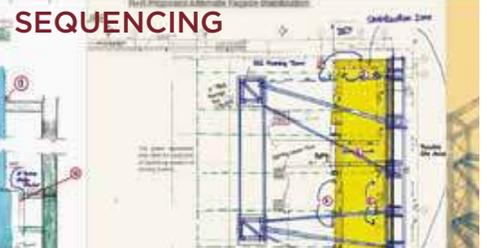
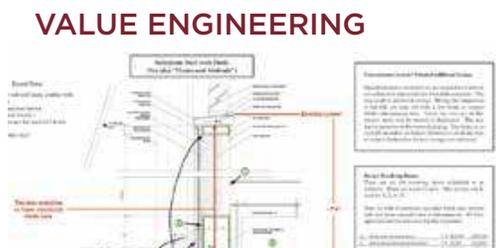
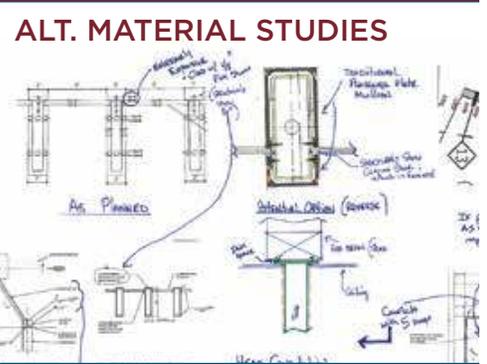
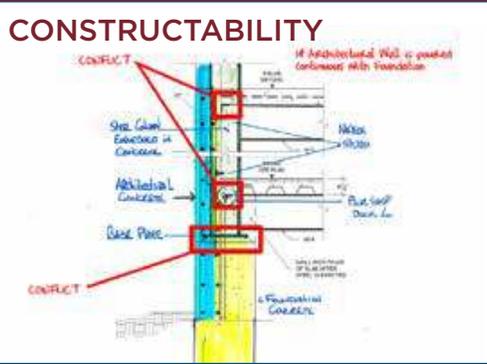
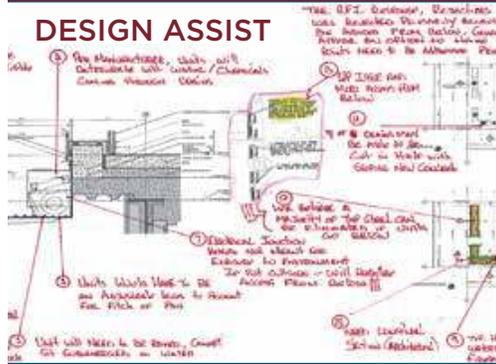


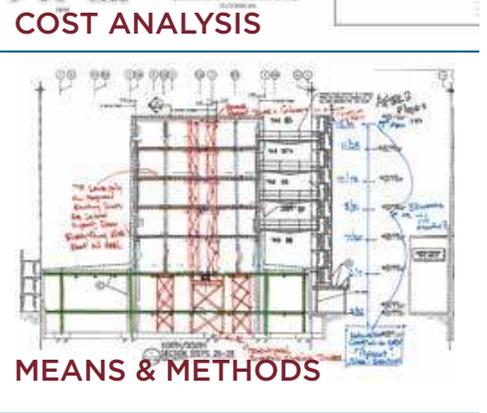
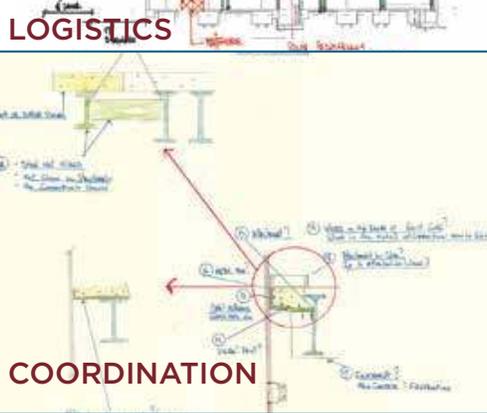
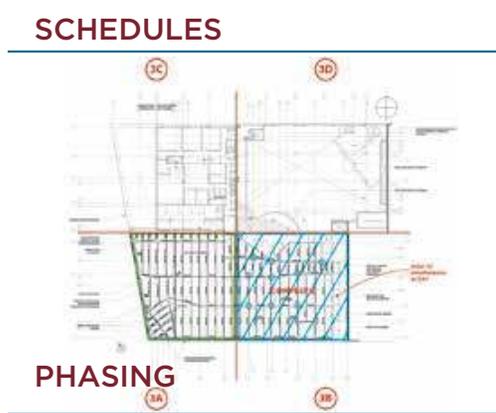
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TECHNICAL EVALUATION ANALYSIS RECOMMENDATION™

