces intended for individuals who have temporary or permanent mobility impairments but may not qualify for a disabled parking permit.
- **Family parking space** refers to designated parking spaces that are specifically intended for families with young children, strollers, or expectant mothers. Family parking spaces are usually wider than standard spaces to allow for the extra room needed to maneuver strollers, car seats, and other child-related items.
- Accessible van parking space refers to parking spaces for larger vehicles equipped with ramps or lifts, such as wheelchair-accessible vans. These spaces are wider than the standard accessible parking spaces to accommodate the additional space needed for deploying ramps or lifts and allow for easier maneuvering of the vehicle.

Accessible toilets: restroom facilities designed for inclusivity, featuring accommodations like grab bars and wider doorways for individuals with diverse abilities.

Accessible path: is a continuous, accessible and unobstructed path of travel, connecting all accessible and universally designed elements and spaces in a built environment and transportation. Synonymous with unobstructed travel ways, walking routes, and pedestrian areas, constitutes a dedicated and well-designed route within the urban landscape. It encompasses primary and secondary paths, pedestrian paths, and footpaths, creating a pedestrian-friendly infrastructure that ensures safe and convenient movement for individuals on foot. This path, whether part of a segregated or shared-use facility, provides a level surface, encouraging inclusive and seamless circulation opportunities.

Accessible passenger loading zones and accessible taxi stands refers to designated areas designed to facilitate the safe and convenient loading and off-loading of passengers with disabilities. These zones typically provide extra space for deploying wheelchair ramps or lifts, clear signage indicating their use, and may include curb cuts or lowered curbs to ensure a smooth transition between the vehicle and the sidewalk. The design of these zones ensures that passengers with mobility impairments can easily and safely access vehicles or enter and exit a facility.

Assets refer to both New and Existing Assets in which:

### New assets: Development and Redevelopment

New assets refer to either the development of a new property or the complete redevelopment of an existing one, where the structure is rebuilt from scratch. Both types follow the same requirements, as they are treated as entirely new constructions.

### **Existing assets: Renovations and Retrofitting**

Existing assets include properties that undergo renovations or retrofitting. These processes involve modifying or upgrading the structure without rebuilding it from scratch, and they are subject to specific requirements tailored to maintaining or improving the existing framework.

**Bariatric seating:** specifically designed seating to accommodate individuals with higher weight or body mass. Bariatric seating provides comfort and safety for larger individuals.

**Braille alphabet:** a tactile writing system used by people who are blind or visually impaired. It consists of raised dots arranged in a grid, representing letters, numbers, and punctuation. Braille enables reading through touch.

(Certification) Asset: the subject of certification – a building, part of a public realm or community depending on the tier of certification used) – which is assessed in the certification process.

**Certification boundary:** the clear definition of the scope of the project pursuing certification. It ensures that the project is physically distinct from any other spaces and not part of the certification process. The boundary can include both interior and exterior spaces. Usually, it is defined by limits of a plot (buildings or public realm parts or administrative border (communities) or planning zones.

**Certifying institution:** an organization responsible for maintaining, managing, and operating the certification system, providing training and issuing certificates as well as credentials to professionals. It is assumed that for this system the certifying institution will be a dedicated division of DMT.

**CIE Glare Rating Method:** a method developed by the International Commission on Illumination (CIE) to assess glare in lighting environments. It quantifies the discomfort caused by excessive brightness or reflections.

**Color Rendering Index (CRI):** a metric that measures how accurately a light source renders colors compared to natural sunlight. Higher CRI values indicate better color fidelity.

**Direct Route Indices Metho**d: refers to a technique often used in optimization, logistics, or data management contexts to identify and utilize the most efficient or direct routes. While this specific term might not be universally recognized, it can be related to various methods and approaches in these fields.

**Family toilets**: Restrooms designed to accommodate the needs of families with children, equipped with features such as changing tables, additional space, and amenities suitable for caregivers, providing a convenient and family-friendly environment.

**Gloss Units (GU):** a measurement of glossiness or shininess of a surface. It quantifies how much light is reflected from a surface at a specific angle. Gloss meters are used to measure GU.

HVAC or AC systems calculations and testing report: refers to Heating, Ventilation and Air Conditioning, or Air Conditioning (also refer to ASHRAE Standard 90.1 Appendix G Section G3.1.1 and Estidama Pearl Rating System DP-306: RE-R2: Energy Monitoring & Reporting, LBi-5.2: Thermal Comfort & Controls: Occupant Control).

