

Ask a CTBUH Expert: Emma Humphreys

How to Make a Tall Building “Drone-Ready”?



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Given the convergent trends of increasing commercial use of drones and flying taxis on the near horizon, and that of increased high-density vertical development occurring in many cities worldwide, we asked a CTBUH Expert, “How to Make a Tall Building ‘Drone-Ready’?”

There is increasing use of drones in our personal and professional lives, and this is set to grow yet further as companies such as Uber, DHL, and Amazon investigate how they might use urban air mobility and drone technology to supplement traditional forms of transport.

At present, cargo drones are operating successfully in China, Switzerland and Africa—with a particular focus on medical deliveries. Drones can now also carry passengers, and the first commercial urban flights of this type are expected to take place in 2021. In line with this timetable, testing is currently ongoing in Singapore, the United States, China, and Germany, and Uber is due to roll out flying taxi service test flights in Melbourne, Australia later this year.

Infrastructure is integral to the success of these developments in urban air mobility. Those who own or design tall buildings should be thinking now about how they can prepare their buildings for these potential changes, particularly given that adaptations are more easily made at the design stage. For example, while rooftop space is often scarce, careful advance planning can usually accommodate a drone operation—often known as a “vertiport”—alongside competing interests, such as roof plant and solar panels.

New buildings offer the best opportunity to prepare for drone connectivity in the future, as the appropriate arrangements can be integrated into the build program. Most important is ensuring that the construction

factors in load requirements and has sufficient service capacity. While technology will inevitably develop, the significant electricity supply currently required to operate a vertiport may be an issue, and early engagement with electricity providers would be prudent to assess viability and cost.

Those owners interested in the option of installing a vertiport on new or existing tall buildings should consider a review of the relevant legal arrangements. Aside from the suitable contractual and construction arrangements that need to be agreed with an infrastructure provider (including responsibility for any planning and aviation authority issues), it is important to plan for the potential impact of vertiport operations on occupiers and neighbors.

For buildings still in the planning stages and yet to be constructed, it may be sensible to consider whether separate access to the roof can be arranged for vertiport users, so as to minimize disruption for other occupiers. Where a building is yet to be let, the lease can be prepared so as to enable the landlord to make appropriate arrangements for those operating and using a vertiport to access the common parts and services.

Such steps should help to minimize the risk of an occupier within the building seeking to make a claim of disruption caused by vertiport operations. However, landlords should also consider in advance whether the operation of a drone business is likely to interfere with any tenant’s use and enjoyment of its property, and whether a specific acknowledgment of the presence (or

potential presence) of a vertiport is needed within the leases.

Many of these points should also be considered by any landlord who wants to install a vertiport on an existing building, where the legal position is obviously likely to be more complex. At the very least, there is the potential for complaints about noise during construction and operation of the vertiport.

Additionally, building owners are likely to be concerned about the potential for drone operations to result in injury to members of the public, damage to property, and/or trespass, nuisance, or privacy complaints. Any duties of care owed will need to be considered—including to tenants and certain third parties using the building, as well as to neighbors. To address these risks, appropriate safety assessments will need to be undertaken, and building owners should also check that their insurance arrangements provide appropriate cover.

While there are many legal and practical issues to consider when it comes to drone operations, planning for “drone connectivity” of tall buildings offers real potential benefits to owners and occupiers. Future-proofing new developments should certainly be considered in order to maintain—and hopefully enhance—investment values. ■

About the Author

Emma Humphreys is a partner at Charles Russell Speechlys, a law firm based in London. She advises on contentious property issues, including restrictive covenants, rights of light, dilapidations, and business tenancy renewals.

