1.0 INTRODUCTION | Planning Area Map

Capital District Overview

A  Capital City District Boundary
B  City Centre Scope Area
C  Federal Precinct
D  Emirate Neighborhood
E  Sports Hub
F  Zayed University
G  Palace District
H  South Spine
I  Abu Dhabi University
J  Cemetery
K  Military Centre

Figure 11: Area context for City Centre Master Plan.
Abu Dhabi is not Dubai

Delirious Dubai
Images of Abu Dhabi
CBD Abu Dhabi
Overhangs and Shading
Plan Intent

A modern high density city centre rising out of the desert that is built in a relatively short period of time will confront many challenges. It is the primary goal of this plan to ensure that the vision for this city is based on sound planning principles, sustainable criteria toward environmental quality and energy consumption and will, ultimately, provide the highest quality of life possible for all its citizens.

**STUDY AREA STATISTICS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Area</td>
<td>2,500 ac.</td>
</tr>
<tr>
<td>Right-of-Way Area</td>
<td>1,125 ac</td>
</tr>
<tr>
<td>Population</td>
<td>185,000 per.</td>
</tr>
<tr>
<td>Building Area</td>
<td>204,000,000 sq. ft.</td>
</tr>
</tbody>
</table>
3.1 PLANNING FRAMEWORK AND GLOBAL STRATEGIES | Planning Principles

Create Transit Oriented Development (TOD)
The concept of a TOD is a dominate concept guiding a multitude of decisions in the refinement of the Centre City. The location of the public transportation network has significant impacts on the land use, density, access and overall character of the Centre City. The public transit network includes the following elements:

Regional Rail
The regional rail will connect the Capital City District with Al Ain, Dubai and the Airport. The location of the station hub in the CBD will present significant development opportunities for the downtown location and impacts associated with a major intermodal station for regional rail, Metro subway, surface tramways and bus facilities.

Metro Rail
The Metro is the local underground subway system that serves the CBD with three stations and the North Spine with four stations.

Street Tram
An extensive network of a streetcars will serve the high density areas within the Capital City District.

Bus System
The location of the bus routes in the Capital City District are still being considered. Two bus intermodal transfer stations are being proposed.
Wind towers on traditional buildings

Wind Form Analysis to Shape Urban Form and Provide Natural Ventilation

The prevailing northwest wind pattern off the Gulf provides a natural framework for planning the City Centre urban form and is the basis for multiple planning and design concepts. Design studies and resulting guidelines for increasing natural ventilation entailed alternating high-rise zones, creating urban wind paths through linear parks, orienting buildings and blocks to maximize airflow, and designing tower shapes to enable breezes to reach the street level.

Streets and avenues in the CBD follow the wind direction to enhance its ability to cool the street level and bring fresh air into the city.
Streets

Within the City Centre there are three major types of streets, each type relating to the intended traffic volume and character of place.

Retail Streets are narrow right of ways, intended to be easily crossed by pedestrians, and provide a local retail ambiance and vibrant neighborhood character.

Neighborhood Streets, mostly residential in nature, make up the majority of the plan. With a pedestrian focus, the residential streets connect neighborhoods, and local traffic to major arterials.

Boulevards are both a symbolic image of the nation's capital and a functional roadway network handling high volumes of traffic. The intended monumental character will be enhanced by the many national and local institutions bordering the boulevards, and incorporate strategically placed open space and iconic locations for public art.

The tram network covers all the street types with over 50 station locations in the City Centre. The tram is a significant public realm and transportation element that was instrumental in the overall design of the streetscape.
Figure one: example of active use along a street
Transit Stations

The City Centre is based on the principles of transit-oriented development, where the location and design of transit stations are integral with the distribution of land uses, density of development, location of retail streets, community services and neighborhood centers. Developing a high quality streetscape environment that encourages walking and transit ridership is a key element contributing to the success of the transportation network and vitality of the district. Each station design is composed of numerous streetscape elements; including station shelters, street furniture, trees and quality landscape materials; and a variety of shading devices including trellis, canopies and arcades to provide transit riders with adequate solar protection and thermal comfort.
12.0 OPEN SPACE PROTOTYPES | Overview

Public Realm Principles

- All open space is interconnected with public transportation and pedestrian/bicycle corridors.
- Throughout the city there is a hierarchy of public spaces from civic plazas to neighborhood parks, which are accessible to all residents within a 5 minute walk or an approximate distance of 300 meters.
- All private domain spaces (setbacks, courtyards and rooftops) are considered an integral part of this open space network. These spaces enhance the experience and increase the perception of the amount of open space.
- The right-of-ways of primary, secondary and tertiary streets are important open space corridors and their design responds to their use and scale.
- Open spaces are managed according to the amount of water consumed with the areas of highest water consumption getting the greatest amount of horticultural care.
- Open spaces in the public realm enhance the character and identity of the Capital City by offering for commemoration, celebration and civic life.

