From Gate to Gathering

Jameel C40 Students Reinventing Cities: Amman Southern Gate

Situtional Analysis - Site Assessment

Introduction

Amman is a city layered with memory, movement, and meaning. Yet, it often lacks neighborhoods that express its identity through cohesive, human-centered design.

While a few areas carry a strong sense of place, they remain isolated and disconnected from the wider urban experience.

This project builds on those few existing models, not to replicate, but to reinterpret them for a contemporary context.

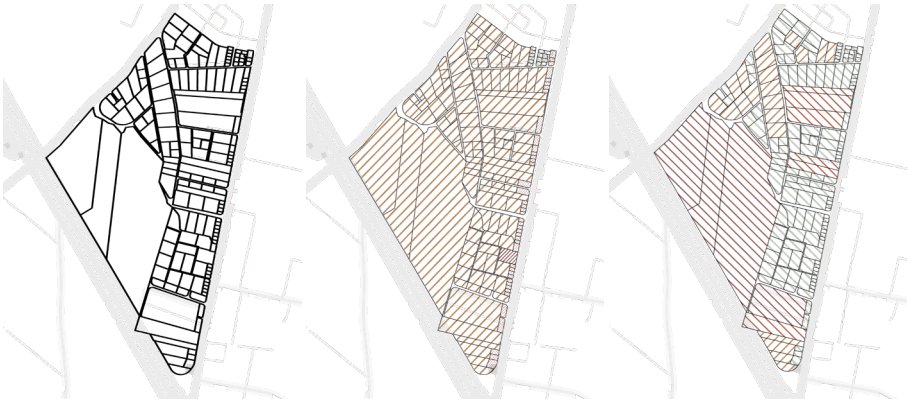
It proposes a community-focused environment that is open, inclusive, and rooted in social sustainability.

A neighborhood shaped by its people, where everyday life, culture, and spatial awareness come together to create a living, evolving identity.

Through thoughtful architecture and public space, the project reveals Amman's quiet beauty and reimagines how connected and vibrant it can truly become.

01 Plot Divisions & Ownerships

The site is currently subdivided into privately owned plots, which serve as the foundational layer for any future interventions. However, a significant number of these plots lie outside regulatory boundaries, presenting a unique opportunity for structured development. This regulatory gap allows for the formulation of a comprehensive vision that can guide reclassification and zoning, while taking into account the existing plots and their current sizes. Plot sizes can be modified through further subdivision, all while ensuring that ownership rights are preserved.



Plot Divisions *LandUse* *Land Sizes*

02 Existing Structures

Industrial Zone

An existing industrial zone is already established in the area, with its main entrance oriented toward Madaba Street. This zone is clearly defined and surrounds the zoo, forming a distinct boundary within the site. Its location benefits from the strategic role of Madaba Street, which acts as a key connector between South Amman, Madaba, and Airport Road. The predominant uses within this industrial zone fall under lightweight industry, including construction equipment storage, customs inspection facilities, and various warehouses.

Zoo

The area includes two zoos that serve as recognizable landmarks and hold potential as major attractions. Both facilities can play a vital role in positioning the site as an entertainment hub that draws visitors from across Amman and as a key first stop upon entering the city from Airport Road. However, both zoos currently suffer from poor conditions and a lack of proper maintenance. Among them, Alyadodeh Zoo is in relatively better condition and holds a strategic visual presence due to its elevated position, making it visible from various points along Airport Road. This presents an opportunity to revitalize and integrate the zoo into a broader network of recreational activities within the site, reinforcing the site's identity as Amman's southern gateway.

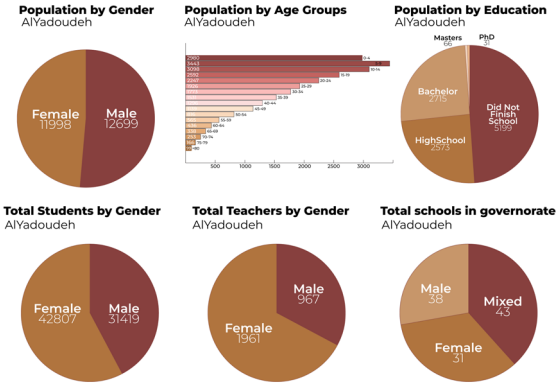
Water Culvert

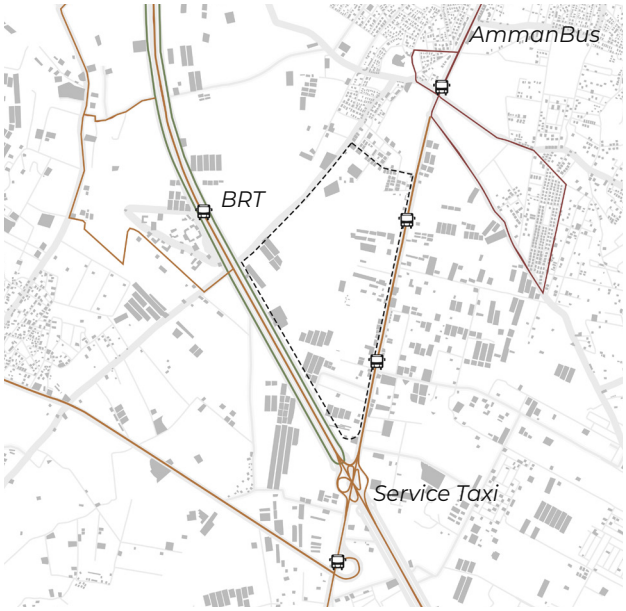
There is an existing culvert that runs through the site, originating from outside its boundaries and currently remaining open from the top. Due to its central location within the district, the Greater Amman Municipality (GAM) has proposed constructing a road over it, classified as a sub-arterial street with a designated width of 30 meters. The presence of this culvert has significantly influenced the division of plots within the site, as no building foundations are permitted to intersect with it. Consequently, the boundaries of the affected plots must remain unchanged, with no further subdivision or merging allowed in these specific areas. In addition to its infrastructural role, the culvert also presents an opportunity for water harvesting, which could support sustainable water management strategies within the site.

Commercial Buildings in Madaba Street

Madabah Street is a major arterial road running on the edge of our site, the street is predominantly occupied by services related to agriculture, such as supply stores, plant nurseries, and pet shops—which cater to a specific sector but do not address the broader daily needs of local residents. This lack of functional diversity results in a street that underperforms in serving its community, missing key amenities like grocery stores, pharmacies, cafés, and recreational facilities that would support everyday life and encourage walkability.

