

According to prevailing plinth area rates of that particular area this could be the estimated amount for a conventional building.

Sl. No.	Description of work	Unit	Quantity	Rate	Amount	Total
1	Excavation of 1.5m x 1.5m x 0.6m	m ³	10	120	1200	1200
2	Concrete for foundation	m ³	10	150	1500	2700
3	Brick masonry for wall	m ²	10	200	2000	4700
4	Plaster work	m ²	10	100	1000	5700
5	Roofing work	m ²	10	180	1800	7500
6	Painting work	m ²	10	50	500	8000
7	Labour charges	m ²	10	100	1000	9000
8	Material transport	m ²	10	50	500	9500
9	Overhead charges	m ²	10	50	500	10000
10	Contingency	m ²	10	50	500	10500

WHAT IS A GAZEBO?

Gazebos are the free standing structure, which can be termed as a small building and also called as summer house. This provides shade and shelter from sun and rain. It also acts as an ornamental feature. Usually, we can find these structure in parks and resorts. The main aim of a gazebo is to give a wide view of the surrounding area. We Have Constructed A Permanent Structure.



LOCATION:
Sigrana park,
Vijayanagar 3rd stage,
Mysuru, Karnataka, India.
AREA: 450sq ft (Park area).

LANDMARKS:
• The site is located about 200m from Hanuman main road.
• The main landmarks are Ashwarya petrol bunk(20m) and 1 Jyothibhaskaram petrol bunk(20m).
• This site is close enough to the SHRG HUNSER HIGHWAY.

SITE ANALYSIS:



1. MARKING ON SITE: This park is surrounded by lush green vegetation and this is located in the centre of the highly populated residential area with an apartment next to the park.

2. FOUNDATION: The site is chosen particularly beside the kid-play area, as the y had no proper seating around for parents and children.

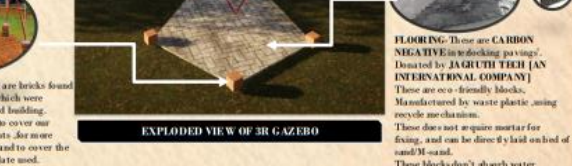
3. METAL STRUCTURE (SKELETON): This site is located in residential area which acts as the prime location for all the residents.

4. BRICK MASONRY: The entry to the installation is possible from all the 4 direction.



SUN PATH AND VEGETATION: The wind direction in summer is from south west and during winter it is from north east.

NOISE AND AIR MOVEMENT: Discarded tarpaulins have been collected from Gujarat for reasonable rate and have been joined to our required shape and added on top of the skeleton. This is more durable and stable.



SKELTON OF GAZEBO: The reused MS pipes have been collected from Gujarat for reasonable rate and have been joined to our required shape and added on top of the skeleton. This is more durable and stable.

FLOORING: These are CARBON NEGATIVE in relocking paving. Donated by JAGRUTH TECH (AN INHERNATURAL COMPANY). These are eco-friendly blocks. Manufactured by waste plastic using recycle mechanism. These does not require mortar for fixing, and can be done by hand on bed of sand/it used. These blocks don't absorb water.

DESIGN ANALYSIS: Our gazebo can accommodate 17 people inside (seating) and up to 30 people can stand inside comfortably during harsh sun and rainy days (total area is 172.23sqft, per person 10sqft is required to sit. Hence 17 people can sit inside).

LINK FOR JAGRUTH TECH: <https://jagruthtech.in/eco-intellock-paver/>

WE HAVE PROVIDED 12 x 12 cm string concrete ring enough circulation space. 6 TYRE SEATINGS and 2 BROKEN CONCRETE SLABS HIGH WERE EARLIER USED AS SEATING (for 6 people).

As the seatings are movable, we can arrange them according to the purpose.

Fig. 1: yoga and exercise practice during the day time and evening.

2: people can spend their leisure time at a terrace here, as it stays cool always and has good air movement from all the 5 openings.

3: public park association members can also have a moon light dinner at night time as there are street light all over the park (beside an extra lighting for our installation was required).

This installation is eco friendly and made up of sustainable materials.

The structure can be demolished at a very low cost and the materials can be reused again.

This installation is accessible for people of all age group.

