To establish and maintain	Fully operational Emergency Operations	Construction of Emergency Operations Center
functional emergency	Center by 2025	with complete equipment, furniture, and
operations and evacuation		facilities
centers by 2032	Fully operational evacuation centers which	
	can accommodate 75% of campus	Construction of comfortable, accessible, and
	population by 2032	secure Evacuation Centers with complete
		amenities such as power, water, and
		communication supply and appropriate
		facilities (collapsible/privacy tents with
		beddings, food preparation and supply, etc.)
		Provide capability training for all emergency
		responders in disaster management and
		occupational safety and health

ALLOCATION OF LAND FOR ACADEMIC REQUIREMENTS

The table shows the forecasted allocation of land for TAU's academic requirements. A more detailed presentation for campus demand for infrastructure and services can be accessed on Table 2-19. Additional Laboratories, especially for CAF students can be accommodated in Titi Calao.

Table 3-32: Projected Area Demand for Classrooms and Laboratories

	Cla	ssrooms	Laboratories		
	Total No. of Classroom Deficit	Total Additional Floor Area Needed (SQ.M)	Total No. of Laboratory Deficit	Total Additional Floor Area Needed (SQ.M)	
2023	62	3,906	123	9,225	
2032	343	21,609	404	30,300	

PLANNING AND DESIGN CONSIDERATIONS

In line with its vision to build disaster-resilient and smart infrastructure, TAU shall maximize the availability of solar power by integrating solar photovoltaic (PV) panels to generate electricity for the buildings. In addition, TAU **shall** take advantage of natural cooling, wherein the facility shall have an adequate size of openings to control the building's heat gain and heat dissipation. This approach can lessen the use of air-conditioning and minimize the consumption of electricity or no consumption at all. Furthermore, a permeable paving surface shall be considered to reduce surface runoff and filter pollutants from storm water. Finally, aside from these considerations, classroom-cum-laboratory concept shall be deemed to address the demand for classrooms and laboratories.

Building designs shall comply with existing laws such as PD 1096 or the National Building Code of the Philippines. The building shall follow the minimum setbacks and be appropriately oriented. Other than that, the building height shall conform with the law, local ordinance, or whichever is more stringent.

To comply with RA 9514 or the Fire Code of the Philippines, buildings shall be integrated with FDAS or Fire Detection and Alarm System, as well as provision of two (2) means of egress.

All buildings shall be accessible to everyone regardless of one's physical condition. All buildings must be designed following BP 344 or the Accessibility Law. The provision of ramps and PWD comfort rooms shall be considered. Walkways shall be provided with slip-resistant material and conform to the



minimum width of 1200mm. And for every 12 meters, a rest stop or turning space shall be provided. Also, dropped curbs, curb cut-outs, signage, and warning blocks will also be provided along the walkways. Also, PWD parking shall be provided for every building and located at the nearest point of entry to the building.



Figure 3-14: Fitzgerald Parking Grage Solar Canopy Building

Image: Fitzgerald Parking Garage Solar Canopy Building - Kirby Building Systems



Figure 3-15: Kinetic Solar Shading System

Image: LEED Certified Green Office Building Complex Rehabilitation | GLASSCON GmbH – Architectural Building Skins, Façade Solutions, Curtain Walls, Glazing, Solar Shading, Brise Soleil

LAND USE BUDGET

The table shows the land area covered for every district and the allowable area for construction. The



area for land supply is derived from the maximum allowable percentage of site occupancy then subtracted the existing gross floor area of the existing buildings while the land demand is based from the projected demand of land area for every district (**refer to Table 3-32**)

Table 3-33: Land Use Budget

District	Land Area (SQ.M.)	GFA of Existing Structures (SQ.M.)	Land Supply (SQ.M.)	Land Demand (SQ.M.)	Open Space Requirement (SQ.M.)
Academic	105,269.95	17,625.71	35,009.27	51,909.00	52,634.98
College Services	20,751.21	3,494.00	6,881.61	5,960.00	10,375.61
Agro- Ecotourism	72,435.42	6,695.00	29,522.71	-	57,948.34
Sports and Athletic	68,142.00	9,041.00	25,030.00	-	34,071.00
Agri- Business Hub	51,392.75	-	25,696.38	-	4,111,420.00
Research and Production	256,888.00	9,332.98	42,044.62	-	205,510.40
Bamboo Park	44,975.00	270.00	8,725.00		35,980.00
College Housing	76,746.36	4,223.50	37,987.00	16,122.00	34,535.86

Allowable Maximum Building Footprint is not applicable for the buildings since some structures and facilities are situated between 2-3 lots. Nevertheless, Allowable Maximum Percentage of Site Occupancy or PSO is determined by identifying the districts (internal zones) of TAU based on the Camiling CLUP. Based on the Camiling CLUP Volume 2, TAU falls under the GIZ, or General Institutional Zone. With that, GI Zone from Camiling CLUP is classified also as GI in the National Building Code of the Philippines, also known as PD 1096. However, based on the Land Use Plan of TAU, some districts (internal zone) fall under different zone.