BaseMap





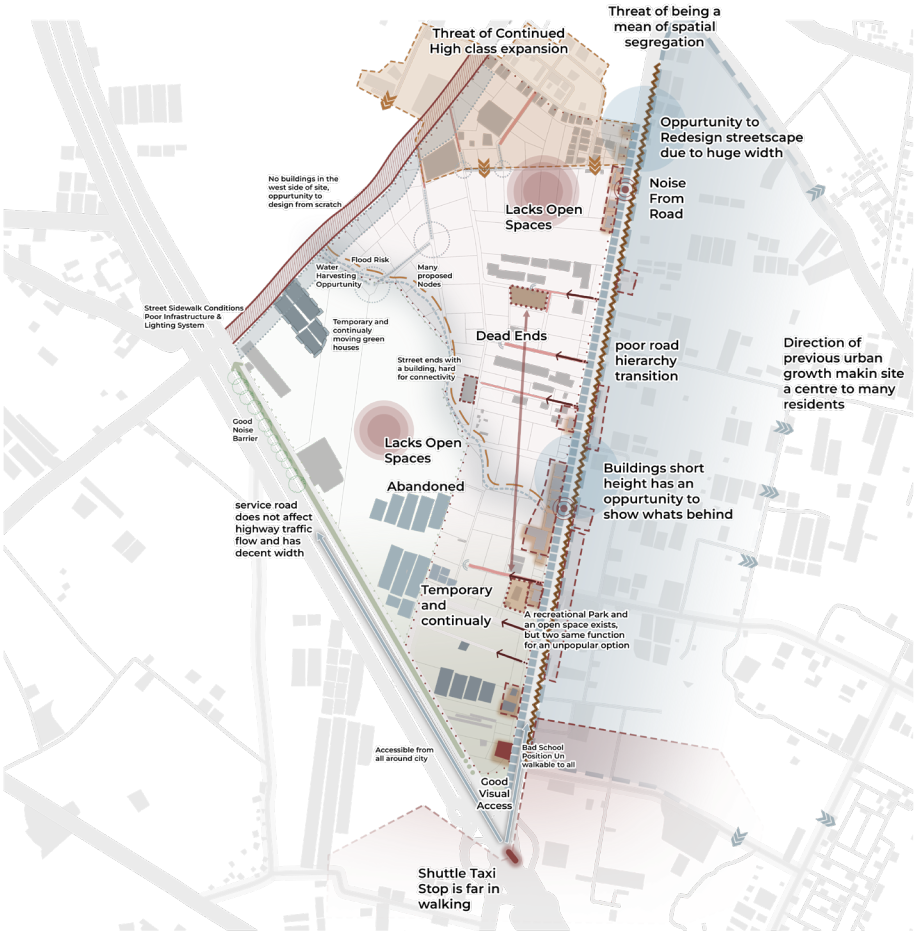
03 SocioEconomics

Socioeconomic analysis of the area indicates relatively low levels of educational attainment, despite strong female student enrollment. This highlights a significant need for educational development and support. Concurrently, the area is experiencing rapid urban growth and expansion toward the site, placing increased pressure on existing infrastructure and public services. The combination of limited education levels and accelerated development underscores the necessity for an inclusive, sustainable, and education-oriented planning approach.

04 Public Transportation

An existing Amman Bus line currently operates along Madaba Street, with its final stop located just a few meters before the site. This presents a valuable opportunity to extend the route directly into the site, improving accessibility and connectivity. Additionally, the planned Amman–Madaba BRT route serves as a major influence on the site's development potential. By ensuring the adjacent service road is accessible to all, there is a strong opportunity to propose a dedicated BRT stop within the site. This would further reinforce the site's strategic role as a southern gateway to Amman and enhance its integration within the city's broader transportation network.

SWOT Analysis - Site Potential & Constraints



S

- **Great visual vantage** into site from strategic node at Madabah st. and Service road intersection.
- Buffer zone between Airport St. (highway) and our site, **serves as a noise barrier.**
- **Service road** (main entrance to site) has **reduces traffic congestion** on Airport St.

W

- **Position of the only school** on site exceeds the five minute walking distance in reference to the neighborhoods proposed.
- The only public transportation stop (shuttle taxi) is **outside site borders and not walkable.**
- **Poor infrastructure in site**. No lighting fixtures or good street conditions.
- **High noise transmission** from Madabah St. edge to site.
- Madabah st. (arterial) **transitions directly into local roads** which are site entrances, some are dead ends.

O

- Madabah st. allows for a **whole new streetscape design** which may include parking spaces and pedestrian friendly sidewalks due to width.
- Site is strategically **located in the center of urban growth**, proposed services will benefit nearby residents.
- **Abandoned greenhouses** may be removed, and existing will be relocated into designated zone.
- Existing elevations heights allows for **visual accessibility into the site.**
- **No existing buildings on west edge**, makes proposing future designs easier.
- Lowest level can be **used for water harvesting proposals.**

T

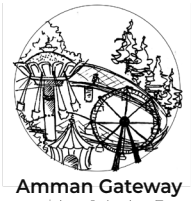
- Existing residences on site threaten proposed architectural decisions as they **may cause social segregation** due to high end residences being grouped in one zone.
- Further **expansion of high class residences** propose threat to future design.
- Two parks exist on site with the **same function** which is uncommon.
- Water drainge pipe **cuts site horizontally** and may cause complications in street design and infrastructure.
- Water drainage pipe **may cause flooding** due to topography.

LEGEND

- Urban Growth Direction
- HighClass Expansion
- Poor Hierarchy Transition
- Bad Services selection
- Accessibility Directions
- Fast Traffic Flow
- Lacks Open Space
- Temporary GreenHouses
- Design Section Oppurtunity
- Flood Risk
- Water Harvesting
- Noise
- Spatial Segregation
- Zoo
- Proposed Node
- DeadEnd Road
- Trees Barrier
- Buildings Height

Concept - Vision & Strategies

Concept

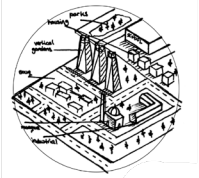


Amman Gateway
(Eyecatching & Active Facade)

First Stop from Airport

Headquarters & Businesses

Increase Literacy & Cultural awareness



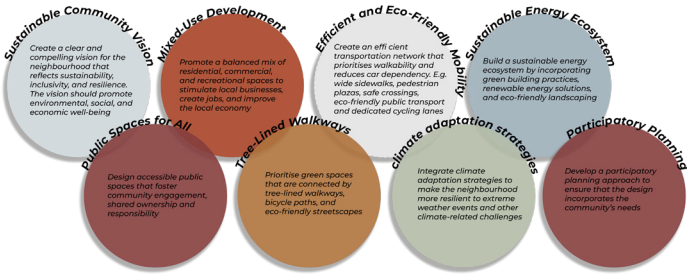
Self-Sustained Neighborhoods
(Local workers, production, education, and services)

Increased Wellbeing

Vision & Strategies

A visionary gateway to Amman that fosters inclusive learning, enhances educational outcomes, and celebrates agricultural identity through integrated, sustainable urban design, while drawing inspiration from and collaborating with the diverse businesses it attracts.

