



Hoar Construction

CREATES HIGHLY-ACCURATE CONCEPTUAL ESTIMATES IN A FRACTION OF THE TIME WITH TRIMBLE WINEST AND MODELOGIX



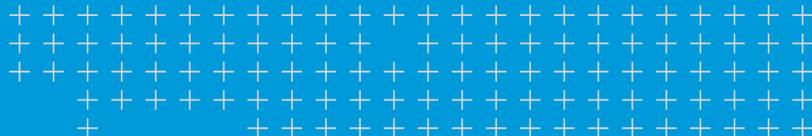
Leading national construction company leverages Trimble estimating solutions to develop a more standardized and efficient cost estimating process based on cost-histories and comparable project 'budgets vs. actuals'

Solution

Trimble WinEst
Trimble Modelogix

Rethink the way construction estimating gets done.

Find out more at
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overview

Hoar Construction leaders wanted to establish a more standardized and efficient cost estimating process to better support customers and to help deliver smarter and more cost-effective construction solutions.



Birmingham, AL



CHALLENGE

Established in 1940, Hoar Construction is a national contractor driven by the relentless pursuit of improvement. The company provides construction management, general contracting, program management, preconstruction and design-build services to customers across the country always looking for better, more efficient ways to build. Well known for its ability to successfully execute even the most challenging projects, Hoar finds solutions through its exceptional planning and attention to detail. The drive to never settle has made Hoar an industry leader whose creative problem solving has earned a reputation for safety, quality and efficiency. It has also earned the company a ranking among the top construction management and retail construction firms in the United States.

Company leaders wanted to establish a more standardized and efficient cost estimating process to better support customers and to help deliver smarter and more cost-effective construction solutions.

SOLUTION

Hoar is a true leader in the construction industry and is well known for taking on challenging projects and working with customers to develop innovative construction solutions. The company works in several market sectors, including retail and mixed use, healthcare, office and commercial, entertainment facilities, government, education, residential, hospitality and industrial. Hoar has worked on prestigious projects across the country including work on Alabama's Benjamin Russell Hospital for Children. James Goree, Virtual Design and Construction (VDC) manager, knows the importance of having a well-coordinated and streamlined cost estimation process. He's been with the company for 11 years, starting as an estimator for Hoar Program Management.

"A few years ago, everyone viewed the estimating process as a necessary evil or a one-time thing," said Goree. "People would put a lot of time into creating the estimate, but once that initial effort was complete, very little information was transferred into the operations phase. Information that was transferred was labor intensive. The worst part from a preconstruction perspective is that our time invested in creating estimates was hardly ever referenced by other project teams due to lack of consistency. Without consist tools and company-wide standards it was hard to improve processes."

Cohesive cost estimating

Looking to develop a more cohesive cost estimation process, Hoar adopted Trimble WinEst and Modelogix. WinEst is a database driven enterprise estimating solution that gives estimators the ability to create, manage and update cost estimates in a much more efficient and integrated way.

Today, Hoar has about 40 users of Trimble WinEst, and they are starting to use the system more fully in daily operations. Goree explains that he particularly likes the database-driven system and that the software can integrate easily with many other leading industry applications, including Hoar's accounting software, and HR's Enterprise Resource Planning (ERP) systems. The company is in the process of automating unit price updates to WinEst based on feedback from their trade partner payment system, which Goree believes will provide greater credibility to unit prices and create estimates that more closely resemble operations schedules of values.

