

ROSHANARA'S NET
A Garden of Medicinal Plants

48 degrees Centrigrade Public Art. Ecology
Roshanara Park, Delhi, India

MARY MISS



Park and Neighborhood

ROSHANARA'S NET

A Garden of Medicinal Plants

Looking at sustainability in a city like Delhi, it becomes apparent that it is important to consider issues that range from the micro to the macro. This project focuses on the small scale -- the health and well being of the individual -- the human ecology of the place. How might the experiences of the individual lead to small transformations in a whole community?

QUESTIONS

After visiting the Roshanara neighborhood and park a series of questions arose in my mind:

Could this neglected park and archaeological site be come more significant to the adjacent community today?

How could the park become more of an amenity for the adjoining neighborhood?

How could it be used by a more diverse group of people including women and children?

Could a new relationship be developed between the use of the park and the community?

Is it possible to choreograph a different pattern of urban space, to create a map of that area other than the one which is currently understood?

Is it possible to create a new mental configuration between the community and park--a new set of experiences?

Can this happen by radically transforming the park for a period of time?

Could the existing infrastructure (fences) and elements (water channel area and pavilion) of the historic garden complex be adopted and built upon for this transformation?

IMAGES

The images of textiles and gardens arose simultaneously as I considered how to transform the place. Trying to imagine the garden that was once here led to the consideration of the evocative gardens of textiles and rugs. Would it be possible to use these sources -- and the idea of the accumulation of threads creating a pattern -- as a basis for a temporary, new kind of garden?

THE NET

Imagine a net being cast over Roshanara's Tomb and the adjacent neighborhood. The knots of this net are evident in the pattern of the new garden in the park. Their expression also extends into the surrounding neighborhood as 'fragments' of park ('Portable Park' elements). The two, park and neighborhood, become connected through experiences: activities, memories, movements, words, practices. But the primary connection will be through the individuals who come to the place and create the attachments, making the 'knots' that begin to redefine the place.

THE GARDEN

A garden of medicinal plants has been chosen -- herbs, bushes, trees and other plants which have healing benefits -- will be the focus of this garden. Some of the plants will be present through naming while others will be clustered in pots at the entry to the garden. An Ayurvedic practitioner or plant specialist will be available at scheduled times to discuss the benefits of various plants, which ones might be grown in household gardens and used directly, sources of plants and how to grow them.

DESCRIPTION

Entering through the gates of Roshanara's Tomb, the visitor finds an array of plants configured into diamond shaped clusters. Beyond the plants an orange and blue pattern covering the entire ground surface to either side of the central channel is visible; the pattern continues onto the fence surrounding the archaeological site in this area.

Proceeding into the 'garden' and approaching one of the orange diamonds laid out on the ground, the pattern disappears: what had appeared as a solid figure becomes a series of 2 inch (5 cm) diameter pipes laid out at 15 inch (38 cm) intervals. The middle blue pipe has the name of a medicinal plant on its top surface and to either side there is text in Hindi and English describing the uses of the plant. This text has been applied to a tin sheet on the ground held in place by the three center pipes. Over a hundred of the most useful plants are named on this patterned ground surface that makes up the garden.

The pickets of the fence each have pieces of colored plastic tube configured into a diamond. As the visitor walks the length of the site, the diamonds on the pickets immediately adjacent dissolve while those in the distance align to create a solid patterned border. As with all the markings on the site--now you see them, now you don't.

At the entrance gate actual medicinal plants form clusters interspersed with the orange diamond pattern. To either side, a 25 ft x 36 ft awning provides shade for plants and people. It is also where the Ayurvedic practitioner will be located.

To inform the community and begin to alter the relationship between the park and its surroundings a number of 'Portable Parks' -- movable fragments of this temporary garden -- will be placed in changing locations around the neighborhood during the period of the installation. Each will have a fragment of the patterned fence, plants and information about the project, its location, and the schedule for when the Ayurvedic practitioners will be available.

GARDEN AS FRAMEWORK FOR MEMORY

Will Roshanara's garden now be remembered as a place of pleasure, a source of well being?

Through the experience of the temporary garden, will the information and what was encountered there effect the community in a direct way?

Could consultations continue to occur in the park on a regular basis?

Can individuals begin to cultivate some of these plants in their own kitchen gardens in pots on windowsills, yards or roofs (at the end of the project, plants will be distributed to interested neighbors)?

Can a portion of the park adjacent to the neighborhood but outside the protected archaeological zone be developed as a community medicinal garden?

Can a new layer be added to the history and tradition of this place, one that will transform it once again with another iteration of a garden, one which addresses contemporary issues?







आप जानकी पूर्ण प्रस्ताव की
विषयी प्रत्यक्षपणे मागणी से हे
उलझन ?

