Delta university For Science & Technology

Faculty Of Engineering - Architecture department



SUSTAINABLE PARK
New Mansoura City

FINAL PROPOSAL

Supervision :
Prof. Amany Ragheb
Ass.prof. Abeer Makram
Dr. Rasha Ali

Content

01 Design objectives
02 Site plan
03 Zoning & Uses
04 Leveling & Approach
05 Entraces
06 Pergola - Seats
07 Rain Collector Units
08 Materials
09 Climbing plants
10 3D Shots

Presentation team : Amr Elsherief - Hesham Mohamed - Dina Abo-Elkhier

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Design Objectives

AIM & OBJECTIVES

01 To design a sustainable park and restore the wetland to be an eco tourism product

02 To provide spaces , facilities and activities that benifit the environment

03 To provide a beautiful and health environment for visitors

DESIGN APPROACH

- Site and wetland recovery ideas

Planted Forest Native Species
Tree planting on formerly forested land & land without trees.

Natural Regeneration
Natural regeneration of formerly forested land in the site with heavily degraded

Protective land and buffers
Enhancement of forests along watercourses.

- Social and economic factors

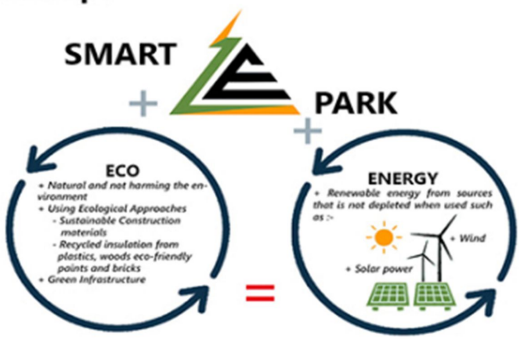
Environmental Friendly Facilities
Enhancement of environmentally friendly park facalities

Natural Recreation & Education
Establishment of natural recreational and educational activities

Agroforestry for Local People
Establishment of trees on active agricultural land throught planting

Local Spaces
Establishment of areas for visitors

Concept



DESIGN STRATEGIES

Wetland Recovery
To restore the wetland area to be an eco tourism product.

Apply Biomimicry method to create floating wetland ecosystems.

Implement design elements that can adapt with site conditions

Nature Education
To design a place for outdoor learning environment that integrate with nature.

Preserve the Heath ecosystem while make it accessible to the visitors.

Outdoor Recreation
Outdoor Recreation
To create a place for recreation and relaxation to the people.

Design play area for children to encourage experiential learning.

Provide viewing area for the visitor to enjoy the scenic beauty of the place.

Site Visibity & Connectivity
Site Visibility and Connectivity
To enhance the site's entrance and improve the circulation.

Provide design elements that can accentuate the site.

Provide green parking space and welcoming area to help user define the area.