- a) Heating: This system warms indoor spaces. Common heating methods may include:
  - **Furnaces:** Heat air and distribute it through ductwork.
  - **ii. Heat Pumps:** Move heat from one place to another; can provide both heating and cooling.
  - iii. Boilers: Heat water and distribute it through radiators or underfloor heating.
- **b)** Ventilation: This involves the exchange of indoor and outdoor air to ensure good air quality. Ventilation can be:
  - i. Natural: Through windows, vents, or openings.
  - ii. Mechanical: Using fans, ducts, and air handling units to control airflow.
- c) Air Conditioning: This system cools indoor spaces and can also control humidity. Types include:
  - i. Central Air Conditioning: Cools air in a central unit and distributes it through ducts.
  - **ii. Split Systems:** Includes an indoor unit and an outdoor condenser, often used in individual rooms or small areas.
  - **iii.** Window Units: Self-contained units installed in a window, suitable for cooling single rooms.

The **supplier** tests it once it is installed then it needs to be inspected by an engineer to ensure that it is running correctly. After construction, it will be the responsibility of the facility manager for cleaning/ maintenance schedule, it will be tested on a regular basis. The following measures assist asset owners / managers to monitor and evaluate HVAC or AC systems via:

- a) Manually adjustable temperature controls
- **b)** Regular maintenance and replacement of filter

**Hearing enhancement system:** technologies that are designed to improve sound perception for individuals with hearing loss. These systems include hearing aids, assistive listening devices, and loop systems that enhance speech clarity and reduce background noise.

**Illuminance:** the amount of light (usually measured in lux) falling on a surface. It indicates the brightness of an area due to artificial or natural lighting.

**Inclusive family toilet:** builds on the concept of a family toilet but places a stronger emphasis on additional features accommodating people needing extra space and facilities for personal care. Larger than the usual family toilet and often include features like a hoist system and sufficient space for a carer or assistant to help.

**Ischiatic support** refers to ergonomic support for the ischial (seat bone) area. Proper ischiatic support is essential for comfortable seating.

**Light Reflectance Value (LRV):** LRV is a measurement that quantifies the amount of visible light reflected by a surface. It is expressed as a percentage, with 0% representing absolute black (no reflection) and 100% representing absolute white (full reflection). LRV is commonly used in interior design and architecture to assess the lightness or darkness of paint colors, flooring, and other materials. Higher LRV values indicate lighter colors, while lower values indicate darker colors.

- 2-10 = Dark paint color
- 10-20 = Medium-dark paint color
- 20-40 = Medium-depth paint color
- **40-55** = Light-medium color
- 55-72 = Light color
- 73-81 = Off-white color
- 82-94 = White paint color

### Figure Glossary 1: Light reflectance examples





## Figure Glossary 2: Examples of light reflectance contrast

**LRV testing method:** Light Reflectance Value (LRV) is tested using an LRV meter (Refer figure Glossary 3), ensuring the meter is calibrated and the surface clean. By positioning the meter probe against the surface, take a reading by pressing the button, and record the LRV value displayed.

The LRV is tested following 6 steps which are:

- a) Samples: The first step is to gather samples of the surface or the material that is tested. The samples are big enough to cover the testing area and represent the texture and finish of the material.
- **b)** Calibration: Calibration is a must for the testing equipment to make sure that the measurements are accurate. One of the steps to follow is zeroing the instrument and to ensure that it is specifically ready to measure LRV.
- c) Measurement setup: The LRV meter is placed in a perpendicular position to the sample's surface. Then a light emits a beam of light onto the surface that measures the light reflected.
- **d)** Taking measurements: LRV meter records and calculates the reflected light intensity according to the ratio of reflected light to incident light. The measurement is in percentage, therefore 0% equals a total absorption which is also known as black and 100% is a total reflection or also known as white.
- e) Average reading: To be more accurate and take into consideration the variety in the surface studied, multiple readings take place at many different points on the surface, and then followed by an averaged to get the final LRV value for the sample studied.

f) Recording and reporting: For documentation purposes the LRV values are recorded and measured, these records are the tool that helps making decisions regarding surface's colors, contrasts... in many applications, and more specifically those involving accessibility standards.



Figure Glossary 3: Cromocon LRV meter

Source : https://www.grestec.co.uk/Irv-light-reflectance-values-explained/

**Luminance:** the brightness of a surface as perceived by the human eye. It's measured in candelas per square meter  $(cd/m^2)$ .

