

Request for Clarifications - Q&A

Request for Proposals (RFP) for the Implementation of Eco-friendly and Environmental Measures in Fourteen (14) Public Schools in Lebanon

Sustainable Facility Management at Public Schools in Lebanon (SUFA) project. Funded by the German Federal Ministry for Economic Cooperation Development (BMZ) under the education portfolio of GIZ Lebanon.

12 July 2023

Prepared by the Lebanese Center for Energy Conservation (LCEC)

Beirut, Lebanon

Notes to Bidders

1. This document provides the answers to the questions that were asked by interested bidders, following the launching of the RFP to “the Implementation of Eco-friendly and Environmental Measures in Fourteen (14) Public Schools in Lebanon” under SUFA project.
2. The questions are divided in two categories; general questions related to proposal, and specific questions related to technical requirements of the RFP.
3. This document shall be considered an integral part of the RFP.

General Questions:

- Q1. *Shall the contractor pay the bid bond amount upon the bid presentation or after winning the bid?*
A1. *Bid Bond is an integral part of the bidder's proposal. Bid bond submission form (Form 3 of the RFP) shall be filled, signed and submitted. The bid bond shall be paid separately when submitting the bidder's proposal. Every bidder will receive a document from the LCEC confirming the payment of the bid bond. The conditions of returning the bid bond are available in Form 3 of the RFP. A failure in submission of bid bond (Form 3) or submission of any alternate form/text would result in the rejection of the Bid.*
- Q2. *Shall the cash bond of 10000\$ be paid in cash to LCEC or check bond?*
A2. *The bid bond shall be made payable in cash only to the LCEC along with the submitted proposals.*
- Q3. *Can the selected company pay this cash bond after the win directly before the contract?*
A3. *No. Bid bond must be paid on the submission of the proposal as it is a requirement to be included in the bidder's proposal. Failure of submission of bid bond prior the deadline of submission of proposals would result in the rejection of the bid.*
- Q4. *Could you please clarify if the official documents of the company can be submitted as copies or they shall be original copies?*
A4. *Signed and Stamped copies of company's official documents can be submitted.*
- Q5. *Regarding the bank account, we no longer deal with banks since the beginning of the crisis. There are no operating bank accounts since October 17. What is the solution to the company's account statement in this case?*
A5. *All bidders shall have a bank account. Winning bidder cannot receive payments in cash. All payment shall be made by LCEC via bank transfers from fresh account to a fresh account.*
- Q6. *If a company wins the tender, what is the percentage of the down-payment that the company will receive?*
A6. *Payment schedule will be mentioned in the contract to be signed by the winning bidder. Payments percentages amount will be decided by LCEC at a further stage and are subject to negotiation with the winning bidder based on the proposed schedule of work and in accordance with the list of deliverables indicated in the RFP.*

Technical Questions:

- Q7. *Regarding Prototype outdoor classroom, Is there any requirement for drainage?*
A7. Yes, all prototypes shall have an embedded counter sink that requires a drainage system.
- Q8. *Regarding the Amphitheatre, what shall be the material around the amphitheater and the nature of the floor?*
A8. Around the amphitheater is a Pavement tile, and the floor is concrete tile.
- Q9. *Is there any mechanism required for the canopy louvers?*
A9. No mechanism is required for the canopy louvers as they are fixed.
- Q10. *Regarding Priority 3 – Classroom: Is the paint of this room white and should it follow the Specs?*
A10. All items should follow the presented specification, moreover, this room is for kids' activities, the walls will be colored according to this purpose: yellow/blue or yellow/green.
- Q11. *What kind of planters are required?*
A11. Depending on each school location and height, with minimum maintenance. Refer to Planting Guide Prototype subject of Annex 1 of this document.
- Q12. *Regarding toilets maintenance: What kind of maintenance is required?*
A12. Light mending and reparation (Water leakage for faucets or toilet flush system, etc.), no toilet demolition, walls leakage or fixtures modifications.
- Q13. *Any need to build underground water tanks?*
A13. No underground water tanks are required, new water tank's location must be as fixed on drawings.
- Q14. *What shall be the height of concrete pots (75cm x 100cm)?*
A14. Not less than 45cm, knowing that those items are standardized and can be purchased from local market.

