
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

FORM 10-K

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2018

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____.

Commission File Number: 001-37921

FORTERRA, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

37-1830464

(I.R.S. Employer Identification Number)

511 East John Carpenter Freeway, 6th Floor, Irving, TX 75062

(Address of principal executive offices, including zip code)

(469) 458-7973

(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) Act:

Title of Each Class

Common Stock, \$0.001 par value per share

Name of Exchange on Which Registered

Nasdaq Global Select Market

Securities Registered Pursuant to Section 12(g) Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of March 7, 2019, 64,205,604 shares of the registrant's common stock, \$0.001 par value per share, were issued and outstanding. The aggregate market value of the registrant's common stock, \$0.001 par value, held by non-affiliates of the registrant was approximately \$183,714,000, based upon the closing market price of \$9.73 per share of common stock on the Nasdaq Global Select Market as of June 29, 2018.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information called for by Part III is incorporated by reference to certain sections in the registrant's definitive proxy statement relating to the 2019 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

TABLE OF CONTENTS

	Page
Part I	
Item 1. Business	1
Item 1A. Risk Factors	10
Item 1B. Unresolved Staff Comments	33
Item 2. Properties	33
Item 3. Legal Proceedings	35
Item 4. Mine Safety Disclosures	37
Part II	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	37
Item 6. Selected Financial Data	38
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	40
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	60
Item 8. Financial Statements and Supplementary Data	62
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	110
Item 9A. Controls and Procedures	110
Item 9B. Other Information	114
Part III	
Item 10. Directors, Executive Officers and Corporate Governance	115
Item 11. Executive Compensation	115
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	115
Item 13. Certain Relationships and Related Transactions, and Director Independence	115
Item 14. Principal Accounting Fees and Services	115
Part IV	
Item 15. Exhibits, Financial Statement Schedules	116
Item 16. Form 10-K Summary	120
Signatures	120

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

Certain statements and information in this Annual Report on Form 10-K may constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements relate to matters such as our industry, business strategy, goals and expectations concerning our market position, future operations, margins, profitability, capital expenditures, liquidity, capital resources and other financial and operating information. We have used the words “approximately,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “future,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “target,” “will” and similar terms and phrases to identify forward-looking statements. All of our forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we are expecting, including:

- the level of construction activity, particularly in the residential construction and non-residential construction markets;
- government funding of infrastructure and related construction activities;
- the highly competitive nature of our industry and our ability to effectively compete;
- the availability and price of the raw materials we use in our business;
- our dependence on key customers and the absence of long-term agreements with these customers;
- the level of construction activity in Texas;
- disruption at one or more of our manufacturing facilities or in our supply chain;
- construction project delays and our inventory management;
- our ability to successfully integrate acquisitions;
- energy costs;
- labor disruptions and other union activity;
- a tightening of mortgage lending or mortgage financing requirements;
- the ability to implement our growth strategy;
- our current dispute with HeidelbergCement related to the payment of an earnout;
- compliance with environmental laws and regulations;
- changes in tax laws could adversely affect us;
- compliance with health and safety laws and regulations and other laws and regulations to which we and our products are subject;
- our dependence on key executives and key management personnel;
- our ability and that of the customers with which we work to retain and attract additional skilled and non-skilled technical or sales personnel;
- credit and non-payment risks of our customers;

- warranty and related claims;
- legal and regulatory claims;
- the seasonality of our business and its susceptibility to adverse weather;
- our contract backlog;
- our ability to maintain sufficient liquidity and ensure adequate financing or guarantees for large projects;
- delays or outages in our information technology systems and computer networks;
- security breaches in our information technology systems and other cybersecurity incidents; and
- additional factors discussed in our filings with the Securities and Exchange Commission, or the SEC.

The forward-looking statements contained in this Annual Report on Form 10-K are based on historical performance and management's current plans, estimates and expectations in light of information currently available to us and are subject to uncertainty and changes in circumstances. There can be no assurance that future developments affecting us will be those that we have anticipated. Actual results may differ materially from these expectations due to changes in global, regional or local political, economic, business, competitive, market, regulatory and other factors, many of which are beyond our control, as well as the other factors described in Item 1A, "Risk Factors". Additional factors or events that could cause our actual results to differ may also emerge from time to time, and it is not possible for us to predict all of them. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove to be incorrect, our actual results may vary in material respects from what we may have expressed or implied by these forward-looking statements. We caution that you should not place undue reliance on any of our forward-looking statements. Any forward-looking statement made by us speaks only as of the date on which we make it. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by applicable securities laws.

PART I

Item 1. Business

On March 13, 2015, through an indirect wholly owned subsidiary, Lone Star Fund IX (U.S.), L.P. (which is referred to, along with its affiliates and associates, but excluding us and other companies that it owns as a result of its investment activity, as Lone Star) acquired the building products business of HeidelbergCement AG in the United States and Eastern Canada, or the Acquisition. Unless otherwise specified or where the context otherwise requires, references in this Annual Report on Form 10-K to “our,” “we,” “us,” the “Company” and “our business” (i) for the Predecessor periods prior to the completion of the Acquisition, refer to the building products business of HeidelbergCement AG in the United States and Eastern Canada, (ii) for the Successor periods after completion of the Acquisition, but prior to the internal reorganization transaction discussed in Note 1 to the consolidated financial statements in which LSF9 Concrete Holdings Ltd transferred its building products business in the United States and Eastern Canada to Forterra, Inc., or the Reorganization, the building products business of LSF9 Concrete Holdings Ltd in the United States and Eastern Canada and (iii) for the Successor periods after completion of the Reorganization, the operations of Forterra, Inc., in each case together with its consolidated subsidiaries. We are a holding company incorporated in Delaware in 2016. We are controlled by Lone Star and have a relatively short operating history as a stand-alone company.

General

We are a manufacturer of pipe and precast products in the United States and Eastern Canada for a variety of water-related infrastructure applications, including water transmission, distribution and drainage.

Our manufacturing and distribution network allows us to serve most major United States and Eastern Canadian markets. We operate 79 manufacturing facilities and currently have additional manufacturing capacity available in both of our segments, providing room to increase production to meet short-cycle demand with minimal incremental investment. These facilities and our distribution network provide us with a local presence and the necessary proximity to our customers to minimize delivery time and distribution costs.

We manufacture both water drainage pipe and precast structures (used primarily for storm water and drainage applications) and water transmission and distribution pipe (used primarily to transport potable water and as a component of wastewater systems) and believe our complementary product portfolio is well positioned to serve both the storm water and wastewater infrastructure market and the potable water transmission and distribution market. We believe that our exposure to each of the residential, non-residential and infrastructure end-markets will allow us to benefit from both secular and cyclical growth across each of these end-markets. The residential, non-residential and infrastructure end markets in the United States and Eastern Canada have different growth drivers and operating dynamics, and the cyclical performance of these markets has historically been staggered during different stages of the broader economic cycle.



Our organic growth strategy is focused on leveraging our operations, customer service and product innovation capabilities, as well as our product breadth and scale, to sell our products to existing customers, to increase penetration and project wins and to gain market share through new customers. Operationally, we continue to focus on efficiency and productivity improvements to reduce costs and drive margin improvements. We continuously evaluate our existing business and acquisition opportunities to complement our organic growth or enhance our scale, geographic footprint and product portfolio while simultaneously considering and making strategic divestitures or changes in our manufacturing footprint to optimize our portfolio. See Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 3 to our consolidated financial statements for a more detailed discussion of our recent acquisitions and divestitures.

Our Segments

Drainage Pipe & Products. We are the largest producer of concrete drainage pipe and precast products by sales volume in the United States and Eastern Canada. We operate 60 manufacturing facilities across multiple states and a Canadian province. We believe our product offering creates value for our customers as it eliminates the need to engage multiple suppliers of storm water and wastewater-related products for a single project, permitting them to maximize efficiency and meet more aggressive timetables. We also have the ability to custom-build products to complex specifications and regulations.

Water Pipe & Products. We are the largest producer of ductile iron pipe, or DIP, by sales volume in the United States, and we produce concrete pressure pipe in Eastern Canada. Our product breadth and depth and our technical service address a range of our customers' water transmission and distribution needs. Our 19 manufacturing facilities are located across the United States and Eastern Canada, with swing capacity available to support increased production levels as appropriate to satisfy increased demand.

Key Segments

	Drainage Pipe & Products	Water Pipe & Products
Products		
Product Applications	Storm water and wastewater infrastructure	Potable and wastewater transmission and distribution
Primary Market Channels	- Direct to Contractors - Distributors	- Distributors - Direct to Contractors, Municipalities and Utilities Waterworks
# of Manufacturing Facilities	60	19

Corporate and Other. Corporate, general and administrative expenses not allocated to our revenue-generating segments such as certain shared services, executive and other administrative functions.

Our Industry and Core End Markets

We serve a range of infrastructure-related end markets. Based on the source of funding, we classify these construction markets into infrastructure, residential and non-residential.

Infrastructure

Infrastructure represents spending by federal, state, and local governments for the construction of streets, highways and storm and sanitary sewers often supported by multi-year federal and state legislation and programs. In December 2015, the Fixing America's Surface Transportation Act, or the FAST Act, was enacted by the United States federal government, authorizing funding from \$43 billion in fiscal 2016 to \$47 billion in fiscal 2020 to upgrade transportation-related infrastructure. The rate at which spending under the FAST Act or other governmental infrastructure programs will occur is driven by a number of factors, including demographic and population shifts, availability of state funds (including matching funds), and the ability of contractors to obtain skilled labor.

Residential Construction

Residential construction includes single family homes and multi-family units such as apartments and condominiums. Demand for residential construction is influenced by demographic and population shifts, mortgage interest rates, and the ability of builders to obtain skilled labor. In 2018, total annual housing starts in the United States increased to 1.2 million, an increase of 3.6% above 2017 housing starts.

Non-residential Construction

Non-residential construction includes all privately financed construction other than residential structures. Revenues in this end-market are driven largely by new United States non-residential construction, for which demand is generally driven by job growth, vacancy rates, private infrastructure needs and demographic trends. The supply of non-residential construction projects is also affected by the availability and cost of funding.

Our Products

Drainage Pipe & Products Segment

We manufacture drainage pipe and precast products in the United States and Eastern Canada. Drainage pipe has residential, non-residential and infrastructure applications. It is primarily used for storm water applications, such as storm drains for roads and highways, and for residential and non-residential site developments. In addition, drainage pipe is used for sanitary sewers, low-pressure sewer force mains, tunneled systems, treatment plant piping and utility tunnels.

Drainage pipe consists of concrete reinforced by a steel cage. It is manufactured by producing a steel mesh cage, enclosing it in a form or mold and then pouring concrete around it to produce the pipe. Drainage pipe is manufactured in round, elliptical and arch shapes ranging from 12 inches to 144 inches in diameter and in box sizes ranging from three feet to 15 feet in length and width. We also manufacture a wide variety of precast concrete products, including box culverts, utility vaults, manholes, drainage inlets and pipe end sections. These precast concrete products are used for applications such as roadway drainage, airport drainage, storm water management, utility construction and water treatment and filtration systems. Our range of precast concrete products also includes products that fall under the general description of specialty precast, including products for which we hold patents that make us the exclusive manufacturer or which are manufactured under license agreements with third parties. These specialty products include architectural panels for buildings, modular railroad crossings, retaining wall systems, highway noise barriers, storm water treatment systems and concrete vaults, which are used to house either dry utilities (such as electrical, data or communications equipment) or wet utilities (such as valves, pumps or water meters).

We also manufacture structural precast products in the United States and manufacture a range of precast concrete bridge girders for highway projects in both the United States and Eastern Canada. We manufacture a variety of structural precast products primarily for infrastructure and non-residential applications, including hollow-core planks, prestressed bridge girders, beams, columns, wall panels, stairs, garage floors and architectural cladding. These products are used as structural and architectural elements in building structures such as parking garages and arched and modular bridges.

Precast concrete products are reinforced with steel, similar to pipe, and manufactured using either a dry cast or wet cast concrete mix, depending on the size of the piece and the number of identical pieces to be manufactured. In the dry cast method, a concrete mix with low water content, known as zero-slump concrete, is poured into a mold and then densely compacted around the steel reinforcement using a variety of manufacturing methods. The concrete structure is immediately removed from the mold and allowed to cure in a high humidity environment to ensure proper hydration of the concrete. This method allows multiple pieces to be produced from the same mold each day and is most suitable for high volume, repetitive manufacturing. In the wet cast method, a concrete mix with relatively high water content is poured into a mold and allowed to cure in the mold, which can take from four to 12 hours. Precast concrete products typically range in diameter from four to 12 feet for round products or in length and width from one foot to 12 feet for square or rectangular products.

We also regularly consider ways to innovate internally and expand our drainage pipe and precast product offerings by working to bring other products to market. Some of our product offerings include Kenner Chainwall, Duct Bank, and a number of storm water innovative technologies for storm water management marketed through our Bio Clean subsidiary. Kenner Chainwall is a precast concrete foundation that provides a structurally sound, on-grade or elevated foundation to support prefabricated shelters or equipment buildings. One use is to elevate

electrical equipment in flood zones such as those devastated by hurricanes. Duct Bank is a precast product that consolidates and protects underground electrical and communication cables and can be used in the construction of large buildings as well as installing cabling underneath roads and areas with existing structures. Each of these products is now commercially available.

In addition to our operations, we have a 50% equity interest in Concrete Pipe & Precast LLC, or CP&P, a joint venture with Americast, Inc. CP&P operates 12 plants that serve the Mid-Atlantic and Southeastern United States. CP&P manufactures drainage pipe and precast concrete products and sells those products to similar types of customers as the ones to which we market. See Note 6 to our consolidated financial statements for additional information regarding CP&P.

Water Pipe & Products Segment

Utilizing the U.S. Pipe and Forterra Pressure Pipe Canada brands, we manufacture a number of products used for the transmission of potable water and wastewater in pipe diameters ranging from three to 174 inches.

We manufacture DIP in pipe diameters ranging from three to 64 inches in the United States. For each diameter of pipe we offer a wide range of thicknesses with both standard and specialized linings and coatings. DIP is used for transmission and distribution of potable water and wastewater and is typically utilized for smaller diameter applications of 24 inches and smaller. DIP has residential and infrastructure repair replacement applications, including potable water distribution systems, small water system grids, major water transmission mains, wastewater collection systems, sewer force mains and water treatment plants. In addition to DIP, we also manufacture a full line of complementary joint restraints and fittings in Mexico, which are utilized for interlocking adjoining segments of pipe and are typically bundled with DIP. We also operate fabrication plants that modify our pipe to meet specific customer design requirements for above-ground applications.

DIP is manufactured using a process that consists of introducing molten iron into a rapidly-rotating steel mold and relying on centrifugal force to distribute the molten iron evenly around the inner surface of the mold to produce pipe of uniform size and dimensions. We also strive to innovate in our Water Pipe & Products segment, including by offering metallic zinc coating and TR-XTREME pipe. Metallic zinc coating is active corrosion protection for DIP. TR-XTREME pipe is DIP designed for areas of seismic activity and has joints that provide flexible extension capabilities.

In addition, for larger diameter applications, we manufacture concrete pressure pipe, prestressed concrete pipe and bar-wrapped concrete pipe in Eastern Canada. Our concrete pressure pipe is used for water transmission and distribution, power plant cooling water lines, sewage force mains for wastewater and storm water and other diverse applications involving the movement of large volumes of water. Concrete-lined pressure pipe ranges from ten to 144 inches in diameter. Prestressed concrete pipe consists of a concrete core, a steel cylinder and a high tensile strength wire that is wrapped, under measured tension and at uniform spacing, around the steel cylinder. This wire wrap places the steel cylinder and concrete core in compression, developing the pipe's ability to withstand specified hydrostatic pressures and external loads. An outside coating of mortar protects the wires. Bar-wrapped concrete cylinder pipe combines the physical strength of steel with the structural and protective properties of high strength cement mortar. In this type of pipe, a round steel bar is helically wound around a welded steel cylinder and all surfaces are encased in cement mortar. This composite pipe reacts as a unit when resisting internal pressure and external loads. The inside of the cylinder is lined with centrifugally cast cement mortar.

Our concrete pressure pipe is highly engineered and is built to order for technically demanding applications requiring various thresholds of working pressure, surge pressure and loads. Our engineers work closely with customers to design components and systems to meet specific regulatory and industrial demands.

Customers and Markets

Drainage Pipe & Products Segment

We typically sell our drainage pipe and precast products to contractors that perform construction work for various levels of government, residential and non-residential building owners, and developers in markets across the United States and Eastern Canada. Additionally, although they are not our direct customers, we view the owners and engineers who are customers of the contractors that purchase our products as our customers as well, because these owners and engineers often specify the types of products that our customers are required to use. We also sell our drainage pipe and precast products to utility companies. Several of our largest manufacturing facilities are located in close proximity to our markets. Our drainage pipe and precast products are typically shipped within a radius of 150 miles, but in some cases up to 350 miles, from our manufacturing facilities.

Water Pipe & Products Segment

Our water transmission pipe products are sold to some of the largest waterworks distributors and contractors. Our Water Pipe & Products segment has significant sales through distributors, including Core & Main, a key customer that accounted for 14% and 13% of our consolidated net sales in 2018 and 2017, respectively. We also sell to utility contractors that work on new or replacement pipeline projects, primarily in the East, South and Midwest of the United States and in Eastern Canada. Our pressure pipe is used in projects for regional water authorities and districts, cities, counties, municipalities, port authorities, private companies and industrial clients, including power plants. DIP is shipped within a radius of over 1,000 miles and concrete pressure pipe is typically shipped within a radius of 500 miles from our manufacturing facilities.

Competition

Drainage Pipe & Products Segment

Our largest competitors in our Drainage Pipe & Products Segment include Rinker Materials (a division of the QUIKRETE Companies) and Oldcastle Infrastructure (a unit of CRH plc). We also compete with many regional and local manufacturers. Additionally, our drainage pipe products compete with high density polyethylene, or HDPE, and polypropylene pipe products where such materials would serve as an appropriate substitute for our product.

Water Pipe & Products Segment

Our two largest competitors in DIP manufacturing are McWane, Inc. and American Cast Iron Pipe Company. Our DIP products also compete with polyvinyl chloride, or PVC, and HDPE pipe. Our national network of fabrication products competes with regional and local providers of those products and services.

Within Canada, our concrete pressure pipe products compete with DECAST (formerly Munro Concrete Products, Ltd.) and several other American and Canadian competitors. Our concrete-lined pressure pipe also competes with pressure pipe made from other materials such as fiberglass, HDPE and PVC.

Sales, Marketing and Distribution

Our products are generally made to order, but certain of our products are made to inventory. We have established target levels of inventory for certain products that we attempt to keep available at our manufacturing facilities to meet customer demand. Inventories are held at manufacturing facilities and, to a lesser extent, at distribution yards.

Our structural precast products, most precast concrete products and concrete pressure pipe are customized products that are made to order. Our order backlog for precast concrete products is typically two to six months. Our order backlog for concrete pressure pipe and other precast offerings (bridge products) is approximately eight months.

We seek to attract and retain customers through customer service and technical expertise, as well as product quality, our product and service offerings and competitive pricing. Our market strategy for products with non-residential end users is centered on building and maintaining strong customer relationships rather than traditional advertising.

We maintain in-house technical sales, engineering and field service teams which provide customers technical expertise and support to assist them in finding the right product or solution for their specific need. Each of our operating segments has its own sales force. Overall, we employ more than 330 sales and related support professionals. Our sales force and customer service functions are staffed by experienced professionals who have been trained in our product lines, processes and systems, and who maintain touch points with engineers, contractors, builders, and distributors. Additionally, we have a staff of approximately 70 engineers that we employ to work in concert with our sales force to help develop effective product solutions for our customers.

We sell our DIP products and our fittings and fabricated products primarily through distributors. Our drainage pipe, concrete pressure pipe, and precast concrete products are sold direct to customers who are installing such products for or are the end users of such products. Drainage pipe, concrete pressure pipe, and certain precast products are sold through a bidding process in which we seek to place the most competitive bid. We undertake marketing efforts through our participation in trade shows and through our website. We outsource many of our product deliveries by using a combination of dedicated carriers and other third-party carriers.

Raw Materials and Inputs

The primary material for our drainage pipe and precast concrete products and our concrete pressure pipe is concrete, which consists of water, cement, aggregates. Another key input for our products is steel, which is used to provide reinforcement within our drainage pipe and precast concrete products. Our DIP is largely made from iron melted from recycled scrap metals. Other key materials for our DIP include foundry coke and certain additives, such as silica.

Most of our raw materials are widely available commodities. We have not experienced any significant shortages of raw materials. To the extent we do not produce any raw materials, when and where possible, we try to purchase raw materials from the source, and because of their low value-to-weight ratios, we generally try to source our raw materials in the vicinity of our facilities. We usually purchase the raw materials we need in the spot market, except where we anticipate a significant need of materials for a specific project. Other than certain contracts for key materials, including cement and steel, we typically do not enter into long-term supply contracts with our suppliers that require us to purchase particular quantities or to pay particular prices. In our project-based businesses, we may pass certain raw material costs to end users through step-up mechanisms included in our price quotes tied to the timing of execution.

As part of the Acquisition, we entered into a Cement Supply Agreement with Lehigh Cement Company, LLC, or Lehigh, a subsidiary of HeidelbergCement AG, or, together with its affiliates, HeidelbergCement, which requires us to purchase our cement requirements from Lehigh for five of our existing manufacturing facilities in the United States through March of 2020. The Cement Supply Agreement allows us to obtain competing price quotations from other suppliers and gives Lehigh an opportunity to match those prices or release us from our purchase obligation for the facility or facilities in question for the period of the competing price quotation.

We purchase our steel from a number of different suppliers, but most suppliers are based in the United States in order to comply with "Buy America" government contract requirements placed on our customers. We endeavor to purchase these steel supplies from the entity which is as close as possible to the manufacturer.

To manufacture DIP, fabricated products and fittings, we purchase scrap metal directly from qualified scrap sources near our foundry sites in the United States and Mexico. We utilize certain categories of scrap metal, primarily shredded automobile bodies, plate & structural, and cast iron. We purchase foundry coke from two of the four merchant coke producers in the United States, both located in Birmingham, Alabama. Major alloys and additives are procured from both domestic and foreign sources based on a semiannual bid process.

Strategic Transactions

Subsequent to the Acquisition, we completed the following strategic acquisitions:

- *Cretex Acquisition* - On October 1, 2015, Forterra acquired all the outstanding shares of Cretex Concrete Products, Inc., or Cretex, for an aggregate consideration of \$245.1 million, or the Cretex Acquisition. Cretex is a manufacturer of concrete pipe, box culverts, concrete precast drainage structures, pre-stressed bridge components and ancillary precast products in the Upper Midwestern United States and now operates as part of our Drainage Pipe & Products segment.
- *Sherman-Dixie Acquisition* - On January 29, 2016, we acquired all the stock of Sherman-Dixie Concrete Industries, Inc., or Sherman-Dixie, for aggregate consideration of \$66.8 million. Sherman-Dixie was a manufacturer of precast concrete structures operating in Kentucky, Tennessee, Alabama and Indiana and now operates as part of our Drainage Pipe & Products segment.
- *U.S. Pipe Acquisition* - On April 15, 2016, we acquired all of the stock of USP Holdings Inc., or U.S. Pipe, for aggregate consideration of \$778.7 million. U.S. Pipe is a manufacturer of water transmission pipe servicing residential, commercial and infrastructure customers and operates as part of our Water Pipe & Products segment.
- *Bio Clean Acquisition* - On August 4, 2016, we acquired all of the stock of Bio Clean Environmental Services, Inc. and Modular Wetland Systems, Inc. for aggregate consideration of \$31.9 million. Bio Clean designs and sells storm water management systems that meet the requirements of local regulatory bodies regulating storm water quality and owns technologies relating to drainage and storm water management and now operates as part of our Drainage Pipe & Products segment.
- *J&G Acquisition* - On October 14, 2016, we acquired J&G Concrete Operations, LLC, or J&G, for aggregate consideration of \$32.4 million. J&G manufactured concrete pipe, box culverts and special fittings in North Texas and now operates as part of our Drainage Pipe & Products segment.
- *Precast Concepts Acquisition* - On October 14, 2016, we acquired the business of Precast Concepts, LLC, or Precast Concepts, for aggregate consideration of \$99.6 million. Precast Concepts manufactured concrete pipe, box culverts, storm detention systems and other precast concrete and related products in Colorado through its three facilities and now operates as part of our Drainage Pipe & Products segment.
- *Royal Acquisition* - On February 3, 2017, we acquired the assets of Royal Enterprises America, Inc., or Royal, for aggregate consideration of \$35.5 million in cash. Royal manufactured concrete drainage pipe, precast concrete products, storm water treatment technologies and erosion control products serving the greater Minneapolis market and now operates as part of our Drainage Pipe & Products segment.

See Note 3 to the consolidated financial statements for additional information on these acquisitions.

In addition, we completed the following strategic divestitures and dispositions following the Acquisition:

- *Sale Leaseback* - On April 5, 2016, we sold properties in 47 sites throughout the U.S. and Canada to Pipe Portfolio Owner (Multi) LP, or the U.S. Buyer, and FORT-BEN Holdings (ONQC) Ltd., or the Canadian Buyer, for an aggregate purchase price of approximately \$204.3 million. On April 14, 2016, we sold additional properties in two sites located in the U.S. to the U.S. Buyer for an aggregate purchase price of approximately \$11.9 million. In connection with these transactions, we and U.S. Buyer and an affiliate of the Canadian Buyer entered into master land and building lease agreements under which we agreed to lease back each of the properties for an initial term of twenty years, followed by one optional renewal terms of 9 years, 11 months.

On June 5, 2018, we amended and restated these arrangements and we exchanged ownership of two facilities in the U.S. for 24 facilities located in the U.S. and Canada previously included in the sale-leaseback transaction and also extended the lease terms for all facilities to an initial term of twenty-five years, followed by one optional renewal term of 9 years, 11 months.

- *Bricks Disposition* - On August 23, 2016, an affiliate of Lone Star entered into an agreement with an unaffiliated third party to contribute LSF9's bricks business to a newly formed joint venture with the unaffiliated third party, or the Bricks Joint Venture. In exchange for the contribution of the bricks business, an affiliate of Lone Star received a 50% interest in the Bricks Joint Venture. On October 17, 2016, LSF9 distributed its bricks business to an affiliate of Lone Star, or the Bricks Disposition. Following the Bricks Disposition, LSF9 had no relation to or business affiliation with its former bricks business or the Bricks Joint Venture other than contractual arrangements regarding certain limited transition services, the temporary use of the "Forterra" name, and a short-term loan which was subsequently repaid in full.
- *U.S. Pressure Pipe Divestiture* - On July 31, 2017, we completed the sale of our U.S. concrete and steel pressure pipe business, a component of our Water Pipe and Products segment, to Thompson Pipe Group, or TPG, in exchange for approximately \$23.2 million in cash, subject to standard working capital adjustments, exclusive of fees and expenses, as well as certain assets relating to a drainage pipe and products manufacturing facility in Conroe, Texas.
- *Foley Exchange Agreement* - On January 31, 2018, we completed the sale to Foley Products Company of several of our pipe & precast plants in the southeast region, including Tennessee, Alabama and Georgia, which were part of the Drainage Pipe & Products segment, in exchange for \$9.1 million in cash, a drainage facility located in Prentiss, Mississippi and land in Texas.

See Notes 3, 14, and 23 of the consolidated financial statements for additional information on these divestitures and dispositions, as applicable.

Seasonality

The construction industry, and therefore demand for our products, is typically seasonal and dependent on weather conditions, with periods of snow or heavy rain negatively affecting construction activity. For a more detailed discussion, see the sections titled Item 1A. Risk Factors and Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations for a discussion of the seasonality of our business.

Employees

As of December 31, 2018, we had 4,672 employees, 1,317 of which were salaried and 3,355 of which were hourly. Of the total number of employees, 4,108 were located in the United States, 321 were located in Canada and 243 were located in Mexico. The number of hourly workers we employ varies to match our labor needs during periods of fluctuating demand and varies seasonally in certain regions. We also employ temporary workers as needed to meet production goals.

As of December 31, 2018, approximately 32% of our workforce is covered by collective bargaining agreements, and approximately 42% of these employees are included in collective bargaining agreements that expire within one year of December 31, 2018. We have not had any recent union-organized work stoppages in the United States, Canada or Mexico. We believe that we have good relationships with our employees and with the unions representing our employees.

Intellectual Property

We own various United States and foreign patents, registered trademarks, trade names and trade secrets and applications for, or licenses in respect of, the same, that relate to our various business lines including a number of innovative technologies relating to storm water management. While the name Forterra is relatively new

in our industry, we believe our customers reacted favorably to the new name and rebranding effort that followed the Acquisition. The U.S. Pipe name has been a recognized manufacturer of DIP for more than 115 years. We also license intellectual property for use in certain of our products from unaffiliated third parties. We believe that our patents, trademarks, trade names and trade secrets are adequately protected and that any expiration or other loss of one or more of our patents or other intellectual property rights would not have a material adverse effect upon our business, financial condition or results of operations.

Environmental, Health and Safety Matters

We are subject to a broad range of federal, state, provincial, local and foreign laws and regulations governing health and safety or the protection of the environment and natural resources, including, for example:

- the federal Resource Conservation and Recovery Act, or RCRA, and comparable state laws that impose requirements for the generation, handling, transportation, treatment, storage, disposal and cleanup of waste from our operations;
- the federal Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA, also known as “Superfund,” and comparable state laws that govern the cleanup of hazardous substances that may have been released at properties currently or previously owned or operated by us or locations which we have sent waste for disposal;
- the federal Clean Water Act, or CWA, and analogous state laws and regulations that can impose detailed permit requirements and strict controls on discharges of waste water from our facilities; and
- the federal Clean Air Act, or CAA, and comparable state laws and regulations that impose obligations related to air emissions, including federal and state laws and regulations to address greenhouse gas, or GHG, emissions.

Environmental pre-construction and operating permits are, or may be, required for certain of the Company’s operations, and such permits are subject to modification, renewal, and revocation. It is likely that we will be subject to increasingly stringent environmental standards in the future, particularly under air quality and water quality laws. It is also likely that we will be required to make additional expenditures, which could be significant, relating to environmental matters such as pollution controls, on an ongoing basis. As our operations involve, and have involved, the handling, transport and distribution of materials that are, or could be classified as, toxic or hazardous or otherwise as pollutants, there is some risk of contamination and environmental damage inherent in our operations and the materials and products we handle and transport. Consequently, we are subject to environmental laws that impose liability for historical releases of hazardous substances. We are also subject to a variety of health and safety laws and regulations dealing with occupational health and safety. Manufacturing sites can be inherently dangerous workplaces. Our sites often put our employees and others in close proximity with large pieces of mechanized equipment, moving vehicles, and manufacturing processes, and highly regulated materials and there is inherent risk of related liabilities in our operations. See Item 1A. Risk Factors.

We regularly monitor and review our operations, procedures, and policies for compliance with existing laws and regulations, changes in interpretations of existing laws and enforcement policies, new laws that are adopted, and new laws that we anticipate will be adopted that could affect our operations. The Occupational Safety and Health Administration, or OSHA, published a final rule in March 2016 decreasing the levels of crystalline silica dust exposure to which workers can be exposed. We are in compliance of the new OSHA rules. Excessive, prolonged inhalation of very small-sized particles of crystalline silica has been associated with lung diseases, including silicosis, and several scientific organizations and some states, such as California, have reported that crystalline silica can cause lung cancer. OSHA has established occupational thresholds for crystalline silica exposure as respirable dust. We monitor occupational exposures at our facilities and implement dust control procedures and/or make available appropriate respiratory protective equipment to maintain the occupational exposures at or below the appropriate levels.

Despite our compliance efforts, risk of environmental, health and safety liability is inherent in the operation of our businesses, as it is with other companies engaged in similar businesses, and there can be no assurance that environmental, health and safety liabilities will not have a material adverse effect on us in the future.

Our consolidated financial statements include estimated liabilities for future costs arising from environmental issues relating to our properties and operations. As of December 31, 2018, the Company had accrued environmental liabilities of approximately \$1.6 million. See Note 2 to the consolidated financial statements.

We have been named as a potentially responsible party, or PRP, at sites identified by the EPA or state regulatory agencies for investigation and remediation under CERCLA, or comparable state statutes, generally referred to as Superfund sites, including Sylacauga, AL, North Birmingham, AL, Portland, OR and Chattanooga, TN. With respect to these Superfund sites for which we have received PRP notices, we are entitled to contractual indemnity by a third party, subject to the terms of the indemnity provisions contained in the relevant agreement. Our estimates of current liabilities factor in these indemnification rights and our assessment of the likelihood that the indemnitor will fulfill its obligations with respect to liabilities relating to such sites. To date, the indemnifying party has been fulfilling its indemnification obligation with respect to those Superfund sites, and we have no reason to believe it will not continue to do so. However, in the future, we can provide no assurance that the indemnifying party will continue to honor its obligations, or that the existing indemnities will be sufficient to cover the liabilities for such matters.

Financial Information

Financial information by business segment and geographic area for the years ended December 31, 2018, 2017 and 2016 is provided in Note 20 to our consolidated financial statements.

Available Information

Our web site address is www.forterrabp.com. Information contained on our website or connected thereto does not constitute a part of this Annual Report on Form 10-K or any other filing we make with the Securities and Exchange Commission, or the SEC. We make available on this web site under the "Investor Relations" section, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports, as soon as reasonably practicable after we electronically file those materials with, or furnish them to, the SEC. The SEC also maintains a web site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov. We also make available free of charge on our website our Corporate Governance Guidelines, our Code of Ethics, and the Charters of our Audit Committee, Nominating and Corporate Governance Committee, and Compensation Committee of our Board of Directors.

Item 1A. RISK FACTORS

Our business, operations and financial condition are subject to various risks and uncertainties. We have described below significant factors that may adversely affect our business, operations, financial performance and condition or industry. You should carefully consider these factors, together with all of the other information in this Annual Report on Form 10-K and in other documents that we file with the SEC, before making any investment decision about our securities. Adverse developments or changes related to any of the factors listed below could materially and adversely affect our business, financial condition, results of operations, future prospects and growth.

Risks Relating to Our Business and Industry

Residential and non-residential construction activity is cyclical and influenced by many factors, and any reduction in the activity in one or both of these markets could have a material adverse effect on us.

Our results of operations can vary materially in response to market conditions and changes in the demand for our products. Historically, demand for our products has been closely tied to residential construction, non-residential construction, and infrastructure activity in the United States and Eastern Canada. Our success and future growth prospects depend, to a significant extent, on conditions in these two geographic markets and the degree to which these markets are strong in the future.

The construction industry and related markets are cyclical and have in the past been, and may in the future be, materially and adversely affected by general economic and global financial market conditions. These factors impact not only our business, but those of our customers and suppliers as well. This influence is true with respect to macroeconomic factors within North America, particularly within our geographic footprint in the United States and Eastern Canada. For example, in 2008, residential construction and non-residential construction activity in the United States dipped to historically low levels during the financial crisis. As a result, demand for many of our products in the United States and in Canada dropped significantly.

The markets in the construction industry in which we operate are also subject to other more specific factors. Residential construction activity levels are influenced by and sensitive to a number of factors, including mortgage availability, the cost of financing a home (in particular, mortgage terms and interest rates), unemployment levels, household formation rates, gross domestic product, residential vacancy and foreclosure rates, demand for second homes, existing housing prices, rental prices, housing inventory levels, building mix between single- and multi-family homes, consumer confidence, seasonal weather factors, the available labor pool and government regulation, policy and incentives. Non-residential construction activity is primarily driven by levels of business investment, availability of credit and interest rates, as well as many of the factors that impact residential construction activity levels.

We cannot control the foregoing factors and, although construction activity and related spending levels have increased in recent years, there is still uncertainty regarding whether the recovery will be sustained, and there can be no assurances that there will not be any future downturns. There can be no assurances regarding whether more recent growth in our markets can be sustained or if demand will ever return to pre-2008 levels or historical averages. If construction activity in our markets, and more generally, does not continue to recover, or if there are future downturns, whether locally, regionally or nationally, our business, financial condition and results of operations could be materially and adversely affected.

Our business is based in significant part on government-funded infrastructure projects and building activities, and any reductions or re-allocation of spending or related subsidies in these areas could have a material adverse effect on us.

Our business depends heavily on government spending for infrastructure and other similar building activities. As a result, demand for many of our products is heavily influenced by U.S. federal government fiscal policies and tax incentives and other subsidies, including the FAST Act. Projects in which we participate are funded directly by governments and privately-funded, but are otherwise tied to or impacted by government policies and spending measures. Government infrastructure spending and governmental policies with respect thereto depend primarily on the availability of public funds, which is influenced by many factors, including governmental budgets, public debt levels, interest rates, existing and anticipated and actual federal, state, provincial and local tax revenues, government leadership and the general political climate, as well as other general macroeconomic and political factors. In addition, U.S. federal government funds may only be available based on states' willingness to provide matching funding. Government spending is often approved only on a short-term basis and some of the projects in which our products are used require longer-term funding commitments. If government funding is not approved, or funding is lowered as a result of poor economic conditions, lower than expected revenues, competing spending priorities or other factors, it could limit infrastructure projects available, increase competition for projects, result in excess inventory and decrease sales, any of which could adversely affect the profitability of our business.

Additionally, certain regions or states may require or possess the means to finance only a limited number of large infrastructure projects and periods of high demand may be followed by years of little to no activity. There can be no assurances that governments will sustain or increase current infrastructure spending and tax incentive and

other subsidy levels, and any reductions thereto or delays therein could have a material adverse effect on our business, financial condition and results of operations.

We engage in a highly competitive business and any failure to effectively compete could have a material adverse effect on us.

The markets in which we sell our products are highly competitive. We face significant competition from, depending on the segment or product, domestic and imported products produced by local, regional, national and international building product manufacturers, as well as privately owned single-site enterprises. Due in part to the costs associated with transporting our products to our customers, many of our sub-markets are relatively fragmented and include a number of regional competitors. Our primary competitors include Rinker Materials (a division of QUIKCRETE) and Oldcastle Infrastructure (a division of CRH plc) in our Drainage Pipe & Products segment and McWane, Inc. and American Cast Iron Pipe Company in our Water Pipe & Products segment, particularly with respect to DIP.

Competition among manufacturers in our markets is based on many factors with significant weight on price. Our competitors may sell their products at lower prices because, among other things, they possess the ability to manufacture or supply similar products and services more efficiently or at a lower cost or have built a superior sales or distribution network. Some of our competitors may have access to greater financial or other resources than we do, which may afford them greater purchasing power, greater production efficiency, increased financial flexibility or more capital resources for expansion and improvement. In addition, some of our competitors are vertically integrated with suppliers or distributors and can leverage this structure to their advantage to offer better pricing to customers. Furthermore, our competitors' actions, including restoring idled or expanding manufacturing capacity, competition from newly-designed or imported products or the entry of new competitors into one or more of our markets could cause us to lower prices in an effort to maintain our customer base. Certain of our products, including gravity pipe, are volume manufacturing products that are widely available from other manufacturers or distributors, with prices and volumes determined frequently based on participants' perceptions of short-term supply and demand. Competitive factors, including industry overcapacity, could also lead to pricing pressures. For example, competitors may choose to pursue a volume policy to continue utilizing their manufacturing facilities to the detriment of maintaining prices. Excess product supply can result in significant declines in the market prices for these products, often within a short period of time. As a result, at times, to remain competitive, we may lower the price for any one or more of our products to or below our production costs, requiring us to sacrifice margins or incur losses. Alternatively, we may choose to forgo product sales or cease production at one or more of our manufacturing facilities.

In addition to pricing, we also compete based on service, quality, range of products and product availability. Our competitors may be positioned to provide better service and thereby establish stronger relationships with customers and suppliers. Our competitors may also sell preferred products, improve the design and performance of their products, develop a more comprehensive product portfolio, be better positioned to influence end-user product specifications or introduce new products with competitive prices and performance characteristics. While the majority of our products are not subject to frequent or rapid stylistic changes, trends do evolve over time, and our competitors may do a better job of predicting market developments or adapt more quickly to new technologies or evolving customer requirements.

We also face competition from substitute building products. For example, storm water pipe can be manufactured from concrete, steel, high-density polyethylene (HDPE), polypropylene (PP) or polyvinyl chloride (PVC) and potable water transmission infrastructure can be manufactured using HDPE or PVC. The market share of HDPE and PP pipe, which compete with gravity pipe and concrete pressure pipe for certain applications, and HDPE and PVC pipe, which compete with DIP for certain applications, have increased in recent years. Governments in the past have, and may continue in the future, to provide incentives that support or encourage, or in certain instances pass regulations that require, the consideration of use of substitute products with which we compete. Some of the substitute products with which we compete may also offer longer warranties than our typical product warranty, and we may face competitive pressures to offer longer warranties on our products, which could increase our exposure to claims in future years or cause us to lose business. Additionally, new construction techniques and materials will likely be developed in the future. Increases in customer or market preferences for

any of these products could lead to a reduction in demand for our products, limit our ability to raise prices or otherwise adversely impact our competitive position.

Any failure by us to compete on price or service, to develop successful products and strategies or to generally maintain and improve our competitive position could have a material adverse effect on our business, financial condition and results of operations.

Decreased availability of or increases in the cost of raw materials, including through the impacts of trade policy, could have a material adverse effect on us.

Our ability to offer our products to our customers is dependent upon our ability to obtain adequate supplies of raw materials at reasonable costs, such as cement, aggregate, steel and scrap iron. Raw material prices and availability, including the forms in which they are purchased, such as steel and scrap metal, have been volatile in recent years. Many suppliers may decrease capacity during financial downturns. This decreased capacity, along with strong global demand for certain raw materials, has at times caused and may continue to cause tighter supply and significant price increases. Factors such as adverse weather conditions and other natural disasters, as well as political and other social instability, have and will continue to disrupt raw material supplies and impact prices. Changes in U.S. trade policy, including the imposition of any tariffs by the U.S. or foreign governments, may negatively impact the availability and price of raw materials used in our production. In particular, in 2018 the U.S. government proclaimed tariffs and quotas on certain imported steel articles, and other countries, such as Canada, have implemented retaliatory tariffs on certain U.S. imports, including steel. These actions, which are for an indefinite period of time, have resulted in increased prices for both U.S. and non-U.S. steel, one of our main raw material inputs, and the continued imposition of these tariffs, increases in tariff rates, additional tariffs on other goods, or further retaliatory actions from other governments may result in higher costs for us, and there can be no assurance we will be able to pass any of the increases in raw material costs directly resulting from the tariff to our customers. Such actions may also result in more difficulty or the inability to obtain needed materials. Suppliers are also subject to their own viability concerns from economic, market and other pressures.

Although we have agreements with our raw material suppliers, these agreements are generally terminable by either party on limited notice or contain prices that are based upon the volume of our total purchases. For example, we have an existing supply agreement with HeidelbergCement to purchase cement for certain of our facilities as discussed in greater detail in Item 1, "Business." Though the term of the supply agreement extends to March 2020, HeidelbergCement may, for any reason and upon 180 days' notice, reduce the amount of cement it supplies thereunder or terminate the supply agreement altogether.

To the extent agreements with any of our raw material suppliers are terminated or we need to purchase additional raw materials in the open market, there can be no assurance that we could timely find alternative sources in reasonable quantities or at reasonable prices. In addition, sudden or unanticipated changes in sources for certain raw materials, such as cement, may require us to engage in testing of our products for quality assurance, which may cause delays in our ability to meet production schedule for our customers and timely deliver our products. Changes in U.S. trade policy and reactions of other governments to those changes could also negatively impact the availability of certain raw materials, such as steel, as the demand for U.S. steel could increase as a result of these changes. The inability to obtain any raw materials or unanticipated changes with respect to our suppliers could negatively impact our ability to manufacture or deliver our products and to meet customer demands.

We are susceptible to raw material price fluctuations. Prices of the raw materials we use have at times fluctuated in recent years and may be susceptible to significant price fluctuations in the future. We have hedged our positions with respect to certain raw materials in the past and may do so in the future, but we currently have no hedging in place and are therefore more susceptible to any short-term price fluctuations. We generally attempt to pass increased costs, including higher raw material prices, on to our customers, but the timing between acceptance of a customer order and the purchase of raw materials needed to fulfill such order, pricing pressure from our competitors, the market power of our customers or other pricing factors may limit our ability to pass on such price increases. If we cannot fully-offset increases in the cost of raw materials through other cost reductions, or recover these costs through price increases or otherwise, we could experience lower margins and profitability,

which could have a material adverse effect on our business, financial condition and results of operations.

Our dependence on key customers with whom we do not have long-term contracts and consolidation within our customers' industries could have a material adverse effect on us.

Our business is dependent on certain key customers. In 2018 and 2017, Core & Main, our largest customer accounted for 14% and 13% of our net sales, respectively. As is customary in our industry, we do not enter into long-term contracts with many of our customers. As a result, our customers could stop purchasing our products, reduce their purchase levels or request reduced pricing structures at any time. We may therefore need to adapt our manufacturing, pricing and marketing strategies in response to a customer who may seek concessions in return for its continued or increased business. In addition, following the financial crisis, there was significant consolidation in the U.S. homebuilding industry, with many smaller builders going out of business or being acquired by larger builders, significantly increasing the market share and bargaining power of a limited number of builders. Any further consolidation in the U.S. homebuilding industry or among any of our other customers could give them significant additional leverage to negotiate more favorable terms and place greater demands on us. A loss of one or more customers or a meaningful reduction in their purchases from us or further consolidation within our end markets could have a material adverse effect on our business, financial condition and results of operations.

Changes in construction activity levels in Texas could have a material adverse effect on us.

We currently conduct a significant portion of our business in Texas, which we estimate represented more than 19% of our 2018 net sales. Residential and non-residential construction activity, as well as government-funded infrastructure spending in each of these areas has declined from time to time, particularly as a result of slow economic growth, whether in the energy industry or otherwise. Local economic conditions depend on a variety of factors, including national economic conditions, local and state budgets, infrastructure spending and the impact of federal cutbacks. In addition, Texas is susceptible to severe weather and flooding, which can interrupt, delay or otherwise impact the timing of projects. Any decrease in construction activity in Texas could have a material adverse effect on our business, financial condition and results of operations.

A material disruption or capacity constraints at one or more of our manufacturing facilities or in our supply chain could have a material adverse effect on us.

We own and operate manufacturing facilities of various ages and levels of automated control and rely on a number of third parties as part of our supply chain, including for the efficient distribution of products to our customers. Any disruption at one of our manufacturing facilities or within our supply chain could prevent us from meeting demand or require us to incur unplanned capital expenditures. Older facilities are generally less energy efficient and are at an increased risk of breakdown or equipment failure, resulting in unplanned downtime. Any unplanned downtime at our facilities may cause delays in meeting customer timelines, result in liquidated damages claims or cause us to lose or harm customer relationships. Additionally, we require specialized equipment to manufacture certain of our products, and if any of our manufacturing equipment fails, the time required to repair or replace this equipment could be lengthy, which could result in extended downtime at the affected facility. Any unplanned repair or replacement work can also be very expensive. Moreover, manufacturing facilities can unexpectedly stop operating because of events unrelated to us or beyond our control, including fires and other industrial accidents, floods and other severe weather events, natural disasters, environmental incidents or other catastrophes, utility and transportation infrastructure disruptions, shortages of raw materials, and acts of war or terrorism. Work stoppages, whether union-organized or not, can also disrupt operations at manufacturing facilities. Furthermore, while we are generally responsible for delivering products to the customer and we deliver a small percentage of our products directly to the customer using our own fleet, we generally outsource this function and depend on third parties to deliver the vast majority of our products, primarily by truck with some reliance on rail where possible. Any shortages in trucking capacity or the availability of truck drivers to deliver our products or any increase in the cost thereof, whether as a result of strikes, slowdowns, other disruption to the highway systems, or transportation issues not directly related to trucking such as disruptions in rail service could limit our ability to deliver our products in a timely manner and cost effective or at all. Any material disruption at one or more of our facilities or those of our customers or suppliers or otherwise within our supply chain, whether as a result of

downtime, facility damage, an inability to deliver our products or otherwise, could prevent us from meeting demand, require us to incur unplanned capital expenditures or cause other material disruption to our operations, any of which could have a material adverse effect on our business, financial condition and results of operations.

