

## PROJECT BOOK

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## Concept

Al Ghadeer Development is certainly ideal in terms of fulfilling the demand as a satellite town between two cities, Abu Dhabi and Dubai for those looking for safe, affordable and modern homes in proximity to their works. This town consists of 2,131 units of residential housings including townhouses, villas, terrace apartments and high rise apartments. Well-grounded ideas in community composition are the key to our design. Community programs are thoroughly built upon residents' age, income status meaning that six distinctive self sufficient communities are promoting various life styles of people from different backgrounds by providing not only what's necessary for composing the pedestrian oriented self-sufficient living environment but also supplementary ingredients nourishing the quality of everyday living.

Master Plan / Design Architect  
**SUNJIN Engineering & Architecture**  
Client  
**SOROUH Real Estate, UAE**

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# Al Ghadeer Project

Abu Dhabi, UAE





# Al Ghadeer Construction Site

JUNE. 2011

**Project Title** Al Ghadeer Project

**Location** Abu Dhabi, UAE

**Total Land Area** 3,123,065m<sup>2</sup>

**Total Built-up Area** 1,520,440m<sup>2</sup>

**Design Period** Feb. 2009–Mar. 2010

**Number of Units** 8,984 (I Phase - 2,131 units)

Villas\_ 1,539 units (I Phase - 154 units)

TownHouses\_ 1,540 units (I Phase - 518 units)

Terraced Apartments\_ 1,435 units (I Phase - 798 units)

Apartments\_ 4,470 units (I Phase - 661 units)

## INFRASTRUCTURE DESIGN

Irrigation system\_ Watertanks, Pump rooms

Greywater\_ Collection & Distribution system

Water Supply\_ Pipes, Watertanks, Pump rooms and etc.,

Sewage

Power system\_ 11kV, 400V power network

Public Lighting

Communication Network\_ Cable ducts, Manholes, Joint boxes, etc.,

Gas system

Vehicular Roads & Pedestrian Paths

Landscape Design\_ Open space, Pocket parks, etc.,

Utility Plants

STP Plants



PART

01

Al Ghadeer

# DESIGN DOCUMENTS



*Design Fundamentals*



*Site Context*



*Master Plan*



*Residential Building Design*



*Urban Design*



*Landscape Design*



## 01 Design Fundamentals





# 2030 ABU DHABI

In September 2007, the Abu Dhabi Government published the 'Plan Abu Dhabi 2030: Urban Structure Framework Plan', a plan for the development of the City of Abu Dhabi that will guide planning decisions for the next quarter of a century. As planned, the population is set to grow to approximately 3.1 million by the year 2030. The development is to fulfill needs to support this growth in industry, economy, population and tourism. Al Ghadeer Master Plan has been carefully modeled after Plan Abu Dhabi 2030, an Urban Structure Frameworks Plan. The plan is a conceptual document provides ideas, themes and directions throughout planning. This urban structure framework plan is meant to guide the Al Ghadeer development. The key direction of the Plan Abu Dhabi 2030 includes:



## Sustainability

Oil has brought wealth to the city, but it is a finite resources. Explore renewable energy production and reduce the non renewable resources.

## A Unique Environment

Plan along with sensitive growth of the city to preserve natural environment that will bring Abu Dhabi environmentally unique space.

## An Evolving Culture

It will be designed at a human scale to ensure the pleasant place to live and work. Flexibility and creativity will be the key to integrating different venues and respect the traditional and accommodate new lifestyle simultaneously.

## Identity and Opportunity

Keep traditional way of life but with latest 21st century venues, a place of business but also of government and culture. The city should be defined not only with its natural islands and dunes, but also with its streets, and homes to be developed.

## Connectivity

The city needs multi layers of transportation network to connect downtown and new growth specially when population reaches to 3 million in the future. In the sane sense, connectivity should be apparent in a hierarchical system from major urban scale infrastructure systems to door to door pedestrian walkway.

# URBAN DESIGN CONCEPT

The Al Ghadeer development will transform formerly a barren desert wasteland into an easy living oasis and create lively and congenial social environment.

## Interaction

The blend of commercial spaces and public open spaces within the residential fabric generates a balanced, commercially and socially sustainable development.

- Street side retail area
- Club houses
- Public open spaces
- Semi private courtyard and terrace

# STYLE

## • Intellectual (Mind)

International school zone which creates an environment of learning and exploring allowing students work and play within facilities and surroundings.

## • Physical (Body)

Open spaces and sports parks playful activities for both adult and children physical health and well-being.

## • Spiritual (Soul)

Spiritual living and dedicated life Mosques serve as a place for prayer as well as a center of information and education of the community.

## • Social (Lifestyle)

Improved quality of living residential types for different families high-end retail and quality amenities.



Sustainability



Open Space & Pedestrian Friendly Planning



Historic Context



Quality Residential Community



Place



Continuity



Unity



Interaction



## THE PLAN

- The primary planning principles are to connect the site to the main highways accessible to adjacent major cities and create an affordable self contained residential community that provides all basic community amenities, Develop a vision and set standard which can respond to the international market and attract potential residential community.
- The site will feature sense of culture, history of region, and international community.
- The community is to be visually rich, attractive and should have diverse environment. This development will organize site planning, composition of each architectural and landscape materials and details.
- High quality living along with its detailing and materials can create primary character to the community which is attractive not only for residents living venue but also for visitor's impression.



## OPEN SPACE & PEDESTRIAN

- Make pedestrian activity possible, thus explaining transportation options, and creating a streetscape that serves pedestrians and bicyclists.
- The community pedestrian network has strong connections throughout the Al Ghadeer community.
- Create trails system and green belt throughout entire development those offers the opportunities to walk and rider within the community.
- Includes pedestrian walk ways behind villa and townhouses, connecting residents with community amenities.
- Bicycle path along pedestrian walk ways.
- Small and large public spaces in an hierarchical sense of place to allow a cohesive experience.
- Street furnishing shall be provided at pedestrian gathering spaces such as building entrance, plazas, gardens, streetscape and other accent locations.
- Traditional and contemporary tensile structures can be adopted to prominent public spaces to provide shaded gathering spaces.

## HISTORIC CONTEXT

- Rich cultural history of the region and modern appointments are expected. International cultural landmark can blends with its richness of the historical and cultural background.
- Historical all patterns and textures shall be used to create consistent landscape and urban design features.
- Building design will remain based on local and traditional character as well as attitude to accept diversity and international scenery.



## SUSTAINABILITY

- Promote sustainable design by improving and maintaining the quality of natural environment for the community.
- Consider uses, storage, and treatment.
- Consider passive energy strategy such as solar energy or passive cooling system.
- Consider green building techniques in site design, energy consumption, and material.
- Internal courtyards to provide more north facing exposure.
- Building should provide maximum shading to public spaces.
- Various types of louvers for shading technique.
- Create arcade to prevent direct sunlight.
- Uses of cool natural material such as marble, and ceramics.
- High ceiling when possible to provide stack ventilation effect.
- The high level of building articulation should be provided for shading external building spaces and environmental terraces with external building features such as over hangs, balconies and shading devices.
- Balconies and terraces shall be incorporated into building.



## 02 Site Context





LOCATION

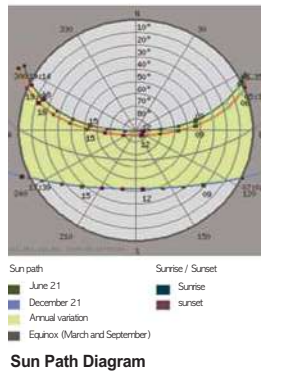
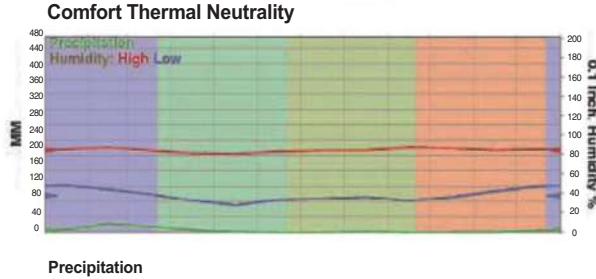
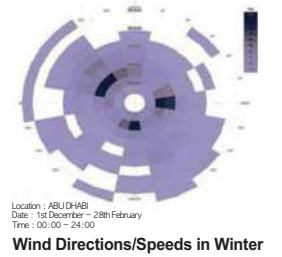
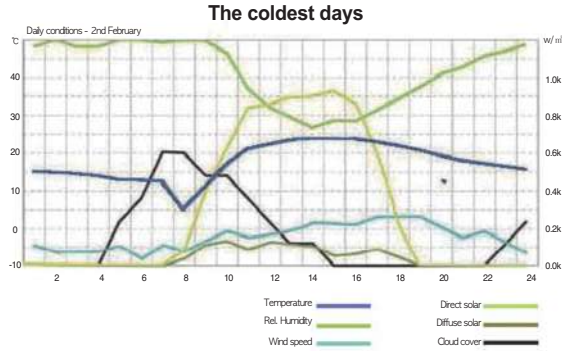
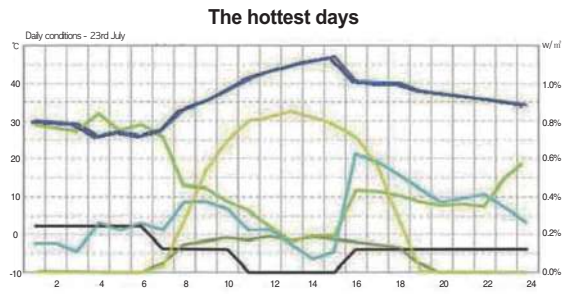
The Al Ghadeer site is located in the Emirate of Abu Dhabi near the border with Dubai. It is flanked by the Al Faya Road on the northeast with Emirates Highway roughly 750m to the northwest of the property.