Strategies

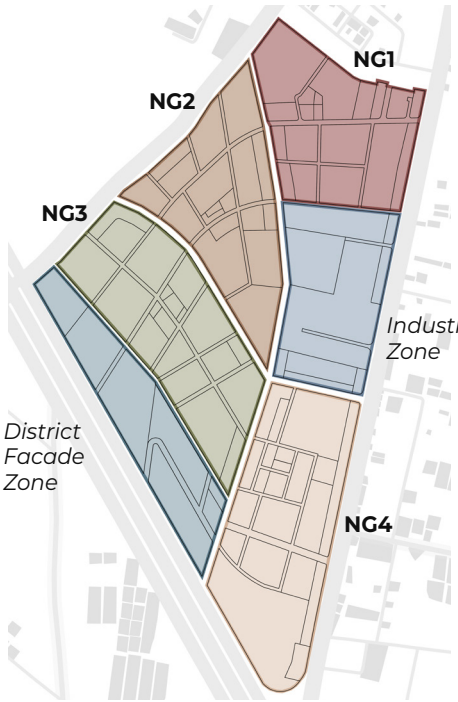


Conclusions

Arterial
Sub-Arterial
Main
Major Collector
Sub-Collector
Service Road

01 Street Network

The situational analysis, along with the assessment of proposals by the Greater Amman Municipality, revealed several issues within the existing street network, as reflected in the SWOT analysis. Key conclusions pointed to abrupt transitions between streets, which disrupted the intended hierarchy. As a result, adjustments were made to the street network, including minor realignments and reclassification of certain roads. Collector roads were strategically positioned within larger plots. These interventions aim to establish a more coherent street hierarchy and lay the groundwork for future plot subdivision and development.



02 Neighborhood's Division

Through comprehensive site analysis, it became evident that certain existing structures, specifically those within the district facade (IKEA) zone and the surrounding light industrial areas, were permanent fixtures that could not be altered, removed, or reconfigured. These constraints significantly influenced the overall design approach and spatial planning. Recognizing the importance of working within these fixed parameters, the design response was carefully shaped around them. As a result, the remaining available land was strategically allocated for the development of four distinct residential neighborhoods. The distribution of these neighborhoods was not arbitrary; rather, it was informed by and aligned with the established land divisions provided by the Greater Amman Municipality. This ensured that the proposed development respected existing urban planning frameworks while also promoting a balanced integration between the residential zones and the adjacent commercial and industrial uses.

1 - Neighborhood Divisions

Helps understand density and population in numbers, and getting right land use percentages

2 - Right Percentages

right percentages create the a healthy and inclusive community with places to live, work, and play.

3 - Nodes Identification

Helps create a walkable access to services for all and helps in emphasizing the polycentric approach

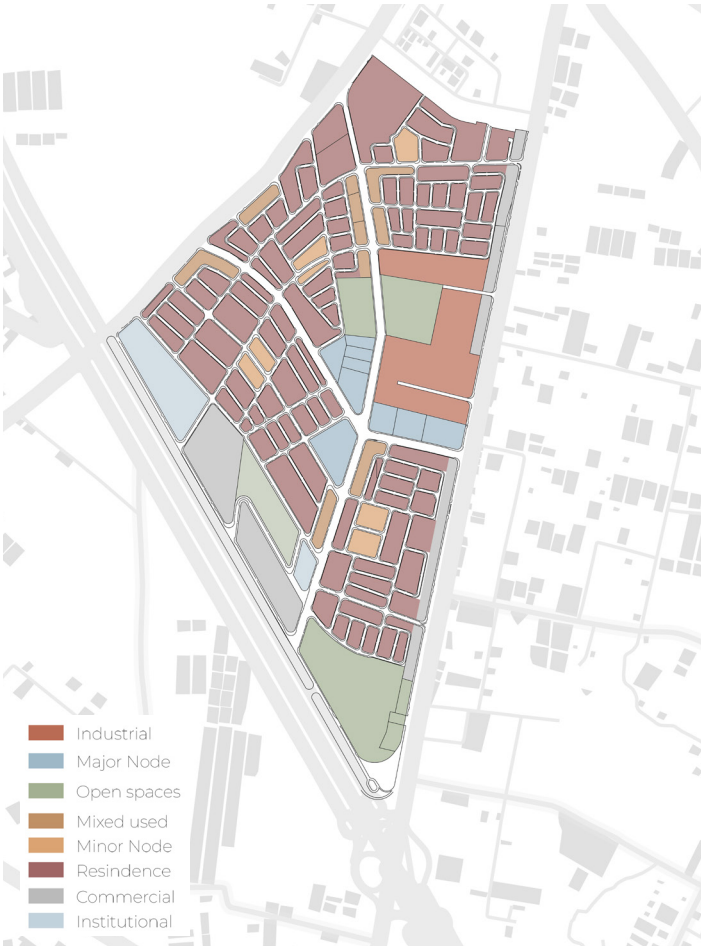
4 - Social Groups Identification

Helps in understanding types of services needed in each based on contextual preferences

5 - Public Transportation

Transportation trails are then organized and determined based on neighborhood elements.

03 LandUse



SOUQ

The Souq is strategically positioned to be accessible and welcoming to all—residents of the district, visitors to Amman, and newly arriving guests. Serving as a symbolic gateway to the city, it embodies and reflects the cultural identity, vibrancy, and spirit of Amman, offering an inclusive urban experience that bridges local tradition with contemporary urban life.

INSTITUTIONAL

The location and functions of institutional facilities were determined through thorough site analysis, which revealed a significant lack of coverage both within and near the site. These findings were crucial in shaping the land use plan and establishing a program that responds to existing service gaps.

AGRICULTURAL ZONE

The agricultural zone was strategically placed near the Souq to compensate for the removal of existing greenhouses, reintroducing productive land use through a contemporary vertical farming approach. This solution preserves agricultural value while activating the ground level with engaging, community-friendly functions, ensuring a lively and inclusive urban environment.

RESIDENTIAL PERCENTAGES

Residential land use was carefully allocated following neighborhood division, in line with UN-Habitat guidelines recommending 30–50% for residential areas to ensure balanced development.

MIXED USE LOCATIONS

Mixed-use zones were placed along the district edges to define boundaries through height while avoiding a continuous commercial strip. Their distribution ensures all residents have three 5-minute walking options: two edge zones and a central node.

TRANSPORTATION HUB LOCATION

The transportation hub was strategically aligned with the existing Amman Bus route on Madaba Street, highlighting the potential for a shuttle system that connects the district to wider Amman, including the newly opened BRT corridor along the service road.

CENTRAL PARK

The central park was positioned to integrate with the existing zoo, selected for its strategic location and better condition. In addition to planned enhancements, the park also serves as a green buffer zone to separate the district from the adjacent industrial area and prevent its further expansion.