Delays in construction projects and any failure to manage our inventory could have a material adverse effect on us.

Many of our products are used in water transmission and distribution projects and other large-scale construction projects which generally require a significant amount of planning and preparation before construction commences. However, construction projects can be delayed and rescheduled for a number of reasons, including unanticipated soil conditions, adverse weather or flooding, changes in project priorities, financing issues, difficulties in complying with environmental and other government regulations or obtaining permits and additional time required to acquire rights-of-way or property rights. These delays or reschedulings may occur with too little notice to allow us to replace those projects in our manufacturing schedules or to adjust production capacity accordingly, creating unplanned downtime, increased costs and inefficiencies in our operations and increased levels of obsolete inventory. Additionally, we maintain an inventory of certain products that meet standard specifications and are ultimately purchased by a variety of end users. We forecast demand for these products to ensure that we keep high inventory levels of certain products that we expect to be in high demand and limit our inventory for which we do not expect much demand. However, our forecasts are not always accurate and unexpected changes in demand for these products, whether because of a change in preferences or otherwise, can lead to increased levels of obsolete inventory. Any delays in construction projects and our customers' orders or any inability to manage our inventory could have a material adverse effect on our business, financial condition and results of operations.

Any inability to successfully integrate acquisitions could have a material adverse effect on us.

Historically, we have made a number of acquisitions. The integration of acquired businesses can take a significant amount of time and also exposes us to significant risks and additional costs. Integrating these and any future acquisitions may strain our resources. Further, we may have difficulty integrating the operations, systems, controls, procedures or products of acquired businesses and may not be able to do so in a timely, efficient and cost-effective manner. These difficulties could include:

- diversion of the attention of our management and that of the acquired business;
- combining management teams, strategies and philosophies;
- merging or linking different accounting and financial reporting systems and systems of internal controls;
- assimilation of personnel, human resources and other administrative departments and potentially contrasting corporate cultures;
- merging computer, technology and other information networks and systems;
- disruption of our relationship with, or loss of, key customers, suppliers or personnel;
- interference with, or loss of momentum in, our ongoing business or that of the acquired companies; and
- delays or cost overruns in the integration process.

We have not fully integrated all of our acquisitions and may encounter one or more of the issues discussed above, or others of which we are not yet aware. In particular, we have not yet fully integrated the accounting and financial reporting systems of these businesses, and efforts to integrate are ongoing. Any of these acquisition or other integration-related issues could divert management's attention and resources from our day-to-day operations, cause significant disruption to our business and lead to substantial additional costs. Our inability to realize the anticipated benefits of an acquisition or to successfully integrate acquired companies as well as other transaction-related issues could have a material adverse effect on our business, financial condition and results of operations.

Increased costs of energy could have a material adverse effect on us.

We use significant amounts of energy, including electricity and natural gas, in the manufacturing, transportation, distribution and sale of our products, and the related expense is significant. While we have

benefited from the relatively low cost of electricity and natural gas in recent years, energy prices have been and may continue to be volatile and these reduced prices may not continue. Proposed or existing government policies, including those to address climate change by reducing greenhouse gas emissions or the effects of hydraulic fracturing, a method of exploring for oil and natural gas, could result in increased energy costs. In addition, factors such as international political and military instability, adverse weather conditions and other natural disasters may disrupt fuel supplies and increase prices in the future. Additionally, because we and other manufacturers in our industry are often responsible for delivering products to the customer, we are further exposed to increased energy prices as a component of our transportation costs. While we generally attempt to pass increased costs, including higher energy costs, on to our customers, pricing pressure from our competitors, the market power of our customers or other pricing factors may limit our ability to do so, and any increases in energy prices could have a material adverse effect on our business, financial condition and results of operations.

Labor disruptions and other union activity could have a material adverse effect on us.

As of December 31, 2018, approximately 32% of our workforce was covered by collective bargaining agreements, and approximately 42% of these employees were included in a collective bargaining agreements that are due to expire within one year. If negotiations to renew expiring collective bargaining agreements are not successful or become unproductive, the union could take actions such as strikes, work slowdowns or work stoppages. Such actions at any one of our facilities could lead to a plant shut down or a substantial modification to employment terms, thereby causing us to lose net sales or to incur increased costs. We have not had any recent union-organized work stoppages in the United States, Canada or Mexico; however, we have experienced one union organizing effort directed at our non-union employees in the past ten years. There can be no assurances there will not be additional union organizing efforts, strikes, work slowdowns or work stoppages in the future. Any such disruption, or other issue related to union activity, could have a material adverse effect on our business, financial condition and results of operations.

A tightening of mortgage lending or mortgage financing requirements or other reductions in the availability of consumer credit or increases in its cost could have a material adverse effect on us.

We depend heavily on net sales generated from residential construction activity. Most home sales in the U.S. and Eastern Canada are financed through mortgage loans, and a significant percentage of renovation and other home repair activity is financed either through mortgage loans or other available credit. The financial crisis affected the financial position of many consumers and caused financial institutions to tighten their lending criteria, each of which contributed to a significant reduction in the availability of consumer credit. The mortgage lending and mortgage finance industries experienced significant instability because of, among other factors, a decline in property values and an increase in delinquencies, defaults and foreclosures. These developments resulted in a significant reduction in total new housing starts in the U.S. and consequently, a reduction in demand for our products in the residential sector. Similarly, the rate of interest payable on any mortgage or other form of credit will have an impact on the cost of borrowing. While base rates have remained relatively low in recent years, they have recently begun to rise and may continue to rise in the future. Recent rate increases and any further increase in interest rates have and will increase the cost of borrowing and may make the purchase of a home less attractive and could reduce the number of new housing starts in the U.S. and Eastern Canada. Any future tightening of mortgage lending or other reductions in the availability of consumer credit or increases in its cost could have a material adverse effect on our business, financial condition and results of operations.

Any inability to successfully implement our growth strategy could have a material adverse effect on us.

Our business plan provides for continued growth through acquisitions and joint ventures. We have grown in large part as a result of our recent acquisitions, and we anticipate continuing to grow in this manner. Although we expect to regularly consider additional strategic transactions in the future, there can be no assurances that we will identify suitable acquisition, joint venture or other investment opportunities or, if we do, that any transaction can be consummated on acceptable terms. Antitrust or other competition laws may also limit our ability to acquire, or work collaboratively with, certain businesses or to fully realize the benefits of a prospective acquisition or joint venture. Furthermore, changes in our business or the economy, an unexpected decrease in our cash flows or any restrictions imposed by our debt may limit our ability to obtain the necessary capital or otherwise impede our ability to complete a transaction. Regularly considering strategic transactions can also divert management's attention and lead to significant due diligence and other expenses regardless of whether we pursue or consummate any transaction. Failure to identify suitable transaction partners and to consummate transactions on acceptable terms, as well as the commitment of time and resources in connection with such transactions, could have a material adverse effect on our business, financial condition and results of operations.

The consummation of an acquisition also exposes us to significant risks and additional costs. We may not accurately assess the value, strengths, weaknesses or potential profitability of an acquisition target. Furthermore, we may not be able to fully or successfully integrate an acquired business or realize the expected benefits and synergies following an acquisition. Business and operational overlaps may lead to hidden costs. These costs can include unforeseen pre-acquisition liabilities or the impairment of customer relationships or certain acquired assets such as inventory and goodwill. We may also incur costs and inefficiencies to the extent an acquisition expands the industries, markets or geographies in which we operate due to our limited exposure to and experience in a given industry, market or region. Significant acquisitions may also require that we incur additional debt to finance the transaction, which could be substantial and limit our flexibility in using our cash flow from operations for other purposes. Acquisitions can also involve post-transaction disputes with the counterparty regarding a number of matters, including a purchase price or other working capital adjustment or liabilities for which we believe we were indemnified under the relevant transaction agreements, such as environmental liabilities or pension or benefit obligations retained by the seller, including certain environmental and benefit obligations in connection with our U.S. Pipe Acquisition and certain pension obligations we assumed pursuant to the Acquisition and our acquisition of Cretex. For example, as discussed in greater detail in Item 3, "Legal Proceedings," we are currently engaged in a dispute with HeidelbergCement regarding the earnout provision in the purchase agreement entered into in connection with the Acquisition. We are also engaged in other indemnification and other post-closing disputes with certain of our transaction counterparties. Our inability to realize the anticipated benefits of an acquisition as well as other transaction-related issues could have a material adverse effect on our business, financial condition and results of operations.

In July 2012, we entered into a joint venture agreement with Americast, Inc. to form Concrete Pipe & Precast LLC. From time to time, we may enter into additional joint ventures as part of our growth strategy. The nature of a joint venture requires us to share control with unaffiliated third parties. If our joint venture partners do not fulfill their contractual and other obligations, the affected joint venture may be unable to operate according to its business plan, and we may be required to increase our level of commitment. Differences in views among joint venture participants could also result in delays in business decisions or otherwise, failures to agree on major issues, operational inefficiencies and impasses, litigation or other issues. Third parties may also seek to hold us liable for the joint ventures' liabilities. These issues or any other difficulties that cause a joint venture to deviate from its original business plan could have a material adverse effect on our business, financial condition and results of operations.

We are in a dispute with HeidelbergCement related to the payment of an earnout in connection with the Acquisition and any significant earnout payment we are required to make could have a material adverse effect on us.

We are currently engaged in a dispute with HeidelbergCement regarding the earnout provision in the purchase agreement entered into in connection with the Acquisition. As discussed in greater detail in Item 3, "Legal Proceedings," HeidelbergCement has asserted (and has filed a lawsuit against us asserting) that a payment

should be made in the amount of \$100.0 million. If it is determined that we are required to make a significant payment to HeidelbergCement, we may not have sufficient cash to make such payment and may be required to incur additional indebtedness. We cannot be certain that we will be able to borrow any funds for this purpose under the terms of our existing indebtedness or on other terms acceptable to us, if at all. If incurred, additional indebtedness will subject us to additional interest expense, negatively impact our cash flow, increase the risk of a downgrade in our credit rating and could limit our ability to incur other indebtedness or make further acquisitions.

We are subject to increasingly stringent environmental laws and regulations, and any failure to comply with any current or future laws or regulations could have a material adverse effect on us.

We are subject to federal, state, provincial, local and foreign laws and regulations governing the protection of the environment and natural resources, including those governing air emissions, wastewater discharges and the use, storage, discharge, handling, disposal, transport and cleanup of solid and hazardous materials and wastes. We are required to obtain permits from governmental authorities for certain operations, and if we expand or modify our facilities or if environmental laws change, we could be required to obtain new or modified permits.

Environmental laws and regulations, including those related to energy use and climate change, tend to become more stringent over time, and any future laws and regulations could have a material impact on our operations or require us to incur material additional expenses to comply with any such future laws and regulations. Future environmental laws and regulations may cause us to modify how we manufacture and price our products or require that we make significant capital investments to comply. For example, our manufacturing processes use a significant amount of energy, and increased regulation of energy use to address the possible emission of greenhouse gases could materially increase our manufacturing costs or require us to install emissions control or other equipment at some or all of our manufacturing facilities.

If we fail to comply with any existing or future environmental laws, regulations or permits, we could incur fines, penalties or other sanctions and suffer reputational harm. In addition, we could be held responsible for costs and damages arising from claims or liabilities under environmental laws and regulations, including with respect to any exposure to or release of hazardous materials or contamination at our facilities, whether presently or previously leased, operate, or owned, or at third-party waste disposal sites. We could also be subject to third-party claims from individuals for property damage, personal injury or nuisance if any releases from our property were to cause contamination of the air, soil or groundwater of areas near our facilities. These laws and regulations may also require us to investigate and, in certain instances, remediate contamination. Some of our sites have a history of industrial use, and while we apply strict environmental operating standards and undertake extensive environmental due diligence in relation to our facilities and acquisitions, some soil and groundwater contamination has occurred in the past at a limited number of sites.

As of December 31, 2018, we had accrued approximately \$1.6 million for environmental liabilities. Additionally, we cannot completely eliminate the risk of future contamination. Any costs or other damage related to existing or future environmental laws, regulations or permits or any violations thereof could expose us to significant financial losses as well as civil and criminal liabilities, any of which could have a material adverse effect on our business, financial condition and results of operations.

We are subject to health and safety laws and regulations, and the costs to comply with, or any failure to comply with, any current or future laws or regulations could have a material adverse effect on us.

Manufacturing sites are inherently dangerous workplaces. Our sites often put our employees and others in close proximity with large pieces of mechanized equipment, moving vehicles, chemical and manufacturing processes, heavy products and items and highly regulated materials. As a result, we are subject to a variety of health and safety laws and regulations dealing with occupational health and safety. Unsafe work sites have the potential to increase employee turnover and raise our operating costs. Our safety record can also impact our reputation. We maintain functional groups whose primary purpose is to ensure we implement effective work procedures throughout our organization and take other steps to ensure the health and safety of our work force, but there can be no assurances these measures will be successful in preventing injuries, including severe injuries and fatalities, or violations of health and safety laws and regulations. Any failure to maintain safe work sites or

violations of applicable law could expose us to significant financial losses and reputational harm, as well as civil and criminal liabilities, any of which could have a material adverse effect on our business, financial condition and results of operations.

The use of our products is often affected by various laws and regulations in the markets in which we operate, any of which may have a material adverse effect on us.

The use of many of our products is subject to approvals by municipalities, state departments of transportation, engineers and developers. These approvals and specifications, including building codes, may affect the products our customers or their customers (the end users) are allowed or choose to use, and, consequently, failure to obtain or maintain such approvals or changes in building codes may affect the saleability of our products. Changes in applicable regulations governing the sale of some of our products or the failure of any of our products to comply with such requirements could increase our costs of doing business, reduce sales or otherwise have a material adverse effect on our business, financial condition and results of operations.

We depend on the services of key executives and any inability to attract and retain key management personnel could have a material adverse effect on us.

Our key management personnel, including our Chief Executive Officer and Chief Financial Officer, are important to our success because they are instrumental in setting our strategic direction, operating our business and identifying expansion opportunities. Additionally, as our business grows, we may need to attract and hire additional management personnel. We have employment agreements with some members of senior management; however, we cannot prevent our executives from terminating their employment with us, and any replacements we hire may not be as effective. Further, we have undergone some changes at the senior management level and any such transition involves inherent risk and any failure to ensure a smooth transition to new personnel could hinder our strategic planning, execution and future performance. While we strive to mitigate the negative impact associated with changes our senior management team, there may be uncertainty among investors, employees, customers and others concerning our future direction and performance. Our ability to retain our key management personnel or to attract additional management personnel or suitable replacements should any members of our management team leave is dependent on a number of factors, including the competitive nature of the employment market. Any failure to retain key management personnel or to attract additional or suitable replacement personnel could have a material adverse effect on our business, financial condition and results of operations.

Any failure by us or the contractors with which we work to retain and attract additional skilled technical or sales personnel could have a material adverse effect on us.

Our success depends in part on our ability to retain, attract and train additional skilled employees, particularly engineering and technical personnel. Without a sufficient number of skilled employees, the productivity and profitability of our operations and manufacturing quality could suffer. The reduction in demand for products in our industry that occurred during the financial crisis led to a number of skilled workers leaving our industry permanently, reducing an already limited pool of available and qualified personnel. Furthermore, unemployment has declined in recent years, which has tightened the labor market. Our experienced sales team has also developed a number of meaningful customer relationships that would be difficult to replace. Therefore, competition for qualified technical personnel and operators as well as sales personnel with established customer relationships is intense, both in retaining our existing employees and when replacing or finding additional suitable employees, and we may incur increased costs to secure the work force we need. Additionally, our business relies on the ability of the contractors who install our products to obtain qualified employees, including experienced supervisors and foreman, and a shortage in the supply of these skilled personnel could cause delays in customer's ability to take shipments of our products. There can be no assurances the labor pool from which we hire our this personnel will increase or remain stable and any failure by us or the contractors with which we work to retain our existing technical and sales personnel and other employees or attract and train additional skilled personnel at reasonable costs could have a material adverse effect our business, financial condition and results of operations.

Credit and non-payment risks of our customers, especially during times of economic uncertainty and tight credit markets, could have a material adverse effect on us.

As is customary in our industry, the majority of our sales are to customers on an open credit basis, with standard payment terms of 30 days. While we generally monitor the ability of our customers to pay these open credit arrangements and limit the credit we extend to what we believe is reasonable based on an evaluation of each customer's financial condition and payment history, we may still experience losses because of a customer's inability to pay. As a result, while we maintain what we believe to be a reasonable allowance for doubtful receivables for potential credit losses based upon our historical trends and other available information, there is a risk that our estimates may not be accurate, particularly in times of economic uncertainty and tight credit markets. Any inability to collect customer receivables or inadequate provisions for doubtful receivables could have a material adverse effect on our business, financial condition and results of operations.

Warranty and related claims could have a material adverse effect on us.

We generally provide warranties on our products against defects in materials and workmanship, the costs of which could be significant. Many of our products such as gravity pipe are buried underground and incorporated into a larger infrastructure system, such as a city's or municipality's water transmission system, or built into the fabric of a building or dwelling. In most cases, it is difficult to access, repair, recall or replace these products. Additionally, some of our products, such as our pressure pipe, which is used in nuclear and coal-fired power generation factories, are used in applications where a product failure or construction defect could result in significant project delay, property damage, personal injury or death or could require significant remediation expenses. Because our products, including discontinued products, are long lasting, claims can also arise many years after their manufacture and sale. In certain cases, we may also offer warranties for longer periods now for certain products to compete with certain substitutes, which could increase the number, size, and frequency of warranty claims in the future. Additionally, product failures may also arise due to the quality of the raw materials we purchase from third-party suppliers or the quality of the work performed by our customers, including installation work, matters for which we have little to no control, but which may still subject us to a warranty claim. We may also assume product warranty or other similar obligations in acquisition transactions regarding the products sold by the acquired businesses prior to the transaction date for which we are not indemnified pursuant to the terms of the relevant transaction documentation. Our quality control systems and procedures and those of our suppliers and customers cannot test for all possible conditions of use or identify all defects in the design, engineering or specifications of one of our products or the raw materials we use before they are put to their intended purpose. Therefore, there can be no assurances that we will not supply defective or inferior products that cause product or system failure, which could give rise to potentially extensive warranty and other claims for damages, as well as negatively impact our reputation and the perception of our product quality and reliability. While we have established reserves for warranty and related claims that we believe to be reasonable, these claims may exceed our reserves and any such excess and any negative publicity and other issues related to such claims could have a material adverse effect on our business, financial condition and results of operations.

Legal and regulatory claims and proceedings could have a material adverse effect on us.

We are subject to claims, litigation and regulatory proceedings in the normal course of business and could become subject to additional claims in the future, some of which could be material. For example, we have been, and may in the future be, subject to claims for product liability, construction defects, project delay, personal injury, property and other damages as well as allegations regarding compliance with mandated product specifications. Claims and proceedings, whether or not they have merit and regardless of the outcome, are typically expensive and can divert the attention of management and other personnel for significant periods of time. Additionally, claims and proceedings can impact customer confidence and the general public's perception of our company and products, even if the underlying assertions are proven to be false.

We are also currently a defendant, together with several of our current and former officers and directors, in three putative class action lawsuits, each filed by a plaintiff seeking damages against the Company for allegations of violations of United States laws regulating securities, as discussed in greater detail in Item 3, "Legal Proceedings," and Note 15 to our consolidated financial statements. Lawsuits involving us or our current or former

officers and directors could result in significant expense and divert attention and resources of our management and other key employees. In addition to any damages we may be required to pay, we are generally obligated indemnify our current and former directors and officers in connection with lawsuits and related settlement amounts. Such amounts could exceed the coverage provided under our insurance policies.

While we have established reserves we believe to be reasonable under the facts known, the outcomes of litigation and similar disputes are often difficult to reliably predict and may result in decisions or settlements that are contrary to, or in excess of, our expectations, and losses may exceed our reserves. In addition, various factors and developments could lead us to make changes in our current estimates of liabilities and related insurance receivables or make new or modified estimates as a result of a judicial ruling or judgment, settlement, regulatory development or change in applicable law. Any claims or proceedings, particularly those in which we are unsuccessful or for which we did not establish adequate reserves, could harm our reputation and could have a material adverse effect on our business, financial condition and results of operations or cash flows.

The seasonality of our business and its susceptibility to severe and prolonged periods of adverse weather and other conditions could have a material adverse effect on us.

Demand for our products in some markets is typically seasonal, with periods of snow or heavy rain negatively affecting construction activity. For example, sales of our products in Canada and the Northeast and Midwest regions of the United States are somewhat higher from spring through autumn when construction activity is greatest. Construction activity declines in these markets during the winter months in particular due to inclement weather, frozen ground and fewer hours of daylight. Construction activity can also be affected in any period by adverse weather conditions such as hurricanes, severe storms, torrential rains and floods, natural disasters such as fires and earthquakes and similar events, any of which could reduce demand for our products, push back existing orders to later dates or lead to cancellations. Furthermore, our ability to deliver products on time or at all to our customers can be significantly impeded by such conditions and events, such as these described above. Public holidays and vacation periods constitute an additional factor that may exacerbate certain seasonality effects, as building projects or industrial manufacturing processes may temporarily cease. These conditions, particularly when unanticipated, can leave both equipment and personnel underutilized. Additionally, the seasonal nature of our business has led to variation in our quarterly results in the past and may continue to do so in the future. This general seasonality of our business and any severe or prolonged adverse weather conditions or other similar events could have a material adverse effect on our business, financial condition and results of operations.

Certain of the contracts in our backlog may be adjusted, canceled or suspended by our customers and, therefore, our backlog is not necessarily indicative of our future revenues or earnings or, even if performed, a good indicator of our future margins.

As of December 31, 2018, our backlog totaled approximately \$447 million. In accordance with industry practice, many of our contracts are subject to cancellation, reduction, termination or suspension at the discretion of the customer in respect of work that has not yet been performed. In the event of a project cancellation, we would generally have no contractual right to the total revenue reflected in our backlog, but instead would collect revenues in respect of all work performed at the time of cancellation as well as all other costs and expenses incurred by us through such date. Projects can remain in backlog for extended periods of time because of the nature of the project, delays in execution of the project and the timing of the particular services required by the project. Additionally, the risk of contracts in backlog being canceled, terminated or suspended generally increases at times, including as a result of periods of widespread macroeconomic and industry slowdown, weather, seasonality and many of the other factors impacting our business. Many of the contracts in our backlog are subject to changes in the scope of services to be provided as well as adjustments to the costs relating to the contracts. The revenue for certain contracts included in backlog are based on estimates. Therefore, the timing of performance on our individual contracts can affect greatly our margins and hence, future profitability. There is no assurance that backlog will actually be realized as revenues in the amounts reported or, if realized, will result in any estimated profits.

Our project-based business requires significant liquidity, and any inability to ensure adequate financing or guarantees for large projects in the future could have a material adverse effect on us.

The projects in which we participate, particularly in our pressure pipe business, can be capital-intensive and often require substantial liquidity levels. In line with industry practice, we receive prepayments from our customers as well as milestone payments. However, a change in prepayment patterns or our inability to obtain third-party guarantees in respect of such prepayments could force us to seek alternative financing sources, such as bank debt or in the capital markets, which we may not be able to do on terms acceptable to us or at all, any of which could have a material adverse effect on our business, financial condition and results of operations.

As is customary in some of our sub-markets, we provide our customers with performance guarantees and other guarantee instruments, such as surety bonds, that guarantee the timely completion of a project pursuant to defined contractual specifications. We also enter into contractual obligations to pay liquidated damages to our customers for project delays. We are required to make payments under these contracts, guarantees and instruments if we fail to meet any of the specifications. Some customers require the performance guarantees to be issued by a reputable and credit worthy financial institution in the form of a letter of credit, surety bond or other financial guarantee. Financial institutions consider our credit ratings and financial position in the guarantee approval process. Our credit ratings and financial position could make the process of obtaining guarantees from financial institutions more difficult and expensive. If we cannot obtain such guarantees from reputable and credit-worthy financial institutions on reasonable terms or at all, we could face higher financing costs or even be prevented from bidding on or obtaining new projects, and any of these or other related obstacles could have a material adverse effect on our business, financial condition and results of operations.

Our business and financial performance could be adversely impacted based on disruptions, delays, outages of our information technology systems and computer networks.

Our manufacturing facilities as well as our sales and service activities depend on the efficient and uninterrupted operation of complex and sophisticated information technology systems and computer networks, which are subject to failure and disruption. These and other problems may be caused by system updates, natural disasters, malicious attacks, accidents, power disruptions, telecommunications failures, acts of terrorism or war, computer viruses, physical or electronic break-ins or other similar events. Additionally, because we have grown through various acquisitions, we have integrated and are integrating a number of disparate information technology systems across our organization, certain of which may be outdated and due for replacement, further increasing the likelihood of problems. We may in the future replace and integrate systems or implement new technology systems, but these updates may not be successful, they may create new issues we currently do not face or they may significantly exceed our cost estimates.

We outsource certain portions of the operations of our information technology systems to a third party. Any failure of us or of our third party provider to effectively operate such systems could cause a disruption in our information technology systems. Any disruption in our information technology systems could interrupt or damage our operations and our ability to meet customer needs as well as our ability to maintain effective controls. These events could damage our reputation and cause us to incur unanticipated liabilities, including financial losses from remedial actions, business interruptions, loss of business and other unanticipated costs which may not be covered by insurance. Despite the defensive measures we have taken to protect our data and information technology, our systems could be vulnerable to disruption and any such disruption and the resulting fallout could have a material adverse effect on our business, financial condition and results of operations.

Cybersecurity attacks may threaten our confidential information, disrupt operations and result in harm to our reputation and adversely impact our business and financial performance.

Cybersecurity attacks across industries, including ours, are increasing in sophistication and frequency and may range from uncoordinated individual attempts to measures targeted specifically at us. These attacks include but are not limited to, malicious software or viruses, attempts to gain unauthorized access to, or otherwise disrupt, our information systems, attempts to gain unauthorized access to business, proprietary or other confidential information, and other electronic security breaches that could lead to disruptions in critical systems, unauthorized

release of confidential or otherwise protected information and corruption of data. Cybersecurity failures may be caused by employee error, malfeasance, system errors or vulnerabilities, including vulnerabilities of our vendors, suppliers, and their products. We have been subject to cybersecurity attacks in the past, including breaches of our IT systems, including one that exposed certain confidential business information through the compromise of a corporate manager's email account. Based on information known to date, past attacks have not had a material impact on our financial condition or results of operations. We may experience such attacks in the future, potentially with more frequency or sophistication.

Failures of our IT systems as a result of cybersecurity attacks or other disruptions could result in a breach of critical operational or financial controls and lead to a disruption of our operations, commercial activities or financial processes. Cybersecurity attacks or other disruptions impacting significant customers and/or suppliers could also lead to a disruption of our operations or commercial activities. Despite our attempts to implement safeguard our systems and mitigate potential risks, there is no assurance that such actions will be sufficient to prevent cyberattacks or security breaches that manipulate or improperly use our systems or networks, compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. The occurrence of such events could have a material adverse effect on our business financial condition and results of operations.

Sharing our brand name and logo could have a material adverse effect on us.

We share the "Forterra" brand with the operator of HeidelbergCement's former building products business in the United Kingdom, or Forterra UK, a public company listed on the London FTSE Forterra UK is not affiliated with us and, to our knowledge, is no longer affiliated with Lone Star and operates solely in the United Kingdom. We have no control over Forterra UK's use of the "Forterra" name and logo in Europe. Any actions or negative publicity related to Forterra UK and its products could have a material adverse effect on our business, financial condition and results of operations.

Any inability to protect our intellectual property or claims that we infringe on the intellectual property rights of others could have a material adverse effect on us.

We rely on a combination of patents, trademarks, trade names, confidentiality and nondisclosure clauses and agreements, and other unregistered rights to define and protect our rights to our brand and the intellectual property used in certain of our products, including the innovative technologies relating to storm water management acquired in the Bio Clean Acquisition. We also rely on product, industry, manufacturing and market "know-how" that cannot be registered and may not be subject to any confidentiality or nondisclosure clauses or agreements. Furthermore, while we have submitted the appropriate applications, and we continue to apply for new patents for certain innovations, including new Bio Clean technologies, and our rights to the intellectual property could be challenged by a third party. We cannot guarantee that any of our registered or unregistered intellectual property rights or our know-how, or claims thereto, will now or in the future successfully protect what we consider to be the intellectual property underlying our products and business, or that our rights will not be successfully opposed or otherwise challenged. We also cannot guarantee that each application filed will be approved. To the extent that our innovations, products and name are not protected by patents or other intellectual property rights, third parties, including competitors, may be able to commercialize our innovations or products or use our know-how. Additionally, we have faced in the past and may in the future face claims that we are infringing the intellectual property rights of others, including with respect to both existing and new technologies we use. If any of our products are found to infringe the patents or other intellectual property rights of others, our manufacture and sale of such products could be significantly restricted or prohibited and we may be required to pay substantial damages or on-going licensing fees. Any inability to protect our intellectual property rights or any misappropriation of the intellectual property of others could have a material adverse effect on our business, financial condition and results of operations.

Our foreign operations could have a material adverse effect on us.

We operate production facilities in Canada and Mexico and we are therefore subject to a number of risks specific to these countries. These risks include social, political and economic instability, unexpected changes in

regulatory requirements, tariffs and other trade barriers, currency exchange fluctuations, acts of war or terrorism and import/export requirements. In addition, we have a limited number of sales to other foreign jurisdictions, primarily concentrated in the Dominican Republic and Bolivia. Our consolidated financial statements are reported in U.S. dollars with international transactions being translated into U.S. dollars. If the U.S. dollar strengthens in relation to the Canadian dollar, our U.S. dollar reported net sales and income will decrease. Additionally, since we incur costs in foreign currencies, fluctuation in those currencies' value can negatively impact manufacturing and selling costs. See Item 7A, "Quantitative and Qualitative Disclosures about Market Risk." There can be no assurances that any of these factors will not materially impact our production cost or otherwise have a material adverse effect on our business, financial condition and results of operations.

Changes in tax laws could adversely affect us.

We regularly assess our future ability to utilize tax benefits, including those in the form of net operating loss, tax credit and other tax carryforwards, that are recorded as deferred income tax assets on our balance sheets to determine whether a valuation allowance is necessary. A reduction in, or disallowance of, these tax benefits resulting from a legislative change or adverse determination by a taxing jurisdiction could have an adverse impact on our financial results and liquidity.

Changes in corporate tax rates, the realizability of the net deferred tax assets relating to our U.S. operations, the taxation of foreign earnings and the deductibility of expenses contained in the Tax Cuts and Jobs Act of 2017, or the TCJA, or other tax reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges and could increase our future U.S. tax expense. See Note 19 to the consolidated financial statements.

Significant judgment is required in determining our domestic and international provision for income taxes, deferred tax assets or liabilities and in evaluating our tax positions on a worldwide basis. While we believe our tax positions are consistent with the tax laws in the jurisdictions in which we conduct our business, it is possible these positions may be contested or overturned by jurisdictional tax authorities, which may have a significant impact on our tax provision for income taxes. Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the laws are issued or applied.

Insufficient insurance coverage could have a material adverse effect on us.

We maintain property, business interruption, counterparty and liability insurance coverage that we believe is consistent with industry practice. However, our insurance program does not cover, or may not adequately cover, every potential risk associated with our business and the consequences thereof. In addition, market conditions or any significant claim or a number of claims made by or against us could cause our premiums and deductibles to increase substantially and, in some instances, our coverage may be reduced or become entirely unavailable. In the future, we may not be able to obtain meaningful coverage at reasonable rates for a variety of risks, including certain types of environmental hazards and ongoing regulatory compliance. In addition, we self-insure a portion of our exposure to certain matters, including employee health care claims of up to \$500,000 per covered individual per year and wage-payment obligations for short-term disability. If our insurance coverage is insufficient, if we are not able to obtain sufficient coverage in the future, or if we are exposed to significant losses as a result of the risks for which we self-insure, any resulting costs or liabilities could have a material adverse effect on our business, financial condition and results of operations.

Risks Relating to our Indebtedness

The terms of our debt could have a material adverse effect on us.

We have substantial debt and may incur additional debt. As of December 31, 2018, we had approximately \$1,222.9 million of total debt. Our credit facility contains a number of significant restrictions and covenants that generally restrict our business and limit our ability to, among other things:

- dispose of certain assets;

- incur or guarantee additional indebtedness;
- enter into new lines of business;
- make investments, intercompany loans or certain payments in respect of indebtedness;
- incur or maintain certain liens;
- enter into transactions with affiliates;
- engage in certain sale and leaseback transactions;
- declare or pay dividends and make other restricted payments, including the repurchase or redemption of our stock; and
- engage in mergers, consolidations, liquidations and certain asset sales.

The credit facility also requires us to maintain certain financial ratios. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for more information regarding the terms of our credit facility.

These and other similar provisions in these and other documents could have adverse consequences on our business and to our investors because they limit our ability to take these actions even if we believe that a specific transaction would contribute to our future growth or improve our operating results. For example, these restrictions could limit our flexibility in planning for or reacting to changes in our business and our industry, thereby inhibiting our ability to react to markets and potentially making us more vulnerable to downturns. These restrictions could also require that, based on our level of indebtedness, a significant portion of our cash flow from operations be used to make interest payments, thereby reducing the cash flow available for working capital, to fund capital expenditures or other corporate purposes and to generally grow our business. Furthermore, these restrictions could prevent us from pursuing a strategic transaction that we believe is in the best interests of our company and our stockholders.

Under the terms of a U.S. master lease, we have leased certain U.S. properties through June 30, 2043 at a cost of approximately \$17.1 million per annum, payable monthly, subject to an annual increase. Under the terms of a Canadian master lease, we have leased certain Canadian properties through June 30, 2043 at a cost of \$1.2 million (CAD) per annum. Each of these master lease agreements contain certain restrictions and covenants that limit, among other things, our use of and ability to sublease or discontinue use of the leased properties, our ability to consider strategic divestitures of properties that are leased and our ability to consolidate operations as may be appropriate in order to minimize operating costs. See Note 14, Sale-leaseback transaction, in the consolidated financial statements.

Our ability to comply with these provisions may be affected by events beyond our control. A breach of any of these provisions or any inability to comply with mandated financial ratios could result in a default, in which case the lenders may have the right to declare all borrowings to be immediately due and payable. If we are unable to repay any borrowings when due, whether at maturity or if declared due and payable following a default, the lenders would have the right to proceed against the pledged collateral securing the indebtedness. Therefore, the restrictions under our credit facility and any breach of the covenants or failure to otherwise comply with the terms of the credit facility could have a material adverse effect on our business, financial condition and results of operations.

Our current indebtedness and any future indebtedness we may incur could have a material adverse effect on us.

We expect that we will depend primarily on cash generated by our operations to pay our expenses and any amounts due under our credit facility and any other indebtedness we may incur. However, our business may not generate sufficient cash flows from operations in the future and our currently anticipated growth in revenues and cash flows may not be realized, either or both of which could result in us being unable to repay indebtedness or our inability to fund other liquidity or strategic needs. Our ability to make these payments depends on our future performance, which will be affected by financial, business, economic and other factors, many of which are beyond our control. If we do not have sufficient liquidity, we may be required to refinance all or part of our then existing debt, sell assets or borrow more money.

If we incur additional indebtedness, the risks related to our indebtedness that we currently face could intensify. In addition to the risk of higher interest rates and fees, the non-economic terms of any additional indebtedness may contain covenants and other terms restricting our financial, operating and strategic flexibility to an equal or greater extent as those imposed by our credit facility. Additional indebtedness may also include cross-default provisions such that, if we breach a restrictive covenant with respect to any of our indebtedness, or an event of default occurs, lenders may be entitled to accelerate all amounts owing under other outstanding indebtedness.

If we are required to refinance our indebtedness or otherwise incur additional indebtedness to fund strategic transactions or otherwise, any additional financing may not be available on terms favorable to us or at all. If, at such time, market conditions are materially different or our credit profile has deteriorated, the cost of refinancing our debt may be significantly higher than our indebtedness existing at that time, or we may not be able to refinance our debt at all. Any failure to meet any future debt service obligations or any inability to obtain any additional financing on terms acceptable to us or to comply therewith could have a material adverse effect on our business, financial condition and results of operations.

Borrowings under our senior term loan and revolver may use the London Interbank Offering Rate ("LIBOR") as a benchmark for establishing the applicable interest rate. The Financial Conduct Authority of the United Kingdom has announced that it plans to phase out LIBOR by the end of 2021. Although these borrowing arrangements provide for alternative base rates, the consequences of the phase out of LIBOR cannot be entirely predicted at this time. For example, if any alternative base rate or means of calculating interest with respect to our outstanding indebtedness leads to an increase in the interest rates charged, it could result in an increase in the cost of our variable rate indebtedness, impact our ability to refinance some or all of our existing indebtedness or otherwise have a material adverse impact on our business, financial condition, and results of operations.

Risks Related to Ownership of Our Common Stock

Our common stock has a limited trading history and the trading price of our common stock may be volatile and could decline substantially.

Although our common stock is listed on the Nasdaq Global Select Market, or Nasdaq, the market price of our common stock may be highly volatile and subject to wide fluctuations.

Some of the factors that could negatively affect the market price of our common stock or result in significant fluctuations in price, regardless of our actual operating performance, include:

- actual or anticipated variations in our quarterly operating results;
- changes in market valuations of similar companies;
- changes in the markets in which we operate;
- additions or departures of key personnel;
- actions by stockholders, including the sale by Lone Star of any of its shares of our common stock;
- speculation in the press or investment community;
- general market, economic and political conditions, including an economic slowdown;
- uncertainty regarding economic events, including in Europe in connection with the United Kingdom's possible departure from the European Union;
- changes in interest rates;
- our operating performance and the performance of other similar companies;
- our ability to accurately project future results and our ability to achieve those and other industry and analyst forecasts; and
- new legislation or other regulatory developments that adversely affect us, our markets or our industry.

Furthermore, at times, the stock market has experienced significant price and volume fluctuations. This volatility has had a significant impact on the market price of securities issued by many companies, including companies in our industry, and often occurs without regard to the operating performance of the affected companies. Therefore, factors that have little or nothing to do with us could cause the price of our common stock to

fluctuate, and these fluctuations or any fluctuations related to our company could cause the market price of our common stock to decline materially.

Our future operating results may fluctuate significantly and our current operating results may not be a good indication of our future performance. Fluctuations in our quarterly financial results could affect our stock price in the future.

Our revenues and operating results have historically varied from period to period and we expect that they will continue to do so as a result of a number of factors, many of which are outside of our control, including the cyclical and seasonality of our industry. If our quarterly financial results fail to meet the expectations of securities analysts and investors, our stock price could be negatively affected. Any volatility in our quarterly financial results may make it more difficult for us to raise capital in the future or pursue acquisitions that involve issuances of our stock. Our operating results for prior periods may not be effective predictors of future performance.

The coverage of our business or our common stock by securities or industry analysts or the absence thereof could adversely affect our stock price and trading volume.

The trading market for our common stock is influenced in part by the research and other reports that industry or securities analysts may publish about us or our business. We currently have, but may not be able to continue, research coverage by industry or financial analysts. If analysts do not continue coverage of us, the trading price and volume of our stock would likely be negatively impacted. Even if analyst coverage continues, if one or more of the analysts who cover us downgrade our stock, or if analysts issue other unfavorable commentary or inaccurate research, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Lone Star may have conflicts of interest with other stockholders and may limit your ability to influence corporate matters.

Lone Star beneficially owns approximately 70.3% of our outstanding common stock. As a result of this concentration of stock ownership, Lone Star acting on its own has sufficient voting power to effectively control all matters submitted to our stockholders for approval, including director elections and proposed amendments to our bylaws or certificate of incorporation. Six of the ten members of our board of directors are employees or affiliates of Lone Star.

In addition, this concentration of ownership may delay or prevent a merger, consolidation or other business combination or change in control of our company and make some transactions that might otherwise give you the opportunity to realize a premium over the then-prevailing market price of our common stock more difficult or impossible without the support of Lone Star. Because we have opted out of Section 203 of the Delaware General Corporation Law, or the DGCL, regulating certain business combinations with interested stockholders, Lone Star may transfer control of us to a third party by transferring its common stock without the approval of our board of directors or other stockholders, which may limit the price that investors are willing to pay in the future for shares of our common stock. The interests of Lone Star may not always coincide with our interests as a company or the interests of other stockholders. Accordingly, Lone Star could cause us to enter into transactions or agreements of which you would not approve or make decisions with which you would disagree. This concentration of ownership may also adversely affect our share price.

Lone Star is in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us, although it does not currently hold any such interests. Lone Star may also pursue acquisition opportunities that may be complementary to our business, and as a result, those acquisition opportunities may not be available to us. In recognition that principals, members, directors, managers, partners, stockholders, officers, employees and other representatives of Lone Star and its affiliates and investment funds may serve as our directors or officers, our amended and restated certificate of incorporation provides, among other things, that none of Lone Star or any principal, member, director, manager, partner, stockholder, officer, employee or other representative of Lone Star has any duty to refrain from engaging

directly or indirectly in the same or similar business activities or lines of business that we do. In the event that any of these persons or entities acquires knowledge of a potential transaction or matter which may be a corporate opportunity for itself and us, we will not have any expectancy in such corporate opportunity, and these persons and entities will not have any duty to communicate or offer such corporate opportunity to us and may pursue or acquire such corporate opportunity for themselves or direct such opportunity to another person. These potential conflicts of interest could have a material adverse effect on our business, financial condition and results of operations if, among other things, attractive corporate opportunities are allocated by Lone Star to themselves or their other affiliates.

Lone Star may also have conflicts of interest with the Company and other stockholders as a result of its status as a party to the tax receivable agreement. For example, the tax receivable agreement entered into with Lone Star at the time of our initial public offering gives us the right to terminate the tax receivable agreement with approval of a majority of our independent directors and with Lone Star's consent by making a payment equal to the present value of future payments under the tax receivable agreement (based on certain assumptions and deemed events in the agreement, including those relating to our and our subsidiaries' future taxable income). Lone Star may determine to withhold its consent to terminate the tax receivable agreement at a time when such a termination would be favorable to us and the other stockholders. Furthermore, the tax receivable agreement prohibits us from settling any tax audit without Lone Star's consent (not to be unreasonably withheld, conditioned or delayed) if the outcome of the audit is reasonably expected to affect Lone Star's rights under the tax receivable agreement. Therefore, Lone Star may determine to withhold consent to a settlement that reduces the payments Lone Star will receive under the tax receivable agreement, even though the settlement might be favorable to us and our stockholders.

We will be required to pay Lone Star for certain tax benefits, and these amounts are expected to be material.

We entered into a tax receivable agreement with Lone Star that provides for the payment by us to Lone Star of 85% of the amount of cash savings, if any, in U.S. federal, state, local and non-U.S. income tax that we and our subsidiaries realize (or in some circumstances are deemed to realize) as a result of the utilization of certain tax benefits, together with interest accrued at a rate of LIBOR plus 100 basis points from the date the applicable tax return is due (without extension) until paid. These tax benefits, which we collectively refer to as the Covered Tax Benefits, include: (i) all depreciation and amortization deductions, and any offset to taxable income and gain or increase to taxable loss, resulting from the tax basis that we have in our assets as of the time of the consummation of our initial public offering, (ii) the utilization of our and our subsidiaries' net operating losses and tax credits, if any, attributable to periods prior to our initial public offering, (iii) deductions in respect of payments made, funded or reimbursed by an initial party to the tax receivable agreement (other than us or one of our subsidiaries) or an affiliate thereof to participants under the LSF9 Concrete Holdings Ltd Long Term Incentive Plan, or the LTIP, (iv) deductions in respect of transaction expenses attributable to the acquisition of U.S. Pipe and (v) certain other tax benefits attributable to payments made under the tax receivable agreement. The tax receivable agreement will remain in effect until all Covered Tax Benefits have been used or expired, unless the agreement is terminated early, as described below.

We expect that the payments we make under the tax receivable agreement could be substantial. For the year ended December 31, 2018, we paid \$30.4 million on our tax receivable agreement to Lone Star. Assuming no material changes in the relevant tax law, and that we and our subsidiaries earn sufficient income to realize the full tax benefits subject to the tax receivable agreement, we currently estimate that future payments under the agreement will aggregate to approximately \$88.8 million. This amount excludes any payments that may be made to Lone Star under the tax receivable agreement as a result of tax benefits recognized in connection with payments under the LTIP and, thus, the actual payments we ultimately are required to make under the tax receivable agreement could be greater, potentially materially greater, than these amounts. These payment obligations are our obligations and are not obligations of any of our subsidiaries. Furthermore, these payment obligations are not conditioned upon Lone Star maintaining a continued direct or indirect ownership interest in us. The actual utilization of Covered Tax Benefits as well as the timing of any payments under the tax receivable agreement will vary depending upon a number of factors, including the amount, character and timing of our and our subsidiaries' taxable income in the future.

We will not be reimbursed for any payments made to Lone Star under the tax receivable agreement in the event that the tax benefits are disallowed.

Lone Star will not reimburse us for any payments previously made under the tax receivable agreement if such benefits are subsequently disallowed upon a successful challenge by the Internal Revenue Service, although future payments under the agreement would be adjusted to the extent possible to reflect the result of such disallowance. As a result, in certain circumstances, payments could be made under the tax receivable agreement in excess of our cash tax savings if any, from the Covered Tax Benefits, and we may not be able to recoup those payments, which could adversely affect our liquidity.

In certain cases, payments made by us under the tax receivable agreement may be accelerated and/or significantly exceed the actual benefits we realize in respect of the Covered Tax Benefits.

The term of the tax receivable agreement will continue until all Covered Tax Benefits have been utilized or expired, unless we exercise our right to terminate the agreement with Lone Star's consent, we breach any of our material obligations under the agreement or certain credit events occur with respect to us, in any of which cases we will be required to make an accelerated payment to Lone Star equal to the present value of future payments under the tax receivable agreement. Such payment would be based on certain assumptions, including, among others, that we and our subsidiaries would generate sufficient taxable income and tax liability to fully utilize all Covered Tax Benefits. The tax receivable agreement also provides that upon certain mergers, asset sales, other forms of business combinations or other changes of control, our (or our successor's) payments under the tax receivable agreement for each taxable year after any such event would be based on certain valuation assumptions, including the assumption that we and our subsidiaries have sufficient taxable income to fully utilize the Covered Tax Benefits. Accordingly, payments under the tax receivable agreement may be made years in advance of the actual realization, if any, of the anticipated future tax benefits and may be significantly greater than the benefits we realize in respect of the Covered Tax Benefits.

Even if the payments under the tax receivable agreement are not accelerated as described above, such payments may be significantly greater than the benefits we realize in respect of the Covered Tax Benefits, due to the manner in which payments are calculated under the tax receivable agreement. For example, for purposes of calculating the payments to be made to Lone Star:

- it is assumed that we will pay effective state and local taxes at a rate of 5%, even though our actual effective state and local tax rate may be materially lower;
- tax benefits existing at the time of our initial public offering are deemed to be utilized before any post-closing/after-acquired tax benefits and, as a result, we could be required to make payments to Lone Star for a particular tax year even if our tax liability for such year would have been materially reduced or eliminated by reason of our utilization of the post-initial public offering/after-acquired tax benefits;
- a non-taxable transfer of assets by us to a non-consolidated entity is treated under the tax receivable agreement as a taxable sale at fair market value and, as a result, we could be required to make payments to Lone Star even though such non-taxable transfer would not generate any actual tax benefits to us or our non-consolidated entity; and
- a taxable sale or other taxable transfer of subsidiary stock by us (in cases where the subsidiary's tax basis in its assets exceeds our tax basis in the subsidiary's stock) is treated under the tax receivable agreement as a taxable sale of the subsidiary's assets and, as a result, we could be required to make payments to Lone Star that materially exceed the actual tax benefit we realize from such stock sale.

