



Architecture, Engineering, and Construction Software Sector Update

Harris Williams | January 2022

Harris Williams: At a Glance



- **30 years** and thousands of deals closed
- **100%** of revenue is from M&A advisory
- **10** industry groups with deep sector expertise
- **200+** closed transactions in the last 24 months
- **70%** of revenue from repeat clients
- **8** offices across the U.S. and Europe

The Harris Williams Technology Group

- **35+** dedicated professionals in Boston, London, and San Francisco
- **45+** closed technology transactions since January 2020

Technology Coverage Areas

- Application Software
- Infrastructure & Security Software
- IT & Managed Services

Sector Coverage Areas

- **Architecture, Engineering, & Construction**
- Education
- Human Capital Management
- Pharma
- Compliance
- Government & Public Sector
- Industrial
- Legal
- Real Estate & Property Tech
- eCommerce & Retail
- Healthcare
- Office of the CFO
- Supply Chain & Logistics

Thematic Focus Areas

- SaaS/Cloud
- Integrated Payments
- Digital Transformation
- AI/Machine Learning

HW Architecture, Engineering, & Construction (AEC) Software Coverage Team

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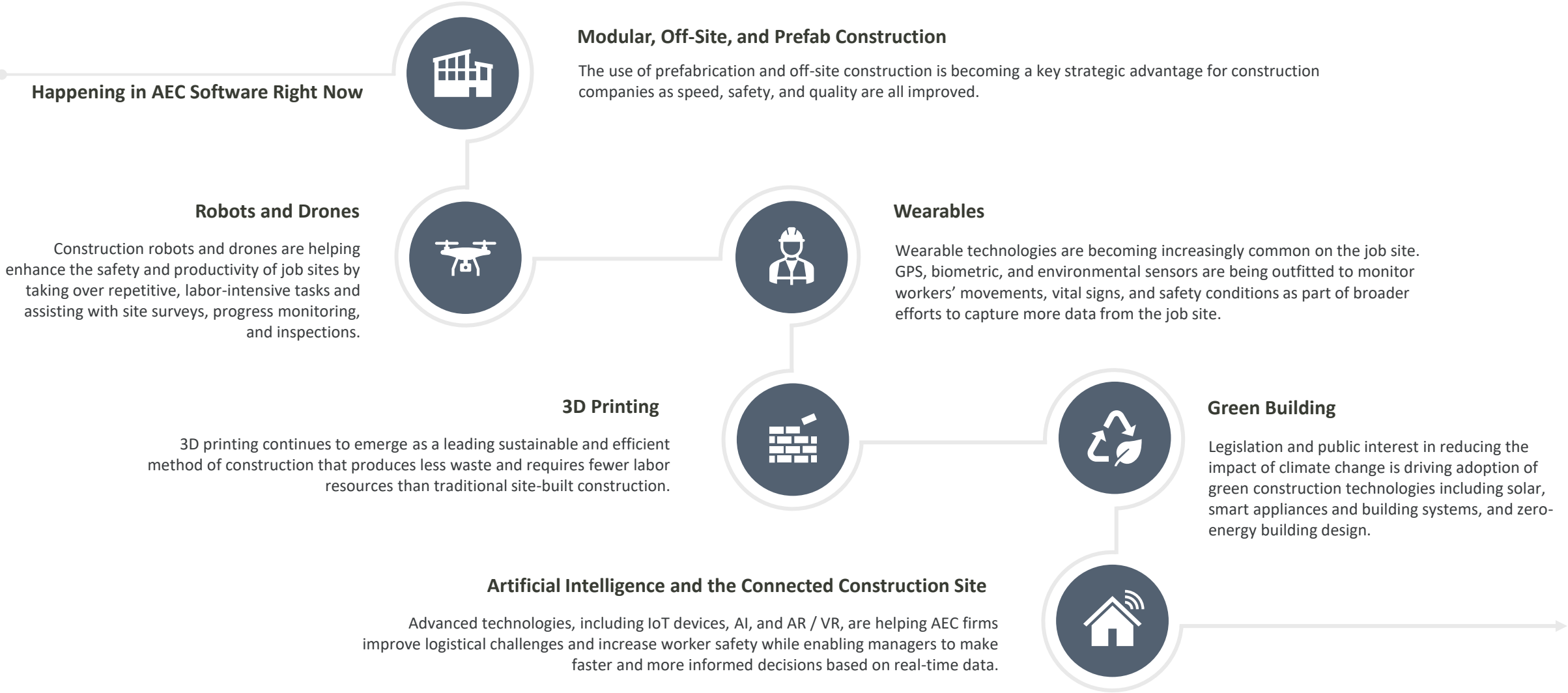
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HW Technology Group Recent Transaction Experience