Q15. *Any specific design for concrete bench back?*

A15. No, these items are standardized and can be purchased from local market respecting the required dimensions.

Q16. *Any requirement for storage?*

A16. Contractor, along with LCEC, shall coordinate with School for reserved space for material storage.

Q17. *Are there any wooden items in the project?*

A17. Yes, priority 3 (Activity room) shall include boards and lockers for kids' activity.

Q18. *Are Outdoor classroom- wooden trunks fixed?*

A18. No, wooden trunks are from treated and already cut branches and should be flexible for a clear passage.

Q19. *Regarding compost station: can this item be purchased from the local market?*

A19. This item shall be made of treated fire wood planks as shown in drawings. The contractor shall fabricate the item as per the prototype indicated in the drawings and item specifications indicated in the BoQ.

Q20. *Regarding Playground marking:*

Q20.1. Shall the contractor follow the same proposed colors?

A20.1. Yes, better than having different colors for each school.

Q20.2. Shall the contractor adjust and treat the floor before the paint?

A.20.2. No, Playgrounds will just receive the paint without any adjustment nor treatment.

Q21. *Do we need a filtration system and a pump as mentioned in the RWH prototype documents for item 5 in the BOQ – Lot 1 in Bar Elias Elementary Public School?*

A21. Yes, a filtration system and a pump are needed for the RWH as mentioned in the prototype documents.

Q22. *Could you please specify the type and name of the planting selection for item 6 in the BOQ-lot 1 in Bar Elias Elementary Public School?*

A22. Refer to the planting guide prototype subject of Annex 1 of this document to decide on the planting selection based on the zone of the school in question.

Annex 1: Planting Guide Prototype

I - Introduction

The Planting Guide Prototype is part of a new series of outdoor spaces prototypes and guidelines designed for Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH within their project “Sustainable Facility Management at Public Schools in Lebanon” SUFA implemented in coordination with the Lebanese

Ministry for Education and Higher Education (MEHE). The planting guide is an informative document on the possible native plants that can be planted in public schools across Lebanon depending on the climatic zone.

General Concept

The concept of the planting guide for the public school in Lebanon is to provide a selection of plants that are native to the region and to the different climatic zones of Lebanon.

By observing the surrounding biodiversity in each zone, a series of species can be selected for each case.

Four climatic zones characterize Lebanon’s ecology:

