

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

(Mark One)

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

For the fiscal year ended December 31, 2019

or

☐ 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 1-14315



Cornerstone Building Brands, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

76-0127701
(I.R.S. Employer
Identification No.)

5020 Weston Parkway Suite 400 Cary NC 27513
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (866) 419-0042

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, \$0.01 par value	CNR	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the 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 such files). Yes ☒ No ☐

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant on June 28, 2019 was \$252,031,712, which aggregate market value was calculated using the closing sales price reported by the New York Stock Exchange as of the last business day of the registrant's most recently completed second fiscal quarter.

The number of shares of common stock of the registrant outstanding on February 26, 2020 was 126,073,241.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Part III of this Annual Report is incorporated by reference from the registrant's definitive proxy statement for its 2020 annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2019.

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FORWARD LOOKING STATEMENTS

This Annual Report includes statements concerning our expectations, beliefs, plans, objectives, goals, strategies, future events or performance and underlying assumptions and other statements that are not historical facts. These statements are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those expressed or implied by these statements. In some cases, our forward-looking statements can be identified by the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “forecast,” “goal,” “intend,” “may,” “objective,” “plan,” “potential,” “predict,” “projection,” “should,” “will,” “target” or other similar words. We have based our forward-looking statements on management’s beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that assumptions, beliefs, expectations, intentions and projections about future events may and often do vary materially from actual results. Therefore, we cannot assure you that actual results will not differ materially from those expressed or implied by our forward-looking statements. Accordingly, investors are cautioned not to place undue reliance on any forward-looking statements or information. Although we believe that the expectations reflected in the forward-looking statements are reasonable, these expectations and the related statements are subject to risks, uncertainties and other factors that could cause actual results to differ materially from those projected. These risks, uncertainties and other factors include, but are not limited to:

- industry cyclicality and seasonality and adverse weather conditions;
- challenging economic conditions affecting the nonresidential construction industry;
- downturns in the residential new construction and repair and remodeling end markets, or the economy or the availability of consumer credit;
- volatility in the United States (“U.S.”) economy and abroad, generally, and in the credit markets;
- our ability to successfully develop new products or improve existing products;
- the effects of manufacturing or assembly realignments;
- seasonality of the business and other external factors beyond our control;
- commodity price volatility and/or limited availability of raw materials, including steel, PVC resin, glass and aluminum;
- our ability to identify and develop relationships with a sufficient number of qualified suppliers and to avoid a significant interruption in our supply chains;
- retention and replacement of key personnel;
- enforcement and obsolescence of our intellectual property rights;
- costs related to compliance with, violations of or liabilities under environmental, health and safety laws;
- changes in building codes and standards;
- competitive activity and pricing pressure in our industry;
- our ability to make strategic acquisitions accretive to earnings;
- our ability to carry out our restructuring plans and to fully realize the expected cost savings;
- global climate change, including legal, regulatory or market responses thereto;
- breaches of our information system security measures;
- damage to our computer infrastructure and software systems;
- necessary maintenance or replacements to our enterprise resource planning technologies;
- potential personal injury, property damage or product liability claims or other types of litigation;
- compliance with certain laws related to our international business operations;
- increases in labor costs, potential labor disputes, union organizing activity and work stoppages at our facilities or the facilities of our suppliers;
- significant changes in factors and assumptions used to measure certain of our defined benefit plan obligations and the effect of actual investment returns on pension assets;
- the cost and difficulty associated with integrating and combining acquired businesses;

- volatility of the Company's stock price;
- substantial governance and other rights held by the Investors;
- the effect on our common stock price caused by transactions engaged in by the Investors, our directors or executives;
- our substantial indebtedness and our ability to incur substantially more indebtedness;
- limitations that our debt agreements place on our ability to engage in certain business and financial transactions;
- our ability to obtain financing on acceptable terms;
- downgrades of our credit ratings;
- the effect of increased interest rates on our ability to service our debt; and
- other risks detailed under the caption "Risk Factors" in Part I, Item 1A of this report.

A forward-looking statement may include a statement of the assumptions or bases underlying the forward-looking statement. We believe that we have chosen these assumptions or bases in good faith and that they are reasonable. However, we caution you that assumed facts or bases almost always vary from actual results, and the differences between assumed facts or bases and actual results can be material, depending on the circumstances. When considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements in this report, including those described under the caption "Risk Factors" in Item 1A of this report. We expressly disclaim any obligations to release publicly any updates or revisions to these forward-looking statements to reflect any changes in our expectations unless the securities laws require us to do so.

PART I

Item 1. *Business.*

General

Cornerstone Building Brands, Inc. (together with its subsidiaries, unless the context requires otherwise, the “Company,” “Cornerstone,” “we,” “us” or “our”) is a leading North American integrated manufacturer of external building products for the commercial, residential, and repair and remodel construction industries. We design, engineer, and manufacture external building products through our three operating segments, Commercial, Siding, and Windows.

In our Commercial segment, we design, engineer, manufacture and distribute extensive lines of metal products for the nonresidential construction market under multiple brand names through a nationwide network of plants and distribution centers. We offer a number of advantages over traditional construction alternatives, including shorter construction time, more efficient use of materials, lower construction costs, greater ease of expansion and lower maintenance costs. Our Commercial segment also provides metal coil coating services for commercial and construction applications, servicing both internal and external customers. We sell our products for both new construction and repair and retrofit applications.

In our Siding segment, our principal products include vinyl siding and skirting, steel siding, vinyl and aluminum soffit, aluminum trim coil, aluminum gutter coil, aluminum gutters, aluminum and steel roofing accessories, cellular PVC trim and mouldings, J-channels, wide crown molding, window and door trim, F-channels, H-molds, fascia, undersill trims, outside/inside corner posts, rain removal systems, injection molded designer accents such as shakes, shingles, scallops, shutters, vents and mounts, vinyl fence, vinyl railing, and stone veneer in the United States and Canada. The breadth of our product lines and our multiple brand and price point strategy enable us to target multiple distribution channels (wholesale and specialty distributors, retailers and manufactured housing) and end users (new construction and home repair and remodeling).

In our Windows segment, our principal products include vinyl, aluminum-clad vinyl, aluminum, wood and clad-wood windows and patio doors and steel, wood, and fiberglass entry doors that serve both the new construction and the home repair and remodeling sectors in the United States and Canada. We continue introducing new products to the portfolio which allow us to enter or further penetrate new distribution channels and customers. The breadth of our product lines and our multiple price point strategy enable us to target multiple distribution channels (wholesale and specialty distributors, retailers and manufactured housing) and end user markets (new construction and home repair and remodeling).

NCI Building Systems, Inc. (“NCI”) was founded in 1984 and reincorporated in Delaware in 1991. In 1998, we acquired Metal Building Components, Inc. (“MBCI”) and we became the largest domestic manufacturer of nonresidential metal components. In 2006, we acquired Robertson-Ceco II Corporation (“RCC”) which operates the Ceco Building Systems, Star Building Systems and Robertson Building Systems divisions and was a leader in the metal buildings industry. The RCC acquisition created an organization with greater product and geographic diversification, a stronger customer base and a more extensive distribution network than either company had individually, prior to the acquisition.

Since 2011, we executed on a strategy to become the leading provider of Insulated Metal Panels (“IMP”) products in North America through our acquisitions of Metl-Span LLC (“Metl-Span”) in 2012 and CENTRIA, a Pennsylvania general partnership (“CENTRIA”), in 2015. IMP products possess several physical and cost-effective attributes, such as energy efficiency, that make them compelling alternatives to competing building materials, in particular due to the adoption of stricter standards and codes by numerous states in the United States that are expected to increase the use of IMP products in construction projects. Given these factors, we believe that growth within the IMP market will continue to outpace the broader metal building sector and the nonresidential construction industry as a whole.

At a Special Meeting of the shareholders of NCI held on November 15, 2018 (the “Special Shareholder Meeting”), NCI’s shareholders approved (i) the Agreement and Plan of Merger (the “Merger Agreement”) among NCI, Ply Gem Parent, LLC (“Ply Gem”), and for certain limited purposes set forth in the Merger Agreement, Clayton, Dubilier & Rice, LLC, a Delaware limited liability company, pursuant to which, at the closing of the merger, Ply Gem was merged with and into the Company, with the Company continuing its existence as a corporation organized under the laws of the State of Delaware (the “Merger”) and (ii) the issuance in the Merger of 58,709,067 shares of NCI common stock, par value \$0.01 per share (the “NCI Common Stock”) in the aggregate, on a pro rata basis, to the holders of all of the equity interests in Ply Gem (the “Stock Issuance”). The Merger was consummated on November 16, 2018 pursuant to the Merger Agreement.

Pursuant to the terms of the Merger Agreement, on November 16, 2018, the Company entered into (i) a stockholders agreement (the “New Stockholders Agreement”) between the Company and each of Clayton, Dubilier & Rice Fund VIII, L.P., a Cayman Islands exempted limited partnership (“CD&R Fund VIII”), CD&R Friends & Family Fund VIII, L.P., a Cayman Islands exempted limited partnership (“CD&R FF Fund VIII”, and together with CD&R Fund VIII, the “CD&R Fund VIII Investor Group”), CD&R Pisces Holdings, L.P., a Cayman Islands exempted limited partnership (“CD&R Pisces”, and together with CD&R Fund VIII and CD&R FF Fund VIII, individually, the “CD&R Investors,” and collectively, the “CD&R Investor Group”), Atrium Intermediate Holdings, LLC, a Delaware limited liability company (“Atrium”), GGC BP Holdings, LLC, a Delaware limited liability company (“GGC”), and AIC Finance Partnership, L.P., a Cayman Islands exempted limited partnership (“AIC”, and together with Atrium and GGC, each individually, a “Golden Gate Investor,” and collectively, the “Golden Gate Investor Group,” and together with the CD&R Investor Group, the “Investors”), pursuant to which the Company granted to the Investors certain governance, preemptive and subscription rights and (ii) a registration rights agreement (the “New Registration Rights Agreement”) with the Investors, pursuant to which the Company granted the Investors customary demand and piggyback registration rights, including rights to demand registrations and underwritten shelf registration statement offerings with respect to the shares of NCI Common Stock that are held by the Investors following the consummation of the Merger.

On November 16, 2018, in connection with the consummation of the Merger, the Company assumed (i) the obligations of the company formerly known as Ply Gem Midco, Inc. (“Ply Gem Midco”), a subsidiary of Ply Gem immediately prior to the consummation of the Merger, as borrower under the Current Cash Flow Credit Agreement, (ii) the obligations of Ply Gem Midco as parent borrower under the Current ABL Credit Agreement and (iii) the obligations of Ply Gem Midco as issuer under the Current Indenture (each as defined and further described in “Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations”).

On January 12, 2019, the Company entered into a Unit Purchase Agreement (the “Purchase Agreement”) with Environmental Materials, LLC, a Delaware limited liability company (“Environmental Stoneworks” or “ESW”), the Members of Environmental Materials, LLC (the “Sellers”) and Charles P. Gallagher and Wayne C. Kocourek, solely in their capacity as the Seller Representative (as defined in the Purchase Agreement), pursuant to which, on February 20, 2019, the Company’s wholly-owned subsidiary, Ply Gem Industries, Inc., purchased from the Sellers 100% of the outstanding limited liability company interests of Environmental Stoneworks (the “Environmental Stoneworks Acquisition”). The transaction was financed through borrowings under the Company’s asset-based revolving credit facility. The Environmental Stoneworks Acquisition, when combined with the Company’s existing stone businesses, positions the Company as a market leader in stone veneer.

For additional discussion of the Company’s debt following the Merger, see “Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Our principal offices are located at 5020 Weston Parkway, Suite 400, Cary, North Carolina 27513, and our telephone number is (866) 419-0042.

We file annual, quarterly and current reports and other information with the Securities and Exchange Commission (the “SEC”). Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, along with any amendments to those reports, are available free of charge at our corporate website at <http://www.cornerstonebuildingbrands.com> as soon as practicable after such material is electronically filed with, or furnished to the SEC. In addition, our website includes other items related to corporate governance matters, including our corporate governance guidelines, charters of various committees of our Board of Directors and the code of business conduct and ethics applicable to our employees, officers and directors. You may obtain copies of these documents, free of charge, from our corporate website. However, the information on our website is not incorporated by reference into this Form 10-K.

Segments

Our operating segments operate primarily in the commercial, residential, and repair and remodeling construction markets. Sales and earnings are influenced by general economic conditions, commodity prices and the level of construction activity.

Commercial

Products

In our Commercial segment, we design, engineer, manufacture and distribute extensive lines of metal products for the nonresidential construction market under multiple brand names through a nationwide network of plants and distribution centers. We offer a number of advantages over traditional construction alternatives, including shorter construction time, more efficient use of materials, lower construction costs, greater ease of expansion and lower maintenance costs. Our Commercial segment also provides metal coil coating services for commercial and construction applications, servicing both internal and external customers. We sell our products for both new construction and repair and retrofit applications.

Coil Coatings – Our complete line of coating finishes includes Epoxies, Acrylics, Polyesters, Silicone Modified Polyesters (SMP), Fluorocarbons (PVDF), and Plastisol for light-gauge and heavy-gauge steel coil applications. As one of the largest coil coaters in the country, Metal Coaters specializes in the toll processing of customer-owned light gauge metal to deliver coil coating solutions throughout the United States. Metal Prep is one of the largest providers of pre-painted Hot Rolled Steel in the United States and provides heavy gauge coil coating solutions to the construction industry. We sell our products and processes principally to original equipment manufacturer customers who utilize pre-painted metal, including other manufacturers of engineered building systems and metal components. Our customer base also includes steel mills, metal service centers and painted coil distributors who in-turn supply various manufacturers of engineered building systems, metal components, lighting fixtures, ceiling grids, water heaters, appliances and other manufactured products.

Doors – From steel curtain roll-up and self-storage doors to complete hallway systems, our products are fabricated to meet or exceed operational requirements with little to no maintenance. Our doors are used across the country in freight terminals, commercial buildings, self-storage facilities, and more. Commercial grade steel curtain roll-up doors, self-storage doors, and hallway systems are sold directly to contractors and other customers under the brand “Doors and Buildings Components” (“DBC”).

Insulated Metal Panels – Insulated Metal Panels act simultaneously as exterior wall, insulation, and finished interior wall, offering protection over the lifespan of a building. Insulated metal panels are panels consisting of rigid foam encased between two sheets of coated metal in a variety of modules, lengths and reveal combinations and are increasingly desirable because of their energy efficiency, noise reduction and aesthetic qualities. We design, manufacture, sell and distribute insulated metal panels for use in various architectural, commercial, industrial and cold storage end market applications under the brand names “Metl-Span” and “CENTRIA”.

Metal Building Systems – Metal building systems consist of engineered structural members and panels that are fabricated and roll-formed in a factory. These systems are custom designed and engineered to meet project requirements and then shipped to a construction site complete and ready for assembly with no additional field welding required. Engineered building systems manufacturers design an integrated system that meets applicable building code and designated end use requirements. These systems consist of primary structural framing, secondary structural members (purlins and girts) and metal roof and wall systems or conventional wall materials manufactured by others, such as masonry and concrete tilt-up panels. We sell engineered building systems to builders, general contractors, developers and end users nationwide under the brand names “Metallic,” “Mid-West Steel Building Company,” “A & S,” “All American,” “Mesco,” “Star,” “Ceco,” “Robertson,” “Garco,” “Heritage” and “SteelBuilding.com.” We market engineered building systems through an in-house sales force to affiliated builder networks of approximately 3,200 builders. We also sell engineered building systems via direct sale to owners and end users as well as through private label companies. The majority of our sales of engineered building systems are made through our authorized builder networks. We enter into an authorized builder agreement with independent general contractors that market our products and services to users. These agreements generally grant the builder the non-exclusive right to market our products in a specified territory. Generally, the agreement is cancelable by either party with between 30 and 60 days’ notice. The agreement does not prohibit the builder from marketing engineered building systems of other manufacturers. In some cases, we may defray a portion of the builder’s advertising costs and provide volume purchasing and other pricing incentives to encourage those businesses to deal exclusively or principally with us. The builder is required to maintain a place of business in its designated territory, provide a sales organization, conduct periodic advertising programs and perform construction, warranty and other services for customers and potential customers. An authorized builder usually is hired by an end-user to erect an engineered building system on the customer’s site and provide general contracting, subcontracting and/or other services related to the completion of the project. We sell our products to the builder, which generally includes the price of the building as a part of its overall construction contract with its customer.

Metal Roofing and Wall Systems - Metal roofing and wall systems, metal partitions, metal trim, doors and other related accessories. These products are used in new construction and in repair and retrofit applications for industrial, commercial, institutional, agricultural and rural uses. Metal components are used in a wide variety of construction applications, including purlins and girts, roofing, standing seam roofing, walls, doors, trim and other parts of traditional buildings, as well as in architectural applications and engineered building systems. We sell roofing and wall systems directly to regional manufacturers, contractors, subcontractors, distributors, lumberyards, cooperative buying groups and other customers under the brand names “MBCI”, “American Building Components” (“ABC”), and “Metal Depots.” We sell directly to contractors or end users for use in the building industry, including the construction of metal buildings. We also stock and market metal component parts for use in the maintenance and repair of existing buildings. Specific component products we manufacture include metal roof and wall systems, purlins, girts, partitions, header panels and related trim and screws. We market our components products primarily within six market segments: commercial/industrial, architectural, standing seam roof systems, agricultural, residential and cold storage. Customers include small, medium and large contractors, specialty roofers, regional fabricators, regional engineered building fabricators, post frame contractors, material resellers and end users.

Raw materials and suppliers

The principal raw material used in manufacturing of our metal components and engineered building systems is steel which we purchase from multiple steel producers. Our various products are fabricated from steel produced by mills including bars, plates, structural shapes, hot-rolled coils and galvanized or Galvalume®-coated coils (Galvalume® is a registered trademark of BIEC International, Inc.).

The price and supply of steel impacts our business. The steel industry is highly cyclical in nature, and steel prices have been volatile in recent years and may remain volatile in the future. Steel prices are influenced by numerous factors beyond our control, including general economic conditions domestically and internationally, currency fluctuations, the availability of raw materials, competition, labor costs, freight and transportation costs, production costs, import duties and other trade restrictions. Based on the cyclical nature of the steel industry, we expect steel prices will continue to be volatile.

Although we have the ability to purchase steel from a number of suppliers, a production cutback by one or more of our current suppliers could create challenges in meeting delivery schedules to our customers. Because we have periodically adjusted our contract prices, particularly in the engineered building systems segment, we have generally been able to pass increases in our raw material costs through to our customers. We normally do not maintain an inventory of steel in excess of our current production requirements. However, from time to time, we may purchase steel in advance of announced steel price increases.

Competition

We and other manufacturers of metal components and engineered building systems compete in the building industry with all other alternative methods of building construction such as tilt-wall, concrete and wood, single-ply and built up, all of which may be perceived as more traditional, more aesthetically pleasing or having other advantages over our products.

In addition, competition in the metal components and engineered building systems market of the building industry is intense. We believe it is based primarily on:

- quality;
- service;
- on-time delivery;
- ability to provide added value in the design and engineering of buildings;
- price;
- speed of construction; and
- personal relationships with customers.

We compete with a number of other manufacturers of metal components, metal coil coaters, and engineered building systems for the building industry, including Nucor, Bluescope, Mueller, Kingspan, and Central States. Many of these competitors operate on a regional basis. We have two primary nationwide competitors in the engineered building systems market and three primary nationwide competitors in the metal components market. However, the metal components market is more fragmented than the engineered building systems market.

As of December 31, 2019, we operated 37 manufacturing facilities located in the United States, Mexico and Canada, with additional sales and distribution offices throughout the United States and Canada. These facilities are used primarily for the manufacturing of metal components and engineered building systems for the building industry. We believe this broad geographic distribution gives us an advantage over our metal components and engineered building systems competitors because major elements of a customer's decision are the speed and cost of delivery from the manufacturing facility to the product's ultimate destination. We operate a fleet of trucks to deliver our products to our customers in a more timely manner than most of our competitors.

Intellectual property

We have a number of United States patents, pending patent applications and other proprietary rights, including those relating to metal roofing systems, metal overhead doors, our pier and header system, our Long Bay® System and our building estimating and design system. The patents on our Long Bay® System expire in 2021. We also have several registered trademarks and pending registrations in the United States.

Seasonality

The Commercial business, and the construction industry in general, are seasonal in nature. Sales normally are lower in the first half of each fiscal year compared to the second half of each fiscal year because of unfavorable weather conditions for construction and typical business planning cycles affecting construction.

Backlog

At December 31, 2019 and December 31, 2018, the total backlog of orders, consisting of Engineered Building Systems' and IMP orders, for our products was \$608.0 million and \$528.8 million, respectively. Job orders included in backlog are generally cancelable by customers at any time for any reason; however, cancellation charges may be assessed. Occasionally, orders in the backlog are not completed and shipped for reasons that include changes in the requirements of the customers and the inability of customers to obtain necessary financing or zoning variances. We anticipate that less than 23% of this backlog will extend beyond one year.

Siding

Products

In our Siding segment, our principal products include vinyl siding and skirting, steel siding, vinyl and aluminum soffit, aluminum trim coil, aluminum gutter coil, fabricated aluminum gutters, aluminum and steel roofing accessories, cellular PVC trim and mouldings, J-channels, wide crown molding, window and door trim, F-channels, H-molds, fascia, undersill trims, outside/inside corner posts, rain removal systems, injection molded designer accents such as shakes, shingles, scallops, shutters, vents and mounts, vinyl fence, vinyl railing, and stone veneer in the United States and Canada. We sell our siding and accessories under our Variform®, Napco®, Mastic® Home Exteriors, Mitten®, Ply Gem/Cellwood®, and Durabuilt® brand names and under the Georgia-Pacific brand name through a private label program. Our cellular PVC Trim products are sold under our Ply Gem® Trim and Mouldings brand name. Our vinyl fencing and railing products are sold under the Ply Gem brand name. Our stone veneer products are sold under our Environmental Stoneworks, Canyon Stone and Ply Gem Stone brand names. Our gutter protection products are sold under our Leaf Relief®, Leaf Relief® Snap Tight, Leaf Smart® and Leaf Logic® brand names. The breadth of our product lines shown below and our multiple brand and price point strategy enable us to target multiple distribution channels (wholesale and specialty distributors, retailers and manufactured housing) and end users (new construction and home repair and remodeling).

	Mastic® Home Exteriors	Variform®	Napco®	Cellwood ®	Durabuilt®	Georgia Pacific	Mitten®	Ply Gem Fence/Rail	Ply Gem® Stone	Canyon Stone	Ply Gem® Trim and Mouldings	Environmental Stone Works (1)
<i>Specialty/Super- Premium</i>	Cedar Discovery® Structure® Home Insulation System™	Heritage Cedar®™ Climaforce™	Cedar Select® American Essence™	Cedar Dimensions™	670 Series™ Hand Split 650 Series™ Shingle Siding 660 Series™ Round Cut Siding 800 Series Insulated Siding	Cedar Spectrum™Caliber™ High Performance Insulated Siding	Sentry Variegated Siding Mitten 8' Rough Sawn Shake		Fieldstone Tuscan Fieldstone Shadow LedgeStone Cut Cobblestone Cobblestone RidgeStone Riverstone Brick Cascade Ledge True Stack Manorstone	Canyon Ledge Castle Cathedral Classic Cobblestone Country Ledge Fieldstone Limestone Manchester River Rock Timber Ledge Tuscan Field Stone Southern Ledge Strip Ledge Brick		Amargosa Chiseled Clipstone Durata EZ Column Bugnato Coral Stone Grezzo Imperial Panel Luxor Panel MARquis Prairie Prostack Ripiano Rocca Sabia Stepp Stone Thin Brick Tivoli Travertine True Stack Cascade Castle Cathedral Chisel Rock Coastal Ledge Cobble Cut Stone European Castle Fieldstone French Country Hackett LedgeStone Limestone Manor Mountain Edge River Rosk Rubble Rustic Ledge Southern LedgeStone Stripstone Teton Timber Ledge Tuscan Ledge Weatheredge
<i>Premium</i>	Quest® Barkwood® Liberty Elite® Board + Batten Designer Series™ Carvedwood 44® Western Extreme®	Vortex Extreme™ Board & Batten Camden Pointe®	American Splendor® American Accents Board & Batten™	Dimensions® Board & Batten	480 Series™	Board & Batten	Sentry Southern Beaded	Woodland Select™			Trim Boards Corners Post Wraps Mouldings Beadboard Skirtboard Sheets J-Notch Trim Post Accents	
<i>Standard</i>	Ovation™ Charleston Beaded®	Nottingham® Ashton Heights® Victoria Harbor®	American Herald® American Tradition American 76 Beaded®	Progressions® Colonial Beaded	440 Series™ 450 Series™ Beaded	Forest Ridge® Shadow Ridge® Castle Ridge® Somerset™ Coastal	Highland Oregon Pride	Ply Gem®				
<i>Economy</i>	Mill Creek® Eclipse™	Contractors Choice®	American Comfort®		410 Series™	Vision Pro® Chatham Ridge® Parkside® Oakside®	Entree					

(1) The Environmental Stoneworks product line was integrated in 2019 with the February 2019 acquisition of Environmental Stoneworks.

Customers and distribution

We have a multi-channel distribution network that serves both the new construction and the home repair and remodeling sectors, which exhibit different, often counter-balancing, demand characteristics. In conjunction with our multiple brand and price point strategy, we believe our multi-channel distribution strategy enables us to increase our sales and sector penetration

while minimizing channel conflict. We believe our strategy reduces our dependence on any one channel, which provides us with a greater ability to sustain our financial performance through economic fluctuations.

We sell our siding and accessories to specialty distributors (one-step distribution) and to wholesale distributors (two-step distribution). Our specialty distributors sell directly to remodeling contractors and builders. Our wholesale distributors sell to retail home centers and lumberyards who, in turn, sell to remodeling contractors, builders and consumers. In the specialty channel, we have developed an extensive network of approximately 800 independent distributors, serving over 22,000 contractors and builders nationwide. We are well-positioned in this channel as many of these distributors are both the largest and leading consolidators in the industry. In the wholesale channel, we are the sole supplier of vinyl siding and accessories to BlueLinx (formerly a distribution operation of the Georgia-Pacific Corporation), one of the largest building products distributors in the United States. Through BlueLinx, our Georgia-Pacific private label vinyl siding products are sold at major retail home centers, lumberyards and manufactured housing manufacturers. A portion of our siding and accessories is also sold directly to home improvement centers. Our growing customer base of fencing and railing consists of fabricators, distributors, retail home centers and lumberyards. Our customer base of stone veneer products consists of distributors, lumberyards and retailers. We also sell to builders and contractors with a distinct turnkey model that provides product and installation services. In Canada, our complete offering of vinyl siding, accessories, trim, and moldings, along with Ply Gem manufactured and third party sourced complimentary products are primarily distributed through our 18 Mitten branch locations, to retail home centers and lumberyards, and new construction and remodeling contractors.

Production and facilities

Vinyl siding, skirting, soffit and accessories are manufactured in our Martinsburg, West Virginia, Jasper, Tennessee, Stuarts Draft, Virginia, Kearney, Missouri, and Paris, Ontario facilities, while all metal products are produced in our Sidney, Ohio facility. The majority of our injection molded products such as shakes, shingles, scallops, shutters, vents and mounts are manufactured in our Gaffney, South Carolina facility. The cellular polyvinyl chloride ("PVC") trim and mouldings products are manufactured in St. Marys, West Virginia. The vinyl, metal, and injected molded plants have sufficient capacity to support planned levels of sales growth for the foreseeable future. Our fencing and railing products are currently manufactured at our York, Nebraska facility. The fencing and railing plants have sufficient capacity to support our planned sales growth for the foreseeable future. Our stone veneer products are manufactured at our Olathe, Kansas, Denver, Colorado, Mabletown, Georgia, Orwigsburg, Pennsylvania, Selingsgrove, Pennsylvania, North Branch, Minnesota and St. George, Utah facilities. Our manufacturing facilities are among the safest in all of North America with three of them having received the highest federal and/or state OSHA safety award and rating.

Raw materials and suppliers

PVC resin and aluminum are major components in the production of our siding, fencing, and stone products. PVC resin and aluminum are commodity products and are available from both domestic and international suppliers. We are one of the largest consumers of PVC resin in North America and we continue to leverage our purchasing power on this key raw material. Changes in PVC resin and aluminum prices have a direct impact on our cost of products sold. Historically, we have been able to pass on the price increases to our customers. The results of operations for individual quarters can be negatively impacted by a delay between the time of raw material cost increases and price increases that we implement in our products, or conversely can be positively impacted by a delay between the time of a raw material price decrease and competitive pricing moves that we implement accordingly.

Competition

We compete with other national and regional manufacturers of vinyl siding, aluminum, cellular PVC, fencing, and stone products. We believe we are currently the largest manufacturer of vinyl siding in North America. Our vinyl siding competitors include CertainTeed, Alside, Royal Building Products and smaller regional competitors. Our aluminum accessories competitors include Rollex, Euramax, Gentek and other smaller regional competitors. Significant growth in vinyl fencing and railing has attracted many new entrants, and the sector today is fragmented with numerous competitors including U.S. Fence, Homeland, Westech, Bufftech, and Azek. Our cellular PVC trim and moulding competitors include Azek, Inteplast, Kommerling (KOMA), Wolfpac (Versatex), Tapco (Kleer), CertainTeed and Royal Building Products. Our stone veneer competitors include Boral (Cultured Stone and Eldorado Stone), Coronado Stone and smaller regional competitors. Our stone competitive advantage is that we provide a full, turnkey solution including manufacturing, distribution and installation services direct to builders and general contractors. We also compete on product quality, breadth of product offering, sales and service support. In addition to competition from other vinyl siding, fencing and stone products, our products face competition from alternative materials, such as wood, metal, fiber cement and masonry. Increases in competition from other exterior building products manufacturers and alternative building materials could cause us to lose customers and lead to net sales decreases.

Intellectual property

We possess a wide array of intellectual property rights, including patents, trademarks, tradenames, licenses, proprietary technology and know-how and other proprietary rights. In connection with the marketing of our products, we generally obtain trademark protection for our brand names in the Siding segment. Depending on the jurisdiction, trademarks are valid as long as they are in use and/or their registrations are properly maintained and they have not become generic. Registrations of trademarks can generally be renewed indefinitely as long as the trademarks are in use. We license the Georgia-Pacific trademark for our Georgia-Pacific private label vinyl siding products sold through BlueLinX. While we do not believe the Siding segment is dependent on any one of our trademarks, we believe that our trademarks are important to the development and conduct of our business as well as the marketing of our products. We vigorously protect all of our intellectual property rights.

Seasonality

Markets for our products in the Siding segment are seasonal and can be affected by inclement weather conditions. Historically, our business has experienced increased sales in the second and third quarters of the year due to increased construction during those periods. Because a portion of our overhead and expenses are fixed throughout the year, our operating profits tend to be lower in the first and fourth quarters. Inclement weather conditions can affect the timing of when our products are applied or installed, causing delayed profit margins when such conditions exist.

We generally carry increased working capital during the first half of a fiscal year to support those months where customer demand exceeds production capacity. We believe that this is typical within the siding industry.

Backlog

Our Siding segment had a backlog of approximately \$66.0 million at December 31, 2019. We expect to fill 100% of the orders during 2020 that were included in our backlog at December 31, 2019.

Windows

Products

In our Windows segment, our principal products include vinyl, aluminum-clad vinyl, aluminum, wood and clad-wood windows and patio doors and steel, wood, and fiberglass entry doors that serve both the new construction and the home repair and remodeling sectors in the United States and Canada. Our products in our Windows segment are sold under the Ply Gem® Windows, Simonton® Windows, Great Lakes® Window, Atrium Windows, American Craftsman, Silver Line, North Star, Tru Bilt and Ply Gem® Canada brands. We continue introducing new products to the portfolio which allow us to enter or further penetrate new distribution channels and customers. The breadth of our product lines shown below and our multiple price point strategy enable us to target multiple distribution channels (wholesale and specialty distributors, retailers and manufactured housing) and end user markets (new construction and home repair and remodeling).

	Ply Gem U.S. Windows		Great Lakes Window	Ply Gem Canada		Simonton	Atrium		North Star	Tru Bilt	Silver Line	American Craftsman
	New Construction	Replacement	Replacement	New Construction & Replacement	New Construction	Replacement	New Construction	Replacement	Replacement	Replacement	New Construction & Replacement	Replacement
<i>Specialty/Super-Premium</i>	Mira® Premium Series		EcoSMART	Design Architectural Series Signature Series		Stormbreaker Plus VantagePoint™ 6500		8900				
<i>Premium</i>	Mira® Premium Series	Premium Series	Comfort Smart	Comfort Series Design Series Enviro Series	ProFinish® Brickmould 600	Reflections® 5500 Daylight Max™ Lumera™ Madeira Impressions 9800 VantagePoint™ 6400	450	8700	1000 Series	Custom Door Series		
<i>Standard</i>	Pro Series Classic	Pro Series	Harbor Light	Classic Series Vista Series	Brickmould 300 ProFinish® Contractor ProFinish® Master	VantagePoint™ 6100 VantagePoint™ 6200 VantagePoint™ 6600 ClearValue Verona Reflections® 5050 Reflections® 5300	130 150	8300			V3 (70) Series V3 (3000) Series V3 (8600/8700/8800) Series V3 (5800) Series	70 (70) Series 70 (3000) Series 70 (8600/8700/8800) Series 70 (5800) Series 70 (2900) Series
<i>Economy</i>	Builder Series 1500	Contractor Series			ProFinish® Builder	Asure™	5700	8050			V1 (1200) Series V1 (2000/2100/2200) Series V1 (2900) Series V1 (5500/5700) Series	50 (1200) Series 50 (2000/2100/2200) Series 50 (5500/5700) Series

Customers and distribution

We have a multi-channel distribution and product strategy that enables us to serve both the new construction and the home repair and remodeling markets. By offering this broad product offering and industry leading service, we are able to meet the local needs of our customers on a national scale. This strategy has enabled our customer base (existing and new) to simplify their supply chain by consolidating window suppliers. Our "good, better, best" product and price point strategy allows us to increase our sales and sector penetration while minimizing channel conflict. This strategy reduces our dependence on any one channel, providing us with a greater ability to sustain our financial performance through economic fluctuations.

The new construction product lines are sold for use in new residential and light commercial construction through a highly diversified customer base, which includes independent building material dealers, regional/national lumberyard chains, builder direct/OEMs and retail home centers. Our repair and remodeling window products are primarily sold through independent home improvement dealers, one-step distributors, and big box retail outlets. Dealers typically market directly to homeowners or contractors in connection with remodeling requirements while distributors concentrate on local independent retailers.

In Canada, sales of product lines for new construction are predominantly made through direct sales to builders and contractors, while sales for repair and remodeling are made primarily through retail lumberyards, independent home improvement dealers and direct to consumers through our supply and install services. Ply Gem Canada products are distributed through twelve Ply Gem Canada distribution centers.

Production and facilities

Our window and door products leverage a network of vertically integrated production and distribution facilities located in Virginia, Ohio, North Carolina, Georgia, Texas, California, Washington, West Virginia, Illinois, New Jersey, Ontario, Canada and Alberta, Canada. Our window manufacturing facilities have benefited from our continued investment and commitment to product development and product quality combined with increasing integration of best practices across our product offerings. In 2010, we began producing vinyl compound for our west coast facilities which improved our operating efficiency and resulted in lower production cost for these items. We continued making upgrades to the automation of our production lines.

While market conditions will dictate future capacity requirements, we have the ability to increase capacity in a cost effective manner by expanding production shifts and lines. Significant housing demand increases to historical levels may require additional capital investment in certain geographical areas to meet this increased demand. Any capacity increase may, however, initially be offset by labor inefficiencies or difficulties obtaining the appropriate labor force. Ongoing capital investments will focus on new product introductions and simplification, production automation, equipment maintenance and cost reductions.

Raw materials and suppliers

PVC compound, wood, aluminum and glass are major components in the production of our window and door products. These products are commodity products available from both domestic and international suppliers. Historically, changes in PVC compound, aluminum billet, glass and wood cutstock prices have had the most significant impact on our material cost of products sold in our Windows segment. We are one of the largest consumers of PVC resin in North America and we continue to leverage our purchasing power on this key raw material. The PVC resin compound that is used in our window lineal production is produced internally. The leveraging of our PVC resin buying power and our PVC resin compounding capabilities benefits all of our window companies. Our window plants have consolidated glass purchases to take advantage of strategic sourcing savings opportunities. In addition, we have continued to vertically integrate aluminum extrusion in our window plants.

Competition

The window and patio door sector remains fragmented, comprised primarily of local and regional manufacturers with limited product offerings. The sector's competitors in the United States include national brands, such as Jeld-Wen, Pella, MI Home Products and Andersen, and other regional brands, including Weathershield and others. Competitors in Canada include Jeld-Wen, All Weather, Durabuilt, Vinylbilt and numerous regional brands. We generally compete on service, product performance, product offering, sales and support. We believe all of our products are competitively priced and that we are one of the only manufacturers to serve all end markets and price points.

Intellectual property

We possess a wide array of intellectual property rights, including patents, trademarks, tradenames, licenses, proprietary technology and know-how and other proprietary rights. In connection with the marketing of our products, we generally obtain trademark protection for our brand names in the Windows segment. Depending on the jurisdiction, trademarks are valid as long as they are in use and/or their registrations are properly maintained and they have not become generic. Registrations of trademarks can generally be renewed indefinitely as long as the trademarks are in use. While we do not believe the Windows segment is dependent on any one of our trademarks, we believe that our trademarks are important to the Windows segment and the development and conduct of our business as well as the marketing of our products. We vigorously protect all of our intellectual property rights.

Seasonality

Markets for our products in the Windows segment are seasonal and can be affected by inclement weather conditions. Historically, our business has experienced increased sales in the second and third quarters of the year due to increased construction during those periods. Accordingly, our working capital is typically higher in the second and third quarters as well. Because much of our overhead and expense are fixed throughout the year, our operating profits tend to be lower in the first and fourth quarters. Inclement weather conditions can affect the timing of when our products are applied or installed, causing lower profit margins when such conditions exist.

Because we have successfully implemented lean manufacturing techniques and many of our windows and doors are made to order, inventories in our Windows segment do not change significantly with seasonal demand.

Backlog

Our Windows segment had a backlog of approximately \$100.9 million at December 31, 2019. We expect to fill 100% of the orders during 2020 that were included in our backlog at December 31, 2019.

Business Strategy

Cornerstone Building Brands is relentlessly committed to our customers and to creating great building solutions that enable communities to grow and thrive. By focusing on operational excellence every day, creating a platform for future growth and investing in market-leading residential and commercial building brands, we deliver unparalleled financial results. We want to play an essential role in our communities where people live, work and play to enable those communities to grow and thrive.

The Company's strategy has several primary elements:

Profitable Growth. The Company intends to expand into new and existing markets by leveraging its customer relationships and full portfolio of leading products. We believe we have a meaningful opportunity for organic growth through product line extension, innovation of new systems and cross selling of products to deepen penetration across our customer channels. Using a highly collaborative selling approach, the Company intends to grow in attractive market sectors, emphasizing those spaces that are highly fragmented, demand high service and value the reliability and efficiency offered by Cornerstone Building Brand products.

Operational Excellence. Cornerstone Building Brands operates with a relentless drive for exceptional results and a passion for superior execution. The Company embraces a continuous improvement culture that is charged with increasing efficiency, optimizing costs, eliminating waste, encouraging organizational agility and building greater brand equity to fuel growth. This requires the Company's ongoing commitment to attract, retain and develop the best talent. This also includes making investments in automation within our manufacturing facilities, transforming the way work gets done, and deploying capital in ways we believe will drive the greatest returns for our shareholders over the long-term.

Capital Deployment to Drive Shareholder Value. The Company is intently focused on providing the highest returns for shareholders through its capital allocation framework, which includes: (1) investing in the core business through capital expenditures and other organic growth initiatives; (2) pursuing strategic acquisitions to broaden its portfolio and capabilities across the residential and commercial markets, with a focus on adjacent exterior building products and related services; and (3) targeting long-term net debt leverage of 2.0x to 2.5x. As part of this framework, the Company may also restructure, reposition or divest underperforming product lines or assets.

Restructuring

We continue to execute on our plans to improve cost efficiency through the optimization of our combined manufacturing plant footprint and the elimination of certain fixed and indirect SG&A costs. During the fiscal year ended December 31, 2019, we incurred restructuring charges of \$18.1 million. See Note 5 — *Restructuring* in the notes to the consolidated financial statements for additional information.

Consolidation

Over the last several years, there has been a consolidation of competitors within the industries of the engineered building systems, metal components, insulated metal panels, metal coil coating, and windows, which include many small local and regional firms. We believe that these industries will continue to consolidate, driven by the needs of manufacturers to increase anticipated long-term manufacturing capacity, achieve greater process integration, add geographic diversity to meet customers' product and delivery needs, improve production efficiency and manage costs. The vinyl siding industry has already largely consolidated with four companies comprising approximately 90% of the market. When beneficial to our long-term goals and strategy, we have sought to consolidate our business operations with other companies. The resulting synergies from these consolidation efforts have allowed us to reduce costs while continuing to serve our customers' needs. For more information, see "Acquisitions" below. For a discussion of the possible effects on us of such consolidations, see "Item 1A. Risk Factors."

Acquisitions

We have a history of making strategic acquisitions within our industry, including the Metl-Span Acquisition, the CENTRIA Acquisition, the Merger and the ESW Acquisition, and we regularly evaluate growth opportunities both through acquisitions and internal investment. We believe that there remain opportunities for growth through consolidation in the Commercial, Siding and Windows segments, and our goal is to continue to grow organically and through opportunistic strategic acquisitions that meet our strict criteria.

Consistent with our growth strategy, we frequently engage in discussions with potential sellers regarding the possible purchase by us of businesses, assets and operations that are strategic and complementary to our existing operations. Such acquisition efforts may involve participation by us in processes that have been made public, involve a number of potential buyers and are commonly referred to as “auction” processes, as well as situations in which we believe we are the only party or one of the very limited number of potential buyers in negotiations with the potential seller. These acquisition efforts often involve assets that, if acquired, would have a material effect on our financial condition and results of operations.

We also evaluate from time to time possible dispositions of assets or businesses when such assets or businesses are no longer core to our operations and do not fit into our long-term strategy.

The Company’s debt agreements contain a number of covenants that, among other things, limit or restrict the ability of the Company and its subsidiaries to incur additional indebtedness, transfer or sell assets, make acquisitions and engage in mergers. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — Debt.”

Environmental Matters, Health and Safety Matters

Our operations are subject to various federal, state, local and foreign environmental, health and safety laws. Among other things, these laws regulate the emissions or discharge of materials into the environment, govern the use, storage, treatment, disposal and management of hazardous substances and wastes, protect the health and safety of our employees and the end-users of our products, regulate the materials used in our products, and impose liability for the costs of investigating and remediating (as well as other damages resulting from) present and past releases of hazardous substances. Violations of these laws or of any conditions contained in environmental permits can result in substantial fines or penalties, injunctive relief, requirements to install pollution or other controls or equipment, and civil sanctions.

We could be held liable for costs to investigate, remediate or otherwise address contamination at any real property we have ever owned, operated or used as a disposal site, or at other sites where we or predecessors may have released hazardous materials. We could incur fines, penalties or sanctions or be subject to third-party claims, including indemnification claims, for property damage, personal injury or otherwise as a result of violations of (or liabilities under) environmental, health and safety laws, or in connection with releases of hazardous or other materials.

Changes in or new interpretations of existing laws, regulations or enforcement policies, the discovery of previously unknown contamination, or the imposition of other environmental liabilities or obligations in the future including additional investigation, remediation or other obligations with respect to our products or business activities or the imposition of new permit requirements may lead to additional costs that could have a material adverse effect on our business, financial condition or results of operations.

Compliance with federal, state, local and foreign environmental, health and safety laws requires us to incur capital expenditures and increases our operating costs. We do not believe that compliance with environmental, health and safety laws, including existing requirements to investigate and remediate contamination, will have a material adverse effect on our business, financial position or manufacturing processes.

The following are representative environmental, health and safety requirements relating to our operations:

Air Emissions. Our operations are subject to the federal Clean Air Act and comparable state laws. These laws govern emissions of air pollutants from industrial stationary sources, such as our manufacturing facilities, and impose various permitting, air pollution control, emissions monitoring, recordkeeping and reporting requirements. Such laws may require us to obtain pre-approval for constructing or modifying our facilities in ways that have the potential to produce new or increased air emissions, obtain and comply with operating permits that limit air emissions or certain operating parameters, or employ best available control technologies to reduce or minimize emissions from our facilities. We may be required to purchase air pollution control equipment in order to comply with air emissions laws.

Greenhouse Gases. Concern over the effects of global climate change has led to federal, state and international legislative and regulatory efforts to limit greenhouse gas, or GHG, emissions. While GHG regulations do not currently affect our facilities, more stringent federal, regional, state and foreign laws and regulations relating to global climate change and GHG emissions may be adopted in the future. These laws and regulations could impact our facilities, raw material suppliers, the transportation and distribution of our products, and our customers’ businesses, which could reduce demand for our products or cause us to incur additional capital, operating or other costs. Until the timing, scope and extent of any future legislation or regulation becomes known, we cannot predict its effect on our business. In addition, global climate change may increase the frequency or intensity of extreme weather events, such as storms, floods, extreme temperatures and other events that could affect our facilities, raw material suppliers, the transportation and distribution of our products, and demand for our products.

Hazardous and Solid Industrial Waste. Our operations generate industrial solid wastes, including some hazardous wastes that are subject to the federal Resource Conservation and Recovery Act, or RCRA, and comparable state laws. RCRA imposes requirements for the handling, storage, treatment and disposal of hazardous waste. Industrial wastes we generate in our manufacturing processes, such as used chemicals, may be regulated as hazardous waste, although RCRA has provisions to exempt some of our wastes from classification as hazardous waste. However, our non-hazardous or exempted industrial wastes are still regulated under state law or the less stringent industrial solid waste requirements of RCRA.

RCRA Corrective Action Program. Certain facilities may be subject to the Corrective Action Program under the Solid Waste Disposal Act, as amended by RCRA, and the Hazardous and Solid Waste Amendments (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and remediated releases of hazardous substances at their property.

MW Manufacturers Inc. (MW), a subsidiary of Ply Gem Industries, Inc., entered into a September 2011 Administrative Order on Consent with the EPA under the Corrective Action Program to address known releases of hazardous substances at MW's Rocky Mount, Virginia property. A Phase I RCRA Facility Investigation (RFI) was submitted to the Virginia Department of Environmental Quality (VDEQ) in December 2015, and a Phase II RFI and the Human Health Risk Assessment and Baseline Ecological Risk Assessment were submitted in October 2018. A Limited Corrective Measures Study (LCMS) based on the investigations was submitted to the VDEQ for review and approval in September 2019. We have recorded a liability of \$4.5 million for this MW site within other long-term liabilities in our consolidated balance sheets as of December 31, 2019.

CERCLA. The Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA (commonly known as Superfund), and comparable state laws impose liability, without regard to fault or the legality of the original conduct, on certain classes of persons responsible for releases of hazardous substances into the environment. These include the current and past owners or operators of sites where hazardous substances were released, and companies that disposed or arranged for disposal of hazardous substances at off-site locations such as landfills. CERCLA authorizes the EPA and, in certain cases, third parties to take actions in response to threats to the public health and welfare or the environment and to seek to recover from the responsible parties remediation costs.