DESIGN INSPIRATION

Outdoor Learning Environment



Viewing Lens



Shady Areas



Accessibility





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Site plan









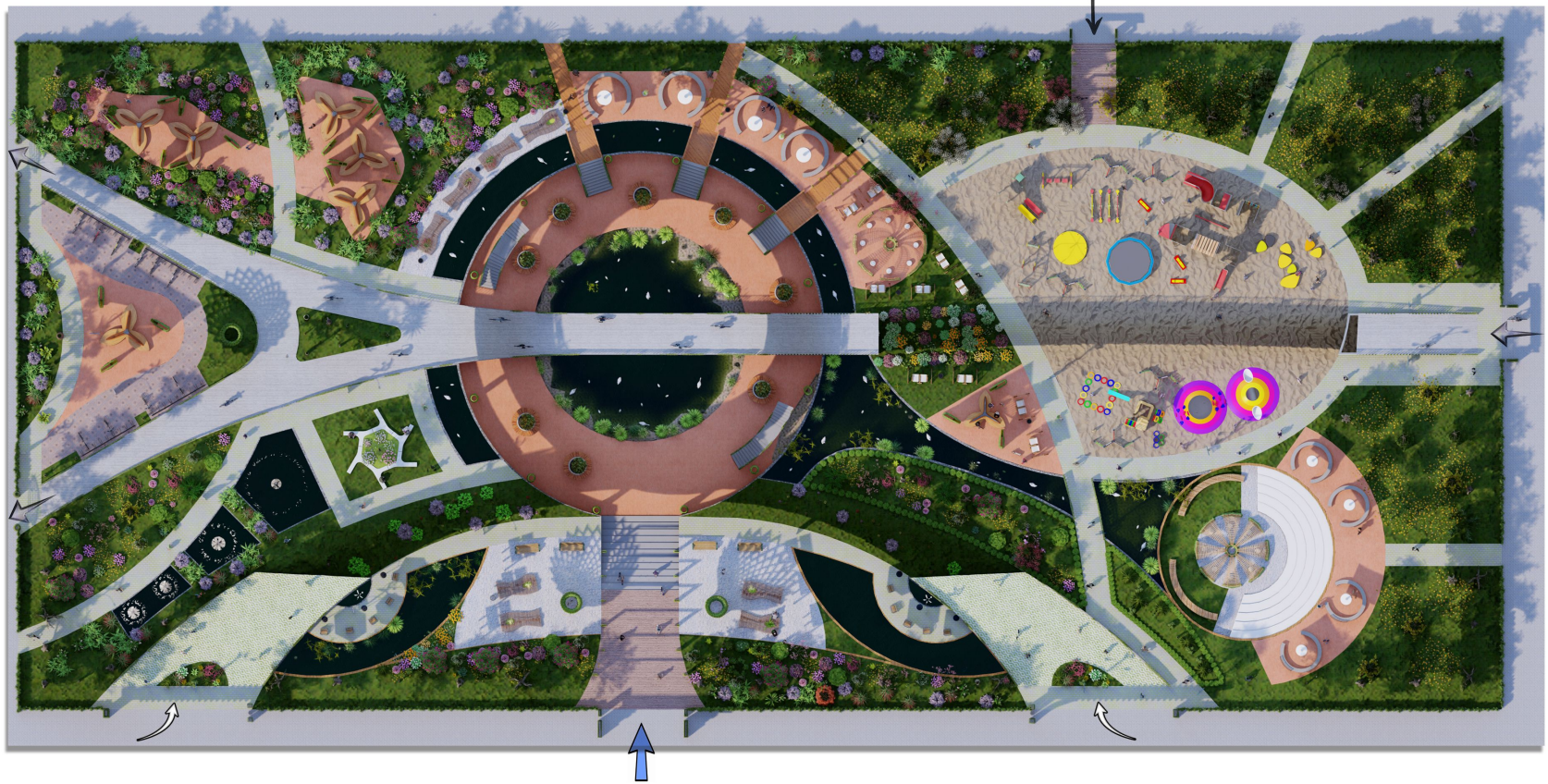
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Zoning & Uses











Section sketch

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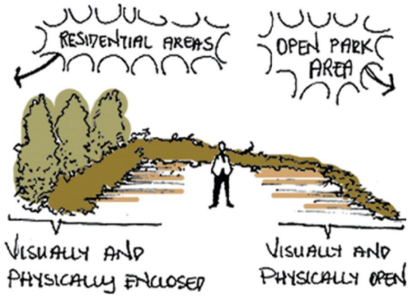
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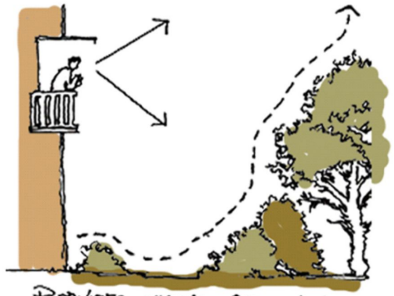
Leveling & Approach

CONCEPTUAL DRAWINGS

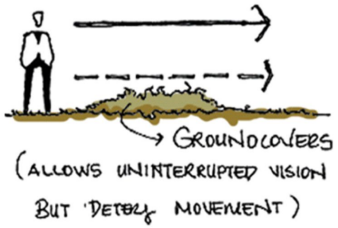
















Layout



Shot (1)



Shot (2)



Shot (3)



Shot (4)



Shot (5)

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Entraces

3- Inner Entrance



4-Kids-area Entrance



Shot (1)



Shot (2)