Zone 1: Coastal region

Zone 2: Medium-mountain region

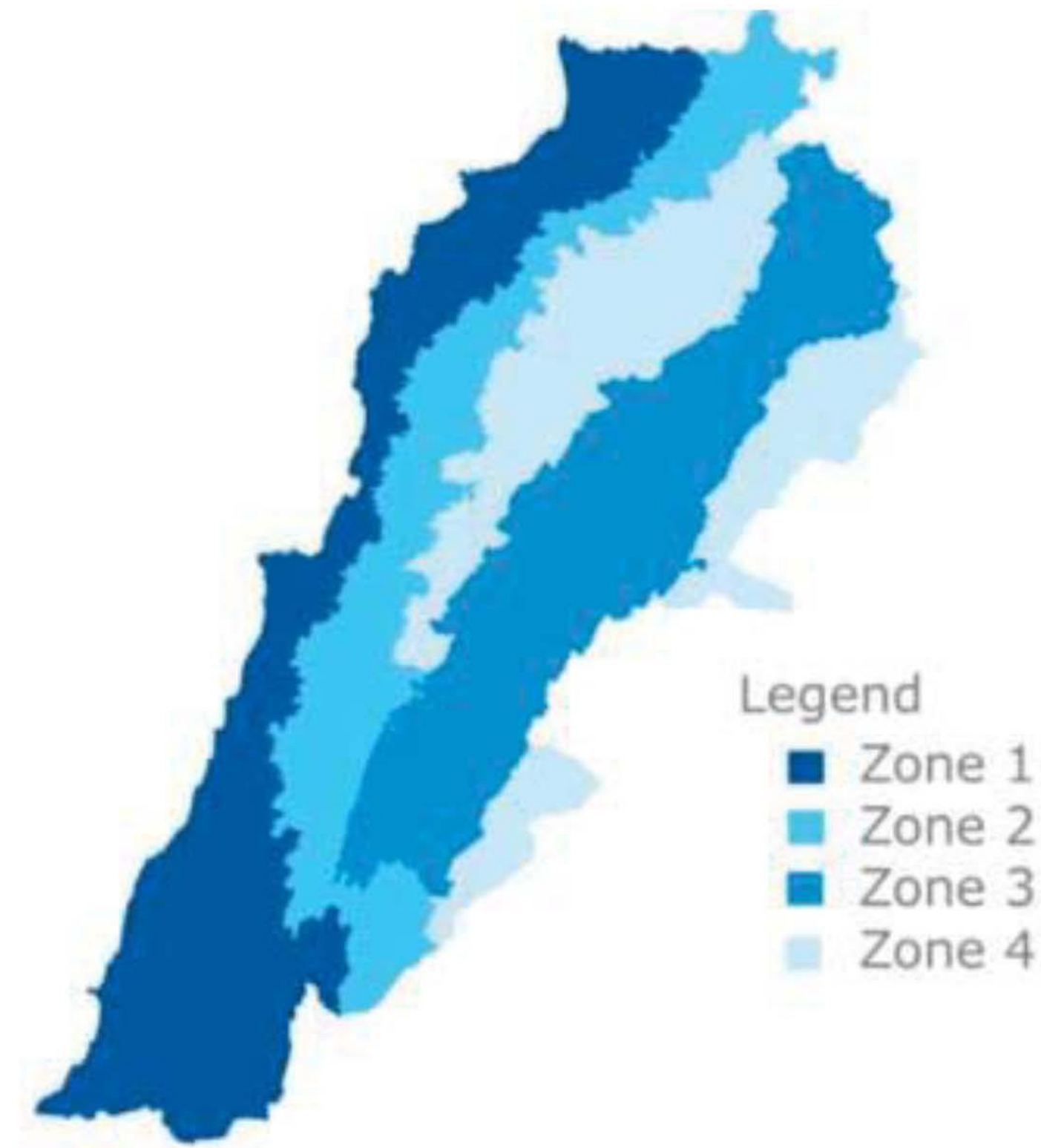
Zone 3: Beqaa inland plateau

Zone 4: High-mountain region

Three pilot schools are used as reference for the planting guide:

- 1- Zouk Mosbeh Intermediate Public School in the coastal region
- 2- Amatour Intermediate Public School in the Medium-mountain region
- 3- Al Moallaka Intermediate Public School for Boys in the Beqaa inland plateau region

By planning native species, the aim is to provide public schools with planted areas that require the least maintenance and irrigation. The irrigation is thus reduced to an establishment period of around 3 years, after which the plants become fully independent and established within an ecosystem.



Climatic zones of Lebanon

https://www.researchgate.net/publication/251896619_Prospects_for_solar_thermal_energy_use_in_residential_buildings_in_Lebanon

II – Planting References

The plant selection for the public schools is mainly inspired by native plants found across the country. Although there are slight modifications between each region it is to be noted that the moderate climate of Lebanon allows for most plants to grow in the

different climatic zones. **Identifications numbers** placed on each plant picture refer to the identification table found in section III, with all relevant information per plant.

1- Zone 1: Coastal Region

Taking the school of Zouk Mosbeh Intermediate Public School (approx. +150m altitude) as an example from the coastal area of Lebanon.

A planting palette inspired by the olive and citrus orchards, along with some native trees and plants found in the area is created, as shown below.



OLIVE TREES



LAUREL



ROSEMARY



CHINABERRY TREE



HOLLYHOCK



GERANIUM



LEMON AND ORANGE TREES

2- Zone 2: Medium-Mountain Region

In Amatur, a town located in the mid-mountain region of Lebanon (approx. +1000m), the planting palette, as shown below, is mostly inspired from the "maquis" forests found across Mount Lebanon and the Mediterranean.