We currently own or lease, and historically owned or leased, numerous properties that have extensive histories of industrial operations. Hazardous substances may have been released on, under or from these properties, or on, under or from other locations where hazardous wastes have been disposed. Some of these properties have been owned or operated by third parties who may have released hazardous substances for which we could have liability. We could be required to investigate or remediate contaminated property, perform remedial closure activities, or assess and remediate volatile chemical vapors migrating from soil or groundwater into overlying buildings. Our liability for investigating and remediating contamination could be joint and several and could include damages for impacts to natural resources.

The EPA is investigating groundwater contamination at a Superfund site in York, Nebraska, referred to as the PCE/TCE Northeast Contamination Site (PCE/TCE Site). Kroy Building Products, Inc. (KBP), a subsidiary of Ply Gem Industries, Inc., has been identified as a potentially responsible party (PRP) at the site and has liability for investigation and remediation costs associated with the contamination. On May 17, 2019, KBP and an unrelated respondent, Kroy Industries, Inc., entered into an Administrative Settlement Agreement and Order on Consent with the EPA to conduct a Remedial Investigation/Feasibility Study (RI/FS) of the PCE/TCE Site. A final RI/FS Work Plan was submitted to EPA in November 2019 and approved in December 2019. RI Phase I field work is scheduled to be conducted in 2020. We have recorded a liability of \$4.6 million for the PCE/TCE Site within other long-term liabilities in our consolidated balance sheets as of December 31, 2019. We will adjust our remediation liability in future periods, if necessary, as the RI/FS progresses or if additional requirements are imposed. We may be able to recover a portion of costs incurred in connection with the PCE/TCE Site from other parties, though there is no assurance we would receive any funds.

Wastewater Discharges. Our operations are subject to the federal Water Pollution Control Act, also known as the Clean Water Act, or CWA, and analogous state laws. These laws impose requirements and strict controls regarding the discharge of pollutants from industrial activity into waters of the United States. Such laws may require that we comply with stormwater runoff and wastewater discharge standards or obtain permits limiting our discharges of pollutants. Failure to comply with CWA requirements could subject us to monetary penalties, injunctions, restrictions on operations, and administrative or civil enforcement actions. We may be required to incur certain capital expenditures in the future for wastewater discharge or stormwater runoff treatment technology to comply with wastewater permits and water quality standards.

Employee Health and Safety. We are subject to the Occupational Safety and Health Act, or OSHA, and comparable state laws that regulate the protection of the health and safety of our workers. Among other things, we are required to maintain and make available to our employees, state and local government authorities, and others information about hazardous materials used or produced by our operations.

Zoning and Building Code Requirements

The engineered building systems and components we manufacture must meet zoning, building code and uplift requirements adopted by local governmental agencies. We believe that our products are in substantial compliance with applicable zoning, code and uplift requirements. Compliance does not have a material adverse effect on our business.

Research and Development Costs

Total expenditures for research and development were \$14.2 million, \$3.5 million and \$4.3 million for fiscal years 2019, 2018 and 2017, respectively. We incur research and development costs to develop new products, improve existing products and improve safety factors of our products.

Employees

As of December 31, 2019, we have approximately 20,100 employees, of whom approximately 17,200 are manufacturing and engineering personnel. We regard our employee relations as satisfactory. Approximately 12% of our workforce are represented by a collective bargaining agreement or union, which primarily includes the employees at our subsidiary in Mexico, our plant in Calgary, Alberta and our North Brunswick, New Jersey plant.

Item 1A. Risk Factors.

Risks related to our industry and economic and market conditions

Our industry is cyclical and highly sensitive to macroeconomic conditions. Negative economic events including, but not limited to, recessions, lower consumer confidence, high interest rates, inflation, and lower new construction home starts may materially and adversely affect the outlook for our business, liquidity and results of operations.

The construction industry is highly sensitive to national and regional macroeconomic conditions.

Current market estimates continue to show uneven activity across the nonresidential construction markets. According to Dodge Data & Analytics, Inc. ("Dodge"), low-rise nonresidential construction starts, as measured in square feet and comprising buildings of up to five stories, were down as much as approximately 5% in our fiscal 2019 as compared to our fiscal 2018.

In addition to commercial and residential market indicators, we also depend to a significant extent upon the levels of home repair and remodeling and new construction spending for our residential businesses, which declined significantly beginning in 2008 and continued through 2013 with recovery commencing in 2014. Housing levels in 2019 remained slightly lower relative to historical averages, despite the recovery the last few years, and are affected by such factors as interest rates, inflation, consumer confidence, unemployment and the availability of consumer credit.

Our performance is also dependent upon consumers having the ability to finance home repair and remodeling projects and/or the purchase of new homes. The ability of consumers to finance these purchases is affected by such factors as new and existing home prices, homeowners' equity values, interest rates and home foreclosures, which in turn could result in a tightening of lending standards by financial institutions and reduce the ability of some consumers to finance home purchases or repair and remodeling expenditures. Trends such as declining home values, increased home foreclosures and tightening of credit standards by lending institutions, negatively impacted the home repair and remodeling and the new construction sectors during the recession which began in 2008. Despite the recent abatement of these negative market factors, any recurrence or worsening of these items may adversely affect our financial condition and operating results.

Historically, any uncertainty about current economic conditions has had a negative effect on our business, and will continue to pose a risk to our business as our customers may postpone spending in response to tighter credit, negative financial news and/or declines in income or asset values, which could have a material negative effect on the demand for our products. Other factors that could influence demand include fuel and other energy costs, conditions in the nonresidential real estate markets, labor and healthcare costs, access to credit, tariffs, and other macroeconomic factors. From time to time, our industry has also been adversely affected in various parts of the country by declines in nonresidential construction starts, including but not limited to, high vacancy rates, changes in tax laws affecting the real estate industry, high interest rates and the unavailability of financing. Sales of our products may be adversely affected by continued weakness in demand for our products within particular customer groups, or a continued decline in the general construction industry or particular geographic regions. These and other economic factors could have a material adverse effect on demand for our products and on our financial condition and operating results.

We cannot predict the timing or severity of any future economic or industry downturns or adverse weather conditions. A prolonged economic downturn or negative weather patterns, particularly in states where many of our sales are made, would have a material adverse effect on our results of operations and financial condition.

Uncertainty and volatility in the financial markets and worldwide economic conditions may adversely affect our operating results.

The markets in which we compete are sensitive to general business and economic conditions in the United States and worldwide, including availability of credit, interest rates, fluctuations in capital, credit and mortgage markets and business and consumer confidence. Adverse developments in global financial markets and general business and economic conditions, including through recession, downturn or otherwise, could have a material adverse effect on our business, financial condition, results of operations and cash flows, including our ability and the ability of our customers and suppliers to access capital. There was a significant decline in economic growth, both in the United States and worldwide, that began in the second half of 2007 and continued through 2009. In addition, volatility and disruption in the capital markets during that period reached unprecedented levels, with stock markets falling dramatically and credit becoming very expensive or unavailable to many companies without regard to those companies' underlying financial strength. There can be no guarantee that any improvement in these areas will continue or be sustained.

Risks related to our business

An inability to successfully develop new products or improve existing products could negatively impact our ability to attract new customers and/or retain existing customers, including our significant customers.

Our success depends on meeting consumer needs and anticipating changes in consumer preferences with successful new products and product improvements. We aim to introduce products and new or improved production processes proactively to offset obsolescence and decreases in sales of existing products. While we devote significant focus to the development of new products, we may not be successful in product development and our new products may not be commercially successful. In addition, it is possible that competitors may improve their products more rapidly or effectively, which could adversely affect our sales. Furthermore, market demand may decline as a result of consumer preferences trending away from our categories or trending down within our brands or product categories, which could adversely impact our results of operations, cash flows and financial condition.

Our Windows and Siding segments depend on a core group of significant customers for a substantial portion of net sales and we expect this to continue for the foreseeable future. The loss of, or a significant adverse change in our relationships with our largest customers, or loss of market position of any major customer, whether because of an inability to successfully develop new products or improve existing products, or otherwise, could cause a material decrease in net sales. The loss of, or a reduction in orders from, any significant customers, losses arising from customers' disputes regarding shipments, fees, merchandise condition or performance or related matters, or an inability to collect accounts receivable from any major customer could adversely impact our net income and cash flow. In addition, revenue from customers that have accounted for significant revenue in past periods, individually or as a group, may not continue, or if continued, may not reach or exceed historical levels in any period.

Manufacturing or assembly realignments may result in a decrease in our short-term earnings, until the expected cost reductions are achieved, due to the costs of implementation.

We continually review our manufacturing and assembly operations and sourcing capabilities. Effects of periodic manufacturing realignment, cost savings programs, and labor ramp-up costs could result in a decrease in our short-term earnings until the expected cost reductions are achieved and/or production volumes stabilize. Such programs may include the consolidation and integration of facilities, functions, systems and procedures. Such actions may not be accomplished as quickly as anticipated and the expected cost reductions may not be achieved or sustained.

Our business may be adversely affected by weather conditions and other external factors beyond our control.

Markets for our products are seasonal and can be affected by inclement weather conditions. Historically, our business has experienced increased sales in the second and third quarters of the year due to increased construction during those periods. Because much of our overhead and operating expenses are spread ratably throughout the year, our operating profits tend to be lower in the first and fourth quarters. Inclement weather conditions can affect the timing of when our products are applied or installed, causing reduced profit margins when such conditions exist. For example, unseasonably cold weather or extraordinary amounts of rainfall may decrease construction activity.

Further, other external factors beyond our control could cause disruptions at any of our facilities, including maintenance outages; prolonged power failures or reductions; a breakdown, failure or substandard performance of any equipment or other operational problems; disruptions in the transportation infrastructure, including railroad tracks, bridges, tunnels or roads; fires, floods, hurricanes, earthquakes or other catastrophic disasters; pandemics, such as Coronavirus; or an act of terrorism. Any prolonged disruption in operations at any of our facilities could cause a significant loss in production. As a result, we could incur significantly higher costs and longer lead times associated with distributing our products to customers during the time that it takes for us to reopen or replace a damaged facility, which could cause our customers to purchase from our competitors either temporarily or permanently. If any of these events were to occur, it could adversely affect our business, financial condition, cash flows and results of operations.

Price volatility and supply constraints for raw materials could prevent us from meeting delivery schedules to our customers or reduce our profit margins.

Our business is heavily dependent on the price and supply of raw materials including steel, PVC resin, aluminum and glass. Raw material prices have been volatile in recent years and may remain volatile in the future. Raw material prices are influenced by numerous factors beyond our control, including general economic conditions domestically and internationally, currency fluctuations, the availability of raw materials, competition, labor costs, freight and transportation costs, production costs, tariffs, import duties and other trade restrictions. For example, in 2018, the Trump administration implemented new tariffs on imports of steel and aluminum into the United States.

A sudden increase in demand for steel, PVC resin, aluminum or glass could affect our ability to purchase such raw materials and result in rapidly increasing prices. We have historically been able to substantially pass on significant cost increases in raw materials through price increases to our customers, however we may not be able to do so in the future. Further, if the available supply of any of the raw materials we use declines, we could experience a deterioration of service from our suppliers or interruptions or delays that may cause us not to meet delivery schedules to our customers. Any of these problems could adversely affect our results of operations and financial condition. We can give you no assurance that steel, PVC resin, aluminum or glass will remain available, that prices will not continue to be volatile or that we will be able to purchase these raw materials on favorable or commercially reasonable terms.

Further, we use energy in the manufacturing and transportation of our products. In particular, our manufacturing plants use considerable amounts of electricity and natural gas. Consequently, our operating costs typically increase if energy costs rise. During periods of higher energy costs, we may not be able to recover our operating cost increases through price increases without reducing demand for our products. To the extent we are not able to recover these cost increases through price increases or otherwise, our profitability and cash flow will be adversely impacted. We partially hedge our exposure to higher prices through fixed forward positions.

We rely on third-party suppliers for materials in addition to steel, PVC resin, aluminum and glass, and if we fail to identify and develop relationships with a sufficient number of qualified suppliers, or if there is a significant interruption in our supply chains, our business and results of operations could be adversely affected.

In addition to steel, PVC resin, aluminum and glass, our operations require other raw materials from third-party suppliers. We generally have multiple sources of supply for our raw materials, however, in some cases, materials are provided by a single supplier. The loss of, or substantial decrease in the availability of, products from our suppliers, or the loss of a key supplier, could adversely impact our financial condition and results of operations. In addition, supply interruptions could arise from shortages of raw materials, labor disputes or weather conditions affecting products or shipments or other factors beyond our control. Short- and long-term disruptions in our supply chain would result in a need to maintain higher inventory levels as we replace similar product, a higher cost of product and ultimately a decrease in our revenues and profitability. To the extent our suppliers experience disruptions, there is a risk for delivery delays, production delays, production issues or delivery of non-conforming products by our suppliers. Even where these risks do not materialize, we may incur costs as we prepare contingency plans to address such risks. In addition, disruptions in transportation lines could delay our receipt of raw materials. If our supply of raw materials is disrupted or our delivery times extended, our results of operations and financial condition could be materially adversely affected. Furthermore, some of our third-party suppliers may not be able to handle commodity cost volatility or changing volumes while still performing up to our specifications.

Failure to retain or replace key personnel could hurt our operations.

Our success depends to a significant degree upon the efforts, contributions and abilities of our senior management, plant managers and other highly skilled personnel, including our sales executives. These executives and managers have many accumulated years of experience in our industry and have developed personal relationships with our customers that are important to our business. If we do not retain the services of our key personnel or if we fail to adequately plan for the succession of such individuals, our customer relationships, results of operations and financial condition may be adversely affected.

If we are unable to enforce our intellectual property rights, or if such intellectual property rights become obsolete, our competitive position could be adversely affected.

As a company that manufactures and markets branded products, we rely heavily on trademark and service mark protection to protect our brands. We also have issued patents and rely on trade secret and copyright protection for certain of our technologies. These protections may not adequately safeguard our intellectual property and we may incur significant costs to defend our intellectual property rights, which may harm our operating results. There is a risk that third parties, including our current competitors, will infringe on our intellectual property rights, in which case we would have to defend these rights. There is also a risk that third parties, including our current competitors, will claim that our products infringe on their intellectual property rights. These third parties may bring infringement claims against us or our customers, which may harm our operating results.

We also rely on third party license agreements for certain trademarks and technologies we employ. There is a risk that third parties may modify or terminate such licenses, which may harm our operating results. While these license agreements generally provide that the licensors will indemnify us, subject to certain limitations, for certain infringement liabilities, our ability to seek indemnification from the respective licensors is limited by various factors, including the financial condition of the licensor as well as by the terms and limits of such indemnities or obligations. As a result, there can be no assurance that we could receive any indemnification from licensors, and any related infringement liabilities, costs or penalties could have a material adverse effect on our financial condition and results of operations.

There can be no assurance that the efforts we have taken to protect our proprietary rights will be sufficient or effective, that any pending or future patent and trademark applications will lead to issued patents and registered trademarks in all instances, that others will not develop or patent similar or superior technologies, products or services, or that our patents, trademarks and other intellectual property will not be challenged, invalidated, misappropriated or infringed by others. If we are unable to protect and maintain our intellectual property rights, or if there are any successful intellectual property challenges or infringement proceedings against us, our business and revenue could be materially and adversely affected.

We could incur significant costs as a result of compliance with, violations of or liabilities under applicable environmental, health and safety laws.

Our operations are subject to various federal, state, local and foreign environmental, health and safety laws. Among other things, these laws regulate the emission or discharge of materials into the environment, govern the use, storage, treatment, disposal and management of hazardous substances and wastes, protect the health and safety of our employees and the end-users of our products, regulate the materials used in our products and impose liability for the costs of investigating and remediating, and other damages resulting from, present and past releases of hazardous substances. Violations of these laws or of any conditions contained in environmental permits can result in substantial fines or penalties, injunctive relief, requirements to install pollution or other controls or equipment, civil and criminal sanctions, permit revocations and facility shutdowns. We could be held liable for the costs to investigate, remediate or otherwise address contamination at any real property we have ever owned, operated or used as a disposal site or other sites at which we or predecessors released hazardous materials. We also could incur fines, penalties or sanctions or be subject to third-party claims, including indemnification claims, for property damage, personal injury or otherwise as a result of violations of or liabilities under environmental, health and safety laws or in connection with releases of hazardous or other materials. In addition, changes in, or new interpretations of, existing laws, regulations or enforcement policies, the discovery of previously unknown contamination, or the imposition of other environmental liabilities or obligations in the future, including additional investigation, remediation or other obligations with respect to our products or business activities or the imposition of new permit requirements, may lead to additional costs that could have a material adverse effect on our business, financial condition or results of operations.

Changes in building codes and standards could increase the cost of our products, lower the demand for our products, or otherwise adversely affect our business.

Our products and markets are subject to extensive and complex local, state, federal, and foreign statutes, ordinances, rules, and regulations. These mandates, including building design and safety and construction standards and zoning requirements, affect the cost, selection, and quality requirements of building components like windows and siding.

These statutes, ordinances, rules, and regulations often provide broad discretion to governmental authorities as to the types and quality specifications of products used in new residential and non-residential construction and home renovations and improvement projects, and governmental authorities can impose different standards. Compliance with these standards and changes in such statutes, ordinances, rules, and regulations may increase the costs of manufacturing our products or may reduce the demand for certain of our products in the affected geographical areas or product markets. Conversely, a decrease in product safety standards could reduce demand for our more modern products if less expensive alternatives that did not meet higher standards became available for use in that market. All or any of these changes could have a material adverse effect on our business, financial condition, and results of operations.

The industries in which we operate are highly competitive.

We compete with all other alternative methods of building construction, which may be viewed as more traditional, more aesthetically pleasing or having other advantages over our products. In addition, competition in the construction markets of the building industry is intense. It is based primarily on quality; service; on-time delivery and project completion; ability to provide added value in the design and engineering of buildings; price; and personal relationships with customers.

In our Commercial segment, we compete with a number of other manufacturers of metal components and engineered building systems and providers of coil coating services ranging from small local firms to large national firms. In addition, we and other manufacturers of metal components and engineered building systems compete with alternative methods of building construction. If these alternative building methods compete successfully against us, such competition could adversely affect us. In addition, several of our competitors have been acquired by steel producers. Competitors owned by steel producers may have a competitive advantage on raw materials that we do not enjoy. Steel producers may prioritize deliveries of raw materials to such competitors or provide them with more favorable pricing, both of which could enable them to offer products to customers at lower prices or accelerated delivery schedules.

In our Siding and Windows segments, we compete with other national and regional manufacturers of exterior building products. Some of these companies are larger and have greater financial resources than we do. Accordingly, these competitors may be better equipped to withstand changes in conditions in the industries in which we operate and may have significantly greater operating and financial flexibility than we do. Competitors could take a greater share of sales and cause us to lose business from our customers. Additionally, our products face competition from alternative materials, such as wood, metal, fiber cement, masonry and composites in siding, and wood, composites and fiberglass in windows. An increase in competition from other exterior building products manufacturers and alternative building materials could cause us to lose our customers and lead to net sales decreases.

We face risks related to past and future acquisitions that could adversely affect our results of operations.

We have a history of expansion through acquisitions, and we believe that if our industry continues to consolidate, our future success may depend, in part, on our ability to successfully complete acquisitions. Pursuing and integrating acquisitions involves a number of risks, including:

- the risk of incorrect assumptions or estimates regarding the future results of the acquired business or expected cost reductions or other synergies expected to be realized as a result of acquiring the business;
- diversion of management's attention from existing operations;
- unexpected losses of key employees, customers and suppliers of the acquired business;
- integrating the financial, technological and management standards, processes, procedures and controls of the acquired business with those of our existing operations;
- increasing the scope, geographic diversity and complexity of our operations; and
- potential litigation or other claims arising from the acquisition.

We can provide no assurance that we will be successful in identifying or completing any future acquisitions or that any businesses or assets that we are able to acquire will be successfully integrated into our existing business. The incurrence of additional debt, contingent liabilities and expenses in connection with any future acquisitions could have a material adverse effect on our financial condition and results of operations. Further, we cannot predict the effect, if any, that any announcement or consummation of an acquisition would have on the trading price of our Common Stock.

In addition, we may be subject to claims arising from the operations of businesses from periods prior to the dates we acquired them. These claims or liabilities could be significant. Our ability to seek indemnification from the former owners for these claims or liabilities is limited by various factors, including the specific limitations contained in the respective acquisition agreements and the financial ability of the former owners to satisfy such claims or liabilities. If we are unable to enforce any indemnification rights we may have against the former owners or if the former owners are unable to satisfy their obligations for any reason, including because of their current financial position, or if we do not have any right to indemnification, we could be held liable for the costs or obligations associated with such claims or liabilities, which could adversely affect our operating performance.

Restructuring our operations may harm our profitability, financial condition and results of operations. Our ability to fully achieve the estimated cost savings is uncertain.

We have developed plans to improve cost efficiency and optimize our combined manufacturing plant footprint considering our recent acquisitions and restructuring efforts. Future charges related to the plans may harm our profitability in the periods incurred. Additionally, if we were to incur unexpected charges related to the plans, our financial condition and results of operations may suffer.

Implementation of these plans carry significant risks, including:

- actual or perceived disruption of service or reduction in service levels to our customers;
- failure to preserve supplier relationships and distribution, sales and other important relationships and to resolve conflicts that may arise;
- potential adverse effects on our internal control environment and an inability to preserve adequate internal controls;
- diversion of management attention from ongoing business activities and other strategic objectives; and
- failure to maintain employee morale and retain key employees.

Because of these and other factors, we cannot predict whether we will fully realize the cost savings from these plans. If we do not fully realize the expected cost savings from these plans, our business and results of operations may be negatively affected. Also, if we were to experience any adverse changes to our business, additional restructuring activities may be required in the future.

We may be significantly affected by global climate change or by legal, regulatory or market responses to global climate change.

Concern over the effects of global climate change has led to federal, state and international legislative and regulatory efforts to limit greenhouse gas, or GHG, emissions. In the past, the United States Congress has considered various bills to regulate GHG emissions. Though the legislation did not become law, the U.S. Congress could pass climate change legislation in the future. In addition, in the past, the United States Environmental Protection Agency, or EPA, took steps to regulate GHG emissions, though at this time the EPA is not actively regulating GHG emissions. More stringent federal, regional, state and foreign laws and regulations relating to global climate change and GHG emissions may be adopted in the future. These laws and regulations could impact our facilities, raw material suppliers, the transportation and distribution of our products, and our customers, and could reduce demand for our products or cause us to incur additional capital, operating or other costs. Until the timing, scope and extent of any future legislation or regulation becomes known, we cannot predict its effect on our business. In addition, global climate change may increase the frequency or intensity of extreme weather events, such as storms, floods, heat waves, and other events that could affect our facilities and demand for our products. We are mindful of the harmful effects of global climate change and are taking steps to minimize our GHG emissions.

Breaches of our information system security measures could disrupt our internal operations.

We are dependent upon information technology for the distribution of information internally and also to our customers and suppliers. This information technology is subject to theft, damage or interruption from a variety of sources, including but not limited to malicious computer viruses, security breaches and defects in design. Purchase of our products may involve the transmission and/or storage of data, including in certain instances customers' business and personally identifiable information. Thus, maintaining the security of computers, computer networks and data storage resources is a critical issue for us and our customers, as security breaches could result in vulnerabilities and loss of and/or unauthorized access to confidential information. We have in the past faced, and may in the future face attempts by hackers, cybercriminals or others with authorized access to our systems to misappropriate our proprietary information and technology, interrupt our business, and/or gain unauthorized access to confidential information. The reliability and security of our information technology infrastructure and software, and our ability to expand and continually update technologies in response to our changing needs is critical to our business. To the extent that any disruptions or security breaches result in a loss or damage to our data, it could cause harm to our reputation or brand. This could lead some customers to stop purchasing our products and reduce or delay future purchases of our products or the use of competing products; lead to state or federal enforcement action, which could result in fines, penalties and/or other liabilities and which may cause us to incur legal fees and costs; and/or result in additional costs associated with responding to a cyberattack. Increased regulation regarding cyber security may increase our costs of compliance, including fines and penalties, as well as costs of cyber security audits. Any of these actions could materially adversely impact our business and results of operations.

We have invested in industry appropriate protections and monitoring practices of our data and information technology to reduce these risks and continue to monitor our systems on an ongoing basis for any current or potential threats. There can be no assurance, however, that our efforts will prevent breakdowns or breaches to our third party providers' databases or systems that could adversely affect our business.

Damage to our computer infrastructure and software systems could harm our business.

The unavailability of any of our primary information management systems for any significant period of time could have an adverse effect on our operations. In particular, our ability to deliver products to our customers when needed, collect our receivables and manage inventory levels successfully largely depend on the efficient operation of our computer hardware and software systems. Through information management systems, we provide inventory availability to our sales and operating personnel, improve customer service through better order and product reference data and monitor operating results. Difficulties associated with upgrades, installations of major software or hardware, and integration with new systems could lead to business interruptions that could harm our reputation, increase our operating costs and decrease our profitability. In addition, these systems are vulnerable to, among other things, damage or interruption from power loss, computer system and network failures, loss of telecommunications services, operator negligence, physical and electronic loss of data, or security breaches and computer viruses.

We have contracted with third-party service providers that provide us with redundant data center services in the event that our major information management systems are damaged. The backup data centers and other protective measures we take could prove to be inadequate. Our inability to restore data completely and accurately could lead to inaccurate and/or untimely filings of our periodic reports with the SEC, tax filings with the Internal Revenue Service (“IRS”) or other required filings, all of which could have a significant negative impact on our corporate reputation and could negatively impact our stock price or result in fines or penalties that could impact our financial results.

Our enterprise resource planning technologies will require maintenance or replacement in order to allow us to continue to operate and manage critical aspects of our business.

We rely heavily on enterprise resource planning technologies (“ERP Systems”) from third parties in order to operate and manage critical internal functions of our business, including accounting, order management, procurement, and transactional entry and approval. Certain of our ERP Systems are no longer supported by their vendor, are reaching the end of their useful life or are in need of significant updates to adequately perform the functions we require. We have limited access to support for older software versions and may be unable to repair the hardware required to run certain ERP Systems on a timely basis due to the unavailability of replacement parts. In addition, we face operational vulnerabilities due to limited access to software patches and software updates on any software that is no longer supported by their vendor. We are planning hardware and software upgrades to our ERP Systems and are in discussions with third-party vendors regarding system updates.

If our ERP Systems become unavailable due to extended outages or interruptions, or because they are no longer available on commercially reasonable terms, our operational efficiency could be harmed and we may face increased replacement costs. We may also face extended recovery time in the event of a system failure due to lack of resources to troubleshoot and resolve such issues. Our ability to manage our operations could be interrupted and our order management processes and customer support functions could be impaired until equivalent services are identified, obtained and implemented on commercially reasonable terms, all of which could adversely affect our business, results of operations and financial condition.

We risk liabilities and losses due to personal injury, property damage or product liability claims, which may not be covered by insurance.

Our workers are subject to the usual hazards associated with work in manufacturing environments. Operating hazards can cause personal injury and loss of life, as well as damage to or destruction of business personal property, and possible environmental impairment. We are subject to either deductible or self-insured retention (SIR) amounts, per claim or occurrence, under our Property/Casualty insurance programs, as well as an individual stop-loss limit per claim under our group medical insurance plan. We maintain insurance coverage to transfer risk, with aggregate and per-occurrence limits and deductible or retention levels that we believe are consistent with industry practice. The transfer of risk through insurance cannot guarantee that coverage will be available for every loss or liability that we may incur in our operations.

Exposures that could create insured (or uninsured) liabilities are difficult to assess and quantify due to unknown factors, including but not limited to injury frequency and severity, natural disasters, terrorism threats, third-party liability, and claims that are incurred but not reported (“IBNR”). Although we engage third-party actuarial professionals to assist us in determining our probable future loss exposure, it is possible that claims or costs could exceed our estimates or our insurance limits, or could be uninsurable. In such instances we might be required to use working capital to satisfy these losses rather than to maintain or expand our operations, which could materially and adversely affect our operating results and our financial condition.

Further, we face an inherent business risk of exposure to product liability claims, including class action claims and warranties, in the event that the use of any of our products results in personal injury or property damage. In the event that any of our products are defective or prove to be defective, among other things, we may be responsible for damages related to any defective products and may be required to cease production, recall or redesign such products. Because of the long useful life of our products, it is possible that latent defects might not appear for several years. Any insurance we maintain may not continue to be available on acceptable terms or such coverage may not be adequate for liabilities actually incurred. Further, any claim or product discontinuance, recall or redesign could result in adverse publicity against us, which could cause sales to decline, or increase warranty costs.

We face risks related to our international operations.

In addition to the United States, we operate our business in Canada and Mexico and make sales in certain other jurisdictions. Our operations in Canada generated approximately 7.0% of our revenues in 2019. As such, our net sales, earnings and cash flow are exposed to risk from changes in foreign exchange rates, which can be difficult to mitigate. Depending on the direction of changes relative to the U.S. dollar, Canadian dollar values can increase or decrease the reported values of our net assets and results of operations. We hedge this foreign currency exposure by evaluating the usage of certain derivative instruments which hedge certain, but not all, underlying economic exposures

Our international operations require us to comply with certain U.S. and international laws, such as import/export laws and regulations, anti-boycott laws, economic sanctions, laws and regulations, the U.S. Foreign Corrupt Practices Act and similar anti-bribery laws. We operate in parts of the world, including Mexico, that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. We cannot provide assurance that our internal controls and procedures will always prevent reckless or criminal acts by our employees or agents, or that the operations of acquired businesses will have been conducted in accordance with our policies and applicable regulations. If we are found to be liable for violations of these laws (either due to our own acts, out of inadvertence or due to the acts or inadvertence of others), we could suffer criminal or civil penalties or other sanctions, including limitations on our ability to conduct our business, which could have a material and adverse effect on our results of operations, financial condition and cash flows.

Increases in labor costs, potential labor disputes, union organizing activity and work stoppages at our facilities or the facilities of our suppliers could delay or impede our production, reduce sales of our products and increase our costs.

Our financial performance is affected by the availability of qualified personnel and the cost of labor. As of December 31, 2019, approximately 12% of our employees were represented by labor unions. We are subject to the risk that strikes or other types of conflicts with personnel may arise or that we may become a subject of union organizing activity. Furthermore, some of our direct and indirect suppliers have unionized work forces. Strikes, work stoppages or slowdowns experienced by these suppliers could result in slowdowns or closures of facilities where components of our products are manufactured. Any interruption in the production or delivery of our products could reduce sales of our products and increase our costs. Our ability to attract and retain qualified manufacturing personnel to operate our manufacturing plants efficiently is critical to our financial performance. Any labor shortage will create operating inefficiencies that could adversely impact our financial performance.

Significant changes in factors and assumptions used to measure our defined benefit plan obligations, actual investment returns on pension assets and other factors could negatively impact our operating results and cash flows.

The recognition of costs and liabilities associated with our pension plans for financial reporting purposes is affected by assumptions made by management and used by actuaries engaged by us to calculate the benefit obligations and the expenses recognized for these plans. The inputs used in developing the required estimates are calculated using a number of assumptions, which represent management's best estimate of the future. The assumptions that have the most significant impact on reported results are the discount rate, the estimated long-term return on plan assets for the funded plans, retirement rates, and mortality rates. These assumptions are generally updated annually.

In recent years, the declining interest rates and changes to mortality assumptions have negatively impacted the funded status of our pension plans. In addition, volatile asset performance, most notably since 2008, has also negatively impacted the funded status of our pension plans. Funding requirements for our pension plans may become more significant. If our cash flows and capital resources are insufficient to fund our pension plan obligations, we could be forced to reduce or delay investments and capital expenditures, seek additional capital, or restructure or refinance our indebtedness.

Risks related to the Merger

Fully integrating Ply Gem's business following the Merger may be more difficult, costly and time-consuming than expected, which may adversely affect our results of operations and the value of our Common Stock.

While the Company's management has made progress in integrating Ply Gem's business with our pre-Merger business, integration efforts are still underway. The combination of two independent businesses is a complex, costly and time-consuming process and the Company's management may face significant, ongoing challenges in implementing such integration, many of which may be beyond the control of management, including, without limitation:

- difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects;
- the possibility of faulty assumptions underlying expectations regarding the integration process;
- unanticipated issues in integrating accounting, information technology, communications programs, financial procedures and operations, and other systems, procedures and policies;
- difficulties in managing a larger surviving corporation, addressing differences in business culture and retaining key personnel;
- unanticipated changes in applicable laws and regulations;
- coordinating geographically separate organizations; and
- unforeseen expenses or delays associated with the Merger.

Some of these factors are outside the control of the Company, and any one of them could result in increased costs and diversion of management's time and energy, as well as decreases in revenue, which could materially impact the business, financial conditions and results of operations of the Company. The integration process may also adversely affect the Company's relationships with employees, suppliers, customers, distributors, licensors and others with whom the pre-Merger businesses had business or other dealings.

Risks related to our Common Stock and significant stockholders

Our stock price has been and may continue to be volatile.

The trading price of our Common Stock has fluctuated in the past and is subject to significant fluctuations in response to the following factors, some of which are beyond our control:

- variations in quarterly operating results;
- deviations in our earnings from publicly disclosed forward-looking guidance;
- variability in our revenues;
- changes in earnings estimates by analysts;
- our announcements of significant contracts, acquisitions, strategic partnerships or joint ventures;
- uncertainty about current global economic conditions;
- sales of our Common Stock by our significant stockholders;
- fluctuations in stock market price and volume; and
- other general economic conditions.

During 2019, our stock price on the NYSE ranged from a high of \$9.30 per share to a low of \$3.75 per share. In recent years, the stock market in general has experienced extreme price and volume fluctuations that have affected the market price for many companies in industries similar to ours. Some of these fluctuations have been unrelated to the operating performance of the affected companies. These market fluctuations may decrease the market price of our Common Stock in the future.

The CD&R Investors own a significant amount of our Common Stock and have substantial governance and other rights pursuant to the New Stockholders Agreement.

The CD&R Investor Group collectively owned approximately 49.1% of our outstanding Common Stock as of December 31, 2019. As a significant stockholder, the CD&R Investors could significantly influence the outcome of matters requiring a stockholder vote, including the election of directors, the adoption of any amendment to our certificate of incorporation or bylaws and the approval of mergers and other significant corporate transactions. Their influence over Cornerstone may have the effect of delaying or preventing a change of control or may adversely affect the voting and other rights of other stockholders.

Further, the CD&R Investor Group has substantial governance and other rights pursuant to the New Stockholders Agreement, including the ability, for so long as it beneficially owns at least 7.5% of our outstanding shares of Common Stock, to nominate for election, fill vacancies and appoint replacements for a number of Board members in proportion to the CD&R Investor Group's percentage beneficial ownership of our outstanding Common Stock, but never to exceed one less than the number of independent, non-CD&R-affiliated directors serving on the Board.

Transactions engaged in by the CD&R Investors, the Golden Gate Investors or our directors or executives involving our Common Stock may have an adverse effect on the price of our Common Stock.

We are party to the New Registration Rights Agreement, which grants the Investors customary demand and piggyback registration rights. We filed two shelf registration statements on Form S-3, declared effective by the SEC on April 8, 2016 and February 28, 2019, registering the resale of shares of our Common Stock held by the CD&R Fund VIII Investor Group and the Golden Gate Investors, respectively. At any time after May 16, 2020, CD&R Pisces may request in writing that the Company effect the registration of all or any part of the shares of Common Stock that CD&R Pisces beneficially owns.

As of December 31, 2019, the CD&R Fund VIII Investor Group, CD&R Pisces and the Golden Gate Investor Group owned approximately 18.1%, 31.0% and 13.3%, respectively, of our issued and outstanding Common Stock. Future sales of our shares by these stockholders could have the effect of lowering our stock price. The perceived risk associated with the possible sale of a large number of shares by these stockholders could cause some of our stockholders to sell their stock, thus causing the price of our stock to decline. In addition, actual or anticipated downward pressure on our stock price due to actual or anticipated sales of stock by our directors or officers could cause other institutions or individuals to engage in short sales of our Common Stock, which may further cause the price of our stock to decline.

From time to time our directors, executive officers, or any of the Investors may sell shares of our Common Stock on the open market or otherwise, for a variety of reasons, which may be related or unrelated to the performance of our business. These sales will be publicly disclosed in filings made with the SEC. Our stockholders may perceive these sales as a reflection on management's view of the business which may result in a drop in the price of our stock or cause some stockholders to sell their shares of our Common Stock.

Risks related to our indebtedness

We have substantial debt and may incur substantial additional debt, which could adversely affect our financial health, reduce our profitability, limit our ability to obtain financing in the future and pursue certain business opportunities and make payments on our indebtedness.

As of December 31, 2019, we had total indebtedness of approximately \$3.2 billion.

The amount of our debt or other similar obligations could have important consequences for us, including, but not limited to:

- a substantial portion of our cash flow from operations must be dedicated to the payment of principal and interest on our indebtedness, thereby reducing the funds available to us for other purposes;
- our ability to obtain additional financing for working capital, capital expenditures, acquisitions, debt service requirements or general corporate purposes and our ability to satisfy our obligations with respect to our outstanding indebtedness may be impaired in the future;
- we are exposed to the risk of increased interest rates because a portion of our borrowings is at variable rates of interest;
- we may be at a competitive disadvantage compared to our competitors with less debt or with comparable debt at more favorable interest rates and who, as a result, may be better positioned to withstand economic downturns;
- our ability to refinance indebtedness may be limited or the associated costs may increase;
- our ability to engage in acquisitions without raising additional equity or obtaining additional debt financing may be impaired in the future;
- it may be more difficult for us to satisfy our obligations to our creditors, resulting in possible defaults on and acceleration of such indebtedness;
- we may be more vulnerable to general adverse economic and industry conditions; and
- our flexibility to adjust to changing market conditions and our ability to withstand competitive pressures could be limited, or we may be prevented from making capital investments that are necessary or important to our operations, growth strategy or efforts to improve operating margins of our business units.

If we cannot service our debt, we will be forced to take actions such as reducing or delaying acquisitions and/or capital expenditures, selling assets, restructuring or refinancing our debt or seeking additional equity capital. We can give you no assurance that we can do any of these things on satisfactory terms or at all.

Further, the terms of the Current Cash Flow Credit Agreement, the Current ABL Credit Agreement and the Current Indenture provide us and our subsidiaries with the flexibility to incur a substantial amount of additional secured or unsecured indebtedness in the future if we or our subsidiaries are in compliance with certain incurrence ratios set forth therein. Any such incurrence of additional indebtedness may increase the risks created by our current substantial indebtedness. As of December 31, 2019, we were able to borrow up to approximately \$425.9 million under the Current ABL Facility. All of these borrowings under the Current ABL Facility would be secured.

The Current Indenture, the Current Cash Flow Credit Agreement and the Current ABL Credit Agreement contain restrictions and limitations that could significantly impact our ability and the ability of most of our subsidiaries to engage in certain business and financial transactions.

The Current Indenture, the Current Cash Flow Credit Agreement and the Current ABL Credit Agreement (each as defined in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") contain restrictive covenants that, among other things, limit our ability and the ability of our restricted subsidiaries to:

- incur additional indebtedness or issue certain preferred shares;
- pay dividends, redeem stock or make other distributions in respect of capital stock;
- repurchase, prepay or redeem the 8.00% Senior Notes (as defined in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") and subordinated indebtedness;
- make investments;
- incur additional liens;
- transfer or sell assets;
- create restrictions on the ability of our restricted subsidiaries to pay dividends to us or make other intercompany transfers;
- make negative pledges;
- consolidate, merge, sell or otherwise dispose of all or substantially all of our assets;
- enter into certain transactions with our affiliates; and
- designate subsidiaries as unrestricted subsidiaries.

In addition, the Current Cash Flow Revolver (as defined in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") requires us to maintain a maximum total secured leverage ratio under certain circumstances, and the Current ABL Facility (as defined in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") requires us to maintain a minimum consolidated fixed charge coverage ratio under certain circumstances. The Current ABL Credit Agreement also contains other covenants customary for asset-based facilities of this nature. Our ability to borrow additional amounts under the Current Cash Flow Revolver and the Current ABL Facility depends upon satisfaction of these covenants. Events beyond our control can affect our ability to meet these covenants.

We are required to make mandatory pre-payments under the Current Cash Flow Credit Agreement and the Current ABL Credit Agreement upon the occurrence of certain events, including the sale of assets and the issuance of debt, in each case subject to certain limitations and conditions set forth in the Current Cash Flow Credit Agreement and the Current ABL Credit Agreement.

In addition, under certain circumstances and subject to the limitations set forth in the Current Cash Flow Credit Agreement, the Current Term Loan Facility (as defined in Item 7, "Management's Discussion and Analysis of Financial Condition and Result of Operations") may require us to make prepayments of the term loans to the extent we generate excess positive cash flow each year, beginning with the year ended December 31, 2019.

Any future financing arrangements entered into by us may also contain similar covenants and restrictions. As a result of these covenants and restrictions, we may be limited in our ability to plan for or react to market conditions or to meet extraordinary capital needs or otherwise restricted in our activities. These covenants and restrictions could also adversely affect our ability to finance our future operations or capital needs or to engage in other business activities that would be in our interest.

Our failure to comply with obligations under the Current Cash Flow Credit Agreement, the Current ABL Credit Agreement or the Current Indenture, as well as others contained in any future debt instruments from time to time, may result in an event of default under the Current Cash Flow Credit Agreement, the Current ABL Credit Agreement or the Current Indenture, as applicable. A default, if not cured or waived, may permit acceleration of our indebtedness. If our indebtedness is accelerated, we cannot be certain that we will have sufficient funds available to pay the accelerated indebtedness or that we will have the ability to refinance the accelerated indebtedness on terms favorable to us or at all. If we are forced to refinance these borrowings on less favorable terms or cannot refinance these borrowings, our business, results of operations, financial condition and cash flows could be adversely affected.

We may have future capital needs and may not be able to obtain additional financing on acceptable terms or at all.

Although we believe that our current cash position and the additional committed funding available under the Current ABL Facility and the Current Cash Flow Revolver is sufficient for our current operations, any reductions in our available borrowing capacity, or our inability to renew or replace our debt facilities, when required or when business conditions warrant, could have a material adverse effect on our business, financial condition and results of operations. Our ability to secure additional financing or financing on favorable terms and to satisfy our financial obligations under indebtedness outstanding from time to time will depend upon our future operating performance, the availability of credit generally, economic and market conditions and financial, business and other factors, many of which are beyond our control.

If financing is not available when needed, or is available on unfavorable terms, we may be unable to take advantage of business opportunities or respond to competitive pressures, any of which could have a material adverse effect on our business, financial condition and results of operations. If we raise additional funds through further issuances of equity, convertible debt securities or other securities convertible into equity, our existing stockholders could suffer significant dilution.

Our credit ratings are important to our cost of capital. The major debt rating agencies routinely evaluate our debt based on a number of factors, which include financial strength and business risk as well as transparency with rating agencies and timeliness of financial reporting. A downgrade in our debt rating could result in increased interest and other expenses on our existing variable interest rate debt, and could result in increased interest and other financing expenses on future borrowings. Downgrades in our debt rating could also restrict our access to capital markets and affect the value and marketability of our outstanding notes.

Our ability to access future financing also may be dependent on regulatory restrictions applicable to banks and other institutions subject to U.S. federal banking regulations, even if the market would otherwise be willing to provide such financing.

An increase in interest rates would increase the cost of servicing our debt and could reduce our profitability, decrease our liquidity and impact our solvency.

To the extent LIBOR exceeds 0.00%, our indebtedness under the Current Cash Flow Facilities (as defined in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") and the Current ABL Facility will bear interest at variable rates, and our future indebtedness may bear interest at variable rates. As a result, increases in interest rates could increase the cost of servicing such debt and materially reduce our profitability and cash flows. As of December 31, 2019, assuming all Current ABL Facility revolving loans were fully drawn, each one percent change in interest rates would result in approximately a \$31.7 million change in annual interest expense on the Current Term Loan Facility and the Current ABL Facility. The impact of such an increase would be more significant for us than it would be for some other companies because of our substantial debt.

Item 1B. Unresolved Staff Comments.

There are no unresolved staff comments outstanding with the Securities and Exchange Commission at this time.

Item 2. Properties.

Our corporate headquarters is located in Cary, North Carolina. We own and lease properties in the United States, Canada, Costa Rica and Mexico. The following table lists our principal manufacturing and warehousing facilities as of December 31, 2019:

Facility	Product type/Usage
Commercial Segment:	
Sheridan, Arkansas	Insulated metal panels
Atwater, California	Metal building products
Lithia Springs, Georgia	Metal building products
Marietta, Georgia	Metal coil coating
Mattoon, Illinois	Insulated metal panels
Shelbyville, Indiana ⁽¹⁾	Insulated metal panels
Monticello, Iowa	Metal building products
Mount Pleasant, Iowa	Metal building products
Frankfort, Kentucky	Insulated metal panels
Hernando, Mississippi	Metal building products
Jackson, Mississippi	Metal coil coating
Las Vegas, Nevada ⁽¹⁾	Insulated metal panels
Cambridge, Ohio	Metal coil coating
Middletown, Ohio	Metal coil coating
Elizabethton, Tennessee	Metal building products
Lexington, Tennessee	Metal building products
Houston, Texas ⁽²⁾	Metal building products
Prince George, Virginia	Insulated metal panels
Hamilton, Ontario, Canada ⁽¹⁾	Insulated metal panels
Monterrey, Mexico	Metal building products
Siding Segment:	
Kearney, Missouri ⁽¹⁾	Vinyl siding and other (trim)
Kansas City, Missouri ⁽¹⁾	Warehousing
Sidney, Ohio	Metal
Gaffney, South Carolina	Injection molded
Gaffney, South Carolina ⁽¹⁾	Warehousing
Jasper, Tennessee	Vinyl siding
Harrisonburg, Virginia ⁽¹⁾	Warehousing
Stuarts Draft, Virginia	Vinyl siding
Martinsburg, West Virginia ⁽¹⁾	Vinyl siding
Martinsburg, West Virginia ⁽¹⁾	Warehousing
Brantford, Ontario, Canada ⁽¹⁾	Warehousing
Paris, Ontario, Canada	Vinyl siding
Windows Segment:	
Corona, California ⁽¹⁾	Vinyl windows
Sacramento, California ⁽¹⁾	Vinyl windows
Vacaville, California ⁽¹⁾	Vinyl windows
Lithia Springs, Georgia ⁽¹⁾	Vinyl windows and warehousing
Peachtree City, Georgia ⁽¹⁾	Vinyl windows
Lansing, Illinois ⁽¹⁾	Vinyl windows
Paris, Illinois	Vinyl windows
Paris, Illinois ⁽¹⁾	Warehousing
Middlesex, New Jersey ⁽¹⁾	Vinyl windows
North Brunswick, New Jersey ⁽¹⁾	Vinyl windows
Welcome, North Carolina ⁽¹⁾	Vinyl windows

Walbridge, Ohio ⁽¹⁾	Vinyl windows and warehousing
Bryan, Texas ⁽¹⁾	Vinyl & Aluminum windows
Dallas, Texas ⁽¹⁾	Vinyl & Aluminum windows
Rocky Mount, Virginia ⁽¹⁾⁽²⁾	Vinyl & Aluminum windows and other (doors) and warehousing
Auburn, Washington ⁽¹⁾	Vinyl windows
Ellenboro, West Virginia	Vinyl windows
Pennsboro, West Virginia	Vinyl windows
St. Marys, West Virginia	Vinyl windows and other (trim)
Vienna, West Virginia ⁽¹⁾	Warehousing
Calgary, Alberta, Canada ⁽¹⁾	Vinyl & Aluminum windows and other (doors) and warehousing
St. Thomas, Ontario, Canada	Vinyl windows

(1) Location is leased as of December 31, 2019

(2) Location has multiple principal facilities

Item 3. *Legal Proceedings.*

On November 14, 2018, an individual stockholder, Gary D. Voigt, filed a putative class action Complaint in the Delaware Court of Chancery against Clayton Dubilier & Rice, LLC (“CD&R”), Clayton, Dubilier & Rice Fund VIII, L.P. (“CD&R Fund VIII”), and certain directors of the Company. Voigt purports to assert claims on behalf of himself, on behalf of a class of other similarly situated stockholders of the Company, and derivatively on behalf of the Company, the nominal defendant. An Amended Complaint was filed on April 11, 2019. The Amended Complaint asserts claims for breach of fiduciary duty and unjust enrichment against CD&R Fund VIII and CD&R, and for breach of fiduciary duty against twelve director defendants in connection with the Merger. Voigt seeks damages in an amount to be determined at trial. Defendants moved to dismiss the Amended Complaint and, on February 10, 2020, the court denied the motions except as to four of the director defendants. Defendants are due to answer on April 3, 2020. The Company intends to vigorously defend the litigation.