<table>
<thead>
<tr>
<th>Open space /1000 varies according to density:</th>
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</thead>
<tbody>
<tr>
<td>CBD approx. 0.5 Ha/1000</td>
</tr>
<tr>
<td>Spine: approx. 1 Ha/1000</td>
</tr>
<tr>
<td>Mosque district: approx. 2 Ha/1000</td>
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</tbody>
</table>
Open Space

In the City Centre, open space is a strategic component of the plan and greatly contributes to overall sense of place. Throughout the city there is a hierarchy of public spaces from civic plazas to neighborhood parks, which are accessible to all residents within a 5 minute walk. Open spaces in the public realm enhance the character and identity of the city by offering public spaces for commemoration, celebration and civic life.

All private spaces (setbacks, courtyards and rooftop) are part of this open space network and enhance the urban experience.

Open space is an interconnected network with roadways, public transportation and pedestrian/bicycle corridors. The streets are important open space corridors and their design responds to their use and scale. Open spaces are managed according to the amount of water consumed with the areas of highest water consumption getting the greatest amount of horticultural care.
12.4 OPEN SPACE PROTOTYPES | Linear Park (LP)

Linear Park

Small-scaled parkways that link between transit nodes or between open spaces, shaded.

Entry Plaza with Water Feature to Iconic Building (not shown)

Community Neighborhood Park modeled after a desert village with child-sized shade & play structures and gardens.

Linear Park formal line of trees flanking either sides with syncopated groupings of smaller flowering trees and shade structures in the center for bazaars and festivals.

Tree Lined Linear Walkway Through Pavilions for Bazaars or Festivals
Recreational Parks

Parks for more specific recreational activities (sports fields, play fields, larger playgrounds, picnic areas).
6.0 CENTRAL BUSINESS DISTRICT | Character Objectives

Key
- 140 - 150 meters
- 100 - 130 meters
- 90 - 110 meters
- 50 - 90 meters
- 40 - 50 meters
- 30 - 40 meters
- 20 - 30 meters
- 10 - 20 meters

Building Floor to Floor Heights

- Buildings with towers will have differing conditions relating to recommended height, FAR requirements, and urban design issues.
- Office buildings will use a general floor to floor height of 4 meters minimum. First floor will require a 7 meter minimum. Office buildings requiring the 140m minimum height requirement (iconic sites) will reach about 34 floors.
- Residential buildings require 3 meter floor to floor, and a 5 meter ground level. Residential buildings requiring the 140 minimum height requirement will reach 46 floors.
International Souk Market

The International Souk Market (Precinct Five) will be a symbolic center for the city. Meant to recall the traditional markets of the Middle East but also encourage a mixing of cultural backgrounds in a city that promotes tolerance and acceptance. It will have a high concentration of "fine grained" retail development with a street-front focus and serve as a tourist destination.

Figure 7a: Example of active use along a street.
Figure 7b: Example of active use along a street.
Figure 7c: Example of active use along a street.
Figure 7d: Example of active use along a street.

Figure 7e: Example of active use along a street.
Figure 7f: Example of active use along a street.
Figure 7g: Example of active use along a street.
Figure 7h: Example of active use along a street.
Souk District Form

Forms in the International Souk Market District reinterpret many traditional elements using a contemporary melange, to create the feel and look of a dense traditional market district.

The elements of the International Souk Market District must be balanced to create a unique character, often found in cities that grow in an organic manner. A district wide character is desirable, but should not limit the ability for individual elements to be unique.

General Character

Variety Along Linear Axis

The monotony of long linear axis should be avoided. Variety along the path can be created by varying the setback of the building to form small scale open spaces within the fabric of the souk. These spaces begin to enhance the unique character on each block.

Recommended use for these spaces: outdoor selling of goods, outdoor cafe, pocket park.

These spaces should not exceed 50 square meters for each block.

Option One: Clipped Block Corner

A clipped corner can create the opportunity for a small plaza. This in an ideal location for a outdoor cafe, or additional street vendors.