Because of the foregoing, our obligations under the tax receivable agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combinations or other changes of control.

Certain provisions of the tax receivable agreement limit our ability to incur additional indebtedness, which could adversely affect our business and growth strategy.

For so long as the tax receivable agreement remains outstanding, without the prior written consent of Lone Star (not to be unreasonably withheld, conditioned or delayed), (a) we will be prohibited from entering into any agreement that would be materially more restrictive with respect to our ability to make payments under the tax receivable agreement than the terms of our credit agreement and (b) we will be prohibited from incurring any indebtedness for borrowed money if, immediately after giving effect to such incurrence and the application of proceeds therefrom, our consolidated net leverage ratio - the ratio of consolidated funded indebtedness for borrowed money less unrestricted cash to consolidated EBITDA - would exceed a certain specified ratio, in each case as calculated pursuant to the tax receivable agreement, unless the incurrence of such indebtedness is permitted by the terms of our credit agreement or any replacement credit agreements to the extent the terms thereof are no less restrictive in this regard than the applicable credit agreement it replaced. These restrictions on the incurrence of debt could adversely affect our business, including by preventing us from pursuing an acquisition or other strategic transaction that we believe is in the best interests of our company and our stockholders, thereby impeding our growth strategy. Lone Star has no fiduciary duties to us when deciding whether to enforce these covenants under the tax receivable agreement. Furthermore, the provision in the tax receivable agreement that requires that we make an accelerated payment to Lone Star equal to the present value of all future payments due under the tax receivable agreement if we breach any of our material obligations under the agreement or certain credit events occur with respect to us might make it harder for us to obtain financing from third party lenders on favorable terms.

We would be required to make tax gross-up payments to Lone Star if we consummate a corporate inversion or similar transaction that causes payments under the tax receivable agreement to be subject to withholding taxes.

If we were to consummate a change of control transaction that causes us (or our successor) to become a non-U.S. person (e.g., a corporate inversion transaction), and such transaction causes payments under the tax receivable agreement to become subject to withholding taxes, we would be required under the tax receivable agreement to make tax gross-up payments to Lone Star in respect of such withholding taxes in amounts that may exceed the tax savings realized by the Company from the Covered Tax Benefits. Any such tax gross-up payments could have a negative impact on our liquidity and our ability to finance our growth.

We are a “controlled company” within the meaning of Nasdaq rules and, as a result, qualify for, and are relying on, exemptions from certain corporate governance requirements.

Lone Star controls a majority of the voting power of our outstanding common stock. As a result, we are a “controlled company” within the meaning of the Nasdaq corporate governance standards. Under the relevant Nasdaq rules, a company of which more than 50% of the voting power is held by a person or group is a “controlled company” and need not comply with certain requirements, including the requirement that a majority of the board of directors consist of independent directors and the requirements that the compensation and nominating and corporate governance committees be composed entirely of independent directors. We are utilizing these exemptions and, for so long as Lone Star controls a majority of the voting power of our outstanding common stock, we intend to continue to utilize these exemptions. As a result, among other things, we do not have a majority of independent directors and our compensation and nominating and corporate governance committees do not consist entirely of independent directors. Accordingly, you will not have the same protections afforded to stockholders of companies that are subject to all of the applicable Nasdaq corporate governance requirements.

Future sales of our common stock in the public market could cause our stock price to fall.

Lone Star beneficially owns approximately 70.3% of our outstanding shares of common stock. The shares held by Lone Star and all shares held by our affiliates are eligible for resale in the public market, subject to applicable securities laws, including the Securities Act of 1933, as amended, or the Securities Act. Therefore, unless shares owned by any of our affiliates are registered under the Securities Act, these shares may only be resold into the public markets in accordance with the requirements of an exemption from registration or safe

harbor, including Rule 144 and the volume limitations, manner of sale requirements and notice requirements thereof. Lone Star is an affiliate of ours based on their share ownership and representation on our board of directors.

Pursuant to the terms of a registration rights agreement between Lone Star and us, Lone Star has the right to demand that we register its shares under the Securities Act as well as the right to include its shares in any registration statement that we file with the SEC, subject to certain exceptions. Any registration of Lone Star's shares would enable those shares to be sold in the public market, subject to certain restrictions in the registration rights agreement. Any sale by Lone Star or other affiliates or any perception in the public markets that such a transaction may occur could cause the market price of our common stock to decline materially.

We filed registration statements on Form S-8 under the Securities Act registering shares under our 2016 Stock Incentive Plan and our 2018 Stock incentive Plan. Subject to the terms of the awards pursuant to which these shares may be granted and except for shares held by affiliates who will be subject to the resale restrictions described above, the shares issued and issuable pursuant to our 2016 Stock Incentive Plan and our 2018 Stock incentive Plan are and will be available for sale in the public market.

We have issued, and in the future we expect to issue, options, restricted stock and other forms of stock-based compensation, which have the potential to dilute stockholder value and cause the price of our common stock to decline.

We have issued, and in the future expect to issue, stock based awards, including stock options, restricted stock and other forms of stock-based compensation to our independent directors, officers and employees. If any options that we have issued or may issue are exercised, or any restricted stock or other awards that we have issued or may issue vests, and the shares of common stock are sold into the public market, the market price of our common stock may decline. In addition, the availability of shares of common stock for award under our equity incentive plan, or the grant of stock options, restricted stock or other forms of stock-based compensation, may adversely affect the market price of our common stock.

We have no present intention to pay dividends on our common stock.

We have no present intention to pay dividends on our common stock. Any determination to pay dividends to holders of our common stock will be at the discretion of our board of directors and will depend upon many factors, including our financial condition, results of operations, projections, liquidity, earnings, legal requirements, restrictions in our credit facility and agreements governing any other indebtedness we may enter into and other factors that our board of directors deems relevant. Accordingly, holders of our common stock may need to sell their shares to realize a return on their investment, and may not be able to sell their shares at or above the price paid for them.

Our ability to raise capital in the future may be limited.

Our business and operations may consume resources faster than we anticipate. In the future, we may need to raise additional funds through the issuance of new equity securities, debt or a combination of both. However, any sale or perception of a possible sale by Lone Star, and any related decline in the market price of our common stock, could impair our ability to raise capital. Separately, additional financing may not be available on favorable terms, or at all. If adequate funds are not available on acceptable terms, we may be unable to fund our capital requirements. If we issue new debt securities, the debt holders would have rights senior to common stockholders to make claims on our assets, and the terms of any debt could restrict our operations, including our ability to pay dividends on our common stock. If we issue additional equity securities, existing stockholders will experience dilution, and the new equity securities could have rights senior to those of our common stock. Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. Thus, our stockholders bear the risk of our future securities offerings reducing the market price of our common stock and diluting their interest.

We are a holding company and depend on the cash flow of our subsidiaries.

We are a holding company with no material assets other than the equity interests of our subsidiaries. Our subsidiaries conduct substantially all of our operations and own substantially all of our assets and intellectual property. Consequently, our cash flow and our ability to meet our obligations and pay any future dividends to our stockholders depends upon the cash flow of our subsidiaries and their ability to make payments, directly or indirectly, to us in the form of dividends, distributions and other payments. Any inability on the part of our subsidiaries to make payments to us could have a material adverse effect on our business, financial condition and results of operations.

Provisions of our amended and restated governing documents, Delaware law and other documents could discourage, delay or prevent a merger or acquisition at a premium price.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. For example, our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- permit us to issue, without stockholder approval, preferred stock in one or more series and, with respect to each series, fix the number of shares constituting the series and the designation of the series, the voting powers, if any, of the shares of the series and the preferences and other special rights, if any, and any qualifications, limitations or restrictions, of the shares of the series;
- prevent stockholders from calling special meetings;
- restrict the ability of stockholders to act by written consent after such time as Lone Star owns less than a majority of our common stock;
- limit the ability of stockholders to amend our certificate of incorporation and bylaws;
- require advance notice for nominations for election to the board of directors and for stockholder proposals;
- do not permit cumulative voting in the election of our directors, which means that the holders of a majority of our common stock may elect all of the directors standing for election; and
- establish a classified board of directors with staggered three-year terms.

These provisions may discourage, delay or prevent a merger or acquisition of our company, including a transaction in which the acquirer may offer a premium price for our common stock.

Our amended and restated certificate of incorporation includes an exclusive forum clause, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for any stockholder (including any beneficial owner) to bring (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or employees to us or to our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, or our certificate of incorporation or bylaws, or (iv) any action asserting a claim governed by the internal affairs doctrine, will be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware); in all cases subject to such court having personal jurisdiction over the indispensable parties named as defendants. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing provisions. The exclusive forum clause may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us. It is also possible that, notwithstanding such exclusive forum clause, a court could rule that such a provision is inapplicable or unenforceable.

Our internal control over financial reporting may not be effective, and our independent registered public accounting firm may not be able to certify as to their effectiveness, which could have a material adverse effect on our business and reputation.

As a public company, we are required to comply with the SEC's rules implementing Sections 302 and 404 of the Sarbanes-Oxley Act, which require management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of our control over financial reporting. Our independent registered public accounting firm is also required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404.

Although we currently do not have any material weaknesses in our internal control over financial reporting, we have historically experienced such material weaknesses. To remediate our prior material weaknesses we have needed to undertake various actions, such as implementing additional internal controls and procedures and hiring additional accounting or internal audit staff, and we may need to do so in the future to maintain the effectiveness of our internal control over financial reporting and other controls. Testing and maintaining internal control can divert our management's attention from other matters that are important to the operation of our business. If we identify material weaknesses in our internal control over financial reporting or are unable to comply with the requirements of Section 404 of the Sarbanes-Oxley Act or assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected, and we could become subject to investigations by the SEC or other regulatory authorities, which could require additional financial and management resources.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We have a broad network of 79 manufacturing facilities in the United States, including 11 fabrication plants. We also have five manufacturing facilities in Canada and one in Mexico. Our headquarters is located in Irving, Texas.

The following tables set forth certain information regarding our manufacturing facilities:

Facility Name	City	State/Province	Ownership
<i>Drainage Pipe & Products (60 plants)</i>			
Caldwell	Caldwell	Idaho	Owned
Salt Lake City	Salt Lake City	Utah	Owned
Pelham	Pelham	Alabama	Owned
El Mirage	El Mirage	Arizona	Leased
West Memphis	West Memphis	Arkansas	Leased
Florin Road (2 plants)	Sacramento	California	Leased
Deland Precast	Deland	Florida	Leased
Gretna	Gretna	Florida	Leased
Marianna	Marianna	Florida	Leased
Winter Haven Pipe	Winter Haven	Florida	Leased
St. Martinville	St. Martinville	Louisiana	Leased

Facility Name	City	State/Province	Ownership
Como	Como	Mississippi	Owned
Prentiss (2 plants)	Prentiss	Mississippi	Owned
Columbus	Columbus	Ohio	Leased
Dayton - Dixie	Dayton	Ohio	Owned
Macedonia	Macedonia	Ohio	Owned
Oklahoma City	Oklahoma City	Oklahoma	Owned
Austin Pipe	Austin	Texas	Leased
Cedar Hill Pipe	Cedar Hill	Texas	Leased
Grand Prairie (2 plants)	Grand Prairie	Texas	Leased
Jersey Village (3 plants)	Houston	Texas	Leased
Waco	Hewitt	Texas	Leased
Ottawa	Gloucester	Ontario	Leased
Cambridge	Cambridge	Ontario	Leased
Lexington	Lexington	Kentucky	Leased
Elizabethtown	Elizabethtown	Kentucky	Leased
Louisville	Louisville	Kentucky	Leased
Billings	Billings	Montana	Leased
Bonner Springs	Bonner Springs	Kansas	Leased
Cedar Rapids	Cedar Rapids	Iowa	Owned
Des Moines	Des Moines	Iowa	Leased
Elk River (3 plants)	Elk River	Minnesota	Leased
Hawley	Hawley	Minnesota	Leased
Helena	Helena	Montana	Leased
Humboldt	Humboldt	Iowa	Owned
Iowa Falls	Iowa Falls	Iowa	Leased
Lawrence	Lawrence	Kansas	Owned
Marshalltown	Marshalltown	Iowa	Leased
Menoken	Menoken	North Dakota	Leased
Mitchell	Mitchell	South Dakota	Owned
Plattsmouth	Plattsmouth	Nebraska	Leased
Rapid City	Rapid City	South Dakota	Leased
Henderson (2 plants)	Henderson	Colorado	Leased
Grand Junction	Grand Junction	Colorado	Leased
Lubbock	Lubbock	Texas	Owned
Mineral Wells	Mineral Wells	Texas	Owned
San Antonio (2 plants)	San Antonio	Texas	Owned
Stacy	Stacy	Minnesota	Owned
Green Cove Springs	Green Cove Springs	Florida	Owned
Riverside	Menifee	California	Leased
Oceanside	Oceanside	California	Leased

Water Pipe & Products (19 plants)

St. Eustache Pressure Pipe	St. Eustache	Quebec	Owned
----------------------------	--------------	--------	-------

Facility Name	City	State/Province	Ownership
Stouffville	Stouffville	Ontario	Owned
Uxbridge	Uxbridge	Ontario	Owned
Bessemer (2 plants)	Bessemer	Alabama	Leased
Mini Mill	Bessemer	Alabama	Leased
Union City	Union City	California	Owned
Lynchburg	Lynchburg	Virginia	Owned
Monterrey, Mexico	Monterrey	Mexico	Owned
Rogers	Rogers	Minnesota	Leased
Remington	Remington	Virginia	Leased
Ottawa	Ottawa	Kansas	Leased
Marysville	Marysville	California	Leased
Warren	Warren	Oregon	Leased
Ephrata	Ephrata	Pennsylvania	Leased
Phoenix	Phoenix	Arizona	Leased
Orlando	Orlando	Florida	Leased
Gainesville	Gainesville	Georgia	Leased
San Antonio	San Antonio	Texas	Leased

Item 3. Legal Proceedings

We have been from time to time, and may in the future become, party to litigation or other legal proceedings that we consider to be part of the ordinary course of our business. We are not currently involved in any legal proceedings that we believe could reasonably be expected to have a material adverse effect on our business, financial condition or our results of operations. We may become involved in material legal proceedings in the future. See Note 15 to the consolidated financial statements.

Earnout Dispute

The purchase agreement entered into with HeidelbergCement in connection with the Acquisition requires us to make an earnout payment to HeidelbergCement if and to the extent the financial results of the businesses acquired by Lone Star in the Acquisition, including ours and that of Forterra UK, exceeded a specified adjusted EBITDA target for fiscal year 2015, as calculated pursuant to the terms of the purchase agreement. If such adjusted EBITDA calculation exceeds the specified target, we would be required to pay a U.S. affiliate of HeidelbergCement an amount equal to a multiple of such excess adjusted EBITDA, with any payment capped at \$100 million. On April 14, 2016, we provided an earnout statement to HeidelbergCement demonstrating that no payment was required. On June 13, 2016, HeidelbergCement notified us that it disputes, among other things, our calculation of adjusted EBITDA under the purchase agreement and asserting that a payment should be made in the amount of \$100 million.

On October 5, 2016, HeidelbergCement filed a lawsuit in the Delaware Court of Chancery, seeking specific performance and claiming access to our books, records, and personnel; seeking a declaratory judgment concerning the scope of the neutral accounting expert's authority; and in the alternative, claiming a breach of contract and seeking the \$100 million and other damages, or the Delaware Action. On December 8, 2017, the court granted the defendants' Motion to Dismiss in the Delaware Action, finding that the earnout dispute should be heard before a neutral accounting arbitrator as set forth in the purchase agreement and that any claims that were required to be brought as indemnification claims under the purchase agreement were time-barred by the contractual limitations period. Following the dismissal of the Delaware Action, we and HeidelbergCement jointly engaged a neutral accounting expert to act as an arbitrator in the dispute as required by the purchase agreement. The parties then briefed certain preliminary matters for the arbitrator. Based on the arbitrator's rulings, we are

currently producing documents to HeidelbergCement. Under the terms of the engagement with the arbitrator, once document production is deemed complete, the parties will begin providing briefing on the merits of their claims to the arbitrator.

As a result of the Reorganization, we are the liable party with respect to the earnout. We did not accrue any contingency reserve as of December 31, 2018 in respect of the earnout proceeding. See Note 15 to our consolidated financial statements. While we are vigorously opposing HeidelbergCement's assertions in the earnout proceeding, the outcome of this matter is uncertain, and no assurances can be given regarding the ultimate outcome.

Securities Action and Derivative Actions

Beginning on August 14, 2017, four plaintiffs filed putative class action complaints in the United States District Court for the Eastern District of New York against various defendants. On July 27, 2018, an order was entered consolidating the lawsuits into a single action, or the Securities Action, and transferring the venue of the case from the Eastern District of New York to the Northern District of Texas. On September 17, 2018, an order was entered appointing Wladislaw Maciuga as lead plaintiff and approving his counsel as lead counsel. Pursuant to an agreed scheduling order, plaintiffs in the Securities Action filed their Consolidated Amended Complaint on November 30, 2018.

The Securities Action is brought by two plaintiffs individually and on behalf of all persons that purchased or otherwise acquired our common stock issued pursuant to and/or traceable to the IPO and is brought against us, certain of our current and former officers and directors, Lone Star and certain of its affiliates, and certain banks that acted as underwriters of the IPO, or, collectively, the Securities Defendants. The Securities Action generally alleges that our registration statement on Form S-1 filed in connection with the IPO, or the Registration Statement, contained false or misleading statements and/or omissions of material facts. Specifically, plaintiffs allege the Registration Statement (1) made false and/or misleading statements about our ability to generate organic growth amongst our various businesses while failing to disclose that we had not adequately integrated acquisitions, had not rolled out our cross-selling initiative, and that our businesses were submitting competing bids against one another, and (2) made false or misleading statements regarding the existence of certain accounting practices and alleged material weaknesses in our internal controls over financial reporting, including the existence of and accounting for bill and hold transactions, the lack of sufficient accounting personnel, the lack of effective internal controls to ensure costs were properly and accurately accrued, resulting in misstated costs and profits in our 2016 financial statements, and the making of inventory accounting entries without adequate substantiation or documentation. The Securities Action asserts claims under Section 11 and Section 15 of the Securities Act of 1933, as amended, or the Securities Act and seeks (1) class certification under the Federal Rules of Civil Procedure, (2) damages suffered by plaintiffs and other class members, (3) prejudgment and post-judgment interest, (4) reasonable counsel fees and expert fees, and other costs and expenses reasonably incurred, and (5) other relief the court deems appropriate.

On February 15, 2019, the Securities Defendants filed a Motion to Dismiss all claims in the case based on plaintiffs' failure to state a claim. Under the scheduling order, plaintiffs have an opportunity to respond to the Motion to Dismiss by April 1, 2019, and the Securities Defendants will have the ability to reply in support of the motion by May 1, 2019.

On July 31, 2018, a putative shareholder derivative complaint captioned *Maloney v. Bradley, et al.*, was filed in the United States District Court for the Northern District of Texas, naming as defendants certain of our current and former directors and officers, or the Maloney Action. The complaint alleges the defendants breached their fiduciary duties, committed constructive fraud, and wasted corporate assets, and also asserts unjust enrichment claims against certain defendants. The complaint seeks, purportedly on behalf of us, unspecified damages, an order directing the return of certain payments to the defendants and imposing a constructive trust thereon, certain injunctive relief, reasonable costs and attorneys' fees, and punitive damages. On November 16, 2018, the defendants filed motions to dismiss the Maloney Action on the grounds that it was brought in the wrong venue in violation of our Amended and Restated Certificate of Incorporation, that plaintiff failed to make a pre-suit

demand as required by applicable law and that plaintiff's complaint fails to state a claim. Briefing on the defendants' motions was completed on March 8, 2019.

On January 15, 2019, a putative shareholder derivative complaint captioned *Lee v. Bradley, et al.*, was filed in the United States District Court for the District of Delaware, naming as defendants certain of our current and former directors and officers, or the Lee Action. The complaint alleges the defendants violated Section 14A of the Securities and Exchange Act of 1934, as amended, or the Exchange Act, and related rules by failing to make certain disclosures in our proxy solicitation in advance of the 2017 Annual Meeting of Stockholders, and that defendants breached their fiduciary duties, wasted corporate assets, and committed constructive fraud. The complaint also asserts unjust enrichment claims against certain defendants. The complaint seeks, purportedly on behalf of us, unspecified damages, an order directing the return of certain payments to the defendants, certain injunctive relief, and reasonable costs and attorneys' fees. The Lee Action has not yet been served on the defendants, and no other pleadings have been filed as yet.

We and the other defendants are vigorously defending the Securities Action, the Maloney Action and the Lee Action. Given the stage of the proceedings, the Company cannot reasonably estimate at this time the possible loss or range of loss, if any, that may arise from the Securities Action, the Maloney Action or the Lee Action.

North Birmingham EPA Matter

U.S. Pipe received a General Notice Letter and Invitation to Conduct Removal Action dated September 20, 2013 from the EPA with respect to the 35th Avenue superfund site in Birmingham, Alabama. The letter requests that U.S. Pipe participate in an environmental response action in an area proximate to a closed U.S. Pipe facility in North Birmingham, Alabama. The U.S. Pipe North Birmingham facility was closed and, as part of the acquisition of U.S. Pipe by a private equity fund from Mueller Water Products, Inc. and Mueller Group, LLC, or the Sellers, in 2012, the facility was retained by and is currently owned by either the Sellers or one of their affiliates. The notice requested response activities including testing and removing surface soils at area residences alleged to be contaminated by locally-sourced air pollutants. In connection with the disposition, the Sellers agreed to jointly and severally defend and indemnify U.S. Pipe against any losses or environmental liabilities related to sites retained by the Sellers, including the North Birmingham facility. Accordingly, U.S. Pipe tendered the defense of this matter to the Sellers for defense and indemnification. The Sellers accepted the tender and, on behalf of U.S. Pipe, have responded to the EPA's request to participate in a time-critical removal action by declining, based on the EPA's failure to establish any nexus between the contamination and any operations at the U.S. Pipe North Birmingham facility. The EPA sent a renewed request addressed to the Sellers, U.S. Pipe and a number of other potentially responsible parties on August 8, 2014 seeking participation in a broader cleanup of soil at approximately 80 homes in North Birmingham. The Sellers again responded on U.S. Pipe's behalf declining to participate on the same grounds. In September 2014, the EPA proposed that the site be listed on the National Priorities List. The Sellers continue to defend on this matter on behalf of U.S. Pipe. While we cannot provide assurance that such defense will be successful, because of the indemnification described above, we do not believe the ultimate resolution of these matters will have a material adverse effect on our business, financial condition or results of operations.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Common Stock

Our common stock is traded on Nasdaq under the ticker symbol "FRTA." As of March 7, 2019, the closing price of the Company's stock as reported on Nasdaq was \$4.35. The number of stockholders of record of the common stock at the close of business on such date was 4. A substantially greater number of holders of Forterra's common stock are "street name" or beneficial holders, whose shares of record are held by banks, brokers, and other financial institutions.

Dividend Policy

We have not declared or paid any dividends since our formation and currently do not intend to pay dividends for the foreseeable future. Additional information concerning restrictions on our payment of cash dividends may be found in "Liquidity and Capital Resources" in Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations.

Securities Authorized for Issuance Under Equity Compensation Plans

See Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters for information regarding common stock authorized for issuance under equity compensation plans.

Item 6. Selected Financial Data

The following tables set forth, for the periods and dates indicated, our selected historical financial data. The accompanying historical financial statements are presented for the "Predecessor," which are the financial statements of HeidelbergCement's building products business in the United States and Eastern Canada for the period preceding the Acquisition, and the "Successor," which are the financial statements of the Company and subsidiaries for the period following the Acquisition. The Successor's consolidated statements of operations data for the years ended December 31, 2016, 2017 and 2018 and balance sheet data as of December 31, 2017 and 2018 have been derived from our audited consolidated financial statements, which are included elsewhere in this Form 10-K. The Predecessor's combined statement of operations data for the year ended December 31, 2014 and the period from January 1, 2015 through March 13, 2015 and combined balance sheet data as of December 31, 2014 have been derived from the combined financial statements of HeidelbergCement's building products business in the United States and Eastern Canada, which are not included elsewhere in this Form 10-K. The Successor's consolidated statements of operations data for the period from March 14, 2015 through December 31, 2015 and balance sheet data as of December 31, 2015 and 2016 have been derived from our audited consolidated financial statements which are not included elsewhere in this Form 10-K.

The Predecessor's combined financial statements may not necessarily be indicative of our cost structure, financial position, results of operations or cash flows that would have existed if HeidelbergCement's building products business in the United States and Eastern Canada operated as a stand-alone, independent business. Accordingly, the historical results for those periods should not be relied upon as an indicator of our future performance. The Acquisition was accounted for as a business combination, which resulted in a new basis of accounting. The Predecessor's and the Successor's financial statements are not comparable as a result of applying a new basis of accounting. See the notes to our consolidated financial statements for additional information regarding the accounting treatment of the Acquisition. The selected financial data presented below represent portions of our financial statements and are not complete and should be read in conjunction with Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements.

(in thousands)	Successor				Predecessor	
	Year ended December 31,	Year ended December 31,	Year ended December 31,	For the period March 14 to December 31,	For the period from January 1 to March 13,	Year ended December 31,
	2018	2017	2016	2015	2015	2014
Statement of Operations Data:						
Net sales	\$ 1,479,712	\$ 1,580,413	\$ 1,363,962	\$ 604,275	\$ 112,698	\$ 597,426
Cost of goods sold	1,234,143	1,327,305	1,083,508	513,723	98,339	506,688
Gross profit	245,569	253,108	280,454	90,552	14,359	90,738
Selling, general & administrative expenses	(209,877)	(255,034)	(216,099)	(121,554)	(17,106)	(85,859)
Impairment and exit charges	(4,336)	(13,220)	(2,218)	(1,026)	(542)	(4,261)
Earnings from equity method investee	10,162	12,360	11,947	8,429	67	4,451
Gain (loss) on sale of property, plant, and equipment, net	4,267	(2,107)	(21,274)	(624)	122	2,030
Other operating income, net	5,256	7,304	10,303	1,716	696	5,072
	(194,528)	(250,697)	(217,341)	(113,059)	(16,763)	(78,567)
Income from operations	51,041	2,411	63,113	(22,507)	(2,404)	12,171
Other income (expenses)						
Interest expense	(78,337)	(59,408)	(125,048)	(45,953)	(82)	—
Change in tax receivable agreement liability	—	46,180	—	—	—	—
Other income (expense), net	6,016	(31,915)	(847)	(326)	(28)	(88)
Income (loss) before income taxes	(21,280)	(42,732)	(62,782)	(68,786)	(2,514)	12,083
Income tax (expense) benefit	(3,085)	40,672	51,692	(5,392)	742	(2,660)
Income (loss) from continuing operations	(24,365)	(2,060)	(11,090)	(74,178)	(1,772)	9,423
Discontinued operations, net of tax	\$ —	\$ —	\$ 3,484	\$ (8,608)	\$ (3,984)	\$ (575)
Net Income (loss)	\$ (24,365)	\$ (2,060)	\$ (7,606)	\$ (82,786)	\$ (5,756)	\$ 8,848
Basic and Diluted Earnings (loss) Per Share:						
Continuing operations	\$ (0.38)	\$ (0.03)	\$ (0.23)	\$ (1.63)		
Discontinued operations	\$ —	\$ —	\$ 0.07	\$ (0.19)		
Net loss	\$ (0.38)	\$ (0.03)	\$ (0.16)	\$ (1.82)		
Statement of Operations Data:						
Net cash provided by (used in) operating activities	\$ 27,196	\$ 42,334	\$ 76,925	\$ 121,417	\$ (48,224)	\$ 25,918
Net cash provided by (used in) investing activities	(51,052)	(66,023)	(1,062,447)	(898,039)	(2,762)	(1,901)
Net cash provided by (used in) financing activities	(43,451)	86,250	981,728	822,580	60,907	(23,990)
Balance Sheet Data:						
Cash and cash equivalents	\$ 35,793	\$ 104,534	\$ 40,024	\$ 26,027	\$	\$ 41
Property, plant & equipment, net	492,167	412,572	452,914	315,859		288,433
Total assets	1,793,252	1,811,238	1,824,786	938,875		846,168
Total debt	1,188,605	1,193,787	1,096,047	705,829		—
Shareholders equity	108,222	132,491	132,917	52,315		657,473

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with our consolidated financial statements and the related notes included elsewhere in this Report.

This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. See the section entitled "Cautionary Statement Concerning Forward-Looking Statements" for a discussion of the risks, uncertainties and assumptions associated with those statements.

Overview

Our Company

We are a manufacturer of pipe and precast products in the United States and Eastern Canada for a variety of water-related infrastructure applications, including water transmission, distribution and drainage. Our manufacturing and distribution network allows us to serve most major U.S. and Eastern Canadian markets. We operate 79 manufacturing facilities and currently have additional manufacturing capacity available in both of our segments, providing room to increase production to meet short-cycle demand with minimal incremental investment. These facilities and our distribution network provides us with a local presence and the necessary proximity to our customers to minimize delivery time and distribution costs.

Our Segments

Our operations are organized into the following reportable segments:

- Drainage Pipe & Products - We are a producer of concrete drainage pipe and precast products in the United States and Eastern Canada.
- Water Pipe & Products - We are a producer of ductile iron pipe, or DIP, in the United States and concrete pressure pipe in Eastern Canada.
- Corporate and Other - Corporate, general and administrative expenses not allocated to our revenue-generating segments such as certain shared services, executive and other administrative functions.

History

Prior to the Initial Public Offering

Lone Star, through a wholly owned subsidiary, acquired our business in March 2015 from HeidelbergCement in the Acquisition. Prior to the Acquisition, we were HeidelbergCement's building products operations in the United States and Eastern Canada. LSF9 was formed on February 6, 2015 for the purpose of consummating the Acquisition and had no operations prior to the date of Acquisition. In August 2016, an affiliate of Lone Star entered into an agreement with an unaffiliated third party to contribute our former bricks business to the Bricks Joint Venture. Following the Bricks Disposition, we had no relation to or business affiliation with our former bricks business or the Bricks Joint Venture other than contractual arrangements regarding certain limited transition services, the temporary use of the "Forterra" name, and a short-term loan which has subsequently been repaid in full.

Initial Public Offering and Related Refinancing

On October 25, 2016, we completed the IPO, in which we offered and sold 18,420,000 shares of our common stock. We received net proceeds from the IPO of \$313.3 million, net of underwriting discounts and commissions and before payment of offering expenses, \$296.0 million of which were used to repay indebtedness.

Concurrent with the completion of the IPO, the Company entered into a new asset based revolving credit facility, or the 2016 Revolver, for working capital and general corporate purposes and a new \$1.05 billion senior term loan facility, or the 2016 Senior Term Loan, the proceeds of which, together with the proceeds from the IPO, were used to repay in full the then-existing 260.0 million junior term loan, or the Junior Term Loan, the then-existing \$1.04 billion senior term loan, or the 2015 Senior Term Loan, and the existing balance under the then-existing asset based revolving credit facility, or 2015 Revolver, in addition to related expenses associated with the IPO and this refinancing transaction, or the Refinancing. Immediately subsequent to the completion of the IPO, Forterra had \$125.0 million outstanding on its 2016 Revolver and \$1.05 billion on its 2016 Senior Term Loan. Effective May 1, 2017, the Company amended the 2016 Senior Term Loan to increase the principal outstanding by an additional \$200.0 million and to reduce the interest margins applicable to the full balance of the 2016 Senior Term Loan.

Acquisitions

Acquisitions are part of our strategy to increase sales and profits. We completed multiple acquisitions in 2016 and 2017. Below is a summary of the aggregate purchase price of each of the significant transactions.

Acquisitions:	Purchase Price	
	<i>(in millions)</i>	
<hr/>		
<u>2017</u>		
Royal Enterprises America, Inc.	\$	35.5
<u>2016</u>		
Sherman-Dixie Concrete Industries		66.8
USP Holdings, Inc.		778.7
Bio Clean Environmental Services, Inc. and Modular Wetland Systems, Inc.		31.9
J&G Concrete Operations, LLC		32.4
Precast Concepts, LLC		99.6

Divestitures

On July 31, 2017, we completed the sale of our U.S. concrete and steel pressure pipe business, a component of our Water Pipe & Products segment, to TPG in exchange for approximately \$23.2 million in cash, subject to customer net working capital adjustments, exclusive of fees and expenses, as well as certain assets relating to a drainage pipe and products manufacturing facility. This divestiture generated a pre-tax loss of \$32.3 million recorded in other income (expense), net. In addition, in the second quarter of 2017, we recorded a pre-tax long-lived asset impairment of \$7.5 million within impairment and exit charges to adjust the held for sale long-lived assets to fair value. We used the net proceeds from the transaction to pay down debt on our 2016 Revolver.

On January 31, 2018, we completed the sale to Foley Products Company of several of our pipe & precast plants in the southeast region, including Tennessee, Alabama and Georgia, which were part of the Drainage Pipe & Products segment, in exchange for \$9.1 million in cash, a drainage facility located in Prentiss, Mississippi and land in Texas.

See Note 3 to the consolidated financial statements for additional information regarding these acquisition and divestiture transactions.

Principal Factors Affecting Our Results of Operations

Our financial performance and results of operations are influenced by a variety of factors, including conditions in the residential, and non-residential and infrastructure construction markets, general economic conditions, changes in cost of goods sold, and seasonality and weather conditions. Some of the more important factors are discussed below, as well as in the section entitled "Risk Factors."

Infrastructure Spending and Residential and Non-Residential Construction Activities

A large proportion of our net sales in our Drainage Pipe & Products and Water Pipe & Products segments are generated through public infrastructure projects. Many of these projects are dependent on government funding, including subsidies and stimulus programs. Government spending on infrastructure projects depends on the availability of public funds, which is influenced by various factors, including fiscal budgets, the level of public debt, interest rates, existing and anticipated tax revenues and the political climate. Increases or reductions in governmental funding for these infrastructure projects can have a material effect on our net sales and results of operations. In the United States, federal and state government funding for infrastructure projects is usually accomplished through multi-year funding and authorization bills known as highway bills, such as the FAST Act enacted in 2015, which authorized funding from \$43 billion in fiscal 2016 to \$47 billion in fiscal 2020 to upgrade transportation-related infrastructure.

Historically, demand for many of our products has been closely tied to residential construction and non-residential construction activity in the United States and Eastern Canada. Activity levels in these markets can be materially affected by general economic and global financial market conditions. In addition, residential construction activity levels are influenced by and sensitive to mortgage availability, the cost of financing a home (in particular, mortgage and interest rates), unemployment levels, household formation rates, residential vacancy and foreclosure rates, existing housing prices, rental prices, housing inventory levels, consumer confidence and government policy and incentives. Non-residential construction activity is primarily driven by levels of business investment, availability of credit and interest rates, as well as many of the factors that impact residential construction activity levels. See the section entitled "Business-Our Industry."

We monitor state and local level government project lettings as well as federal, state and local funding activity as a key forward-looking indicator for the anticipated level of public infrastructure demand. We believe that the decline in U.S. infrastructure spending in 2017 reflected in part a temporary market pause associated with the potential for new federal infrastructure funding initiatives following the election of President Trump. The growth in U.S. infrastructure spending in 2018 included the benefit of increasing state and local funding initiatives such as California's Senate Bill 1 and Texas Proposition 7 as well as our belief that infrastructure activity resumed as market optimism for a new Federal infrastructure bill waned.

We also monitor a variety of residential construction indicators including new home starts, new home permits, new home orders and community count as important indicators for residential demand that drives activity in both our operating segments. The slowing pace of new home start growth in 2018, as compared to 2017, reflected in part the impact of rising interest rates on the affordability of homes. While there is still a risk of further increases in interest rates by the Federal Reserve that could cause demand to slow or even decrease, we believe the recent commentary from the Federal Reserve suggests a reduced likelihood for further rate increases in the near term. A variety of economic indicators including annual home starts that remain well below past cyclical peaks, low unemployment and favorable housing supply and demand fundamentals support our expectation for continued growth in residential construction in 2019. Non-residential construction activity in the U.S. has historically followed closely with residential construction activity and the health of the overall economy.

Mix of Products

We derive our sales from both the sale of products manufactured to inventory, such as concrete drainage pipe and ductile iron pipe, and highly engineered products which are made to order, such as concrete pressure pipe and structural precast products for drainage. These two components of our business differ in their dynamics. This mix of products varies from period to period. We generally recognize revenue in connection with product shipment; however, for some of our highly engineered products, we recognize revenue on a percentage of completion method, which amounted to \$20.1 million in 2018.

Products such as concrete drainage pipe are typically sold on a one-off basis, with volumes and prices determined frequently based on market participants' perceptions of short-term supply and demand factors. A shortage of capacity or excess capacity in the industry, or in the regions where we have operations, or the behavior of our competitors, can each result in significant increases or decreases in market prices for these products, often within a short period of time. By contrast, our project driven business involves highly engineered and customized products with a wide range of contract values. The products for these projects are engineered, manufactured and delivered on the basis of contracts that tend to extend over periods of several months or, in some cases, several years. The timing of the commencement of a project and the progress and completion of work under a contract, therefore, can have a significant effect on our results of operations for a particular period.

Cost of Goods Sold

Costs of raw material and supplies, labor (including contract labor), freight and energy constitute a large portion of our cost of goods sold, and fluctuations in the prices of these materials and inputs affect our results of operations. Our primary raw materials are cement, aggregates, steel and clay. We do not generally hedge our raw material purchases, except that we may increase our inventory of certain materials in the short term in anticipation of future price increases.

In addition, our manufacturing is energy intensive. Our energy costs primarily consist of the cost for the supply of electricity and natural gas used in various manufacturing processes. Prices for energy, including natural gas and electricity, have been volatile in recent years and have been a driver of our raw material and energy costs in the past.

We attempt to pass on price increases of raw materials, energy and certain other manufacturing costs to our customers, and typically increase prices as new customer agreements are negotiated throughout the year. In addition, certain of our customer contracts, primarily with respect to our highly engineered product, contain price modification mechanisms pursuant to which we may increase the prices of our products to correspond to increases in raw material costs. Over time, we believe we have been able to manage our exposures to fluctuations in our raw material and energy costs, although there can be no assurance that we will continue to be able to do so in the future.

Inflationary cost pressures on labor, freight, cement, aggregates and steel impacted our results in both 2017 and 2018. Our labor costs have been negatively impacted by record low unemployment levels that has increased our labor cost per hour as well as increased our utilization of more expensive temporary workers. Our freight costs, which are primarily associated with third party providers, have also been impacted by the tight labor environment which in turn has caused our third party providers to increase freight rates. The producer price index for cement and aggregates was up 2.5% and 3.6%, respectively, in 2018 as compared to 2017 and was up 4.6% and 3.4%, respectively, in 2017 as compared to 2016. The market cost of mesh quality low carbon steel rod, a key raw material input in our Drainage business, rose 32% in 2018 as compared to 2017 and 16% in 2017 as compared to 2016, according to the American Metal Market. The market cost of shredded auto scrap, a key raw material input in our ductile iron pipe business, rose 19% in 2018 as compared to 2017 and 26% in 2017 as compared to 2016, according to the American Metal Market. These market trends for labor, freight and our key raw materials are generally consistent with the inflationary pressures we have faced in our business. We have attempted to mitigate these inflationary cost pressures through a variety of initiatives including our procurement initiative and a focus on increased operational efficiency.

Seasonality and Weather Conditions

The construction industry, and therefore demand for our products, is typically seasonal and dependent on weather conditions, with periods of snow or heavy rain negatively affecting construction activity. Lower demand for our products tends to occur in periods of cold weather, particularly during winter and periods of excessive rain, and such conditions or other unfavorable weather conditions generally lead to seasonal fluctuations in our quarterly financial results. Historically, our net sales in the second and third quarters have been higher than in the other quarters of the year, particularly the first quarter.

In addition, unfavorable weather conditions, such as hurricanes or severe storms, or public holidays during peak construction periods can result in temporary cessation of projects and a material reduction in demand for our products and consequently have an adverse effect on our net sales. Results of a fiscal quarter may therefore not be a reliable basis for the expectations of a full fiscal year and may not be comparable with the results in the other fiscal quarters in the same year or prior years.

Strategy and Outlook

Our strategy is focused on continued execution in our Drainage business, margin expansion in our Water business and a commitment to strengthening our capital structure through a combination of earnings growth, debt repayment and prudent investment in the business. Prudent investment in the business includes growth capital expenditures in projects that drive quick payback periods and high returns and smaller acquisitions that enhance our margin profile and competitive position in key markets. We expect to generate meaningful cash flow in 2019 and plan to use a significant portion to make voluntary repayment on our term loan.

Principal Components of Results of Operations

Net Sales

Net sales consist of the consideration received or receivable for the sale of products in the ordinary course of business and include the billable costs of delivery of our products to customers, net of discounts given to the customer. Net sales include any outbound freight charged to the customer. Revenue on certain long-term engineering and construction contracts for our structural precast and products that are designed and engineered specifically for the customer is recognized under the percentage-of completion method. Certain of our businesses, primarily our concrete pressure pipe businesses, also enter into agreements to provide inventory to customers for long-term construction projects. With respect to these agreements, we recognize revenue upon shipment of the respective goods, whereas billings are based on contract terms and may or may not coincide with shipments, which gives rise to either unbilled or deferred revenue. See Note 2 to our consolidated financial statements.

Cost of Goods Sold

Cost of goods sold includes raw materials (cement, aggregates, scrap, steel and clay) and supplies, labor (including contract labor), freight (including outbound freight for delivery of products to end users and other charges such as inbound freight), energy, depreciation and amortization, repairs and maintenance and other cost of goods sold.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include expenses for sales, marketing, legal, accounting and finance services, human resources, customer support, treasury and other general corporate services. Selling, general and administrative expenses also include transaction costs directly related to business combinations.

Earnings from Equity Method Investee

Earnings from equity method investee represents our share of the income of CP&P joint venture we entered into with Americast, Inc. CP&P is engaged primarily in the manufacture, marketing, sale and distribution of concrete pipe and precast products in Virginia, West Virginia, Maryland, North Carolina, Pennsylvania and South Carolina with sales to contiguous states.

Gain on Sale of Property, Plant and Equipment, Net

Gain on sale of property, plant and equipment, net includes the net gain or loss on the sale of assets including property, plant and equipment.

Other Operating Income

The remaining categories of operating income and expenses consist of scrap income (associated with scrap from the manufacturing process or remaining scrap after plants are closed), insurance gains, and rental income.

Interest Expense

Interest expense represents interest on the indebtedness.

Income Tax (Expense) Benefit

Income tax expense consists of federal, state, provincial, local and foreign taxes based on income in the jurisdictions in which we operate.

Results of Operations

Year Ended December 31, 2018 as Compared to the Year Ended December 31, 2017

Total Company

The following table summarizes certain financial information relating to our operating results for the years ended December 31, 2018 and December 31, 2017 (in thousands).

Statements of Income Data:	Year ended December 31, 2018	Year ended December 31, 2017	% Change
Net sales	\$ 1,479,712	\$ 1,580,413	(6.4)%
Cost of goods sold	1,234,143	1,327,305	(7.0)%
Gross profit	245,569	253,108	(3.0)%
Selling, general and administrative expenses	(209,877)	(255,034)	(17.7)%
Impairment and exit charges	(4,336)	(13,220)	(67.2)%
Earnings from equity method investee	10,162	12,360	(17.8)%
Gain (loss) on sale of property, plant and equipment, net	4,267	(2,107)	*
Other operating income	5,256	7,304	(28.0)%
	(194,528)	(250,697)	(22.4)%
Income from operations	51,041	2,411	*
Other income (expenses)			
Interest expense	(78,337)	(59,408)	31.9%
Change in tax receivable agreement liability	—	46,180	(100.0)%
Other income (expense), net	6,016	(31,915)	*
Loss before income taxes	(21,280)	(42,732)	(50.2)%
Income tax (expense) benefit	(3,085)	40,672	*
Net loss	\$ (24,365)	\$ (2,060)	*

* Represents positive or negative change in excess of 100%

Net Sales

Net sales for the year ended December 31, 2018 were \$1,479.7 million, a decrease of \$100.7 million or 6.4% from \$1,580.4 million for the year ended December 31, 2017. The decrease is primarily due to the divestiture of our U.S. concrete and steel pressure pipe business in July 2017, which contributed \$72.7 million in net sales in 2017, and the Foley Transaction, which resulted in a \$42.3 million decline in net sales. Excluding the impact of these two transactions, our net sales grew approximately \$14.3 million, or 0.9% due primarily to higher average selling prices.

Cost of Goods Sold

Cost of goods sold were \$1,234.1 million for the year ended December 31, 2018, a decrease of \$93.2 million or 7.0% from \$1,327.3 million in the year ended December 31, 2017. The decrease is due to the divestiture of our U.S. concrete and steel pressure pipe business, which resulted in a \$80.2 million decline in cost of goods sold, as well as the Foley Transaction, which resulted in a \$33.2 million decline in cost of goods sold. Costs of goods sold in our existing businesses increased by \$20.2 million, or 1.5%, due to the higher cost of labor, freight, and raw materials.

Gross Profit

Gross profit decreased by \$7.5 million, or 3.0%, to \$245.6 million in the year ended December 31, 2018 from \$253.1 million in the year ended December 31, 2017. Gross profit decrease was attributed to lower profitability in the Water Pipe and Products segment due primarily to the impact of higher scrap steel, labor and freight costs that were not fully offset by higher average selling prices.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$209.9 million in the year ended December 31, 2018, a decrease of \$45.1 million or 17.7% from \$255.0 million in the year ended December 31, 2017. The decrease was due primarily to lower professional fees associated with various cost saving initiatives implemented in 2018 and savings from our divestitures of \$5.1 million.

Impairment and Exit Charges

Impairment and exit charges decreased by \$8.9 million to \$4.3 million in the year ended December 31, 2018 from \$13.2 million in the year ended December 31, 2017. The decrease was primarily due to a 2017 goodwill impairment of \$3.0 million related to our Canadian concrete pressure pipe reporting unit and \$7.5 million of long-lived asset impairment related to the sale of our U.S. concrete and steel pressure pipe business in 2017. See Notes 3 and 8 to the consolidated financial statements.

Gain (Loss) on Sale of Property, Plant and Equipment, Net

Gain on disposal of property, plant and equipment was \$4.3 million for the year ended December 31, 2018 as compared to a loss of \$2.1 million for the year ended December 31, 2017. The gain or loss was primarily driven by the disposal of sites or property deemed not core to our operations.

Interest Expense

Interest expense increased by \$18.9 million, or 31.9%, to \$78.3 million in the year ended December 31, 2018 from \$59.4 million in the year ended December 31, 2017. The increase included \$10.2 million in higher interest expense related to the change in the classification of certain leases from operating lease to capital lease as the result of the amendment and restatement of our sale-leaseback transaction completed in June 2018. Additionally, the mark-to-market gain on the interest rate swaps in the year ended December 31, 2018 was \$1.4 million as compared to \$5.3 million in the prior year. The remainder of the interest expense increase was primarily due to the impact of higher average interest rates. See Notes 13 and 14 to the consolidated financial statements.

Change in Tax Receivable Agreement Liability

The passage of the TCJA in 2017 significantly reduced the Company's anticipated liability under the tax receivable agreement. The reduction in the tax receivable agreement resulted in \$46.2 million recognized in the Company's statement of operations for the year ended December 31, 2017 due primarily to the decrease in the federal corporate tax rate from 35% to 21%. The Company did not have a comparable charge in the current year. See Note 15 to the consolidated financial statements.