In November 2018, Aurora Plastics, LLC (“Aurora”) initiated an arbitration demand against Atrium Windows and Doors, Inc., Atrium Extrusion Systems, Inc., and North Star Manufacturing (London) Ltd. (collectively, “Atrium”) pursuant to a Third Amended and Restated Vinyl Compound and Supply Agreement dated as of December 22, 2016. A settlement was reached in this case during the fourth quarter of 2019 which resulted in the Company having a \$11.2 million liability as of December 31, 2019, of which \$3.6 million is held within other current liabilities with the remaining in long-term liabilities in the consolidated balance sheets.

As a manufacturer of products primarily for use in nonresidential and residential building construction, we are inherently exposed to various types of contingent claims, both asserted and unasserted, in the ordinary course of business. As a result, from time to time, we and/or our subsidiaries become involved in various legal proceedings or other contingent matters arising from claims, or potential claims. We insure against these risks to the extent deemed prudent by our management and to the extent insurance is available. Many of these insurance policies contain deductibles or self-insured retentions in amounts we deem prudent and for which we are responsible for payment. In determining the amount of self-insurance, it is our policy to self-insure those losses that are predictable, measurable and recurring in nature, such as claims for general liability. The Company regularly reviews the status of on-going proceedings and other contingent matters along with legal counsel. Liabilities for such items are recorded when it is probable that the liability has been incurred and when the amount of the liability can be reasonably estimated. Liabilities are adjusted when additional information becomes available. Management believes that the ultimate disposition of these matters will not have a material adverse effect on the Company’s results of operations, financial position or cash flows. However, such matters are subject to many uncertainties and outcomes are not predictable with assurance.

PART II

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

PRICE RANGE OF COMMON STOCK

Our Common Stock is listed on the NYSE under the symbol "CNR." As of February 26, 2020, there were 41 holders of record and an estimated 7,060 beneficial owners of our Common Stock. The following table sets forth the quarterly high and low sale prices of our Common Stock, as reported by the NYSE, for the prior two fiscal years and the transition period ended December 31, 2018. We have never paid dividends on our Common Stock and the terms of the agreements governing our indebtedness either limit or restrict our ability to do so.

Fiscal Year 2019 Quarter Ended	High	Low
March 30	\$ 8.69	\$ 5.80
June 29	\$ 6.70	\$ 4.20
September 28	\$ 6.37	\$ 3.75
December 31	\$ 9.30	\$ 5.46
Transition Period Ended	High	Low
December 31, 2018	\$ 13.82	\$ 6.66
Fiscal Year 2018 Quarter Ended	High	Low
January 28	\$ 21.20	\$ 15.45
April 29	\$ 18.95	\$ 15.60
July 29	\$ 23.35	\$ 15.15
October 28	\$ 17.25	\$ 12.30

ISSUER PURCHASES OF EQUITY SECURITIES

The following table shows our purchases of our Common Stock during the fourth quarter of fiscal 2019:

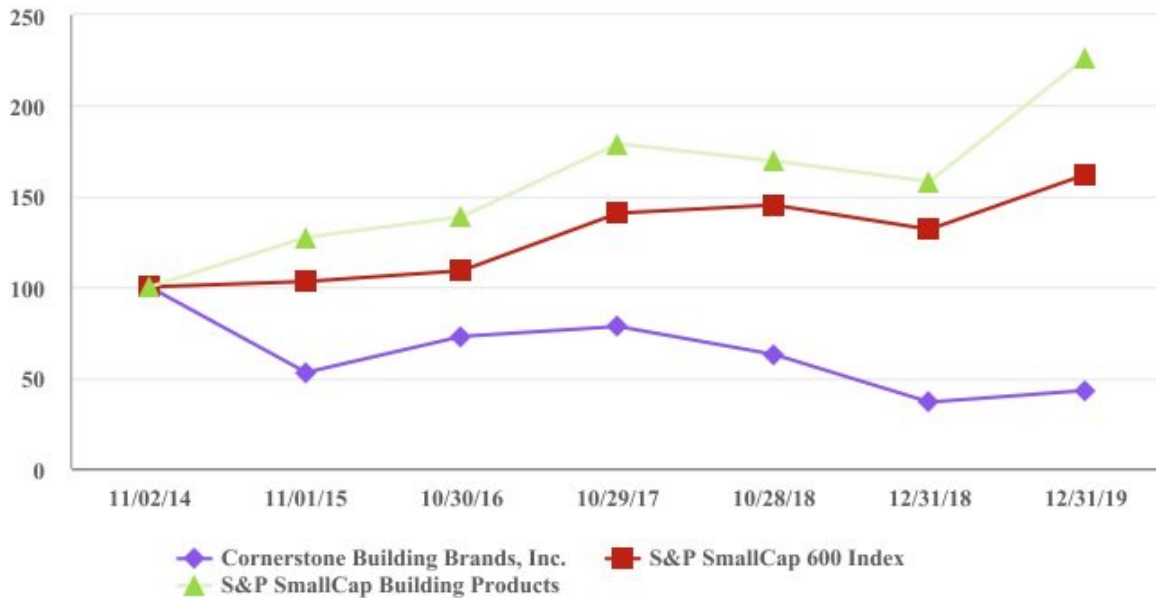
Period	Total Number of Shares Purchased⁽¹⁾	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs	Maximum Dollar Value of Shares that May Yet be Purchased Under Publicly Announced Programs⁽²⁾
September 29, 2019 to October 26, 2019	400	\$ 6.44	—	\$ 55,573
October 27, 2019 to November 23, 2019	124,524	\$ 6.92	—	\$ 55,573
November 24, 2019 to December 31, 2019	97,209	\$ 8.63	—	\$ 55,573
Total	222,133	\$ 7.67	—	

- (1) The total number of shares purchased includes shares of restricted stock that were withheld to satisfy minimum tax withholding obligations arising in connection with the vesting of awards of restricted stock. The required withholding is calculated using the closing sales price on the previous business day prior to the vesting date as reported by the NYSE.
- (2) On October 10, 2017 and March 7, 2018, the Company announced that its Board of Directors authorized new stock repurchase programs for up to an aggregate of \$50.0 million and \$50.0 million, respectively, of the Company's Common Stock for a cumulative total of \$100.0 million. Under these repurchase programs, the Company is authorized to repurchase shares, if at all, at times and in amounts that we deem appropriate in accordance with all applicable securities laws and regulations. Shares repurchased are usually retired. There is no time limit on the duration of these programs. As of December 31, 2019, approximately \$55.6 million remained available for stock repurchases under the programs announced on October 10, 2017 and March 7, 2018.

STOCK PERFORMANCE CHART

The following chart compares the yearly percentage change in the cumulative stockholder return on our Common Stock from November 2, 2014 to the end of the fiscal year ended December 31, 2019 with the cumulative total return on the (i) S&P SmallCap 600 Index and (ii) S&P Smallcap Building Products peer group. The comparison assumes \$100 was invested on November 2, 2014 in our Common Stock and in each of the foregoing indices and assumes reinvestment of dividends.

Comparison of 5 Year Cumulative Total Return
Assumes Initial Investment of \$100
December 2019



In accordance with the rules and regulations of the SEC, the above stock performance chart shall not be deemed to be “soliciting material” or to be “filed” with the SEC or subject to Regulations 14A or 14C of the Securities Exchange Act of 1934 (the “Exchange Act”) or to the liabilities of Section 18 of the Exchange Act and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent we specifically incorporate it by reference into such filing.

Item 6. Selected Financial Data.

The selected financial data for each of the three fiscal years ended December 31, 2019, October 28, 2018 and October 29, 2017 has been derived from the audited consolidated financial statements included elsewhere herein. The selected financial data for the fiscal years ended October 30, 2016 and November 1, 2015 and certain consolidated balance sheet data as of October 29, 2017, October 30, 2016, and November 1, 2015 have been derived from audited consolidated financial statements not included herein. The following data should be read in conjunction with “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the audited consolidated financial statements and the notes thereto included under “Item 8. Financial Statements and Supplementary Data.”

	2019	2018	2017	2016	2015
(In thousands, except per share data)					
Sales	\$ 4,889,747	\$ 2,000,577	\$ 1,770,278	\$ 1,684,928	\$ 1,563,693
Net income (loss)	\$ (15,390) ⁽¹⁾	\$ 63,106 ⁽³⁾	\$ 54,724 ⁽⁴⁾	\$ 51,027 ⁽⁵⁾	\$ 17,818 ⁽⁶⁾
Net income (loss) applicable to common shares	\$ (15,390) ⁽¹⁾	\$ 62,694 ⁽³⁾	\$ 54,399 ⁽⁴⁾	\$ 50,638 ⁽⁵⁾	\$ 17,646 ⁽⁶⁾
Earnings per common share:					
Basic	\$ (0.12) ⁽¹⁾	\$ 0.95 ⁽³⁾	\$ 0.77 ⁽⁴⁾	\$ 0.70 ⁽⁵⁾	\$ 0.24 ⁽⁶⁾
Diluted	\$ (0.12) ⁽¹⁾	\$ 0.94 ⁽³⁾	\$ 0.77 ⁽⁴⁾	\$ 0.70 ⁽⁵⁾	\$ 0.24 ⁽⁶⁾
Cash flow from operating activities	\$ 229,608	\$ 82,463	\$ 63,874	\$ 68,479	\$ 105,785
Total assets	\$ 5,564,346 ⁽²⁾	\$ 1,110,375	\$ 1,031,112	\$ 1,025,396	\$ 1,049,317
Total debt	\$ 3,182,524	\$ 407,226	\$ 387,290	\$ 396,051	\$ 434,542
Stockholders’ equity	\$ 935,318	\$ 330,265	\$ 305,247	\$ 281,317	\$ 271,976
Diluted average common shares	125,576	66,362	70,778	72,857	73,923

Note: The Company calculated the after-tax amounts below by applying the applicable statutory tax rate for the respective period to each applicable item.

- (1) Includes restructuring charges of \$18.1 million (\$13.4 million after tax), strategic development and acquisition related costs of \$50.2 million (\$37.1 million after tax), and a non-cash charge of purchase price allocated to inventory of \$16.2 million. Includes results of the Ply Gem merger for the full year, from January 1, 2019 and the ESW acquisition from February 20, 2019.
- (2) Includes the adoption of ASU 2016-02, *Leases*, which resulted in the recognition of additional operating liabilities of \$304.1 million with corresponding right-of-use (“ROU”) assets at adoption.
- (3) Includes loss on extinguishment of debt of \$21.9 million (\$15.9 million after tax), loss on disposition of business of \$5.7 million (\$4.1 million after tax), restructuring charges of \$1.9 million (\$1.4 million after tax), strategic development and acquisition related costs of \$17.2 million (\$12.4 million after tax), gain on insurance recovery of \$4.7 million (\$3.4 million after tax), and a charge of \$4.6 million (\$3.3 million after tax) related to the acceleration of retirement benefits of our former CEO.
- (4) Includes loss on sale of assets of \$0.1 million (\$0.1 million after tax), restructuring charges of \$5.3 million (\$3.2 million after tax), strategic development and acquisition related costs of \$2.0 million (\$1.2 million after tax), loss on goodwill impairment of \$6.0 million (\$3.7 million after tax), gain on insurance recovery of \$9.7 million (\$5.9 million after tax), and unreimbursed business interruption costs of \$0.5 million (\$0.3 million after tax).
- (5) Includes gain on sale of assets and asset recovery of \$1.6 million (\$1.0 million after tax), restructuring charges of \$4.3 million (\$2.6 million after tax), strategic development and acquisition related costs of \$2.7 million (\$1.6 million after tax), and gain from bargain purchase of \$1.9 million (non-taxable).
- (6) Includes gain on legal settlements of \$3.8 million (\$2.3 million after tax), strategic development and acquisition related costs of \$4.2 million (\$2.6 million after tax), restructuring charges of \$11.3 million (\$6.9 million after tax), fair value adjustments to inventory of \$2.4 million (\$1.5 million after tax), and amortization of acquisition fair value adjustments of \$8.4 million (\$5.1 million after tax).

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

OVERVIEW

Effective May 23, 2019, NCI Building Systems, Inc. changed its name to Cornerstone Building Brands, Inc. (together with its subsidiaries, unless the context requires otherwise, the "Company," "Cornerstone," "NCI," "we," "us" or "our"). In connection with the name change, the Company changed its NYSE trading symbol from "NCS" to "CNR".

Cornerstone Building Brands, Inc. is a leading North American integrated manufacturer of external building products for the commercial, residential, and repair and remodeling construction industries. We design, engineer, manufacture and market external building products through our three operating segments, Commercial, Siding, and Windows.

In our Commercial segment, we manufacture and distribute extensive lines of metal products for the nonresidential construction market under multiple brand names through a nationwide network of plants and distribution centers. We offer a number of advantages over traditional construction alternatives, including shorter construction time, more efficient use of materials, lower construction costs, greater ease of expansion and lower maintenance costs. Our Commercial segment also provides metal coil coating services for commercial and construction applications, servicing both internal and external customers. We sell our products for both new construction and repair and retrofit applications.

In our Siding segment, our principal products include vinyl siding and skirting, steel siding, vinyl and aluminum soffit, aluminum trim coil, aluminum gutter coil, aluminum gutters, aluminum and steel roofing accessories, cellular PVC trim and mouldings, J-channels, wide crown molding, window and door trim, F-channels, H-molds, fascia, undersill trims, outside/inside corner posts, rain removal systems, injection molded designer accents such as shakes, shingles, scallops, shutters, vents and mounts, vinyl fence, vinyl railing, and stone veneer in the United States and Canada. The breadth of our product lines and our multiple brand and price point strategy enable us to target multiple distribution channels (wholesale and specialty distributors, retailers and manufactured housing) and end users (new construction and home repair and remodeling).

In our Windows segment, our principal products include vinyl, aluminum-clad vinyl, aluminum, wood and clad-wood windows and patio doors and steel, wood, and fiberglass entry doors that serve both the new construction and the home repair and remodeling sectors in the United States and Canada. We continue introducing new products to the portfolio which allow us to enter or further penetrate new distribution channels and customers. The breadth of our product lines and our multiple price point strategy enable us to target multiple distribution channels (wholesale and specialty distributors, retailers and manufactured housing) and end user markets (new construction and home repair and remodeling).

We assess performance across our operating segments by analyzing and evaluating, among other indicators, gross profit and operating income, as well as whether each segment has achieved its projected sales goals. In assessing our overall financial performance, we regard growth in earnings, as the key indicator of shareholder value.

Reporting Periods

On November 16, 2018, the Company's Board of Directors approved a change to the Company's fiscal year end from a 52/53 week year with the Company's fiscal year end on the Sunday closest to October 31 to a calendar year of the twelve-month period from January 1 to December 31. The Company elected to change its fiscal year end in connection with the Merger to align both Companies' fiscal year ends. As a result of this change, the Company filed a Transition Report on Form 10-Q that included the financial information for the transition period from October 29, 2018 to December 31, 2018, which period is referred to herein as the "Transition Period". References in this Annual Report on Form 10-K to "fiscal year 2018" or "fiscal 2018" refer to the period from October 30, 2017 through October 28, 2018.

The Company's current fiscal quarters are based on a four-four-five week calendar with periods ending on the Saturday of the last week in the quarter except for December 31st which will always be the year-end date. Therefore, the financial results of certain fiscal quarters may not be comparable to prior fiscal quarters.

Environmental Stoneworks Acquisition

On January 12, 2019, the Company entered into a Unit Purchase Agreement (the "Purchase Agreement") with Environmental Materials, LLC, a Delaware limited liability company ("Environmental Stoneworks" or "ESW"), the Members of Environmental Materials, LLC (the "Sellers") and Charles P. Gallagher and Wayne C. Kocourek, solely in their capacity as the Seller Representative (as defined in the Purchase Agreement), pursuant to which, on February 20, 2019, the Company's wholly-owned subsidiary, Ply Gem Industries, Inc., purchased from the Sellers 100% of the outstanding limited liability company interests of Environmental Stoneworks (the "Environmental Stoneworks Acquisition") for total consideration of \$182.6 million, subject to post-closing adjustments. The transaction was financed through borrowings under the Company's asset-based revolving credit facility.

Merger with Ply Gem

At the Special Shareholder Meeting on November 15, 2018, NCI's shareholders approved (i) the Merger Agreement and (ii) the Stock Issuance. NCI's shareholders also approved the three additional proposals described in the Company's proxy statement relating to the Special Shareholder Meeting. The Merger was consummated on November 16, 2018 pursuant to the Merger Agreement.

Pursuant to the terms of the Merger Agreement, on November 16, 2018, the Company entered into (i) the New Stockholders Agreement between the Company and each of the Investors, pursuant to which the Company granted to the Investors certain governance, preemptive and subscription rights and (ii) the New Registration Rights Agreement with the Investors, pursuant to which the Company granted the Investors customary demand and piggyback registration rights, including rights to demand registrations and underwritten shelf registration statement offerings with respect to the shares of NCI Common Stock that are held by the Investors following the consummation of the Merger. Pursuant to the terms of the New Stockholders Agreement, the Company and the CD&R Fund VIII Investor Group terminated the Old Stockholders Agreement and the Old Registration Rights Agreement.

On November 16, 2018, in connection with the consummation of the Merger, the Company assumed (i) the obligations of Ply Gem Midco, a subsidiary of Ply Gem immediately prior to the consummation of the Merger, as borrower under the Current Cash Flow Credit Agreement, (ii) the obligations of Ply Gem Midco as parent borrower under the Current ABL Credit Agreement and (iii) the obligations of Ply Gem Midco as issuer under the Current Indenture.

On April 12, 2018, Ply Gem Midco entered into a Cash Flow Credit Agreement (the "Current Cash Flow Credit Agreement"), by and among Ply Gem Midco, JPMorgan Chase Bank, N.A., as administrative agent and collateral agent (the "Cash Flow Agent"), and the several banks and other financial institutions from time to time party thereto. As of November 16, 2018, immediately prior to the Merger, the Current Cash Flow Credit Agreement provided for (i) a term loan facility (the "Current Term Loan Facility") in an original aggregate principal amount of \$1,755.0 million and (ii) a cash flow-based revolving credit facility (the "Current Cash Flow Revolver" and together with the Current Term Loan Facility, the "Current Cash Flow Facilities") of up to \$115.0 million. On November 16, 2018, Ply Gem Midco entered into a Lender Joinder Agreement, by and among Ply Gem Midco, the additional commitment lender party thereto and the Cash Flow Agent, which amended the Current Cash Flow Credit Agreement in order to, among other things, increase the aggregate principal amount of the Current Term Loan Facility by \$805.0 million (the "Incremental Term Loans"). Proceeds of the Incremental Term Loans were used to, among other things, (a) finance the Merger and to pay certain fees, premiums and expenses incurred in connection therewith, (b) repay in full amounts outstanding under the Pre-merger Term Loan Credit Agreement and the Pre-merger ABL Credit Agreement (each as defined below) and (c) repay \$325.0 million of borrowings outstanding under the Current ABL Facility (as defined below). On November 16, 2018, in connection with the consummation of the Merger, NCI and Ply Gem Midco entered into a joinder agreement with respect to the Current Cash Flow Facilities, and NCI became the Borrower (as defined in the Current Cash Flow Credit Agreement) under the Current Cash Flow Facilities. The Current Term Loan Facility amortizes in nominal quarterly installments equal to one percent of the aggregate initial principal amount thereof per annum, with the remaining balance payable upon final maturity of the Current Term Loan Facility on April 12, 2025. There are no amortization payments under the Current Cash Flow Revolver, and all borrowings under the Current Cash Flow Revolver mature on April 12, 2023.

On April 12, 2018, Ply Gem Midco and certain subsidiaries of Ply Gem Midco entered into an ABL Credit Agreement (the “Current ABL Credit Agreement”), by and among Ply Gem Midco, the subsidiary borrowers from time to time party thereto, UBS AG, Stamford Branch, as administrative agent and collateral agent (the “ABL Agent”), and the several banks and other financial institutions from time to time party thereto, which provided for an asset-based revolving credit facility (the “Current ABL Facility”) of up to \$360.0 million, consisting of (i) \$285.0 million available to U.S. borrowers (subject to U.S. borrowing base availability) (the “ABL U.S. Facility”) and (ii) \$75.0 million available to both U.S. borrowers and Canadian borrowers (subject to U.S. borrowing base and Canadian borrowing base availability) (the “ABL Canadian Facility”). On October 15, 2018, Ply Gem Midco entered into Amendment No. 2 to the Current ABL Credit Agreement, by and among Ply Gem Midco, the incremental lender party thereto and the ABL Agent, which amended the Current ABL Credit Agreement in order to, among other things, increase the aggregate commitments under the Current ABL Facility by \$36.0 million to \$396.0 million overall, and with the (x) ABL U.S. Facility being increased from \$285.0 million to \$313.5 million and (y) the ABL Canadian Facility being increased from \$75.0 million to \$82.5 million. On November 16, 2018, Ply Gem Midco entered into Amendment No. 4 to the Current ABL Credit Agreement, by and among Ply Gem Midco, the incremental lenders party thereto and the ABL Agent, which amended the Current ABL Credit Agreement in order to, among other things, increase the aggregate commitments under the Current ABL Facility by \$215.0 million (the “Incremental ABL Commitments”) to \$611.0 million overall, and with the (x) ABL U.S. Facility being increased from \$313.5 million to approximately \$483.7 million and (y) the ABL Canadian Facility being increased from \$82.5 million to approximately \$127.3 million. On November 16, 2018, in connection with the consummation of the Merger, NCI and Ply Gem Midco entered into a joinder agreement with respect to the Current ABL Facility, and NCI became the Parent Borrower (as defined in the Current ABL Credit Agreement) under the Current ABL Facility. The Company and, at the Company’s option, certain of the Company’s subsidiaries are the borrowers under the Current ABL Facility. As of November 16, 2018, and following consummation of the Merger, (a) Ply Gem Industries, Inc., Atrium Windows and Doors, Inc., NCI Group, Inc. and Robertson-Ceco II Corporation were U.S. subsidiary borrowers under the Current ABL Facility, and (b) Gienow Canada Inc., Mitten Inc., North Star Manufacturing (London) Ltd. and Robertson Building Systems Limited were Canadian borrowers under the Current ABL Facility. All borrowings under the Current ABL Facility mature on April 12, 2023.

On April 12, 2018, Ply Gem Midco issued \$645.0 million aggregate principal amount of 8.00% Senior Notes due 2026 (the “8.00% Senior Notes”). The 8.00% Senior Notes were issued pursuant to an Indenture, dated as of April 12, 2018 (as supplemented from time to time, the “Current Indenture”), by and among Ply Gem Midco, as issuer, the subsidiary guarantors from time to time party thereto and Wilmington Trust, National Association, as trustee. On November 16, 2018, in connection with the consummation of the Merger, the Company entered into a supplemental indenture and assumed the obligations of Ply Gem Midco as issuer under the Current Indenture and the 8.00% Senior Notes. The 8.00% Senior Notes bear interest at 8.00% per annum and will mature on April 15, 2026. Interest is payable semi-annually in arrears on April 15 and October 15.

On November 16, 2018, in connection with the incurrence by Ply Gem Midco of the Incremental Term Loans and the obtaining by Ply Gem Midco of the Incremental ABL Commitments, following consummation of the Merger, the Company (a) terminated all outstanding commitments and repaid all outstanding amounts under the Term Loan Credit Agreement, dated as of February 8, 2018 (the “Pre-merger Term Loan Credit Agreement”), by and among the Company, as borrower, the several banks and other financial institutions from time to time party thereto and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and (b) terminated all outstanding commitments and repaid all outstanding amounts under the ABL Credit Agreement, dated as of February 8, 2018 (the “Pre-merger ABL Credit Agreement”), by and among NCI Group, Inc. and Robertson-Ceco II Corporation, as borrowers, the Company, as a guarantor, the other borrowers from time to time party thereto, the several banks and other financial institutions from time to time party thereto and Wells Fargo Bank, National Association, as administrative agent and collateral agent. Outstanding letters of credit under the Pre-merger ABL Credit Agreement were cash collateralized.

In connection with the termination and repayment of the Pre-merger Term Loan Credit Agreement and the Pre-merger ABL Credit Agreement, the Company also terminated (i) the Term Loan Guarantee and Collateral Agreement, dated as of February 8, 2018, made by the Company and certain of its subsidiaries, in favor of Credit Suisse AG, Cayman Islands Branch, as Collateral Agent, (ii) the ABL Guarantee and Collateral Agreement, dated as of February 8, 2018, made by the Company and certain of its subsidiaries, in favor of Wells Fargo Bank, National Association, as Collateral Agent, and (iii) the Intercreditor Agreement, dated as of February 8, 2018, between Credit Suisse AG, Cayman Islands Branch and Wells Fargo Bank, National Association, and acknowledged by the Company and certain of its subsidiaries.

Fiscal 2019 Summary

During 2019, significant progress was made on key strategic initiatives through the year. Led by commercial discipline, the Company was able to capture price to offset inflationary pressures in material, labor and freight. Leveraging our continuous improvement culture, the Company delivered synergies and cost savings above target. We expanded our manufacturing footprint and broadened our distribution channel network through the successful integrations of the Silver Line, Atrium, and Environmental Stoneworks acquisitions. These acquisitions were value-enhancing for us reinforcing our leadership position in vinyl windows and providing the Company with a significant share in the fastest growing residential cladding market through stone veneer. As a result, we were able to improve margins and generate strong operating cash flow that enabled us to reduce debt and continue to invest in organic growth opportunities.

Our fiscal 2019 financial performance showed year-over-year improvement in net sales, and operating income, while our gross margin percentage declined 80 basis points over the same period. All of these changes were due to the inclusion of Ply Gem for all of fiscal 2019. This improved financial performance was achieved despite challenging market conditions, including rising input costs and seasonally wet weather conditions primarily in Texas and the Southeast during the fourth quarter. During fiscal 2019, we effectively captured Merger synergies and cost initiatives of \$109.4 million consisting predominantly of procurement savings, manufacturing efficiencies and back office expense reductions while effectively integrating the legacy NCI and Ply Gem businesses and management teams into one consolidated Cornerstone. In addition to these organizational changes, we were able to maintain our cost and price discipline during 2019 which contributed to the favorable financial and operational performance. Ultimately, these initiatives resulted in favorable financial performance culminating in operating cash flows of \$229.6 million, an increase of \$147.1 million from the prior year.

Consolidated revenues increased by approximately 144.4% from the prior fiscal year. The net sales increase was driven by the inclusion of Ply Gem's net sales of \$2,875.2 million in the 2019 fiscal year as the Merger was consummated after the 2018 fiscal year end. The following table summarizes net sales by major category for 2019.

	Year Ended December 31, 2019	
Commercial Net Sales Disaggregation:		
Metal building products	\$	1,249,757
Insulated metal panels		441,441
Metal coil coating		156,695
Total	\$	1,847,893
Siding Net Sales Disaggregation:		
Vinyl siding	\$	525,005
Metal		263,018
Injection molded		66,578
Stone		92,228
Other products & services		164,578
Total	\$	1,111,407
Windows Net Sales Disaggregation:		
Vinyl windows	\$	1,838,796
Aluminum windows		53,622
Other		38,029
Total	\$	1,930,447
Total Net Sales:	\$	4,889,747

Consolidated gross margin in fiscal 2019 decreased by 80 basis points from the prior fiscal year to 22.3%. The gross profit percentage decrease can be attributed to the inventory fair value step-ups associated with the Merger of \$14.4 million and the ESW Acquisition of \$1.8 million as well as the inclusion of Ply Gem's gross margin results in the year 2019, which were lower than the legacy Commercial business.

Operating income of \$214.7 million for the year ended December 31, 2019 represented an increase of \$88.8 million relative to the fiscal year ended October 28, 2018. The operating income increase was due to the inclusion of \$106.3 million of Ply Gem operating income that was partially offset by restructuring and acquisition costs relating to the Merger of \$50.5 million.

Consolidated selling, general and administrative expenses for fiscal 2018 included a \$4.6 million charge related to the acceleration of retirement benefits of our former CEO. Excluding the fiscal 2018 effects of the acceleration of CEO retirement benefits, as a percentage of sales, selling, general and administrative expenses for fiscal 2019 decreased by 230 basis points to 12.8% compared to the prior fiscal year, predominantly the result of our strategic initiatives and restructuring activities.

Net income decreased by \$78.5 million to \$(15.4) million for fiscal 2019, compared to \$63.1 million in the prior year. Diluted earnings per share was \$(0.12). Net income was negatively impacted by \$207.5 million of increased interest expense associated with our indebtedness, increased amortization expense of \$167.9 million related to the Merger, \$68.2 million of restructuring and acquisition costs related to the Merger, and \$16.2 million of inventory fair value step-ups that negatively impacted cost of goods sold.

Due to the strong operating cash flow we reinvested \$121.1 million in capital expenditures, an increase of \$73.3 million over prior year, primarily to support organic growth initiatives, automation and advanced manufacturing.

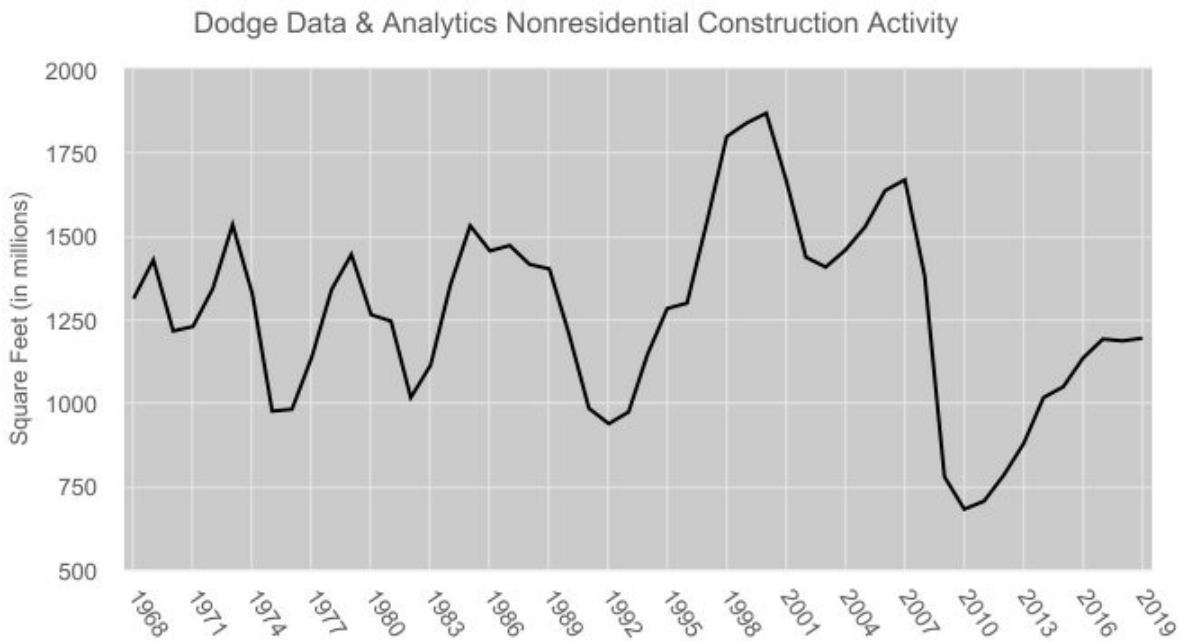
Industry Conditions

Commercial

Our sales and earnings are subject to both seasonal and cyclical trends and are influenced by general economic conditions, interest rates, the price of steel relative to other building materials, the level of nonresidential construction activity, roof repair and retrofit demand and the availability and cost of financing for construction projects. Our sales in the Commercial segment normally are lower in the first half of each fiscal year compared to the second half because of unfavorable weather conditions for construction and typical business planning cycles affecting construction.

The nonresidential construction industry is highly sensitive to national and regional macroeconomic conditions. Following a significant downturn in 2008 and 2009, the current recovery of low-rise construction has been uneven and slow but is now showing some signs of steady growth. We believe that the economy is recovering and that the nonresidential construction industry will return to mid-cycle levels of activity over the next several years.

The graph below shows the annual nonresidential new construction starts, measured in square feet, since 1968 as compiled and reported by Dodge Data & Analytics, Inc. ("Dodge"):



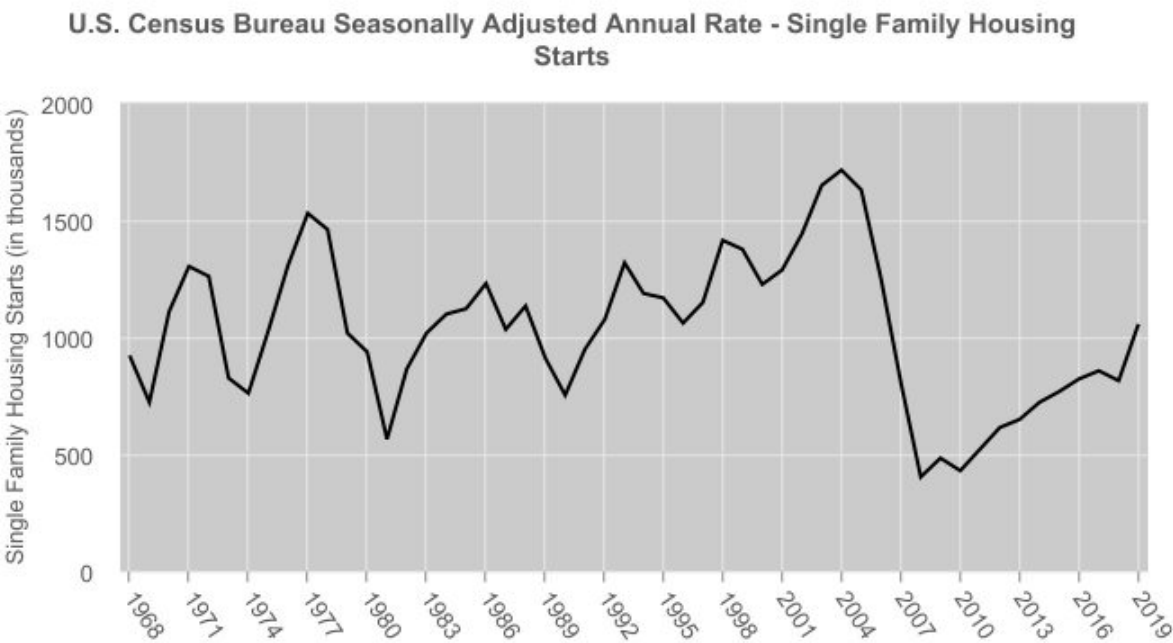
Current market estimates continue to show uneven activity across the nonresidential construction markets. According to Dodge, low-rise nonresidential construction starts, as measured in square feet and comprising buildings of up to five stories, contracted approximately 5% in 2019 as compared to 2018, while our volumes declined further than 5%. Products within our addressable market grew at a rate slower than other alternative products within the low-rise nonresidential market.

The leading indicators that we follow and that typically have the most meaningful correlation to nonresidential low-rise construction starts are the American Institute of Architects' ("AIA") Architecture Mixed Use Index, Dodge Residential single family starts and the Conference Board Leading Economic Index ("LEI"). Historically, there has been a very high correlation to the Dodge low-rise nonresidential starts when the three leading indicators are combined and then seasonally adjusted.

Residential (Siding and Windows)

Our residential building products are typically installed on a new construction home 90 to 120 days after the start of the home, therefore, there is a lag between the timing of the single-family housing start date and the time in which our products are installed on a home. From an industry perspective, we evaluate the new construction environment by reviewing the U.S. Census Bureau single family housing start statistics to assess the performance of the new construction market for a normal period. For the year ended December 31, 2019, we evaluated U.S. Census Bureau single family housing starts in the period from September 2018 to August 2019 to assess the demand impacts for our products for the year ended December 31, 2019 noting that single family housing starts decreased 3.5% on a lag effected basis due to a general softening in overall economic conditions specifically for new construction. We also examine where these single-family housing starts occur geographically as the Northeast, which decreased 7.6%, and Midwest, which decreased 7.8%, are significant vinyl siding concentrated areas relative to the South and the West. For Canada, we evaluate the Canada Mortgage and Housing Corporate statistics which showed housing starts decreasing 14.4% for the year ended December 31, 2019 compared to 2018.

The graph below shows the seasonally adjusted annual single family residential new construction starts as of each year end since 1968 as compiled and reported by U.S. Census Bureau:



In addition to new construction, we also evaluate the repair and remodeling market to assess residential market conditions by evaluating the Leading Indicator of Remodeling Activity (“LIRA”). For the year ended December 31, 2019, LIRA reflected that the trailing 12 months of remodeling activity increased 5.9% from 2018. While LIRA is a remodeling economic indicator as it tracks all remodeling activity including kitchen, bathroom and low ticket remodeling, it is not a specific metric for our residential businesses measuring solely windows and siding remodeling growth. Therefore, we utilize this index as a trend indicator for our repair and remodeling business.

Finally, we assess our performance relative to our competitors and the overall siding industry by evaluating the marketing indicators produced by the Vinyl Siding Institute (“VSI”), a third party which summarizes vinyl siding unit sales for the industry. For the year ended December 31, 2019, the VSI reported that siding units increased 3.3% for the industry. Overall, our Siding segment, including stone, is weighted to the repair and remodeling market with approximately 53% of our net sales being attributed to repair and remodeling with the remaining 47% attributed to the new construction market. Historically, we evaluate our net sales performance within the Windows segment by evaluating our net sales for the new construction market and the repair and remodeling market. Overall, our Windows segment is relatively balanced with approximately 50% of our net sales attributed to new construction with the remaining 50% attributed to the repair and remodeling market.

RESULTS OF OPERATIONS

This section of the Form 10-K generally discusses fiscal 2019 and fiscal 2018 items and year-over-year comparisons between fiscal 2019 and fiscal 2018. Discussions of fiscal 2017 items and year-over-year comparisons between fiscal 2018 and fiscal 2017 that are not included in this Form 10-K can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of NCI’s Annual Report on Form 10-K for the fiscal year ended October 28, 2018 as recasted in Exhibit 99.4 to our current report on Form 8-K, filed with the SEC on February 19, 2019 to reflect changes to NCI’s reportable business segments and to apply retrospectively the adoption of the Financial Accounting Standards Board Accounting Standards Update (“ASU”) 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)*, which the Company adopted during the transition period ended December 31, 2018. [Exhibit 99.4 to our current report on Form 8-K filed with the SEC on February 19, 2019 is incorporated by reference herein.](#)

The following table presents, as a percentage of sales, certain selected consolidated financial data for the periods indicated:

	Fiscal Year ended		
	December 31, 2019	October 28, 2018	October 29, 2017
Sales	100.0 %	100.0 %	100.0 %
Cost of sales	77.7	76.9	76.5
Gross profit	22.3	23.1	23.5
Selling, general and administrative expenses	12.8	15.4	16.6
Intangible asset amortization	3.6	0.5	0.5
Goodwill impairment	—	—	0.3
Restructuring and impairment charges, net	0.4	0.1	0.3
Strategic development and acquisition related costs	1.0	0.9	0.1
Loss on disposition of business	—	0.3	—
Gain on insurance recovery	—	(0.2)	(0.6)
Income from operations	4.4	6.3	6.2
Interest income	—	—	—
Interest expense	(4.7)	(1.1)	(1.6)
Foreign exchange gain (loss)	—	—	—
Loss on extinguishment of debt	—	(1.1)	—
Other income, net	—	—	0.1
Income before income taxes	(0.2)	4.2	4.7
Provision (benefit) for income taxes	0.1	1.0	1.6
Net income (loss)	(0.3) %	3.2 %	3.1 %

SUPPLEMENTARY SEGMENT INFORMATION

Operating segments are defined as components of an enterprise that engage in business activities for which discrete financial information is available that is evaluated on a regular basis by the chief operating decision maker to make decisions about how to allocate resources to the segment and assess the performance of the segment. We have three operating segments: (i) Commercial, (ii) Siding, and (iii) Windows. Our operating segments operate in the commercial and residential new construction, and repair and remodeling construction markets. Sales and earnings are influenced by general economic conditions, the level of residential and nonresidential construction activity, commodity costs, such as steel, aluminum, and PVC, other input costs such as labor and freight, and the availability and terms of financing available for construction. The operating segments follow the same accounting policies used for our consolidated financial statements.

Corporate assets consist primarily of cash, investments, prepaid expenses, current and deferred taxes and property, plant and equipment associated with our headquarters in Cary, North Carolina and office in Houston, Texas. These items (and income and expenses related to these items) are not allocated to the operating segments. Corporate unallocated expenses include share-based compensation expenses, and executive, legal, finance, tax, treasury, human resources, information technology and strategic sourcing, and corporate travel expenses. Additional unallocated amounts primarily include interest income, interest expense and other income (expense). See Note 20 — *Segment Information* in the notes to the consolidated financial statements for more information on our segments.

The following table represents total sales, external sales and operating income (loss) attributable to these operating segments for the periods indicated (in thousands, except percentages):

	Fiscal Year Ended					
	December 31, 2019	%	October 28, 2018	%	October 29, 2017	%
Net sales:						
Commercial	\$ 1,847,893	37.8	\$ 2,000,577	100.0	\$ 1,770,278	100.0
Siding	1,111,407	22.7	—	—	—	—
Windows	1,930,447	39.5	—	—	—	—
Total net sales	<u>\$ 4,889,747</u>	<u>100.0</u>	<u>\$ 2,000,577</u>	<u>100.0</u>	<u>\$ 1,770,278</u>	<u>100.0</u>
Operating income (loss):						
Commercial	\$ 201,073		\$ 230,365		\$ 189,547	
Siding	66,273		—		—	
Windows	92,538		—		—	
Corporate	(145,148)		(104,445)		(79,767)	
Total operating income	<u>\$ 214,736</u>		<u>\$ 125,920</u>		<u>\$ 109,780</u>	
Unallocated other expense, net	(225,351)		(42,825)		(26,642)	
Income (loss) before income taxes	<u>\$ (10,615)</u>		<u>\$ 83,095</u>		<u>\$ 83,138</u>	

RESULTS OF OPERATIONS FOR FISCAL 2019 COMPARED TO FISCAL 2018

Commercial

(Amounts in thousands)	Fiscal Year Ended					
	December 31, 2019		October 28, 2018			
Statement of operations data:						
Net sales	\$	1,847,893	100.0 %	\$	2,000,577	100.0 %
Gross profit		457,747	24.8 %		462,682	23.1 %
SG&A expense (including acquisition costs)		245,397	13.3 %		221,737	11.1 %
Amortization of intangible assets		11,277	0.6 %		9,648	0.5 %
Loss on disposition of business, net		—	— %		5,673	0.3 %
Gain on insurance recovery		—	— %		(4,741)	(0.2)%
Operating income		201,073	10.9 %		230,365	11.5 %

Net sales for the year ended December 31, 2019 were \$1,847.9 million, a decrease of \$152.7 million, or 7.6% from the year ended October 28, 2018. The decrease in net sales was mostly driven by lower tonnage volumes due to market hesitation in late 2018 through the first half of 2019. Rising steel prices in early-mid 2018 motivated customers to accelerate delivery of products ahead of price increases. This was compounded by the fact that the price of steel was increasing at a faster rate than other alternative materials like hardwood and concrete. While our addressable market lost market share to these other products, we maintained price discipline and gained market share within our addressable market.

Gross profit for the year ended December 31, 2019 was \$457.7 million, a decrease of \$4.9 million or 1.1% from the year ended October 28, 2018. The decrease in gross profit was driven primarily by lower leverage of fixed cost structure as a result of the lower tonnage volumes partially offset by higher selling prices. As a percentage of net sales, gross profit was 24.8%, an increase of 170 basis points from the year ended October 28, 2018. The increase was driven by a combination of price discipline, cost reduction initiatives and supply chain/procurement initiatives that have driven more discounts and rebates into material costs.

Selling, general and administrative expenses were \$245.4 million, an increase of \$23.7 million or 10.7% from the year ended October 28, 2018. The increase is driven in part by \$21.8 million of general and administrative costs that are allocated to the Commercial segment that were previously categorized as unallocated corporate costs prior to the Merger. After adjusting for the incremental general and administrative costs, the increase was driven by investments in talent and technology within our insulated metal panel and pre-engineered buildings businesses partially offset by the impact of cost initiatives that have been implemented.

Amortization expense for the year ended December 31, 2019 was \$11.3 million, an increase of \$1.6 million from the year ended October 28, 2018. The amortization expense is higher due to the amortization of trade names which were previously classified as indefinite lived.

Loss on disposition of business for the year ended October 28, 2018 was \$5.7 million. During the second quarter of fiscal 2018 we recorded a loss of \$6.7 million on the sale of our China manufacturing facility and during the third quarter of fiscal 2018 we recorded a \$1.0 million gain related to the disposal of a non-strategic product line. There was no corresponding loss in fiscal 2019.

Gain on insurance recovery for the year ended October 28, 2018 was \$4.7 million related to proceeds from a final settlement with our insurers for property damage at one of our facilities. There was no corresponding gain in fiscal 2019.

Siding

(Amounts in thousands)	Fiscal Year Ended					
	December 31, 2019		October 28, 2018			
Statement of operations data:						
Net sales	\$	1,111,407	100.0 %	\$	—	— %
Gross profit		277,583	25.0 %		—	— %
SG&A expense (including acquisition costs)		111,770	10.1 %		—	— %
Amortization of intangible assets		99,540	9.0 %		—	— %
Operating income		66,273	6.0 %		—	— %

Net sales for the year ended December 31, 2019 were \$1,111.4 million. Net sales for the year ended December 31, 2019 were favorably impacted by the inclusion of \$150.5 million for the ESW Acquisition, which closed on February 20, 2019. Excluding ESW, our net sales were \$960.9 million for the year ended December 31, 2019. Our net sales for the U.S. and Canadian markets were approximately \$1,037.1 million and \$74.3 million, respectively, for the year ended December 31, 2019. For the year ended December 31, 2019, foreign currency negatively impacted our net sales by \$2.4 million. As summarized by the VSI, our unit U.S. net sales for the year ended December 31, 2019 were relatively flat compared to the year ended December 31, 2018 resulting in a market share of approximately 37.2% based on the unit data provided by the VSI. For Canada, our market share was approximately 33.2% of the Canadian vinyl siding market. The Canadian economy continues to be challenged with lower consumer spending driving slower economic growth and development.