The site is positioned in close proximity to the new Jebel Ali Airport and the new Jebel Ali Free Zone and Sea Port, Trans-Emirates Highways and the new Abu Dhabi Airport extension. Al Ghadeer is a new proposed development in undeveloped stretch between the cities of Abu Dhabi and Dubai, potentially becoming part of the satellite development between the two existing cities.



CLIMATE

Temperatures in Abu Dhabi range in the mid 40°C daytime during May to October summer months, and low to mid 20°C range with cool nights during the winter months. Rainfall is low with periods of downpours in February and March. Thunderstorms may arise from southwest monsoon activity arising from southern Arabia. Humidity is relatively high in the UAE, coastal areas as Abu Dhabi experiencing a higher percentage of humidity (90% in summer and fall) than the inland communities. Wind directions are variable with the seasons. Prevailing winds are from the northwest direction between November and July. Winds are from a northerly direction in August with easterlies in October. Wind speeds rarely exceed 8 meters per second though wind speeds can increase in winter months.





## ABU DHABI

Abu Dhabi is the capital city of the United Arab Emirates(UAE) and the largest of the seven individual emirates that make up the United Arab Emirates. Strategically positioned at the heart of one of the most rapidly developing and prosperous regions of the world and at the crossroads of Asia, Europe and Africa, Abu Dhabi is an ideal location for GIBTM (The Gulf Incentive Business Travel and Meetings).The main International airport is located just 25 minutes from the city center. High levels of investment and development of infrastructure are contributing to the region's appeal. Abu Dhabi offers outstanding potential as a destination for both leisure and business related tourism. English is widely spoken



## CULTURE AND RELIGION

Islam is the religion of the country and the call to prayer can be heard from many mosques built around the city. Although a multi-ethnic society, respect should be given to local customs and traditions and visitors should dress modestly.



## REAL ESTATE MARKET

There is a rapid expansion in the level of real estate investment and construction related to commercial, residential and infrastructure developments in UAE. This unprecedented growth is the result of privatization efforts and economic diversification in the UAE, anticipated growth in population, and the ability for expatriates to own property on a freehold or leasehold basis. The market research indicates there is currently strong demand in Abu Dhabi city and Dubai for affordable, mid-market priced two- to four-bedroom apartments, town homes and villas. As more major residential developments move away from the city centers, self-supporting communities must be thoughtfully designed to provide public amenities such as schools, parks, playgrounds, retail, entertainment, health, fitness centers, sports facilities and places of worship.



## PRECEDENTS

The Al Ghadeer Developments builds on the economic feasibility report envisioning the need for residential developments. It builds on the strong trends of cities expanding and creating self sufficient satellite communities and gradually creating a continuous linear growth, connecting adjacent major cities along the major regional transportation corridors and natural features like the coastline of the gulf. Growth and market forces that influence this development include:

- A centrally located site between the existing major cities of Abu Dhabi and Dubai.
- Growing job markets in the existing major cities, and port developments on the fringes.
- The need for modern, affordable housing with all public amenities within close proximity.
- Connectivity of residential developments to the major city work centers through major high speed regional highways or train/metro systems.





## 03 Master Plan





# ILLUSTRATIVE PLAN

The plan illustrates the overall project when fully completed. It clearly delineates the planning organization showing the relations between vehicular and pedestrian circulation, the residential communities, core development of district center, and open spaces.

- 1.District Center Civic/Commercial
- 2.District Center Residential
- 3.Friday Mosque
- 4.Community Center
- 5.Elementary School
- 6.International School/Sports Field
- 7.Villa
- 8.Hotel
- 9.Entry Gateway
- 10.Retail Boulevard
- 11.Oasis Park
- 12.Skate Park
- 13.Cloud Park
- 14.Children's Dune Park
- 15.Park
- 16.Uilities
- 17.Transit Center
- 18.Apartments
- 19.Terraced Apartments
- 20.Town Houses
- 21.Villas
- 22.Clubhouse
- 23.Open Space
- 24.Business Park





# ENLARGED MASTER PLAN (PHASE 1)

The first phase is important to start a successful construction site for the Al Ghadeer development. It consists of breaking the ground for sector 1, 3 and 10, which are to be mostly residential and amenity programs to support the residential community such as school, clubhouses, mosques and utility plant.

Site area 640,000 m<sup>2</sup>  
Development 260,000 m<sup>2</sup>  
Scope of work  
1. Master plan  
2. Architecture  
3. Landscape  
4. Infrastructure  
Design duration Feb. 2009 ~ Mar. 2010  
Population 5,517  
Architectural unit type

TYPE	FLOOR	AREA PER UNIT(m <sup>2</sup> )	UNIT	BUA(m <sup>2</sup> )
VILLA	2	226	154	34,804
TOWNHOUSE	2	110-185	518	70,100
TERRACED APARTMENT	3	42-105	798	68,779
APARTMENT	3-5	42-98	661	80,832
TOTAL	-	-	2,131	254,514

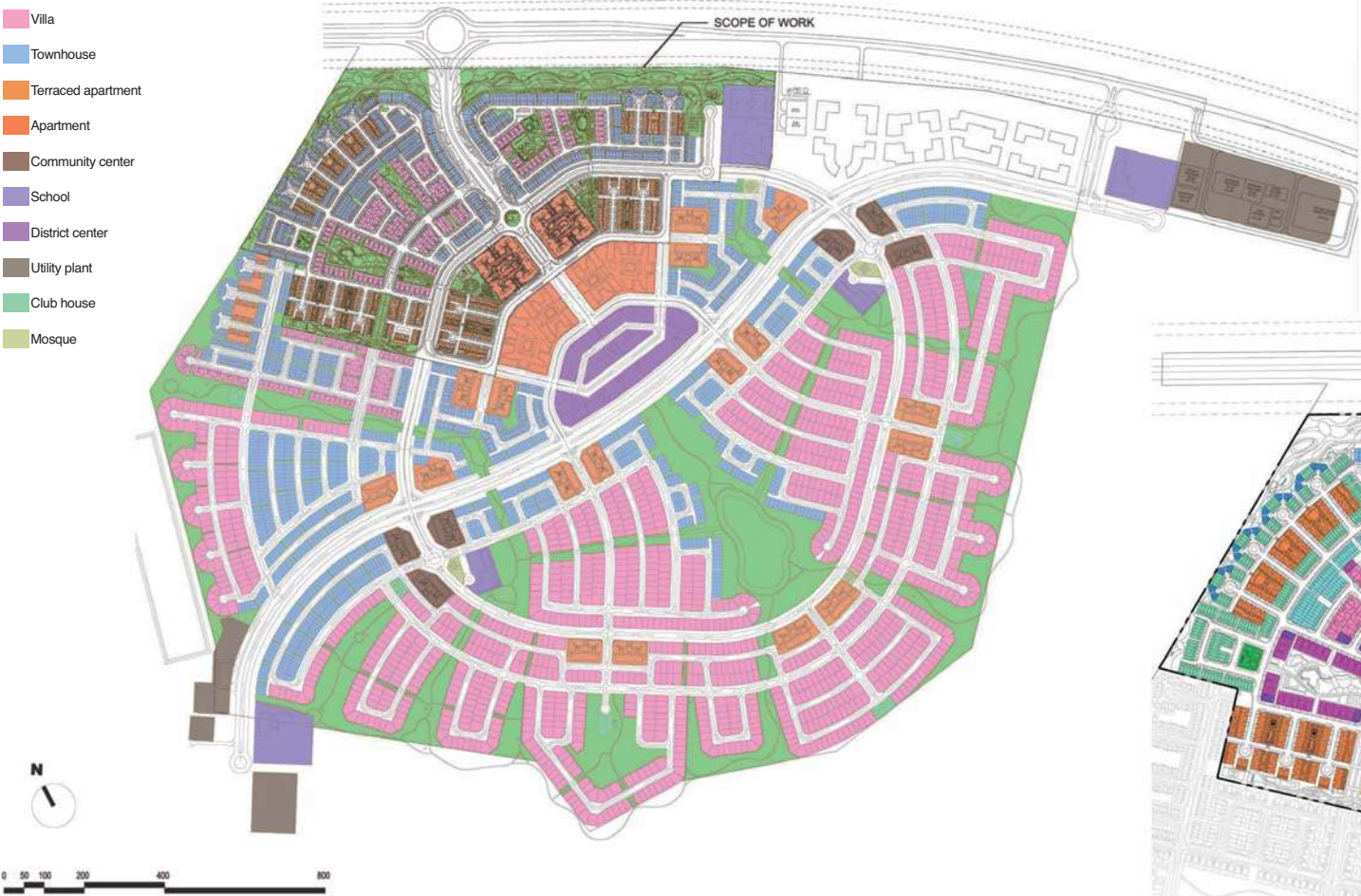
- 1.Mosque
- 2.Clubhouse
- 3.School 12
- 4.Entry Gateway
- 5.Natural Waterfall Park
- 6.Rainbow Park
- 7.Oasis Park
- 8.Promenade & Chess Park
- 9.Cloud Park
- 10.Forest Children Park
- 11.Arabic Breeze Park
- 12.Sports Parks





Land use diagram shows the general location of the various types of program within the development including apartment, terraced apartment, townhouse, villa, retail and commercial office, school, public amenity, utility, open space and park. The land use is related to street system, site boundary and open space.