 <p>has been acquired by</p> 	 <p>has acquired</p> 	 <p>has been acquired by</p> 	 <p>has received an investment from</p> 	 <p>has been acquired by</p> 	 <p>has invested in</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 
 <p>has been acquired by</p> 	 <p>has invested in</p> 	 <p>has invested in</p> 	 <p>has invested in</p> 	 <p>has acquired</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has acquired</p> 	 <p>has been acquired by</p> 	 <p>has acquired</p> 
 <p>has invested in</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has acquired</p> 	 <p>has acquired</p> 	 <p>has acquired</p> 	 <p>has been acquired by</p> 	 <p>has acquired</p> 
 <p>has invested in</p> 	 <p>has received an investment from</p> 	 <p>has been acquired by</p> 	 <p>recapitalized by funds managed by</p> 	 <p>has acquired</p> 	 <p>has acquired</p> 	 <p>has been acquired by</p> 	 <p>has been acquired by</p> 	 <p>has invested in</p> 	 <p>has received an investment from</p> 

Key Trends in the AEC Software Market

The construction industry continues to embrace new technology and digital transformation efforts to improve safety, efficiency, and profitability.



Perspectives on AEC Software Landscape



What We're Reading

Why the Infrastructure Bill Allocates \$100 Million for States to Adopt Construction Management Systems

Forbes – Dec. 7, 2021

Successful implementation of the Infrastructure Investment and Jobs Act (IIJA) relies on bringing the industry that designs, builds, and manages the nation's infrastructure in the 21st century. Provisions in the legislation call for accelerated state adoption of advanced digital construction management systems which can help maximize interoperability, boost productivity, and reduce project delays and cost overruns.

Read the full article [here](#).

Contractors Lost \$1.8 Trillion Globally in 2020 Due to Bad Data, New Report Says

Construction Dive – Sep. 22, 2021

ConTech firm Autodesk and consulting firm FMI Corp. released a report that suggests as much as \$1.8T of construction industry losses in 2020 were due to bad data. Construction represented 13.2% of the global GDP of \$84.5T in 2020. According to the study, the root cause of bad data is typically human error, and organizations that implement formal data strategies stand to gain the most ROI from their tech investments.

Read the full article [here](#).

3,800-Square-Foot 3D-Printed Barracks Built on Military Base

Construction Dive – Aug. 25, 2021

3D-printing ConTech firm ICON, in partnership with the Texas Military Department, has constructed a 3,800-square-foot barracks on a Texas military base. The facility is the largest 3D-printed structure in North America, according to the company. ICON's proprietary equipment, known as the Vulcan Construction System, is 15.5 feet long and 46.5 feet wide and can print up to 10 inches of concrete per second.

Read the full article [here](#).

Stop Treating Symptoms: Tips for Successfully Implementing Construction Technology

FMI – July 1, 2021

The past five years have seen a proliferation of new technology and an acceleration of VC investment into the construction industry. However, adopting tech to address a singular issue without considering the appropriate combination of people, process, tech, and data can reduce ROI. Organizations that focus on innovation holistically are likely to solve problems more effectively and achieve better outcomes.

Read the full article [here](#).

Recent Harris Williams Publications

- **2022 Outlook: Technology Group**



[Link to Read](#)

- **2022 Outlook: Building Products & Materials Group**



[Link to Read](#)

- **Industrial Technology: Smart City & Mobility Tech Update | Q1 2022**



[Link to Read](#)

Select Recent AEC Software Transactions

Hilti's acquisition of Fieldwire



Closed: November 16, 2021
 EV: \$300M
 EV / LTM Revenue: NA
 EV / EBITDA: NA

- Fieldwire is a provider of job-site management software to specialty and general contractors in the construction industry.
- The acquisition of Fieldwire will enhance Hilti's existing Field Productivity solution and digital construction management platform by providing customers with real-time data and productivity metrics.

Procore's acquisition of Levelset



Closed: Nov. 3, 2021
 EV: \$500M
 EV / LTM Revenue: NA
 EV / EBITDA: NA

- Levelset is a provider of lien rights management and payment software for the construction market.
- Following the acquisition, Levelset will allow Procore users to manage complex compliance and lien management workflows and improve the payment process for all stakeholders.