P. Jewellers

VIJAYA BANK

विजया बँक

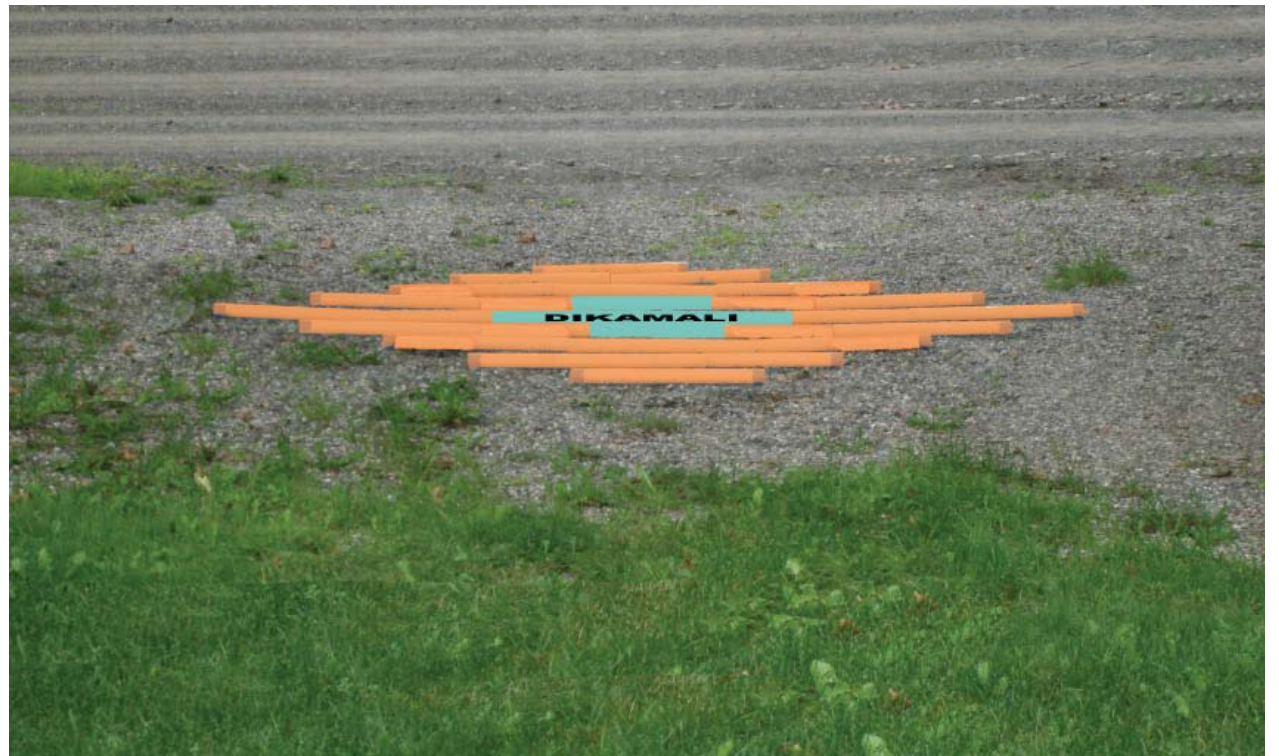
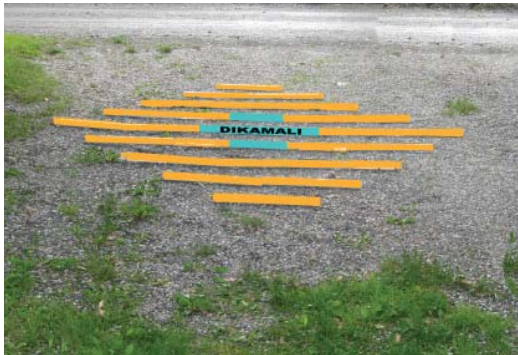
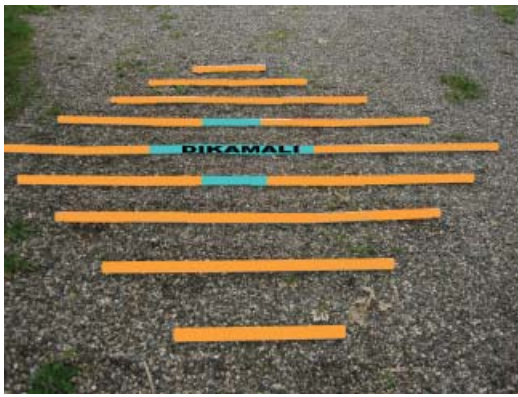
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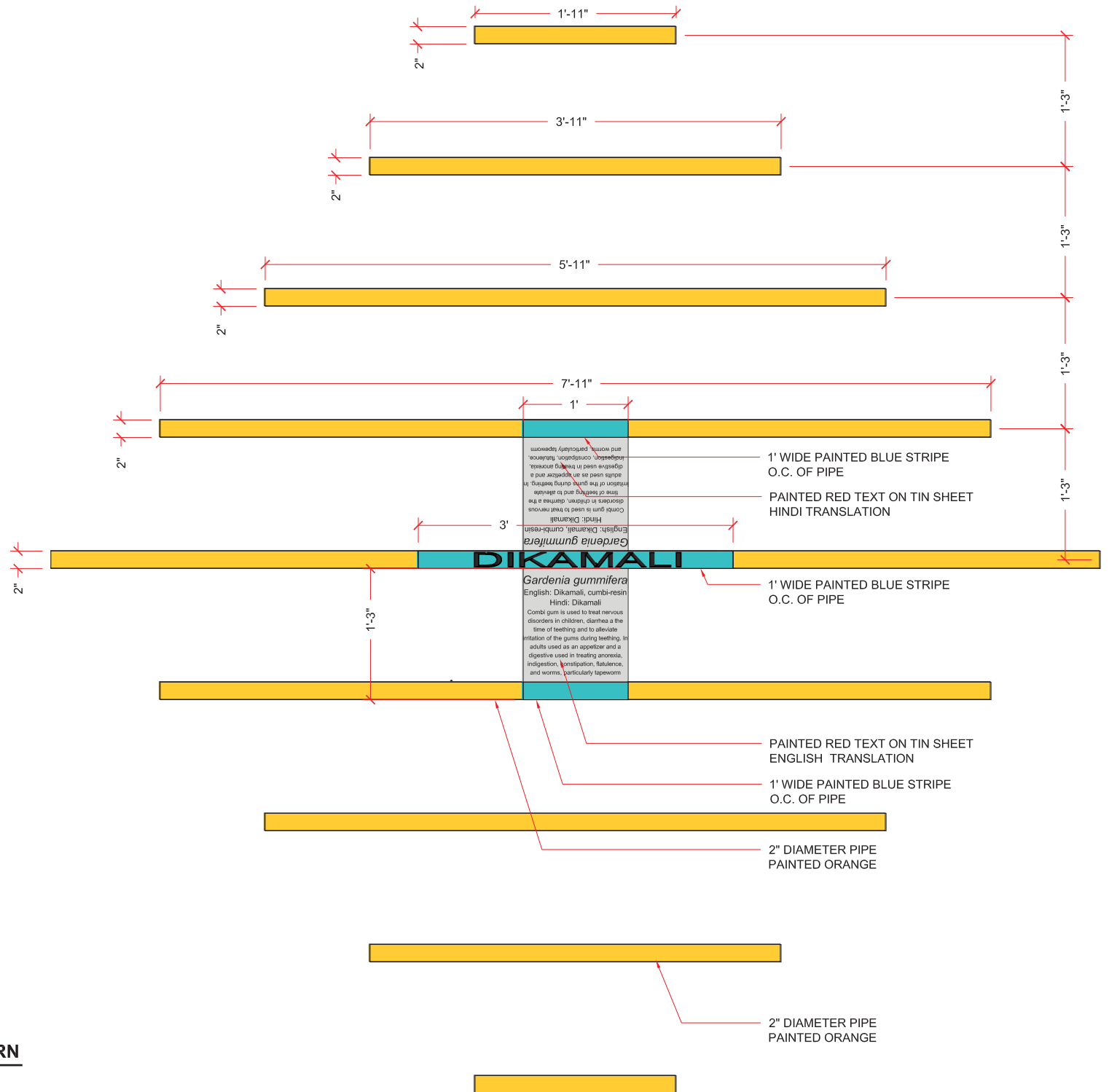
Roshanara's NET

A Garden of
Medicinal Plants
Roshanara Park
Dec 12th - Jan 3rd

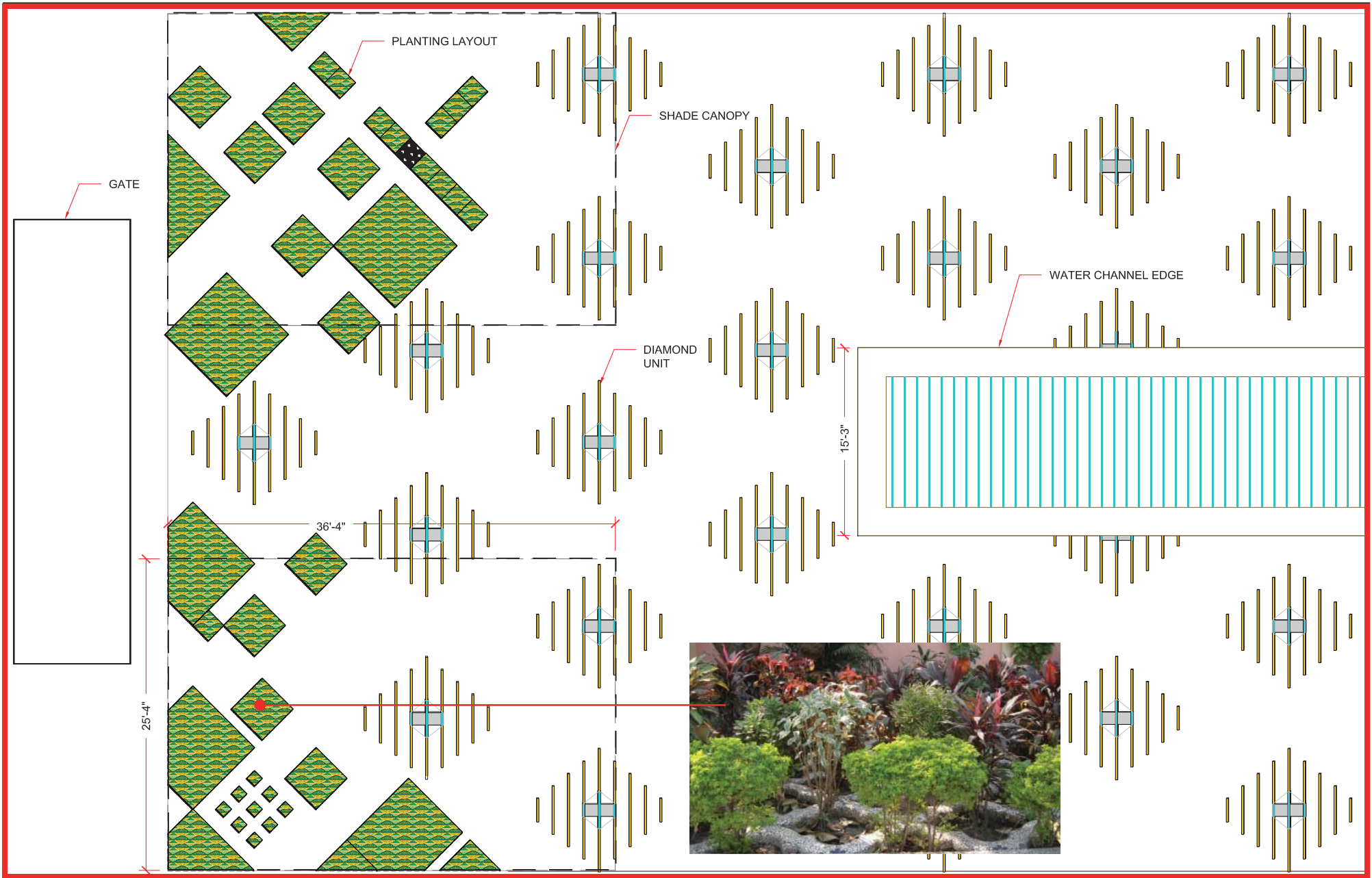
An Ayurvedic Healing
and Plant Specialist
will be available
daily from 4 to 6
to discuss household
healing gardens