Gross profit for the year ended December 31, 2019 was \$277.6 million. Gross profit was negatively impacted \$14.4 million by the non-cash inventory fair value step-up associated with the Merger and by \$1.9 million for the non-cash inventory fair value step-up associated with the ESW acquisition that closed on February 20, 2019 both of which increased costs of goods sold during the year ended December 31, 2019. Gross profit for the year ended December 31, 2019 includes ESW gross profit of \$34.1 million. Excluding ESW and the impact of these inventory step-ups, our gross profit would have been \$259.7 million for the year ended December 31, 2019. We historically pass along increases in raw material input costs to our customers but normally there is a lag period of approximately 90-120 days between the impact of higher raw material costs and customer pricing actions. For our Siding segment, we focus predominantly on PVC resin, which increased 2.0%, and aluminum (Midwest Ingot) which decreased 13.5% during the year ended December 31, 2019 compared to the year ended December 31, 2018. In addition to raw material costs, we closely monitor labor and freight costs. Labor costs have trended higher recently given the shortage of manufacturing labor personnel and wage inflation pressure. For the year ended December 31, 2019, foreign currency negatively impacted our gross profit by \$0.7 million.

As a percentage of net sales, our gross profit percentage was 27.0% excluding ESW and the fair value step-up. Our net sales and profitability are normally higher during the second and third quarters due to weather seasonality which increases building activity in both the new construction and repair and remodeling markets. With increased production volumes during the late spring and summer months, our gross profit trends higher during the second and third quarters.

Selling, general, and administrative expenses were \$111.8 million for the year ended December 31, 2019 including \$28.5 million of SG&A expenses attributed to ESW. Included within SG&A expenses are sales and marketing expenses, research and development costs, and legal and professional fees and non-manufacturing personnel costs. As a percentage of net sales, SG&A expenses were 8.7% for the year ended December 31, 2019 excluding ESW.

Amortization expense for the year ended December 31, 2019 was \$99.5 million or 9.0% of net sales. The amortization expense is directly attributed to the Merger and the ESW acquisition and the resulting fair values assigned to our intangible assets including trade names and customer lists which both have finite amortization periods.

Windows

(Amounts in thousands)	Fiscal Year Ended			
	December 31, 2019		October 28, 2018	
Statement of operations data:				
Net sales	\$	1,930,447	100.0 %	\$ — — %
Gross profit		353,089	18.3 %	— — %
SG&A expense (including acquisition costs)		193,791	10.0 %	— — %
Amortization of intangible assets		66,760	3.5 %	— — %
Operating income		92,538	4.8 %	— — %

Net sales for the year ended December 31, 2019 were \$1,930.4 million. Net sales for the year ended December 31, 2019 included net sales of \$419.4 million and \$402.3 million for Silver Line and Atrium, respectively. The Silver Line acquisition was completed on October 14, 2018 while the Atrium acquisition was completed on April 12, 2018 with both entities' net sales included for the Company within the Windows segment for the year ended December 31, 2019. Excluding these 2018 acquisitions, our net sales would have been \$1,108.7 million for the year ended December 31, 2019. Our net sales for the U.S. and Canadian markets were approximately \$1,741.7 million and \$188.7 million, respectively, for the year ended December 31, 2019. For the year ended December 31, 2019, foreign currency negatively impacted our net sales by \$4.1 million.

Gross profit for the year ended December 31, 2019 was \$353.1 million. Gross profit for the year ended December 31, 2019 includes Silver Line gross profit of \$47.4 million and Atrium gross profit of \$98.5 million. The Silver Line acquisition was completed on October 14, 2018 while the Atrium acquisition was completed on April 12, 2018 with both entities' gross profit included for the Company within the Windows segment for the year ended December 31, 2019. Excluding the impact of the Silver Line and Atrium gross profit, our gross profit would have been \$207.2 million for the year ended December 31, 2019. Historically, our gross profit is impacted by raw material costs, specifically PVC resin, aluminum, and glass. PVC resin increased 2.0%, aluminum (Midwest Ingot) decreased 13.5%, and glass increased 1.5% during the year ended December 31, 2019 compared to the year ended December 31, 2018. We pass along increases in raw material input costs to our customers but normally there is a lag period of approximately 90-120 days between the impact of higher raw material costs and customer pricing actions. In addition to raw material costs, we closely monitor labor and freight costs. Labor costs have trended higher recently given the shortage of manufacturing labor personnel and wage inflation pressure. For the year ended December 31, 2019, foreign currency negatively impacted our gross profit by \$1.2 million.

As a percentage of net sales, our gross profit percentage was 18.7% excluding Silver Line and Atrium gross profit. We focused our efforts during 2019 on improving our gross profit margins by investing in automation projects at our manufacturing facilities, maintaining our price discipline in certain competitive markets, and focusing on our customer needs and service proposition and integrating our manufacturing facilities and product profiles. These efforts enabled us to achieve the 18.7% gross profit percentage for the year ended December 31, 2019.

Selling, general, and administrative expenses were \$193.8 million for the year ended December 31, 2019. SG&A expenses for the year ended December 31, 2019 includes \$19.7 million and \$41.9 million of Silver Line and Atrium SG&A expenses, respectively. Excluding the impact of Silver Line and Atrium, SG&A expenses would have been \$132.2 million. Included within SG&A expenses are sales and marketing expenses, research and development costs, and legal and professional fees and non-manufacturing personnel costs. As a percentage of net sales, SG&A expenses were 11.9% for the year ended December 31, 2019 excluding Silver Line and Atrium as we normally gain leverage on the fixed component of SG&A expenses during the second and third quarters.

Amortization expense for the year ended December 31, 2019 was \$66.8 million, or 3.5% of net sales. The amortization expense is directly attributed to the Merger and the fair values assigned to our intangible assets including trade names and customer lists which both have finite amortization periods.

Unallocated Operating Earnings (Losses), Interest, and Provision (Benefit) for Income Taxes

<i>(Amounts in thousands)</i>	Fiscal Year Ended	
	December 31, 2019	October 28, 2018
Statement of operations data:		
SG&A expense	\$ (125,281)	\$ (87,281)
Acquisition related expenses	(19,867)	(17,164)
Operating loss	(145,148)	(104,445)
Interest expense	(229,262)	(21,808)
Interest income	674	140
Currency translation gain (loss)	2,054	(244)
Loss on debt extinguishment	—	(21,875)
Other income, net	1,183	962
Income tax provision (benefit)	4,775	19,989

Unallocated operating losses include items that are not directly attributed to or allocated to our reporting segments. Such items include legal costs, corporate payroll, and unallocated finance and accounting expenses. The unallocated operating loss for the year ended December 31, 2019 increased \$40.7 million or 39.0% compared to the year ended October 28, 2018 due primarily to the addition of the Ply Gem corporate cost center, increased stock-based compensation expense and \$50.2 million of costs associated with the Merger and other strategic acquisition costs.

Interest expense increased to \$229.3 million for the year ended December 31, 2019 compared to \$21.8 million for the year ended October 28, 2018. The interest expense increase is primarily due to debt obligations assumed in the Merger. Following the consummation of the Merger, our consolidated debt balance increased to \$3.2 billion at December 31, 2019 as compared to \$407.2 million at October 28, 2018.

Foreign exchange gain (loss) for the year ended December 31, 2019 was a \$2.1 million gain, compared to a loss of \$0.2 million for the year ended October 28, 2018, due to exchange rate fluctuations in the Canadian dollar and Mexican peso relative to the U.S. dollar.

Loss on debt extinguishment was \$21.9 million for the year ended October 28, 2018. During the year ended October 28, 2018, we recognized a pretax loss, primarily on the extinguishment of our 8.25% senior notes due 2023, of \$21.9 million, of which approximately \$15.5 million represented the call premium paid on the redemption of the notes. There was no corresponding loss in fiscal 2019.

Consolidated provision (benefit) for income taxes was an expense of \$4.8 million for the year ended December 31, 2019 compared to an expense of \$20.0 million for the year ended October 28, 2018. The effective tax rate for the year ended December 31, 2019 was 45.0% compared to 24.1% for the year ended October 28, 2018. The change in the effective tax rate was primarily driven by the continuing effects associated with the enactment of the U.S. Tax Cuts and Jobs Act, limitations on the deduction for net interest expense partially offset by the impact of the reversal of the Canadian valuation allowance for \$3.9 million.

LIQUIDITY AND CAPITAL RESOURCES

General

Our cash, cash equivalents and restricted cash increased from \$54.5 million to \$102.3 million during the transition period ended December 31, 2018 and fiscal 2019. The following table summarizes our consolidated cash flows for fiscal 2019 and 2018, and the Transition Period (in thousands):

	Fiscal Year Ended		
	December 31, 2019	October 28, 2018	October 29, 2018 - December 31, 2018
Net cash provided by operating activities	\$ 229,608	\$ 82,463	\$ 11,099
Net cash provided by (used in) investing activities	(294,758)	(38,174)	73,492
Net cash provided by (used in) financing activities	17,540	(55,473)	9,161
Effect of exchange rate changes on cash and cash equivalents	2,310	(93)	(662)
Net increase (decrease) in cash, cash equivalents and restricted cash	(45,300)	(11,277)	93,090
Cash, cash equivalents and restricted cash at beginning of period	147,607	65,794	54,517
Cash, cash equivalents and restricted cash at end of period	\$ 102,307	\$ 54,517	\$ 147,607

Operating Activities

Our business is both seasonal and cyclical and cash flows from operating activities may fluctuate during the year and from year to year due to economic conditions. We rely on cash as well as short-term borrowings, when needed, to meet cyclical and seasonal increases in working capital needs. These needs generally rise during periods of increased economic activity or due to higher levels of inventory and accounts receivable. Working capital needs also fluctuate based on raw material prices.

Net cash provided by operating activities was \$229.6 million during fiscal 2019 compared to \$82.5 million during fiscal 2018 and \$11.1 million provided during the Transition Period. The change in cash flow provided by operations is due to the inclusion of current period operations from Ply Gem subsequent to the Merger on November 16, 2018 and decreasing inventory that was driven by improved purchasing and lower input costs, partially offset by certain acquisition costs related to the Merger. The improved cash flow from operations during fiscal 2019 is due to the inclusion of current period operations from Ply Gem and ESW subsequent to the Merger and normal seasonal trends in the timing of working capital.

Net cash used in accounts receivable was \$38.2 million for fiscal 2019 compared to \$35.4 million for fiscal 2018. The change in accounts receivable period over period relates to seasonal trends in working capital and timing of collections given the change in fiscal year. Our trailing 90-days sales outstanding ("DSO") was approximately 41.2 days at December 31, 2019 as compared to 39.3 days and 35.2 days at December 31, 2018 and October 28, 2018, respectively.

The change in cash flows relating to inventory for fiscal 2019 was an increase of \$91.8 million compared to a decrease of \$58.5 million for fiscal 2018. The change in inventory period over period relates to lower commodity pricing and improved purchasing combined with increases in net payment discounts from the addition of Ply Gem and ESW in fiscal 2019. Our trailing 90-days inventory on-hand ("DIO") improved to 42.7 days at December 31, 2019 as compared to 54.1 days and 54.9 days at December 31, 2018 and October 28, 2018, respectively.

Net cash used in accounts payable was \$21.1 million for fiscal 2019 compared to \$24.5 million provided for fiscal 2018. Our vendor payments can fluctuate significantly based on the timing of disbursements, inventory purchases and vendor payment terms and the inclusion of the cash provided by accounts payable from Ply Gem in fiscal 2019. Our trailing 90-days payable outstanding (“DPO”) at December 31, 2019 was 20.8 days as compared to 24.0 days and 33.4 days at December 31, 2018 and October 28, 2018, respectively.

Net cash used in accrued expenses was \$40.4 million for fiscal 2019 compared to \$16.3 million net cash provided by accrued expenses for the fiscal year ended October 28, 2018. The change was primarily driven by timing of interest payments and compensation payments.

Investing Activities

Cash used in investing activities was \$294.8 million during fiscal 2019 compared to \$38.2 million used during fiscal 2018 and \$73.5 million provided during the Transition Period. During fiscal 2019, we paid approximately \$179.2 million, net of cash acquired, for the acquisition of Environmental Stoneworks and during the Transition Period we had \$87.1 million of net cash received from the acquisition of Ply Gem. We used \$121.1 million, \$47.8 million and \$13.6 million for capital expenditures, during fiscal 2019 and 2018, and the Transition Period, respectively.

Financing Activities

Cash provided by financing activities was \$17.5 million in fiscal 2019 compared \$55.5 million used in financing activities in fiscal 2018 and \$9.2 million provided by financing activities in the Transition Period. During fiscal 2019, we borrowed \$200.0 million to finance the ESW Acquisition and repaid all but \$70.0 million of that amount, paid \$25.6 million on quarterly installments on our Current Term Loan, made a \$24.9 million payment on the tax receivable agreement and used \$1.9 million for the purchases of shares related to restricted stock that were withheld to satisfy minimum tax withholding obligations arising in connection with the vesting of restricted stock awards and units.

During the Transition Period, we repaid \$325.0 million on the Current ABL Facility, used \$4.1 million for the purchases of shares related to restricted stock that were withheld to satisfy minimum tax withholding obligations arising in connection with the vesting of restricted stock awards and units. Net cash provided in the repayment of the pre-Merger Term Loan Credit Agreement and refinancing of long-term debt in connection with the Merger, including payments of financing costs was \$366.4 million. We also made a \$22.5 million payment on the tax receivable agreement and a \$3.5 million payment for settlements of our appraisal share liability. Finally, we made a \$0.7 million payment for contingent consideration that was originally accrued in purchase accounting in 2015 in connection with Ply Gem’s acquisition of Canyon Stone.

During fiscal 2018, we borrowed periodically under our ABL Facility and repaid all of that amount during the period, used \$51.8 million to repurchase shares of our outstanding common stock under programs approved by the Board of Directors on September 8, 2016 and October 10, 2017 and for the purchases of shares related to restricted stock that were withheld to satisfy minimum tax withholding obligations arising in connection with the vesting of restricted stock awards and units. Net cash used in the redemption of our Senior Notes and refinancing of long-term debt, including payments of financing cost; as well as payments on the refinanced term loan was \$3.2 million. We received \$1.3 million in cash proceeds from the exercises of stock options.

We invest our excess cash in various overnight investments which are issued or guaranteed by the federal government.

Equity Investment

On August 14, 2009, we entered into an Investment Agreement (as amended, the “Investment Agreement”), by and between the us and Clayton, Dubilier & Rice Fund VIII, L.P., a Cayman Islands exempted limited partnership (“CD&R Fund VIII”). In connection with the Investment Agreement and the Stockholders Agreement dated October 20, 2009 (the “Old Stockholders Agreement”), CD&R Fund VIII and CD&R Friends & Family Fund VIII, L.P., a Cayman Islands exempted limited partnership (“CD&R FF Fund” and, together with CD&R Fund VIII, the “CD&R Fund VIII Investor Group”) purchased convertible preferred stock of ours, which was converted into shares of our common stock on May 14, 2013.

In January 2014, the CD&R Fund VIII Investor Group completed a registered underwritten offering, in which the CD&R Fund VIII Investor Group offered 8.5 million shares of Common Stock at a price to the public of \$18.00 per share (the “2014 Secondary Offering”). The underwriters also exercised their option to purchase 1.275 million additional shares of Common Stock. In addition, we entered into an agreement with the CD&R Fund VIII Investor Group to repurchase 1.15 million shares of our Common Stock at a price per share equal to the price per share paid by the underwriters to the CD&R Fund VIII Investor Group in the underwritten offering (the “2014 Stock Repurchase”). The 2014 Stock Repurchase, which was completed at the same time as the 2014 Secondary Offering, represented a private, non-underwritten transaction between NCI and the CD&R Fund VIII Investor Group that was approved and recommended by the Affiliate Transactions Committee of our Board of Directors.

On July 25, 2016, the CD&R Fund VIII Investor Group completed a registered underwritten offering, in which the CD&R Fund VIII Investor Group offered 9.0 million shares of our Common Stock at a price to the public of \$16.15 per share (the “2016 Secondary Offering”). The underwriters also exercised their option to purchase 1.35 million additional shares of our Common Stock from the CD&R Fund VIII Investor Group. The aggregate offering price for the 10.35 million shares sold in the 2016 Secondary Offering was approximately \$160.1 million, net of underwriting discounts and commissions. The CD&R Fund VIII Investor Group received all of the proceeds from the 2016 Secondary Offering and no shares in the 2016 Secondary Offering were sold by us or any of our officers or directors (although certain of our directors are affiliated with the CD&R Fund VIII Investor Group).

On July 18, 2016, we entered into an agreement with the CD&R Fund VIII Investor Group to repurchase approximately 2.9 million shares of our Common Stock at the price per share equal to the price per share paid by the underwriters to the CD&R Fund VIII Investor Group in the underwritten offering (the “2016 Stock Repurchase”). The 2016 Stock Repurchase, which was completed concurrently with the 2016 Secondary Offering, represented a private, non-underwritten transaction between us and the CD&R Fund VIII Investor Group that was approved and recommended by the Affiliate Transactions Committee of our Board of Directors.

On December 11, 2017, the CD&R Fund VIII Investor Group completed a registered underwritten offering of 7,150,000 shares of our Common Stock at a price to the public of \$19.36 per share (the “2017 Secondary Offering”). Pursuant to the underwriting agreement, at the CD&R Fund VIII Investor Group request, we purchased 1.15 million of the 7.15 million shares of our Common Stock from the underwriters in the 2017 Secondary Offering at a price per share equal to the price at which the underwriters purchased the shares from the CD&R Fund VIII Investor Group. The total amount we spent on these repurchases was \$22.3 million.

Ply Gem Holdings was acquired by CD&R Fund X and Atrium Intermediate Holdings, LLC, GGC BP Holdings, LLC and AIC Finance Partnership, L.P. (collectively, the “Golden Gate Investor Group”) and merged with Atrium on April 12, 2018 (the “Ply Gem-Atrium Merger”).

Pursuant to the terms of the Merger Agreement, on November 16, 2018, we entered into (i) a stockholders agreement (the “New Stockholders Agreement”) between us, and each of the CD&R Fund VIII Investor Group, CD&R Pisces Holdings, L.P., a Cayman Islands exempted limited partnership (“CD&R Pisces”, and together with the CD&R Fund VIII Investor Group, the “CD&R Investor Group”) and the Golden Gate Investor Group (together with the CD&R Investor Group, the “Investors”), pursuant to which we granted to the Investors certain governance, preemptive and subscription rights and (ii) a registration rights agreement (the “New Registration Rights Agreement”) between us and each of the Investors, pursuant to which we granted the Investors customary demand and piggyback registration rights, including rights to demand registrations and underwritten shelf registration statement offerings with respect to the shares our Common Stock that are held by the Investors following the consummation of the Merger.

At December 31, 2019 and 2018, the CD&R Investor Group owned approximately 49.1% and 49.4%, respectively, of the outstanding shares of our Common Stock.

Debt

Our outstanding indebtedness will mature in 2023 (Current ABL Facility and Current Cash Flow Revolver), 2025 (Current Term Loan Facility), and 2026 (8.00% Senior Notes). We may not be successful in refinancing, extending the maturity or otherwise amending the terms of such indebtedness because of market conditions, disruptions in the debt markets, our financial performance or other reasons. Furthermore, the terms of any refinancing, extension or amendment may not be as favorable as the current terms of our indebtedness. If we are not successful in refinancing our indebtedness or extending its maturity, we and our subsidiaries could face substantial liquidity problems and may be forced to reduce or delay capital expenditures, sell assets, seek additional capital or restructure our indebtedness. Following consummation of the Merger, the Current Term Loan Facility provided for an aggregate principal amount of \$2,560.0 million. We have also entered into certain interest rate swap agreements to reduce our variable interest rate risk.

The Current ABL Credit Agreement provides for an asset-based revolving credit facility which allows aggregate maximum borrowings by the ABL borrowers of up to \$611.0 million. As set forth in the Current ABL Credit Agreement, extensions of credit under the Current ABL Facility are subject to a monthly borrowing base calculation that is based on specified percentages of the value of eligible inventory, eligible accounts receivable and eligible credit card receivables, less certain reserves and subject to certain other adjustments. Availability under the Current ABL Facility will be reduced by issuance of letters of credit as well as any borrowings outstanding thereunder.

As of December 31, 2019, we had an aggregate principal amount of \$3,238.6 million of outstanding indebtedness, comprising \$70.0 million of borrowings under the Current ABL Facility, \$2,523.6 million of borrowings under our Current Term Loan Facility and \$645.0 million of 8.00% Senior Notes outstanding. We had no revolving loans outstanding under the Current Cash Flow Revolver. Our excess availability under the Current ABL Facility was \$425.9 million as of December 31, 2019. In addition, standby letters of credit related to certain insurance policies totaling approximately \$30.2 million were outstanding but undrawn under the ABL Facility.

For additional information, see Note 12 — *Long-Term Debt* in the notes to the consolidated financial statements.

Cash Flow

We periodically evaluate our liquidity requirements, capital needs and availability of resources in view of inventory levels, expansion plans, debt service requirements and other operating cash needs. To meet our short-term and long-term liquidity requirements, including payment of operating expenses and repayment of debt, we rely primarily on cash from operations. Beyond cash generated from operations, \$425.9 million is available with our Current ABL Facility at December 31, 2019, \$115.0 million is available with our Current Cash Flow Revolver and we have an unrestricted cash balance of \$98.4 million as of December 31, 2019.

We expect to contribute \$5.2 million to the Defined Benefit Plans in fiscal 2020 and \$0.8 million to OPEB Plans in fiscal 2020.

We expect that cash generated from operations and our availability under the ABL Credit Facility will be sufficient to provide us the ability to fund our operations and to provide the increased working capital necessary to support our strategy and fund planned capital expenditures of approximately 2.0%-2.5% of net sales for fiscal 2020 and expansion when needed.

Our corporate strategy evaluates potential acquisitions that would provide additional synergies in our Commercial, Siding and Windows segments. From time to time, we may enter into letters of intent or agreements to acquire assets or companies in these business lines. The consummation of these transactions could require substantial cash payments and/or issuance of additional debt.

From time to time, we have used available funds to repurchase shares of our common stock under our stock repurchase programs. On October 10, 2017 and March 7, 2018, we announced that our Board of Directors authorized new stock repurchase programs for the repurchase of up to an aggregate of \$50.0 million and an additional \$50.0 million, respectively, of our outstanding Common Stock for a cumulative total of \$100.0 million. Under these repurchase programs, we are authorized to repurchase shares, if at all, at times and in amounts that we deem appropriate in accordance with all applicable securities laws and regulations. Shares repurchased are usually retired. There is no time limit on the duration of the programs. During fiscal 2019 and the Transition Period, there were no repurchases under the stock repurchase programs. As of December 31, 2019, approximately \$55.6 million remained available for stock repurchases, all under the programs announced on October 10, 2017 and March 7, 2018. In addition to repurchases of shares of our common stock under our stock repurchase program, we also withhold shares of restricted stock to satisfy minimum tax withholding obligations arising in connection with the vesting of awards of restricted stock related to our 2003 Long-Term Stock Incentive Plan.

We may from time to time take steps to reduce our debt or otherwise improve our financial position. These actions could include prepayments, open market debt repurchases, negotiated repurchases, other redemptions or retirements of outstanding debt, opportunistic refinancing of debt and raising additional capital. The amount of prepayments or the amount of debt that may be refinanced, repurchased or otherwise retired, if any, will depend on market conditions, trading levels of our debt, our cash position, compliance with debt covenants and other considerations. Our affiliates may also purchase our debt from time to time through open market purchases or other transactions. In such cases, our debt may not be retired, in which case we would continue to pay interest in accordance with the terms of the debt, and we would continue to reflect the debt as outstanding on our consolidated balance sheets.

OFF-BALANCE SHEET ARRANGEMENTS

As part of our ongoing business, we do not participate in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities ("SPEs"), which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of December 31, 2019, we were not involved in any unconsolidated SPE transactions.

CONTRACTUAL OBLIGATIONS

The following table shows our contractual obligations as of December 31, 2019 (in thousands):

Contractual Obligation	Payments due by period				
	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Total debt ⁽¹⁾	\$ 3,238,587	\$ 25,600	\$ 121,200	\$ 51,200	\$ 3,040,587
Interest payments on debt ⁽²⁾	1,046,018	191,776	374,803	369,186	110,253
Operating leases	379,852	89,649	143,016	64,842	82,345
Projected pension obligations ⁽³⁾	69,140	7,304	14,462	14,138	33,236
Purchase obligations ⁽⁴⁾	107,743	107,743	—	—	—
Total contractual obligations	\$ 4,841,340	\$ 422,072	\$ 653,481	\$ 499,366	\$ 3,266,421

- (1) Reflects amounts outstanding under the Current ABL Facility, Current Term Loan Facility and the 8.00% Senior Notes and excludes any amounts potentially due under the excess cash flow provisions within the Current Term Loan Facility. Amounts currently drawn on the Current ABL Facility are reflected in the "3-5 years" column consistent with the non-current classification on the consolidated balance sheets. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" for more information on our indebtedness following the Merger.
- (2) Interest payments were calculated based on rates in effect at December 31, 2019 for variable rate obligations.
- (3) Amounts represent our estimate of the minimum funding requirements as determined by government regulations. Amounts are subject to change based on numerous assumptions, including the performance of the assets in the plans and bond rates. Includes obligations with respect to the Company's Defined Benefit Plans and the other post-employment benefit ("OPEB") Plan.
- (4) Purchase obligations are defined as purchase agreements that are enforceable and legally binding and that specify all significant terms, including quantity, price and the approximate timing of the transaction. These obligations are related primarily to inventory purchases under two 2020 contracts that were finalized during 2019.

CONTINGENT LIABILITIES AND COMMITMENTS

Our insurance carriers require us to secure standby letters of credit as a collateral requirement for our projected exposure to future period claims growth and loss development which includes IBNR claims. For all insurance carriers, the total standby letters of credit are approximately \$30.2 million and \$9.0 million at December 31, 2019 and October 28, 2018, respectively.

CRITICAL ACCOUNTING POLICIES

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States, which require us to make estimates and assumptions that affect the reported amounts of assets and liabilities and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those estimates that may have a significant effect on our financial condition and results of operations. Our significant accounting policies are disclosed in Note 2 to our consolidated financial statements. The following discussion of critical accounting policies addresses those policies that are both important to the portrayal of our financial condition and results of operations and require significant judgment and estimates. We base our estimates and judgment on historical experience and on various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

Revenue recognition. We recognize revenue when obligations under the terms of contracts with our customers are satisfied; generally, this occurs upon shipment or when control is transferred. Revenue is measured as the amount of consideration expected to be received in exchange for transferring the goods. In addition, revenue is deferred when cash payments are received or due in advance of performance. In instances where an order is partially shipped, we recognize revenue based on the relative sales value of the materials shipped. Provisions are made upon the sale for estimated product returns. Costs associated with shipping and handling our products are included in cost of sales.

Insurance accruals. We have a self-funded Administrative Services Only (“ASO”) arrangement for our employee group health insurance. We purchase individual stop-loss protection to cap our medical claims liability at \$500,000 per claim. Each reporting period, we record the costs of our health insurance plan, including paid claims, an estimate of the change in in IBNR claims, taxes and administrative fees, when applicable, (collectively the “Plan Costs”) as general and administrative expenses and cost of sales in our consolidated statements of operations. The estimated IBNR claims are based upon (i) a recent average level of paid claims under the plan, (ii) an estimated claims lag factor and (iii) an estimated claims growth factor to provide for those claims that have been incurred but not yet paid. We have deductible programs for our Workers Compensation/Employer Liability and Auto Liability insurance policies, and a self-insured retention (“SIR”) arrangement for our General Liability insurance policy. The Workers Compensation deductible is \$250,000 per occurrence. The Property and Auto Liability deductibles are \$500,000 and \$250,000, respectively, per occurrence. The General Liability has a self-insured retention of \$1,000,000 per occurrence. For workers’ compensation costs, we monitor the number of accidents and the severity of such accidents to develop appropriate estimates for expected costs to provide both medical care and indemnity benefits, when applicable, for the period of time that an employee is incapacitated and unable to work. These accruals are developed using third-party insurance adjuster reserve estimates of the expected cost for medical treatment, and length of time an employee will be unable to work based on industry statistics for the cost of similar disabilities and statutory impairment ratings. For general liability and automobile claims, accruals are developed based on third-party insurance adjuster reserve estimates of the expected cost to resolve each claim, including damages and defense costs, based on legal and industry trends, and the nature and severity of the claim. Accruals also include estimates for IBNR claims, and taxes and administrative fees, when applicable. This statistical information is trended by a third-party actuary to provide estimates of future expected costs based on loss development factors derived from our period-to-period growth of our claims costs to full maturity (ultimate), versus original estimates.

We believe that the assumptions and information used to develop these accruals provide the best basis for these estimates because, as a general matter, the accruals historically have proved to be reasonable and accurate. However, significant changes in expected medical and health care costs, negative changes in the severity of previously reported claims or changes in laws that govern the administration of these plans could have an impact on the determination of the amount of these accruals in future periods. Our methodology for determining the amount of health insurance accrual considers claims growth and claims lag, which is the length of time between the incurred date and processing date.

Warranty. The Company sells a number of products and offers a number of warranties. The specific terms and conditions of these warranties vary depending on the product sold. The Company’s warranty liabilities are undiscounted and adjusted for inflation based on third party actuarial estimates. Factors that affect the Company’s warranty liabilities include the number of units sold, historical and anticipated rates of warranty claims, cost per claim and new product introduction. Warranties are normally limited to replacement or service of defective components for the original customer. Some warranties are transferable to subsequent owners and are generally limited to ten years from the date of manufacture or require pro-rata payments from the customer. A provision for estimated warranty costs is recorded based on historical experience and the Company periodically adjusts these provisions to reflect actual experience. Warranty costs are included within cost of goods sold. The Company assesses the adequacy of the recorded warranty claims and adjusts the amounts as necessary. Separately, upon the sale of a weathertightness warranty in the Commercial segment, the Company records the resulting revenue as deferred revenue, which is included in other accrued expenses and other long-term liabilities on the consolidated balance sheets depending on when the revenues are expected to be recognized.

Share-Based Compensation. Under FASB Accounting Standards Codification (“ASC”) Topic 718, *Compensation — Stock Compensation*, the fair value and compensation expense of each option award is estimated as of the date of grant using a Black-Scholes-Merton option pricing formula. The fair value and compensation expense of the performance share units (“PSUs”) grant is estimated based on the Company’s stock price as of the date of grant using a Monte Carlo simulation. Expected volatility is based on historical volatility of our stock over a preceding period commensurate with the expected term of the option. The expected volatility considers factors such as the volatility of our share price, implied volatility of our share price, length of time our shares have been publicly traded, appropriate and regular intervals for price observations and our corporate and capital structure. With the adoption of ASU 2016-09 in the first quarter of fiscal 2018, we account for forfeitures of outstanding but unvested grants in the period they occur. For the fiscal year ended October 29, 2017, the forfeiture rate in our calculation of share-based compensation expense was based on historical experience and was estimated at 5.0% for our non-officers and 0% for our officers. The risk-free rate for the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant. Expected dividend yield was not considered in the option pricing formula since we historically have not paid dividends on our common shares and have no current plans to do so in the future.

Income taxes. The determination of our provision for income taxes requires significant judgment, the use of estimates and the interpretation and application of complex tax laws. The amount recorded in our consolidated financial statements reflects estimates of final amounts due to timing of completion and filing of actual income tax returns. Estimates are required with respect to, among other things, the appropriate state income tax rates used in the various states in which we and our subsidiaries are required to file, the potential utilization of operating and capital loss carry-forwards for federal, state, and foreign income tax purposes and valuation allowances required, if any, for tax assets that may not be realized in the future. We establish reserves when, despite our belief that our tax return positions are fully supportable, certain positions could be challenged, and the positions may not be fully sustained. Our provision for income taxes reflects a combination of income earned and taxed in the various U.S. federal and state, Canadian federal and provincial, Mexican federal, and other jurisdictions. Jurisdictional tax law changes, increases or decreases in permanent differences between book and tax items, accruals or adjustments of accruals for tax contingencies or valuation allowances, and the change in the mix of earnings from these taxing jurisdictions all affect the overall effective tax rate.

As of December 31, 2019, the \$60.9 million net operating loss carryforward included \$32.6 million for U.S. federal losses, \$11.6 million for U.S. state losses and \$16.7 million for foreign losses. A portion of the state net operating loss carryforwards will expire in 2020, if unused and the foreign loss carryforward will begin to expire in fiscal 2028, if unused.

Accounting for acquisitions, intangible assets and goodwill. Accounting for the acquisition of a business requires the allocation of the purchase price to the various assets and liabilities of the acquired business. For most assets and liabilities, purchase price allocation is accomplished by recording the asset or liability at its estimated fair value. The most difficult estimations of individual fair values are those involving property, plant and equipment and identifiable intangible assets. We use all available information to make these fair value determinations and, for major business acquisitions, typically engage an outside appraisal firm to assist in the fair value determination of the acquired long-lived assets.

The Company has approximately \$1,669.6 million of goodwill as of December 31, 2019, of which approximately \$148.3 million pertains to our Commercial segment, \$807.3 million pertains to our Siding segment, and \$714.0 million pertains to our Windows segment. We perform an annual impairment assessment of goodwill and indefinite-lived intangibles. Additionally, we assess goodwill and indefinite-lived intangibles for impairment whenever events or changes in circumstances indicate that the fair values may be below the carrying values of such assets. Unforeseen events, changes in circumstances and market conditions and material differences in the value of intangible assets due to changes in estimates of future cash flows could negatively affect the fair value of our assets and result in a non-cash impairment charge. Some factors considered important that could trigger an impairment review include the following: significant underperformance 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 and significant sustained negative industry or economic trends.

The fair value of our reporting units is based on a blend of estimated discounted cash flows and publicly traded company multiples. A significant reduction in projected sales and earnings which would lead to a reduction in future cash flows could indicate potential impairment. The results from each of these models are then weighted and combined into a single estimate of fair value for our reporting units. Estimated discounted cash flows are based on projected sales and related cost of sales. Publicly traded company multiples and acquisition multiples are derived from information on traded shares and analysis of recent acquisitions in the marketplace, respectively, for companies with operations similar to ours. The primary assumptions used in these various models include earnings multiples of acquisitions in a comparable industry, future cash flow estimates of each of the reporting units, weighted average cost of capital, working capital and capital expenditure requirements. During fiscal 2017, management early adopted the new accounting principle that simplified the test for goodwill impairment by eliminating the second step of the goodwill test. Management does not believe the estimates used in the analysis are reasonably likely to change materially in the future, but we will continue to assess the estimates in the future based on the expectations of the reporting units. Changes in assumptions used in the fair value calculation could result in an estimated reporting unit fair value that is below the carrying value, which may result in an impairment of goodwill.

We completed our annual goodwill impairment test as of September 29, 2019 for each of our reporting units. We have the option of performing an assessment of certain qualitative factors to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying value or proceeding directly to a quantitative impairment test. We elected to apply the quantitative assessment for the goodwill impairment test for our reporting units within each of our operating segments as of September 29, 2019.

A summary of the key assumptions utilized in the goodwill impairment analysis at September 29, 2019, as it relates to the fair values and the sensitivities for these assumptions follows:

	As of September 29, 2019					
	Engineered Building Systems	Metal Components	Insulated Metal Panels	Metal Coil Coating	Siding	Windows
Assumptions:						
Income Approach:						
Terminal growth rate	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.5 %
Discount rate	14.0 %	14.0 %	14.5 %	13.0 %	10.5 %	15.0 %
Market approach:						
Control premiums	5.0 %	5.0 %	5.0 %	5.0 %	— %	— %
Sensitivities						
<i>(amounts in thousands)</i>						
Estimated fair value decrease in the event of a 1% decrease in the terminal year growth	\$ 20,700	\$ 24,100	\$ 22,600	\$ 7,200	\$ 178,300	\$ 73,100
Estimated fair value decrease in the event of a 1% decrease in the discount rate	35,000	40,300	38,700	12,100	251,000	124,100
Estimated fair value decrease in the event of a 1% decrease in the control premium	4,100	4,600	4,800	1,400	n/a	n/a

Overall, we utilize the same key assumptions in preparing the prospective financial information (“PFI”) utilized in the discounted cash flow test for the reporting units. However, each reporting unit is impacted differently by industry trends, how market factors are influencing the reporting units’ expected performance, competition, and other unique business factors as mentioned above.

	As of September 29, 2019	
Estimated Engineered Building Systems reporting unit fair value increase (decrease) in the event of a 10% increase in the weighting of the market multiples method	\$	1,200
Estimated Metal Components reporting unit fair value increase (decrease) in the event of a 10% increase in the weighting of the market multiples method	\$	(1,900)
Estimated Insulated Metal Panels reporting unit fair value increase (decrease) in the event of a 10% increase in the weighting of the market multiples method	\$	1,000
Estimated Metal Coil Coating reporting unit fair value increase (decrease) in the event of a 10% increase in the weighting of the market multiples method	\$	700
Estimated Windows reporting unit fair value increase (decrease) in the event of a 10% increase in the weighting of the market multiples method	\$	(700)
Estimated Siding reporting unit fair value increase (decrease) in the event of a 10% increase in the weighting of the market multiples method	\$	(6,100)

The Company’s annual goodwill impairment tests performed as of September 29, 2019 indicated no impairment. The Company’s estimate of the fair value of its Engineered Building Systems, Metal Components, Insulated Metal Panels, Metal Coil Coaters, Siding and Windows reporting units exceeded their 2019 carrying values by approximately 244%, 206%, 57%, 8%, 12% and 3%, respectively.

We provide no assurance that: (1) valuation multiples will not decline, (2) discount rates will not increase, or (3) the earnings, book values or projected earnings and cash flows of our reporting units will not decline. We will continue to analyze changes to these assumptions in future periods. We will continue to evaluate goodwill during future periods and future declines in the residential housing and remodeling markets and nonresidential markets as well as good economic conditions could result in future goodwill impairments.

Allowance for doubtful accounts. Our allowance for doubtful accounts reflects reserves for customer receivables to reduce receivables to amounts expected to be collected. Management uses significant judgment in estimating uncollectible amounts. In estimating uncollectible accounts, management considers factors such as current overall economic conditions, industry-specific economic conditions, historical customer performance and anticipated customer performance. While we believe these processes effectively address our exposure for doubtful accounts and credit losses have historically been within expectations, changes in the economy, industry, or specific customer conditions may require adjustments to the allowance for doubtful accounts. In fiscal 2019, 2018 and 2017, we established new reserves (net of recoveries of previously written off balances) for doubtful accounts of \$2.0 million, \$(0.5) million and \$1.9 million, respectively. In fiscal years 2019, 2018 and 2017, we wrote off uncollectible accounts, net of recoveries, of \$2.8 million, \$1.6 million and \$1.0 million, respectively, all of which had been previously reserved.

Inventory valuation. In determining the valuation of inventory, we record an allowance for obsolete inventory using the specific identification method for our inventory. Management also reviews the carrying value of inventory for lower of cost or net realizable value. Our primary raw materials are steel coils which have historically shown significant price volatility as well as PVC resin, glass and aluminum. We generally manufacture to customers' orders, and thus maintain raw materials with a variety of ultimate end uses. We record a lower of cost or net realizable value charge to cost of sales when the net realizable value (selling price less estimated cost of disposal), based on our intended end usage, is below our estimated product cost at completion. Estimated net realizable value is based upon assumptions of targeted inventory turn rates, future demand, anticipated finished goods sales prices, management strategy and market conditions for steel, PVC resin, aluminum and glass. If projected end usage or projected sales prices change significantly from management's current estimates or actual market conditions are less favorable than those projected by management, inventory write-downs may be required.

Property, plant and equipment valuation. We assess the recoverability of the carrying amount of property, plant and equipment for assets held and used at the lowest level asset grouping for which cash flows can be separately identified, which may be at an individual asset level, plant level or divisional level depending on the intended use of the related asset, if certain events or changes in circumstances indicate that the carrying value of such asset groups may not be recoverable and the undiscounted cash flows estimated to be generated by those asset groups are less than the carrying amount of those asset groups. Events and circumstances which indicate an impairment include (a) a significant decrease in the market value of the asset groups; (b) a significant change in the extent or manner in which an asset group is being used or in its physical condition; (c) a significant change in our business conditions; (d) an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of an asset group; (e) a current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection that demonstrates continuing losses associated with the use of an asset group; or (f) a current expectation that, more likely than not, an asset group will be sold or otherwise disposed of significantly before the end of its previously estimated useful life. We assess our asset groups for any indicators of impairment on at least a quarterly basis.

If we determine that the carrying value of an asset group is not recoverable based on expected undiscounted future cash flows, excluding interest charges, we record an impairment loss equal to the excess of the carrying amount of the asset group over its fair value. The fair value of asset groups is determined based on prices of similar assets adjusted for their remaining useful life.

Contingencies. We establish reserves for estimated loss contingencies when we believe a loss is probable and the amount of the loss can be reasonably estimated. Our contingent liability reserves are related primarily to litigation and environmental matters. Legal costs for uninsured claims are accrued as part of the ultimate settlement. Revisions to contingent liability reserves are reflected in operations in the period in which there are changes in facts and circumstances that affect our previous assumptions with respect to the likelihood or amount of loss. Reserves for contingent liabilities are based upon our assumptions and estimates regarding the probable outcome of the matter. We estimate the probable cost by evaluating historical precedent as well as the specific facts relating to each particular contingency (including the opinion of outside advisors, professionals and experts). Should the outcome differ from our assumptions and estimates or other events result in a material adjustment to the accrued estimated reserves, revisions to the estimated reserves for contingent liabilities would be required and would be recognized in the period the new information becomes known.

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 3 — *Accounting Pronouncements* in the notes to the consolidated financial statements for information on recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Commercial Business

We are subject to market risk exposure related to volatility in the price of steel. For the fiscal year ended December 31, 2019, material costs (predominantly steel costs) constituted approximately 63% of our Commercial segment cost of sales. Our business is heavily dependent on the price and supply of steel. Our various products are fabricated from steel produced by mills to forms including bars, plates, structural shapes, sheets, hot-rolled coils and galvanized or Galvalume®-coated coils (Galvalume® is a registered trademark of BIEC International, Inc.). The steel industry is highly cyclical in nature, and steel prices have been volatile in recent years and may remain volatile in the future. Steel prices are influenced by numerous factors beyond our control, including general economic conditions domestically and internationally, the availability of raw materials, competition, labor costs, freight and transportation costs, production costs, import duties and other trade restrictions. Based on the cyclical nature of the steel industry, we expect steel prices will continue to be volatile.

With material costs (predominantly steel costs) accounting for approximately 63% of our Commercial segment cost of sales for fiscal 2019, a one percent change in the cost of steel could have resulted in a pre-tax impact on cost of sales of approximately \$8.8 million for our fiscal year ended December 31, 2019. The impact to our financial results of operations of such an increase would be significantly dependent on the competitive environment and the costs of other alternative building products, which could impact our ability to pass on these higher costs.

Siding and Windows Businesses

We are subject to market risk with respect to the pricing of our principal raw materials, which include PVC resin, aluminum and glass. If prices of these raw materials were to increase dramatically, we may not be able to pass such increases on to our customers and, as a result, gross margins could decline significantly. We manage the exposure to commodity pricing risk by increasing our selling prices for corresponding material cost increases, continuing to diversify our product mix, strategic buying programs and vendor partnering. The average market price for PVC resin was estimated to have increased approximately 2.0% for the fiscal year ended December 31, 2019 compared to the twelve months ended December 31, 2018.

Other Commodity Risks

In addition to market risk exposure related to the volatility in the price of steel, we are subject to market risk exposure related to volatility in the price of natural gas. As a result, we occasionally enter into both index-priced and fixed-price contracts for the purchase of natural gas. We have evaluated these contracts to determine whether the contracts are derivative instruments. Certain contracts that meet the criteria for characterization as a derivative instrument may be exempted from hedge accounting treatment as normal purchases and normal sales and, therefore, these forward contracts are not marked to market. At December 31, 2019, all our contracts for the purchase of natural gas met the scope exemption for normal purchases and normal sales.

Interest Rates

We are subject to market risk exposure related to changes in interest rates on our Term Loan Credit Facility and Current ABL Credit Facility. These instruments bear interest at an agreed upon percentage point spread from either the prime interest rate or LIBOR. Under our Term Loan Credit Facility, we may, at our option, fix the interest rate for certain borrowings based on a spread over LIBOR for 30 days to six months. At December 31, 2019, we had \$2,523.6 million outstanding under our Term Loan Credit Facility. Based on this balance, a one percent change in the interest rate would cause a change in interest expense of approximately \$25.2 million on an annual basis. The fair value of our Term Loan Credit Facility at December 31, 2019 and December 31, 2018 was approximately \$2,514.9 million and \$2,319.8 million, respectively, compared to the face value of \$2,523.6 million and \$2,549.2 million, respectively. During the year ended December 31, 2019, we entered into cash flow interest rate swap hedge contracts for \$1.5 billion to mitigate the exposure risk of our floating interest rate debt. The interest rate swaps effectively convert a portion of the floating rate interest payment into a fixed rate payment. At December 31, 2019, our cash flow hedge contracts had a fair value liability of \$30.0 million and is recorded as a non-current liability as of December 31, 2019 in our consolidated balance sheets.

See Note 12 — *Long-Term Debt* in the notes to the consolidated financial statements for more information on the material terms of our long-term debt.

Foreign Currency Exchange Rates

We are exposed to the effect of exchange rate fluctuations on the U.S. dollar value of foreign currency denominated operating revenue and expenses. The functional currency for our Mexico operations is the U.S. dollar. Adjustments resulting from the re-measurement of the local currency financial statements into the U.S. dollar functional currency, which uses a combination of current and historical exchange rates, are included in net income (loss) in the current period. Net foreign

currency re-measurement gains (losses) were \$0.9 million, \$(0.3) million and \$(0.1) million for fiscal 2019 and 2017, and the transition period ended December 31, 2018, respectively. For fiscal 2018, the net foreign currency re-measurement gain (loss) was insignificant.

The functional currency for our Canadian operations is the Canadian dollar. Translation adjustments resulting from translating the functional currency financial statements into U.S. dollar equivalents are reported separately in accumulated other comprehensive income in stockholders' equity. The net foreign currency exchange gains (losses) included in net income (loss) for fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, were \$1.2 million, \$(0.2) million, \$0.8 million and \$(1.6) million, respectively. Net foreign currency translation adjustment, net of tax, and included in other comprehensive income (loss) was \$3.2 million, \$(0.1) million, \$0.2 million and \$(4.2) million for fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, respectively.

Labor Force Risk

Our manufacturing process is highly engineered but involves manual assembly, fabrication, and manufacturing processes. We believe that our success depends upon our ability to employ, train, and retain qualified personnel with the ability to design, utilize, and enhance these services and products. In addition, our ability to expand our operations depends in part on our ability to increase our labor force as the residential and nonresidential construction markets continue to recover and minimize labor inefficiencies. A significant increase in the wages paid by competing employers could result in a reduction of our labor force, increases in the wage rates that we must pay, or both. If either of these events were to occur, our cost structure could increase, our margins could decrease, and any growth potential could be impaired.

