



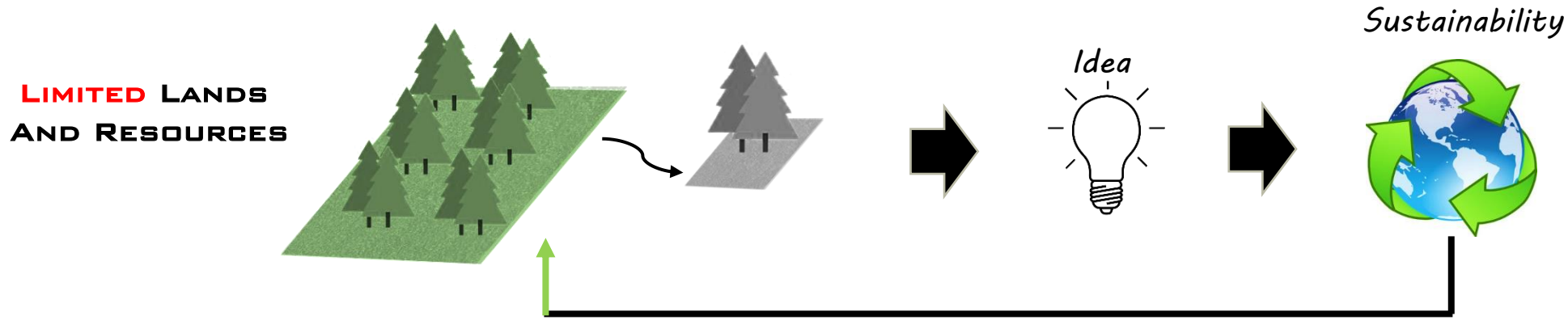
SUSTAINABLE HOUSING **PLANNING**



GRADUATION **P**ROJECT
URBAN **P**LANNING **D**EPARTMENT

PRESENTED BY
AMIR ABUAISHEH

NATIONAL PALESTINIAN HOUSING POLICIES



Their Vision: Sustainable human settlements with appropriate housing for all Palestinian families

TARGET GROUP : MIDDLE CLASS

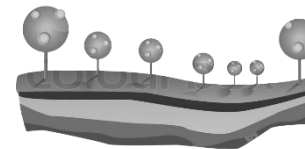
WHERE ?



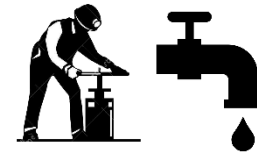
IN CITIES !! WHY?!