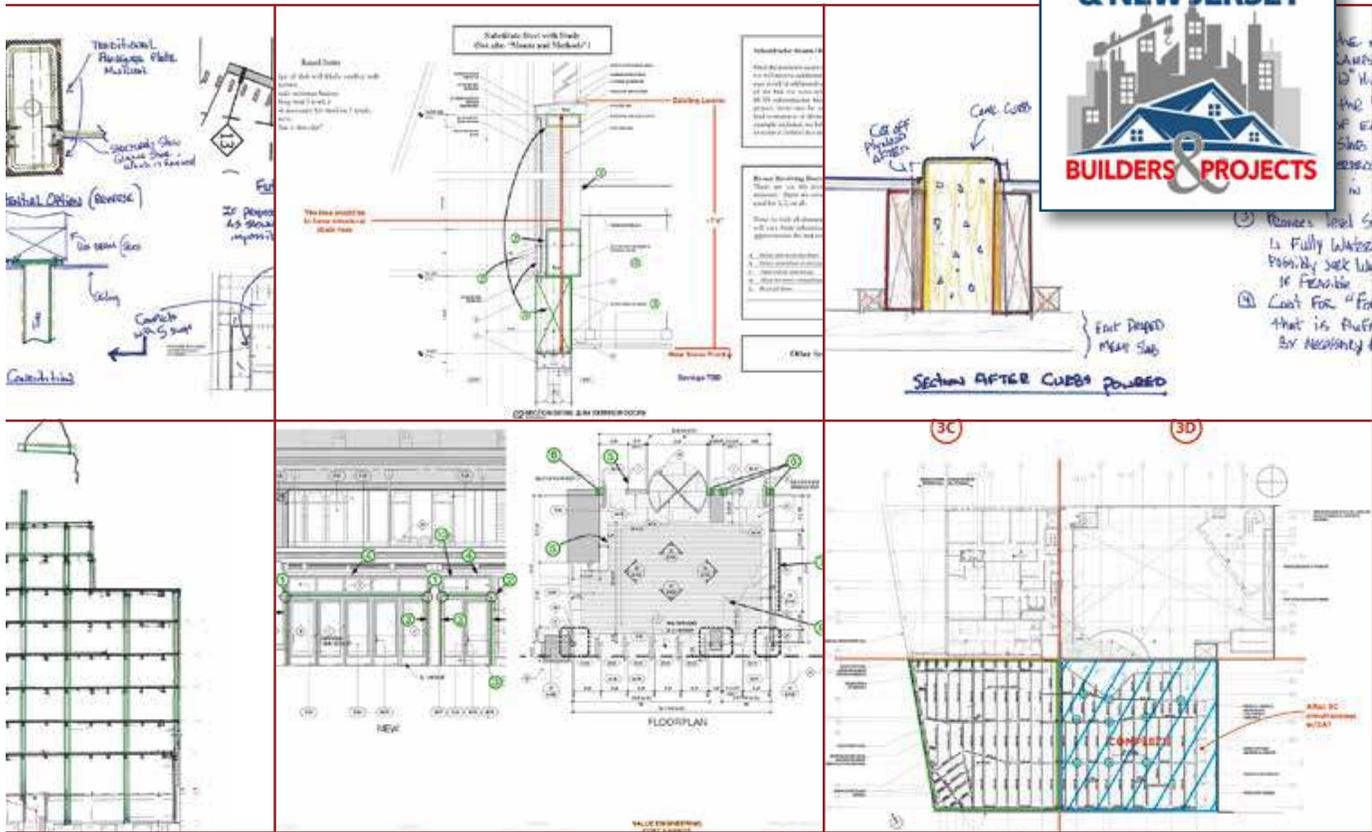


Pre-construction, A Lost Art

Richter+Ratner's T.E.A.R.™ process challenges the construction industry status quo to bring back the inherent knowledge, expertise, and unity of the Master Builder



See pages 22-27



T.E.A.R.