5-Bicycle Entrance



Shot (1)



Shot (2)

6-Entrance





Layout

1-Main Entrance



Shot (1)



Shot (2)



Shot (3)

2-Bicycle Entrance



Shot (1)



Shot (2)

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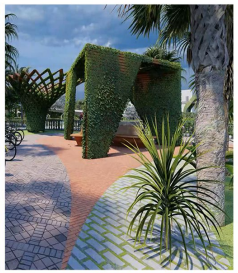
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Pergola - Seats

Sustainable pergola

-WPC Materia
Made with recycled plastic and wood
-Movable Bierds Nest
-Solar Energy Panels
-Climbing plants

Eco friendly pergola

-WPC Materia
Made with recycled plastic and wood
-Climbing plants





Layout

Reacycled Concrete Sitting



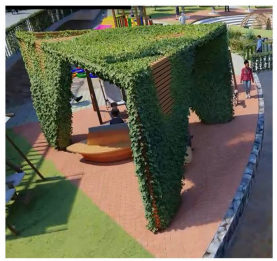
Parametric WPC Sitting

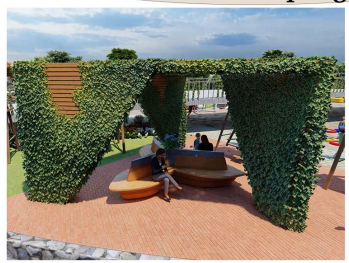




WPC Sitting

Sustainable pergola

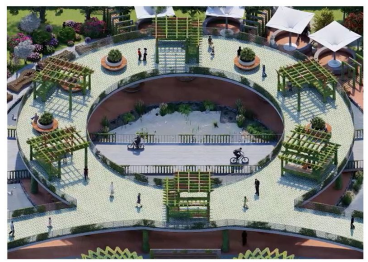

Shot (1)

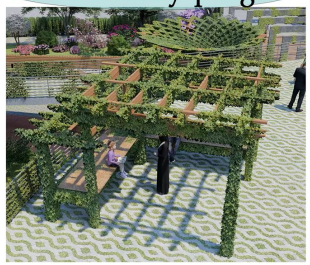

Shot (2)


Shot (3)


Shot (4)

Eco friendly pergola


Shot (5)


Shot (6)


Shot (7)

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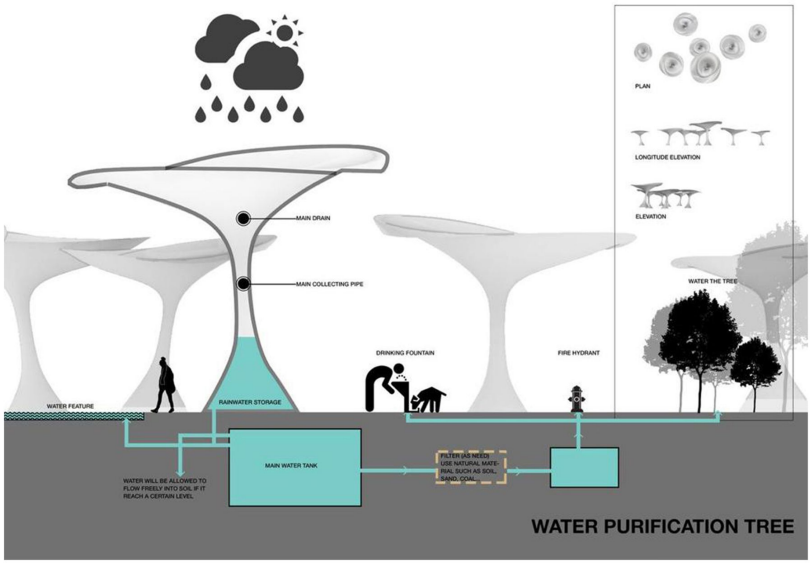
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Rain Collector Units

