



SHEIKH SAUD BIN SAQR AL QASIMI
FOUNDATION FOR POLICY RESEARCH

Urban Development Lab: A Participatory Urban Design for Ras Al Khaimah

ICOS Group

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This working paper represents the findings of ICOS, an international, independent research body. Questions, comments, and additional data requests should be addressed to Mr. Emmanuel Reinert at reinert@icosgroup.net.

The Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research Working Paper Series is designed to disseminate ongoing research to individuals and institutions interested in the development of public policy in the Arab world. Findings and conclusions are solely those of the authors and should not be attributed to the Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research.

Executive Summary

The urban and rural landscape of Ras Al Khaimah reflects the major investments in manufacturing and trade that have been made by its rulers since its entry into the United Arab Emirates Federation in 1972. The emirate's pharmaceutical, ceramics, cement, and other industries have met with much success and have been accompanied and supported by widespread organizational and economic reforms and investments. The emirate has experienced year-after-year of growth and development, which continued even through the recent global economic downturn. The vision of His Highness Sheikh Saud bin Saqr Al Qasimi to diversify Ras Al Khaimah's economy and encourage growth in a range of sectors will impact the future shape of the city of Ras Al Khaimah and its position within the emirate.

Such growth highlights questions about the future shape of Ras Al Khaimah in relation to the Ruler's vision of economic diversity. His Highness would like to reduce Ras Al Khaimah's reliance on industry and encourage growth in a variety of sectors, including projects related to sea ports and the airport, the expansion of the Free Trade Zone, and an increase of investment in the tourism sector. As a result, planning is underway to define how these sectors can work in harmony to create a functional city, one that generates income, provides an agreeable home for its residents, and constitutes an attractive destination for tourists.

The Urban Development Lab in Ras Al Khaimah was developed in response to a call for tenders by the Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research in the area of urban planning and development research in Ras Al Khaimah.

The Urban Development Lab is an innovative process that uses perception studies and live interactive sessions with residents to capture the "tacit knowledge" of the city's residents with regard to their perceptions and aspirations for Ras Al Khaimah's urban landscape. The findings of the perception studies and live sessions are combined with global research on best practices in urbanization to begin to develop a culturally-relevant participatory urban design process for this city.

The study's lab process began with a comprehension phase in October 2012, which was designed to collect background information on the way that Ras Al Khaimah's residents perceive their city. This information was used in the formation and administration of a survey instrument that focused on urban planning. The deliberation phase followed the comprehension phase and used highly-structured group sessions to acquaint residents with urban planning practices while seeking to crystalize their perspectives on Ras Al Khaimah. Finally, the consolidation and delivery phase involved ICOS's processing of its data and formulating a comprehensive report that served as the basis for this Al Qasimi Foundation Working Paper. ICOS's initial report was completed in October 2013.

The Urban Development Lab process demonstrated that residents of all regions of Ras Al Khaimah would ideally like the city to develop into a place that puts importance on the family and that has diverse sectors of economic development. The neighborhood is the point of reference in Ras Al Khaimah. Accordingly, the majority of residents identify the appearance of their neighborhood as its most important aspect. Residents favor mixed-use neighborhoods that have essential services close by. The willingness shown by residents to move around their neighborhoods on foot could pave the way for Ras Al Khaimah to become one of the first walkable cities in the region.

ICOS is an independent research organization working in areas of urban and community development, rights and citizenship, and youth education and employment. ICOS uses its research methodologies to gain a deep understanding of the reality on the ground in Ras Al Khaimah and to engage people in the process of assessing their own situations.

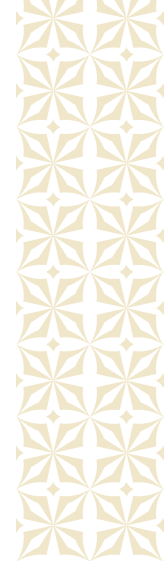
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Key Words

Aspirations	Livable	Recreation
Built environment	Mixed-use	Human-scale
Consultative	Engagement	Residents
Density	Neighborhood	Safety
Diversity	Ownership	Services
Employment	Parks	Streetscape
Facilities	Identity	Sustainable
Family	Participatory urban design	Tourism
Landscape	Perceptions	Walkability

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"Public participation should be an indispensable element in human settlements, especially in planning strategies and in their formulation, implementation, and management; it should influence all levels of government in the decision-making process to further the political and economic growth of human settlements."

Delegate communiqué, United Nations Habitat I conference, Vancouver, 1976



Theory and Background

Why an Urban Development Lab in Ras Al Khaimah

Increasingly, urban centers are the source of opportunities for economic and social security. With urban areas around the world competing to attract the highest caliber of human capital, cities must go beyond the traditional role of offering jobs, homes, and basic services, and move towards becoming attractive centers of culture, entertainment, and recreation.

The pursuit of these ambitions can be easily seen in the UAE, where urban development has gained interest among policy makers, public officials, and residents. Continuing the growth and development of the last four decades, the UAE now consistently ranks highly on global development indices due to its rapid economic growth and high per capita income. This is further complemented by the government's focus on social and educational development, which has helped turn the UAE into a nucleus for trade, commerce, infrastructure development, stability, and security—all of which attract large numbers of expatriates.

This economic growth highlights questions about the future shape of Ras Al Khaimah in relation to economic diversity. His Highness Sheikh Saud bin Saqr Al Qasimi would like to reduce Ras Al Khaimah's reliance on industry and encourage growth in a variety of sectors, including projects related to sea ports and the airport, the expansion of the Free Trade Zone, and an increase of investment in the tourism sector. As a result, planning is underway to define how these sectors can work in harmony to create a functional city, one that generates income, provides an agreeable home for its residents, and constitutes an attractive destination for tourists.

These factors indicate that Ras Al Khaimah is at a significant moment in its development, having the opportunity to become a leader in urban development innovation. Its geographically advantageous location within the UAE and within the broader Gulf region provides the emirate with multiple venues for participating in an increasingly globalized economy. Furthermore, Ras Al Khaimah's low cost and high standard of living, relative to its fellow emirates, make it an attractive prospect for potential residents and investors in the UAE.

Accordingly, Ras Al Khaimah has the opportunity to learn from other emirates in order to create a model of urban development based on best practices as well as its own unique context. Maximizing this opportunity requires sustainable and consultative development. The participation of Ras Al Khaimah's residents will help enable the city and the emirate to pursue these goals organically.

The Importance of Public Participation

It is well recognized that public participation in urban planning enhances its success because such participation considers the needs of the local population. Well-managed urban development can help to produce sustainable economic growth and engender social cohesion while managing infrastructure challenges and avoiding the illegal or unregulated use of land, water, and other resources. Above all, it helps to create a city in which people want to live and a place to which people feel they belong. Fostering a sense of belonging and ownership means that people begin to take responsibility for their environment, for example, by taking care of the public realm and becoming more active in community life.

In a consultative urban planning process, residents reflect on a pathway of innovation for their urban environment and thus become more active stakeholders in local urban development agendas. The Urban Development Lab is an effort to initiate a participatory urban design process in Ras Al Khaimah in order to help residents to structure their own environment and provide insights into the development of their city.

Methodology: The Lab Process

The participatory urban design process aims to complement the vision of His Highness Sheikh Saud bin Saqr Al Qasimi. It is grounded in the cultural and environmental identity of Ras Al Khaimah and the UAE, but also provides a multifaceted analysis of the social, cultural, and economic factors that constitute the fabric of life in Ras Al Khaimah today.

This Lab serves as a pilot for participatory urban planning in Ras Al Khaimah and is designed to facilitate a sustained consultation process with residents with regard to the future shape of their city. This process promotes civil engagement and localized economic growth. Consisting of phases of research, data processing, and dynamic group meetings, these labs distill local knowledge into insights that can then inform plans to make Ras Al Khaimah a cohesive and functional urban environment.

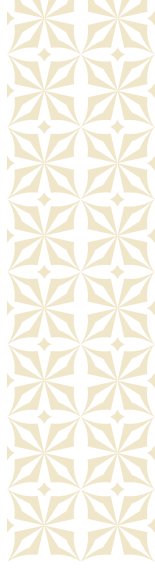
The three phases of the Urban Development Lab include:


Comprehension Phase

Pre-diagnostic research was undertaken to create an understanding of the principle challenges and opportunities in Ras Al Khaimah, around which a participatory urban design process would need to be built. The perceptions of a range of residents were examined through a series of 15 preliminary semi-structured, qualitative interviews. Government representatives, local business leaders, and other professionals participated in these perception studies. In addition, ICOS met with a large group of expatriates in two open meetings. In order to maximize the efficacy of the study, the interviews and the open meetings were supplemented by extensive desk research and media monitoring.

The qualitative information garnered through the semi-structured interviews and the open meetings led to the development of a questionnaire that reflects residents' perceptions of living in Ras Al Khaimah. Additionally, the interviews provided an opportunity to engage the emirate's key stakeholders and to develop a network of contacts that might serve as a consultative resource during the project.

The early stages of the Comprehension Phase provided an understanding of the cultural dynamics in Ras Al Khaimah. One of the key findings of the semi-structured interviews was that many residents did not consider themselves to be in a position to express opinions regarding a master plan for Ras Al Khaimah's development or to be qualified to contribute to such a plan, because this was beyond the scope of their daily concerns.





Residents felt that decisions regarding the overall structure and design of the city are a matter for His Highness Sheikh Saud bin Saqr Al Qasimi and his government. However, they had strong opinions about their immediate environment—their neighborhoods, communities, streets, accommodations, and the services available in these areas. It became clear that the most relevant level of dialogue with residents—and the area in which they had the most potential for constructive input—related to their perceptions of and aspirations for their immediate surroundings: the built environment of their own neighborhoods.

Thus, the study does not encompass overarching city planning issues such as recommendations for zoning, regulatory aspects of city planning, or factors of economic development and other socio-economic issues. Although urban development as a whole most certainly encompasses these elements, this lab focused on individual neighborhoods within the city. Research centered on elements of daily life, such as how residents move around the city, the type of amenities they would like to find or not to find in their neighborhoods, and the type of housing they prefer, the type of street furniture they like, and the overall appearance they would like their neighborhoods to have.

The draft questionnaire divided Ras Al Khaimah into three distinct but interlinked levels: the city, the neighborhood, and the street. By transposing common trends and issues identified from the city to the street level, a “zoom effect” was created. The questionnaire’s three levels filtered information vertically and was more general at the city level, more detailed at the neighborhood level, and most specific at the street level.

- At the city level, the questionnaire aimed to understand how residents relate to Ras Al Khaimah as a discrete urban unit as well as how they envision its future shape. The questionnaire addressed issues including the city’s economic potential (industry, trade, tourism, etc.), its use of the natural environment, and its accessibility and public transportation network. The findings of this section of the questionnaire inform the participatory urban design process even as it focuses on the neighborhood level.¹
- The neighborhood level focuses on residents’ immediate environment and what they want from their own neighborhoods within the larger urban context. The questions gathered information about neighborhoods’ architectural typology, access to services, access to public spaces, religious spaces, communal identity, etc. Specific questions regarded neighborhoods’ walkability and navigability, transportation options, styles and types of social spaces, necessary facilities, styles of housing, and accessibility.
- Finally, the questionnaire examined what residents want at the street level, in the environment immediately surrounding their homes. Relevant subjects included streets’ landscaping, surface treatment, organization, design, building materials, sidewalks, lighting, signage, parking, etc. These elements contribute to the built environment, which defines the character of a neighborhood.

¹ Please note, however, that the relationship between a neighborhood’s atmosphere and its streetscape is so close that perceptions concerning neighborhood- and street-levels often overlap. In the Results and Analysis section, this report will differentiate between “Neighborhood Dynamics” and “Neighborhood and Streetscape Aesthetics” as an attempt to address the neighborhood- and street-levels respectively.

ICOS sent the questionnaire to its partners at the Al Qasimi Foundation for validation, which was provided at the end of July 2012. During this validation period, ICOS developed the supporting images for the questionnaire, given that a focus of urban development is aesthetic.

After piloting the questionnaire internally at ICOS and with a number of external trials in Ras Al Khaimah, the English version of the questionnaire was launched as an online tool on October 7, 2012. The Arabic version was launched on October 18, 2012.

A link to the questionnaires in Arabic and English was sent by e-mail to ICOS contacts in Ras Al Khaimah, to a selection of Al Qasimi Foundation contacts, and to a list of over 800 expatriate residents of the city. In addition, a team of three researchers conducted interviews in public areas around Ras Al Khaimah.

The sample included 282 residents, based on the 2010 population figures of 241,000 inhabitants and tolerating a 4.9% margin of error and with a 90% confidence level.

In order to encourage young people to participate in the study, ICOS sought the assistance of the American University of Ras Al Khaimah (AURAK) and the Higher Colleges of Technology (HCT). After presentations at both institutions, e-mails were sent to the wider student body of each college, inviting students and their family members to participate in the study. This generated approximately 60 responses to the questionnaire. In addition, the student government association of AURAK helped revise the Arabic version of the survey.

Deliberation Phase

ICOS facilitated a series of highly structured group sessions attended by 47 residents. The sessions were designed using the findings of the data gathered in the comprehension phase. They also provided participants with information on best practices and emerging trends related to urban planning and with international success stories. These live sessions sought to:

- Distill local knowledge;
- Clarify the present state and possible future identities of Ras Al Khaimah;
- Enable participants to explore the latest theories and practice in urban design and techniques;
- Deconstruct and reconstruct ideas about what local people want and need from their environment;
- Help residents reach a fuller understanding of the challenges and opportunities for Ras Al Khaimah in terms of urban development;
- Explore ways in which urban layout can be used to improve people's lives; and
- Promote local ownership of the development process while defining its priorities.

Consolidation and Delivery Phase

ICOS analyzed the findings from the comprehension and deliberation phases. This analysis reflected the preferences that residents have for their neighborhoods and their overarching aspirations for the city of Ras Al Khaimah and are summarized in this report. They were also shared at a Majlis event in October 2013.

The Study: Results and Analysis

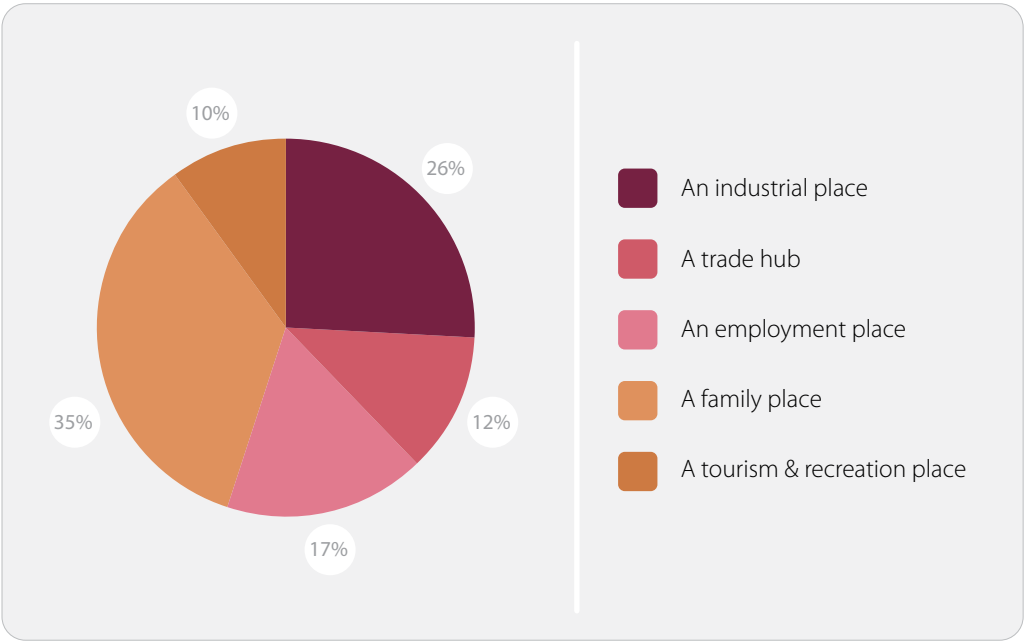
As explained in the Methodology section, the survey instrument and subsequent inquiries structured the urban development investigation according to three general perspectives: the city level, neighborhood level, and street level. Also noted was the reality that, in practice, many topics or urban planning are intrinsic to both the neighborhood and streetscape discussions. For this reason, the three overarching sections of the Results and Analysis report focus on the city level (A Family City: Perceptions of and Aspirations for Ras Al Khaimah), the neighborhood level (Neighborhood Dynamics: Identity and Community in Urban Development), and the street level (Neighborhood and Streetscape Aesthetics: The Visual and Tangible in Urban Development).

A Family City: Perceptions of and Aspirations for Ras Al Khaimah

Residents were asked about how they perceive Ras Al Khaimah and about their own relationship with the city: what they like most in Ras Al Khaimah, why they are living there, and what potential they feel it has to grow.