TECHNICAL EVALUATION ANALYSIS RECOMMENDATION™

Since 1912, Richter and Ratner has refined itself to become a trusted and expert builder. *Construction Today's* speaks with Marc Heiman, the company's CEO and President, to learn more about how the construction manager thrives on a steadfast commitment to building quality projects and customer satisfaction, and continues to push boundaries across the construction industry.

Owing to its extensive history, Richter + Ratner is well-versed in bringing together bespoke and complex projects. Marc, who joined the New York-based business in 2006, shares recent company developments that have helped Richter + Ratner stand apart from the competition and pays particular attention to the T.E.A.R. Review Process currently sweeping through the market. "Our approach has been to move away from doing

national work, or any projects that we don't have a good handle on the subcontractor base, especially given the market conditions. We have focused on more of the projects that we are able to get involved with during pre-construction. T.E.A.R. has been specifically developed to form a unique collaboration with the design team in order to have the whole pre-construction process be more fluid and efficient, utilizing processes and techniques that make drawings more effective and reduces change orders. Whether these jobs are for schools, museums, cultural or institutional buildings; we have found ourselves a niche without bidding for any work, of course until Covid-19 hit, and we are able to command very respectable fees on our projects. This also seemed to be a route that none of our competitors were looking into, the

challenging and tough projects, which played to our advantage," he says.

He comments that the company is diligent when it comes to the pre-construction phase. By addressing all facets of the project in the planning process, Richter + Ratner is able to preserve design intent, and ensure that work can be executed within established parameters. "Preconstruction is where the company anticipates challenges, and identifies options for meeting cost, quality, and scheduling objectives, which allows for exemplary execution in the field.

"This is well suited to us because we want to get through projects with the highest involvement as a team to help develop the means and methods, and get the work done as efficiently as possible in order to reduce change orders. We are the only company that we know of that does not put a fee on



change orders. Right now, owners are more apt to push the architects as hard as they can to finish the work, basically in a vacuum and without the collaboration with the builder, and then bid it lump sum. However, this means that crucial details may be missed, which leads to other contractors viewing that as a great opportunity to make up money on change orders."

As a solution to this problem, Richter + Ratner specializes in an innovative process that is both time and cost efficient. A critical tool that is used during the early stages of construction is what the company refers to as the T.E.A.R. Review, which examines the project's issues in depth, and is pivotal to managing expectations, and making informed decisions.

T.E.A.R., or Technical Evaluation Analysis Recommendation, is a process that is utilized from the inception of design, through to construction documents, and integrates the principles of the Ancient Greek 'Master Builder' or 'arkhitekton.' Its purpose is to encourage collaboration, mainly through the pre-construction phase, in order to integrate critical procedures into the design phase, and reduce change orders to make the work flow more efficiently. This can be constructability, means and methods, design assist/review, and so many other techniques.

According to Marc, T.E.A.R. is designed to bring the customer effective solutions at a quicker rate. "In the early days, only one person was depended on for the entire project, so we didn't have all these different

entities that are usually involved in the process now. This 'Ancient Master Builder' of over 5000 years ago did it all; the surveying, the cost, the means and methods, the design, engineering, and the management. Then towards the 1900s, practices began to diversify, which meant that builders were more defined as those having the ability to construct, but not design, and the architects had the ability to design, but not construct. It was the beginning of the bifurcation of the industry. Throughout the 20th century, and even now, different types of approaches, whether through design build, integrated project delivery and other delivery methods, have attempted to integrate the builder and the architect/design team, in the design process where the builder MUST

give their input on means and methods and constructability, as they are logically and typically legally bound to, rather than relying on this lump sum bidding. The lump sum bidding typically has minimal, or no, checks and balances on budget which leads to being over budget and inherent delays. We need to use the T.E.A.R. program to preserve the beauty of their design," he says.