Luminance contrast: the difference in brightness between adjacent surfaces. High luminance contrast enhances visibility and legibility.

**Michelson Formula (Contrast Calculation)**: is used to calculate the contrast between two objects. It quantifies the difference in brightness or luminance between these objects. Specifically, it can be applied to assess the contrast between text and background in visual displays, ensuring readability and legibility.

**Multi-sensory approach:** The multi-sensory approach ensures that individuals, including those with intellectual, vision and or hearing impairments, can effectively perceive information and environmental cues. By providing information, signage, wayfinding and orientation in combinations of at least two senses, such as e.g., text and audio, or audio and tactile/Braille text, it helps them make safe, easy, and comfortable decisions to function effectively within environments to the greatest extent possible.

**Non-standard cycles:** refer to cycles that are different from traditional designs, structure wise, features or usage. Each type of non-standard bike has different advantages that depends on the usage, terrain and personal preferences as per the following photographs (Figures Glossary from 4 to 9):



Figure Glossary 4: Recumbent bicycle



Figure Glossary 5: Velomobile



Figure Glossary 6: Tandem bicycle



Figure Glossary 7: Folding bicycle





#### Figure Glossary 8: Handcycle

Figure Glossary 9: Cargo bicycle

**Non-standard cycle parking:** refer to parking spaces for cycles that are different from traditional designs, structure wise, features or usage. Each type of non-standard bike has different advantages that depends on the usage, terrain and personal preferences as per the following photographs (Figures Glossary from 10 to 11):



Figure Glossary 10: Glossary Non-standard cycle parking with cycle



Figure Glossary 11: Non-standard cycle parking with handcycle

**Occupiable space:** areas within a building or room where people can work, live, or perform activities. These spaces are designed for human occupancy.

**Orientation and navigation:** Orientation refers to how users understand their current position relative to their environment or the system they are using. It's about providing users with the information they need to get a sense of where they are. Navigation involves the methods and tools users use to move from one location to another, whether in a digital or physical environment. It's about making it easy for users to find their way and access the information or places they need.

**Oil-wet ramp test:** refers to the standardized method used to evaluate and measure the slip-resistance of surfaces, designed to assess how well a surface maintains traction under slippery conditions.

**Pattern glare:** refers to the phenomenon where light passing through slits or openings in shadings creates bright patterns of light (Figures Glossary 11, 12, 13). These patterns can be distracting and stressful for individuals, particularly those sensitive to light and the flickering effect caused by such light patterns has the potential to trigger seizures in people with epilepsy.



Figure Glossary 12: Umm Al Emarat Park



Figure Glossary 13: Abu Dhabi - Elevated Crossing



Figure Glossary 14: Shams, Reem Island

**Public transportation shelter:** is an enclosed structure at a stop, designed to provide protection from weather elements such as rain, wind, or sun. It includes seating and informational display, to make the wait for public transportation more comfortable and weather resistant.

**Public transportation stop:** a designated location where passengers can wait for public transportation vehicles to make a stop and pick up/drop off passengers. It includes a sign or marker indicating the stop.

The types of transportation stops are:

- **Bus/tram stops with signposts only:** refers to an open public transportation stop but shaded and has accessible seating options.
- Bus/tram stops and Bus Rapid Transportation (BRT) with shelters refers to an enclosed public transportation stop provided with accessible features such as a clear floor space of minimum 900 mm in width and 1500 mm in depth next to the seating options, interior lighting level of at least 50 lux, and clocks provided for public use.
- Bus, metro and railway stations, ferry, and airport terminals refers to transportation facilities where passengers embark and disembark, offering amenities like ticket counters, waiting areas, and various shops and services.

**Regularly occupied spaces:** areas where people typically spend more than one hour continuously per day. These spaces include offices, classrooms, and living rooms.

**Sahel Qualified Professional:** an individual appointed to the role of accessibility lead for the project's design stage. This can be an Accessibility Champion - a professional with recognized training in accessibility, or an Accessibility Consultant, or a person or party accredited by the municipalities. Their responsibility is to ensure that the asset is accessible and usable for all, regardless of their access needs. They are entrusted with overseeing small to medium scale-built environment projects which possess basic to intermediate knowledge of accessibility principles, regulations, and best practices. Their primary responsibility is to ensure that projects are designed and executed to be inclusive and accessible to individuals with diverse needs and abilities. This role encompasses a broad range of tasks, including but not limited to: advocating for accessibility considerations during project planning and design stages, conducting accessibility assessments or audits, collaborating with stakeholders to implement accessibility solutions, and providing guidance to project teams on compliance with relevant accessibility standards.

