

## *Rapid Access Prototyping*

Revolutionary Hands-On Modeling Tool for Construction Innovation

The innovation: Rapid Access Prototyping is a revolutionary, construction design tool which challenges traditional modeling processes associated with the design-build construction process. Implementation is easy, hands-on and can be used by any project manager or superintendent.

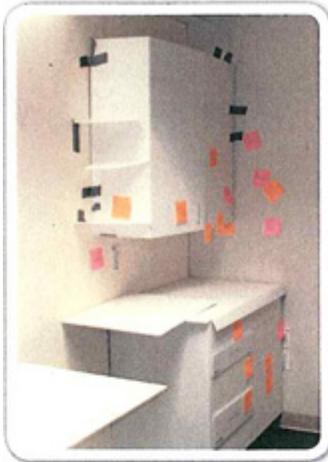
Why it is innovative? Traditional modeling (or mock-up) efforts are inflexible and rigid. It incorporates only the current status allowing for little interaction or change by the end user. Rapid Access Prototyping allows staff participants and end users the opportunity to interact within the context of the proposed area (or room) while making 'real-time' changes to the overall space and construction elements.

What it changes or replaced? Reverse Outcome Prototyping or RAP has replaced the traditional methods of 'mocking-up' areas for individuals to interact within. Commonly referred to as construction modeling, this method has existed for 50 years with very little change to the overall methodology. Rapid Access Prototyping replaces this static method and gives building owners the opportunity to interact with the designed space before actual construction begins. The proven success of this tool gives new possibilities to construction companies throughout the US. This affordable technique immerses the users within the proposed area while making rapid changes to the space. This creates a better outcome for all involved allowing for rapid changes to proposed spaces during the construction process phasing.

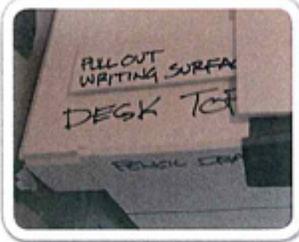
Where and when it originated, has been used, and is expected to be used in the future? In 2006, the Neuroscience Group of Northeast Wisconsin and Miron Construction Co., Inc. piloted the tool with great success at the new 38,920-square-foot Neuroscience Center. Physicians, clinicians and patients challenged Miron Construction to build the ideal patient exam room of the future. Today, the outcomes of the tool are felt by the staff and users of the new \$8,550,000 million dollar facility.

- Healthcare patient exam room design has changed very little since being created 60 years ago. In reading periodicals from past years, the exam room design being used today by hospital and clinical areas throughout America has been altered insignificantly. However, healthcare delivery methods, tools and techniques have changed quite dramatically. Construction processes in this realm have not maintained the same level of change.
- Physicians, clinical assistants, nurses and patients (Innovation Team) co-created the new, ideal patient exam room through the use of this proprietary Miron innovation tool. To begin, a 10 x 10 current exam room was cleared of all fixtures and furniture to allow for a clean slate. The ground-breaking change the group was seeking would not have occurred from simply rearranging walls or altering the current environment that had existed for over 20 years. Traditional thinking was challenged by starting with desired outcomes and allowing for a flexible method of change.
- Items contained within the patient exam room, as well as walls and ceilings, were re-created with foam core. This allowed the user the chance to think differently about the room and the contents since the foam board did not represent the room or fixtures of the past. Construction team members created a foam core sink, desk, telephone, exam table, lights, equipment monitors, chairs, cabinet, waste basket, diplomas and art work. This allowed end users the ability to interact within the space and actually modify it, on the fly, based on ideal patient flows and outcomes. Once the foam replica items were in place, illustrated and identified, the creativity began. No longer did the construction team have to move actual walls, fixtures and lights to allow for user interaction within the space.
- Both financial and emotional savings occurred by using the Rapid Access Prototyping Tool. Working together created a culture of innovation. True to the spirit and mission of the project, the tool improved the quality of care by offering a better understanding of patient and staff flows, efficiencies and, at the same time, reducing construction costs. In the final rendering, each exam room was 6 inches smaller than originally planned. This resulted in a cost savings in excess of \$10,000.
- This tool is now being utilized within the context of many projects including educational classrooms, art venues, industrial department work flows, retail space experiences, and corporate office environmental prototyping.
- In the future, Rapid Access Prototyping is expected to be available to construction companies throughout the United States allowing for greater understanding of owner and customer priorities and requirements. The tool assists in analyzing multiple situations, dismantles connectivity flaws, and creates an easy template for alternate solutions. Various scenarios can now become actualized, determining if the proposed elements are relevant modifications that should be considered.

## RAPID ACCESS PROTOTYPING



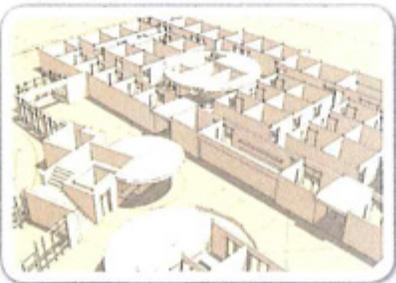
*Typical construction modeling efforts are static and inflexible. They allow for limited user adaptability.*



*Rapid Access Prototyping allows for hands-on, quick access approach to modifying owner requirements. Walls, fixtures, and useable space areas were created from foam core allowing for greater interaction by users and customers.*



*Thousands of dollars can be saved, while adding to the efficiencies and positive experience of the construction project. This creates a differentiated, value-added tool.*



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