Rain Water Collector Unit



Rain Water Collector Section

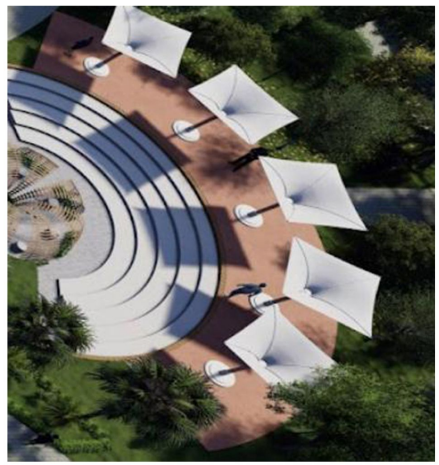




Layout



Shot (1)



Shot (2)

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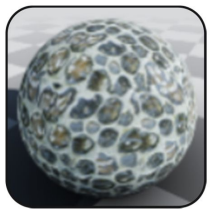
Materials


Stone (1)


Concrete grass


Interlock (1)


Interlock (2)

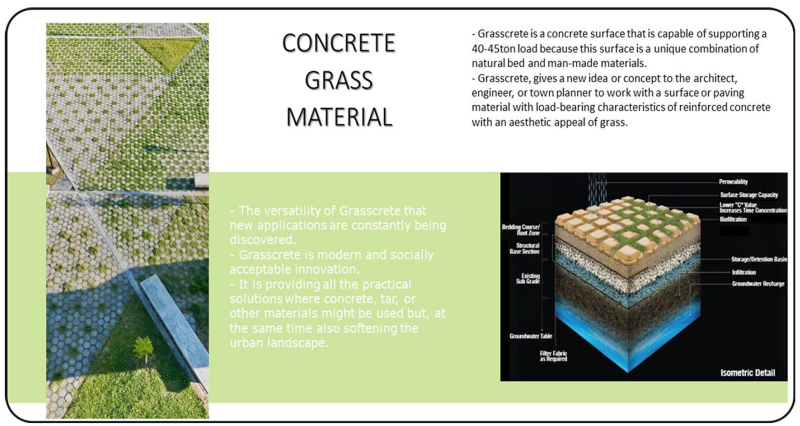

Stone (2)


Concrete


Wood


Metal


Water





Layout


Shot (1)


Shot (2)


Shot (3)


Shot (4)


Shot (5)

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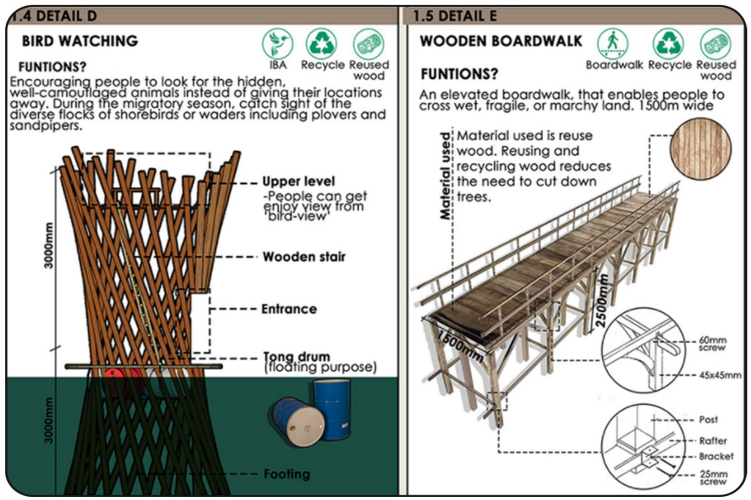
Climbing plants



Bird eye view

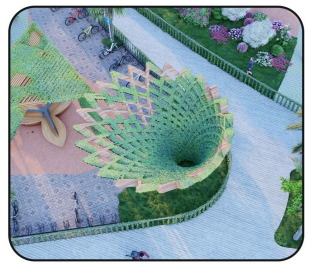


Layout

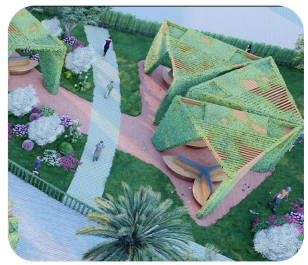




Shot (1)



Shot (2)



Shot (3)



Shot (4)



Shot (5)