Option Two: Setback at Corner

A corner setback can create the opportunity for a small gathering space. These spaces may serve as a resting spot with additional pedestrian seating, a small scale water feature and more extensive plantings the other areas of the souk.

Option Three: Mid-Block Setback

Mid-block spaces will allow for retail activity to spill out into the pedestrian way, and activate the street. These spaces may become outdoor cafes, seating areas, or places for street vendors to gather.
International Souk Market Building Organization
- Precinct Guidelines identify four principal zones of building prototypes:
  - Ring Boulevard Buildings
  - Pedestrian Street Buildings
  - Inner Oval Buildings
  - Tram Plaza Buildings
- The low density and scale of the Souk Market Precinct is accentuated by the high density and tall buildings of the inner ring boulevard.
- The podiums of these high density buildings are required to be 23 meters high to create a consistent perimeter street wall defining Souk Market Precinct.

Key for Prototype Location and Characteristics

- **Ring Boulevard Buildings**
  - 5 to 7 stories
  - Pots located on outer ring road of the Souk
  - Defines the street wall.

- **Pedestrian Street Buildings**
  - 3 to 4 stories
  - Located within the Souk on pedestrian retail street.
  - Defines pedestrian retail zone. Shading device required.

- **Inner Oval Buildings**
  - 5 to 7 stories
  - Building facades create an urban wall at the central ceremonial space.
  - Defines street wall.

- **Tram Plaza Buildings**
  - 7 to 8 stories
  - Pots located next to transit plazas.
  - Height serves as way-finding device in Souk. Unique identity to exterior envelope including a tower element within the plaza.
Building Level Guidelines

Cities, especially high density downtown environments, require a comprehensive approach towards building design and the creation of inviting public spaces. High rise urban buildings are complex and require many levels of design from the street level, the podiunm configuration and form of the tower. These design factors collectively will create a vibrant street and urban experience that supports the right mix of activities, retail needs, service amenities and parking/loading access. The design guidelines established for the City Centre outline a series of building parameters for ensuring a high quality public realm and appropriate urban character takes place on a district and individual parcel level.

Included in the prototype guidelines are recommendations for building design and form to fit into the larger urban design goals. This example shows vertically organized mixed uses on a single parcel block with hotel functions above office functions.

This is an example of a podium design guideline, with requirements for screening of parking areas from the street, and recommendations of green roofs to cover podium levels.

Office podium stacking illustrating office with landscaped courtyard over parking floors. Architectural fenestration of office is used to screen parking.

Ground Floor Plan Guidelines
Single Parcel Block with Service entrance occurring on Short End of Block.

Ground Floor Plan Guidelines
Single Parcel Block with Service entrance occurring on Long End of Block.

Ground Floor Plan Guidelines
Shared Parcel Blocks with Service & Shared Parking Below Grade.
10.1 BUILDING PROTOTYPES | Overview

**Legend**
- HR: High-Rise
- MR: Medium-Rise
- LR: Low-Rise

**Office Prototypes**
Office buildings contain class A, B & C office spaces, healthcare and/ or medical studios above floor 2. See Permitted Land Uses section for more specific information.

**Hotel Prototypes**
Hotel buildings contain hotel rooms and / or service apartments above floor 2. See Permitted Land Uses section for more specific information.

**Residential Prototypes**
Residential buildings contain multi family and / or senior housing above floor 2. See Permitted Land Uses section for more specific information.

**Souk Prototypes**
Souk building program varies based on its office, hotel or residential overlay. Generally, a courtyard building in configuration, serviced below grade with a shared parking facility. Retail is also a significant component of the ground floor program.
Active & Passive Screening

Throughout the Capital City District, a variety of podium organizations are employed to accommodate differing uses and densities.

Defining a continuous street edge and providing opportunities for private open space is a shared principle for all types of podium organizations.

When above grade parking is required, the character of the parking facades should be integrated with the expression of overall building through the use of active use screening or architectural screening that conceals the parking floors.

Depending on area and parking requirements for a specific parcel, one of the following organizations may be utilized as shown in Figure 13 - 19.
10.6 BUILDING PROTOTYPES | Prototype Menu

Ground Floor Organization

The street level organization of building functions for a parcel should encourage a visually active pedestrian environment while seeking to reduce conflicts between pedestrians and vehicular movement into and out of the parcel.