Five Arrows Principal Investments' investment in Causeway



Closed: June 29, 2021
 EV: NA
 EV / LTM Revenue: NA
 EV / EBITDA: NA

- Causeway is a provider of a portfolio of cloud-based design, planning, and operations software for the construction market.
- Post transaction, Causeway will use the proceeds to continue executing on their inorganic growth strategy and further their goal of digitally connecting the construction supply chain through a cloud platform.

Bentley Systems' acquisition of Seequent



Closed: June 17, 2021
 EV: \$1.12B
 EV / LTM Revenue: 4.3x
 EV / EBITDA: 17.4x

- Seequent is a provider of geophysical modeling, geotechnical stability, and geodata management for use in the infrastructure and mining markets.
- The acquisition of Seequent will expand Bentley's existing near-surface infrastructure modeling capabilities by adding subsurface and geophysical capabilities to enable engineers to create more detailed digital twins.

Dodge Data's merger with The Construction Blue Book



Closed: April 15, 2021
 EV: NA
 EV / LTM Revenue: NA
 EV / EBITDA: NA

- Construction Blue Book is a provider of subscription-based data, insights, market intelligence, discovery, and networking for commercial construction professionals.
- The merger will create a portfolio of new business generation, planning, research, and marketing solutions for construction professionals.

Mainsail Management's investment in JobNimbus



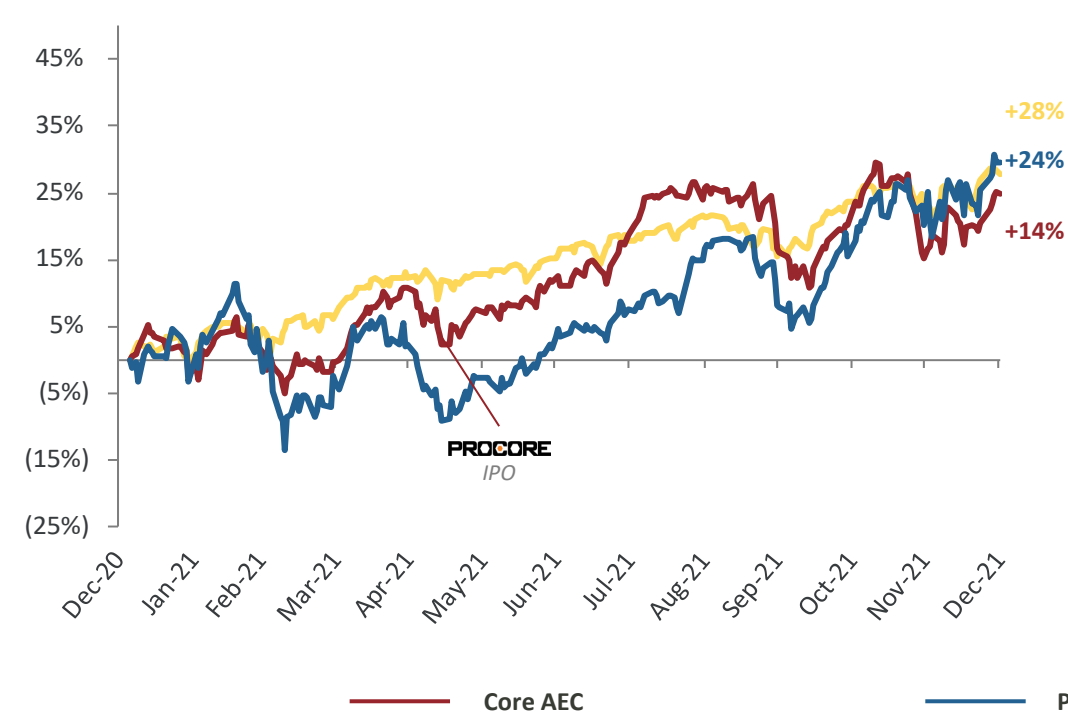
Closed: January 13, 2021
 EV: \$53M
 EV / LTM Revenue: NA
 EV / EBITDA: NA

- JobNimbus is a provider of project management and CRM software for contractors and business owners in the home services construction market.
- Post transaction, JobNimbus will leverage Mainsail's operational expertise and capital to continue scaling the business through expansion of the software platform and marketing initiatives.