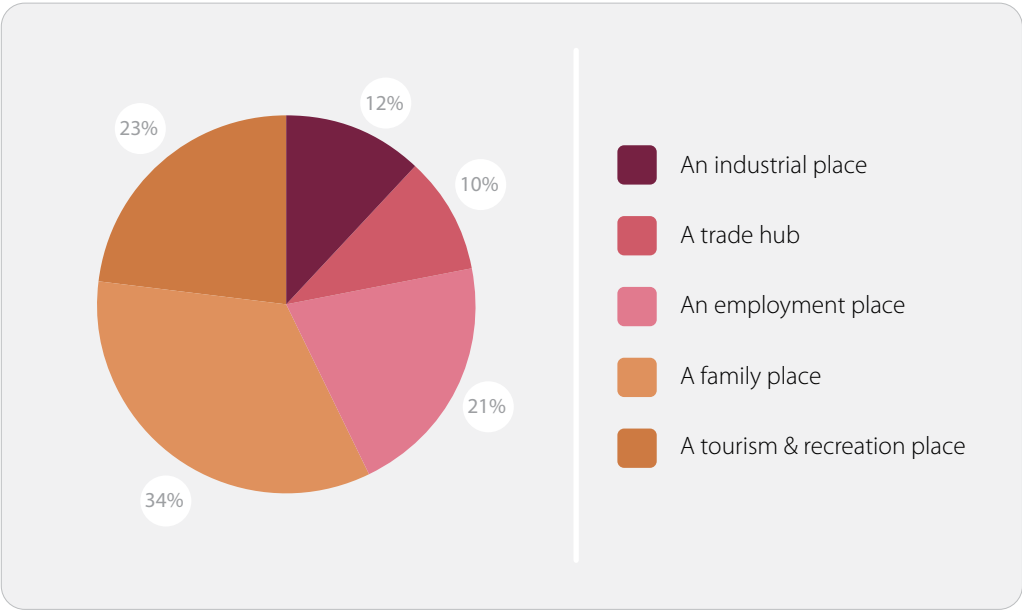
Residents' perceptions reflect the reality that Ras Al Khaimah is at present predominantly an industrial and trading place, with an emphasis on economic development (Figure 1).

Figure 1: Residents' Perceptions of Ras Al Khaimah



Residents from all regions would ideally like Ras Al Khaimah to develop into a place where family, tourism, and employment become more important to the overall structure of the emirate than are industry and trade (Figure 2).

Figure 2: Residents' Ideals for Ras Al Khaimah



Residents appreciate the relaxed, small-town feel of Ras Al Khaimah—its quietness, natural beauty, and sense of stability. Accordingly, residents would like to see its development consider four different but interlinked priorities. While one of these priorities involves Ras Al Khaimah's expansion, residents would like to see the city further cultivate the elements that make it family-friendly. They would also like their city to offer more employment opportunities and develop a stronger tourism base.

Ras Al Khaimah as a Family City

Many Emiratis and expatriates living in Ras Al Khaimah were born in the emirate and would like to offer their children the same opportunity.

"I was born in this city and I would love to raise my family here." Pakistani woman, age 20-29

"Life in Ras Al Khaimah is very simple." Emirati man, age 20-29

"All my family lives there; it's my ancestors' and my land." Emirati woman, age 40-49

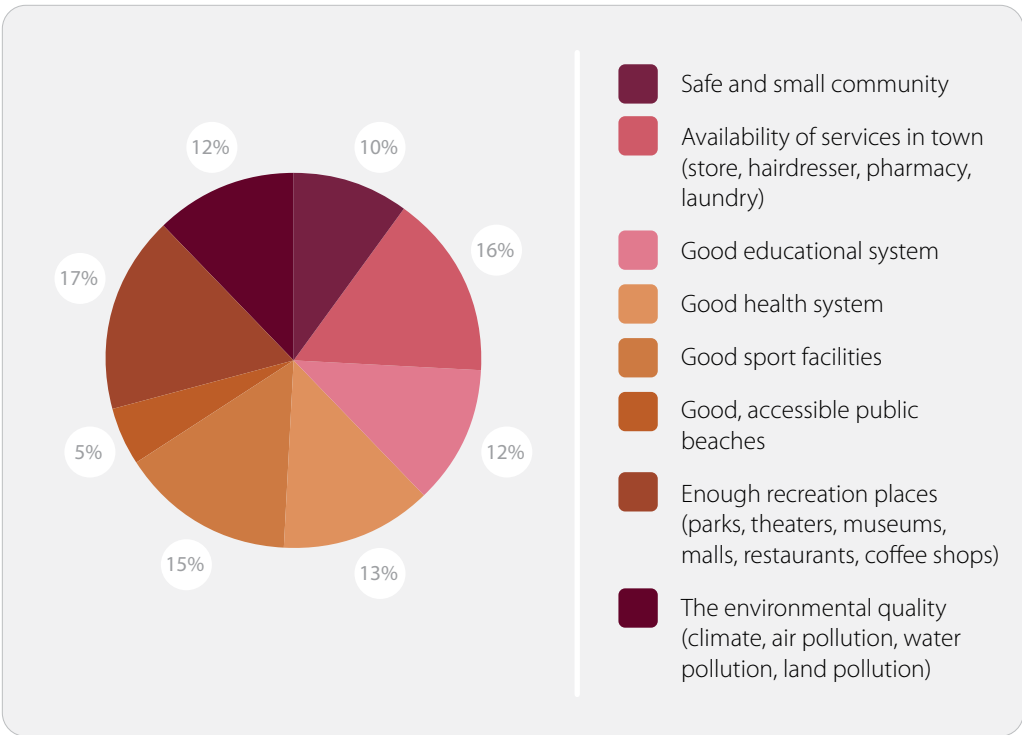
"[It is a] good family environment, and it should be more distinctive than the rest of UAE." Emirati man, age 30-39

"My family has been enjoying this place for more than five years now, and we feel safe here." Swiss woman, age 40-49

"It's a calm city, far from the crazy life of rest of UAE, and all family needs are available there." Emirati woman, age 20-29

Residents already appreciate Ras Al Khaimah's safe and generally quiet environment, easy access to beautiful coastlines and mountains, and small communities. Emiratis appreciate that Ras Al Khaimah offers them the opportunity to keep their traditional lifestyle. However, they would like the city to better cater to family needs. Some of these include the provision of more parks and higher education institutions and the improvement of recreation facilities, health care facilities, and schools. The importance of Ras Al Khaimah as an agreeable place to live and to visit, and as a city which places importance on family life and its own heritage represents a key element of its current identity, an element that residents want to see developed.

Figure 3: What is lacking in Ras Al Khaimah as a family place?



Many residents are keen to undertake community activities that would address the needs of families, including the creation and maintenance of a website about community activities for families. Such a website could be run by community members, who could post information on activities that they or others are organizing.

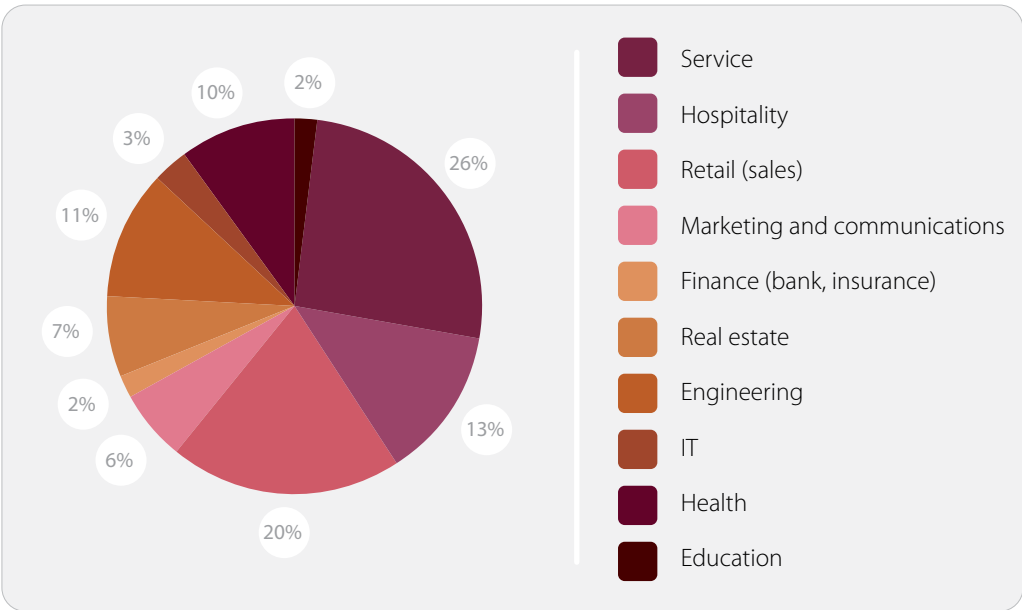
Residents proposed the creation of neighborhood community centers open to all members of the community, each center housing a coffee shop to encourage the cross-cultural interaction of Ras Al Khaimah residents. The community centers could also, for example, offer services at nominal costs, such as support for learning Arabic. They could host local youth clubs, with the aim of strengthening social cohesion and the understanding between cultures.

Residents also stress the need for the city to establish itself as a place that is known for its high-quality school system, higher education options, and local health care.

Ras Al Khaimah as an Employment Emirate

In connection to their desire for Ras Al Khaimah to be a more family-oriented place, residents would like to see Ras Al Khaimah become a place with more opportunities for employment because a livable city is one that attracts investment and encourages job creation. The types of jobs residents would like to see developed are mainly in the service, retail, and tourism sectors (Figure 4).

Figure 4: Which jobs do residents want for Ras Al Khaimah?




“Citizens need jobs close to home, without going to other emirates.” Emirati woman, age 30-39

“With its long distinguished history and close family ties, Ras Al Khaimah needs to provide dynamic and appropriate employment for all its citizens locally, thereby creating wealth whether in trade or manufacturing or services.” British woman, age 60-69

More specifically, residents would like the emirate to become more attractive to new residents through the creation of high-level and diverse jobs and for those who already live in the city to find work without travelling to other emirates. They would also like to see a proactive policy enacted to create jobs, especially for the younger generation.

Residents would like to see Ras Al Khaimah become a model of fair employment and worker-friendly legislation that includes strict regulations for health and safety, working hours, etc.



They would also like to encourage local businesses to offer convenient and friendly shopping/ service experiences that would facilitate social interaction and thereby enhance the sense of community.

Residents noted that an adequate public transport network must be developed to support the city in its growth as an employment place. Such a network should be affordable for low-wage earners and regular and reliable enough to encourage all people to use it instead of their cars. This would reduce traffic and has the advantage of being environmentally friendly as well.

In terms of urban development in relation to the creation of employment in Ras Al Khaimah, the city must cater to all types and levels of workers. Thus, diverse types of housing must be included in any urban design for Ras Al Khaimah. There is therefore a need for housing and districts that cater to families across a range of incomes. In addition to this, Ras Al Khaimah's urban design must also incorporate the corresponding schools and other local services that are necessary for Ras Al Khaimah to become an employment hub for families.

Ras Al Khaimah as a Holiday Emirate

While 36% of residents want Ras Al Khaimah's tourism to focus on resorts, the majority (64%) want to see their city become a destination in itself. This desire is consistent with the city's being a place for families: If Ras Al Khaimah is a nice place in which to raise a family and live, with a rich cultural heritage and sense of place, it will also be an interesting place for tourists to visit and explore. This fact highlights city's need to cater to tourists who can engage its many offerings, rather than staying in resorts that are separated from the town itself.

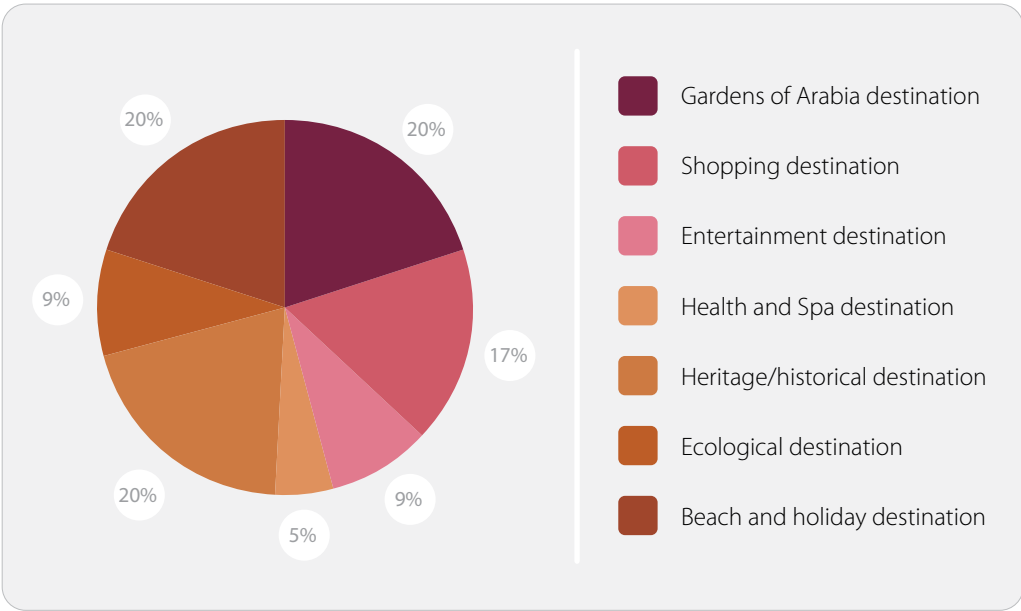
"There are such amazing places in Ras Al Khaimah that the people need to see."
Egyptian man, age 20-29

"A rare combination of an imposing mountain range, beautiful sea, and vast desert land with unlimited sunshine can be exploited for promoting tourism. Closer to the Gulf countries and closest, among the emirates, to the gulf itself, Ras Al Khaimah presents vast potential to a variety of sea-related tourism [options]." Indian woman, age 50-59

"Ras Al Khaimah is blessed with beautiful beaches, a potential for mountainous resorts, and spas and off-roading is close by." Emirati man, age 30-39

"The only problem people suffer is that the streets are broken and need to be fixed and maintained in order to be a better touristic place." Emirati man, age 0-19

Figure 5: Destination Tourism Preferences



As a tourist destination, residents think Ras Al Khaimah should develop tourist activities based on Gardens-of-Arabia-type attractions, heritage/historical attractions, and beach holidays (Figure 5), which maximize Ras Al Khaimah’s natural assets.

Gardens-of-Arabia-type Attractions

Here, people can come to enjoy natural beauty and tranquility. Local trees are planted and the ecosystem is developed so that areas of Ras Al Khaimah become green oases in the middle of the desert. Urban areas could be planted with the rich variety of local plants, as botanical gardens represent popular tourist interests. Additionally, Ras Al Khaimah’s natural mangroves could be extended or enhanced with additional landscaping to attract wildlife and eco-tourists and at the same time preserve this ecosystem.

Heritage or Historical Destination

Many historical attractions in Ras Al Khaimah are fully restored (or preserved in their ruined state) and opened to the public as heritage attractions. These could include, for example, the historically significant Dhayah Fort, parts of the village of Sha’am, the site of Sheba’s Palace, and the coral houses of Al Jazeera Al Hamra, which have recently been renovated at the request of the Ruler. Much of the Old Town could also be restored to provide a living museum that preserves a traditional way of life and represents an important reference to the emirate’s cultural heritage. Tourists also have access to historically significant activities, such as pearl diving in the village of Rams.

Heritage tourism is an important generator of economic wealth across the globe, and Ras Al Khaimah’s rich history could be harnessed to create a thriving economic sector, bringing into the emirate tourists who would also spend money on hotels, restaurants, and other amenities during their visits.



Beach and Holidays

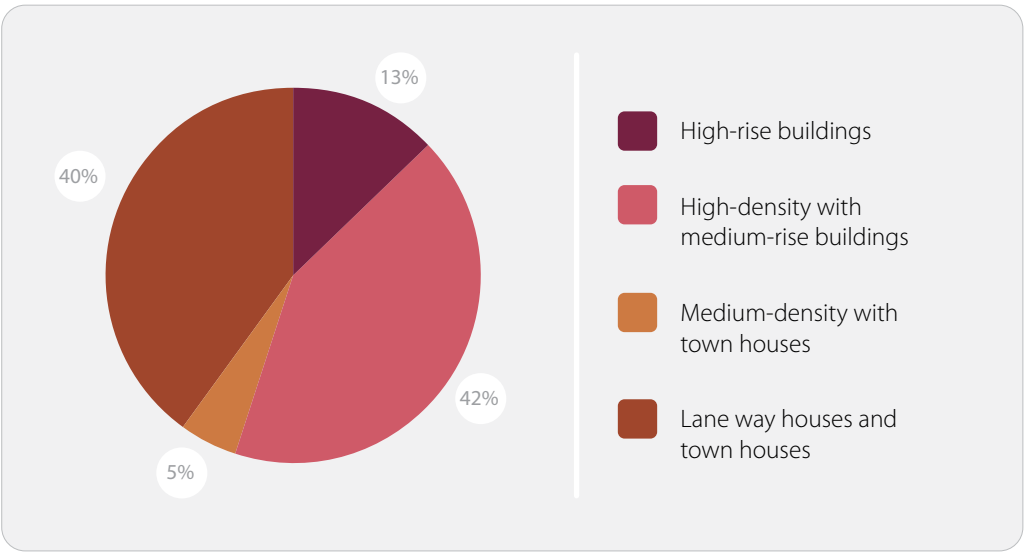
Good and accessible public beaches are developed with bathing and other facilities for families. A seafront area with restaurants, cafes, walkways, and other amenities is reserved for leisure and becomes a recreation destination within the city for residents and tourists alike. The recently announced redevelopment of the Corniche area is an example of the type of investment that could be injected into the development of some of Ras Al Khaimah's sixty-four miles of coastline. The area of public beach near the Hilton Beach Resort Spa could, for example, be made more user-friendly, becoming a space for outdoor and family activities. The creation of a women's beach would also provide a culturally relevant amenity for women to enjoy with their friends and children.

To realize proposals like those above, residents think that urban design should be focused on developing main roads and neighborhoods along a "touristic corridor" which would link the principle touristic features of Ras Al Khaimah—its heritage, its beaches and sea fronts (hotels), its mangroves and wild life, and its mountains—for tourists to explore.

Ras Al Khaimah as an Expanding City

A large majority of residents (95%), both Emirati and expatriate, would like Ras Al Khaimah to expand. They would like this expansion take the form of a denser city with small well-defined neighborhoods in order to avoid creating urban sprawl: 42% of residents think that Ras Al Khaimah will evolve with higher density growth and a concentration of medium-rise buildings (Figure 6).

Figure 6: What do you imagine Ras Al Khaimah will evolve into?