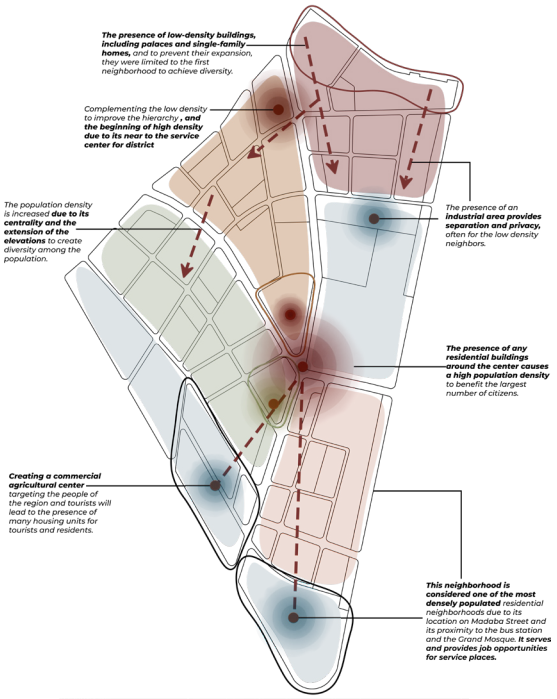
OFFICES LOCATION

Offices were strategically placed near the transportation hub to attract talent from both the district's shuttle system and Amman Bus users from other areas. Their proximity to the educational district node fosters strong interconnectivity, enabling the exchange of technical skills and collaboration between students and professionals.

04 Nodes Identification

Based on the neighborhood divisions and the locations of residential zones identified through the land use analysis, it became necessary to determine the optimal locations for local nodes. These nodes were planned to be within a walkable distance of approximately five minutes for all residents. In addition, a district-level node was designated as part of a polycentric planning approach. This strategy plays a key role in ensuring equal access to services, green spaces, retail areas, and educational facilities, supporting inclusivity and a well-balanced distribution of amenities across the area.

Density Calculations



NEIGHBORHOOD 1

Total Area 326000m2	50% LOW	50% MEDIUM
Total area	163000m2	163000m2
Area per person	120 m2	80 m2
Population	1358	2037
Total Population	3422	

NEIGHBORHOOD 2

Total Area 320000m2	20% HIGH	50% MEDIUM	30% LOW
Total area	64000m2	160000m2	960000m2
Area per person	50m2	80 m2	100 m2
Population	1280	2000	960
Total Population	4240		

NEIGHBORHOOD 3

Total Area 630000m2	60% HIGH	40% MEDIUM
Total area	378000m2	252000m2
Area per person	50m2	80 m2
Population	7560	3150
Total Population	10710	

NEIGHBORHOOD 4

Total Area 425000m2	80% HIGH	20% MEDIUM
Total area	340000m2	85000m2
Area per person	50m2	80 m2
Population	6800	1062
Total Population	7862	

Total Population
26,234

Program - Elements of Proposal

Neighborhood 1

Function	Area	Percentage
Residence B	125,755 m²	56.23%
Residence A	54,282 m²	24.22%
Trade Fairs w/ special provisions	19,594 m²	8.76%
Regular Commercial w/ special provisions	13,892 m²	6.21%
Node		
Mosque	1,375 m²	0.61%
Gardens	3,261 m²	1.45%
Schools & Public Buildings	3,446 m²	1.54%
Local commercial	2,135 m²	0.95%
Total: 223,639m²		

Neighborhood 2

Function	Area	Percentage
Private Accommodation	31,770 m²	11.06%
Residence A	23,964 m²	8.34%
Residence B	77,964 m²	27.14%
Residence C	47,036 m²	16.37%
Schools & Public Buildings (Education node)	38151 m²	13.28%
Regular Commercial w/ special provisions	28,083 m²	9.77%
Node		
Mosque	1,886 m²	0.65%
Gardens	32,066 m²	11.16%
Schools & Public Buildings	3,898 m²	1.35%
Local Commercial	2,408 m²	0.83%
Total: 287,226 m²		

Neighborhood 3

Function	Area	Percentage
Residence B	118,578 m²	34.3%
Residence C	154,039 m²	44.57%
Public Buildings	27,210 m²	7.87%
Regular Commercial w/ special provisions	31,424 m²	9.09%
Node		
Mosque	1,719 m²	0.49%
Gardens	4,335 m²	1.25%
School & Public Buildings	5,529 m²	1.59%
Local Commercial	2,750 m²	0.79%
Total: 345,584 m²		

Neighborhood 4

Function	Area	Percentage
Residence C	150,945 m²	53.24%
Residence B	43,857 m²	15.46%
Medium Industries w/ provision	8,298 m²	2.92%
Trade Fairs w/ provision	46,588 m²	16.43%
Regular Commercial w/ provision	12,895 m²	4.54%
Node		
Mosque	1,674 m²	0.59%
Gardens	6,019 m²	2.12%
School & Public Buildings	3,883 m²	1.36%
Local Commercial	9,359 m²	3.30%
Total: 283,518 m²		

Industrial neighborhood

Function	Area	Percentage
Light maintenance Requirements	166,896 m²	62.99%
Trade Fairs w/ special provisions	13,850 m²	5.22%
Public Buildings	4,024 m²	1.51%
Commercial offices w/ special provisions	8,317 m²	3.13%
Gardens	50,719 m²	19.14%
Total: 264,951 m²		

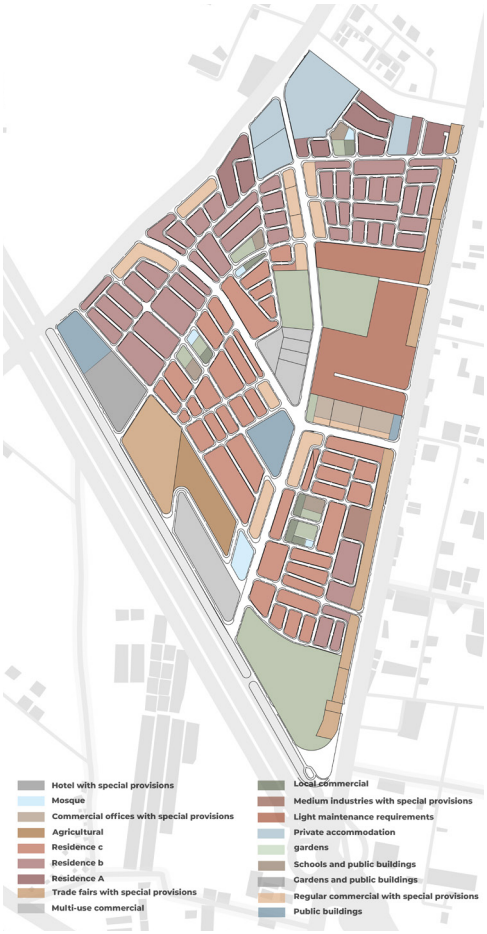
Annual Neighborhood

Functions	Area	Percentages
Public Buildings	27,211 m²	8.29%
Hotel w/ special provisions	37,495 m²	11.43%
Trade fairs w/ special provisions	57,722 m²	17.59%
Agricultural	38,068 m²	11.91%
Multi-Use commercial	46,575 m²	14.20%
Mosque	11,292 m²	3.44%
Gardens & Public buildings	108,618 m²	33.11%
Total: 327,981 m²		