Item 8. *Financial Statements and Supplementary Data.*

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of Cornerstone Building Brands, Inc. (the "Company" or "our") is responsible for establishing and maintaining adequate internal control over financial reporting for the Company as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. The Company's internal control system was designed to provide reasonable assurance to the Company's management and Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Internal control over financial reporting includes the controls themselves, monitoring (including internal auditing practices), and actions taken to correct deficiencies as identified.

Internal control over financial reporting has inherent limitations and may not prevent or detect misstatements. The design of an internal control system is also based in part upon assumptions and judgments made by management about the likelihood of future events, and there can be no assurance that an internal control will be effective under all potential future conditions. Therefore, even those systems determined to be effective can provide only reasonable, not absolute, assurance with respect to the financial statement preparation and presentation. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria for internal control over financial reporting described in *Internal Control — Integrated Framework* by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Management's assessment included an evaluation of the design of the Company's internal control over financial reporting and testing of the operating effectiveness of its internal control over financial reporting. Management reviewed the results of its assessment with the Audit Committee of the Company's Board of Directors. Based on this assessment, management has concluded that, as of December 31, 2019, the Company's internal control over financial reporting was effective.

Grant Thornton LLP, the independent registered public accounting firm that has audited the Company's consolidated financial statements, has audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, as stated in their report included elsewhere herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
Cornerstone Building Brands, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Cornerstone Building Brands, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2019, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2019, and our report dated March 3, 2020 expressed an unqualified opinion on those financial statements.

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/ GRANT THORNTON LLP

Raleigh, North Carolina

March 3, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
Cornerstone Building Brands, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cornerstone Building Brands, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), changes in stockholders’ equity, and cash flows for the year ended December 31, 2019 and for the period from October 29, 2018 to December 31, 2018, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for the year ended December 31, 2019 and for the period from October 29, 2018 to December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

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, 2019, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated March 3, 2020 expressed an unqualified opinion.

Change in accounting principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for leases in 2019 due to the adoption of Accounting Standards Update 2016-02, *Leases (Topic 842)*.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s 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 supporting 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/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2018.

Raleigh, North Carolina

March 3, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Cornerstone Building Brands, Inc. (formerly named NCI Building Systems, Inc.)

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows of Cornerstone Building Brands, Inc. (formerly named NCI Building Systems, Inc. (the "Company")) for each of the two years in the period ended October 28, 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 results of the Company's operations and its cash flows for each of the two years in the period ended October 28, 2018, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 served as the Company's auditor from 1991 to 2019.

Houston, Texas

December 19, 2018, except with respect to the effects of the change in the composition of reportable segments, change in the income statement presentation of service cost and other components for defined benefit pension and other postretirement benefit plans, and change in presentation of restricted cash in the statement of cash flows as discussed in Notes 1, 3, and 20 as to which the date is February 19, 2019

CORNERSTONE BUILDING BRANDS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Sales	\$ 4,889,747	\$ 2,000,577	\$ 1,770,278	\$ 559,870
Cost of sales	3,801,328	1,537,895	1,354,214	475,780
Gross profit	1,088,419	462,682	416,064	84,090
Selling, general and administrative expenses	627,861	307,106	293,145	95,783
Intangible asset amortization	177,577	9,648	9,620	20,132
Goodwill impairment	—	—	6,000	—
Restructuring and impairment charges, net	18,060	1,912	5,297	1,253
Strategic development and acquisition related costs	50,185	17,164	1,971	29,094
Loss on disposition of business	—	5,673	—	1,244
Gain on insurance recovery	—	(4,741)	(9,749)	—
Income (loss) from operations	214,736	125,920	109,780	(63,416)
Interest income	674	140	238	68
Interest expense	(229,262)	(21,808)	(28,899)	(28,556)
Foreign exchange gain (loss)	2,054	(244)	547	(1,713)
Loss on extinguishment of debt	—	(21,875)	—	(3,284)
Other income, net	1,183	962	1,472	44
Income (loss) before income taxes	(10,615)	83,095	83,138	(96,857)
Provision (benefit) for income taxes	4,775	19,989	28,414	(20,667)
Net income (loss)	\$ (15,390)	\$ 63,106	\$ 54,724	\$ (76,190)
Net income allocated to participating securities	—	(412)	(325)	—
Net income (loss) applicable to common shares	\$ (15,390)	\$ 62,694	\$ 54,399	\$ (76,190)
Income (loss) per common share:				
Basic	\$ (0.12)	\$ 0.95	\$ 0.77	\$ (0.71)
Diluted	\$ (0.12)	\$ 0.94	\$ 0.77	\$ (0.71)
Weighted average number of common shares outstanding:				
Basic	125,576	66,260	70,629	107,813
Diluted	125,576	66,362	70,778	107,813

See accompanying notes to the consolidated financial statements.

CORNERSTONE BUILDING BRANDS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Comprehensive income (loss):				
Net income (loss)	\$ (15,390)	\$ 63,106	\$ 54,724	\$ (76,190)
Other comprehensive income (loss), net of tax:				
Foreign exchange translation gains (losses)	3,211	(93)	198	(4,212)
Unrealized loss on derivative instruments, net of income tax of \$7,176, \$0, \$0 and \$0, respectively	(22,812)	—	—	(549)
Unrecognized actuarial gains (losses) on pension obligation, net of income tax of \$513, \$(322), \$(1,805) and \$138, respectively	(1,984)	916	2,824	656
Other comprehensive income (loss)	(21,585)	823	3,022	(4,105)
Comprehensive income (loss)	<u>\$ (36,975)</u>	<u>\$ 63,929</u>	<u>\$ 57,746</u>	<u>\$ (80,295)</u>

See accompanying notes to the consolidated financial statements.

CORNERSTONE BUILDING BRANDS, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 98,386	\$ 143,847
Restricted cash	3,921	3,760
Accounts receivable, net	491,740	438,505
Inventories, net	439,194	536,675
Income taxes receivable	48,466	1,027
Investments in debt and equity securities, at market	3,776	3,414
Prepaid expenses and other	78,516	69,291
Assets held for sale	1,750	7,272
Total current assets	1,165,749	1,203,791
Property, plant and equipment, net	652,841	614,007
Lease right-of-use assets	316,155	—
Goodwill	1,669,594	1,640,211
Intangible assets, net	1,740,700	1,669,901
Deferred income taxes	7,510	1,198
Other assets, net	11,797	12,079
Total assets	\$ 5,564,346	\$ 5,141,187
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 25,600	\$ 25,600
Payable pursuant to a tax receivable agreement	—	24,760
Accounts payable	205,629	220,857
Accrued compensation and benefits	92,130	72,630
Accrued interest	19,070	41,185
Current portion of lease liabilities	72,428	—
Other accrued expenses	233,687	265,138
Total current liabilities	648,544	650,170
Long-term debt	3,156,924	3,085,163
Deferred income taxes	291,987	295,675
Long-term lease liabilities	243,780	—
Other long-term liabilities	287,793	150,197
Total long-term liabilities	3,980,484	3,531,035
Stockholders' equity:		
Common stock, \$0.01 par value, 200,000,000 shares authorized; 126,110,000 and 125,583,159 shares issued at December 31, 2019 and 2018, respectively; and 126,054,487 and 125,472,260 shares outstanding at December 31, 2019 and 2018, respectively	1,261	1,256
Additional paid-in capital	1,248,787	1,237,056
Accumulated deficit	(281,229)	(265,839)
Accumulated other comprehensive loss, net	(32,398)	(10,813)
Treasury stock, at cost; 55,513 and 110,899 shares at December 31, 2019 and 2018, respectively	(1,103)	(1,678)
Total stockholders' equity	935,318	959,982
Total liabilities and stockholders' equity	\$ 5,564,346	\$ 5,141,187

See accompanying notes to the consolidated financial statements.

CORNERSTONE BUILDING BRANDS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Cash flows from operating activities:				
Net income (loss)	\$ (15,390)	\$ 63,106	\$ 54,724	\$ (76,190)
Adjustments to reconcile net income (loss) to net cash from operating activities:				
Depreciation and amortization	263,764	42,325	41,318	30,936
Non-cash interest expense	8,504	1,501	1,819	1,472
Loss on extinguishment of debt	—	21,875	—	3,284
Share-based compensation expense	14,078	11,638	10,230	4,457
Loss on disposition of business, net	—	5,092	—	—
Gain on insurance recovery	—	(4,741)	(9,749)	—
Non-cash fair value premium on purchased inventory	16,249	—	—	21,617
Losses (gains) on asset sales, net	321	(502)	1,371	—
Goodwill impairment	—	—	6,000	—
Provision for doubtful accounts	2,035	(491)	1,948	(786)
Deferred income taxes	(6,085)	(889)	866	(21,719)
Changes in operating assets and liabilities, net of effect of acquisitions:				
Accounts receivable	(38,242)	(35,397)	(19,582)	141,668
Inventories	91,822	(58,534)	(11,473)	98
Income taxes	(32,719)	2,605	(2,637)	(11,107)
Prepaid expenses and other	(10,279)	(5,479)	(2,271)	18,749
Accounts payable	(21,141)	24,465	4,858	(88,493)
Accrued expenses	(40,403)	16,284	(12,320)	(13,963)
Other, net	(2,906)	(395)	(1,228)	1,076
Net cash provided by operating activities	229,608	82,463	63,874	11,099
Cash flows from investing activities:				
Acquisitions, net of cash acquired	(179,184)	—	—	87,078
Capital expenditures	(121,085)	(47,827)	(22,074)	(13,586)
Proceeds from sale of property, plant and equipment	5,511	6,338	3,197	—
Business disposition, net	—	(1,426)	—	—
Proceeds from insurance	—	4,741	8,593	—
Net cash provided by (used in) investing activities	(294,758)	(38,174)	(10,284)	73,492
Cash flows from financing activities:				
Proceeds from stock options exercised	—	1,279	1,651	—
Proceeds from ABL facility	290,000	100,000	35,000	—
Payments on ABL facility	(220,000)	(100,000)	(35,000)	(325,000)
Proceeds from term loan	—	415,000	—	802,987
Payments on term loan	(25,620)	(146,221)	(10,180)	(419,330)
Payments on senior notes	—	(265,470)	—	—
Payments on note payable	—	(1,742)	(1,570)	(497)
Payments of financing costs	—	(6,546)	—	(17,217)
Payments related to tax withholding for share-based compensation	(1,934)	(5,068)	(2,389)	(4,128)
Purchases of treasury stock	—	(46,705)	(41,214)	—
Payment of debt extinguishment costs	—	—	—	(919)
Cash paid for settlement of appraisal shares	—	—	—	(3,531)
Payments on tax receivable agreement	(24,906)	—	—	(22,504)
Payments on contingent consideration	—	—	—	(700)
Net cash provided by (used in) financing activities	17,540	(55,473)	(53,702)	9,161
Effect of exchange rate changes on cash and cash equivalents	2,310	(93)	194	(662)
Net increase (decrease) in cash, cash equivalents and restricted cash	(45,300)	(11,277)	81	93,090
Cash, cash equivalents and restricted cash at beginning of period	147,607	65,794	65,713	54,517
Cash, cash equivalents and restricted cash at end of period	\$ 102,307	\$ 54,517	\$ 65,794	\$ 147,607
Supplemental disclosure of cash flow information:				
Interest paid, net of amounts capitalized	\$ 240,063	\$ 24,841	\$ 27,659	\$ 4,147
Taxes paid, net of amounts refunded (excluding tax receivable agreement payments)	\$ 51,001	\$ 5,972	\$ 28,980	\$ 2,488

See accompanying notes to the consolidated financial statements.

CORNERSTONE BUILDING BRANDS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Treasury Stock		Stockholders' Equity
	Shares	Amount				Shares	Amount	
Balance, October 30, 2016	71,581,273	\$ 715	\$ 603,120	\$ (302,706)	\$ (10,553)	(775,071)	\$ (9,259)	\$ 281,317
Treasury stock purchases	—	—	—	—	—	(2,957,838)	(43,603)	(43,603)
Retirement of treasury shares	(3,443,448)	(34)	(50,553)	—	—	3,443,448	50,587	—
Issuance of restricted stock	356,701	4	(4)	—	—	(19,806)	—	—
Stock options exercised	182,923	2	1,651	—	—	—	—	1,653
Excess tax benefits from share-based compensation arrangements	—	—	1,515	—	—	—	—	1,515
Foreign exchange translation gains and other, net of taxes	—	—	(3,547)	(64)	198	—	—	(3,413)
Deferred compensation obligation	235	—	(135)	—	—	18,139	135	—
Unrecognized actuarial gains on pension obligations	—	—	—	—	2,824	—	—	2,824
Share-based compensation	—	—	10,230	—	—	—	—	10,230
Net income	—	—	—	54,724	—	—	—	54,724
Balance, October 29, 2017	68,677,684	\$ 687	\$ 562,277	\$ (248,046)	\$ (7,531)	(291,128)	\$ (2,140)	\$ 305,247
Treasury stock purchases	—	—	—	—	—	(2,938,974)	(51,773)	(51,773)
Retirement of treasury shares	(2,938,974)	(29)	(51,743)	—	—	2,938,974	51,772	—
Issuance of restricted stock	410,520	4	(4)	—	—	181,439	—	—
Stock options exercised	115,424	1	1,278	—	—	—	—	1,279
Foreign exchange translation losses and other, net of taxes	—	—	(55)	—	(93)	—	—	(148)
Deferred compensation obligation	—	—	(954)	—	—	48,876	954	—
Unrecognized actuarial gains on pension obligations	—	—	—	—	916	—	—	916
Share-based compensation	—	—	11,638	—	—	—	—	11,638
Cumulative effect of accounting change	—	—	1,351	(1,351)	—	—	—	—
Net income	—	—	—	63,106	—	—	—	63,106
Balance, October 28, 2018	66,264,654	\$ 663	\$ 523,788	\$ (186,291)	\$ (6,708)	(60,813)	\$ (1,187)	\$ 330,265
Treasury stock purchases	—	—	—	—	—	(347,040)	(4,128)	(4,128)
Retirement of treasury shares	(296,954)	(3)	(3,634)	—	—	296,954	3,637	—
Issuance of restricted stock	977,226	10	(10)	—	—	—	—	—
Issuance of common stock for the Ply Gem merger	58,638,233	586	712,455	—	—	—	—	713,041
Other comprehensive loss	—	—	—	—	(4,105)	—	—	(4,105)
Share-based compensation	—	—	4,457	—	—	—	—	4,457
Cumulative effect of accounting change	—	—	—	(3,358)	—	—	—	(3,358)
Net loss	—	—	—	(76,190)	—	—	—	(76,190)
Balance, December 31, 2018	125,583,159	\$ 1,256	\$ 1,237,056	\$ (265,839)	\$ (10,813)	(110,899)	\$ (1,678)	\$ 959,982
Treasury stock purchases	—	—	—	—	—	(256,857)	(1,934)	(1,934)
Retirement of treasury shares	(306,531)	(3)	(2,420)	—	—	306,531	2,423	—
Issuance of restricted stock	819,641	8	(8)	—	—	—	—	—
Issuance of common stock for the Ply Gem merger	13,731	—	167	—	—	—	—	167
Other comprehensive loss	—	—	—	—	(21,585)	—	—	(21,585)
Deferred compensation obligation	—	—	(86)	—	—	5,712	86	—
Share-based compensation	—	—	14,078	—	—	—	—	14,078
Net loss	—	—	—	(15,390)	—	—	—	(15,390)
Balance, December 31, 2019	126,110,000	\$ 1,261	\$ 1,248,787	\$ (281,229)	\$ (32,398)	(55,513)	\$ (1,103)	\$ 935,318

See accompanying notes to the consolidated financial statements.

CORNERSTONE BUILDING BRANDS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. NATURE OF BUSINESS AND BASIS OF PRESENTATION

Change of Name

Effective May 23, 2019, NCI Building Systems, Inc. changed its name to Cornerstone Building Brands, Inc. (together with its subsidiaries, unless otherwise indicated, the "Company," "Cornerstone," "NCI," "we," "us" or "our"). In connection with the name change, the Company changed its NYSE trading symbol from "NCS" to "CNR".

Nature of Business

Cornerstone Building Brands, Inc. is a leading manufacturer of external building products in North America. Headquartered in Cary, North Carolina, the Company serves residential and commercial customers across new construction and the repair & remodel markets.

Basis of Presentation

Our consolidated financial statements include the accounts of the Company and all majority-owned subsidiaries. All intercompany accounts, transactions and profits arising from consolidated entities have been eliminated in consolidation.

Reporting Periods

On November 16, 2018, the Company's Board of Directors approved a change to the Company's fiscal year end from a 52/53 week year with the Company's fiscal year end on the Sunday closest to October 31 to a calendar year of the twelve-month period from January 1 to December 31. The Company elected to change its fiscal year end in connection with the Merger (as defined below) to align the Company's fiscal year end with Ply Gem's (as defined below). As a result of this change, the Company filed a Transition Report on Form 10-Q that included the financial information for the transition period from October 29, 2018 to December 31, 2018, which period is referred to herein as the "Transition Period". The financial statements contained herein are being filed as part of an Annual Report on Form 10-K for the period from January 1, 2019 through December 31, 2019. The results of operations for the 52-week years ended October 28, 2018 and October 29, 2017 are presented herein as the comparable periods to the calendar year ended December 31, 2019. The Company did not recast the consolidated financial statements for the periods from January 1, 2018 through December 31, 2018 or January 1, 2017 through December 31, 2017 because the financial reporting processes in place at that time included certain procedures that were completed only on an annual basis. Consequently, to recast this period would have been impractical.

All references herein to "fiscal year 2019" or "fiscal 2019" refer to the calendar year ended December 31, 2019. In addition, all references herein to "fiscal year 2018" or "fiscal 2018" refer to the 52-week year ended October 28, 2018, and all references herein to "fiscal year 2017" or "fiscal 2017" refer to the 52-week year ended October 29, 2017.

Change in Operating Segments

During the Transition Period, the Company began reporting results under three reportable segments: (i) Commercial; (ii) Siding; and (iii) Windows, to align with how the Company manages its business, reviews operating performance and allocates resources following the Merger. The Commercial segment will include the aggregate operating results of the NCI's legacy businesses. The Siding and Windows segments will include the operating results of the legacy Ply Gem operating segments.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, 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. Examples include provisions for bad debts and inventory reserves, accounting for business combinations, valuation of reporting units for purposes of assessing goodwill and other indefinite-lived intangible assets for impairment, valuation of asset groups for impairment testing, accruals for employee benefits, general liability insurance, warranties and certain contingencies. We base our estimates on historical experience, market participant fair value considerations, projected future cash flows, and various other factors that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

(b) Cash and Cash Equivalents. Cash equivalents are stated at cost plus accrued interest, which approximates fair value. Cash equivalents are highly liquid debt instruments with an original maturity of three months or less and may consist of time deposits with a number of commercial banks with high credit ratings, money market instruments, certificates of deposit and commercial paper. The Company's policy allows it to also invest excess funds in no-load, open-end, management investment trusts ("mutual funds"). The mutual funds invest exclusively in high quality money market instruments. As of December 31, 2019, the Company's cash and cash equivalents were only invested in cash.

(c) Accounts Receivable and Related Allowance. The Company reports accounts receivable net of the allowance for doubtful accounts. Trade accounts receivable are the result of sales of metal building products, insulated metal panels, metal coating, vinyl siding, metal siding, injection molded products, vinyl windows, aluminum windows, and other products and services to customers throughout the United States and Canada and affiliated territories, including international builders who resell to end users. Sales are primarily denominated in U.S. dollars. Credit sales do not normally require a pledge of collateral; however, various types of liens may be filed to enhance the collection process and we require payment prior to shipment for certain international shipments.

The Company establishes reserves for doubtful accounts on a customer by customer basis when we believe the required payment of specific amounts owed is unlikely to occur. Bad debt provisions are included in selling, general and administrative expenses. In establishing these reserves, the Company considers changes in the financial position of a customer, availability of security, unusual macroeconomic conditions, lien rights and bond rights as well as disputes, if any, with our customers. Our allowance for doubtful accounts reflects reserves for customer receivables to reduce receivables to amounts expected to be collected. We determine past due status as of the contractual payment date. Interest on delinquent accounts receivable is included in the trade accounts receivable balance and recognized as interest income when earned and collectability is reasonably assured. Uncollectible accounts are written off when a settlement is reached for an amount that is less than the outstanding historical balance, all collection efforts have been exhausted and/or any legal action taken by the Company has concluded.

The following table represents the rollforward of the reserve for uncollectible accounts for the periods indicated (in thousands):

	Fiscal Year Ended		Fiscal Year Ended	
	December 31, 2019	October 29, 2018 - December 31, 2018	October 28, 2018	October 29, 2017
Beginning balance	\$ 10,270	\$ 6,249	\$ 8,325	\$ 7,413
Provision for bad debts	2,035	(786)	(491)	1,948
Amounts charged against allowance for bad debts, net of recoveries	(2,807)	188	(1,585)	(1,036)
Allowance for bad debts of acquired company at date of acquisition	464	4,619	—	—
Ending balance	<u>\$ 9,962</u>	<u>\$ 10,270</u>	<u>\$ 6,249</u>	<u>\$ 8,325</u>

(d) Inventories. Beginning with the Company's prospective adoption of ASU 2015-11 in the first quarter of fiscal 2018, inventories are stated at the lower of cost or net realizable value less allowance for inventory obsolescence using the First-In,

First-Out Method (“FIFO”). Prior inventory balances are stated at the lower of cost or market value less allowance for inventory obsolescence using FIFO.

The components of inventory are as follows (in thousands):

	December 31, 2019	December 31, 2018
Raw materials	\$ 239,063	\$ 311,183
Work in process and finished goods	200,131	225,492
	<u>\$ 439,194</u>	<u>\$ 536,675</u>

The following table represents the rollforward of reserve for obsolete materials and supplies activity for the periods indicated (in thousands):

	Fiscal Year Ended		Fiscal Year Ended	
	December 31, 2019	October 29, 2018 - December 31, 2018	October 28, 2018	October 29, 2017
Beginning balance	\$ 19,227	\$ 6,619	\$ 5,205	\$ 3,984
Provisions	3,207	1,025	3,069	1,923
Dispositions	(4,082)	(490)	(1,655)	(702)
Reserve of acquired company at date of acquisition	360	12,073	—	—
Ending balance	<u>\$ 18,712</u>	<u>\$ 19,227</u>	<u>\$ 6,619</u>	<u>\$ 5,205</u>

The principal raw material used in the manufacturing of our Commercial segment is steel which we purchase from multiple steel producers. The principal raw material used in the manufacturing of our Siding segment is PVC resin which we purchase from multiple producers. The principal raw material used in the manufacturing of our Windows segment is PVC resin, aluminum, and glass which we purchase from multiple producers.

(e) Assets Held for Sale. The Company record assets held for sale at the lower of the carrying value or fair value less costs to sell. The following criteria are used to determine if property is held for sale: (i) management has the authority and commits to a plan to sell the property; (ii) the property is available for immediate sale in its present condition; (iii) there is an active program to locate a buyer and the plan to sell the property has been initiated; (iv) the sale of the property is probable within one year; (v) the property is being actively marketed at a reasonable sale price relative to its current fair value; and (vi) it is unlikely that the plan to sell will be withdrawn or that significant changes to the plan will be made.

In determining the fair value of the assets less cost to sell, the Company considers factors including current sales prices for comparable assets in the area, recent market analysis studies, appraisals and any recent legitimate offers. If the estimated fair value less cost to sell of an asset is less than its current carrying value, the asset is written down to its estimated fair value less cost to sell. The total carrying value of assets held for sale is \$1.8 million and \$7.3 million at December 31, 2019 and 2018, respectively. Assets held for sale at December 31, 2019 are actively marketed for sale or are under contract.

During fiscal 2019 and 2018, the Company sold certain idled facilities in our Commercial segment, along with related equipment, which previously had been classified as held for sale. In connection with the sales of these assets, during fiscal 2019 and 2018, the Company received net cash proceeds of \$5.5 million and \$4.1 million, respectively, and recognized a net gain (loss) of \$(41) thousand and \$0.5 million, respectively, which is included in restructuring and impairment charges, net, in the consolidated statements of operations. During fiscal 2019, the Company determined an alternative use for a facility in the Commercial segment that had previously been classified as held for sale and reclassified the net book value of \$1.7 million to property, plant and equipment and recorded an immaterial depreciation adjustment. Additionally, during fiscal 2019, the Company acquired certain real property assets of \$1.8 million, through its executive relocation program which are classified as held for sale as of December 31, 2019.

Certain assets held for sale are valued at fair value and are measured at fair value on a nonrecurring basis. Assets held for sale are reported at fair value, if, on an individual basis, the fair value of the asset is less than cost. The fair value of assets held for sale is estimated using Level 3 inputs, such as broker quotes for like-kind assets or other market indications of a potential selling value that approximates fair value. Assets held for sale, reported at fair value less cost to sell totaled \$1.8 million as of December 31, 2019.

Due to uncertainties in the estimation process, it is reasonably possible that actual results could differ from the estimates used in our historical analysis. The Company's assumptions about property sales prices require significant judgment because the current market is highly sensitive to changes in economic conditions. The Company determined the estimated fair values of assets held for sale based on current market conditions and assumptions made by management, which may differ from actual results and may result in impairments if market conditions deteriorate.

(f) Property, Plant and Equipment. Property, plant and equipment are stated at cost and depreciated using the straight-line method over their estimated useful lives. Leasehold improvements are capitalized and amortized using the straight-line method over the shorter of their estimated useful lives or the term of the underlying lease. Computer software developed or purchased for internal use is depreciated using the straight-line method over its estimated useful life. Depreciation and amortization are recognized in cost of sales and selling, general and administrative expenses based on the nature and use of the underlying asset(s).

Depreciation expense for fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018 was \$86.2 million, \$32.7 million, \$31.7 million and \$10.8 million, respectively.

Property, plant and equipment consists of the following (in thousands):

	December 31, 2019	December 31, 2018
Land	\$ 24,510	\$ 26,029
Buildings and improvements	266,094	258,547
Machinery and equipment	918,380	799,342
	1,208,984	1,083,918
Less accumulated depreciation	(556,143)	(469,911)
Total property, plant and equipment, net	\$ 652,841	\$ 614,007

Estimated useful lives for depreciation are:

Buildings and improvements	15 – 39 years
Machinery and equipment	3 – 15 years

The Company capitalizes interest on capital invested in projects in accordance with Accounting Standards Codification (“ASC”) Topic 835, *Interest*. For fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, the total amount of interest capitalized was \$1.2 million, \$0.4 million, \$0.2 million and \$0.1 million, respectively. Upon commencement of operations, capitalized interest, as a component of the total cost of the asset, is amortized over the estimated useful life of the asset.

Involuntary conversions result from the loss of an asset because of an unforeseen event (e.g., destruction due to fire). Some of these events are insurable and result in property damage insurance recovery. Amounts the Company receives from insurance carriers are net of any deductibles related to the covered event. The Company records a receivable from insurance to the extent it recognizes a loss from an involuntary conversion event and the likelihood of recovering such loss is deemed probable at the balance sheet date. To the extent that any of the Company’s insurance claim receivables are later determined not probable of recovery (e.g., due to new information), such amounts are expensed. The Company recognizes gains on involuntary conversions when the amount received from insurers exceeds the net book value of the impaired asset(s). In addition, the Company does not recognize a gain related to insurance recoveries until the contingency related to such proceeds has been resolved, through either receipt of a non-refundable cash payment from the insurers or by execution of a binding settlement agreement with the insurers that clearly states that a non-refundable payment will be made. To the extent that an asset is rebuilt or new assets are acquired, the associated expenditures are capitalized, as appropriate, in the consolidated balance sheets and presented as capital expenditures in the Company’s consolidated statements of cash flows. With respect to business interruption insurance claims, the Company recognizes income only when non-refundable cash proceeds are received from insurers, which are presented in the Company’s consolidated statements of operations as a component of gross profit or operating income and in the consolidated statements of cash flows as an operating activity.

In June 2016, the Company experienced a fire at a facility in the Commercial segment. The Company estimated that fixed assets with a net book value of approximately \$6.7 million were impaired as a result of the fire. During fiscal 2017, the Company settled the property damage claims with the insurers for actual cash value of \$18.0 million. Of this amount, the Company received proceeds of \$10.0 million from our insurers during fiscal 2016. The remaining \$8.0 million was received in May 2017.

Approximately \$8.8 million was previously recognized to offset the loss on involuntary conversion and other amounts incurred related to the incident. The remaining \$9.2 million was recognized as a gain on insurance recovery in the consolidated statement of operations during 2017 as all contingencies were resolved.

The Company’s property insurance policy is a replacement cost policy. During fiscal 2018, the Company received final proceeds of \$4.7 million as reimbursement for new assets acquired and recognized a \$4.7 million gain on insurance recovery in the consolidated statements of operations.

(g) Internally Developed Software. Internally developed software is stated at cost less accumulated amortization, is included within property, plant and equipment within our consolidated balance sheets, and is amortized using the straight-line method over its estimated useful life ranging from 3 to 7 years. Software assets are reviewed for impairment when events or circumstances indicate the carrying value may not be recoverable over the remaining lives of the assets. During the software application development stage, capitalized costs include external consulting costs, cost of software licenses and internal payroll and payroll related costs for employees who are directly associated with a software project. Upgrades and enhancements are capitalized if they result in added functionality which enable the software to perform tasks it was previously incapable of performing. Software maintenance, training, data conversion and business process reengineering costs are expensed in the period in which they are incurred.

(h) Goodwill and Other Intangible Assets. The Company reviews the carrying values of goodwill and identifiable intangibles whenever events or changes in circumstances indicate that such carrying values may not be recoverable and annually for goodwill and indefinite lived intangible assets as required by ASC Topic 350, *Intangibles — Goodwill and Other*. This guidance provides the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, based on a review of qualitative factors, it is more likely than not that the fair value of a reporting unit is less than its carrying value, we perform a quantitative analysis. Prior to July 30, 2017, the test for impairment was a two-step process that involved comparing the estimated fair value of each reporting unit to the reporting unit's carrying value, including goodwill. If the fair value of a reporting unit exceeded its carrying amount, the goodwill of the reporting unit was not considered impaired; therefore the second step of the impairment test would not be deemed necessary. If the carrying amount of the reporting unit exceeded its fair value, we would then perform the second step to the goodwill impairment test, which involved the determination of the fair value of a reporting unit's assets and liabilities as if those assets and liabilities had been acquired/assumed in a business combination at the impairment testing date, to measure the amount of goodwill impairment loss to be recorded. However, with the adoption of Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") No. 2017-04, the Company prospectively adopted a new accounting principle that eliminated the second step of the goodwill impairment test. Therefore, beginning with the annual goodwill impairment tests occurring on the first day of the fourth quarter of fiscal 2017, if the carrying value of a reporting unit exceeds its fair value, we measure any goodwill impairment losses as the amount by which the carrying amount of a reporting unit exceeds its fair value, not to exceed the total amount of goodwill allocated to that reporting unit.

Unforeseen events, changes in circumstances, market conditions and material differences in the value of intangible assets due to changes in estimates of future cash flows could negatively affect the fair value of the Company's assets and result in a non-cash impairment charge. Some factors considered important that could trigger an impairment review include the following: significant underperformance relative to expected historical or projected future operating results, significant changes in the manner of the Company's use of acquired assets or the strategy for its overall business and significant negative industry or economic trends. The Company recorded a non-cash loss on goodwill impairment of \$6.0 million in fiscal 2017, which is included in goodwill impairment in the consolidated statements of operations. See Note 6 — *Goodwill and Other Intangible Assets*.

(i) Leases. The Company leases certain manufacturing, warehouse and distribution locations, vehicles and equipment, including fleet vehicles. Many of these leases have options to terminate prior to or extend beyond the end of the term. The exercise of the majority of lease renewal options is at the Company's sole discretion. Some lease agreements have variable payments, the majority of these are real estate agreements in which future increases in rent are based on an index. Lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Effective January 1, 2019, the Company adopted ASU 2016-02, *Leases*, applying the standard to leases existing at the effective date. For arrangements entered into following the transition date, applicability of the standard is determined at inception.

Operating lease liabilities are recognized based on the present value of the future minimum lease payments over the reasonably expected holding period at commencement date. Few of the Company's lease contracts provide a readily determinable implicit rate. For these contracts, an estimated incremental borrowing rate ("IBR") is utilized, based on information available at the inception of the lease. The incremental borrowing rate represents an estimate of the interest rate we would incur at lease commencement to borrow an amount equal to the lease payments on a collateralized basis over the term of the lease.

Accounting for leases may require judgment, including determining whether a contract contains a lease, what incremental borrowing rates to utilize for leases without a stated implicit rate, what the reasonably certain holding period is for a leased asset, and the allocation of consideration to lease and non-lease components. The Company has elected the practical expedient to not separate lease and non-lease components for the majority of leases. Where components are separated, the allocation is based on the Company's best estimate of standalone price.

(j) Revenue Recognition. The Company enters into contracts that pertain to products, which are accounted for as separate performance obligations and are typically one year or less in duration. The Company does not exercise significant judgment in determining the timing for the satisfaction of performance obligations or the transaction price. Revenue is measured as the amount of consideration expected to be received in exchange for our products. The Company has elected to apply the practical expedient provided for in ASU No. 2014-09 and has not disclosed information regarding remaining performance obligations that have original expected durations of one year or less. Revenue is generally recognized when the product has shipped from the Company's facility and control has transferred to the customer. Generally, this criteria is met at the time product is shipped or services are complete. Generally, the customer takes title upon shipment and assumes the risks and rewards of ownership of the product. For certain products, it is industry practice that customers take title to products upon delivery, at which time revenue is then recognized by the Company. For a portion of the Company's business, when the Company processes customer owned material, control is deemed to transfer to the customer as the processing is being completed. Allowances for cash discounts, volume rebates and other customer incentive programs, as well as gross customer returns, among others, are recorded as a reduction of sales at the time of sale based upon the estimated future outcome. Cash discounts, volume rebates and other customer incentive programs are based upon certain percentages agreed upon with the Company's various customers, which are typically earned by the customer over an annual period.

The Company's revenues are adjusted for variable consideration, which includes customer volume rebates and prompt payment discounts. The Company measures variable consideration by estimating expected outcomes using analysis and inputs based upon anticipated performance, historical data, and current and forecasted information. Customer returns are recorded as a reduction to sales on an actual basis throughout the year and also include an estimate at the end of each reporting period for future customer returns related to sales recorded prior to the end of the period. The Company generally estimates customer returns based upon the time lag that historically occurs between the sale date and the return date while also factoring in any new business conditions that might impact the historical analysis such as new product introduction. Measurement of variable consideration is reviewed by management periodically and revenue is adjusted accordingly. The Company does not have significant financing components. The Company recognizes installation revenue, primarily within the stone veneer category, over the period for which the stone is installed, which is typically a very short duration.

Shipping and handling activities performed by the Company are considered activities to fulfill the sales of our products. Amounts billed for shipping and handling are included in net sales, while costs incurred for shipping and handling are included in cost of sales.

In accordance with certain contractual arrangements, the Company receives payment from our customers in advance related to performance obligations that are to be satisfied in the future and recognize such payments as deferred revenue, primarily related to the Company's weathertightness warranties (see *Warranty* accounting policies below).

A portion of our revenue, exclusively within the Commercial segment, includes multiple-element revenue arrangements due to multiple deliverables. Each deliverable is generally determined based on customer-specific manufacturing and delivery requirements. Because the separate deliverables have value to the customer on a stand-alone basis, they are typically considered separate units of accounting. A portion of the entire job order value is allocated to each unit of accounting. Revenue allocated to each deliverable is recognized upon shipment. The Company uses estimated selling price ("ESP") based on underlying cost plus a reasonable margin to determine how to separate multiple-element revenue arrangements into separate units of accounting, and how to allocate the arrangement consideration among those separate units of accounting. The Company determines ESP based on normal pricing and discounting practices.

The following table presents disaggregated revenue disclosure details of net sales by segment (in thousands):

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Commercial Net Sales Disaggregation:				
Metal building products	\$ 1,249,757	\$ 1,367,998	\$ 1,204,532	\$ 198,483
Insulated metal panels	441,441	424,762	372,304	52,044
Metal coil coating	156,695	207,817	193,442	35,995
Total	<u>\$ 1,847,893</u>	<u>\$ 2,000,577</u>	<u>\$ 1,770,278</u>	<u>\$ 286,522</u>
Siding Net Sales Disaggregation:				
Vinyl siding	\$ 525,005	\$ —	\$ —	\$ 43,142
Metal	263,018	—	—	23,104
Injection molded	66,578	—	—	5,123
Stone	92,228	—	—	2,499
Other products & services	164,578	—	—	9,106
Total	<u>\$ 1,111,407</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 82,974</u>
Windows Net Sales Disaggregation:				
Vinyl windows	\$ 1,838,796	\$ —	\$ —	\$ 181,624
Aluminum windows	53,622	—	—	4,700
Other	38,029	—	—	4,050
Total	<u>\$ 1,930,447</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 190,374</u>
Total Net Sales:	<u>\$ 4,889,747</u>	<u>\$ 2,000,577</u>	<u>\$ 1,770,278</u>	<u>\$ 559,870</u>

(k) Equity Raising and Deferred Financing Costs. Equity raising costs are recorded as a reduction to additional paid in capital upon the execution of an equity transaction. Deferred financing costs composed of facility, agency, and certain legal fees associated with issuing new debt, are amortized over the contractual term of the related agreement using the effective interest method. See Note 12 — *Long-Term Debt*.

(l) Cost of Sales. Cost of sales includes the cost of inventory sold during the period, including costs for manufacturing, inbound freight, receiving, inspection, warehousing, and internal transfers less vendor rebates. Costs associated with shipping and handling the Company's products are included in cost of sales. Purchasing costs and engineering and drafting costs are included in selling, general and administrative expense.

(m) Warranty. The Company sells a number of products and offers a number of warranties. The specific terms and conditions of these warranties vary depending on the product sold. The Company's warranty liabilities are undiscounted and adjusted for inflation based on third party actuarial estimates. Factors that affect the Company's warranty liabilities include the number of units sold, historical and anticipated rates of warranty claims, cost per claim and new product introduction. Warranties are normally limited to replacement or service of defective components for the original customer. Some warranties are transferable to subsequent owners and are generally limited to ten years from the date of manufacture or require pro-rata payments from the customer. A provision for estimated warranty costs is recorded based on historical experience and the Company periodically adjusts these provisions to reflect actual experience. Warranty costs are included within cost of goods sold. The Company assesses the adequacy of the recorded warranty claims and adjusts the amounts as necessary. Separately, upon the sale of a weathertightness warranty in the Commercial segment, the Company records the resulting revenue as deferred revenue, which is included in other accrued expenses and other long-term liabilities on the consolidated balance sheets depending on when the revenues are expected to be recognized. See Note 11 — *Warranty*.

(n) Insurance. Group medical insurance is purchased through Blue Cross Blue Shield ("BCBS"). The plans include a Preferred Provider Organization Plan ("PPO") and a Consumer Driven Health Plan ("CDHP"). These plans are managed-care plans utilizing networks to achieve discounts through negotiated rates with the providers within these networks. The claims incurred under these plans are self-funded for the first \$500,000 of each claim. The Company purchases individual stop loss reinsurance to limit the claims liability to \$500,000 per claim. BCBS administers all claims, including claims processing, utilization review and network access charges.

Insurance is purchased for workers compensation and employer liability, general liability, property and auto liability/auto physical damage. The Company utilizes either deductibles or self-insurance retentions (“SIR”) to limit the exposure to catastrophic loss. The workers compensation insurance has a \$250,000 per-occurrence deductible. The property and auto liability insurances have per-occurrence deductibles of \$500,000 and \$250,000, respectively. The general liability insurance has a \$1,000,000 SIR. Umbrella insurance coverage is purchased to protect us against claims that exceed the Company's per-occurrence or aggregate limits set forth in the Company's respective policies. All claims are adjusted utilizing a third-party claims administrator and insurance carrier claims adjusters.

Each reporting period, the Company records the costs of its health insurance plan, including paid claims, an estimate of the change in incurred but not reported (“IBNR”) claims, taxes and administrative fees, when applicable, (collectively the “Plan Costs”) as general and administrative expenses on the consolidated statements of operations. The estimated IBNR claims are based upon (i) a recent average level of paid claims under the plan, (ii) an estimated lag factor and (iii) an estimated growth factor to provide for those claims that have been incurred but not yet reported and paid. The Company uses an actuary to determine the claims lag and estimated liability for IBNR claims.

For workers’ compensation costs, the Company monitors the number of accidents and the severity of such accidents to develop appropriate estimates for expected costs to provide both medical care and indemnity benefits, when applicable, for the period of time that an employee is incapacitated and unable to work. These accruals are developed using independent third-party actuarial estimates of the expected cost for medical treatment, and length of time an employee will be unable to work based on industry statistics for the cost of similar disabilities, to include statutory impairment ratings. For general liability and automobile claims, accruals are developed based on independent third-party actuarial estimates of the expected cost to resolve each claim, including damages and defense costs, based on legal and industry trends and the nature and severity of the claim. Accruals also include estimates for IBNR claims, and taxes and administrative fees, when applicable. Each reporting period, the Company records the costs of our workers’ compensation, general liability and automobile claims, including paid claims, an estimate of the change in IBNR claims, taxes and administrative fees as general and administrative expenses on the consolidated statements of operations.

(o) Advertising Costs. Advertising costs are expensed as incurred. Advertising expense was \$28.6 million, \$9.3 million, \$7.1 million and \$3.1 million in fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, respectively.

(p) Impairment of Long-Lived Assets. The Company assesses impairment of property, plant and equipment at an asset group level in accordance with the provisions of ASC Topic 360, *Property, Plant and Equipment*. The Company assesses the recoverability of the carrying amount of property, plant and equipment if certain events or changes in circumstances indicate that the carrying value of such asset groups may not be recoverable, such as a significant decrease in market value of the asset groups or a significant change in our business conditions. If it is determined that the carrying value of an asset group is not recoverable based on expected undiscounted future cash flows, excluding interest charges, an impairment loss equal to the excess of the carrying amount of the asset group over its fair value is recorded. The fair value of an asset group is determined based on prices of similar assets adjusted for their remaining useful life.

(q) Share-Based Compensation. Compensation expense is recorded for restricted stock awards under the fair value method. Compensation expense for performance stock units (“PSUs”) is recorded based on the probable outcome of the performance conditions associated with the respective shares, as determined by management. The Company recorded pre-tax compensation expense relating to restricted stock awards, stock options and performance share unit awards of \$14.1 million, \$11.6 million, \$10.2 million and \$4.5 million for fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, respectively. Included in the share-based compensation expense during fiscal 2018 were accelerated awards of \$3.6 million due to the retirement of the Company’s former CEO. See Note 8 — *Share-Based Compensation*.

(r) Foreign Currency Re-measurement and Translation. The functional currency for the Company's Mexico operations is the U.S. dollar. Adjustments resulting from the re-measurement of the local currency financial statements into the U.S. dollar functional currency, which uses a combination of current and historical exchange rates, are included in net income (loss) in the current period. Net foreign currency re-measurement gains (losses) were \$0.9 million, \$(0.3) million and \$(0.1) million for fiscal 2019 and 2017, and the transition period ended December 31, 2018, respectively. For fiscal 2018, the net foreign currency re-measurement gain (loss) was insignificant.

The functional currency for the Company's Canadian operations is the Canadian dollar. Translation adjustments resulting from translating the functional currency financial statements into U.S. dollar equivalents are reported separately in accumulated other comprehensive loss, net in stockholders’ equity. The net foreign currency gains (losses) included in net income (loss) for fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, were \$1.2 million, \$(0.2) million, \$0.8 million and \$(1.6) million, respectively. Net foreign currency translation adjustments, net of tax, and included in other comprehensive income (loss) were \$3.2 million, \$(0.1) million, \$0.2 million and \$(4.2) million for the fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, respectively.

(s) Contingencies. The Company establishes reserves for estimated loss contingencies and unasserted claims when it believes a loss is probable and the amount of the loss can be reasonably estimated. The Company's contingent liability reserves are related primarily to litigation and environmental matters. Revisions to contingent liability reserves are reflected in income in the period in which there are changes in facts and circumstances that affect our previous assumptions with respect to the likelihood or amount of loss. Reserves for contingent liabilities are based upon assumptions and estimates regarding the probable outcome of the matter. The Company estimates the probability by evaluating historical precedent as well as the specific facts relating to each particular contingency (including the opinion of outside advisors, professionals and experts). Should the outcome differ from the assumptions and estimates or other events result in a material adjustment to the accrued estimated reserves, revisions to the estimated reserves for contingent liabilities would be required and would be recognized in the period the new information becomes known.

(t) Income taxes. The determination of the Company's provision for income taxes requires significant judgment, the use of estimates and the interpretation and application of complex tax laws. The amount recorded in our consolidated financial statements reflects estimates of final amounts due to timing of completion and filing of actual income tax returns. Estimates are required with respect to, among other things, the appropriate state income tax rates used in the various states in which we and our subsidiaries are required to file, the potential utilization of operating and capital loss carry-forwards for federal, state, and foreign income tax purposes and valuation allowances required, if any, for tax assets that may not be realized in the future. The Company establishes reserves when, despite our belief that our tax return positions are fully supportable, certain positions could be challenged, and the positions may not be fully sustained. The Company's provision for income taxes reflects a combination of income earned and taxed in the various U.S. federal and state, Canadian federal and provincial, Mexican federal and other jurisdictions. Jurisdictional tax law changes, increases or decreases in permanent differences between book and tax items, accruals or adjustments of accruals for tax contingencies or valuation allowances, and the change in the mix of earnings from these taxing jurisdictions all affect the overall effective tax rate.

In assessing the realizability of deferred tax assets, the Company considers whether it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. The Company considers all available evidence, both positive and negative, in determining whether a valuation allowance is required. Such evidence includes the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment, and judgment is required in considering the relative weight of negative and positive evidence.

(u) Reclassifications. Certain reclassifications have been made to the prior period amounts in the consolidated cash statements of cash flows and notes to the consolidated financial statements to conform to the current presentation. The net effect of these reclassifications was not material to the consolidated financial statements.

(v) Acquisitions. The Company allocates the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. If the fair value of the acquired assets exceeds the purchase price the difference is recorded as a bargain purchase in other income (expense). Such valuations require us to make significant estimates and assumptions, especially with respect to intangible assets. As a result, during the measurement period, which may be up to one year from the acquisition date, material adjustments must be reflected in the comparative consolidated financial statements in the period in which the adjustment amount will be determined. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of operations. Newly acquired entities are included in our results from the date of their respective acquisitions.

3. ACCOUNTING PRONOUNCEMENTS

Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, *Leases*, to increase transparency and comparability among organizations by recognizing right-of-use assets and lease liabilities on the balance sheet and disclosing key information about leasing transactions. Effective January 1, 2019, the Company adopted the guidance initially applying the standard to leases existing at, or entered into after, the January 1, 2019 adoption date. The Company has elected only the package of three transition practical expedients available under the new standard. The short-term lease recognition exemption has been elected for all leases that qualify as well as the practical expedient to not separate lease and non-lease components for all leases other than leases of durable tooling.