COSTS



30% - 40%

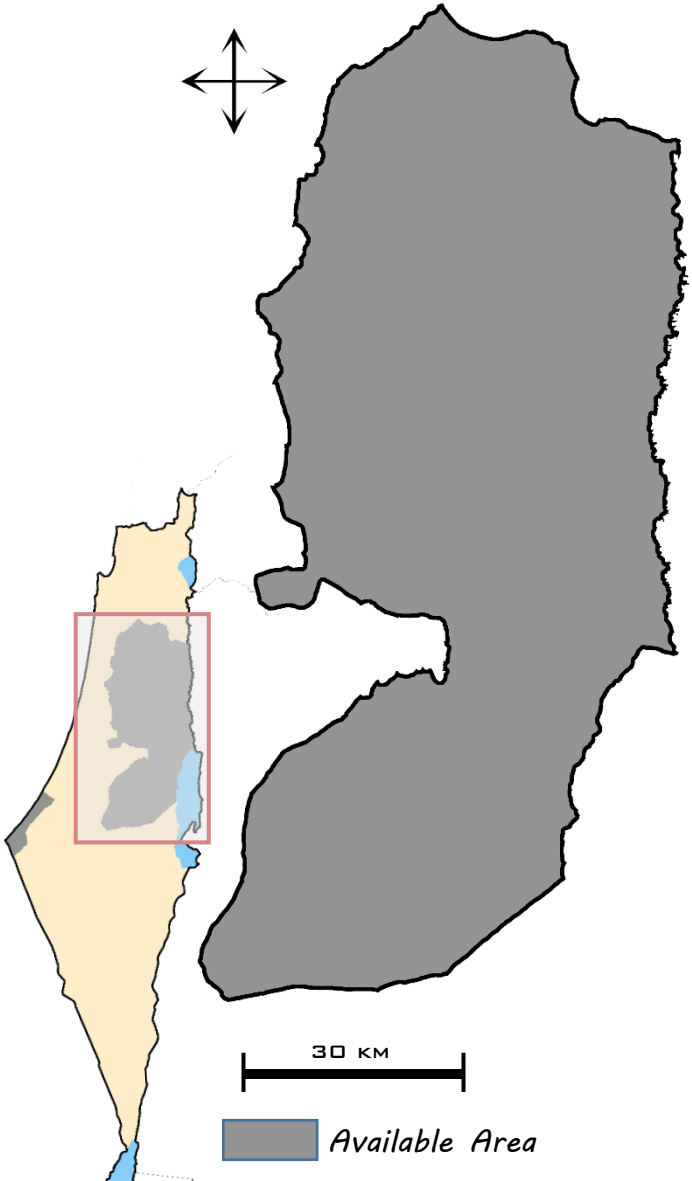


10% - 15%

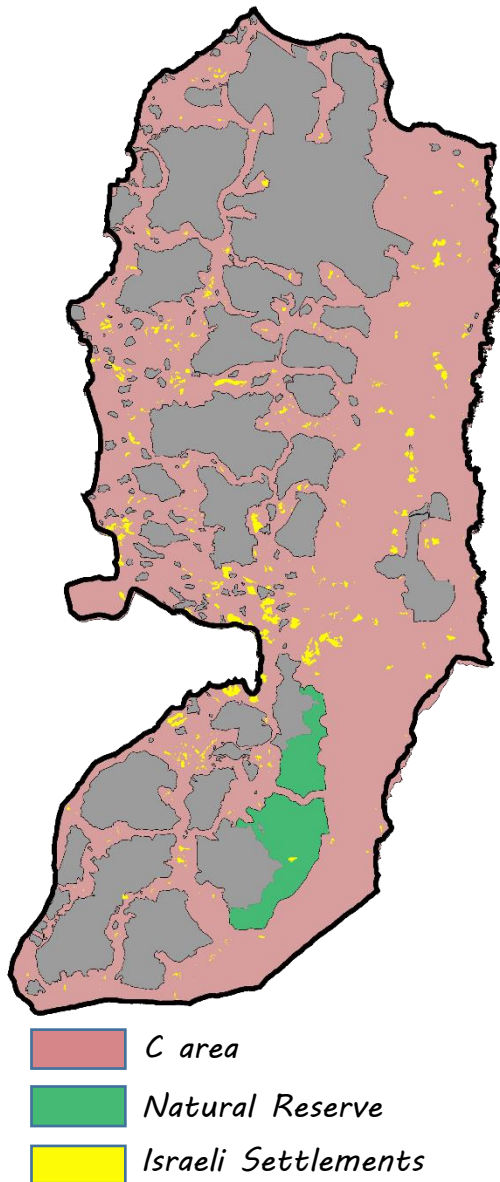
50%

 SITE SELECTION PROCESS

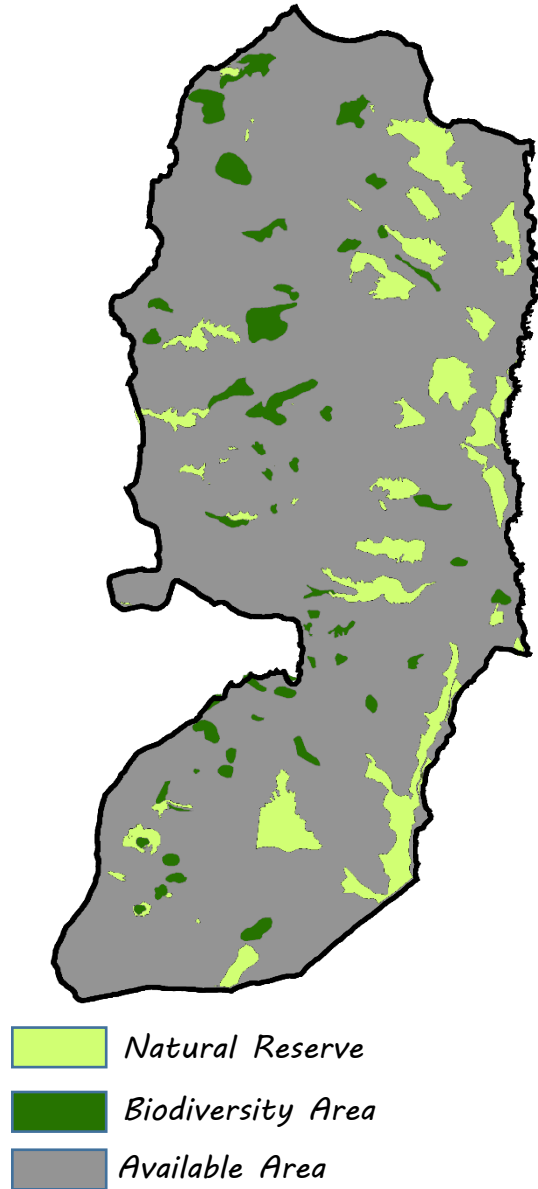
West Bank Borders



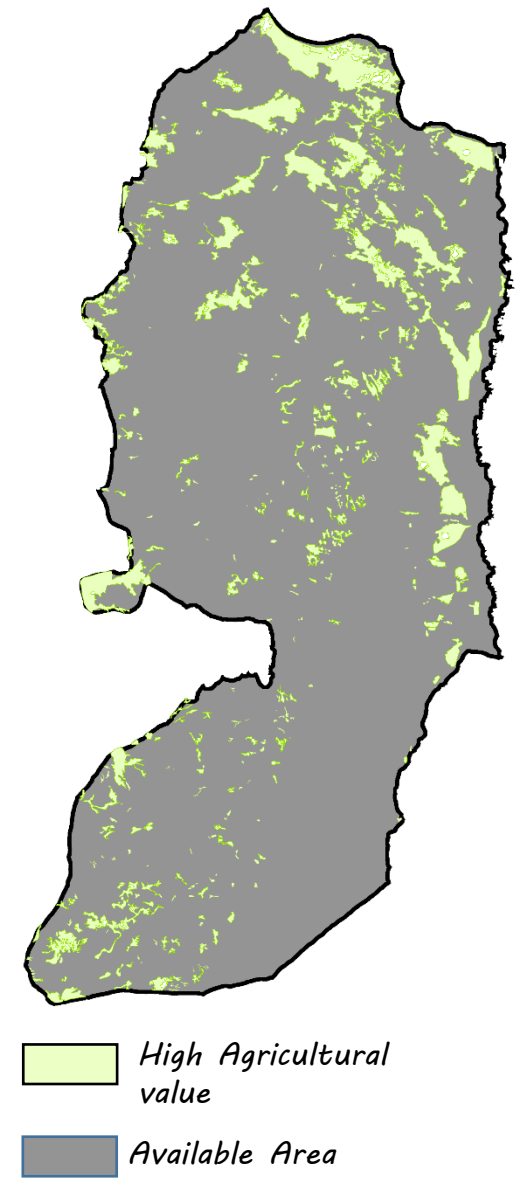
Political Classification



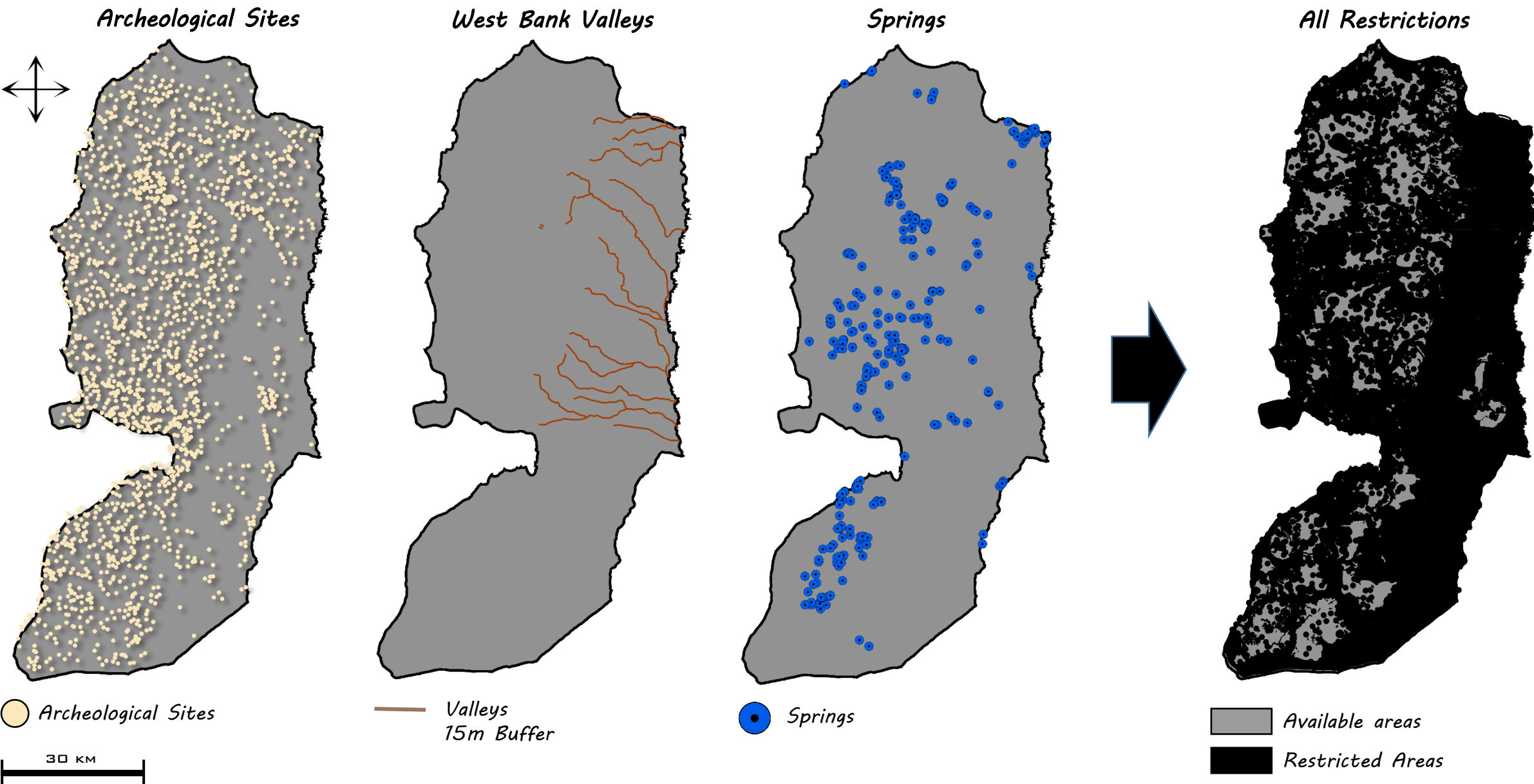
Spatial protection plan



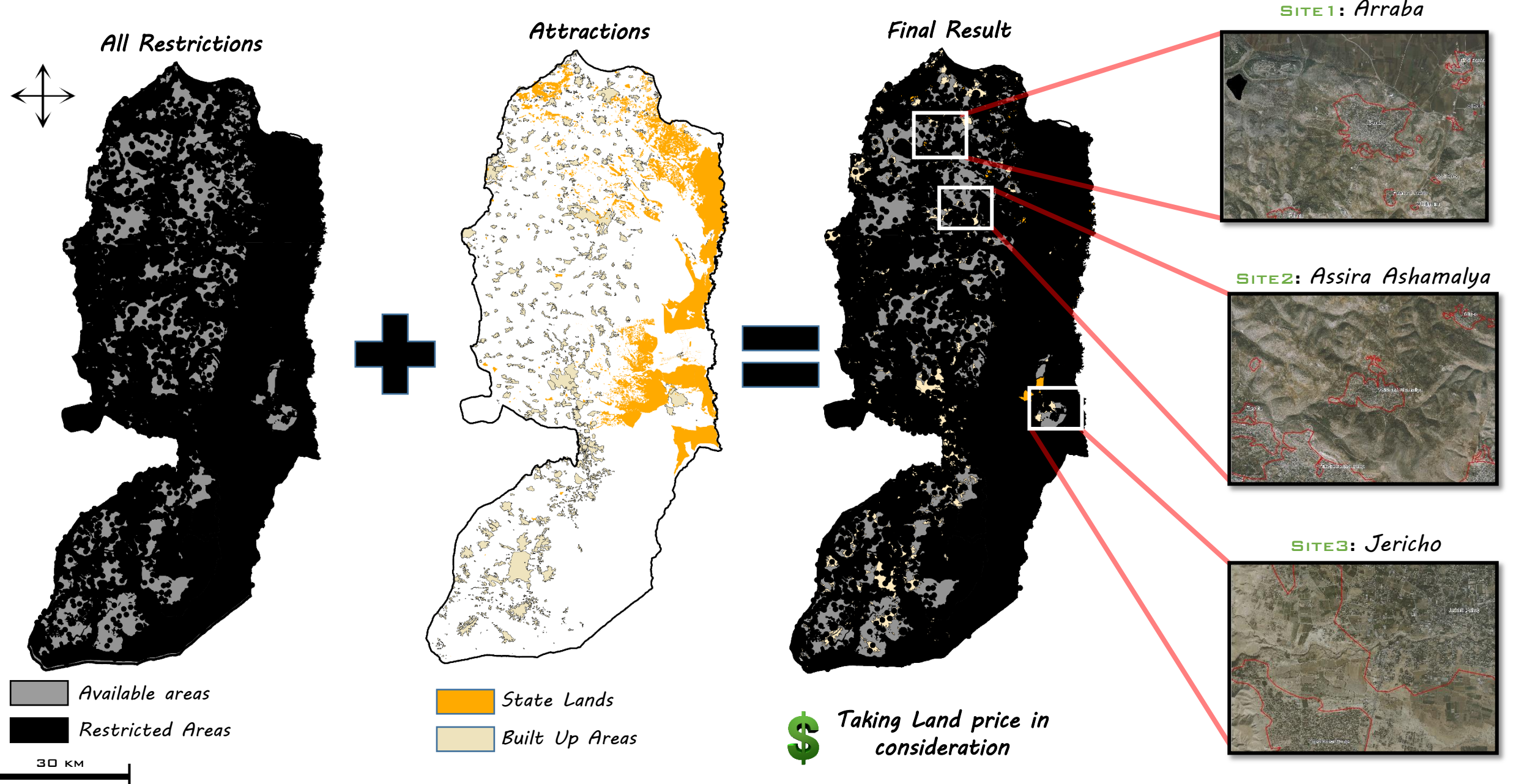
Agriculture



 SITE SELECTION PROCESS

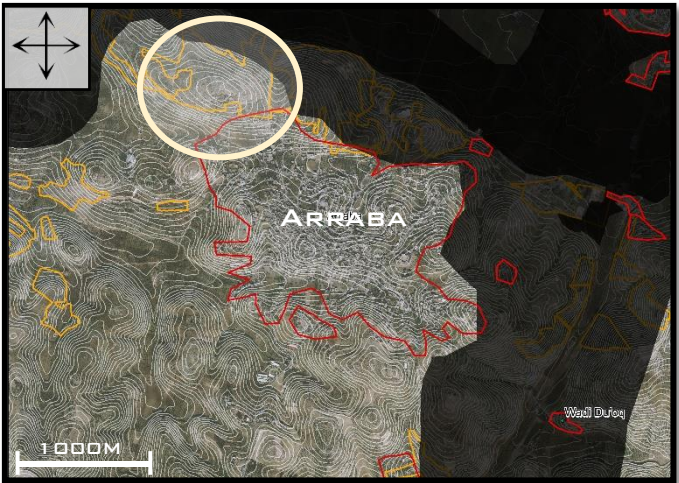


 SITE SELECTION PROCESS



SITE SELECTION PROCESS

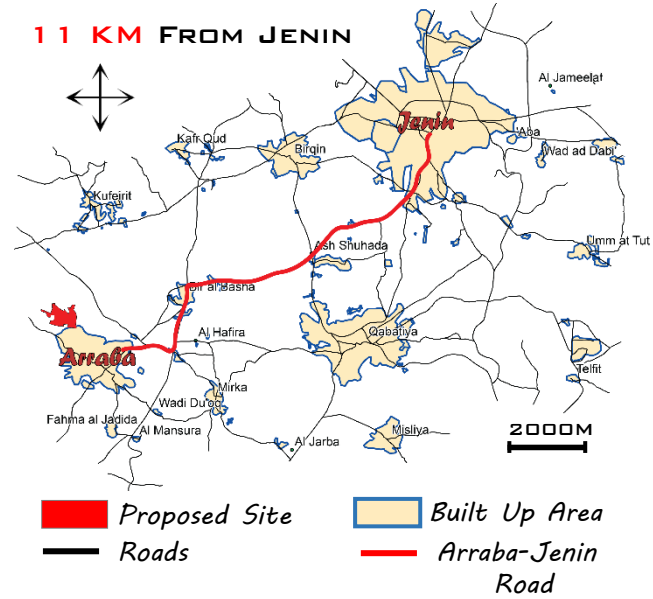
SITE 1: Arraba



- State Lands
- Proposed Site
- Restricted Area
- Built Up Area

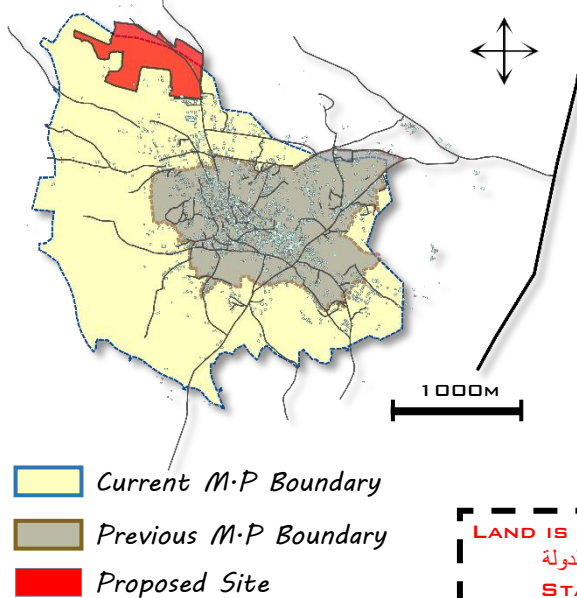


11 KM FROM JENIN



- Proposed Site
- Roads
- Built Up Area
- Arraba-Jenin Road

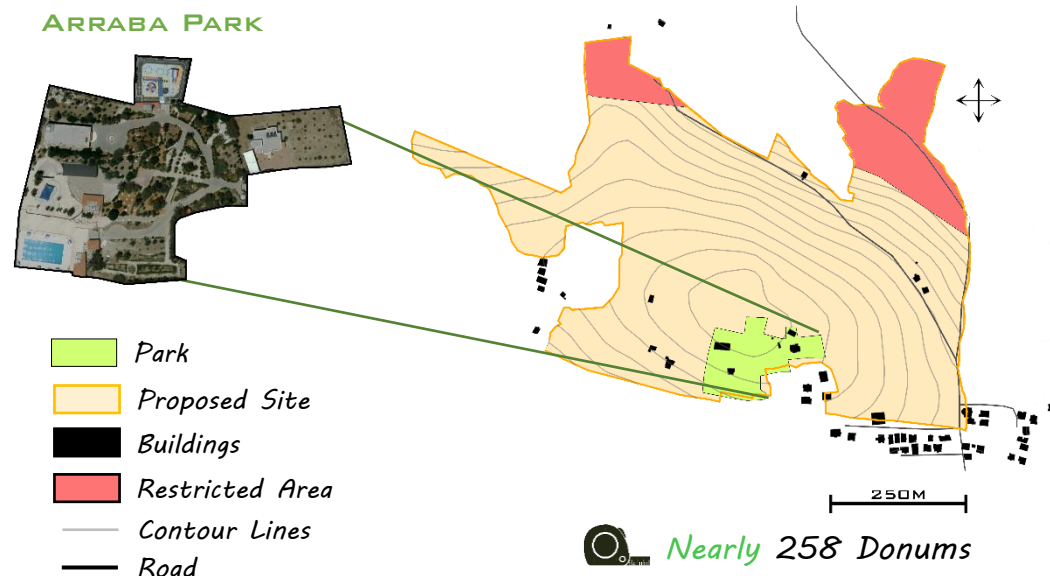
Arraba Master Plan



- Current M-P Boundary
- Previous M-P Boundary
- Proposed Site

LAND IS CLASSIFIED AS
منطقة خزينة الدولة
STATE LAND

ARRABA PARK



- Park
- Proposed Site
- Buildings
- Restricted Area
- Contour Lines
- Road

Nearly 258 Donums

Criteria	Weight (1-5)	Criteria Value	Rank (1-5)	Total
Slope	3	(25%)	2	6
Transportation	5	-----	2	10
Distance to a main road	3	1.5 km	2	6
Distance to the nearest community	5	100 m	4	20
Distance to services Schools, Health	3	1 Km	3	9
Infrastructure availability	5	-----	3	15
Land price	5	0	5	25
Not damaging Natural resources	4	-----	4	16
Security	4	-----	3	12
Social Acceptance	5	-----	3	15
Total				134/210

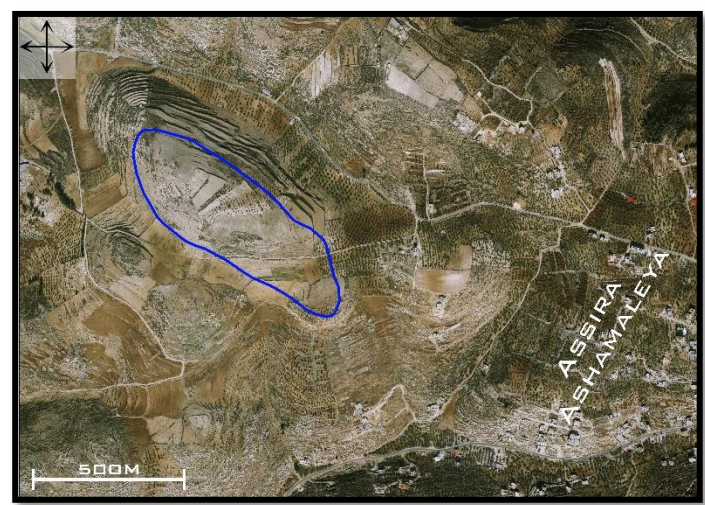
SUSTAINABLE HOUSING

SITE SELECTION PROCESS

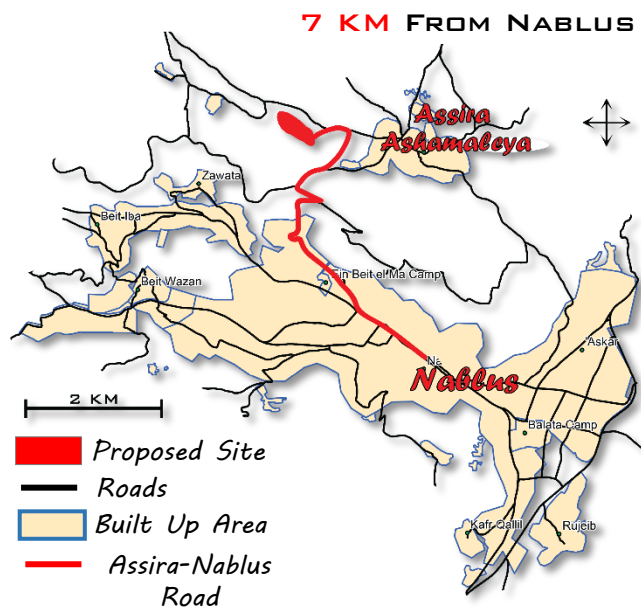
SITE2: Assira Ashamalya



- State Lands
- Restricted Area
- Proposed Site
- Built Up Area

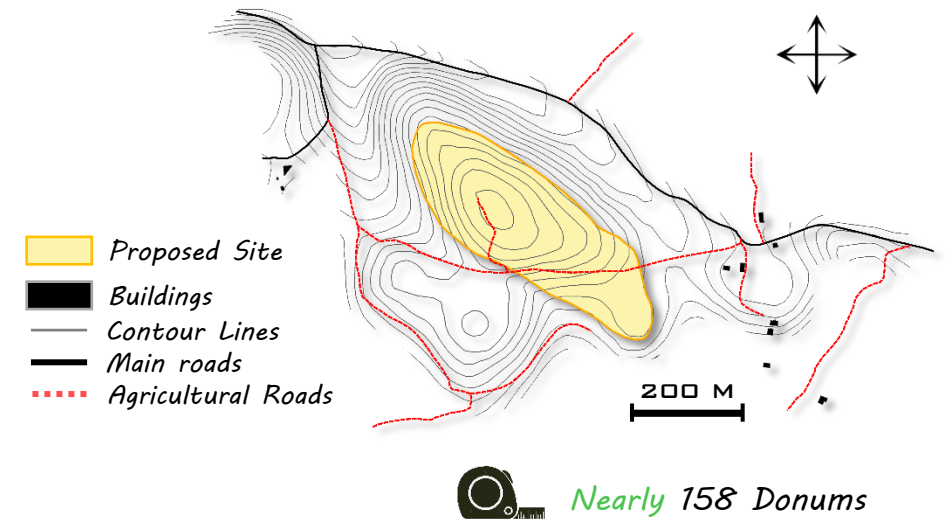


- Proposed Site



- Master plan boundary
- Proposed Site

LAND IS CLASSIFIED AS RESIDENTIAL A



- Proposed Site
- Buildings
- Contour Lines
- Main roads
- Agricultural Roads

Nearly 158 Donums

Criteria	Weight (1-5)	Criteria Value	Rank (1-5)	Total
Slope	3	12%	4	12
Transportation	5	-----	1	5
Distance to a main road	3	1.7 KM	2	6
Distance to the nearest community	5	1.7 KM	2	10
Distance to services Schools, Health	3	2 KM	1	3
Infrastructure availability	5	-----	2	10
Land price	5	15 JOD/M ²	4	20
Not damaging Natural resources	4	-----	4	16
Security	4	-----	4	16
Social Acceptance	5	-----	4	20
Total				118/210

SUSTAINABLE HOUSING

SITE SELECTION PROCESS

SITE3: Jericho

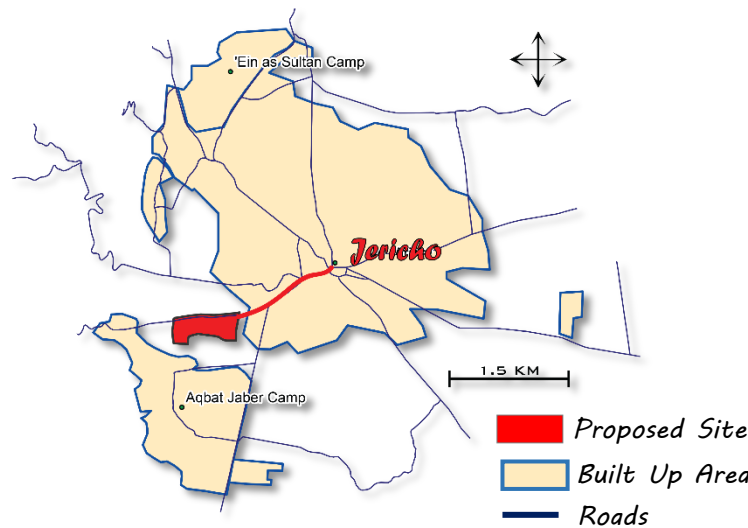


- State Lands
- Restricted Area
- Proposed Site
- Built Up Area



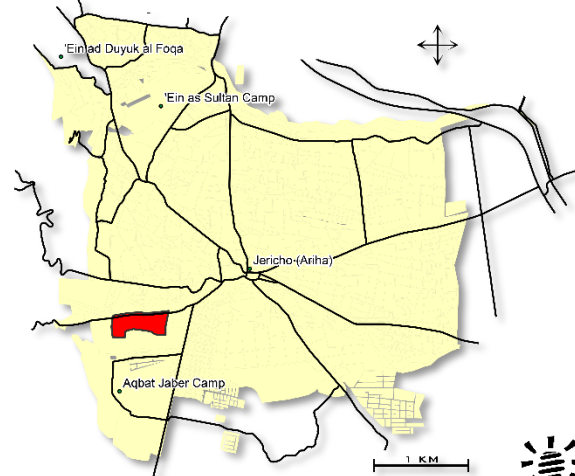
- Proposed Site

1.5 KM FROM CITY CENTER



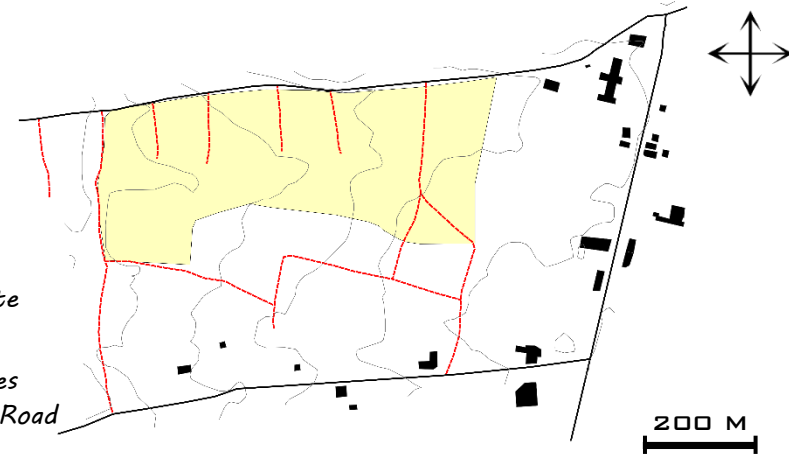
- Proposed Site
- Built Up Area
- Roads

Jericho Master Plan



- Master plan boundary
- Proposed Site

LAND IS CLASSIFIED AS
RESIDENTIAL A



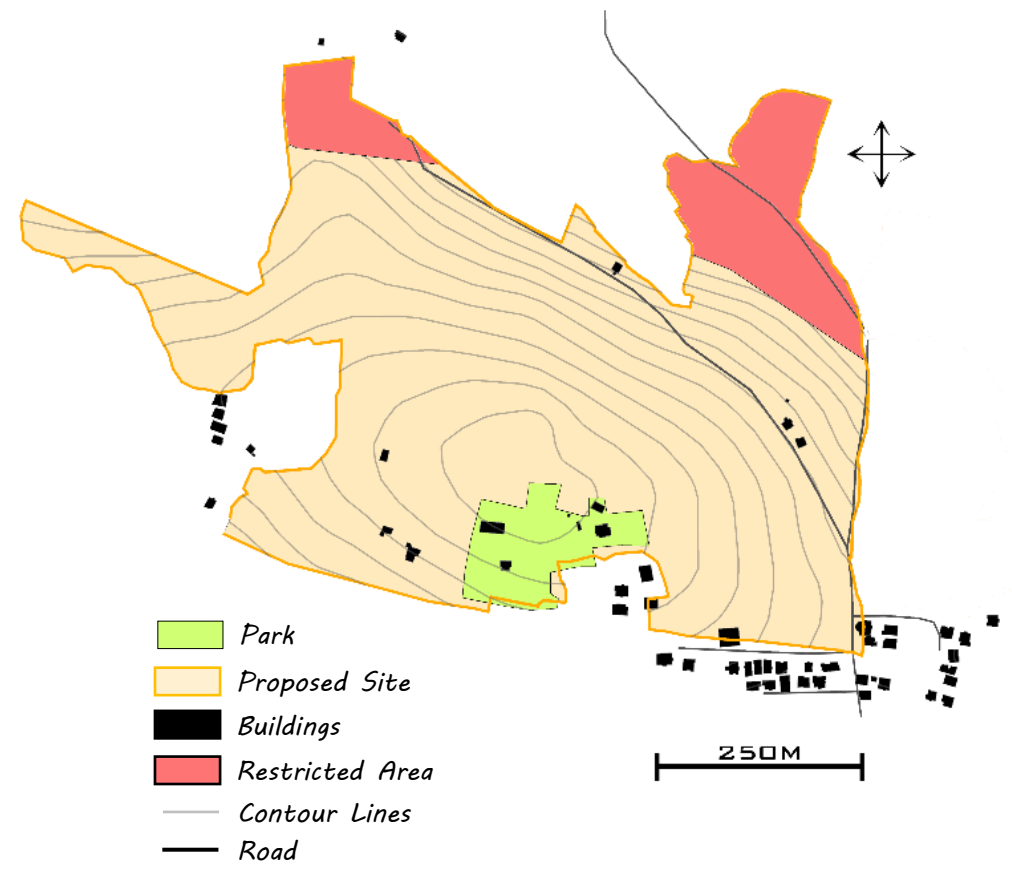
- Proposed Site
- Buildings
- Contour Lines
- Agricultural Road
- Main Road




Nearly 245 Donums

Criteria	Weight (1-5)	Criteria Value	Rank (1-5)	Total
Slope	3	2%	5	15
Transportation	5	-----	3	15
Distance to a main road	3	350 M	4	12
Distance to the nearest community	5	500 M	3	15
Distance to services Schools, Health	3	0.4 - 1 KM	3	9
Infrastructure availability	5	-----	3	15
Land price	5	70 JOD/M ²	2	10
Not damaging Natural resources	4	-----	2	8
Security	4	-----	5	20
Social Acceptance	5	-----	1	5
Total				124/210