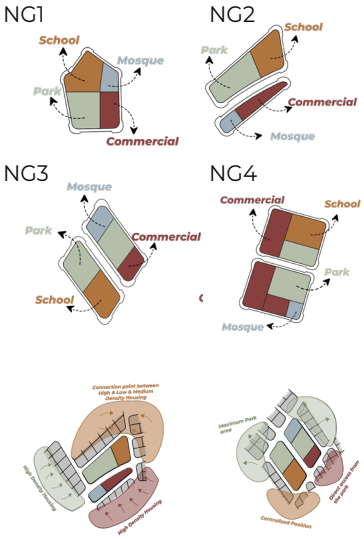
The proposed sizes and quantities in the program were derived from land use percentages based on the UN-Habitat sustainable recommendations for land use distribution within each neighborhood. These figures were further informed by a thorough understanding of the site's needs and requirements, including an assessment of the community's needs and identifying what is currently lacking within the site and its surrounding context. These programmatic figures are intended to be translated into zoning regulations, clearly defining each general land use zone and refining it into specific and detailed zoning classifications in alignment with the existing local regulations and zoning framework.

Methodolgy - Justification of Proposal

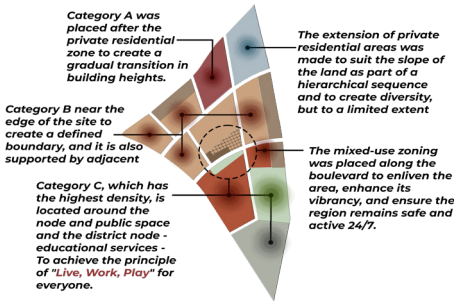
01 Zoning



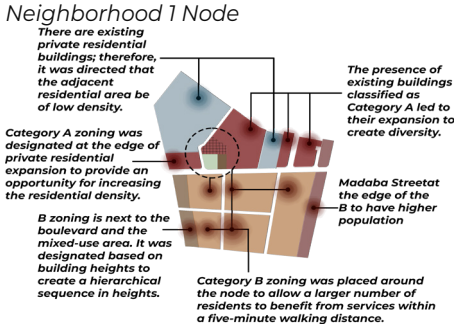
Density Justification



Neighborhood 2 Node



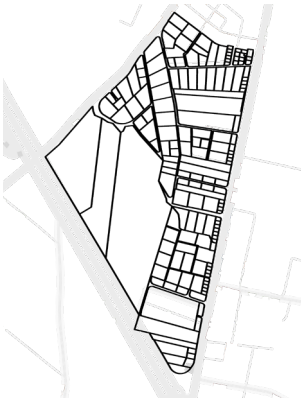
Neighborhood 1 Node



Based on land use and density calculations, and through a detailed study of Jordan's zoning regulations, residential zones (A, B, C) were selected to match the justified density percentages in each neighborhood, nodes were strategically organized based on locational justifications, with commercial uses zoned according to their accessibility and surrounding context. All governmental and institutional buildings were designated as public buildings, ensuring clarity in function and compliance with zoning classifications.

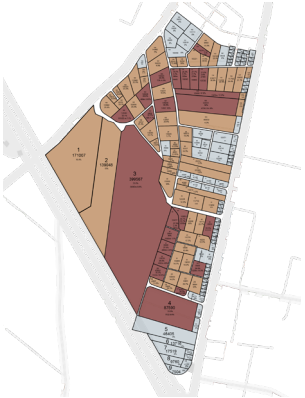
02 Plot Divisions

Lands Before



Lands After Subdivision

Land Ownership



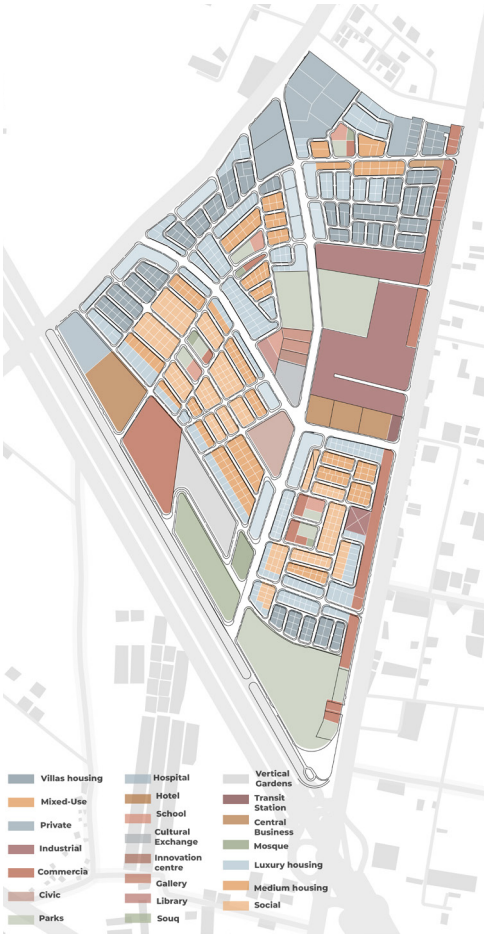
	Expropriated lands
Plot no	*22*
Plot total area	*9981*
Expropriation rate	*23.7%*
	Unchanged lands
Plot no	*39*
Plot total area	*7830*
Expropriation rate	*0.00%*
	Purchased lands
Plot no	*3*
Plot total area	*399567*
Expropriation rate	*33.6%*
Area of Purchase	*34362 m 8.6%*
	Purchase rate

In accordance with the planning and zoning regulations under the Greater Amman Municipality (GAM) standards, certain plots of land underwent expropriation of 25% or less. This percentage was determined based on proposed street layouts and adjustments to plot divisions to better align with the needs of the surrounding neighborhood. In some cases, more than 25% of the land was expropriated, with the additional percentage purchased in order to achieve a more suitable and functional design. Such instances were limited and occurred only when necessary. Other plots were left entirely unchanged—no expropriation or division modifications were made—as they already fit well within the intended design. Overall, the process aimed to preserve the original land divisions as much as possible, maintaining logical layouts while adhering to GAM's planning and zoning requirements.

Methodology

Plots were divided according to zoning guidelines and Jordan's minimum land size regulations, with slight increases above the minimum to introduce variation in plot sizes. Setting the minimum also enables flexibility in layout design, allowing plots to be easily combined to form larger, double-sized parcels where needed.