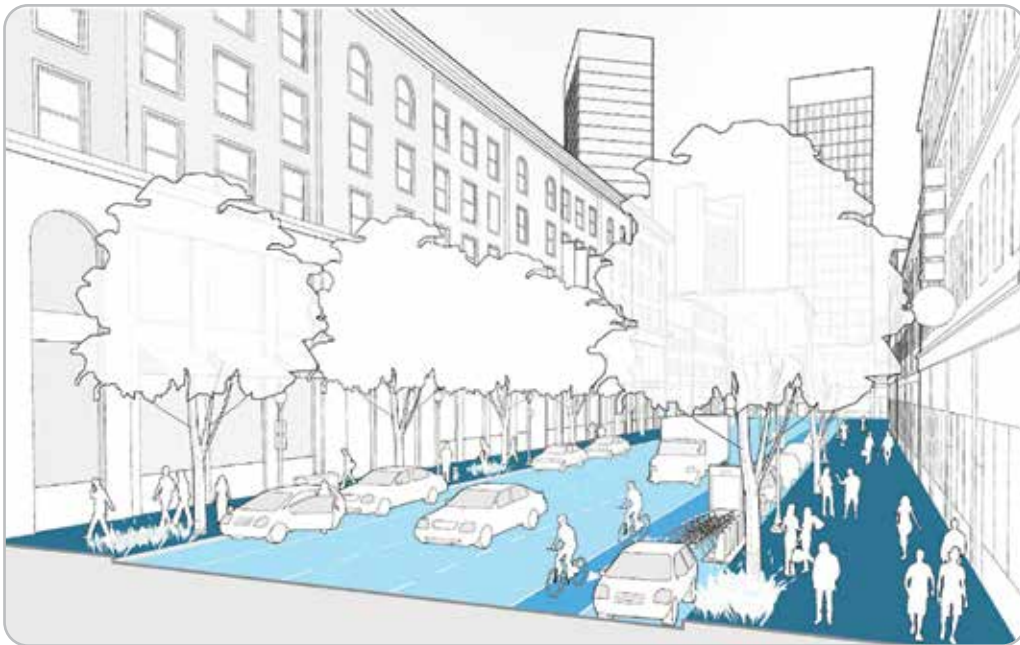


Importantly, the creation of denser neighborhoods would create livable, walkable areas, reinforcing the human dimension of Ras Al Khaimah while preserving the characteristics of the city that residents currently value.


High-density growth with a greater concentration of medium-rise buildings



Growth with a mix of town houses and mixed-use, low-rise buildings



Residents would also like the growth of the city to be sustainable, safeguarding the natural assets of the emirate—its mountains, the coastline, and the mangroves—for residents and tourists alike to enjoy.



Residents would like Ras Al Khaimah to be a place whose design and development focus on human aspects of city life, and for economic development and growth to be based within this context. This would constitute the defining “brand” of Ras Al Khaimah. Indeed, residents’ desires for Ras Al Khaimah to remain a family-oriented place and to have opportunities for employment and a developing tourism sector are complementary and can be combined to create circles of urban design and development, which are supported by the fact that the majority of residents would like Ras Al Khaimah to grow.

Neighborhood Dynamics: Identity and Community in Urban Development

Although residents’ perspectives on Ras Al Khaimah as a city should inform all urban design policies and decisions, the study’s comprehension phase revealed that residents have the strongest opinions about their immediate environments. This means that they are most likely to take ownership of urban planning initiatives at the neighborhood and street levels. Because these levels are both part of what residents consider their immediate environments, this report addresses them in two sections, Neighborhood Dynamics and Neighborhood and Streetscape Aesthetics.

The discussion of neighborhood dynamics recognizes that Ras Al Khaimah is a city of culturally and physically diverse neighborhoods. The diversity of Ras Al Khaimah’s neighborhoods offers the opportunity to create distinct areas of the city with distinct identities and attractions. A few key neighborhoods include the Old Town District, Al Mamoura, Khuzam, and the Corniche.

- The Old Town District of Ras Al Khaimah is the oldest urban area of the city, containing its historic core and heritage area. The district has a large population of low-income expatriates from the Indian sub-continent. The area has a souk and a fish market, where the expatriates interact with Emiratis. Some of the housing is built using traditional coral-based materials, alongside low-rise apartment buildings on the southeastern side. There is much room for the redevelopment of the Old Town, and an emphasis on renovating its historic buildings, modernizing its amenities, and developing its coastline could transform it into a charming and distinctive historic neighborhood.
- Al Mamoura is a busy, more recently developed urban area populated mostly by low-income Emiratis and expatriates living in Arabic style houses. The area contains a number of expatriate schools that use curriculum from the Indian subcontinent. It also contains a prison, another fish market, and a vegetable and fruit market. The relatively high levels of dissatisfaction indicated by residents of Al Mamoura point to numerous improvements that could be made to make it a more livable neighborhood. Such improvements relate to its appearance, its walkability, and its cleanliness. With the addition of amenities such as a park or a square, as well as improvements to the streetscape and landscape, the neighborhood has potential to become a more pleasant district for residents with modest incomes.
- By contrast, Khuzam is a high-income neighborhood, mostly populated by Emiratis and some Western expatriates. The building typology mostly consists of Arabic houses and villas. The neighborhood offers three Western curriculum schools. Despite the more affluent nature

of this area, residents would like to see improvements, including a better park, an improved sidewalk network, and greater walkability and safety within the neighborhood.

- The Corniche area is a prime spot for high-income expatriates. The building typology is high-rise apartment buildings. With its local cafés, the area is very popular and has become much more sought after since it has been renovated and improved. It is an example of how Ras Al Khaimah can develop to incorporate high-density living while safeguarding the human dimension and livability of Ras Al Khaimah that residents value.

The opportunity for the creation of distinct but interconnected neighborhoods, which cater to a range of lifestyles, tastes, and incomes, is the opportunity for Ras Al Khaimah to become a city with much to offer its residents. Residents would like their individual neighborhoods to be developed as separate entities within the larger city—and, given that residents spend a great deal of time in their individual neighborhoods, the physical design of the separate but interlinked communities within the city greatly affects residents' quality of life.

The neighborhood is therefore a key focus of a participatory urban design process: people have a relationship with the place in which they live and thus have recommendations with regard to the built environment of their particular neighborhood. This relationship with the neighborhood, combined with their "insider knowledge" of its strengths and shortcomings, means that residents' input about their own neighborhoods is not only useful, but is offered freely. People quite naturally are interested in improving the area they live in and are thus more likely to become involved in participating in the improvement of Ras Al Khaimah if this is undertaken at the neighborhood level.

In general, residents' perceptions of their neighborhoods are mixed. Currently, many neighborhoods reflect both the industrial history of the city and the often-unfinished character of Ras Al Khaimah's built environment, and this is reflected in residents' experiences. At the same time, residents describe their neighborhoods as good places to raise families because they have a sense of belonging there: Ras Al Khaimah residents know their neighbors and feel safe.

Therefore, a holistic understanding of neighborhood dynamics in Ras Al Khaimah incorporates three key dimensions: the built environment (physical surroundings contribute to intangibles like a neighborhood's atmosphere, security, and cultural flavor), community (which residents largely view in terms of family), and mixed-use practicality (residents prefer that neighborhoods integrate residential, commercial, office, and recreational space rather than being strictly residential).

Built Environment: An Identity in Transition

The notion of "built environment" incorporates Ras Al Khaimah's buildings (houses, apartments, shops, offices, public buildings, industrial structures); its streetscapes (sidewalks, landscaped areas, on-street parking, street network, bicycle lanes); and its recreational areas (parks, playgrounds). The built environment represents the physical manifestation of an urban area's history, industry, culture, spiritual beliefs and social organization.

Residents think that Ras Al Khaimah's recent and rapid economic development, which is rooted in industry and trade, coupled with its recent diversification into tourism, means that the identity of Ras Al Khaimah's neighborhoods is not yet clearly defined. Residents developed the following critique of their neighborhoods:

- Some neighborhoods share residential use with large-scale industry or commerce, making them less pleasant to live in;
- There is often a sense of disconnect between one neighborhood and another because they are separated by a major route or a large industrial area;
- Shopping and commercial areas within neighborhoods are often noisy and unattractive; and
- Neighborhoods lack community facilities and recreational amenities.

Residents also think that the city as a whole is marked by the “unfinished” nature of its new business, residential, and touristic developments:

- The city center office district is not yet clearly defined, and there is no urban feel as there are many empty lots and existing buildings are very spaced out;
- Public areas (streets, squares, shopping areas) in many neighborhoods are neglected, with no attention to landscaping or streetscape design; and
- New developments of strictly residential or touristic neighborhoods have no real physical or social connection to the rest of the city.

Families: Fostering Community at the Neighborhood Level

Residents perceive the city as a place to raise their families, and they would like Ras Al Khaimah to further develop in this direction. In Ras Al Khaimah, much socialization occurs in and among family units. The result is that residents appreciate that they recognize or know one another and count friends and family among their neighbors. Residents perceive the character of their community largely in terms of its familiarity and accessibility for families.

Therefore, residents think that it is crucial to enhance the liveability of all neighborhoods in ways that serve both individuals and family units. Such improvements include upgrading the quality and appearance of the built environment, streetscape, and shared public areas and services. Detailed and context-specific plans could be developed for each neighborhood, in consultation with its respective residents. These plans could incorporate form-based codes (guidelines that clearly lay out the style and form of an area), plans for the development of local amenities (schools, shops, religious facilities), plans for improvement of the walkability of the neighborhood (additional pavements, street lighting, traffic calming measures), and elements of design for the urban landscape. This would define:

- Residents’ desired townscape—the types of buildings and services they do and do not want to find in their neighborhoods.
- Their means of movement—the ease with which they move within their neighborhoods.
- Residents’ desired landscape and streetscape—the way they would like the streets to be organized and the look and feel of their immediate environment, which is essential to the quality of life and their sense of belonging.

Townscape: Mixed-use Urban Neighborhoods

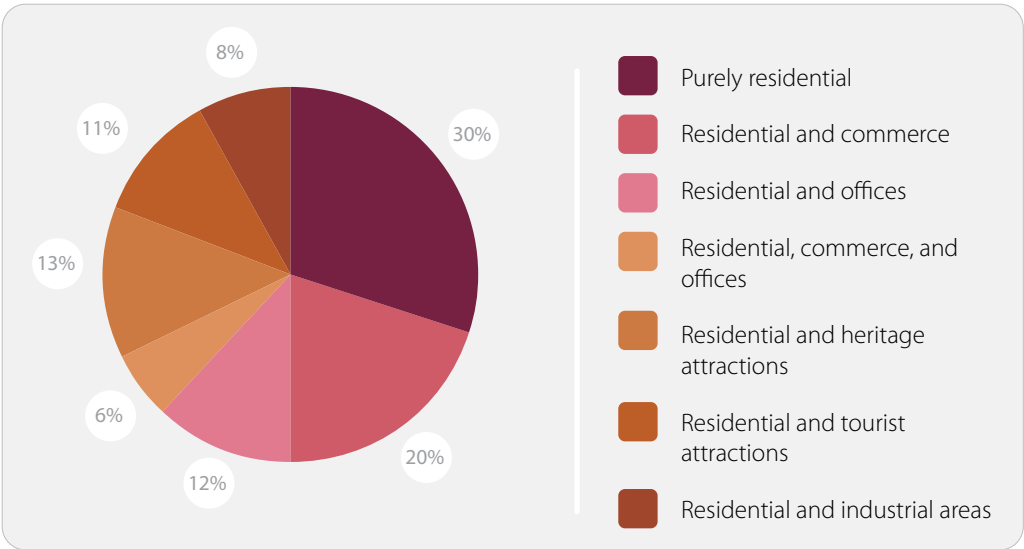
There are many different types of neighborhoods in Ras Al Khaimah, and residents have different aspirations with regard to the type of neighborhood they would like to live in. However, there are two main characteristics in residents' aspirations regarding the type of neighborhood they would like to live in: an absence of industrial activities and presence of commercial, tourist, and employment options within residential neighborhoods.

Exclusion of Industrial Activities

There is one aspect of the townscape that almost all residents agree on: that industrial areas must be excluded from residential neighborhoods. This aspiration reflects residents' wish to define a space that is conducive to living and raising a family, and this necessitates the exclusion of some activities from their urban space. According to residents' feedback, industrial activities reduce a neighborhood's quality of life and sense of community. Such activities include those associated with noise, dust, dirt, and heavy traffic. The exclusion of industrial activities helps to define residential space.

The only exception to this preference is found among residents of Asian origin: 23% of these residents would like residential and industrial areas to overlap. This is perhaps linked to the fact that this population is generally relatively employment-oriented.

Figure 7: Your Neighborhood in the Future



Neighborhoods Not Purely Residential

Although Ras Al Khaimah residents would like industrial activities to be excluded from their neighborhoods, they do not want their neighborhoods to be strictly residential. Seventy percent of residents aspire to live in mixed-use neighborhoods, the most popular choice (20%) favoring

a mixture of residential and commercial (retail) space, followed by residential and heritage attractions (13%), residential and office space (12%), and residential and tourist attractions (11%) (Figure 7). About 60% of Emiratis and residents of Middle Eastern and Western origin favor having commercial and other activities near their homes. This percentage rises to 80% for the population of Asian origin, for whom mixed-use neighborhoods are the preference.

Only 30% of Ras Al Khaimah residents would like to live in a purely residential area. There is a larger percentage of Emirati (42%) and Western residents (39%) that favor purely residential neighborhoods compared to the 20% of residents from Asia and 18% of residents from the Middle East who prefer purely residential space.

Figure 8: How would you like your neighborhood to be in the future? (first choice)

Region of origin	Purely residential	Residential and commercial	Residential and office	Residential and heritage	Residential and tourism	Residential, commerce, and offices	Residential, commerce, and heritage	Residential, commerce, and tourism	Residential, heritage, and tourism	Residential and industrial	Other
Asia (n=30)	20% (6)	13% (4)	17% (5)	17% (5)	3% (1)	7% (2)	0% (0)	0% (0)	0% (0)	23% (7)	0% (0)
Emirates (n=75)	42% (31)	16% (12)	7% (5)	13% (10)	13% (10)	5% (4)	0% (0)	0% (0)	0% (0)	4% (3)	0% (0)
Middle East (n=66)	18% (11)	28% (17)	15% (9)	8% (5)	15% (9)	8% (5)	0% (0)	0% (0)	0% (0)	8% (10)	0% (0)
West (n=18)	39% (7)	22% (4)	17% (3)	17% (3)	5% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
All residents (n=189)	30% (55)	20% (37)	12% (22)	13% (23)	11% (21)	6% (11)	0% (0)	0% (0)	0% (0)	8% (20)	0% (0)

Therefore, 70% of residents think that Ras Al Khaimah should grow into a city of mixed-use neighborhoods characterized by a higher density of people and the availability of commercial and community facilities close to home. This mixed-use development would include a range of housing choices. Residents also expressed the desire to concentrate growth in compact, walkable urban areas with well-defined centers and social and cultural identities. They think that small neighborhoods are more conducive to the development of a sense of community.

Activities Residents Want to Find in Their Neighborhoods

As noted above, 70% of residents favor mixed-use neighborhoods and would like to find all the facilities and services they consider essential to their day-to-day needs close to their home (Figure 8):

- Parks and squares are considered the most important facilities and hence the most needed ones, because they specifically reflect the needs of families with children.
- Residents also desire sports facilities in their neighborhoods.
- Health services, clinics, doctors, and pharmacies are also high on the list of services that residents would like to find nearby. Residents desire health care options that are high in quality and easily accessible.
- Families would also like to find schools in their neighborhoods. Residents anticipate that more families will come to Ras Al Khaimah in the future, creating an increase in the need for quality schooling.
- Residents want to find local businesses such as grocery stores and small retailers, professional offices, bookstores, restaurants, and coffee shops within walking distance of their homes.

Figure 9: Activities and Facilities Residents Want to Find in their Neighborhoods

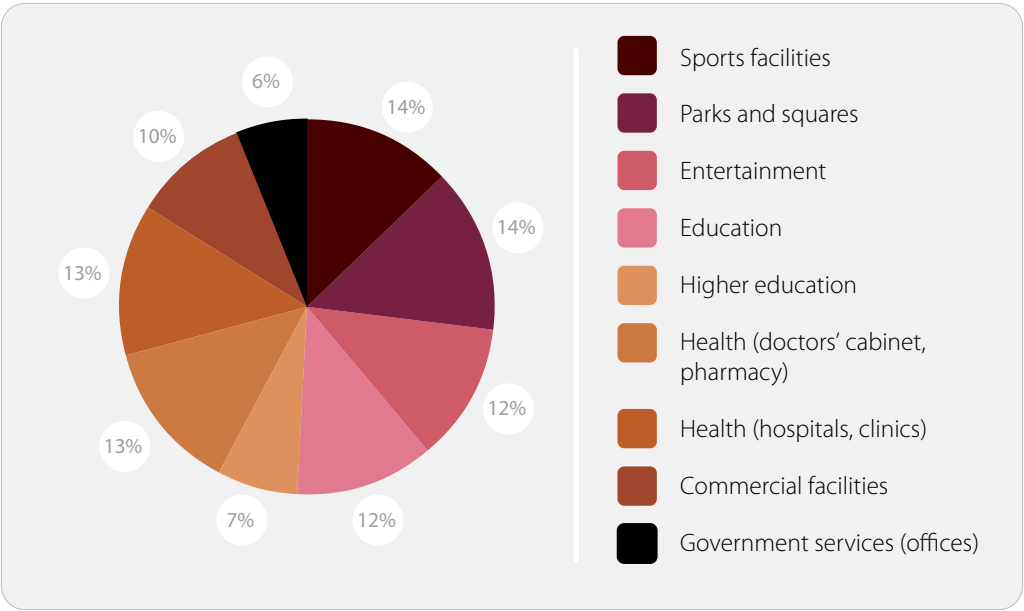


Figure 10: What do you think is the most appropriate location for the following facilities? (Percentages for the answer of “within my neighborhood”)

Region of origin	Sports facilities	Parks and squares	Entertainment	Education	Higher education	Health (doctors' cabinets, pharmacy)	Health (hospitals, clinics)	Commercial facilities	Government facilities
Asia (n=53)	85% (44)	55% (29)	57% (30)	60% (32)	40% (21)	58% (31)	64% (34)	47% (25)	30% (16)
Emirates (n=101)	56% (57)	65% (66)	50% (50)	51% (52)	26% (26)	53% (54)	61% (62)	45% (45)	33% (33)
Middle East (n=104)	68% (71)	62% (65)	58% (60)	44% (46)	33% (34)	50% (52)	54% (56)	51% (53)	36% (37)
West (n=24)	37% (9)	67% (16)	46% (11)	67% (16)	25% (6)	78% (18)	54% (13)	37% (9)	17% (4)
All residents (n=282)	64% (181)	62% (176)	54% (151)	52% (146)	31% (87)	55% (155)	59% (165)	47% (132)	32% (90)

The demand for mixed-use neighborhoods is shared by residents of all origins (Figure 11).