Therefore, the districts (internal zones) of TAU are based on Camiling CLUP, then used the nomenclature of zones of the National Building Code for the PSO.

The table below shows the proposed land area per district, allowable maximum PSO, summation of the total gross floor area of the existing buildings per district, and the remaining area for construction.

Table 3-34: Percentage of Site Occupancy

District	Zone (based on PD 1096)	Percentage of Site Occupancy	TOSL	Proposed Area (SQ.M.)	Allowable Maximum PSO (SQ.M.)	GFA (Existing Structures)	Remaining Land Area for Construction (SQ.M.)
Academic	GI	50%	50%	105,269.95	52,634.98	17,625.71	35,009.27
College Services	GI	50%	50%	20,751.21	10,375.61	3,494.00	6,881.61
Agro- Ecotourism	PRE	20%	80%	72,435.42	14,487.08	6,695.00	7,792.08
Sports and Athletic	GI	50%	50%	68,142.00	34,071.00	9,041.00	25,030.00
Agri-Business Hub	GI	50%	50%	51,392.75	25,696.38	-	25,696.38



Research and Production	PRE	20%	80%	256,888.00	51,377.60	9,332.98	42,044.62
Bamboo Park	PRE	20%	80%	44,975.91	8,995.18	270.00	8,725.18
College Housing	R2	55%	45%	76,746.36	42,210.50	4,233.50	37,977.00

POLICIES

Land Use Policy

Set of rules and guidelines, such as land-use policy, is essential on how to properly manage and administer a land for numerous development objectives and future plans. It will serve as guide to improve livelihood, to promote environmental protection, public health and safety, among others.

- 1. Policy on Built-up Areas
 - a. No structure shall be built without extensive research.
 - b. No building shall be constructed without the recommendation of Planning and Development Office and approval of the Office of the President.
- 2. Policy on Building Design
 - a. All building shall be constructed without compromising the area surrounding it.
 - b. Green performance of the building shall be considered. All buildings shall be designed with respect to the 5 key parameters for a green building, such as Sustainable Site Development, Water Efficiency, Energy Efficiency, Indoor Environment Quality, and Material Selection.
- 3. Policy on Open Spaces
 - a. Provision of green open spaces, such as parks, for relaxation of the students, employees, stakeholders, and other members of the community.
 - b. Open spaces, such as forest preservation, shall be maintained.
 - c. Open spaces for evacuation and temporary shelter shall be situated on hazard-free and constraints-free location within the university.
 - d. Protect, preserve, and conserve all green open spaces.
 - e. Prohibit construction of unnecessary structures within the space.
- 4. Policy on Solid Waste Management
 - a. Management
 - i. Observance of the 5Rs (refuse, reduce, reuse, repurpose, and recycle) of waste management.
 - ii. All solid wastes shall be properly segregated for disposal.
 - b. Area
 - i. All areas for solid waste disposal shall be situated away from the administrative and academic buildings.
 - ii. All areas for solid waste disposal shall be situated away from the water sources.

Water Use Policy

As water is linked to climate change, water use policy shall be applied.

- 1. Monitor and measure water consumption and identify significant and abnormal water use including leaks
- 2. To sustain water demand within the buildings, and also and to reduce water consumption, solar powered dug well and wind powered water pump shall be integrated to every building



- 3. Rainwater harvesting tank with filtration system shall be integrated in every building to reduce water consumption.
- 4. Filtered water shall be used for toilet flushing.
- 5. All greywater shall be filtered, through Sewage Treatment Plant, for reuse.
- 6. Water usage must be periodically reported to the Office of the President/ ADCO for information and monitoring.

Energy Use Policy

Tarlac Agricultural University regulates its energy consumption by issuing memorandum stating that air conditioning units must be turned on only from 9:00 am to 4:00 pm. All computers and other electronic appliances must be turned off when not in use. The use of energy-efficient lights and fixtures is also encouraged. All activities during weekend or outside office hours must be coordinated and approved by the Office of the President. Energy usage must be periodically reported to the Office of the President/ ADCO for information and monitoring.

Sectoral Framework Plan

The Framework Plans for the following Sectors can be accessed on Annex A.

Social Development

Economic Development and Investment Plan
Infrastructure, Utilities, and Road Network Development
Environmental Management
Institutional Development

