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Land Ahoy! Beware of Pitfalls

Selecting a piece of land to build a new campus is not a cakewalk. It calls for due diligence encompassing legal to climatic considerations and serious thought. A number of factors, both obvious and hidden, need to be investigated thoroughly before you fix your sights on a site.

Land Selection

Acquiring land is typically one of the first steps taken by the founders of a proposed institution. While this is a very important factor for the early implementation of a project, it is often accomplished too early and/or without the benefit of established critical criteria. A land decision taken without much thought can quickly turn this early start into a classic example of two steps forward and three steps backwards. A poor land choice can result in significantly higher project costs, major schedule delays, as well as other impacts that will require mitigation. It is therefore recommended that founders seek professional advice before finalising a particular site for their new campus. Beyond basic real estate financial acumen, there are legal, technical and other factors that need to be considered carefully. Following is a brief descriptive checklist of issues that you must factor in while purchasing property.

Environmental Concerns

Unknown environmental issues are notorious for causing both rising costs and delays. It is imperative to know if there are any adverse environmental

conditions existing on the site. These are not always visible and can include contaminated soil and/or water that require pre-testing. Some good, quick indicators of a potential issue are to look into how the site was previously used. If it was an industrial site or a dump of any sort, then it is likely that the existing conditions are less than optimal. The legal requirements for acquiring environmentally sensitive sites are now more stringent. In addition, people too have become environmentally conscious. Therefore, it is not advisable to move forward with the purchase of a land, if there is an existing condition of concern.

Environmental issues can also refer to natural resource assets existing on a site that need to be or should be protected. A forested site of mature trees, or an area with considerable wetlands and/

or important wildlife habitat, should make you pause and reconsider your decision. As it often involves disturbing the natural habitat, and may also potentially reduce the actual buildable area. As sustainable as our new campuses are, there is still an impact caused by construction on a site, and this must be considered. We must ensure that the positive impacts outweigh negative impacts.

These impacts are not necessarily limited to the site that is under consideration. For example, a site may be proximate to an important watershed region and its drainage patterns may affect the quality of the water system. In such cases, the measures that need to be taken regarding water run-off and waste-water management may be more costly and complicated than perceived by the uninitiated. It is also important to understand how the site under consideration lies relative to the flood plain.

What is the topography of the site? Is it a sloped site that makes the development interesting or does it require costly gymnastics? Are all the areas on site accessible or are some of the site slopes inhibiting movement from one area to another? Are some slopes too steep to build on?

These and other such issues need to be taken into account before making the purchase decision.

Climatic Conditions

It is clear that any site should be analysed for how it is impacted during the monsoon season. How the site drains and what drains on to any given site, must be understood in advance. Are there issues of flooding due to proximity to rivers, seas, or other tributaries that are close by, but not adjacent to the site under consideration? There are other climatic conditions that should also be checked for both positive and negative impacts. What is the prevailing wind direction? Does it bring with it excessive hot air, sand or smells from adjacent uses? Will any of this involve costly processes for mitigation or are they obstacles that will be difficult to overcome? On the opposite end, you must also consider the potential benefits from such natural conditions like for example, can the wind be harnessed for power or for improving possibilities of natural ventilation?

Zoning and Easements

Surprisingly, this is one of the most under-studied



BY ANIL

LOWDOWN ON LAND

It is not advisable to move forward with the purchase of a land if there is an existing condition of concern that has not yet been legally resolved

aspects of any site, and yet it is fundamental to a location's viability to accommodate campus development. A list of questions to consider under this category includes:

1. Are the intended uses allowed on the site? For a campus this may go beyond academic uses and include residential, commercial, and research. It needs to be clarified how local zoning interprets these uses and if they are all considered academic, or are they ancillary, or defined independently. Are there any restrictions on these uses?

2. What are the setbacks required on the site and what can be included in the setback area (i.e. roads, parking, landscape buffers, etc.)? Do these setbacks apply in the same manner below grade?

3. Are there any easements running through the site and if so, what are the restrictions that they may impose? Time and again, it is suggested that these regulations are fungible and time and again, in the final analysis, they are not.

4. Are there specific height restrictions that will cause issues? Remember, buildable area is only one part of the equation. Other restrictions or requirements can prevent one from utilising the full buildable area allowed on a site, if there are mandates such as amount of open space required. Land costs are often set upon calculations based on allowable buildable area. However, if this calculated buildable area cannot be used, then the evaluation method is faulty. After considering all these factors, it is better to look at the area of the property that can actually be built upon, and then

If Vastu is important to the stakeholders, then it needs to be studied from the start to understand how the site can be accessed and how its typology may be in concert with it

evaluate if the total required buildable area fits within the reduced area.

Site Access

How the site is accessed by users, including services, is very important. Can the road systems leading to the site accommodate the traffic that the campus development will generate? Is there current or proposed public transportation that will help to lessen personal vehicle traffic? We all try to envision a pedestrian campus where there are no polluting vehicles. This is a strong and important thought that we must hold on to, though implementing it will take time.

Is the site accessible for construction? There are many sites, especially urban, where the necessary space needed for construction activity is quite limited due to restrictions. Beyond the footprints of the buildings to be constructed, there needs to be ample space for construction equipment, lay down areas for materials, shelter for site personnel including the migrant work population.

Soil Conditions

Soil conditions impact construction costs. They determine the appropriate structural foundation systems which have different costs. In addition, soil conditions, such as presence of rock or water, also determine the costs or viability of below grade space for basements. While structured parking above grade may still not count towards allowable buildable area, it most likely will count against ground coverage.

Adjacent Development

It is important to know what construction or activity is currently occurring or is in the pipeline around the site. What kinds of development and usages are likely to happen? Are they compatible or will they be nuisances? What moderating mea-

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sures or positive synergies can be optimised? Who owns the adjoining parcels? Will the campus need land for expansion in the future?

Municipal Planning

Is there an overall master plan or strategic plan for the surrounding region or precinct? What kind of development is being sought by the government? What incentives are under discussion? What infrastructure is planned that will affect your campus in the short and long term?

Tenets of Vastu

What are the stakeholders' requirements for adherence to Vastu principles? If this is an important aspect, then the site needs to be studied from this perspective from the outset. Is the site access in the correct position? Does the site topography work with these principles? How will the site accommodate a development that must follow Vastu principles? There are developments that begin with a costly site enabling phase, whose entire requirement is to manipulate the basic site characteristics and make it conform to Vastu.

In many cases, the cost of a plot is determined by the price of nearby land sold in the recent past, and its estimated future value. Yet, each parcel of land has its unique characteristics and inherent development costs rooted in these attributes. It is only prudent to study the aforementioned characteristics before agreeing to a final selection and closing the financial deal. It does not require any major effort to research these characteristics. Nor is it a costly or lengthy process to prepare a few quick feasibility tests during the due diligence, period. **EDU**

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