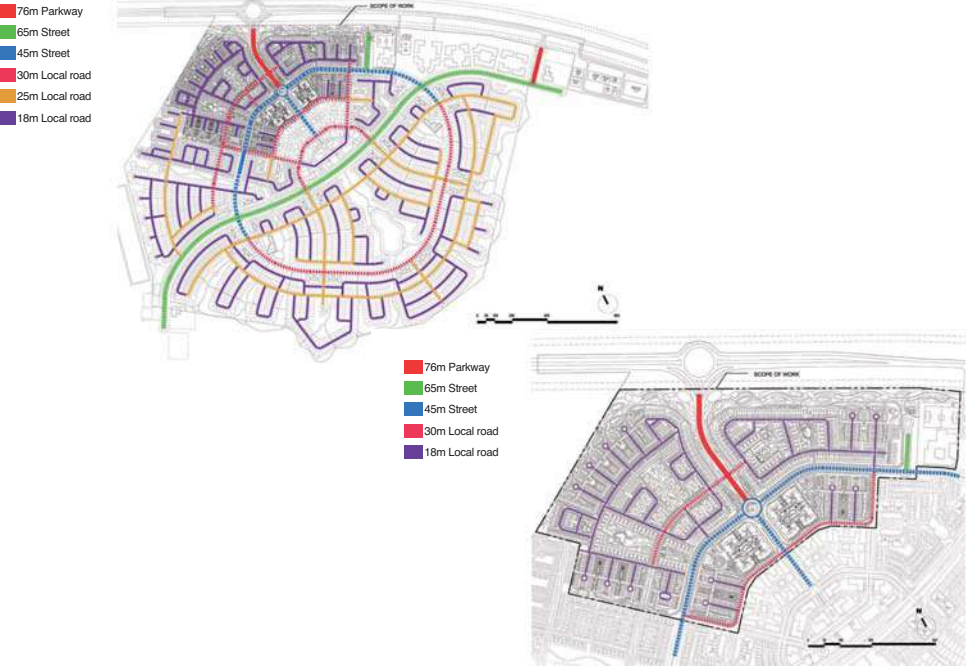
LAND USE



LAND USE (PHASE 1)



VEHICULAR CIRCULATION



TRANSIT CIRCULATION



PEDESTRIAN CIRCULATION (PHASE 1)



BICYCLE CIRCULATION (PHASE 1)





VILLA

- V3BR-A(Semi-Detached)
- V3BR-C(Detached)
- V3BR-C(End Type)



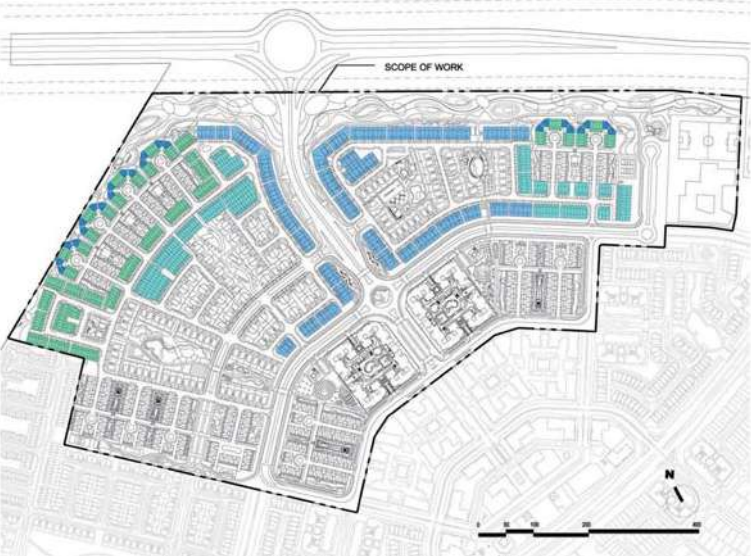
TERRACED APARTMENT

- Terraced apartment



TOWNHOUSE

- T2BR-A
- T2BR-B(Plot Type1)
- T2BR-B(Plot Type2)
- T2BR-MISC



APARTMENT

- Apartment





# AMENITIES

- Club house
- School
- Mosques



# BUILDING HEIGHT

This diagram illustrates the proposed height range of individual buildings in the Al Ghadeer development. Medium high apartment buildings and terraced apartments are adjacent to the civic core. Townhouses and villas are lowest in height and dominate most of the land area with open green space. Medium high terraced apartments are also distributed in townhouses to create more open green spaces.

- G+1
- G+2
- G+3
- G+4



# OPEN SPACE

- Public green open space
- Private green open space
- Pedestrian boulevard
- Water





## 04 Residential Building Design





RESIDENTIAL BUILDING DESIGN\_VILLA



Master plan



Ground floor plan\_V3BR-A



Ground floor plan\_V3BR-C

• V3BR-A



Front elevation



Rear elevation

• V3BR-C



Front elevation



Rear elevation





RESIDENTIAL BUILDING DESIGN\_TOWNHOUSE



Master plan



Ground floor plan\_T2BR-A



Ground floor plan\_T2BR-B



Ground floor plan\_T2BR-MISC

• T2BR-A



Front elevation



Rear elevation

• T2BR-B



Front elevation



Rear elevation

• T2BR-MISC



Front elevation



Rear elevation





RESIDENTIAL BUILDING DESIGN\_TERRACED APARTMENT



• 1BR-A



• 1BR-B





RESIDENTIAL BUILDING DESIGN\_APARTMENT



Master plan



West elevation



East elevation



South elevation



North elevation



• Site plan



Type F



Type G



Type H



Type K



Type K3



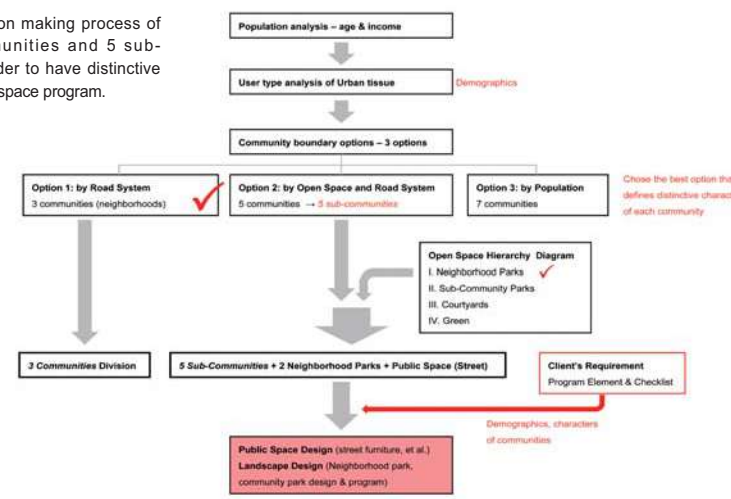
## 05 Urban Design





# URBAN DESIGN METHODOLOGY

The flow chart shows the decision making process of community division: 3 communities and 5 sub-communities work the best in order to have distinctive character of community and public space program.



# COMMUNITY BOUNDARY OPTIONS

**Option 1:**  
3 Communities (neighborhoods)  
by Road System

**Pros**

- Physically clear boundary definition
- Clear community identity which coincides with neighborhood identity)

**Cons**

- Disproportionate population sizes of communities
- Unclear user type definitions of communities

**Option 2:**  
5 Sub-Communities  
by Open Space and Road System

**Pros**

- Achieves green space hierarchy in the development
- Clear user type definitions of communities
- Physically good boundary definition

**Cons**

- Disproportionate population sizes of communities

**Option 3:**  
7 Communities  
by Population

**Pros**

- Approximately similar population sizes of communities
- Clear user type definitions of communities

**Cons**

- Small community size
- Too many segments when the later phase of master plan is completed

	Option 1	Option 2	Option 3
Population & community size	★★	★★	★★★
Physical clear boundary	★★★	★★	★
Identity	★★★	★★	★
Specific gateway	★★★	★★	★
Green node	★★★	★★	★
Type of user	★	★★	★★★
Total	15	12	10

# RESIDENTIAL TYPE & FAMILY



## VILLA



## TOWN HOUSE



## TERRACED APARTMENT



## APARTMENT



Villa – 5 Persons  
Town House – 3 Persons  
Studio – 1 Person  
1 Bedroom – 2 Persons  
2 Bedroom – 2.5 Persons

# Demographics of urban tissue

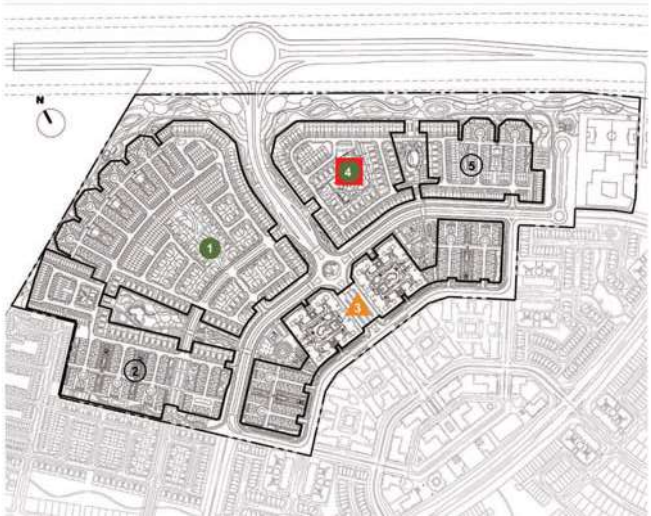
• User Composition of Child, Teenager, Adult and Senior





• Conclusion

Sub-community 1 is child-teenager dominant;  
4 is senior-child-dominant;  
3 is adult dominant;  
2 and 5 is relatively neutral.



Given characteristics of communities and distribution of detailed programs are determined carefully based on demographic studies. Due to the vicinity to Al Faya Road nearby, Breeze Park was determined to serve people with the most public amenities such as international schools and public spaces as a gateway welcoming the guests from outside and offering convenient accessibilities to those public community spaces. Regarding the fact that the programs and unique characteristics are based on not only the location but also the density and demography of each community, Waterfall Park with higher density of overall residents especially of

children and teenagers, it is crucial for this community to be a pedestrian friendly and safe for all families. In fact, it is design to house urban living life style within the natural environment promoting numerous outdoor activities and experiences for families. On the other hand, Oasis park community with the highest possible demographic density of younger adults and professionals is the perfect setting for those enjoying the metropolitan lifestyle. It is located in the city center area with concentrated retail streets and other commercial spaces enabling the small gatherings, shopping, cultural activities, night life and much more.

