

The Keystone: Trends in the Architecture & Engineering Industry

hartwell's architecture and engineering (AE) practice serves more than 150 industry clients throughout the United States. Our team has experience with AE firms of all types and sizes and specializes in providing ownership advisory, corporate finance, transaction opinion, and business valuation services to middle-market companies.

The Keystone focuses on current trends in M&A and public market activity within the AE sector.

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Welcome to the latest edition of the Keystone! Putting aside lingering impacts of the pandemic and continued labor challenges, the first half of 2022 saw a return of certain market conditions many AE firm leaders haven't experienced while at the helm: the bad actors we call "rising interest rates" and "inflation." In the short term, financial performance remained positive for the majority of AE firms. The M&A market remained essentially on track while the AE public market performance was highly correlated to the S&P.

Our intention with this newsletter is to provide you with information on topics of interest to the AE industry coupled with M&A and public market trends. We publish The Keystone bi-annually in Q2 and Q4.

We hope you enjoy this edition of The Keystone and please let us know if there is any additional information you would like to see included in future issues. For those interested in related market information, we have a separate construction newsletter, The Blueprint, which is published in Q1 and Q3.

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Industry Activity Indicators

August 2022 Construction Spending							
	\$ Billion	3MMA	12MMA				
Private Nonresidential	\$513.1	5.6%	3.7%				
Power	\$108.9	20.0%	15.9%				
Commercial	\$98.0	(14.0%)	(6.4%)				
Manufacturing	\$96.6	23.7%	20.5%				
Office	\$73.8	(1.6%)	(3.9%)				
Healthcare	\$41.4	9.1%	4.3%				
Lodging	\$24.3	(1.9%)	0.3%				
Communication	\$18.5	18.9%	9.4%				
Education	\$17.6	4.0%	(21.7%)				
Public Nonresidential	\$346.2	3.5%	(2.5%)				
Highway & Street	\$102.0	2.5%	0.3%				
Education	\$77.6	(2.6%)	(8.9%)				
Transportation	\$40.6	(0.4%)	(6.4%)				
Sewage & Waste	\$31.9	10.9%	6.2%				
Water Supply	\$23.7	27.1%	8.5%				
Power	\$9.5	10.2%	25.0%				

Seasonally Adjusted Annual Rate Source: U.S. Census Bureau

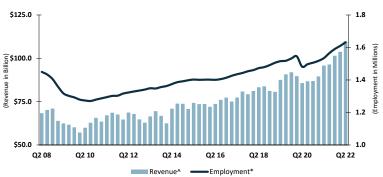
AIA Consensus Construction Forecast						
	2022	2023				
Nonresidential Total	9.1%	6.0%				
Commercial Total	6.7%	4.5%				
Office	2.6%	3.5%				
Retail & Other Commercial	11.5%	3.2%				
Hotel	(5.4%)	13.8%				
Industrial Total	31.0%	9.9%				
Institutional Total	2.6%	5.5%				
Health	5.0%	5.7%				
Education	2.0%	5.2%				
Religious	(8.7%)	(1.1%)				
Public Safety	(10.0%)	5.5%				
Amusement & Recreation	7.5%	5.8%				

As of July 2022 Source: American Institute of Architects (AIA)

Revenue, Projected Revenue, Backlogs, and Proposal **Opportunities**



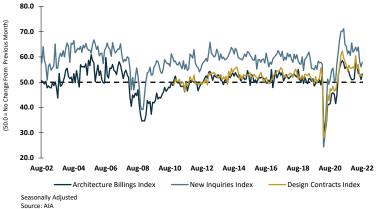




^Not Seasonally Adjusted, Data begins in the 3rd Quarter of 2006 *Seasonally Adjusted, End of Quarter