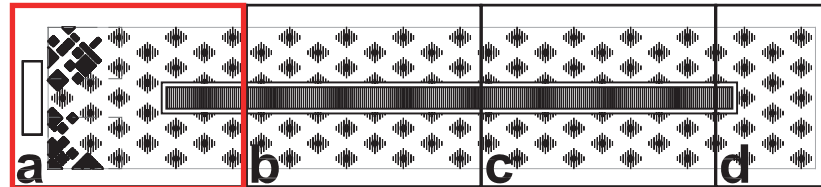




1 DIAMOND DETAIL PATTERN
SCALE: 3/4" = 1'-0"



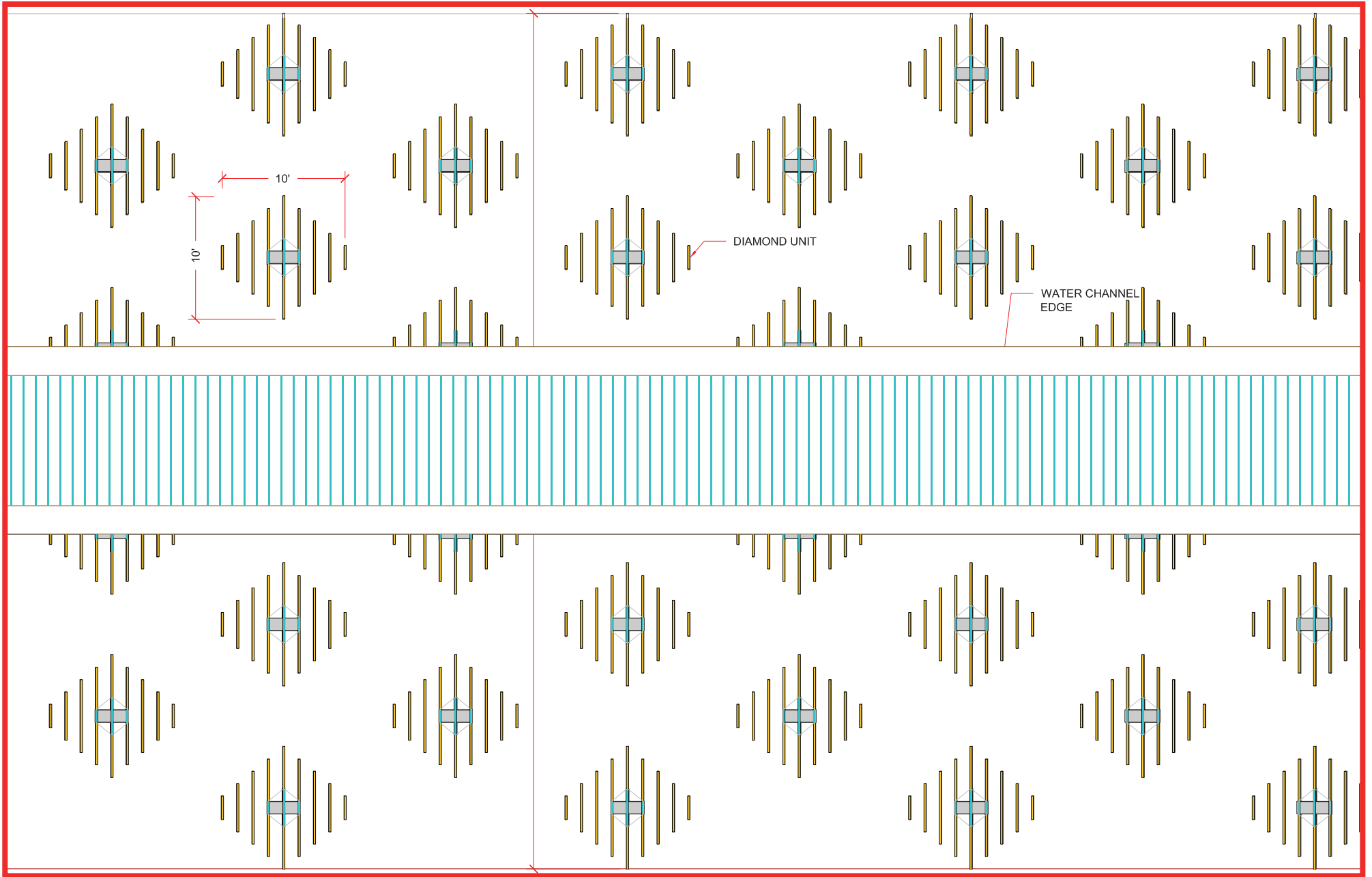
KEY PLAN



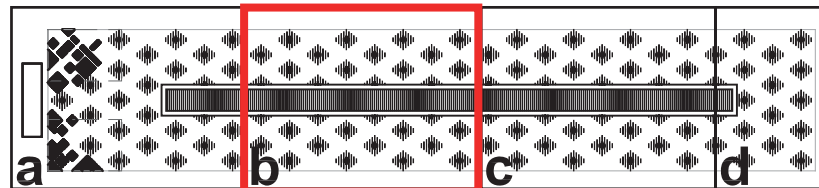
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GROUND PATTERN "a" -CROP

SCALE: 3/32" = 1'-0"