• Community boundary option





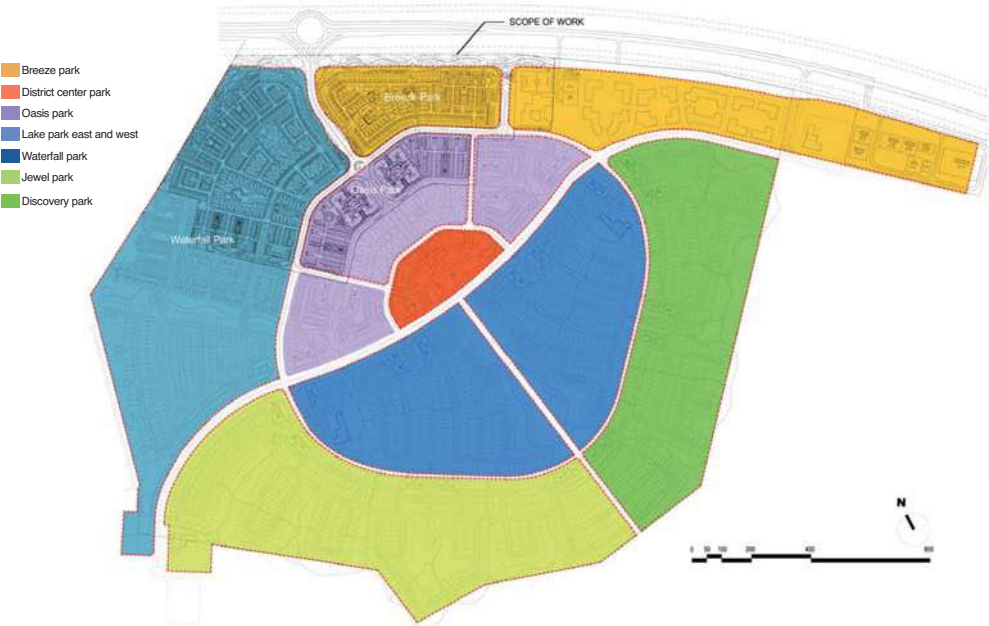
# COMMUNITY CONCEPT

The District Center is surrounded by six distinctive communities with a logical hierarchy of massing density. Higher density development occurs closer to the core and major thoroughfares while lower density single family villas occur at the periphery. Each community is designed to be somewhat self-sufficient with pedestrian friendly local amenities to include grocery stores, mosques, local schools, recreation and entertainment facilities and civic services. Utilizing the concepts previously discussed, each community has its own unique identity based on individual character further outlined in the following sections. While all of the communities are designed to meet the intellectual, social, physical and spiritual needs of their residents, the Al Ghadeer Master Plan identifies specific community characteristics that further enhance the overall image of the development.

The first phase of the development will include 3 communities: Breeze Park with new name and revised area, Waterfall Park with revised area, and Oasis Park.

# COMMUNITY

The community diagram illustrates the distinct communities surrounding the District Center Park. The Breeze Park community (formerly Gateway Park) which includes the residential park and international school is defined by its primary location. Waterfall Park Community is located in west side of development. The Oasis Park Community incorporates many of the large district parks. Lake Park East and West Community includes the large open spaces parks and the two communities are adjacent to the District Loop Road connecting the central communities via numerous pedestrian corridors.



# OPEN SPACE DIAGRAM

According to the hierarchy of open space, two main community park axis (neighborhood parks) shall become destination parks providing main visual corridors of master plan. 4 sub-community parks shall be defined by demographics around in terms of program and character. In the lower hierarchy, there are private courtyard and greens which will provide intimate and semi-private open space for amenity to the residents.





### • Breeze park

#### - Concept

Breeze Park (formerly part of Gateway Park) is a gateway to the success of the Al Ghadeer and will be an example of the character of community and lifestyle for the later phase of the development.

#### - Description

The Breeze Park is a residential community that is the front door of Al Ghadeer. The proximity to Al Faya Road is one of the main advantages of the area. The prominent location and well-coordinated programs, including international school and amenities, will make the area self sufficient as high quality residential community. A lot of open public spaces, semi-public open space in terraced apartment type and the utilities included in the community will be supporting the entire areas of the development making this area the most critical for the Al Ghadeer in both form and function.

### • Waterfall park

#### - Concept

The unique terrain and rougher textures of the Waterfall Park will offer the faithful representation of natural living setting by providing access to more natural living and social surroundings. The terrain combined with the higher density provides the context for Al Ghadeer's combination of urban living within natural and landscaped environment.

#### - Description

The area will be extended to include formerly Gateway Park being the entrance of phase 1 development together with the Breeze Park. The Waterfall Park community which primarily consists of townhouses is characterized by a higher density than the other outlying residential communities in Al Ghadeer. It is comprised of housing views and strong pedestrian connections along several axes into the District Center of Al Ghadeer. This community will boast an iconic natural landscape with a rolling topography. In keeping with the more rugged feel of the outdoor environment, the materials used for this community will be of a rougher finish to give the user the feel of being closer to a natural setting.

### • Oasis park

#### - Concept

The Oasis Park communities are the connection between the intellectual and social centers of Al Ghadeer and serve to provide the district with the basis of its strong character and influence.

#### - Description

This community will cater to those residents who wish to live in a more urban setting. Its central location provides an ideal place for those who wish to live closer to their place of employment. Its proximity to the District Center Park and incorporation of the main retail street makes this community the ideal location for those residents who prefer a more metropolitan lifestyle, such as younger adults and professionals. The character of this community will reflect a mood of youthful energy and effervescence. The urban lifestyle of this community requires building private spaces for residents. There are a number of public commercial spaces along the retail street that will encourage small gatherings and pedestrian paths that provide connections to the larger community. Two of the most active community pocket parks are located within this community.

### Breeze park



### Waterfall park



### Oasis park





## 06 Landscape Design





## PROJECT CONTEXT



## LANDSCAPE DESIGN CONCEPT

The concept sets 'easy living' to life based on the educational, recreational, social and commercial amenities. Based on the 2 water axes to the central lake, each park's character has been defined. Except 2 water axis corridors, Al Ghadeer is composed for the green surrounding. Each park's program is considered for residence's age, gender and type of housing. Al Ghadeer landscape program will offer advanced technology feature including WiFi and water screen in the characteristic parks. Colour and image - changing, computer - controlled of LED floodlights are interspersed with the white light luminaries to enable a completely different image. Also Al Ghadeer is the green city in the desert with plenty of trees and palm trees to control the noise from the high way.

### • Breeze park

Art and sculpture elements in the landscape can bring together for contemporary atmosphere and fun for all ages.



### • Culture from landscape

Landscape design should be considerate to the local character. Bringing art, music and theatre outside can provide a relaxed atmosphere for people to learn in, and would encourage families to enjoy the spectacular scenery of space.



### • Play from landscape

Playing is essential to children. Through activity children learn about themselves and the world around them, building their physical, social, and creative skills.



### • Education from landscape

Learning about the Landscape through interaction can build confidence and give children a sense of achievement. Growing vegetables and herbs and physical contact with the outdoors can build a child's sense of responsibility and spark creativity.



### • Sports from landscape

Sports activity in the landscape through interaction can strengthen the health and encourage the community's relationship in the neighborhood. Outdoor sports activities give children a sense of achievement.





NEIGHBORHOOD PARK WEST

Play & Rest area    Green open space    Vehicular & Pedestrian circulation    Landscape & Streetscape



Natural waterfall park

- vi. Access to water body
- viii. Promenade
- xv. Water pool & Water body
- xxii. Edge treatment
- 2. Enjoyable complexity
- 3. Memorable simplicity
- 4. Clear sense of direction
- 6. Outdoor eating & concert viewing
- 12. Space where people to be seen
- 16. Space for social event with electric and network support
- 18. Space accessible to fire-truck, utility, and catering van
- 19. Seeing across space
- 21. Narratives to connect spaces
- 25. Public art
- 34. Auditory experience of site Oasis Park
- 35. UAE unique arts and crafts

Rainbow park

- vi. Access to water body
- xx. Water pool & water body
- xxiii. Fruit and vegetable garden
- 12. Space where people to be seen
- 16. Space for social event with electric and network support
- 21. Narratives to connect spaces
- 24. Locally native flora and fauna

Oasis park

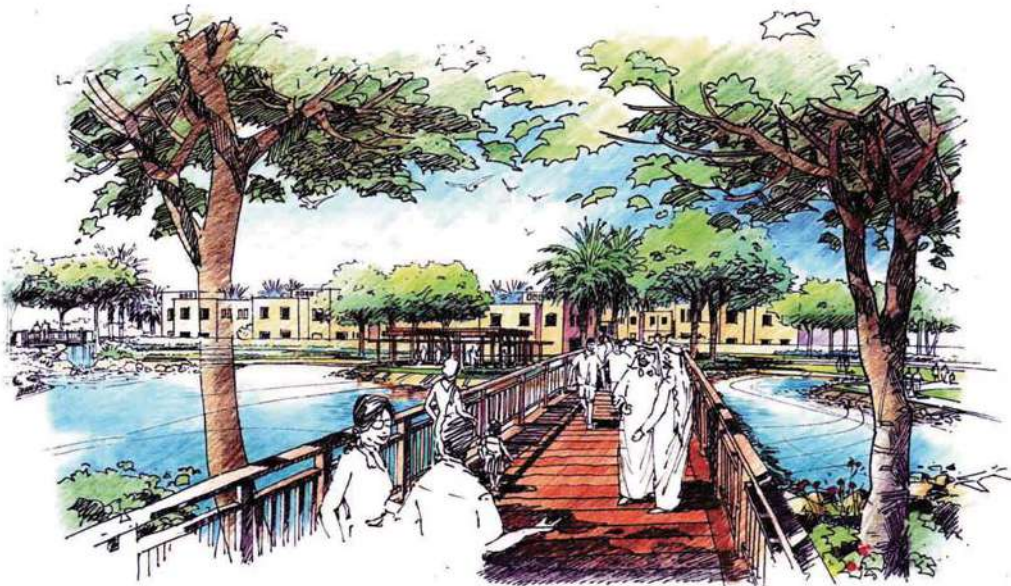
- v. Mosque landscape & parking
- vii. Activity node
- xv. Water pool & water body
- xxvii. Sitting wall
- 2. Enjoyable complexity
- 3. Memorable simplicity
- 6. Outdoor eating & concert viewing
- 12. Space where people to be seen
- 15. Sense of destination for pedestrians
- 16. Space for social event with electric and network support
- 18. Space accessible to fire-truck, utility, and catering van
- 19. Seeing across space
- 21. Narratives to connect spaces
- 22. Moment of contemplation around Friday mosque
- 34. Auditory experience of site