 SITE SELECTION RESULT

SITE 1: ARRABA

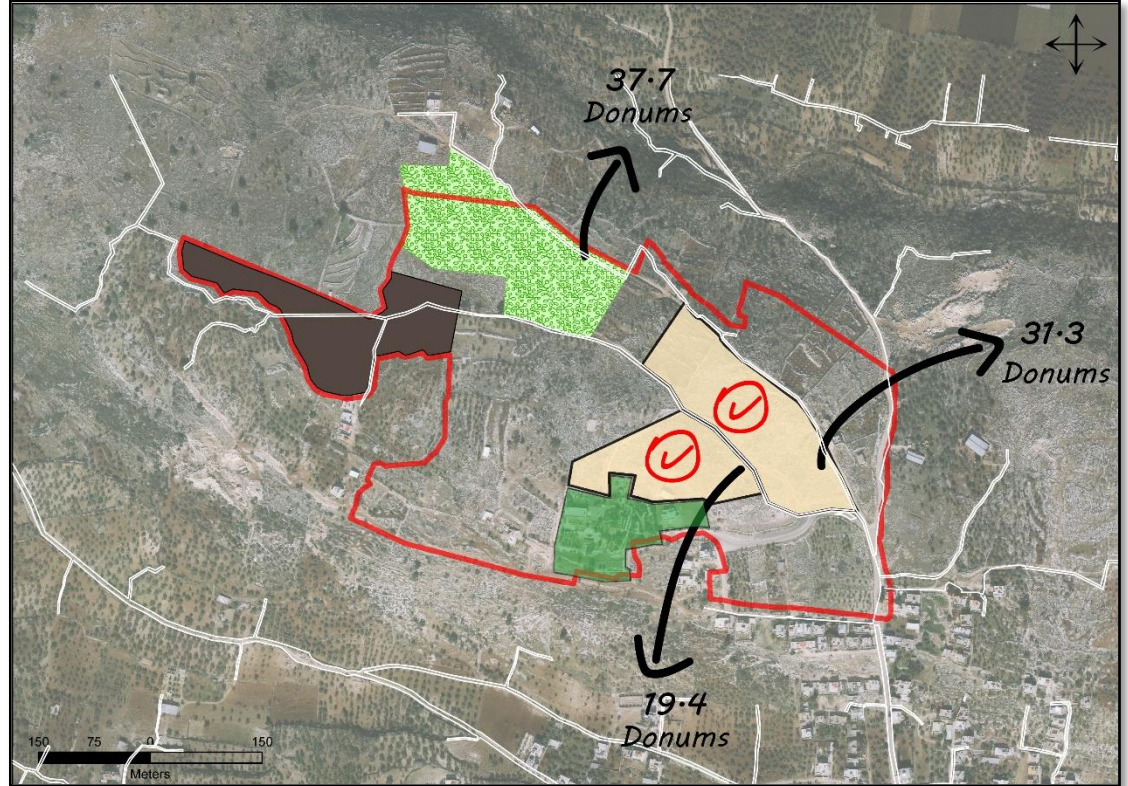







-  Buildings
-  Land Border
-  Road



-  Buildings
-  Land Border
-  Road

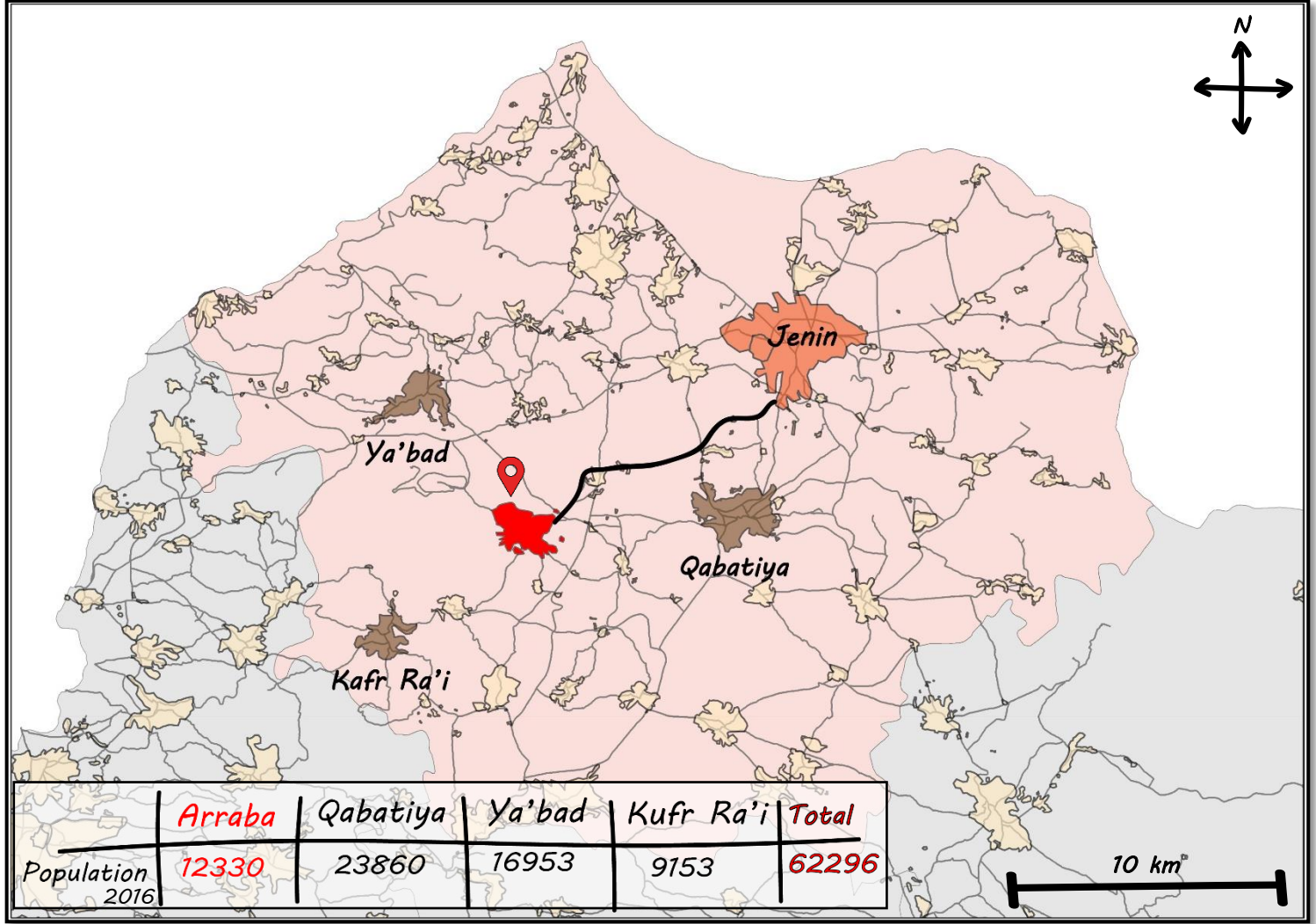
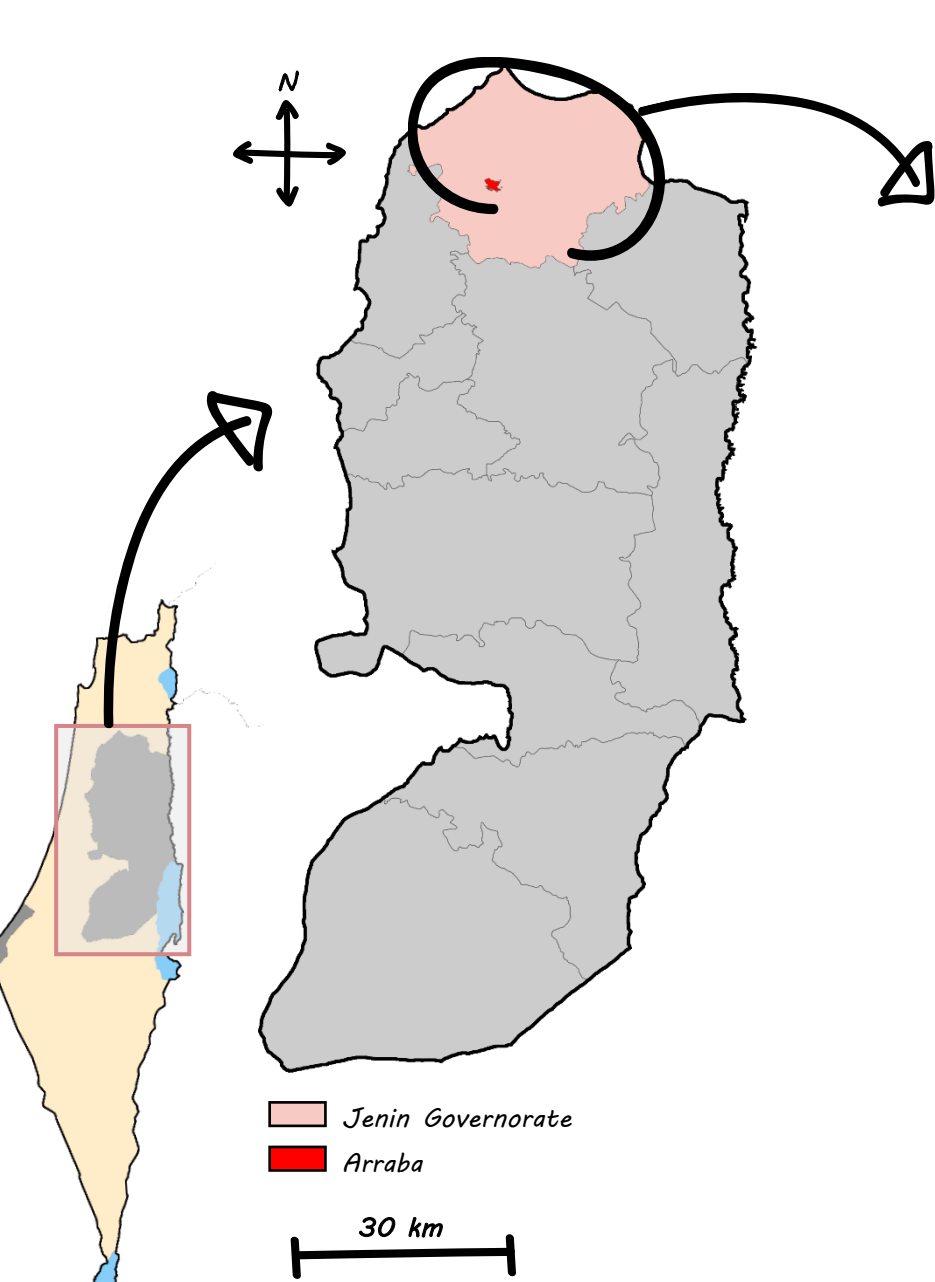
258 Donums



-  Remaining Area
-  Proposed afforestation area
-  Selected Site
-  Park and Kindergarten
-  Proposed agricultural school

50.7 Donums

- Closer to Arraba
- Larger Area
- The other part is used for planting trees

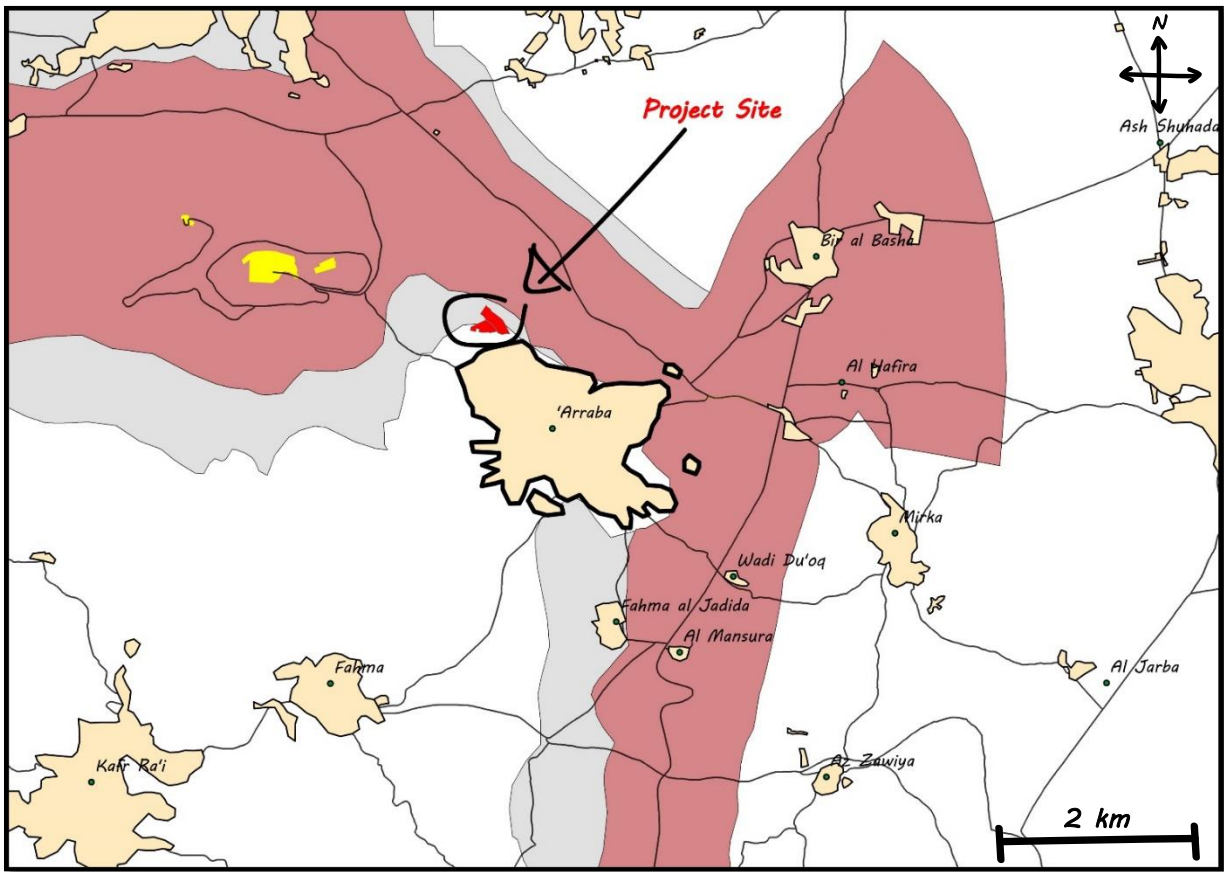








	Arraba	Qabatiya	Ya'bad	Kufr Ra'i	Total
Population 2016	12330	23860	16953	9153	62296

- Jenin Governorate
- Arraba
- Jenin City
- Built up area
- Project Site

Distance	Jenin	Ya'bad	Qabatiya	Kufr Ra'i
Arraba	11Km	7Km	6Km	6.5Km

 SITE ANALYSIS – POLITICAL CLASSIFICATIONS



-  C Area
-  B Area
-  A Area
-  Settlements
-  Built up area
-  Project Site

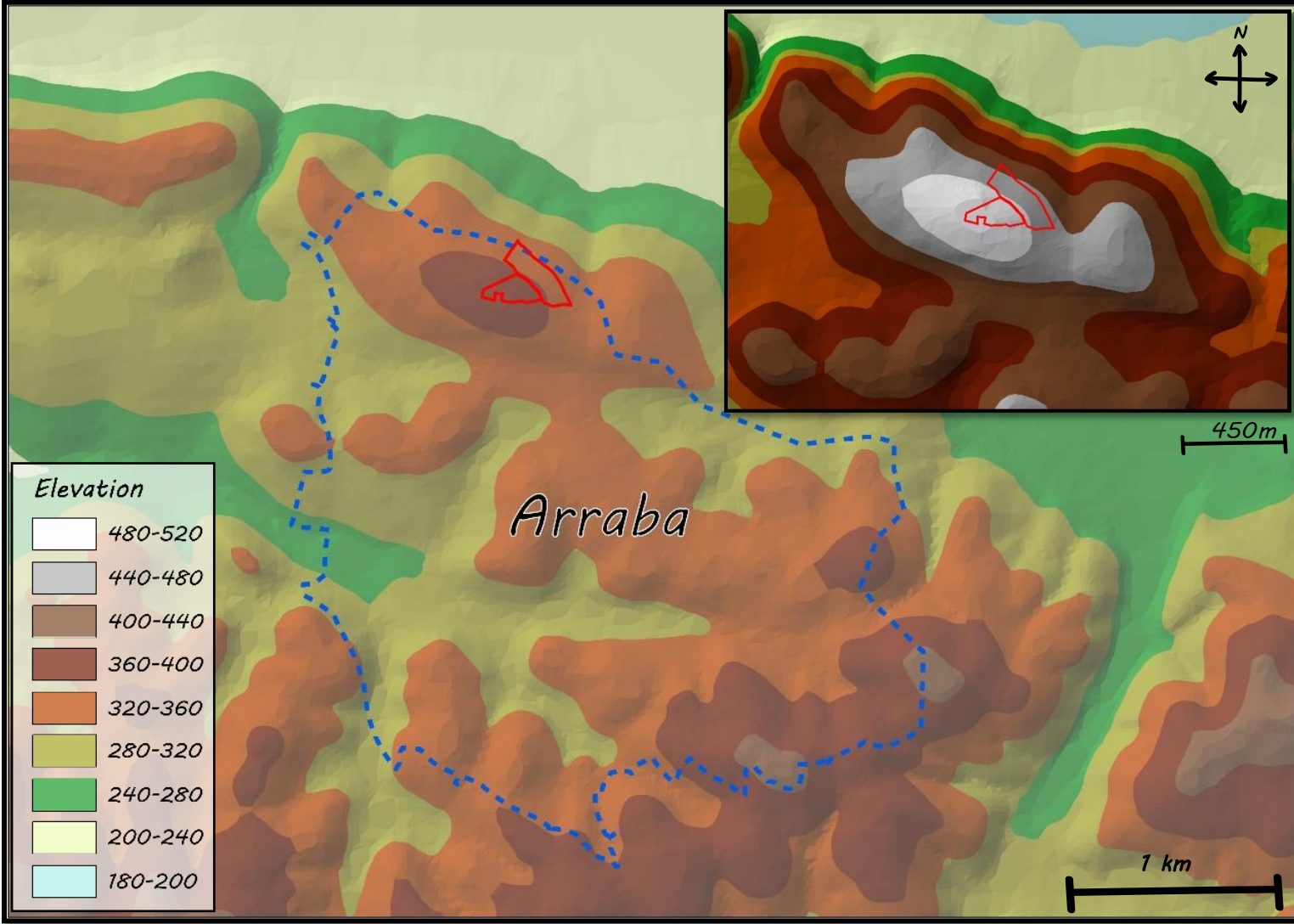
	A	B	C
Area	34.4	16.3	0
Donums			
%	68%	32%	0





