



## 2.0 FOUNDATION

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Overall Conceptual Statement

A View of the Challenges

Environmental Inspiration

Cultural Inspiration

Principles



## 2.1 OVERALL CONCEPTUAL STATEMENT

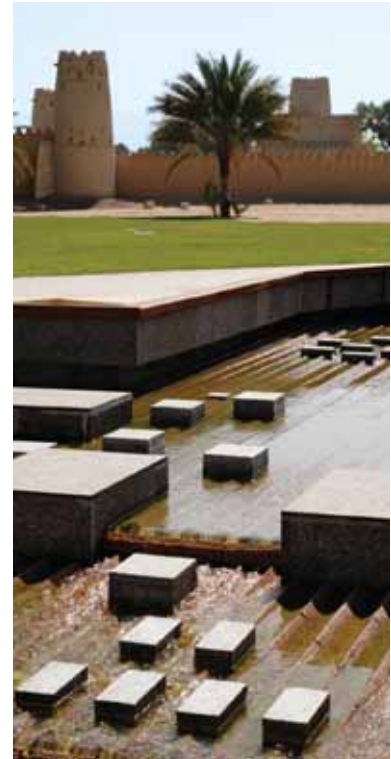
Al Ain has a choice of how, when and where it will grow to meet the needs of its people over the next quarter of a century. This Plan is focused on satisfying those needs by attaining and setting an international example of cutting edge sustainable growth – that which filters all decisions through environmental, social and economic criteria. This integrated approach is the premise of this Urban Structure Framework Plan, with the intent to:

- protect and enhance the natural resources and cultural heritage of Al Ain;
- preserve and celebrate the urban agriculture that makes Al Ain so unique in the region and the world;
- integrate nature and humanity; and
- foster economic development and leverage financial resources in a thoughtful and prudent manner.

The elements forming the environmental and cultural foundation of the Plan are described in greater detail in Sections 2.3 and 2.4.

A set of guiding principles is presented in Section 2.5. These tenets are a tool for assessing, identifying, and constructing plans and projects that align with this ethic of responsible growth. They are visionary yet practical, to ensure the ongoing robustness of the Plan. Highlights include:

- the conservation and retention of Al Ain’s unique natural setting between the mountains, dunes, wadis and gravel plain;
- the need for conscious and deliberate design of the city’s public realm, especially its streets; and
- the role of proper land use programming in enhancing and reinforcing the city’s unique cultural identity as an oasis city.



Al Ain weaves ancient heritage into a contemporary framework

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### Plan Al Ain 2030 Urban Structure Framework Plan

## 2.2 A VIEW OF THE CHALLENGES



Air conditioner exhaust ruins the microclimate



The automobile dominates Al Ain's transportation



Urban design does not protect from the sun

In order for the “Plan Al Ain 2030” Urban Structure Framework Plan to achieve its objectives, it must embody principles that protect the city, such as:

- ground water retention and restoration;
- preservation of the iconic natural areas, and protection of the aquifer recharge zones and agricultural areas from the intrusion of development;
- prevention of overstretching infrastructure by ultra-low density development; and
- prevention of potential stagnation and neglect in the core of the city.

There is also a need for the plan to ensure that the city:

- minimizes traffic congestion on streets, provides sufficient parking, and offers alternative transportation choices; and
- contains a fully-planned range of affordable housing options to meet the needs of all its population.

The plan must guard against a loss of coherence in the overall urban form, preventing specifically:

- too much commercial development;
- loss of distinctive regional architecture, replaced with poor quality new architecture;
- attempts to exceed the G+4 height imperative;
- lack of shading and amenity in the public realm;
- new road systems based on limited access configurations; and,
- lack of transportation choices.

## 2.3 ENVIRONMENTAL INSPIRATION



The wadis of Jebel Hafeet support a diverse ecosystem, including 95% of the biodiversity of the Eastern Region

The environmental and ecological context for Al Ain's Urban Structure is directed by three key elements:

- it's location at the nexus of mountains, gravel plain and dunes;
- the wadis that radiate through its core and dictate its form; and,
- the aflaj and oases that create historic cultural landscapes.

The Urban Structure Framework Plan:

- integrates environmental, social, and economic considerations in all decision making;
- adopts a precautionary principle based on scientific knowledge and clean technologies;
- ensures environmental health, diversity and productivity is maintained through sustainable development; and
- promotes environmental awareness and sense of responsibility.

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Al Ain's garden city character is to be celebrated, preserved and enhanced

The Urban Structure Framework Plan:

- establishes a comprehensive network of protected areas based on criteria of ecological sensitivity, heritage significance, aquifer recharge and aesthetic appreciation;
- integrates environmental considerations into all land-use planning;
- endorses the creation of environmental education facilities;
- advocates the preservation of the iconic urban agriculture that expresses Al Ain's historic importance as an oasis;
- suggests removal of some existing development and does not support new development that compromises attainment of these goals; and
- recommends specific actions directed to urbanization and urban sprawl, including:
  - o establishing urban development boundaries;
  - o setting aside critical areas and no-development zones; and,
  - o preventing habitat fragmentation.