**Principles:**

- Maximize frontage of active uses to enliven the sidewalk pedestrian environment
- Locate service vehicle access internally within the parcel
- Provide adequate maneuvering clearances for 'head-in' / 'head-out' access at sidewalk
- Disperse vehicular access points to minimize pedestrian / vehicular conflicts
- Provide active uses between service access points

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**Single Site with No Service Alley**

![Diagram](image1.png)

**Figure 2: 3D Illustrative Example**

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**Two Adjoining Sites with No Service Alley**

![Diagram](image2.png)

**Figure 3: Ground Floor Plan**

- Single Parcel Block with Service entrance occurring on Short End of Block

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**Sites on Alleys**

![Diagram](image3.png)

**Figure 4: Ground Floor Plan**

- Single Parcel Blocks with Service entrance occurring on Long End of Block

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**Multiple Parcel Blocks with Service Alleys**

- Blocks with service alleys occur in low, medium and high density locations. These blocks will contain various combinations of primary uses. Vehicle and service access points to individual parcels occurring along the alley so that the entire block frontage consists of active uses.

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**Multiple Parcel Blocks with Shared Parcel Property Lines**

- Blocks with shared parcel lines should be organized with staggered parking and service access points to minimize excessively wide service traffic conflicts with the sidewalk and encourage distribution of active uses.

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**Parking Access**

**Service Access**

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**Single Parcel Blocks**

- Single parcel blocks located on the inner ring or contain high density uses with large parking and service area requirements. Parking and service access points should be planned for minimal disruption of pedestrian traffic. Frontage of visually active uses along the sidewalk should be maximized.

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**Souk**

- Loading berths below

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**Figure 5: Ground Floor Plan**

- Souk Parcel Blocks with Service & Shared Parking (Below Grade)

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Multiple Parcel Blocks with Service Alleys

- Residential parcels with low density and low lot coverage percentages provide opportunities for private courtyards and landscaped areas along the sidewalk. Parking ramps and service areas occur along the alley. Pedestrian easements between parcels, when required by the landscape guidelines provide a smaller scale network of precinct connectivity.
Floor to Floor Heights

Floor to floor heights will vary depending on the land use, building structure and mechanical engineering requirements. The minimum heights listed below should be used for the purpose of preliminary building planning.

- Street Level Lobbies, Retail, & Service Areas
  7 meter or greater

- Parking Levels
  3 to 3.3 meter

- Office Levels
  4 meter minimum

- Residential & Hotel Typical Floors
  3 meter minimum

- Residential & Hotel Function Floors
  6 meters or greater (determined by unique program needs)
10.2 BUILDING PROTOTYPES | Office

**O.HR-2**

**OFFICE: Single Tower High-Rise**

**DEVELOPMENT STANDARDS**

- **Building Type:** OFFICE High-Rise
  - Single Tower with podium
- **Site Area (Range):** 4000 SM & Greater
- **% Site Coverage (Podium Levels):** 80% - 95%
- **% Site Coverage (Tower Levels):** 25% - 35%
- **Podium Height:** (Min-Max): 4-7 levels

**Reference Precinct Design Guidelines for the following parcel information:**
- Building prototype locations
- Parcel land use designation
- Specific FAR and parcel heights
- Adjacent transit and ROW impacts
- Building access and arcade zones
- Podium streets "built to" lines
- Allowable tower locations
- Parking locations
- Utility locations

**BUILDING GUIDELINES**

- **PARKING:**
  - Locate required parking within 4 levels below grade and above grade in the podium structure.
  - Allow up to 20% of the parking requirements to be accommodated off site at a municipal parking garage.
  - Permitted Uses: (see page x for full list of permitted uses)

- **Floor Heights:** Ground Floor 6.5m minimum for retail and lobbies.

- **Street Wall at Podium:** 95 - 95% of street-facing buildings facades must be built to property line along street edge as seen in the illustrative building envelope model.

**Access / Orientation:**
- Building entrances should be located along primary pedestrian streets to encourage pedestrian activity to these streets.

**Parking / Loading / Building Service:**
- Loading, service uses and parking access locations should be adjacent to alleys to avoid conflicts with pedestrian zones.

**Setbacks:**
- Arcade Zone: 4 - 5 meters
- Transit Station Locations: 8 meters
- Shaded Plazas: Varies
- Architectural Encroachments: 1 meter

**Arcades:**
- Ground level frontage of buildings along primary pedestrian corridors must accommodate a covered arcade. This zone must be fully protected to the extent possible from solar gain.

**Transit:**
- Street frontage of buildings within required tram setback zone must incorporate an 8 meter tram stop setback. Building entrances and service in this zone cannot interfere with the tram station location.