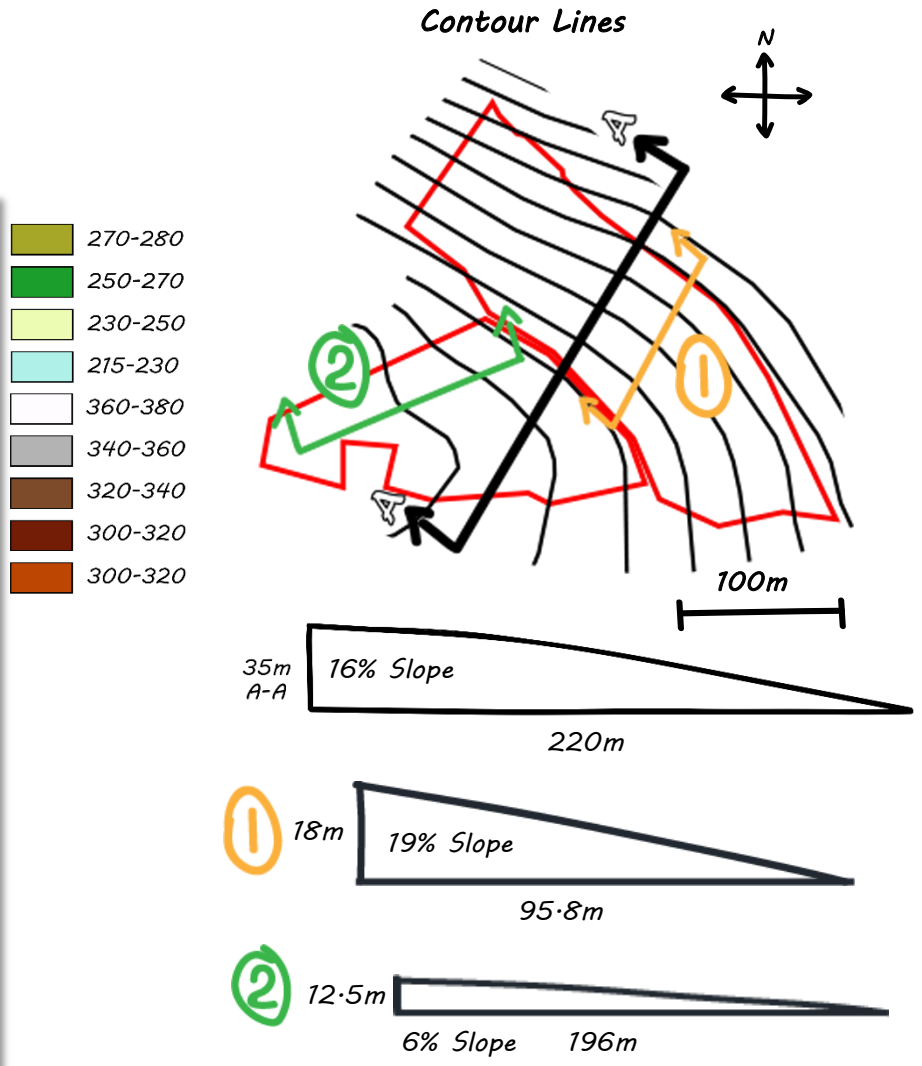
 Project Site

 2 km

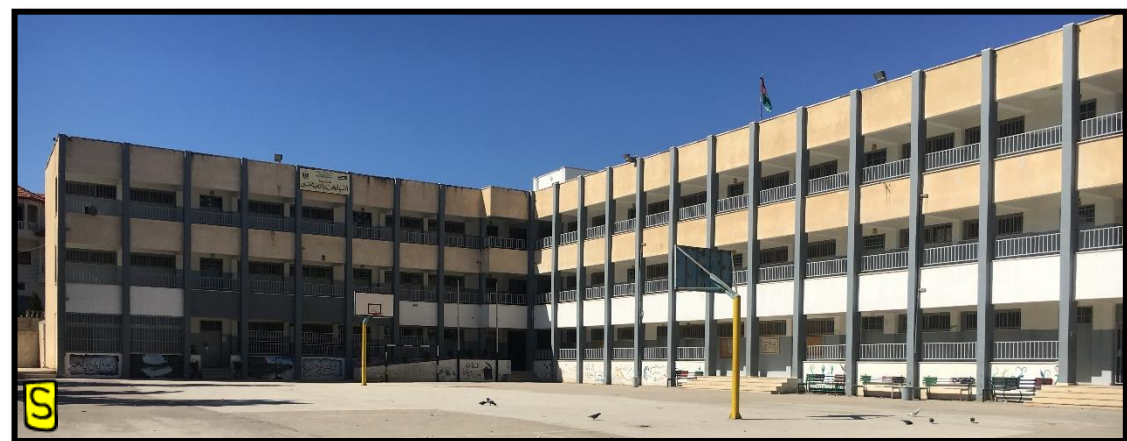
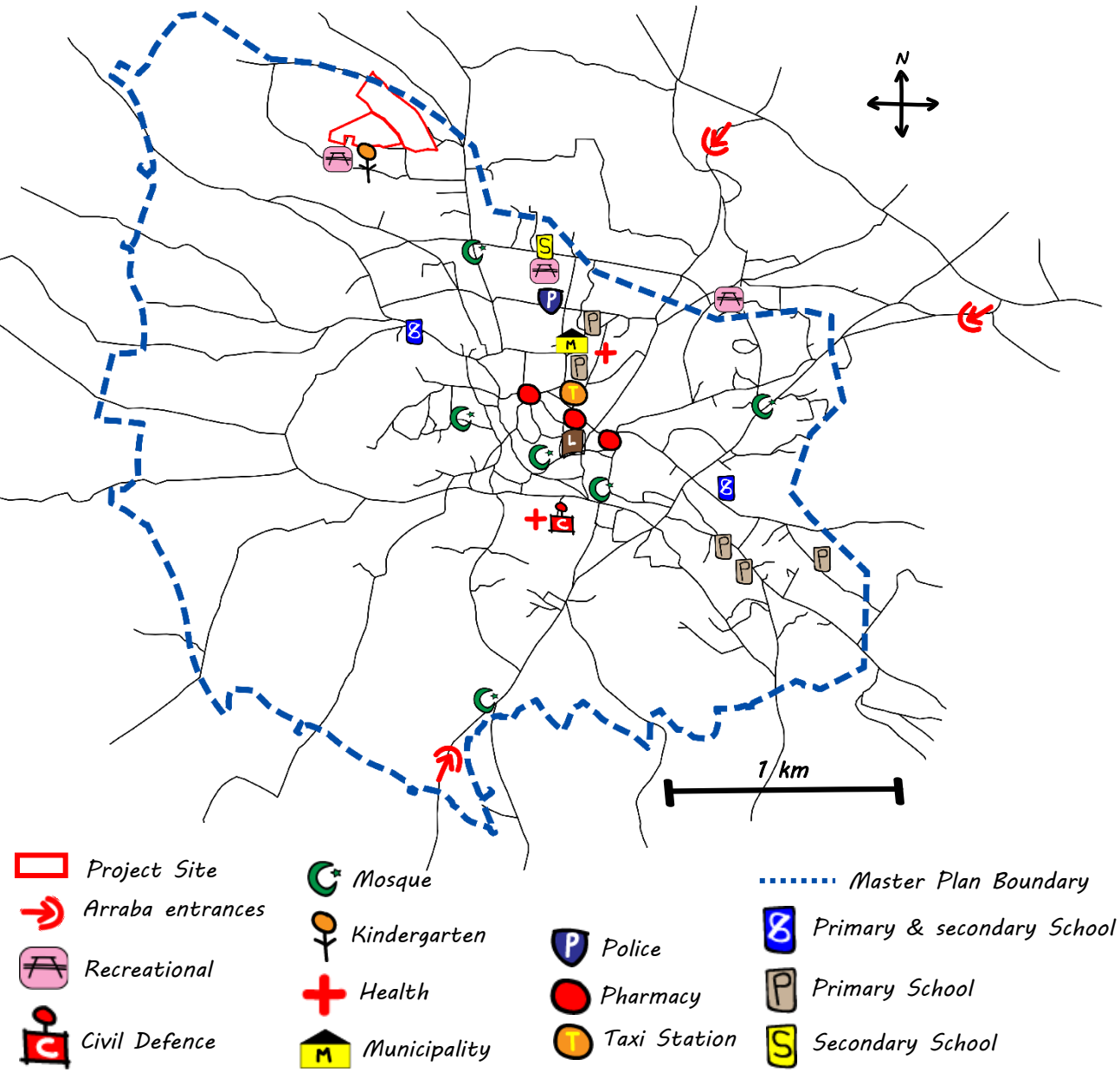
 SITE ANALYSIS - TOPOGRAPHY



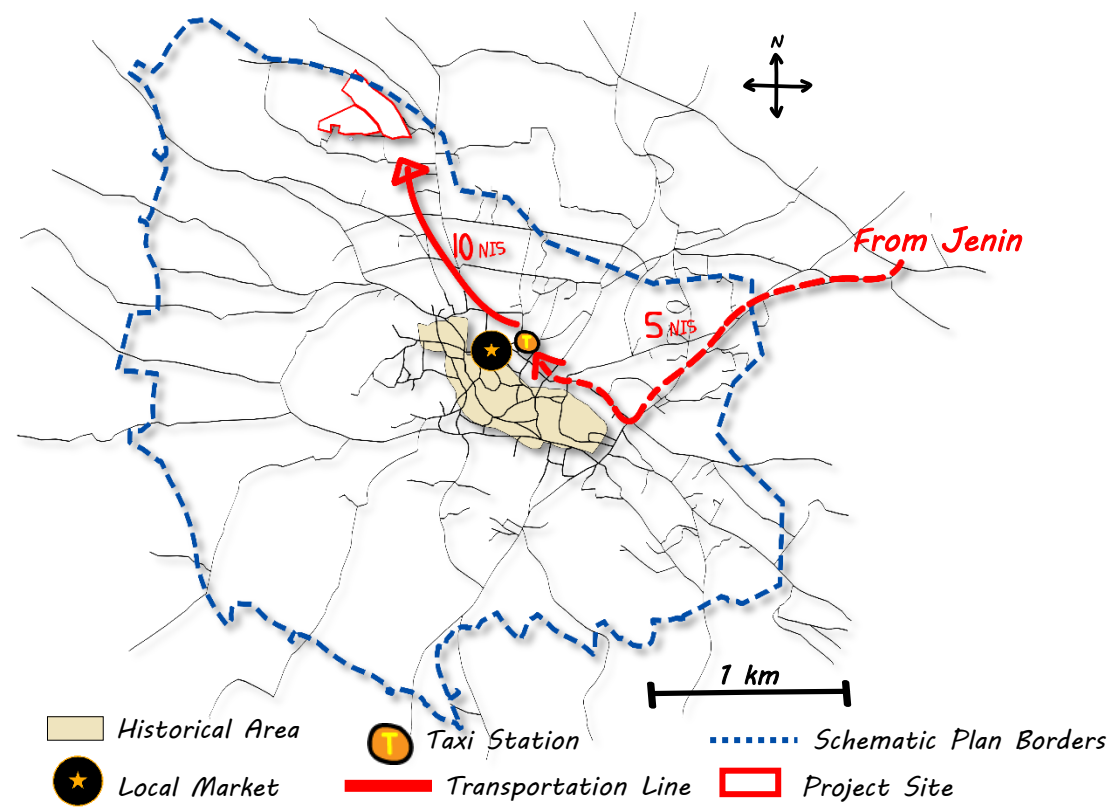
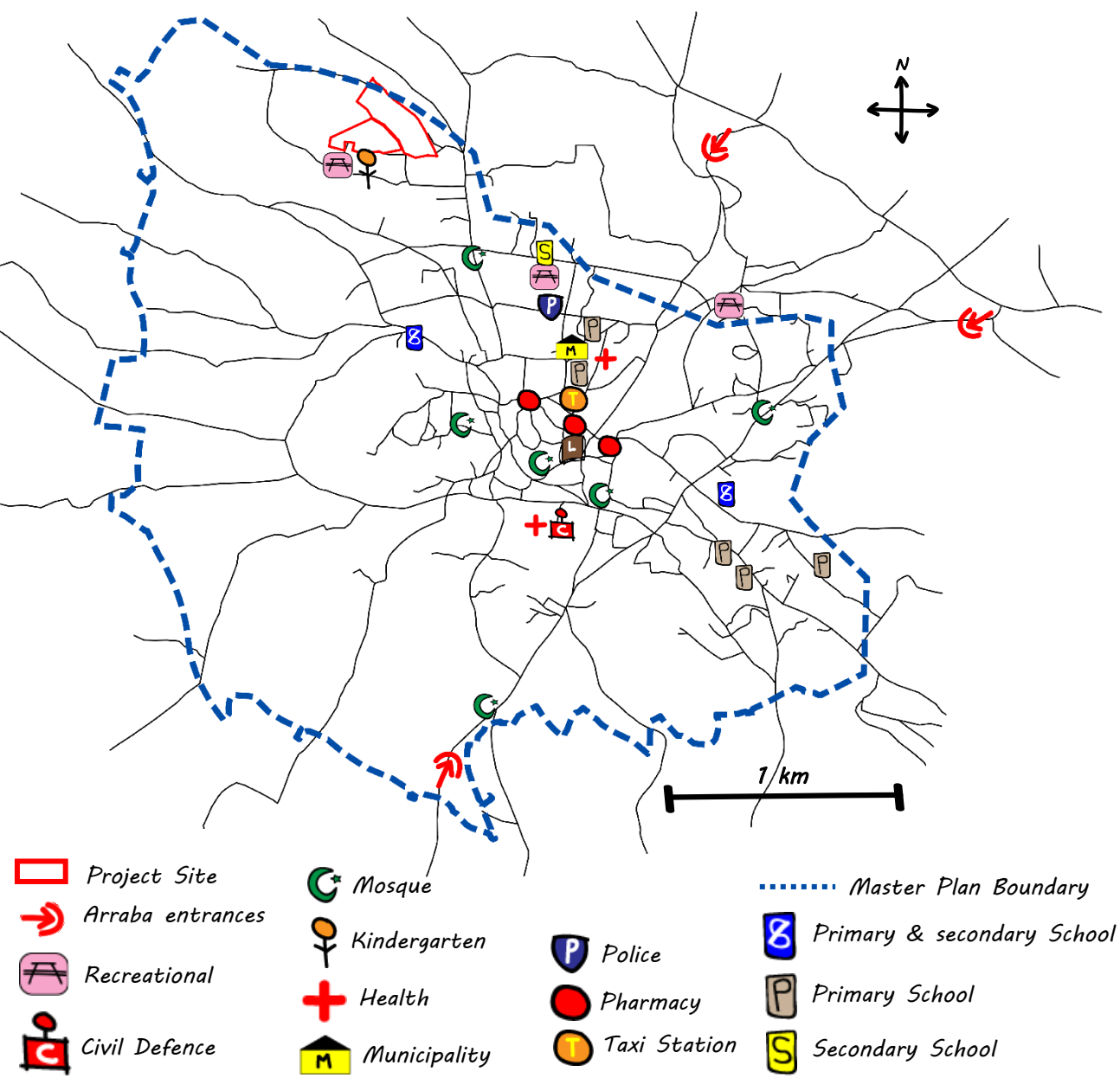
 Master plan boundary
 Project Site



SITE ANALYSIS - EXISTING SERVICES



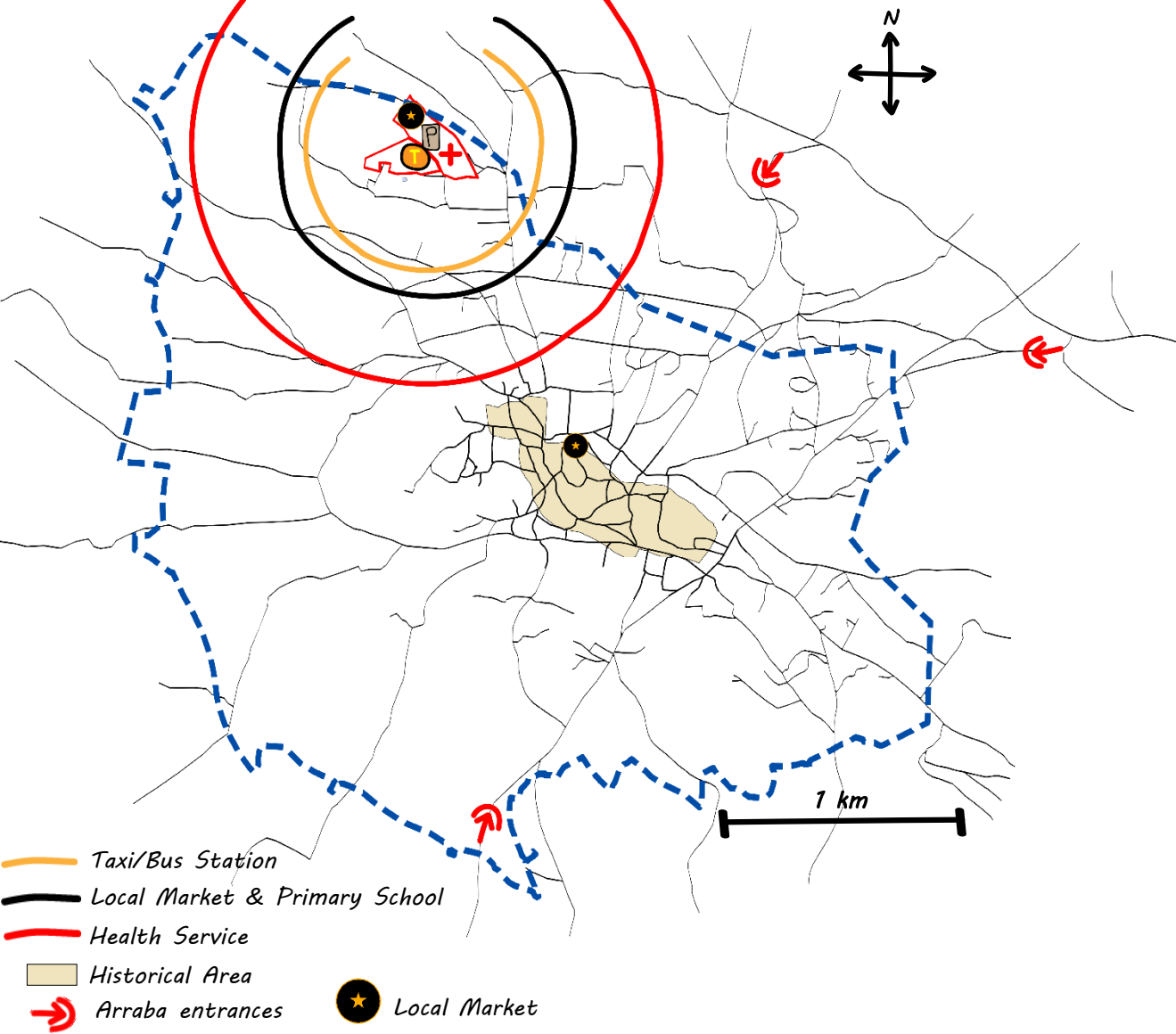
SITE ANALYSIS - EXISTING SERVICES



Service	Walkable Distance	availability
Primary Schoold	500m	X
Secondary Schoold	800m	✓
Kindergarten	300m	✓
Health Service	800m	X
Mosque	800m	✓
Local Market	500m	X
Police	800m	✓
Civil Defence	1500m	✓
Bus/Taxi Station	400m	X

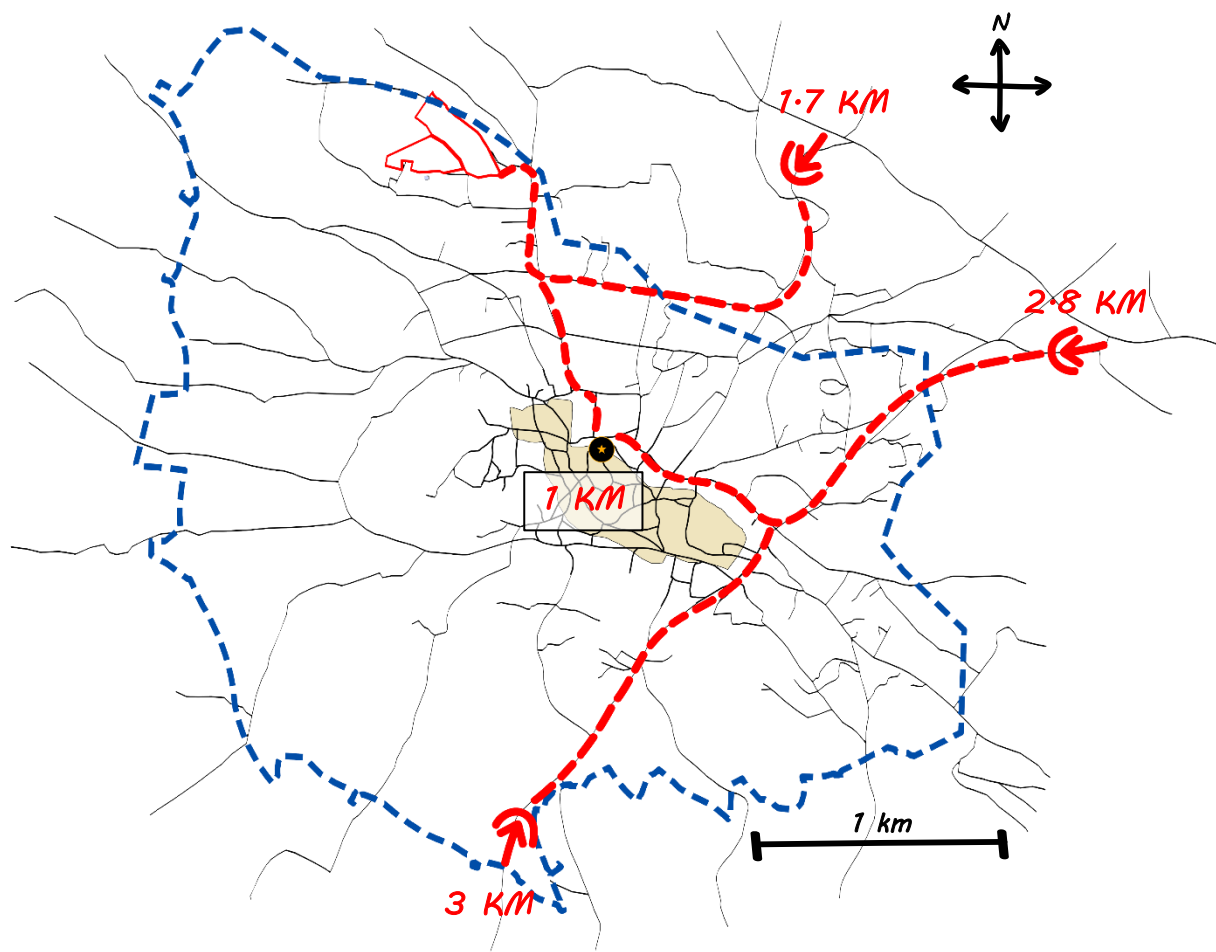
 SITE ANALYSIS – PROPOSED SERVICES







Service Coverage

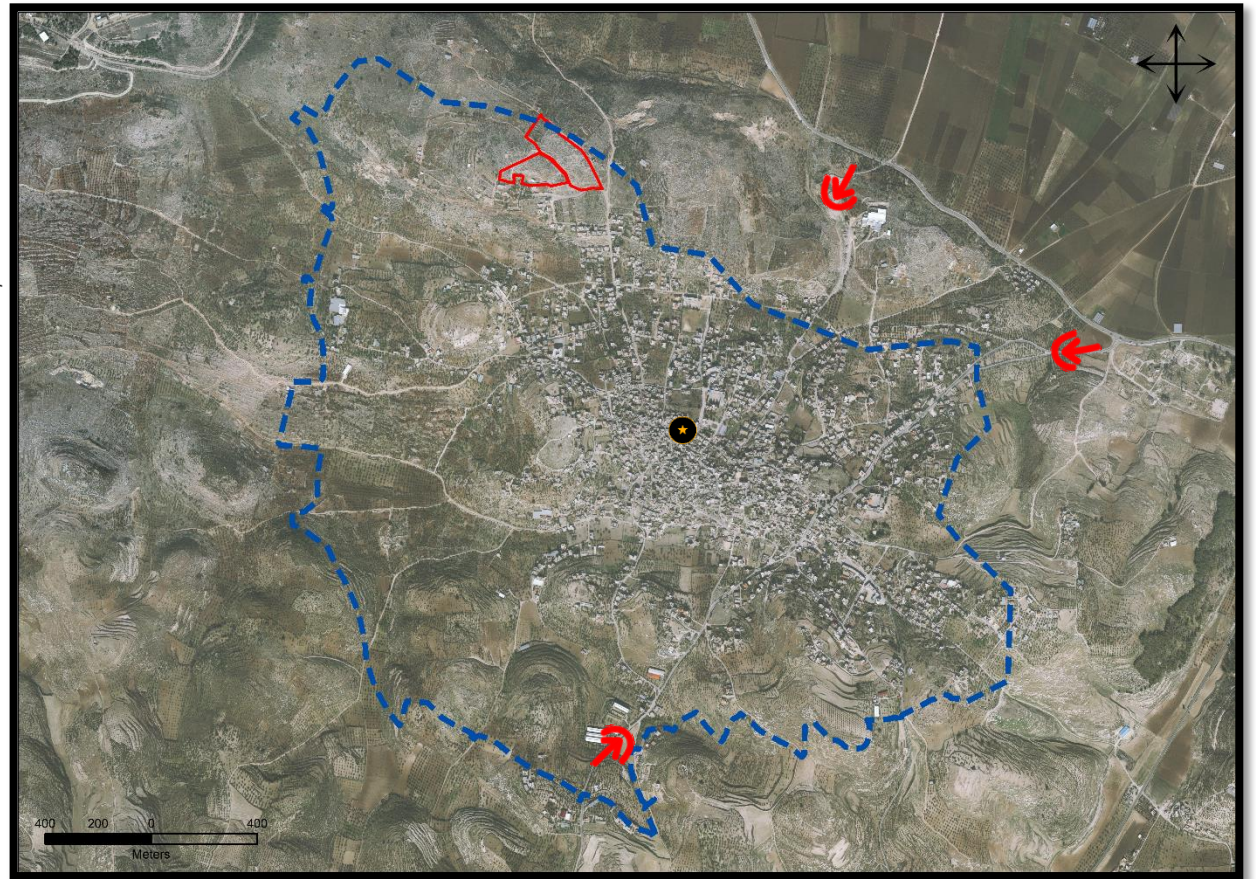


Service	Walkable Distance	availability
Primary Schoold	500m	X
Secondary Schoold	800m	✓
Kindergarten	300m	✓✓
Health Service	800m	X
Mosque	800m	✓
Local Market	500m	X
Police	800m	✓✓
Civil Defence	1500m	✓✓
Bus/Taxi Station	400m	X