Source: U.S. Census Bureau and U.S. Bureau of Labor Statistics

Work-on-the-Boards Survey Data

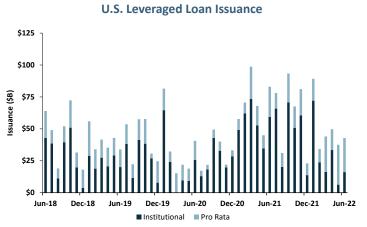


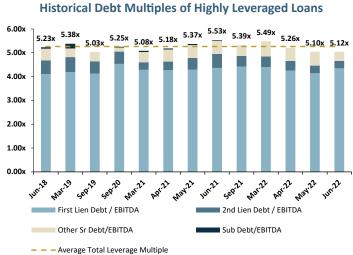
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Capital Markets Update

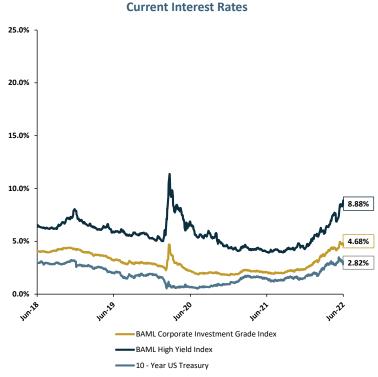
As inflation concerns and corresponding rate hikes continue to drive volatility in the public equities market, debt capital providers have pulled back on new issuance volume, leverage, and covenant flexibility.

- Loan issuances dropped to a post-GFC low in middle quarters of 2022 as investors shunned risk in uncertain conditions; in particular, providers of syndicated facilities are wary of committing to offerings as market pricing has shifted dramatically for previously sought-after credits
- Rising costs have slowed refinancings, new issuances, and sales as owners and investors struggle with the valuation impact of the higher cost of debt
- The market remains hawkish going forward, with participants expecting continued volatility and higher pricing acting as a drag on capital issuances for the foreseeable future









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Western Region							
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description			
1/31/2022	HDR, Inc.	SPF Water Engineering, LLC	Boise, ID	Water engineering services			
3/7/2022	Moore lacofano Goltsman, Inc.	Angelo Planning Group, Inc.	Portland, OR	Environmental and facilities maintenance services			
3/8/2022	NV5 Global, Inc.	Fulton Consulting Engineers, Inc.	Lake Forest, CA	Mechanical, electrical, and plumbing engineering services			
3/21/2022	Atlas Technical Consultants, Inc.	1 Alliance Geomatics, LLC	Bellevue, WA	Land surveying services			
3/24/2022	Studio+	TDM Architects, Inc.	Los Angeles, CA	Architectural services			
4/3/2022	Reynolds Ash & Associates, PLLC	R. Michael Bell & Associates, Inc.	Durango, CO	Architectural services			
4/11/2022	Phoenix Tower International LLC	Technology Associates EC, Inc.	Carlsbad, CA	Architectural and engineering consulting services to wireless telecommunication sector			
4/12/2022	Shive-Hattery, Inc.	WSM Architects, Inc.	Tucson, AZ	Architectural services			
5/4/2022	Huckabee Architects Inc	Rachlin Partners, LLC	Culver City, CA	Architectural services			

Southwestern Region						
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description		
2/2/2022	Bowman Consulting Group Ltd.	Perry Engineering LLC	Tucson, AZ	Civil engineering and surveying services		
3/10/2022	Colliers Engineering & Design, Inc.	KFW Management, LLC	San Antonio, TX	Land surveying and civil engineering services		
3/16/2022	Ardurra Group, Inc.	Woodson Engineering & Surveying, Inc.	Flagstaff, AZ	Land surveying and civil engineering services		
3/21/2022	Unintech Consulting Engineers, Inc.	Assets of Ford Engineering Inc.	San Antonio, TX	Civil engineering services		
3/31/2022	DCCM, LLC	Miller Survey Group, LP	Houston, TX	Land surveying services		
4/1/2022	GAI Consultants, Inc.	PGH Petroleum & Environmental Engineers, LLC	Austin, TX	Petroleum engineering services		
4/14/2022	Harley Ellis Devereaux Corporation	VAI Architects Incorporated	Addison, TX	Architectural services		
4/25/2022	Hardesty & Hanover, LLC	P.E. Structural Consultants, Inc.	Austin, TX	Structural engineering and architectural design services for bridges and buildings		
5/5/2022	Congruex, LLC	Tower Engineering Solutions/ Sorensen Companies Inc.	Irving, TX	Telecommunications engineering services		
5/10/2022	Method Architecture, LLC	Graeber, Simmons & Cowan, Inc.	Austin, TX	Architectural services		
5/27/2022	DCCM, LLC	Alliance Transportation Group Inc	Austin, TX	Transportation engineering services		