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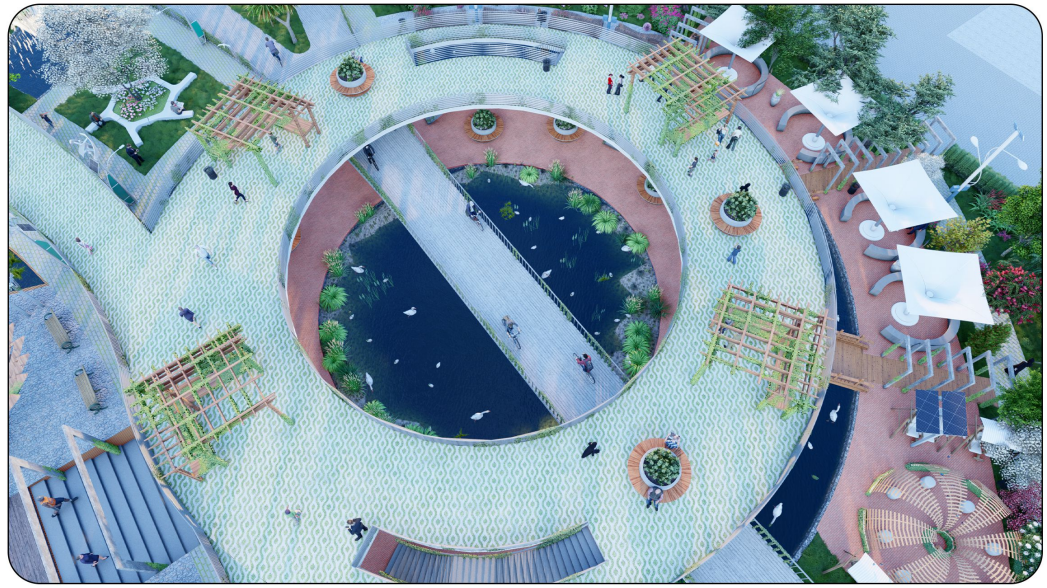
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3D Shots









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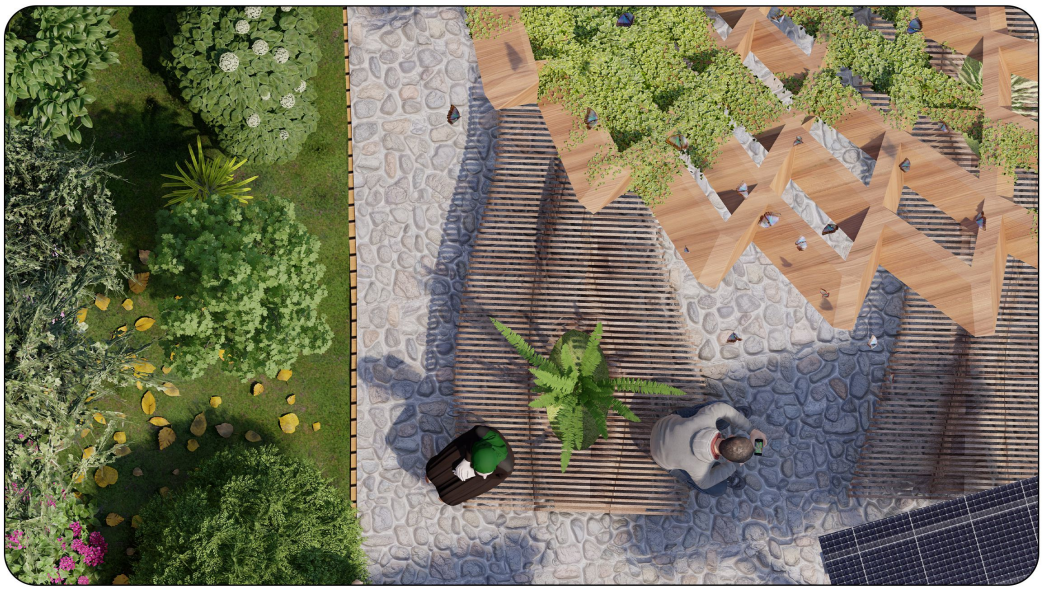
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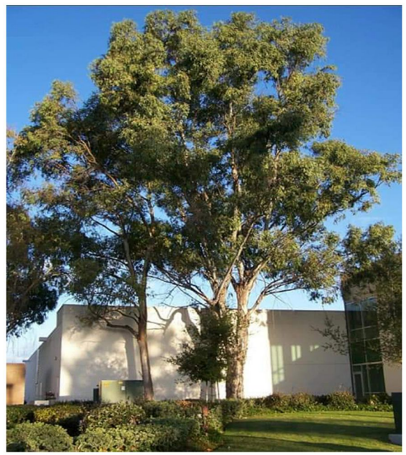
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Trees