 SITE ANALYSIS – ACCESSIBILITY

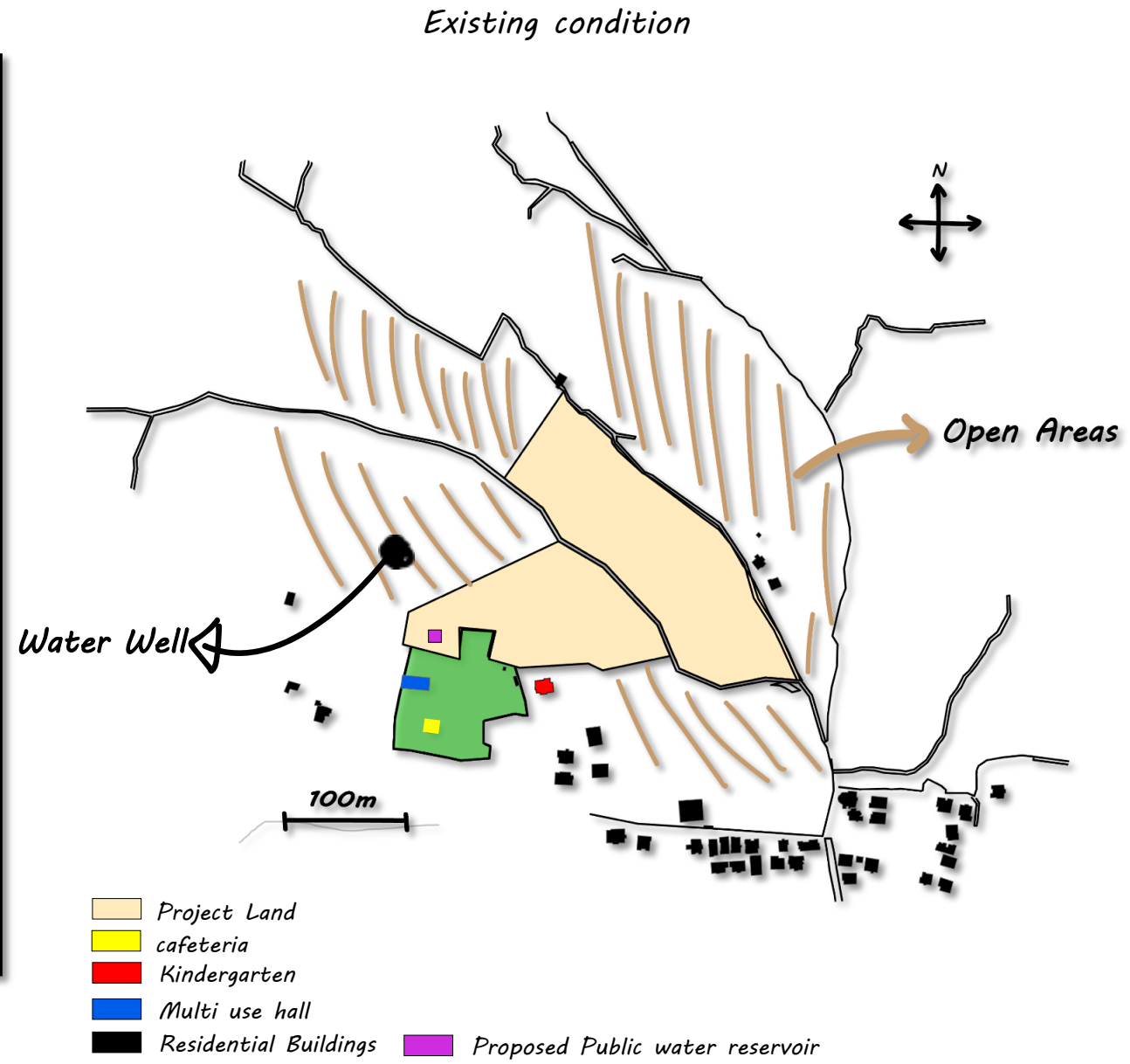


- | | | |
|---|--|--|
|  Historical Area |  Schematic Plan Borders |  Project Site |
|  Local Market |  Distance Line |  Arraba Entrances |

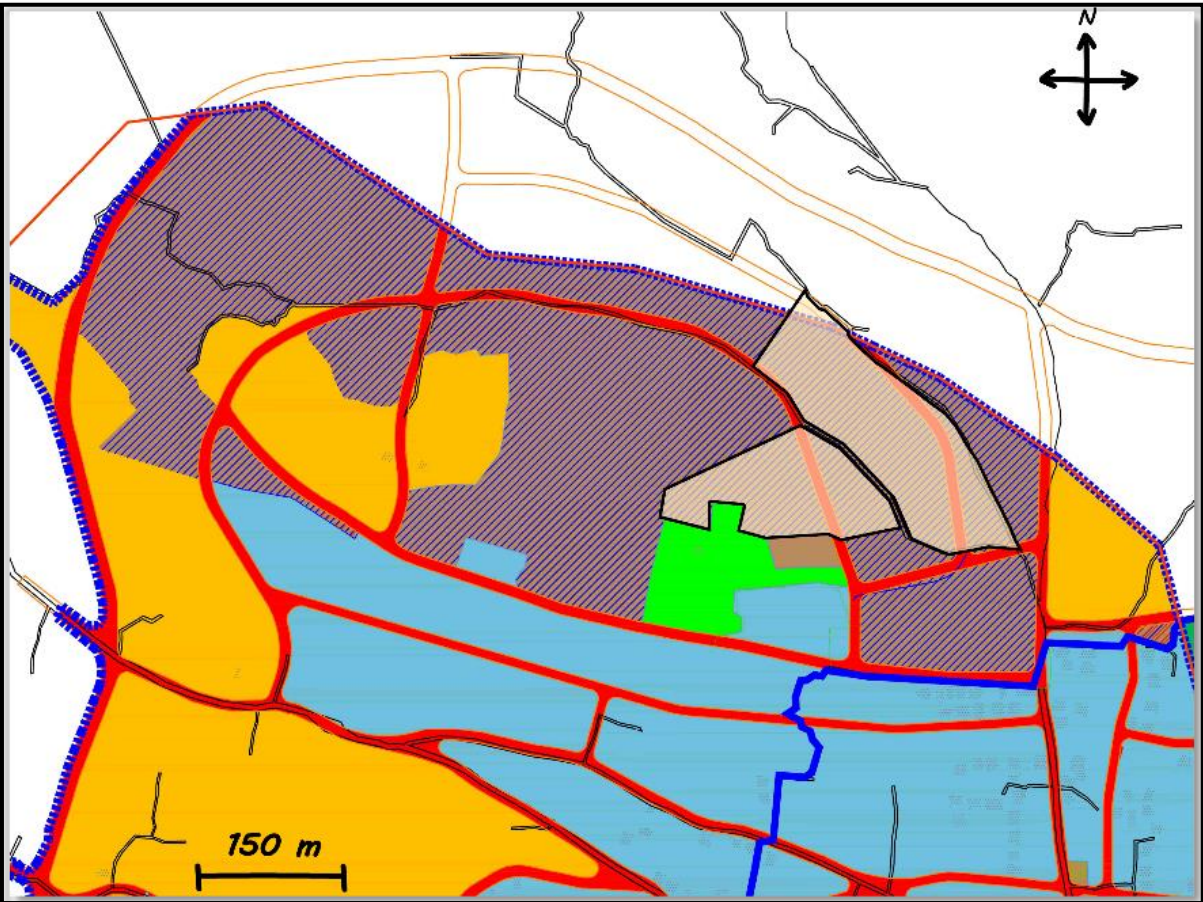








- | |
|--|
|  Local Market |
|  Arraba Entrances |

 SITE ANALYSIS – LAND USE AROUND THE SITE



 SITE ANALYSIS – MASTER PLAN



- | | | |
|---|--|---|
|  Residential A |  State Land |  Park |
|  Residential B |  Project Site |  Suggested Streets |

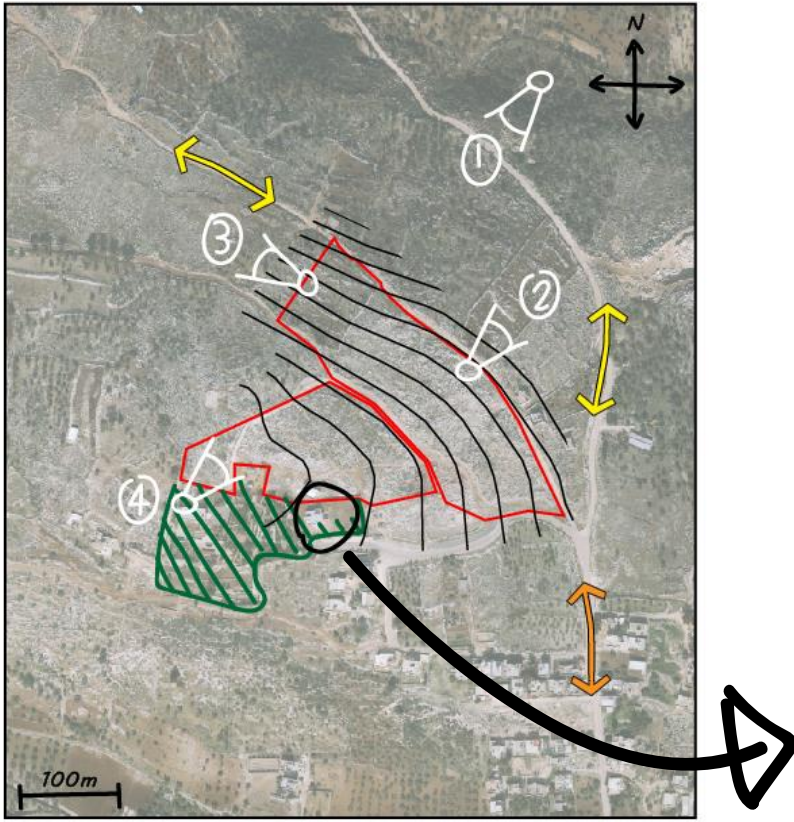



- | |
|--|
|  Project Site |
|  Park Borders |

 SITE ANALYSIS – ARRABA PARK



 SITE ANALYSIS - VIEWS



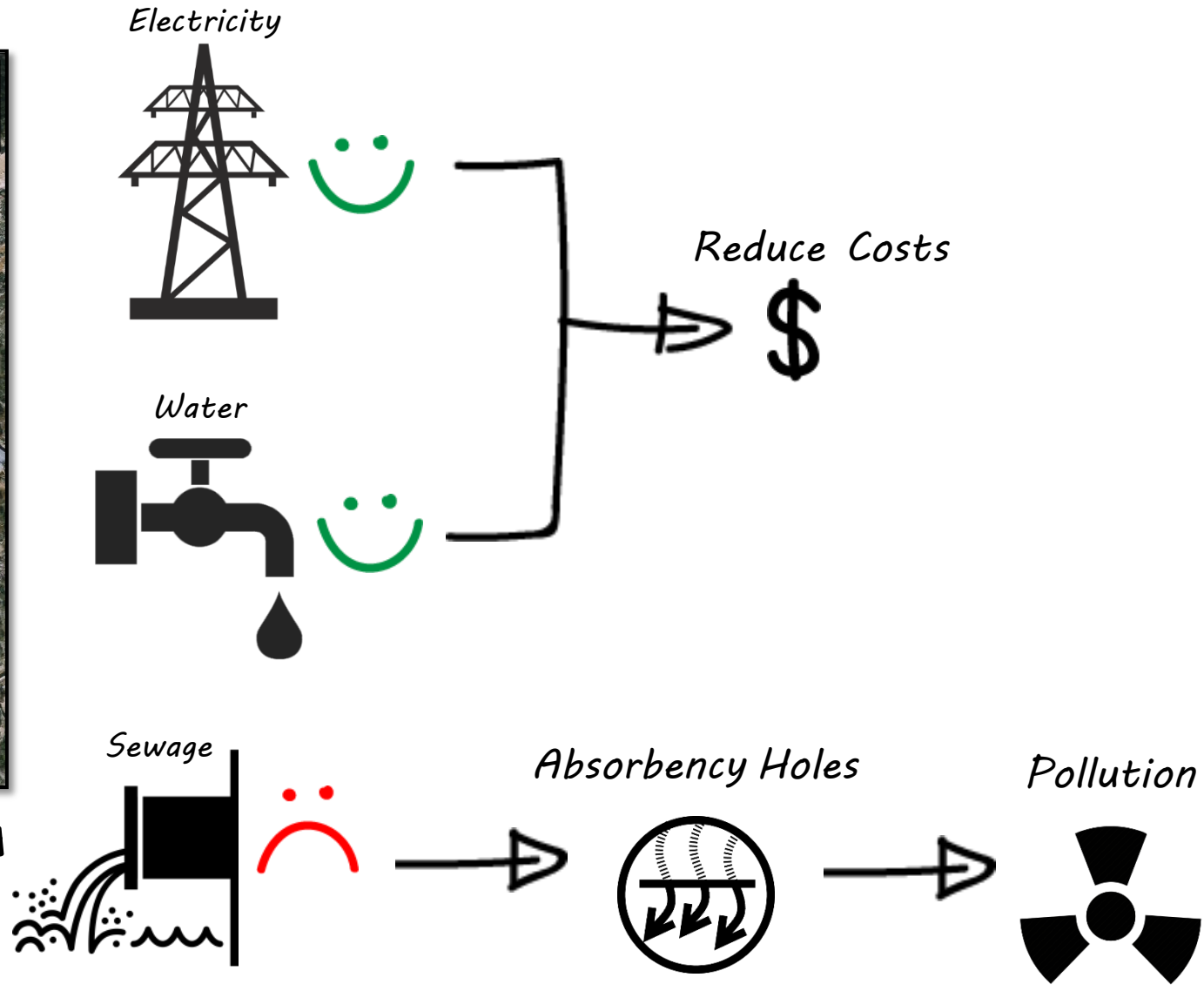
- Contor Lines
- ↔ Agricultural roads
- ↔ Baved Road
-  Park