The adoption of the new standard resulted in the recognition of additional operating liabilities of \$304.1 million with corresponding right-of-use (“ROU”) assets of \$304.1 million, based on the present value of the remaining minimum rental payments. The Company recognized no adjustment to the opening balance of accumulated deficit as of January 1, 2019. The new standard also provides for practical expedients for an entity’s ongoing accounting. Additional disclosures on leases are included in Note 7 — *Leases*.

In August 2018, the FASB issued ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software—General (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract*, which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by these amendments. Effective January 1, 2019, the Company early adopted this guidance on a prospective basis. The application of ASU 2018-15 did not have a material impact on the consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* as subsequently amended. ASU 2014-09 supersedes the revenue recognition requirements in ASC Topic 605, *Revenue Recognition*, and most industry-specific guidance. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of 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. The Company performed an assessment of the differences between the new revenue standard and current accounting practices. As part of our implementation process, the Company identified significant revenue streams and evaluated a sample of contracts within each significant revenue stream in order to determine the effect of the standard on our revenue recognition practices. The Company completed this evaluation and have established new policies, procedures, and internal controls in our adoption of the new revenue standard. The Company adopted this guidance on a modified retrospective basis, pursuant to which we recorded a \$2.6 million adjustment to increase the opening balance of accumulated deficit as of October 29, 2018 (the first day of the Transition Period) for the impact of applying the new revenue standard. The adjustment related to changes in the timing of revenue recognition for our weathertightness warranties in our Commercial segment. Additional disaggregated revenue disclosures are included in Note 1 — *Summary of Significant Accounting Policies*.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which provides guidance on eight cash flow classification issues with the objective of reducing differences in practice. The Company adopted this guidance on a retrospective basis in the Transition Period. The application of ASU 2016-15 did not have a material impact on the consolidated financial statements.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other than Inventory*, which eliminates the exception that prohibits the recognition of current and deferred income tax effects for intra-entity transfers of assets other than inventory until the asset has been sold to an outside party. The Company adopted this guidance on a modified retrospective basis, pursuant to which the Company recorded a \$0.7 million adjustment to increase the opening balance of accumulated deficit as of October 29, 2018 (the first day of the Transition Period) for the impact of applying the new standard.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)*, which clarifies how entities should present restricted cash and restricted cash equivalents in the statement of cash flows. Entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. An entity with a material balance of restricted cash and restricted cash equivalents must disclose information about the nature of the restrictions. The Company adopted this guidance on a retrospective basis in the Transition Period. The adoption of this guidance resulted in restricted cash activity previously included in financing activities on the consolidated statement of cash flows to be included as part of the beginning and ending balances of cash and cash equivalents and restricted cash in the Company’s consolidated statements of cash flows.

In March 2017, the FASB issued ASU 2017-07, *Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, which amends the requirements related to the income statement presentation of the components of net periodic benefit cost for employer sponsored defined benefit pension and other postretirement benefit plans. Under the new guidance, an entity must disaggregate and present the service cost component of net periodic benefit cost in the same income statement line items as other employee compensation costs arising from services rendered during the period, and only the service cost component will be eligible for capitalization. Other components of net periodic benefit cost will be presented separately from the line items that include the service cost. The Company adopted this guidance in the Transition Period on a retrospective basis to adopt the requirement for separate presentation of the income statement service cost and other components, and on a prospective transition method to adopt the requirement to limit the capitalization of benefit cost to the service component. The adoption of ASU 2017-07 did not have a material impact on the consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, *Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*, which provides clarity on the accounting for modifications of stock-based awards. The Company adopted this guidance on a prospective basis in the Transition Period for share-based payment awards modified on or after the adoption date. The adoption of ASU 2017-09 did not have a material impact on the consolidated financial statements.

In August 2017, the FASB issued ASU No. 2017-12, *Targeted Improvements to Accounting for Hedging Activities*. This ASU's objectives are to (1) improve the transparency and understandability of information conveyed to financial statement users about an entity's risk management activities by better aligning the entity's financial reporting for hedging relationships with those risk management activities; and (2) reduce the complexity of and simplify the application of hedge accounting by preparers. ASU No. 2017-12 is effective for interim and annual reporting periods beginning after December 15, 2018. The Company adopted this guidance on a prospective basis for fiscal 2019. The adoption of ASU 2017-12 did not have a material impact on the consolidated financial statements.

Recent Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. This ASU requires an entity to measure all expected credit losses for financial assets, including trade receivables, held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. Entities will now incorporate forward-looking information based on expected losses to estimate credit losses. ASU 2016-13 will be effective for our fiscal year ending December 31, 2020, including interim periods within that fiscal year. The Company is evaluating the impact that the adoption of this ASU will have on our consolidated financial position, result of operations and cash flows and does not expect it to be material.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, which modifies disclosure requirements for fair value measurements under ASC 820, *Fair Value Measurement*. The Company will be required to adopt this guidance retrospectively in the annual and interim periods for our fiscal year ending December 31, 2020, with early adoption permitted. The Company is evaluating the impact of adopting this guidance.

In August 2018, the FASB issued ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans*, which removes disclosures no longer considered cost beneficial, clarifies the specific requirements of disclosures and adds disclosure requirements identified as relevant. The Company will be required to adopt this guidance for our fiscal year ending December 31, 2020, with early adoption permitted. Certain provisions are applied prospectively while others are applied retrospectively. The Company is evaluating the impact of adopting this guidance.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and also improves consistent application of and simplifies generally accepted accounting principles ("GAAP") for other areas of Topic 740 by clarifying and amending existing guidance. The Company will be required to adopt this guidance in the annual and interim periods for our fiscal year ending December 31, 2021, with early adoption permitted. The Company is evaluating the impact of adopting this guidance.

Additionally, there were various other accounting standards and interpretations issued that the Company has not yet been required to adopt, none of which is expected to have a material impact on the Company's consolidated financial statements going forward.

4. ACQUISITIONS

Environmental Stoneworks

On January 12, 2019, the Company entered into a Unit Purchase Agreement (the “Purchase Agreement”) with Environmental Materials, LLC, a Delaware limited liability company (“Environmental Stoneworks” or “ESW”), the Members of Environmental Materials, LLC (the “Sellers”) and Charles P. Gallagher and Wayne C. Kocourek, solely in their capacity as the Seller Representative (as defined in the Purchase Agreement), pursuant to which, on February 20, 2019, the Company’s wholly-owned subsidiary, Ply Gem Industries, Inc., purchased from the Sellers 100% of the outstanding limited liability company interests of Environmental Stoneworks (the “Environmental Stoneworks Acquisition”) for total consideration of \$182.6 million, subject to certain post-closing adjustments. The transaction was financed through borrowings under the Company’s asset-based revolving credit facility.

The Environmental Stoneworks Acquisition, when combined with the Company’s existing stone businesses, positions the Company as a market leader in stone veneer. The Company accounted for the transaction as an acquisition in accordance with the provisions of Accounting Standards Codification 805, *Business Combinations*, which results in a new valuation for the assets and liabilities of Environmental Stoneworks based upon fair values as of the closing date.

The Company determined the fair value of the tangible and intangible assets and the liabilities acquired, and recorded goodwill based on the excess of fair value of the acquisition consideration over such fair values, as follows (in thousands):

Assets acquired:		
Restricted cash	\$	3,379
Accounts receivable		17,134
Inventories		13,062
Prepaid expenses and other current assets		3,677
Property, plant and equipment		14,295
Lease right-of-use assets		11,372
Intangible assets (trade names/customer relationships)		91,170
Goodwill		61,767
Other assets		157
Total assets acquired		216,013
Liabilities assumed:		
Accounts payable		5,910
Other accrued expenses		12,725
Lease liabilities		11,365
Other long-term liabilities		3,450
Total liabilities assumed		33,450
Net assets acquired	\$	182,563

The \$61.8 million of goodwill was allocated to the Siding segment and is expected to be deductible for tax purposes. The goodwill is attributable to the workforce of the acquired business and the synergies expected to be realized.

During the year ended December 31, 2019, the Company incurred \$1.5 million of acquisition-related costs for Environmental Stoneworks, which are recorded in strategic development and acquisition related costs in the Company’s consolidated statements of operations.

The final acquisition accounting allocation for the Environmental Stoneworks Acquisition remains subject to further adjustments. The specific accounts subject to ongoing acquisition accounting adjustments include accounts receivable, inventories, prepaid expenses and other current assets, goodwill, intangibles, accounts payable, accrued expenses, accrued warranties and other liabilities. Therefore, the measurement period remained open as of December 31, 2019, and the preliminary acquisition accounting allocation detailed above is subject to further adjustment. The Company anticipates completing these acquisition accounting adjustments during the first quarter of fiscal 2020.

Ply Gem Merger

On July 17, 2018, the Company entered into an Agreement and Plan of Merger (the “Merger Agreement”) with Ply Gem Parent, LLC (“Ply Gem”), and for certain limited purposes as set forth in the Merger Agreement, Clayton, Dubilier & Rice,

LLC (“CD&R”), pursuant to which, at the closing of the merger, Ply Gem would be merged with and into NCI, with NCI continuing its existence as a corporation organized under the laws of the State of Delaware (the “Merger”). On November 15, 2018, at a special meeting of NCI shareholders, NCI’s shareholders approved, among other items, the Merger Agreement and the issuance in the Merger of 58,709,067 shares of NCI common stock, par value \$0.01 per share (“NCI Common Stock”) in the aggregate, on a pro rata basis, to the holders of all of the equity interests in Ply Gem (the “Stock Issuance”), representing approximately 47% of the total number of shares of NCI Common Stock outstanding following the consummation of the Merger on November 16, 2018 (the “Closing Date”). The total value of shares of NCI Common Stock issued pursuant to the Stock Issuance was approximately \$713.9 million based on the number of shares issued multiplied by the NCI Common Stock closing share price of \$12.16 on the Closing Date. There are approximately 57,103 shares of NCI Common Stock of the original 58,709,067 that have not yet been issued pending holder identification and have been accrued as purchase consideration within other current liabilities in the consolidated balance sheet at December 31, 2019. For accounting and legal purposes, NCI was the accounting and legal acquirer of Ply Gem as of the Closing Date and Ply Gem’s results have been included within NCI from the Closing Date.

Ply Gem is a leading manufacturer of exterior building products in North America, operating in two segments: Siding and Windows. These two segments produce a comprehensive product line of vinyl siding, designer accents, cellular PVC trim, vinyl fencing, vinyl railing, stone veneer, and vinyl windows and doors used in both the new construction market and the home repair and remodeling market in the United States and Canada. Vinyl building products have the leading share of sales volume in siding and windows in the United States. Ply Gem also manufactures vinyl and aluminum soffit and siding accessories, aluminum trim coil, wood windows, aluminum windows, vinyl and aluminum-clad windows and steel and fiberglass doors, enabling Ply Gem to bundle complementary and color-matched products and accessories with our core products.

Ply Gem strategically fits into NCI’s existing footprint and broadens its service offering to existing and new customers within the building products industry. The Company accounted for the Merger as an acquisition in accordance with the provisions of Accounting Standards Codification 805, *Business Combinations*, which results in a new valuation for the assets and liabilities of Ply Gem based upon fair values as of the Closing Date.

In connection with the Merger, on November 16, 2018, NCI assumed (i) the obligations of the company formerly known as Ply Gem Midco, Inc. (“Ply Gem Midco”), a subsidiary of Ply Gem immediately prior to the consummation of the Merger, as borrower under the Current Cash Flow Credit Agreement (as defined below), (ii) the obligations of Ply Gem Midco as parent borrower under the Current ABL Credit Agreement (as defined below) and (iii) the obligations of Ply Gem Midco as issuer under the Current Indenture (as defined below).

On April 12, 2018, Ply Gem Midco entered into a Cash Flow Credit Agreement (the “Current Cash Flow Credit Agreement”), by and among Ply Gem Midco, JP Morgan Chase Bank, N.A., as administrative agent and collateral agent (the “Cash Flow Agent”), and the several banks and other financial institutions from time to time party thereto. As of November 16, 2018, immediately prior to consummation of the Merger, the Current Cash Flow Credit Agreement provided for (i) a term loan facility (the “Current Term Loan Facility”) in an original aggregate principal amount of \$1,755.0 million and (ii) a cash flow-based revolving credit facility (the “Current Cash Flow Revolver” and together with the Current Term Loan Facility, the “Current Cash Flow Facilities”) of up to \$115.0 million. On November 16, 2018, Ply Gem Midco entered into a Lender Joinder Agreement, by and among Ply Gem Midco, the additional commitment lender party thereto and the Cash Flow Agent, which amended the Current Cash Flow Credit Agreement in order to, among other things, increase the aggregate principal amount of the Current Term Loan Facility by \$805.0 million (the “Incremental Term Loans”). Proceeds of the Incremental Term Loans were used to, among other things, (a) finance the Merger and to pay certain fees, premiums and expenses incurred in connection therewith, (b) repay in full amounts outstanding under the Pre-merger Term Loan Credit Agreement and the Pre-merger ABL Credit Agreement (each as defined below) and (c) repay \$325.0 million of borrowings outstanding under the Current ABL Facility (as defined below). On November 16, 2018, in connection with the consummation of the Merger, NCI and Ply Gem Midco entered into a joinder agreement with respect to the Current Cash Flow Facilities, and NCI became the Borrower (as defined in the Current Cash Flow Credit Agreement) under the Current Cash Flow Facilities. The Current Term Loan Facility amortizes in nominal quarterly installments equal to 1 percent of the aggregate initial principal amount thereof per annum, with the remaining balance payable upon final maturity of the Current Term Loan Facility on April 12, 2025. There are no amortization payments under the Current Cash Flow Revolver, and all borrowings under the Current Cash Flow Revolver mature on April 12, 2023.

On April 12, 2018, Ply Gem Midco and certain subsidiaries of Ply Gem Midco entered into an ABL Credit Agreement (the “Current ABL Credit Agreement”), by and among Ply Gem Midco, the subsidiary borrowers from time to time party thereto, UBS AG, Stamford Branch, as administrative agent and collateral agent (the “ABL Agent”), and the several banks and other financial institutions from time to time party thereto, which provided for an asset-based revolving credit facility (the “Current ABL Facility”) of up to \$360.0 million, consisting of (i) \$285.0 million available to U.S. borrowers (subject to U.S. borrowing base availability) (the “ABL U.S. Facility”) and (ii) \$75.0 million available to both U.S. borrowers and Canadian borrowers (subject to U.S. borrowing base and Canadian borrowing base availability) (the “ABL Canadian Facility”). On October 15, 2018, Ply Gem Midco entered into Amendment No. 2 to the Current ABL Credit Agreement, by and among Ply Gem Midco, the incremental lender party thereto and the ABL Agent, which amended the Current ABL Credit Agreement in order to, among other things, increase the aggregate commitments under the Current ABL Facility by \$36.0 million to \$396.0 million overall, and with the (x) ABL U.S. Facility being increased from \$285.0 million to \$313.5 million and (y) the ABL Canadian Facility being increased from \$75.0 million to \$82.5 million. On November 16, 2018, Ply Gem Midco entered into Amendment No. 4 to the Current ABL Credit Agreement, by and among Ply Gem Midco, the incremental lenders party thereto and the ABL Agent, which amended the Current ABL Credit Agreement in order to, among other things, increase the aggregate commitments under the Current ABL Facility by \$215.0 million (the “Incremental ABL Commitments”) to \$611.0 million overall, and with the (x) ABL U.S. Facility being increased from \$313.5 million to approximately \$483.7 million and (y) the ABL Canadian Facility being increased from \$82.5 million to approximately \$127.3 million. On November 16, 2018, in connection with the consummation of the Merger, NCI and Ply Gem Midco entered into a joinder agreement with respect to the Current ABL Facility, and NCI became the Parent Borrower (as defined in the Current ABL Credit Agreement) under the Current ABL Facility. The Company and, at the Company’s option, certain of the Company’s subsidiaries are the borrowers under the Current ABL Facility. As of November 16, 2018, and following consummation of the Merger, (a) Ply Gem Industries, Inc., Atrium Windows and Doors, Inc., NCI Group, Inc. and Robertson-Ceco II Corporation were U.S. subsidiary borrowers under the Current ABL Facility, and (b) Gienow Canada Inc., Mitten Inc., North Star Manufacturing (London) Ltd. and Robertson Building Systems Limited were Canadian borrowers under the Current ABL Facility. All borrowings under the Current ABL Facility mature on April 12, 2023.

On April 12, 2018, Ply Gem Midco issued \$645.0 million aggregate principal amount of 8.00% Senior Notes due 2026 (the “8.00% Senior Notes”). The 8.00% Senior Notes were issued pursuant to an Indenture, dated as of April 12, 2018 (as supplemented from time to time, the “Current Indenture”), by and among Ply Gem Midco, as issuer, the subsidiary guarantors from time to time party thereto and Wilmington Trust, National Association, as trustee. On November 16, 2018, in connection with the consummation of the Merger, the Company entered into a supplemental indenture and assumed the obligations of Ply Gem Midco as issuer under the Current Indenture and the 8.00% Senior Notes. The 8.00% Senior Notes bear interest at 8.00% per annum and will mature on April 15, 2026. Interest is payable semi-annually in arrears on April 15 and October 15.

On November 16, 2018, in connection with the incurrence by Ply Gem Midco of the Incremental Term Loans and the obtaining by Ply Gem Midco of the Incremental ABL Commitments, following consummation of the Merger, the Company (a) terminated all outstanding commitments and repaid all outstanding amounts under the Term Loan Credit Agreement, dated as of February 8, 2018 (the “Pre-merger Term Loan Credit Agreement”), by and among the Company, as borrower, the several banks and other financial institutions from time to time party thereto and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and (b) terminated all outstanding commitments and repaid all outstanding amounts under the ABL Credit Agreement, dated as of February 8, 2018 (the “Pre-merger ABL Credit Agreement”), by and among NCI Group, Inc. and Robertson-Ceco II Corporation, as borrowers, the Company, as a guarantor, the other borrowers from time to time party thereto, the several banks and other financial institutions from time to time party thereto and Wells Fargo Bank, National Association, as administrative agent and collateral agent. Outstanding letters of credit under the Pre-merger ABL Credit Agreement were cash collateralized.

In connection with the termination and repayment of the Pre-merger Term Loan Credit Agreement and the Pre-merger ABL Credit Agreement, the Company also terminated (i) the Term Loan Guarantee and Collateral Agreement, dated as of February 8, 2018, made by the Company and certain of its subsidiaries, in favor of Credit Suisse AG, Cayman Islands Branch, as collateral agent, (ii) the ABL Guarantee and Collateral Agreement, dated as of February 8, 2018, made by the Company and certain of its subsidiaries, in favor of Wells Fargo Bank, National Association, as collateral agent, and (iii) the Intercreditor Agreement, dated as of February 8, 2018, between Credit Suisse AG, Cayman Islands Branch and Wells Fargo Bank, National Association, and acknowledged by the Company and certain of its subsidiaries.

Purchase Price Allocation

The Company's total purchase consideration in the Merger was equal to \$728.9 million and is comprised of the Stock Issuance of \$713.9 million and a cash payment of \$15.0 million by the Company to settle certain third-party fees and expenses incurred by Ply Gem. The Company determined the fair values of the tangible and intangible assets acquired and the liabilities assumed in the Merger, and recorded goodwill based on the excess of fair value of the acquisition consideration over such fair values, as follows (in thousands):

Assets acquired:		
Cash	\$	102,121
Accounts receivable		345,601
Inventories		301,388
Prepaid expenses and other current assets		52,923
Property, plant and equipment		364,708
Intangible assets (trade names/customer relationships)		1,720,000
Goodwill		1,462,958
Other assets		4,868
Total assets acquired		4,354,567
Liabilities assumed:		
Accounts payable		139,955
Tax receivable agreement liability		47,355
Other accrued expenses (inclusive of \$23.6 million for current warranty liabilities)		244,622
Debt (inclusive of current portion)		2,674,767
Other long-term liabilities (\$163.7 million for accrued long-term warranty)		163,668
Deferred income taxes		323,308
Other long-term liabilities		31,947
Total liabilities assumed		3,625,622
Net assets acquired	\$	728,945

At the acquisition date, \$747.4 million of goodwill was allocated to the Siding segment and \$715.6 million was allocated to the Windows segment and none of the goodwill is expected to be deductible for tax purposes. The goodwill is attributable to the workforce of the acquired business and the synergies expected to be realized.

Unaudited Pro Forma Financial Information

During the year ended December 31, 2019, Environmental Stoneworks contributed net sales of \$150.5 million and net income of \$8.7 million which has been included within the Company's consolidated statement of operations. The following table provides unaudited supplemental pro forma results for Cornerstone, prepared in accordance with ASC 805, for the years ended December 31, 2019 and October 28, 2018 as if the Environmental Stoneworks and Ply Gem acquisitions had occurred on October 30, 2017 (beginning of the year ended October 28, 2018) (in thousands except for per share data):

	Year Ended	
	December 31, 2019	October 28, 2018
Net sales	\$ 4,905,843	\$ 5,082,205
Net income (loss) applicable to common shares	15,176	(182,778)
Net income (loss) per common share:		
Basic	\$ 0.12	\$ (1.46)
Diluted	\$ 0.12	\$ (1.46)

The unaudited supplemental pro forma financial information was prepared based on the historical information of Cornerstone, Ply Gem and Environmental Stoneworks. Material pro forma adjustments related to the Environmental Stoneworks and Ply Gem acquisitions include approximately \$62.6 million of certain acquisition and compensation costs and \$37.9 million of non-cash charges of purchase price allocated to inventories, which were reflected in the pro forma results as if they were incurred on October 30, 2017. Other material pro forma adjustments include adjustments to depreciation and amortization expense and interest expense related to the Environmental Stoneworks and Ply Gem acquisitions.

The unaudited supplemental pro forma financial information does not give effect to the potential impact of current financial conditions, any anticipated synergies, operating efficiencies or cost savings that may result from the two acquisitions or any integration costs. Unaudited pro forma balances are not necessarily indicative of operating results had the Environmental Stoneworks and Ply Gem acquisitions occurred on October 30, 2017 or of future results.

5. RESTRUCTURING

The Company developed restructuring plans in the fourth quarter of the fiscal year ended November 1, 2015 (“fiscal 2015”) primarily to improve selling, general and administrative (“SG&A”) and manufacturing cost efficiency and to optimize our combined manufacturing footprint given the Company’s acquisitions, dispositions and restructuring efforts. Under these plans, the Company incurred restructuring charges of \$1.5 million, which included a net gain of \$1.2 million on the sale of facilities, \$4.7 million and \$1.3 million during fiscal 2018, 2017 and the transition period ended December 31, 2018, respectively, in the Commercial segment. As of December 31, 2018, the Company was substantially complete with the fiscal 2015 restructuring plans initiated by the Company before the Merger.

The Company has various new initiatives and programs in place within its business units to further reduce SG&A, manufacturing costs and to optimize our combined manufacturing footprint given the Merger. The following table summarizes our restructuring plan costs and charges related to the restructuring plans for the year ended December 31, 2019, which are recorded in restructuring and impairment charges in the Company’s consolidated statements of operations (in thousands):

	Costs Incurred To Date (since inception)
General severance	\$ 8,485
Plant closing severance	1,173
Asset impairments	2,963
Loss on sale of facilities, net	64
Other restructuring costs	5,375
Total restructuring costs	<u>\$ 18,060</u>

The following table summarizes the Company's severance liability and cash payments made pursuant to the restructuring plans from inception through December 31, 2019 (in thousands):

	General Severance	Plant Closing Severance	Total
Balance at December 31, 2018	\$ 2,418	\$ —	\$ 2,418
Costs incurred	8,485	1,173	9,658
Cash payments	(8,240)	(1,173)	(9,413)
Balance, December 31, 2019	<u>\$ 2,663</u>	<u>\$ —</u>	<u>\$ 2,663</u>

These severance liabilities are included within other accrued expenses on the consolidated balance sheets.

6. GOODWILL AND OTHER INTANGIBLE ASSETS

The Company's goodwill balance and changes in the carrying amount of goodwill by segment follows (in thousands):

	Commercial	Siding	Windows	Total
Balance, October 28, 2018	\$ 148,291	\$ —	—	\$ 148,291
Goodwill recognized from Merger	—	854,606	639,447	1,494,053
Currency translation	—	(1,220)	(913)	(2,133)
Balance, December 31, 2018	\$ 148,291	\$ 853,386	638,534	\$ 1,640,211
Goodwill recognized from Environmental Stoneworks Acquisition	—	61,767	—	61,767
Currency translation	—	(655)	(634)	(1,289)
Purchase accounting adjustments	—	(45,607)	14,512	(31,095)
Reallocation of goodwill between segments for purchase accounting	—	(61,611)	61,611	—
Balance, December 31, 2019	<u>\$ 148,291</u>	<u>\$ 807,280</u>	<u>\$ 714,023</u>	<u>\$ 1,669,594</u>

In accordance with ASC Topic 350, *Intangibles — Goodwill and Other*, goodwill is tested for impairment at least annually at the reporting unit level, which is defined as an operating segment or a component of an operating segment that constitutes a business for which financial information is available and is regularly reviewed by management. The Company has six reporting units for the purpose of allocating goodwill and the subsequent testing of goodwill for impairment. The Commercial segment has four reporting units (Engineered Building Systems, Metal Components, Insulated Metal Panels, and Metal Coil Coating) and the Siding and Windows segments each have one reporting unit.

At the beginning of the fourth quarter of each fiscal year, the Company performs an annual impairment assessment of goodwill and indefinite-lived intangible assets. The Company measures the goodwill impairment as the amount by which the reporting unit's carrying value exceeds its fair value not to exceed the carrying amount of goodwill in a reporting unit. To determine the fair value of its reporting units, the Company equally considers both the income and market valuation methodologies. The income valuation methodology uses the fair value of the cash flows that the reporting unit can be expected to generate in the future. This method requires management to project revenues, operating expenses, working capital investment, capital spending and cash flows for the reporting unit over a multi-year period as well as determine the weighted average cost of capital to be used as the discount rate. The Company also utilizes the market valuation method to estimate the fair value of the reporting units by utilizing comparable public company multiples. These comparable public company multiples are then applied to the reporting unit's financial performance. The market approach is more volatile as an indicator of fair value as compared to the income approach as internal forecasts and projections have historically been more stable. Since each approach has its merits, the Company equally weighs the approaches to balance the internal and external factors affecting the Company's fair value. Since the Merger occurred on November 16, 2018, the Siding and Windows reporting units were marked to fair value at the Merger date and the goodwill was adjusted accordingly for the Merger consideration. The annual impairment test occurred less than a year from the Merger date resulting in the Siding and Windows reporting units along with the Metal Coil Coating report units having fair values that exceeded their carrying values by approximately 12%, 3% and 8%, respectively.

The Company's fair value estimates of its reporting units are sensitive to a number of assumptions including discount rates, cash flow projections, operating margins, and comparable market multiples. In order to accurately forecast future cash flows, the Company utilized its weighted average cost of capital and its long-term growth rate to derive the appropriate capitalization rate used in the terminal value calculation. The Company utilized these fair value estimate assumptions during the impairment analysis conducted during the year ended December 31, 2019.

The Company provides no assurance that: 1) valuation multiples will not decline, 2) discount rates will not increase, or 3) the earnings, book values or projected earnings and cash flows of the Company's reporting units will not decline. The Company will continue to analyze changes to these assumptions in future periods. The Company will also continue to evaluate goodwill during future periods and declines in the residential housing, remodeling, and commercial construction markets or unfavorable performance by the Company in these markets could result in future goodwill impairments.

Our fiscal 2017 annual goodwill impairment testing indicated an impairment as the carrying value of CENTRIA's coil coating operations, included in the Commercial segment, exceeded its fair value. As a result, the Company recorded a non-cash charge of \$6.0 million in goodwill impairment in the Company's consolidated statements of operations for the year ended October 29, 2017.

The table that follows presents the major components of intangible assets as of December 31, 2019 and 2018 (in thousands):

	Range of Life (Years)	Weighted Average Amortization Period (Years)	Cost	Accumulated Amortization	Net Carrying Value
As of December 31, 2019					
Amortized intangible assets:					
Trademarks/Trade names/other ⁽¹⁾	5 – 15	9	\$ 252,942	\$ (38,010)	\$ 214,932
Customer lists and relationships	9 – 20	11	1,737,060	(211,292)	1,525,768
Total intangible assets		10	\$ 1,990,002	\$ (249,302)	\$ 1,740,700

(1) During fiscal 2019, the Company began amortization of trade names previously classified as indefinite-lived over an eight-year period.

	Range of Life (Years)	Weighted Average Amortization Period (Years)	Cost	Accumulated Amortization	Net Carrying Value
As of December 31, 2018					
Amortized intangible assets:					
Trademarks/Trade names	8 – 15	10	\$ 226,967	\$ (15,483)	\$ 211,484
Customer lists and relationships	9 – 20	11	1,503,410	(58,448)	1,444,962
Indefinite-lived intangible assets:					
Trade names			13,455	—	13,455
Total intangible assets		11	\$ 1,743,832	\$ (73,931)	\$ 1,669,901

Intangible assets are amortized on a straight-line basis or a basis consistent with the expected future cash flows over their expected useful lives. Amortization expense of intangibles was \$177.6 million, \$9.6 million, \$9.6 million and \$20.1 million in fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, respectively. The Company expects to recognize amortization expense over the next five fiscal years as follows (in thousands):

2020	\$ 179,435
2021	179,130
2022	178,820
2023	178,802
2024	177,374

In accordance with ASC Topic 350, *Intangibles — Goodwill and Other*, the Company evaluates the remaining useful life of intangible assets on an annual basis. The Company also reviews finite-lived intangible assets for impairment when events or changes in circumstances indicate the carrying values may not be recoverable in accordance with ASC Topic 360, *Property, Plant and Equipment*.

7. LEASES

As described in Note 2 — *Summary of Significant Accounting Policies*, effective January 1, 2019, the Company adopted ASU 2016-02, *Leases*, applying the standard to leases existing at the effective date. For arrangements entered into following the transition date, applicability of the standard is determined at inception.

Weighted average information about the Company's lease portfolio as of December 31, 2019 was as follows:

Weighted-average remaining lease term	5.9 years
Weighted-average IBR	6.13 %

Operating lease costs were as follows (in thousands):

	Year Ended December 31, 2019
Operating lease costs	
Fixed lease costs	\$ 102,767
Variable lease costs ⁽¹⁾	107,357

⁽¹⁾ Includes short-term lease costs, which are immaterial.

Cash and non-cash activities were as follows (in thousands):

	Year Ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows for operating leases	\$ 109,274
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 396,008

Future minimum lease payments under non-cancelable leases as of December 31, 2019 were as follows (in thousands):

	Operating Leases
2020	\$ 89,649
2021	78,970
2022	64,046
2023	37,049
2024	27,793
Thereafter	82,345
Total future minimum lease payments	379,852
Less: interest	63,644
Present value of future minimum lease payments	\$ 316,208

As of December 31, 2019	
Current portion of lease liabilities	\$ 72,428
Long-term portion of lease liabilities	243,780
Total	\$ 316,208

8. SHARE-BASED COMPENSATION

Our 2003 Long-Term Stock Incentive Plan, as amended (the “Incentive Plan”), is an equity-based compensation plan that allows us to grant a variety of types of awards, including stock options, restricted stock awards, stock appreciation rights, cash awards, phantom stock awards, restricted stock unit awards (“RSUs”) and long-term incentive awards with performance conditions (“performance share units” or “PSUs”). Awards are generally granted once per year, with the amounts and types of awards determined by the Compensation Committee of our Board of Directors (the “Committee”). In connection with the Merger, on November 16, 2018 awards were granted to certain senior executives and key employees (the “Founders Awards”), which included stock options, RSUs, and PSUs. A portion of the Founders Awards was not granted under the Incentive Plan but was instead granted pursuant to a separate equity-based compensation plan, the Long-Term Incentive Plan consisting of award agreements for select Founders Awards. However, these awards were subject to the same terms and provisions as awards of the same type granted under the Incentive Plan.

As of December 31, 2019, and for all periods presented, the Founders Awards and our share-based awards under the Incentive Plan have consisted of RSUs, PSUs and stock option grants, none of which can be settled through cash payments, and Performance Share Awards, which are settled in cash. Both our stock options and restricted stock awards are subject only to vesting requirements based on continued employment at the end of a specified time period and typically vest in annual increments over three to five years or earlier upon death, disability or a change in control. Restricted stock awards do not vest upon attainment of a specified retirement age, as provided by the agreements governing such awards. The vesting of our Performance Share Awards is described below.

As a general rule, option awards terminate on the earlier of (i) 10 years from the date of grant, (ii) 60 days after termination of employment or service for a reason other than death, disability or retirement, or (iii) 180 days after death, disability or retirement. Awards are non-transferable except by disposition on death or to certain family members, trusts and other family entities as the Committee may approve. Awards may be paid in cash, shares of our Common Stock or a combination, in lump sum or installments and currently or by deferred payment, all as determined by the Committee.

Our time-based restricted stock awards are typically subject to graded vesting over a service period, which is three to five years. Our performance-based and market-based restricted stock awards are typically subject to cliff vesting at the end of the service period, which is typically three years. Our share-based compensation arrangements are equity classified and we recognize compensation cost for these awards on a straight-line basis over the requisite service period for each award grant. In the case of performance-based awards, expense is recognized based upon management's assessment of the probability that such performance conditions will be achieved. Certain of our awards provide for accelerated vesting upon a change of control or upon termination without cause or for good reason.

A total of approximately 8,734,000 and 2,091,000 shares were available at December 31, 2019 and 2018, respectively, under the Incentive Plan for further grants of awards.

Our Board of Directors approved the treatment of existing awards as if a change in control had occurred, per the respective agreements governing each award. As such, on November 16, 2018, upon consummation of the Merger, certain awards granted in fiscal 2016 and earlier vested, resulting in the issuance of 0.5 million shares, net of shares withheld. Certain other PSUs that were issued in fiscal 2017 and fiscal 2018 converted to RSUs at 100% and continue to vest in accordance with the original schedule.

Founders Awards granted to our senior executives and certain key employees included options, RSUs and PSUs. The options and RSUs vest subject to continued employment 20% per year on the first through fifth anniversary of the award. Vesting of the PSUs is contingent upon the achievement of synergies captured from the Merger and continued employment during a three-year performance period beginning on the grant date. At the end of the performance period, the number of actual shares to be awarded varies between 0% and 200% of target amounts. The PSUs vest pro rata if an executive's employment terminates after 50% of the service period has passed and prior to the end of the performance period due to death, disability, or termination by the Company without cause or by the executive for good reason. If an executive's employment terminates for any other reason prior to the end of the performance period, all outstanding unvested PSUs, whether earned or unearned, are forfeited and cancelled. If a change in control of the Company occurs, and the plan is not accepted by the successor entity, prior to the end of the performance period, the PSU payout is calculated and paid assuming that the maximum benefit had been achieved. If the plan is accepted, awards will continue to vest as RSUs with a double trigger acceleration upon termination by the Company without cause or by the executive for good reason. If an executive's employment terminates due to death or disability while any of the restricted stock is unvested, then all of the unvested restricted stock shall become vested. If an executive's employment is terminated by the Company without cause or by the executive for good reason, the unvested restricted stock is forfeited. If a change in control of the Company occurs, and the plan is not accepted by the successor entity, prior to the end of the performance period, the restricted stock fully vests. If the plan is accepted, awards will continue to vest with a double trigger acceleration upon termination by the Company without cause or by the executive for good reason. The fair value of the awards is based on the Company's stock price as of the date of grant.

Stock Option Awards

The fair value of each option award is estimated as of the date of grant using a Black-Scholes-Merton option pricing formula. Expected volatility is based on normalized historical volatility of our stock over a preceding period commensurate with the expected term of the option. The risk-free rate for the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant. Expected dividend yield was not considered in the option pricing formula since we do not currently pay dividends on our Common Stock and have no current plans to do so in the future.

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During fiscal 2019 and 2017, and the transition period ended December 31, 2018, we granted 359,873, 10,424 and 3,082,175 stock options, respectively, and the weighted average grant-date fair value of options granted during fiscal 2019 and 2017, and the transition period ended December 31, 2018 was \$1.97, \$6.59 and \$5.19, respectively. We did not grant stock options during fiscal 2018.

The assumptions for the option awards granted in fiscal 2019 and 2017, and the transition period ended December 31, 2018 are as follows:

	Year Ended		October 29, 2018 - December 31, 2018
	December 31, 2019	October 29, 2017	
Volatility rate	39.87 %	42.63 %	37.26 %
Expected term (in years)	6.50	5.50	6.50
Risk-free interest rate	1.73 %	2.15 %	2.95 %

The following is a summary of stock option transactions during fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018 (in thousands, except weighted average exercise prices and weighted average remaining life):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Life	Aggregate Intrinsic Value
Balance, October 30, 2016	508	\$ 10.24		
Granted	11	15.70		
Exercised	(183)	9.03		
Balance, October 29, 2017	336	11.06		
Exercised	(115)	11.09		
Cancelled	(6)	15.70		
Balance, October 28, 2018	215	10.94		
Granted	3,082	12.16		
Balance, December 31, 2018	3,297	12.08		
Granted	360	4.67		
Forfeited	(713)	12.16		
Cancelled	(96)	9.17		
Balance, December 31, 2019	2,848	\$ 11.22	8.7	\$ 1,383
Exercisable at December 31, 2019	669	\$ 11.39	7.8	\$ 277

The following summarizes additional information concerning outstanding options at December 31, 2019 (in thousands, except weighted average remaining life and weighted average exercise prices):

Options Outstanding		
Number of Options	Weighted Average Remaining Life	Weighted Average Exercise Price
403	8.7 years	\$ 5.26
2,445	8.7 years	12.21
2,848	8.7 years	\$ 11.22

The following summarizes additional information concerning options exercisable at December 31, 2019 (in thousands, except weighted average exercise prices):

Options Exercisable		
Number of Options	Weighted Average Remaining Life	Weighted Average Exercise Price
115	6.7 years	\$ 6.74
554	8.1 years	12.36
669	7.8 years	\$ 11.39

No options were exercised during fiscal 2019 and the transition period ended December 31, 2018. There were 115,424, and 182,923 options exercised during fiscal 2018 and 2017, respectively. Cash received from the option exercises was \$1.3 million, and \$1.7 million during fiscal 2018 and 2017, respectively. The total intrinsic value of options exercised in fiscal 2018 and 2017 was \$0.8 million, and \$1.4 million, respectively.

Restricted stock and performance awards

During fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, we granted time-based RSUs with a fair value of \$3.3 million, \$7.1 million, \$4.5 million and \$24.0 million, respectively.

During the fiscal years 2019, 2018 and 2017, and the transition period ended December 31, 2018, we granted PSUs with fair values of approximately \$0.4 million, \$3.8 million, \$4.6 million and \$7.1 million, respectively, to certain executives.

Restricted stock and performance award transactions during fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018 were as follows (in thousands, except weighted average grant prices):

	Restricted Stock and Performance Awards					
	Time-Based		Performance-Based		Market-Based	
	Number of Shares	Weighted Average Grant Price	Number of Shares ⁽¹⁾	Weighted Average Grant Price	Number of Shares ⁽¹⁾	Weighted Average Grant Price
Balance, October 30, 2016	762	\$ 14.91	799	\$ 14.82	107	\$ 14.02
Granted	285	15.84	362	15.70	58	16.03
Vested	(392)	15.14	(165)	16.07	—	—
Forfeited	(27)	14.41	(124)	15.88	(21)	11.51
Balance, October 29, 2017	628	\$ 15.21	872	\$ 14.76	144	\$ 15.15
Granted	367	19.37	281	19.65	44	19.65
Vested	(423)	15.67	(94)	17.07	—	—
Forfeited	(64)	17.15	(183)	16.26	(43)	16.49
Balance, October 28, 2018	508	\$ 17.58	876	\$ 16.14	145	\$ 16.02
Granted	2,014	11.91	802	12.15	27	—
Vested	(277)	16.94	(640)	13.48	(104)	15.14
Forfeited	—	19.65	(1)	17.63	(68)	20.70
Balance, December 31, 2018	2,245	\$ 12.57	1,037	\$ 14.63	—	\$ —
Granted	703	5.40	76	4.67	—	—
Vested	(586)	12.42	(234)	16.30	—	—
Forfeited	(543)	11.00	(168)	13.09	—	—
Balance, December 31, 2019	1,819	\$ 10.32	711	\$ 13.38	—	\$ —

(1) The number of restricted stock shown reflects the shares that would be granted if the target level of performance is achieved. The number of shares actually issued may vary.

Share-Based Compensation Expense

Share-based compensation expense is recorded over the requisite service or performance period. For awards with performance conditions, the amount of share-based compensation expense recognized is based upon the probable outcome of the performance conditions, as defined and determined by management. With the adoption of ASU 2016-09 in the first quarter of fiscal 2018, we account for forfeitures of outstanding but unvested grants in the period they occur.

Share-based compensation expense recognized during fiscal 2019, 2018, 2017, and the transition period ended December 31, 2018 was \$14.1 million, \$11.6 million, \$10.2 million and \$4.5 million, respectively. The total income tax benefit recognized in results of operations for share-based compensation arrangements was \$3.7 million, \$3.2 million, \$4.0 million and \$1.1 million in fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018, respectively. As of December 31, 2019, we do not have any amounts capitalized for share-based compensation cost in inventory or similar assets.

Unrecognized share-based compensation expense and weighted average period over which expense attributable to unvested awards will be recognized are as follows (in millions, except weighted average remaining years):

	Year Ended December 31, 2019	
	Unrecognized Share-Based Compensation Expense	Weighted Average Remaining Years
Stock options	\$ 10.1	3.9
Time-based restricted stock	17.9	3.5

Performance-based restricted stock	4.8	1.7
Total unrecognized share-based compensation expense	<u>\$ 32.8</u>	

9. EARNINGS PER COMMON SHARE

Basic earnings per common share is computed by dividing net income allocated to common shares by the weighted average number of common shares outstanding. Diluted income per common share, if applicable, considers the dilutive effect of common stock equivalents. The reconciliation of the numerator and denominator used for the computation of basic and diluted income per common share is as follows (in thousands, except per share data):

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Numerator for Basic and Diluted Earnings Per Common Share:				
Net income (loss) applicable to common shares	\$ (15,390)	\$ 62,694	\$ 54,399	\$ (76,190)
Denominator for Basic and Diluted Earnings Per Common Share:				
Weighted average basic number of common shares outstanding	125,576	66,260	70,629	107,813
Common stock equivalents:				
Employee stock options	—	89	124	—
PSUs and Performance Share Awards	—	13	25	—
Weighted average diluted number of common shares outstanding	125,576	66,362	70,778	107,813
Basic earnings (loss) per common share	\$ (0.12)	\$ 0.95	\$ 0.77	\$ (0.71)
Diluted earnings (loss) per common share	\$ (0.12)	\$ 0.94	\$ 0.77	\$ (0.71)
Incentive Plan securities excluded from dilution ⁽¹⁾	4,480	1	—	2,053

(1) Represents securities not included in the computation of diluted earnings per common share because their effect would have been anti-dilutive.

We calculate earnings per share using the “two-class” method, whereby unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents are “participating securities” and, therefore, these participating securities are treated as a separate class in computing earnings per share. The calculation of earnings per share presented here excludes the income attributable to unvested restricted stock units related to our Incentive Plan from the numerator and excludes the dilutive impact of those shares from the denominator. Awards subject to the achievement of performance conditions or market conditions for which such conditions had been met at the end of any of the fiscal periods presented are included in the computation of diluted earnings per common share if their effect was dilutive.

10. OTHER ACCRUED EXPENSES

Other accrued expenses are comprised of the following (in thousands):

	December 31, 2019	December 31, 2018
Sales and marketing	\$ 62,384	\$ 58,034
Accrued warranty obligation and deferred warranty revenue	26,427	34,112
Other accrued expenses	144,876	172,992
Total other accrued expenses	\$ 233,687	\$ 265,138

11. WARRANTY

The following table represents the rollforward of our accrued warranty obligation and deferred warranty revenue activity for the fiscal year ended December 31, 2019 and the transition period ended December 31, 2018 (in thousands):

	December 31, 2019	December 31, 2018
Beginning balance	\$ 134,515	\$ 30,659
Acquisition - Ply Gem	—	103,842
Purchase accounting adjustments	83,410	—
Warranties sold	2,910	3,194
Revenue recognized	(2,774)	(442)
Expense	28,580	—
Settlements	(30,468)	—
Cost incurred and other	—	(2,738)
Ending balance	216,173	134,515
Less: Current portion	26,427	34,112
Total, less current portion	<u>\$ 189,746</u>	<u>\$ 100,403</u>

The current portion of the warranty liabilities are recorded within other accrued expenses and the long-term portion of the warranty liabilities are recorded within other long-term liabilities in the Company's consolidated balance sheets.

12. LONG-TERM DEBT

Debt is comprised of the following (in thousands):

	December 31, 2019	December 31, 2018
Asset-based revolving credit facility due April 2023	\$ 70,000	\$ —
Term loan facility due April 2025	2,523,587	2,549,207
Cash flow revolver due April 2023	—	—
8.00% senior notes due April 2026	645,000	645,000
Less: unamortized discounts and unamortized deferred financing costs ⁽¹⁾	(56,063)	(83,444)
Total long-term debt, net of unamortized discounts and deferred financing costs	3,182,524	3,110,763
Less: current portion of long-term debt	25,600	25,600
Total long-term debt, less current portion	<u>\$ 3,156,924</u>	<u>\$ 3,085,163</u>

(1) Includes the unamortized deferred financing costs associated with the term loan credit facility and the senior notes. The unamortized deferred financing costs associated with the asset-based revolving credit facility of \$2.4 million and \$3.1 million as of December 31, 2019 and 2018, respectively, are classified in other assets on the consolidated balance sheets.

The scheduled maturity of our debt is as follows (in thousands):

2020	\$ 25,600
2021	25,600
2022	25,600
2023	95,600
2024 and thereafter	3,066,187
	<u>\$ 3,238,587</u>

Merger Debt Transactions

In connection with the Merger, on November 16, 2018, the Company assumed (i) the obligations of Ply Gem Midco, a subsidiary of Ply Gem immediately prior to the consummation of the Merger, as borrower under the Current Cash Flow Credit Agreement, (ii) the obligations of Ply Gem Midco as parent borrower under the Current ABL Credit Agreement and (iii) the obligations of Ply Gem Midco as issuer under the Current Indenture.

February 2018 Debt Redemption and Refinancing

On February 8, 2018, the Company entered into the Pre-merger Term Loan Credit Agreement and the Pre-merger ABL Credit Agreement, the proceeds of which, together, were used to redeem the then existing 8.25% senior notes due 2023 (the "8.25% Senior Notes") and to refinance the Company's then existing term loan credit facility and the Company's then existing asset-based revolving credit facility.

Term Loan Credit Agreement due February 2025

On February 8, 2018, the Company entered into the Pre-merger Term Loan Credit Agreement which provided for a term loan credit facility in an original aggregate principal amount of \$415.0 million (the "Pre-merger Term Loan Credit Facility"). Proceeds from borrowings under the Pre-merger Term Loan Credit Facility were used, together with cash on hand, (i) to refinance the then existing term loan credit agreement, (ii) to redeem and repay the 8.25% Senior Notes and (iii) to pay any fees, premiums and expenses incurred in connection with the refinancing. On November 16, 2018, the Company repaid the remaining \$412.9 million aggregate principal amount of the term loans outstanding under the Pre-merger Term Loan Credit Facility for approximately \$413.7 million, reflecting remaining principal and interest, using proceeds from the incremental term loan facility entered into in connection with the Merger.