Other Income (Expense), net

Other income was \$6.0 million for the year ended December 31, 2018 due primarily to the gain resulting from the Foley Transaction. Other expense of \$31.9 million for the year ended December 31, 2017 was primarily due to the \$32.3 million loss generated by the U.S. Pressure Pipe Divestiture during July 2017. See Note 3 to the consolidated financial statements.

Income Tax (Expense) Benefit

Income tax (expense) benefit changed by \$43.8 million to an income tax expense of \$3.1 million in the year ended December 31, 2018 from an income tax benefit of \$40.7 million in the year ended December 31, 2017. The change is due largely to the impact of the lower corporate tax rates enacted in December 2017 as a result of the TCJA, the smaller loss before income taxes recorded for the year ended December 31, 2018 compared to 2017, inclusion of the global intangible low-tax income, the foreign tax rate differential and the change in valuation allowance. See Note 19 to the consolidated financial statements.

On December 22, 2017, the U.S. government enacted the TCJA. Changes included, but were not limited to, a marginal corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. We provisionally calculated our best estimate of the impact of the TCJA in our 2017 year end income tax provision in accordance with our understanding of the TCJA and guidance available which resulted in a \$26.9 million additional income tax benefit in the year ended December 31, 2017. We consider the accounting for TCJA complete as of December 31, 2018. We did not record any significant adjustments to the originally recorded amount.

Segment Results of Operations

(in thousands)

	For the year ended December 31,		% Change
	2018	2017	
Net sales:			
Drainage Pipe & Products	\$ 811,477	\$ 834,810	(2.8)%
Water Pipe & Products	668,235	745,555	(10.4)%
Corporate and Other	—	48	(100.0)%
Total	<u>\$ 1,479,712</u>	<u>\$ 1,580,413</u>	(6.4)%
Gross profit (loss):			
Drainage Pipe & Products	174,786	147,741	18.3 %
Water Pipe & Products	71,471	108,320	(34.0)%
Corporate and Other	(688)	(2,953)	(76.7)%
Total	<u>\$ 245,569</u>	<u>\$ 253,108</u>	(3.0)%
Segment EBITDA⁽¹⁾:			
Drainage Pipe & Products	156,735	129,618	20.9 %
Water Pipe & Products ⁽²⁾	64,547	47,587	35.6 %
Corporate and Other	(58,802)	(44,870)	31.0 %

(1) For purposes of evaluating segment performance, the Company's chief operating decision maker reviews earnings before interest, taxes, depreciation and amortization, or EBITDA, as a basis for making the decisions to allocate resources and assess performance. Our discussion below includes the primary drivers of EBITDA. See Note 20 to our consolidated financial statements, for segment EBITDA reconciliation to income (loss) before income taxes.

(2) For the 2017 period, segment EBITDA included a \$32.3 million loss as a result of the U.S. Pressure Pipe Divestiture in July 2017.

Drainage Pipe & Products

Net Sales

Net sales decreased by \$23.3 million, or 2.8%, to \$811.5 million in the year ended December 31, 2018 from \$834.8 million in the year ended December 31, 2017. Excluding net sales of \$42.3 million associated with the Foley Transaction, net sales increased by \$19.0 million or 2.3%. The increase was due primarily to higher average selling prices that offset the impact of a decline in shipments.

Gross Profit

Gross profit was \$174.8 million in the year ended December 31, 2018, an increase of \$27.1 million or 18.3% from \$147.7 million in the year ended December 31, 2017. The increase was primarily due to higher average selling prices that more than offset higher cost of goods sold including labor, freight, and raw materials.

Water Pipe & Products

Net Sales

For the year ended December 31, 2018, net sales were \$668.2 million, a decrease of \$77.4 million or 10.4% from \$745.6 million for the year ended December 31, 2017. The decrease was primarily attributable to the sale of the U.S. concrete and steel pressure pipe business in July 2017 that contributed net sales of \$72.7 million. Excluding the impact of the divestiture, net sales declined by 1% due to lower sales of fabrication, fittings

and large diameter concrete pressure pipe in Canada that were not fully offset by the growth in sales of ductile iron pipe. The sales growth for ductile iron pipe was due to higher average selling prices.

Gross Profit

Gross profit was \$71.5 million in the year ended December 31, 2018, a decrease of \$36.8 million or 34.0% from \$108.3 million in the year ended December 31, 2017. The decrease was due primarily to the impact of higher scrap steel, labor and freight costs that were not fully offset by higher average selling prices.

Other

For the year ended December 31, 2017, EBITDA included a \$32.3 million loss generated by the U.S. Pressure Pipe Divestiture in July 2017. In addition, for the year ended December 31, 2017, EBITDA included \$3.0 million for a goodwill impairment and \$7.5 million for long-lived asset impairment charges. See Note 8 to the consolidated financial statements.

Year Ended December 31, 2017 as Compared to the Year Ended December 31, 2016

Total Company

The following table summarizes certain financial information relating to our operating results for the years ended December 31, 2017 and December 31, 2016 (in thousands).

Statements of Income Data:	Year ended December 31, 2017	Year ended December 31, 2016	% Change
Net sales	\$ 1,580,413	\$ 1,363,962	15.9 %
Cost of goods sold	1,327,305	1,083,508	22.5 %
Gross profit	253,108	280,454	(9.8)%
Selling, general and administrative expenses	(255,034)	(216,099)	18.0 %
Impairment and exit charges	(13,220)	(2,218)	*
Earnings from equity method investee	12,360	11,947	3.5 %
Loss on sale of property, plant and equipment, net	(2,107)	(21,274)	(90.1)%
Other operating income	7,304	10,303	(29.1)%
	<u>(250,697)</u>	<u>(217,341)</u>	15.3 %
Income from operations	2,411	63,113	(96.2)%
Other income (expenses)			
Interest expense	(59,408)	(125,048)	(52.5)%
Change in tax receivable agreement liability	46,180	—	*
Other expense, net	(31,915)	(847)	*
Loss before income taxes	(42,732)	(62,782)	(31.9)%
Income tax benefit	40,672	51,692	(21.3)%
Loss from continuing operations	(2,060)	\$ (11,090)	(81.4)%
Discontinued operations, net of tax	—	\$ 3,484	(100.0)%
Net loss	<u>\$ (2,060)</u>	<u>\$ (7,606)</u>	(72.9)%

* Represents positive or negative change in excess of 100%

Net Sales

Net sales for the year ended December 31, 2017 were \$1,580.4 million, an increase of \$216.4 million or 15.9% from \$1,364.0 million for the year ended December 31, 2016. Net sales increased by approximately \$253.5 million due to our acquisitions made throughout 2016 and early 2017, offset by a decrease due to the divestiture of our U.S. concrete and steel pressure pipe business of \$38.7 million. Our legacy businesses have experienced growth in certain markets due to favorable weather driving up volumes contributing an additional \$26.0 million of net sales, partially offset by a decrease of \$24.4 million in our Canadian concrete and steel pressure pipe business.

Cost of Goods Sold

Cost of goods sold were \$1,327.3 million for the year ended December 31, 2017, an increase of \$243.8 million or 22.5% from \$1,083.5 million in the year ended December 31, 2016. The increase in cost of goods sold due to our acquisitions totaled \$199.2 million, offset by a decrease of \$39.0 million due to the divestiture of our U.S. concrete and steel pressure pipe business. Costs of goods sold in our existing businesses increased by \$94.8 million due in part to higher volumes, but also due to the higher cost of labor, freight, and raw materials, offset by a decline \$11.2 million in our Canadian concrete and steel pressure pipe business related to decreased volumes.

Gross Profit

Gross profit decreased by \$27.4 million, or 9.8%, to \$253.1 million in the year ended December 31, 2017 from \$280.5 million in the year ended December 31, 2016. Gross profit decreased due to higher cost of goods sold including labor, freight and raw materials.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$255.0 million in the year ended December 31, 2017, an increase of \$38.9 million or 18.0% from \$216.1 million in the year ended December 31, 2016. The increase was partially attributable to added costs from our acquisitions of \$42.5 million, offset by \$3.6 million primarily due to various cost saving initiatives.

Impairment and Exit Charges

We recognized \$3.0 million of goodwill impairment related to our Canadian concrete pressure pipe reporting unit and \$7.5 million of long-lived asset impairment related to the sale of our U.S. concrete and steel pressure pipe business in the year ended December 31, 2017. See Note 8, Goodwill and other intangible assets and Note 3, Acquisitions and divestitures to the consolidated financial statements. In addition, we recognized \$2.7 million for the year ended December 31, 2017 for severance and contract termination charges that primarily related to the closure of certain locations compared to \$2.2 million in the prior year.

Loss on Sale of Property, Plant and Equipment, Net

Loss on disposal of property, plant and equipment was \$2.1 million for the year ended December 31, 2017 as compared to \$21.3 million for the year ended December 31, 2016. The 2016 net loss was primarily driven by a loss on properties sold in the sale-leaseback as described in Note 14, Sale-leaseback transaction, of \$19.6 million.

Interest Expense

Interest expense decreased by \$65.6 million, or 52.5%, to \$59.4 million in the year ended December 31, 2017 from \$125.0 million in the year ended December 31, 2016. This decrease was primarily due to the repayment of the Junior Term Loan in connection with the IPO, the write-off of the related debt issuance costs of the Junior Term Loan, and the lower effective interest rates in 2017 under the 2016 Revolver and 2016 Senior Term Loan as compared to 2016 under the 2015 Revolver and the 2015 Senior Term Loan.

Change in Tax Receivable Agreement Liability

The passage of the TCJA, defined below, significantly reduced the Company's anticipated liability under the tax receivable agreement during 2017. The 2017 reduction in the tax receivable agreement resulted in \$46.2 million recognized in the Company's statement of operations for the year ended December 31, 2017 due primarily to the decrease in the federal corporate tax rate from 35% to 21%.

Other Expense, net

Other expense, net increased by \$31.1 million in the year ended December 31, 2017 primarily due to the \$32.3 million loss generated by the U.S. Pressure Pipe Divestiture during July 2017.

Income Tax Benefit

Income tax benefit decreased by \$11.0 million to \$40.7 million in the year ended December 31, 2017 from \$51.7 million in the year ended December 31, 2016. Income tax benefit in 2016 was due largely to the release of valuation allowances previously recognized whereas in 2017, the provisional impact of changes in the tax law resulted in a lower income tax benefit compared to 2016.

On December 22, 2017, the U.S. government enacted comprehensive tax reform legislation commonly known as the Tax Cuts and Jobs Act, or TCJA. Changes included, but were not limited to, a marginal corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. During 2017, we provisionally calculated our best estimate of the impact of the TCJA in the year end income tax provision in accordance with our understanding of the TCJA and guidance available at that time and as a result recorded \$26.9 million as additional income tax benefit in the fourth quarter of 2017.

Segment Results of Operations

(in thousands)

	For the year ended December 31,		% Change
	2017	2016	
Net sales:			
Drainage Pipe & Products	\$ 834,810	\$ 728,872	14.5 %
Water Pipe & Products	745,555	632,573	17.9 %
Corporate and Other	48	2,517	(98.1)%
Total	<u>\$ 1,580,413</u>	<u>\$ 1,363,962</u>	15.9 %
Gross profit (loss):			
Drainage Pipe & Products	147,741	162,442	(9.0)%
Water Pipe & Products	108,320	120,564	(10.2)%
Corporate and Other	(2,953)	(2,552)	15.7 %
Total	<u>\$ 253,108</u>	<u>\$ 280,454</u>	(9.8)%
Segment EBITDA⁽¹⁾:			
Drainage Pipe & Products	129,618	138,274	(6.3)%
Water Pipe & Products ⁽²⁾	47,587	98,641	(51.8)%
Corporate and Other	(44,870)	(81,146)	(44.7)%

(1) For purposes of evaluating segment performance, the Company's chief operating decision maker reviews earnings before interest, taxes, depreciation and amortization, or EBITDA, as a basis for making the decisions to allocate resources and assess performance. Our discussion below includes the primary drivers of EBITDA. See Note 20, *Segment Reporting*, for segment EBITDA reconciliation to income (loss) before income taxes.

(2) For the 2017 period, segment EBITDA included a \$32.3 million loss as a result of the U.S. Pressure Pipe Divestiture in July 2017.

Drainage Pipe & Products

Net Sales

Net sales increased by \$105.9 million, or 14.5%, to \$834.8 million in the year ended December 31, 2017 from \$728.9 million in the year ended December 31, 2016. The increase is due in part to net sales of approximately \$86.6 million provided by our acquisitions. The remaining increase in net sales of \$19.3 million was due to higher net sales in certain regions benefiting from favorable weather, driving increased volumes and average sales price.

Gross Profit

Gross profit was \$147.7 million in the year ended December 31, 2017, a decrease of \$14.7 million, or 9.0%, from \$162.4 million in the year ended December 31, 2016. The decrease was primarily due to higher cost of goods sold including labor, freight, and raw materials. The 2017 gross profit included the impact of non-recurring inventory adjustments of \$2.4 million as a result of the Royal Acquisition.

Water Pipe & Products

Net Sales

For the year ended December 31, 2017, net sales were \$745.6 million, an increase of \$113.0 million or 17.9% from \$632.6 million for the year ended December 31, 2016. The increase was primarily attributable to an additional \$166.8 million in net sales from U.S. Pipe due to a full year of activity in 2017 compared to a partial period in 2016, offset by a decrease in existing business net sales of \$38.6 million due to sale of the U.S. concrete and steel pressure pipe business in July 2017. Our Canadian concrete and steel pressure pipe business has declining volumes, resulting in an additional \$24.3 million decrease in net sales. Growth in U.S. Pipe added approximately \$9.1 million in net sales.

Gross Profit

Gross profit was \$108.3 million in the year ended December 31, 2017, a decrease of \$12.3 million or 10.2% from \$120.6 million in the year ended December 31, 2016. The decrease in gross profit was due to losses incurred by our U.S. concrete and steel pressure pipe business of \$7.0 million prior to its sale in addition to higher costs of freight, labor, and raw materials, namely scrap.

Other

For the year ended December 31, 2017, EBITDA decreased by \$32.3 million due to the loss generated by the U.S. Pressure Pipe Divestiture in July 2017. In addition, for the year ended December 31, 2017, EBITDA decreased by \$3.0 million for a goodwill impairment and \$7.5 million for long-lived asset impairment charges.

Liquidity and Capital Resources

Our primary sources of liquidity are cash on hand, cash from operations and borrowings under our credit agreements. We believe these sources will be sufficient to fund our planned operations and capital expenditures in the next 24 months.

We are currently engaged in a dispute with HeidelbergCement regarding the earnout provision in the purchase agreement entered into in connection with the Acquisition. HeidelbergCement has asserted that a payment should be made in the amount of \$100.0 million. Resolution may be determined by a neutral accountant pursuant to the terms of the purchase agreement, however, it is currently the subject of dispute in court. If it is determined that we are required to make a significant payment to HeidelbergCement, we may not have sufficient cash to make such payment and may be required to incur additional indebtedness. This dispute is discussed in greater detail in Note 15 to our consolidated financial statements.

As of December 31, 2018 and 2017, we had approximately \$35.8 million and \$104.5 million of cash and cash equivalents, respectively, of which \$18.1 million and \$19.1 million, respectively, were held by foreign subsidiaries. All of the cash and cash equivalents as of December 31, 2018 and 2017 were readily convertible as of such dates into currencies used in the Company's operations, including the U.S. dollar. As a result of the TCJA, the Company can repatriate the cumulative undistributed foreign earnings back to the U.S. when needed with minimal additional taxes other than state income and foreign withholding tax.

In connection with the IPO, we entered into a tax receivable agreement with Lone Star that provides for the payment by us to Lone Star of specified amounts in respect of any cash savings as a result of the utilization of certain tax benefits. The actual utilization of the relevant tax benefits as well as the timing of any payments under the tax receivable agreement will vary depending upon a number of factors, including the amount, character and timing of our and our subsidiaries' taxable income in the future. However, we expect that the payments we make under the tax receivable agreement could be substantial. The tax receivable agreement also includes provisions which restrict the incurrence of debt and that require that we make an accelerated payment to Lone Star equal to the present value of all future payments due under the tax receivable agreement, in each case under certain

circumstances. Because of the foregoing, our obligations under the tax receivable agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combinations or other changes of control. The passage of the TCJA significantly reduced the Company's anticipated liability under the tax receivable agreement. The Company's liability recorded for the tax receivable agreement at December 31, 2018 and December 31, 2017 was \$88.8 million and \$117.6 million, respectively. For the year ended December 31, 2018, the Company paid \$30.4 million to Lone Star under the tax receivable agreement. See Item 1A, Risk Factors and Note 15 to the consolidated financial statements.

The \$30.4 million payment under the tax receivable agreement in 2018, pertaining to the 2017 tax year, included the impact of accelerated payments as a result of certain transactions completed in 2017, including the sale of the U.S. concrete and steel pressure pipe business, that caused an acceleration of tax benefits subject to the tax receivable agreement. Our forecast for payments under the tax receivable agreement in 2019, pertaining to the 2018 tax year, is expected to be the range of \$11 to \$12 million. We expect that future annual payments under the tax receivable agreement will decline each year in accordance with our tax basis depreciation and amortization schedule unless future unplanned transactions result in an acceleration of our tax benefits under the agreement.

Credit Agreements

Concurrent with the completion of the IPO, we entered into the 2016 Revolver and the 2016 Senior Term Loan, the proceeds of which, together with a \$125.0 million draw on the 2016 Revolver and \$296.0 million in proceeds from the IPO were used to repay in full and terminate the 2015 Revolver, 2015 Senior Term Loan and Junior Term Loan. On May 1, 2017, we amended the 2016 Senior Term Loan to increase the principal outstanding by an additional \$200.0 million and to reduce the interest margin applicable to the full balance thereof from 3.50% to 3.00%. The net proceeds of the new borrowings were applied to reduce a portion of the outstanding balance on the 2016 Revolver.

As of March 7, 2019, the total debt related to the 2016 Senior Term Loan was \$1,222.9 million, the borrowing under our 2016 Revolver was \$12.0 million, and our available borrowing capacity under the 2016 Revolver was \$230.9 million.

The 2016 Revolver provides for an aggregate principal amount of up to \$300.0 million, with up to \$280.0 million to be made available to the U.S. borrowers and up to \$20.0 million to be made available to the Canadian borrowers. Subject to the conditions set forth in the revolving credit agreement, the 2016 Revolver may be increased by up to the greater of (i) \$100.0 million and (ii) such amount as would not cause the aggregate borrowing base to be exceeded by more than \$50.0 million. Borrowings under the 2016 Revolver may not exceed a borrowing base equal to the sum of (i) 100% of eligible cash, (ii) 85% of eligible accounts receivable and (iii) the lesser of (a) 75% of eligible inventory and (b) 85% of the orderly liquidation value of eligible inventory, with the U.S. and Canadian borrowings being subject to separate borrowing base limitations. The 2016 Revolver matures on October 25, 2021.

The 2016 Senior Term Loan, as amended, provides for a \$1.25 billion senior secured term loan. Subject to the conditions set forth in the term loan agreement, the 2016 Senior Term Loan may be increased by (i) up to the greater of \$285.0 million and 1.0x consolidated EBITDA of Forterra, Inc. and its restricted subsidiaries for the four quarters most recently ended prior to such incurrence plus (ii) the aggregate amount of any voluntary prepayments, plus (iii) an additional amount, provided certain financial tests are met. The 2016 Senior Term Loan matures on October 25, 2023 and is subject to quarterly amortization equal to 0.25% of the initial principal amount. Interest will accrue on outstanding borrowings thereunder at a rate equal to LIBOR (with a floor of 1.0%) or an alternate base rate, in each case plus a margin of 3.00% or 2.00%, respectively.

The 2016 Revolver and the 2016 Senior Term Loan contain customary representations and warranties, and affirmative and negative covenants, that, among other things, restrict our ability to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and pay dividends and make distributions. The 2016 Revolver contains a financial covenant

restricting Forterra from allowing its fixed charge coverage ratio to drop below 1.00:1.00 during a compliance period, which is triggered when the availability under the 2016 Revolver falls below a threshold. The fixed charge coverage ratio is the ratio of consolidated earnings before interest, depreciation, and amortization, less cash payments for capital expenditures and income taxes to consolidated fixed charges (interest expense plus scheduled payments of principal on indebtedness). The 2016 Senior Term Loan does not contain any financial covenants. Obligations under the 2016 Revolver and the 2016 Senior Term Loan may be accelerated upon certain customary events of default (subject to grace periods, as appropriate). As of December 31, 2018, we were in compliance with all applicable covenants under the 2016 Revolver and the 2016 Senior Term Loan.

Cash Flows

The following table sets forth a summary of the net cash provided by (used in) operating, investing and financing activities for the periods presented (*in thousands*).

	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
Statement of Cash Flows data:			
Net cash provided by operating activities	\$ 27,196	\$ 42,334	\$ 76,925
Net cash used in investing activities	(51,052)	(66,023)	(1,062,447)
Net cash (used in) provided by financing activities	(43,451)	86,250	981,728

Net Cash Provided by Operating Activities

Net cash provided by operating activities was \$27.2 million for the year ended December 31, 2018, \$42.3 million for the year ended December 31, 2017 and \$76.9 million for the year ended December 31, 2016. The declines between both periods were primarily due to timing of collections and payments, as well as an increase in inventory as compared to the prior year period.

Operating cash flow declined to \$28.0 million in 2018 as compared to \$42.3 million in the prior year period. Higher income from operations and lower cash taxes in 2018 as compared to 2017 was offset by higher cash interest payments and higher cash utilization associated with changes in assets and liabilities. Excluding the impact of changes in tax-related receivables and payables that resulted in a cash inflow of \$12.8 million in 2018 and cash outflow of \$43.3 million in 2017, the changes in assets and liabilities in 2018 was a cash use of \$52.2 million, compared to a cash use of \$14.3 million in the prior year, due primarily to an increase in ending inventory. Operating cash flow declined to \$42.3 million in 2017 from \$76.9 million in the prior year period. Lower cash interest and cash taxes in 2017 as compared to 2016 was offset by lower income from operations and higher cash utilization associated with changes in assets and liabilities.

Net Cash Used in Investing Activities

Net cash used in investing activities was \$51.1 million for the year ended December 31, 2018 due to capital expenditures of \$48.7 million, final net working capital settlement related to U.S. Pressure Pipe Divestiture of \$8.5 million, settlement on derivative contracts of \$5.0 million, business acquisitions of \$4.5 million and other asset acquisitions of \$1.9 million, partially offset by cash received from the Foley Transaction of \$9.1 million and proceeds from sale of fixed assets of \$8.4 million. Net cash used in investing activities was \$66.0 million for the year ended December 31, 2017 primarily due to capital expenditures of \$52.5 million and Royal acquisition of \$35.5 million, partially offset by \$23.2 million cash proceeds from the U.S. Pressure Pipe Divestiture. Net cash used in investing activities was \$1,062.4 million for the year ended December 31, 2016 due to business acquisitions of \$1,008.2 million and capital expenditures of \$54.3 million.

Net Cash (Used in) Provided by Financing Activities

Net cash used in financing activities was \$43.5 million for the year ended December 31, 2018 due primarily to the payment of \$30.4 million under our tax receivable agreement. Net cash provided by financing activities was \$86.3 million for the year ended December 31, 2017 due primarily to proceeds from additional borrowing under the 2016 Senior Term Loan. Net cash provided by financing activities was \$981.7 million for the year ended December 31, 2016 due primarily to the Refinancing, the IPO, and additional debt incurred as part of the Sherman-Dixie Acquisition, the U.S. Pipe Acquisition and the recapitalization of certain indebtedness to make a distribution to Lone Star in the amount of \$338.3 million, or the Debt Recapitalization, and a capital contribution from Lone Star to be used in the U.S. Pipe Acquisition, partially offset by a dividend to Lone Star in connection with the Debt Recapitalization.

Capital Expenditures

Our capital expenditures were \$48.7 million for the year ended December 31, 2018, \$52.5 million for the year ended December 31, 2017, and \$54.3 million for the year ended December 31, 2016. Capital expenditures primarily related to equipment, such as plant and mobile equipment, expansion of existing facilities and environmental and permit compliance projects.

Off-Balance Sheet Arrangements

In the ordinary course of our business, we are required to provide surety bonds and standby letters of credit to secure performance commitments. As of December 31, 2018, outstanding stand-by letters of credit amounted to \$16.6 million.

Contractual Obligations and Other Long-Term Liabilities

The following table summarizes our significant contractual obligations as of December 31, 2018. Non-cancelable operating leases are presented net of non-cancelable subleases. Some of the amounts included in the table are based on management's estimate and assumptions about these obligations, including their duration, the possibility of renewal, anticipated actions by third parties and other factors. Because these estimates and assumptions are necessarily subjective, our actual payments may vary from those reflected in the table.

	Payment Due by Period						Thereafter
	Total	2019	2020	2021	2022	2023	
	(In thousands)						
Senior term loan	1,222,857	12,510	12,510	12,510	12,510	1,172,817	0
Interest on indebtedness (1)	321,790	68,146	67,631	66,745	66,045	53,223	0
Operating leases	166,741	11,603	10,490	8,547	8,480	9,435	118,186
Capital leases	753,502	16,669	16,807	16,968	17,218	17,433	668,407
Total Commitments	2,464,890	108,928	107,438	104,770	104,253	1,252,908	786,593

(1) The interest rate on the Senior term loan is 5.52%.

Additionally, we have accrued approximately \$73.3 million associated with the tax receivable agreement in long-term liabilities and \$22.7 million of other long-term liabilities as of December 31, 2018. The risks and uncertainties associated with the tax receivable agreement are discussed above and in Note 15 to the consolidated financial statements.

Application of Critical Accounting Policies and Estimates

Business Combinations

Assets acquired and liabilities assumed in business combination transactions, as defined by ASC 805, *Business Combination*, are recorded at fair value using the acquisition method of accounting. We allocate the purchase price of acquisitions based upon the fair value of each component which may be derived from various observable and unobservable inputs and assumptions. Initial purchase price allocations are preliminary and subject to revision within the measurement period, not to exceed one year from the date of the transaction. The fair value of property, plant and equipment and intangible assets may be based upon the discounted cash flow method that involves inputs that are not observable in the market (Level 3). Goodwill assigned represents the amount of consideration transferred in excess of the fair value assigned to identifiable assets acquired and liabilities assumed.

Use of estimates

The preparation of our financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the reporting date, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. These estimates are based on management's best knowledge of current events and actions that the Company may undertake in the future. The more significant estimates made relate to fair value estimates for assets and liabilities acquired in business combinations; accrued liabilities for environmental cleanup, bodily injury and insurance claims; estimates for commitments and contingencies; and estimates for the realizability of deferred tax assets, the tax receivable agreement obligation, inventory reserves, allowance for doubtful accounts and impairment of goodwill and long-lived assets.

Inventories

Inventories are valued at the lower of cost or net realizable value. Our inventories are valued using the average cost and first-in-first-out methods. Inventories include materials, labor and applicable factory overhead costs. The value of inventory is adjusted for damaged, obsolete, excess and slow-moving inventory. Market value of inventory is estimated considering the impact of market trends, an evaluation of economic conditions, and the value of current orders relating to the future sales of each respective component of inventory.

Goodwill and other intangible assets, net

Goodwill represents the excess of costs over the fair value of identifiable assets acquired and liabilities assumed. We evaluate goodwill and intangible assets in accordance with ASC 350, *Goodwill and Other Intangible Assets* which requires goodwill to be either qualitatively or quantitatively assessed for impairment annually (or more frequently if impairment indicators arise) for each reporting unit. We perform our annual impairment testing of goodwill as of October 1 of each year and in interim periods if events occur that would indicate that it is more likely than not the fair value of a reporting unit is less than carrying value. We first assesses qualitative factors to evaluate whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as the basis for determining whether it is necessary to perform a quantitative goodwill impairment test. We may bypass the qualitative assessment for any reporting unit in any period and proceed directly with the quantitative analysis. The quantitative analysis compares the fair value of the reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds the fair value, impairment is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

We determine the fair value of our reporting units using a weighted combination of the discounted cash flow method (income approach) and the guideline company method (market approach). Determining the fair value of a reporting unit requires judgment and the use of significant estimates and assumptions. Such estimates and assumptions include future revenue growth rates, gross profit margins, EBITDA margins, future capital expenditures, weighted average costs of capital and future market conditions, among others. We believe the estimates and assumptions used in our impairment assessments are reasonable; however, variations in any of the assumptions could result in materially different calculations of fair value and determinations of whether or not an impairment is indicated. Under the discounted cash flow method, we determine fair value based on estimated future cash flows of each reporting unit including estimates for capital expenditures, discounted to present value using the risk-adjusted industry rate, which reflect the overall level of inherent risk of the reporting unit. Cash flow

projections are derived from one year budgeted amounts and five year operating forecasts plus an estimate of later period cash flows, all of which are evaluated by management. Subsequent period cash flows are developed for each reporting unit using growth rates that management believes are reasonably likely to occur. Under the guideline company method, we determine the estimated fair value of each of our reporting units by applying valuation multiples of comparable publicly-traded companies to each reporting unit's projected EBITDA and then averaging that estimate with similar historical calculations using a three-year average. In addition, we estimate a reasonable control premium representing the incremental value that accrues to the majority owner from the opportunity to dictate the strategic and operational actions of the business.

Key assumptions for the measurement of an impairment include management's estimate of future cash flows and EBITDA. The estimates of future cash flows and EBITDA are subjective in nature and are subject to impacts from the business risks described in "Item 1A. Risk Factors." Therefore, the actual results could differ significantly from the amounts used for goodwill impairment testing, and significant changes in fair value estimates could occur, resulting in potential impairments in future periods.

In 2018, the calculated fair value of the reporting units exceeded book value in all circumstances; however, for the US Pipe reporting unit, the fair value exceeded the book value by only 4.2%. The amount of goodwill allocated to the reporting unit was \$318.4 million as of December 31, 2018. If the projected rate of long-term growth of cash flows or revenues declined by 1.0%, the fair value of the US Pipe reporting unit would still exceed the book value.

Income Taxes

Deferred tax assets generally represent items that can be used as a tax deduction or credit in our tax returns in future years for which a tax benefit has already been recorded in our income statement. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if, based on the available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax liabilities generally represent tax expense recognized in the financial statements for which payment has been deferred, or expense for which we have already taken a deduction in its tax return but have not yet recognized as expense in the financial statements.

We finalized our policy and elected to use the period cost method for GILTI provisions, and therefore, have not recorded deferred taxes for basis differences expected to reverse in future periods.

We recognize a tax benefit for uncertain tax positions only if we believe it is more likely than not that the position will be upheld on audit based solely on the technical merits of the tax position. We evaluate uncertain tax positions after the consideration of all available information. Penalties and interest related to income tax uncertainties, should they occur, would be included in income tax expense in the period in which they are incurred.

Revenue recognition

Revenues are recognized when the risks and rewards associated with the transaction have been transferred to the purchaser, which is demonstrated when all the following conditions are met: evidence of a binding arrangement exists, products have been delivered or services have been rendered, there is no future performance required, fees are fixed or determinable and amounts are collectible under normal payment terms. Sales represent the net amounts charged or chargeable in respect of services rendered and goods supplied, excluding intercompany sales. Sales are recognized net of any discounts given to the customer.

A portion of our sales revenue is derived from sales to distributors. Distributor revenue is recognized when all of the criteria for revenue recognition are met, which is generally the time of shipment to the distributor. All returns and credits are estimable and recognized as contra-revenue.

We incur shipping costs to third parties for the transportation of building products and bill such costs to customers. For the years ended December 31, 2018, 2017 and 2016, we recorded freight costs of approximately

\$127.0 million, \$132.3 million, \$104.6 million, respectively, on a gross basis within net sales and cost of goods sold in the accompanying statements of operations.

For certain engineering and construction contracts and building contracting arrangements, we recognize revenue using the percentage of completion method, based on total contract costs incurred to date compared to total estimated cost at completion for each contract. Changes to total estimated contract cost or losses, if any, are recognized in the period in which they are determined. Pre-contract costs are expensed as incurred. If estimated total costs on a contract indicate a loss, the entire loss is provided for in the financial statements immediately. To the extent we have invoiced and collected from customers more revenue than has been recognized as revenue using the percentage of completion method, we record the excess amount invoiced as deferred revenue. Revenue recognized in excess of amounts billed and balances billed but not yet paid by customers under retainage provisions are classified as a current asset within receivables, net on the balance sheet. For the years ended December 31, 2018, December 31, 2017, and December 31, 2016, revenue recognized in continuing operations using the percentage of completion method amounted to 1%, 3%, and 3% of total net sales, respectively.

We generally provide limited warranties related to our products which cover manufacturing in accordance with the specifications identified on the face of our quotation or order acknowledgment and to be free of defects in workmanship or materials. The warranty periods typically extend for a limited duration of one year. We estimate and accrue for potential warranty exposure related to products which have been delivered.

Recent Accounting Guidance Adopted

A summary of recent accounting pronouncements and our assessment of any expected impact of these pronouncements if known is included in Note 2 to the audited financial statements included elsewhere in this Report.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

In the normal course of business, we are exposed to financial risks such as changes in interest rates, foreign currency exchange rates and commodity price risk associated with our input costs. We utilize derivative instruments to manage selected foreign exchange and interest rate exposures. See Note 13 to the financial statements.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our long-term debt. The interest expense associated with our long-term debt will vary with market rates. In February 2017, we entered into two interest rate swap transactions with a combined notional value of \$525 million to limit our exposure to interest rate increases related to a portion of our floating rate indebtedness. Under the terms of both swap transactions, we agreed to pay a fixed rate of interest of 1.52% and receive floating rate interest indexed to one-month LIBOR with monthly settlement terms with the swap counterparties. The swaps have a three-year term and expire on March 31, 2020. At December 31, 2018, we estimate that 1% increase in the rates relating to the portion of our floating rate debt that is not hedged would increase annual interest requirements by approximately \$7.0 million.

As noted in Item 1A, Risk Factors, borrowings under our 2016 Senior Term Loan and our 2016 Revolver may use the London Interbank Offering Rate ("LIBOR") as a benchmark for establishing the applicable interest rate. LIBOR is the subject of recent regulatory guidance and proposals for reform, which may cause LIBOR to cease to be used entirely or to perform differently after 2021 than it has in the past. The consequences of these developments with respect to LIBOR cannot be entirely predicted but could result in an increase in the cost of our variable rate indebtedness causing a negative impact on our financial position, liquidity and results of operations. We plan to carefully monitor the situation and may seek to renegotiate the benchmark for establishing the applicable interest rate with our lenders in the future.

Foreign Currency Risk

Approximately 6.1% of our net sales for the year ended December 31, 2018 were made in countries outside of the U.S. As a result, we are exposed to movements in foreign exchange rates between the U.S. dollar and other currencies. Based upon our net sales for the year ended December 31, 2018, we estimate that a 1% change in the exchange rate between the U.S. dollar and foreign currencies would affect net sales by approximately \$0.9 million. This may differ from actual results depending on the levels of net sales outside of the U.S.

Commodity Price Risk

We are subject to commodity price risks with respect to price changes mainly in the electricity and natural gas markets and other raw material costs, such as cement, aggregates, steel and clay. Price fluctuations on our key inputs have a significant effect on our financial performance. The markets for most of these commodities are cyclical and are affected by factors such as global economic conditions, changes in or disruptions to industry production capacity, changes in inventory levels and other factors beyond our control.

Credit Risk

Financial instruments that potentially subject us to a concentration of credit risk consist principally of accounts receivable. We provide our products to customers based on an evaluation of the financial condition of our customers, generally without requiring collateral. Exposure to losses on receivables is principally dependent on each customer's financial condition. We monitor the exposure for credit losses and maintain allowances for anticipated losses. Concentrations of credit risk with respect to our accounts receivable are limited due to the large number of customers comprising our customer base and their dispersion among many different geographies.

At December 31, 2018 and 2017, we had an individual customer within our Water Pipe & Products segment that accounted for more than 10% of total net sales for the years ended December 31, 2018 and 2017. The customer represented approximately 14% and 13% of our total net sales for the years ended December 31, 2018 and 2017, respectively, and had total receivables at December 31, 2018 and 2017 totaling 16% and 17% of our total receivables, net, respectively.

Item 8. Financial Statements and Supplementary Data

TABLE OF CONTENTS

Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm	63
Consolidated Statements of Operations	64
Consolidated Statements of Comprehensive Income (Loss)	65
Consolidated Balance Sheets	66
Consolidated Statements of Shareholders' Equity	67
Consolidated Statements of Cash Flows	68
Consolidated Notes to Financial Statements	69

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Forterra, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Forterra, Inc. (the Company) as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and cash flows for the each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated March 12, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2013.

Dallas, Texas
March 12, 2019

FORTERRA, INC.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year ended December 31,		
	2018	2017	2016
Net sales	\$ 1,479,712	\$ 1,580,413	\$ 1,363,962
Cost of goods sold	1,234,143	1,327,305	1,083,508
Gross profit	245,569	253,108	280,454
Selling, general & administrative expenses	(209,877)	(255,034)	(216,099)
Impairment and exit charges	(4,336)	(13,220)	(2,218)
Earnings from equity method investee	10,162	12,360	11,947
Gain (loss) on sale of property, plant, and equipment, net	4,267	(2,107)	(21,274)
Other operating income, net	5,256	7,304	10,303
	(194,528)	(250,697)	(217,341)
Income from operations	51,041	2,411	63,113
Other income (expenses)			
Interest expense	(78,337)	(59,408)	(125,048)
Change in tax receivable agreement liability	—	46,180	—
Other income (expense), net	6,016	(31,915)	(847)
Loss before income taxes	(21,280)	(42,732)	(62,782)
Income tax (expense) benefit	(3,085)	40,672	51,692
Loss from continuing operations	(24,365)	(2,060)	(11,090)
Discontinued operations, net of tax	—	—	3,484
Net loss	\$ (24,365)	\$ (2,060)	\$ (7,606)
Basic and Diluted earnings (loss) per share:			
Continuing operations	\$ (0.38)	\$ (0.03)	\$ (0.23)
Discontinued operations	\$ —	\$ —	\$ 0.07
Net loss	\$ (0.38)	\$ (0.03)	\$ (0.16)
Weighted average shares of common stock outstanding:			
Basic and Diluted	63,904	63,801	49,053

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Year ended December 31,		
	2018	2017	2016
Net loss	\$ (24,365)	\$ (2,060)	\$ (7,606)
Unrealized gain (loss) on derivative activities, net of tax	970	(3,548)	215
Foreign currency translation adjustment	(5,782)	3,475	(472)
Comprehensive loss	<u>\$ (29,177)</u>	<u>\$ (2,133)</u>	<u>\$ (7,863)</u>

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Balance Sheets
(in thousands, except per share data)

	December 31,	
	2018	2017
ASSETS		
Current assets		
Cash and cash equivalents	\$ 35,793	\$ 104,534
Receivables, net	198,468	192,654
Inventories	285,030	236,655
Prepaid expenses	7,289	5,381
Other current assets	17,509	27,059
Current assets held for sale	—	12,242
Total current assets	<u>544,089</u>	<u>578,525</u>
Non-current assets		
Property, plant and equipment, net	492,167	412,572
Goodwill	508,193	496,141
Intangible assets, net	183,789	225,304
Investment in equity method investee	50,607	54,445
Other long-term assets	14,407	18,866
Non-current assets held for sale	—	25,385
Total assets	<u>\$ 1,793,252</u>	<u>\$ 1,811,238</u>
LIABILITIES AND EQUITY		
Current liabilities		
Trade payables	\$ 114,708	\$ 108,560
Accrued liabilities	70,236	72,782
Deferred revenue	9,138	9,029
Current portion of long-term debt	12,510	12,510
Current portion of tax receivable agreement	15,457	34,601
Current liabilities held for sale	—	4,615
Total current liabilities	<u>222,049</u>	<u>242,097</u>
Non-current liabilities		
Long-term debt	1,176,095	1,181,277
Long-term capital leases	134,948	4,155
Deferred tax liabilities	46,615	67,481
Deferred gain on sale-leaseback	9,338	75,743
Other long-term liabilities	22,667	25,032
Long-term tax receivable agreement	73,318	82,962
Total liabilities	<u>1,685,030</u>	<u>1,678,747</u>
Commitments and Contingencies (Note 15)		
Equity		
Common stock, \$0.001 par value. 190,000 shares authorized; 64,206 and 64,231 shares issued and outstanding at December 31, 2018 and December 31, 2017, respectively	18	18
Additional paid-in-capital	234,931	230,023
Accumulated other comprehensive loss	(10,740)	(5,098)
Retained deficit	(115,987)	(92,452)
Total shareholders' equity	<u>108,222</u>	<u>132,491</u>
Total liabilities and shareholders' equity	<u>\$ 1,793,252</u>	<u>\$ 1,811,238</u>

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Statements of Shareholders' Equity
(in thousands, except share data)

	Common Stock		Additional Paid-in-Capital	Accumulated Other Comprehensive Income (Loss)	Retained Deficit	Total Shareholders' Equity
	Shares	Amount				
Balance at December 31, 2015	—	\$ —	\$ 139,869	\$ (4,768)	\$ (82,786)	\$ 52,315
Capital contributions from parent	—	—	402,127	—	—	402,127
Return of contributed capital, net	—	—	(325,148)	—	—	(325,148)
Brick Disposition, net of tax	—	—	(150,222)	—	—	(150,222)
Issuance of common stock at Reorganization	45,369,474	—	—	—	—	—
Issuance of common stock at IPO	18,420,000	18	303,787	—	—	303,805
Stock-based plan activity	134,650	—	—	—	—	—
Issuance of tax receivable agreement, net of tax	—	—	(142,349)	—	—	(142,349)
Share-based compensation expense	—	—	252	—	—	252
Net loss	—	—	—	—	(7,606)	(7,606)
Gains on derivative transactions, net of tax	—	—	—	215	—	215
Foreign currency translation adjustment	—	—	—	(472)	—	(472)
Balance at December 31, 2016	63,924,124	\$ 18	\$ 228,316	\$ (5,025)	\$ (90,392)	\$ 132,917
Share-based compensation expense	—	—	3,696	—	—	3,696
Stock-based plan activity	306,764	—	(37)	—	—	(37)
Net loss	—	—	—	—	(2,060)	(2,060)
Loss on derivative transactions, net of tax	—	—	—	(3,548)	—	(3,548)
Foreign currency translation adjustment	—	—	—	3,475	—	3,475
Other	—	—	(1,952)	—	—	(1,952)
Balance at December 31, 2017	64,230,888	\$ 18	\$ 230,023	\$ (5,098)	\$ (92,452)	\$ 132,491
Share-based compensation expense	—	—	6,240	—	—	6,240
Stock-based plan activity	(25,284)	—	(126)	—	—	(126)
Net loss	—	—	—	—	(24,365)	(24,365)
Gain on derivative transactions, net of tax	—	—	—	970	—	970
Reclassification due to the adoption of ASU 2018-02	—	—	—	(830)	830	—
Foreign currency translation adjustment	—	—	—	(5,782)	—	(5,782)
Other	—	—	(1,206)	—	—	(1,206)
Balance at December 31, 2018	64,205,604	\$ 18	\$ 234,931	\$ (10,740)	\$ (115,987)	\$ 108,222

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year ended December 31,		
	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	\$ (24,365)	\$ (2,060)	\$ (7,606)
<i>Adjustments to reconcile net loss to net cash provided by operating activities:</i>			
Depreciation & amortization expense	105,423	115,659	99,873
(Gain) / loss on business divestiture	(6,016)	32,278	—
(Gain) / loss on disposal of property, plant and equipment	(4,266)	2,107	21,267
Amortization of debt discount and issuance costs	8,143	8,123	8,244
Stock-based compensation expense	6,240	3,696	252
Impairment on property, plant, and equipment and goodwill	956	10,551	—
Write-off of debt discount and issuance costs	—	—	22,385
Earnings from equity method investee	(10,162)	(12,360)	(11,947)
Distributions from equity method investee	13,141	13,717	13,293
Unrealized (gain) loss on derivative instruments, net	(1,408)	(5,251)	2,945
Unrealized foreign currency gains, net	(527)	(615)	(5,485)
Provision (recoveries) for doubtful accounts	(1,224)	2,947	(1,864)
Deferred income taxes	(20,768)	(25,496)	(67,619)
Tax receivable agreement non-cash items	—	(46,180)	—
Deferred rent	1,373	2,616	1,371
Other non-cash items	83	196	1,012
<i>Change in assets and liabilities:</i>			
Receivables, net	(2,466)	(16,831)	16,852
Inventories	(45,313)	1,838	14,916
Other current assets	8,657	(24,003)	(6,705)
Accounts payable and accrued liabilities	(4,548)	(19,424)	(27,655)
Other assets & liabilities	4,243	826	3,396
NET CASH PROVIDED BY OPERATING ACTIVITIES	27,196	42,334	76,925
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment, and intangible assets	(50,609)	(52,514)	(54,289)
Proceeds from business divestiture	618	23,200	—
Proceeds from sale of fixed assets	8,429	—	—
Settlement of net investment hedges	(4,990)	—	—
Assets and liabilities acquired, business combinations, net	(4,500)	(36,709)	(1,008,158)
NET CASH USED IN INVESTING ACTIVITIES	(51,052)	(66,023)	(1,062,447)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from sale-leaseback	—	—	216,280
Payments of debt issuance costs	—	(2,498)	(20,036)
Proceeds from issuance of common stock, net	—	—	303,805
Payments on senior and junior term loans	(12,510)	(12,008)	(1,300,536)
Proceeds from senior and junior term loans, net	—	200,000	1,593,150
Proceeds from revolver	—	194,000	398,611
Payments on revolver	—	(293,000)	(248,173)
Proceeds from settlement of derivatives	—	—	6,546
Payment pursuant to tax receivable agreement	(30,407)	—	—
Capital contribution from parent	—	—	402,127
Payments for return of contributed capital	—	—	(363,582)
Other financing activities	(534)	(244)	(6,464)
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	(43,451)	86,250	981,728
Effect of exchange rate changes on cash	(1,434)	1,949	228
Net change in cash and cash equivalents	(68,741)	64,510	(3,566)
Cash and cash equivalents, beginning of period	104,534	40,024	43,590
Cash and cash equivalents, end of period	\$ 35,793	\$ 104,534	\$ 40,024

1. Organization and description of the business

General

Forterra, Inc. ("Forterra" or the "Company") is involved in the manufacturing, sale and distribution of building products in the United States ("U.S.") and Eastern Canada. Forterra's primary products are concrete drainage pipe, precast concrete structures, and water transmission pipe used in drinking and wastewater systems. These products are used in the residential, infrastructure and non-residential sectors of the construction industry.

Forterra, a Delaware corporation, was formed on June 21, 2016 to hold the business of Forterra Building Products following the Reorganization (as defined below).

The business of Forterra Building Products included indirect wholly-owned subsidiaries of LSF9 Concrete Holdings Ltd., or LSF9. Lone Star Fund IX (U.S.), L.P., which is referred to along with its affiliates and associates, but excluding the Company and other companies that it owns as a result of its investment activity, as Lone Star, through its wholly-owned subsidiary LSF9, acquired the business of Forterra Building Products on March 13, 2015, ("Acquisition"). LSF9, which was formed on February 6, 2015 for the purpose of acquiring the business of Forterra Building Products had no operations prior to the date of the Acquisition.

Prior to the Acquisition, the entities comprising the business of Forterra Building Products which were acquired by Lone Star were indirect wholly-owned subsidiaries of HeidelbergCement A.G., ("HC" or "Parent"), a publicly listed company in Germany, encompassing HC's North American building products operations, which we refer to as BP NAM. LSF9 acquired BP NAM in a business combination which also included the acquisition of HC's U.K.-based building products operations for a total initial purchase price of \$1.33 billion cash, including customary working capital adjustments and a possible earnout of up to \$100.0 million as contingent consideration. The acquisition of BP NAM and HC's UK-based building products business was funded with an equity investment of \$432.3 million and third-party debt in the amount of \$940.0 million. As HC's U.K.-based building products operations are not part of Forterra, Forterra was allocated a proportion of the total debt and equity used in the Acquisition.

