

Towards A Well-Improved Campus Community

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Abstract - This paper is intended to contribute towards carrying out a pleasant, green and clean campus. According to the existing condition, the campus is not in systematic plan. Unwanted plants and bushes in the campus are covering the places of necessity to form suitable spaces. With this view in mind, this paper is meant for the campus planning which can practically be carried out to form a really refreshing campus filled with green environment not only for the students, teacher and staff but also for the visitors and everybody else. To be specific, this paper is applied, taking into consideration of outlooks from many points of view, to create a campus planning integrated with green space and green area. And the purpose of a campus plan's document is to form a basis for the architectural character, composition and topology of future buildings, groups of building and exterior spaces on the campus. In this paper, the following factors will be analyzed: Zoning and Site Layout with connectivity and circulation; Pedestrian and Public Spaces; Way finding or Signage; Campus Landscape Goals and Major Spaces; and Landscape Elements. Finally a developed campus planning by making the best use of the existing condition is to be proposed. By presenting the existing condition of the campus such as disadvantage and advantage, difficulties and issues, this paper is aimed to recommend to the best of our knowledge based on safety, being eco-friendly and cost-effective.

Keywords - Campus Planning, Landscape Design, Green Open Space, Cost Effective, Ecofriendly.

I. INTRODUCTION

The physical expression of the values by the campus community and its neighbors is called the Master Plan which restores the pastoral character of the campus; creates a walk able campus, and concentrates building at the campus core, to foster a sense of community.

It is a university that acts as a power house, gushing forth innovative ideas, creative thinking and tangible effects of social and cultural vitality, by connecting the most intelligent, acting research-workers with a wide source of new knowledge. Nevertheless, many students have to be exposed to high levels of stress in their university life. For this reason, a pleasant, comfortable, and worth-living campus community is to be created not only for students but also for all staff.

The purposes of campus designing are:

- For users as well as visitors to be able to enjoy significant learning, working and social experiences with the help of a well-designed campus.
- To be able to enjoy important benefit of an attractive campus's positive impact in recruitment and for creating positive energy.
- To create microclimate enhancement.
- To be a unique and inspiring space to work.
- To form into a positive work environment.
- For users to bring about a more attractive, more systematic, clean and green campus community.

II. SITE LOCATION OF SELECTED CAMPUS (TUM)



Fig. 1. Location of TUM Campus

In this paper, Technological University Mandalay is selected for Campus Site. TUM is situated in Mandalay, in the center of the country, Myanmar. It is located within Patheingyi Township and it is about (1)km far away from Mandalay-Myitkyina Road. It is also not far from the famous places of Mandalay such as Mandalay hill, Kuthodaw Pagoda (also known as the World's Biggest Book), Shwe Nandaw Kyaung, and Kyauk Taw Gyi Pagoda. TUM campus is situated in the area of Aung Chan Tha Village, and it has an area of 65.37 acres. It can be reached from downtown area of Mandalay within (15) minutes.

III. ZONING LAYOUT AND SITE LAYOUT

In the TUM Campus, there are altogether (5)zones. They are: (1) Academic Zone, (2) Workshop Zone,(3) Residential Zone, (4) Shop Zone and (5) Open Space.

For Site Layout, the main entrance to the campus is at the south direction. From the main entrance is the road leading to the main building. The road, at the main building, branches to left and right. In other words, the academic zone is in the heart of the campus with main road as a loop.

To promote workability, to provide a variety of usable open spaces, and to pressure perimeter lands for future potential opportunities, clustering of development within the campus core and loop road is encouraged. At the side is Residential Zone and there are staff hostels and student hostels.

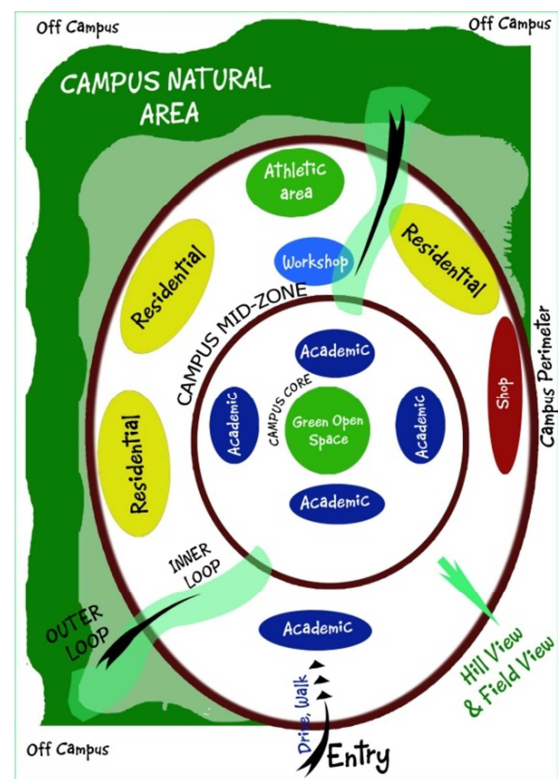


Fig. 2.Zoning Layout of TUM Campus

At present, there are still open and green spaces. The campus should, to encourage convenience, amenities, and positive synergies for it and its users, look for opportunities to establish vehicular and pedestrian connections with adjacent properties. Develop a comprehensive network of varied open spaces that facilitates both formal and informal interactions.