Figure 11: What are the amenities lacking within your neighborhood?

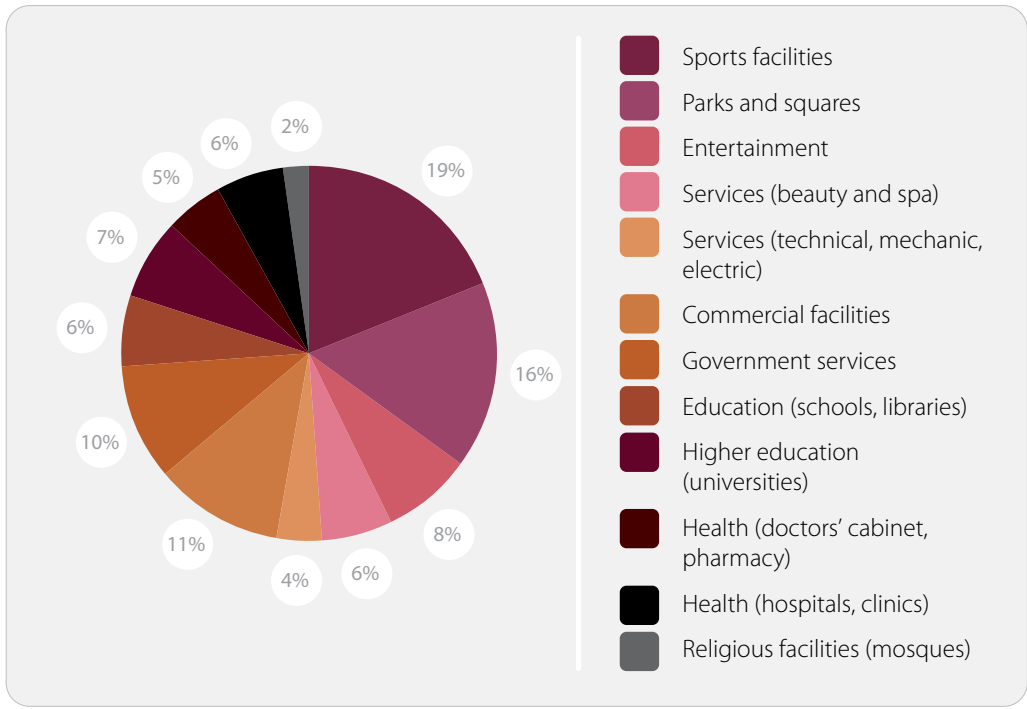
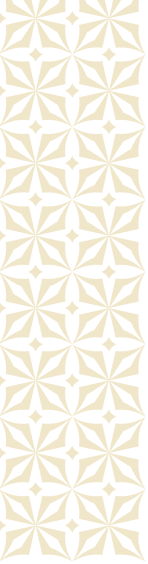


Figure 12: What are the amenities that you think are lacking within your neighborhood?

Neighborhood	Sports facilities	Parks and squares	Entertainment	Services (beauty and spa)	Services (technical, mechanic, electric)	Commercial facilities	Government services	Education (schools, libraries)	Higher education	Health (doctors' offices, pharmacies)	Health (hospitals, clinics)	Religious Facilities (mosques)	Other
Al Dhait (n=22)	9% (2)	23% (5)	14% (3)	9% (2)	5% (1)	5% (1)	5% (1)	5% (1)	9% (2)	9% (2)	9% (2)	0% (0)	0% (0)
Al Hamra Village (n=11)	27% (3)	27% (3)	9% (1)	0% (0)	0% (0)	0% (0)	9% (1)	9% (1)	0% (0)	0% (0)	18% (2)	0% (0)	0% (0)
Al Hudaibah & Al Zahra (n=23)	26% (6)	17% (4)	9% (2)	9% (2)	0% (0)	13% (3)	4% (1)	9% (2)	4% (1)	0% (0)	0% (0)	9% (2)	0% (0)
Al Mairid & Al Mamoura (n=30)	23% (7)	13% (4)	3% (1)	3% (1)	10% (3)	7% (2)	7% (2)	7% (2)	17% (5)	7% (2)	3% (1)	0% (0)	0% (0)
Al Nakheel (n=37)	0% (0)	21% (8)	8% (3)	5% (2)	3% (1)	11% (4)	11% (4)	11% (4)	5% (2)	11% (4)	11% (4)	3% (1)	0% (0)
Al Rams & Shamal Julphar (n=40)	33% (13)	13% (5)	18% (7)	13% (5)	0% (0)	10% (4)	5% (2)	3% (1)	0% (0)	0% (0)	3% (1)	5% (2)	0% (0)
Al Sall (n=13)	23% (3)	0% (0)	0% (0)	0% (0)	0% (0)	15% (2)	31% (4)	7% (1)	8% (1)	8% (1)	8% (1)	0% (0)	0% (0)
Khuzam (n=28)	25% (7)	18% (5)	0% (0)	7% (2)	7% (2)	7% (2)	11% (3)	7% (2)	4% (1)	14% (4)	0% (0)	0% (0)	0% (0)
Dahan & Old Town Ras Al Khaimah (n=35)	11% (4)	17% (6)	9% (3)	0% (0)	9% (3)	23% (8)	11% (4)	3% (1)	9% (3)	3% (1)	3% (1)	3% (1)	0% (0)

Residents would prefer each neighborhood to incorporate a mixed-use center with retail, commercial, residential and public space and a central plaza and school. In this way, each neighborhood would become a self-sufficient district, where residents feel fulfilled and at ease. "Small-is-beautiful" would be the guiding principle of this urban style.



The Positive Impact of Mixed-use Neighborhoods on Community Life

Residents feel that neighborhoods structured as described above would be very beneficial to their daily lives by reducing the distances among homes, shops, restaurants, entertainment centers, and schools, and thus reducing the need for movement outside neighborhoods. This does not entail neighborhoods’ becoming isolated, as residents also clearly expressed the need for easy connection between neighborhoods.

Furthermore, the availability of local amenities helps to create social cohesion within the community. Public facilities such as parks, playgrounds, and convenience retail options encourage social engagement. For example, souks are an important part of the city whose the main function is commercial, yet both genders also use these spaces to interact. Facilities and amenities such as these contribute to a neighborhood’s identity and can thereby facilitate economic contributions to the wider cityscape.

Parks and Park Designs

Residents see parks as an essential aspect of a neighborhood that caters to families. Sixty-two percent of residents would like to have parks and squares in their neighborhoods. In particular, residents of Western origin (67%) and Emiratis (65%) feel that their neighborhoods would benefit from the addition of parks. It is the number one amenity that residents of Al Dhait and Al Nakheel feel is missing in their areas.

Figure 13: What do you think is the most appropriate location for the following facilities? (Percentages for the answer of “within my neighborhood”)

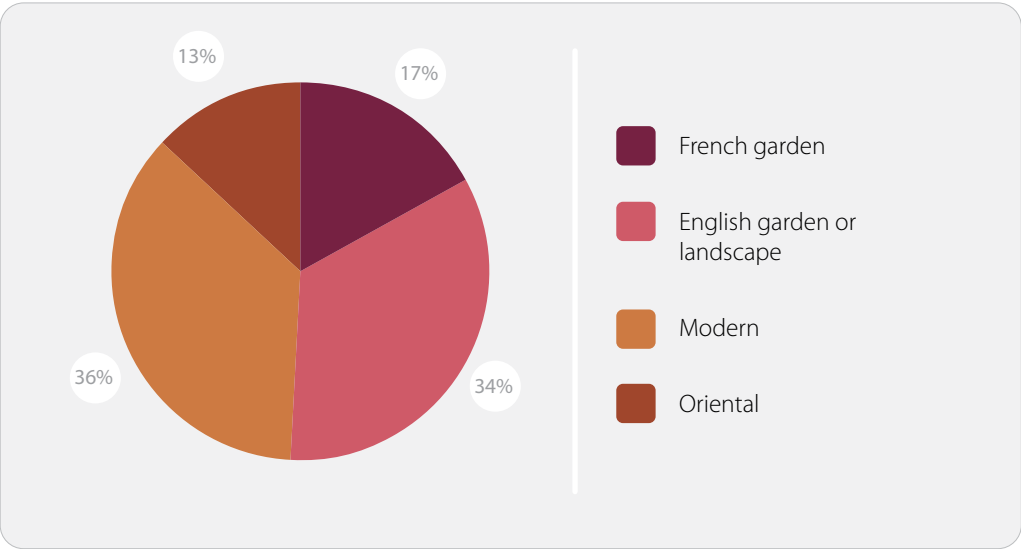
Region of origin	Sports facilities	Parks and squares	Entertainment	Education	Higher education	Health (doctors’ cabinets, pharmacy)	Health (hospitals, clinics)	Commercial facilities	Government facilities
Asia (n=53)	85% (44)	55% (29)	57% (30)	60% (32)	40% (21)	58% (31)	64% (34)	47% (25)	30% (16)
Emirates (n=101)	56% (57)	65% (66)	50% (50)	51% (52)	26% (26)	53% (54)	61% (62)	45% (45)	33% (33)
Middle East (n=104)	68% (71)	62% (65)	58% (60)	44% (46)	33% (34)	50% (52)	54% (56)	51% (53)	36% (37)
West (n=24)	37% (9)	67% (16)	46% (11)	67% (16)	25% (6)	78% (18)	54% (13)	37% (9)	17% (4)
All residents (n=282)	64% (181)	62% (176)	54% (151)	52% (146)	31% (87)	55% (155)	59% (165)	47% (132)	32% (90)

Residents already take advantage of Saqr Park, which is very popular among all residents and is where people of mixed age, gender, and cultural backgrounds go to enjoy an outing. Ras Al Khaimah residents consider the large park the main open-space destination in the city. It offers a variety of amenities, such as playgrounds, cycle paths, walkways, and restaurants. The disadvantage of Saqr Park is its location: it is quite far from many neighborhoods, making it less accessible to residents from certain areas, particularly for those in the north of the city. The Iceland Water Park is also a popular attraction, but is relatively expensive and provides less opportunity for families to relax in the variety of ways offered by Saqr Park.

Many residents think that Saqr Park needs renovation and that more parks like it should be developed. Residents would also welcome more parks or squares for women only (e.g., the Khuzam Women’s Park) in neighborhoods populated by a majority of Emiratis or residents of Middle Eastern origin. Thus, the city’s current plan to build seven new parks is an apt response to the needs of residents.

Not only do residents want more parks, they would like to see the addition of certain types of parks. The two styles of park favored by residents are modern (36%) and English garden (34%; Figure 14). Residents of Asian origin are the only group to place the English garden as their first choice.

Figure 14: Suitable Park Designs



Modern park



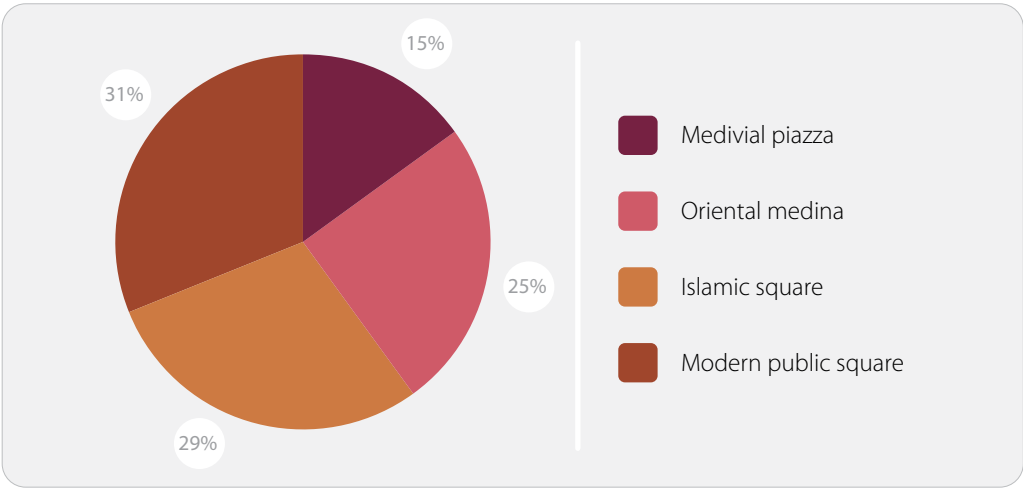
English garden/landscaped parks



In both cases, in addition to the grass and lawns traditionally necessary in a park, residents favor the use of traditional plant species in order to reinforce the local character of the space, even if they prefer a more “Western” style for their parks. They would like to find all the activities that are usually present in a European park in their local parks: a pool, shaded areas, and large open spaces.

Residents prefer modern style public squares that transition seamlessly from the built environment into a landscaped one (Figure 15). The squares have trees for shade and pathways for walking, running, and cycling as well as benches and cafes for people to relax. Residents’ second choice of public square design is the Islamic square. This is a more formal design with a paved area enclosed by Arabic architecture containing arches and domes, often with a central pool and square or rectangular areas of grass.

Figure 15: Suitable Square Designs



Modern public square



Islamic square



Emiratis and residents of Middle Eastern and Western origin prefer the modern square, while residents of Asian origin prefer the Islamic square.

Figure 16: Which design of square do you think is most suitable for your neighborhood?

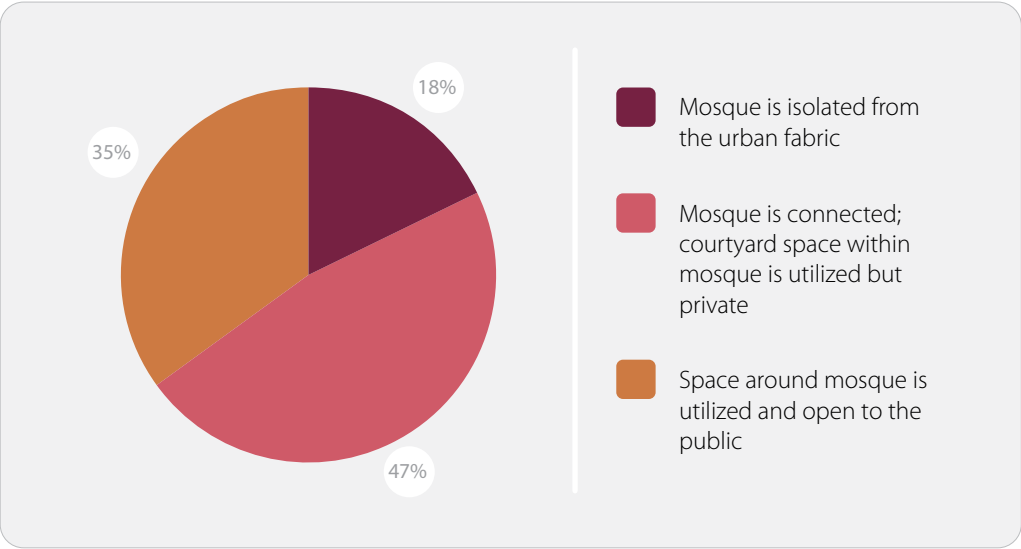
Region of origin	Medieval piazza	Oriental medina	Islamic square	Modern public square
Asia (n=53)	21% (11)	26% (14)	32% (17)	21% (11)
Emirates (n=101)	11% (11)	14% (14)	35% (35)	40% (41)
Middle East (n=104)	17% (17)	36% (37)	23% (24)	24% (25)
West (n=24)	8% (2)	21% (5)	25% (6)	46% (11)
All residents (n=282)	15% (41)	25% (70)	29% (82)	31% (88)

Mosques

In addition to the important role played by mosques as religious and community centers, the areas around mosques also provide a possible space for squares or gardens. Mosques and the spaces around them provide an informal space where people cross paths and are effective in creating a communal identity. These spaces could be developed to create significant private or public spaces.

Residents were in favor of mosques' being connected to their neighborhoods, rather than being isolated and separate (Figure 17). Forty-seven percent of residents would prefer the mosques in their neighborhoods to be connected to the rest of the neighborhood, but with the space around mosques being enclosed and private. Thirty-five percent of residents would like the space to be open to the public.

Figure 17: Most Suitable Use of Space Around Mosques



Forty-eight percent of Emiratis and 53% of residents of Middle Eastern origin prefer the space to be private, while 38% of Emiratis and 34% of residents of Middle Eastern origin prefer it to be open for general use.

Figure 18: Which design of space around mosques do you think is more suitable for your neighborhood?

Region of origin	Mosque is isolated from urban fabric	Mosque is connected, courtyard space private	Space around mosque is utilized and open to the public
Asia (n=53)	13% (7)	53% (28)	34% (18)
Emirates (n=101)	14% (14)	48% (49)	38% (38)
Middle East (n=104)	22% (22)	52% (53)	26% (27)
West (n=24)	26% (6)	9% (2)	65% (15)
All residents (n=282)	18% (49)	47% (132)	35% (98)

Neighborhood and Streetscape Aesthetics: The Visual and Tangible in Urban Development

Although neighborhoods' dynamics reflect and add to their atmospheres, the appearance and functionality of the urban space also define a neighborhood. Features like building design and style, landscaping, and walkability impact residents on an individual level. In fact, residents report that their first priority for their neighborhood is its appearance (Figure 25). Accordingly, this section explores the specific elements of neighborhood and street aesthetics that contribute to residents' quality of life in Ras Al Khaimah.