Richter + Ratner draws on every insight from the preconstruction phase to coordinate the different elements essential for thorough execution. Ensuring, to the best of its ability, that each piece fits and functions as intended in the final product, is instrumental to upholding quality standards. As important, throughout the design process, is meeting project goals cost-effectively within design limitations. "People have moved away from true value engineering. It has become too easy to just 'delete' scope to reduce price. This is why we are integrating what we're doing with the team because so much of it is critical to integrate the professionalism



All at King Freeze congratulate Marc & his team and wish them continued success for the future

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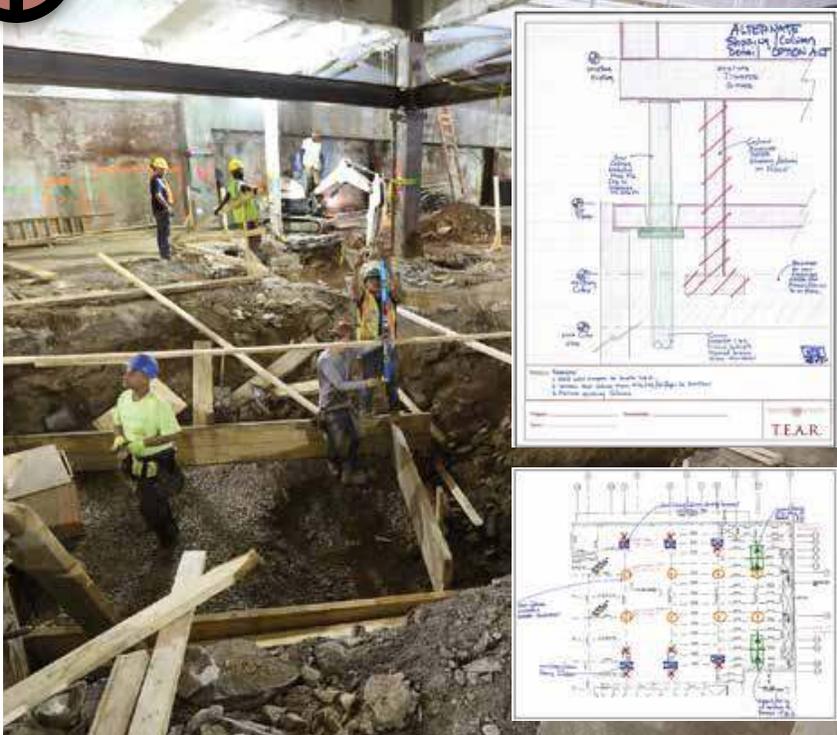
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Above: Bow Tie Building construction. One of many R+R internal ideas presented to the design team to achieve the intended structural objective for the most value

of the builder with the imagination of the designers," Marc explains. "Our multi-faceted approach to planning and scheduling allows greater control and fluidity, and our result is an enviable record of completing projects on or ahead of schedule."

Bringing these applications together, and with the help of the T.E.A.R. Review, Richter + Ratner has been able to curate a catalog of projects that showcases some of its inherent quality of work. These include the Octagon and Peninsula schemes.

"Another example that I'd like to highlight is one that I feel truly demonstrates how well we work with our clients. Having built the original Toys R Us store in Times Square years prior at an enormously rapid pace, it was gratifying to hear many years later from the same building owner, The Bow Tie Building Partners, who called to discuss a major conversion to convert it into locations for multiple retailers in what is now known as the Bow Tie Building. It was a huge structural job, in terms of demolitions, excavation, shoring and structure, and there was no way to price something like that given all of the unknown conditions, phasing requirements, and on-going commitments that the owner was making to future retail occupancy. The owner understood that to price it lump sum was not feasible given the time constraints and unknowns. This project involved many of T.E.A.R.'s aspects, especially studies of means and methods, value engineering, constructability, phasing, logistical studies and most importantly, the tone the owner set for this major collaboration, with full transparency and accountability."

Providing additional context on the aforementioned project is Jeremy D. Billig, President of McLaren Engineering Group, which led the engineering aspect of it. "Challenging renovation projects require a constant revisitation of the balance between constructability, cost, and time. On the Bow-Tie Building, the project team effectively kept an open-mind to what may, at face-value, have seemed to be an atypical solution; yet when factoring in all criteria, produced the best end result for our client."