NATURAL WATERFALL PARK



- A Natural water fall
- B Toddler playground
- C Flowering shrub and Herbaceous planting
- D Landform with water feature
- E Timber deck bridge
- F Open cafe
- G Timber deck plaza
- H Open plaza
- I Lawn with rolling landform
- J Substation





# RAINBOW PARK



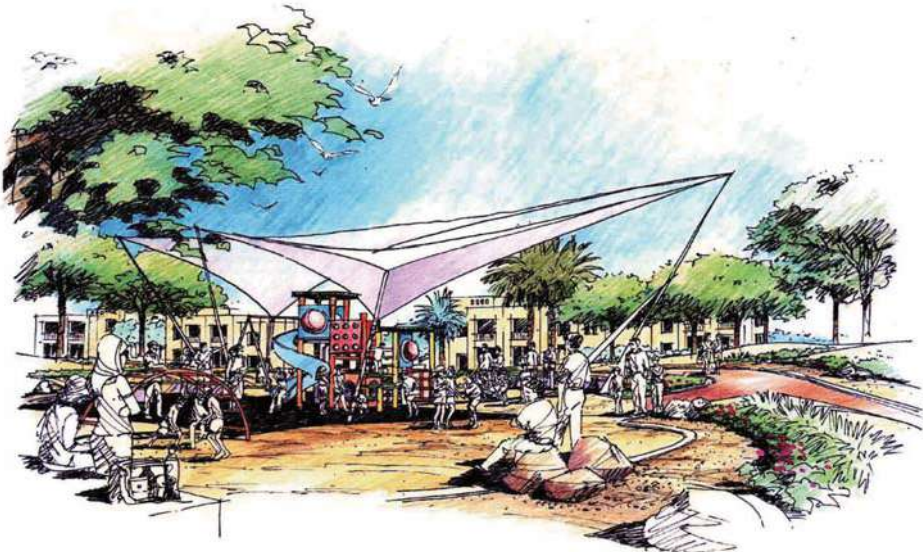
- A Open space with shade structure
- B Laminar flow water feature with jumping streams
- C Fruit and Vegetable garden
- D Bicycle rack
- E Water screen
- F Accent palm tree
- G Bicycle path



# OASIS PARK



- A Cascading water feature  
(Water blast from flush jets under water)
- B Amphitheater step(Precast concrete step and lawn)
- C Linear pergola
- D Mosque courtyard
- E Toddler playground
- F Open lawn space
- G Palm grove plaza





# NEIGHBORHOOD PARK EAST

Promenade & Chess park

- viii. Promenade
- 6. Outdoor eating & Concert viewing
- 7. Design for children's way finding and amusement
- 8. Sitting and sunbathing for pedestrians
- 12. Space where people to be seen
- 15. Sense of destination for pedestrians
- 17. Play games, table tennis, chess
- 28. Finishes and materials for children's curiosity
- 34. Auditory experience of site
- 35. UAE unique arts and crafts

Cloud park

- v. Mosque site landscape & parking
- vii. Activity node
- xv. Water pool & Water body
- xxvii. Sitting wall
- 2. Enjoyable complexity
- 3. Memorable simplicity
- 4. Clear sense of direction
- 12. Space where people to be seen
- 15. Sense of destination for pedestrians
- 16. Space for social event with electric and network support
- 17. Play games, table tennis, chess
- 18. Space accessible to fire-truck, utility, and catering van
- 19. Seeing across space
- 21. Narratives to connect spaces
- 22. Moment of contemplation around Friday mosque
- 34. Auditory experience of site

- Play & Rest area
- Green open space
- Vehicular & Pedestrian circulation
- Landscape & Streetscape



# SUB-COMMUNITY PARK

Forest children park

- viii. Promenade
- xiii. Children's areas
- 7. Design for children's way finding and amusement
- 10. Avoid complex level changes and sunken area
- 16. Space for social event with electric and network support
- 21. Narratives to connect spaces
- 28. Finishes and materials for children's curiosity

Arabic breeze park

- xv. Water pool & water body - water feature
- 2. Enjoyable complexity
- 3. Memorable simplicity
- 4. Clear sense of direction
- 6. Outdoor eating & Concert viewing
- 12. Space where people to be seen
- 16. Space for social event with electric and network support
- 18. Space accessible to fire-truck, utility, and catering van
- 19. Seeing across space
- 21. Narratives to connect spaces
- 25. Public art
- 35. UAE unique arts and crafts

- Play & Rest area
- Green open space
- Vehicular & Pedestrian circulation
- Landscape & Streetscape



Forrest Children Park



Arabic Breeze Park





PART

02

Al Ghadeer

## PROJECT CONTROL



*Design & Management Know-how*



*Manning Plan*



*Design Process Map*



*Building Permit Process*



*Marketing Material Support*



*Cost and Change Management*



*Interface Control Management*



*Mock-Up House*



# 01 Design & Management Know-how

## AL GHADEER PROJECT WORK SCOPE AND SERVICES

- 1. Extensive total project management service leading client meetings and interface control with key stakeholders of the project such as infrastructure engineering, facility management and soil investigation engineering.
- 2. Project development schedule and milestone management to support client's strategic decision-making on phasing plan according to changing financial and economic conditions.
- 3. The first Korean architecture design firm who completed urban planning, UPC approval, detailed building design, building permit and needed coordinations with local authorities, teamed up with local architect of record.
- 4. Provided additional marketing materials for early project promotion in the regional housing market.
- 5. Effective project cost management and leading role in VE sessions to save AED96 million.
- 6. Project risk management, lag control and mitigation plan for the fast-track process.
- 7. In-depth understanding of the regional culture and climate through successful mock-up house built.

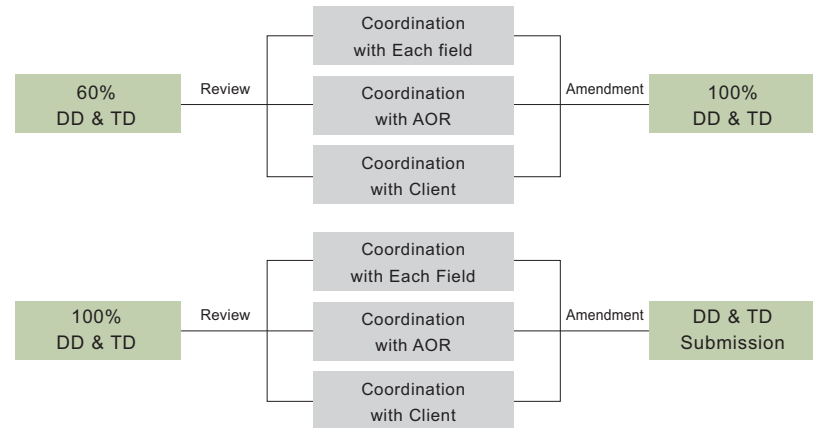
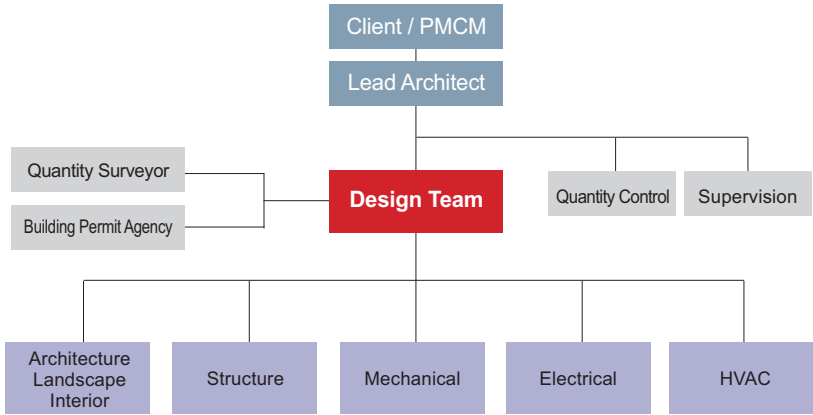
## FULL MANAGEMENT LIST

### From master plan to DD/TD (Detailed Design / Tender document)

- 1. Project Team Organization - Sub Consultant, Local Architect, Resident Team, IN-House Team
- 2. Fast Tracking/ Lag control / Mitigation Plan
- 3. Development Ph As per Project Finance Planning
- 4. Marketing Material Support
- 5. Master Plan & UPC Approval (UPC: Abu Dhabi Urban Planning Council)
- 6. Building Permit Process(UPC , Civil Defense , NOCS(no objection certificates))
- 7. Design Management and Effective Communication
- 8. Interface Control Management

## ORGANIZATION (OVERALL)

In order for successful completion of the large scale project while meeting the various interests of the client the design consultant organized a core team of specialists from several disciplines as well as contracted sub-consultants at the beginning of the project.