CONSTRUCTION PROCESSES

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Gazebo out of recyclable materials by School of Planning and Architecture students

1 min read
10 mins ago News Desk



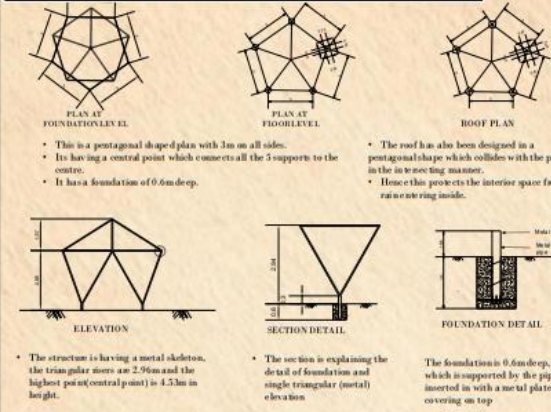
Mysuru: The students of School of Planning and Architecture, University of Mysuru will participate in the 66th Annual NASA Design competition which is hosted by NASA (National Association of Students of Architecture).



The theme of this year's 'Reduce, Reuse, Recycle'. As part of the competition, the students have constructed a gazebo and furniture for at least 6 people using waste and recyclable materials at a park in Vijayanagar 3rd stage, Mysuru. More than 25 students have been consistently working for the past 10 days under the guidance of faculties and good support from the park association. The structure will be open to public use from September 29.

-Team Mysoorunews

WORKING DRAWINGS+CONCEPT ANALYSIS



PLAN AT FOUNDATION LEVEL: This is a pentagonal shaped plan with 3m on all sides. It has a central point which connects all the 5 supports to the centre. It has a foundation of 0.6m deep.

PLAN AT FLOOR LEVEL: The roof has also been designed in a pentagonal shape which collides with the plan in the same manner. Hence this protects the interior space from rain/water inside.

SECTION DETAIL: The structure is having a metal skeleton, the triangular area is 2.96m and the highest part (central point) is 4.53m in height.

FOUNDATION DETAIL: The foundation is 0.6m deep, which is supported by the pipes inserted in with a metal plate covering on top.

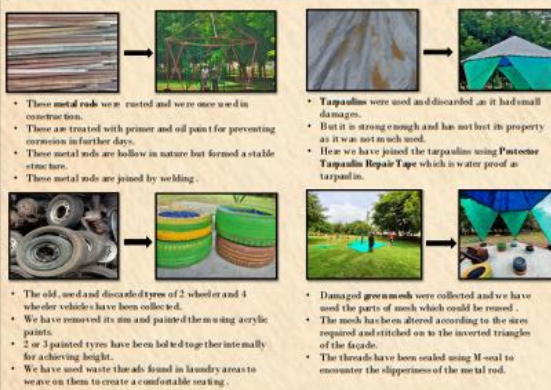
JOINERY DETAILS



FOUNDATION DETAIL: The foundation is 0.6m deep, which is supported by the pipes inserted in with a metal plate covering on top.

JOINERY DETAILS: Foundation with metal plate on top of metal pipe, showing Y joint of metal rod (welded). Centre point where all the 5 main rods of roof join at a height of 4.53m from ground (welded). Metal rod and rods attached to inverted triangle to support string art. M-rod has been applied to the knots which are holding the geom mat. Type of knot used in string art is called as the delect knot. This is more stable and difficult to remove. We have created abstract pattern on the tyre using threads which are water proof and elastic in nature. The knotting done to connect two tyres mainly to join them. The interlocking eco-friendly pavers laid on top of the M-rod.

MATERIALS NOW AND THEN:



These metal rods were rusted and were once used in construction.

These are treated with primer and oil paint for preventing corrosion in further days.

These metal rods are hollow in nature but formed a stable structure.

These metal rods are joined by welding.

The old, used and discarded tyres of 2, wheeler and 4 wheeler vehicles have been collected.

We have removed its rim and painted them using acrylic paint.

2 or 3 painted tyres have been led together into mats for achieving height.

We have used waste threads found in laundry areas to weave on them to create a comfortable seating.

Tarpaulins were used and discarded as it had small damages.

But it is strong enough and has not lost its property as it was not in such need.

Here we have joined the tarpaulins using Polyester Tarpaulin Repair Tape which is water proof as tarpaulin.

Damaged green mesh were collected and we have used the parts of mesh which could be reused.

The mesh has been altered according to the size required and stitched on to the inverted triangles of the facade.

The threads have been sealed using M-seal to encounter the slipperness of the metal rod.



WORKING PROCESS:



OUR WORK HAS BEEN APPRECIATED BY THE PUBLIC AND WE GOT GOOD MEDIA OUTREACH IT IS WELCOMED BY THE PUBLIC HAPPILY AND THE PURPOSE OF CONSTRUCTION IS ACHIEVED.

Actual Total cost of construction (including pre-construction and post construction charges)

Total volume of material = 5.364 m³

New material volume = 0.024 m³

Percentage of new material = 0.45%

STRENGTH OF STRUCTURAL STEEL = 80% OF NORMAL STEEL

3600 kg = 900 kg

200 kg = 50 kg

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CONSTRUCTION PROCESSES

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