Housing Designs

Residents' preference for mixed-use neighborhoods with shops and services close to home does not mean that they wish to live in high-density areas and in large, shared buildings. Indeed, residents show a clear preference for low-rise individual houses for their own residences. Residents from all origins have a preference for individual housing, with 82% preferring one of the individual housing options proposed (villa, Arabic house, town house). Emiratis and residents of Western origin are the least in favor of living in apartments, with only 9% and 8% respectively indicating a preference for this type of accommodation (Figure 20).

Figure 19: Preferred Accomodation Type

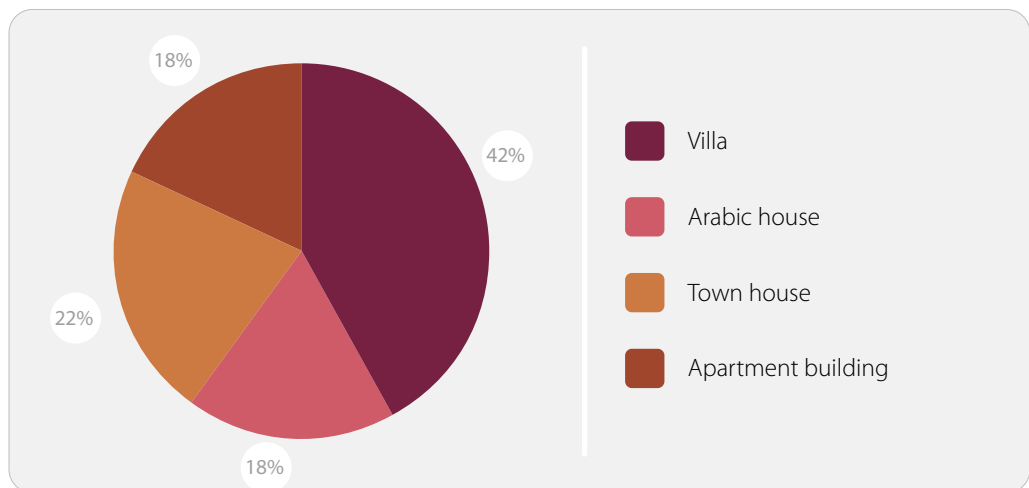


Figure 20: In which type of accommodation do you prefer to live?

Region of origin	Villa	Arabic house	Town house	Apartment building
Asia (n=51)	20% (10)	20% (10)	29% (15)	31% (16)
Emirates (n=101)	56% (57)	19% (19)	16% (16)	9% (9)
Middle East (n=104)	40% (41)	17% (18)	21% (22)	22% (23)
West (n=24)	42% (10)	12% (3)	38% (9)	8% (2)
All residents (n=280)	42% (118)	18% (50)	22% (62)	18% (50)

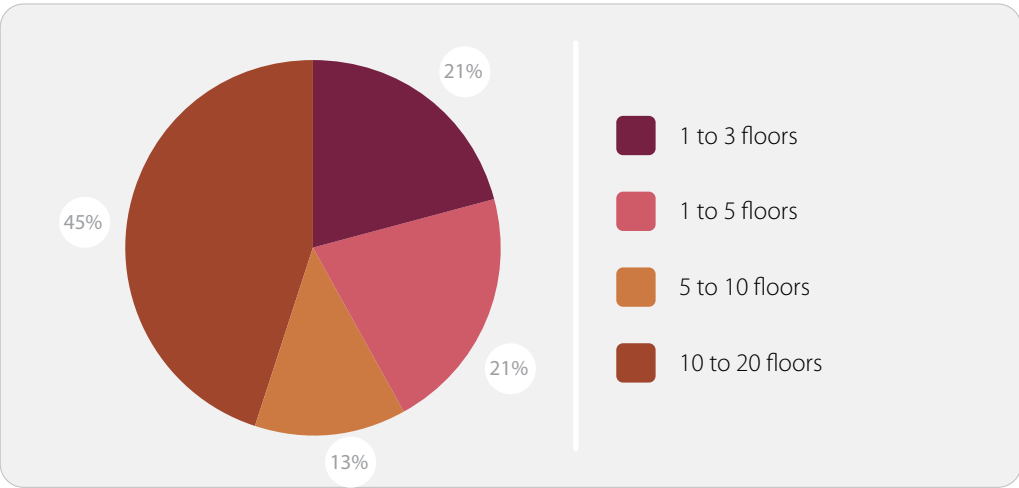
However, the large number of residents who indicated a preference for the Arabic house, town house, or apartment demonstrates a preference for urban rather than sub-urban living, as the design of these types of houses sees people living close to their neighbors.

Residents would like each neighborhood to include a range of housing options, including more affordable housing. They think that higher buildings should only be found in the neighborhood center, surrounded by a mix of residences, retail and office space, and services.

Building Styles

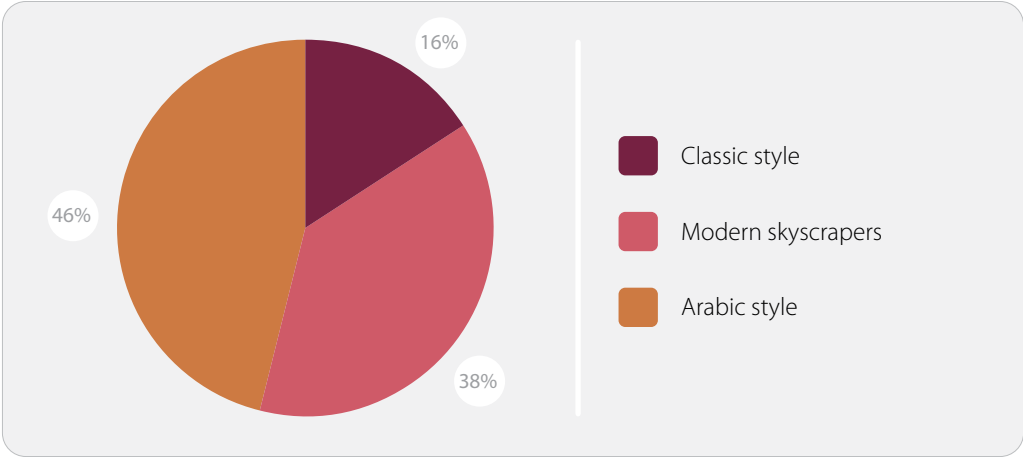
Residents favor a mix of modern and traditional architecture depending on the function of the building: although they prefer low- or medium-rise (and more traditional) buildings for their residences, they favor modern buildings with glass façades and large windows for the areas of the neighborhood in which shops, offices, and services are found. In terms of practicality, these buildings have to serve specific functions and the medium- to high-rise, modern, air-conditioned buildings are ideal for hosting group activities or a number of amenities and services. Residents also think that it is important for Ras Al Khaimah to express its modernity by incorporating higher buildings (10 to 20 floors) into the center of neighborhoods (Figures 21 and 22).

Figure 21: Preferred Building Heights



For their own homes, residents prefer traditional accommodations. They favor villas or townhouses with a modern Arabic style and the use of blue and beige for building colors. Residents would like to reflect the local culture by incorporating characteristics typical of local building design and emphasizing the private nature of living spaces by enclosing villas with walls. This style can also provide a sustainable housing option, using shade to cool houses and perhaps adding a modern element by using solar panels to generate electricity on site.

Figure 22: Preferred Building Styles



Residents are in favor of decorating outside walls, doors, and porches with motifs and embellishments based on local designs that reflect the traditions of the emirate. These designs could be inspired by the geometric patterns of traditional Islamic art or the mosaics that appear in Muslim architecture. Emiratis and Westerners favor the Arabic style, while residents of Middle Eastern and Asian origin are more drawn to modern architecture.

An example of traditional geometric patterns



Residents would like to protect historic buildings and villages near the city (e.g., Sha’am) as part of their desire to preserve the heritage and cultural identity of the emirate. They support the recent renovation of buildings in Al Jazeera Al Hamra as a heritage/tourist attraction. Indeed, residents are keenly aware that the UAE has lost many historic sites in recent years, and surviving sites in Ras Al Khaimah provide the emirate with an exceptional opportunity to showcase and safeguard the region’s heritage.

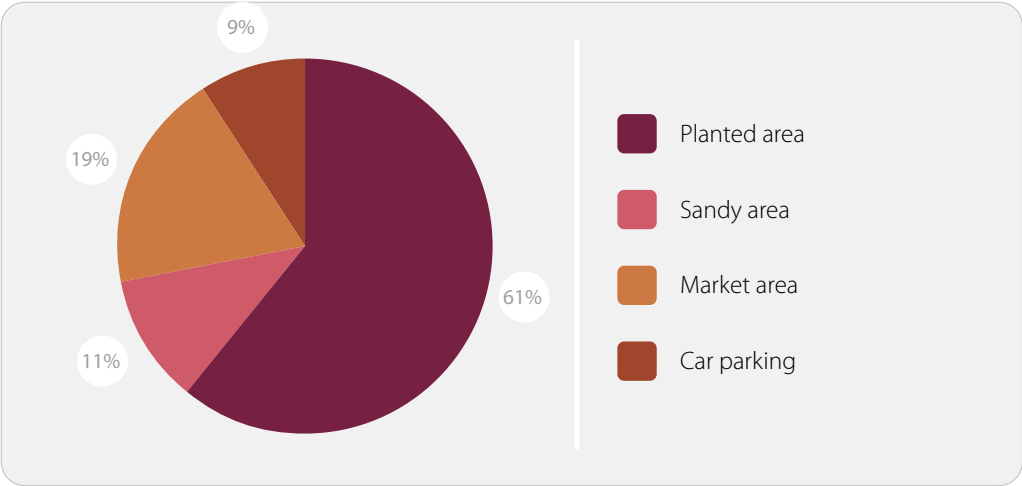
Empty Lots

In Ras Al Khaimah, it is important to look not only at the city’s buildings, but also at its empty spaces. Empty lots are a consequence of Ras Al Khaimah’s rapid development. There are many empty lots in some districts, and these hamper the sense of completion and enclosure that makes streets look and feel good to be around.

In the long term, these empty lots will be filled, but in the short term, residents think it would be a good idea to provide a temporary solution to the problem of multiple empty lots. Given that the management of empty lots would be temporary, any solution must come at a reasonable cost.

The majority of residents opt for empty lots to be planted, making the management of empty lots an issue of landscaping. Planting empty lots would also answer residents’ need for public squares in their neighborhoods. Placing plants and trees in mobile containers would allow them to be used elsewhere if the lot gets developed.

Figure 23: Preferred Uses of Empty Lots



Residents of Middle Eastern origin also favor the development of (temporary) markets on empty lots, and Emiratis selected sandy areas as a second choice. Indeed, structured sandy areas could reinforce the natural character of the city by using a variety of sands colors. This solution would fit well with the temporary nature of the management of empty lots and would not be too costly, while being easy to maintain. Different colors of sand could be used to create attractive designs and patterns. Indeed, this type of landscaping could become a “signature” of the city’s heritage and sustainability. Local artists from the respective neighborhoods could even be involved in transforming the empty spaces.

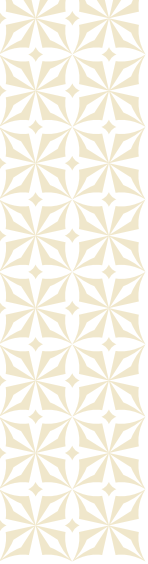


Figure 24: Which of the following options do you prefer for using empty lots in your neighborhood?

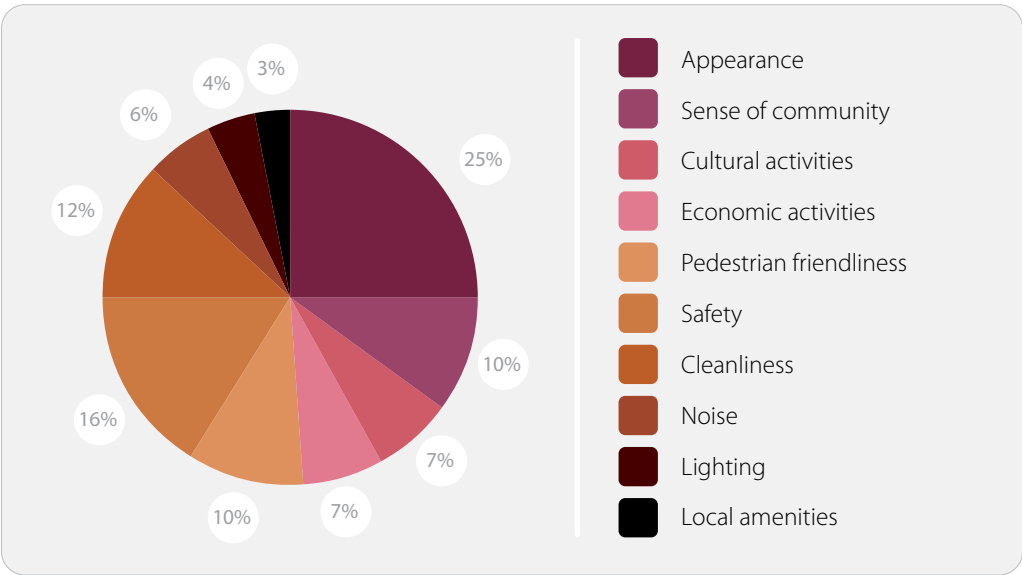
Region of origin	Planted area	Sandy area	Market area	Car parking
Asia (n=52)	77% (40)	0% (0)	11% (6)	12% (6)
Emirates (n=100)	57% (57)	19% (19)	17% (17)	7% (7)
Middle East (n=103)	53% (55)	9% (9)	25% (26)	13% (13)
West (n=24)	75% (18)	8% (2)	17% (4)	0% (0)
All residents (n=279)	61% (170)	11% (30)	19% (53)	9% (26)

Streetscape and Landscape

The number one concern of residents is the appearance of their neighborhoods, with 25% ranking this as the most important aspect (Figure 25). To a large degree, a neighborhood’s streetscape and landscape determine its aesthetic appeal.

The streetscape is the portion of the public space from the property line on one side of the street to the property line across the street. Because Ras Al Khaimah residents favor mixed-use neighborhoods that offer easy access to local amenities, intra-neighborhood transportation options must be diverse. Yet walking can only become a realistic option for residents if street design and streetscape create a safe and practical pedestrian environment.

Figure 25: Most Important Aspects in My Neighborhood



Ras Al Khaimah residents place a high degree of importance on their streets’ safety, cleanliness, noise levels, and lighting. In general, Ras Al Khaimah residents want to see improvements in cleanliness and pedestrian friendliness (Figure 26).

Figure 26: Streetscape Experience Appreciation—All Districts

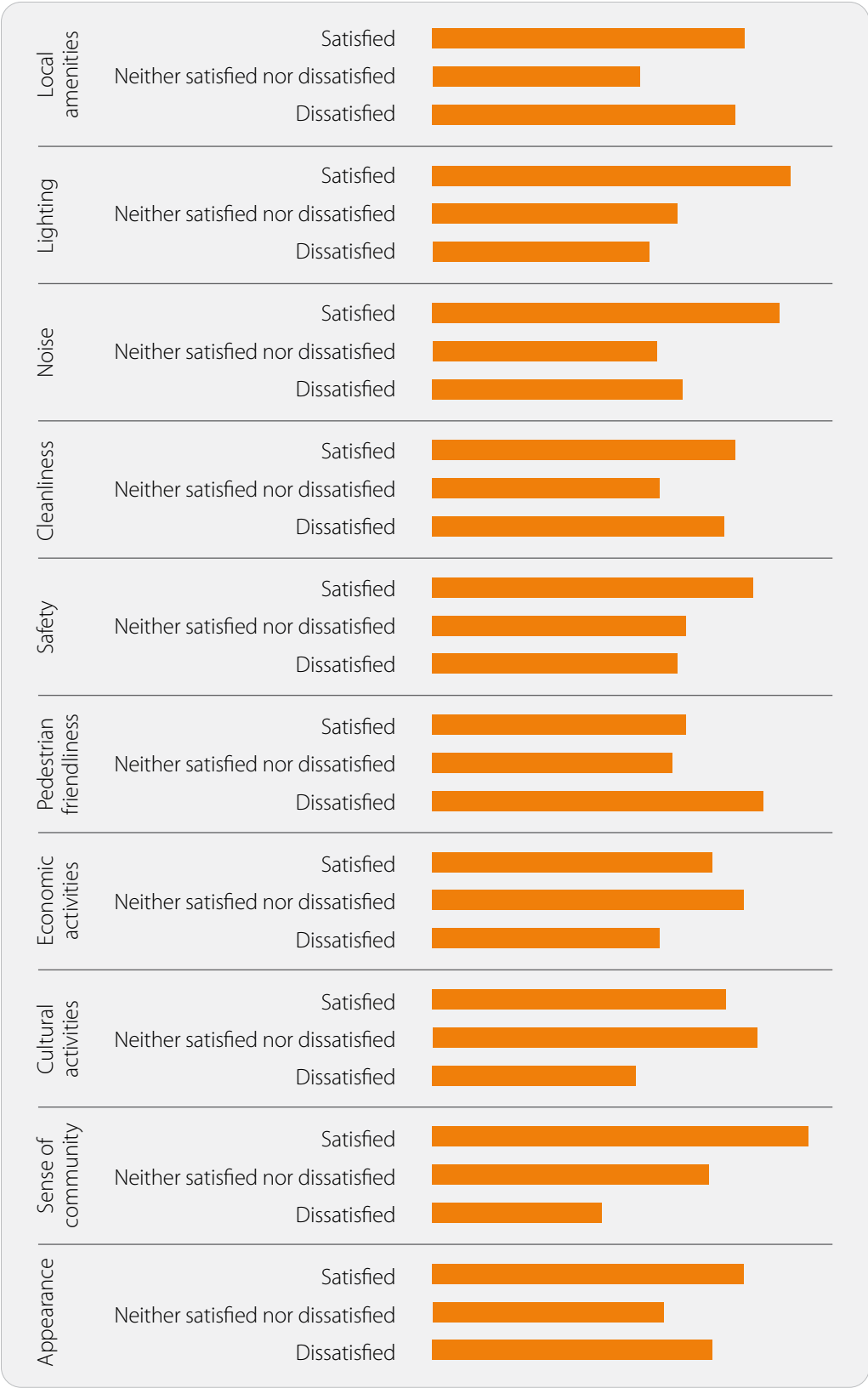


Figure 27: Please rank the aspects below in terms of importance with regards to your needs and activities within your neighborhood, from the most important aspect to the least important aspect?

