Analysis on using Revit and AutoCAD software to design and implement a soft landscaping for a building

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ABSTRACT
Landscape architecture of the "soft scaping" variety with live horticultural components of a landscape is referred to as softscape. Flowers, plants, shrubs, trees, flower beds, and tasks like weed/nuisance care are all examples of soft landscaping. Using rakes, shovels, picks, and gas powered tools, planting, trimming, spraying, and digging for everything from plants and shrubs to flower beds are standard practises. This expression has gained popularity recently in pop culture (2006 onwards). Softscape is used to give landscape personality, create an aura and ambiance, and reflect the sensibilities of locals. We must do correct plantation in rhythm and line form order by creating an idea of the overall site area and the amount of space used by buildings, labs, and play areas, etc.
Keywords: Autocad, soft scaping, buildins

I. INTRODUCTION

The arranging and altering of features in a landscape urban area or garden is known as landscape design, sometimes known as landscape architecture it entails the creation of urban and rural landscapes through the planning, designing, and management of open spaces.

The term "softscape" describes a landscape's living horticulture components. Flowers, plants, shrubs, trees, flower beds, and tasks like grading, planting, mowing, trimming, aerating, spraying, and digging for everything from plants and shrubs to flower beds are all examples of soft scaping. Common tools include wheelbarrows, as well as hand tools like rakes, shovels, and picks, as well as gas powered tools. This expression has gained popularity in modern mainstream culture since 2006, thanks to programmes like Home & Garden Television. The goal of soft landscaping is to lend character to the landscaping, create an aura, ambience, and reflect the sensibilities of the inhabitants.

The term softscape stands in contrast to hardscape, which represents inanimate objects of a landscape such as pavers, stones, rocks, planter boxes, arbors, water feature as well as structures of wood and natural stone and concrete, like retaining walls, patios, fences and decks, pergolas, and stairs.

Objectives

- To know the total site area of the college.
- To locate the vegetation actually present in the college.
- To calculate the open space in the college.
- To provide new plantation inside the college.

Methodology

1. Existing tree roots

Where roots of existing trees have been damaged or exposed, the following treatment shall be carried out:

- Shall be wrapped with straw or hessian during construction of the works. This includes all roots exposed during excavation.

- Before backfilling, cut exposed roots back to living tissue and sealed with sealant.
- Backfilled with garden soil with appropriate mix.

2. Protection of existing
3. Watering existing
4. Existing services
5. Damaged by erosion

Modelling & Analysis

AUTO CAD ANALYSIS

Work Spaces of Auto CAD: -

Firstly We Discuss About Workspaces of AutoCAD

1. Drafting & Annotation
2. 3D Basics
3. 3D Modelling
4. AutoCAD Classic

We are using drafting and annotation

RIVET ANALYSIS

MODEL CATEGORIES

Model Object categories—the first tab in the Object Styles dialog box—include all the real-world types of objects typically found in buildings. These object categories include elements such as walls, floors, roofs, and furniture, along with other categories that make sense in an architectural project.

Softscaping

Generally soft scaping is a type of landscaping related to mostly to gardens and lawns. A proper environment should be needed inside the campus for maintaining healthy environment. By providing more lawns and gardens in the campus increases the oxygen levels and proper environment and aesthetic view of campus. Hence, along with hardscaping, soft scaping also having much importance. Recently, mango garden was modified and benches are installed in the garden as like in park for students relaxing during lunch and evening hours.