IV. PEDESTRIAN AND PUBLIC SPACES

There are pedestrian ways that connect are building with another among Academic Buildings .They are not in perfect conditions and there still have small weaknesses. Materials - used for them are not many but only concrete and so it is of less attraction. For pedestrian-friendly design elements, they are to be incorporated all over the campus, including its surrounding parking lots and street crossings. It is pedestrian

paths are to be safe, attractive, and inviting and to provide direct connection between places. There is also an area to be easily designated for public space such as green open space for outdoor gathering. In between buildings, there should be areas for informal, visible and accessible plazas, courtyards, and outdoor gathering.



Fig.3(a)



Fig.3(b)

Fig. 3 (a)&(b) Not well-maintained Pedestrian

V. GATEWAY AND ENTRANCE

According to the present condition of TUM campus gateway and entrance, design and feature is just ordinary, nothing special can be seen. To be in conformity with University's Image, a well-designed one should be developed. For a gateway, it is necessary to distinguish its prominence form other entrances.

structure. Directional signage for vehicles and pedestrians, entry signage, and building identifications should be horizontal in format and they should be installed lower to the ground in order to improve readability and minimize visual impact to the surroundings. The signage design should provide a frame work for clear, effective, visible, safe and aesthetically pleasing identification and directional communication.

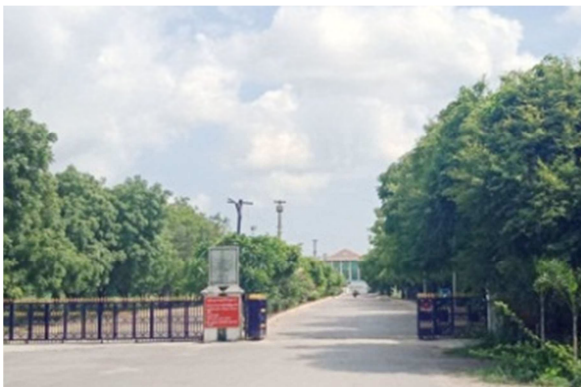


Fig. 4. Gateway of TUM Campus



Fig. 5. Showing Only One Signage of TUM Campus

VI. WAY FINDING/ SIGNAGE

No systematic way findings or signage are seen in TUM campus. It is necessary for all signage to be designed to complement the architectural style and setting of its adjacent

VII. CAMPUS LANDSCAPE GOALS

Landscape is the fabric that makes the campus together. Items of landscape that are sustainable can be added in campus composition. In landscape goals, campus-related

major spaces, courtyards, walkways, corridor and recreation-related items can be included. These landscapes support users to use them as gathering places.

Moreover, laying emphasis on pedestrians in the campus, support can be provided to form a pedestrian-friendly campus which is shady and easily usable.

VIII. MAJOR SPACES

At present, there is no systematically-designed public-related plaza among major spaces. Plaza should be located in the heart of the campus. In campus core, there is a place like a green space. It is also convenient to form such a place into a plaza. The plaza will be ringed by buildings and may be ringed by a series of shade structures.



Fig. 6 Open Space in TUM CAMPUS



Fig. 7 Green Space in TUM Campus



Fig. 8. Only One Well Maintained for bicycle parking department

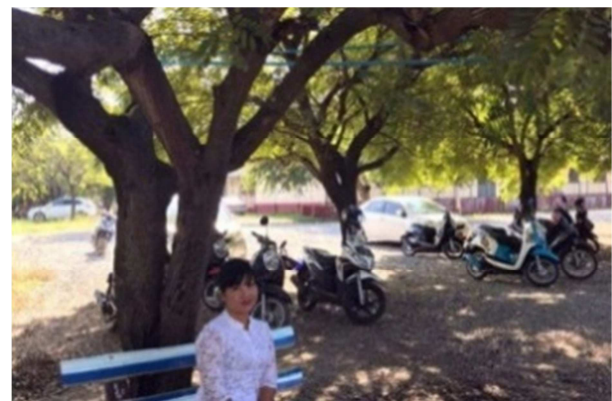


Fig.9. Unorganized Parking Area in front of each

IX. LANDSCAPE ELEMENTS

For lighting, the whole campus is illuminated by random lighting. Organized lighting should be applied depending on place and function. In connection with Site

furniture, benches sheltered sitting spaces and tree planter boxes are seen at their right places like trash bins. No special design for water features.

In fact, water feature design should be incorporated to make the campus visually prominent, to reveal campus's characters and to be sustainable.

As structure element, Myanmar's first engineer U ShweOe's statue is kept right in the middle of the main entrance.

Structure element are encouraged in appropriate public areas as they enhance the building and site design and also work as a memory point.



***Fig. 10. Only One Statue in TUM CAMPUS
(The U ShweOe's Statue: Myanmar's First Engineer)***

X. PROPOSED DESIGN FOR CAMPUS DEVELOPMENT

Consideration has been made for should-be positions for future development of the campus depending on the existing zone-organization. Mainly, priority has been given to be able create a systematic, green and clean campus,.