Midwestern Region						
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description		
1/31/2022	The Austin Company	Gala & Associates, Inc.	Beverly Hills, MI	Architectural services		
2/15/2022	ISG Inc.	Martin Pevzner Engineering, P.A.	Bloomington, MN	Mechanical, electrical, and plumbing engineering services		
2/15/2022	Terracon Consultants, Inc.	Wang Engineering, Inc.	Lombard, IL	Geotechnical engineering services		
2/28/2022	American Engineering Testing, Inc.	Northern Technologies, LLC	Inver Grove Heights, MN	Geotechnical engineering services		
3/2/2022	Dometic Group AB (publ)	Treeline Capital LLC	Barrington, IL	Marine engineering services		
3/11/2022	Atlas Technical Consultants, Inc.	TranSmart Technologies Inc	Madison, WI	Transportation infrastructure engineering services		
3/16/2022	Orcutt Winslow Architecture USA, LLC	TEG Architects LLC	Jeffersonville, IN	Master planning and architecture services		
5/6/2022	Fox Architects	Zwick + Gandt Architects Inc.	Crestwood, MO	Architectural services		
5/24/2022	Clavis Capital Partners; Green Hills Partners	UCC Environmental	Waukegan, IL	Environmental engineering services		
6/1/2022	Mead & Hunt, Inc.	Symbiont Science, Engineering and Construction, Inc.	West Allis, WI	Architeciture and engineering services		

Northeastern Region						
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description		
1/10/2022	Katalyst Capital LLC	Mainstay Engineering Group, Inc.	North Wales, PA	Design, civil design, and land development services		
1/13/2022	LaBella Associates, D.P.C.	Stieglitz Snyder Architecture P.C.	Buffalo, NY	Architectural services		
1/31/2022	Ramboll Group A/S	EYP Mission Critical Facilities Inc.	Valhalla, NY	Engineering consulting services for data centers		
2/1/2022	KPI Integrated Solutions	Precision Distribution Consulting, Inc./SimCon Solutions, Inc.	York, PA	Engineering consulting services for distribution industry		
3/8/2022	Michael Graves & Associates	Waldon STUDIO, Architects & Planners, PC	Columbia, MD	Architectural services		
3/22/2022	NTM Engineering, Inc.	Lotus Environmental Consulting, LLC	Wayne, PA	Environmental engineering services		
3/31/2022	August Mack Environmental, Inc.	Comstock Environmental	Conshohocken, PA	Environmental engineering services		
4/7/2022	NELSON & Associates Interior Design and Space Planning, Inc.	Daroff Design Inc	Philadelphia, PA	Architectural services		
4/12/2022	Thompson Johnson Woodworks, Inc.	Rachel Conly Design LLC	Peaks Island, ME	Architectural services		

	Northeastern Region (continued)								
Announce/ Close Date	Acquirer Target Target Location		•	Target Description					
4/15/2022	JS Global, LLC	Atlantic Design Group, Inc.	Columbia, MD	Construction engineering services					
5/4/2022	Rimkus Consulting Group, Inc.	Commercial Construction Consulting, Inc.	Boston, MA	Construction engineering services					
5/4/2022	Bowman Consulting Group Ltd.	McMahon Associates, Inc.	Fort Washington, PA	Engineering and transportation planning services					
5/16/2022	Global Infrastructure Solutions Inc.	GEI Consultants, Inc.	Woburn, MA	Geotechnical and environmental engineering services					