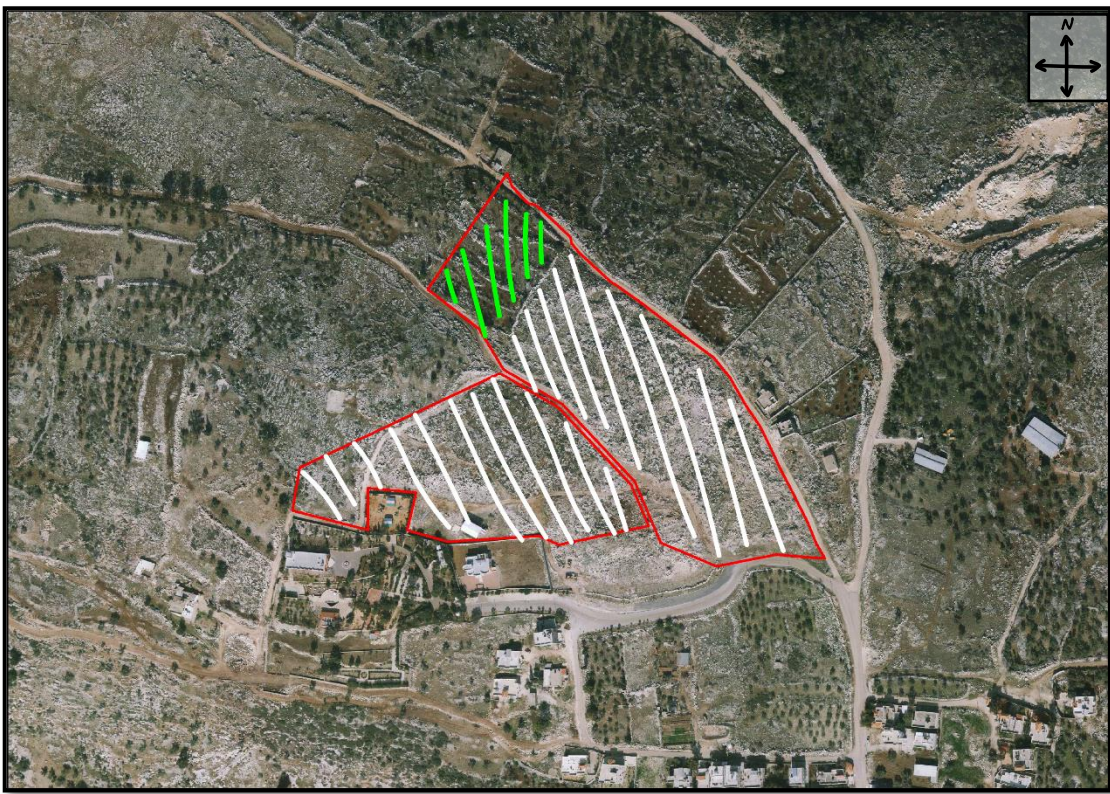
Kindergarten



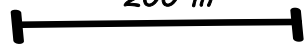
 SITE ANALYSIS – INFRASTRUCTURE



 SITE ANALYSIS – NATURAL VEGETATION

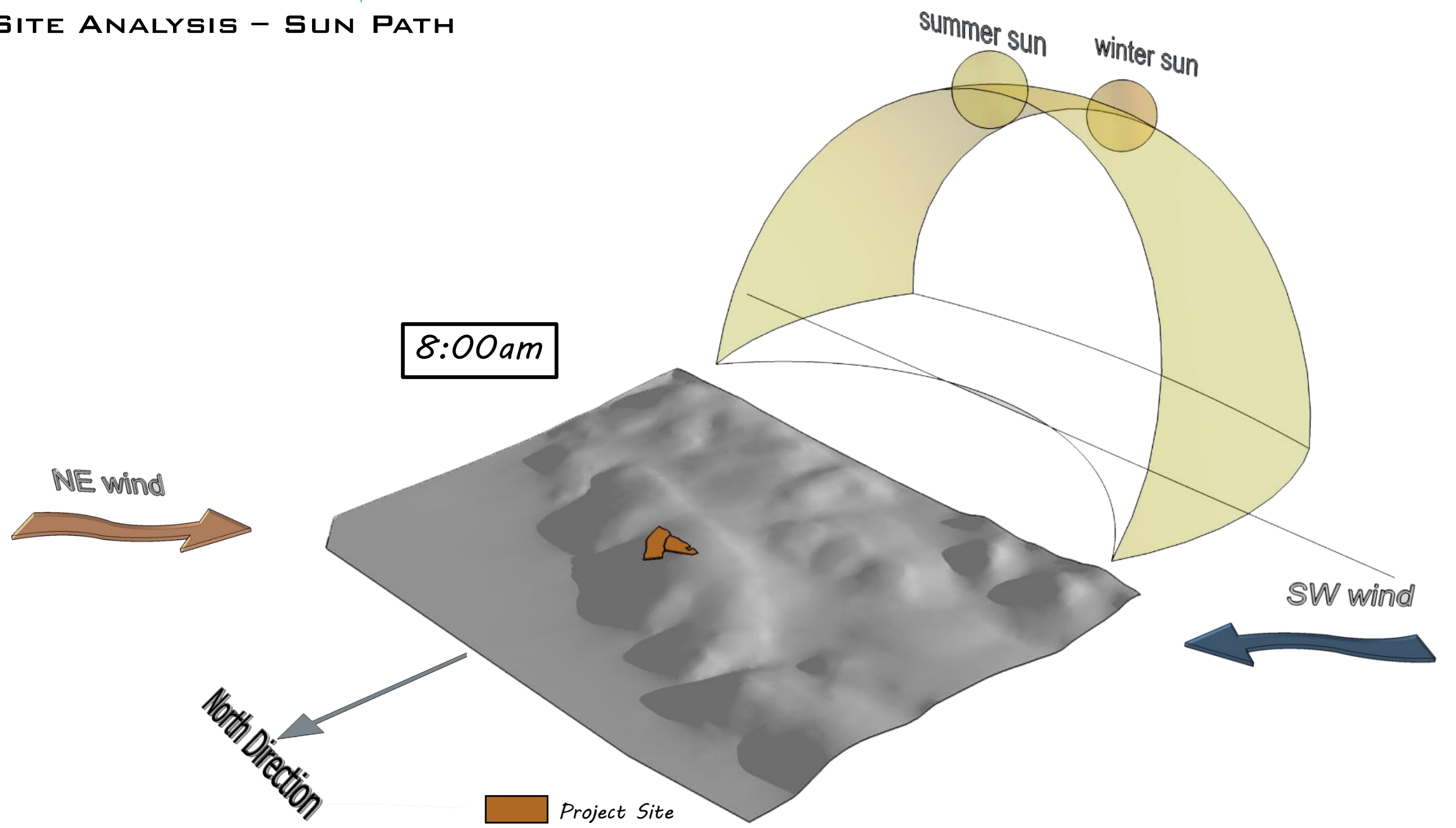


-  Project Site
-  Rocky Area
-  Plants

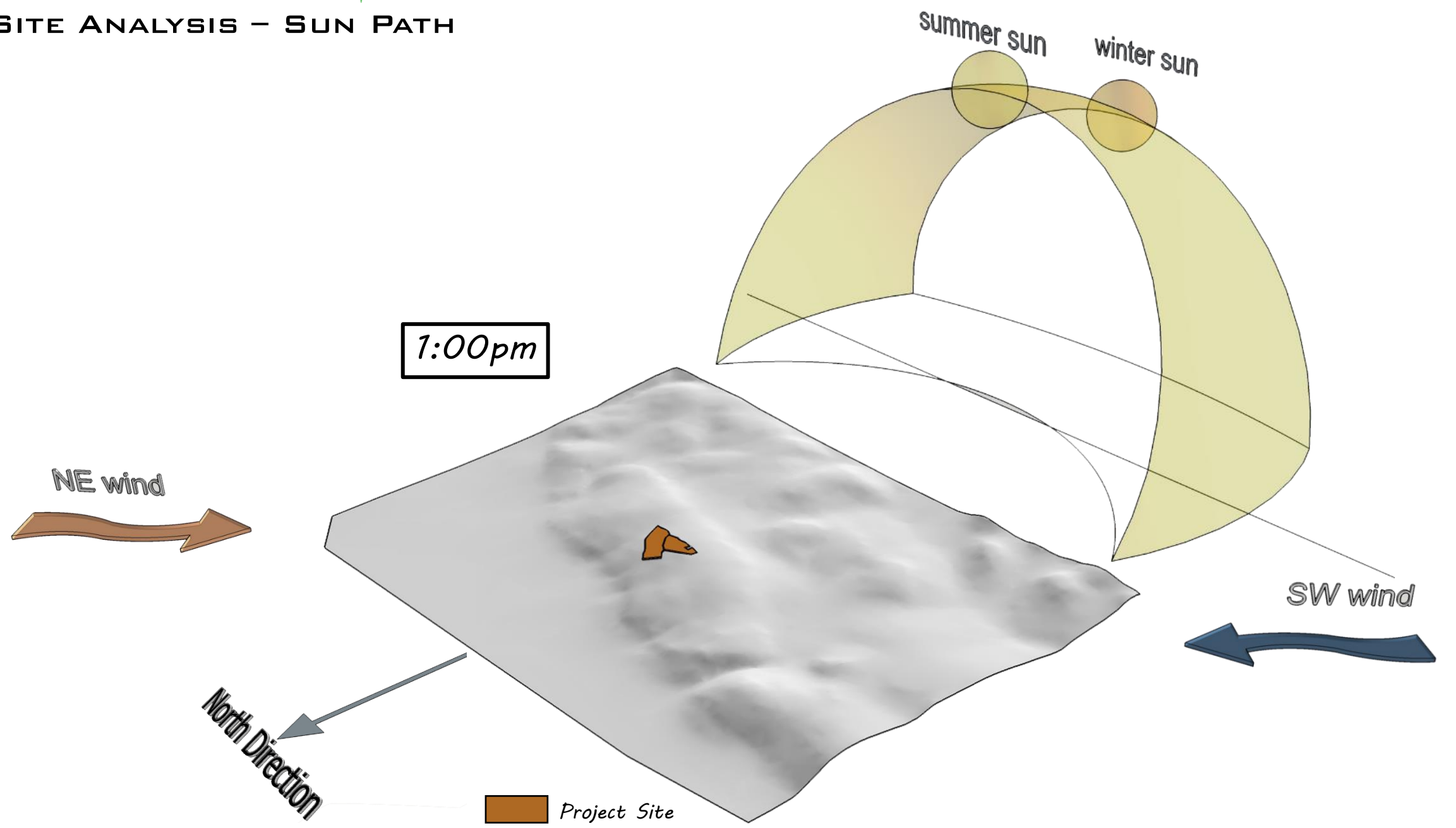
200 m 



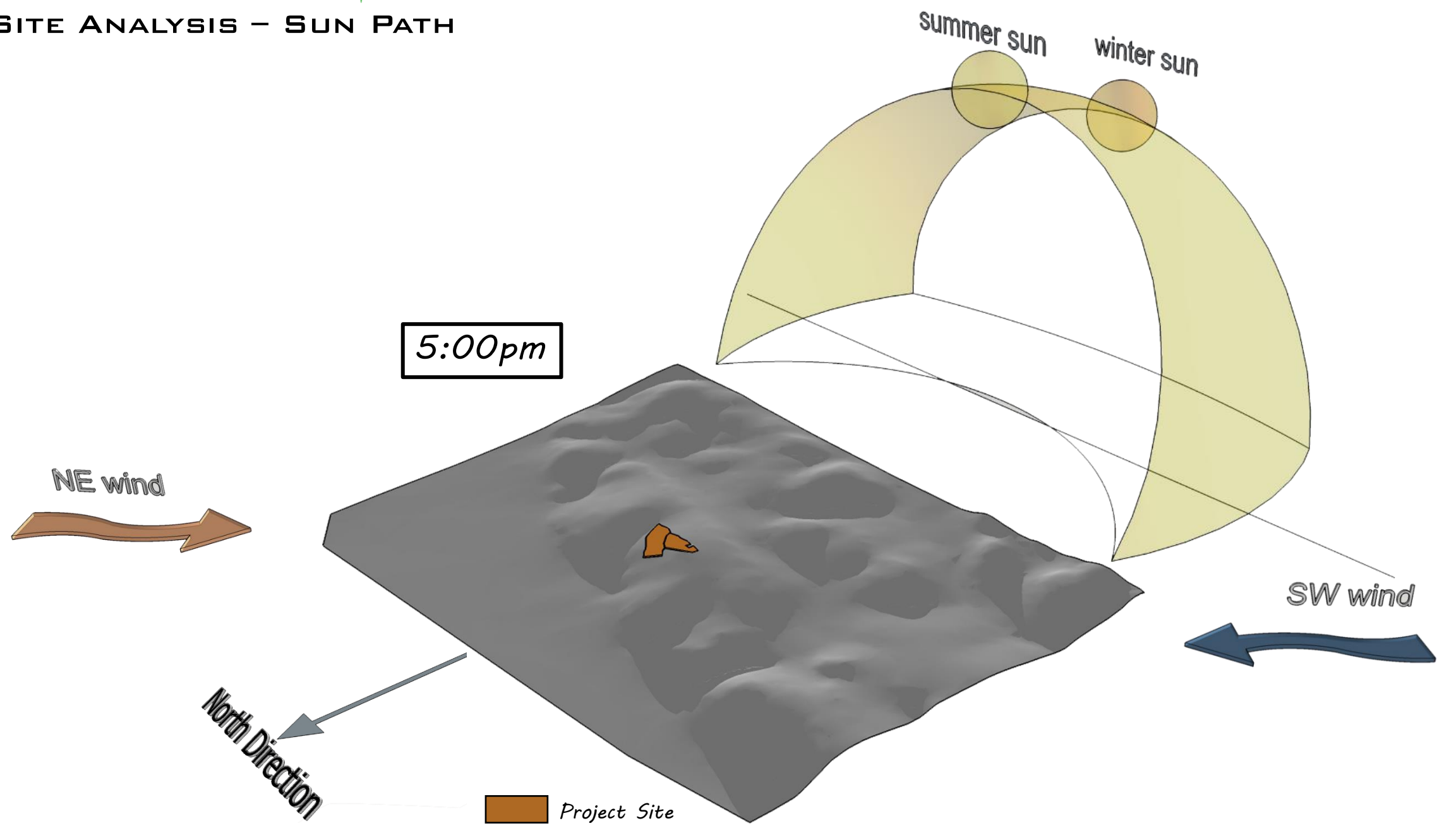
 SITE ANALYSIS - SUN PATH



 SITE ANALYSIS – SUN PATH

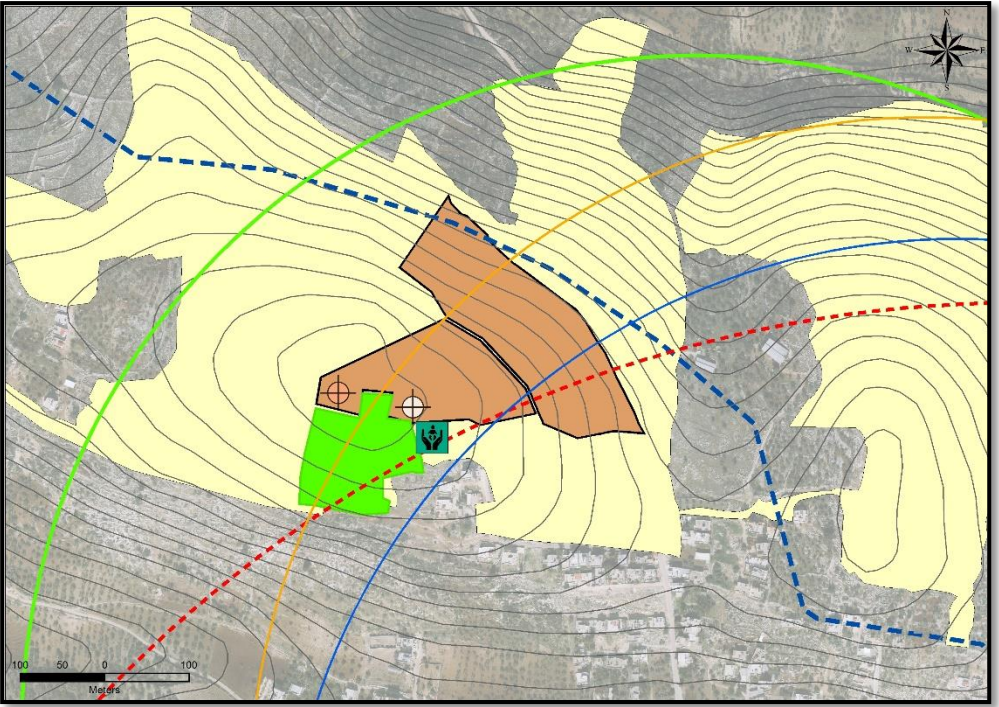


 SITE ANALYSIS – SUN PATH

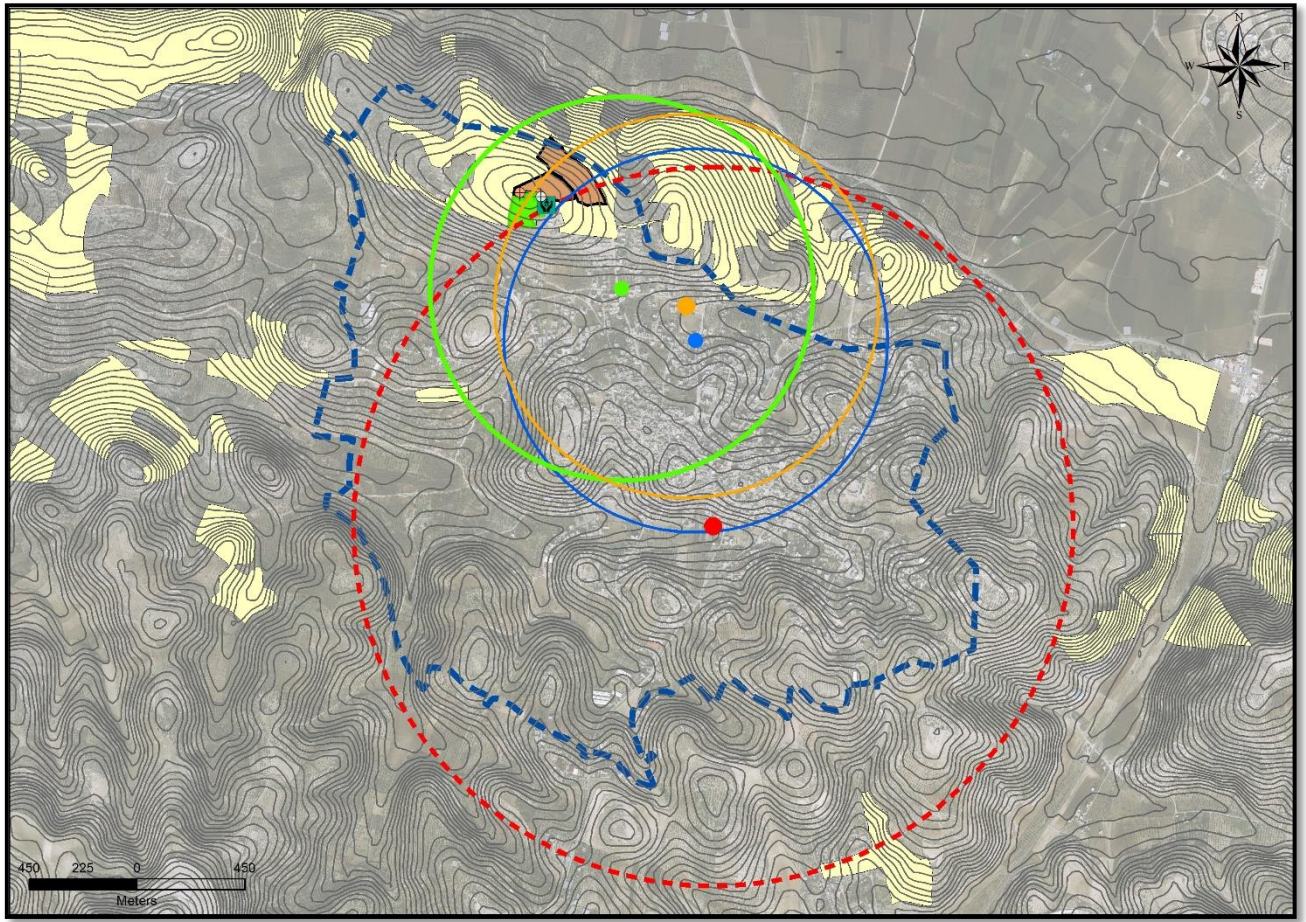


SITE ANALYSIS – S.W.O.T

Strength	Weakness	Opportunities	Threats
<ul style="list-style-type: none"> Sufficient Area State Land Not Biodiversity Land Not High Agricultural Value Existence of Water Reservoir (For Park Use) Proposed Water Reservoir (For Public Use) Location on the Top of a Hill Covered by The Master Plan Good Wind and Sun Exposure 	<ul style="list-style-type: none"> Slope Land Shape No Walkable Priamry School No Walkable Local Market No Walkable Health Service No Sewage Network 	<ul style="list-style-type: none"> Adjacent to Public Park Beautiful Spectacle Adjacent to Kindergarten Electresity Availability Water Availability Existence of Many Services in Arraba 	<ul style="list-style-type: none"> No Public Transportation Close to C Area Accessible From one Road



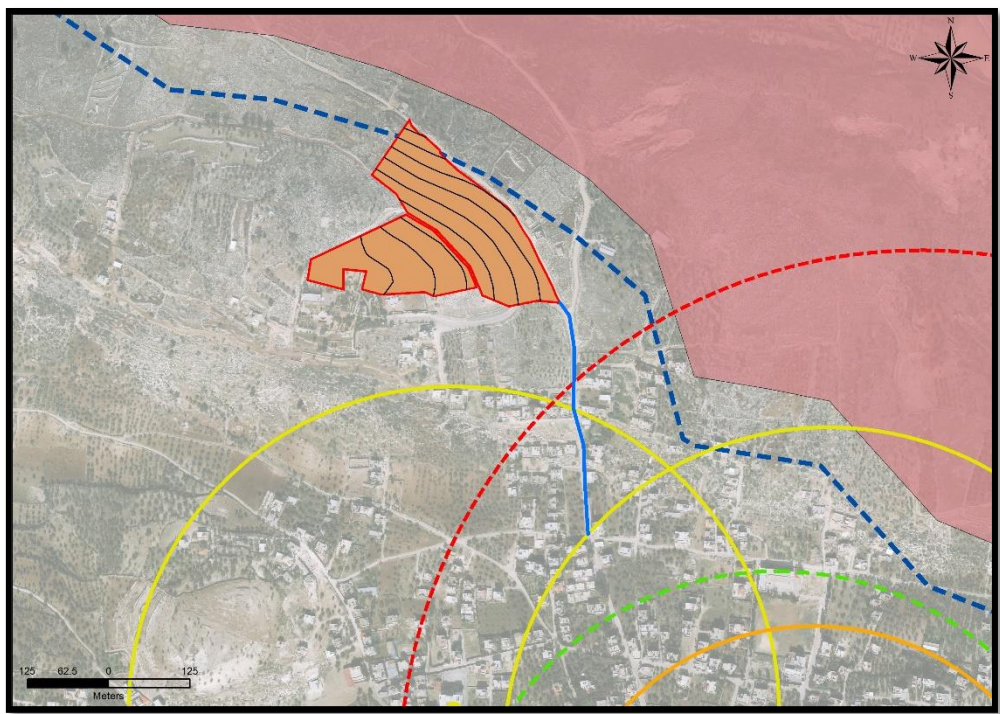
Strength & Opportunities



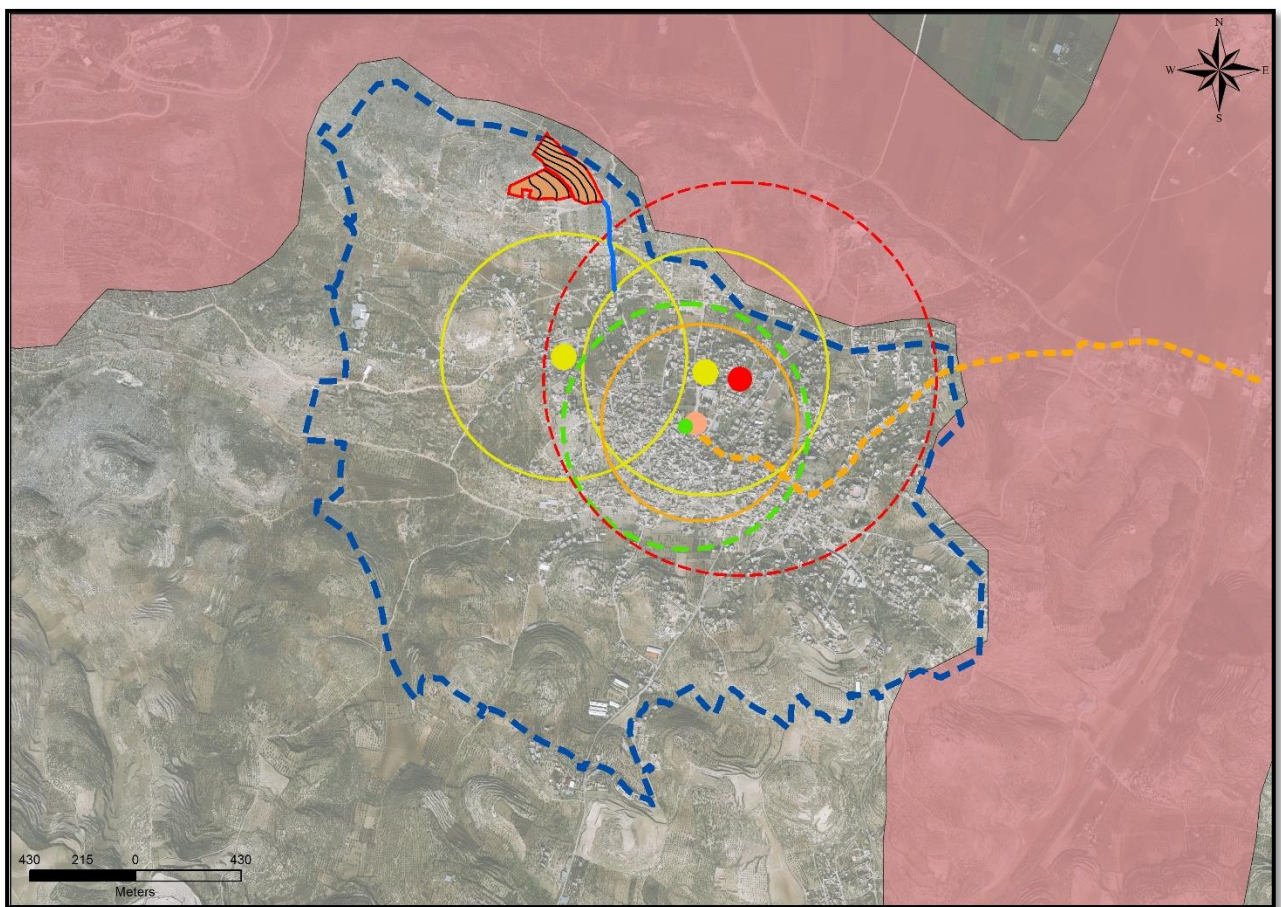
- Arraba Fields
- Project Site
- Arraba Park
- State Land
- Civil Defense
- Police
- Secondary School
- Mosque
- Proposed Water Reservoir
- Master Plan borders
- Existed Water Reservoir - Park Use
- Service Coverage
- Civil Defense
- Police
- Mosque
- Secondary School
- Kindergarten