**Shading calculations:** refers to determining how light and shadows interact with surfaces to create realistic visual effects or manage light in practical applications. Shade calculations must be undertaken on the equinox (March 21st) and the summer solstice (June 21st) at 1 PM. The compliant shaded area must be in shade at both the equinox and summer solstice.

As required from Estidama Pearl Rating System:

- a) Shading calculations can assume that the sun will be directly overhead, to mimic the timing of the summer solstice.
- **b)** All trees included within the shading calculation must be planted between Southeast and Southwest of the area shaded, to ensure comfort during transition months.
- c) All shade structures must be designed to provide adequate shade during transition months and must be offset between the Southeast and Southwest of the area shaded.
- **d)** Shade from adjacent buildings and/or structures can be included in calculations.

**Significant sources of pollution:** refers to factors or elements that contribute to environmental pollution, such as emissions from vehicles, industrial processes, or waste disposal.

**Slip-resistance:** this measures a surface's ability to prevent slipping, particularly in wet or oily conditions. Slip-resistant surfaces are crucial in various settings to enhance safety and prevent accidents. A distinction can be made between the following values:

#### Table Glossary 1: Slip-resistance values.

R- Values	
<b>R</b> 9	Indicates low slip resistance, suitable for dry indoor areas such as corridors, lobbies, and stairs. This rating provides minimal traction, making it appropriate for environments that do not frequently encounter water or other slippery substances.
R10	A moderate level of slip resistance. It is suitable for areas that may occasionally get wet, such as toilets, washrooms, and covered parking areas. This rating provides adequate safety for both dry and wet conditions.
R11	Provides higher slip resistance and is ideal for wet areas, such as stair nosing, ramps (up to a maximum incline of 1:16 (6%), external entrances, and some market and parking areas. This level ensures a safer environment where slipping hazards may occur due to wet surfaces.
R12	A high level of slip resistance for more challenging conditions, such as ramps steeper than 1:16 (6%), driveways, footpaths, and areas requiring efficient drainage. It is designed to provide enhanced traction in environments that are frequently wet or exposed to more intense conditions.

Barefoot Area Ratings	
Category A	This rating is suitable for communal changing rooms where the likelihood of slipping is lower, but some protection is still needed.
Category B	Applied to areas surrounding swimming pools, shower rooms (both private and communal), and holy washing areas. This rating indicates a higher level of slip resistance suitable for wet and potentially slippery environments, ensuring safety for barefoot users.

**Sound level meter:** a tool used to measure and manage noise in an area from a variety of sources, including industrial and transportation noises, and construction work.

**Tactile Walking Surface Indicators (TWSI):** raised or textured patterns installed on walking surfaces (such as sidewalks, pedestrian crossings, or train platforms) to provide tactile cues for individuals with visual impairments. TWSIs help guide pedestrians by indicating changes in direction, hazards, or transitions (e.g., approaching a road crossing or a stairway). The patterns are detectable by touch and serve as an essential navigational aid for people who are blind or visually impaired.

**Unified Glare Rating (UGR):** shall assess the uncomfortable glare levels originating from light sources. Lighting shall feature glare protection considering users of various statures (e.g., tall people, children, and wheelchair users).

$$ext{UGR} = 8\lograc{0.25}{L_b}\sum_n \left(L_n^2rac{\omega_n}{p_n^2}
ight)$$

Figure Glossary 15

**Verification report for luminance contrast** refers to a document that details the process and results of assessing the contrast between two elements and their background in terms of luminance. This is crucial for ensuring accessibility and readability, especially for individuals with visual impairments. The following processes are applicable to a typical report:

- a) Benchmark Standards and Guidelines
- **b)** Measurement Tools and Equipment
- c) Testing Procedure
- d) Results with photographic evidence
- e) Analysis and Interpretation
- f) Conclusion
- g) Compliance Status

**View out:** visual access or sightlines from within a building or space to the outside environment, natural landscapes or high-value heritage objects. Its purpose is to provide pleasant or interesting views that can enhance the aesthetic experience of a space, making it more enjoyable and engaging for occupants and have positive effects on mental well-being, reducing stress and improving overall mood.