Jebel Hafeet is to be protected with National Park status

The Urban Structure Framework Plan advocates sustainable building practices, including:

- site development and layout;
- landscaping;
- life cycle materials usage;
- water conservation, harvesting, and reclamation;
- energy and thermal efficiency;
- indoor environmental quality; and,
- historically compatible buildings.

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## 2.4 CULTURAL INSPIRATION



Al Ain Oasis: the iconic cultural landscape

**Heritage:** Al Ain is the spiritual heart of the Emirate of Abu Dhabi, the repository of its cultural memory and ancient wisdom. The record of civilization down through the millennia is inextricably part of the built fabric of the city. The very oases themselves, the defining element of the city, are cultural landscapes created through the ingenuity of the ancient falaj irrigation system.

As the UAE develops rapidly, the heritage riches contained within Al Ain's urban fabric become ever more important. They are a cultural grounding device, reminding all Emiratis of their origins, and the basis of this value system as they move forward. This Urban Structure Framework Plan takes as an explicit goal robust protection for the heritage sites and environments, that their lessons may be shared with the next generations of Emiratis.

**Lifestyle:** Al Ain's importance in the cultural life of the UAE is pervasive. For many generations the tribes of Abu Dhabi spent part of each year fishing and pearling from an island base and part of each year farming dates and ranching camels in desert oases. Al Ain is far and away the most important of these oases, and its prevailing agricultural character is something to be celebrated and preserved. It still features large in

the lives of Emiratis, who often come here from Abu Dhabi and Dubai on weekends and during the humid coastal summer. The city retains a pleasant slow-paced livability, founded on the cool garden-like character the oases and farms bring, and the relaxed, generous nature of its inhabitants.

**Families:** The people of Al Ain live in strong, complex family units. The extended family is the foundation of social activity and mutual support. Brothers and sisters of each generation, as they marry and form their own families, wish to live in clusters and in close proximity to other family members. Children are at the center of life. The proposed structure of the city in the Urban Structure Framework Plan is to be built out from a basic unit of extended families living together – the “fareej”. The Plan applies the “fareej” concept to many kinds of circumstances, from the low density suburban subdivisions and villages at the urban fringe to the medium and high density transit corridor and local town centers. It articulates the specific scale and nature of this family-based settlement unit in the context of contemporary living; and uses this as the building blocks of the growing city.

**The Mosque:** Prayer, as a regular offering of faith, is central to day-to-day Al Ain life. Religious tenets are strong and deeply observed. A pervasive built form that results from this commitment are the mosques – large and small. Minarets punctuate the skyline in Al Ain, like in no other Emirati city, due to the G+4 height imperative. While establishing contemporary provisions and structures that modern people expect, the Plan must also discern the forms and patterns that are unique to an Islamic society. Policies in the Plan call for preserving the G+4 height limitation and expressing it in the rhythms and harmonies that will make Al Ain a unique and truly memorable Arab city.



The Oasis expresses the traditional agricultural identity of Al Ain

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## 2.5 PRINCIPLES

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The Plan envisions a smooth, active transition between the Main Souk and the Oasis, drawing it into the centre of urban life

### **THE SPIRIT OF AL AIN**

**Al Ain is the soul of the Emirate. Its spirit emerges from the unique conjunction of Jebel Hafeet, the nurturing oases and the majestic desert that have together sustained over 8000 years of continuous settlement. It now exemplifies both the ancient Bedouin traditions and the modern aspirations of the Emirate.**

## **OVERARCHING PRINCIPLES**

### **CITY AS OASIS**

Al Ain will be a contemporary expression of a healthy desert oasis city that builds on traditions of water management and agriculture while expanding the role of the oasis in the urban setting.

### **HIGH QUALITY OF LIFE**

Al Ain will maintain its high quality of desert life as a place of respite, through measured rather than uncontrolled growth, sustaining its low-built scale, spaciousness, garden setting, and its traditional patterns of living.

### **PROTECTED NATURAL ENVIRONMENT**

Al Ain will respect, protect, be scaled to and shaped by its unique natural environment of fragile and endangered desert and mountain ecologies, and increasingly diminished water resources.

### **CULTURAL HOMELAND**

Al Ain will embody its role as the founding source of the Emirate through protecting its historic assets, its delicate cultural landscapes, and its noble heritage.

### **ARABIC COMMUNITY**

Al Ain's urban fabric, neighbourhood infrastructure, and public gardens will enable the Emirate's Arabic values, social arrangements, and culture.

### **ECONOMIC DEVELOPMENT**

Al Ain's economic development will be driven by the competitive advantage of a quality place; existing manufacturing, service trades, higher education and healthcare will be supported, cultural and ecological tourism expanded, and high-tech and media-based industries encouraged.

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### UNDERLYING PRINCIPLES

#### URBAN STRUCTURE

To accommodate future growth, Al Ain will build out incrementally along linear axes from a densified downtown core, and will be focused at nodes along transit corridors. Limited expansion of the existing urban area may be permitted after consideration of any environmental impact.

Neighbourhoods and a revitalised downtown will be the backbone of Al Ain's urban structure.