 **SITE ANALYSIS – S.W.O.T**


Strength	Weakness	Opportunities	Threats
<div>●</div> <div>Sufficient Area</div> <div>State Land</div> <div>Not Biodiversity Land</div> <div>Not High Agricultural Value</div> <div>Existence of Water Reservoir (For Park Use)</div> <div>Proposed Water Reservoir (For Public Use)</div> <div>Location on the Top of a Hill</div> <div>Covered by The Master Plan</div> <div>Good Wind and Sun Exposure</div>	<div>Slope</div> <div>Land Shape</div> <div>No Walkable Priamry School</div> <div>No Walkable Local Market</div> <div>No Walkable Health Service</div> <div>● No Sewage Network</div>	<div>●</div> <div>Adjacent to Public Park</div> <div>Beautiful Spectacle</div> <div>Adjacent to Kindergarten</div> <div>Electresity Availability</div> <div>Water Availability</div> <div>Existence of Many Services in Arraba</div>	<div>No Public Transportation</div> <div>Close to C Area ●</div> <div>Accessible From one Road</div>





Weakness & Threats





-  C Area


 Project Site


 Master Plan borders

 Health Service

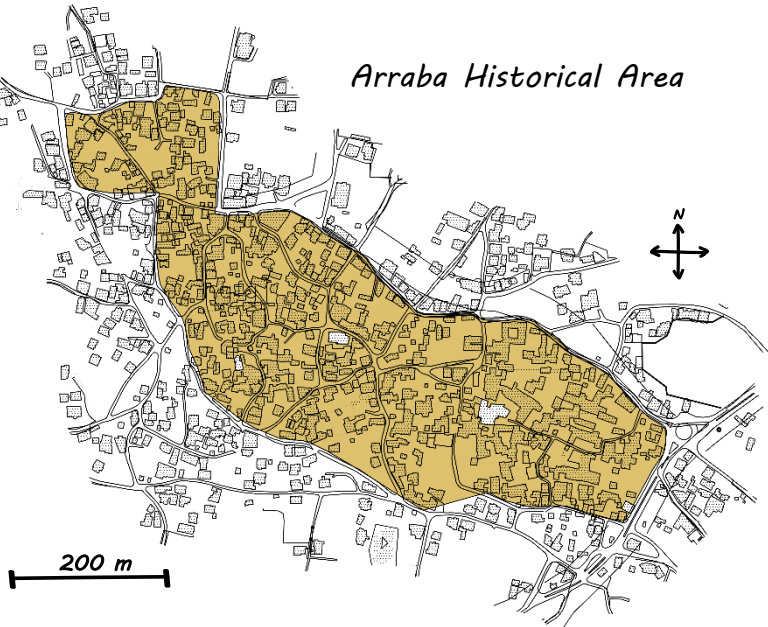
 Primary School

 Local Market

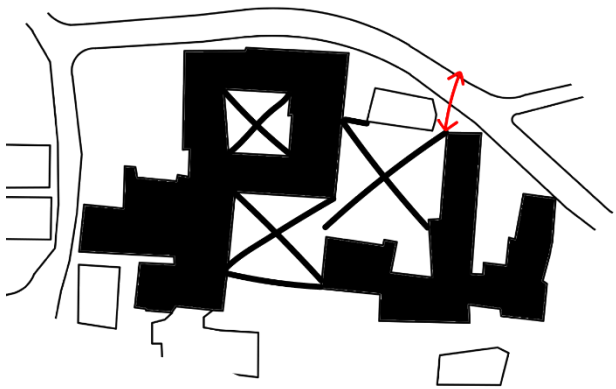
 Project Access Road

 Taxi Station

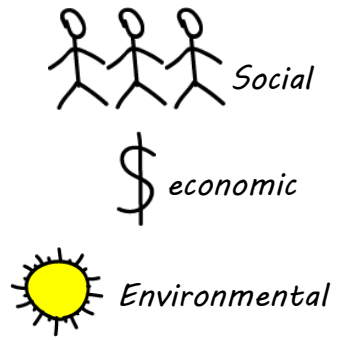
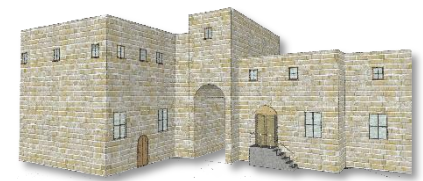
CONCEPT DEVELOPMENT



Housing units and shared Space



Traditional Design



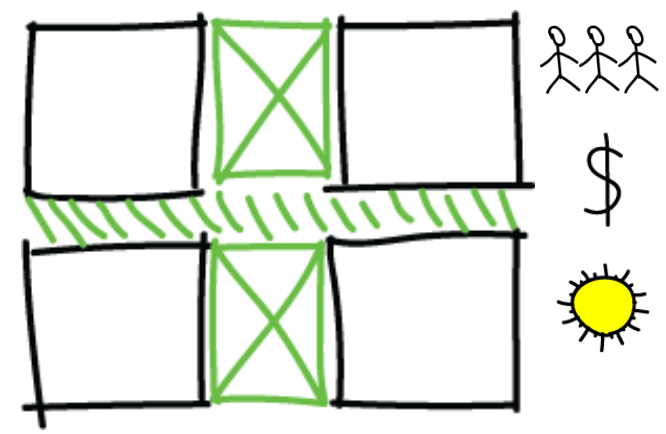
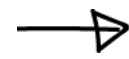
Arraba Houses

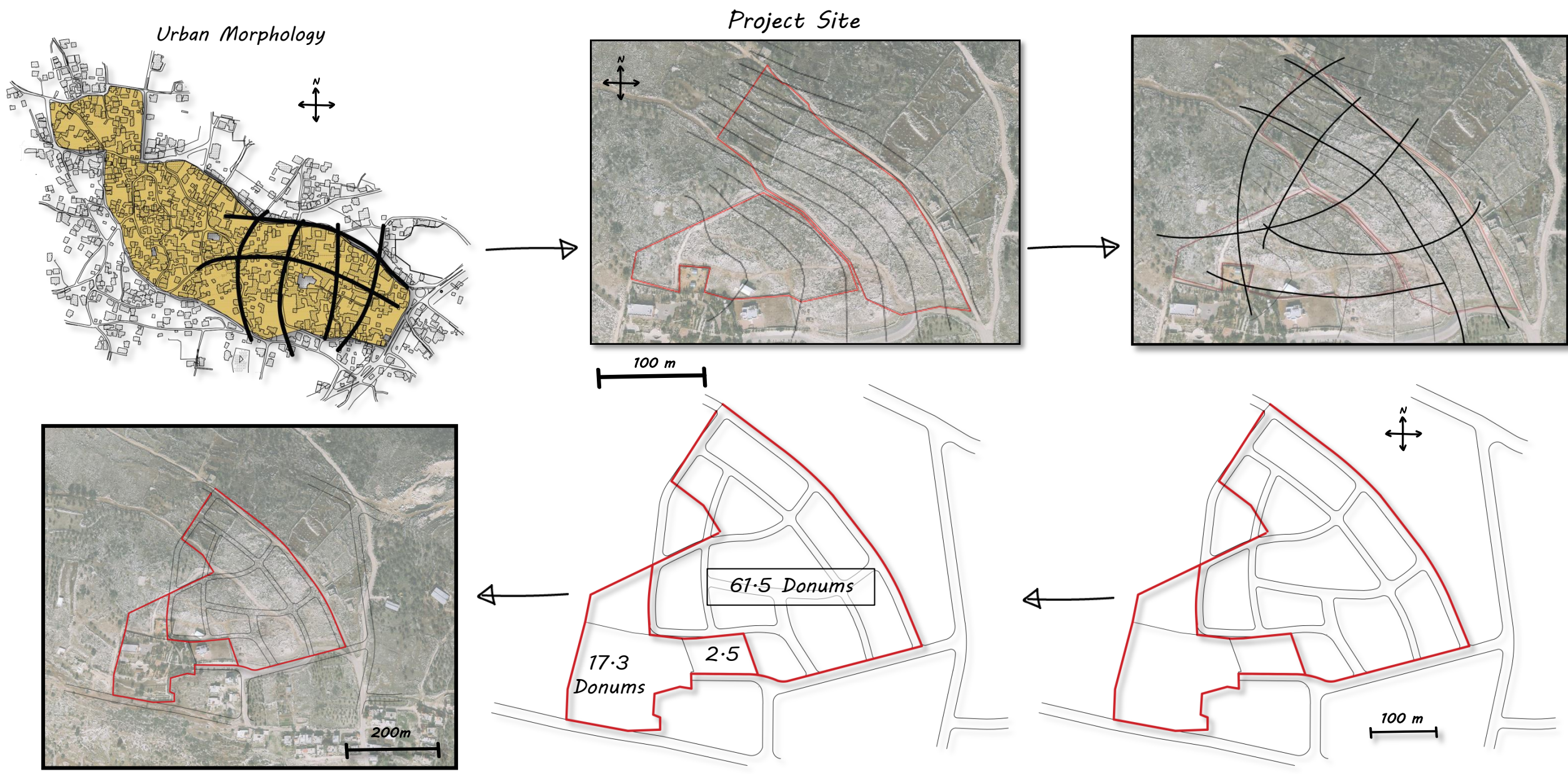


green
Space

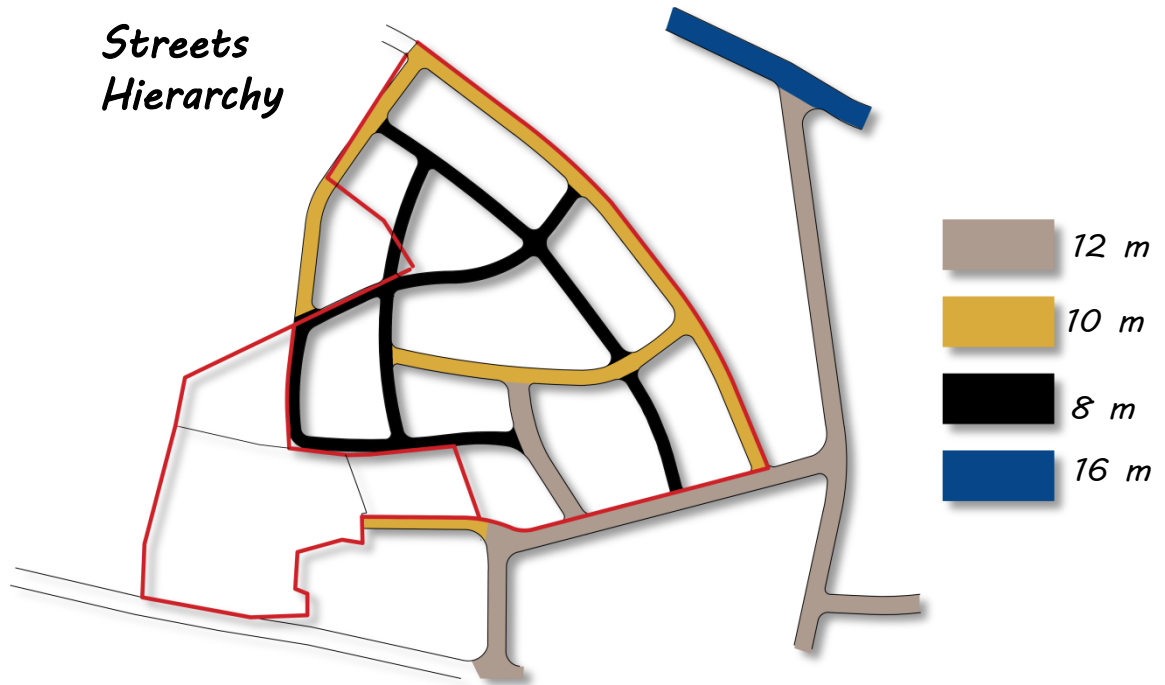
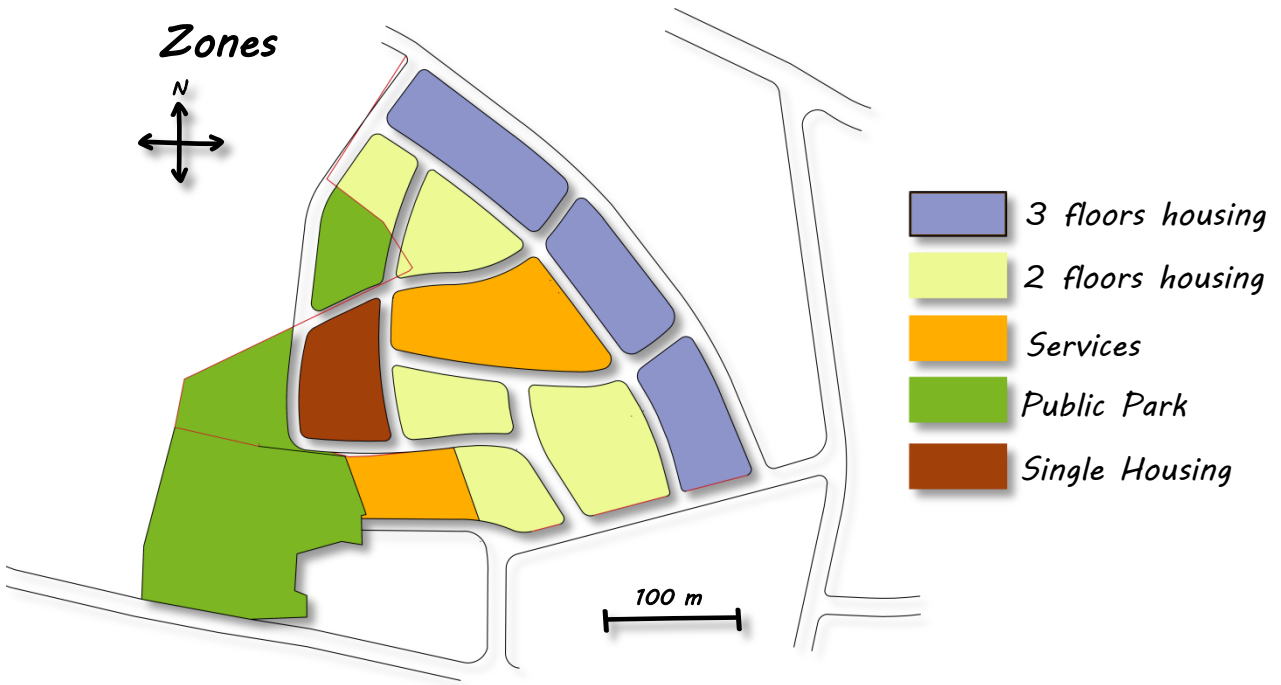


Arraba fields

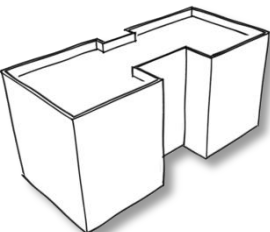
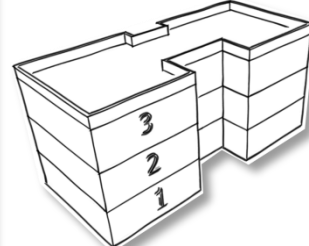
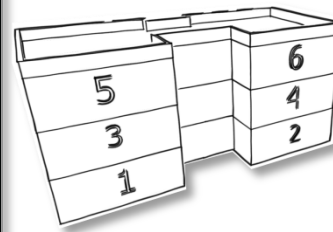
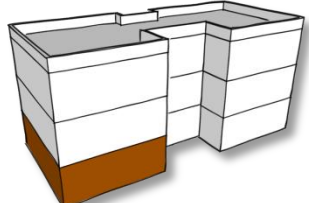
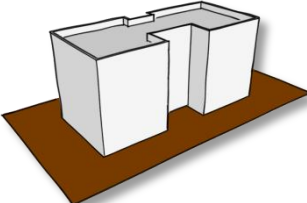
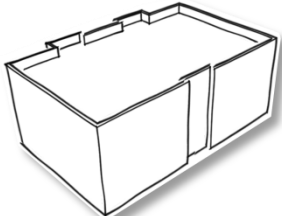
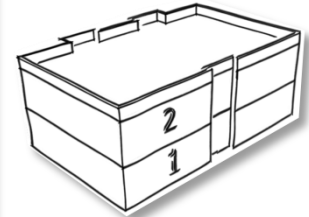
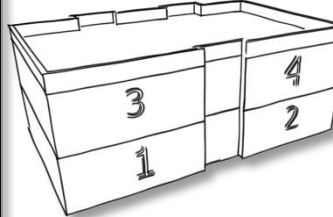
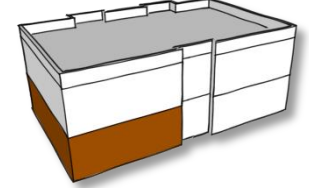
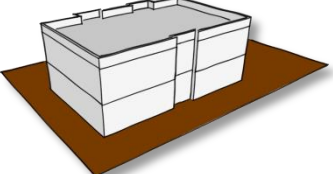
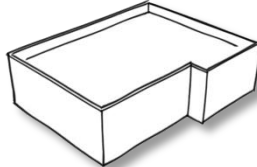
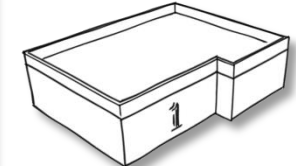
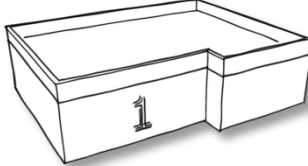
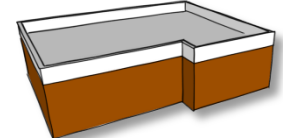
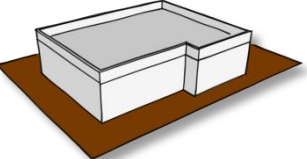




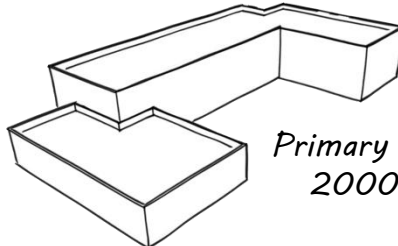
 ZONING AND HIERARCHY



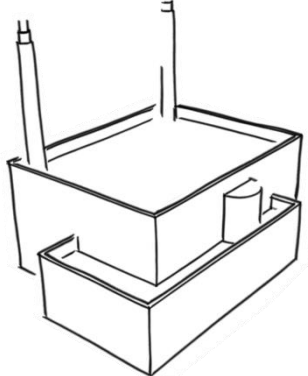
Housing

	<i>Floors</i>	<i>Apartments</i>	<i>Area</i>	<i>Parcel</i>
			 125 m ²	 550 m ²
			 140 m ²	 600 m ²
			 180 m ²	 500 m ²