3
PINE TREES



5
STRAWBERRY TREE



14
SPANISH BROOM



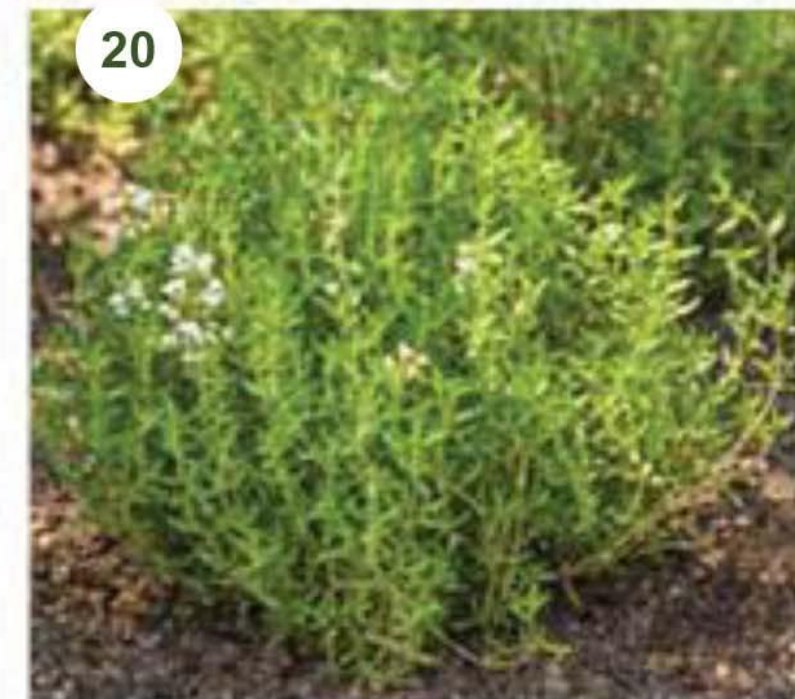
13
DOGROSE



19
SAGE



16
BUTTERFLY LAVENDER



20
THYME

3- Zone 3 : Beqaa Inland Plateau Region

Al Moallaka is a town located on the east side of the Bekaa plains (around +900m). Inspired by the planting scheme around this fertile area, a planting palette was deduced as shown below.