**Shaded Plazas:**
- Provide any open space / plaza setbacks on north side of the building to maximize the shade potential of the building.

**Architectural Encroachments:**
- Balconies, awnings, canopies, trellises, galleries, shade structures, eaves or projecting signage may extend into the right of way 1 meter.

**Materials:**
- Building walls above 30 meters should be light colored, low mass materials.
- Podium should be smooth, light-colored, high mass materials.
- Roof area should be composed of either light colored membrane systems (with an SRI of 70) or green roof.

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**Figure 5:** Illustrative Photo

**Figure 6:** SECTION DIAGRAM
- Vertical stacking cross section

**Figure 7:** PLAN DIAGRAM
- Represents a simplified floor plan and stacking diagram for specific building prototype. See 6.0 Prototype Overview section for more information.

**Figure 8:** MASSING DIAGRAM
- Represents a basic massing model for building program to be contained within.
PARCEL C-26

Development Standards:

Building Prototype: O-HR 2 Office / Single Tower Mid Rise

Precinct: 2
Parcel Number: C-26
Parcel Area: 2,616 m²
FAR: 8 (maximum)
Development Area: 20,528 gla (maximum)
Height: 110 m (maximum)
Podium Height (above street level): 23 m (minimum)
Podium Levels: 4 (minimum)
Landuse:
- Primary: Office
- Secondary: N/A
- Retail Type: N/A

Floorplate & Podium Stacking Organization Diagrams (refer to section 10.6 for diagram menu)
- Street Level
  - Podium Stacking D, A, B, C
  - Tower Floorplate A, B
Floor Area Maximum & Minimum Areas
- Podium Floor Plate: 2,485 m² (maximum)
- Tower Floor Plate: 1,405 m² (maximum)
- Open Space Area: 1,308 m² (minimum)
- Sustainable Roof Area: 1,308 m² (minimum)

Floor Height Minimums
- Street Level: 6m to 7m (lobbies, retail)
- Level 1 and above: 4m (office)
- Level 1 and above: 3.5m to 4m (parking)

Setbacks
- Arcade Zones: 4.5 m
- Transit Station: not applicable
- Shaded Places: not applicable
- Encroachments: 1 m

Parking Space Requirements
- Office Area Ratio: 1.43 space per 100 gsm
- Below Grade Levels: 4 required
- Above Grade Levels: 0 to 2 (maximum)

Off-Site Parking: 20% of total spaces may be accommodated off site at a municipal parking garage.

Below Grade Parking Requirement: All required grade levels must be utilized for parking before above grade levels may be utilized.

Permitted Uses: Refer to Section 10.7 for Permitted Use Matrix.

Adjacent Parcel Requirements: Refer to Section 6.2 for Precinct Two for design guidelines of adjacent parcels.

Precinct: Refer to Section 6.2 for Precinct Two for design guidelines.

Building Design Guidelines:

Street Wall at Podium: 90% of street-facing buildings facades must be built to property line along street edge.

Access / Entrances: Building entrances should be located along streetfrontage A and B to encourage pedestrian activity.

Parking / Loading / Building Service curb cuts for loading, service uses and parking access only permitted along alley frontage.

Arcades: Ground level frontage along streetfrontage A must accommodate a 4m wide covered arcade.

Open Space Area: Provide exterior, occupiable areas on podium and other roof levels to accommodate the required percentage in the Development Standards.

Sustainability Requirements: Solar shading on south facing facades. Refer to Section 11.0 / Building Performance Standards for appropriate sustainability standards for high rise office buildings in the CBD.

Sustainable Roof Area: Provide the required percentage of roof area, exclusive of areas for mechanical equipment, that meet the guidelines as established in Section 11.0. Building Performance Standards.

Transit Station: Access into the metro station at SW corner of site with a Type A or B station entrance design. (See Section X, page X).

Storefront Facades: Refer to page x for CBD standards for storefront design and signage.

Streetscape Guidelines: Provide streetscape design consistent with Boulevard. (See Section X, page X).

Architectural Encroachments: Awnings, canopies, trellises, galleries, shade structures, sashes or projecting signage may extend into the right of way 1 meter. Balconies are not permitted to project beyond the parcel line. (See section X, page X for balcony prototyes).

Street Level Wall Transparencies: Street level wall surfaces along frontages A & B must provide transparent surface areas of 60%.

Permitted Materials: Building walls above 50% of building podium should be smooth, light-colored, high mass materials. Roof areas should be composed of either light colored membrane systems (with an SRI of 78) or green roof. (Insert list of materials).