

INDUSTRY PROFILE

Highway, Street & Bridge Construction Contractors

8.24.2020 NAICS CODES: 2373 SIC CODES: 1611, 1622, 8741

Industry Overview

Companies in this industry construct highways, streets, roads, airport runways, sidewalks, and bridges. Major companies include AECOM, Bechtel, Kiewit, and Granite Construction (all based in the US), as well as Bouygues (France), China Communications Construction Company, WeBuild (Italy), and VINCI (France).

Other than the US, China, India, and Brazil are among the countries with the largest roadway systems. As economies grow in these countries, highway systems and related infrastructure also will expand. China, for example, plans to spend more than \$1 trillion on roads through its "Belt and Road" initiative.

The US highway, street, and bridge construction industry includes about 10,000 establishments (single-location companies and units of multi-location companies) with combined annual revenue of about \$115 billion.

Competitive Landscape

Demand is largely driven by the availability of government road building funds, population growth, and the need to replace or repair aging infrastructure. The profitability of individual companies depends on **operating efficiencies** and the ability to correctly **estimate costs**. Big companies have the resources and engineering skills necessary for large construction jobs. Small companies can compete effectively by bidding for smaller projects or by working as **subcontractors** on large projects. The US industry is **highly fragmented**.

Products, Operations & Technology

New street and highway construction can involve complicated engineering and skilled operations like earthmoving, grading, and bridge, curb, sidewalk, and water drainage system construction. The US has the most expansive road network in the world, with more than 4 million miles of roads. **The typical small construction** company does light new construction work and concentrates mainly on **reconstruction** and **maintenance**. Engineering design work is important for new construction. The typical large construction company designs and constructs complex road and highway projects.

Streets and highways consist of several different layers of materials, earth and various grades of gravel on the base layers. Paved roads have cement or asphalt on the top layers. The typical street or highway has a gravel base and several layers of asphalt. (An asphalt street is officially called a "bituminous roadway.") A minimum pavement thickness of either a 4-inch full depth asphalt or 3-inch asphalt concrete over a granular base is recommended for most roads. A heavily used highway, like the Capital Beltway encircling Washington DC, has 5 to 6 inches of asphalt concrete lying on a concrete slab 8 to 9 inches thick.

Asphalt is a mixture of sand, gravel, or rock, **asphalt cement**, and various additives. Sand and gravel (called "aggregate") make up over 90% of the asphalt. Asphalt cement (AC - sometimes called bituminous cement) is the black substance left over when crude oil is distilled into gasoline and other liquid products. Asphalt is made up as "**hot mix asphalt**" (HMA) in a special mixing facility where the paving aggregates are dried and heated, and then mixed with melted asphalt cement. The HMA is transferred to silos for short-term storage and delivered by truck to the worksite. Some construction companies operate their own HMA facilities, but most buy their asphalt from independent operators.

Most construction jobs specify the type and amount of aggregate and asphalt cement to be used. (The federal system for specifying asphalt quality is called **Superpave**.) At the worksite, HMA is loaded into a paving machine that actually lays down the surface. Rollers then smooth and compact the surface as the HMA cools. The prices for construction materials such as asphalt and oil are volatile and subject to sudden fluctuations.

Reconstruction of asphalt roads involves grinding off the top layer and replacing it. The ground up old pavement, called reclaimed asphalt pavement (**RAP**), can be added to HMA to form new asphalt. More than 80 million tons of RAP was used in new pavements in the US in 2018, according to the National Asphalt Pavement Association.

Construction companies may own some core pieces of **heavy equipment** (trucks, backhoes, paving machines, and rollers) and may **lease** other pieces as needed from third party suppliers, depending on the type of work. Construction companies rely on suppliers to provide equipment in a timely manner for successful completion of a project. Many companies also do other kinds of construction work such as driveways, parking lots, sidewalks, foundations, concrete and masonry work to efficiently use their assets and skills.