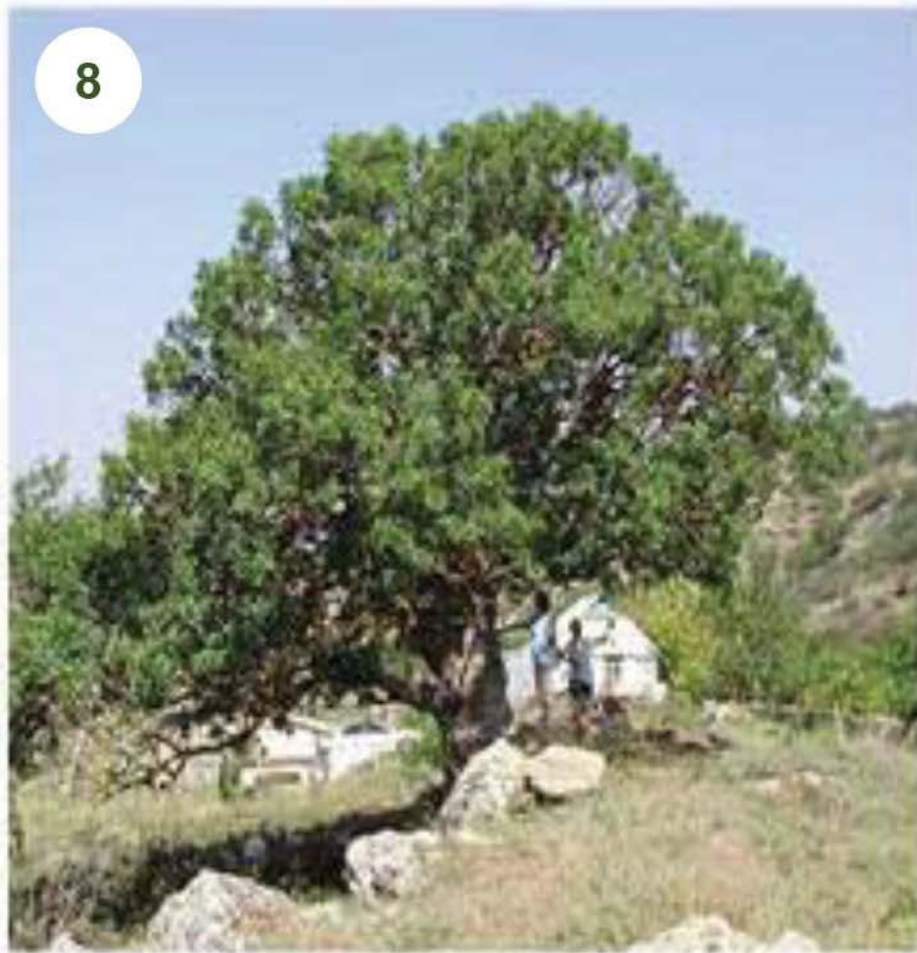
1
CYPRESS TREE



12
MYRTUS COMMUNIS



21
ENGLISH IVY



8
TEREBINTH TREE



6
JUDAS TREE



14
SPANISH BROOM



18
ROSEMARY

III – Technical Information

1. Identification Table

Type	No.	Scientific Name	Common Name	Arabic Name	Avg. Height	Avg. Spread	Specs	Favored Zones
Tall / High Trees	1	Cypressuss Sempervirens	Mediterranean Cypress	سرو	20-30m	2m	Evergreen	1 – 2 – 3
	2	Melia Azedarach	Chinaberry	زنزلخت	6-15m	4-8m	Deciduous	1 – 2 – 3
	3	Pinus Pinea	Pine	صنوبر	25-30m	6-10m	Evergreen	1 – 2
Small / Multi-trunk Trees	4	Acer Syriacum	Syrian Maple	القيقب	3-5m	1.5-3m	Semi-evergreen	1 – 2
	5	Arbutus Andrachne	Strawberry	قطلب	3-5m	5-8m	Evergreen / Edible	2
	6	Cercis Siliquastrum	Judas	الزمزريق	5-8m	5-8m	Deciduous	2 – 3
	7	Laurus Nobilis	Laurel	الغار	8-15m	5-8m	Evergreen / Edible	1 – 2
	8	Pistacia Palestina	Terebinth	البطم	5-8m	5-8m	Deciduous	1 – 2
Fruit Trees	9	Citrus Limon	Lemon	حامض	5-8m	3-5m	Evergreen / Edible	1 – 3
	10	Citrus Aurantium	Bitter Orange	بو صفير	5-8m	1.5-3m	Evergreen / Edible	1 – 3
	11	Olea Europea	Olive	زيتون	8-15m	8-10m	Evergreen / Edible	1
High / Medium Shrubs	12	Myrtus Communis	Myrtle	حنبلاس	1.5-3m	1.5-3m	Evergreen / Edible	1 – 2
	13	Rosa Canina	Dog-rose	نسرين	5-8m	3-5m	Semi-evergreen	2
	14	Spartium Junceum	Spanish broom	الوزال	1.5-3m	1.5-3m	Deciduous	2 – 3

Type	No.	Scientific Name	Common Name	Arabic Name	Avg. Height	Avg. Spread	Specs	Favored Zones
Medium / Small Shrubs	15	Alcea rosea	Hollyhock	خاتمية	1.5-3m	0.5-1m	Short lived / Perennial	1 – 3
	16	Lavendula Stoechas	Butterfly Lavender	لافندر/ خُرَامِي	0.4m	0.4m	Perennial / Aromatic	2
	17	Pelargonium Gravolens	Geranium	عطر	1-1.5m	0.5-1m	Evergreen / Perennial / Aromatic	1 – 2
	18	Rosmarinus officinales / prostratus	Rosemary	إكليل الجبل	0.5-1.8m	1.2-1.5m	Evergreen / Perennial / Aromatic	1 – 2 – 3
	19	Salvia Officinalis	Sage	القويسة مبرمية قصعين	0.8-1m	0.8-1m	Evergreen / Perennial / Aromatic	1 – 2 – 3
	20	Thymus spp	Common Thyme	زعر	0.5m	0.5m	Evergreen / Aromatic / Edible	1 – 2 – 3
Groundcovers	21	Hedera Helix	English Ivy	لبلاب متسلق / هيديرا	5-10m	5-10m	Evergreen / rampant - climbing	1 – 2 – 3
	22	Pathenocissus quinquefolia	Virgin creeper	فرجينيا الزاحف	10-20m	5-10m	Deciduous / climbing	2
	23	Juniperus Horizontalis	Juniper creeper	شربين	0.5m	1.5-3m	Evergreen	2