Term Loan Facility due April 2025 and Cash Flow Revolver due April 2023

On April 12, 2018, Ply Gem Midco entered into the Current Cash Flow Credit Agreement, which provides for (i) a term loan facility (the "Current Term Loan Facility") in an original aggregate principal amount of \$1,755.0 million, issued with a discount of 0.5%, and (ii) a cash flow-based revolving credit facility (the "Current Cash Flow Revolver" and together with the Term Loan Facility, the "Current Cash Flow Facilities") of up to \$115.0 million. The Current Term Loan Facility amortizes in nominal quarterly installments equal to one percent of the aggregate initial principal amount thereof per annum, with the remaining balance payable upon final maturity of the Current Term Loan Facility on April 12, 2025. There are no amortization payments under the Current Cash Flow Revolver, and all borrowings under the Current Cash Flow Revolver mature on April 12, 2023.

On November 16, 2018, the Company entered into an incremental term loan facility in connection with the Merger, which increased the aggregate principal amount of the Current Term Loan Facility by \$805.0 million. The proceeds of this incremental term loan facility were used to, among other things, (a) finance the Merger and to pay certain fees, premiums and expenses incurred in connection therewith, (b) repay in full amounts outstanding under the Pre-merger Term Loan Credit Agreement and the Pre-merger ABL Credit Agreement and (c) repay \$325.0 million of borrowings outstanding under the ABL Facility. On November 16, 2018, in connection with the consummation of the Merger, NCI and Ply Gem Midco entered into a joinder agreement with respect to the Current Cash Flow Facilities, and the Company became the Borrower (as defined in the Current Cash Flow Credit Agreement) under the Current Cash Flow Facilities.

The Current Term Loan Facility bears annual interest at a floating rate measured by reference to, at the Company's option, either (i) an adjusted LIBOR rate (subject to a floor of 0.00%) plus an applicable margin of 3.75% per annum or (ii) an alternate base rate plus an applicable margin of 2.75% per annum. At December 31, 2019, the interest rates on the Current Term Loan Facility were as follows:

	December 31, 2019
Interest rate	5.49 %
Effective interest rate	6.51 %

The Company entered into certain interest rate swap agreements during fiscal 2019 to convert a portion of its variable rate debt to fixed. See Note 15 — *Fair Value of Financial Instruments and Fair Value Measurements*.

Loans outstanding under the Current Cash Flow Revolver bear annual interest at a floating rate measured by reference to, at the Company's option, either (i) an adjusted LIBOR rate (subject to a floor of 0.00%) plus an applicable margin ranging from 2.50% to 3.00% per annum depending on the Company's secured leverage ratio or (ii) an alternate base rate plus an applicable margin ranging from 1.50% to 2.00% per annum depending on the Company's secured leverage ratio. Additionally, unused commitments under the Current Cash Flow Revolver are subject to a fee ranging from 0.25% to 0.50% per annum depending on the Company's secured leverage ratio.

The Current Term Loan Facility may be prepaid at the Company's option at any time, subject to minimum principal amount requirements. Prepayments of the Current Term Loan Facility in connection with a repricing transaction (as defined in the Current Cash Flow Credit Agreement) on or prior to April 12, 2019 are subject to a 1.00% prepayment premium. Prepayments may otherwise be made without premium or penalty (other than customary breakage costs). The Current Cash Flow Revolver may be prepaid at the Company's option at any time without premium or penalty (other than customary breakage costs), subject to minimum principal amount requirements.

Subject to certain exceptions, the Current Term Loan Facility is subject to mandatory prepayments in an amount equal to:

- the net cash proceeds of (1) certain asset sales, (2) certain debt offerings and (3) certain insurance recovery and condemnation events; and
- 50% of annual excess cash flow (as defined in the Cash Flow Credit Agreement), subject to reduction to 25% and 0% if specified secured leverage ratio targets are met to the extent that the amount of such excess cash flow exceeds \$10.0 million. The annual excess cash flow assessment began with the Company's 2019 fiscal year, payable within five business days after the delivery of the annual financial statements. For fiscal 2019, no payments were required under the excess cash flow calculation.

The obligations under the Current Cash Flow Credit Agreement are guaranteed by each direct and indirect wholly-owned U.S. restricted subsidiary of the Company, subject to certain exceptions, and are secured by:

- a perfected security interest in substantially all tangible and intangible assets of the Company and each subsidiary guarantor (other than ABL Priority Collateral (as defined below)), including the capital stock of each direct material wholly-owned U.S. restricted subsidiary owned by the Company and each subsidiary guarantor, and 65% of the capital stock of any non-U.S. subsidiary held directly by the Company or any subsidiary guarantor, subject to certain exceptions (the "Cash Flow Priority Collateral"), which security interest will be senior to the security interest in the foregoing assets securing the Current ABL Facility; and
- a perfected security interest in the ABL Priority Collateral, which security interest will be junior to the security interest in the ABL Priority Collateral securing the Current ABL Facility.

The Current Cash Flow Revolver includes a financial covenant set at a maximum secured leverage ratio of 7.75:1.00, which will apply if the outstanding amount of loans and drawings under letters of credit which have not then been reimbursed exceeds a specified threshold at the end of any fiscal quarter.

ABL Credit Agreement due February 2023

On February 8, 2018, the subsidiaries of the Company, NCI Group, Inc. and Robertson-Ceco II Corporation, and the Company as a guarantor, entered into the Pre-merger ABL Credit Agreement. The Pre-merger ABL Credit Agreement provided for an asset-based revolving credit facility (the "Pre-merger ABL Credit Facility") which allowed aggregate maximum borrowings by the ABL borrowers of up to \$150.0 million, letters of credit of up to \$30.0 million and up to \$20.0 million for swingline borrowings. Borrowing availability was determined by a monthly borrowing base collateral calculation that was based on specified percentages of the value of accounts receivable, eligible credit card receivables and eligible inventory, less certain reserves and subject to certain other adjustments. Availability was reduced by issuance of letters of credit as well as any borrowings. All borrowings under the Pre-merger ABL Credit Facility would have matured on February 8, 2023. This facility was terminated in connection with the Merger and replaced with the Current ABL Facility (defined below).

ABL Facility due April 2023

On April 12, 2018, Ply Gem Midco entered into the Current ABL Credit Agreement, which provides for an asset-based revolving credit facility (the "Current ABL Facility") of up to \$360.0 million, consisting of (i) \$285.0 million available to U.S. borrowers (subject to U.S. borrowing base availability) (the "ABL U.S. Facility") and (ii) \$75.0 million available to both U.S. borrowers and Canadian borrowers (subject to U.S. borrowing base and Canadian borrowing base availability) (the "ABL Canadian Facility"). The Company and, at their option, certain of their subsidiaries are the borrowers under the Current ABL Facility. All borrowings under the Current ABL Facility mature on April 12, 2023.

On October 15, 2018, Ply Gem Midco entered into an incremental asset-based revolving credit facility of \$36.0 million, which upsized the Current ABL Facility to \$396.0 million in the aggregate, and with (x) the ABL U.S. Facility being increased from \$285.0 million to \$313.5 million and (y) the ABL Canadian Facility being increased from \$75.0 million to \$82.5 million.

On November 16, 2018, Ply Gem Midco entered into an incremental asset-based revolving credit facility of \$215.0 million in connection with the Merger, which upsized the Current ABL Facility to \$611.0 million in the aggregate, and with (x) the ABL U.S. Facility being increased from \$313.5 million to approximately \$483.7 million and (y) the ABL Canadian Facility being increased from \$82.5 million to approximately \$127.3 million. On November 16, 2018, in connection with the consummation of the Merger, the Company and Ply Gem Midco entered into a joinder agreement with respect to the Current ABL Facility, and the Company became the Parent Borrower (as defined in the ABL Credit Agreement) under the Current ABL Facility.

Borrowing availability under the Current ABL Facility is determined by a monthly borrowing base collateral calculation that is based on specified percentages of the value of eligible inventory, eligible accounts receivable and eligible credit card receivables, less certain reserves and subject to certain other adjustments as set forth in the Current ABL Credit Agreement. Availability is reduced by issuance of letters of credit as well as any borrowings. As of December 31, 2019, the Company had the following in relation to the Current ABL Facility (in thousands):

	December 31, 2019
Excess availability	\$ 425,920
Revolving loans outstanding	70,000
Letters of credit outstanding	30,223

Loans outstanding under the Current ABL Facility bear interest at a floating rate measured by reference to, at the Company's option, either (i) an adjusted LIBOR rate (subject to a LIBOR floor of 0.00%) plus an applicable margin ranging from 1.25% to 1.75% per annum depending on the average daily excess availability under the Current ABL Facility or (ii) an alternate base rate plus an applicable margin ranging from 0.25% to 0.75% per annum depending on the average daily excess availability under the ABL Facility. Additionally, unused commitments under the ABL Facility are subject to a 0.25% per annum fee. At December 31, 2019, the weighted average interest rate on the Current ABL Facility was 3.24%.

The obligations under the Current ABL Credit Agreement are guaranteed by each direct and indirect wholly-owned U.S. restricted subsidiary of the Company, subject to certain exceptions, and are secured by:

- a perfected security interest in all present and after-acquired inventory, accounts receivable, deposit accounts, securities accounts, and any cash or other assets in such accounts and other related assets owned by the Company and the U.S. subsidiary guarantors and the proceeds of any of the foregoing, except to the extent such proceeds constitute Cash Flow Priority Collateral, and subject to certain exceptions (the "ABL Priority Collateral"), which security interest is senior to the security interest in the foregoing assets securing the Current Cash Flow Facilities; and
- a perfected security interest in the Cash Flow Priority Collateral, which security interest will be junior to the security interest in the Cash Flow Collateral securing the Current Cash Flow Facilities.

Additionally, the obligations of the Canadian borrowers under the Current ABL Credit Agreement are guaranteed by each direct and indirect wholly-owned Canadian restricted subsidiary of the Canadian borrowers, subject to certain exceptions, and are secured by substantially all assets of the Canadian borrowers and the Canadian subsidiary guarantors, subject to certain exceptions.

The Current ABL Credit Agreement includes a minimum fixed charge coverage ratio of 1.00:1.00, which is tested only when specified availability is less than 10.0% of the lesser of (x) the then applicable borrowing base and (y) the then aggregate effective commitments under the Current ABL Facility, and continuing until such time as specified availability has been in excess of such threshold for a period of 20 consecutive calendar days.

8.00% Senior Notes due April 2026

On April 12, 2018, Ply Gem Midco issued \$645.0 million at a discount of 2.25% in aggregate principal amount of 8.00% Senior Notes due April 2026 (the "8.00% Senior Notes"). The 8.00% Senior Notes bear interest at 8.00% per annum and will mature on April 15, 2026. Interest is payable semi-annually in arrears on April 15 and October 15. The effective interest rate for the 8.00% Senior Notes was 8.64% as of December 31, 2019, after considering each of the different interest expense components of this instrument, including the coupon payment and the deferred debt issuance costs.

On November 16, 2018, in connection with the consummation of the Merger, the Company entered into a supplemental indenture and assumed the obligations of Ply Gem Midco as issuer under the Current Indenture.

The 8.00% Senior Notes are guaranteed on a senior unsecured basis by each of the Company's wholly-owned domestic subsidiaries that guarantee the Company's obligations under the Current Cash Flow Facilities or the Current ABL Facility (including by reason of being a borrower under the Current ABL Facility on a joint and several basis with the Company or a subsidiary guarantor). The 8.00% Senior Notes are unsecured senior indebtedness and rank equally in right of payment with the Current Cash Flow Facilities and Current ABL Facility. The 8.00% Senior Notes are effectively subordinated to all of the Company's secured debt, including the Current Cash Flow Facilities and Current ABL Facility, and are senior in right of payment to all subordinated obligations of the Company.

The Company may redeem the 8.00% Senior Notes in whole or in part at any time as set forth below:

- prior to April 15, 2021, the Company may redeem the 8.00% Senior Notes at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest, if any, to but not including the redemption date, plus the applicable make-whole premium;

- prior to April 15, 2021, the Company may redeem up to 40.0% of the original aggregate principal amount of the 8.00% Senior Notes with proceeds of certain equity offerings, at a redemption price of 108%, plus accrued and unpaid interest, if any, to but not including the redemption date; and
- on or after April 15, 2021, the Company may redeem the 8.00% Senior Notes at specified redemption prices starting at 104% and declining ratably to 100.0% by April 15, 2023, plus accrued and unpaid interest, if any, to but not including the redemption date.

Redemption of 8.25% Senior Notes

On January 16, 2015, the Company issued \$250.0 million in aggregate principal of 8.25% senior notes. On February 8, 2018, the Company redeemed the outstanding \$250.0 million aggregate principal amount of the 8.25% Notes for approximately \$265.5 million using the proceeds from borrowings under the Pre-merger Term Loan Credit Facility.

During the fiscal year ended October 28, 2018, the Company incurred a pretax loss, primarily on the extinguishment of the Notes, of \$21.9 million, of which approximately \$15.5 million represents the premium paid on the redemption of the Notes.

Transition Period Loss on Extinguishment of Debt

As a result of the Merger, during the transition period ended December 31, 2018, the Company incurred a \$3.3 million pretax loss on the extinguishment of the Pre-merger Term Loan Credit Facility and the Pre-merger ABL Credit Agreement, of which approximately \$2.4 million represented unamortized debt issuance costs on the Pre-merger Term Loan Credit Facility.

Debt Covenants

The Company's debt agreements contain a number of covenants that, among other things, limit or restrict the ability of the Company and its subsidiaries to incur additional indebtedness; make dividends and other restricted payments; incur additional liens; consolidate, merge, sell or otherwise dispose of all or substantially all assets; make investments; transfer or sell assets; enter into restrictive agreements; change the nature of the business; and enter into certain transactions with affiliates. As of December 31, 2019, the Company was in compliance with all covenants that were in effect on such date.

13. CD&R INVESTOR GROUP

On August 14, 2009, the Company entered into an Investment Agreement (as amended, the "Investment Agreement"), by and between the Company and Clayton, Dubilier & Rice Fund VIII, L.P., a Cayman Islands exempted limited partnership ("CD&R Fund VIII"). In connection with the Investment Agreement and the Stockholders Agreement dated October 20, 2009 (the "Old Stockholders Agreement"), CD&R Fund VIII and CD&R Friends & Family Fund VIII, L.P., a Cayman Islands exempted limited partnership ("CD&R FF Fund" and, together with CD&R Fund VIII, the "CD&R Fund VIII Investor Group") purchased convertible preferred stock of the Company, which was converted into shares of our common stock on May 14, 2013.

In January 2014, the CD&R Fund VIII Investor Group completed a registered underwritten offering, in which the CD&R Fund VIII Investor Group offered 8.5 million shares of Common Stock at a price to the public of \$18.00 per share (the "2014 Secondary Offering"). The underwriters also exercised their option to purchase 1.275 million additional shares of Common Stock. In addition, the Company entered into an agreement with the CD&R Fund VIII Investor Group to repurchase 1.15 million shares of its Common Stock at a price per share equal to the price per share paid by the underwriters to the CD&R Fund VIII Investor Group in the underwritten offering (the "2014 Stock Repurchase"). The 2014 Stock Repurchase, which was completed at the same time as the 2014 Secondary Offering, represented a private, non-underwritten transaction between NCI and the CD&R Fund VIII Investor Group that was approved and recommended by the Affiliate Transactions Committee of our Board of Directors.

On July 25, 2016, the CD&R Fund VIII Investor Group completed a registered underwritten offering, in which the CD&R Fund VIII Investor Group offered 9.0 million shares of our Common Stock at a price to the public of \$16.15 per share (the "2016 Secondary Offering"). The underwriters also exercised their option to purchase 1.35 million additional shares of our Common Stock from the CD&R Fund VIII Investor Group. The aggregate offering price for the 10.35 million shares sold in the 2016 Secondary Offering was approximately \$160.1 million, net of underwriting discounts and commissions. The CD&R Fund VIII Investor Group received all of the proceeds from the 2016 Secondary Offering and no shares in the 2016 Secondary Offering were sold by the Company or any of its officers or directors (although certain of our directors are affiliated with the CD&R Fund VIII Investor Group).

On July 18, 2016, the Company entered into an agreement with the CD&R Fund VIII Investor Group to repurchase approximately 2.9 million shares of our Common Stock at the price per share equal to the price per share paid by the underwriters to the CD&R Fund VIII Investor Group in the underwritten offering (the “2016 Stock Repurchase”). The 2016 Stock Repurchase, which was completed concurrently with the 2016 Secondary Offering, represented a private, non-underwritten transaction between the Company and the CD&R Fund VIII Investor Group that was approved and recommended by the Affiliate Transactions Committee of our Board of Directors. See Note 18 — *Stock Repurchase Program*.

On December 11, 2017, the CD&R Fund VIII Investor Group completed a registered underwritten offering of 7,150,000 shares of the Company’s Common Stock at a price to the public of \$19.36 per share (the “2017 Secondary Offering”). Pursuant to the underwriting agreement, at the CD&R Fund VIII Investor Group request, the Company purchased 1.15 million of the 7.15 million shares of the Company’s Common Stock from the underwriters in the 2017 Secondary Offering at a price per share equal to the price at which the underwriters purchased the shares from the CD&R Fund VIII Investor Group. The total amount the Company spent on these repurchases was \$22.3 million.

Ply Gem Holdings was acquired by CD&R Fund X and Atrium Intermediate Holdings, LLC, GGC BP Holdings, LLC and AIC Finance Partnership, L.P. (collectively, the “Golden Gate Investor Group”) and merged with Atrium on April 12, 2018 (the “Ply Gem-Atrium Merger”).

Pursuant to the terms of the Merger Agreement, on November 16, 2018, the Company entered into (i) a stockholders agreement (the “New Stockholders Agreement”) between the Company, and each of the CD&R Fund VIII Investor Group, CD&R Pisces Holdings, L.P., a Cayman Islands exempted limited partnership (“CD&R Pisces”, and together with the CD&R Fund VIII Investor Group, the “CD&R Investor Group”) and the Golden Gate Investor Group (together with the CD&R Investor Group, the “Investors”), pursuant to which the Company granted to the Investors certain governance, preemptive and subscription rights and (ii) a registration rights agreement (the “New Registration Rights Agreement”) between the Company and each of the Investors, pursuant to which the Company granted the Investors customary demand and piggyback registration rights, including rights to demand registrations and underwritten shelf registration statement offerings with respect to the shares of the Company’s Common Stock that are held by the Investors following the consummation of the Merger.

Pursuant to the terms of the New Stockholders Agreement, the Company and the CD&R Fund VIII Investor Group terminated the Old Stockholders Agreement. Pursuant to the terms of the New Registration Rights Agreement, the Company and the CD&R Fund VIII Investor Group terminated the Registration Rights Agreement, dated as of October 20, 2009 (the “Old Registration Rights Agreement”), by and among the Company and the CD&R Fund VIII Investor Group.

At December 31, 2019 and 2018, the CD&R Investor Group owned approximately 49.1% and 49.4%, respectively, of the outstanding shares of the Company’s Common Stock.

14. RELATED PARTIES

Pursuant to the Investment Agreement and the New Stockholders Agreement, the CD&R Investor Group had the right to designate a number of directors to the Company’s Board of Directors that was equivalent to the CD&R Fund VIII Investor Group’s percentage interest in the Company. Among other directors appointed by the CD&R Investor Group, our Board of Directors appointed to the Board of Directors John Krenicki, Nathan K. Sleeper and Jonathan L. Zrebiec. Messrs. Krenicki, Sleeper and Zrebiec are partners of Clayton, Dubilier & Rice, LLC, (“CD&R, LLC”), an affiliate of the CD&R Investor Group.

As a result of their respective positions with CD&R, LLC and its affiliates, one or more of Messrs. Krenicki, Sleeper and Zrebiec may be deemed to have an indirect material interest in certain agreements executed in connection with the Equity Investment and the Merger.

15. FAIR VALUE OF FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, restricted cash, trade accounts receivable and accounts payable approximate fair value as of December 31, 2019 and 2018 because of the relatively short maturity of these instruments. The carrying amounts of the indebtedness under the Current ABL Facility and Current Cash Flow Revolver approximate fair value as the interest rates are variable and reflective of market rates. At December 31, 2019, there was \$70.0 million of borrowings outstanding under the Current ABL Facility and no outstanding indebtedness under the Current Cash Flow Revolver. The fair values of the remaining financial instruments not currently recognized at fair value on our consolidated balance sheets at the respective period ends were (in thousands):

	December 31, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Term loan facility due April 2025	\$ 2,523,587	\$ 2,514,906	\$ 2,549,207	\$ 2,319,778
8.00% Senior Notes	645,000	670,800	645,000	599,850

The fair values of the term loan facility were based on recent trading activities of comparable market instruments, which are level 2 inputs and the fair value of the 8.00% senior notes was based on quoted prices in active markets for the identical liabilities, which are level 1 inputs.

Fair Value Measurements

ASC Subtopic 820-10, *Fair Value Measurements and Disclosures*, requires us to use valuation techniques to measure fair value that maximize the use of observable inputs and minimize the use of unobservable inputs. These inputs are prioritized as follows:

Level 1: Observable inputs such as quoted prices for identical assets or liabilities in active markets.

Level 2: Other inputs that are observable directly or indirectly, such as quoted prices for similar assets or liabilities or market-corroborated inputs.

Level 3: Unobservable inputs for which there is little or no market data and which require us to develop our own assumptions about how market participants would price the assets or liabilities.

The following is a description of the valuation methodologies used for assets and liabilities measured at fair value. There have been no changes in the methodologies used at December 31, 2019 and 2018.

Money market: Money market funds have original maturities of three months or less. The original cost of these assets approximates fair value due to their short-term maturity.

Mutual funds: Mutual funds are valued at the closing price reported in the active market in which the mutual fund is traded.

Assets held for sale: Assets held for sale are valued based on current market conditions, prices of similar assets in similar condition and expected proceeds from the sale of the assets.

Deferred compensation plan liability: Deferred compensation plan liability is comprised of phantom investments in the deferred compensation plan and is valued at the closing price reported in the active markets in which the money market and mutual funds are traded.

Interest rate swap liability: Interest rate swap liabilities are based on cash flow hedge contracts that have fixed rate structures and are measured against market-based LIBOR yield curves. These interest rate swaps were classified within Level 2 of the fair value hierarchy because they were valued using alternative pricing sources or models that utilized market observable inputs, including current and forward interest rates.

Foreign currency hedge: The fair value of the foreign currency forward contract agreement is estimated using industry standard valuation models using market-based observable inputs, including spot rates, forward points, interest rates and volatility inputs (Level 2).

The following tables summarize information regarding our financial assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2019 and 2018, segregated by level of the valuation inputs within the fair value hierarchy utilized to measure fair value (in thousands):

December 31, 2019				
	Level 1	Level 2	Level 3	Total
Assets:				
Short-term investments in deferred compensation plan: ⁽¹⁾				
Money market	\$ 2	\$ —	\$ —	\$ 2
Mutual funds – Growth	1,044	—	—	1,044
Mutual funds – Blend	1,769	—	—	1,769
Mutual funds – Foreign blend	572	—	—	572
Mutual funds – Fixed income	—	389	—	389
Total short-term investments in deferred compensation plan ⁽²⁾	3,387	389	—	3,776
Foreign currency hedge ⁽⁴⁾	—	—	—	—
Total assets	\$ 3,387	\$ 389	\$ —	\$ 3,776
Liabilities:				
Deferred compensation plan liability ⁽²⁾	\$ —	\$ 3,847	\$ —	\$ 3,847
Interest rate swap liability ⁽³⁾	—	29,988	—	29,988
Total liabilities	\$ —	\$ 33,835	\$ —	\$ 33,835

December 31, 2018				
	Level 1	Level 2	Level 3	Total
Assets:				
Short-term investments in deferred compensation plan: ⁽¹⁾				
Money market	\$ 4	\$ —	\$ —	\$ 4
Mutual funds – Growth	960	—	—	960
Mutual funds – Blend	1,537	—	—	1,537
Mutual funds – Foreign blend	717	—	—	717
Mutual funds – Fixed income	—	553	—	553
Total short-term investments in deferred compensation plan ⁽²⁾	3,218	553	—	3,771
Total assets	\$ 3,218	\$ 553	\$ —	\$ 3,771
Liabilities:				
Deferred compensation plan liability ⁽²⁾	\$ —	\$ 3,139	\$ —	\$ 3,139
Total liabilities	\$ —	\$ 3,139	\$ —	\$ 3,139

- (1) The unrealized holding gain (loss) was \$0.5 million and \$(0.8) million for the year ended December 31, 2019 and the transition period ended December 31, 2018, respectively.
- (2) The Company records the short-term investments in deferred compensation plan within investments in debt and equity securities, at market, and the deferred compensation plan liability within accrued compensation and benefits on the consolidated balance sheets.
- (3) In May 2019, the Company entered into 4 year interest rate swaps to mitigate variability in forecasted interest payments on \$1,500.0 million of the Company's Term Loan secured variable debt. The interest rate swaps effectively convert a portion of the floating rate interest payments into a fixed rate interest payment. There are three interest rate swaps that cover \$500.0 million of notional debt each and fix the interest rate at 5.918%, 5.906% and 5.907%, respectively. The Company designated the interest rate swaps as qualifying hedging instruments and accounts for these derivatives as cash flow hedges. The interest rate swap liability is included within other long-term liabilities on the consolidated balance sheets.

- (4) In July 2019, the Company entered into a forward contract agreement to hedge approximately \$21.9 million of its 2019 non-functional currency inventory purchases. This forward contract was established to protect the Company from variability in cash flows attributable to changes in the U.S. dollar relative to the Canadian dollar. As a cash flow hedge, unrealized gains are recognized as assets while unrealized losses are recognized as liabilities. The forward contract is highly correlated to the changes in the U.S. dollar relative to the Canadian dollar. Unrealized gains and losses on these agreements are designated as effective or ineffective. The effective portion of such gains or losses is recorded as a component of accumulated other comprehensive income or loss, while the ineffective portion of such gains or losses is recorded as a component of cost of goods sold. Future realized gains and losses in connection with each inventory purchase will be reclassified from accumulated other comprehensive income or loss to cost of goods sold. The gains and losses on the derivative contract that are reclassified from accumulated other comprehensive income or loss to current period earnings are included in the line item in which the hedged item is recorded in the same period the forecasted transaction affects earnings. During fiscal 2019, the Company realized a gain of approximately \$0.1 million within cost of goods sold in the consolidated statement of operations based on these cash flow hedges. The changes in fair values of derivatives that have been designated and qualify as cash flow hedges are recorded in accumulated other comprehensive income or loss and are reclassified into cost of goods sold in the same period the hedged item affects earnings. Due to the high degree of effectiveness between the hedging instruments and the underlying exposures being hedged, fluctuations in the value of the derivative instruments are generally offset by changes in the fair value or cash flows of the underlying exposures being hedged. The changes in the fair value of derivatives that do not qualify as effective are immediately recognized in earnings. As of December 31, 2019, the forward contracts during fiscal 2019 have been settled.

16. INCOME TAXES

Income tax expense is based on pretax financial accounting income. Deferred income taxes are recognized for the temporary differences between the recorded amounts of assets and liabilities for financial reporting purposes and such amounts for income tax purposes.

The following is a summary of the components of income (loss) before provision (benefit) for income taxes (in thousands):

	Fiscal Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Domestic	\$ (12,016)	\$ 74,465	\$ 78,884	\$ (90,306)
Foreign	1,401	8,630	4,254	(6,551)
	<u>\$ (10,615)</u>	<u>\$ 83,095</u>	<u>\$ 83,138</u>	<u>\$ (96,857)</u>

The components of the provision for income taxes consisted of the following (in thousands):

	Fiscal Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Current:				
Federal	\$ (311)	\$ 16,850	\$ 23,885	\$ —
State	7,219	3,483	3,218	1,172
Foreign	3,952	545	445	(120)
Total current	<u>10,860</u>	<u>20,878</u>	<u>27,548</u>	<u>1,052</u>
Deferred:				
Federal	205	(2,937)	(358)	(17,041)
State	1,875	565	769	(3,759)
Foreign	(8,165)	1,483	455	(919)
Total deferred	<u>(6,085)</u>	<u>(889)</u>	<u>866</u>	<u>(21,719)</u>
Total provision (benefit)	<u>\$ 4,775</u>	<u>\$ 19,989</u>	<u>\$ 28,414</u>	<u>\$ (20,667)</u>

The reconciliation of income tax computed at the United States federal statutory tax rate to the effective income tax rate is as follows:

	Fiscal Year Ended			October 29, 2018 - December 31, 2018
	December 31, 2019	October 28, 2018	October 29, 2017	
Statutory federal income tax rate	\$ (2,229)	\$ 19,361	\$ 29,098	\$ (20,022)
State income taxes	8,059	3,490	2,660	(2,945)
Production activities deduction	—	(1,413)	(2,577)	—
Non-deductible expenses	62	166	748	2
Revaluation of U.S. deferred income tax due to statutory rate reduction	—	(997)	—	—
One-time repatriation tax on foreign earnings	—	499	—	—
Compensation related expenses	3,518	69	(1,360)	74
Meals and entertainment	1,265	288	503	164
Tax credits	(7,179)	(850)	(1,105)	(360)
Foreign income tax	(884)	365	900	256
Employee fringe benefits	474	101	23	—
Unrecognized tax benefits	(581)	—	—	143
Reversal of valuation allowance	(3,981)	—	—	—
Global intangible low-taxed income	4,398	—	—	90
Transaction costs	1,903	—	—	1,542
Other ⁽¹⁾	(50)	(1,090)	(476)	389
Total provision (benefit)	\$ 4,775	\$ 19,989	\$ 28,414	\$ (20,667)

(1) Certain reclassifications of items included in “Other” in fiscal 2018 and 2017 have been made to conform to fiscal 2019 classifications.

The decrease in the effective tax rate for the fiscal year ended December 31, 2019 is a result of lower pretax earnings related to \$68.2 million of integration costs, the reversal of a valuation allowance from a foreign subsidiary, and the net impact of the Tax Cuts and Jobs Act (“U.S. Tax Reform”) which was enacted by the United States on December 22, 2017. U.S. Tax Reform incorporates significant changes to U.S. corporate income tax laws including, among other things, a reduction in the federal statutory corporate income tax rate from 35% to 21%, an exemption for dividends received from certain foreign subsidiaries, a one-time repatriation tax on deemed repatriated earnings from foreign subsidiaries, immediate expensing of certain depreciable tangible assets, limitations on the deduction for net interest expense and certain executive compensation and the repeal of the Domestic Production Activities Deduction. The majority of these changes were effective for the Company’s fiscal year beginning October 29, 2018. However, the corporate income tax rate reduction was effective December 22, 2017. As such, the Company’s statutory federal corporate income tax rate for the fiscal year ended October 28, 2018 was 23.3%. In addition, the one-time repatriation tax was recognized by the Company for the tax year ended October 28, 2018.

Deferred income taxes reflect the net impact of temporary differences between the amounts of assets and liabilities recognized for financial reporting purposes and such amounts recognized for income tax purposes. The tax effects of the temporary differences as December 31, 2019 and 2018 are as follows (in thousands):

	December 31, 2019	December 31, 2018
Deferred tax assets:		
Inventory obsolescence	\$ 3,980	\$ 3,830
Bad debt reserve	1,942	1,520
Accrued and deferred compensation	9,172	9,613
Accrued insurance reserves	3,878	2,339
Net operating loss and tax credit carryover	60,987	70,017
Pension	6,015	6,401
Interest	60,257	36,406
Leases	80,372	—
Warranty	39,469	28,313
Other reserves	28,707	30,637
Total deferred tax assets	294,779	189,076
Less valuation allowance	(10,347)	(19,497)
Net deferred tax assets	284,432	169,579
Deferred tax liabilities:		
Depreciation and amortization	(474,214)	(463,198)
Stock basis	(10,568)	—
Leases	(80,376)	—
Other	(3,751)	(858)
Total deferred tax liabilities	(568,909)	(464,056)
Total deferred tax liability, net	\$ (284,477)	\$ (294,477)

We carry out our business operations through legal entities in the U.S., Canada, Mexico and Costa Rica, and carried out operations in China until the sale of our manufacturing facility in China during fiscal 2018. These operations require that we file corporate income tax returns that are subject to U.S., state and foreign tax laws. We are subject to income tax audits in these multiple jurisdictions.

As of December 31, 2019, the \$60.9 million net operating loss carryforward included \$32.6 million for U.S. federal losses, \$11.6 million for U.S. state losses, and \$16.7 million for foreign losses. The state net operating loss carryforwards will begin to expire in 2020, if unused, and the foreign loss carryforward will begin to expire in fiscal 2028, if unused.

Valuation allowance

As of December 31, 2019, the Company remains in a valuation allowance position, in the amount of \$10.3 million, against its deferred tax assets for certain state jurisdictions as it is currently deemed “more likely than not” that the benefit of such net tax assets will not be utilized as the Company continues to be in a three-year cumulative loss position for these states jurisdictions. The Company will continue to monitor the positive and negative factors for these jurisdictions and make further changes to the valuation allowance as necessary.

During the quarter and year ending December 31, 2019, the Company reversed the valuation allowance for Gienow Canada, Inc. ("Gienow") due to its amalgamation with Northstar Manufacturing, Ltd ("Northstar") at December 31, 2019. The Company determined that a valuation allowance was no longer required due to Northstar's three-year cumulative income position.

The rollforward of the valuation allowance on deferred taxes is as follows (in thousands):

	Fiscal Year Ended December 31, 2019	October 29, 2018 - December 31, 2018	Fiscal Year Ended October 28, 2018	October 29, 2017
Beginning balance	\$ 19,497	\$ 11	\$ —	\$ 210
Additions (reductions)	(9,150)	—	11	(210)
Allowance of acquired company at date of acquisition	—	19,486	—	—
Ending balance	\$ 10,347	\$ 19,497	\$ 11	\$ —

Uncertain tax positions

Despite the Company's belief that its tax return positions are consistent with applicable tax laws, the Company believes that certain positions could be challenged by taxing authorities. The Company's tax reserves reflect the difference between the tax benefit claimed on tax returns and the amount recognized in the consolidated financial statements. These reserves have been established based on management's assessment as to potential exposure attributable to permanent differences and interest and penalties applicable to both permanent and temporary differences. The tax reserves are reviewed periodically and adjusted in light of changing facts and circumstances, such as progress of tax audits, lapse of applicable statutes of limitations and changes in tax law. The Company is currently under examination by various taxing authorities.

As of December 31, 2019 the reserve was approximately \$11.9 million, which includes interest and penalties of approximately \$1.8 million and is recorded in other long-term liabilities in the accompanying consolidated balance sheets. Of this amount, approximately \$9.9 million, if recognized would have an impact on the Company's effective tax rate. The difference between the total unrecognized tax benefits and the amount of the liability for unrecognized tax benefits represents unrecognized tax benefits that have been netted against deferred tax assets related to net operating losses in accordance with ASC 740 in addition to accrued penalties and interest.

The Company has elected to treat interest and penalties on unrecognized tax benefits as income tax expense in its consolidated statement of operations. Interest and penalty charges have been recorded in the contingency reserve account within other long-term liabilities in the consolidated balance sheets.

The following is a rollforward of unrecognized tax benefits (excluding interest and penalties) from October 30, 2017 through December 31, 2019 (in thousands):

	Fiscal Year Ended December 31, 2019	October 29, 2018 - December 31, 2018	Fiscal Year Ended October 28, 2018
Unrecognized tax benefits at beginning of year	\$ 10,549	\$ —	\$ —
Additions based on tax positions related to current year	262	—	—
Unrecognized tax benefits positions of acquired company at date of acquisition	—	10,549	—
Reductions for tax positions of prior years	(95)	—	—
Reductions resulting from expiration of statute of limitations	(609)	—	—
Unrecognized tax benefits at end of year	<u>\$ 10,107</u>	<u>\$ 10,549</u>	<u>\$ —</u>

Tax receivable agreement ("TRA") liability

The TRA liability generally provides for the payment by Ply Gem to a third party entity of 85% of the amount of cash savings, if any, in the U.S. federal, state and local income tax that Ply Gem actually realizes as a result of (i) net operating loss carryovers ("NOLs") from periods ending before January 1, 2013, (ii) deductible expenses attributable to Ply Gem's 2013 initial public offering and (iii) deductions related to imputed interest. This liability carried over to the Company in connection with the consummation of the Merger on November 16, 2018. Ply Gem's future taxable income estimate was used to determine the cumulative NOLs that are expected to be utilized and the TRA liability was accordingly adjusted using the 85% TRA rate as Ply Gem retains the benefit of 15% of the tax savings. During the Transition Period, the Company made a \$22.5 million payment pursuant to the Tax Receivable Agreement. During fiscal 2019, the Company made a \$24.9 million payment pursuant to the Tax Receivable Agreement to settle this liability.

Other tax considerations

As of December 31, 2019, the Company has not established U.S. deferred taxes on unremitted earnings for the Company's foreign subsidiaries. The Company continues to consider these amounts to be permanently invested. The indefinite reinvestment assertion continues to apply for the purpose of determining deferred tax liabilities for U.S. state and foreign withholding tax purposes.

17. ACCUMULATED OTHER COMPREHENSIVE LOSS

Accumulated other comprehensive loss consists of the following (in thousands):

	December 31, 2019	December 31, 2018
Foreign exchange translation adjustments	\$ (1,090)	\$ (4,301)
Unrealized loss on derivative instruments, net of tax benefit of \$6,627 and \$0, respectively	(23,361)	(549)
Defined benefit pension plan actuarial losses, net of tax benefit of \$4,818 and \$6,574, respectively	(7,947)	(5,963)
Accumulated other comprehensive loss	<u>\$ (32,398)</u>	<u>\$ (10,813)</u>

18. STOCK REPURCHASE PROGRAM

On September 8, 2016, the Company announced that its Board of Directors authorized a stock repurchase program for the repurchase of up to an aggregate of \$50.0 million of the Company's outstanding Common Stock. On October 10, 2017 and March 7, 2018, the Company announced that its Board of Directors authorized new stock repurchase programs for up to an aggregate of \$50.0 million and \$50.0 million, respectively, of the Company's Common Stock for a cumulative three year total of \$150.0 million.

During fiscal 2017 and fiscal 2018, the Company repurchased 2.8 million shares of its Common Stock for \$41.2 million and 2.7 million shares of its Common Stock for \$46.7 million, respectively, through open-market purchases under the authorized stock repurchase programs. The fiscal 2018 repurchases included 1.15 million shares for \$22.3 million purchased pursuant to the CD&R Fund VIII Investor Group 2017 Secondary Offering (see Note 13 — *CD&R Investor Group*). During the Transition Period and fiscal 2019, there were no stock repurchases under the stock repurchase programs. As of December 31, 2019, approximately \$55.6 million remains available for stock repurchases under the programs authorized on October 10, 2017 and March 7, 2018. The authorized programs have no time limit on their duration, but our Current Cash Flow Credit Agreement and Current ABL Credit Agreement apply certain limitations on our repurchase of shares of our Common Stock. The timing and method of any repurchases, which will depend on a variety of factors, including market conditions, are subject to results of operations, financial conditions, cash requirements and other factors, and may be suspended or discontinued at any time.

In addition to the Common Stock repurchases, the Company also withheld shares of restricted stock to satisfy minimum tax withholding obligations arising in connection with the vesting of restricted stock units, which are included in treasury stock purchases in the consolidated statements of stockholders' equity.

During fiscal 2017, the Company canceled 3.0 million of the total shares repurchased during fiscal 2017 as well as 0.4 million shares repurchased in the prior fiscal year that had been held in treasury stock, resulting in a \$50.6 million decrease in both additional paid-in capital and treasury stock. During fiscal 2018, the Company canceled 2.7 million shares repurchased under stock repurchase programs and canceled 0.3 million shares of stock that are included in treasury stock purchases and were used to satisfy minimum tax withholding obligations arising in connection with the vesting of stock awards, resulting in a total \$51.8 million decrease in both additional paid-in capital and treasury stock. During the Transition Period and fiscal 2019, the Company cancelled 0.3 million and 0.3 million shares of stock, respectively, that are included in treasury stock purchases and were used to satisfy minimum tax withholding obligations arising in connection with the vesting of stock awards, resulting in \$3.6 million and \$2.4 million decreases in both additional paid-in capital and treasury stock.

Changes in treasury stock, at cost, were as follows (in thousands):

	Number of Shares	Amount
Balance, October 30, 2016	775	\$ 9,259
Purchases	2,958	43,603
Issuance of restricted stock	20	—
Retirements	(3,444)	(50,587)
Deferred compensation obligation	(18)	(135)
Balance, October 29, 2017	291	\$ 2,140
Purchases	2,939	51,773
Issuance of restricted stock	(181)	—
Retirements	(2,939)	(51,772)
Deferred compensation obligation	(49)	(954)
Balance, October 28, 2018	61	\$ 1,187
Purchases	347	4,128
Retirements	(297)	(3,637)
Balance, December 31, 2018	111	\$ 1,678
Purchases	257	1,934
Retirements	(307)	(2,423)
Deferred compensation obligation	(6)	(86)
Balance, December 31, 2019	56	\$ 1,103

19. EMPLOYEE BENEFIT PLANS

Defined Contribution Plan — The Company has several 401(k) profit sharing plans (the “Savings Plans”) that allow participation for all eligible employees. The Savings Plan for the legacy NCI employees allows the Company to match between 50% and 100% of the participant’s contributions up to 6% of a participant’s pre-tax deferrals, based on a calculation of the Company’s annual return-on-assets. The Savings Plan for the legacy Ply Gem and ESW employees allows the Company to match 50% of the first 6% of employee contributions with the option of making discretionary contributions into the Savings Plan for the legacy Ply Gem and ESW employees. Contributions expense for fiscal 2019, 2018 and 2017, and the transition period ended December 31, 2018 was \$13.3 million, \$7.6 million, \$6.1 million and \$2.4 million, respectively, for matching contributions to the Savings Plan.

Deferred Compensation Plan — The Company has an Amended and Restated Deferred Compensation Plan (as amended and restated, the “Deferred Compensation Plan”) that allows its officers and key employees to defer up to 80% of their annual salary and up to 90% of their bonus on a pre-tax basis until a specified date in the future, including at or after retirement. Additionally, the Deferred Compensation Plan allows the Company’s directors to defer up to 100% of their annual fees and meeting attendance fees until a specified date in the future, including at or after retirement. The Deferred Compensation Plan also permits the Company to make contributions on behalf of its key employees who are impacted by the federal tax compensation limits under the Savings plan, and to receive a restoration matching amount which, under the current Savings Plan terms, mirrors the Savings Plan plan matching levels based on the Company’s performance. The Deferred Compensation Plan provides for the Company to make discretionary contributions to employees who have elected to defer compensation under the plan. Deferred Compensation Plan participants will vest in the Company’s discretionary contributions ratably over three years from the date of each of the Company’s discretionary contributions.

On February 26, 2016, the Company amended its Deferred Compensation Plan, with an effective date of January 31, 2016, to require that amounts deferred into the Company Stock Fund remain invested in the Company Stock Fund until distribution. In accordance with the terms of the Deferred Compensation Plan, the deferred compensation obligation related to the Company’s stock may only be settled by the delivery of a fixed number of the Company’s common shares held on the participant’s behalf. The deferred compensation obligation related to the Company Stock Fund recorded within equity in additional paid-in capital on the consolidated balance sheet was \$0.6 million and \$0.7 million as of December 31, 2019 and 2018, respectively. Subsequent changes in the fair value of the deferred compensation obligation classified within equity are not recognized. Additionally, the Company currently holds 55,101 shares in treasury shares, relating to deferred, vested awards, until participants are eligible to receive benefits under the terms of the Deferred Compensation Plan.

As of December 31, 2019 and 2018, the liability balance of the Deferred Compensation Plan was \$3.8 million and \$3.1 million, respectively, and was included in accrued compensation and benefits on the consolidated balance sheets. The Company has not made any discretionary contributions to the Deferred Compensation Plan.

A rabbi trust is used to fund the Deferred Compensation Plan and an administrative committee manages the Deferred Compensation Plan and its assets. The investments in the rabbi trust were \$3.8 million and \$3.4 million as of December 31, 2019 and 2018, respectively. The rabbi trust investments include debt and equity securities as well as cash equivalents and are accounted for as trading securities.

Defined Benefit Plans — With the acquisition of RCC on April 7, 2006, the Company assumed a defined benefit plan (the “RCC Pension Plan”). Benefits under the RCC Pension Plan are primarily based on years of service and the employee’s compensation. The RCC Pension Plan is frozen and, therefore, employees do not accrue additional service benefits. Plan assets of the RCC Pension Plan are invested in broadly diversified portfolios of government obligations, mutual funds, stocks, bonds, fixed income securities and master limited partnerships. In accordance with ASC Topic 805, we quantified the projected benefit obligation and fair value of the plan assets of the RCC Pension Plan and recorded the difference between these two amounts as an assumed liability.

As a result of the CENTRIA Acquisition on January 16, 2015, the Company assumed noncontributory defined benefit plans covering certain hourly employees (the “CENTRIA Benefit Plans”) which are closed to new participants. Benefits under the CENTRIA Benefit Plans are calculated based on fixed amounts for each year of service rendered. CENTRIA also sponsors postretirement medical and life insurance plans that cover certain of its employees and their spouses (the “OPEB Plans”). The contributions to the OPEB Plans by retirees vary from none to 25% of the total premiums paid. Plan assets of the CENTRIA Benefit Plans are invested in broadly diversified portfolios of equity mutual funds, international equity mutual funds, bonds, mortgages and other funds. Currently, the Company’s policy is to fund the CENTRIA Benefit Plans as required by minimum funding standards of the Internal Revenue Code. In accordance with ASC Topic 805, the Company remeasured the projected benefit obligation and fair value of the plan assets of the CENTRIA Benefits Plans and OPEB Plans. The difference between the two amounts was recorded as an assumed liability.

In addition to the CENTRIA Benefit Plans, CENTRIA contributes to a multi-employer plan, the Steelworkers Pension Trust. The minimum required annual contribution to this plan is \$0.3 million. The current contract expires on June 1, 2022. If we were to withdraw our participation from this multi-employer plan, CENTRIA may be required to pay a withdrawal liability representing an amount based on the underfunded status of the plan. The plan is not significant to the Company’s consolidated financial statements.

As a result of the Merger on November 16, 2018, the Company assumed the Ply Gem Group Pension Plan (the “Ply Gem Plan”) and the MW Manufacturers, Inc Retirement Plan (the “MW Plan”). The Ply Gem Plan was frozen during 1998, and no further increases in benefits for participants may occur as a result of increases in service years or compensation. The MW Plan was frozen for salaried participants during 2004 and non-salaried participants during 2005. No additional participants may enter the plan, but increases in benefits for participants as a result of increase in service years or compensation will occur.

The Company refers to the RCC Pension Plan, the CENTRIA Benefit Plans, the Ply Gem Plan and the MW Plan collectively as the “Defined Benefit Plans” in this Note.