Technology

Construction machinery manufacturers are adding telematics to make operation and tracking of equipment assets -be they owned or rented -- more efficient for operators. Construction industry organizations like the Association of Equipment Management Professionals are working closely with major machinery manufacturers to standardize OEM telematics systems. Standardization will make tracking equipment fleets with mixed brands much more efficient and less time-consuming for managers.

Onboard equipment telematics (including in-vehicle Wi-Fi hubs) and cloud-based location services also enable highway, street, and bridge construction managers to receive progress updates, project alerts, and track fleet assets in real time using a smartphone or tablet.

Sales & Marketing

Major customers are federal, state, and municipal government agencies. Almost all roads and bridges in the US are overseen by state or local government agencies. The federal government accounts for 25% of highway construction dollars; states and municipalities, for 75%. The Highway Trust Fund, made up of funds from motor vehicle taxes and the federal fuel tax, provides a significant proportion of federal funding. States supplement federal funding through their own sales and fuel taxes. Municipalities mainly contract for street repaving; states for most new highway construction.

Construction companies acquire almost all of their business by bidding on fixed-price contracts. In fixed-price contracts, the price is determined and agreed upon prior to construction. The large companies often win a bid to be general contractor for a project and may hire smaller local companies to perform parts of the project. Large projects may be awarded under contracts that allow additional costs, because of the uncertainty of the obstacles that may be encountered, but projects like repaving are almost always fixed-price.

Finance & Regulation

The revenue of most road construction companies is highly **seasonal**, because work often slows or stops during the winter. Companies engaged in large projects typically receive periodic **progress payments**, which may be released upon completion of certain phases of a project. Companies that work as sub-contractors may have high receivables. Companies may periodically invest in new capital equipment such as pavers, trucks, and earth-moving equipment. The US industry is **capital-intensive**: average annual revenue per employee is about \$335,000.

Working Capital Turnover by Company Size

The working capital turnover ratio, also known as working capital to sales, is a measure of how efficiently a company uses its capital to generate sales. Companies should be compared to others in their industry.



Regulation

Road construction is highly regulated, as work zones can pose dangers to public safety. About 800 people die in motor vehicle traffic accidents in US work zones each year. About 130 workers die in work zones each year. State and federal procurement laws monitor government contracts; technical engineering standards govern road design and construction. Regulations also exist to prevent safety hazards, promote cost savings, and mitigate environmental impact. Disputes concerning contract performance are common.

The US Department of Transportation and Federal Highway Administration, as well as individual state departments of transportation, set standards for the construction of roads and bridges. Companies also must adhere to environmental regulations set by various federal, state, and local agencies. Government contracts usually have strict regulatory requirements. If companies have numerous safety or environmental violations, they face the risk of losing contracts.

International Insights

India, China, and Brazil are among the countries with the largest roadway systems outside the US. As economies grow in these countries, highway systems and related infrastructure also will expand. China, for example, plans to spend more than \$1 trillion on roads through its "Belt and Road" initiative Other countries that invest significantly in road infrastructure include Canada, France, Australia, and Germany.

Highway, street, and bridge construction companies often operate in **specific geographic regions**. Larger companies work across entire countries, and some companies operate internationally. For example, some Chinese companies build highways in eastern Africa, the Middle East, South America, and southeast Asia. Leading companies based outside the US include Bouygues and VINCI (both based in France), Impregilo (Italy), and China Communications Construction Company.

Most countries have adopted the **competitive bidding process** for road construction projects. However, some countries do not have a large enough industry of independent contractors, and road work is mostly done by a few companies or state construction agencies. Lack of competition can cause the quality of work to suffer. Some countries in Africa have adopted labor-based methods for road work. The programs generate jobs, train workers, and create roads that are more consistent in quality.

Road financing varies from country to country. Funding typically comes from the government via taxes and tariffs collected. Roads also can be paid for on a fee-for service basis: toll roads. In 2012 India ended a 14-year policy of depending only on private capital to fund major road projects and awarded \$2.3 billion in federal contracts. India is working to improve road transport and ease congestion. National Highways Authority of India plans to add 200,000 km of roads by 2022.