Initial Public Offering

On October 6, 2016, Forterra filed an Amended and Restated Certificate of Incorporation which increased the number of authorized shares of common stock from 1,000 with a par value of \$0.01 per share to 190,000,000 with a par value of \$0.001 per share, and, immediately after which, effected a 41,619,472 for one stock split of its issued and outstanding common stock previously approved by the Company's Board of Directors. Following the stock split there were 41,619,472 shares of common stock outstanding. The Company's Amended and Restated Certificate of Incorporation has also authorized 10,000,000 shares of preferred stock that may be issued at the approval of the Company's Board of Directors. No shares of preferred stock have been issued or were outstanding as of December 31, 2018.

On October 25, 2016, Forterra sold 18,420,000 shares of common stock in its initial public offering, or the IPO at a public offering price of \$18.00 per share. The Company received net proceeds of \$313.3 million in the IPO before offering costs.

Reorganization

Prior to the consummation of the IPO, LSF9 distributed its brick operations in the United States and Eastern Canada to an affiliate of Lone Star, or the Bricks Disposition, recognized as a return of capital in the statement of shareholders' equity. Following the Bricks Disposition and prior to the consummation of the IPO, the remaining building products operations of LSF9 in the United States and Eastern Canada, were transferred to Forterra, Inc. in an internal reorganization under common control transaction (the "Reorganization"). Following the Reorganization, Forterra, Inc. became a wholly owned subsidiary of Forterra US Holdings, LLC, which is indirectly wholly owned by an affiliate of Lone Star.

The Reorganization was accounted for as a change in reporting entity, and the consolidated financial statements of the Company have been retrospectively adjusted for all periods presented to reflect the new organizational structure following the Reorganization, including the presentation of discontinued operations associated with the Bricks Disposition.

Refinancing

Concurrent with the completion of the IPO, Forterra entered into a new asset based revolving credit facility for working capital and general corporate purposes, or the 2016 Revolver, and a new \$1.05 billion senior term loan facility, the proceeds of which, together with a \$125.0 million draw on the 2016 Revolver and \$296.0 million in proceeds from the IPO, were used to repay in full and terminate the then-existing asset based revolving credit facility, or the 2015 Revolver, \$1.04 billion senior term loan, or the 2015 Senior Term Loan and \$260.0 million junior term loan, or the Junior term Loan. On May 1, 2017, the Company amended the senior term loan facility entered into concurrent with the IPO to increase the principal outstanding by an additional \$200.0 million and to reduce the interest margin applicable to the full balance thereof, or as amended, the 2016 Senior Term Loan.

The terms of the 2016 Senior Term Loan and 2016 Revolver are described in greater detail in Note 11, Debt and deferred financing costs.

2. Summary of significant accounting policies

Principles of Consolidation

The consolidated financial statements include the accounts and results of operations of Forterra, Inc. and its consolidated subsidiaries. Intercompany transactions and balances have been eliminated in consolidation.

Basis of Presentation

The consolidated financial statements of the Company have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). Certain prior year numbers have been reclassified to conform to current year presentations.

The consolidated financial statements include certain assets and liabilities historically held at LSF9, including the proportionate debt and related interest expense incurred by LSF9 to acquire the Company that Forterra was obligated to pay. The Company's portion of Lone Star's initial \$432.3 million equity investment is \$167.5 million. The Company's allocated portion of the \$940.0 million of third party debt used to finance the Acquisition was \$515.5 million. The remaining \$424.5 million of the debt was allocated to affiliates of LSF9 that are not included in these financial statements based on the amounts affiliates of LSF9 have fully repaid. The Company and the affiliates of LSF9 were co-obligors and jointly and severally liable under the terms of the initial credit agreements related to the 2015 Senior Term Loan, Junior Term Loan and 2015 Revolver or the Initial Credit Agreements. In April of 2016, the Company's affiliate co-obligors were released from joint and several liability under the Initial Credit Agreements and the Company was consequently the sole source of repayment for its \$515.5 million share of the initial obligation under the Initial Credit Agreements. The balance was settled by Forterra in the Refinancing. See further discussion in Note 11, Debt and deferred financing costs.

Business Combinations

Assets acquired and liabilities assumed in business combination transactions, as defined by the Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, 805, *Business Combination*, are recorded at fair value using the acquisition method of accounting. The Company allocates the purchase price of acquisitions based upon the fair value of each component which may be derived from various observable and unobservable inputs and assumptions. Initial purchase price allocations are preliminary and subject to revision within the measurement period, not to exceed one year from the date of the transaction. The fair value of property, plant and equipment and intangible assets may be based upon the discounted cash flow method that involves

inputs that are not observable in the market (Level 3). Goodwill assigned represents the amount of consideration transferred in excess of the fair value assigned to identifiable assets acquired and liabilities assumed.

Use of estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the reporting date, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. These estimates are based on management's best knowledge of current events and actions that the Company may undertake in the future. The more significant estimates made by management relate to fair value estimates for assets and liabilities acquired in business combinations; accrued liabilities for environmental cleanup, bodily injury and insurance claims; estimates for commitments and contingencies; and estimates for the realizability of deferred tax assets, the tax receivable agreement obligation, inventory reserves, allowance for doubtful accounts and impairment of goodwill and long-lived assets.

Cash and cash equivalents

Cash and cash equivalents include cash on hand and other highly liquid investments having an original maturity of less than three months.

Receivables, net

Receivables are recorded at net realizable value, which includes allowances for doubtful accounts. The Company reviews the collectability of trade receivables on an ongoing basis. The Company reserves for trade receivables determined to be uncollectible. This determination is based on the delinquency of the account, the financial condition of the customer and the Company's collection experience.

Concentration of credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily receivables. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral from its customers. The allowances for uncollectible receivables are based upon analysis of economic trends in the construction industry, detailed analysis of the expected collectibility of accounts receivable that are past due and the expected collectibility of overall receivables.

The Company had an individual customer within its Water Pipe & Products segment that accounted for approximately 14% and 13% of the Company's total net sales for the years ended December 31, 2018 and 2017, respectively, and total receivables at December 31, 2018 and 2017 representing 16% and 17% of the Company total receivables, net, respectively.

Concentration of Labor

Approximately 32% of the Company's employees are represented by collective bargaining agreements, and 42% of these employees are included in collective bargaining agreements that expire within 12 months.

Inventories

Inventories are valued at the lower of cost or net realizable value. The Company's inventories are valued using the average cost and first-in-first-out methods. Inventories include materials, labor and applicable factory overhead costs. The value of inventory is adjusted for damaged, obsolete, excess and slow-moving inventory. Market value of inventory is estimated considering the impact of market trends, an evaluation of economic conditions, and the value of current orders relating to the future sales of each respective component of inventory.

Property, plant and equipment, net

Property, plant and equipment, which includes amounts recorded under capital lease arrangements, is stated at cost less accumulated depreciation. Depreciation of property, plant and equipment is computed using the straight-line method over the estimated useful lives of the assets. These lives range from 20 to 40 years for buildings, 4 to 20 years for machinery and equipment, and 5 to 10 years for other equipment and lower of lease term or useful life on leasehold improvements. Repair and maintenance costs are expensed as incurred. The Company's depreciation expense is recorded in cost of goods sold and selling, general and administrative expenses in the statements of operations. The Company capitalizes interest during the active construction of major projects. Capitalized interest is added to the cost of the underlying assets and is depreciated over the useful lives of those assets. There was no interest capitalized for any of the periods presented in the financial statements.

Impairment or disposal of long-lived assets

The Company evaluates the recoverability of its long-lived assets in accordance with the provisions of ASC 360, *Property, Plant and Equipment* ("ASC 360"). ASC 360 requires that long-lived assets and certain identifiable intangibles be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets is measured by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. Such evaluations for impairment are significantly impacted by estimates of future prices for the Company's products, capital needs, economic trends in the construction sector and other factors. If such assets are considered to be impaired, the impairment to be recognized is measured at the amount by which the carrying amount of the assets exceeds their fair value.

Long-lived assets held for sale

The Company accounts for long-lived assets held for sale in accordance with ASC 360 which requires assets to be classified as held for sale when the following criteria are met: 1) management, having the authority to approve the action, commits to a plan to sell; 2) the asset or asset group is available for immediate sale in its present condition; 3) an active program to locate a buyer and other actions required to complete the plan to sell have been initiated; 4) actions required to complete the sale indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn; and 5) the sale is probable to qualify for recognition as a completed sale within one year.

At such time assets or an asset group are determined to be held for sale, its carrying amount is adjusted to the lower of its depreciated book value or its estimated fair value, less costs to sell, and depreciation is no longer recognized. An impairment charge is recognized if the carrying value is in excess of its fair value. The assets and liabilities are required to be classified as held for sale on the accompanying consolidated balance sheets. See additional description in Note 3, Acquisitions and divestitures.

Leases

The Company has both capital and operating leases. Classification is made at the inception of the lease. The classification of leases is based on the extent to which risks and rewards incidental to ownership of a leased asset lie with the lessor or the lessee.

Leased property meeting certain capital lease criteria is capitalized and the present value of the related lease payments is recorded as a liability. The present value of the minimum lease payments is calculated utilizing the lower of the Company's incremental borrowing rate or the lessor's interest rate implicit in the lease, if known by us. Depreciation of capitalized leased assets is computed utilizing the straight-line method over the shorter of the estimated useful life of the asset or the lease term and is included in depreciation and amortization in the Company's consolidated statements of operations. However, if the lease meets the bargain purchase or transfer of ownership criteria, the asset shall be amortized in accordance with the Company's normal depreciation policy for owned assets.

Minimum rent payments under operating leases are recognized as an expense on a straight-line basis over the lease term, including any rent free periods. Operating lease expenses for the years ended December 31, 2018, 2017 and 2016 were approximately \$24.3 million, \$30.8 million and \$12.1 million, respectively.

Goodwill and other intangible assets, net

Goodwill represents the excess of costs over the fair value of identifiable assets acquired and liabilities assumed. The Company evaluates goodwill and intangible assets in accordance with ASC 350, *Goodwill and Other Intangible Assets* ("ASC 350"). ASC 350 requires goodwill to be either qualitatively or quantitatively assessed for impairment annually (or more frequently if impairment indicators arise) for each reporting unit. The Company performs its annual impairment testing of goodwill as of October 1 of each year and in interim periods if events occur that would indicate that it is more likely than not the fair value of a reporting unit is less than carrying value. The Company first assesses qualitative factors to evaluate whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as the basis for determining whether it is necessary to perform a quantitative goodwill impairment test. The Company may bypass the qualitative assessment for any reporting unit in any period and proceed directly with the quantitative analysis. The quantitative analysis compares the fair value of the reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds the fair value, impairment is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

The Company evaluates its intangible assets with finite lives for indications of impairment whenever events or changes in circumstances indicate that the net book value may not be recoverable. Intangible assets with finite lives consist of customer relationships, customer backlogs, and brand names, and are amortized under the consumption method over the estimated useful lives. Factors that could trigger an impairment review include significant under-performance relative to expected historical or projected future operating results, significant changes in the manner of our use of the acquired assets or the strategy for our overall business or significant negative industry or economic trends.

If this evaluation indicates that the value of the intangible asset may be impaired, the Company makes an assessment of the recoverability of the net book value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the asset over the remaining amortization period, the Company reduces the net book value of the related intangible asset to fair value and may adjust the remaining amortization period.

Investment in equity method investee

The Company has an investment in a joint venture accounted for using the equity method. Under the equity method, carrying value is adjusted for the Company's share of the investee's earnings and losses, as well as capital contributions to and distributions from the investee. Distributions in excess of equity method earnings are recognized as a return of investment and recorded as investing cash inflows in the accompanying consolidated statements of cash flows. The Company classifies its share of income and loss related to its investments in its investee as a component of operating income or loss, as the Company's investments in the investee is an extension of the Company's core business operations.

The Company evaluates its investment in the equity method investee for impairment whenever events or changes in circumstances indicate that the carrying value of its investment may have experienced an "other-than-temporary" decline in value. If such conditions exist, the Company compares the estimated fair value of the investment to its carrying value to determine if an impairment is indicated and determines whether the impairment is "other-than-temporary" based on its assessment of all relevant factors, including consideration of the Company's intent and ability to retain its investment.

Derivatives and Hedge Accounting

The Company has entered into derivative instruments to mitigate interest rate and foreign exchange rate risk. Certain derivative instruments are designated for hedge accounting under ASC 815-20, *Derivatives - Hedging*. Instruments that meet hedge criteria are formally designated as hedges at the inception of the instrument.

The Company's derivative assets and liabilities are measured at fair value. Fair value related to the cash flows occurring within one year are classified as current and the fair value related to the cash flows occurring beyond one year are classified as non-current in the consolidated balance sheets. For those instruments designated as hedges, the Company recognizes the changes in fair value in other comprehensive income ("OCI"), and recognizes any ineffectiveness immediately in earnings.

Valuation of derivative assets and liabilities reflect the value of the instrument including counterparty credit risk. These values also take into account the Company's own credit standing.

Deferred financing costs

In conjunction with its debt, the Company had a net balance of \$34.3 million in debt discounts and debt issuance costs as of December 31, 2018. These costs are amortized over the life of the applicable debt instrument to interest expense utilizing the effective interest method.

Fair value measurement

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

Level 1 Inputs – Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.

Level 2 Inputs – Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 Inputs – Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

The Company's other financial instruments consist primarily of cash and cash equivalents, trade and other receivables, accounts payable, accrued expenses, derivative financial instruments and long-term debt. The carrying value of the Company's trade and other receivables, trade payables and accrued expenses approximates fair value due to their highly liquid nature, short-term maturity, or competitive rates assigned to these financial instruments.

The Company adjusts the carrying amount of certain non-financial assets to fair value on a non-recurring basis when they are impaired.

Foreign currency translation

The Company uses the U.S. dollar as its functional currency for operations in the U.S. and Mexico, and the Canadian dollar for operations in Canada. The assets, liabilities, revenues and expenses of the Company's Canadian operations are translated in accordance with ASC 830, *Foreign Currency Matters*.

Environmental remediation liabilities

The Company accrues for costs on an undiscounted basis associated with environmental remediation obligations when such costs are probable and reasonably estimable; if an estimated amount is likely to fall within a range and no amount within that range can be determined to be the better estimate, the minimum amount of the range is recorded. Claims for recoveries from insurance carriers and other third parties are not recorded until it is probable that the recoveries will be realized. Such accruals are adjusted as further information develops or circumstances change. Environmental expenditures that relate to current operations or to conditions caused by past operations are expensed. Expenditures that create future benefits are capitalized. At December 31, 2018 and 2017, the Company had environmental obligations of \$1.6 million and \$1.6 million, respectively, which are recorded within accrued liabilities and other long-term liabilities in the balance sheets.

Stock-based plans

The Company applies the provisions of ASC 718, *Compensation - Stock Compensation*, in its accounting and reporting for stock-based compensation. ASC 718 requires all stock-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. All unvested options outstanding under the Company's option plans have grant prices equal to the market price of the Company's stock on the dates of grant. Compensation cost for restricted stock and restricted stock units is determined based on the fair market value of the Company's stock at the date of grant. Stock-based compensation expense is generally recognized over the required service period, or over a shorter period when employee retirement eligibility is a factor. Awards that may be settled in cash or company stock are classified as liabilities and remeasured at fair value at the end of each reporting period until the awards are settled.

Income Taxes

Deferred tax assets generally represent items that can be used as a tax deduction or credit in the Company's tax returns in future years for which a tax benefit has already been recorded in the Company's income statement. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if, based on the available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax liabilities generally represent tax expense recognized in the financial statements for which payment has been deferred, or expense for which the Company has already taken a deduction in its tax return but have not yet recognized as expense in the financial statements.

At December 31, 2018, the Company finalized its policy and elected to use the period cost method for Global Intangible Low-taxed Income ("GILTI") provisions, and therefore, have not recorded deferred taxes for basis differences expected to reverse in future periods.

The Company recognizes a tax benefit for uncertain tax positions only if the Company believes it is more likely than not that the position will be upheld on audit based solely on the technical merits of the tax position. The Company evaluates uncertain tax positions after the consideration of all available information. Penalties and interest related to income tax uncertainties, should they occur, would be included in income tax expense in the period in which they are incurred.

Revenue recognition

The Company's revenue contracts are primarily single performance obligations for the sale of product both to trade customers and distributors. A majority of revenue recognized by the Company is recognized at the time control is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products. The Company considers several indicators for the transfer of control to its customers, including the significant risks and rewards of ownership of products, the Company's right to payment and the legal title of the products. Based upon the assessment of control indicators, sales to trade customers and distributors are generally recognized when products are delivered to customers.

All variable consideration that may affect the total transaction price, including contractual discounts, rebates, returns and credits, is included in net sales. Estimates for variable consideration are based on historical

experience, anticipated performance and management's judgment. Generally, the Company's contracts do not contain significant financing.

For certain engineering and construction contracts and building contracting arrangements, the Company enters into long-term contracts with customers. Revenue is recognized as the identified performance obligations are satisfied over time using an acceptable input method to measure the progress toward completion of the performance obligation if: the customer receives the benefits as work is performed, the customer controls the asset as it is being produced, or if the product being produced for the customer has no alternative use and the Company has a contractual right to payment. The Company uses its cost incurred to date relative to total estimated costs at completion to measure progress. The Company's contract liabilities consist of billings to customers in excess of revenue recognized which the Company records as deferred revenue. Revenue recognized during the year ended December 31, 2018, which was included in contract liabilities at the beginning of the period was not material. Contract assets include revenue recognized in excess of amounts billed and balances billed but not yet paid by customers under retainage provisions which are classified as a current asset within receivables, net on the Company's balance sheet. The Company had no material contract assets on the consolidated balance sheets as of December 31, 2018 or December 31, 2017. For the years ended December 31, 2018, 2017 and 2016, revenue recognized in continuing operations using the percentage of completion method amounted to 1%, 3%, and 3% and of total net sales, respectively.

The Company records net sales including taxes collected on behalf of its customers. Shipping and handling costs are accounted for as contract fulfillments costs and classified as cost of goods sold. See Note 20, Segment reporting, for the Company's disaggregated revenue disclosures.

The Company incurs shipping costs to third parties for the transportation of building products and bills such costs to customers. For the years ended December 31, 2018, 2017 and 2016, the Company recorded freight costs of approximately \$127.0 million, \$132.3 million and \$104.6 million, respectively, on a gross basis within net sales and cost of goods sold in the accompanying statements of operations.

The Company generally provides limited warranties related to its products which cover manufacturing in accordance with the specifications identified on the face of its quotation or order acknowledgment and to be free of defects in workmanship or materials. The warranty periods typically extend for a limited duration of one year. The Company estimates and accrues for potential warranty exposure related to products which have been delivered.

Cost of goods sold and selling, general and administrative expenses

Cost of goods sold includes costs of production, inbound freight charges for raw materials, outbound freight to customers, purchasing and receiving costs, inspection costs and warehousing at plant distribution facilities. Selling, general and administrative costs include expenses for sales, marketing, legal, accounting and finance services, human resources, customer support, treasury and other general corporate services.

Proceeds from Insurance

In 2016, a facility of the Company sustained fire damage for which insurance claims were made. The Company recognized a net insurance recovery gain of \$3.8 million that was reported as a component of the Company's loss from operations in Other operating income. Proceeds from insurance settlements, except for those directly related to investing or financing activities, were recognized as cash inflows from operating activities. The losses related to such event are recognized as incurred. As the majority of the damage was to fully depreciated assets, the amount of losses were less than the amount of the insurance proceeds received. Insurance proceeds are recorded to the extent of the losses and then, only if recovery is realized or probable. Any gain in excess of losses are recognized only when the contingencies regarding the recovery are resolved, and the amount is fixed or determinable.

Recent Accounting Guidance Adopted

In May 2014, FASB issued Accounting Standards Update (“ASU”) 2014-09, *Revenue from Contracts with Customers (Topic 606)* and issued subsequent amendments to the initial guidance. Topic 606 supersedes the revenue recognition requirements in Topic 605, *Revenue Recognition*. The new guidance outlines a single comprehensive model for accounting for revenue arising from contracts with customers. This guidance requires an entity to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services and also requires certain additional disclosures. The Company adopted the new standard on January 1, 2018 using the modified retrospective method which did not have a material impact on the Company's consolidated financial statements for the year ended December 31, 2018 and is not expected to have a material impact in future periods. No adjustment to retained earnings was required for the cumulative effect of initially applying the new standard. Results for periods beginning on or after January 1, 2018 are presented under Topic 606, which prior period amounts are not adjusted and continue to be reported in accordance with the prior accounting guidance under Topic 605, *Revenue Recognition*.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, providing guidance on eight specific cash flow statement classification matters, including but not limited to prepayment of debt or debt extinguishment costs, contingent consideration payments made after a business combination, insurance claims and policies, and distributions received from equity method investees. The Company adopted this standard on January 1, 2018. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* to allow a reclassification from accumulated other comprehensive income (“AOCI”) to retained earnings for stranded tax effects resulting from the U.S. tax reform legislation commonly known as the Tax Cuts and Jobs Act of 2017 (“TCJA”). This guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years, with early adoption permitted. The Company early adopted the guidance provided in the ASU during the first quarter of 2018 and reclassified \$0.8 million of stranded deferred tax benefits related to its derivative instruments from accumulated other comprehensive loss to retained deficit.

In March 2018, the FASB issued ASU 2018-05, *Income Taxes - Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118*, which added paragraphs to the codification pursuant to the SEC Staff Accounting Bulletin No. 118, which addressed the application of U.S. GAAP in situations when a company does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to finalize the calculations for the 2017 income tax effects of the TCJA. ASU 2018-05 provides entities with a one year measurement period from the December 22, 2017 enactment date to complete the accounting for the effects of the TCJA. See Note 19, Income taxes, for a further discussion of the effect of the TCJA on the Company's income taxes.

In August 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. ASU 2018-15 requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance to determine which implementation costs to defer and recognize as an asset. Capitalized implementation costs are amortized over the term of the hosting arrangement, and the expense related to the capitalized implementation costs is recorded in the same line in the financial statements as the cloud service cost. The guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, with early adoption permitted. The Company early adopted the guidance provided in the ASU during the third quarter of 2018 and applied the new guidance prospectively. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

Recent Accounting Guidance Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which establishes the principles that lessees and lessors shall apply to report information about the amount, timing, and uncertainty of cash flows arising from a lease. Under the new guidance, lessees are required to recognize a right-of-use asset and a lease liability, measured on a discounted basis, at the commencement date for all leases with terms greater than twelve months. Additionally, this guidance will require disclosures to help investors and other financial statement users better understand the amount, timing and uncertainty of cash flows arising from leases, including qualitative and quantitative requirements. The Company will adopt the guidance beginning the first quarter of 2019, using the transition approach that permits application of the new standard at the adoption date instead of the earliest comparative period presented in the financial statements. Upon adoption, the Company expects to record a right-of-use asset and lease liability of approximately \$60 million to \$70 million as of January 1, 2019. The Company is implementing processes and information technology tools to assist in its ongoing lease data collection and analysis and updating its accounting policies and internal control procedures that will be impacted by the new guidance.

3. Acquisitions and divestitures

The acquisitions described below have been/are accounted for as a business combinations as defined by ASC 805. The Company allocated the purchase price to the individually identifiable assets acquired and liabilities assumed based on their estimated fair value on the date of acquisition. The excess purchase price over those fair values was recorded as goodwill. The determination of fair values of the acquired assets and assumed liabilities required significant judgment, including estimates impacting the determination of estimated lives of tangible and intangible assets, calculation of the fair value of property, plant and equipment, inventory, and various intangibles. The fair values of assets and liabilities were determined using level 3 inputs as defined by ASC 820.

2018 transactions

Acquisitions

On April 2, 2018, the Company acquired substantially all the assets of Watkins Industries, Inc. for aggregate consideration of \$4.5 million in cash. During the third quarter of 2018, the Company acquired certain assets of Anchor Concrete Products, Ltd. in Kingston, Ontario, for aggregate consideration of \$2.5 million in cash.

Divestitures

On January 31, 2018, the Company divested assets relating to the operation of certain Drainage Pipe & Products facilities in Tennessee, Alabama, and Georgia to Foley Products Company ("Foley") in exchange for \$9.1 million in cash, land in Texas and a Drainage Pipe & Products facility located in Prentiss, Mississippi.

The acquisition side of the exchange transaction was accounted for as a business combination as defined by FASB ASC 805, *Business Combinations*. In accordance with ASC 805, the purchase price is measured as the acquisition date fair value of the assets transferred by the Company to Foley in the exchange. In the exchange, the Company divested of the net working capital and certain of the real property of its Drainage Pipe & Products plants in Tennessee and Alabama, as well as the net working capital of certain Drainage Pipe & Products plants in Georgia. The purchase price of \$37.2 million was the fair value of the divested assets which resulted in the recognition of a gain of \$6.0 million, recognized in Other income, net. The Company allocated the purchase price to the individually identifiable assets acquired and liabilities assumed based on their estimated fair value on the date of acquisition. The excess purchase price over those fair values was recorded as goodwill.

The determination of fair values of the divested and acquired assets and assumed liabilities requires significant judgment, including estimates impacting the determination of estimated lives of tangible and intangible assets, calculation of the fair value of property, plant and equipment, inventory, and various intangibles. The fair values of assets and liabilities were determined using level 3 inputs as defined by ASC 820, *Fair Value Measurements and Disclosures*.

FORTERRA, INC.
Consolidated Notes to Financial Statements

The final fair values of the assets acquired and liabilities assumed in the transaction, including \$9.1 million in cash, the Prentiss plant, and a parcel of land in Texas, at the acquisition date are as follows (*in thousands*):

Net working capital	\$	10,984
Property, plant and equipment		9,221
Customer relationship intangible		2,100
Non-compete agreement intangible		5,600
Other intangibles		290
Net identifiable assets acquired		28,195
Goodwill		8,996
Consideration transferred	\$	37,191

2016 and 2017 transactions

Acquisitions

The company completed the following significant acquisitions in 2016 and 2017:

- *Sherman-Dixie Acquisition* - On January 29, 2016, Forterra acquired substantially all the stock of Sherman-Dixie Concrete Industries, Inc. ("Sherman-Dixie") for aggregate consideration of \$66.8 million, or the Sherman-Dixie Acquisition. Sherman-Dixie was a manufacturer of precast concrete structures operating in Kentucky, Tennessee, Alabama and Indiana and now operates as part of the Company's Drainage Pipe & Products segment. The Sherman-Dixie Acquisition was financed with borrowings on the 2015 Revolver.
- *U.S. Pipe Acquisition* - On April 15, 2016, Forterra acquired all of the stock of USP Holdings, Inc. ("USP") for aggregate consideration of \$778.7 million, or the USP Acquisition. USP is a manufacturer of water transmission pipe servicing residential, commercial and infrastructure customers. USP operates as part of the Company's Water Pipe & Products segment. The USP Acquisition was financed with proceeds from a capital contribution, borrowings on the 2015 Revolver and cash on hand.
- *Bio Clean Acquisition* - On August 4, 2016, Forterra acquired all of the stock of Bio Clean Environmental Services, Inc. and Modular Wetland Systems, Inc. (together, Bio Clean) for aggregate consideration of \$31.9 million, or the Bio Clean Acquisition. Bio Clean designs and sells storm water management systems that meet the requirements of local regulatory bodies regulating storm water quality and owns technologies relating to drainage and storm water management. The Bio Clean Acquisition was financed with cash on hand.
- *J&G Acquisition* - On October 14, 2016, Forterra acquired J&G Concrete Operations, LLC, or J&G for aggregate consideration of \$32.4 million, inclusive of customary working capital adjustments, or the J&G Acquisition. J&G manufactured concrete pipe, box culverts and special fittings in North Texas. The J&G Acquisition was financed with borrowings on the 2015 Revolver.
- *Precast Concepts Acquisition* - On October 14, 2016, Forterra acquired the business of Precast Concepts, for aggregate consideration of \$99.6 million, inclusive of customary working capital adjustments, or the Precast Concepts Acquisition. Precast Concepts manufactured concrete pipe, box culverts, storm detention systems and other precast concrete and related products in Colorado through its three facilities. The Precast Concepts Acquisition was financed with borrowings on the 2015 Revolver.

FORTERRA, INC.
Consolidated Notes to Financial Statements

- *Royal Acquisition* - On February 3, 2017, Forterra acquired the assets of Royal Enterprises America, Inc. ("Royal") for aggregate consideration of \$35.5 million in cash, including customary working capital adjustments. Royal manufactured concrete drainage pipe, precast concrete products, storm water treatment technologies and erosion control products serving the greater Minneapolis market. The acquisition was financed with borrowings on the 2016 Revolver.

The respective fair values of the assets acquired and liabilities assumed at the acquisition date for the years 2016 and 2017 are as follows:

	2016					2017
	Sherman-Dixie	U.S. Pipe	Bio Clean	J&G	Precast Concepts	Royal
Net working capital	\$ 14,279	\$ 145,650	\$ 2,546	\$ 2,657	\$ 14,993	\$ 2,994
Property, plant and equipment, net	29,163	246,241	162	9,346	15,895	12,335
Customer relationship intangible	5,073	179,491	3,470	4,156	15,707	1,676
Non-compete agreement intangible	2,459	—	105	1,015	2,562	866
Trade names	138	37,388	1,065	—	29	308
Customer backlog intangible	843	—	—	780	2,213	63
Patents	—	13,093	10,464	—	—	72
In process R&D	—	—	6,692	—	—	—
Other intangibles	—	7,659	—	—	—	—
Other assets and liabilities	—	(11,745)	—	—	—	(726)
Deferred tax liabilities	(11,462)	(157,427)	—	—	—	—
Net identifiable assets acquired	40,493	460,350	24,504	17,954	51,399	17,588
Goodwill	26,257	318,360	7,434	14,494	48,204	17,903
Cash consideration transferred	\$ 66,750	\$ 778,710	\$ 31,938	\$ 32,448	\$ 99,603	\$ 35,491

Goodwill recognized is attributable primarily to expected operating efficiencies and expansion opportunities in the business acquired. Goodwill is expected to be deductible for tax purposes except goodwill acquired with the USP and Sherman-Dixie acquisitions.

Transaction costs

For the years ended December 31, 2018, 2017 and 2016, the Company recognized aggregate transaction costs, including legal, accounting, valuation, and advisory fees, specific to the acquisitions identified above of \$0.8 million, \$0.4 million, and \$12.7 million, respectively. These costs are recorded in the consolidated statements of operations within selling, general & administrative expenses.

Discontinued operations

On August 23, 2016, an affiliate of Lone Star entered into an agreement with an unaffiliated third party to contribute Forterra's bricks business to the Bricks Joint Venture. In exchange for the contribution of the bricks business, an affiliate of Lone Star received a 50% interest in the Bricks Joint Venture. In connection with the Reorganization described in Note 1, on October 17, 2016, Forterra distributed its bricks business to an affiliate of Lone Star in the Bricks Disposition, a transaction among entities under common control. Following the Bricks Disposition, Forterra no longer had any relation to or business affiliation with its former bricks business or the Bricks Joint Venture other than contractual arrangements regarding certain limited transition services, the temporary use of the "Forterra" name, and a short-term loan, of approximately \$11.9 million, which was subsequently been repaid in full in 2016.

As of the disposition date, the carrying value of net assets related to the brick business of \$117.0 million were removed from the Company's balance sheet and recognized as a return of capital. In addition, the disposition resulted in a net tax impact of \$33.2 million which is recognized as a reduction of contributed capital. The Company also reclassified the operations of the Company's then-former brick business to discontinued

FORTERRA, INC.
Consolidated Notes to Financial Statements

operations for all periods presented on the statement of operations. On the balance sheets, the prior period assets and liabilities of the brick business have been reclassified as amounts held for divestiture.

The following table includes the major classes of line items constituting pretax income (loss) of discontinued operations for the periods presented (*in thousands*):

	Year ended December 31, 2016
Revenues	\$ 117,206
Cost of goods sold	98,043
Gross profit	19,163
Selling, general and administrative	(14,186)
Other income and expense items	(785)
Pretax income (loss) on discontinued operations	4,192
Income tax expense	(708)
Discontinued operations, net of tax	\$ 3,484

Cash flows relating to all plants presented as discontinued operations are included in operating and investing activities for all periods presented, however the depreciation, amortization and capital expenditures related to discontinued operations are as follows (*in thousands*):

	Year ended December 31, 2016
Depreciation and amortization	\$ 6,370
Capital expenditures	\$ 8,251

Divestitures

On April 12, 2016, Forterra sold its roof tile business for aggregate consideration of \$10.5 million and generated a loss of \$0.8 million recorded in other income (expense), net.

Effective July 31, 2017, Forterra completed the U.S. Pressure Pipe Divestiture, selling its U.S. concrete and steel pressure pipe business, which was part of the Company's Water Pipe and Products segment to Thompson Pipe Group ("TPG"), in exchange for approximately \$23.2 million in cash, exclusive of fees and expenses, as well as certain assets relating to a U.S. drainage pipe and products manufacturing facility. The assets acquired, recognized at fair value, include \$3.8 million of working capital, \$1.8 million of machinery and equipment, and a customer intangible totaling \$0.8 million. The U.S. Pressure Pipe Divestiture generated a pre-tax loss of \$32.3 million recorded in other income (expense), net.

For the quarter ended June 30, 2017, the Company classified the assets and liabilities of its U.S. concrete and steel pressure pipe business as held for sale. Assets and liabilities which meet the held for sale criteria are carried at fair value less selling costs. An analysis indicated that the carrying value of the long-lived assets held for sale exceeded the fair value less costs to sell, and as a result, a pre-tax impairment charge of \$7.5 million was recorded within impairment and exit charges during the year ended December 31, 2017. The long-lived assets' fair value was estimated using accepted cost approach methodologies using Level 3 inputs.

The total pre-tax loss of the U.S. concrete and steel pressure pipe business was \$50.9 million for the year ended December 31, 2017 inclusive of the loss on U.S. Pressure Pipe Divestiture of \$32.3 million, and long-lived asset impairment of \$7.5 million. In 2016, the assets generated a pre-tax income of \$0.2 million for the year ended December 31, 2016.

FORTERRA, INC.
Consolidated Notes to Financial Statements

As of December 31, 2017, the Company classified the assets and liabilities associated with the Foley exchange transaction as held for sale. Assets and liabilities which meet the held for sale criteria are carried at the lesser of fair value less selling costs or carrying value. The Company conducted an analysis determining the fair value less costs to sell exceeded the carrying value of the long-lived assets held for sale, therefore no adjustment to the disposal group's value was recognized. The long-lived assets' fair value was estimated using accepted cost approach methodologies.

Assets and liabilities classified as held for sale on the Company's consolidated balance sheets at December 31, 2017 consisted of the following (*in thousands*):

		December 31, 2017
Receivables, net	\$	4,839
Inventories		7,403
Current assets held for sale		12,242
Property, plant and equipment, net		12,022
Goodwill		8,736
Intangible assets, net		4,627
Non-current assets held for sale		25,385
Total assets of disposal group classified as held for sale	\$	37,627
Trade payables	\$	4,286
Accrued liabilities		153
Deferred revenue		176
Current liabilities held for sale		4,615
Total liabilities of disposal group classified as held for sale	\$	4,615

4. Receivables, net

Receivables consist of the following at December 31, 2018 and 2017 (*in thousands*):

	December 31,	
	2018	2017
Trade receivables	\$ 188,999	\$ 190,143
Amounts billed, but not yet paid under retainage provisions	2,065	1,091
Other receivables	9,545	5,453
Total receivables	\$ 200,609	\$ 196,687
Less: Allowance for doubtful accounts	(2,141)	(4,033)
Receivables, net	\$ 198,468	\$ 192,654

The Company records provisions for doubtful accounts in selling, general and administrative expenses in the statements of operations. The table below summarizes the Company's allowance for doubtful accounts for the periods presented (*in thousands*):

	Allowance for doubtful accounts
Balance at December 31, 2016	\$ (898)
Provisions for doubtful accounts	(2,947)
Write-offs and adjustments	(188)
Balance at December 31, 2017	\$ (4,033)
Recovery on doubtful accounts	1,224
Write-offs and adjustments	668
Balance at December 31, 2018	\$ (2,141)

5. Inventories

Inventories consist of the following at December 31, 2018 and December 31, 2017 (*in thousands*):

	December 31,	
	2018	2017
Finished goods	\$ 193,603	\$ 156,207
Raw materials	90,376	79,905
Work in process	1,051	543
Total inventories	\$ 285,030	\$ 236,655

6. Investment in equity method investee

The Company owns 50% of the voting Common Unit voting shares of Concrete Pipe & Precast LLC ("CP&P") and consequently, has recorded its investment in the Common Unit voting shares in accordance with ASC 323, *Investments – Equity Method and Joint Ventures*, under the equity method of accounting.

As part of the Acquisition in 2015, the Company determined the fair value of the assets purchased, including its investment in CP&P, in accordance with ASC 805. As part of that process the Company assigned a value of \$56.3 million to the investment as of the date of Acquisition. As of December 31, 2018 and 2017, the Company's investment in CP&P amounted to \$50.6 million and \$54.4 million, respectively, which is included within the Drainage Pipe & Products segment. At December 31, 2018, the difference between the amount at which the Company's investment is carried and the amount of the Company's share of the underlying equity in net assets of CP&P was approximately \$13.1 million. This difference relates to the Company's fair value assessment of the

investment as part of the Acquisition, and this basis difference was primarily attributed to the value of land and equity method goodwill associated with the investment.

The following reflects the Company's distribution and earnings in the equity investment (in thousands):

	Year ended December 31,		
	2018	2017	2016
Distribution received from CP&P	\$ (13,141)	\$ (13,717)	(13,293)
Share of earnings in CP&P	10,234	12,432	12,019
Amortization of excess fair value of investment	(72)	(72)	(72)

7. Property, plant and equipment, net

Property, plant and equipment, net consist of the following at December 31, 2018 and 2017 (*in thousands*):

	December 31,	
	2018	2017
Machinery and equipment	\$ 373,881	\$ 343,827
Land, buildings and improvements	235,819	144,273
Other equipment	6,962	5,141
Construction-in-progress	32,448	30,295
Total property, plant and equipment	649,110	523,536
Less: accumulated depreciation	(156,943)	(110,964)
Property, plant and equipment, net	<u>\$ 492,167</u>	<u>\$ 412,572</u>

Depreciation expense totaled \$52.9 million, \$60.2 million and \$54.1 million for the years ended December 31, 2018, 2017 and 2016, respectively, which is included in cost of goods sold and selling, general and administrative expenses in the statements of operations.

As of December 31, 2018 and 2017, gross assets recorded under capital leases, consisting primarily of land and buildings, were \$52.1 million and \$3.7 million, respectively, and accumulated depreciation was \$1.0 million and \$0.4 million, respectively.

Impairments

The Company recorded impairment charges primarily in conjunction with plant closings undertaken for purposes of achieving operating efficiencies and recognized asset impairment charges for its property, plant and equipment of \$1.0 million for the year ended December 31, 2018. For the year ended December 31, 2017, the Company recorded \$7.5 million of impairment charges primarily related to assets held for sale in conjunction with the sale of its U.S. concrete and steel pressure pipe business. See Note 3, Acquisitions and divestitures for additional details. Asset impairments are included in impairment and exit charges on the statements of operations. No impairment charges were recognized for the year ended December 31, 2016.

8. Goodwill and other intangible assets, net

The Company has goodwill which has been recorded in connection with its acquisition of businesses. The following table summarizes the changes in goodwill by operating segment for the years ended December 31, 2018 and December 31, 2017 (*in thousands*):

	Drainage Pipe & Products	Water Pipe & Products	Total
Balance at December 31, 2016	\$ 168,866	\$ 322,581	\$ 491,447
Acquisitions	17,903	—	17,903
Assets held for sale	(8,736)	—	(8,736)
Impairment	—	(3,003)	(3,003)
Foreign currency and other adjustments	1,690	(3,160)	(1,470)
Balance at December 31, 2017	179,723	316,418	496,141
Acquisitions	9,951	—	9,951
Foreign currency and other adjustments	159	1,942	2,101
Balance at December 31, 2018	\$ 189,833	\$ 318,360	\$ 508,193

Goodwill is required to be tested for impairment at the reporting unit level. The Company has three reporting units which have goodwill. The Company uses a combination of an income approach and a market approach to determine the fair value of the reporting unit. The income approach uses a reporting unit's estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. The market approach estimates fair value by applying cash flow multiples to the reporting unit's operating performance. The multiples are derived from comparable publicly traded companies with similar operating and investment characteristics to the reporting unit. The calculation of business enterprise value is based on significant unobservable inputs, such as price trends, customer demand, material costs and discount rates, and are classified as Level 3 in the fair value hierarchy. The Company's impairment determinations involve significant assumptions and judgments, as discussed above. Different assumptions regarding any of these inputs could have a significant effect on the various valuations.

Upon early adoption of ASU 2017-04 during the second quarter of 2017, the Company began using a one-step quantitative approach that compares the business enterprise value of each reporting unit with its carrying value.

During the second quarter of 2017, the Company performed interim goodwill impairment testing of its Canadian concrete pressure pipe reporting unit after identifying indicators it was more-likely-than-not the reporting unit's carrying value was in excess of its fair value. The reporting unit's operating results are primarily driven by large contractual projects, for which future demand has not materialized, driving changes in the valuation inputs and assumptions supporting the reporting unit's fair value. As a result of the interim impairment testing, the Company determined the carrying value of the reporting unit's goodwill was fully impaired and a goodwill impairment charge of \$3.0 million was recorded during the second quarter of 2017.

The Company performed its annual goodwill impairment test as of October 1st of each year by conducting a quantitative analysis for all of the Company's reporting units. No annual impairment charge was recorded in any period presented.

In 2018, the calculated fair value of the reporting units exceeded book value in all circumstances; however, for the US Pipe reporting unit, the fair value exceeded the book value by only 4.2%. The amount of goodwill allocated to the reporting unit was \$318.4 million as of December 31, 2018. If the projected rate of long-term growth of cash flows or revenues declined by 1.0%, the fair value of the US Pipe reporting unit would still exceed the book value.

FORTERRA, INC.
Consolidated Notes to Financial Statements

Intangible assets other than goodwill at December 31, 2018 included the following (*in thousands*):

	Weighted average amortization period (in years)	Gross carrying amount as of December 31, 2018	Accumulated amortization	Net carrying value as of December 31, 2018
Customer relationships	10	\$ 231,056	\$ (99,583)	\$ 131,473
Trade names	10	39,390	(14,867)	24,523
Patents	11	23,629	(12,325)	11,304
Customer backlog	0.8	13,206	(13,206)	0
Non-compete agreements	5	15,618	(6,044)	9,574
In-Process R&D	Indefinite-lived	6,354	—	6,354
Other	10	867	(306)	561
Total intangible assets		<u>\$ 330,120</u>	<u>\$ (146,331)</u>	<u>\$ 183,789</u>

Intangible assets other than goodwill at December 31, 2017 included the following (*in thousands*):

	Weighted average amortization period (in years)	Gross carrying amount as of December 31, 2017	Accumulated amortization	Net carrying value as of December 31, 2017
Customer relationships	10	\$ 229,294	\$ (61,294)	\$ 168,000
Trade names	10	39,528	(9,896)	29,632
Patents	11	23,629	(7,900)	15,729
Customer backlog	0.8	13,726	(13,322)	404
Non-compete agreements	5	8,325	(3,782)	4,543
In-Process R&D	Indefinite-lived	6,354	—	6,354
Other	10	867	(225)	642
Total intangible assets		<u>\$ 321,723</u>	<u>\$ (96,419)</u>	<u>\$ 225,304</u>

Amortization expense totaled \$52.5 million, \$55.4 million and \$39.4 million for the years ended December 31, 2018, December 31, 2017 and December 31, 2016, respectively, which is included in selling, general and administrative expenses in the statements of operations.

The estimated amortization expense relating to amortizable intangible assets for the next five years is as follows (*in thousands*):

Year ended	Intangible assets subject to amortization
2019	\$ 46,079
2020	39,734
2021	31,657
2022	22,428
2023	16,036
Total	<u>\$ 155,934</u>

9. Fair value measurement

The Company's financial instruments consist primarily of cash and cash equivalents, trade and other receivables, derivative instruments, accounts payable, long-term debt, capital leases, accrued liabilities and the tax receivable agreement obligation. The carrying value of the Company's trade receivables, other receivables, trade payables, the asset based revolver and accrued liabilities approximates fair value due to their short-term maturity or other terms related to these financial instruments. The Company may adjust the carrying amount of certain non-financial assets to fair value on a non-recurring basis when they are impaired.

FORTERRA, INC.
Consolidated Notes to Financial Statements

The estimated carrying amount and fair value of the Company's financial instruments and other assets and liabilities measured and recorded at fair value on a recurring basis are as follows for the dates indicated (*in thousands*):

	Fair value measurements at December 31, 2018 using			Total Fair Value December 31, 2018
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Recurring:				
Non-current assets				
Derivative asset	\$ —	\$ 6,659	\$ —	\$ 6,659

	Fair value measurements at December 31, 2017 using			Total Fair Value December 31, 2017
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Recurring:				
Non-current assets				
Derivative asset	\$ —	\$ 5,251	\$ —	\$ 5,251
Current liabilities				
Derivative liability	—	6,286	—	6,286

Liabilities and assets classified as level 2 which are recorded at fair value are valued using observable market inputs. The fair values of derivative assets and liabilities are determined using quantitative models that utilize multiple market inputs including interest rates and exchange rates to generate continuous yield or pricing curves and volatility factors to value the position. The majority of market inputs are actively quoted and can be validated through external sources, including brokers, market transactions and third-party pricing services. The fair values of derivative assets and liabilities include adjustments for market liquidity, counter-party credit quality and other instrument-specific factors, where appropriate. In addition, the Company incorporates within its fair value measurements a valuation adjustment to reflect the credit risk associated with the net position. Positions are netted by counter-parties, and fair value for net long exposures is adjusted for counter-party credit risk while the fair value for net short exposures is adjusted for the Company's own credit risk.

The estimated carrying amount and fair value of the Company's financial instruments and liabilities for which fair value is only disclosed is as follows (*in thousands*):

	Carrying Amount December 31, 2018	Fair value measurements at December 31, 2018 using			Total Fair Value December 31, 2018
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Non-current liabilities					
2016 Senior Term Loan	\$1,188,605	—	\$1,103,628	—	\$1,103,628
Tax receivable agreement payable	88,775	—	—	82,912	82,912

FORTERRA, INC.
Consolidated Notes to Financial Statements

	Fair value measurements at December 31, 2017 using				Total Fair Value December 31, 2017
	Carrying Amount December 31, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Non-current liabilities					
2016 Senior Term Loan	\$1,193,787	—	\$1,151,981	—	\$1,151,981
Tax receivable agreement payable	117,563	—	—	75,865	75,865

The fair value of debt is the estimated amount the Company would have to pay to transfer its debt, including any premium or discount attributable to the difference between the stated interest rate and market rate of interest at the balance sheet date. Fair values are supported by observable market transactions when available.

The determination of the fair value of the tax receivable agreement payable was determined using a discounted cash flow methodology using level 3 inputs as defined by ASC 820. The determination of fair value required significant judgment, including estimates of the timing and amounts of various tax attributes. These estimates are based on management's best knowledge of current events and actions that the Company may undertake in the future. Actual results could differ from these estimates.