Trees type table

Nu.	Symbol	Code	Latin Name	Common Name	Height	Width	Quantity	Clt	Trunk Height
1		Aes. ca.	Aesculus carnea 'Birotii'	Kırmızı Çiçekli Atkestanesi	15 - 20 m	8 - 10 m	3	30	5 m
2		Alb. ju.	Albizia julibrissin	Gülibrişim, İpek Ağacı	10 - 12 m	5 m	3	25	5 - 6 m
3		Pic. om.	Picea omorika	Sırp Ladini	10-25 m	5 - 10 m	4	35	-
4		Cup. ar.	Cupressus arizonica 'Fastigiata'	Arizona Servisi	12 - 15 m	3 - 5 m	6	35	-
5		Pru. ce.	Prunus cerasifera 'Pisardii nigra'	Süs Eriği	7 - 8 m	4 - 5 m	1	2,5	2 - 3 m
6		Cer. sq.	Cercis siliquastrum	Erguvan	7 - 8 m	4 - 5 m	5	1,5	2 - 3 m
7		Cot. co.	Cotinus coggygria	Duman Ağacı, Peruke Çalısı	5 - 7 m	3 m	1	18	1 m
8		Mal. fu.	Malus floribunda	Japon Çiçek Elması	7 - 8 m	4 - 5 m	2	30	1 - 2 m
9		Cor. ma.	Cornus mas	Kızılcık	7 - 15 m	3 - 4 m	3	18	3 - 5 m
10		Pic.gl.	Picea glauca 'Conica'	Yeşil Cüce Konik Ladin	4 - 5 m	1 - 2 m	1	25	-
11		Pin. mu.	Pinus mugo	Dağ çamı	2 - 5 m	2 - 5 m	-	20	-
12		Pic. pu.	Picea pungens 'Glauca Globosa'	Bodur Mavi Ladin	2.5 m	2 m	4	35	-
13		Jac. ma.	Jacobaea maritima	Bahçe Külü, Kül çalısı	15 - 45 cm	9.5 m2	-	ø	-
14		Ber. ver.	Berberis verruculosa	Berberis verruculosa	90 - 180 cm	16.7 m2	-	5	-
15		Vib. op.	Viburnum opulus	Gilaburu	3 - 5 m	3 - 5 m	1	10	-
16		Ros. sp.	Rosa 'Carte Blanche'	Karte Gülü	50 cm	60 cm	1	15	-
17		Syr. vu.	Syringa vulgaris	Leylak	4 - 6 m	4 m	8	55	1 - 2 m
18		Jun. ho.	Juniperus horizontalis	Sürünücü Ardıç	20 - 30 cm	24 m2	-	ø	-
19		Jun. sq.	Juniperus squamata 'Blue Star'	Mavi Sürünücü Halı Yıldız Ardıç	1 m	18 m2	-	ø	-





م	الاسم العربى	الاسم العلمى
1	السرو	*Cupressus sp.*
2	الصنوبريات	*Pinus sp.*
3	الكايا (الماهوجنى الأفريقي)	*Khaya senegalensis*
4	الكافور	*Eucalyptus sp.*
5	الأكاسيا	*Acacia saligna*
6	التوت	*Morus sp.*
7	السيسال	*Agava sisalana*
8	الكازورينا	*Casuarina sp.*
9	كنكاربس	*Concarpus sp.*
10	البامبو (مرحلة التجريب)	*Dendrocalamus strictus*
11	**الجاتروفا .. التفاصيل...**	*Jatropha curcas*
12	الترمناليا	*Terminalia sp.*
13	الحور	*Popular sp.*
14	بعض أشجار وشجيرات الزينة	Ornamental trees and plants









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