Quantity	Total Unit Cost	Total	Estimate 1			Estimate 2			Estimate 3			Estimate 4			
			Quantity	Total Unit Cost	Total	Quantity	Total Unit Cost	Total	Quantity	Total Unit Cost	Total	Quantity	Total Unit Cost	Total	
01 - GENERAL CONDITIONS	14	\$69,410.92	\$978,971	14	\$37,974.68	\$531,645	12	\$94,792.98	\$1,137,516	11	\$67,403.79	\$741,442	11	\$78,404.95	\$862,454
03 - CONCRETE	30,000	\$18.06	\$541,650	25,100	\$13.67	\$343,209	27,601	\$16.61	\$458,338	26,536	\$23.64	\$627,297	23,233	\$14.34	\$333,195
04 - MASONRY	30,000	\$29.66	\$889,818	25,100	\$18.42	\$462,255	27,601	\$34.54	\$953,324	26,536	\$39.30	\$1,042,992	23,233	\$26.38	\$612,925
05 - METALS	30,000	\$25.32	\$759,576	25,100	\$20.24	\$508,036	27,601	\$17.20	\$474,698	26,536	\$14.26	\$378,332	23,233	\$22.70	\$527,456
06 - WOOD & PLASTICS	30,000	\$15.38	\$461,421	25,100	\$9.41	\$236,301	27,601	\$14.24	\$393,043	26,536	\$10.49	\$278,394	23,233	\$18.73	\$435,130
07 - THERMAL & MOISTURE PROTECTION	30,000	\$12.74	\$382,255	25,100	\$19.67	\$493,792	27,601	\$6.91	\$190,758	26,536	\$17.43	\$462,510	23,233	\$6.90	\$160,346
08 - OPENINGS	30,000	\$17.57	\$527,196	25,100	\$24.17	\$604,681	27,601	\$12.73	\$351,292	26,536	\$16.67	\$442,334	23,233	\$15.18	\$352,593
09 - FINISHES	30,000	\$39.29	\$1,178,731	25,100	\$41.54	\$1,042,699	27,601	\$34.18	\$943,437	26,536	\$28.18	\$747,886	23,233	\$53.26	\$1,237,353
10 - SPECIALTIES	30,000	\$3.21	\$96,405	25,100	\$1.66	\$42,172	27,601	\$6.15	\$169,759	26,536	\$2.75	\$72,922	23,233	\$2.28	\$52,865
11 - EQUIPMENT	30,000	\$5.62	\$168,718	25,100	\$0.42	\$10,617	27,601	\$6.42	\$177,196	26,536	\$7.37	\$195,467	23,233	\$8.29	\$192,525
12 - FURNISHINGS	30,000	\$0.29	\$8,766	25,100	\$0.28	\$7,022	27,601	\$0.31	\$8,668	26,536	\$0.30	\$2,737	23,233	\$0.48	\$11,148
14 - CONVEYING SYSTEMS	30,000	\$3.00	\$90,000				27,601	\$2.04	\$56,409				23,233	\$2.56	\$59,591
14.00 - CONVEYING SYSTEMS	3	\$30,000.00	\$90,000				2	\$28,204.62	\$56,409				2	\$29,795.53	\$59,591
21 - FIRE SUPPRESSION	30,000	\$3.98	\$119,429	25,100	\$2.99	\$74,995	27,601	\$4.75	\$131,096	26,536	\$3.62	\$96,068	23,233	\$4.57	\$106,082
21.00 - FIRE SUPPRESSION	30,000	\$3.98	\$119,429	25,100	\$2.99	\$74,995	27,601	\$4.75	\$131,096	26,536	\$3.62	\$96,068	23,233	\$4.57	\$106,082
22 - PLUMBING SYSTEMS # RENTABLE BEDS	40	\$14,500.00	\$580,000	36	\$14,920.05	\$537,122	40	\$8,499.55	\$339,982	36	\$14,062.33	\$506,244	39	\$11,902.81	\$464,210
22.00 - PLUMBING SYSTEMS # BATHS	40	\$14,500.00	\$580,000	36	\$14,920.05	\$537,122	2	\$169,990.97	\$339,982	19	\$26,644.42	\$506,244	3	\$154,736.55	\$464,210
23 - HVAC SYSTEMS	30,000	\$31.98	\$959,267	25,100	\$29.56	\$742,039	27,601	\$26.71	\$737,206	26,536	\$27.72	\$735,505	23,233	\$41.47	\$963,403
23.00 - HVAC SYSTEMS	79	\$12,177.91	\$959,267	57	\$13,018.22	\$742,039	61	\$12,085.34	\$737,206	57	\$12,903.59	\$735,505	90	\$10,704.48	\$963,403
26 - ELECTRICAL SYSTEMS	30,000	\$38.47	\$1,153,961	25,100	\$49.91	\$1,252,686	27,601	\$27.31	\$753,885	26,536	\$33.07	\$877,643	23,233	\$41.05	\$953,785