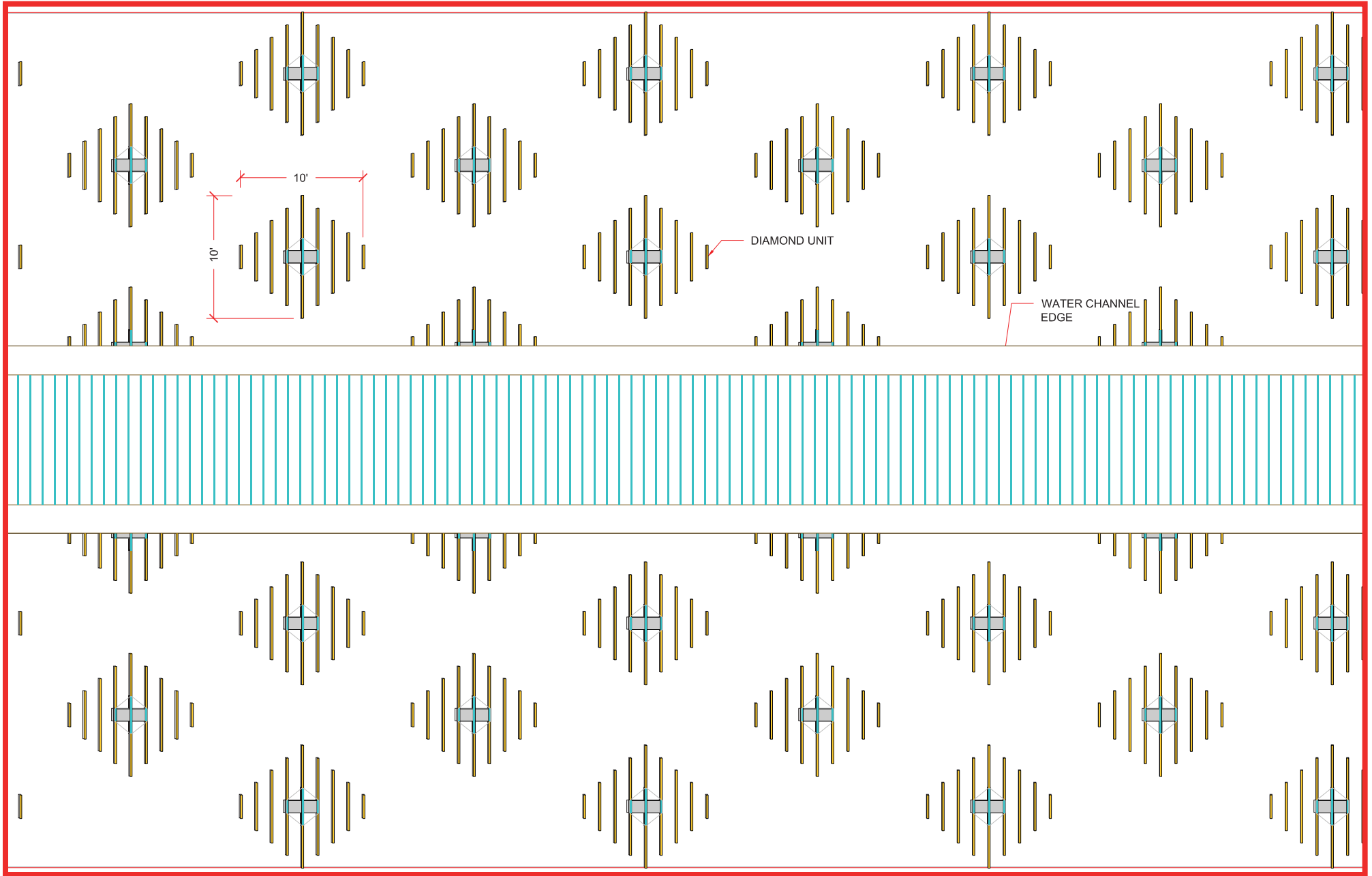


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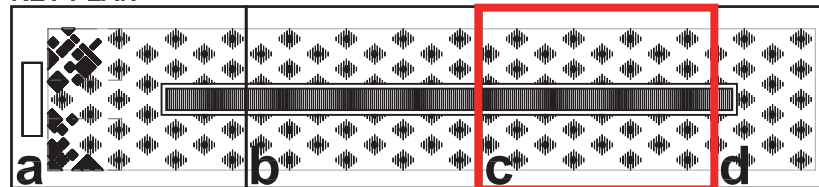


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GROUND PATTERN "b" -CROP
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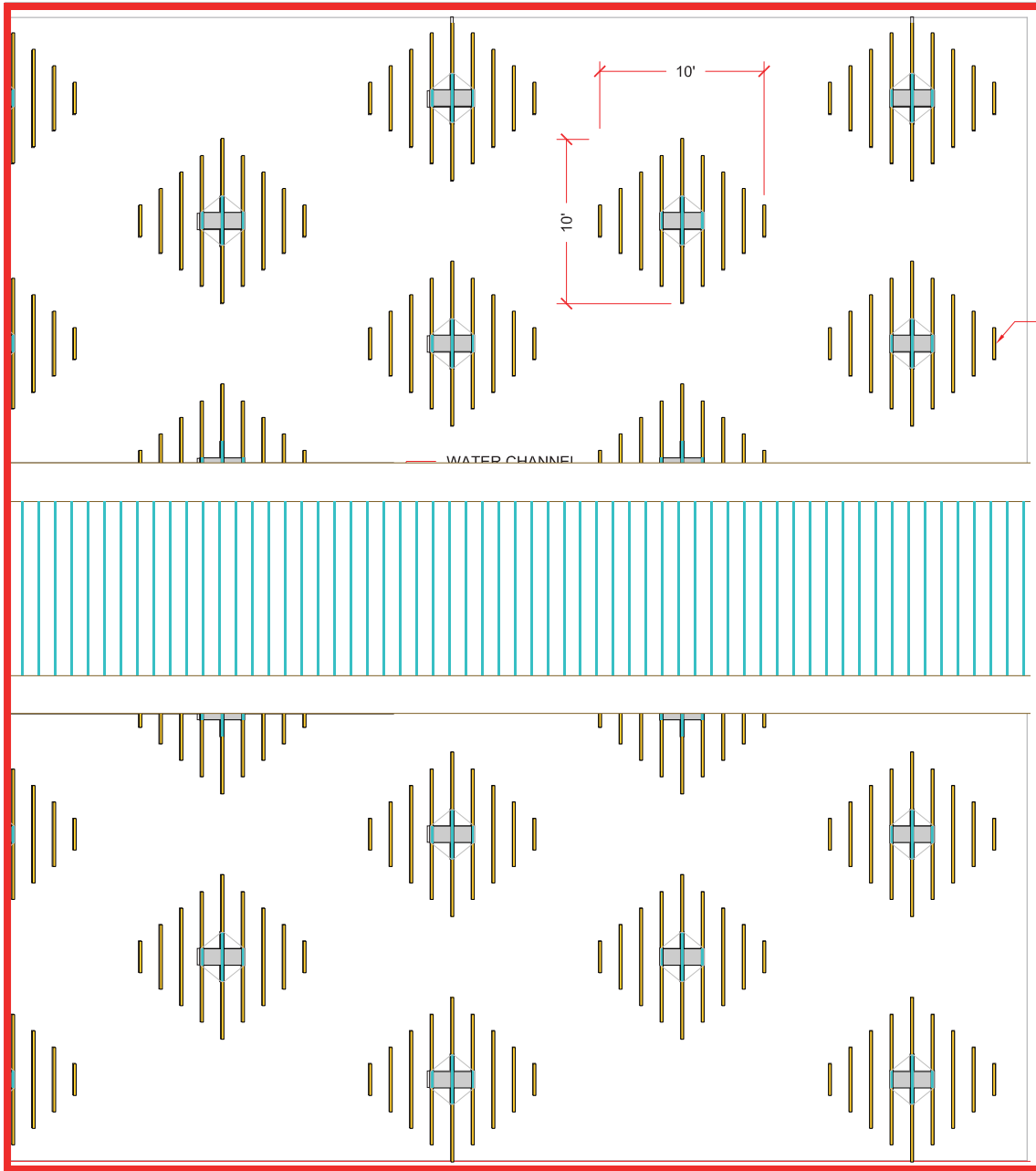


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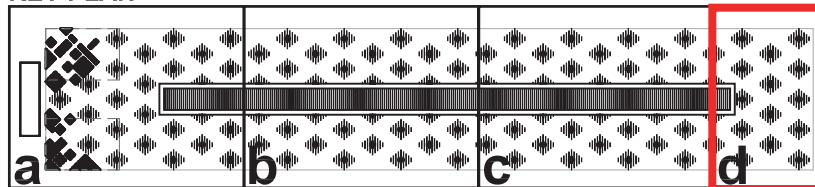