For recreation, and for relaxation, water feature design should be included and pedestrian ways should be systematic, much emphasis is laid on creating a comfortable campus community for users.



Fig. 11. Proposed Plan for Campus Development & Showing Selected Areas for Proposed Design



*Fig. 12. Proposed Design for Area (1)
(Water Feature in front of The Main Building)*



Fig. 13. Proposed Design for Area (2)
(Organized Bicycle Stand & Recreation Area for Students & Teaching Staff)



Fig. 14. Proposed Design for Area (3)
(Recreation Area for All Staff Family and Outdoor Playground Area for Children of Staff Family)



Fig. 15. Proposed Design for Area (4)
(Recreation Area for Staff)

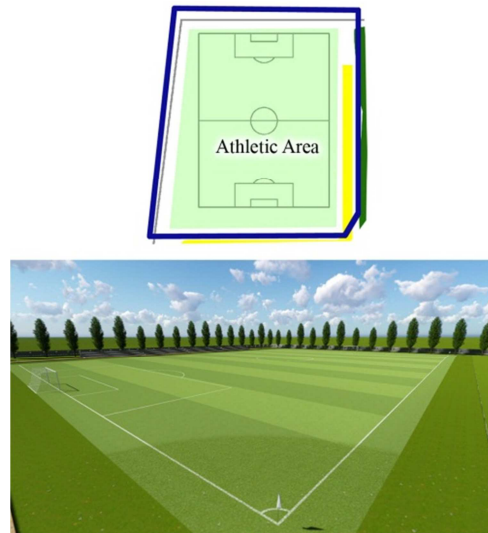


Fig. 16. Proposed Design for Area (5)
(Athletic Area: Football Playground Created by Planting With Wind Break & Dust Break Trees)

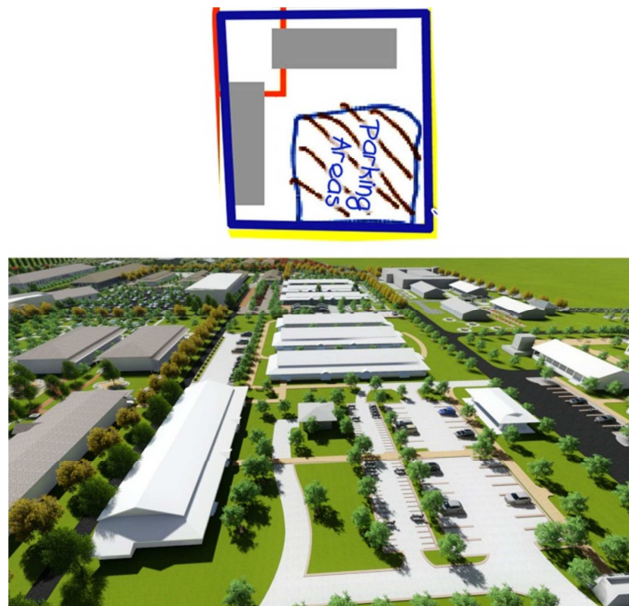


Fig. 17. Proposed Design for Area (6)
(Organized Parking Area for Students & Staff)

XI. CONCLUSIONS

In connection with creating a better campus community, urban planning principles such as vista view, sky line, viewpoints, pathway edges and landmark have to be taken into consideration. By so doing, functions will be design, convenient and economical and then aesthetic design will be pleasant. Distinctive elements of campus environment, imaginative ideas and technologies, and

designs process will be achieved. It is quite sure to obtain a comprehensive development program by integrating functionality and flexibility, capital and life-cycle costs, and sustainability and design aesthetics.

There should be a plan for growth and unpredictable change. It is also necessary to have interest in designing for flexibility and growth, communication networks. Integration of resent and future needs, and building into the existing fabric sensitively are to be done. The campus is to be

promoted into a pedestrian friendly campus. The green character of the campus is to be maintained. Identification of campus neighborhoods and promoting sense of community are to be maintained. It should be built in an environmentally responsible manner. On the whole, what is the main aim of this paper is to be able to give a support for well-improved university campus community from a certain point of view, it is sincerely believed.

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REFERENCES

- [1] AhmetTugrulPolat, MetinDemir, SertacGungor, " Landscape Design Principles of University Campuses: A Case Study in Campus AlaeddinKeykubat, Selcuk University", conference paper, may 2016.
- [2] Campus Design in India: Experience of a Developing Nation by AchyutKanvinde, H.James Miller, Jostens/American Yearbook Company, 1969.
- [3] Norma K. Booth, "*Basic Elements of Landscape Architectural Design*", 1sted.
- [4] SnehalY.Damagade, YuvrajN.Damugade, Tejas.B. Pingale, "Campus Planning", ISSN 0974-3154 volume 10, Number 1, 2017.
- [5] Stephen Siu Yu Lau, Zhonghue Gou, Yajing Liu, "Healthy campus by open space design: Approaches and guidelines", *Frontiers of Architectural Research* 3, 452-467, 2014.