Regional Highlights

In the US, because road construction and repair are difficult in cold conditions, construction companies that operate

in the Northeast and the Midwest may have wide seasonal swings in work. Employment and operations may be ramped up during milder weather. Many local companies in such areas provide other services during the winter, such as snow plowing or foundation work.

Roadwork is closely tied to car use and therefore to population and population growth. The states that gained the most people between 2016 and 2017 were Texas, Florida, California, Arizona, and North Carolina.

Human Resources

Industry Employment Growth Bureau of Labor Statistics

The workload for most construction companies varies, affected both by the nature of the work and weather. Consequently, many companies maintain a core of skilled employees and hire additional workers as needed. Overall, average hourly wages for the industry in the US are slightly higher than the national average. The industry's injury rate is moderately higher than the US average. About 130 workers died in highway construction zones in 2017. In the majority of cases, workers were run over by vehicles or equipment. Other fatality causes include collisions and being caught between or struck by equipment or objects.



Average Hourly Earnings & Annual Wage Increase **Bureau of Labor Statistics**



Industry Growth Rating



Demand: Supported by government funding Need efficient use of expensive equipment and accurate cost estimating Risk: Government budget cuts and volatile raw material costs

Quarterly Industry Update

8.24.2020

Challenge: Adverse Effects of COVID-19 on Construction Contractors - Contractors in the construction industry have suffered losses due to the COVID-19 pandemic and are now in recovery but the latter is accompanied by uncertainties. Webuild's revenue in the first half of 2020 dropped by \$580 million as a result of reduced production due to COVID-19 related restrictions enforced by governments and clients. However, with a construction-related backlog of \$32.2 billion, operations are likely to return to full capacity in the second half of 2020. VINCI Contracting has resumed operations at about 90% of expected levels but productivity is limited by social distancing measures; hence, the 2020 profit is expected to decline. Although not included in the nationwide lockdown, the construction industry in France contracted by 14.1% in Q1 of 2020 and is expected to decline by 9.4% in the entire 2020 because of the disruptions due to COVID-19 prevention measures implemented by the government. In the US, the number of jobs in the construction industry increased by 464,000 in May after dropping by 65,000 in March and 995,000 in April. The increased employment in May can be attributed to the lifting of COVID-19 restrictions and the loans availed through Paycheck Protection Programme. However, unemployment can still worsen as federal support runs out, government infrastructure investment is reduced and new projects in the private sector are canceled or deferred.

Industry Impact - Highway, street and bridge construction contractors are recovering from the adverse effects of the COVID-19 pandemic through government support loans and the resumption of projects interrupted in the height of the pandemic. However, there are uncertainties when it comes to government funding of new infrastructure projects.

11.18.2019

Opportunity: Federal Rule Repeal Expected to Bring States More Flexibility - The repeal of a federal rule that had limited states' ability to use patented or proprietary technology in their federal-aid highway projects is expected to benefit state transportation construction projects. The US Department of Transportation Federal Highway Administration repealed the century-old "proprietary products rule" in October 2019, calling it obsolete. Previously, the rule had restricted state contracting agencies from using federal funds to obtain patented or proprietary materials, products, or services, except under special circumstances. The American Road & Transportation Builders Association (ARBTA) had filed an appeal with the US Department of Transportation in 2018 to repeal the rule. ARTBA said the repeal will spur development of new technologies "to help save lives, minimize congestion, and improve the performance of the nation's highways." New technologies previously blocked by the rule include reflective road lane dividers, traffic signs that minimize injury by collapsing upon impact, and road barriers on wheels that help protect road construction workers from traffic.

Industry Impact - Highway, street, and bridge construction contractors may have access to a wider range of safety and other innovative products following the repeal of the federal "proprietary products rule" that limited patented and proprietary products.