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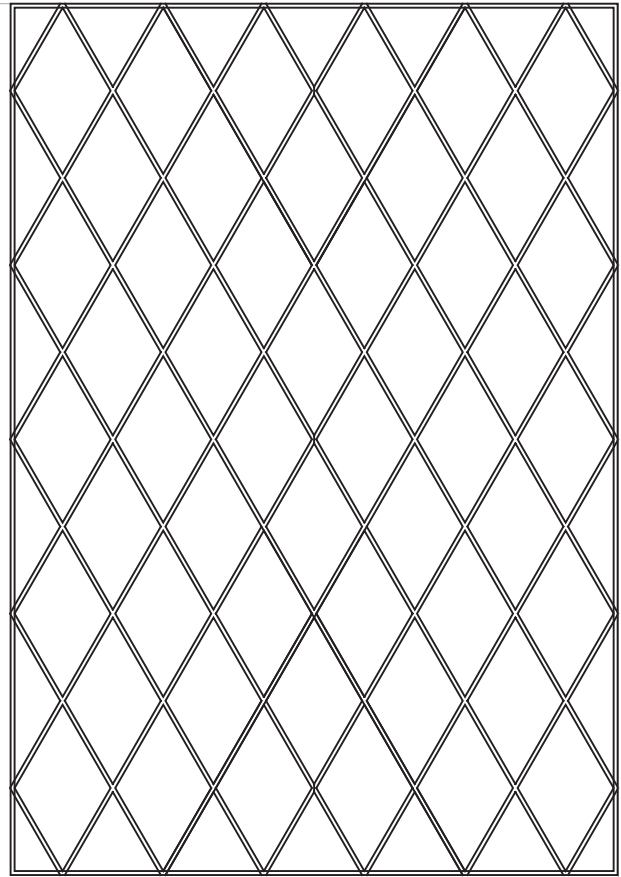
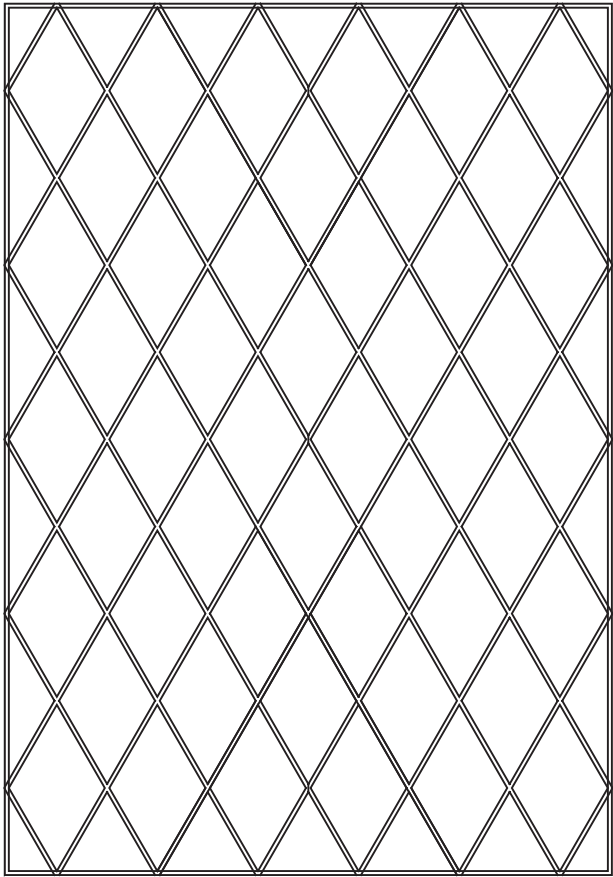
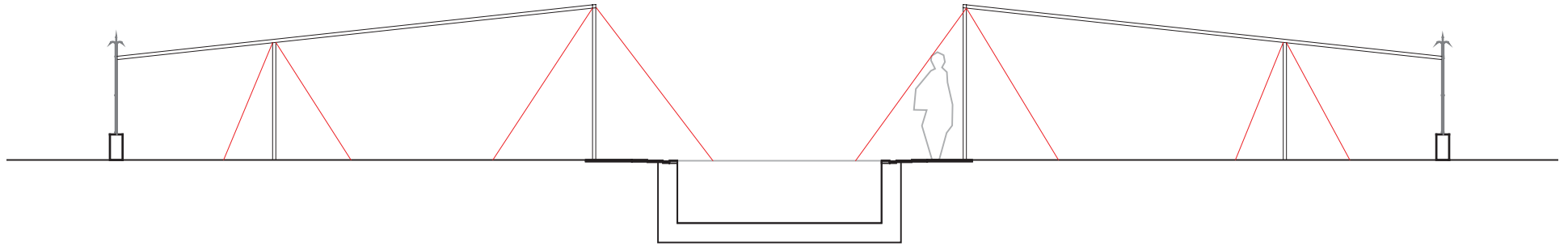
GROUND PATTERN "c" - CROP
SCALE: 3/32" = 1'-0"