Marc then continues to share some tips on how to best manage construction procedures. "I believe in monitoring these big projects under one master plan. This is where the T.E.A.R. Review becomes really handy. If someone is not integrating the process throughout the overall schedule from the beginning right through to the end, energy is inevitably wasted in spending additional

"So little from so few can do so much for so many...
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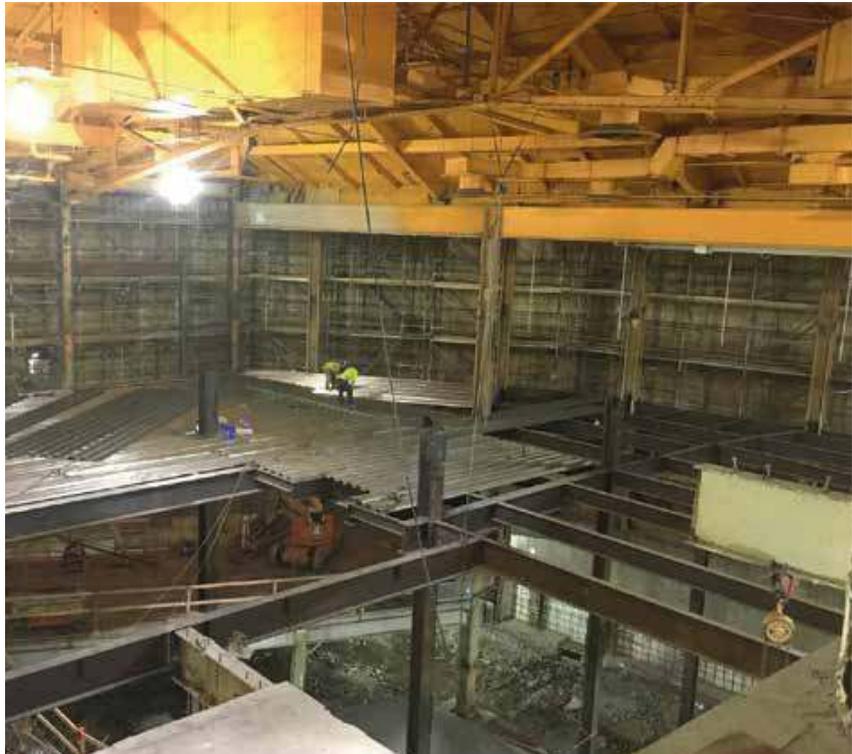
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time on things like RFIs and VE, sometimes even pushing trades out of their lead time or even more costly, critical trades slipping into the winter months. This is why managing a schedule from day one with the architects - the drawings, the deliverables, etcetera in order for everybody to be able to follow it - is a must.

"We met each deadline in an expedited manner to allow the building owner to maintain their commitments to their new tenants," he continues. "That was a few years ago and we are still working in the building to deliver different owner requests, because we have built a relationship of trust, honesty, and perseverance. That is the best indication of success; repeat business."

Despite the challenges the company has faced, Marc is optimistic as he shares his outlook for the next few years, which also includes overcoming the impact of Covid-19 on the construction industry. "While the residential markets are busy and the builders appear to be earning profits, the commercial side is still trying to find its feet. All the big players are trying to build up a backlog, because they have these massive overheads to manage, and as a result, they are taking on projects at drastically reduced fees, and they are making it up downstream by taking it out of the subcontractors. They are the ones who seem to be facing the worst of it and I am concerned about how that is going to affect all of us in the coming months and into next year, given their financial stability.

"Apart from that, we are trying to diversify into other sectors at the moment and take advantage of other markets. We will not take jobs at a loss. Conversely, we are dabbling in market sectors that we normally wouldn't, but where owners believe that you still have a right to make a fair profit. I would rather be strategic about how we overcome this because we have a healthy backlog, however, projects are still on hold, stopped for financial reasons, or have a decent amount of pre-construction required before we get building. You need to build, in order to bill. Having said that, we are picking up different work than we would normally pick up, so I am hopeful that this will also have a positive impact on ironing out these challenges," he says. The achievements that his business has acquired so far are - according to Marc - rooted in its professionalism and integrity, solid internal systems, devoted personnel, respect for the trades and vendors, and strong relationships with its clientele; a combination that is sure to see its success continue for years to come. ©



Above: Bow Tie Building construction

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