Southeastern Region						
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description		
1/1/2022	WGI, Inc.	Simpson Engineers & Associates, P.C.	Cary, NC	Civil engineering services		
1/5/2022	Merrick & Company, Inc.	Alliance Engineering, Inc.	Richmond, VA	Engineering services		
1/7/2022	Greenberg Farrow Architecture Incorporated	SGA NarmourWright Design	Lake Worth, FL	Architectural services		
1/10/2022	EnSafe, Inc.	Progressive Engineering & Construction, Inc.	Tampa, FL	Civil engineering and surveying services		
1/20/2022	PRIME AE Group, Inc.	Prosser, Inc.	Jacksonville, FL	Engineering and architectural services		
1/25/2022	Redline Design Group, P.A.	Phillips Architecture PA	Raleigh, NC	Architectural services		
1/31/2022	Scalice Land Surveying P.C.	Enersurv, Inc.	Greenup, KY	Construction engineering and survey & mapping services		
1/31/2022	Alan Plummer Associates, Inc.	Watermark Engineering Group, Inc.	Sun City Center, FL	Water engineering services		
2/1/2022	Ardurra Group, Inc.	Pevida Highway Designers, LLC	Doral, FL	Highway design services		
2/2/2022	Resource Environmental Solutions, LLC	E Sciences, Incorporated	Orlando, FL	Ecological and environmental engineering services		
2/7/2022	Crafton, Tull, Sparks & Associates, Inc.	B & F Engineering, Inc.	Hot Springs, AR	Civil and structural engineering services		
2/16/2022	TRC Companies, Inc.	ESS Group, Inc.	East Providence, RI	Environmental engineering services		
3/8/2022	Cribb Philbeck Weaver Group, Inc.	Ray Engineering, Inc.	Norcross, GA	Engineering services		
3/10/2022	Arab Center For Engineering STUDIES L.L.C	MC Squared, Inc.	Kennesaw, GA	Geotechnical engineering services		
3/11/2022	Graef-USA, Inc.	Erickson Consulting Engineers/ Coastal Design and Engineering	Sarasota, FL	Coastal engineering services		

		Southeastern Reg	ion (continued)	
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
3/21/2022	Geo-Solutions Inc.	All the Remediation Assets of FECC, Inc.	Orlando, FL	Environmental engineering services
4/1/2022	LS3P Associates Ltd.	TFF Architects & Planners, LLP/PFA Architects, P.A.	Greensboro, NC	Architectural services
4/4/2022	IBI Group Inc.	Retzsch Lanao Caycedo Architects	Boca Raton, FL	Architecture services to commercial, corporate, and residential projects
4/15/2022	Salas O'Brien South, LLC	Nelson Engineering Co Inc.	Merritt Island, FL	Reliability and maintenance engineering services
4/30/2022	COWI A/S	Finley Engineering Group, Inc.	Tallahassee, FL	Design and engineering services for bridge projects
5/3/2022	Stanley Consultants, Inc.	Traffic Engineering Data Solutions, Inc.	Debary, FL	Transportation engineering services
5/5/2022	Trilon Group	DRMP, Inc.	Orlando, FL	Civil engineering services
5/10/2022	Blackstone Energy Partners II Q L.P.	Geosyntec Consultants, Inc.	Boca Raton, FL	Environmental, civil, and infrastructure engineering services
5/12/2022	The HFW Companies	HSQ Group Inc.	Boca Raton, FL	Transportation and civil engineering services
5/17/2022	DC Capital Partners Management LP	Valkyrie Enterprises, LLC	Virginia Beach, VA	Maritime and defense engineering services
5/25/2022	TRC Companies, Inc.	Draper Aden Associates, Inc.	Blacksburg, VA	Civil engineering services
6/2/2022	Bowman Consulting Group Ltd.	Fabre Engineering, Inc.	Pensacola, FL	Civil and environmental engineering services
6/13/2022	V&A Consulting Engineers, Inc.	Metzger & Willard, Inc.	Tampa, FL	Civil and environmental engineering services
6/27/2022	Yulista Holding, LLC	Troy 7, Inc.	Huntsville, AL	Aerospace engineering services
8/1/2022	Orcutt Winslow Architecture USA, LLC	Helman Hurley Charvat Peacock / Architects, Inc.	Orlando, FL	Architectural services