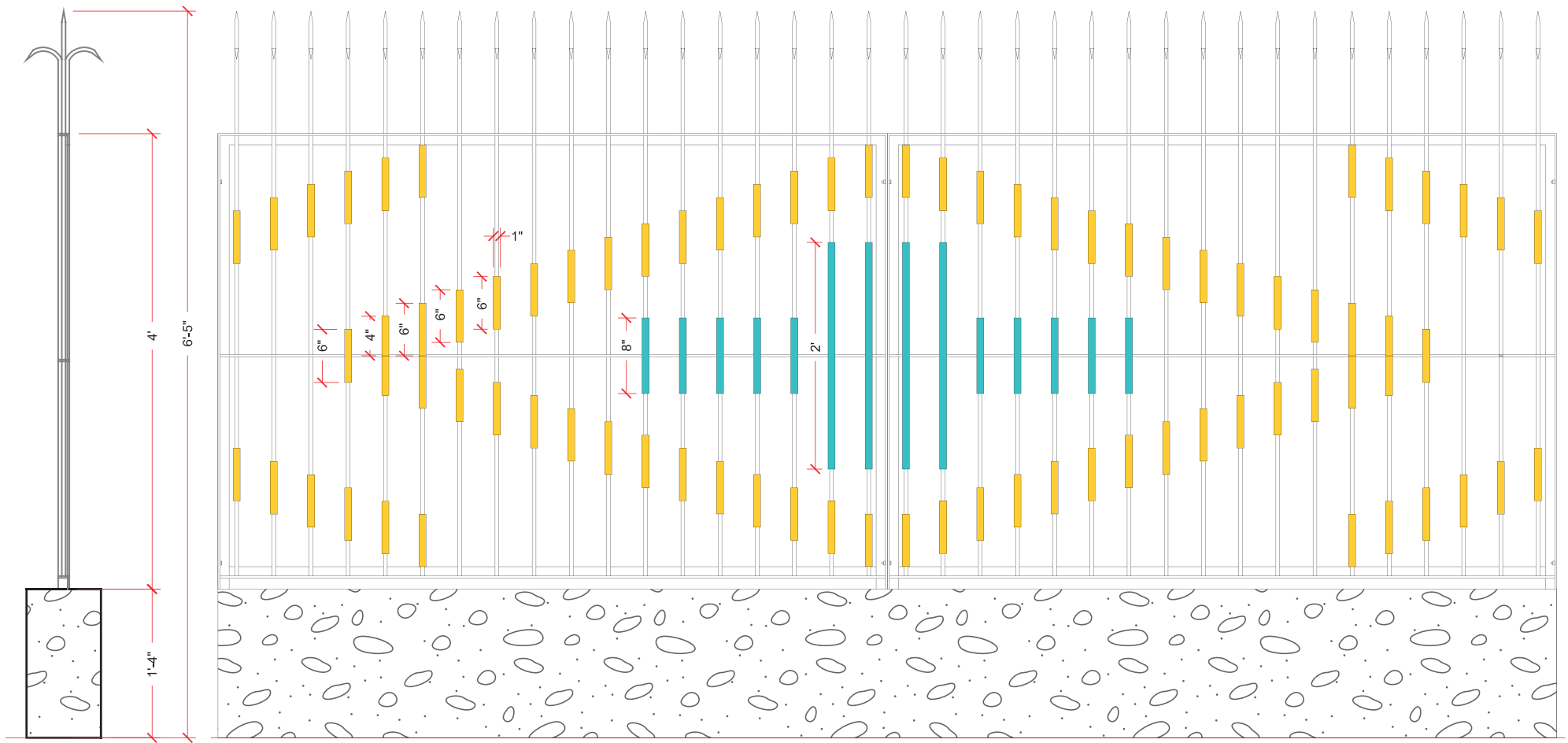


KEY PLAN



1 GROUND PATTERN "d" - CROP
SCALE: 3/32" = 1'-0"



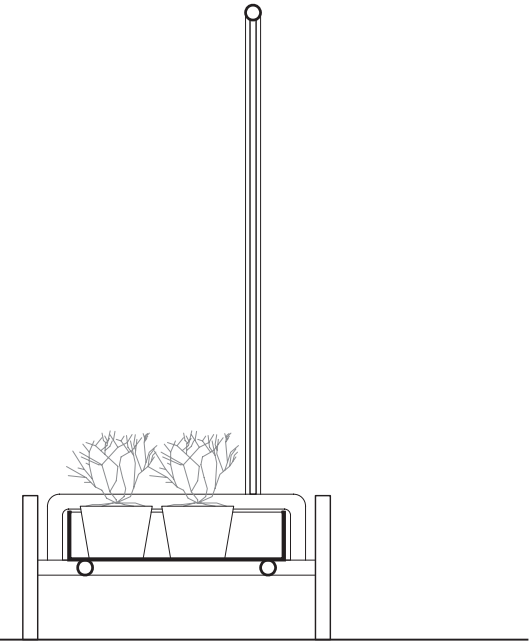
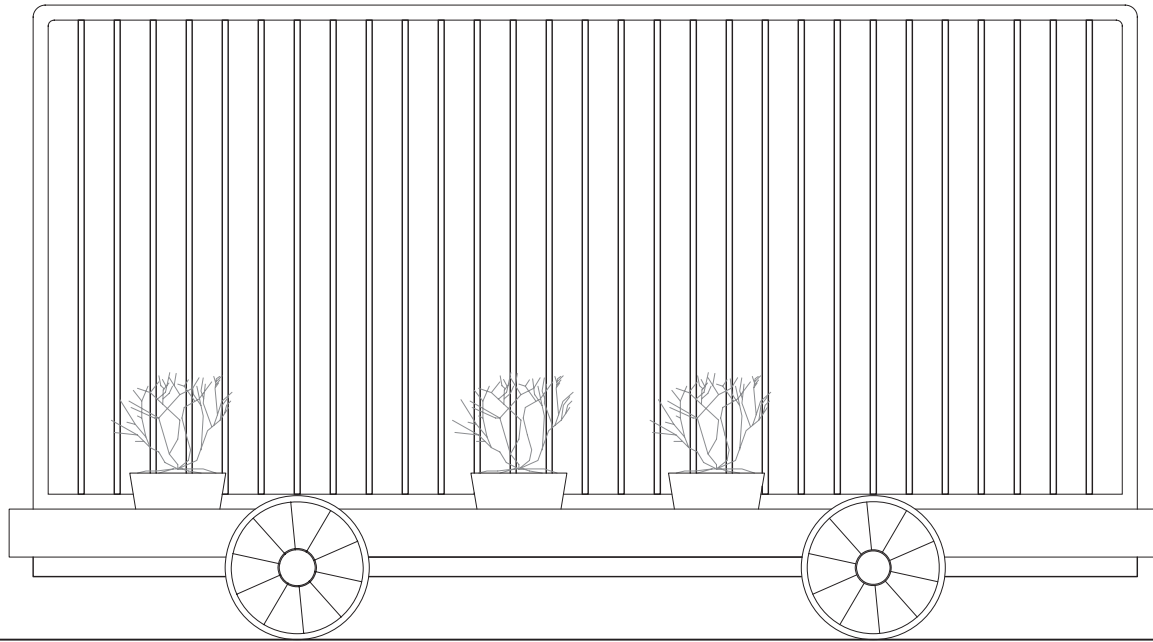


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FENCE ELEVATION

SCALE: 3/4" = 1'-0"

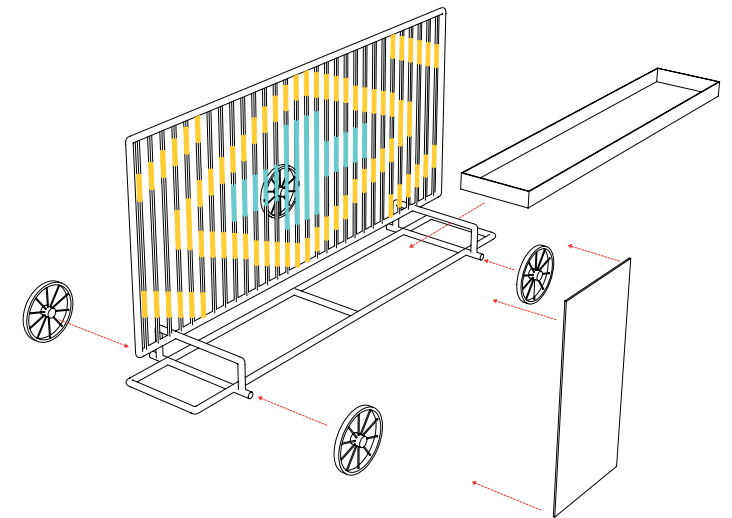
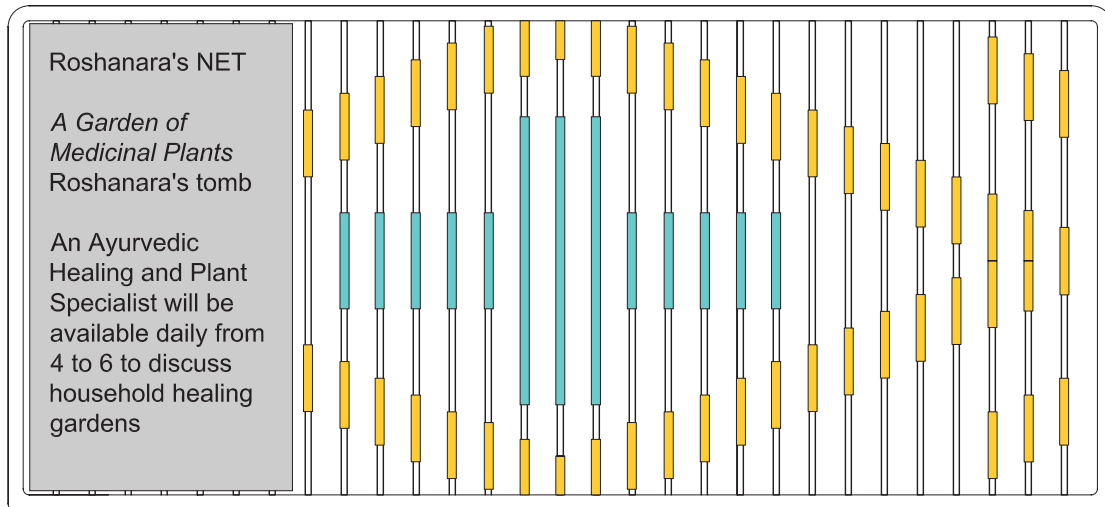




2

PORTABLE PARK CART ELEVATION & SECTION

SCALE: 3/4" = 1'-0"



1

PORTABLE PARK CART - FENCE FRAGMENT

SCALE: 3/4" = 1'-0"