AEC Sector Public Company Trended Stock Performance

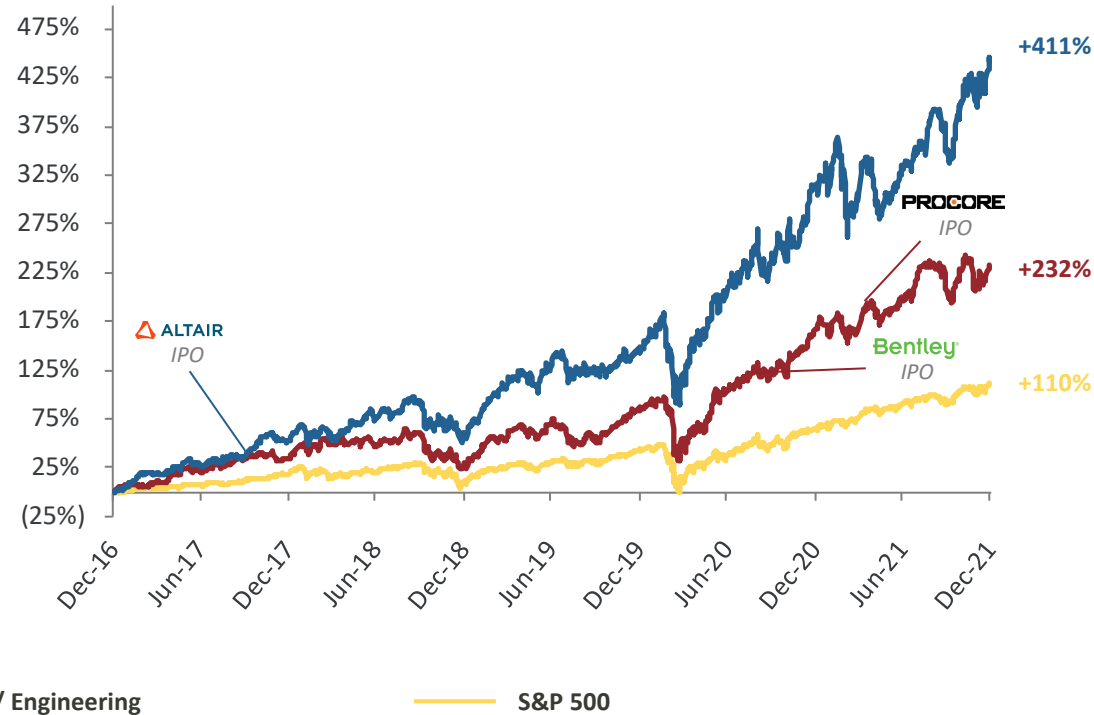
Public Company Stock Performance – Last 12 Months