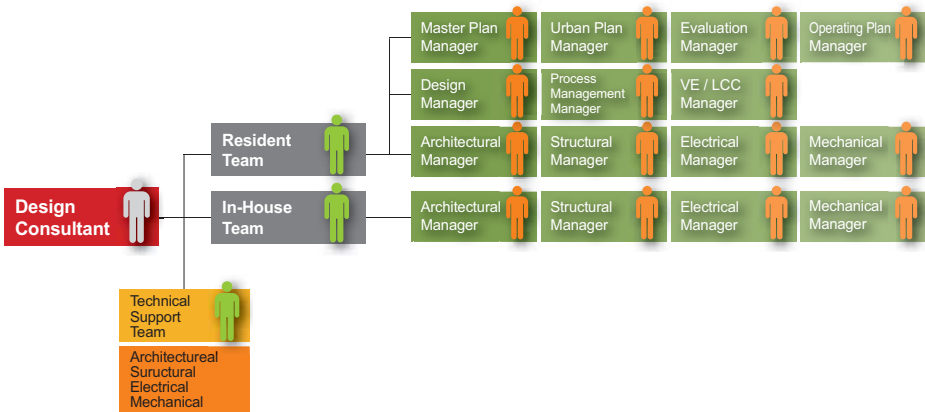




# 02 Manning Plan

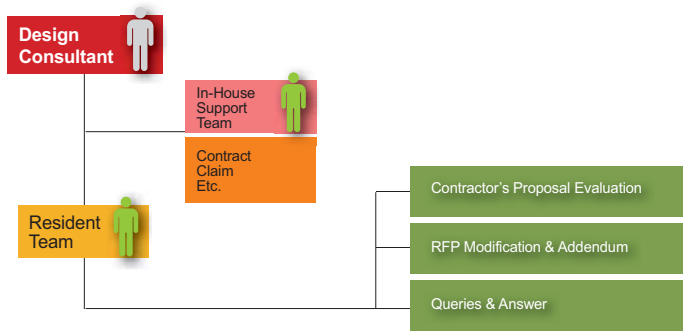
## DESIGN STAGE

During the design stage efficient communication between in-house team and resident team is crucial to handle the large volume of tasks while meeting the client's requirements.



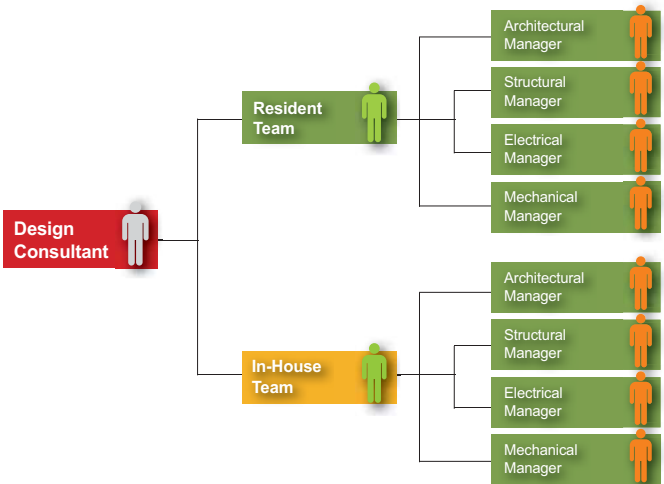
## TENDER STAGE

During the tender stage the resident team support the client to procure the best contractor providing proper responses and advises.



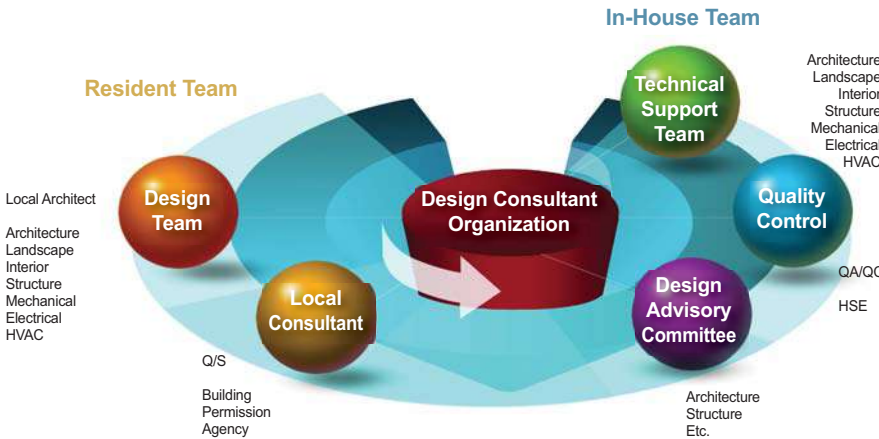
## CONSTRUCTION & POST-CONSTRUCTION

During the construction administration stage the key members of resident team oversee the construction to ensure its compliance with design intention.



## DESIGN CONSULTANT ORGANIZATION (OVERALL)

Key to the success of the project that requires a full project management is well-established design process and coordination capability.

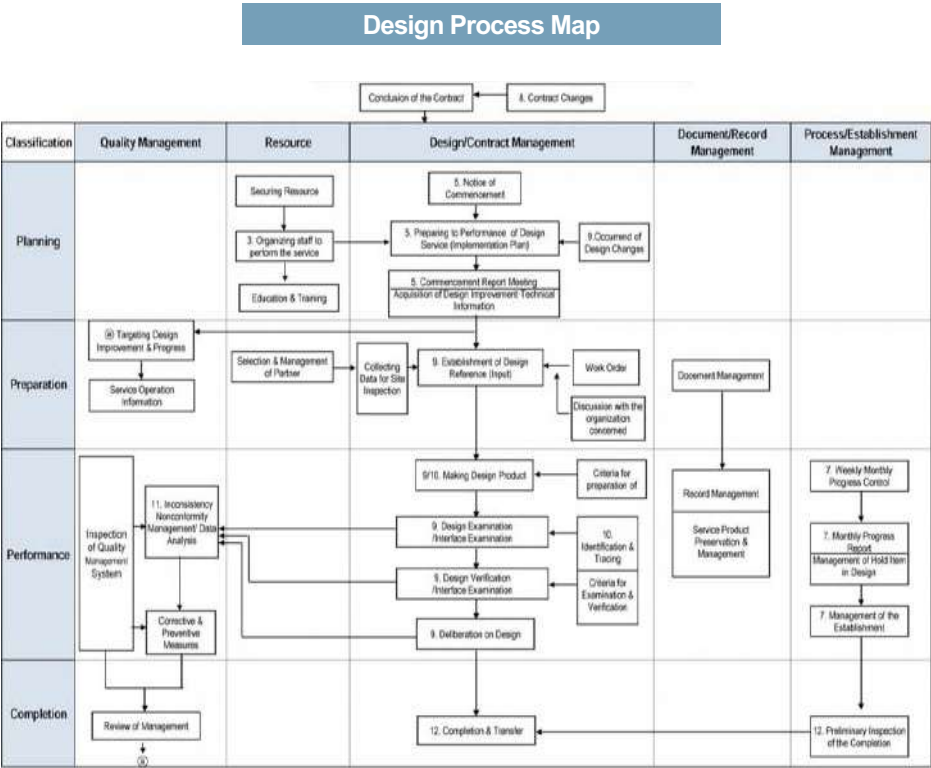




# 03 Design Process Map

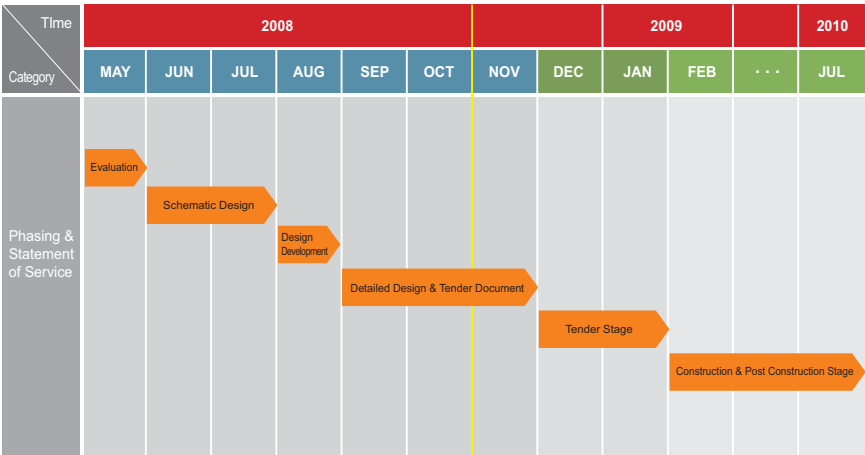
Project development schedule and milestone management to support client's strategic decision-making on phasing plan according to changing financial and economic conditions.