03 Housing Typology Distribution



Social Housing

Heights	6 Floors (18m)	Approx. Population/Plot	48
Plot size	1000m² - 3000m²		
Lands to Merge	2-4 Plots	Population/Building	
Grain	Coarse	4 Plots Res. B	180
Density	High	4 Plots Res. C	120
		3 Plots Res. B	120
		3 Plots Res. C	100
		2 Plots Res. B	80
		2 Plots Res. C	60

Middle Housing

Heights	4 Floors (16m)	Approx. Population/Plot	32
Plot size	500m² - 2250m²		
Lands to Merge	1-3 Plots	Population/Building	
Grain	Coarse	3 Plots Res. B	96
Density	High	3 Plots Res. C	64
		2 Plots Res. A	80
		2 Plots Res. B	64
		2 Plots Res. C	48
		1 Plots Res. A	32
		1 Plots Res. B	32
		1 Plots Res. C	32

Premium Apartments

Heights	3 Floors (12m)	Approx. Population/Plot	20
Plot size	500m² - 2250m²		
Lands to Merge	1-2 Plots	Population/Building	
Grain	Fine	2 Plots Res. A	44
	Medium	2 Plots Res. B	32
		1 Plots Res. A	20
		1 Plots Res. B	32
		1 Plots Res. C	12

Detached Homes (Villas)

Heights	2 Floors (6m)	Approx. Population/Plot	4
Plot size	500m² - 1000m²		
Lands to Merge	Fine	Population/Building	
Grain	1 Plots	1 Plots Res. A	4
Density	Low	1 Plots Res. B	4
		1 Plots Res. C	4

Royal Residences

Heights	2 Floors (6m)	Approx. Population/Plot	8
Plot size	5000m² - 8000m²		
Lands to Merge	1 Plot	Population/Building	
Grain	Fine	Private Housing	8
Density	Low		

Housing Combinations

Combinations that achieve proposed density in each neighborhod (per plot)

Neighborhood 1 (3,422 Population)

Standard Apartments	Premium Apartments	Detached Homes	Royal Res.
24	34	76	7
17%	24%	53%	4%

Neighborhood 2 (4,240 Population)

Standard Apartments	Premium Apartments	Detached Homes	Royal Res.
41	75	32	2
27%	50%	21%	1%

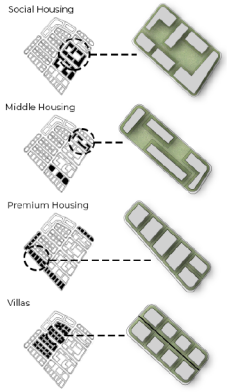
Neighborhood 3 (10,710 Population)

Social Housing	Standard Apartments	Premium Apartments	Detached Homes
106	79	52	35
38%	29%	19%	12%

Neighborhood 4 (7,862 Population)

Social Housing	Standard Apartments	Premium Apartments	Detached Homes
59	36	97	39
25%	15%	41%	16%

Housing Types Grain



The inclusion of diverse housing options across the site creates a rich and varied urban grain. This approach enhances spatial diversity, accommodates different income groups and household sizes, and fosters a more inclusive and adaptable community structure.

1) Based on Contextual Density

Our selection and classification of housing typologies across neighborhoods were guided by the predetermined density levels—high, medium, or low—assigned to each area. These density types were not arbitrarily chosen, but rather carefully justified through comprehensive contextual, urban, and demographic analyses, ensuring that planning decisions are rooted in real local needs and capacities.
Based on each typology number of residents/plot, calculations were made to find the best combinations that make sure there is a diverse typology of housing, and that achieves already determined density.

2) Typological Diversity and Social Inclusivity

To promote social equity and avoid spatial segregation, a balanced mix of housing typologies was ensured within each neighborhood. No single housing type was allowed to exceed 50% of the total residential area, maintaining a diverse urban fabric that encourages social integration and economic diversity. "A single housing tenure or typology should not exceed 50% of the total residential area in a neighborhood. A balanced mix of tenure types and housing forms supports social diversity, economic inclusion, and functional urban resilience." — UN-Habitat

3) Proximity-Based Density Strategy

higher-density buildings (like social housing, and standard apartments in our case based on typology calculations), those accommodating more residents—were strategically placed closer to the neighborhood node. This approach aims to maximize accessibility to daily services by housing more people within a shorter walking distance. Although the entire neighborhood falls within a 5-minute walk to the node, this spatial prioritization further enhances walkability, efficiency, and service utilization.

4) Edge Definition and Urban Grain Strategy

To create a defined and contextual neighborhood edge, lower-rise buildings with shorter heights were positioned along the perimeter. Building masses were deliberately spaced to soften the boundary and maintain a clear transition with adjacent areas. This strategy ensures a balanced interface between the neighborhood and its surroundings, while preserving visual openness and respecting the urban fabric.

04 Housing Layout

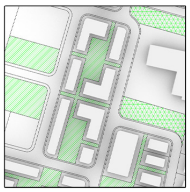
Plots before Merging

No pedestrian path

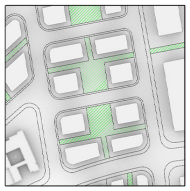
Plots after Merging

With pedestrian path

Blocks Shared Space



Block 1
Social Housing Block



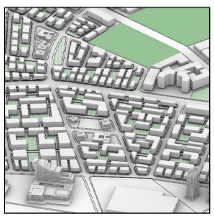
Block 2
Standard Apart. Block

Each neighborhood features a pedestrian network that connects buildings and encourages walkability. While not linking neighborhoods, these paths support internal movement and community interaction. Neighborhood 2 connects directly to central public parks, promoting access to green space. Overall, the system reduces car use and supports sustainability.

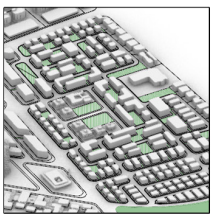
Heights Hierarchy

Neighborhood 1

Neighborhood 2



Neighborhood 3



Neighborhood 4

Low-rise buildings with wider spacing were positioned along the perimeter. This strategy improves natural ventilation, ensures better sunlight access for buildings and open spaces, and reduces solar obstruction at the edges. By allowing air and light to move more freely, the design helps mitigate the urban heat island effect, supports passive cooling, and fosters a healthier microclimate.

05 Public Transportation

Based on the identified building typologies, node locations, and the existing public transportation system, a proposed in-district shuttle bus system was developed, including the placement of a central transportation hub, bus trail, and stops. These were carefully planned using real-life justifications to ensure efficient connectivity, accessibility, and integration with both neighborhood functions and the wider urban network.

Nodes Shuttle Route

The Node Shuttle Bus Route is strategically designed to serve residents of the district by providing efficient transportation between key urban nodes, enhancing connectivity and accessibility throughout the area.

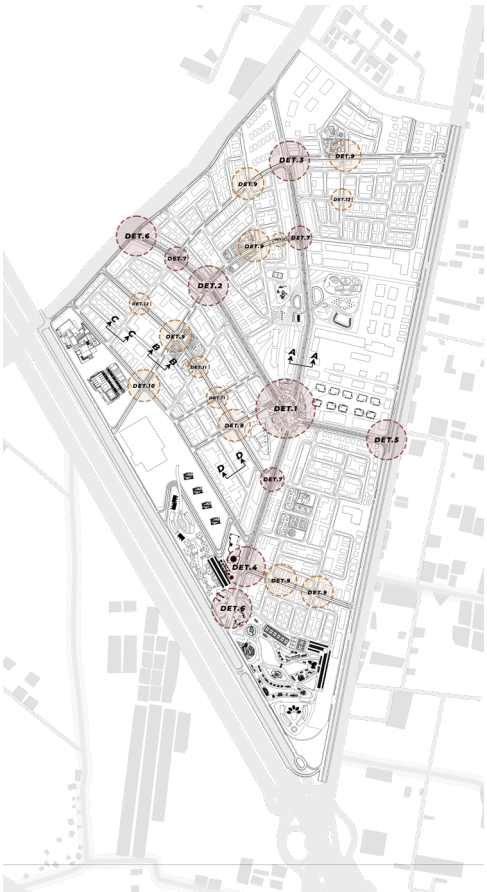
Service Shuttle Route

The Service Bus Route is designed to serve the residents of the district by circulating along its edges, connecting all available service points and ensuring convenient access to key facilities.