Al Ain's nature as an oasis city in a fragile environment will be protected by a surrounding desert park conservation belt, including Jebel Hafeet, wadis, and archaeological sites.

Al Ain's nature as a low-scale city will be protected by a building height limit of 20 metres, to be expressed as a built form of a ground floor with a maximum of four floors above (including mezzanines, penthouses, architectural appurtenances, or mechanical provisions), called the G+4 height imperative.

The city will be structured to provide and support an open space network that will physically and visually connect the desert, oases, wadis, and farms, Jebel Hafeet and the historic, cultural and natural assets of Al Ain.

The traditional living patterns of Al Ain, reflected in its intricate pattern of mixed-use development, will be maintained and improved.

A fine grain of interconnected and human-scaled streets will be inserted to break up the superblocks and optimise mobility and livability.

Because all trips begin and end with a walk, walking will be made as comfortable and safe as possible, with a shaded pathway system that connects major centres in the city and uses pedestrian comfort as a guiding design strategy.

To reduce congestion and create pedestrian-friendly streets, diverse mobility options will be available, including high quality transit.

An open space network will physically and visually link the historic, cultural, and natural assets of Al Ain.

The farms that permeate the urban fabric in Al Ain will be protected and celebrated as a defining element of the city.

## **ENVIRONMENTAL LEADERSHIP**

The bio-diverse habitats of Jebel Hafeet, the oases, the desert, and the wadis will be respected and conserved.

Oases, wadis and farm edges will be designed sensitively where they integrate with the city.

A substantial protected desert and mountain belt around the city of Al Ain will be established as a National Park and administered through a government commission.

High performance sustainable buildings and ecological urban design will maximise resource efficiency and human comfort in this desert climate.

Visible and accessible sustainability features will demonstrate the environmental stewardship that has strong historical and cultural roots in Emirati history of this treasured desert oasis city.

Energy, water, sewage, and waste infrastructure will be integrated and localised to optimise efficient use of resources.

Dependence upon private automobiles will be minimized through appropriate densities, land use mix, pedestrian orientation, and transportation demand management.

## **WATER MANAGEMENT**

A long term vision is proposed to replenish Al Ain's diminished aquifer to restore its water level to its original state, while protecting it from contamination.

The health of Al Ain's many oases will be restored immediately through the reintroduction of organic practices and the traditional vertical layered ecology of date palms, fruit trees, and leafy crops.

Over time, the original gravity-based falaj system of delivering water to the oases will be restored.

A commission will be established to oversee the productive and cooperative revitalisation of the oases, and the preservation of the farms.

Throughout Al Ain, appropriate and drought tolerant trees, plants, and landscaping will be used to conserve water while shading and cooling Al Ain's public realm.

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Systems of water recycling and re-use will be established throughout Al Ain, particularly in the irrigation of agriculture.

Within Al Ain, water features will be located where people can access them in shaded parks, promenades, public squares, and plazas, rather than within vehicle roadways.

Appropriate watering schedules and limits will be established for landscape and agricultural irrigation.

Laws will require the use of water efficient taps, toilets, showers, and appliances.

#### LIVABILITY

Neighbourhood centres of “community-making” facilities such as mosques, gathering places, recreation, and shopping will be distributed throughout residential areas within easy walking distance.

A range of suitable and affordable housing options will meet the various needs and desires of Al Ain’s diverse population, including Emirati extended families, various expatriate households, and guest workers.

The city centre’s traditional fine grain pattern of public ways will be re-established and revitalised.

Innovative ways will be developed to shade and cool Al Ain’s public realm.

#### IDENTITY AND IMAGE

The urban fabric will grow by respecting and highlighting Al Ain’s distinctive landscapes of the mountain, oases, and desert.

Al Ain will develop a high quality of architecture and urban design that respects and fits within its unique natural setting and cultural traditions.

Important civic places, monuments, and palaces will commemorate and celebrate Al Ain’s role as the founding source of the Emirate.

Natural, historical, archaeological, cultural and religious assets will be conserved and respected as important elements of the urban fabric.

The unique family culture and traditions of Al Ain will be celebrated and enhanced.

Al Ain will retain its characteristic low-scale development, with a maximum building height of 20 metres in central and transit-oriented areas, and lower building heights elsewhere.

Al Ain will retain its iconic farms as an example of successful urban agriculture.

### **SOCIAL, CULTURAL, AND ECONOMIC DEVELOPMENT**

Social, recreational, and community facilities that meet the basic and evolving needs of Al Ain's diverse population of Emiratis and expatriates will be provided and distributed throughout the city.

The cultural aspects of Al Ain's mixed population will enhance the city's character.

Al Ain's urban form will facilitate the growth of its existing quality economic sectors of healthcare and higher education, as well as the emerging sector of ecological and cultural tourism.

Investments in rail service will be used to focus and shape new development.

Al Ain's economic development strategy will be focused on retaining the city's high quality of life and its tradition as a place of desert agriculture and sanctuary.

Al Ain's many oases, the city's heart and soul, will be sensitively managed and reassume their place as a vital part of the city's public realm.