5.27.2019

Challenge: Slow Bridge Repairs Contribute to Backlog - More than 47,000 of the nation's 616,000 bridges are considered structurally deficient and in poor condition, and the pace of repair is slowing, according to an analysis by the American Road & Transportation Builders Association of 2018 National Bridge Inventory data released by the US Department of Transportation. The pace of bridge improvement has reached to its lowest point in five years, and the number of bridges with structural deficiencies fell by only 1% in 2018. One out of three Interstate highway bridges have identifiable repair needs, and the average age of a structurally deficient bridge is 62 years. Iowa, Pennsylvania, Oklahoma, Illinois, and Missouri were identified in the report as the states with the largest number of structurally deficient bridges.

Industry Impact - Highway, street, and bridge construction contractors may find that government entities will need to invest in more bridge improvement projects in future years to keep up with the backlog of bridges considered

2.25.2019

Opportunity: New Research Highlights Benefits of Properly Maintained Roads - New research finds that preventative road maintenance can save energy and money, giving contractors an additional talking point in discussions with customers. Road maintenance that extends the life of pavement can reduce greenhouse gases by up to 2%, according to a new study published in the International Journal of Sustainable Transportation. The study, led by researchers at Rutgers University, also discovered that properly maintained roads can save transportation agencies approximately 10-30% in spending and drivers 2-5% in fuel consumption, tire wear, vehicle repair, and maintenance costs because of smoother surfaces. The study found that the greatest overall reduction in carbon dioxide emissions comes from using a thin overlay of up to two inches of asphalt on roads to decrease road roughness, compared to chip seal, slurry seal, or crack seal repair methods. The transportation sector is considered a leading source of greenhouse gas emissions through carbon dioxide released by cars, trucks, and buses.

Industry Impact - Highway, street, and bridge construction contractors can promote the environmental and monetary value of pavement maintenance strategies to clients by pointing to findings from a new Rutgers-led research study.

Industry Indicators

The value of US nonresidential construction spending, a driver for highway and street construction, rose 2.7 percent year-to-date in July 2020 compared to the same period in 2019.

The spot price of crude oil, which affects highway construction costs for asphalt, bituminous concrete, plastic pipe products, and for running equipment fleets, fell 35.7 percent in the week ending September 11, 2020, compared to the same week in 2019.

Industry Forecast

The value of US highway and street construction is forecast to grow with an annual compounded growth rate of 2% between 2020 and 2024. Data Published: July 2020



First Research forecasts are based on INFORUM forecasts that are licensed from the Interindustry Economic Research Fund, Inc. (IERF) in College Park, MD. INFORUM's "interindustry-macro" approach to modeling the economy captures the links between industries and the aggregate economy. Forecast FAQs

Industry Drivers

Changes in the economic environment that may positively or negatively affect industry growth.

Data provided by First Research analysts and reviewed annually

Interest Rates Change in prime and related interest rates



Construction Spending Change in the overall level of commercial and residential construction spending



Government Regulations Changes in federal, state, or local government regulations or business-related policies

Commodity Prices Changes in prices for commodities, such as crops, metals, and other raw materials

Critical Issues

Dependence on State, Federal Budgets - Repair projects are often postponed during periods of economic slowdown, because government budgets are squeezed. However, highway construction projects can be the target of government spending during recessions in order to boost the economy. Highways alone make up nearly half of federal spending on infrastructure. Most federal highway funding is awarded on the condition that state or local governments also provide money. Fuel taxes provide a significant share of highway funding.

Raw Material Costs Linked to Energy Prices - Fluctuating oil prices can directly affect highway contractors by raising or lowering costs for paving asphalt, bituminous concrete, plastic pipe products, material deliveries, and for running equipment fleets. Because asphalt cement is a byproduct of crude oil refining, asphalt prices can vary substantially with the price of oil. Changes in raw material prices may cause contractors to adjust their bids and fees with customers accordingly.

Business Challenges

Seasonal Workflow - In much of North America, highway construction is difficult in the winter or rainy seasons. Because the traditional peak season for public highway contracts is between April and August, contractors usually maintain a core labor force of skilled workers and hire extra workers during this season. Between April and August, highway, street, and bridge construction employment typically rises about 15%. Finding and training these seasonal workers can be difficult, especially for smaller companies.