## DESIGN CONSULTANT ORGANIZATION (OVERALL)



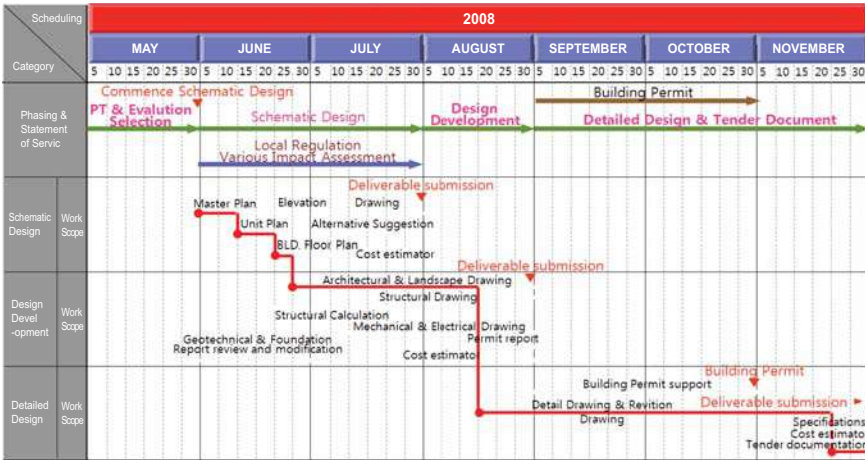
## ORGANIZATION (OVERALL)\_TIME FRAME

Initial project programming and milestone control to ensure the timely completion of the project



## TIME FRAME

The best estimated time frame for the regulatory process and necessary mitigation strategy



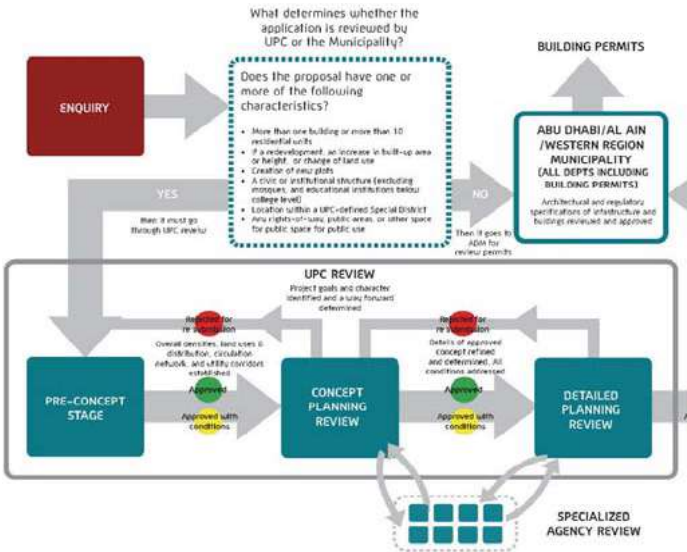
# 04 Building Permit Process

Project development schedule and milestone management to support client's strategic decision-making on phasing plan according to changing financial and economic conditions.

## URBAN PLANNING COUNCIL (UPC)

The UPC uses this review process for two main purposes

- To ensure development proposals comply with the Emirate's urban planning policies (e.g. land uses, densities, Estidama)
- To coordinate the review and approval of development applications by external government agencies



## CIVIL DEFENSE APPROVAL

General Requirements & General Notes shall be followed.  
Fire Safety & Prevention Regulations (Arabic Version Only Available)  
Architectural floor plans showing different systems (Combined drawings) to be produced  
Elevations & Sections, showing if the window/curtain walls have openings  
LPG gas and Gas detection System Drawings.  
Official Forms (In Arabic), to be filled, signed and stamped.  
Receipt of Payment fee

## MUNICIPALITY APPROVAL

General  
Architectural Package Approval  
Entrances to Site & Basement Package Approval  
Structural Package Approval

## NOCS (NO OBJECTION CERTIFICATES)

- Abu Dhabi Distribution Company (ADDC) - Electric Dept. (Shall be detailed hereunder)
- Abu Dhabi Distribution Company (ADDC) - Water Dept. (Shall be detailed hereunder)
- Abu Dhabi Transmission Company (TRANSCO) - Electric Dept. (Approved)
- Abu Dhabi Transmission Company (TRANSCO) - Water Dept. (Approved)
- ETISALAT. (Approved)
- Abu Dhabi Sewerage Service Company (ADSSC). (Approved)
- Abu Dhabi Civil Defense Approval (Shall be detailed hereunder)
- Department of Transportation (DOT). (Should be provided with Traffic Study)
- Public Gardening (PGD). (Approved)
- ADNOC Approval (or Group of Companies as required). (GASCO-Approved)
- Signal Force Dept.
- General headquarters of armed forced.
- Civil Aviation of Abu Dhabi
- Environmental Abu Dhabi (EAD)

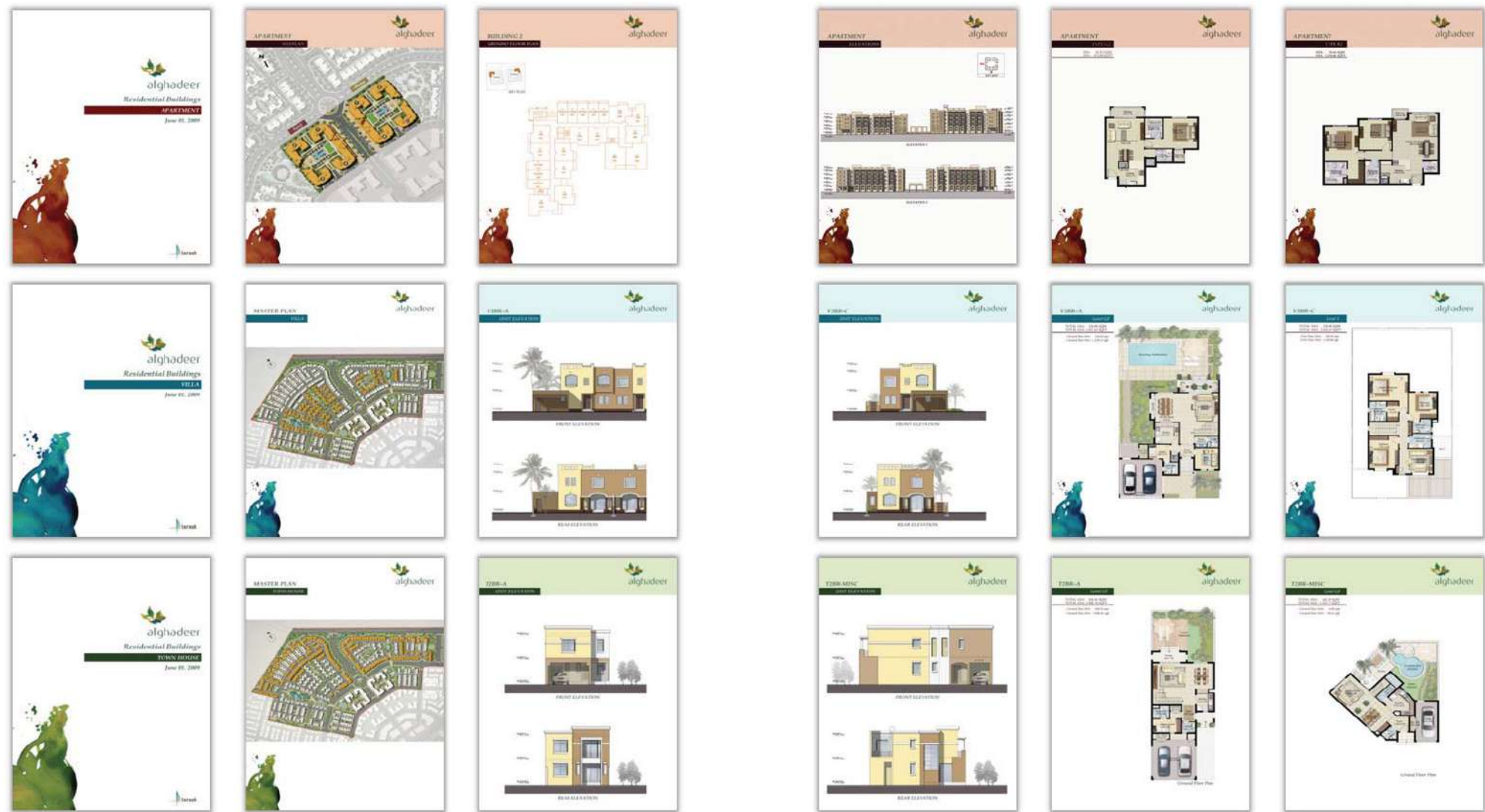
Sl. No.	Project Name	Location	Area (sq.m)	Value (AED)	Owner	Agent	Supervisor	Inspector	Approval Date	Approval Status	Remarks
1	Abu Dhabi Distribution Company (ADDC) - Electric Dept.	Abu Dhabi	1000	1000000	ADDC	ADDC	ADDC	ADDC	2023-01-01	Approved	
2	Abu Dhabi Distribution Company (ADDC) - Water Dept.	Abu Dhabi	1000	1000000	ADDC	ADDC	ADDC	ADDC	2023-01-01	Approved	
3	Abu Dhabi Transmission Company (TRANSCO) - Electric Dept.	Abu Dhabi	1000	1000000	TRANSCO	TRANSCO	TRANSCO	TRANSCO	2023-01-01	Approved	
4	Abu Dhabi Transmission Company (TRANSCO) - Water Dept.	Abu Dhabi	1000	1000000	TRANSCO	TRANSCO	TRANSCO	TRANSCO	2023-01-01	Approved	
5	ETISALAT.	Abu Dhabi	1000	1000000	ETISALAT	ETISALAT	ETISALAT	ETISALAT	2023-01-01	Approved	
6	Abu Dhabi Sewerage Service Company (ADSSC).	Abu Dhabi	1000	1000000	ADSSC	ADSSC	ADSSC	ADSSC	2023-01-01	Approved	
7	Abu Dhabi Civil Defense Approval	Abu Dhabi	1000	1000000	ADDC	ADDC	ADDC	ADDC	2023-01-01	Approved	
8	Department of Transportation (DOT).	Abu Dhabi	1000	1000000	DOT	DOT	DOT	DOT	2023-01-01	Approved	
9	Public Gardening (PGD).	Abu Dhabi	1000	1000000	PGD	PGD	PGD	PGD	2023-01-01	Approved	
10	ADNOC Approval (or Group of Companies as required).	Abu Dhabi	1000	1000000	ADNOC	ADNOC	ADNOC	ADNOC	2023-01-01	Approved	
11	Signal Force Dept.	Abu Dhabi	1000	1000000	Signal Force	Signal Force	Signal Force	Signal Force	2023-01-01	Approved	
12	General headquarters of armed forced.	Abu Dhabi	1000	1000000	General HQ	General HQ	General HQ	General HQ	2023-01-01	Approved	
13	Civil Aviation of Abu Dhabi	Abu Dhabi	1000	1000000	Civil Aviation	Civil Aviation	Civil Aviation	Civil Aviation	2023-01-01	Approved	
14	Environmental Abu Dhabi (EAD)	Abu Dhabi	1000	1000000	EAD	EAD	EAD	EAD	2023-01-01	Approved	



# 05 Marketing Material Support

## VILLA, TOWN HOUSE AND APARTMENT (REGULAR AND TERRACED)

Provided additional marketing materials for early project promotion in the regional housing market.