Indexed stock price performance for the period December 2020 – December 2021



Public Company Stock Performance – 5 Years

Indexed stock price performance for the period December 2016 – December 2021



Core AEC

AUTODESK

Bentley

DASSAULT SYSTEMES

HEXAGON

NEMETSCHKEK GROUP

PROCORE

Schneider Electric

Trimble

Product Engineering / Design

ALTAIR

Ansys

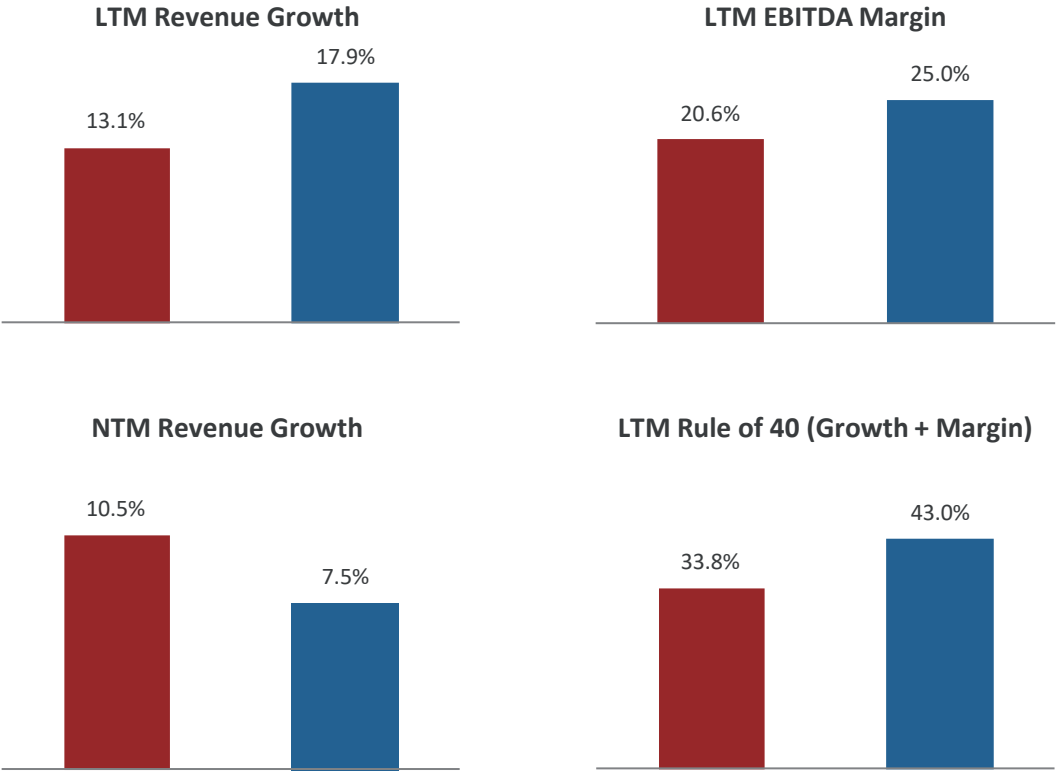
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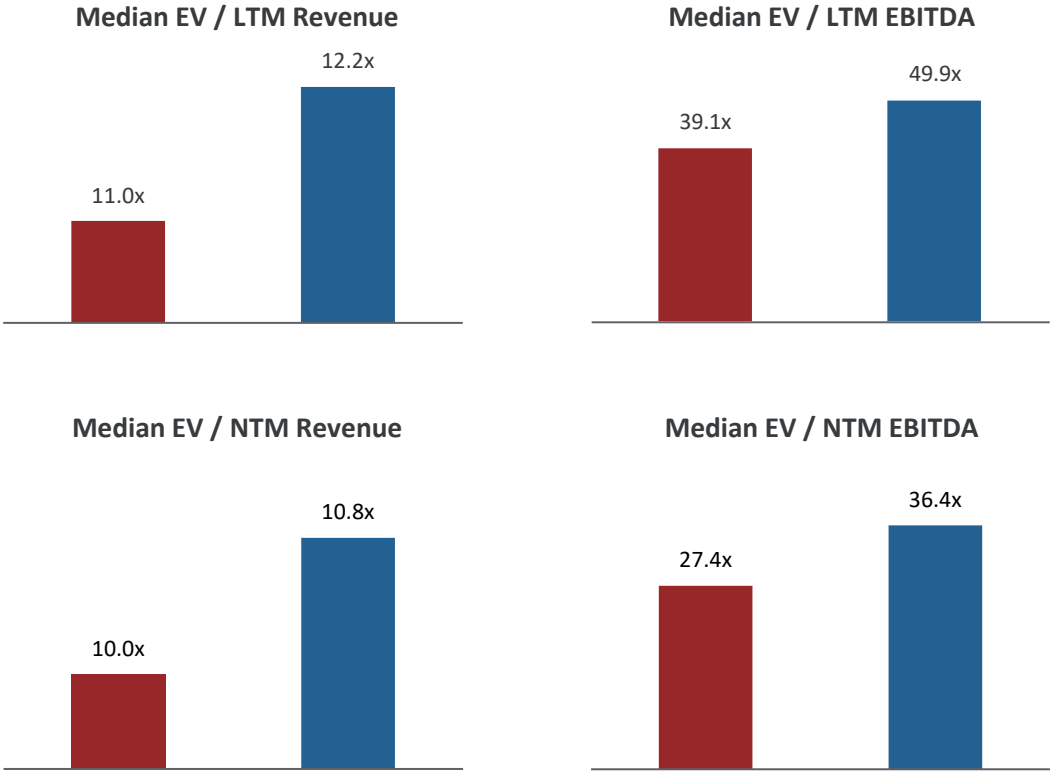
SYNOPSYS