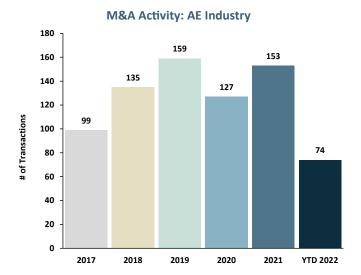
International (select)								
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description				
4/1/2022	Stantec Inc.	Barton Willmore Design Limited	London, United Kingdom	Architectural services				
6/1/2022	WSP Global Inc.	Built Environment Consulting Business of John Wood Group PLC	Aberdeen, United Kingdom	Environmental engineering services				

Source: Capital IQ, Data as of 6/30/2022

Chartwell Commentary

Merger & Acquisition Observations

Despite several cautionary external factors (especially rising interest rates and a declining stock market), we have yet to experience a slowdown in AE M&A transactions anecdotally or through market data. On an annualized basis, 2022 is poised to be similar in terms of deal activity to 2019 and 2021. Demand for companies remains strong from both strategic and financial buyers, particularly as private equity and family offices continue to reach lower into the middle market. Sellers remain plentiful based on demographics and the myriad of challenges that arise while transitioning ownership internally to the next generation. With many predicting an increase in taxes next year, we would not be surprised to see the second half of 2022 outpace the first half.



Guideline Public Company Observations

The rationale behind the AE public market performance can be boiled down to a fairly elementary story. Companies continue to perform on a revenue (+4.9%) and EBITDA (+17.1%) basis—and better yet—are expected to generate record margins over next twelve months. However, AE firms have not been immune to the broad market declines as the peer group index is highly correlated to the S&P 500 index. As a result, multiples have retracted. Twelve of the fifteen companies experienced a contraction, which represents an average decline of 24.3%! We will monitor whether the AE financial performance continues to outpace the market and if/when equity prices react to reflect that fact pattern.



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AE Index Market Performance - Q2 2022