Work Safety - About 800 deaths occur each year in US construction work zones, particularly at night. Limited vision by motorists exacerbates risks resulting from sudden lane changes, reduced road width, and blinding lights. Liability insurance coverage and strong safety practices, such as work zone safety devices (temporary white lane-drop arrows); a CB alert system; temporary orange rumble strips; radar speed displays; and brightly-colored work zone signs, are important for contractors and are now used more frequently.

Environmental Regulations - Environmental regulations are often stringent. The average time to complete an environmental impact statement is four to seven years. To alleviate barriers to timely completion of projects, the Federal Highway Administration (FHWA) set a target of three years for environmental studies. Regulations concerning the damaging effects of uncontrolled runoff from construction sites require contractors to go to great lengths to minimize ground disturbance during a project. Some areas have proposed banning the use of heavy road construction equipment during certain hours in summer because of air quality concerns. Such restrictions could significantly raise labor risks and highway construction costs, since laborers often must work at night or in the heat of the day to complete road projects.

Competition from General Construction Contractors - Companies that specialize in road work may get competition

from companies that usually do residential or commercial construction. Weak real estate markets can drive construction firms to bid for projects such as road work that may not fall under their area of expertise. Road building and resurfacing are technologically simple and well understood by many contractors, and equipment can easily be leased. To maintain work crews in between other projects, other contractors may make low bids on road work.

Business Trends

New Technology - New equipment and asphalt design technology are improving road maintenance. One-person pothole patchers and ground penetrating radar (GPR) that can scan subsurface road conditions to depths of nearly three feet at normal highway speeds are some of the attempts to apply new technology. Superpave is a mixing system that allows designers to precisely specify proportions of various ingredients (including various grades of liquid asphalt cement) to produce a road surface with particular characteristics, and is designed to extend the life of the pavement. Quick-drying cement can harden within hours instead of several days, greatly reducing highway and street construction time. Due to quick-drying concrete, daytime lanes do not have to be closed resulting in fewer commuter complaints.

Extended Pavement Life - The design of asphalt mixtures is becoming more sophisticated. A new three-layer highway system, Perpetual Pavement, is designed never to exceed a critical fatigue level and therefore never to fail, theoretically lasting forever. New types of "extended life" or "perpetual" pavement systems have 50-year or longer design lives. For example, asphalt associations are promoting stone matrix asphalt, a strong stone skeleton held together by a rich asphalt cement originally developed in Europe, which is particularly well-suited to roads subject to heavy loads and high traffic volumes.

Equipment Costs - Between 2011 and 2017, US producer prices for construction machinery and equipment increased nearly 10%. General price volatility for rubber, steel, and energy, all raw materials for equipment manufacturers, have contributed to the rise in equipment costs in the past several years. Transportation contractors are the primary market for expensive heavy machinery.

Lighter, Stronger Equipment - Advancements in technology have reduced equipment needs for highway construction. Today's equipment is lighter, stronger, more powerful and fuel-efficient. Advancements in hydraulic technology and power allow users to take advantage of improved grapples, breakers, and shears. Hydraulic hybrid systems in construction vehicles can reduce fuel consumption, minimizing the impact of fluctuating oil prices.

Warm-Mix Asphalt - Use of warm-mix asphalt is increasing as state and municipal transportation departments seek ways to improve working conditions and reduce overall paving costs. Warm mix reduces emissions, fumes, and odors on worksites since it can be created by heating up to 200 degrees, compared to 300 to 325 degrees needed for hot mix. The material provides other environmental benefits as it requires less energy to produce and can contain greater amounts of reclaimed asphalt. The mix reduces fuel and energy use, and it can also extend the paving season because it can be used in cooler temperatures.