AEC Public Company Operating and Valuation Metrics

Public Company – Operating Metrics¹



Public Company – Valuation Metrics¹



Core AEC

AUTODESK

Bentley

DASSAULT SYSTEMES

HEXAGON

NEMETSCHKEK GROUP

PROCORE

Schneider Electric

Trimble

Product Engineering / Design

ALTAIR

Ansys

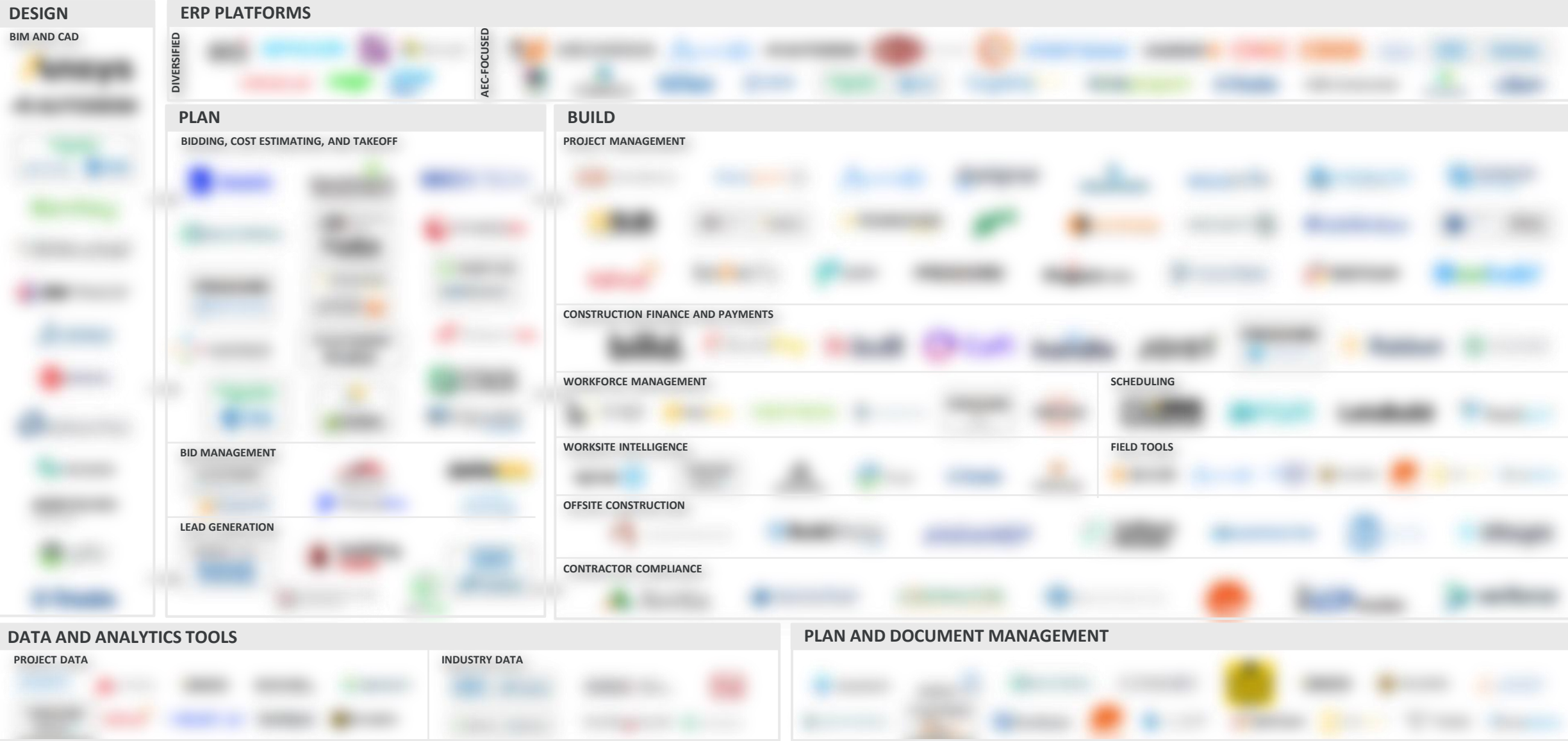
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SYNOPSYS

AEC Market Landscape

To view full market map, please contact:
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Harris Williams Capabilities and Locations



Harris Williams has a broad range of industry expertise, which create powerful opportunities. Our clients benefit from our deep-sector experience, integrated industry intelligence and collaboration across the firm, and our commitment to learning what makes them unique. For more information, visit our website at www.harriswilliams.com.

	Aerospace, Defense & Government Services		Business Services		Building Products & Materials		Consumer		Energy, Power & Infrastructure
	Healthcare & Life Sciences		Industrials		Specialty Distribution		Technology		Transportation & Logistics

