

مجلس أبوظبي للتخطيط العمراني
ABU DHABI URBAN PLANNING COUNCIL



1.0 INTRODUCTION

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1.1 INTRODUCTION



The City of Abu Dhabi is the capital of the Emirate of Abu Dhabi and the federal capital of the United Arab Emirates (UAE), a sovereign country of seven Emirates on the edge of the Arabian Gulf. Abu Dhabi is the largest of the Emirates, and the federal seat of Government. The City of Abu Dhabi is the largest city in the Emirate.

The City of Abu Dhabi is at a crossroads. It was first settled in the mid-18th century as a hunting and pearling base. Its significance increased with the mid-20th century discovery of oil and the formation of the UAE in 1971. Since then, the city has experienced steady but manageable growth. It is now a gracious, comfortable and well functioning city of over a half-million people.

Recently, with the introduction of limited private ownership of land and an increasing world focus of attention on the UAE as a safe, hospitable investment area, the potential for rapid, even explosive, growth has risen dramatically. While new growth is essential to support the broader ambitions of the Government of Abu Dhabi, it is important that this growth is managed in a coordinated and sustainable way.

This Urban Structure Framework Plan, “Plan Abu Dhabi 2030”, presents a coherent picture for the future of the City of Abu Dhabi as an environmentally, socially and economically sustainable community and as an increasingly important National capital. It provides for a way to grow and take advantage of the economic opportunities at hand without sacrificing the best of the city and while adding new elements to make it a great world metropolis.

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1.2 STATEMENT OF INTENT



The former general plan for the city of Abu Dhabi, prepared in the late 1980s, has served the city well during a time of measured growth. Its conceptual limits have now been reached and it does not have the scope to further shape the type and intensity of development that can benefit the city moving forward.

In order to deliver upon the vision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, Ruler of Abu Dhabi for the continued fulfillment of the grand design envisaged by the late Sheikh Zayed bin Sultan Al Nahyan and the ongoing evolution of Abu Dhabi as a global capital city, Abu Dhabi now requires a long-term Comprehensive Plan to guide future growth and to enable detailed plans for various areas and overall development regulations.

The completion of a full Comprehensive Plan will take several years of complex technical work. In lieu of the completion of that comprehensive plan, this Urban Structure Framework Plan provides a vision for use by all entities with an interest in the future development of Abu Dhabi.

The Urban Structure Framework Plan articulates a clear direction and description of growth for Abu Dhabi. It has been made available in a short timeframe because it does not go into extensive detail about that

growth. It sets an environmental context, confirms an urban structure of land use, transportation, open space, built form and National capital arrangements. It outlines key “building blocks” through which the urban structure will come together logically and organically over time. It starts with a road map of principles and culminates in a comprehensive set of policies for the important elements of community development. It will engender the “urban capital” to match the financial and social capital that already exists.

This Urban Structure Framework Plan is targeted to the year 2030 and an expected population of over 3 million people. It is conceived so that it can continue to grow in a compatible way to 5 million people or even more. It is not geographically contained by existing administrative boundaries but, instead, encompasses the whole urban region of the city of Abu Dhabi out to the natural boundaries that can reasonably be expected from growth at the scale envisioned. At the same time, it does not aspire to cover all of the Emirate, leaving separate planning initiatives for Al Ain and the Western Region to set the concepts for those communities.

The Urban Structure Framework Plan must be conceptual enough to be completed quickly but detailed enough to be of both immediate and ongoing utility in responding to proposals for urban change in Abu Dhabi. It is designed to be used for the following purposes:

- The Plan will be the guide to diagnose new developments to insure they will be consistent with the needs and wants of the people of Abu Dhabi and will come together as a coherent, viable urban whole. The Plan must suffice until the Comprehensive Plan is prepared and approved.
- The Plan will suggest a detailed work program for the further planning of Abu Dhabi, resulting in both a Comprehensive Plan and an array of area plans. It will also set the direction for regulatory guidelines and zoning.
- The Plan will offer interim input into other initiatives in Abu Dhabi that shape the city, such as infrastructure schemes, transportation improvements, housing allocation programs, and economic development projects such as tourism.