Industry Opportunities

Toll Roads - Street and highway construction funding traditionally comes from gasoline and vehicle sales taxes. Because funding from these sources has declined in recent years, some states have been partnering with private firms to build toll roads. In addition to paying back any incurred debt from construction costs, toll revenue can be used to fund new transportation projects. Toll roads have incited criticism on issues revolving around taxation, privatization, and conversion of existing roadways.

Internet Bidding - Internet bidding can save both state transportation departments and highway contractors time and money. The Federal Highway Administration, which predicts that electronic bidding systems will become more prevalent, has created a technical guide that encourages states to use online bidding for transportation construction projects.

Public Works Programs - Periods of slow economic growth can lead policymakers to pour investment into infrastructure programs to boost output and create jobs. An advantage of government-mandated projects is that a portion of the funds must be appropriated by a given deadline, speeding up negotiations between both parties as well as cutting construction time.

Winter Road Prep for Southern States - Traditionally warmer weather states and cities in the US are investing in equipment and materials that will make their roads, bridges, and highways safer during winter storms. Cities such as Atlanta have purchased technology and better equipment such as snow plows and electronic sensors to measure road conditions. Once rare, ice and snow storms have crippled southern states during the past several years. Highway, street, and bridge construction companies that offer snow removal and winter storm preparation

services could win new contracts as winter storms become more common.

Financial Information

COMPANY BENCHMARK TRENDS

Quick Ratio by Company Size

The quick ratio, also known as the acid test ratio, measures a company's ability to meet short-term obligations with liquid assets. The higher the ratio, the better; a number below 1 signals financial distress. Use the quick ratio to determine if companies in an industry are typically able to pay off their current liabilities.



Financial industry data provided by MicroBilt Corporation collected from 32 different data sources and represents financial performance of over 4.5 million privately held businesses and detailed industry financial benchmarks of companies in over 900 industries (SIC and NAICS). More data available at www.microbilt.com.

Current Liabilities to Net Worth by Company Size

The ratio of current liabilities to net worth, also called current liabilities to equity, indicates the amount due creditors within a year as a percentage of stockholders' equity in a company. A high ratio (above 80 percent) can indicate trouble.



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COMPANY BENCHMARK INFORMATION

NAICS: 2373				
Data Period: 2018			Last Updat	e February 2020
Table Data Format				Mean
Company Size	All	Large	Medium	Small
Size by Revenue		Over \$50M	\$5M - \$50M	Under \$5M
Company Count	8485	10	641	7834

Income Statement				
Net Sales	100%	100%	100%	100%
Gross Margin	19.3%	17.4%	18.5%	20.3%
Officer Compensation	2.3%	1.5%	1.6%	3.1%
Advertising & Sales	0.0%	0.0%	0.0%	0.0%
Other Operating Expenses	15.1%	14.6%	15.0%	15.3%
Operating Expenses	17.4%	16.1%	16.6%	18.4%
Operating Income	1.9%	1.3%	1.9%	1.9%
Net Income	1.2%	0.9%	1.2%	1.2%

Balance Sheet				
Cash	20.6%	21.5%	20.4%	20.7%
Accounts Receivable	23.3%	24.8%	24.3%	22.0%
Inventory	1.9%	1.1%	2.0%	1.8%

Total Current Assets	57.3%	57.4%	57.9%	56.6%
Property, Plant & Equipment	33.8%	31.4%	33.2%	34.7%
Other Non-Current Assets	9.0%	11.2%	9.0%	8.7%
Total Assets	100.0%	100.0%	100.0%	100.0%
Accounts Payable	17.0%	15.3%	17.3%	16.9%
Total Current Liabilities	32.9%	31.1%	33.3%	32.8%
Total Long Term Liabilities	23.9%	16.6%	22.6%	26.0%
Net Worth	43.2%	52.3%	44.1%	41.2%