Company Ticker 2022 Δ Δ 2022 Δ Jacobs Engineering Group Inc. NYSEJ 19,082 (6.3%) (5.3%) 16,352 (8.2%) (5.3%) WSP Global Inc. TSX:WSP 14,988 (12.7%) 2.5% 13,341 (14.9%) (3.2%) AECOM NYSE:ACM 10,561 (12.7%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 9,199 (15.3%) (0.5%) (0.1%) 0.1% 1.284 (1.7%) (0.5%) (0.1%) 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1%			Enterprise Value			Equity Value			
WSP Global Inc. TSX:WSP 14,988 (12.7%) 2.5% 13,341 (14.9%) (2 AECOM NYSE:ACM 10,561 (12.7%) (0.1%) 9,199 (15.3%) (0 Tetra Tech, Inc. NasdaqGS:TTEK 7,388 (17.7%) 10.7% 7,330 (17.7%) 1 Worley Limited ASX:WOR 6,310 (0.6%) 6.9% 5,147 1.3% 5 Stantec Inc. NYSE:STN 6,198 (11.0%) 6.3% 4,854 (13.3%) (7 Parsons Corporation NYSE:PSN 4,536 5.4% 4.7% 4,193 4.5% 4 SNC-Lavalin Group Inc. TSX:SNC 4,359 (20.6%) (25.7%) 3.018 (28.7%) (3 Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853	Company	Ticker		•				LTM Δ	
AECOM NYSE:ACM 10,561 (12.7%) (0.1%) 9,199 (15.3%) (0.1%) Tetra Tech, Inc. NasdaqGS:TTEK 7,388 (17.7%) 10.7% 7,330 (17.7%) 1 Worley Limited ASX:WOR 6,310 (0.6%) 6.9% 5,147 1.3% 5 Stantec Inc. NYSE:STN 6,198 (11.0%) 6.3% 4,854 (13.3%) (2.1.0%) 6.3% 4,854 (13.3%) (3.1.0%) 6.3% 4,854 (13.3%) (3.1.0%) 6.3% 4,854 (13.3%) (3.1.0%) 6.3% 4,854 (13.3%) (3.1.0%) 6.3% 4,193 4.5% 4.193 4.193	Jacobs Engineering Group Inc.	NYSE:J	19,082	i i (6.3%) i	(5.3%)	16,352	(8.2%)	(5.9%) I	
Tetra Tech, Inc. NasdaqGS:TTEK 7,388 (17.7%) 10.7% 7,330 (17.7%) 1 Worley Limited ASX:WOR 6,310 (0.6%) 6.9% 5,147 1.3% 5 Stantec Inc. NYSE:STN 6.198 (11.0%) 6.3% 4,854 (13.3%) (2 Parsons Corporation NYSE:PSN 4,536 5.4% 4.7% 4,193 4.5% 4 ASX:WOR 6,310 (0.6%) 6.3% 4,854 (13.3%) (2 SNC-Lavalin Group Inc. TSX:SNC 4,359 (20.6%) (25.7%) 3,018 (28.7%) 3,018 (28.7%) (3 Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NYS Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 349 (1.4%) 3 RPS Group Inc. LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	WSP Global Inc.	TSX:WSP	14,988	(12.7%)	2.5%	13,341	(14.9%)	(2.6%)	
Worley Limited ASX:WOR 6,310 (0.6%) 6.9% 5,147 1.3% 5 Stantec Inc. NYSE:STN 6,198 (11.0%) 6.3% 4,854 (13.3%) (2 Parsons Corporation NYSE:PSN 4,536 5.4% 4.7% 4,193 4.5% 4 SNC-Lavalin Group Inc. TSX:SNC 4,359 (20.6%) (25.7%) 3,018 (28.7%) (3 Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG <td>AECOM</td> <td>NYSE:ACM</td> <td>10,561</td> <td>(12.7%)</td> <td>(0.1%)</td> <td>9,199</td> <td>(15.3%)</td> <td>(0.8%)</td>	AECOM	NYSE:ACM	10,561	(12.7%)	(0.1%)	9,199	(15.3%)	(0.8%)	
Stantec Inc. NYSE:STN 6,198 (11.0%) 6.3% 4,854 (13.3%) (2 Parsons Corporation NYSE:PSN 4,536 5.4% 4.7% 4,193 4.5% 4 SNC-Lavalin Group Inc. TSX:SNC 4,359 (20.6%) (25.7%) 3,018 (28.7%) (3 Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS	Tetra Tech, Inc.	NasdaqGS:TTEK	7,388	I I (17.7%)	10.7%	7,330	(17.7%)	10.9%	