Building accurate conceptual budgets – from two days to two hours

The team is also using Trimble Modelogix conceptual estimating and cost modeling software to mine data from past project estimates and refer to actual as-built costs when developing new estimates using the benchmark feature that is part of the WinEst integration. They are able to normalize prices for time and location of the current opportunity to create accurate early phase cost models. Goree believes these capabilities help to reduce risk for Hoar and the client, while removing a lot of guesswork.

“Often there are limited resources to develop a new estimate in a week or two without prior notice,” said Goree. “The owner wants something done yesterday. That’s just not possible when you don’t have one system to reference for initial budgets. Modelogix gives us the ability to quickly get an idea of costs, including ranges based on previous projects. And, our business developer can do a large part of the conceptual estimate by partnering with preconstruction in a one- or two-hour session. Instead of the old go-to routine of preconstruction spending two or three days creating a conceptual budget, today with Modelogix they can do that in two to three hours.”

Reporting helps clients see cost savings

Goree explains that Modelogix has been especially helpful in creating cost models for projects in the higher-education sector, including housing development projects such as dormitories or Greek housing. Early on, teams use Modelogix to create target cost-models based on projects of similar scope, scale, type and owner preferences. Using Modelogix the team can focus on critical cost areas. For example, they can sort historical projects based on suite and bath configuration such as communal

baths, private baths, or shared suite baths. Hoar estimators can compare cost models side-by-side to get more insight into how selecting different bathroom configurations may impact costs. The team then uses projected escalation factors to help ensure job profitability, especially for multi-year construction projects.

“The ability to quickly drill-down to the drivers of system costs is really a game changer in terms of potential cost impacts,” said Goree. “With Modelogix we can zero in on the range of cost based on a metric we specify and that gives us a lot of credibility with owners. When owners are trying to make a business decision, we want our cost model to be as accurate as possible. It shows that we’ve done this before, and we know what we’re talking about. Our clients like seeing this information from us because it shows that we’re looking out for their bottom-line as well.”

Analysis and reporting with WinEst and Microsoft BI

Looking ahead, Hoar is planning to use WinEst Enterprise Data Manager and Microsoft SQL more fully. Enterprise Data Manager is a file-based system that allows users to store a project tree of active estimate versions, as well as the company’s standard estimating templates for various project types. From here, users will have a single location to store their estimating products. This will also open the door to offering more customizable, visual reports for users and clients, and sharing standard internal estimate reports via a web browser.

Making an institutional change

Goree believes that WinEst and Modelogix together have given Hoar a new reference point for all cost planning activities, which has improved efficiency and accuracy in Hoar's cost estimating process.

“Trimble estimating solutions are intuitive, insightful and extremely customizable. If a business commits to using them, there's institutional knowledge to be gained and that can be leveraged to help owners make better decisions and to find new ways to solve challenges on projects.”



RESULTS

- ▶ **Conceptual budgets in hours, not days** - Modelogix helps the team develop conceptual budgets and range of costs based on project histories in 2 or 3 hours, instead of 2 or 3 days
- ▶ **Cost histories give owners more options** – Teams can compare by unit cost, project type and particular system or material, strengthening relationships and giving owners more options and confidence
- ▶ **Greater reporting options** - Project teams can build customized reports during the cost-planning process to improve communication and demonstrate confidence during presentations and client reviews

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— JAMES GOREE
Virtual Design and Construction (VDC) manager

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