

Design + Construction Strategy for Rural Community Replacement Hospitals

by Chris Kay



The infrastructure of U.S. rural hospitals and the resulting expansion of access to healthcare began more than 50 years ago. The development of community hospitals was largely due to the Hill-Burton program, which provided direct federal capital funding for hospital construction between the late 1940's and early 1970's.

While rural hospitals remain the cornerstone of their community's economy, most have reached their useful life cycle and no longer meet patient needs and building codes, despite their technological upgrades.

In 1997, the Balanced Budget Act created Critical Access Hospital (CAH), a special designation for a rural hospital that qualified then for cost-based payments for Medicare services. Now numbering over 1,100, CAHs make up the majority of rural hospitals in the United States. Despite many having been built during the Hill-Burton era 40 to 50 years ago, few have replaced their infrastructure, citing high risks and significant costs as major barriers.

According to a special industry report endorsed by the National Rural Health Association and information gathered through the federal office of rural health policy (If this is the actual name of the department, it should read Office of Rural Health Policy), larger community replacement hospitals outpaced industry averages for volume growth and increased efficiency. Small rural hospitals that had completed a facility replacement in the past five years also witnessed changes in volume, efficiency and profitability by as much as 16.3%.

Most rural hospital CEO's originally cited both strategic and operational constraints as the driving factors for their replacement facilities. For some, it was simply a necessity for meeting current licensure requirements, while others expanded their facilities and services to meet the needs of a growing community and capture greater market share.

The results were nearly universally positive. Rural communities that built new CAHs not only experienced increased market share and services usage, but also reported enhanced clinical performance, improved workforce and physician recruitment and retention, improved quality patient safety and increased patient and visitor satisfaction. In almost all cases, advanced technologies increased the bottom line in diagnostics, outpatient services and operating rooms. (Other factors driving performance were increases in the size of the community and more experienced management teams.)

These new facilities are reinventing community hospital care many times over. For example:

- Outpatient services have become more important, diagnostic technologies more prevalent, and therapies and treatments more effective as a result of better facilities, advanced technology and highly trained medical professionals.
- The identity of the traditional community hospital is shifting from acute beds to outpatient clinic, with a mix of inpatient, outpatient and community services.
- The replacement hospitals are patient-centric, featuring amenities and services that respond to today's consumerism approach to healthcare.

- New rural community hospitals are no longer exclusively defined by their acute care mission, but rather by their communities' needs.
- Hospital management teams are focused on community needs and delivering appropriate services. In doing so, they are faced with fundamental changes — substantial renovations, facility expansion, modernization — to meet those needs.

Rural community hospitals have little margin for error in investing in the right facility. A well executed design + construction strategy, coupled with a comprehensive operational plan and medical program, is vital to the continued success, if not survival, of any community hospital. In fact, the future healthcare organizations that succeed and thrive will be the providers of services that continue to meet the future needs of their communities.

Design + construction strategies, which are proprietary to Irvine Team, are designed as comprehensive roadmaps to guide healthcare leaders through the complex planning, design and construction processes required for renovations, expansions and replacements of community hospitals. These comprehensive design + construction strategies encompass more than just architecture and construction. Importantly, they take into account the unique challenges community hospitals face, including capital needs and an overall operational and financial project strategy. Managing all aspects of a project from inception through completion, Irvine Team works directly with hospital leadership to make sound decisions by communicating goals and objectives to the board, administration, physicians and departmental managers. Our process recognized and works within the traditional capital constraints of rural community hospitals using a dynamic matrix approach to managing the implementation and execution of capital expansion projects.

Our team of experienced professionals brings a national network of resources that share a broad base of knowledge and enhance the overall experience. With more than \$2 billion of projects on our roster the past four years, Irvine Team has a broad knowledge base that benefits customers — bottom-line accountability for strategy implementation, adherence to cost, scheduling, quality and delivery.

Irvine Team's four-phase matrix process services as the project blueprint:

PHASE I - STRATEGY

The team establishes or validates project feasibility objectives and desired outcomes, then develops the roadmap for the design +

construction process. This phase identifies the necessary knowledge base, skills, process, methods, tools, and techniques to achieve the desired results.

PHASE II – DEVELOPMENT

The team identifies the design process and aligns it with the project program validated by leadership. The conceptual budget and schedule are developed, and sourcing initiatives, costs, financial modeling and planned execution strategies are communicated using the secured knowledge base, methods, and tools that were identified in Phase I.

PHASE III – DESIGN + CONSTRUCTION

Phase III involves the hands-on implementation, communication and execution of the strategy: coordinating the jurisdictional approval process and securing the resources — consultants, contractors, suppliers, equipment — to procure all aspects of the project. Ongoing cost reporting and verification of adherence to the schedule, quality and scope of project activities are communicated regularly.

PHASE IV- COMMISSIONING/OPERATIONS

The project begins to integrate customer-furnished activities, which, together with other customer-driven operations, begin to take the lead in determining the project's critical path. Irvine Team continues to manage costs, begins the audit process, coordinates healthcare regulatory inspections (including JACO), spearheads medical equipment logistics and makes commissioning a priority. As the construction nears completion, Irvine Team also oversees the successful transition, delivery, installation and training of hospital activities such as information technology, furniture and fixtures, medical equipment, move management, environmental preparations and other building orientation activities.

Chris Kay serves as Senior Vice President of Houston-based Irvine Team (<http://www.irvineteam.com>). He has been involved in the design and construction industry for more than 18 years, with experience in both design and construction of large commercial, private and public building projects throughout Texas and the southern United States.

As the first-of-its-kind innovator, Irvine Team is uniquely positioned to develop clear design + construction strategy for Critical Access Hospitals and healthcare entities. With a proven history of staying on schedule and never exceeding a project budget, Irvine Team is solely focused on protecting our customer's interests and ensuring project success.