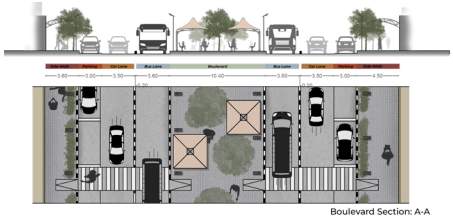
Existing Amman Bus & BRT

While Amman's public buses and BRT system are intended to serve the wider population, they are not accessible to all residents within the district. To address this gap, the Node Route and Service Route were introduced to provide localized, inclusive transportation that connects residents to key destinations and existing transit networks.

06 Streets Details

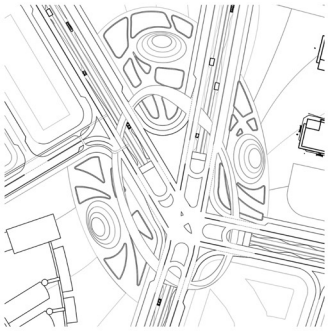


Street Sections



Lighting System

Street Details



Detail 1 - Central Intersection

Detail 2

Detail 3

Detail 4

Detail 5

Detail 6

Detail 7

Detail 8

Detail 9

Detail 10

Detail 11

Detail 12

The street details map presents a comprehensive view of the road components, including vehicle lanes, walkways, dedicated shuttle bus lanes, and pedestrian boulevards. It also highlights key intersections with their elements, such as turning lanes, crossings, and central islands, ensuring clarity in circulation, safety, and multimodal integration.

MasterPlan

Priniciples for Green & Thriving Neighborhoods

01 Complete Neighborhoods

Neighborhood planning emphasized compact, mixed-use development, with each neighborhood designed to include its own localized service node that provides essential amenities. These nodes integrate a variety of functions, including commercial, recreational, educational and spiritual uses, ensuring accessibility to daily needs within walking distance. The distribution of uses is thoughtfully planned to respect the cultural diversity of the community while fostering vibrant, inclusive environments.

The design of the nodes, featuring pop-up shops and designated activity zones, promoted active ground floors by sustaining continuous pedestrian movement throughout the day. Parks, plazas, and schools were conceived as multipurpose spaces, adaptable to various functions at different times.

Connectivity between nodes followed a polycentric approach, supported by a shuttle bus system that ensured accessibility across the district. This integration not only reinforced activity but also enhanced natural surveillance, contributing to reduced crime rates and an overall increase in community well-being.

Proximity Map

- GreenLined Plazas
- Enhancing Biodiversity
- Sustainable Measures
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- Transportation
- Businesses
- Kiosk/Startup

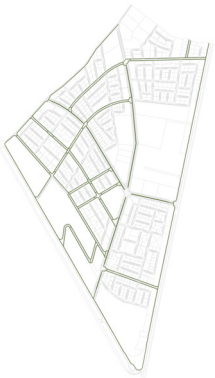
02 People Centered Street and Low Carbon Mobility

All streets were designed to prioritize cycling and walking as the preferred modes of transport. Techniques used include shortening commute distances to essential services, reclaiming street space for pedestrians (as proposed in the planned GAM proposal), increasing the number of street crossings and pedestrian bridges, and developing a connected pedestrian network. Well-structured pedestrian paths were integrated between residential buildings, while dedicated cycle lanes were provided with continuous links across all street hierarchies. Additionally, narrower streets were implemented to naturally restrict vehicle speeds and enhance safety for non-motorized users.

The focus on creating a pedestrian- and cycling-friendly district reduces the reliance on private vehicles. This shift encourages active use of the proposed shuttle bus system, complementing the existing BRT and Amman Bus networks. As a result, introducing zero-carbon electric buses can play a significant role in reducing emissions. Additionally, providing underground parking in both public and residential areas facilitates electric vehicle charging and encourages residents to opt for electric cars.

Pedestrian Paths

Cyclist Paths



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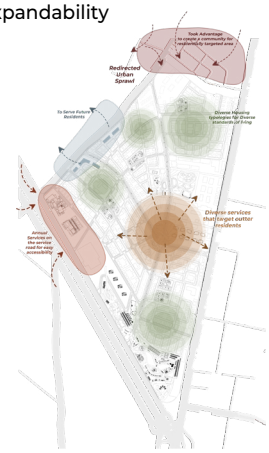
03 Smart and Connected Places

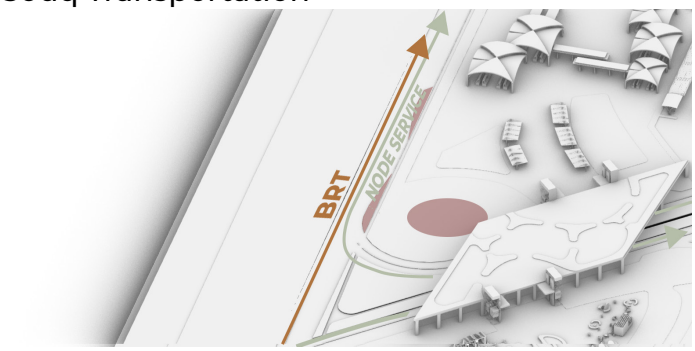
The proposed shuttle buses enhance accessibility within the district itself, ensuring that all areas are well-connected and easily reachable for everyone. This system is further strengthened by its integration with the new BRT station planned for the site, as well as a transportation hub that connects the district to the existing Amman Bus network. These new links significantly improve the district's connectivity to the broader city of Amman, facilitating longer-distance trips and supporting a more cohesive urban mobility system.

District shuttle buses can be integrated with the VisionCityBus smartphone app provided by GAM, which already supports both the BRT and Amman Bus systems. The app offers real-time information on bus schedules, stop locations, route guidance, and enables smart payments. Wi-Fi connectivity is already available on existing buses and at their stations, and this infrastructure can be easily expanded using new satellite Wi-Fi technologies to enhance coverage and reliability across the district.