Financial Ratios

(Click on any ratio for comprehensive de	finitions)			
Quick Ratio	1.48	1.62	1.48	1.47
Current Ratio	1.74	1.85	1.74	1.73
Current Liabilities to Net Worth	76.3%	59.5%	75.3%	79.6%
Current Liabilities to Inventory	x17.62	x27.29	x16.79	x18.01
Total Debt to Net Worth	x1.32	x0.91	x1.27	x1.43
Fixed Assets to Net Worth	x0.78	x0.60	x0.75	x0.84
Days Accounts Receivable	41	38	43	40
Inventory Turnover	x89.21	x173.28	x85.02	x89.02
Total Assets to Sales	49.9%	43.0%	49.9%	50.7%
Working Capital to Sales	12.1%	11.3%	12.3%	12.1%
Accounts Payable to Sales	8.2%	6.4%	8.4%	8.3%
Pre-Tax Return on Sales	2.0%	1.5%	2.0%	1.9%
Pre-Tax Return on Assets	3.9%	3.5%	4.0%	3.8%
Pre-Tax Return on Net Worth	9.1%	6.7%	9.0%	9.3%
Interest Coverage	x4.35	x5.52	x4.61	x4.00
EBITDA to Sales	6.2%	5.6%	6.2%	6.3%
Capital Expenditures to Sales	5.4%	5.2%	5.4%	5.5%

Financial industry data provided by MicroBilt Corporation collected from 32 different data sources and represents financial performance of over 4.5 million privately held businesses and detailed industry financial benchmarks of companies in over 900 industries (SIC and NAICS). More data available at www.microbilt.com.

ECONOMIC STATISTICS AND INFORMATION

Annual Construction Put into Place - Census Bureau



VALUATION MULTIPLES

Highway, Street & Bridge Construction Contractors

Acquisition multiples below are calculated medians using at least 3 US private industry transactions completed between 1/2008 and 12/2019 and are based on middle-market transactions where the market value of invested capital (the selling price) was less than \$1B. Data updated annually. Last updated: December 2019.

Valuation Multiple	MVIC/Net Sales	MVIC/Gross Profit	MVIC/EBIT	MVIC/EBITDA
Median Value	0.6	1	3.8	1.7

MVIC (Market Value of Invested Capital) = Also known as the selling price, the MVIC is the total consideration paid to the seller and includes any cash, notes and/or securities that were used as a form of payment plus any interestbearing liabilities assumed by the buyer.

Net Sales = Annual Gross Sales, net of returns and discounts allowed, if any.

Gross Profit = Net Sales - Cost of Goods Sold

EBIT = Operating Profit

EBITDA = Operating Profit + Noncash Charges



SOURCE: DealStats (formerly Pratt's Stats), 2019 (Portland, OR: Business Valuation Resources, LLC). Used with permission. DealStats is available at https://www.bvresources.com/learn/dealstats

Industry Websites

American Association of State Highway and Transportation Officials Online journal, magazine, events, federal transportation regulations, and transportation news.

American Highway Users Alliance

Advocacy for motorists with research, news, and the latest on legislation.

American Road & Transportation Builders Association

Industry lobbying association with government affairs, industry links, and news.

American Society of Highway Engineers

Newsletter, current events, and directories.

Asphalt Contractor

Bureau of Transportation Statistics data relating to highway transportation.

Asphalt: the Magazine of the Asphalt Institute

National industry association.

BetterRoads Highways and transportation news.

Construction Financial Management Association (CFMA) Construction finance information.

Engineering News-Record (ENR) News items.

Federal Highway Administration News, websites, legislation, and regulations.

National Asphalt Pavement Association News and information.

Pavement magazine Covering contractors who work in the paving, sealcoating, pavement marking, and sweeping industry.

Roads & Bridges News and product information.

Transport Canada Statistics, regulation, and funding.

TRIP National transportation research group.

World Highways News about world highway construction projects.

Glossary of Acronyms

- AC asphalt cement (also called bituminous cement)
- ARTBA American Road and Transportation Builders Association
- **CRM** customer relationship management
- CSD context-sensitive design
- ENR Engineering News-Record
- FHWA Federal Highway Administration

GPR - ground penetrating radar

- HMA hot mix asphalt
- ITS intelligent transportation systems
- RAP reclaimed asphalt pavement