2. Pricing Estimation Table

Type	No.	Scientific Name	Pot Size (in CM)	Caliper (in CM)	TH: Trunk Height H: Height (in M)
Tall / High Trees	1	Cypressuss Sempervirens	-	0.15-0.2	H: 3
	2	Melia Azedarach	-	0.12-0.18	TH: 2.5-3
	3	Pinus Pinea	-	0.3-0.35	TH: 5-5.5
Small / Multi-trunk Trees	4	Acer Syriacum	-	0.3-0.35	TH: 1
	5	Arbutus Andrachne	-	-	TH: 2
	6	Cercis Siliquastrum	-	-	TH: 1-1.5
	7	Laurus Nobilis	-	-	TH: 2-2.5
	8	Pistacia Palestina	-	-	TH: 2
Fruit Trees	9	Citrus Aurantium	-	0.2-0.25	TH: 3-3.5
	10	Citrus Limon	-	0.2-0.25	TH: 3-3.5
	11	Olea Europea	-	0.3-0.35	TH: 3
High / Medium Shrubs	12	Myrtus Communis	25	-	H > 0.8
	13	Rosa Canina	14	-	H: 1
	14	Spartium Junceum	16	-	H: 1

Type	No.	Scientific Name	Pot Size (in CM)	Caliper (in CM)	TH: Trunk Height H: Height (in M)
Medium / Small Shrubs	15	Alcea rosea	14	-	H > 1
	16	Lavendula Stoechas	14	-	-
	17	Pelargonium Gravolens	20	-	-
	18	Rosmarinus officinalis / prostratus	12	-	-
	19	Salvia Officinalis	20	-	-
	20	Thymus spp	12	-	-
Groundcovers	21	Hedera Hellix	20	-	H: 2
	22	Parthenocissus quinquefolia	20	-	H: 2
	23	Juniperus Horizontalis	14	-	-

IV – Maintenance

1. Preventive maintenance: Planting phase	
Soil	Soil amendment and soil supply if needed. Consistence of soil to be as follow: Friable, neither heavy clay nor of very light sandy nature consisting of the following, within 5% +/-: 45% sand, 35% silt, 20% clay and pH of 6.2 to 7.2. Free from subsoil, roots, vegetation, debris, toxic materials, stones over 50 mm diameter, containing four percent (4%) minimum organic matter for clay loams and two percent (2%) minimum organic matter for sandy loams and must be capable of sustaining vigorous plant growth.
Staking	The trees should always have staking appropriate to their size so they stand erect until they settle
Roots	Root balls are to be protected and trees are to be handled with care.
Watering	Provide for deep watering the first three days post planting.
Anti-erosion	If needed: Supply and lay 2 layers of anti-erosion mats (biodegradable - jute in double layer) on slope greater than 25degrees. One jute layer to be laid under the soil to separate the soil from the backfilled earth below, another layer to be laid on top of the soil in sloped area (>25degrees) to prevent erosion.
Irrigation	An irrigation schedule should be established in the first years to allow for deep root growth. The irrigation should be thorough and spaced in time. Adjusting irrigation frequency according to seasons.
Mulch	To limit evaporation, it is preferable to use mulch around the plants. Pine mulch or other.
Weeding	Training the maintenance personal to recognize invasive plants and weed them.
	Managing the planting through companion plants to minimize using pesticide.
Seeds	Train the maintenance personnel to collect the seeds from different native plants for propagation within the garden

2. Preventive Maintenance: Post planting			
	Inspection	Maintenance	Frequency
Soil	Inspect soil quality when planting	Level the soil, make sure there is curving under the plants to allow for deep watering	monthly
Staking	-	-	Upon planting and then once every season
Roots & Fertilizers	-	Fertilizing	Once per semester or as needed
Pests	Inspect for invasive pests and insects	Eradication of pest attacks / spraying	If needed
Pruning	-	Pruning and trimming	Once every year
	Limited pruning and cutting back	According to species, decide which are to be cut back seasonally and which are to be pruned.	seasonal
Irrigation	Irrigation system	Irrigation time/ irrigation accessories	Monthly for the first 3 to 4 years
Weeds	Inspect for invasive weeds growing under the plants	Weeding	Monthly for the first 3 years
Seeds	Seed collection	-	Mainly autumn