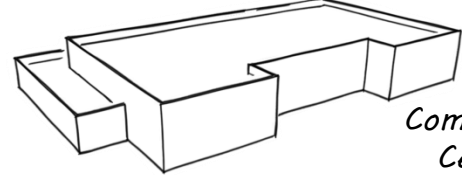
Services




Primary School
2000 m²



Mosque and
Clinic
300 m²

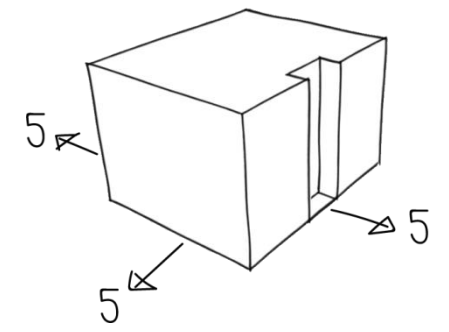
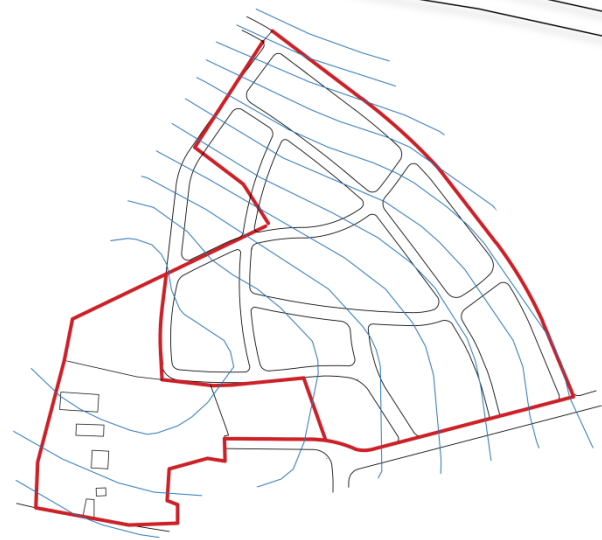
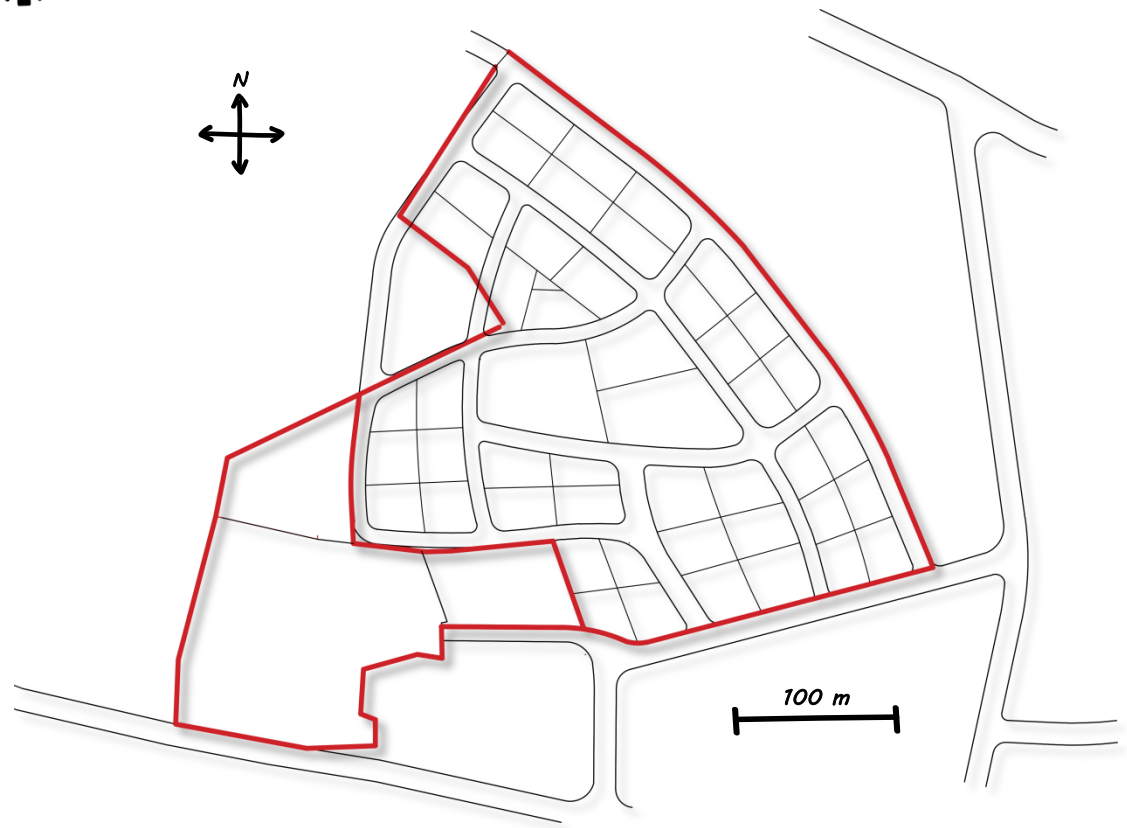


Commercial
Center
1000 m²






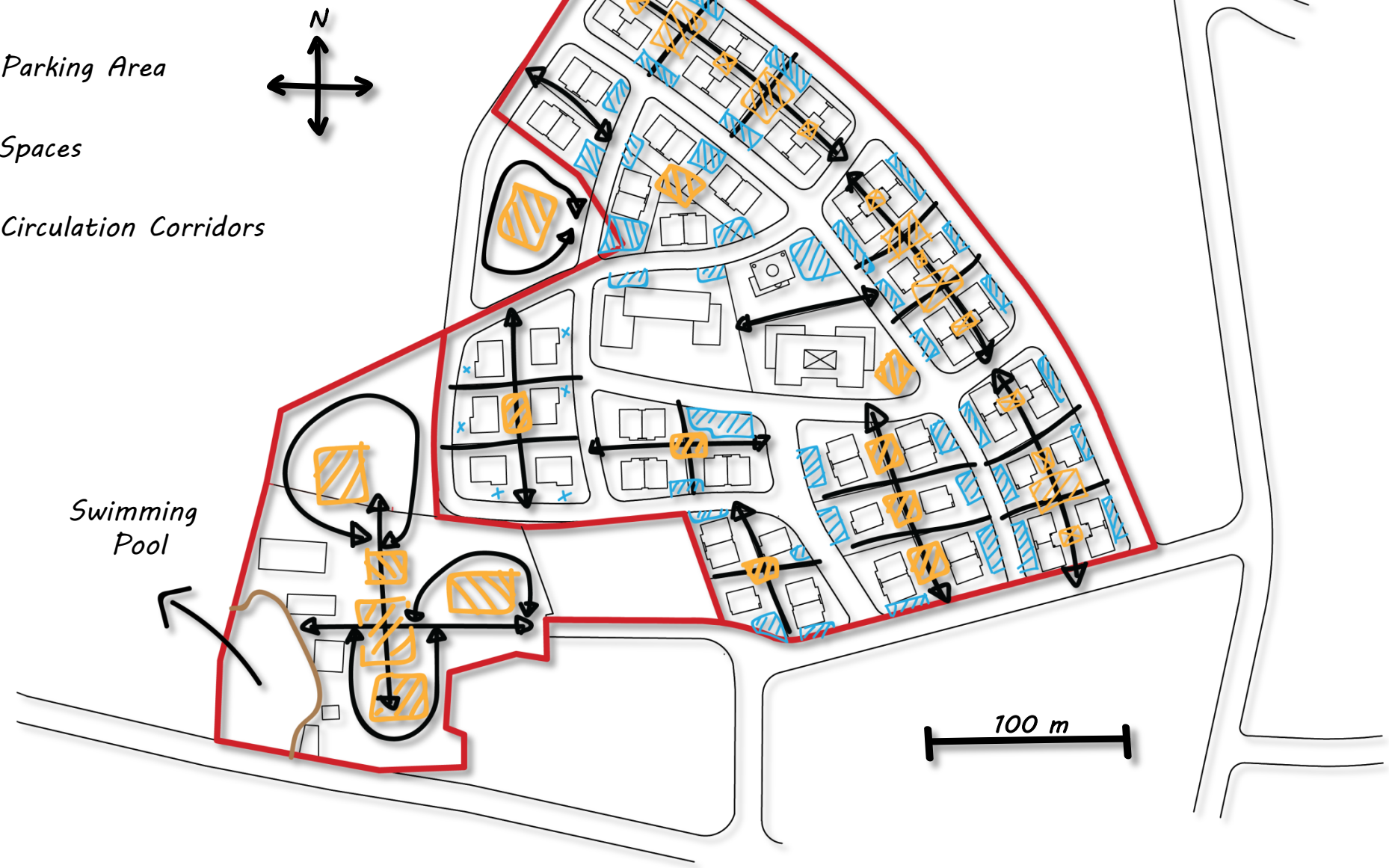
Bus Station
300 m²

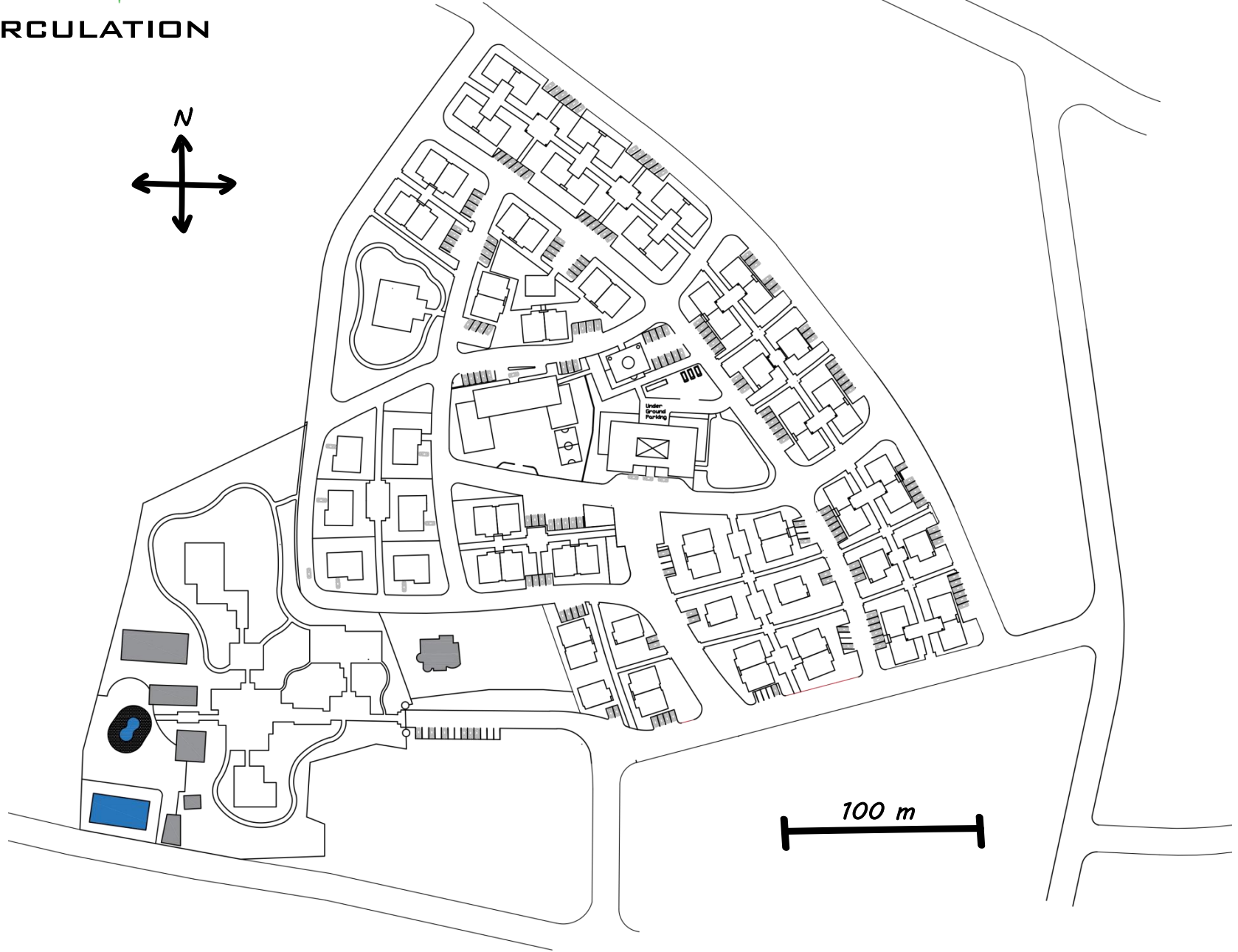
 PARCELS AND UNITS



 SPACES AND CIRCULATION

-  Parking Area
-  Spaces
-  Circulation Corridors



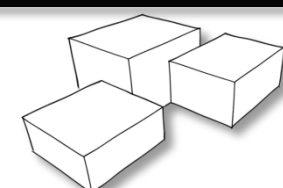
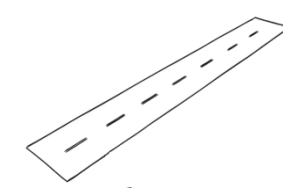


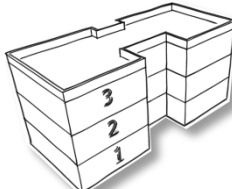
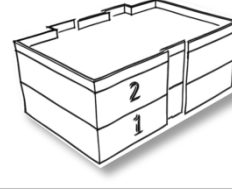
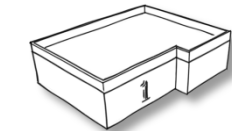
 FINAL PLAN



 PLAN ANALYSIS



	%
 Built up Area	19%
 Streets	25%

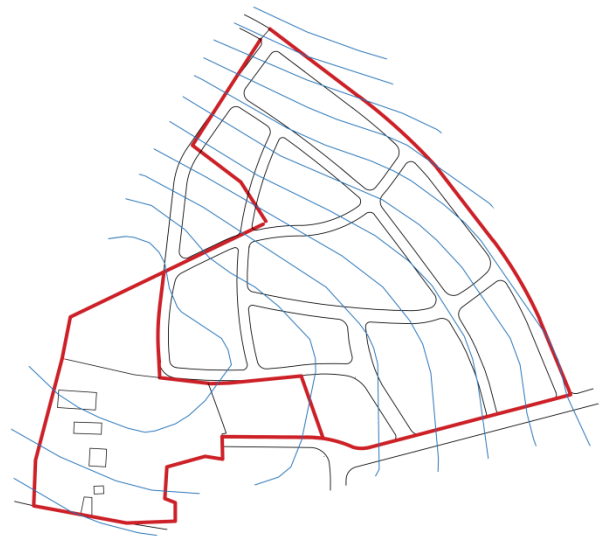
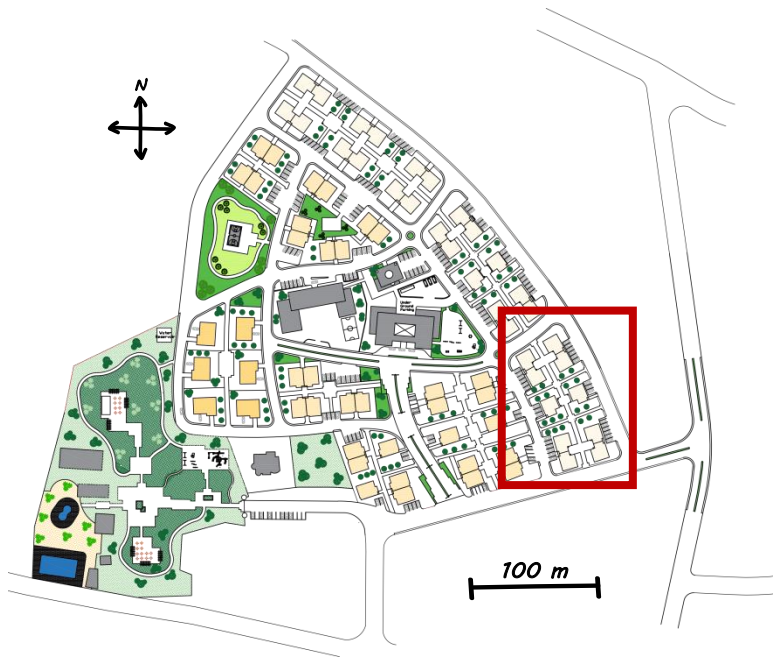
	#	Families
	16	96
	17	64
	6	6

Total
166 Family

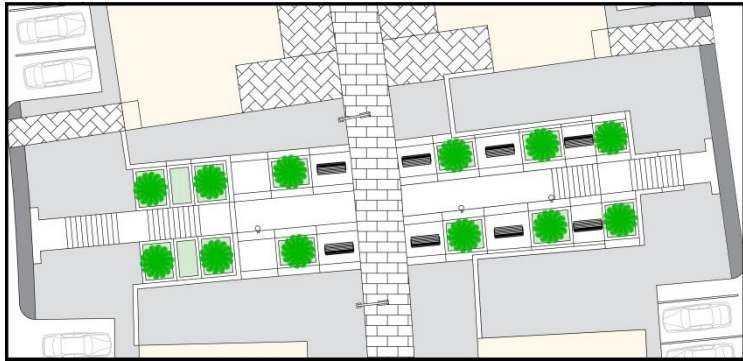
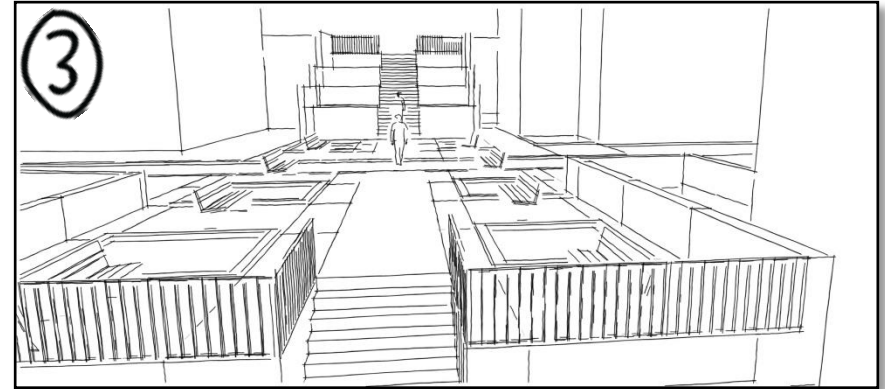


830

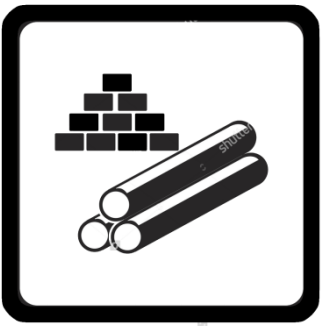
 SITE DESIGN - EXAMPLE



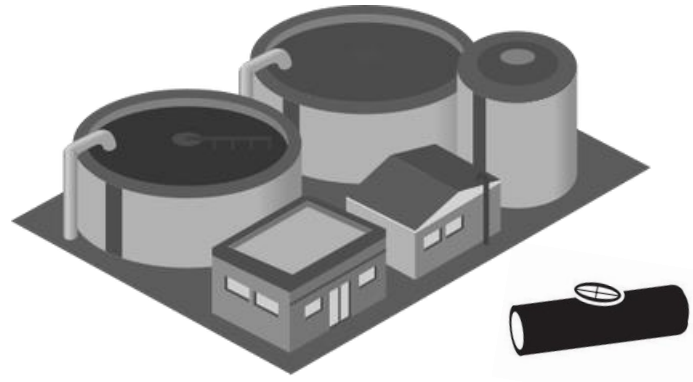
 SITE DESIGN - EXAMPLE



 SUSTAINABLE DESIGN PROPOSALS



Local Construction
Materials



Treatment Plant
And Sewage System



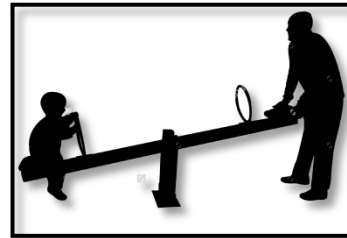
Solar Cells



Open Spaces



Walkability



Playing Areas

**ITS JUST THE BEGINNING
!**