Parsons Corporation NYSE:PSN 4,536 5.4% 4.7% 4,193 4.5% 4 SNC-Lavalin Group Inc. TSX:SNC 4,359 (20.6%) (25.7%) 3,018 (28.7%) (3 Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. Na	Worley Limited	ASX:WOR	6,310	(0.6%)	6.9%	5,147	1.3%	9.7%	
SNC-Lavalin Group Inc. TSX:SNC 4,359 (20.6%) (25.7%) 3,018 (28.7%) (3 Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	Stantec Inc.	NYSE:STN	6,198	(11.0%)	6.3%	4,854	(13.3%)	(2.7%)	
Arcadis NV ENXTAM:ARCAD 3,161 (25.3%) (21.6%) 2,987 (26.1%) (1 John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	Parsons Corporation	NYSE:PSN	4,536	I I 5.4% I	4.7%	4,193	4.5%	4.0%	
John Wood Group PLC LSE:WG. 2,948 (5.9%) (19.2%) 1,284 (10.8%) (3 NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	SNC-Lavalin Group Inc.	TSX:SNC	4,359	i i (20.6%) i	(25.7%)	3,018	(28.7%)	(34.0%)	
NV5 Global, Inc. NasdaqCM:NVEE 1,853 (13.5%) 22.4% 1,809 (12.2%) 2 Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	Arcadis NV	ENXTAM:ARCAD	3,161	(25.3%)	(21.6%)	2,987	(26.1%)	(17.9%)	
Montrose Environmental Group, Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 Willdan Group, Inc. NasdaqGM:WLDN 475 (2.1%) (14.6%) 364 (7.7%) (2 IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	John Wood Group PLC	LSE:WG.	2,948	I I (5.9%) I	(19.2%)	1,284	(10.8%)	(37.2%)	
Inc. NYSE:MEG 1,237 (29.6%) (26.8%) 1,002 (36.2%) (2 (36.2%) (2 (2) (36.2%) (2 (36.2%) (36.2%) (2 (36.2%) (2 (36.2%) (36.2%) (2 (36.2%) (2 (36.2%) (2 (36.2%) (2 (36.2%) (2 (36.2%) (36.2%) (2 (36.2%) (36.2%) (2 (36.2%) (36.2%) (4 (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (36.2%) (4 (4.6%) (4.6%) (4.6%) (4.6%) (4.6%) (4.6%) (4.6%) (4.6%)	NV5 Global, Inc.	NasdaqCM:NVEE	1,853	(13.5%)	22.4%	1,809	(12.2%)	26.1%	
IBI Group Inc. TSX:IBG 448 0.9% 21.0% 349 (1.4%) 3 RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6		NYSE:MEG	1,237	i i (29.6%) i	(26.8%)	1,002	(36.2%)	(28.3%)	
RPS Group plc LSE:RPS 391 (9.0%) (17.3%) 330 (9.3%) (1 Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%) 6	Willdan Group, Inc.	NasdaqGM:WLDN	475	(2.1%)	(14.6%)	364	(7.7%)	(22.7%)	
Bowman Consulting Group Ltd. NasdaqGM:BWMN 156 (27.0%) NA 163 (21.1%)	IBI Group Inc.	TSX:IBG	448	I I 0.9% I	21.0%	349	(1.4%)	35.1%	
	RPS Group plc	LSE:RPS	391	(9.0%)	(17.3%)	330	(9.3%)	(15.5%)	
Average 5,256 (11.7%) (3.7%) 4,483 (13.6%) (4	Bowman Consulting Group Ltd. NasdaqGM:BWMN		156	(27.0%)	NA I	163	(21.1%)	6.5%	
	Average		5,256	 	(3.7%)	4,483	(13.6%)	(4.7%)	
Median 3,760 (11.8%) (0.1%) 3,002 (12.7%) (2	Median	3,760	(11.8%)	(0.1%)	3,002	(12.7%)	(2.6%)		