Region of origin	Appearance	Sense of community	Cultural activities	Economic activities	Pedestrian friendliness	Safety	Cleanliness	Noise	Lighting	Local amenities
Asia (n=50)	22% (11)	6% (3)	8% (4)	8% (4)	6% (3)	20% (10)	12% (6)	8% (4)	6% (3)	4% (2)
Emirates (n=102)	30% (31)	10% (10)	5% (5)	5% (5)	11% (11)	16% (17)	12% (12)	4% (4)	5% (5)	2% (2)
Middle East (n=104)	21% (22)	10% (11)	7% (7)	10% (10)	9% (9)	12% (13)	14% (15)	10% (10)	4% (4)	3% (3)
West (n=24)	21% (5)	12% (3)	13% (3)	8% (2)	17% (4)	21% (5)	4% (1)	0% (0)	0% (0)	4% (1)
All residents (n=280)	25% (69)	10% (27)	7% (19)	7% (21)	10% (27)	16% (45)	12% (34)	6% (18)	4% (12)	3% (8)

Thirty-eight percent of residents are satisfied with the appearance of their neighborhood, while 34% are dissatisfied. Generally, residents of Middle Eastern and Western origin are more satisfied than dissatisfied with the appearance of their neighborhoods, while Emiratis are somewhat dissatisfied (43% dissatisfied). Residents of Asian origin are also more likely to be dissatisfied than satisfied with their neighborhoods' appearance (Figure 28).

Figure 28: How satisfied are you with the aspects of your neighborhood listed below?

Aspects	Satisfied	Dissatisfied	Neither
Appearance - Asian origin (n=52)	17% (9)	41% (21)	42% (22)
Appearance - Emiratis (n=101)	34% (34)	43% (44)	23% (23)
Appearance - Middle Eastern origin (n=96)	49% (47)	24% (23)	27% (26)
Appearance - Western origin (n=24)	63% (15)	25% (6)	12% (3)

Neighborhoods with higher rates of satisfaction include Al Hamra (70% satisfaction), Al Mairid, Al Rams, Al Dahan, Kuzam, and Shamal. Dissatisfaction is high in Al Mamoura (54%) and, to a lesser extent, in Al Nakheel (38%).

Safety is the second most important aspect after appearance at 16%. Overall, residents are more satisfied with safety (39%) than dissatisfied (30%). Emiratis are somewhat satisfied (40% satisfied) with the safety of their neighborhoods, as are residents of Middle Eastern origin (37% satisfied, 28% dissatisfied), and Westerners (46% satisfied against 17% dissatisfied). Residents of Asian origin have the least clear-cut perception of the safety of their neighborhood, with 37% satisfaction against 36% dissatisfaction (Figure 29).

Figure 29: How satisfied are you with the aspects of your neighborhood listed below?

Aspects	Satisfied	Dissatisfied	Neither
Safety - Asian origin (n=52)	37% (19)	36% (19)	27% (14)
Safety - Emiratis (n=100)	40% (40)	34% (34)	26% (26)
Safety - Middle Eastern origin (n=96)	37% (35)	28% (27)	35% (34)
Safety - Western origin (n=24)	46% (11)	17% (4)	37% (9)

Safety is first or second in importance in Al Mairid, Al Mamoura, Al Zahra, Khuzam, and Shamal. Districts least satisfied with the safety of their neighborhoods include Al Mairid (53% dissatisfied, 10% satisfied), Al Mamoura (46% satisfied, 46% dissatisfied), Khuzam (42% dissatisfied, 41% satisfied), and Al Zahra (37% dissatisfied, 21% satisfied).

Cleanliness is the third most important aspect of neighborhood life (12%). Residents are slightly more satisfied with the cleanliness (37%) of their neighborhood than they are dissatisfied (35%). Cleanliness is first or second in importance in Al Dhait, Al Nakheel, Al Sall, and Dahan. Five districts are more satisfied than dissatisfied: Al Dhait, Dahan, Khuzam, Al Nakheel, and Al Rams. Five are more dissatisfied than satisfied: Al Sall, Shamal, Al Mairid, Al Mamoura, and Al Zahra.

Residents are more satisfied (42%) than dissatisfied (31%) with noise levels in their neighborhoods. Noise is ranked second most important by residents in Al Rams and Al Sall. Both neighborhoods are also the only two that are dissatisfied with the level of noise (37% and 43% dissatisfaction, respectively).

Residents are more satisfied (44%) than dissatisfied (26%) with street lighting. Residents of only two districts are largely dissatisfied with their lighting: Al Rams (46% dissatisfaction, 27% satisfaction) and Shamal (37% dissatisfaction, 30% satisfaction).

There is a wide variation in levels of satisfaction between neighborhoods with regard to these four aspects of the streetscape, so any plan to improve the streetscape experience should be developed at the neighborhood level and should involve the local residents. Neighborhood-specific improvements could include landscaped intersections, defined pedestrian crossing paths, bicycle lanes, well-designed bus shelters and benches, textured or graphically designed sidewalks, landscaped on-street parking areas, attractive street furniture and lights, and sidewalk shading.

In fact, a chief concern of residents is sidewalks. As many areas lack sidewalks, their installation throughout residential neighborhoods would be a primary step in improving streetscapes by lending a finished feel to the street area and creating transitions between private and public spaces. Residents would like the public space of the street (roads and sidewalks) to be consistent with housing and regional styles (e.g. paved mosaic sidewalks, see below right). In addition, benches and plant beds would create areas for people to rest and socialize.

Ras Al Khaimah's sidewalks could also be systematically covered to enable them to be used year-round. Such cover would be artificial and would be supported by existing buildings and structures where possible. Similar to the sidewalks themselves, these arcades could have a unique style that reinforces each neighborhood's identity and boundaries. Attractive signage would be added to street corners, and separating elements such as bollards or fences would be classic complements to any street furniture.

Where possible, residents favor solutions that are sustainable and are environmentally friendly, such as waste containers that offer recycling options. Residents prefer these to be discreet but attractive, with clean modern lines and colors that blend into the streetscape. They prefer elegant, curved modern-style solar powered lampposts and parking areas covered by attractive solar panels. They also opt for street furniture that considers the local weather, such as covered bicycle racks and air conditioned bus stops.

Residents' tastes are more diverse with regard to landscaping elements. In terms of planting, they prefer grass and lawns (40%) to local plants (34%) and imported plants (26%). More specifically, residents of Western origin and Emiratis favor local plants, residents of Middle Eastern origin prefer imported plants, and those from Asia prefer lawns.

An example of paved mosaic sidewalks



Figure 30: Preferred Type of Landscaping

Region of origin	Local plant and trees	Imported plants and flowers	Grass and lawns
Asia (n=53)	19% (10)	21% (11)	60% (32)
Emirates (n=101)	43% (44)	19% (19)	38% (38)
Middle East (n=102)	26% (26)	8% (2)	25% (6)
West (n=24)	67% (16)	8% (2)	25% (6)
All residents (n=24)	34% (96)	26% (71)	40% (113)

Due to both the prevalence of car use and the rapid development of Ras Al Khaimah, parking is in high demand. Currently, parking in Ras Al Khaimah is largely surface parking. Residents would like smaller parking areas to be fenced-off to create a sense of enclosure and give more definition to the streets. They would like parking areas to be landscaped, evidencing the need for squares and greenery mentioned above.

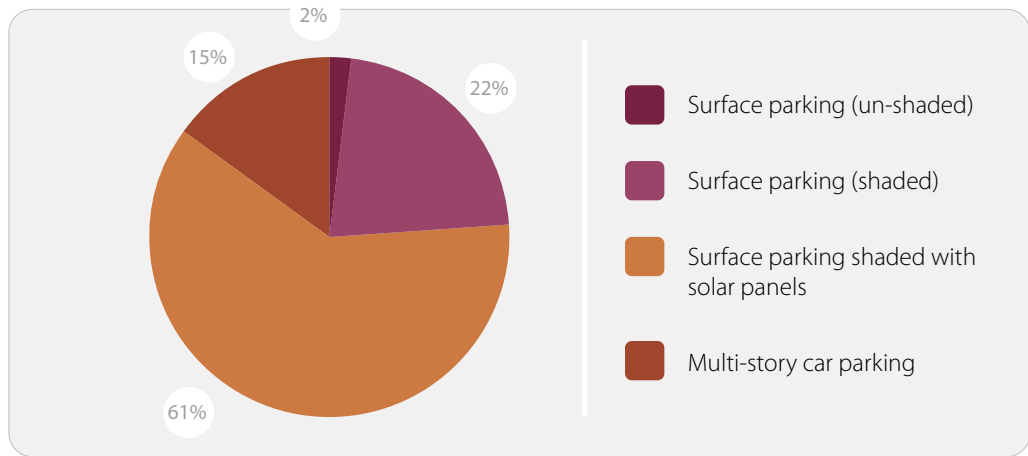
Parking

Residents would like large parking areas to be sheltered (Figure 31), opting for an innovative solution in which covered parking lots are equipped with solar panels, turning these large areas into power plants. Electricity generated by such parking areas could provide a significant part of the city’s power needs. In Bordeaux, France, where this has already been developed, a twenty hectare car park for the local exhibition center is covered by 60,000 solar panels that shade parked cars and produce enough electricity to power 5,000 households or fulfill half of the city’s public lighting needs. The solar option could be ideal for Ras Al Khaimah, where sunshine is plentiful.

An example of parking lot with solar panels



Figure 31: Suitable Parking Designs

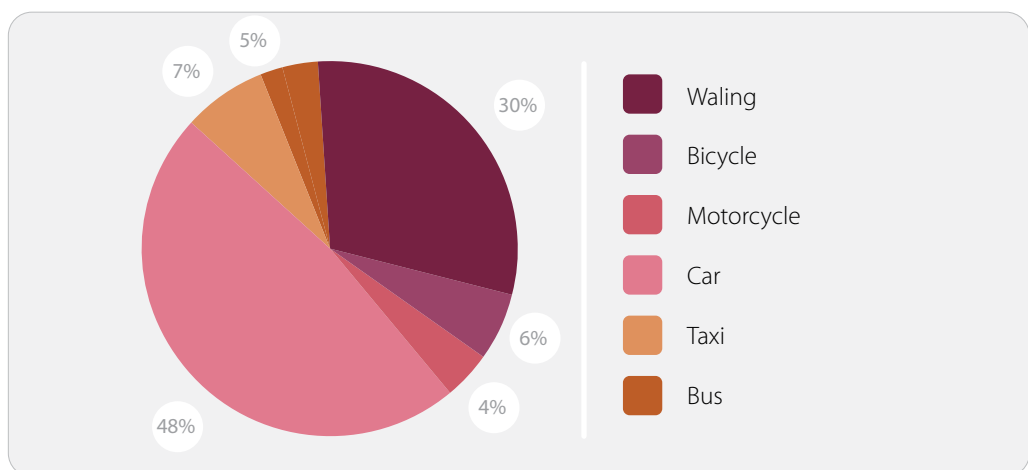


Walkability

Ras Al Khaimah residents are in a state of “car dependency”: 63% of residents say they currently rely on the car as their principle means of transport within their neighborhoods, even in areas with safe places to walk. As Ras Al Khaimah has grown, cars have been the central focus of transportation planning, to the extent that other modes of transport, such as walking and cycling, have become impractical or even impossible. The challenge to pedestrians is that many of Ras Al Khaimah’s main corridors remain vehicle-focused, with wider traffic lanes, higher speeds, narrower or non-existent sidewalks, fewer crossing points, etc.

In Ras Al Khaimah, however, there is a strong inclination to walk: 30% of residents say they would like to walk to travel within their neighborhood (Figure 32).

Figure 32: Travel Preferences within the Neighborhood



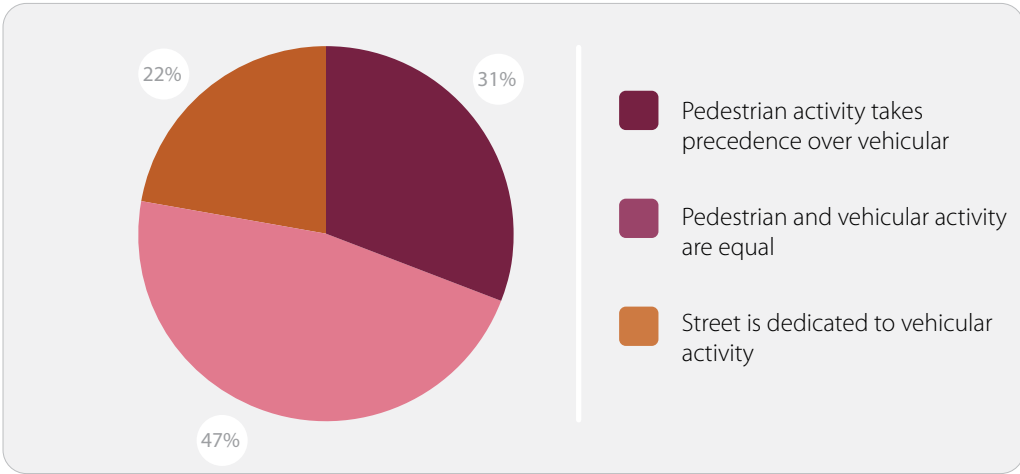
This preference is consistent with residents’ desire for mixed-use neighborhoods with amenities close at hand. Increasing the walkability of a city has many benefits: it helps maintain fitness, reduces vehicle emissions, saves families money, and offers opportunities for social interaction.

Figure 33: How would you like to travel in your neighborhood?

Region of origin	Walking	Car	Taxi	Bus	Motorcycle	Bicycle	Other
Asia (n=53)	28% (15)	49% (26)	13% (7)	4% (2)	2% (1)	4% (2)	0% (0)
Emirates (n=100)	35% (35)	40% (40)	7% (7)	3% (3)	9% (9)	6% (6)	0% (0)
Middle East (n=103)	21% (22)	65% (67)	7% (7)	5% (5)	1% (1)	1% (1)	0% (0)
West (n=24)	46% (11)	8% (2)	0% (0)	8% (2)	0% (0)	38% (9)	0% (0)
All residents (n=280)	30% (83)	48% (135)	7% (21)	5% (12)	4% (11)	6% (18)	0% (0)

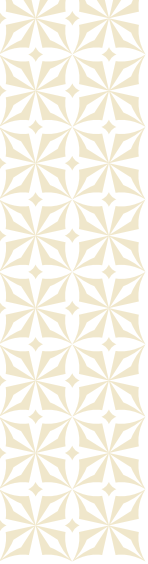
Forty-seven percent of residents think that pedestrian and vehicular activity should have equal importance (Figure 34). Fifty-four percent of the Emirati population would like this to be the case.

Figure 34: Design of Main Street



Pedestrians have priority over vehicles





Pedestrian and vehicular activity with equal importance



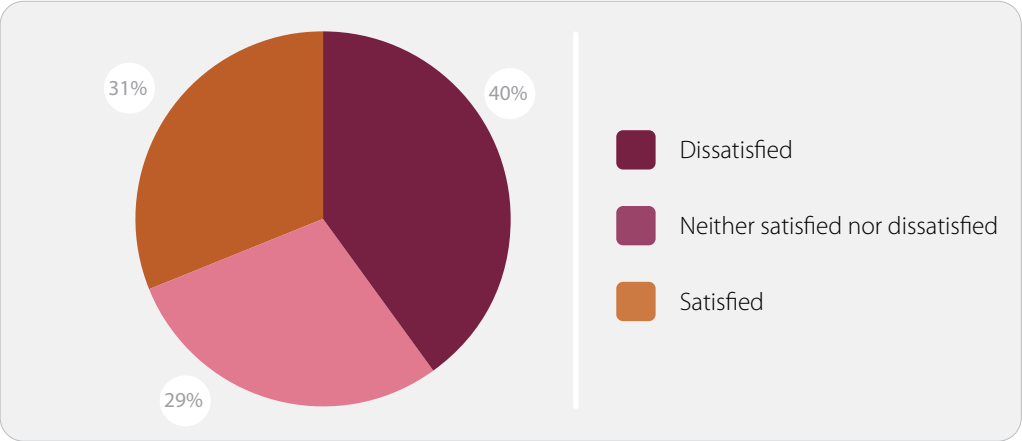
Overall, 31% think that pedestrians should have priority, and 32% think that cars should have priority. Sixty-seven percent of residents of Western origin think that pedestrians should have priority over vehicles.

Figure 35: Which design for main streets do you think is most suitable for your neighborhood?

Region of origin	Pedestrian activity takes precedence	Pedestrian and vehicular activities have equal importance	Street dedicated to vehicular activity
Asia (n=53)	11% (6)	47% (25)	42% (22)
Emirates (n=101)	31% (31)	54% (55)	15% (15)
Middle East (n=103)	32% (33)	43% (44)	25% (26)
West (n=24)	67% (16)	33% (8)	0% (0)
All residents (n=281)	31% (86)	47% (132)	22% (63)

However, 40% of residents are dissatisfied with the walkability of their neighborhoods (Figure 36):

Figure 36: Is your neighborhood pedestrian-friendly?