10. Accrued liabilities

Accrued liabilities consist of the following at December 31, 2018 and December 31, 2017 (*in thousands*):

	December 31,	
	2018	2017
Accrued payroll and employee benefits	\$ 31,095	\$ 26,597
Short-term capital leases	16,430	183
Accrued taxes	11,489	10,294
Accrued rebates	3,542	8,428
Short-term derivative liability	—	6,286
Warranty	3,251	5,038
Environmental obligation	570	446
Other miscellaneous accrued liabilities	3,859	15,510
Total accrued liabilities	<u>\$ 70,236</u>	<u>\$ 72,782</u>

11. Debt and deferred financing costs

The Company's debt consisted of the following (*in thousands*):

	December 31, 2018	December 31, 2017
2016 Senior Term Loan, net of debt issue costs and original issuance discount of \$34,252 and \$41,580, respectively	\$ 1,188,605	\$ 1,193,787
Total debt	\$ 1,188,605	\$ 1,193,787
Less: current portion debt	(12,510)	(12,510)
Total long-term debt	\$ 1,176,095	\$ 1,181,277

Concurrent with the completion of the IPO, in the Refinancing the Company entered into the 2016 Revolver for working capital and general corporate purposes and the 2016 Senior Term Loan, the proceeds of which, together with the proceeds from the IPO, were used to repay in full the Junior Term Loan of \$260.0 million, the 2015 Senior Term Loan of \$1.04 billion, and the outstanding borrowings under the 2015 Revolver, in addition to related expenses associated with the IPO and Refinancing. Immediately subsequent to the completion of the IPO, Forterra had \$125.0 million outstanding on its 2016 Revolver and \$1.05 billion on its 2016 Senior Term Loan. The \$260.0 million repayment toward the Junior Term Loan represented a full repayment of the outstanding principal on that loan, resulting in a related write-off of issue discounts and capitalized issuance costs of approximately \$22.4 million. The repayment also triggered a prepayment penalty of approximately \$7.8 million, which, combined with the write-off of issue discounts and capitalized issuance costs, are included in interest expense on the 2016 statement of operations.

The 2016 Senior Term Loan provides for a \$1.05 billion senior secured term loan that was made available to a newly formed direct subsidiary of Forterra. Subject to the conditions set forth in the term loan agreement, the 2016 Senior Term Loan may be increased by (i) up to the greater of \$285.0 million and 1.0x consolidated EBITDA of Forterra and its restricted subsidiaries for the four quarters most recently ended prior to such incurrence plus (ii) the aggregate amount of any voluntary prepayments, plus (iii) an additional amount, provided certain financial tests are met.

Effective May 1, 2017 the Company amended the 2016 Senior Term Loan to increase the principal outstanding by an additional \$200.0 million and to reduce the interest margins applicable to the full balance of the 2016 Senior Term Loan by 50 basis points such that applicable margin based on LIBOR was reduced from 3.50% to 3.00%. The net proceeds from the incremental term loan of \$196.8 million were used to pay down a portion of the outstanding balance on the 2016 Revolver. This amendment had no effect on the Company's ability to increase the size of the 2016 Senior Term Loan under the original provisions. The 2016 Senior Term Loan matures on October 25, 2023 and is subject to quarterly amortization equal to 0.25% of the initial principal amount. Interest accrues on outstanding borrowings thereunder at a rate equal to LIBOR (with a floor of 1.0%) or an alternate base rate, in each case plus a margin of 3.00% or 2.00%, respectively. The weighted average interest rates for the 2016 Senior Term Loan were 5.02% and 4.43% for the years ended December 31, 2018 and 2017, respectively.

The obligations of the borrower under the 2016 Senior Term Loan are guaranteed by Forterra and each of its direct and indirect material wholly-owned domestic subsidiaries other than any of Forterra's Canadian subsidiaries and certain other excluded subsidiaries, or the Guarantors. The 2016 Senior Term Loan is secured by substantially all of the assets of Forterra, the borrower and the Guarantors; provided that the obligations under the 2016 Senior Term Loan are not secured by any liens on more than 65% of the voting stock of the Canadian subsidiaries or assets of the Canadian subsidiaries. The 2016 Senior Term Loan contains customary representations and warranties, and affirmative and negative covenants, that, among other things, restrict the ability of Forterra and its restricted subsidiaries to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and pay dividends and make distributions. The 2016 Senior Term Loan does not contain any financial covenants. Obligations under the 2016 Senior Term Loan may be accelerated upon certain customary events of default

FORTERRA, INC.
Consolidated Notes to Financial Statements

(subject to grace periods, as appropriate). The Company was in compliance with all applicable covenants under the 2016 Senior Term Loan as of December 31, 2018.

The 2016 Revolver provides for an aggregate principal amount of up to \$300.0 million, with up to \$280.0 million to be made available to the U.S. borrowers and up to \$20.0 million to be made available to the Canadian borrowers (the allocation may be modified periodically at the Company's request). Subject to the conditions set forth in the revolving credit agreement related to the 2016 Revolver, or the 2016 Credit Agreement, the 2016 Revolver may be increased by up to the greater of (i) \$100.0 million and (ii) such amount as would not cause the aggregate borrowing base to be exceeded by more than \$50.0 million. Borrowings under the 2016 Revolver may not exceed a borrowing base equal to the sum of (i) 100% of eligible cash, (ii) 85% of eligible accounts receivable and (iii) the lesser of (a) 75% of eligible inventory and (b) 85% of the orderly liquidation value of eligible inventory, with the U.S. and Canadian borrowings being subject to separate borrowing base limitations.

The advance rates for accounts and inventory are subject to increase by 2.5% during certain periods. The 2016 Revolver matures on October 25, 2021. The facility will also provide for the issuance of letters of credit of up to an agreed sublimit. Interest will accrue on outstanding borrowings at a rate equal to LIBOR or CDOR plus a margin ranging from 1.25% to 1.75% per annum, or at an alternate base rate, Canadian prime rate or Canadian base rate plus a margin ranging from 0.25% to 0.75% per annum, in each case, based upon the average excess availability under the 2016 Revolver for the most recently completed calendar quarter. The obligations of the borrowers under the 2016 Revolver are guaranteed by Forterra and its direct and indirect wholly-owned restricted subsidiaries other than certain excluded subsidiaries; provided that the obligations of the U.S. borrowers is not guaranteed by the Canadian subsidiaries. The 2016 Revolver is secured by substantially all of the assets of the borrowers; provided that the obligations of the U.S. borrowers are not secured by any liens on more than 65% of the voting stock of the Canadian subsidiaries or assets of the Canadian subsidiaries.

Interest on the 2016 Revolver is floating, based on a reference rate plus an applicable margin. In addition, Forterra pays a facility fee of between 20.0 and 32.5 basis points per annum based upon the utilization of the total 2016 Revolver facility. Availability under the 2016 Revolver at December 31, 2018 based on draws, outstanding letters of credit of \$16.6 million and allowable borrowing base was \$271.8 million.

The 2016 Revolver contains customary representations and warranties, and affirmative and negative covenants, including representations, warranties, and covenants that, among other things, restrict the ability of Forterra and its restricted subsidiaries to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and pay dividends and make distributions. The 2016 Credit Agreement contains a financial covenant restricting Forterra from allowing its fixed charge coverage ratio to drop below 1.00:1.00 during a compliance period, which is triggered when the availability under the 2016 Revolver falls below a threshold set forth in the 2016 Credit Agreement. Obligations under the 2016 Credit Agreement may be accelerated upon certain customary events of default (subject to grace periods, as appropriate). The fixed charge coverage ratio is the ratio of consolidated earnings before interest, depreciation, and amortization, or EBITDA, less cash payments for capital expenditures and income taxes to consolidated fixed charges (interest expense plus scheduled payments of principal on indebtedness). The Company was in compliance with all applicable covenants under the 2016 Revolver as of December 31, 2018.

As of December 31, 2018, scheduled maturities of long-term debt are as follows (*in thousands*):

	2016 Senior Term Loan	
2019	\$	12,510
2020		12,510
2021		12,510
2022		12,510
2023		1,172,817
	\$	1,222,857

12. Other long-term liabilities

Other long-term liabilities consist of the following for the years ended December 31, 2018 and 2017 (*in thousands*):

	December 31,	
	2018	2017
Workers' compensation	\$ 9,837	\$ 9,455
Deferred rent	4,259	8,242
Employee benefits	3,307	2,227
Insurance	1,550	1,335
Environmental remediation liability	1,001	1,162
Other miscellaneous long-term liabilities	2,713	2,611
	<u>\$ 22,667</u>	<u>\$ 25,032</u>

13. Derivatives and hedging

The Company uses derivatives to manage selected foreign exchange and interest rate exposures. The Company does not use derivative instruments for speculative trading purposes, and, except as discussed below, cash flows from derivative instruments are included in net cash provided by (used in) operating activities in the statements of cash flows.

At December 31, 2017, the Company had foreign exchange forward contracts, designated as net investment hedges in accordance with ASC 815-20 *Derivatives - Hedging*, which allows for the effective portion of the changes in the fair value of the instruments to be captured in accumulated other comprehensive income, and ineffective portion recorded in earnings. These instruments were novated to Forterra by an affiliate concurrent with the Reorganization, directly prior to the Refinancing and IPO and were settled in March 2018 resulting in a cash outlay of \$5.0 million. This cash outlay was recorded within the investing activities section of the consolidated statements of cash flows. The net investment hedges were intended to mitigate foreign exchange exposure related to non-U.S. dollar net investments in certain foreign subsidiaries against changes in foreign exchange rates. A quantitative analysis was utilized to assess hedge effectiveness for the hedges. The Company assessed the hedge effectiveness and measured the amount of ineffectiveness for the hedge relationships based on changes in forward exchange rates. Cumulative changes in fair value of the effective portion of the hedging instruments were recorded in Accumulated other comprehensive income, and will be reclassified into earnings upon the sale or complete or substantially complete liquidation of the foreign entity. Any hedge ineffectiveness is recorded immediately in current period earnings. The Company did not have any ineffectiveness related to net investment hedges during the years ended December 31, 2018 and 2017.

On February 9, 2017, Forterra entered into interest rate swap transactions with a combined notional value of \$525 million. Under the terms of the swap transactions, Forterra agreed to pay a fixed rate of interest of 1.52% and receive floating rate interest indexed to one-month LIBOR with monthly settlement terms with the swap counterparties. The swaps have a three-year term and expire on March 31, 2020. The interest rate swaps are not designated as cash flow hedges, therefore all changes in the fair value of these instruments are captured as a component of interest expense in the statements of operations. Accordingly, cash flows from the monthly interest rate swap settlements are included in net cash provided by (used in) operating activities in the consolidated statements of cash flows.

The instruments the Company previously held included foreign exchange forward contracts and fixed-for-float cross currency swaps entered into in March of 2016. The related notional were settled in connection with the Reorganization and Refinancing, resulting in a net cash settlement of approximately \$1.3 million paid by the Company in the fourth quarter of 2016.

FORTERRA, INC.
Consolidated Notes to Financial Statements

The fixed-for-float cross currency swaps were designated as cash flow hedges, thus the balances which had accumulated in other comprehensive income were recognized in the statement of operations in the fourth quarter of 2016. The foreign exchange forward contracts were not designated as hedge instruments; therefore changes in fair value related to these instruments were recognized immediately in earnings as other operating expenses in the statements of operations. The foreign exchange forward contracts previously entered into in May 2015 were accelerated in March 2016 for proceeds of \$6.5 million. Proceeds from the settlement of the currency swaps were used to make payments on the outstanding balance on the 2015 Revolver.

The Company elects to present all derivative assets and derivative liabilities on a net basis on its balance sheets when a legally enforceable International Swaps and Derivatives Association, Inc. ("ISDA") Master Agreement exists. An ISDA Master Agreement is an agreement between two counterparties, which may have multiple derivative transactions with each other governed by such agreement, and such ISDA Master Agreement generally provides for the net settlement of all or a specified group of these derivative transactions, through a single payment, in a single currency, in the event of a default on, or affecting any, one derivative transaction or a termination event affecting all, or a specified group of, derivative transactions. At December 31, 2018 and 2017, the Company's derivative instruments fall under an ISDA master netting agreement.

The following table presents the fair values of derivative assets and liabilities in the balance sheets (*in thousands*):

	December 31, 2018			
	Derivative Assets		Derivative Liabilities	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Interest rate swaps	\$ 525,000	\$ 6,659	\$ —	\$ —
Total derivatives, gross		6,659		—
Less: Legally enforceable master netting agreements		—		—
Total derivatives, net		\$ 6,659		\$ —

	December 31, 2017			
	Derivative Assets		Derivative Liabilities	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Foreign exchange forward contracts	\$ —	\$ —	\$ 92,961	\$ 6,286
Interest rate swaps	525,000	5,251	—	—
Total derivatives, gross		5,251		6,286
Less: Legally enforceable master netting agreements		—		—
Total derivatives, net		\$ 5,251		\$ 6,286

The following table presents the effect of derivative instruments on the statements of operations (*in thousands*):

	Year ended December 31, 2018	Year ended December 31, 2017
Net investment hedges		
<i>Foreign exchange forward contracts</i>		
Gain (loss) on derivatives recognized in Accumulated other comprehensive loss	\$ 970	\$ (3,548)
Derivatives not designated as hedges		
<i>Interest rate swaps</i>		
Gain on derivatives not designated as hedges included in interest expense	1,408	5,251
Gain reclassified from Accumulated other comprehensive income into income:		
Other income (expense), net	\$ —	\$ —

14. Sale-Leaseback transaction

On April 5, 2016, the Company sold properties in 47 sites throughout the U.S. and Canada to Pipe Portfolio Owner (Multi) LP, or the U.S. Buyer and FORT-BEN Holdings (ONQC) Ltd., or the Canadian Buyer for an aggregate purchase price of approximately \$204.3 million. On April 14, 2016, the Company sold additional properties in two sites located in the U.S. to the U.S. Buyer for an aggregate purchase price of approximately \$11.9 million. In connection with these transactions, the Company and U.S. Buyer and an affiliate of the Canadian Buyer entered into master land and building lease agreements under which the Company agreed to lease back each of the properties for an initial term of twenty years, followed by one optional renewal term of 9 years, 11 months. The proceeds received from the sale-leaseback transactions net of transaction costs of \$6.5 million amounted to \$209.7 million. A deferred gain of \$81.5 million related to the sale-leaseback transaction was being amortized over the life of the master leases. In addition, the Company concluded that the leases for land and buildings were operating leases, and the leases for the machinery equipment were capital leases.

Prior to the Reorganization, the sale-leaseback transactions were considered to have one form of prohibited “continuing involvement” at the inception of the lease which preclude sale-leaseback accounting for transactions involving real estate in the financial statements of the Company because a guarantee by LSF9 provided the buyer-lessor or the lessor, as applicable, with additional collateral that reduced the buyer-lessor’s or the lessor’s, as applicable, risk of loss. As a result, the assets subject to the sale-leaseback remained on the consolidated balance sheet and were depreciated. Additionally, the aggregate proceeds were recorded as a financing obligation in the consolidated balance sheet and under financing in the statements of cash flow. In October 2016, the Company entered into agreements to replace the original guarantor, LSF9, with Forterra, as the new guarantor, effective immediately following completion of the Reorganization. Due to the change in guarantor, the Sale Leaseback qualified for sales recognition and was classified as an operating lease beginning October 2016. Associated with the sale, in October 2016, the Company recognized a loss on the statement of operations of \$19.6 million and a deferred gain of \$81.5 million. The Company is amortizing the deferred gain over the life of the lease. As of December 31, 2017, the non-current portion of the deferred gain was \$75.7 million and the current portion of the deferred gain was \$2.8 million in other current liabilities in the consolidated balance sheet.

On June 5, 2018, the Company entered into Exchange Agreements and Amended and Restated Master Leases with each of the U.S. Buyer and the Canadian Buyer (collectively, the “Exchange Transaction”). Under the Exchange Agreement between the Company and the U.S. Buyer, the Company exchanged ownership of a ductile iron pipe facility located in Bessemer, Alabama used in its Water Pipe & Products segment (the “Bessemer Facility”) for 21 facilities used in its Drainage Pipe & Products segment and the U.S. concrete and steel pressure pipe facilities previously part of the Water Pipe & Products segment, including a portion of one property used in both segments, all of which were previously included in the sale-leaseback transaction. Under the Exchange Agreement between the Company and the Canadian Buyer, the Company exchanged ownership of a smaller

diameter ductile iron pipe facility located in Bessemer, Alabama used in its Water Pipe & Products segment (the "Mini Mill Facility") for ownership of three Canadian concrete pressure pipe facilities that were previously included in the sale-leaseback transaction. No cash changed hands in the Exchange Transaction.

Under the Amended and Restated Master Leases, the Company will lease a total of 26 properties from the U.S. Buyer and a total of 2 properties from an affiliate of the Canadian Buyer, each for an initial term of 25 years, through June 30, 2043, followed by one optional renewal term of nine years, eleven months may be exercised at the Company's option. The initial base rent under the U.S. Amended and Restated Master Lease is \$17.1 million per annum, payable monthly, and is subject to a 2% annual increase during the initial term. If the Company elects to extend the term of the U.S. Amended and Restated Master Lease, the base rent for the first year of the extension will be the greater of 95% of the fair market rental value of the properties and an amount equal to 102% of the prior year's base rent, subject to an annual increase based on changes in the Consumer Price Index, but capped at 4%. The U.S. Amended and Restated Master Lease restricts the Company's use of the U.S. properties to heavy manufacturing, industrial, and other related uses. The Company cannot sublease or assign the properties covered by the U.S. Amended and Restated Master Lease without the prior written consent of the U.S. Landlord and subject to certain other restrictions. The terms of the Canadian Amended and Restated Master Lease are similar to those of the U.S. Amended and Restated Master Lease described above, except that the initial base rent is \$1.2 million (CAD) per annum. The Company's aggregate liability in connection with its representations, warranties, covenants and indemnification and other obligations is \$5.0 million under the U.S. Exchange Agreement and \$6.4 million (CAD) under the Canadian Exchange Agreement, subject to limited exceptions.

The Company accounted for the Exchange Transaction in accordance with the sale-leaseback accounting guidance under ASC 840, *Leases*. The fair value of the 24 facilities exchanged back was \$86.1 million, and was accounted for as the proceeds from the sale of the Bessemer and Mini Mill Facilities after adjusting for the transaction cost of \$2.7 million. Consequently, a deferred gain of \$67.3 million was recorded at June 5, 2018. The carrying value of the deferred gains of \$35.0 million, the deferred rent of \$3.1 million, and the deferred transaction costs of \$2.4 million from the original sale-leaseback transaction were reclassified to reduce the carrying value of the 24 facilities exchanged back.

The Amended and Restated Master Leases extended the lease terms for all facilities, which caused the majority of the leases to be classified as capital leases instead of operating leases. Consequently, the Company recognized capital lease obligations as well as the gross value of the capital lease assets of \$149.0 million, calculated by discounting minimum future lease payments using its incremental borrowing rate of 12.33%. The carrying value of the deferred gains of \$100.0 million, the deferred rent of \$3.8 million, and the deferred transaction cost of \$5.7 million were reclassified to reduce the carrying value of capital lease assets.

During the year ended December 31, 2018, the Company recognized \$10.0 million of rent expense in cost of goods sold for operating leases, related to payments made under the sales leaseback transaction. During the year ended December 31, 2017, the Company recognized \$20.9 million of rent expense in cost of goods sold for operating leases, related to payments made under the sales leaseback transaction. During the year ended December 31, 2016, the Company recognized \$9.3 million of interest expense under the financing obligation in interest expense and \$4.3 million of rent expense in cost of goods sold for operating leases, related to payments made under the sales leaseback transaction.

15. Commitments and contingencies

The Company is involved in legal proceedings and litigation in the ordinary course of business. In the opinion of management, the outcome of such matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity. Other than routine litigation incidental to the Company's business and those matters described below, there are no material legal proceedings to which the Company is a party or to which any of the Company's properties are subject.

Earnout Dispute

The Acquisition included contingent consideration of up to \$100.0 million if and to the extent the 2015 financial results of the businesses acquired by Lone Star in the Acquisition, including the Company and HC's former building products business in the United Kingdom, exceeded a specified Adjusted EBITDA target for fiscal year 2015, as calculated pursuant to the terms of the purchase agreement. If such Adjusted EBITDA calculation exceeds the specified target, LSF9 and, as a result of the Reorganization, the Company would be required to pay the U.S. affiliate of HC an amount equal to a multiple of such excess Adjusted EBITDA, with any payment capped at \$100.0 million. In April 2016, the Company provided an earnout statement to affiliates of HC demonstrating that no payment was required. On June 13, 2016, HC provided notification that it disputes, among other things, the Company's calculation of Adjusted EBITDA under the purchase agreement and asserting that a payment should be made in the amount of \$100.0 million. The Company does not believe HeidelbergCement's position has merit and is vigorously opposing HeidelbergCement's assertions. On October 5, 2016, affiliates of HeidelbergCement filed a lawsuit in the Delaware Court of Chancery seeking specific performance and claiming access to the Company's books, records, and personnel; seeking a declaratory judgment concerning the scope of the neutral accounting expert's authority; and in the alternative, claiming a breach of contract and seeking the \$100.0 million and other damages or the Delaware Action. On December 8, 2017, the court granted the defendants' Motion to Dismiss the First Amended Complaint in the Delaware Action, finding that the earnout dispute should be heard before a neutral accounting arbitrator as set forth in the purchase agreement and that any claims that required to be brought as indemnification claims under the purchase agreement were time-barred by the contractual limitations period. Following the dismissal of the Delaware Action, the Company and HeidelbergCement jointly engaged a neutral accounting expert to act as an arbitrator in the dispute as required by the purchase agreement. The parties then briefed certain preliminary matters for the arbitrator. Based on the arbitrator's rulings, the Company is currently producing documents to HeidelbergCement. Under the terms of the engagement with the arbitrator, once document production is deemed complete, the parties will begin providing briefing on the merits of their claims to the arbitrator. As of December 31, 2018, no liability for this contingency has been accrued as payment of any earnout is not considered probable. However, the outcome of this matter is uncertain, and no assurance can be given to the ultimate outcome of the resulting proceedings. If the Company is unsuccessful in resolving the dispute, it could recognize a material charge to its earnings.

Securities Action and Derivative Actions

Beginning on August 14, 2017, four plaintiffs filed putative class action complaints in the United States District Court for the Eastern District of New York against various defendants. On July 27, 2018, an order was entered consolidating the lawsuits into a single action (the "Securities Action"), and transferring the venue of the case from the Eastern District of New York to the Northern District of Texas. On September 17, 2018, an order was entered appointing Wladislaw Maciuga as lead plaintiff and approving his counsel as lead counsel. Pursuant to an agreed scheduling order, plaintiffs in the Securities Action filed their Consolidated Amended Complaint on November 30, 2018.

The Securities Action is brought by two plaintiffs individually and on behalf of all persons that purchased or otherwise acquired the Company's common stock issued pursuant to and/or traceable to the IPO and is brought against the Company, certain of its current and former officers and directors, Lone Star and certain of its affiliates, and certain banks that acted as underwriters of the IPO (collectively, the "Securities Defendants"). The Securities Action generally alleges that the Company's registration statement on Form S-1 filed in connection with the IPO (the "Registration Statement") contained false or misleading statements and/or omissions of material facts. Specifically, plaintiffs allege the Registration Statement (1) made false and/or misleading statements about the Company's ability to generate organic growth through cross-selling initiatives amongst the Company's various businesses while failing to disclose that the Company had not adequately integrated acquisitions, had not rolled its cross-selling initiative, and that its businesses were submitting competing bids against one another, and (2) made false or misleading statements regarding the existence of certain accounting practices and alleged material weaknesses in the Company's internal controls over financial reporting, including the existence of and accounting for bill and hold transactions, the lack of sufficient accounting personnel, the lack of effective internal controls to ensure costs were properly and accurately accrued, resulting in misstated costs and profits in the Company's 2016

financial statements, and the making of inventory accounting entries without adequate substantiation or documentation. The Securities Action asserts claims under Section 11 and Section 15 of the Securities Act of 1933, as amended, or the Securities Act and seeks (1) class certification under the Federal Rules of Civil Procedure, (2) damages suffered by plaintiffs and other class members, (3) prejudgment and post-judgment interest, (4) reasonable counsel fees and expert fees, and other costs and expenses reasonably incurred, and (5) other relief the court deems appropriate.

On February 15, 2019, the Securities Defendants filed a Motion to Dismiss all claims in the case based on plaintiffs' failure to state a claim. Under the scheduling order, plaintiffs have an opportunity to respond to the Motion to Dismiss by April 1, 2019, and the Securities Defendants will have the ability to reply in support of the motion by May 1, 2019.

On July 31, 2018, a putative shareholder derivative complaint captioned *Maloney v. Bradley, et al.*, was filed in the United States District Court for the Northern District of Texas, naming as defendants certain of the Company's current and former directors and officers (the "Maloney Action"). The complaint alleges the defendants breached their fiduciary duties, committed constructive fraud, and wasted corporate assets, and also asserts unjust enrichment claims against certain defendants. The complaint seeks, on behalf of the Company, unspecified damages, an order directing the return of certain payments to the defendants and imposing a constructive trust thereon, certain injunctive relief, reasonable costs and attorneys' fees, and punitive damages. On November 16, 2018, the defendants filed motions to dismiss the Maloney Action on the grounds that it was brought in the wrong venue in violation of the Company's Amended and Restated Certificate of Incorporation, that plaintiffs failed to make a pre-suit demand as required by applicable law and that plaintiff's complaint fails to state a claim. Briefing on the defendants' motions to dismiss was completed March 8, 2019.

On January 15, 2019, a putative shareholder derivative complaint captioned *Lee v. Bradley, et al.*, was filed in the United States District Court for the District of Delaware, naming as defendants certain of the Company's current and former directors and officers (the "Lee Action"). The complaint alleges the defendants violated Section 14A of the Securities and Exchange Act of 1934, as amended, or the Exchange Act, and related rules by failing to make certain disclosures in the Company's proxy solicitation in advance of the 2017 Annual Meeting of Stockholders, and that defendants breached their fiduciary duties, wasted corporate assets, and committed constructive fraud. The complaint also asserts unjust enrichment claims against certain defendants. The complaint seeks, on behalf of the Company, unspecified damages, an order directing the return of certain payments to the defendants, certain injunctive relief, and reasonable costs and attorneys' fees. The Lee Action has not yet been served on the defendants, and no other pleadings have been filed as yet.

The Company and other defendants are vigorously defending the Securities Action, the Maloney Action and the Lee Action. Given the stage of the proceedings, the Company cannot reasonably estimate at this time the possible loss or range of loss, if any, that may arise from the Securities Action, the Maloney Action or the Lee Action.

Long-term incentive plan

Following the Acquisition, Lone Star implemented a cash-based long term incentive plan (the "LTIP"), which entitles the participants in the LTIP a potential cash payout upon a liquidity event as defined by the LTIP. Potential liquidity events include the sale, transfer or otherwise disposition of all or a portion of the Company or successor entities of LSF9, an initial public offering where Lone Star sells all or a portion of its direct and interests in the Company or successor entities of LSF9, or through certain cash distribution as defined in the LTIP. Before the payout of any cash the LTIP requires Lone Star realize in cash the full return of their investment plus a specified internal rate of return, which is calculated by comparing the return to Lone Star over the timeline of its investment in the Company and certain successor entities of LSF9. As of December 31, 2018, no such liquidity events that meet the required return for an LTIP payment have occurred, and therefore no amounts were accrued in the accompanying consolidated balance sheet. While no payments have occurred thus far, payments under the LTIP could be significant depending upon future liquidity events. The timing and amount of such payments are unknown and is dependent upon future liquidity events and market conditions that are outside of the control of the Company or the participants of the plan. Subsequent to the IPO, Forterra became directly liable for any payment

FORTERRA, INC.
Consolidated Notes to Financial Statements

obligations triggered under the LTIP, but LSF9 or one of its affiliates will remain obligated to make payments to the Company in amounts equal to any payment obligations triggered under the LTIP as and when such payment obligations are triggered.

Leases

The Company leases certain property and equipment for various periods under non-cancelable operating and capital leases. Future minimum lease payments under such agreements as of December 31, 2018, net of non-cancelable subleases, were approximately (in thousands):

	Operating Leases	Capital Leases
2019	\$ 11,603	\$ 16,669
2020	10,490	16,807
2021	8,547	16,968
2022	8,480	17,218
2023	9,435	17,433
Thereafter	118,186	668,407
	<u>\$ 166,741</u>	<u>\$ 753,502</u>

Tax receivable agreement

In connection with the IPO, the Company entered into a tax receivable agreement, or the TRA with Lone Star that provides for, among other things, the payment by the Company to Lone Star of 85% of the amount of certain covered tax benefits, which may reduce the actual liability for certain taxes that the Company might otherwise be required to pay. The tax benefits subject to the tax receivable agreement include: (i) all depreciation and amortization deductions, and any offset to taxable income and gain or increase to taxable loss, resulting from the tax basis that the Company had in its assets as of the time of the consummation of the IPO, (ii) the utilization of the Company's and its subsidiaries' net operating losses and tax credits, if any, attributable to periods prior to the IPO, (iii) deductions in respect of payments made, funded or reimbursed by an initial party to the tax receivable agreement (other than the Company or one of its subsidiaries) or an affiliate thereof to participants under the LTIP, (iv) deductions in respect of transaction expenses attributable to the USP Acquisition and (v) certain other tax benefits attributable to payments made under the tax receivable agreement.

For purposes of the tax receivable agreement, the aggregate reduction in income tax payable by the Company will be computed by comparing the Company's actual income tax liability with its hypothetical liability had it not been able to utilize the related tax benefits. The agreement will remain in effect for the period of time in which all such related tax benefits remain. The Company accounts for potential payments under the tax receivable agreement as a contingent liability, with amounts accrued when considered probable and reasonably estimable. As of the IPO date, the Company recorded a \$160.8 million liability and a reduction to additional paid-in-capital related to the tax receivable agreement for the undiscounted value of probable future payments. Net of tax effects of \$18.5 million, the net reduction to additional paid-in-capital related to the initial liability for the tax receivable agreement was \$142.3 million. The passage of the TCJA described in Note 19 significantly reduced the Company's anticipated liability under the TRA. The reduction in the TRA liability resulted in \$46.2 million of non-operating income recognized in the Company's statement of operations for the year ended December 31, 2017 due primarily to the decrease in the federal corporate tax rate. The liabilities recorded by the Company for the tax receivable agreement at December 31, 2018 and December 31, 2017 were \$88.8 million and \$117.6 million, respectively. The timing and amount of future tax benefits associated with the tax receivable agreement are subject to change, and additional payments may be required which could be materially different from the current accrued liability. The Company anticipates that it will have sufficient taxable income in future periods to realize the full value of the obligation recorded. Future tax receivable agreement payments related to the tax basis of assets at the time of the IPO will be recorded as a reduction to the liability and will be recorded as a financing activity in the statement of cash flows. For the year ended December 31, 2018, the Company paid \$30.4 million on the TRA to Lone Star.

16. Earnings per share

Basic earnings per share ("EPS") is calculated by dividing net earnings by the weighted average number of common shares outstanding during the period. Potentially dilutive securities include employee stock options and shares of restricted stock. Diluted EPS reflects the assumed exercise or conversion of all dilutive securities. The restricted shares are considered participating securities for the purposes of our EPS calculation.

The calculations of the basic and diluted EPS for the years ended December 31, 2018, 2017 and 2016 are presented below (in thousands, except per share data):

	Year ended December 31,		
	2018	2017	2016
Loss from continuing operations	\$ (24,365)	\$ (2,060)	\$ (11,090)
Discontinued operations, net of tax	—	—	3,484
Net loss	<u>\$ (24,365)</u>	<u>\$ (2,060)</u>	<u>\$ (7,606)</u>
Common stock:			
Weighted average basic shares outstanding	63,904	63,801	49,053
Effect of dilutive securities - stock options	—	—	—
Weighted average diluted shares outstanding	<u>63,904</u>	<u>63,801</u>	<u>49,053</u>
Basic earnings (loss) per share:			
Income (loss) from continuing operations	\$ (0.38)	\$ (0.03)	\$ (0.23)
Income (loss) from discontinued operations, net of taxes	\$ —	\$ —	\$ 0.07
Net earnings (loss)	\$ (0.38)	\$ (0.03)	\$ (0.16)
Diluted earnings (loss) per share:			
Income (loss) from continuing operations	\$ (0.38)	\$ (0.03)	\$ (0.23)
Income (loss) from discontinued operations, net of taxes	\$ —	\$ —	\$ 0.07
Net income (loss)	\$ (0.38)	\$ (0.03)	\$ (0.16)

Potential dilutive common shares were anti-dilutive as a result of the Company's net loss for the years ended December 31, 2018, 2017 and 2016. As a result, basic weighted average shares were used in the calculations of basic earnings per share and diluted earnings per share for those periods.

The number of stock options and restricted shares that were excluded from the computation of diluted earnings per share because their inclusion would result in an anti-dilutive effect on per share amounts for the years ended December 31, 2018, 2017 and 2016 was 2,749,348 and 209,607 and 71,372, respectively.

17. Employee benefit plans

Defined Contribution Plans

The Company's employees are able to participate in a 401K defined contribution plan. The Company contributes funds into this plan subject to certain limits. For the years ended December 31, 2018, December 31, 2017, and December 31, 2016, the Company recorded an expense of \$6.6 million, \$11.3 million and \$10.5 million, respectively.

18. Stock-based plans

2016 Stock Incentive Plan

The Company's previous equity compensation plan under which it has granted stock awards is the Forterra, Inc. 2016 Stock Incentive Plan, or the 2016 Incentive Plan. The aggregate number of shares of common stock that was initially available for issuance under the 2016 Incentive Plan was 5,000,000 shares. The Company's board of directors has granted employees and independent directors options to purchase shares of common stock, shares of restricted common stock and restricted stock units. The options, restricted stock and restricted stock units awarded to employees are subject to either three-year or four-year vesting periods and the options, restricted stock and restricted stock units awarded to independent directors are subject to a one-year vesting period. The awards of stock options granted under the 2016 Incentive Plan have a term of ten years. In May 2018, the Company's shareholders approved the Forterra, Inc. 2018 Stock Incentive Plan, or the 2018 Incentive Plan. The 2018 Incentive Plan serves as the umbrella plan for the Company's stock-based and cash-based incentive compensation programs for its directors, officers and other eligible employees. The aggregate number of shares of common stock issuable under the 2018 Incentive Plan is 5,000,000 shares plus any shares subject to outstanding awards under the 2016 Incentive Plan as of the date of the approval of the 2018 Incentive Plan that on or after such date cease for any reason to be subject to such awards (other than by reason of exercise or settlement of the awards to the extent they are exercised for or settled in nonforfeitable shares).

In accordance with ASC 718, *Compensation-Stock Compensation*, the Company recognizes stock-based compensation expense over the requisite service period for the entire award, which is generally the maximum vesting period of the award or over a shorter period when employee retirement eligibility is a factor, in an amount equal to the fair value of share-based payments, which include stock options granted and restricted stock awards to employees and non-employees members of Forterra's Board of Directors. The Company records stock-based compensation expense in cost of goods sold and selling, general, and administrative expenses. Stock-based compensation expense was approximately \$6.2 million, \$3.7 million and \$0.3 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Stock Option Grants

The value of the options is determined by using a Black-Scholes pricing model that includes the following variables: 1) exercise price of the instrument, 2) fair market value of the underlying stock on date of grant, 3) expected life, 4) estimated volatility and 5) the risk-free interest rate. The Company utilized the following weighted-average assumptions in estimating the fair value of the option grants in the years ended December 31, 2018 and December 31, 2017:

	2018	2017
Expected dividends	—%	—%
Expected volatility	32.90%	39.60%
Risk-free interest rate	1.71%	0.86%
Expected lives in years	6	6
Weighted-average fair value of options:		
Granted at fair value	\$ 2.76	\$ 4.16
Weighted-average exercise price of options:		
Granted at fair value	\$ 7.92	\$ 10.76

The Black-Scholes model requires the use of subjective assumption including expectations of future dividends and stock price volatility. Expected volatility is calculated based on an analysis of historical and implied volatility measures for a set of Forterra's peer companies. The average expected life is based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. Such assumptions are only used for making the required fair value estimate and should not be considered as indicators

FORTERRA, INC.
Consolidated Notes to Financial Statements

of future dividend policy or stock price appreciation. Because changes in the subjective assumptions can materially affect the fair value estimate, and because employee stock option have characteristics significantly different from those of traded options, the use of the Black-Scholes option pricing model may not provide a reliable estimate of the fair value of employee stock options.

A summary of the status of the Company's stock options is presented below:

	Shares	Weighted Average Exercise Price
	(in thousands)	
Outstanding, December 31, 2016	357,840	\$18.00
Granted	1,258,155	\$10.76
Exercised	—	<i>n/a</i>
Forfeited	(361,566)	\$12.56
Outstanding, December 31, 2017	1,254,429	\$12.31
Granted	2,189,216	\$7.92
Exercised	—	<i>n/a</i>
Forfeited	(342,226)	\$12.53
Outstanding, December 31, 2018	3,101,419	\$9.19
Options vested or expected to vest at year end	3,101,419	\$9.19
Options exercisable at year end	410,804	\$12.15

As of December 31, 2018, the Company has approximately \$5.9 million of unrecognized stock option compensation cost related to unvested stock options, which is expected to be recognized over a weighted average period of approximately 1.9 years.

Restricted Stock and Restricted Stock Unit Awards

Restricted stock are share awards that entitle the holder to receive shares of the Company's common stock which become freely transferable upon vesting. Restricted stock has the same dividend and voting rights as common stock and is considered to be issued and outstanding upon grant. Restricted stock units are share awards denominated in units of the Company's common stock and are subject to a service condition. The restricted stock units do not have the voting rights of common stock, and the shares underlying restricted stock units are not considered issued and outstanding upon grant. The restricted stock and restricted stock unit awards generally vest one to four years from the date of grant and are generally subject to forfeiture if employment terminates prior to the vesting date. The estimated compensation cost of the restricted stock and restricted stock unit awards, which is equal to the fair value of the awards on the date of grant, is recognized on a straight-line basis over the vesting period.

The following table summarizes the activity for restricted stock and restricted stock units:

	Shares	Weighted Average Grant Date Fair Value
	(in thousands)	
Unvested balance at December 31, 2016	134,650	\$18.00
Grants	478,539	\$12.93
Vested shares	(44,628)	\$18.03
Forfeitures	(127,211)	\$14.16
Unvested balance at December 31, 2017	441,350	\$13.60
Grants	542,979	\$7.98
Vested shares	(155,260)	\$13.11
Forfeitures	(84,706)	\$12.98
Unvested balance at December 31, 2018	<u>744,363</u>	<u>\$9.68</u>

At December 31, 2018, there was \$4.8 million of total unrecognized compensation cost related to unvested restricted stock and restricted stock units and that cost is expected to be recognized over a weighted average period of 1.9 years.

19. Income taxes

U.S. Tax Reform

On December 22, 2017, the U.S. government enacted comprehensive tax reform legislation commonly known as the Tax Cuts and Jobs Act of 2017 ("TCJA"). Effective January 2018, the TCJA, among other things, reduced the marginal U.S. corporate income tax rate from 35% to 21%, limited the deductibility of interest expense, limited the deduction for net operating losses and eliminated net operating loss carrybacks, and modified or eliminated many business deductions and credits. There were also provisions that partially offset the benefit of the rate reduction, such as the repeal of the deduction for domestic production activities. The TCJA also included international provisions, which generally established a territorial-style system for taxing foreign source income of domestic multinational corporations known as global intangible low-taxed income ("GILTI") for the years beginning after December 31, 2017 and imposed a mandatory one-time transition tax on undistributed international earnings for the year ended December 31, 2017.

Financial statement impacts include adjustments for, among other things, the remeasurement of deferred tax assets and liabilities. U.S. GAAP accounting for income taxes required that Forterra record the impact of any tax law change on its deferred income taxes in the quarter that the tax law change was enacted, which was the fourth quarter ended December 31, 2017. Due to the complexities involved in accounting for the enactment of TCJA, SEC Staff Accounting Bulletin 118 allowed the Company to provide a provisional estimate of the impacts of the TCJA in its earnings during a one-year measurement period. During the year ended December 31, 2017, the Company recorded a provisional income tax benefit for the reduction in net deferred income tax liabilities of approximately \$28.7 million, due to the remeasurement of net U.S. deferred tax liabilities at the lower 21% U.S. federal corporate income tax rate, offset by the recognition of a one-time transition tax on foreign earnings of \$1.7 million. In addition, the Company recorded the pretax income effect of the change related to the Company's estimated tax receivable agreement obligation primarily due to the lower U.S. federal corporate income tax rate in the year ended December 31, 2017. See Note 15 for further discussion on the tax receivable agreement. During the year ended December 31, 2018, the Company did not record any significant adjustments to the originally recorded amount. Forterra considers the accounting for the TCJA complete as of December 31, 2018.

Deferred tax assets and liabilities are recognized principally for the expected tax consequences of temporary differences between the tax basis of assets and liabilities and their reported amounts, using currently enacted tax rates.

FORTERRA, INC.
Consolidated Notes to Financial Statements

The Company's income (loss) from continuing operations before income taxes was as follows *(in thousands)*:

	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
U.S. companies	\$ (36,317)	\$ (54,690)	\$ (80,425)
Foreign companies	15,037	11,958	17,643
Loss from continuing operations before income taxes	<u>\$ (21,280)</u>	<u>\$ (42,732)</u>	<u>\$ (62,782)</u>

The income tax benefit (expense) was as follows *(in thousands)*:

	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
Current income tax			
U.S. companies	\$ (13,225)	\$ 21,539	\$ (5,265)
State	(5,779)	(1,479)	(6,370)
Foreign companies	(4,849)	(4,884)	(7,599)
Total current tax (expense) benefit	<u>(23,853)</u>	<u>15,176</u>	<u>(19,234)</u>
Deferred income tax			
U.S. companies	17,273	26,866	59,084
State	3,306	(1,658)	9,326
Foreign companies	189	288	2,516
Total deferred tax benefit	<u>20,768</u>	<u>25,496</u>	<u>70,926</u>
Income tax (expense) benefit	<u>\$ (3,085)</u>	<u>\$ 40,672</u>	<u>\$ 51,692</u>

FORTERRA, INC.
Consolidated Notes to Financial Statements

The rate reconciliation for continuing operations presented below is based on the U.S. federal statutory tax rate of 21% for the year ended December 31, 2018 and 35% for the years ended December 31, 2017 and 2016 because the predominant business activity is in the U.S. (*in thousands*):

	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
Loss from continuing operations	\$ (21,280)	\$ (42,732)	\$ (62,782)
Income tax benefit at statutory rate of 21% and 35%	\$ 4,469	\$ 14,956	\$ 21,974
State income taxes, net of federal benefit	1,494	1,470	2,725
Foreign rate differential	(568)	1,586	1,746
Non-deductible expenses	(891)	(1,233)	(3,428)
Change in valuation allowance	(6,601)	(4,141)	28,597
Divestiture of assets	(1,559)	—	—
Goodwill impairment	—	(1,147)	—
Effect of TCJA	(1,397)	26,932	—
Tax credits	1,398	497	—
Other	570	1,752	78
Total income tax benefit (expense)	(3,085)	\$ 40,672	\$ 51,692

The income tax expense for the year ended December 31, 2018 is primarily attributable to the unfavorable impact of the federal and state valuation allowance increase, inclusion of GILTI, and impact of the disposition of nondeductible goodwill in connection with the Foley exchange described in Note 3, partially offset with the favorable impact of the tax credits and state tax benefit. The income tax benefit for the year ended December 31, 2017 is primarily attributable to provisional amounts recognized related to the enactment of the TCJA and losses from operations. The income tax benefit for the year ended December 31, 2016 is primarily attributable to the release of the Company's U.S. federal and unitary state valuation allowance.

The Company evaluates the recoverability of its deferred tax assets quarterly to determine if valuation allowances are required or should be adjusted. The Company assesses whether valuation allowances should be established against deferred tax assets based on consideration of all available evidence, both positive and negative, using a "more likely than not" criteria. The analysis used in determining the valuation allowance involves considerable judgment and assumptions. After consideration of all evidence, the Company increased the valuation allowance by \$6.6 million during the year ended December 31, 2018.

The Company's history of pretax losses limits its ability to rely on projections of future pretax income, and the TCJA limits the ability to carryback losses to recover taxes paid in prior periods; therefore, realization of deferred tax assets is based primarily on reversal of taxable temporary differences. The amendment and restatement of the sale-leaseback transaction that closed during the second quarter ended June 30, 2018 affected the timing and recognition of temporary differences, and the Company concluded that a portion of its deferred tax assets no longer meets the "more likely than not" criteria for realization based on reversal of taxable temporary differences.

FORTERRA, INC.
Consolidated Notes to Financial Statements

Deferred income taxes are provided for the effects of temporary differences between the tax basis of an asset or liability and its reported amount in the accompanying consolidated balance sheets. These temporary differences result in taxable or deductible amounts in future years. The net deferred tax asset (liability) balances were comprised of the following components as of December 31, 2018 and 2017 (*in thousands*):

	December 31, 2018	December 31, 2017
Deferred tax assets:		
Inventory	\$ 6,424	\$ 5,833
Reserves	3,093	3,326
Accrued liabilities	4,347	4,316
Net operating losses	3,243	4,580
Capitalized transaction costs	3,407	3,292
Capital leases	27,139	—
Deferred gain on sale leaseback	2,521	19,593
Derivatives	—	1,402
Tax receivable agreement	1,645	1,220
Other assets	3,890	3,871
Total deferred tax assets	55,709	47,433
Valuation allowance	(15,427)	(8,818)
Total deferred tax assets, net	\$ 40,282	\$ 38,615
Deferred tax liabilities:		
Fixed assets	\$ (50,686)	\$ (58,300)
Deferred financing costs	(8,631)	(10,440)
Intangible assets	(27,580)	(37,356)
Total deferred tax liabilities	\$ (86,897)	\$ (106,096)
Net deferred tax asset (liability)	\$ (46,615)	\$ (67,481)

As of December 31, 2018, the Company has tax loss carryforwards as follows (*in thousands*):

	Amount	Expiration Date
Federal net operating losses	\$ —	—
State net operating losses	\$ 42,258	2020-2038
Foreign net operating losses	\$ 4,127	2035-2038

As a result of the TCJA, the earnings of foreign subsidiaries prior to December 31, 2017 were subject to the one-time transition tax. Earnings of foreign subsidiaries for the years ending December 31, 2018 and future periods are subject to the provisions of GILTI. At this time, the Company does not anticipate triggering additional foreign withholding taxes on such foreign earnings if repatriated, and accordingly, has not recorded a deferred tax liability for such taxes.

Uncertain tax positions

The Company is subject to audit examinations at federal, state, local, and foreign levels by tax authorities in those jurisdictions who may challenge the treatment or reporting of any tax return item. The tax matters challenged by the tax authorities are typically complex; therefore, the ultimate outcomes of these challenges are subject to uncertainty. The Company is under audit with respect to the U.S. federal income tax for the years ended

December 31, 2016 and 2017. The Company is not aware of any adjustments with respect to any year under audit. State income tax returns are generally subject to examination for a period of three to five years after filing of the respective return.

Each period the Company assesses uncertain tax positions for recognition, measurement and effective settlement. Based on the Company's assessment, it determined that no liabilities for uncertain tax positions should be recorded as of December 31, 2018 and 2017.

20. Segment reporting

Segment information is presented in accordance with ASC 280, *Segment Reporting*, which establishes standards for reporting information about operating segments. It also establishes standards for related disclosures about products and geographic areas. Operating segments are defined as components of an enterprise that engage in business activities that earn revenues, incur expenses and prepare separate financial information that is evaluated regularly by the Company's chief operating decision maker ("CODM") in order to allocate resources and assess performance. The Company's Chief Executive Officer is its CODM. The Corporate and Other segment includes expenses related to certain executive salaries, interest costs related to the Company's credit agreements, acquisition related costs, and other corporate costs that are not directly attributable to the Company's operating segments. The Company's segments follow the same accounting policies as the Company.

Net sales from the major products sold to external customers include drainage pipe and precast products, and concrete and steel water transmission pipe.

