# Virtual Permitting Framework (VPF) for Alternate Care Sites (ACS): Planning in the Wake of Coronavirus Pandemic

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## ABSTRACT

As the number of infected people by COVID-19 in the U.S. has broken the record, the federal and state emergency planners are looking for different methods to cope with the challenge of expanding the current healthcare system capacity to provide care for people with a compromised immune system and preexisting conditions. Given the current capacity of U.S. hospitals is estimated at 920,000 beds in total., if the number of infected people keeps rising, the nationwide shortage of hospital beds is projected to be higher. This predictable shortage has led healthcare facilities managers, Federal and State authorities to seek alternative locations outside of existing healthcare settings to accommodate the expected surge of COVID patients. As a result, the construction permit request to convert the existing building to temporary COVID care facilities has recently increased. This spike has put pressure on the building authorities to process the plan review and inspect these converted buildings to allow for immediate occupation and operation. The study identifies the critical shortcomings in the current permitting process and proposes a new virtual permitting approach. The paper introduces a BIM-based Virtual Permitting Framework (VPF) to expedite the existing building's permitting to repurposing ACS, especially the Airborne Infections Isolation (AII) Rooms.