MEDICINAL PLANTS preliminary list

1. *Acorus calamus*
English: Sweet flag, myrtle flag, sweet sedge
Hindi: Vacha
Used to enhance memory, speech development in babies and assist in recovery from stroke
2. *Adhatoda vasica*
English: Malabar nut
Hindi: Adosa
Used in the clearing of respiratory passages
3. *Aegle marmelos*
English: Bengal quince
Hindi: Bael, bel, beli
A digestive used to treat diarrhea and dysentery
4. *Albizia lebbek*
English: East Indian walnut tree, siris tree
Hindi: Sirius
5. *Allium sativum*
English: Garlic
Hindi: Lasan
Used to boost the immune system. An antibiotic, antiviral, antimicrobial and antioxidant.
6. *Aloe barbadensis*
English: Barbados Aloe, Indian Aloe
Hindi: Ghi-kuvar
7. *Anacyclus pyrethrum*
English: Spanish pellitory
Hindi: Akarkara
8. *Andrographis paniculata*
English: Green chiretta, creat
Hindi: Kalmegh
9. *Asparagus racemosus*
English: Wild asparagus, sparrow -grass
Hindi: Shatavari, satavari
Used to rejuvenate female reproductive organs
10. *Azadirachta indica*
English: Neem tree, margosa
Hindi: Neem, nim
Used primarily as a detoxicant, insecticide, anti fungal, antibacterial, antiviral, and antimalarial.
11. *Bacopa monniera*
English: Thyme-leaved gratiola
Hindi: Brahmi
Used to promote the intellect and in treating mental health illnesses.
12. *Berberis aristata*
English: Indian barberry
Hindi: Daruhaldi
Used in the treatment of affections of the eyelids and chronic ophthalmia.
13. *Boerhaavia diffusa*
English: Spreading hogweed, pigweed
Hindi: Gadahpurna
14. *Boswellia serrata*
English: Indian olibanum tree, Indian frankincense
Hindi: Salai
15. *Caesalpinia bonducella*
English: Bondue nut, fever nut
Hindi: Katikaranja, kankarej
16. *Carica papaya*
English: Papaya, paw paw
Hindi: papita
Used as an anti-fertility agent, an antifungal agent and in the treatment of skin ulcers.
17. *Cassia angustifolia*
English: Indian senna, Tonnevely senna
Hindi: Sonamukhi
18. *Cedrus deodara*
English: Himalayan cedar
Hindi: Deodar
Used in the treatment of skin disorders and as an antiseptic.
19. *Celastrus paniculatus*
English: Black oil plant, climbing staff tree, intellect tree
Hindi: Malkanguni
20. *Centella asiatica*
English: Indian pennywort, gotu kola
Hindi: Kula kudi
21. *Cinnamomum tamala*
English: Indian cassia lignea
Hindi: Tejpat
22. *Cissus quadrangularis*
English: Bone setter
Hindi: Hajora
Used in healing of broken bones.
23. *Coccinia grandis*
English: Ivy gourd
Hindi: Kanduri, kundru
24. *Coleus forskohlii*
English: Kaffir potato
Hindi: Gurmali
25. *Commiphora mukul*
English: Indian bdellium tree
Hindi: Guggul
Used in the treatment of arthritis.
26. *Crataeva nurvala*
English: Three-leaved caper
Hindi: Barna, barun
27. *Curcuma longa*
English: Turmeric
Hindi: Haldi
Used as a blood purifier and anti-inflammatory agent in the treatment of arthritis & rheumatism.

28. *Cyperus rotundus*
English: Nutgrass, sedge weed, nutsedge, chido
Hindi: Motha
Used in the treatment of abdominal problems and an anti-inflammatory used to treat scorpion bites.
29. *Eclipta alba*
English: Trailing eclipta, false daisy
Hindi: Bhangra, babri
Used to treat ringworm and in the cosmetic preparation of hair and skin.
30. *Embelia ribes*
English: Embelia
Hindi: Viranga
Used as a contraceptive.
31. *Eucalyptus globulus*
English: Blue gun tree, Australian fever tree
Hindi: Nilgiri
Used as an antiseptic to treat colds, coughs, sore throats and infections. Also a disinfectant.
32. *Euphorbia hirta*
English: Snakeweed
Hindi: Dudhi
Used in the treatment of respiratory ailments, especially cough, bronchitis and asthma.
33. *Ficus religiosa*
English: Sacred fig, bo-tree peepul, peepal
Hindi: Pipal
Used for treating diarrhea and dysentery and constipation.
34. *Fumaria indica*
English: Fumitory
Hindi: Pitpapra, khetpapra
Used in the treatment of aches and pains, diarrhea, fever, influenza and liver complaints.
35. *Gardenia gummiifera*
English: Dikamali, cumbi-resin
Hindi: Dikamali
Used to treat nervous disorders in children, and to alleviate irritation of the gums during teething. In adults as an appetizer and a digestive to treat anorexia, indigestion, constipation and worms.
36. *Glycyrrhiza glabra*
English: Liquorice
Hindi: Mulethi
A tonic, laxative, demulcent, expectorant and emollient used in the treatment of cough, bronchitis, fever, and skin diseases. Also a general tonic.
37. *Gossypium herbaceum*
English: Cotton
Hindi: Kapas
Used as an anti-fertility agent. Also an antibacterial used to treat throat infections and tumors.
38. *Gymnema sylvestre*
English: Periploca of the woods
Hindi: Gurmar
Used in the treatment of diabetes mellitus. Also for indigestion, cough, constipation and malaria.
39. *Holarrhena antidysenterica*
English: Tellicherry, conessi
Hindi: Kurchi
Used primarily in the treatment of dysentery. Also to treat menorrhagia, hemorrhoids and diabetes.
40. *Leptadenia reticulata*
English: Leptadenia
Hindi: Dori
Used as a stimulant and a restorative to treat skin affections, ringworm, wounds, nose and ear disorders, asthma and in the recovery from abortion.
41. *Mangifera indica*
English: Mango tree
Hindi: Aam
Used as a restorative, an antiseptic, astringent, diaphoretic and a laxative. Used to treat a variety of illnesses including dysentery, anemia, asthma, bronchitis, hypertension, insomnia & rheumatism.
42. *Mimosa pudica*
English: Sensitive plant
Hindi: Lajwanti
43. *Momordica charantia*
English: Bitter melon, bitter gourd
Hindi: Karela
Used in the treatment of diabetes. Also used in the treatment of asthma, skin infections, gastrointestinal problems and hypertension.
44. *Mucuna prurins*
English: Cowhage, cowitch
Hindi: Kavach
Used as an agent against Parkinson's disease. Also an aphrodisiac, a nerve tonic and for treatment of scorpion stings.
45. *Musa sapientum*
English: Banana, plantain
Hindi: Kela
46. *Nardostachys jatamansi*
English: Indian spikenard, muskroot
Hindi: Jatamansi, Bal-chir
47. *Nigella sativa*
English: Black cumin, small fennel
Hindi: Kalonji, kalajira
Used to treat digestive ailments as a stimulant, and a diuretic. The oil is used as an antiseptic.
48. *Ocimum sanctum*
English: Holy Basil, Sacred Basil
Hindi: Tulsi
Used as an expectorant in the treatment of bronchitis, cold and fever. Aids in the diminishing of all types of malaise.
49. *Paederia foetida*
English: Chinese flower
Hindi: Gandhaprasarini
Used in the treatment of arthritis & rheumatism. The fruit is used to prevent toothache, the plant used in a general tonic and astringent.
50. *Phyllanthus emblica*
English: Emblic myrobalan, Indian gooseberry
Hindi: Amla
Used in the treatment of constipation, urinary problems, headache, anxiety and diabetes. Considered to improve memory and intelligence.
51. *Phyllanthus niruri*
English: Stone breaker, shatter stone
Hindi: Bhuinavalah
Used in a wide variety of applications including the treatment of jaundice, gall and liver stones, and urogenital conditions such as gonorrhoea and worm infestations.