The Company's three geographic areas consist of the United States, Canada and Mexico for which it reports net sales, fixed assets and total assets. For purposes of evaluating segment profit, the CODM reviews earnings before interest, taxes, depreciation and amortization ("EBITDA") as a basis for making the decisions to allocate resources and assess performance.

FORTERRA, INC.
Consolidated Notes to Financial Statements

The following tables set forth the disaggregation of revenue earned from contracts with customers based on the Company's reportable segments as well as other financial information attributable to the Company's reportable segments for the periods presented (*in thousands*):

	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
Net sales:			
Drainage Pipe & Products	\$ 811,477	\$ 834,810	\$ 728,872
Water Pipe & Products	668,235	745,555	632,573
Corporate and Other	—	48	2,517
Total	<u>\$ 1,479,712</u>	<u>\$ 1,580,413</u>	<u>\$ 1,363,962</u>
Depreciation and amortization:			
Drainage Pipe & Products	\$ 41,495	\$ 45,750	\$ 41,004
Water Pipe & Products	62,917	69,089	51,799
Corporate and Other	1,011	820	700
Total	<u>\$ 105,423</u>	<u>\$ 115,659</u>	<u>\$ 93,503</u>
Segment EBITDA and reconciliation to income (loss) before income taxes:			
Drainage Pipe & Products	\$ 156,735	\$ 129,618	\$ 138,274
Water Pipe & Products	64,547	47,587	98,641
Corporate and Other	(58,802)	(44,870)	(81,146)
Less: Interest expense	(78,337)	(59,408)	(125,048)
Depreciation and amortization	(105,423)	(115,659)	(93,503)
Loss before income taxes	<u>\$ (21,280)</u>	<u>\$ (42,732)</u>	<u>\$ (62,782)</u>
Capital expenditures:			
Drainage Pipe & Products	\$ 27,761	\$ 22,386	
Water Pipe & Products	18,529	20,827	
Corporate and Other	2,391	1,349	
Total	<u>\$ 48,681</u>	<u>\$ 44,562</u>	
Total assets:			
Drainage Pipe & Products	\$ 800,454	\$ 744,135	
Water Pipe & Products	922,162	925,457	
Corporate and Other	70,636	141,646	
Total	<u>\$ 1,793,252</u>	<u>\$ 1,811,238</u>	

In addition, the Company also has an investment in an equity method investee included in the Drainage Pipe & Products segment for which earnings from equity method investee were \$10.2 million, \$12.4 million and \$11.9 million for the years ended December 31, 2018, 2017 and 2016, respectively, and with the following balances (*in thousands*):

	December 31,	
	2018	2017
Investment in equity method investee	<u>\$ 50,607</u>	<u>\$ 54,445</u>

Disaggregated revenue by geographic location is provided in the tables below. The Company has operations in the United States, Canada and Mexico. The economic characteristics of the Company's customers does not significantly vary across geographic locations or product lines. The Company has both revenues and

FORTERRA, INC.
Consolidated Notes to Financial Statements

long-lived assets in each country and those assets and revenues are recorded within geographic location as follows (*in thousands*):

Property, plant, and equipment, net:	December 31,	
	2018	2017
United States	\$ 441,773	\$ 381,754
Canada	40,331	20,251
Mexico	10,063	10,567
	<u>\$ 492,167</u>	<u>\$ 412,572</u>

Net Sales:	Year ended	Year ended	Year ended December
	December 31,	December 31,	31,
	2018	2017	2016
United States	\$ 1,389,115	\$ 1,485,092	\$ 1,244,378
Canada	80,868	82,529	110,567
Mexico	9,729	12,792	9,017
	<u>\$ 1,479,712</u>	<u>\$ 1,580,413</u>	<u>\$ 1,363,962</u>

21. Related party transactions

Hudson Advisors

The Company had an advisory agreement with Hudson Advisors, an affiliate of Lone Star, to provide certain management oversight services to the Company, including assistance and advice on strategic plans, obtaining and maintaining certain legal documents, and communicating and coordinating with service providers. The Company incurred fees totaling \$4.7 million for the year ended December 31, 2016 included in Selling, general and administrative expense on the statement of operations. In conjunction with the IPO, the advisory agreement with Hudson Advisors has been terminated.

CP&P

The Company sold certain goods and services to its joint venture, CP&P, including spare parts for repairs, and property rentals. For the year ended December 31, 2018, Forterra sold \$0.1 million of product to CP&P and purchased goods and services from CP&P for an amount of \$0.2 million. For the year ended December 31, 2017, the Company received \$0.2 million in exchange for purchased goods and services from CP&P. For the year ended December 31, 2016, Forterra sold \$0.1 million of product to CP&P and purchased \$0.1 million of goods and services from CP&P.

Tax receivable agreement

In connection with the IPO, the Company entered into a tax receivable agreement with Lone Star that provides for, among other things, the payment by the Company to Lone Star of 85% of the amount of certain covered tax benefits, which may reduce the actual liability for certain taxes that the Company might otherwise be required to pay. See further discussion in Note 15, Commitments and contingencies.

Contributed capital

During 2016, the Company had a capital contribution for the funding of the U.S. Pipe acquisition of \$402.1 million. The Company also distributed the net assets and certain tax attributes associated with the former bricks business of \$150.2 million to affiliates of LSF9 as well as the Tax Receivable Agreement of \$142.3 million. Additionally, the Company made cash distributions to affiliates of LSF9 of \$363.6 million and had other contributed capital activity of \$38.4 million.

Bricks Joint Venture

In connection with the Bricks Disposition, Forterra entered into a transition services agreement with the Bricks Joint Venture. Pursuant to the transition services agreement, Forterra would continue to provide certain administrative services, including but not limited to information technology, accounting and treasury for a limited period of time. The Company recognized a total of \$10 thousand and \$1.6 million in Other operating income, net pursuant to the transition services agreement for the years ended December 31, 2018 and December 31, 2017, respectively. Additionally, during the transition period, the Company collected cash from as well as settled invoices and payroll on behalf of its former Bricks business. As a result, Forterra had a net receivable from affiliates of \$4.4 million and \$4.1 million as of December 31, 2018 and 2017, respectively, included in other current assets.

22. Quarterly Financial Data (Unaudited)

The following is a summary of the quarterly results of operations:

Year ended December 31, 2018:

(in thousands, except per share amounts)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	\$ 289,960	\$ 416,087	\$ 434,510	\$ 339,155
Cost of goods sold	255,595	340,774	357,374	280,400
Gross profit	34,365	75,313	77,136	58,755
Income (loss) from continuing operations before taxes	(23,595)	14,237	8,296	(20,218)
Net income (loss)	(19,910)	6,994	5,503	(16,952)
Basic earnings (loss) per share:				
Net earnings (loss)	\$ (0.31)	\$ 0.11	\$ 0.09	\$ (0.27)
Diluted earnings (loss) per share:				
Net income (loss)	\$ (0.31)	\$ 0.11	\$ 0.09	\$ (0.27)

Year ended December 31, 2017:

(in thousands, except per share amounts)

	First Quarter(1)	Second Quarter(2)	Third Quarter(3)	Fourth Quarter(4)
Net sales	\$ 338,302	\$ 436,685	\$ 444,257	\$ 361,169
Cost of goods sold	299,335	361,089	362,150	304,731
Gross profit	38,967	75,596	82,107	56,438
Income (loss) from continuing operations before taxes	(35,907)	(14,803)	(19,956)	27,934
Net income (loss)	(22,543)	(11,173)	(11,502)	43,158
Basic earnings (loss) per share:				
Net income (loss)	\$ (0.35)	\$ (0.18)	\$ (0.18)	\$ 0.68
Diluted earnings (loss) per share:				
Net income (loss)	\$ (0.35)	\$ (0.18)	\$ (0.18)	\$ 0.67

(1) During the first quarter of 2017, the Company identified and corrected prior period errors related to cost accrual items which should have been recognized in 2016. A cumulative correction was recorded during the quarter ended March 31, 2017 which increased pretax loss by \$4.6 million, which consisted of a \$3.3 million increase to cost of goods sold and a \$2.0 million increase to selling, general and administrative expenses, partially offset by a \$0.7 million increase in revenues. The Company evaluated the impact of correcting these errors and concluded the errors were immaterial to operating results for the years ended December 31, 2017 and 2016, respectively.

(2) The results of operations for the second quarter of 2017 include a long-lived asset impairment of \$7.5 million and a goodwill impairment of \$3.0 million.

(3) The results of operations for the third quarter of 2017 include a loss of \$31.6 million for the sale of U.S. Pressure Pipe and a pretax gain of \$0.8 million for the reduction in the tax receivable agreement liability.

FORTERRA, INC.
Consolidated Notes to Financial Statements

(4) The results of operations for the fourth quarter of 2017 include a pretax gain of \$45.4 million for the reduction in the tax receivable agreement liability and a tax benefit of \$26.9 million for the effect of the TCJA.

23. Supplemental Cash Flow Disclosures

	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
SUPPLEMENTAL DISCLOSURES (in thousands):			
Cash interest paid	\$ 69,381	\$ 54,676	\$ 77,437
Income taxes paid, net of refunds received	11,068	28,086	66,264
SUPPLEMENTAL NON-CASH INVESTING AND FINANCING DISCLOSURES:			
Assets and liabilities acquired in non-cash exchange	18,140	—	—
Capital lease obligation	(148,962)	—	—
Brick Disposition, net of tax	—	—	(150,222)
Issuance of tax receivable agreement, net of tax	—	—	(142,349)
Other affiliate transactions affecting Contributed Capital	—	—	38,434
Fair value changes of derivatives recorded in OCI, net of tax	970	(3,548)	215

24. Subsequent event

On March 1, 2019, the Company acquired substantially all the assets of Houston Buckner Precast, LLC, a Texas limited liability company ("Houston"), Buckner Precast, LLC, a Texas limited liability company ("Buckner"), Montgomery 18905 E. Industrial, LLC, a Texas limited liability company ("Montgomery"), and 1763 Old Denton Road, LLC, a Texas limited liability company ("Denton Road") for aggregate consideration of \$12.0 million in cash, subject to a working capital true up 90 days post close. Located in New Caney, Texas and Decatur, Texas, Houston and Buckner manufacture concrete precast products for drainage applications. Montgomery and Denton Road hold the real property the manufacturing facilities operate on. The assets of the Buckner acquisition will operate as part of the Company's Drainage Pipe & Products segment.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Exchange Act, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of December 31, 2018.

Based on the evaluation referenced above, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2018.

Management's Report on Internal Control over Financial Reporting

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act.

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Management assessed the Company's internal control over financial reporting as of December 31, 2018 using the criteria for effective internal control over financial reporting established in "Internal Control - Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment, management concluded that as of December 31, 2018, our internal control over financial reporting was effective.

Ernst & Young LLP, our independent registered public accounting firm that audited the consolidated financial statements included in this Annual Report on Form 10-K, also audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, as stated in their report included below.

Changes in Internal Control over Financial Reporting

Other than the *Remediation of Previously Reported Material Weaknesses* actions described below, there were no changes in our internal control over financial reporting during the quarter ended December 31, 2018 that have a materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Remediation of previously reported material weaknesses

In previous annual and quarterly reports, we disclosed the following material weaknesses in our internal control over financial reporting:

- A material weakness related to the aggregation of control deficiencies over the inventory process, primarily related to the ineffective design and operating effectiveness of controls over physical inventory counts, processes to validate inputs used in the calculation of excess and obsolete inventory reserves, and control activities related to the periodic review of standard cost variances and related adjustments of inventories to actual costs.
- A material weakness related to the aggregation of control deficiencies over the revenue recognition process, primarily related to the ineffective design and operating effectiveness of controls over the verification of physical shipments and internal validation of customer approvals of sales order terms prior to recognizing revenue.
- A material weakness related to the aggregation of control deficiencies over the Company's information technology ("IT") systems. Specifically, the Company did not maintain effective controls over user access to IT systems and changes to IT programs and data and, as a result, the effective functioning of certain process-level automated and IT-dependent controls could have been affected.

As of December 31, 2018, we have remediated these material weaknesses. The remediation of these material weaknesses included the implementation of the following:

- Conducted additional training at the plant level on inventory receiving and delivery controls as well as physical inventory counts;
- Enhanced management review and monitoring of inventory costing calculations to ensure the correctness of the methodology, the integrity of the data used, as well as the mathematical accuracy of the calculation;
- Implemented a process of periodically reviewing inventory standard costs;
- Implemented plant level controls on product shipment and reconciliation to revenue recognition; and
- Designed and implemented controls on sales order processing with special emphasis on customer acknowledgment.
- Established a more rigorous review process over the evaluation of user access to IT systems, including preventative reviews prior to any changes to user access and periodic reviews of all user access;
- Improved the structure and governance surrounding controls over IT systems;
- Implemented enhanced review procedures and analysis over the segregation of duties in IT systems;
- Revised policies on the documentation of IT control performance and the retention of that documentation; and
- Replaced certain IT systems that have inherent control limitations.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls and procedures or our system of internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed or operated, can provide only reasonable, but not absolute, assurance that the objectives of the system of internal control are met. The design of our control system reflects the fact that there are resource constraints, and that the benefits of such control system must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control failures and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the intentional acts of individuals, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part on certain assumptions about the likelihood of future events, and there can be no assurance that the design of any particular control will always succeed in achieving its objective under all potential future conditions.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Forterra, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Forterra, Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Forterra, Inc. (the Company) has maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes, and our report dated March 12, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Dallas, Texas
March 12, 2019

Item 9B. Other Information

None.

PART III**Item 10. Directors, Executive Officers and Corporate Governance**

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2019 Annual Meeting of Stockholders, which will be filed with the SEC not later than 120 days after December 31, 2018.

Item 11. Executive Compensation

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2019 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**Information with Respect to Securities Authorized for Issuance Under Equity Compensation Plans**

The following table summarizes, as of December 31, 2018, information with respect to (a) the number of securities to be issued upon exercise of outstanding options, warrants and rights, (b) the weighted average exercise price of outstanding options, warrants and rights and (c) the number of securities remaining available for future issuance, in each case under our 2016 Stock Incentive Plan or 2018 Stock Incentive Plan. We do not have any equity compensation plans not approved by security holders.

Plan Category	(a) Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))
Equity compensation plans approved by security holders	3,101,419	\$ 9.19	973,007

All other information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2019 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2019 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

Item 14. Principal Accounting Fees and Services

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2019 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed as part of this Annual Report on Form 10-K, or incorporated herein by reference:

1. Financial Statements. The Company's financial statements are included in Part II, Item 8, Financial Statements and Supplementary Data.
2. Financial Statement Schedules. All schedules are omitted since they are not applicable, not required, or the information required to be set forth herein is included in the Consolidated Financial Statements.
3. Exhibits. The exhibits listed in the Exhibit Index immediately below are filed as part of this Annual Report on Form 10-K or are incorporated by reference herein.

<u>Exhibit No.</u>	<u>Description of Exhibit</u>	
2.1+	Purchase Agreement, dated as of December 23, 2014, by and between HBMA Holdings LLC, Structerm Holdings Limited, Hanson America Holdings (4) Limited, Hanson Packed Products Limited and LSF9 Stardust Holdings LLC, and, solely for the purposes of Section 9.08 and Article IX thereto, HeidelbergCement AG.	(a)
2.2	Amendment No. 1 to the Purchase Agreement, dated as of January 21, 2015, by and between HBMA Holdings LLC, Structerm Holdings Limited, Hanson America Holdings (4) Limited, Hanson Packed Products Limited and LSF9 Stardust Holdings LLC.	(a)
2.3	Assignment and Amendment to the Purchase Agreement, dated as of March 13, 2015, by and between LSF9 Stardust Holdings LLC and LSF9 Concrete Ltd, and solely for the purposes of Article III thereto, HBMA Holdings LLC, Structerm Holdings Limited, Hanson America Holdings (4) Limited, Hanson Packed Products Limited, Stardust Acquisition I Company, LLC, Stardust Acquisition II Company, LLC, LSF9 Concrete UK Ltd, Stardust Canada Acquisition I Ltd And Stardust Canada Acquisition II Ltd.	(a)
2.4+	Stock Purchase Agreement, dated as of August 20, 2015, by and among HBP Pipe & Precast LLC, Cretex Companies, Inc. and Cretex Concrete Products, Inc.	(a)
2.5+	Purchase Agreement, dated as of January 29, 2016, by and among Forterra Pipe & Precast, LLC, Sherman-Dixie Concrete Industries, Inc., the shareholders named therein, and PKD Partnership.	(a)
2.6+	Stock Purchase Agreement, dated as of February 12, 2016, by and among Forterra Pipe & Precast, LLC, USP Holdings Inc., the stockholders and optionholders of USP Holdings Inc. named therein, and Alabama Seller Rep Inc.	(a)
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	(d)
3.2	Amended and Restated Bylaws of the Registrant.	(b)
4.1	Registration Rights Agreement dated as of October 19, 2016 between Forterra, Inc. and LSF9 Concrete Mid-Holdings Ltd.	(b)
4.2	Form of Certificate of Common Stock of the Registrant.	(e)

10.1	Amended and Restated Master Land and Building Lease dated June 5, 2018 between Pipe Portfolio Owner (Multi) LP and Forterra Pipe & Precast LLC and certain affiliates.	(l)
10.2	Amended and Restated Master Land and Building Lease dated June 5, 2018 between FORT-NOM HOLDINGS (ONQC) INC. and Forterra Pipe & Precast, Ltd.	(l)
10.3	Amended and Restated Limited Liability Company Agreement of Concrete Pipe & Precast, LLC, dated as of August 3, 2012, by and among Concrete Pipe & Precast, LLC, Americast, Inc. and Hanson Pipe & Precast LLC.	(a)
10.4	Form of Tax Receivable Agreement.	(e)
10.5	Form of Indemnification Agreement for executive officers and directors.	(b)
10.6#	Employment Agreement between HBP Pipe and Precast LLC and Jeff Bradley dated as of July 8, 2015.	(a)
10.7#	LSF9 Concrete Holdings Ltd. Long Term Incentive Plan (with form of award agreement).	(a)
10.8#	Notice regarding LSF9 Concrete Holdings Ltd. Long Term Incentive Plan dated December 14, 2016.	(h)
10.9#	Forterra, Inc. 2016 Stock Incentive Plan.	(g)
10.10#	Form of Grant Notice for 2016 Stock Incentive Plan Nonqualified Stock Options Award.	(c)
10.11#	Form of Grant Notice for 2016 Stock Incentive Plan Incentive Stock Options Award.	(c)
10.12#	Form of Grant Notice for 2016 Stock Incentive Plan Restricted Stock Award.	(c)
10.13#	Form of Grant Notice for 2016 Stock Incentive Plan Restricted Stock Unit Award.	(c)
10.14#	Form of Grant Notice for 2016 Stock Incentive Plan Performance Restricted Stock Unit Award.	(c)
10.15#	Forterra, Inc. 2018 Stock Incentive Plan.	(n)
10.16	Senior Lien Term Loan Credit Agreement dated October 25, 2016 by and among Forterra, Inc., Forterra Finance, LLC, as borrower, the lenders party thereto and Credit Suisse AG, Cayman Islands Branch, as administrative agent.	(f)
10.17#	ABL Credit Agreement dated October 25, 2016 by and among Forterra, Inc. and certain of its subsidiaries, as borrowers, the lenders party thereto and Bank of America, N.A., as agent.	(f)
10.18	First Amendment to Senior Lien Term Loan Credit Agreement dated May 1, 2017 by and among Forterra, Inc., Forterra Finance, LLC, as borrower, the lenders party thereto and Credit Suisse AG, Cayman Islands Branch, as administrative agent.	(i)
10.19	Employment Agreement, dated as of September 6, 2017 by and between the Company and Charlie Brown.	(j)
10.20#	Employment Agreement, dated as of December 18, 2017 by and between the Company and Mark Carpenter.	(k)

10.21#	Employment Agreement, dated as of December 18, 2017 by and between the Company and Lori Browne.	(k)
10.22#	Offer Letter of Mr. Rich Hunter dated May 16, 2018.	(m)
10.23#	Form of Grant Notice for 2018 Stock Incentive Plan Nonqualified Stock Options Award.	*
10.24#	Form of Grant Notice for 2016 Stock Incentive Plan Restricted Stock Unit Award.	*
10.25#	Employment Agreement, dated as of April 26, 2016 by and between the Company and William P. Kerfin, Jr.	(o)
10.26#	Separation and General Release Agreement between William P. Kerfin, Jr. and Forterra, Inc. and USP Holdings, Inc. dated as of July 23, 2018.	*
21.1	Subsidiaries of the Registrant.	*
23.1	Consent of Ernst & Young LLP.	*
23.2	Consent of Moss Adams LLP.	*
23.3	Consent of Hein & Associates LLP.	*
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	*
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	*
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	^
99.1	Financial Statements of Concrete Pipe & Precast, LLC as of December 31, 2018 and 2017 and for the years ended December 31, 2018, 2017 and 2016.	*
101.INS	XBRL Instance Document.	*
101.SCH	XBRL Taxonomy Extension Schema Document.	*
101.CAL	XBRL Taxonomy Calculation Linkbase Document.	*
101.DEF	XBRL Taxonomy Definition Linkbase Document.	*
101.LAB	XBRL Taxonomy Label Linkbase Document.	*
101.PRE	XBRL Taxonomy Presentation Linkbase Document.	*

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

FORTERRA, INC.

(Registrant)

/s/ Jeff Bradley

March 12, 2019

By: Jeff Bradley
President and Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>/s/ Jeff Bradley</u> Jeffrey Bradley	President and Chief Executive Officer; Director (Principal Executive Officer)	March 12, 2019
<u>/s/ Charles R. Brown, II</u> Charles R. Brown, II	Executive Vice President and Chief Financial Officer (Principal Financial Officer, Principal Accounting Officer)	March 12, 2019
<u>/s/ Richard Cammerer, Jr.</u> Richard Cammerer, Jr.	Director	March 12, 2019
<u>/s/ Rafael Colorado</u> Rafael Colorado	Director	March 12, 2019
<u>/s/ Robert Corcoran</u> Robert Corcoran	Director	March 12, 2019
<u>/s/ Chad Lewis</u> Chad Lewis	Director	March 12, 2019
<u>/s/ Clint McDonnough</u> Clint McDonnough	Director	March 12, 2019
<u>/s/ John McPherson</u> John McPherson	Director	March 12, 2019
<u>/s/ Chris Meyer</u> Chris Meyer	Chairman of the Board, Director	March 12, 2019
<u>/s/ Allison Navitskas</u> Allison Navitskas	Director	March 12, 2019

/s/ Jacques Sarrazin
Jacques Sarrazin

Director

March 12, 2019

**FORTERRA, INC.
GRANT NOTICE FOR 2018 STOCK INCENTIVE PLAN NONQUALIFIED STOCK OPTIONS**

FOR GOOD AND VALUABLE CONSIDERATION, Forterra, Inc. (the “Company”), hereby grants to Participant named below the nonqualified stock option (the “Option”) to purchase any part or all of the number of shares of its common stock, par value \$0.001 per share (the “Common Stock”), that are covered by this Option, as specified below, at the Exercise Price per share specified below and upon the terms and subject to the conditions set forth in this Grant Notice, the Forterra, Inc. 2018 Stock Incentive Plan (the “Plan”) and the Standard Terms and Conditions (the “Standard Terms and Conditions”) promulgated under such Plan, each as amended from time to time. This Option is granted pursuant to the Plan and is subject to and qualified in its entirety by the Standard Terms and Conditions.

Name of Participant:	
Grant Date:	
Number of Shares Covered by Option:	
Exercise Price Per Share:	
Expiration Date:	
Vesting Schedule:	

This Option is not intended to qualify as an incentive stock option under Section 422 of the Internal Revenue Code of 1986, as amended. By accepting this Grant Notice, Participant acknowledges that he or she has received and read, and agrees that this Option shall be subject to, the terms of this Grant Notice, the Plan and the Standard Terms and Conditions.

FORTERRA, INC.:

OPTION HOLDER:

Name:

By:

Name:

Title:

FORTERRA, INC.
STANDARD TERMS AND CONDITIONS FOR NONQUALIFIED STOCK OPTIONS

These Standard Terms and Conditions apply to the Options granted pursuant to the Forterra, Inc. 2018 Stock Incentive Plan (the “Plan”), which are identified as nonqualified stock options and are evidenced by a Grant Notice or an action of the Committee that specifically refers to these Standard Terms and Conditions. In addition to these Terms and Conditions, the Option shall be subject to the terms of the Plan, which are incorporated into these Standard Terms and Conditions by this reference. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Plan.

1. Terms of Option

Forterra, Inc. (the “Company”), has granted to the Participant named in the Grant Notice provided to said Participant herewith (the “Grant Notice”) a nonqualified stock option (the “Option”) to purchase up to the number of shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”), set forth in the Grant Notice. The exercise price per share and the other terms and subject to the conditions of the Option are set forth in the Grant Notice, these Standard Terms and Conditions (as amended from time to time), and the Plan. For purposes of these Standard Terms and Conditions and the Grant Notice, any reference to the Company shall include a reference to any Subsidiary.

2. Nonqualified Stock Option

The Option is not intended to be an incentive stock option under Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”) and will be interpreted accordingly.

3. Exercise of Option

The Option shall not be exercisable as of the Grant Date set forth in the Grant Notice. After the Grant Date, to the extent not previously exercised, and subject to termination or acceleration as provided in these Standard Terms and Conditions and the Plan, the Option shall be exercisable only to the extent it becomes vested, as described in the Grant Notice or the terms of the Plan, to purchase up to that number of shares of Common Stock as set forth in the Grant Notice, provided that (except as set forth in Section 4(a) below) the Participant remains employed with the Company and does not experience a Termination of Employment. The vesting period and/or exercisability of an Option may be adjusted by the Committee to reflect the decreased level of employment during any period in which the Participant is on an approved leave of absence or is employed on a less than full time basis.

To exercise the Option (or any part thereof), the Participant shall deliver to the Company a “Notice of Exercise” in a form specified by the Committee, specifying the number of whole shares of Common Stock the Participant wishes to purchase and how the Participant’s shares of Common Stock should be registered (in the Participant’s name only or in the Participant’s and the Participant’s spouse’s names as community property or as joint tenants with right of survivorship).

The exercise price (the "Exercise Price") of the Option is set forth in the Grant Notice. The Company shall not be obligated to issue any shares of Common Stock until the Participant shall have paid the total Exercise Price for that number of shares of Common Stock. The Exercise Price may be paid in Common Stock, cash or a combination thereof, including an irrevocable commitment by a broker to pay over such amount from a sale of the Common Stock issuable under the Option, the delivery of previously owned Common Stock, withholding of shares of Common Stock deliverable upon exercise of the Option (but only to the extent share withholding is made available to the Participant by the Company), or in such other manners as may be permitted by the Committee.

Fractional shares may not be exercised. Shares of Common Stock will be issued as soon as practical after exercise. Notwithstanding the above, the Company shall not be obligated to deliver any shares of Common Stock during any period when the Company determines that the exercisability of the Option or the delivery of shares of Common Stock hereunder would violate any federal, state or other applicable laws.

4. Expiration of Option

The Option shall expire and cease to be exercisable as of the earlier of (i) the Expiration Date set forth in the Grant Notice or (ii) the date specified below in connection with the Participant's Termination of Employment:

(a) If the Participant's Termination of Employment is by reason of death, Disability or Retirement, or by the Company without Cause within 24 months following the occurrence of a Change in Control, the Participant (or the Participant's estate, beneficiary or legal representative) may exercise the entire Option (regardless of whether then vested or exercisable) until the date that is twelve (12) months following the date of such Termination of Employment.

(b) If the Participant's Termination of Employment is for any reason other than death, Disability, Retirement, by the Company without Cause within 24 months following the occurrence of a Change in Control or Cause, the Participant may exercise any portion of the Option that is vested and exercisable at the time of such Termination of Employment until the date that is three (3) months following the date of such Termination of Employment. Any portion of the Option that is not vested and exercisable at the time of such Termination of Employment (after taking into account any accelerated vesting under Section 15 of the Plan or any other agreement between the Participant and the Company) shall be forfeited and canceled as of the date of such Termination of Employment.

(c) If the Participant's Termination of Employment is by the Company for Cause, the entire Option, whether or not then vested and exercisable, shall be immediately forfeited and canceled as of the date of such Termination of Employment.

(d) For purposes hereof, a Change in Control (as defined in the Plan) will not be deemed to occur until such date as the Company is no longer a controlled company of Lone Star Fund IX (U.S.), L.P.

5. Restrictions on Resales of Shares Acquired Pursuant to Option Exercise

The Company may impose such restrictions, conditions or limitations as it determines appropriate as to the timing and manner of any resales by the Participant or other subsequent transfers by the Participant of any shares of Common Stock issued as a result of the exercise of the Option, including without limitation (a) restrictions under an insider trading policy, (b) restrictions designed to delay and/or coordinate the timing and manner of sales by Participant and other optionholders and (c) restrictions as to the use of a specified brokerage firm for such resales or other transfers.

6. Income Taxes

The Company shall not deliver shares of Common Stock in respect of the exercise of any Option unless and until the Participant has made arrangements satisfactory to the Company to satisfy applicable withholding tax obligations. Unless the Participant pays the withholding tax obligations to the Company by cash or check in connection with the exercise of the Option (including an irrevocable commitment by a broker to pay over such amount from a sale of the Common Stock issuable under the Option), withholding may be effected, at the Company's option, withholding Common Stock issuable in connection with the exercise of the Option (provided that shares of Common Stock may be withheld only to the extent that such withholding will not result in adverse accounting treatment for the Company). The Participant acknowledges that the Company shall have the right to deduct any taxes required to be withheld by law in connection with the exercise of the Option from any amounts payable by it to the Participant (including, without limitation, future cash wages).

7. NonTransferability of Option

Except as permitted by the Committee or as permitted under the Plan, the Participant may not assign or transfer the Option to anyone other than by will or the laws of descent and distribution and the Option shall be exercisable only by the Participant during his or her lifetime. The Company may cancel the Participant's Option if the Participant attempts to assign or transfer it in a manner inconsistent with this Section 7.

8. Other Agreements Superseded

The Grant Notice, these Standard Terms and Conditions and the Plan constitute the entire understanding between the Participant and the Company regarding the Option. Any prior agreements, commitments or negotiations concerning the Option are superseded.

9. Limitation of Interest in Shares Subject to Option

Neither the Participant (individually or as a member of a group) nor any beneficiary or other person claiming under or through the Participant shall have any right, title, interest, or privilege in or to any shares of Common Stock allocated or reserved for the purpose of the Plan or subject to the Grant Notice or these Standard Terms and Conditions except as to such shares of Common Stock, if any, as shall have been issued to such person upon exercise of the Option or any part of it. Nothing in the Plan, in the Grant Notice, these Standard Terms and Conditions or any other instrument executed pursuant to the Plan shall confer upon the Participant any right to continue in the Company's employ or service

nor limit in any way the Company's right to terminate the Participant's employment at any time for any reason.

10. No Liability of Company

The Company and any affiliate which is in existence or hereafter comes into existence shall not be liable to the Participant or any other person as to: (a) the nonissuance or sale of shares of Common Stock as to which the Company has been unable to obtain from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any shares hereunder; and (b) any tax consequence expected, but not realized, by the Participant or other person due to the receipt, exercise or settlement of any Option granted hereunder.

11. General

(a) In the event that any provision of these Standard Terms and Conditions is declared to be illegal, invalid or otherwise unenforceable by a court of competent jurisdiction, such provision shall be reformed, if possible, to the extent necessary to render it legal, valid and enforceable, or otherwise deleted, and the remainder of these Standard Terms and Conditions shall not be affected except to the extent necessary to reform or delete such illegal, invalid or unenforceable provision.

(b) The headings preceding the text of the sections hereof are inserted solely for convenience of reference, and shall not constitute a part of these Standard Terms and Conditions, nor shall they affect its meaning, construction or effect.

(c) These Standard Terms and Conditions shall inure to the benefit of and be binding upon the parties hereto and their respective permitted heirs, beneficiaries, successors and assigns.

(d) These Standard Terms and Conditions shall be construed in accordance with and governed by the laws of the State of Delaware, without regard to principles of conflicts of law.

(e) In the event of any conflict between the Grant Notice, these Standard Terms and Conditions and the Plan, the Grant Notice and these Standard Terms and Conditions shall control. In the event of any conflict between the Grant Notice and these Standard Terms and Conditions, the Grant Notice shall control.

(f) All questions arising under the Plan or under these Standard Terms and Conditions shall be decided by the Committee in its total and absolute discretion.

(g) Notwithstanding anything herein or in the Plan to the contrary, no adjustments to the Option and/or any of the terms hereof shall be made pursuant to Section 15 of the Plan or otherwise in connection with the transactions to be consummated subsequent to Grant Date but prior to the consummation of the Company's initial public offering.

12. Electronic Delivery

By executing the Grant Notice, the Participant hereby consents to the delivery of information (including, without limitation, information required to be delivered to the Participant pursuant to applicable securities laws) regarding the Company and the Subsidiaries, the Plan, the Option and the Common Stock via Company web site or other electronic delivery.

FORTERRA, INC.
GRANT NOTICE FOR 2018 STOCK INCENTIVE PLAN RESTRICTED STOCK UNIT AWARD

FOR GOOD AND VALUABLE CONSIDERATION, Forterra, Inc. (the “Company”), hereby grants to Participant named below the number of restricted stock units specified below (the “Award”). Each restricted stock unit represents the right to receive one share of the Company’s common stock, par value \$0.001 (the “Common Stock”), upon the terms and subject to the conditions set forth in this Grant Notice, the Forterra, Inc. 2018 Stock Incentive Plan (the “Plan”) and the Standard Terms and Conditions (the “Standard Terms and Conditions”) promulgated under such Plan, each as amended from time to time. This Award is granted pursuant to the Plan and is subject to and qualified in its entirety by the Standard Terms and Conditions.

Name of Participant:	
Grant Date:	
Number of Restricted Stock Units:	
Vesting Schedule:	

By accepting this Grant Notice, Participant acknowledges that he or she has received and read, and agrees that this Award shall be subject to, the terms of this Grant Notice, the Plan and the Standard Terms and Conditions.

FORTERRA, INC.:

AWARD HOLDER:

By:

Name:

Name:

Title:

FORTERRA, INC.
STANDARD TERMS AND CONDITIONS FOR RESTRICTED STOCK UNITS

These Standard Terms and Conditions apply to the Award of restricted stock units granted pursuant to the Forterra, Inc. 2018 Stock Incentive Plan (the “Plan”), which are evidenced by a Grant Notice or an action of the Committee that specifically refers to these Standard Terms and Conditions. In addition to these Terms and Conditions, the restricted stock units shall be subject to the terms of the Plan, which are incorporated into these Standard Terms and Conditions by this reference. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Plan.

1. TERMS OF RESTRICTED STOCK UNITS

Forterra, Inc. (the “Company”), has granted to the Participant named in the Grant Notice provided to said Participant herewith (the “Grant Notice”) an award of a number of restricted stock units (the “Award” or the “Restricted Stock Units”) with each Restricted Stock Unit representing the right to receive one share of the Company’s common stock, par value \$0.001 (the “Common Stock”) specified in the Grant Notice. The Award is subject to the conditions set forth in the Grant Notice, these Standard Terms and Conditions, and the Plan, each as amended from time to time. For purposes of these Standard Terms and Conditions and the Grant Notice, any reference to the Company shall include a reference to any Subsidiary.

2. VESTING OF RESTRICTED STOCK UNITS

The Award shall not be vested as of the Grant Date set forth in the Grant Notice and shall be forfeitable unless and until otherwise vested pursuant to the terms of the Grant Notice and these Standard Terms and Conditions. After the Grant Date, subject to termination or acceleration as provided in these Standard Terms and Conditions and the Plan, the Award shall become vested as described in the Grant Notice with respect to that number of Restricted Stock Units as set forth in the Grant Notice. Restricted Stock Units that have vested and are no longer subject to forfeiture are referred to herein as “Vested RSUs.” Restricted Stock Units awarded hereunder that are not vested and remain subject to forfeiture are referred to herein as “Unvested RSUs.” Notwithstanding anything contained in these Standard Terms and Conditions to the contrary, upon a Participant’s Termination of Employment due to Participant’s death, Disability or Retirement, or upon a Termination of Employment by the Company without Cause within 24 months following the occurrence of a Change in Control, all Unvested RSUs shall become vested on the date of such Termination of Employment. Upon a Participant’s Termination of Employment for any other reason, including a Termination of Employment by the Company without Cause that occurs prior to the occurrence of a Change in Control, any then Unvested RSUs held by the Participant shall be forfeited and canceled as of the date of such Termination of Employment. For purposes hereof, a Change in Control (as defined in the Plan) will not be deemed to occur until such date as the Company is no longer a controlled company of Lone Star Fund IX (U.S.), L.P.

3. RIGHTS AS STOCKHOLDER

Participant shall not be, nor have any of the rights or privileges of, a stockholder of the Company in respect of any RSUs unless and until shares of Common Stock settled for such RSUs shall have been issued by the Company to Participant (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). Notwithstanding the foregoing, from and after the Grant Date and until the earlier of (a) the time when the RSUs become nonforfeitable and payable in accordance with the terms hereof or (b) the time when the Participant's right to receive Common Stock upon payment of RSUs is forfeited, on the date that the Company pays a cash dividend (if any) to holders of Common Stock generally, the Participant shall be entitled to a number of additional whole RSUs determined by dividing (i) the product of (A) the dollar amount of the cash dividend paid per share of Common Stock on such date and (B) the total number of RSUs (including dividend equivalents paid thereon) previously credited to the Participant as of such date, by (ii) the Fair Market Value per share of Common Stock on such date. Such dividend equivalents (if any) shall be subject to the same terms and conditions and shall be settled or forfeited in the same manner and at the same time as the RSUs to which the dividend equivalents were credited.

4. RESTRICTIONS ON REALES OF SHARES

The Company may impose such restrictions, conditions or limitations as it determines appropriate as to the timing and manner of any resales by the Participant or other subsequent transfers by the Participant of any shares of Common Stock issued pursuant to Vested RSUs, including without limitation (a) restrictions under an insider trading policy, (b) restrictions designed to delay and/or coordinate the timing and manner of sales by Participant and other holders and (c) restrictions as to the use of a specified brokerage firm for such resales or other transfers.

5. INCOME TAXES

To the extent required by applicable federal, state, local or foreign law, the Participant shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise by reason of the grant or vesting of the RSUs. The Company shall not be required to issue shares or to recognize the disposition of such shares until such obligations are satisfied.

6. NONTRANSFERABILITY OF AWARD

The Participant understands, acknowledges and agrees that, except as otherwise provided in the Plan or as permitted by the Committee, the Award may not be sold, assigned, transferred, pledged or otherwise directly or indirectly encumbered or disposed of other than by will or the laws of descent and distribution.

7. OTHER AGREEMENTS SUPERSEDED

The Grant Notice, these Standard Terms and Conditions and the Plan constitute the entire understanding between the Participant and the Company regarding the Award. Any prior agreements, commitments or negotiations concerning the Award are superseded.

8. LIMITATION OF INTEREST IN SHARES SUBJECT TO RESTRICTED STOCK UNITS

Neither the Participant (individually or as a member of a group) nor any beneficiary or other person claiming under or through the Participant shall have any right, title, interest, or privilege in or to any shares of Common Stock allocated or reserved for the purpose of the Plan or subject to the Grant Notice or these Standard Terms and Conditions except as to such shares of Common Stock, if any, as shall have been issued to such person in connection with the Award. Nothing in the Plan, in the Grant Notice, these Standard Terms and Conditions or any other instrument executed pursuant to the Plan shall confer upon the Participant any right to continue in the Company's employ or service nor limit in any way the Company's right to terminate the Participant's employment at any time for any reason.

9. GENERAL

(a) In the event that any provision of these Standard Terms and Conditions is declared to be illegal, invalid or otherwise unenforceable by a court of competent jurisdiction, such provision shall be reformed, if possible, to the extent necessary to render it legal, valid and enforceable, or otherwise deleted, and the remainder of these Standard Terms and Conditions shall not be affected except to the extent necessary to reform or delete such illegal, invalid or unenforceable provision.

(b) The headings preceding the text of the sections hereof are inserted solely for convenience of reference, and shall not constitute a part of these Standard Terms and Conditions, nor shall they affect its meaning, construction or effect.

(c) These Standard Terms and Conditions shall inure to the benefit of and be binding upon the parties hereto and their respective permitted heirs, beneficiaries, successors and assigns.

(d) These Standard Terms and Conditions shall be construed in accordance with and governed by the laws of the State of Delaware, without regard to principles of conflicts of law.

(e) In the event of any conflict between the Grant Notice, these Standard Terms and Conditions and the Plan, the Grant Notice and these Standard Terms and Conditions shall control. In the event of any conflict between the Grant Notice and these Standard Terms and Conditions, the Grant Notice shall control.

(f) All questions arising under the Plan or under these Standard Terms and Conditions shall be decided by the Committee in its total and absolute discretion.

10. ELECTRONIC DELIVERY

By executing the Grant Notice, the Participant hereby consents to the delivery of information (including, without limitation, information required to be delivered to the Participant pursuant to applicable securities laws) regarding the Company and the Subsidiaries, the Plan, and the Restricted Stock Units via Company web site or other electronic delivery.

SEPARATION AND GENERAL RELEASE AGREEMENT

This SEPARATION AND GENERAL RELEASE AGREEMENT (this "Agreement") is entered into by and among William P. Kerfin, Jr. (the "Executive"), on the one hand, and Forterra, Inc. ("Forterra"), and USP Holdings, Inc. (the "Company"), on the other hand, and is effective as of the Effective Date (as defined herein). The Company, Forterra and the Executive shall each be referred to in this Agreement as a "Party," and collectively as the "Parties."

WHEREAS, the Executive has been employed by the Company as its President pursuant to that certain Employment Agreement dated April 26, 2016 between Executive and the Company (the "Employment Agreement"), which superseded, terminated and cancelled that certain Senior Management Agreement between the Executive and the Company dated March 2, 2015 and which combines certain ongoing post-Employment restrictive covenants that survive termination of Employment;

WHEREAS, LSF9 Concrete Holdings Ltd, a private limited company incorporated under the laws of the Bailiwick of Jersey ("Concrete Holdings") previously established the LSF9 Concrete Holdings Ltd. Long Term Incentive Plan (as amended, supplemented, restated, or otherwise modified, the "LTIP"), in accordance with which Executive and Concrete Holdings entered into that certain Award Agreement dated August 21, 2016, which superseded, terminated and cancelled that certain Long Term Incentive Plan Award Agreement between the Executive and Concrete Holdings dated April 26, 2016 (as amended, supplemented, restated or otherwise modified, the "Award Agreement");

WHEREAS, pursuant to that certain Assignment and Assumption Agreement dated as of October 14, 2016, Concrete Holdings assigned and transferred all rights, title, interest and certain obligations in and under the LTIP to Forterra, and after such date Forterra maintains the LTIP;

WHEREAS, Executive and Forterra entered into that certain Indemnification Agreement dated October 19, 2016, which provides certain rights to indemnification of the Executive by the Company and by which the Company is bound (the "Indemnification Agreement");

WHEREAS, the Parties have determined that it is in their mutual best interests for Executive's service with the Company and its affiliates to terminate on the terms and conditions set forth herein; and

WHEREAS, Executive, Forterra and the Company wish to resolve all matters related to the Executive's employment with the Company and the cessation thereof, the LTIP and the Award Agreement, on the terms and conditions expressed in this Agreement.

NOW THEREFORE, in consideration of the mutual promises contained herein, the Parties, intending to be legally bound, agree as follows:

1. Resolution of Disputes. The Parties have entered into this Agreement as a way of severing the employment relationship between them and amicably settling any and all potential disputes concerning the Executive's service with Forterra and the Company, the cessation thereof, the LTIP and the Award Agreement (the "Disputes"). The Parties desire to resolve the Disputes and all issues raised by the

Disputes, without the further expenditure of time or the expense of contested litigation. Additionally, the Parties desire to resolve any known or unknown claims. For these reasons, they have entered into this Agreement.

2. Separation Date. Executive and the Company agree that Executive's employment with the Company has ceased effective at 11:59 p.m. CDT on July 23, 2018 (the "Separation Date"), and that the Company will deem such cessation to be a termination without Cause (as defined under the Employment Agreement). In connection with such cessation, Executive has resigned from all positions Executive held with Forterra, the Company and any of its affiliates, effective as of the Separation Date. Notwithstanding the foregoing, for purposes of the Employment Agreement, the Plan and the Award Agreement, the parties agree that Executive's cessation of service constitutes, and shall be deemed to constitute, a termination by the Company without Cause. Executive hereby waives any notice period with respect to the termination of his Employment.

3. Payments and Benefits.

3.1 Accrued Rights. Executive shall be entitled to payment of (i) his regular base salary earned through the Separation Date, (ii) any unreimbursed business expenses, (iii) any vacation days that have been accrued but unused under the Company's vacation policy that are required to be cashed out under state law, and (iv) any reimbursements and payments due to the Executive under the Company's benefit plans, programs or arrangements, with such amounts payable in accordance with the terms of such plans, programs or arrangements.

3.2 LTIP. The Parties acknowledge and agree that Executive shall retain all 80,000 of the Pool Units granted to him under the Award Agreement and the LTIP until the six-month anniversary of the Separation Date and shall remain entitled to all payments due to Executive in connection with any Liquidity Event (as defined in the LTIP) occurring on or before the six-month anniversary of the Separation Date with respect to all such Pool Units; provided, however, that all such Pool Units and any right to such payment shall be immediately forfeited on the date the Executive first violates any of the restrictive covenants set forth in Section 5 of the Employment Agreement. Any payments due under the LTIP shall be made in accordance with the terms and conditions of the Award Agreement and the LTIP.

3.3 Equity Awards. Executive acknowledges and agrees that all other equity awards that he holds in Forterra or any affiliate which are unvested as of the Separation Date under the terms of such awards shall be cancelled and forfeited without the payment of any additional consideration therefore as of the Separation Date.

3.4 No Other Benefits. Except as provided in Sections 3.1 and 3.2 of this Agreement, Executive shall not be entitled to receive any other payment, benefit or other form of compensation as a result of his employment or the cessation thereof. Executive further acknowledges and agrees that Executive has received all compensation and benefits owed to him and that the Company or its affiliates do not owe any additional compensation or benefits, including but not limited to salary, wages, bonus, accrued time off, reimbursement for expenses, or any other alleged entitlement or benefit, other than what has already been received or as set forth in Sections 3.1 and 3.2. Further, Executive agrees that, in connection with any appointments on management and advisory boards for the Company and any affiliates

of the Company, and for any tasks performed in connection therewith, Executive shall not be entitled to any further remuneration and/or any other benefits.

3.5 Special Separation Pay. In lieu of any separation payments provided under any other plans, programs, agreements or arrangements, in consideration of Executive's undertakings set forth in this Agreement, and conditioned upon Executive's execution, delivery, and non-revocation of this Agreement and Executive's continued compliance with his obligations under this Agreement and Section 5 of the Employment Agreement, the Company shall provide the Executive with the following payments and benefits (the "Special Separation Compensation"):

- a. Continued payment of the Executive's current base salary of \$385,000 for a period of twelve (12) months following the Separation Date, which amount shall be subject to all applicable taxes and withholdings and shall be payable in accordance with the Company's customary payroll practices over such period;
- b. In lieu of the notice period contemplated by Section 4(a) of the Employment Agreement, and in exchange for the waiver of any such notice by Executive, a one-time payment in the amount of \$33,328.00, which amount shall be subject to all applicable taxes and withholdings and shall be payable in accordance with the Company's customary payroll practices, in a lump sum within fourteen (14) days of the Effective Date of this Agreement (as defined herein);
- c. Payment, at the time annual bonuses are paid to other Company executives, but no later than March 15, 2019, of an annual bonus for calendar year 2018 (based on actual performance for such year) in a lump sum amount pro-rated based on the number of days from January 1, 2018 through the Separation Date, subject to all applicable taxes and withholdings; and
- d. For a period of twelve (12) months following the Separation Date, access to health coverage for Executive and his dependents under the Company's group insurance plans at the same rate applicable to Executive as of immediately prior to the Separation Date.