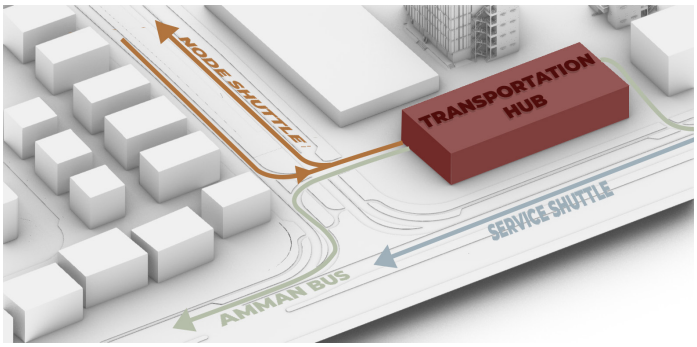
Expandability



Souq Transportation



Transportation Hub



04 A place for everyone

Parks were strategically positioned to be inclusive of all social groups, centrally located among various housing typologies, including social housing. They were thoughtfully designed to cater to all age groups through a wide range of activities: children can enjoy amusement areas, playgrounds, and a zoo; youth have access to sports facilities and outdoor gyms; the elderly are accommodated with comfortable seating areas and flat, accessible surfaces. Additionally, the parks offer family-friendly spaces that promote cultural exchange, such as galleries, theatres, and food courts.

Neighborhoods are designed so that key nodes are easily accessible to all residents. These nodes serve as community hubs, offering inclusive activities for different age groups. They include retail spaces for adults, parks designed for all age groups, schools for children, and mosques that function not only as places of worship but also as social gathering spaces.

Nodes Details

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05 Green Energy and Buildings

In accordance with Jordanian building regulations, all residential buildings are required to include underground parking, a mandate that not only optimizes land use and preserves open green spaces but also contributes to green building principles by reducing surface heat islands; furthermore, underground parking provides an ideal environment for installing and operating electric vehicle charging stations, enhancing the shift toward sustainable mobility.

The building layouts were designed with a linear configuration, ensuring that all units have outward-facing openings. This approach maximizes access to natural light and enables effective cross ventilation, reducing the need for artificial lighting and mechanical cooling. By prioritizing these passive design strategies, the development promotes energy efficiency and enhances indoor comfort for residents.

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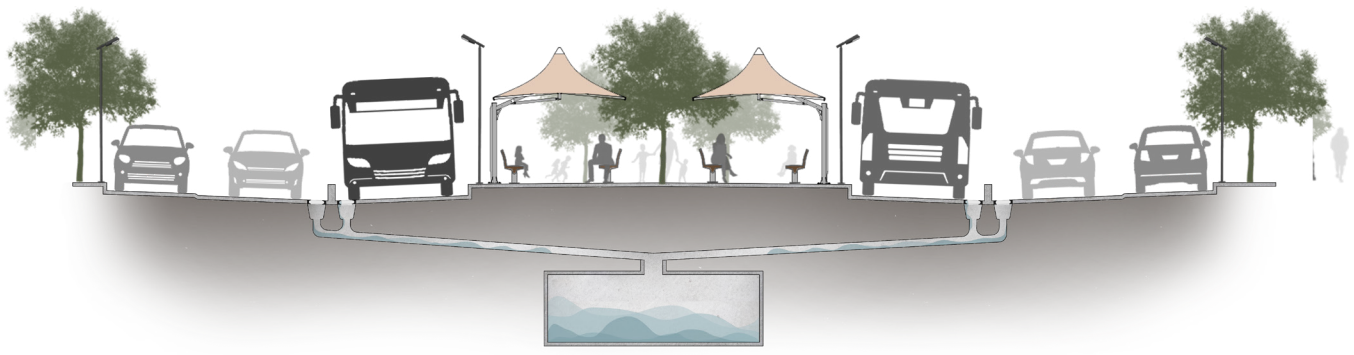
06 Circular Resources

The design incorporates a water harvesting system that channels rainwater drainage toward the existing box culvert, which will be preserved and paved over as part of the site development. This approach supports circular resource management by reusing existing infrastructure and optimizing natural water flow. Additionally, water canopies integrated throughout the site will collect rainwater, contributing to the same harvesting system and promoting sustainable water use for landscape irrigation and other non-potable needs.

Vertical farms reuse and filter greywater from nearby buildings for irrigation, reducing freshwater consumption and promoting sustainable, closed-loop water management. This system supports local food production while minimizing waste.

Parks are equipped with clearly labeled recycling bins to encourage waste separation and promote environmental awareness. These bins support proper disposal of plastics, paper, and organic waste, contributing to the district's sustainability goals.



07 Green Spaces, Urban Nature, and Climate Resilience

Based on population densities and area distribution, shared spaces were allocated at multiple scales to encourage social interaction and accommodate context-appropriate facilities. These include district-level parks, neighborhood node parks, and block-level communal spaces, each varying in size and program to reflect the needs and dynamics of their respective scales.

Water surfaces in parks serve as natural cooling elements through evaporative cooling, where heat is absorbed as water evaporates, lowering the surrounding temperature and enhancing outdoor comfort. Complementing this, the use of light-colored pavements and surfaces minimizes heat absorption by reflecting more sunlight, helping to keep public spaces cooler. Additionally, green surfaces such as lawns, trees, and planted areas play a crucial role in mitigating the urban heat island effect by providing shade, releasing moisture through transpiration, and improving air quality. Together, these strategies create cooler, more sustainable park environments within urban settings.

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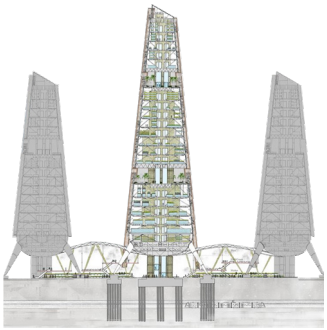
Green Areas

The vertical garden serves as a green compensation for the horizontal expansion of agricultural lands, preserving and enhancing agricultural activity within a limited footprint. This approach not only sustains existing farmers but also creates opportunities for new ones by maximizing vertical space. The system integrates advanced digital technologies, including solar-powered systems, water surveillance, and energy generation through a rooftop turbine. All components are connected through Internet of Things (IoT) networks, enabling efficient monitoring, resource optimization, and smart agricultural management.

Verical Farms



08 Green Economy

The inclusion of a business park and an industrial zone within the design is a strategic response to the site's unique position as a primary entry point into Amman, located along a major corridor connecting the airport to the city. By clustering medium scale businesses and office spaces in one zone, making it an ideal destination for corporate headquarters, regional offices, and business services. This move reinforces the identity of the district as Amman's southern gateway while offering a convenient first stop for professionals arriving from the airport.

Mini businesses and startups thrive within the educational district, which offers training, and promotes entrepreneurship. This supports local job creation, boosts education levels, and reduces commute distances by anchoring opportunities within the district. These mini businesses include designated kiosks located along plazas and boulevards, offering snacks, groceries, accessories, and toys. They add vibrancy to the district, support local entrepreneurs, and enhance everyday convenience for both residents and visitors.

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The souq was strategically positioned directly in front of the vertical farms along the main façade facing Airport Street, serving as a vital link between residents and visitors. Its location fosters local economic activity by facilitating the sale of agricultural products cultivated within the vertical farms, establishing the site as a vibrant gateway to Amman.

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