52. *Picrorrhiza kurroa*
English: Kutki, yellow gentian
Hindi: Kutaki
Used as an anti-asthmatic, anti-inflammatory and an immune booster. Applied to liver disorders, jaundice, digestive disorders, dysentery and fever.
53. *Piper longum*
English: Long pepper
Hindi: Pippali
Used as a stimulant and a laxative. Applied in the treatment of gout & rheumatism and in conditions of the spleen. Also used to treat cholera, dysentery, asthma, cough and bronchitis.
54. *Piper nigrum*
English: Black pepper
Hindi: golmirch, kalmirch
Used particularly for stomach and digestive disorders, colds and bronchitis. External application to treat neuralgia and skin diseases.
55. *Plantago ovata*
English: Blond psyllium, ispaghula, spogel
Hindi: Isapghul
Used as a laxative and an emollient in the treatment of gastrointestinal problems.
56. *Plumbago zeylanica*
English: White leadwort
Hindi: Chitra
Used to induce abortion. Also in the treatment of rheumatism, dyspepsia, piles and diarrhea.
57. *Polygonum aviculare*
English: Prostrate knotweed, wireweed
Hindi: Machoti, anjavar
58. *Ponamia pinnata*
English: Indian Beech, pongam oil tree
Hindi: Karanj
59. *Psoralea corylifolia*
English: Scurfy pea
Hindi: Bavchi
60. *Ptrocarpus marsupium*
English: Indian Malabar kino
Hindi: Vijayasar, Bijasal, Bija
61. *Punica granatum*
English: Pomegranate
Hindi: Anar
Used as a pain reliever, astringent, bactericide, and a stimulant. Used in the treatment of asthma, bronchitis, cough, cardiac problems, dysentery, colic, fever and bleeding disorders.
62. *Ricinus communis*
English: Castor bean, castor oil
Hindi: Endi
Used in the treatment of acute constipation, intestinal inflammation, and to treat worms. Also used for rheumatism and as a birth control.
63. *Rubia cordifolia*
English: Indian madder, dyer's madder
Hindi: Manjit, manjeeth
Widely used as a tonic and an astringent with anti-inflammatory properties. Used to treat tuberculosis, intestinal ulcers and as a blood purifier.
64. *Salmalia malabarica*
English: Silk cotton tree
Hindi: Semul
The gum of the tree is used to treat acute dysentery, influenza, pulmonary tuberculosis and excessive bleeding. Used as an astringent, a diuretic, an expectorant, a tonic, and a stimulant.
65. *Semecarpus anacardium*
English: Marking-nut tree, oriental cashew
Hindi: Bhilawa
The juice can be applied to cracked skin. Used in the treatment of tumors and malignant growths.
66. *Solanum nigrum*
English: Garden or black nightshade
Hindi: Makoi
Used in the treatment of hepatitis and other disorders of the liver and inflammation of the spleen, the digestive system and the uterus.
67. *Solanum xanthocarpum*
English: Yellow-berried nightshade
Hindi: Choti katheri, kateli
Used to treat fever, cough and asthma and as a diuretic. Reputed to facilitate conception.
68. *Swertia chirata*
English: Chiretta
Hindi: Kirat, chirayita
Used to stimulate the appetite and relieve acidity, biliousness and nausea. Used in the treatment of asthma, cough, bronchitis and malaria.
69. *Symplocos racemosa*
English: Symplocos
Hindi: Lodh
Used to treat dysentery and diarrhea, liver and circulation ailments. The bark is used to treat bleeding gums and uterine disorders.
70. *Syzygium cumini*
English: Java plum, jambul, Indian blackberry,
Hindi: Jamun
The fruits yield an astringent quality to treat diarrhea. The bark, fruit and seeds are taken to relieve the symptoms of diabetes.
71. *Tamarindus indica*
English: Tamarand
Hindi: Imli
The fruits are used as a digestive and laxative. The leaves and flowers are used in treating constipation, colic, cough, dyspepsia, fever and urinary infection. Used to treat appetite loss, nausea and vomiting in the case of pregnancy.
72. *Terminalia arjuna*
English: Arjun myrobalan
Hindi: Arjun
The bark is used in a cardiotoxic and for treating hypertension, congestive heart failure, coronary artery disease. Also used in the treatment of urogenital and venereal diseases.
73. *Terminalia belerica*
English: Beleric myrobalan
Hindi: Bhaira, bahera
Used in the treatment of a variety of ailments as an antiviral, anti-diarrheal and astringent. Used to improve immunity and resistance to infectious disease including conjunctivitis and leprosy.
74. *Terminalia chebula*
English: Myrobalan, inknut
Hindi: Hara
Used to strengthen the brain and enrich blood.

75. *Tinospora cordifolia*
English: Gulancha tinospora
Hindi: Guruchi
Used for the treatment of gout and for visceral obstructions and in the treatment of leprosy. A stimulant, bactericide, aphrodisiac and sedative.
76. *Trachyspermum ammi*
English: Ajowan, omum, bishop's weed
Hindi: Ajwain
Taken as a stimulant, an anit-spasmodic used to treat dyspepsia, diarrhea and Colic.
77. *Tribulus terrestris*
English: Caltrops
Hindi: Gokhru
78. *Trigonella foenum-graecum*
English: Feungreek, birds nest
Hindi: Methi
79. *Tylophora indica*
English: Emetic swallow-wort,
Indian ipecacuanha
Hindi: Atamul
80. *Valeriana wallichii*
English: Indian valerian
Hindi: Tagar
81. *Vitex negundo*
English: Five-leaved chaste tree
Hindi: Sambhalu
82. *Withania somnifera*
English: Winter cherry
Hindi: Asagandh
83. *Woodfordia fruticosa*
English: fire-flame bush, shiranjitea
Hindi: Dhai
84. *Wrightia tinctoria*
English: Pala Indigo tree
Hindi: Indrajau
85. *Zingiber officinale*
English: Ginger
Hindi: Adrak, sonth

Specifications and Materials Quantities

Ground Diamond Pattern

1. 2 in (5cm) diameter round pipes for ground surface
2. Blue paint (color sample to be verified on site)
3. Orange paint (color sample to be verified on site)
4. Text decals (printing)
5. Tin sheets
6. Wire (18 gauge black anodized)
7. 6 in (25.4 cm) landscape spikes
8. U-shaped anchoring staples
9. Medicinal plants with pots

112 diamond units

- 40 ft (12.2 meters) per unit 4480 ft (1365.5 meters) total
2.6 sqft (0.24 sq meters) per unit 293 sqft = 14 spraycans
21 sqft (1.95 sq meters) per unit 2352 sqft = 117 spraycans
see text specifications & translation
1 ft x 2 ft-8 in (0.3 meters x 0.4 meters) quantity = 112
44.5 ft (13.56 meters) per unit 4984 ft (1519 meters) total
6 in (.15m) quantity = 2016
10 in (0.254 m) quantity = 2912
see note below

note: All plants will be in containers/pots of variable sizes; means of irrigation of plants to be determined on site.

Empty Water Channel

1. 2 in (5cm) diameter round pipes for bottom of channel
2. Blue paint (color sample to be verified on site)

- 10ft-7in (3.26 meters) long quantity = 140
4.926 sqft (sq meters) per pipe 689 sqft = 34.5 spraycans

Awning Shade Canopy

1. Fabric for awning
2. Posts, stakes, ropes

- Awning fabrication to be discussed
Awning fabrication to be discussed

Fence Diamond Pattern

1. Plastic pipes/hose 3/4" diameter
 - 6 inch (0.15 meters)
 - 3 inch (7.62 cm)
 - 4 inch (10.16 cm)
 - 12 inch (0.3 meters)
2. Wire (18 gauge black anodized)

64 diamond units

- 55ft (16.76 meters) length of hose per unit 3520 ft (1073 meters) total
76 segments per unit
4 segments per unit
23 segments per unit
8 segments per unit

note: painted hose or plastic tube is split length and slipped on picket. Tube segments are held in place by thin wire attached to pickets.

Portable Park Carts

1. Steel for welded frame
2. Steel wheels
3. Text printing
4. Tin display board
5. Steel for fence fragment
6. Pipes for fence fragment
7. Tin planter tray
8. Medicinal plants with pots

5 carts: refer to artist's drawings

- refer to artist's drawings
refer to artist's drawings
see text specifications & translation
1ft-10in x 3ft-3in (0.05 meters x 0.84 meters)
refer to artist's drawings
refer to artist's drawings
refer to artist's drawings
see note below

note: All plants will be in containers/pots of variable sizes; means of irrigation of plants to be determined on site.

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Miscellaneous

1. Irrigation

2. Medicinal Experts

3. Informational Brochures

Research sources:

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Ayurvedic Herbs M.S. Premila, PhD