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Sources and Disclosures

Sources

1. S&P Capital IQ
2. Pitchbook

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Appendix

Recent Sector M&A Transactions Detail

Closed Date	Target	Acquirer	Business Description	Enterprise Value (\$M)	Implied EV / Revenue	Implied EV / EBITDA
Pending	Proest	Autodesk	Proest develops construction estimating software.	NA	NA	NA
12/31/21	Power Line Systems (TA Associates)	Bentley Systems	Power Line Systems develops, sells, and supports software for the design of transmission lines and their structures.	\$700	NPI	
12/15/21	AgileAssets	Trimble	AgileAssets develops integrated infrastructure asset management software solutions for public agencies and private enterprises.	NA	NA	NA
12/14/21	Leap	Nexa Equity	Leap designs and develops a cloud-based platform to provide sales solutions for the home improvement industry.	NA	NA	NA
12/01/21	Compusoft (TA Associates)	20-20 Technologies (Genstar)	Compusoft develops computer-aided design software solutions for the kitchen and bathroom retail industry.	NA	NA	NA
11/23/21	ClockShark	simPRO (K1)	ClockShark provides a time-sheeting and scheduling platform for field service organizations.	NA	NPI	
11/23/21	AroFlo	simPRO (K1)	AroFlo provides job management software for field service organizations from sole operators to larger, complex franchises.	NA	NA	NA
11/23/21	simPRO (Level Equity)	K1 Investment Management	simPRO develops cloud-based job management software solutions for service, project, and facilities maintenance contractors worldwide.	\$500	NPI	
11/16/21	FieldWireLabs	Hilti	FieldWireLabs develops field management software for commercial, industrial, heavy-civil, and residential construction teams worldwide.	\$300	NA	NA
11/02/21	Levelset	Procore	Levelset develops a software platform to exchange, collaborate on, create, and manage documents, information, and payments related to construction projects, construction financial management, and others.	\$499	NPI	
10/21/21	LaborChart (Five Elms)	Procore	LaborChart designs and develops a cloud-based scheduling application for construction industry.	NA	NPI	
10/15/21	TIKS Solutions	Damstra	TIKS Solutions develops and operates a platform that provides safe solutions for screening and managing visitors, contractors, and staff to check in safely to workplaces.	\$17	NA	NA
10/14/21	SpecifiedBy	Causeway (Five Arrows)	SpecifiedBy operates an online tool that connects architects, designers, and other specifiers with building product manufacturers to search and compare products to make decisions about building products according to their requirement.	NA	NA	NA
08/17/21	WTS Paradigm	Builders FirstSource	WTS Paradigm develops solutions for the building products industry worldwide.	\$450	NPI	
08/05/21	ArchiSnapper	Deltek (Roper)	ArchiSnapper develops a field application that produces field reports and punch lists.	NA	NA	NA
06/17/21	Seequent (A-KKR)	Bentley Systems	Seequent designs and develops 3D geological modeling software solutions for mining, energy, environmental, geothermal, and hydrogeological industries.	\$1,116	NA	NA
06/09/21	20-20 Technologies (TA Associates)	Genstar Capital	20-20 Technologies develops, sells, and licenses desktop and Web-based computer-aided design, sales, and manufacturing software solutions for the furniture and interior design industries.	NPI		
06/08/21	SmartUse Solutions	STACK (Level Equity)	SmartUse Solutions provides a mobile collaboration platform for sharing blueprints and construction documents.	NA	NA	NA
05/06/21	McCormick Systems	Foundation Software (Thoma Bravo)	McCormick Systems develops, markets, and supports estimating software for the construction industry.	NA	NA	NA
05/03/21	INDUS.AI	Procore	Indus.ai provides a construction Intelligence-as-a-Service software through an AI-enabled computer vision software platform. The company's solutions are used for developers, general contractors, owners, safety and compliance, and construction intelligence.	\$24	NA	NA

Public Market Operational and Valuation Metrics⁽¹⁾

\$ in Thousands									
Company	Market Capitalization	Enterprise Value	% of 52-Week High	LTM Gross Margin	LTM EBITDA Margin	Enterprise Value/			
						LTM Revenue	NTM Revenue	LTM EBITDA	NTM EBITDA
Core AEC									
Schneider Electric S.E.	\$91,673,186	\$105,361,827	82.9%	41.1%	18.5%	3.2x	3.1x	17.5x	15.7x
Dassault Systèmes SE	61,383,948	62,778,361	73.5%	83.7%	25.8%	11.5x	10.7x	44.6x	29.2x
Autodesk, Inc.	52,692,433	53,949,833	69.6%	91.7%	18.6%	12.8x	11.0x	NM	28.7x
Hexagon AB	35,327,911	37,658,115	81.1%	64.2%	35.3%	7.8x	7.1x	22.1x	18.6x
Trimble Inc.	17,635,849	18,573,049	72.8%	58.4%	21.7%	5.2x	4.8x	24.0x	19.4x
Bentley Systems, Inc.	11,738,277	12,936,099	53.0%	77.4%	19.6%	14.2x	12.2x	NM	38.9x
Nemetschek SE	10,331,700	10,298,821	69.0%	52.9%	26.0%	13.6x	12.5x	52.3x	41.1x
Procore Technologies, Inc.	7,991,051	7,008,555	55.7%	81.8%	NM	14.7x	11.8x	NM	NM
Core AEC Median	\$44,010,172	\$45,803,974	73.2%	70.8%	20.6%	9.6x	8.9x	23.1x	24.1x
Product Design / Engineering									
Synopsys, Inc.	\$45,471,452	\$44,561,236	78.5%	80.7%	21.9%	10.6x	9.4x	48.3x	27.0x
Cadence Design Systems, Inc.	40,301,844	39,635,410	75.5%	89.6%	31.0%	13.3x	12.6x	42.9x	31.2x
ANSYS, Inc.	28,162,635	27,961,278	78.0%	89.3%	34.4%	14.9x	13.8x	43.4x	33.1x
PTC Inc.	13,367,852	14,717,773	73.8%	79.3%	25.0%	8.0x	7.5x	32.1x	19.8x
Altair Engineering Inc.	4,713,434	4,486,324	72.1%	75.5%	8.8%	8.5x	8.1x	NM	58.7x
Product Design / Engineering Median	\$28,162,635	\$27,961,278	75.5%	80.7%	25.0%	10.6x	9.4x	43.1x	31.2x
Comp Set Median	\$35,327,911	\$37,658,115	73.8%	79.3%	21.9%	10.6x	9.4x	37.5x	28.7x