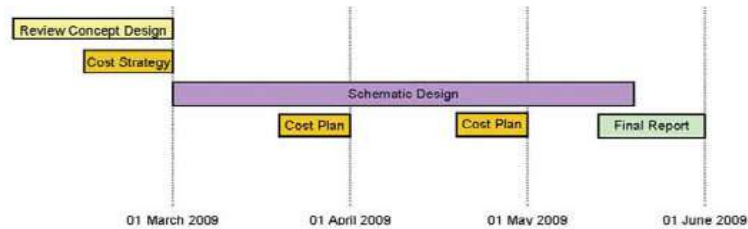


# 06 Cost and Change Management

Cost management shall be carried out through the following stages:

- Review and understand the existing Concept Design
- Produce a Concept Design Estimate
- Produce Concept Strategy Document
- Produce two initial and updated Cost Plans at the end of April and May 2009
- Final Cost Plan

A formal cost plan submission will be made to the Employer at each stage, including a summary of variances from the previous submission and a list of agreed scope changes including cost impacts.



Effective project cost management and leading role in VE sessions to save AED96 million.

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
1	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
11	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
21	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...
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27	...	...	...	...	...	...	...	...
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29	...	...	...	...	...	...	...	...
30	...	...	...	...	...	...	...	...

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
31	...	...	...	...	...	...	...	...
32	...	...	...	...	...	...	...	...
33	...	...	...	...	...	...	...	...
34	...	...	...	...	...	...	...	...
35	...	...	...	...	...	...	...	...
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38	...	...	...	...	...	...	...	...
39	...	...	...	...	...	...	...	...
40	...	...	...	...	...	...	...	...

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
41	...	...	...	...	...	...	...	...
42	...	...	...	...	...	...	...	...
43	...	...	...	...	...	...	...	...
44	...	...	...	...	...	...	...	...
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47	...	...	...	...	...	...	...	...
48	...	...	...	...	...	...	...	...
49	...	...	...	...	...	...	...	...
50	...	...	...	...	...	...	...	...

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
51	...	...	...	...	...	...	...	...
52	...	...	...	...	...	...	...	...
53	...	...	...	...	...	...	...	...
54	...	...	...	...	...	...	...	...
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56	...	...	...	...	...	...	...	...
57	...	...	...	...	...	...	...	...
58	...	...	...	...	...	...	...	...
59	...	...	...	...	...	...	...	...
60	...	...	...	...	...	...	...	...

Item No.	Item Description	Item Category	Item Status	Item Value	Item Unit	Item Quantity	Item Cost	Item Variance
61	...	...	...	...	...	...	...	...
62	...	...	...	...	...	...	...	...
63	...	...	...	...	...	...	...	...
64	...	...	...	...	...	...	...	...
65	...	...	...	...	...	...	...	...
66	...	...	...	...	...	...	...	...
67	...	...	...	...	...	...	...	...
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81	...	...	...	...	...	...	...	...
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83	...	...	...	...	...	...	...	...
84	...	...	...	...	...	...	...	...
85	...	...	...	...	...	...	...	...
86	...	...	...	...	...	...	...	...
87	...	...	...	...	...	...	...	...
88	...	...	...	...	...	...	...	...
89	...	...	...	...	...	...	...	...
90	...	...	...	...	...	...	...	...
91	...	...	...	...	...	...	...	...
92	...	...	...	...	...	...	...	...
93	...	...	...	...	...	...	...	...
94	...	...	...	...	...	...	...	...
95	...	...	...	...	...	...	...	...
96	...	...	...	...	...	...	...	...
97	...	...	...	...	...	...	...	...
98	...	...	...	...	...	...	...	...
99	...	...	...	...	...	...	...	...
100	...	...	...	...	...	...	...	...

Total Saving AED96 million.



Project risk management, lag control and mitigation plan for the fast-track process.

	Asphalt	Concrete	Reinforced Concrete	Structural Steel	Concrete Structural Steel	Aluminum	Galvanized Steel	Notes
Reinforcement Schedule	A							
Concrete Schedule	A							
Reinforcing Schedule	A							
Corrosion Rating Schedule	A							
<b>Specific Duties</b>								
Service Life Analysis		A						
Crack Control Schedule		A						
Structural Design/Design		A						Active ground protection by R&D Institute
Reinforcement Design/Design		A						
Fire Separation and Structural Fire Protection Design		A						
Primary Wind Design and Support								
Design: Drifting Off the Shore								
Temporary Works Integration and Design								
Secondary Steel Work Design		B						
Steel Structure Movement Strategy		A						
Structural and Detail Design in Frames and Cladding		A			A			Input required from full contractor
Life Design (Performance/Design)			A					Structure input required
R&D: Coordination Design		B						Between Engineer monitoring role
<b>Interfaces</b>								
Transfer to Stone Inland Detail	A							
Transfer to Stone Inland Corridor Detail	A							
Transfer to Stone Inland Corridor Detail	A							
Transfer to Stone Ridge Detail	A							
Transfer to Transfer Floor Detail	A							
Transfer to Stone Inland Corridor Detail	A							

	Arrested	Investigated	Detained	Released	Expatriated	Charged	Convicted	Appealed	Other	Case Disposed
Clicking to Some Edge Detail	A									None
<b>General Duties</b>										
Execution of Writs or Special Commissions	A	A	A	A						
Prevention of Suspense on Recapture										
CFR Site Inspections for Agreed	A	A	A	A						
Subpoena of Informants to Victims							A			
Administration of Change Control Process							A			

Coordination and communication with other peer consultants of client for coherent project delivery.

# 08 Mock-Up House

## BS (BRITISH STANDARDS) CODE

- Requirement of local or regional product use
- Code compliance and applicable product research

Set up standards of quality for goods and services, and prepare and promote the general adoption of British Standards and schedules in connection therewith and from time to time to revise, alter and amend such standards and schedules as experience and circumstances require

LISTS OF BRITISH STANDARDS		
VOL. I	Part 1: General Requirements (제1부)	건축물 제1부
	Part 2: Building Regulations (제2부)	건축물 제2부
	Part 3: Building Code of Practice (제3부)	건축물 제3부
VOL. II	Part 4: Building Code of Practice (제4부)	건축물 제4부
	Part 5: Building Code of Practice (제5부)	건축물 제5부
	Part 6: Building Code of Practice (제6부)	건축물 제6부
VOL. III	Part 7: Building Code of Practice (제7부)	건축물 제7부
	Part 8: Building Code of Practice (제8부)	건축물 제8부
	Part 9: Building Code of Practice (제9부)	건축물 제9부
VOL. IV	Part 10: Building Code of Practice (제10부)	건축물 제10부
	Part 11: Building Code of Practice (제11부)	건축물 제11부
	Part 12: Building Code of Practice (제12부)	건축물 제12부
VOL. V	Part 13: Building Code of Practice (제13부)	건축물 제13부
	Part 14: Building Code of Practice (제14부)	건축물 제14부
	Part 15: Building Code of Practice (제15부)	건축물 제15부
VOL. VI	Part 16: Building Code of Practice (제16부)	건축물 제16부
	Part 17: Building Code of Practice (제17부)	건축물 제17부
	Part 18: Building Code of Practice (제18부)	건축물 제18부
VOL. VII	Part 19: Building Code of Practice (제19부)	건축물 제19부
	Part 20: Building Code of Practice (제20부)	건축물 제20부
	Part 21: Building Code of Practice (제21부)	건축물 제21부
VOL. VIII	Part 22: Building Code of Practice (제22부)	건축물 제22부
	Part 23: Building Code of Practice (제23부)	건축물 제23부
	Part 24: Building Code of Practice (제24부)	건축물 제24부
VOL. IX	Part 25: Building Code of Practice (제25부)	건축물 제25부
	Part 26: Building Code of Practice (제26부)	건축물 제26부
	Part 27: Building Code of Practice (제27부)	건축물 제27부

## UNIT LAYOUT FOR REGIONAL CULTURE

- Unique housing culture
- Individual space cooling control requirement
- Generous ceiling height requirement
- Strict fire safety and egress requirement
- Indigenous technical standards (e.g. different mechanical color coding for plumbing)
- Unique space program requirement (e.g. house maid room)
- High-end and quality construction requirement



High ceiling when possible to provide stack ventilation effort



Various types of louvers for shading to public spaces



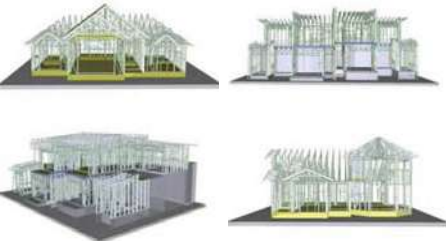
Unit Layout For Regional Culture



High Quality living along with its detailing and materials Finished

## STEEL HOUSE

- Faster and easier construction
- High construction quality expected
- 'Order-made' requirement
- Consideration of extreme thermal expansion and technical detail requirement



- Fast mass production
- Easier construction material quality control
- Lower construction material cost
- Efficient labor cost control with systematic construction

Major building structure components such as wall and roof truss can be prefabricated and shipped to construction site. Shorter on-field assembly time for water-proofing, insulation and finish materials with systemized fabrication.



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[enquiry@fcprop.net](mailto:enquiry@fcprop.net)

**02 445 5574**

[www.fcprop.net](http://www.fcprop.net)