Many new areas and districts will be developed as the city grows and the intentions and patterns of this Urban Structure Framework Plan come about. It should be noted that the names given to new districts in this Plan are conceptual. Final area names will be decided as development takes place.



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1.3 PROJECT PROCESS



This Urban Structure Framework Plan has been completed through various and rigorous research and creative processes. While conceptual in nature, and able to be expedited because of that, the Plan reflects a solid base of understanding about Abu Dhabi as it is today – in terms of both opportunities and challenges – and a broad, progressive picture of what the city can become over the next quarter of a century.

The planning process began in December 2006, with preparatory analysis and reviews published in a Briefing Book and several other reports.

The following studies and reviews were undertaken:

- An analysis of the economic situation of Abu Dhabi, projecting the sectors of economic growth, the expected parallel population, employment, and tourism growth, and the accommodation needed for this expansion. This report was authored by the Boston Consulting Group.
- Growth targets were framed to which the Plan has responded. These targets were generated by Economic Research Associates.
- A review of the Emirate's infrastructure and the plans and policies related to the operation and growth of that infrastructure was completed by Arup Engineering. The contributions of the different infrastructure authorities in Abu Dhabi were important and greatly appreciated.
- A conceptual overview was completed of the environmental setting of Abu Dhabi, tapping into the progressive, state-of-the-art policy work of the Environment Agency. The Plan took this policy work as an inspiration and a guide.
- A conceptual overview was completed of the transportation situation and traffic circumstances in the city, including a review of the city's computer traffic model. Inputs from the Emirate Transportation Department and Municipality were vital.
- The situation and policies regarding worker housing and settlements were reviewed with advice from Zones Corp.
- Interviews were completed with a cross-section of people in the Abu Dhabi community to understand their needs and wants and to frame a statement of challenges and opportunities. These have been addressed in the Plan.
- Extensive meetings with major development proponents were undertaken and their development schemes or master plans reviewed and evaluated.



- Information was collected on Abu Dhabi's historical settlement traditions, as well as urbanization precedents from the wider region and Arab world. Precedents were sought in desert communities around the world.
- A general assessment of the existing built form, open space and community development patterns in Abu Dhabi was completed, involving extensive site visits, documentation and analysis. Visits to Al Ain were inspirational in regard to these patterns.

The statements of His Highness the late Sheikh Zayed bin Sultan Al Nahyan, Father of the Nation, and His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE and Ruler of Abu Dhabi, pertaining to the vision for Abu Dhabi were explored in depth. These were fundamental in guiding the planning process, as were initial sessions held with His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Chairman of the Executive Council. The primary formation of the "Plan Abu Dhabi 2030" Urban Structure Framework Plan occurred through the assimilation of all the preparatory findings and generation of ideas for growth at two major working sessions, called charrettes, held in Abu Dhabi in February and March, 2007. These 4-6 day events were intensive creative sessions bringing together the following groups: a technical team of urban specialists and production people; a distinguished group of urban experts from academia, private practice and government from seven countries around the world; senior people in many departments of the Abu Dhabi government, including strong representation from the Municipality of Abu Dhabi and also several officials from the Municipality of Al Ain; several distinguished academic and professional experts from Abu Dhabi; and the senior leadership of the Executive Council and Sheikhs of Abu Dhabi. Of particular merit was the ongoing involvement and guidance provided by H.H. Sheikh Mohamed bin Zayed Al Nahyan.

These charrettes are extensively documented in the "charrette proceedings", a two-volume set consisting of Interim Reports #1 and #2. The planning work included the development of an environmental framework, the generation of a series of urban growth scenarios, and the formulation of a set of essential principles to evaluate these scenarios. Ultimately, several growth options were developed, drawn out fully, discussed and evaluated. They were subsequently reviewed by members of the Abu Dhabi Executive Council. Through this extensive process a preferred growth option was synthesized and confirmed. To provide substance and depth for the growth options, a series of urban "building blocks" relating to the preferred patterns of Emirati communities were conceptualized and applied through a range of scenarios, including in various kinds of villages and in urban neighborhoods. These



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building blocks were also used to demonstrate patterns of inner-city regeneration and to develop street configurations.