“[There is] too much vehicular traffic.” Indian woman, Al Nakheel

“I am a girl, and I feel unsafe walking in my neighborhood.” Pakistani woman, Al Mairid

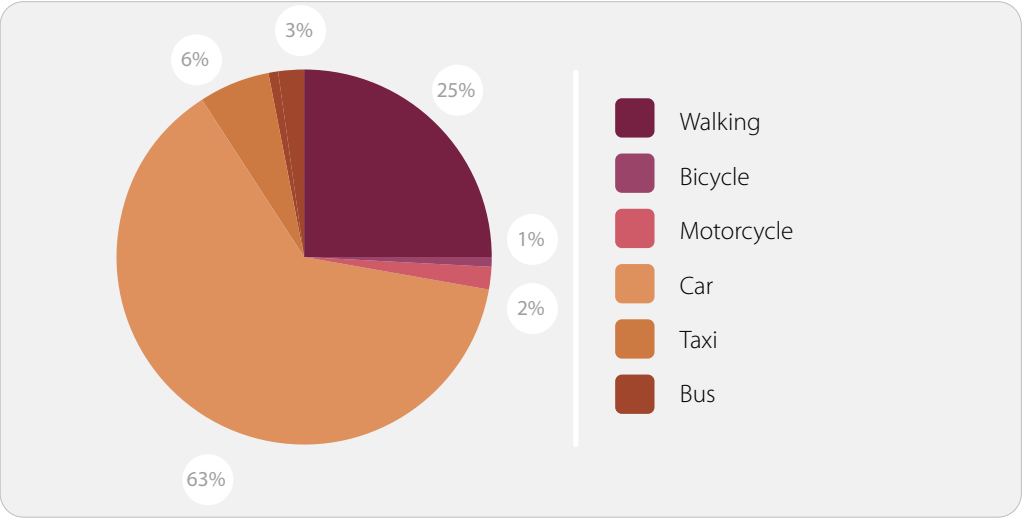
“It’s polluted.” Emirati man, Al Ghubb

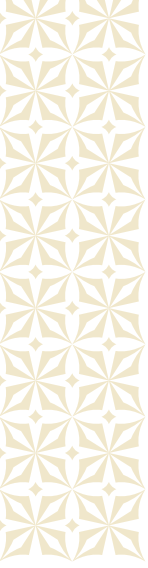
“[It is an] annoying, noisy area.” Emirati man, Al Ghubb

“[It is] not safe.” Emirati woman, Al Mairid

Of the 64% percent of residents who do feel comfortable walking in their neighborhoods, only 25% actually do so (Figure 37). Therefore, walkability depends not only on residents’ willingness to walk but also on features that make it a practical option.

Figure 37: Travel within Neighborhoods





"There is no place to walk, and [it is] full of cars and trucks with no gardens—not a good place for the family." Emirati woman, Al Dhait

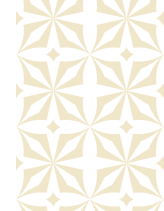
"There are no trees and natural sights." Syrian man, Al Dhait

"[There are] no sidewalks." Czech Republic woman, Al Mairid

"There are no pavements, no shade, [and] no lighting, and [there is] dangerous driving." British man, Al Qusaidat

"[The problems are] car speeds and lack of dedicated walking spaces along the sides of the roads and at crossing areas." U.S. woman, Khuzam

"Pavements have been neglected and are in disrepair or absent. [There are] lots of dirt and dust. Traffic [is] moving at high speeds very close by." British woman, Al Nakheel



Residents have identified eight main points about how to promote walkability in Ras Al Khaimah:

1. Design neighborhoods around walking.

Amenities in Ras Al Khaimah's neighborhoods should be developed to encourage walking: shops, parks, schools, and squares must be within walking distance of residential areas, and routes must be appealing to pedestrians. Streetscaping influences peoples' decisions on whether to walk or use their vehicles. For instance, visual interest (shop windows, attractive landscaping, etc.) makes walking more appealing.

2. Make street networks easy to navigate.

The street network must make it easy for residents to navigate inside their neighborhoods by providing direct routes (no long cul-de-sacs, etc.) among destinations.

In Ras Al Khaimah, such connected or "permeable" road networks would necessitate the development of a network of narrow local streets to enable fast and easy movement on foot. Residents' grid choice of the orthogonal and townscape grids provides Ras Al Khaimah neighborhoods with the potential for being developed into pedestrian-friendly environments.

Orthogonal grid



Townscape grid



3. Install sidewalks in areas with "sidewalk gaps."

With the exception of main roads outside the city, all roads in Ras Al Khaimah should have sidewalks. Priority for the installation of these sidewalks should be given to areas in which walking is most desirable, such as in the vicinity of schools or shopping areas. In addition, the width of the sidewalk is important for walkability. Obstructions such as sign posts or street furniture can reduce the walkable width of the sidewalk and should be placed where they are least obstructive.

4. Account for climatic conditions.

Sidewalks (or cycle paths) in Ras Al Khaimah should provide shade through canopies and arcades. Residents indicate a clear preference for artificial shade for Ras Al Khaimah, for using modern designs and technology to create shaded areas for pedestrian activity.



Ras Al Khaimah could become the first city in the region in which sidewalks are systematically shaded.

5. Improve sidewalk safety.

Sidewalks can be made safer by creating buffers of grass, plants, and flowers between the road and the sidewalk. Crossing islands and designated crossing places are also important safety features. Traffic-calming measures include reduced speed limits, narrower traffic lanes, on-street parking, central curb extension for pedestrian crossings, speed humps, zebra crossings, barriers, bollards, street furniture, and painted road markings to define areas that are off limits to cars (e.g., lines or chevrons).

6. Make buildings and streetscapes attractive.

Streetscapes can be made more attractive through the addition of shops or landscaping beside the sidewalk, which provide more interest to pedestrians than, for example, parking lots, industrial buildings, and empty lots. Walls near the sidewalk help to define the street and create a sense of enclosure, while buildings that are set back from the street reduce this feeling.

7. Invest in pedestrian infrastructure.

Certain amenities, including benches, special paving, planters, etc., can be used to enhance the pedestrian experience.

8. Provide ample street lighting.

All sidewalks and side streets should be well lit. Strict maintenance of urban lighting improves safety and thereby encourages walking. New technologies like solar or LED lighting can provide cost-efficient options for adding lights around Ras Al Khaimah.


Summary and Recommendations

The Urban Development Lab represents preliminary efforts to profile the city of Ras Al Khaimah and its various neighborhoods in terms of their current designs and their urban development aspirations. Although the research gathered through this initiative is encouraging, there is always room for further engagement with Ras Al Khaimah residents and stakeholders in order to best serve the community interest through thoughtful urban planning. Accordingly, the study offers initial and broad recommendations and highlights the need for additional exploration of development needs and opportunities. These recommendations reflect a variety of perspectives that each help form the character of the city of Ras Al Khaimah.

Ras Al Khaimah is expanding, and a majority of residents who participated, both Emirati and expatriate, are pleased with this prospect. However, residents would like to see their city's growth take specific forms. At the macro-level, they would like to see Ras Al Khaimah become more of a destination for tourism, offer more jobs and different types of employment, and pursue more ways to cater to families. Broad suggestions for supporting these goals include:

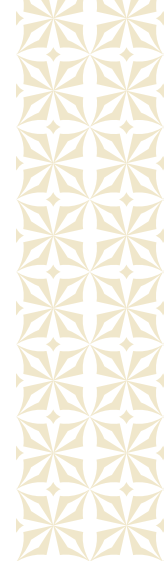
1. Make Ras Al Khaimah more family-friendly:
 - Improve and expand recreational facilities, such as parks and sports amenities.
 - Make health care and educational facilities more accessible while improving their quality.
 - Establish community centers in each neighborhood as sites that foster cultural exchange and social cohesion.
2. Expand and develop Ras Al Khaimah's employment opportunities:
 - Provide further incentives to draw a diversity of businesses to Ras Al Khaimah.
 - Institute a proactive policy to create jobs, especially for the younger generation.
 - Develop Ras Al Khaimah as a place known for its fair employment practices and related regulation (e.g., strict regulations for health and safety, working hours, etc.).
 - Create an adequate public transportation network that is regular, reliable, and affordable.
3. Promote Ras Al Khaimah as a tourist destination:
 - Brand Ras Al Khaimah as a destination that offers an array of activities, including beach holidays, mountain adventures, historic sites, and natural beauty.
 - Develop main roads and neighborhoods along a "touristic corridor" that would link principle tourist features (e.g., beaches, museums, mangroves, souks, etc.).

Many of these broader goals, however, must be supported at a community level, through well-defined neighborhoods that avoid the creation of urban sprawl and safeguard the natural assets of the emirate for both residents and tourists. More specifically, residents would like to see more medium-rise buildings (to facilitate higher density growth) and low-rise housing options, green spaces, and pedestrian-friendly streets in mixed-use, yet non-industrial, neighborhoods.



Suggestions for realizing this vision include:

1. Capitalizing on Ras Al Khaimah's diversity by creating distinct but interconnected neighborhoods that cater to a range of lifestyles, tastes, and income levels. This includes:
 - Foregoing the development of strictly residential or strictly touristic neighborhoods in favor of the development of mixed-use neighborhoods.
 - Avoiding the development of neighborhoods that share residential use with large-scale industry or commerce, and excluding industrial activities associated with noise, dust, dirt, heavy traffic, etc. from residential neighborhoods.
 - Incorporating different types of housing into individual neighborhoods to provide options for residents with different income levels and vocations.
 - Avoiding residents' sense of disconnect that results from cutting off neighborhoods from one another with major roads or industrial areas.
 - Filling vacant lots with temporary markets or local plants to improve streetscape and define neighborhoods.
 - Increasing the amount of green space and attending to neglected public areas, improving parks, adding squares, and investing in landscaping.
 - Encouraging residents to walk by developing a network of narrow local streets to enable fast and easy pedestrian movement among neighborhoods (consider urban grid layouts). This entails installing sidewalks throughout residential neighborhoods in order to define the street area and create a smooth transition between private and public space.
2. Engaging in manageable and sustainable urban planning.
 - This planning process would be manageable because it would take place one neighborhood at a time. The expansion of the process to other neighborhoods would benefit from lessons learned in the previous development project(s). The process could also be broken up into discrete street-by-street and block-by-block projects.
 - The urban planning process should be participatory, beginning with the development of a strategic plan, including the identification and mobilization of stakeholders, the selection of the first neighborhood(s) for transformation, and a detailed timeline of steps in this process.
 - Those involved in the design of the participatory process would include representatives of all institutions and organizations involved in urban development in Ras Al Khaimah (relevant government departments and municipality services, public service companies, etc.) and representatives of residents' associations for each neighborhood. If residents' associations do not yet exist in the city, they should be created following a standard process that could be designed by the authorities.



- In addition, the participatory process would involve formulating detailed plans for each neighborhood with its residents; these plans could incorporate form-based codes (guidelines that clearly lay out the style and form of an area) that would define:
 - Residents' desired townscapes—the types of buildings and services they do and do not want to find in their neighborhoods.
 - Residents' means of movement—the ease with which they travel within their neighborhoods.
 - Residents' desired landscapes and streetscapes—the way they would like the streets to be organized and the atmosphere of their immediate environment. (Consider urban design elements such as landscaped intersections, defined pedestrian crossing places, bicycle lanes, well-designed bus shelters and benches, landscaped on-street parking areas, attractive street furniture/street lights, and sidewalk shading.)
 - The clear definition of the boundaries and the limits of each neighborhood to clarify the exact scope that any improvements can take place within.
 - The identification of the location for the development of a neighborhood center with shops, services, schools, parks, etc.
 - The identification of key streets for enhancement around this neighborhood center, including ways to reduce and slow traffic, improve safety, and enhance the streetscape.
 - The process would be sustainable by taking advantage of residents' "insider knowledge" to understand the strengths and shortcomings of each neighborhood. The visible results, in turn, could then foster a sense of belonging among residents and motivate them to steward their neighborhoods more intentionally.
 - Each neighborhood should become a self-sufficient district by incorporating retail, residential, employment, health care, recreation, and education options in the neighborhood's immediate vicinity (e.g., grocery stores, professional offices, bookstores, restaurants, schools, doctors' offices, and coffee shops).
3. Developing the city center office district, which is not yet clearly defined due to the presence of empty lots and the distance between buildings.
 4. Ensuring the availability of safe, convenient, and comfortable transportation within and among neighborhoods for users of all ages and abilities, regardless of their mode of travel (walking, cycling, driving or using public transport).

Appendix: Survey Instrument

Personal data

Name (optional)	
Neighborhood	
Nationality	
Age	
Gender	
Education level	
Occupation	

Section A. City Level

1. Which of these options best describes how you see Ras Al Khaimah today? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	An industrial place	
2	A trade hub	
3	An employment place	
4	A family place	
5	A tourism and recreation place	

2. Which of these options best describes what you think Ras Al Khaimah will be like in 10 years' time? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	An industrial place	
2	A trade hub	
3	An employment place	
4	A family place	
5	A tourism and recreation place	

3. Ideally, what would you like Ras Al Khaimah to be like? Choose 3 options, and rank them from 1-3. Please note, you will be asked further questions about your first choice only.

	Options	Rank 1-3
1	An industrial place	If selected, go to 3a
2	A trade hub	If selected, go to 3b
3	An employment place	If selected, go to 3c
4	A family place	If selected, go to 3d
5	A tourism and recreation place	If selected, go to 3e

Based on answers to question 3 (Ideally, what would you like Ras Al Khaimah to be like?), please answer the relevant question below.

3a i. Why do you think Ras Al Khaimah should be an industrial place?

[Type your answer here]

3a ii. What kind of industrial development do you think should be given priority?
Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Manufacturing/commercial activity (e.g., food industries, biotechnology, textile, ceramics)	
2	Business parks (e.g., free trade zone, media city, office space)	
3	Warehousing and distribution (e.g., storage, wholesalers)	
4	Agriculture and farming (e.g., crops, cattle, milk processing)	
5	Transport and logistics (e.g., distribution center, recycling, transport and courier depot services)	
6	Heavy/special/strategic (e.g., manufacture of machinery and equipment, cement, petroleum refineries)	

3b i. Why do you think Ras Al Khaimah should be a trade hub?

[Type your answer here]

3b ii. What type of trade infrastructures do you think are most suitable for Ras Al Khaimah as a trade hub? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Having larger regional road networks	
2	Developing rail freight networks	
3	Expanding and modernizing airport(s)	
4	Expanding and modernizing sea ports	
5	Enhancing telecommunication networks and services	

3c i. Why do you think Ras Al Khaimah should be an employment place?

[Type your answer here]



3c ii. Which jobs do you think should be offered in Ras Al Khaimah? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Service (e.g., electricians, hairdressers)	
2	Retail (sales)	
3	Marketing and communication	
4	Finance (e.g., bank, insurance)	
5	Engineering	
6	Health	
7	Education	
8	Hospitality	
9	Real estate	
10	Other (specify)	

3d i. Why do you think Ras Al Khaimah should be a tourism and family place?

[Type your answer here]

3d ii. What do you think is lacking in Ras Al Khaimah for it to be a better family place? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Safe and small community	
2	Good educational system	
3	Good health system	
4	Good sports facilities	
5	Enough recreation places (mainly public places, e.g, parks, theaters, museums, malls, restaurants, coffee shops)	
6	Availability of services at various locations in town (e.g., convenience store, hairdresser, pharmacy, laundry)	
7	The environmental quality (e.g., climate, air pollution, water pollution, land pollution)	
8	Other (specify)	

3e i. Why do you think Ras Al Khaimah should be a tourism and recreation place?

[Type your answer here]

3e ii. What kind of tourism would you like to see in Ras Al Khaimah? Do you want tourism in Ras Al Khaimah to be limited to resorts or do you think Ras Al Khaimah City should be a destination in itself?

	Options	
1	Resort tourism	If selected, go to 4a
2	Ras Al Khaimah as a destination	If selected, go to 4b

4a. What do you think are the best tourist options for Ras Al Khaimah as a resort? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Beach resort tourism	
2	Mountain resort tourism	
3	Desert resort tourism	
4	Extreme sports tourism	
5	Other (specify)	

4b. If Ras Al Khaimah were to be a tourist destination in itself, what do you think should be its main attraction characteristics? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3	
1	"Gardens of Arabia" destination	Trees are planted, and the ecosystem is developed so that Ras Al Khaimah becomes an oasis of green in the middle of the desert, a place to which people can come to enjoy natural beauty and tranquility.	
2	"Shopping and Souks" destination	Ras Al Khaimah builds shopping malls and souks so that tourists go there as a shopping destination, creating traditional Arab bazaars and marketplaces while adding a contemporary element in the form of modern brands and shops.	
3	Entertainment destination	Ras Al Khaimah offers numerous recreational activities for tourists, such as diving and water sports. Families can come and enjoy theme parks and safari parks with their children as well as visiting the petting zoo. There are also fine specialty dining restaurants.	
4	"Health and Spa" destination (Relaxed destination)	Ras Al Khaimah offers tourists an escape from their hectic lifestyles with relaxing services such as spas, saunas, yoga retreats, and therapeutic massages, particularly the thermal springs and palm gardens in the village of Khatt.	
5	Heritage/historical destination	The many historical attractions and activities in Ras Al Khaimah, including Dhayah Fort, Shamal, Sheeba's Palace, and Jazirat Al Hamra, make the emirate into a tourist destination. Other activities that have a historical significance, such as pearl diving in Rams, will be offered to tourists.	

