

# MEDICAL CARE FACILITIES CONSTRUCTION

OCTOBER 2018 TECH BRIEF FOR  
CONSTRUCTION AND UTILITIES  
TALENT NETWORKS



## Resilient Hospitals and Age-In-Place Designs

Hospital licensing standards set minimum requirements for new construction and renovation of licensed hospitals. The safety of the public depends on healthcare facilities keeping up with current standards. Standards bodies are not known for speed, but with certain new demands like resiliency, best practice is changing fast. Hospitals are doing more than is required to protect themselves against weather events and to future-proof their facilities.

Other fast changes: care facilities are multiplying as hospitals look for cost-effective solutions for delivering health care while preparing for an influx of aging baby boomers. Also, considerations for age-in-place redesigns of kitchen and bathrooms are underway. Standards to accommodate wheel-chairs can be adopted from the Americans with Disabilities Act ([ADA](#)).

## Labor Force Takeaway

The design and construction industry constantly evolves to include new materials, technologies and methods. One of the fastest evolving best practice repositories for design and construction for the healthcare sector is the US Green Building council. Therefore, the Technology Advisory Network recommends including the LEED AP Building Design + Construction (LEED AP BD+C) in the Industry Valued Credentials list.



For smaller companies and County Workforce Development boards with no training budget, the following Federal sites offer training and further information on training options:

- <https://www.wbdg.org/continuing-education/workforce-development> This site includes links for Federal Buildings Personnel Training Act, Better Buildings Workforce Guidelines, Energy Efficiency Jobs Career Map, Competency Model Clearinghouse, Commercial Workforce Credentialing Council
- <https://www.wbdg.org/building-types/health-care-facilities/hospital>
- [https://buildingretuning.pnnl.gov/documents/pnnl\\_sa\\_110686.pdf](https://buildingretuning.pnnl.gov/documents/pnnl_sa_110686.pdf) This study indicates that most buildings can cut 5–30% off its operating costs through improved operations and maintenance. Even relatively well-run buildings may realize significant savings with upgrades.
- <https://www.enterprisetraining.com/fbpta.html>

# Future-Proofing Care Facilities

The sheer scale and number of natural disasters in recent years is prompting hospitals around the country to embrace the wholistic concept of preparedness. Even areas like NJ, which are considered outside of the high-incidence areas, are embracing resiliency planning, designing beyond the basic code requirements. Major hospitals know they cannot afford to shut doors during a major storm; they know they need to be ready to receive more patients to treat.

As the population ages, those with money from long-term care insurance policies can choose to age in place. As this happens, hospital design requirements will migrate outward to non-traditional facilities, such as micro-hospitals (offering roughly a dozen beds), urgent care and out-patient facilities. Outpatient behavioral health care projects have become a top priority in a short span of time. **In 2018, 53% of respondents** to an industry poll with specialty construction projects said they were involved in behavioral health care unit projects.

Micro-hospitals are fully licensed facilities that focus on lower-acuity patients. **The same recent industry survey showed** that though few facilities are planned in the next few years, numbers are expected to spike quickly.

The competitive advantage for a construction company learning about healthcare facility construction is obvious. With so much expansion in this industry, there is opportunity for a bonded company to bid on projects, both small and large. Furthermore, knowledge and experience with facilities that require wide doorways and low sinks to **accommodate wheel chairs**, can be parlayed into home modifications with no architect required.

It isn't just aging loved-ones that is bringing back the **multi-generational home**. Combining **two generations under one roof** can help bridge the home-affordability gap, particularly for families with young children. If a relative can provide daycare or afterschool supervision, the savings can be tremendous. The concept is ancient, but now designs accommodate **updated privacy norms**. An example is the **growing popularity of floorplans with an "in-law suite"**, usually on the first floor of a home.



Circling back to the **future-proofing** of healthcare facilities, one **big trend** is modifiable **parking structures**. The rise of self-driving cars will decrease the need for garage space. Car parks that can be converted to office space costs more to make, in part because the height of floors is different. In the long run though, Return on Investment (**ROI can be ~40 percent**). **Parking garage** operators can go from renting spaces to selling electricity for cars.

The Whole Building Design Guide (WBDG), managed by the National Institute of Building Sciences, discusses mixed use parking facilities in healthcare. Fire code issues typically pose the most difficult design challenges for **hospital use/facility combinations**.

