

Drones and Planning.

TECHNOLOGY USUALLY OUTPACES REGULATION.

Drones have been with us for a while, but they are beginning to intrude in daily life, in the neighborhood and throughout the city. Many will welcome 30 minute deliveries of items under 5 pounds. Many will appreciate Amazon's hybrid shopping idea along with robotic personal assistants. These "improvements" will happen, probably sooner than later. The history of after-the-fact regulation is poor. Cities need to anticipate this technology and prepare.

When there is a fleet of drones operating in the city, who will regulate landing zones, drone storage areas, recharging stations, building access points, flying heights, accident responses and a myriad of other conditions that will accompany the proliferation of urban drones?

The federal government now provides a licensing process. There are probably programs in place or in process to control the quality of the vehicles, the types of cargo permissible, etc. It is time for city planners to

become familiar with these plans, programs and processes. Regulations, development standards and design guidelines will be necessary when drone charging stations are proposed to be located on the top of street light poles, rooftop delivery zones are requested and flyways are designated to restrict flights over sensitive areas. The time is now to prepare.

DRONES AS INFRASTRUCTURE.

Amazon and many others have plans to make drones a ubiquitous part of the urban landscape and skyline. Private industry is working away. Public agencies will soon be faced with new questions for which many are ill-prepared. Understanding the shipping and retail aspects of drone technologies is a current topic. The Amazon's City of The Future, while an advertisement, gives one view of what is being developed. Cities are on notice to prepare plans, programs and standards for new transportation, land use and airspace systems.

An advertisement for Amazon that has lots of wild ideas about the future of the city.

The question for city governments, are they ready to respond to new, out-of-the-ordinary proposals with yes, no or maybe under the right conditions? Will they even have an opportunity to ask that question?

Amazon's City of The Future

Nov 6, 2019

LINK:

<https://www.youtube.com/watch?v=Dk7h22mRYHQ>

DRONE DELIVERY-INDUCED LAND USE CHANGES.

Close-in warehousing is becoming more and more important. Amazon and others are buying defunct and marginal shopping centers for conversion to fulfillment centers. This involves car and truck deliveries, maybe ground-based robot deliveries, but also drone deliveries. Converted shopping centers will become “beehives”, to use an Amazon concept that serves as landing/takeoff zones for delivery drones. How does zoning deal with that idea?

DRONES AS PLANNING TOOLS.

A case in point: Last year I went to a zoning hearing between the usual belligerents. A developer was proposing a use that dramatically exceeded the surrounding large lot subdivision character. As testimony unfolded, the seven zoning commissioners seemed sympathetic to the developer’s ideas. Traffic impacts, land use compatibility and several comprehensive plan policies were being successfully debated by the development applicant.

THEN, the homeowners’ defense team presented a video, from a drone, surveying the major intersection in question during the morning rush hour. **GAME OVER.** Not only was the traffic horrendous, the visual impression of the horrendous traffic was overwhelming. A few minutes later, the Commission denied the project 7-0, no discussion.

From the perspective of a city planning department: Aerial videos of flooding right after a storm are helpful when proposing waterfront setbacks and evaluating flood control maps. A library of issue-directed aerial videos is a great resource. Every department needs access to a licensed pilot.

From the perspective of a citizen: We have seen the value of real-time videos at crime and accident scenes. While aerial videos can rarely be instantaneous, they can be “near” real-time. They are becoming more readily available. Get ready for more aerial video evidence.

The articles cited below discuss the use of drones to address planning issues, collect accurate data and present real-time visualizations of planning areas and projects; all good. But none mention the impact of a full color, aerial video of a problem area. Traffic is probably the most applicable issue, but issues of water-caused erosion and flooding, school crossings, emergency responses and accident scenes are all applicable; plus many more, limited only by the imagination of the planner.

**Drones as a planning tool is interesting but that is not the issue at hand.
Drones as privately provided services engaged with public infrastructure is the issue and the soon-to-be-here eventuality demanding civic preparation.**

From...Smart City Dive

Drones Will Elevate Urban Design

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READ FULL ARTICLE AT: <https://www.smartcitiesdive.com/>

“The announcement [*The Federal Aviation Administration (FAA) recently released long-awaited guidelines for commercial Unmanned Aerial Vehicle (UAV) or drones.*] has unleashed a wave of predictions about the future of the technology, which has already proven valuable in agriculture, environmental conservation, retail, 3-D surveying, search-and-rescue, and law enforcement. It's clear drones will soon become ubiquitous. As critical as drones will become to contemporary life, there has been little discussion about their potential to impact on landscape architecture and urban planning.”

From...GROWLING WLG

5 WAYS DRONES WILL CHANGE URBAN PLANNING

“Exciting developments in drone technology over the past five years have led to a number of opportunities opening up for the use of drones in urban planning. We take a look at how the UK's planning and construction norms will be disrupted by this step change, looking at five key areas where this technology will be used to save on costs and improve the quality of the urban landscape.”

“1. Data Collection

2. Aerial Surveys/Basemaps

3. Situational Design

4. 3D Visualisations/Public Engagement

5. Traffic Flows/Behaviour Analysis”

READ FULL ARTICLE AT: <https://gowlingwlg.com/en/insights-resources/articles/2019/5-ways-drones-will-change-urban-planning/>

PLANETIZEN, as usual, has an extensive library of articles on drones and their use in city planning.

SEE: <https://www.planetizen.com/tag/drones>