Public Market Operational and Valuation Metrics⁽¹⁾

\$ in Thousands									
Company	Market Capitalization	Enterprise Value	% of 52-Week High	LTM Gross Margin	LTM EBITDA Margin	Enterprise Value/			
						LTM Revenue	NTM Revenue	LTM EBITDA	NTM EBITDA
Residential									
D.R. Horton, Inc.	\$30,649,409	\$33,298,809	77.9%	26.8%	19.6%	1.2x	1.0x	6.1x	4.8x
Lennar Corp.	27,921,349	30,018,331	79.5%	27.1%	21.9%	1.1x	0.9x	5.1x	4.5x
NVR, Inc.	18,134,575	17,062,678	87.0%	22.4%	17.6%	1.9x	1.7x	10.7x	9.9x
PulteGroup, Inc.	12,975,766	14,029,444	80.2%	26.6%	18.1%	1.1x	0.9x	6.1x	4.4x
Residential Median	\$23,027,962	\$23,540,504	79.8%	26.7%	18.9%	1.2x	1.0x	6.1x	4.6x
Engineering, Procurement, and Construction									
Jacobs Engineering Group Inc.	\$16,582,977	\$20,096,407	85.7%	22.2%	9.5%	1.4x	1.3x	14.9x	14.2x
WSP Global Inc.	15,229,282	17,003,960	87.8%	19.2%	9.1%	2.2x	2.6x	24.7x	15.0x
Skanska AB	9,887,148	8,618,078	87.1%	10.9%	6.4%	0.5x	0.5x	8.0x	7.3x
AECOM	9,644,508	11,580,356	86.8%	6.0%	6.1%	0.9x	0.8x	14.2x	12.8x
HOCHTIEF Aktiengesellschaft	5,179,209	6,261,203	82.5%	22.4%	NM	0.3x	0.2x	NM	5.1x
KBR, Inc.	6,050,506	7,358,506	86.3%	11.6%	7.8%	1.2x	0.9x	14.9x	11.3x
SNC-Lavalin Group Inc.	3,806,796	5,278,968	72.3%	1.6%	1.1%	0.9x	0.9x	NM	9.4x
John Wood Group PLC	2,036,117	3,816,117	65.4%	9.9%	5.0%	0.6x	0.6x	11.5x	6.5x
EP&C Median	\$9,887,148	\$11,580,356	86.8%	19.2%	7.8%	0.9x	0.8x	14.6x	12.8x
European Public - Private Partnerships									
VINCI SA	\$59,291,355	\$87,193,892	96.6%	12.8%	13.4%	1.5x	1.4x	11.4x	9.0x
Ferrovial SA	19,804,722	25,146,632	87.2%	84.3%	8.0%	3.3x	3.4x	41.5x	33.6x
Bouygues SA	13,222,652	20,108,373	83.2%	55.9%	9.8%	0.5x	0.5x	4.7x	4.5x
Atlantia SpA	14,925,104	60,948,516	91.1%	53.4%	43.5%	5.4x	8.4x	12.4x	13.5x
Eiffage SA	10,217,208	25,119,983	96.6%	83.1%	14.1%	1.1x	1.2x	8.2x	7.2x
Euro Median	\$14,925,104	\$25,146,632	91.1%	55.9%	13.4%	1.5x	1.4x	11.4x	9.0x
Construction Median	\$15,229,282	\$17,003,960	85.7%	22.4%	13.6%	1.1x	0.9x	9.4x	7.3x