6	Ecological destination	Ras Al Khaimah's mangroves and flamingo breeding grounds are made into a tourist attraction by developing the emirate's ecosystem and allowing for a habitat that enables this wildlife to thrive.	
8	Other (specify)		

5. Which type of activities should be developed as a priority in the following neighborhoods?

Sector/areas	Khor Khowair	Al Rams	Khuzam	Mamoura	Old Town Ras Al Khaimah	Al Kharran
Industrial						
Residential						
Tourist						
Commercial						
Office						
Administrative (government services)						

6. According to your needs and activities, what do you think is the most appropriate location for the following facilities? Choose "within my neighborhood" or "in a dedicated neighborhood" for each of the options.

Sector/areas	Within my neighborhood	In a dedicated neighborhood
Sports facilities (e.g., ground, stadium)		
Parks and squares		
Entertainment (e.g., restaurants, cinemas)		
Education (e.g., schools, libraries)		
Higher Education (e.g., universities)		
Health (e.g., doctors' cabinets, pharmacy)		
Health (e.g., hospitals, clinics)		
Commercial facilities (e.g., shopping malls, streets retail)		
Government services (offices)		
Other (specify)		

7. How do you usually get about from one neighborhood to another? Choose 3 options, and rank them from 1-3, with "1" being the type of transport you use most often.

	Options	Rank 1-3
1	My own car	
2	Family car	
3	Company car	
4	Friend's car	
5	Rental car	
6	Taxi	
7	Company bus	
8	Motorcycle	
9	Bicycle	
10	Other (specify)	

7. What type of transportation would you ideally like to use while traveling from one neighborhood to another? Choose 1 option.

1	Car	
2	Taxi	
3	Bus	
4	Mini bus	
5	Tramway	
6	Motorcycle	
7	Bicycle	
8	Other (specify)	

7. What mode of transportation do you generally use when travelling outside Ras Al Khaimah? Choose 1 option.

1	Car	
2	Taxi	
3	Bus	

10. What is your preferred means of transport to travel outside Ras Al Khaimah? Choose 1 option.

1	Car	
2	Taxi	
3	Bus	
4	Train	

11. From your experience, what are the main landmarks in Ras Al Khaimah? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	The tent roundabout	
2	The boat roundabout	
3	The pearl roundabout	
4	The lantern roundabout	
5	Manar Mall	
6	Al Hesn Bridge	
7	Julphar towers	
8	Sheikh Zayed mosque	
9	Other (Specify)	

12. When given directions, do you think it is easy for non-residents of Ras Al Khaimah to find their way?

1	Yes	If selected, go to Question 12a
2	No	If selected, go to Question 12b

- 12a. Why do you think it is easy for non-residents of Ras Al Khaimah to find their way?
Choose 1 option.

1	Small town	
2	Major landmarks easy to spot	
3	Main streets with signage	
4	Other (Specify)	

- 12b. Why do you think it is not easy for non-residents of Ras Al Khaimah to find their way?
Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Lack of signage	
2	Lack of street names	
3	Lack of geographic orientation in town (N-S-E-W)	
4	Difficult names of places	
5	Complex street layout	
6	Lack of (tourist) information kiosks	
7	Lack of Ras Al Khaimah GPS navigation system	
8	Other (Specify)	

13. How do you generally find your way in Ras Al Khaimah?

[Type your answer here]

14. How would you like to see Ras al Khaimah develop and grow? Choose 1 option.

1	I would like Ras Al Khaimah to expand.	
2	I would like Ras Al Khaimah to stay the same.	
3	I would like Ras Al Khaimah to be downsized.	

15. How do you imagine Ras Al Khaimah will evolve to look like? (This has no connection to the previous question.) This question is supported by illustrations. Choose 1 option.

Options	Choice
Medium-density growth with greater concentration of town houses in the community	Illustration 1
High-density growth with greater concentration of medium-rise buildings in the community	Illustration 2
Growth with a mix of town houses, lane way houses, and mixed-use, low-rise buildings	Illustration 3
More high-rise buildings with stores and restaurants along major routes	Illustration 4

16. What type of accommodation would you choose to live in, if the choice were completely up to you? This question is supported by illustrations. Choose 3 options from the images, and rank them from 1-3.

Options	Rank 1-3
A - Villa	
B - Arabic house	
C - Town house	
D - Apartment building	

Section B. Neighborhood Level

17. How would you like your neighborhood to be in the future? Choose 3 options from the choices below, and rank them from 1-3.

	Options	Rank 1-3
1	A purely residential place	
2	A mix of residential and commercial space	
3	A mix of residential and office space	
4	A mix of residential space and heritage attractions	
5	A mix of residential space and tourist attractions	
6	A mix of residential, commercial, and office space	
7	A mix of residential and commercial space and heritage attractions	
8	A mix of residential and commercial space and tourist attractions	
9	A mix of residential space and heritage and tourist attractions	
10	A mix of residential and industrial areas	
11	Other (specify)	

18. How satisfied are you with the aspects of your neighborhood listed below, on a scale of 1 to 5, with "1" being very dissatisfied and "5" being very satisfied. Circle or highlight your choice.

	Very dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Very satisfied
Appearance	1	2	3	4	5
Sense of community	1	2	3	4	5
Cultural activities	1	2	3	4	5
Economic vitality	1	2	3	4	5
Pedestrian friendliness	1	2	3	4	5
Safety	1	2	3	4	5
Cleanliness	1	2	3	4	5
Noise	1	2	3	4	5
Lighting	1	2	3	4	5
Local amenities	1	2	3	4	5

19. Please rank the aspects below in terms of importance with regards to your needs and activities within your neighborhood, from the most important aspect to the least important aspect? Choose 3 options, and rank them from 1-3.

	Options	Rank 1-3
1	Appearance	
2	Sense of community	
3	Cultural activities	
4	Economic vitality	
5	Pedestrian friendliness	
6	Safety	
7	Cleanliness	
8	Noise	
9	Lighting	
10	Local amenities	

20. What are the amenities that you think are lacking within your neighborhood? Choose 3 options from the list below, and rank them from 1-3.

	Amenities	Rank 1-3
1	Sports facilities (e.g., ground, stadium)	
2	Parks and squares	
3	Entertainment (e.g., restaurants, cinemas)	
4	Services (e.g., beauty and spa)	
5	Services (e.g., technical, mechanic, electric)	
6	Commercial facilities (e.g., shopping malls, streets retail)	
7	Government services – offices	
8	Education (e.g., schools, libraries)	
9	Higher Education (e.g., universities)	
10	Health (e.g., doctors’ cabinet, pharmacy)	
11	Health (e.g., hospitals, clinics)	
12	Religious facilities (e.g., mosques)	
13	Other (specify)	

21. What are the main amenities that you would like to see in your neighborhood? Choose 3 options from the list below, and rank them from 1-3.

	Amenities	Rank 1-3
1	Sports facilities (e.g., ground, stadium)	
2	Parks and squares	
3	Entertainment (e.g., restaurants, cinemas)	
4	Services (e.g., beauty and spa)	
5	Services (e.g., technical, mechanic, electric)	
6	Commercial facilities (e.g., shopping malls, streets retail)	
7	Government services – offices	

8	Education (e.g., schools, libraries)	
9	Higher Education (e.g., universities)	
10	Health (e.g., doctors' cabinet, pharmacy)	
11	Health (e.g., hospitals, clinics)	
12	Religious facilities (e.g., mosques)	
13	Other (specify)	

21. What type of building would you like to see in your neighborhood? Choose up to 5 options from the list below.

Options	Choice
Modern houses	
Traditional houses	
Apartment blocks (less than 5 stories)	
Apartment blocks (more than 5 stories)	
Supermarket or other big store	
Small grocery or other local store	
Schools	
University	
Library	
Post office	
Banks	
Hospital	
Police station	
Fire station	
Town hall	
Gym or leisure center	
Restaurants	
Cinema	
Theater	
Hotels/guest houses	
Religious centers	
Cultural heritage sites	
Railway station	
Car park	
Skyscrapers	
Offices in high-rise buildings	
Offices in low-rise buildings	
Buildings with both shops and offices	
Warehouse	
Heavy industrial buildings (e.g., processing/manufacturing)	
Light industrial buildings (e.g., mechanics/masonry)	
Garbage disposal center	

23. What type of building would you definitely not like to see in your neighborhood? Choose up to 5 options from the list below.

Options	Choice
Modern houses	
Traditional houses	
Apartment blocks (less than 5 stories)	
Apartment blocks (more than 5 stories)	
Supermarket or other big store	
Small grocery or other local store	
Schools	
University	
Library	
Post office	
Banks	
Hospital	
Police station	
Fire station	
Town hall	
Gym or leisure center	
Restaurants	
Cinema	
Theater	
Hotels/guest houses	
Religious centers	
Cultural heritage sites	
Railway station	
Car park	
Skyscrapers	
Offices in high-rise buildings	
Offices in low-rise buildings	
Buildings with both shops and offices	
Warehouse	
Heavy industrial buildings (e.g., processing/manufacturing)	
Light industrial buildings (e.g., mechanics/masonry)	
Garbage disposal center	

24. On a scale of 1-5, with "1" being *Very dissatisfied* and "5" being *Very satisfied*, please indicate your satisfaction degree concerning the **Experience (A)** and **Appearance (B)** of the following existing facilities within your neighborhood. Circle or highlight your choice.

	Very dissatisfied		Somewhat dissatisfied		Neither satisfied nor dissatisfied		Somewhat satisfied		Very satisfied		Not applicable	
	A	B	A	B	A	B	A	B	A	B	A	B
Parking	1	1	2	2	3	3	4	4	5	5	N/A	N/A
Schools	1	1	2	2	3	3	4	4	5	5	N/A	N/A
Mosques	1	1	2	2	3	3	4	4	5	5	N/A	N/A
Parks	1	1	2	2	3	3	4	4	5	5	N/A	N/A
Restaurants	1	1	2	2	3	3	4	4	5	5	N/A	N/A
Shops	1	1	2	2	3	3	4	4	5	5	N/A	N/A
Offices	1	1	2	2	3	3	4	4	5	5	N/A	N/A

25. What is the **grid** that you think is most suitable for your neighborhood? (This question is supported by images.) Place an "X" after the grid of your choice.

A - Orthogonal grid	
B - Townscape	
C - Spider web	
D - Haussmann model	
E - Riverside pattern	
F - Cul-de-sac pattern	

26. Look at the cards containing different designs of **main streets**. Which design of **main streets** do you think is more suitable for your neighborhood? (This question is supported by images.) Place an "X" after the option you prefer.

A - Pedestrian activities take precedence over vehicular	
B - Pedestrian and vehicular activity are equal	
C - Street is dedicated to vehicular activity	

26. Look at the different designs of **parking**. Which design of **parking** do you think is more suitable for your neighborhood? Place an "X" after the design of your choice.

A - Surface parking (un-shaded)	
B - Surface parking (shaded)	
C - Surface parking (shaded with solar panels)	
D - Multi-story car parking	

28. Look at the images of **parks**, and choose which design of **park** you think is more suitable for your neighborhood? Place an "X" after the design of your choice.

A - French garden	
B - English garden or landscape park	
C - Modern	
D - Oriental	

29. Look at the different designs of **squares**. Which design of **square** do you think is more suitable for your neighborhood? Place an "X" after the design of your choice.

A - The medieval piazza	
B - The oriental medina	
C - The Islamic square	
D - The modern public square	

30. Look at the different designs of the **space around mosques**. Which design of the **space around mosques** do you think is more suitable for your neighborhood? Place an "X" after the design of your choice.

A - Mosque is isolated from urban fabric	
B - Mosque is connected: courtyard space within the mosque is utilized but private	
C - Space around mosque is utilized and open to the public	

31. Which of the following options do you prefer for the treatment of **empty lots** in your neighborhood? Place an "X" after the concept of your choice.

Planted area	
Sandy areas	
Market area	
Car parking	

32. Do you feel comfortable walking in your neighborhood?

Yes	
No	

33a. Why/why not?

[Type your answer here]

34. How do you travel within your neighborhood? Choose your main mode of transport by placing an "X" next to the appropriate option (1 choice).

1	Walking	
2	Car	
3	Taxi	
4	Bus	
5	Mini bus	
6	Motorcycle	
7	Bicycle	
8	Other (specify)	

35. How would you like to travel in your neighborhood? Choose one option by placing an "X" next to the appropriate option.

1	Walking	
2	Car	
3	Taxi	
4	Bus	
5	Mini bus	
6	Motorcycle	
7	Bicycle	
8	Other (specify)	

Section C. Street Level

36. Landscaping

Look at the images, and choose what kind of option you think would be most suitable for your neighborhood. Place an "X" next to the illustration you prefer.

36a. Water features

Place an "X" next to the type of water feature you prefer.

Circle or highlight the option you prefer from the images.

Foundation		A	B	C
Pools		A	B	C

36b. Types of greenery and planting

Place an "X" next to the type of greenery and planting you prefer.

Circle or highlight the option you prefer from the images.

A - Local plants and trees	
B - Imported plants and flowers	
C - Grass and lawns	

36c. Plant display

Choose 3 options, and rank them, with "1" being your favorite.

A - Strips of planting alongside the road	
B - Grass and lawns	
C - Flowerbeds	
D - Trees	
E - Hedges	

37. Urban Furniture

Look at these images that show different types of urban furniture. Which illustration do you think is more suitable for your neighborhood?

37a. Bicycle Racks

Place an "X" next to the type of bicycle rack you prefer.

Circle or highlight the option you prefer from the images.

Open		A	B
Sheltered		A	B

37b. Seating

Place an "X" next to the type of seating you prefer.

Circle or highlight the option you prefer from the images.

Seats		A	B	
Benches		A	B	C

37c i. Street lighting

Place an "X" next to the type of lamp post you prefer.

Circle or highlight the option you prefer from the images.

Straight post		Image A	Image B	Image C
Curved post		Image A	Image B	Image C

37c ii. Street lighting

Place an "X" next to the type of lamp post you prefer.

Circle or highlight the option you prefer from the images.

Color	A - Orange	B - White	C - Yellow
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37c iii. How would you prefer your street lights to be powered?
(Place an "X" next to your choice.)

Solar energy	
Town grid electricity	

37d i. Traffic Lights
Place an "X" next to the type of traffic light you prefer.
Circle or highlight the option you prefer from the images.

On a pot		A	B	C
Suspended		A	B	C

37d ii. How would like the traffic lights to count down?

Option A	Option B	Option C
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37e. Waste Containers
Place an "X" next to the type of waste container you prefer.
Circle or highlight the option you prefer from the images.

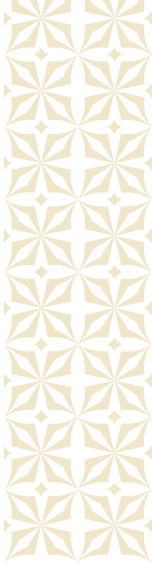
Recyclable waste container		A	B	c
Open container		A	B	C
Semi-open container		A	B	c
Closed container		A	B	C

37f i. Phone Booths
Would you like the streets of Ras Al Khaimah to contain phone booths for public use?

Yes	
No	

37f ii. Circle or highlight the option you prefer from the images.
If you answered "Yes," place an "X" next to the type of phone booth you prefer.

Open booth		A	B	C
Closed booth		A	B	C



37g i. Boundaries

Place an "X" next to the type of boundary you prefer.
Circle or highlight the option you prefer from the images.

Bollards		A	B	C	D
Fences		A	B	C	

37g ii. Choose the color you prefer

Bollards	A	B	C
Fences	A	B	C

37h. Street Signs

Place an "X" next to the type of street sign you prefer

A - Attached to building	
B - On street corner	
C - On posts	

38. Sidewalks

Which type of sidewalk do you prefer?

38a i. Sidewalk materials

A	
B	
C	
D	
E	
F	

38a ii. Which color sidewalk do you prefer?

A	
B	
C	
D	
E	
F	
G	
H	
I	



38b. Sidewalk height
Place an "X" next to the option you prefer.

A - A lot higher than road	
B - higher than road	
C - Same height as road	

38c. Shade
38c i. Place an "X" next to the type of shade you prefer.
Circle or highlight the option you prefer from the images.

Trees		A	B	C
Artificial		A	B	

38 c ii. Arcades and walkways are a good way to create shade. Which of the images of arcades do you prefer?

A	
B	
C	
D	

38d. Bus Stops
Place an "X" next to the type of the bus stop you prefer
Circle or highlight the option you prefer from the images.

Open		A	B	C
Covered		A	B	
Closed with air conditioning		A	B	

38d. Bus Lanes
Place an "X" next to the type of the bus lane you prefer

A - Direct access	
B - With island	
C - In bus lane	

39. Traffic Intersections

39a. Traffic intersections

Place an "X" next to the type of the traffic intersection you prefer.

A - Direct access	
B - With island	
C - In bus lane	

40. Buildings

Look at these images showing different types of buildings. Which illustration do you think is more suitable for your neighborhood? Place an "X" next to the illustration you prefer.

40a. Building heights

Place an "X" next to the height of building you would like in your neighborhood.

A - 1 to 3 floors	
B - 1 to 5 floors	
C - 5 to 10 floors	
D - 10 to 20 floors	

40b. Windows

Place an "X" next to the type of windows you prefer.

A	
B	
C	

40c. Doors

Place an "X" next to the type of door you prefer.

A	
B	
C	

40d. Style of building

Place an "X" next to the style of building you prefer.

A	
B	
C	

40e. Materials

A - Concrete	
B - Metal	
C - Glass	

40f. Colors

Which color do you prefer for buildings in Ras Al Khaimah? Place an "X" next to the color of your choice.

White	
Beige	
Grey	
Brown	
Blue	
Gold	

Thank you for your participation.

We are organizing group discussion sessions to explore the findings of these questionnaire interviews in the third and fourth weeks of November 2012 at the Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research.

Should you wish to participate in a discussion session, please leave below your name, your e-mail address, and a phone number through which we can contact you:

Name _____

E-mail _____

Telephone _____



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