\$ in millions Source: Capital IQ, Data as of 6/30/2022 LTM = Last Twelve Months

AE Index Financial Performance - Q2 2022

		Revenue		EBITDA			EBITDA Margin		
Company	LTM \$	LTM Δ	NTM	LTM \$	LTM Δ	NTM	5-Year Avg.	LTM	NTM
Jacobs Engineering Group Inc.	14,378	4.9%	9.4%	1,409	20.9%	7.2%	8.0%	9.8%	9.6%
AECOM	13,242	(0.7%)	7.0%	848	15.9%	9.7%	5.2%	6.4%	6.6%
WSP Global Inc.	8,705	25.8%	NA	825	37.7%	NA	8.3%	9.5%	NA
Worley Limited	6,768	(20.4%)	1.6%	395	(18.9%)	39.9%	6.1%	5.8%	8.0%
John Wood Group PLC	6,401	(15.4%)	7.5%	286	(30.1%)	107.5%	5.2%	4.5%	8.6%
SNC-Lavalin Group Inc.	5,959	7.7%	(3.2%)	282	NMF	NMF	5.6%	4.7%	9.3%
Arcadis NV	3,842	(4.9%)	(1.1%)	316	2.5%	22.4%	7.0%	8.2%	10.2%
Parsons Corporation	3,735	(2.3%)	6.1%	322	(6.7%)	6.8%	NA	8.6%	8.7%
Stantec Inc.	3,050	6.3%	12.6%	344	0.2%	59.2%	11.4%	11.3%	16.0%
Tetra Tech, Inc.	2,726	15.8%	5.2%	338	18.7%	7.8%	11.3%	12.4%	12.7%
NV5 Global, Inc.	744	15.0%	8.8%	123	35.9%	18.9%	13.5%	16.5%	18.0%
RPS Group plc	645	3.3%	(0.7%)	49	20.1%	34.5%	8.5%	7.6%	10.3%
Montrose Environmental Group, Inc.	547	NA	5.3%	72	NA	11.4%	NA	13.2%	13.9%
IBI Group Inc.	452	10.0%	(17.8%)	46	18.3%	33.0%	9.4%	10.1%	16.3%
Willdan Group, Inc.	367	0.7%	29.7%	23	4.2%	91.4%	7.3%	6.3%	9.2%
Bowman Consulting Group Ltd.	171	36.3%	31.0%	8	30.6%	284.2%	NA	4.5%	13.3%
Average	4,483	5.5%	6.8%	355	10.7%	52.4%	8.2%	8.7%	11.4%
Median	3,392	4.9%	6.1%	301	17.1%	27.7%	8.0%	8.4%	10.2%

\$ in millions Source: Capital IQ, Data as of 6/30/2022 LTM = Last Twelve Months | NTM = Next Twelve Months

AE Index Implied Market Multiples - Q2 2022

	Enterprise Value / EBITDA						
Company	5-Year Avg.	Q2 2021	Q4 2021	Q2 2022	Q2 2023E	H1 Δ	LTM Δ
Jacobs Engineering Group Inc.	14.9x	17.3x	15.3x	13.5x	12.6x	-1.8x	-3.7x
WSP Global Inc.	18.2x	24.4x	27.4x	18.2x	NA	-9.2x	-6.2x
AECOM	12.0x	14.4x	14.9x	12.5x	11.4x	 -2.4x 	-2.0x
Tetra Tech, Inc.	19.4x	23.4x	30.6x	21.9x	20.3x	I I -8.7x I	-1.5x
Worley Limited	14.9x	12.1x	13.4x	16.0x	11.4x	+2.6x	+3.9x
Stantec Inc.	15.3x	17.0x	19.9x	18.0x	11.3x	-1.9x	+1.0x
Parsons Corporation	NA	12.5x	12.1x	14.1x	13.2x	 +2.0x	+1.6x
SNC-Lavalin Group Inc.	NA	NA	NA	15.4x	8.1x	I I NA I	NA I
Arcadis NV	9.9x	13.1x	16.5x	10.0x	8.2x	I I -6.5x I	-3.1x
John Wood Group PLC	12.0x	8.9x	10.5x	10.3x	5.0x	I -0.2x	+1.4x
NV5 Global, Inc.	16.5x	16.8x	21.4x	15.1x	12.7x	-6.2x	-1.7x
Montrose Environmental Group, Inc.	NA	NA	29.8x	17.2x	15.4x	-12.6x	NA I
Willdan Group, Inc.	17.8x	25.3x	28.6x	20.7x		-7.8x	-4.6x
IBI Group Inc.	8.7x	9.6x	9.5x	9.8x		I I +0.4x I	+0.2x
RPS Group plc	7.8x	11.6x	12.9x	8.0x	5.9x	I I -4.9x I	-3.6x
Bowman Consulting Group Ltd.	NA	29.9x	23.5x	20.2x	5.3x	I -3.3x	-9.7x
Average	14.0x	16.9x	19.1x	15.1x	10.6x	-4.0x	-2.0x
Median	14.9x	15.6x	16.5x	15.3x	11.3x	 -3.3x	-1.8x

Source Data Provided by Capital IQ as of 6/30/2022 LTM = Last Twelve Months

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- Fairness Opinions
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