The “building block” models were applied to the preferred growth option leading to a hypothetical plan. This plan hypothesis was then reviewed in regard to proposed development schemes to reconcile the Urban Structure Framework Plan and development “master plans” as much as possible. This required a third major work session to reconcile the emerging Plan with inner-city expansion proposals and their associated transportation access plans, focused in particular on the development of islands adjacent to the existing core. Current proposals for industrial relocation and expansion were integrated into the emerging Plan. Initiatives for transportation improvements and traffic management were evaluated and, where consistent, were integrated into the emerging Plan. Housing needs, government facility needs, Capital City requirements and special economic development initiatives, including airport expansion plans, were integrated into the emerging Plan.

The environmental framework deserves special mention as it helped shape the Plan at all stages and was particularly influential throughout the integrative work. Urban growth, ecological stability and the potential for regeneration, have been reconciled in this sensitive ecological context.

As the planning work unfolded, two parallel efforts were especially insightful. First, growth targets were continually refined and growth potentials evaluated and updated as the Plan developed. All sectors of practical, even optimistic, growth are accommodated. Second, the infrastructure implications were closely monitored. The Plan requires extensive infrastructure expansion and diversification. While the exact nature, extent and timing of this infrastructure development is beyond the scope of this conceptual planning phase, it has become clear that a strategy to develop the required infrastructure should be completed as soon as possible as a prelude to implementation of other aspects of the Plan.

The result of these activities is the “Plan Abu Dhabi 2030” Urban Structure Framework Plan, offered herein. As its name suggests, it is a clear, viable vision for the future of Abu Dhabi. It is a broadly drawn complex of ideas, directions and patterns; it is not a detailed scheme, articulated property by property. It can be used to evaluate development and growth propositions in a general way but not to provide detailed guidance for individual sites. It will be best used in concert with specific site analysis and plan making where its general plan directions and intentions can be translated into specific terms.



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1.4 ECOLOGICAL CONTEXT



The UAE and its capital, Abu Dhabi, are characterized by their location at the intersection of the desert and the sea. Winter temperatures hover around 20°C, while summer temperatures regularly exceed 45°C. Humidity is generally high in the summer. The Gulf sits on the Arabian platform, an extension of the continental crust, and is not a true ocean inlet. It is very shallow; offshore from Abu Dhabi, the water is no more than 10m deep for up to fifty kilometers. The Shamal – the prevailing northwesterly wind – blows across the shallow Gulf and, coupled with relentless heat and sunshine, produces an extremely high rate of evaporation. This makes the Gulf both much warmer than the nearby Indian Ocean and hypersaline.

About 85% of the Emirate is sand desert replete with spectacular dunes. The dunes form patterns across a wide variety of scales, from the giant ridges in the Empty Quarter that run for tens of kilometers to smaller formations tens of meters in length, to textured surface ripples no deeper than a finger tip. The dunes are formed by wind.

Another 7% of Abu Dhabi's land mass is sabkha, an Arabic term adopted by geologists to describe low-lying salt flats subject to periodic inundation. Sabkhas routinely flood and crust over with salt, discouraging all life save for cyanobacteria. They are predominantly found along the coast, but also occur in interdunal depressions, and present major difficulties for any kind of construction. In effect, 93% of the Emirate's land mass is prohibitively difficult to inhabit.



However, there are some biologically productive habitats. Mangroves along the coast account for a large portion of the biodiversity of the country and provide an excellent habitat for the many migratory birds that transit the country between Central Asia and Africa. While most mangroves around the world are declining, those in Abu Dhabi are actually increasing due to protection and a major plantation program. Offshore seagrass beds are also highly productive and provide food for endangered species like turtles and dugongs, and a hatchery for the Gulf's rapidly declining fish stocks.

The coast has more than 200 natural islands, some of them formed by spectacular protruding salt domes that have never been inhabitable due to the lack of fresh water. Desalinization technology has changed this dynamic, and opens them to commercial development. There are some off shore coral reefs, but the hypersalinity of the Gulf has always made these extremely marginal and higher water temperatures in recent years have essentially confirmed their non-viability.

The Abu Dhabi Environment Agency is charged with conservation and management of the Emirate's natural environment, resources, wildlife and biodiversity. Most of its initiatives involve protecting wildlife, addressing threats, monitoring and regulation. It also seeks to promote awareness of the environment through educational programs.