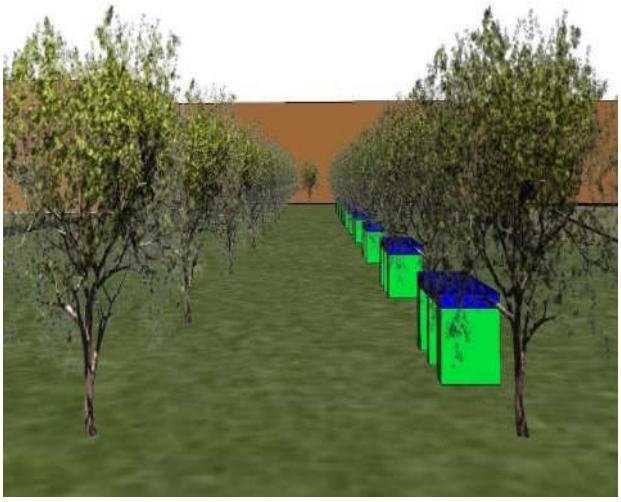

Fig.1. Rhythm and line by using Revit software

Fig.2. Overall view of Revit software

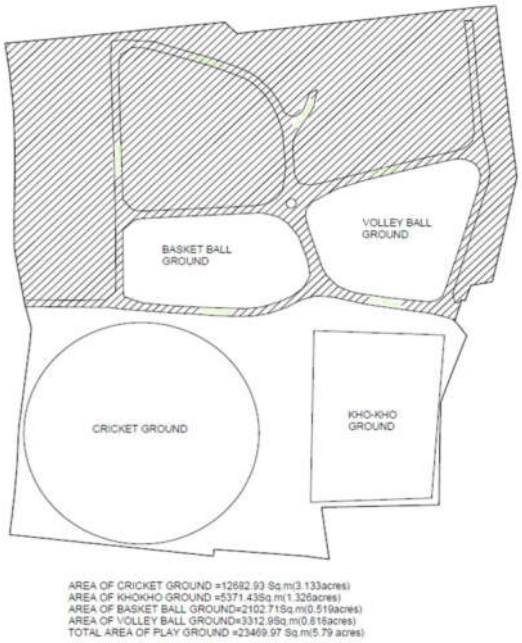

Fig.3. AUTO CAD drawing of play grounds

Fig.4. Auto cad drawing of existing model

PROPOSAL DESIGN OF SOFTSCAPING:

When the time of foundation of this college, there was only buildings and sheds for college students. But later on, going years, we need extra benefits of environment to reduce warm conditions inside the college. So, proper plantation was employed in these years.

We are having an idea of providing a walking track in mango garden at the space available between road and the boundary wall of college. By providing this, we can achieve an aesthetic view of beauty and cool conditions in the college.

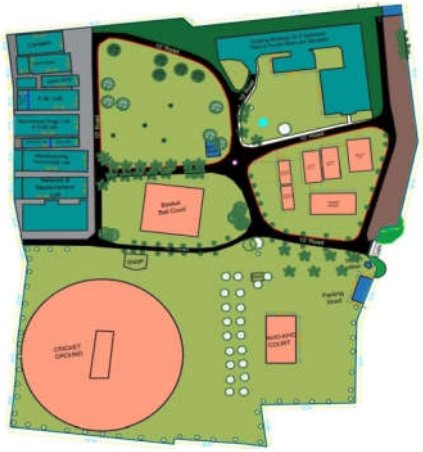

Fig.5. Proposal design by using AUTO CAD software

Total used area = 35674.76 sq.m (8.81 acres)

Remaining area = 10334.808 sq.m (2.55 acres)

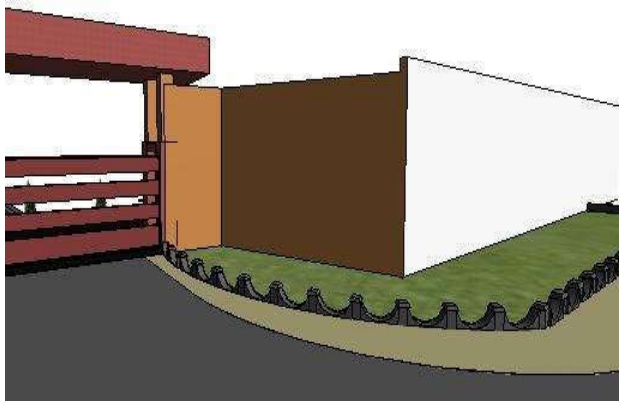

Fig.6. Before softscaping

Fig.7. After softscaping by using Revit software

A lawn and some trees are provided at outside the college near to side of gate which was shown in 3D view above. By doing all the above plans, we can achieve more beauty in our college and becoming eco-friendly with the environment in our surroundings. Hopefully, it should be useful for the staff of our college to increase plantation in the college.

Conclusion

We can arrange plants and trees in the area around the campus by employing softscaping. Our classmates have been working on various projects such as building hostels, hydroponic farms, auditoriums, and other structures, all of which had a landscaping component to them. We have also been working on making adjustments to the college's existing design. Softscaping primarily involves hydroponic farming, or work with plants. Our goal is to enhance the aesthetics of the area around college buildings using the existing design.

We have been concluded that open space is more which can be useful for vegetation and plantation in the college. So, we have to propose a plan for providing a lawn/garden at the side of boundary wall (space between boundary wall and roads), proper plantation can be done in the surroundings of kho-kho court as like in cricket ground. A walk way should be provided in the mango garden for guiding students to walk on it and proper lawns provided in front of fresher's block and all the laboratories and canteen.

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