Notwithstanding any of the foregoing, the Company shall not be obligated to make any of the payments or provide any of the benefits set forth in this Section 3.5 in the event Executive violates any of the obligations under this Agreement or Section 5 of the Employment Agreement. By executing this Agreement, Executive acknowledges that neither the Company nor any of the Releasees (defined below) has any prior obligation to provide the Special Separation Compensation. Executive also acknowledges and agrees that the acceptance of the Special Separation Compensation and attendant obligations as described in this Agreement is in consideration of Executive's promises and undertakings as set forth in this Agreement, and that if Executive violates any of the requirements and prohibitions set forth in this Agreement or Section 5 of the Employment Agreement, Executive forfeits and has no right to the Special Separation Compensation. Executive further acknowledges and agrees that the Company has satisfied all obligations owed to Executive pursuant to Executive's Employment with the Company and the Executive's participation in its benefit plans, and that no additional sums are owed by the Company or any of the other Releasees for any reason.

3.6 No Representations as to Taxation. The Company makes no representations regarding the taxability or legal effect of the payments described in this Agreement, and Executive is not relying

on any statement or representation of the Company in this regard. Executive will be solely responsible for the payment of any taxes assessed on the payments made hereunder.

3.7 Notice of Purported Violation. While the Company and the Executive both have full faith and expectation that each shall comply with all terms and conditions of this Agreement and the Employment Agreement as reaffirmed by paragraph 11 of this document, in the event of a perceived violation by either party, the party who believes the Agreement has been violated shall provide notice pursuant to paragraph 23 of this document and inform the other party of the nature and timing of the purported violation. Notice shall be provided with seven (7) days of the purported violation or at such time when the violation came to the attention of the aggrieved party. Within seven (7) days of the date of such notice, the party receiving the notice of purported violation shall respond and attempt to cure the alleged violation if possible or otherwise dispute or admit the violation. Attempting to cure the purported violation shall not be deemed as admitting the violation. During this time frame, the Company agrees to refrain from withholding Executive's salary continuation and/or benefits pursuant to Section 3.5 of this Agreement or initiating a cause of action in a court of law or pursuant to Section 15 of this document unless the Executive admits the violation. During this time frame, the Executive likewise agrees to refrain from initiating a cause of action in a court of law or pursuant to Section 15 of this document unless the Company admits the violation. Notwithstanding any of the foregoing portions of this Section 3.7, nothing in this Section 3.7 shall prevent the Company from immediately seeking or obtaining immediate injunctive relief under Section 11 of this Agreement in the event that Executive violates the covenants in Section 5 of the Employment Agreement. In addition, nothing in this Section 3.7 shall be construed as a waiver of any of the rights or remedies of the Company or the Executive.

4. General Release.

a. In consideration of the payments and benefits (less all applicable withholdings) set forth in this Agreement, Executive, on behalf of himself and his agents, heirs, executors, successors and assigns, knowingly and voluntarily releases, remises, and forever discharges the Company, Forterra, Forterra US Holdings, LLC, Concrete Holdings, Lone Star Fund IX (U.S.), L.P., Hudson Advisors, L.P., and each of their respective parents, subsidiaries or affiliates, together with each of their current and former principals, officers, directors, partners, shareholders, attorneys, agents, representatives and employees, and each of their respective affiliates, and each of the above listed person's heirs, executors, successors and assigns whether or not acting in his or his representative, individual or any other capacity (each a "Releasee" and, collectively, the "Releasees"), to the fullest extent permitted by law, from any and all debts, demands, actions, causes of actions, accounts, covenants, contracts, agreements, claims, damages, costs, expenses, omissions, promises, and any and all claims and liabilities whatsoever, of every name and nature, known or unknown, suspected or unsuspected, both in law and equity (collectively, the "Claims"), including but not limited to those which Executive ever had, now has, or may hereafter claim to have against the Releasees by reason of the Executive's employment with the Company, the cessation thereof, the Award Agreement, the LTIP, or any other matter, cause or thing whatsoever relating thereto arising from the beginning of time to the time he signs this Agreement (the "General Release"). The General Release shall apply to any Claim of any type, including, without limitation, any Claims with respect to Executive's entitlement to any wages, bonuses, benefits,

payments, or other forms of compensation; any claims of wrongful discharge, breach of contract, breach of the covenant of good faith and fair dealing, violation of public policy, defamation, personal injury, or emotional distress; any Claims of any type that Executive may have arising under the common law; any Claims under Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Age Discrimination in Employment Act of 1967 (the "ADEA"), the Older Workers Benefit Protection Act, the Americans With Disabilities Act, the Family and Medical Leave Act, the Executive Retirement Income Security Act, the Fair Labor Standards Act, the federal Workers' Adjustment and Retraining Notification Act, the Sarbanes-Oxley Act, each as amended; and any other federal, state or local statutes, regulations, ordinances or common law, or under any policy, agreement, contract, understanding or promise, written or oral, formal or informal, between any of the Releasees and Executive, and shall further apply, without limitation, to any and all Claims in connection with, related to or arising out of Executive's employment relationship, or the termination of his employment, with the Company or any Releasee and to any Claims fraud or fraud in the inducement or fraudulent misrepresentation in relation to any such matters.

b. Executive intends that this General Release extend to any and all Claims of any kind or character related to the Company or any Releasee, and Executive, on behalf of himself, his agents, heirs, executors, successors and assigns, therefore expressly waives any and all rights granted by federal or state law or regulation that may limit the release of unknown claims.

c. Executive represents and warrants that Executive has not filed, and Executive will not file, any lawsuit or institute any proceeding, charge, complaint or action asserting any claim released by this Agreement before any federal, state, or local administrative agency or court against any Releasee, concerning any event occurring prior to the signing of this Agreement. Notwithstanding the foregoing, nothing contained in this Agreement limits Executive's ability to file a charge or complaint with any federal, state or local governmental agency or commission ("Government Agencies") or limits Executive's ability provide information to or communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agencies in connection with any charge or complaint, whether filed by Executive, on his behalf, or by any other individual. However, to the maximum extent permitted by law, Executive agrees that if such a charge or complaint is made, Executive shall not be entitled to recover any individual monetary relief or other individual remedies. This Agreement does not limit or prohibit Executive's right to receive an award for information provided to any Government Agency to the extent that such limitation or prohibition is a violation of law. Furthermore, if Executive makes a confidential disclosure of any trade secret or confidential information of the Company to a government official or an attorney for the sole purpose of reporting or investigating a suspected violation of law, or in a court filing under seal, Executive will not be held liable under this Agreement, the Employment Agreement, the Award Agreement, or under any federal or state trade secret law for such a disclosure. Executive also hereby agrees that nothing contained in this Agreement shall constitute or be treated as an admission of liability or wrongdoing by any of the Releasees. Executive also hereby agrees that nothing contained in this Agreement shall constitute or be treated as an admission of liability or wrongdoing by any of the Releasees.

d. Nothing in this Section 4 shall be deemed to release (i) Executive's right to enforce the terms of this Agreement, (ii) Executive's rights, if any, to any vested benefits as of Executive's last day of employment with the Company under the terms of an employee compensation or benefit plan, program or agreement in which Executive is a participant, or (iii) any Claim that cannot be waived under applicable law, including any rights to workers' compensation or unemployment insurance.

e. Executive hereby represents and warrants to the Releasees that Executive is the sole owner of any Claims that Executive may now have or in the past had against any of the Releasees and that Executive has not assigned, transferred, or purported to assign or transfer any such Claim to any person or entity.

5. Return of Property. Executive represents and warrants that as of the Effective Date he has returned to the Company all property of the Company in whatever form in accordance with the terms of Section 5(f) of the Employment Agreement.

6. Cooperation. Executive agrees to make himself available as reasonably requested by the Company, and after reasonable advance notice that shall not materially interfere with Executive's other commitments, with respect to, and to use reasonable best efforts to cooperate in conjunction with any litigation, arbitration, inquiry, investigation (internal or external), proceeding, or dispute of any kind arising from or relating to events that occurred during Executive's employment with the Company and its affiliates (whether such litigation, arbitration, inquiry, investigation, proceeding or dispute is currently pending or subsequently initiated) involving the Company or any affiliate of the Company including providing interviews, testimony and preparing to provide testimony if so requested by the Company. Executive shall be entitled to payment in the amount of \$215 per hour for any such cooperation and the Company shall reimburse Executive for any reasonable travel and other expenses incurred in connection with such cooperation. Nothing in this Agreement is intended to modify the rights and obligations of the Company or the Executive under the Indemnification Agreement.

7. Reemployment. Executive acknowledges in consideration of the Special Separation Compensation described in Section 3.5 of this Agreement, that as of the date of the Executive's execution of this Agreement, Executive does not intend to seek and will not seek to be rehired by the Company or any of the other Releasees. Executive further acknowledges and agrees that should Executive seek rehire with the Company or any of the other Releasees in the future, and the Company or any of the other Releasees does not offer Executive employment, that refusal to offer employment is in no way discriminatory or retaliatory.

8. Confidentiality. Executive understands and acknowledges that Forterra's common stock is publicly traded on the Nasdaq Global Market Exchange and that Forterra may have the obligation to make public either the existence of this Agreement, certain of its terms and the circumstances surrounding Executive's separation from employment with the Company. Notwithstanding the foregoing, Executive agrees not to voluntarily make the existence of this Agreement, the terms and conditions set forth in this Agreement, or the circumstances surrounding this Agreement known to anyone other than the attorney

and/or tax consultant from whom he receives counseling or, if he is married, to his spouse, or except as otherwise required by law. Executive acknowledges that any such person must agree not to further disclose the existence of, the terms of, or the circumstances surrounding this Agreement. The Parties agree that this promise is a material inducement to the Company to enter into this Agreement.

9. No Other Lawsuits or Claims. Executive affirms that Executive is the sole owner of all claims related to Executive's employment, that Executive has not assigned or transferred any claims to any other person or entity, and that Executive has no claims, lawsuit or action pending against any of the Releasees. Executive further affirms that Executive has no cause to believe any violation of any local, state or federal law has occurred with regard to Executive's employment or separation. Executive affirms that Executive has not and has no cause to believe that Executive incurred or sustained any work-related injury during Executive's employment.

10. Defense of Trade Secrets Act Notification. Executive understands and acknowledges that Executive's non-disclosure obligations pursuant to this Agreement and Section 5 of the Employment Agreement are subject to the following immunity provisions of the Defend Trade Secrets Act of 2016:

- a. The Company hereby notifies Executive that Executive shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that: (A) is made (i) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.
- b. An individual who files a lawsuit for retaliation by the Company for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order.

11. Covenants. In consideration of the payments set forth in this Agreement, Executive reaffirms the covenants made in Section 5 of the Employment Agreement, which are incorporated herein by reference and modified as follows: all references to the words clay and brick in section (c) of Section 5 of the Employment Agreement are hereby stricken and no longer enforceable; in addition, Section 5 of Employment Agreement shall not be interpreted to prohibit employment with companies that do not engage in developing or manufacturing building or water transmission products including pipe but do engage in resale or installation of such products, including but not limited to fire protection services, products and applications, so long as Executive does not engage in the sale resale or distribution of any the types of pressurized potable water products sold by U.S. Pipe or pressurized wastewater products sold by U.S. Pipe except to the extent that such products are incorporated into fire protection products and Executive otherwise complies with all covenants in Section 5 of the Employment Agreement, including those with respect to confidential information. All other language in Section 5 of the Employment Agreement remains valid and in full force and effect. For avoidance of doubt, Executive understands and agrees that he shall not provide Confidential Information to any non-governmental party

asserting any claims against the Company or its affiliates. As the sole exception to the exclusive arbitration provision in Section 15 of this Agreement, Executive agrees that the Company may enforce the obligations of those covenants by injunctive action in the state or federal courts of Dallas County, Texas without prior notice and without posting bond, to the maximum extent permitted by law, and Executive hereby irrevocably consents to jurisdiction of such courts.

12. Consultation with Attorney: Voluntary Agreement. Executive understands and agrees that he is under no obligation to consent to the General Release set forth in Section 4 above. Executive acknowledges and agrees that the payments set forth in Section 3.5 of this Agreement and the prior provision by the Company of Confidential Information to Executive are sufficient consideration to require him to abide with his obligations under this Agreement and Section 5 of his Employment Agreement, including but not limited to the General Release set forth in Section 4 herein. Executive represents and agrees that Executive (i) is not relying upon any statements, understandings, representations, expectations or agreements other than those expressly set forth in this Agreement; (ii) has made his own investigation of the facts and is relying solely upon his own knowledge and the advice of his own legal counsel; (iii) knowingly waives any claim that this Agreement was induced by any misrepresentation or nondisclosure and any right to rescind or avoid this Agreement based upon presently existing facts, known or unknown; (iv) has read and understands the terms and effect of this Agreement and that this Agreement contains the full and final release of all claims against the Company and the Releasees; (v) is entering into this Agreement knowingly and voluntarily; (vi) is not, and would not be, otherwise entitled to the payments or benefits described herein but for his undertakings and agreements set forth herein; (vii) has been, by this Agreement, advised to consult with an attorney before signing this Agreement; and (viii) the only consideration for him signing this Agreement are the terms stated herein and no other promises or representation of any kind have been made by any person or entity whatsoever to cause him to sign this Agreement.

13. Revocation Rights. Executive acknowledges that this Agreement includes a waiver of any rights and claims arising under the ADEA and the Older Workers Benefit Protection Act (the "ADEA Release"). Executive acknowledges that the consideration that Executive is receiving in exchange for this waiver of the rights and claims specified in this Agreement exceed anything of value to which Executive is already entitled. Executive acknowledges that Executive was advised in writing to consult with an attorney prior to executing this Agreement. Executive represents and agrees that Executive fully understands the right to discuss all aspects of this Agreement with legal counsel, and to the extent Executive has deemed it appropriate, Executive has fully availed himself of this right. Executive acknowledges and represents that he has been given at least twenty-one (21) days during which to review and consider the provisions of this Agreement and, specifically, the General Release set forth in Section 4 above, although he may sign and return it sooner if he so desires. Executive further acknowledges and represents that he has been advised by the Company that he has the right to revoke this Agreement for a period of seven (7) days after signing it. Executive acknowledges and agrees that, if he wishes to revoke this Agreement, he must do so in a writing, signed by him and received by the Company no later than 5:00 p.m. local time on the seventh (7th) day of the revocation period. If the last day of the revocation period falls on a Saturday, Sunday or holiday, the last day of the revocation period will be deemed to be the next business day. If no such revocation occurs, the General Release and this Agreement shall become effective on the eighth (8th) day following his execution of this Agreement (the "Effective Date").

Executive further acknowledges and agrees that, in the event that he revokes this Agreement, it shall have no force or effect, and he shall have no right to receive any payments or benefits pursuant to Section 3.5 hereof.

14. Governing Law. This Agreement shall be construed and enforced under and be governed in all respects by the laws of the State of Texas, without regard to the conflict of laws principles thereof.

15. Dispute Resolution. Subject to Section 11, any and all disputes relating to, arising from, or in connection with this Agreement, including the arbitrability thereof, shall be mutually agreed to be finally settled by binding arbitration in accordance with the Judicial Arbitration & Mediation Service, Inc. (“JAMS”) Comprehensive Arbitration Rules and Procedures or any successor provision thereto, as follows: Any party aggrieved will deliver a notice to the other party setting forth the specific points in dispute. Any points remaining in dispute thirty (30) days after the giving of such notice may be submitted to JAMS arbitration conducted before a single neutral arbitrator in Dallas, Texas. The arbitrator shall be appointed by agreement of the parties hereto or, if no agreement can be reached, by JAMS. The arbitrator may enter a default decision against any party who fails to participate in the arbitration proceedings. The decision of the arbitrator on the points in dispute will be final, unappealable and binding, and judgment on the award may be entered in any court having jurisdiction thereof. The arbitrator shall only be authorized to interpret the provisions of this Agreement, and shall not amend, change or add to any such provisions. The parties agree that this provision has been adopted by the parties to rapidly and inexpensively resolve any disputes between them and that this provision will be grounds for dismissal of any court action commenced by either party with respect to this Agreement, other than post-arbitration actions seeking to enforce an arbitration award or proceedings seeking equitable relief as permitted by this Agreement. In the event that any court determines that this arbitration procedure is not binding, or otherwise allows any litigation regarding a dispute, claim, or controversy covered by this Agreement to proceed, the parties hereto hereby waive any and all right to a trial by jury in or with respect to such litigation. Each party will bear its own expenses and the fees of its own attorneys. The parties and the arbitrator will keep confidential, and will not disclose to any person, except the parties’ advisors and legal representatives, or as may be required by law or to enforce in court an arbitrator’s award, the existence of any dispute hereunder. Executive acknowledges that arbitration pursuant to this Agreement includes all controversies or claims of any kind (e.g., whether in contract or in tort, statutory or common law, legal or equitable) now existing or hereafter arising under any federal, state, local or foreign law, including, but not limited to, the Age Discrimination in Employment Act, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1866, the Executive Retirement Income Security Act, the Family and Medical Leave Act, the Americans With Disabilities Act and all similar federal, state and local laws, and the Executive hereby waives all rights thereunder to have a judicial tribunal and/or a jury determine such claims.

16. Entire Agreement. This Agreement, the LTIP, the Award Agreement, the Indemnification Agreement, and Section 5 of the Employment Agreement constitute the entire agreement between the Parties with respect to the subject matter hereof and supersede all prior agreements between the Parties with respect to such matters, unless specifically provided otherwise herein. Executive agrees that he is not relying on any representations outside this Agreement. Executive acknowledges and agrees that, except with respect to Section 5 of the Employment Agreement, the Employment Agreement and the

Senior Management Agreement dated as of March 2, 2015 are cancelled and terminated and the Company has no ongoing obligations to Executive pursuant to those agreements.

17. Section 409A. The parties intend that the payments and entitlements provided hereunder be exempt from or in compliance with Section 409A of the Internal Revenue Code, and accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be exempt from Section 409A or in compliance therewith, as applicable. The payments to Executive pursuant to this Agreement are intended to be exempt from Section 409A to the maximum extent possible, under either the separation pay exemption pursuant to Treasury regulation §1.409A-1(b)(9)(iii) or as short-term deferrals pursuant to Treasury regulation §1.409A-1(b)(4), and for such purposes, each payment to Executive under this Agreement shall constitute a “separately identified” amount within the meaning of Treasury regulation §1.409A-2(b)(2). Nothing contained herein shall constitute any representation or warranty by the Company regarding compliance with Section 409A. In the event the terms of this Agreement would subject Executive to taxes or penalties under Section 409A (“409A Penalties”), Executive and the Company shall cooperate diligently to amend the terms of the Agreement to avoid such 409A Penalties, to the extent possible; provided that in no event shall the Company be responsible for any 409A Penalties that arise in connection with any amounts payable under this Agreement. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits that are considered nonqualified deferred compensation under Section 409A upon or following a termination of employment, unless such termination is also a “separation from service” within the meaning of Section 409A and the payment thereof prior to a “separation from service” would violate Section 409A. For purposes of any such provision of this Agreement relating to any such payments or benefits, references to a “termination,” “termination of employment” or like terms shall mean “separation from service” within the meaning of Treasury regulation §1.409A-1(h).

18. Amendment. This Agreement may be modified or amended only by a written instrument signed by Executive and by an expressly authorized representative of the Company.

19. Waiver. No waiver of any provision hereof shall be effective unless made in writing and signed by the waiving Party. The failure of either Party to require the performance of any term or obligation of this Agreement, or the waiver by either Party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

20. Successors and Assigns. This Agreement shall inure to the benefit of the Company and each of its successors and assigns. Executive shall not assign this Agreement or any part hereof. Any purported assignment by Executive shall be null and void from the initial date of the purported assignment.

21. Drafting. This Agreement and the provisions contained in it shall not be construed or interpreted for or against either party because that party drafted or caused that party’s legal representative to draft any of its provisions.

22. Headings. Descriptive headings in this Agreement are inserted for convenience only and shall be disregarded in construing or applying any provision of this Agreement.

23. Notices. All notices required by this Agreement must be in writing and shall be effective when delivered in person, consigned to a reputable national courier service or deposited in the United States mail, postage prepaid, registered or certified, and addressed to the Executive at his last known address on the books of the Company or, in the case of the Company, at its principal place of business, attention of the Legal Department or to such other address as any Party may specify by notice to the other actually received.

24. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and both of which, taken together, shall constitute one and the same instrument. This Agreement may be executed and delivered by exchange of facsimile or other electronic means of transmitting signature, and such signatures shall be considered an original for purposes of enforcement of the Agreement.

[Signature page follows]

IN WITNESS WHEREOF, this Agreement has been duly executed as of the dates written below.

Dated: August 14, 2018 /s/ William P. Kerfin, Jr.
William P. Kerfin, Jr.

Dated: August 15, 2018 Forterra, Inc.

By: /s/ Jeff Bradley

Name: Jeff Bradley

Title: CEO

Dated: August 15, 2018 USP Holdings, Inc.

By: /s/ Jeff Bradley

Name: Jeff Bradley

Title: CEO

SUBSIDIARIES OF FORTERRA, INC.

Name of Subsidiary	Jurisdiction of Organization
Bio Clean Environmental Services, Inc.	California
Concrete Pipe & Precast, LLC	Delaware
Constructure Fabrication, LLC	Delaware
Custom Fab, Inc.	Florida
DIP Acquisition LLC	Delaware
Fab Pipe LLC	Delaware
Forterra Brick America, Inc.	Michigan
Forterra Concrete Industries, Inc.	Tennessee
Forterra Concrete Operations, LLC	Texas
Forterra Concrete Products, Inc.	Iowa
Forterra Finance, LLC	Delaware
Forterra Pipe & Precast, LLC	Delaware
Forterra Pipe & Precast, Ltd.	Canada (British Columbia)
Forterra Pipe & Precast BC, ULC	Canada (British Columbia)
Forterra Precast Concepts, LLC	Delaware
Forterra Pressure Pipe, Inc.	Ohio
Forterra Pressure Pipe, ULC	Canada (British Columbia)
Forterra Properties Idaho, LLC	Idaho
Forterra Properties Utah, LLC	Utah
Forterra Structural Precast, LLC	Delaware
Forterra Transportation, LLC	Delaware
Griffin Pipe Products Co., LLC	Delaware
Minimill Land Holdings, LLC	Alabama
Mill Handling LLC	Delaware
Modular Wetland Systems, Inc.	California
Pressure Pipe Land Holdings, ULC	Canada (British Columbia)
Stardust Holdings (USA), LLC	Delaware
United States Pipe and Foundry Company, LLC	Alabama
US Pipe Fabrication, LLC	Delaware
U.S. Pipe Mexico S. de R.L. de C.V.	Mexico
USP Holdings Inc.	Delaware
USP Land Holdings FCP, LLC	Delaware
USP Land Holdings FP&P, LLC	Delaware

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-215504) pertaining to the 2016 Stock Incentive Plan of Forterra, Inc. and the Registration Statement (Form S-8 No. 333-229964) pertaining to the 2018 Stock Incentive Plan of Forterra, Inc. of our reports dated March 12, 2019, with respect to the consolidated financial statements of Forterra, Inc., and the effectiveness of internal control over financial reporting of Forterra, Inc., included in this Annual Report (Form 10-K) of Forterra, Inc. for the year ended December 31, 2018.

/s/ Ernst & Young LLP

Dallas, Texas
March 12, 2019

CONSENT OF INDEPENDENT AUDITOR

We consent to the incorporation by reference in the Registration Statements (Form S-8 Nos. 333-215504 and 333-229964) of our report dated March 12, 2019, relating to the financial statements of Concrete Pipe & Precast, LLC, appearing in this Annual Report (Form 10-K) of Forterra, Inc. for the year ended December 31, 2018.

/s/ Moss Adams LLP

Houston, Texas
March 12, 2019

CONSENT OF INDEPENDENT AUDITOR

We consent to the incorporation by reference in the Registration Statements (Nos. 333-215504 and 333-229964) on Form S-8 of Forterra, Inc. of our report dated March 24, 2017, relating to the financial statements of Concrete Pipe & Precast, LLC for the year ended December 31, 2016, which report expresses an unqualified opinion, appearing in this Form 10-K of Forterra, Inc. for the year ended December 31, 2018.

/s/ Hein & Associates LLP

Houston, Texas
March 12, 2019

SECTION 302 CERTIFICATION

I, Jeff Bradley, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2018 of Forterra, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 12, 2019

/s/ Jeff Bradley

Jeff Bradley

President and Chief Executive Officer

SECTION 302 CERTIFICATION

I, Charles R. Brown II, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2018 of Forterra, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 12, 2019

/s/ Charles R. Brown, II

Charles R. Brown, II

Executive Vice President and Chief

Financial Officer

CERTIFICATION
Pursuant to 18 U.S.C. Section 1350
Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2018 of Forterra, Inc. (the "Company") as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), and pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of the Company certifies to his knowledge that:

- the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 12, 2019

/s/ Jeff Bradley

Jeff Bradley

President and Chief Executive Officer

Date: March 12, 2019

/s/ Charles R. Brown, II

Charles R. Brown, II

Executive Vice President and Chief

Financial Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

CONCRETE PIPE & PRECAST, LLC

FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

Report of Independent Auditors

The Board of Managers
Concrete Pipe & Precast, LLC

Report on the Financial Statements

We have audited the accompanying financial statements of Concrete Pipe & Precast, LLC, which comprise the balance sheets as of December 31, 2018 and 2017, and the related statements of income, changes in members' equity, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Concrete Pipe & Precast, LLC as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

/s/ Moss Adams LLP

Houston, Texas
March 12, 2019

Independent Auditor's Report

Board of Managers
Concrete Pipe & Precast, LLC

Report on the Financial Statements

We have audited the accompanying financial statements of Concrete Pipe & Precast, LLC (the "Company"), which comprise the statements of income, changes in members' equity and cash flows for the year ended December 31, 2016, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the results of operations and cash flows of Concrete Pipe & Precast, LLC for the year ended December 31, 2016 in accordance with accounting principles generally accepted in the United States of America.

/s/ Hein & Associates LLP

Houston, Texas
March 24, 2017

CONCRETE PIPE & PRECAST, LLC

BALANCE SHEETS DECEMBER 31, 2018 and 2017

ASSETS	2018	2017
CURRENT ASSETS		
Cash	\$ 170,265	\$ 154,313
Trade accounts receivable - net	12,707,577	15,056,134
Inventories	19,584,290	18,372,105
Prepaid insurance and other assets	892,370	1,238,568
Due from affiliates	417	—
Non-trade notes receivable	—	897,435
Total current assets	<u>33,354,919</u>	<u>35,718,555</u>
PROPERTY, PLANT, AND EQUIPMENT - NET	61,529,473	65,756,256
OTHER ASSETS		
Property held for sale	—	1,471,763
Deposits and other assets	99,847	121,838
Total other assets	<u>99,847</u>	<u>1,593,601</u>
Total Assets	<u>\$ 94,984,239</u>	<u>\$ 103,068,412</u>
LIABILITIES AND MEMBERS' EQUITY		
CURRENT LIABILITIES		
Cash overdraft	\$ 702,032	\$ 2,722,225
Accounts payable	7,912,802	6,976,737
Due to affiliates	87,358	331,318
Other current liabilities	1,988,612	2,197,606
Total current liabilities	<u>10,690,804</u>	<u>12,227,886</u>
LONG-TERM LIABILITIES		
Notes payable	24,753,280	24,822,384
Total liabilities	<u>35,444,084</u>	<u>37,050,270</u>
Commitments and contingencies (see note 6 and note 8)		
MEMBERS' EQUITY	59,540,155	66,018,142
Total Liabilities and Members' Equity	<u>\$ 94,984,239</u>	<u>\$ 103,068,412</u>

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

STATEMENTS OF INCOME FOR THE YEARS ENDED DECEMBER 31, 2018, 2017, and 2016

	2018	2017	2016
Net sales	\$ 140,494,299	\$ 153,407,901	\$ 153,345,289
Cost of sales	103,021,478	109,999,001	111,659,657
Gross profit	<u>37,472,821</u>	<u>43,408,900</u>	<u>41,685,632</u>
Operating Expenses			
Selling expenses	4,530,571	4,402,662	4,298,678
General and administrative expenses	12,843,245	13,320,939	12,372,828
Other operating income	(471,151)	(385,740)	(315,713)
Income from Operations	<u>20,570,156</u>	<u>26,071,039</u>	<u>25,329,839</u>
Other income (expense)			
Interest expense, net	(766,574)	(634,482)	(476,706)
Net income	<u>\$ 19,803,582</u>	<u>\$ 25,436,557</u>	<u>\$ 24,853,133</u>

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2018, 2017, and 2016

	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 19,803,582	\$ 25,436,557	\$ 24,853,133
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	7,082,851	7,211,784	7,104,282
Amortization of debt issuance costs	21,991	48,267	14,174
Amortization of intangibles	—	347	8,334
Bad debt expense (recovery)	(80,265)	(78,471)	121,860
Net loss (gain) on disposal of assets	(669,816)	112,910	(3,118)
Changes in working capital:			
Trade accounts receivable	2,428,822	2,765,847	(2,789,749)
Inventories	(1,212,185)	(2,637,984)	(386,327)
Prepays and other assets	346,198	216,880	(861,787)
Due from / to affiliates	(244,377)	198,816	23,774
Accounts payable and accrued expenses	727,071	(2,147,976)	2,431,386
Cash overdraft	(2,020,193)	540,558	286,946
Net cash provided by operating activities	26,183,679	31,667,535	30,802,908
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	(3,020,894)	(5,899,647)	(4,811,478)
Proceeds from disposal of assets	2,306,405	—	318,319
Principal received on notes receivable	897,435	73,703	53,497
Net cash provided by (used in) investing activities	182,946	(5,825,944)	(4,439,662)
CASH FLOWS FROM FINANCING ACTIVITIES			
Distributions paid	(26,281,569)	(27,434,820)	(26,656,309)
Net (repayments) proceeds on revolving line of credit	(69,104)	1,685,614	417,919
Loan origination costs	—	(109,963)	—
Net cash used in financing activities	(26,350,673)	(25,859,169)	(26,238,390)
NET INCREASE (DECREASE) IN CASH	15,952	(17,578)	124,856
CASH, BEGINNING OF YEAR	154,313	171,891	47,035
CASH, END OF YEAR	\$ 170,265	\$ 154,313	\$ 171,891
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Cash paid for:			
Interest	\$ 744,322	\$ 633,770	\$ 476,706

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

STATEMENTS OF CHANGES IN MEMBERS' EQUITY FOR THE YEARS ENDED DECEMBER 31, 2018, 2017, and 2016

BALANCE AT JANUARY 1, 2016 (unaudited)	\$	69,819,581
Distributions		(26,656,309)
Net income		24,853,133
BALANCE AT DECEMBER 31, 2016		<hr/> 68,016,405
Distributions		(27,434,820)
Net income		25,436,557
BALANCE AT DECEMBER 31, 2017		<hr/> 66,018,142
Distributions		(26,281,569)
Net income		19,803,582
BALANCE AT DECEMBER 31, 2018	\$	<hr/> <hr/> 59,540,155

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

1. NATURE OF BUSINESS

Concrete Pipe & Precast, LLC ("CP&P" or the "Company") commenced operations on August 3, 2012, through a joint venture formation agreement by and between two pipe and precast companies; Americast, Inc., a Virginia corporation ("Americast"), and Hanson Pipe & Precast, LLC, a Delaware limited liability company ("Hanson") (collectively, the "Members"). The Members formed CP&P, a limited liability company under the laws of the State of Delaware. Both Members made initial contributions of tangible and intangible assets such as human resources, inventory, and property, plant, and equipment at the formation of CP&P. On March 13, 2015, Forterra Pipe and Precast, LLC ("Forterra") acquired Hanson's interest in CP&P. As such, Forterra became a member of CP&P.

CP&P is engaged primarily in the manufacture, marketing, sale, and distribution of concrete pipe and precast products. Operations are primarily in Virginia, West Virginia, Maryland, North Carolina, Pennsylvania, South Carolina, and Georgia, with sales to contiguous states.

CP&P's operating agreement stipulates how capital contributions, distributions, and income or losses of CP&P are to be allocated to each Member, which is not always in accordance with each Member's respective ownership percentage. Each of the Member's loss is limited to the amount of capital contributed. CP&P shall continue in existence until dissolved in accordance with the provisions of the agreement.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying financial statements and footnotes have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP").

Certain prior year numbers were reclassified to conform with current year presentation. Such reclassification had no impact on the previously reported results of operations.

Accounting Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The more significant estimates made by management relate to useful lives of property, plant, and equipment, inventory reserves, allowance for uncollectible accounts, and impairment of long-lived assets.

Cash and Cash Equivalents

For purposes of the statement of cash flows, CP&P considers all highly-liquid investments purchased with an original maturity of three months or less to be cash equivalents. Cash accounts in excess of federally-insured limits are subject to risk of loss.

Accounts and Notes Receivable

Accounts receivable, net consists of amounts billed to customers less an allowance for doubtful accounts. CP&P accounts for estimated uncollectible amounts by reducing earnings through a valuation allowance. This allowance is based on the judgment of management as to the estimated collectibility of the receivables balance at year end and is adjusted as experience, economic conditions, and other factors dictate. CP&P established an allowance for uncollectible

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

accounts receivable of \$415,000 and \$831,647 as of December 31, 2018 and 2017, respectively, to report receivables at their net realizable value. Generally, accounts receivable balances are unsecured and subject to certain credit risks. However, certain accounts receivable balances are secured through liens or bonding agents.

Accounts receivable balances are considered delinquent once they are 90 days past due. Finance charges begin to accrue once an account is 30 days past due and continue to accrue regardless of status. Trade receivable balances that remain outstanding after CP&P has used reasonable collection efforts are written off by reducing accounts receivable and the valuation allowance.

Allowances for non-trade note receivable losses are determined primarily on the basis of management's best estimate of probable losses, including specific allowances for known troubled accounts. Interest income on notes receivable is accrued monthly.

In October of 2014, CP&P obtained a non-trade note receivable related to the sale of property, plant, and equipment. The total principal balance of the note amounted to \$1,050,000. The note accrued interest at an annual rate of 5.0% and required monthly payments of \$6,138 beginning on December 1, 2014. In October 2017, the note was amended such that principal and all accrued interest was payable in full on January 31, 2018. All payments of principal and interest were current as of December 31, 2017. The note was secured by the respective property, plant, and equipment. The outstanding balance of the note was \$897,435 at December 31, 2017 and was paid in full on January 19, 2018.

Concentration of credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily receivables. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral other than partial advance payments or deposits from its customers on major projects.

Inventories

Inventories are valued at the lower of cost or net realizable value using several cost flow assumptions including FIFO (first-in, first-out method) and average cost.

Property, Plant, and Equipment

All initial capital contributions of property, plant, and equipment by each Member were contributed at that Member's respective book values. Property, plant, and equipment is recorded at cost and depreciated using the straight-line method over the following estimated useful lives:

	Estimated Useful Lives in Years
Buildings and improvements	15 - 39
Machinery and equipment	5 - 20
Vehicles and delivery equipment	5 - 12
Office equipment	3 - 7

Depreciation expense, included in cost of sales and general and administrative expenses on the statements of income, were \$7,082,851 in 2018, \$7,211,784 in 2017, and \$7,104,282 in 2016.

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

The Company evaluates the recoverability of its long-lived assets in accordance with the provisions in Accounting Standards Codification ("ASC") 360, Property, Plant, and Equipment ("ASC 360"). ASC 360 requires that long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets is measured by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. No indication of impairment existed during any of the years presented. Such evaluations for impairment are significantly impacted by estimates of future prices for the Company's products, capital needs, economic trends in the construction sector, and other factors. If such assets are considered to be impaired, the impairment to be recognized is measured at the amount by which the carrying amount of the assets exceeds their fair value. Assets to be disposed of by sale are reflected at the lower of their carrying amount or fair value less cost to sell.

Property Held for Sale

Individual long-lived assets to be disposed of by sale are classified as assets held for sale if the following criteria are met:

- Management, having the authority to approve the action, commits to a plan to sell;
- The asset or asset group is available for immediate sale in its present condition;
- An active program to locate a buyer and other actions required to complete the plan to sell have been initiated;
- Actions required to complete the sale indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn; and
- The sale is probable to qualify for recognition as a completed sale within one year.

Assets held for sale are carried at the lower of their carrying amount or fair value less costs to sell and are presented separately on the face of the balance sheet. Assets classified as held for sale are no longer depreciated. Property held for sale was \$0 and \$1,471,763 as of December 31, 2018 and 2017, respectively.

Shipping and Handling Costs

Shipping and handling costs are included in cost of sales on the statements of income. Delivery revenue is included in net sales on the statements of income.

Income Taxes

CP&P is a limited liability company. Accordingly, under the Internal Revenue Code, all taxable income or loss flows through to its Members. All state income taxes are passed through to the Members also. Therefore, no income tax expense or liability is recorded in the accompanying financial statements.

CP&P has reviewed and evaluated the relevant technical merits of each of its tax positions in accordance with guidance established by the Financial Accounting Standards Board (FASB) and determined that there are no uncertain tax positions that would have a material impact on the financial statements of CP&P. The open tax years related to state tax filings are 2013 – 2017 and will expire in 2017 – 2021. When and if applicable, potential interest and penalty costs are accrued as incurred with expenses recognized in general and administrative expenses on the statements of income.

Revenue Recognition

Substantially all of CP&P's revenue contracts are single performance obligations for the sale of products. A majority of revenue recognized by the Company is recognized at the time control is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products. The Company considers several indicators for the transfer of control to its customers, including the significant risks and rewards of ownership of products, the Company's right to payment and the legal title of the products. Based upon the assessment of control

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

indicators, sales to trade customers and distributors are generally recognized when products are delivered to customers. In most cases, the final delivery to the customers is within the same day that the shipment is picked up by a third party hauler.

All variable consideration that may affect the total transaction price, including contractual discounts, rebates, returns and credits are included in net sales. Estimates for variable consideration are based on historical experience, anticipated performance and management's judgment.

Sales Taxes

CP&P collects sales tax from customers and remits the entire amount to the taxing jurisdictions. CP&P's accounting policy is to exclude the tax collected and remitted to the taxing jurisdictions from revenues and cost of sales.

Fair Value

CP&P follows current accounting standards relating to fair value measurements and disclosures, which define fair value, establish guidelines for measuring fair value, establish a framework for measuring fair value, and expand disclosures regarding fair value measurement. The Company's financial instruments consist primarily of cash, trade receivables, accounts payable, accrued expenses, and debt. The carrying value of the Company's financial instruments approximates the fair value due to their highly liquid nature, short-term maturity, or competitive rates assigned to these financial instruments.

Members' Equity

At the formation of CP&P, each member received 500 common voting units. As of December 31, 2018, each Member has 500 common units. Income and losses are allocated to the members based upon their relative share of common units, with the exception that depreciation, gains, and losses related to property, plant, and equipment as part of the initial contribution to CP&P are allocated back to the Members who originally contributed the assets. Depreciation, gains, and losses related to property, plant, and equipment acquired subsequent to the formation of CP&P are allocated based on common units.

CP&P distributes cash to the Members in an amount equal to the estimated tax amount on its taxable income. All distributions are divided equally among the Members.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Updates (ASU) 2014-09, *Revenue from Contracts with Customers (Topic 606)* and issued subsequent amendments to the initial guidance. ASC Topic 606 supersedes the revenue recognition requirements in ASC Topic 605, *Revenue Recognition*. The new guidance outlines a single comprehensive model for accounting for revenue arising from contracts with customers. This guidance requires an entity to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services and also requires certain additional disclosures. The guidance is effective for interim and annual reporting periods for private companies beginning after December 15, 2018. The standard may be applied retrospectively to each prior period presented (full retrospective method) or retrospectively with the cumulative effect recognized as of the date of initial application (modified retrospective method). The Company will adopt the new revenue guidance effective January 1, 2019 using the modified retrospective method. The Company is substantially complete with its evaluation of the effect that the adoption will have on its financial statements. Due to the nature of our business, the Company expects the timing of its revenue recognition to generally remain the same under the new standard as compared to the guidance under ASC Topic 605, and the Company currently does not anticipate the adoption will have a material effect on its financial statements.

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, amending the existing accounting standards for lease accounting, including requiring lessees to recognize most leases on their balance sheets and making targeted changes to lessor accounting. The amendments in this update are effective for annual reporting periods beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020, and early adoption is permitted as of the standard's issuance date. ASU 2016-02 requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. The Company believes this ASU will have a material impact on our financial statements as it will result in most of the Company's leases and associated assets being presented on the balance sheet.

In August 2016, the FASB issued ASU 2016-15, *Statements of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, providing clarifications as to the presentation and classification in the cash flows of eight specific issues, including but not limited to prepayment of debt or debt extinguishment costs and contingent consideration payments made after a business combination. The Company adopted this standard on January 1, 2019. The adoption of the ASU can have an impact on the Company's cash flow presentation in future periods.

Subsequent Events

Management has evaluated subsequent events through March 12, 2019, which is the date the financial statements were available to be issued.

3. INVENTORIES

Inventories consisted of the following at December 31:

	2018	2017
Finished goods	\$ 15,595,655	\$ 15,570,871
Raw materials	3,950,455	2,640,981
Supplies	38,180	160,253
Total inventories	<u>\$ 19,584,290</u>	<u>\$ 18,372,105</u>

4. PROPERTY, PLANT, AND EQUIPMENT

Property, plant, and equipment consisted of the following at December 31:

	2018	2017
Land, buildings, and improvements	\$ 46,811,688	\$ 46,537,950
Machinery and equipment	111,622,852	110,143,078
Vehicles and delivery equipment	778,851	788,421
Office equipment	1,245,070	1,245,071
Assets under development	1,430,419	658,135
Total	<u>161,888,880</u>	<u>159,372,655</u>
Less: Accumulated depreciation	<u>(100,359,407)</u>	<u>(93,616,399)</u>
Net property, plant, and equipment	<u>\$ 61,529,473</u>	<u>\$ 65,756,256</u>

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

5. NOTES PAYABLE

On July 9, 2014, CP&P refinanced its Bank of America ("BoA") debt through a Wells Fargo Bank revolving line of credit ("WF Revolver"). The monthly payments of accrued interest are based on an interest rate equal to the LIBOR rate plus an applicable margin based on performance. CP&P is also subject to an unused commitment fee on the WF Revolver as defined in the credit agreement with Wells Fargo. The WF Revolver's original credit limit of \$35,000,000 is reduced by \$600,000 every quarter beginning with the quarter ended September 30, 2014. The borrowings from the WF Revolver were used to pay off the BoA debt and provide additional liquidity.

Effective June 1, 2017, the Company amended its WF Revolver in its Second Amended and Restated Credit Agreement with Wells Fargo Bank ("Amended WF Revolver"). Per the terms of the Amended WF Revolver, interest is payable monthly at a rate equal to LIBOR plus an applicable margin based upon performance. The Amended WF Revolver also includes an unused commitment fee. The credit limit is the lower of \$40,000,000 or the Company's borrowing base, as defined in the amended credit agreement. Availability on the Amended WF Revolver as of December 31, 2018, was \$15,214,920 based on draws, outstanding letters of credit, and the allowable borrowing base. The Amended WF Revolver becomes due on May 31, 2022.

Effective December 19, 2018, the Company entered into the First Amendment to the Amended WF Revolver to, among other things, replace one of the loan covenants of basic Fixed Charge Coverage Ratio with Tangible Net worth (as defined in the First amendment).

The WF Revolver is secured by certain real property and all machinery and equipment, vehicles and delivery equipment, office equipment, other personal property, accounts receivable, general intangibles, and inventory.

The outstanding balance of the WF Revolver consisted of the following at December 31:

	2018	2017
Current portion	\$ —	\$ —
Long-term portion	24,753,280	24,822,384
Notes payable	<u>\$ 24,753,280</u>	<u>\$ 24,822,384</u>

CP&P is subject to three loan covenants: a Funded Debt to EBITDA (earnings before interest, taxes, depreciation, and amortization) Ratio, a Fixed Charge Coverage Ratio considering only tax distributions, and a Tangible Net Worth (as defined in the First Amendment). CP&P was in compliance with all financial loan covenants as of December 31, 2018 and December 31, 2017.

6. PROFIT SHARING PLANS AND COLLECTIVE BARGAINING AGREEMENT

CP&P has adopted a plan allowing all qualified employees to invest a portion of their current earnings in an employees' 401(k) retirement fund. CP&P matches a portion of the elective contributions made by the employees based on the terms of the plan. CP&P may also, at its sole discretion, make additional contributions for all eligible employees. Employer contributions to the plan amounted to approximately \$899,000 in 2018, \$907,000 in 2017, and \$835,000 in 2016.

CP&P entered into a collective bargaining agreement on August 28, 2012, with the union workforce at one production facility. The terms of the current agreement are up for renewal on August 28, 2021. Approximately 5% of the total production workforce is covered under this agreement as of December 2018.

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

7. RELATED PARTY TRANSACTIONS

CP&P, in its ordinary course of business, sells products to Americast, Eagle Corporation (Americast's parent company, or "Eagle"), as well as Eagle's other subsidiaries. CP&P also purchases products and services from subsidiaries of Eagle and subsidiaries of Forterra.

On August 3, 2012, CP&P entered into a Management Services Agreement with Eagle. For a monthly fee, Eagle is providing general and administrative services including information technology, payroll processing, 401(k) profit sharing plan management, and insurance coverage allocations. The agreement is subject to a Consumer Price Index (CPI) adjustment beginning in 2015. The agreement will automatically renew annually until terminated as described in the agreement.

Following table summarizes the related party transactions between CP&P and its affiliates during the years ended December 31, 2018, 2017 and 2016:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Sale of products to affiliates	\$37,490	\$104,024	\$107,000
Purchase of products and services from affiliates	340,291	464,371	489,000
Management fees paid to affiliates	529,842	513,220	513,220

During 2018, CP&P sold certain properties at its Hanover Plant in Ashland, Virginia, to an affiliate of Eagle, for cash proceeds of \$2,000,000. As of December 31, 2017, such properties were classified as assets held for sale.

The amount due from / to affiliates on the balance sheets as of December 31, 2018 and 2017 were the results of the transactions disclosed above.

8. COMMITMENTS AND CONTINGENT LIABILITIES

The Company is involved in legal proceedings and litigation in the ordinary course of business. In the opinion of management, the outcome of such matters will not have a material adverse effect on the Company's financial position, results of operations, or liquidity. The Company previously received a claim related to performance under certain contract. As of December 31, 2017, the Company recorded a reserve related to this matter of approximately \$350,000. Such claim was settled in February 2018 for an amount materially the same as what was reserved as of December 31, 2017. Other than routine litigation incidental to the Company's business, there are no other material legal proceedings to which the Company is a party or to which any of the Company's properties are subject.

Self-Insurance

CP&P participates in self-funding programs for workers' compensation and liability insurance. The plans are administered by insurance companies who determine current funding requirements. CP&P has individual and aggregate stop-loss arrangements with the insurance companies to cover substantial claims. CP&P has approximately \$55,000 at December 31, 2018, and \$106,000 at December 31, 2017, as an estimated self-insurance liability.

CONCRETE PIPE & PRECAST, LLC

NOTES TO FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018 AND 2017 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2018

Operating Leases

CP&P is obligated under various non-cancellable operating leases for property, equipment, vehicles, and computers, which have varying terms. Lease expense under these agreements approximated \$1,048,000 in 2018, \$1,026,000 in 2017, and \$941,000 in 2016.

Approximate minimum future operating lease rental payments required for the five-year period subsequent to December 31, 2018, are as follows:

2019	\$	465,000
2020		323,000
2021		244,000
2022		118,000
2023 and thereafter		47,000
Total	\$	<u>1,197,000</u>