Assumptions—Weighted average actuarial assumptions used to determine benefit obligations were as follows:

	Defined Benefit Plans			OPEB Plans		
	December 31, 2019	December 31, 2018	October 28, 2018	December 31, 2019	December 31, 2018	October 28, 2018
Discount rate	3.30 %	4.25 %	4.40 %	3.20 %	4.05 %	4.20 %

Weighted average actuarial assumptions used to determine net periodic benefit cost (income) were as follows:

	Defined Benefit Plans			OPEB Plans		
	FY 2019	Transition Period	FY 2018	FY 2019	Transition Period	FY 2018
Discount rate	4.25 %	3.98 %	3.64 %	4.05 %	4.20 %	3.40 %
Expected return on plan assets	6.60 %	6.61 %	6.19 %	n/a	n/a	n/a

The basis used to determine the expected long-term rate of return on assets assumptions for the Defined Benefit Plans was recent market performance and historical returns. The assumptions for the plans are primarily long-term, prospective rates.

The health care cost trend rate assumed for 2020 is 6.50% and is assumed to decline each year to an ultimate trend rate of 4.00%, which is expected to be achieved in 2030.

A one-percentage-point change in assumed health care cost trend rates would have the following effect (in thousands):

	One-Percentage-Point	
	Increase	Decrease
Total service and interest cost components	\$ 24,957	\$ (21,834)
Postretirement benefit obligation	741,171	(643,979)

Funded status—The changes in the projected benefit obligation, plan assets and funded status, and the amounts recognized on our consolidated balance sheets were as follows (in thousands):

	Defined Benefit Plans		OPEB Plans	
	FY 2019	Transition Period	FY 2019	Transition Period
Change in benefit obligation				
Benefit obligation at beginning of period	\$ 95,053	\$ 51,032	\$ 6,929	\$ 7,354
Service cost	42	7	22	4
Interest cost	3,897	359	262	48
Benefits paid	(6,218)	(662)	(802)	(139)
Actuarial (gains) losses	8,374	606	1,367	(338)
Additions due to Ply Gem merger	—	43,711	—	—
Benefit obligation at end of period	\$ 101,148	\$ 95,053	\$ 7,778	\$ 6,929
Accumulated benefit obligation at end of period	\$ 101,148	\$ 95,053		
Change in plan assets				
Fair value of assets at beginning of period	\$ 76,222	\$ 47,725	\$ —	\$ —
Actual return on plan assets	13,625	(1,645)	—	—
Company contributions	2,477	—	802	140
Benefits paid	(6,219)	(662)	(802)	(140)
Additions due to Ply Gem merger	—	30,804	—	—
Fair value of assets at end of period	\$ 86,105	\$ 76,222	\$ —	\$ —
Funded status at end of period	\$ (15,043)	\$ (18,831)	\$ (7,778)	\$ (6,929)
Amounts recognized in the consolidated balance sheets				
Noncurrent assets	\$ 6,319	\$ 3,920	\$ —	\$ —
Current liabilities	—	—	(740)	(838)
Noncurrent liabilities	(21,362)	(22,751)	(7,038)	(6,091)
	\$ (15,043)	\$ (18,831)	\$ (7,778)	\$ (6,929)

Certain of our defined pension plans have projected benefit obligations in excess of the fair value of plan assets. For these plans, the projected benefit obligations and the fair value of plan assets were as follows (in thousands):

	December 31, 2019	December 31, 2018
Projected benefit obligations	\$ 87,059	\$ 81,828
Fair value of plan assets	65,698	59,077
Funded status	\$ (21,361)	\$ (22,751)

Plan assets—The investment policy is to maximize the expected return for an acceptable level of risk. Our expected long-term rate of return on plan assets is based on a target allocation of assets, which is based on our goal of earning the highest rate of return while maintaining risk at acceptable levels.

As of December 31, 2019 and 2018, the weighted average asset allocations by asset category for the Defined Benefit Plans were as follows (in thousands):

Investment type	December 31, 2019	December 31, 2018
Equity securities	45 %	51 %
Debt securities	48 %	41 %
Master limited partnerships	1 %	2 %
Cash and cash equivalents	2 %	2 %
Real estate	2 %	2 %
Other	2 %	2 %
Total	100 %	100 %

The principal investment objectives are to ensure the availability of funds to pay pension and postretirement benefits as they become due under a broad range of future economic scenarios, to maximize long-term investment return with an acceptable level of risk based on our pension and postretirement obligations, and to be sufficiently diversified across and within the capital markets to mitigate the risk of adverse or unexpected results from one security class will not have an unduly detrimental impact. Each asset class has broadly diversified characteristics. Decisions regarding investment policy are made with an understanding of the effect of asset allocation on funded status, future contributions and projected expenses.

The plans strive to have assets sufficiently diversified so that adverse or unexpected results from one security class will not have an unduly detrimental impact on the entire portfolio. We regularly review our actual asset allocation and the investments are periodically rebalanced to our target allocation when considered appropriate. We have set the target asset allocation for the RCC Pension Plan as follows: 45% US bonds, 17% large cap US equities, 13% foreign equity, 5% master limited partnerships, 2% commodity futures, 4% real estate investment trusts, 8% emerging markets and 6% small cap US equities. The CENTRIA Benefit Plans have a target asset allocation of approximately 80%-85% equities and 15%-20% fixed income. The Ply Gem Plan and the MW Plan combined target allocation is as follows: 25% US large cap funds, 5% US mid cap funds, 3% US small cap funds, 15% international equity, 45% fixed income and 7% other investments.

The fair values of the assets of the Defined Benefit Plans at December 31, 2019 and 2018, by asset category and by levels of fair value, as further defined in Note 15 — *Fair Value of Financial Instruments and Fair Value Measurements* were as follows (in thousands):

Asset category	December 31, 2019			December 31, 2018		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Cash and cash equivalents	\$ 1,487	\$ —	\$ 1,487	\$ 1,909	\$ —	\$ 1,909
Mutual funds:						
Growth funds	5,409	—	5,409	6,959	—	6,959
Real estate funds	1,409	—	1,409	1,202	—	1,202
Commodity linked funds	507	1,459	1,966	481	1,394	1,875
Equity income funds	12,857	1,707	14,564	12,662	1,502	14,164
Index funds	1,868	17	1,885	2,794	30	2,824
International equity funds	5,486	952	6,438	4,685	1,447	6,132
Fixed income funds	6,103	5,087	11,190	1,778	16,174	17,952
Master limited partnerships	1,245	—	1,245	1,241	—	1,241
Corporate bonds	—	30,172	30,172	—	13,270	13,270
Common/collective trusts	—	10,340	10,340	—	8,694	8,694
Total	\$ 36,371	\$ 49,734	\$ 86,105	\$ 33,711	\$ 42,511	\$ 76,222

Net periodic benefit cost —The components of the net periodic benefit cost were as follows (in thousands):

	Defined Benefit Plans			
	FY 2019	FY 2018	FY 2017	Transition Period
Service cost	\$ 42	\$ 87	\$ 97	\$ 7
Interest cost	3,897	1,976	2,055	359
Expected return on assets	(4,935)	(2,916)	(2,798)	(480)
Amortization of prior service cost (credit)	58	58	(9)	9
Amortization of loss	1,313	991	1,374	185
Net periodic benefit cost	\$ 375	\$ 196	\$ 719	\$ 80

	OPEB Plans			
	FY 2019	FY 2018	FY 2017	Transition Period
Service cost	\$ 22	\$ 28	\$ 36	\$ 4
Interest cost	262	247	257	48
Net periodic benefit cost	\$ 284	\$ 275	\$ 293	\$ 52

The amounts in accumulated other comprehensive income that have not yet been recognized as components of net periodic benefit income are as follows (in thousands):

	Defined Benefit Plans		OPEB Plans	
	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
Unrecognized actuarial loss	\$ 11,002	\$ 12,111	\$ 1,608	\$ 240
Unrecognized prior service cost	127	185	—	—
Total	\$ 11,129	\$ 12,296	\$ 1,608	\$ 240

Unrecognized actuarial gains (losses), net of income tax, of \$(2.0) million and \$0.7 million during fiscal 2019 and the transition period ended December 31, 2018, respectively, are included in other comprehensive income (loss) in the consolidated statements of comprehensive income (loss).

The changes in plan assets and benefit obligation recognized in other comprehensive income (loss) are as follows (in thousands):

	Defined Benefit Plans			
	FY 2019	FY 2018	FY 2017	Transition Period
Net actuarial loss (gain)	\$ (315)	\$ (392)	\$ (3,144)	\$ 2,731
Amortization of net actuarial gain (loss)	(1,313)	(991)	(1,374)	(185)
Amortization of prior service credit (cost)	(58)	(58)	9	(9)
New prior service credit	—	—	276	—
Total recognized in other comprehensive income (loss)	\$ (1,686)	\$ (1,441)	\$ (4,233)	\$ 2,537

	OPEB Plans			
	FY 2019	FY 2018	FY 2017	Transition Period
Net actuarial loss (gain)	\$ 1,367	\$ 203	\$ (396)	\$ (338)
Total recognized in other comprehensive income (loss)	\$ 1,367	\$ 203	\$ (396)	\$ (338)

The estimated amortization for fiscal 2020 for amounts reclassified from accumulated other comprehensive income into the consolidated statement of operations is as follows (in thousands):

	Defined Benefit Plans	OPEB Plans
Amortization of prior service credit	\$ 63	\$ —
Amortization of net actuarial loss	1,193	108
Total estimated amortization	<u>\$ 1,256</u>	<u>\$ 108</u>

We expect to contribute \$5.2 million to the Defined Benefit Plans and \$0.8 million to OPEB Plans in fiscal 2020. We expect the following benefit payments to be made (in thousands):

Fiscal years ending	Defined Benefit Plans	OPEB Plans
2020	\$ 6,552	\$ 752
2021	6,568	689
2022	6,601	604
2023	6,566	592
2024	6,467	513
2025 - 2029	31,078	2,158

Other Retirement Plans — As a result of the Merger on November 16, 2018, the Company assumed an unfunded nonqualified Supplemental Executive Retirement Plan for certain employees. The projected benefit obligation relating to this unfunded plan totaled approximately \$304,000 and \$289,000 at December 31, 2019 and 2018, respectively. The Company has recorded this obligation in other long term liabilities in the consolidated balance sheets as of December 31, 2019 and 2018. Pension expense for the plan was approximately \$12,000 for the year ended December 31, 2019.

20. SEGMENT INFORMATION

Operating segments are defined as components of an enterprise that engage in business activities for which discrete financial information is available and is evaluated on a regular basis by the chief operating decision maker to make decisions regarding the allocation of resources to the segment and assess the performance of the segment. For the transition period ended December 31, 2018, the Company began reporting results under three reportable segments: Commercial, Siding and Windows. The Company's prior reportable segments, Engineered Building Systems, Metal Components, Insulated Metal Panels, and Metal Coil Coating, are now collectively in the Commercial segment. Prior periods for all periods presented have been recast to conform to the current segment presentation. The Siding segment includes the operating results of the legacy Ply Gem operating segment of Siding, Fencing, and Stone, and the Windows segment includes the operating results of the legacy Ply Gem operating segment of Windows and Doors.

These operating segments follow the same accounting policies used for our consolidated financial statements. We evaluate a segment's performance based primarily upon operating income before corporate expenses.

Corporate assets consist primarily of cash, investments, prepaid expenses, current and deferred taxes and property, plant and equipment associated with our headquarters in Cary, North Carolina and office in Houston, Texas. These items (and income and expenses related to these items) are not allocated to the operating segments. During fiscal 2019, the Company changed the manner in which costs were allocated to the Commercial segment for commercial cost centers that had previously been categorized as unallocated corporate costs. Corporate unallocated expenses include share-based compensation expenses, acquisition costs, and other expenses related to executive, legal, finance, tax, treasury, human resources, information technology and strategic sourcing, and corporate travel expenses. Additional unallocated amounts primarily include non-operating items such as interest income, interest expense, loss on extinguishment of debt and other income (expense).

Summary financial data attributable to the segments for the periods indicated is as follows (in thousands):

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Net sales:				
Commercial	\$ 1,847,893	\$ 2,000,577	\$ 1,770,278	\$ 286,522
Siding	1,111,407	—	—	82,974
Windows	1,930,447	—	—	190,374
Total net sales	<u>\$ 4,889,747</u>	<u>\$ 2,000,577</u>	<u>\$ 1,770,278</u>	<u>\$ 559,870</u>
Operating income (loss):				
Commercial	\$ 201,073	\$ 230,365	\$ 189,547	\$ 11,784
Siding	66,273	—	—	(15,979)
Windows	92,538	—	—	(8,023)
Corporate	(145,148)	(104,445)	(79,767)	(51,198)
Total operating income (loss)	<u>\$ 214,736</u>	<u>\$ 125,920</u>	<u>\$ 109,780</u>	<u>\$ (63,416)</u>
Unallocated other expense, net	(225,351)	(42,825)	(26,642)	(33,441)
Income (loss) before income taxes	<u>\$ (10,615)</u>	<u>\$ 83,095</u>	<u>\$ 83,138</u>	<u>\$ (96,857)</u>
Depreciation and amortization:				
Commercial	\$ 44,550	\$ 40,536	\$ 40,488	\$ 6,820
Siding	121,004	—	—	11,793
Windows	94,737	—	—	11,893
Corporate	3,473	1,789	830	430
Total depreciation and amortization expense	<u>\$ 263,764</u>	<u>\$ 42,325</u>	<u>\$ 41,318</u>	<u>\$ 30,936</u>
Capital expenditures:				
Commercial	\$ 51,144	\$ 36,943	\$ 20,348	\$ 5,660
Siding	22,695	—	—	1,178
Windows	43,408	—	—	5,788
Corporate	3,838	10,884	1,726	960
Total capital expenditures	<u>\$ 121,085</u>	<u>\$ 47,827</u>	<u>\$ 22,074</u>	<u>\$ 13,586</u>
			December 31, 2019	December 31, 2018
Property, plant and equipment, net:				
Commercial			\$ 238,133	\$ 216,685
Siding			160,524	162,273
Windows			232,855	213,694
Corporate			21,329	21,355
Total property, plant and equipment, net			<u>\$ 652,841</u>	<u>\$ 614,007</u>
Total assets:				
Commercial			\$ 963,291	\$ 951,046
Siding			2,289,310	2,119,366
Windows			2,166,220	1,894,732
Corporate			145,525	176,043
Total assets			<u>\$ 5,564,346</u>	<u>\$ 5,141,187</u>

Summary financial data attributable to various geographic regions for the periods indicated is as follows (in thousands):

	Year Ended			
	December 31, 2019	October 28, 2018	October 29, 2017	October 29, 2018 - December 31, 2018
Total sales:				
United States of America	\$ 4,526,385	\$ 1,874,129	\$ 1,666,645	\$ 514,306
Canada	340,250	99,306	73,090	42,861
China	1	4	8,923	—
Mexico	3,381	2,460	4,910	285
All other	19,730	24,678	16,710	2,418
Total net sales	\$ 4,889,747	\$ 2,000,577	\$ 1,770,278	\$ 559,870
			December 31, 2019	December 31, 2018
Long-lived assets:				
United States of America			\$ 3,692,015	\$ 3,556,965
Canada			359,249	356,296
Costa Rica			321	216
Mexico			11,550	10,642
Total long-lived assets			\$ 4,063,135	\$ 3,924,119

Sales are determined based on customers' requested shipment location.

21. CONTINGENCIES

As a manufacturer of products primarily for use in building construction, the Company is inherently exposed to various types of contingent claims, both asserted and unasserted, in the ordinary course of business. As a result, from time to time, the Company and/or its subsidiaries become involved in various legal proceedings or other contingent matters arising from claims or potential claims. The Company insures against these risks to the extent deemed prudent by its management and to the extent insurance is available. Many of these insurance policies contain deductibles or self-insured retentions in amounts the Company deems prudent and for which the Company is responsible for payment. In determining the amount of self-insurance, it is the Company's policy to self-insure those losses that are predictable, measurable and recurring in nature. The Company regularly reviews the status of ongoing proceedings and other contingent matters with its legal counsel. Liabilities for such items are recorded when it is probable that the liability will be incurred and when the amount of the liability can be reasonably estimated. Liabilities are adjusted when additional information becomes available. Management believes that the ultimate disposition of these matters will not have a material adverse effect on the Company's results of operations, financial position or cash flows. However, such matters are subject to many uncertainties and outcomes are not predictable.

Environmental

The Company is subject to United States and Canadian federal, state, provincial and local laws and regulations relating to pollution and the protection of the environment, including those governing emissions to air, discharges to water, use, storage, treatment, disposal and transport of hazardous waste and other materials, investigation and remediation of contaminated sites, and protection of worker health and safety. From time to time, the Company's facilities are subject to investigation by governmental authorities. In addition, the Company has been identified as one of many potentially responsible parties for contamination present at certain offsite locations to which it or its predecessors are alleged to have sent hazardous materials for recycling or disposal. The Company may be held liable, or incur fines or penalties, in connection with such requirements or liabilities for, among other things, releases of hazardous substances occurring on or emanating from current or formerly owned or operated properties or any associated offsite disposal location, or for known or newly-discovered contamination at any of the Company's properties from activities conducted by it or previous occupants. The amount of any liability, fine or penalty may be material, and certain environmental laws impose strict, and under certain circumstances joint and several, liability for the cost of addressing releases of hazardous substances upon certain classes of persons, including site owners or operators and persons that disposed or arranged for the disposal of hazardous substances at contaminated sites.

One of the Company's subsidiaries entered into an Administrative Order on Consent (the "Consent Order"), effective September 12, 2011, with the United States Environmental Protection Agency ("EPA"), under the Resource Conservation and Recovery Act ("RCRA"), with respect to its Rocky Mount, Virginia property. During 2011, as part of the Consent Order, the Company provided the EPA, among other things, a RCRA Facility Investigation Workplan (the "Workplan"). In 2012, the EPA approved the Workplan, which the Company is currently implementing. Current estimates of remaining costs for predicted assessment, remediation and monitoring activities as of December 31, 2019 are \$4.5 million. The Company has recorded approximately \$1.0 million of this environmental liability within current liabilities at December 31, 2019 and approximately \$3.5 million within other long-term liabilities in the Company's consolidated balance sheets at December 31, 2019. The Company may incur costs that exceed its recorded environmental liability. The Company will adjust its environmental remediation liability in future periods, if necessary, as further information develops or circumstances change.

The EPA is investigating groundwater contamination at a Superfund site in York, Nebraska referred to as the "PCE/TCE Northeast Contamination Site". A subsidiary of the Company has been named a potentially responsible party ("PRP") with respect to the PCE/TCE Northeast Contamination Site. As a PRP, the Company could have liability for investigation and remediation costs associated with the contamination. Given the current status of this matter, the Company has recorded a liability of \$4.6 million within other current liabilities in its consolidated balance sheets as of December 31, 2019.

The Company is a party to various acquisition and other agreements pursuant to which third parties agreed to indemnify the Company for certain costs relating to environmental liabilities. For example, the Company may be able to recover some of its Rocky Mount, Virginia investigation and remediation costs from U.S. Industries, Inc. and may be able to recover a portion of costs incurred in connection with the York, Nebraska contamination matter from Novelis Corporation as successor to Alcan Aluminum Corporation, the former owner of the York, Nebraska location. The Company's ability to seek indemnification from parties that have agreed to indemnify it may be limited. There can be no assurance that the Company would receive any funds from these parties, and any related environmental liabilities or costs could have a material adverse effect on our financial condition and results of operations.

Based on current information, the Company is not aware of any environmental compliance obligations, claims or investigations that will have a material adverse effect on its results of operations, cash flows or financial position except as otherwise disclosed in the Company's consolidated financial statements. However, there can be no guarantee that previously known or newly-discovered matters will not result in material costs or liabilities.

Litigation

The Company believes it has valid defenses to the outstanding claims discussed below and will vigorously defend all such claims; however, litigation is subject to many uncertainties and there cannot be any assurance that the Company will ultimately prevail or, in the event of an unfavorable outcome or settlement of litigation, that the ultimate liability would not be material and would not have a material adverse effect on the business, results of operations, cash flows or financial position of the Company.

In November 2018, Aurora Plastics, LLC ("Aurora") initiated an arbitration demand against Atrium Windows and Doors, Inc., Atrium Extrusion Systems, Inc., and North Star Manufacturing (London) Ltd. (collectively, "Atrium") pursuant to a Third Amended and Restated Vinyl Compound and Supply Agreement dated as of December 22, 2016. A settlement was reached in this case during the fourth quarter of 2019 which resulted in the Company having a \$11.2 million liability as of December 31, 2019, of which \$3.6 million is held within other current liabilities with the remaining in long-term liabilities in the consolidated balance sheets.

On November 14, 2018, an individual stockholder, Gary D. Voigt, filed a putative class action Complaint in the Delaware Court of Chancery against Clayton Dubilier & Rice, LLC ("CD&R"), Clayton, Dubilier & Rice Fund VIII, L.P. ("CD&R Fund VIII"), and certain directors of the Company. Voigt purports to assert claims on behalf of himself, on behalf of a class of other similarly situated stockholders of the Company, and derivatively on behalf of the Company, the nominal defendant. An Amended Complaint was filed on April 11, 2019. The Amended Complaint asserts claims for breach of fiduciary duty and unjust enrichment against CD&R Fund VIII and CD&R, and for breach of fiduciary duty against twelve director defendants in connection with the Merger. Voigt seeks damages in an amount to be determined at trial. Defendants moved to dismiss the Amended Complaint and, on February 10, 2020, the court denied the motions except as to four of the director defendants. Defendants are due to answer on April 3, 2020. The Company intends to vigorously defend the litigation.

Other contingencies

The Company's imports of fabricated structural steel ("FSS") from its Mexican affiliate, Building Systems de Mexico S.A. de C.V. ("BSM") were subject to antidumping ("AD") and countervailing duty ("CVD") tariff proceedings before the U.S. Department of Commerce ("DOC") and the U.S. International Trade Commission ("USITC"). Neither of these proceedings were directly aimed at the Company. Rather, the proceedings were brought by the American Institute of Steel Construction in February 2019 against FSS being imported into the USA from Mexico, Canada, and China, not individual companies. In 2019, the DOC issued preliminary tariff rates and in 2020 finalized CVD and AD tariff rates of 0% and 8.47%, respectively, for the Company's imports of FSS from BSM. However, in February 2020, in a 3 to 2 vote, the USITC concluded there was no injury or threat of injury to the domestic FSS industry. Once the USITC opinion is published the AD and CVD tariffs will cease to be applicable to BSM and the Company will seek recovery of those nominal funds deposited with United States Customs and Border Protection related to these tariffs on its importation of FSS from BSM. In the event the USITC decision is appealed, the Company will continue to vigorously advocate its position that its import of FSS from BSM should not be subject to any CVD or AD tariffs.

The Company is subject to other contingencies, including legal proceedings and claims arising out of its operations and businesses that cover a wide range of matters, including, among others, environmental, contract, employment, intellectual property, securities, personal injury, property damage, product liability, warranty, and modification, adjustment or replacement of component parts or units sold, which may include product recalls. Product liability, environmental and other legal proceedings also include matters with respect to businesses previously owned. The Company has used various substances in products and manufacturing operations, which have been or may be deemed to be hazardous or dangerous, and the extent of its potential liability, if any, under environmental, product liability and workers' compensation statutes, rules, regulations and case law is unclear. Further, due to the lack of adequate information and the potential impact of present regulations and any future regulations, there are certain circumstances in which no range of potential exposure may be reasonably estimated. Also, it is not possible to ascertain the ultimate legal and financial liability with respect to certain contingent liabilities, including lawsuits, and therefore no such estimate has been made as of December 31, 2019.

22. QUARTERLY RESULTS (Unaudited)

Shown below are selected unaudited quarterly data (in thousands, except per share data):

	Fiscal Year 2019				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Sales	\$ 1,064,832	\$ 1,295,457	\$ 1,285,043	\$ 1,244,415	
Gross profit	\$ 185,917	\$ 304,663	\$ 309,803	\$ 288,036	
Net income (loss)	\$ (60,017)	\$ 17,533	\$ 25,164	\$ 1,930	
Net income allocated to participating securities	\$ —	\$ (270)	\$ (374)	\$ (27)	
Net income (loss) applicable to common shares ⁽³⁾	\$ (60,017)	\$ 17,263	\$ 24,790	\$ 1,903	
Income (loss) per common share: ⁽¹⁾⁽²⁾					
Basic	\$ (0.48)	\$ 0.14	\$ 0.20	\$ 0.02	
Diluted	\$ (0.48)	\$ 0.14	\$ 0.20	\$ 0.02	
	Fiscal Year 2018				October 29, 2018 - December 31, 2018
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Sales	\$ 421,349	\$ 457,069	\$ 548,525	\$ 573,634	\$ 559,870
Gross profit	\$ 91,917	\$ 104,083	\$ 133,401	\$ 133,281	\$ 84,090
Net income (loss)	\$ 5,249	\$ (5,684)	\$ 35,986	\$ 27,555	\$ (76,190)
Net income allocated to participating securities	\$ (38)	\$ —	\$ (221)	\$ (138)	\$ —
Net income (loss) applicable to common shares ⁽³⁾	\$ 5,211	\$ (5,684)	\$ 35,765	\$ 27,417	\$ (76,190)
Income (loss) per common share: ⁽¹⁾⁽²⁾					
Basic	\$ 0.08	\$ (0.09)	\$ 0.54	\$ 0.41	\$ (0.71)
Diluted	\$ 0.08	\$ (0.09)	\$ 0.54	\$ 0.41	\$ (0.71)

- (1) The sum of the quarterly income (loss) per share amounts may not equal the annual amount reported, as per share amounts are computed independently for each quarter and for the full year based on the respective weighted average common shares outstanding.
- (2) Excludes net income allocated to participating securities. The participating securities are treated as a separate class in computing earnings per share (see Note 9 — *Earnings per Common Share*).
- (3) The quarterly income (loss) before income taxes were impacted by the following special income (expense) items:

	Fiscal Year 2019				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Restructuring and impairment charges, net	\$ (3,431)	\$ (7,107)	\$ (4,984)	\$ (2,538)	
Strategic development and acquisition related costs	(14,082)	(12,086)	(10,500)	(13,517)	
Non-cash charge of purchase price allocated to inventories	(16,249)	—	—	—	
Total special expense items in income (loss) before income taxes	\$ (33,762)	\$ (19,193)	\$ (15,484)	\$ (16,055)	
	Fiscal Year 2018				October 29, 2018 - December 31, 2018
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Restructuring charges and impairment charges, net	\$ (1,094)	\$ (488)	\$ 439	\$ (769)	\$ (1,253)
Strategic development and acquisition related costs	(727)	(1,134)	(3,642)	(11,661)	(29,094)
Gain (loss) on disposition of business	—	(6,686)	1,013	—	(1,244)
Loss on extinguishment of debt	—	(21,875)	—	—	(3,284)
Acceleration of CEO retirement benefits	(4,600)	—	—	—	—
Gain on insurance recovery	—	—	4,741	—	—
Discrete tax effects of U.S. tax reform	323	—	—	—	—
Non-cash charge of purchase price allocated to inventories	—	—	—	—	(21,617)
Litigation settlement	—	—	—	—	(3,235)
Total special income (expense) items in income (loss) before income taxes	\$ (6,098)	\$ (30,183)	\$ 2,551	\$ (12,430)	\$ (59,727)

23. SUBSEQUENT EVENTS

On March 2, 2020, the Company agreed to terms to purchase Kleary Masonry, Inc. ("Kleary"), based in Sacramento, California for \$40.0 million plus future consideration. Kleary is a leading installer of manufactured stone veneer in Northern California and its addition to the Company's Siding segment further enhances our market leading turnkey stone veneer offering.

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

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2019. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding the required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Management believes that our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives. Based on the evaluation of our disclosure controls and procedures as of December 31, 2019, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at such reasonable assurance level.

Management’s report on internal control over financial reporting is included in Item 8 and is incorporated herein by reference.

Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended December 31, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

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

We have adopted a Code of Business Conduct and Ethics, a copy of which is available on our internet website at www.cornerstonebuildingbrands.com under the heading “Investors — Committees and Charters.” Any amendments to or waivers from the Code of Business Conduct and Ethics that apply to our executive officers and directors will be posted to our website in the same section as the Code of Business Conduct and Ethics as noted above. However, the information on our website is not incorporated by reference into this Form 10-K.

The information under the captions “Election of Directors,” “Management,” “Delinquent Section 16(a) Reports,” “Board of Directors” and “Corporate Governance” in our definitive proxy statement for our annual meeting of shareholders to be held on May 28, 2020 is incorporated by reference herein.

Item 11. *Executive Compensation.*

The information under the captions “Compensation Discussion & Analysis,” “Compensation Committee Report” and “Executive Compensation” in our definitive proxy statement for our annual meeting of shareholders to be held on May 28, 2020 is incorporated by reference herein.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.*

The information under the caption “Outstanding Capital Stock” in our definitive proxy statement for our annual meeting of shareholders to be held on May 28, 2020 is incorporated by reference herein.

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

The information under the captions “Board of Directors” and “Transactions with Related Persons” in our definitive proxy statement for our annual meeting of shareholders to be held on May 28, 2020 is incorporated by reference herein.

Item 14. *Principal Accounting Fees and Services.*

The information under the caption “Audit Committee and Auditors — Our Independent Registered Public Accounting Firm and Audit Fees” in our definitive proxy statement for our annual meeting of shareholders to be held on May 28, 2020 is incorporated by reference herein.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as a part of this report:

1. consolidated financial statements (see Item 8).
2. consolidated financial statement schedules.

All schedules have been omitted because they are inapplicable, not required, or the information is included elsewhere in the consolidated financial statements or notes thereto.

3. Exhibits.

Index to Exhibits

- 2.1 [Agreement and Plan of Merger, dated July 17, 2018, by and among Ply Gem Parent, LLC, NCI Building Systems, Inc. and solely for the purposes of Section 6.1\(e\), 6.5\(a\)\(i\), 6.5\(a\)\(ii\), 6.5\(a\)\(iv\), 6.5\(b\) and 6.5\(c\), Clayton, Dubilier and Rice, LLC. \(filed as Exhibit 2.1 to NCI's Current Report on Form 8-K dated July 19, 2018 and incorporated by reference herein\)](#)
- 2.2 [Indemnification Agreement, dated as of October 20, 2009, by and between the Company, NCI Group, Inc., Robertson-Ceco II Corporation, Clayton, Dubilier & Rice Fund VIII, L.P., CD&R Friends & Family Fund VIII, L.P. and Clayton, Dubilier & Rice, Inc. \(filed as Exhibit 2.3 to NCI's Current Report on Form 8-K dated October 26, 2009 and incorporated by reference herein\)](#)
- 2.3 [Unit Purchase Agreement, dated as of January 12, 2019, by and among the Company, Environmental Materials LLC, and the Members of Environmental Materials, LLC \(filed as Exhibit 2.1 to NCI's Current Report on Form 8-K dated January 17, 2019 and incorporated by reference herein\)](#)
- 3.1 [Third Amended and Restated Certificate of Incorporation of NCI Building Systems, Inc. \(filed as Exhibit 3.2 to NCI's Current Report on Form 8-K dated May 28, 2019 and incorporated by reference herein\)](#)
- 3.2 [Seventh Amended and Restated By-laws of Cornerstone Building Brands, Inc., effective as of May 23, 2019 \(filed as Exhibit 3.1 to Cornerstone Building Brands, Inc.'s Current Report on Form 8-K dated May 28, 2019 and incorporated by reference herein\)](#)
- 4.1 Form of certificate representing shares of NCI's common stock (filed as Exhibit 1 to NCI's registration statement on Form 8-A filed with the SEC on July 20, 1998 and incorporated by reference herein)
- 4.2 [Indenture, dated as of April 12, 2018, by and among Ply Gem Midco, Inc., as issuer, the subsidiary guarantors from time to time party thereto and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.1 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 4.3 [First Supplemental Indenture, dated as of April 12, 2018, by and among Ply Gem Midco, Inc. and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.2 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 4.4 [Second Supplemental Indenture, dated as of April 12, 2018, by and among Ply Gem Midco, Inc., the subsidiary guarantors party thereto and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.3 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 4.5 [Third Supplemental Indenture, dated as of April 13, 2018, by and among Ply Gem Midco, Inc., the subsidiary guarantors party thereto and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.4 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 4.6 [Fourth Supplemental Indenture, dated as of October 15, 2018, by and among Ply Gem Midco, Inc., the subsidiary guarantor party thereto and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.5 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 4.7 [Fifth Supplemental Indenture, dated as of November 16, 2018, by and among the Company, the subsidiary guarantors party thereto and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.6 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 4.8 [Sixth Supplemental Indenture, dated as of February 20, 2019, by and among the Company, the subsidiary guarantors party thereto and Wilmington Trust, National Association, as trustee \(filed as Exhibit 4.1 to NCI's Current Report on Form 8-K dated February 20, 2019 and incorporated by reference herein\)](#)
- 4.9 [Stockholders Agreement, dated November 16, 2018, by and among NCI Building Systems, Inc., Clayton, Dubilier & Rice Fund VIII, L.P., CD&R Friends & Family Fund VIII, L.P., CD&R Pisces Holdings, L.P., Atrium Intermediate Holdings, LLC, GGC BP Holdings, LLC and AIC Finance Partnership, L.P. \(filed as Exhibit 10.1 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)

- 4.10 [Registration Rights Agreement, dated November 16, 2018, by and among NCI Building Systems, Inc., Clayton, Dubilier & Rice Fund VIII, L.P., CD&R Friends & Family Fund VIII, L.P., CD&R Pisces Holdings, L.P., Atrium Intermediate Holdings, LLC, GGC BP Holdings, LLC, AIC Finance Partnership, L.P. \(filed as Exhibit 10.2 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- *4.11 [Description of Cornerstone Building Brands, Inc. Securities](#)
- †10.1 [Form of Indemnification Agreement for Officers and Directors \(filed as Exhibit 10.1 to NCI's Current Report on Form 8-K dated October 22, 2008 and incorporated by reference herein\)](#)
- †10.2 [Form of Director Indemnification Agreement \(filed as Exhibit 10.7 to NCI's Current Report on Form 8-K dated October 26, 2009 and incorporated by reference herein\)](#)
- †10.3 [Form of 2010 Nonqualified Stock Option Agreement to Top Eight \(8\) Executive Officers \(filed as Exhibit 99.4 to NCI's Current Report on Form 8-K dated March 26, 2012 and incorporated by reference herein\)](#)
- †10.4 [NCI Senior Executive Bonus Plan \(filed as Exhibit 10.1 to NCI's Current Report on Form 8-K dated February 26, 2014 and incorporated by reference herein\)](#)
- †10.5 [Form of Award Agreement for Restricted Stock Units and Performance Share Awards for Senior Executive Officers \(December 2015 awards\) \(filed as Exhibit 10.1 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.6 [Form of Award Agreement for Restricted Stock Units and Performance Share Awards for Key Employees \(December 2015 awards\) \(filed as Exhibit 10.2 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.7 [Form of Award Agreement for One-Time Grant of Performance Share Units to Donald R. Riley and John L. Kuzdal \(December 2015\) \(filed as Exhibit 10.3 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.8 [General Form of Award Agreement for Equity Awards \(December 2015\) \(filed as Exhibit 10.4 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.9 [Form of Award Agreement for Director Restricted Stock Units \(December 2015\) \(filed as Exhibit 10.5 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.10 [Form of Award Agreement for Director Stock Options \(December 2015\) \(filed as Exhibit 10.6 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.11 [NCI Building Systems, Inc. Deferred Compensation Plan \(as amended and restated effective January 31, 2016\) \(filed as Exhibit 10.7 to NCI's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016 and incorporated by reference herein\)](#)
- †10.12 [Form of Employment Agreement between NCI Building Systems, Inc. and named executive officers \(filed as Exhibit 10.3 to NCI's Quarterly Report on Form 10-Q for the quarter ended July 31, 2016 and incorporated by reference herein\)](#)
- †10.13 [Form of Employment Agreement between NCI Building Systems, Inc. and executive officers \(filed as Exhibit 10.4 to NCI's Quarterly Report on Form 10-Q for the quarter ended July 31, 2016 and incorporated by reference herein\)](#)
- †10.14 [Form of Award Agreement for Equity Awards, applicable to Restricted Stock Units, Performance Share Units, Stock Options and Performance Cash and Share Awards \(December 2016\) \(filed as Exhibit 10.1 to NCI's Annual Report on Form 10-K for the fiscal year ended October 30, 2016 and incorporated by reference herein\)](#)
- †10.15 [Amended and Restated Employment Agreement by and between NCI Building Systems, Inc. and Donald R. Riley, dated June 1, 2017 \(filed as Exhibit 10.2 to NCI's Quarterly Report on Form 10-Q for the quarter ended July 30, 2017 and incorporated by reference herein\)](#)
- †10.16 [Amended and Restated NCI Building Systems, Inc. 2003 Long-Term Stock Incentive Plan, effective as of January 27, 2018 \(filed as Exhibit 10.1 to NCI's Current Report on Form 8-K dated March 02, 2018 and incorporated by reference herein\)](#)
- 10.17 [Cash Flow Credit Agreement, dated as of April 12, 2018, by and among Ply Gem Midco, Inc., as borrower, the several banks and other financial institutions from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent \(filed as Exhibit 10.3 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.18 [First Amendment to Cash Flow Credit Agreement, dated as of November 14, 2018, by and among Ply Gem Midco, Inc., and JPMorgan Chase Bank, N.A., as administrative agent \(filed as Exhibit 10.4 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)

- 10.19 [Lender Joinder Agreement, dated as of November 16, 2018, by and among Ply Gem Midco, Inc., the additional commitment lender party thereto and JPMorgan Chase Bank, N.A., as administrative agent \(filed as Exhibit 10.5 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.20 [Cash Flow Guarantee and Collateral Agreement, dated as of April 12, 2018, by and among Ply Gem Midco, Inc., the guarantors from time to time party thereto and JPMorgan Chase Bank, N.A., as collateral agent and administrative agent \(filed as Exhibit 10.6 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.21 [Cash Flow Joinder Agreement, dated as of November 16, 2018, by and among Ply Gem Midco, LLC, the Company, the subsidiary guarantors party thereto and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent \(filed as Exhibit 10.7 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.22 [ABL Credit Agreement, dated as of April 12, 2018, by and among Ply Gem Midco, Inc., as parent borrower, the subsidiary borrowers from time to time party thereto, the several banks and other financial institutions from time to time party thereto party thereto and UBS AG, Stamford Branch, as administrative agent and collateral agent \(filed as Exhibit 10.8 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.23 [Amendment No. 1 to ABL Credit Agreement, dated as of August 7, 2018, by and among Ply Gem Midco, Inc., the subsidiary borrowers party thereto, the lenders and issuing lenders party thereto and UBS AG, Stamford Branch, as administrative agent and collateral agent \(filed as Exhibit 10.9 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.24 [Amendment No. 2 to ABL Credit Agreement, dated as of October 15, 2018, by and among Ply Gem Midco, Inc., the subsidiary borrowers party thereto, the incremental lender party thereto and UBS AG, Stamford Branch, as administrative agent, collateral agent and swingline lender \(filed as Exhibit 10.10 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.25 [Amendment No. 3 to ABL Credit Agreement, dated as of November 14, 2018, by and among Ply Gem Midco, Inc., the subsidiary borrowers party thereto, the lenders and issuing lenders party thereto and UBS AG, Stamford Branch, as administrative agent and collateral agent \(filed as Exhibit 10.11 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.26 [Amendment No. 4 to ABL Credit Agreement, dated as of November 16, 2018, by and among Ply Gem Midco, Inc., the subsidiary borrowers party thereto, the incremental lenders party thereto and UBS AG, Stamford Branch, as administrative agent, collateral agent and swingline lender \(filed as Exhibit 10.12 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.27 [ABL U.S. Guarantee and Collateral Agreement, dated as of April 12, 2018, by and among Ply Gem Midco, Inc., the U.S. subsidiary borrowers from time to time party thereto, the guarantors from time to time party thereto and UBS AG, Stamford Branch, as collateral agent and administrative agent \(filed as Exhibit 10.13 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.28 [ABL Canadian Guarantee and Collateral Agreement, dated as of April 12, 2018, by and among the Canadian borrowers from time to time party thereto, the guarantors from time to time party thereto and UBS AG, Stamford Branch, as collateral agent and administrative agent \(filed as Exhibit 10.14 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- 10.29 [ABL Joinder Agreement, dated as of November 16, 2018, by and among Ply Gem Midco, LLC, the Company, the subsidiary guarantors party thereto and UBS AG, Stamford Branch, as administrative agent and collateral agent \(filed as Exhibit 10.15 to NCI's Current Report on Form 8-K dated November 20, 2018 and incorporated by reference herein\)](#)
- †10.30 [Form of Award Agreement for Restricted Stock Units, Performance Share Awards, and Stock Options for Key Employees \(November 2018 awards\) \(filed as Exhibit 10.1 to NCI's Annual Report on Form 10-K/A for the year ended October 28, 2018 and incorporated by reference herein\)](#)
- †10.31* [Employment Agreement by and between NCI Building Systems, Inc. and James Metcalf, dated November 16, 2018](#)
- †10.32 [Employment Agreement by and between Cornerstone Building Brands, Inc. and Jeffrey S. Lee, dated June 17, 2019 \(filed as Exhibit 10.1 to Cornerstone's Quarterly Report on Form 10-Q for the quarter ended June 29, 2019 and incorporated by reference herein\)](#)
- †10.33 [First Amendment to the 2003 Long-Term Stock Incentive Plan, as amended \(as included in Cornerstone's Proxy Statement on Schedule 14A dated April 22, 2019 and incorporated by reference herein\)](#)
- *21.1 [List of Subsidiaries](#)
- *23.1 [Consent of Independent Registered Public Accounting Firm - Grant Thornton LLP](#)
- *23.2 [Consent of Independent Registered Public Accounting Firm - Ernst & Young LLP](#)
- *24.1 [Powers of Attorney](#)

*31.1	Rule 13a-14(a)/15d-14(a) Certifications (Section 302 of the Sarbanes-Oxley Act of 2002)
*31.2	Rule 13a-14(a)/15d-14(a) Certifications (Section 302 of the Sarbanes-Oxley Act of 2002)
**32.1	Certifications pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act of 2002)
**32.2	Certifications pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act of 2002)
*101.INS	Inline XBRL Instance Document
*101.SCH	Inline XBRL Taxonomy Extension Schema Document
*101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
*101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
*101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document
*101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Filed herewith

** Furnished herewith

† Management contracts or compensatory plans or arrangements

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

CORNERSTONE BUILDING BRANDS, INC.

By: /s/ James S. Metcalf

James S. Metcalf, Chairman of the Board and Chief Executive Officer

Date: March 3, 2020

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 per Form 10-K.

Name	Title	Date
/s/ James S. Metcalf	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	March 3, 2020
James S. Metcalf		
/s/ Jeffrey S. Lee	Chief Financial Officer (Principal Financial Officer)	March 3, 2020
Jeffrey S. Lee		
/s/ Brian P. Boyle	Chief Accounting Officer and Treasurer (Principal Accounting Officer)	March 3, 2020
Brian P. Boyle		
*	Director	March 3, 2020
Kathleen J. Affeldt		
*	Director	March 3, 2020
George L. Ball		
*	Director	March 3, 2020
Gary L. Forbes		
*	Director	March 3, 2020
John J. Holland		
*	Director	March 3, 2020
Wilbert W. James, Jr.		
*	Director	March 3, 2020
Daniel Janki		
*	Director	March 3, 2020
John Krenicki		
*	Director	March 3, 2020
George Martinez		
*	Director	March 3, 2020
Timothy O'Brien		
*	Director	March 3, 2020
Nathan K. Sleeper		
*	Director	March 3, 2020
Jonathan L. Zrebiec		

*By: /s/ James S. Metcalf

**James S. Metcalf,
Attorney-in-Fact**

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Cornerstone Building Brands, Inc. ("we", "our" or "us") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our common stock, par value \$0.01 per share.

Description of Common Stock

The following description of our common stock is a summary and does not purport to be complete. It is subject to, and qualified in its entirety by reference to, our Third Amended and Restated Certificate of Incorporation ("certificate of incorporation"), our Seventh Amended and Restated By-Laws ("by-laws") and the General Corporation Law of the State of Delaware (the "DGCL"), which define the rights of holders of our common stock. You should read our certificate of incorporation and by-laws and the provisions of the DGCL for a full description of the terms of our common stock. Our certificate of incorporation and by-laws are filed as exhibits to the Annual Report on Form 10-K of which this exhibit is a part and incorporated by reference herein.

Authorized Shares

Our authorized capital stock consists of 200,000,000 shares of common stock, par value \$0.01 per share, and 1,000,000 shares of preferred stock, par value \$1.00 per share. As of December 31, 2019, 126,054,487 shares of common stock were issued and outstanding.

Voting Rights

Holders of our common stock are entitled to one vote per share on any matter submitted to the vote of stockholders. Cumulative voting is prohibited in the election of our directors.

Dividend Rights

Subject to preferences that may be applicable to any outstanding preferred stock, the holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the board of directors of the Company (the "Board of Directors") out of funds legally available therefor.

Liquidation or Similar Rights

In the event of a liquidation, dissolution or winding up, the holders of our common stock will be entitled to a pro rata share in any distribution to stockholders, but only after satisfaction of all of our liabilities and of the prior rights of any outstanding shares of our preferred stock.

Other Rights and Preferences

Our common stock is not redeemable, does not have any conversion rights and is not subject to call. Except as otherwise provided in our stockholders' agreement, holders of shares of our common stock have no preemptive rights to maintain their respective percentage of ownership in future offerings or sales of stock by us.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of the NYSE, which would apply so long as the common stock remains listed on the NYSE, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or the then outstanding number of shares of common stock. These additional shares may be used for a variety of corporate purposes, including future public offerings to raise additional capital or to facilitate acquisitions.

One of the effects of the existence of unissued and unreserved common stock and preferred stock may be to enable our Board of Directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of our management and possibly deprive the stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Delaware Business Combination Statute

Certain transactions with related stockholders may be subject to the provisions of Section 203 of the DGCL. Section 203 of the DGCL prohibits certain publicly-held Delaware corporations from engaging in a business combination with an interested stockholder for a period of three years following the time such person became an interested stockholder, unless the business combination is approved in a specified manner. Generally, an interested stockholder is a person who, together with its affiliates and associates, owns 15% or more of the corporation's voting stock, or is affiliated with the corporation and owns or owned 15% of the corporation's voting stock within three years before the business combination.

Our Certificate of Incorporation and By-Laws

Anti-Takeover Provisions. The provisions of our certificate of incorporation and by-laws summarized in the following paragraphs may be deemed to have an anti-takeover effect and may delay, defer or prevent a tender offer or takeover attempt that a stockholder might consider in such stockholder's best interest, including attempts that might result in a premium over the market price for the shares held by stockholders.

- the Board of Directors be divided into three classes that are elected for staggered three-year terms;
- stockholders may remove a director with or without cause, and only by the affirmative vote of the holder or holders of not less than 80% of our outstanding voting stock;
- meetings of stockholders can be called only by the Chief Executive Officer, a majority of the entire Board of Directors or by the Secretary of the corporation at the written request of the holder or holders of 25% of our outstanding voting stock.

To be amended, these provisions require the affirmative vote of the holder or holders of not less than 80% of our outstanding voting stock.

Under our certificate of incorporation, our Board of Directors by resolution may establish one or more additional series of preferred stock having such number of shares, designations, relative voting rights, dividend rates, liquidation and other rights, preferences and limitations as may be fixed by the Board of Directors without any further stockholder approval. Such rights, preferences, powers and limitations as may be established could have the effect of impeding or discouraging the acquisition of control of us.

Our certificate of incorporation contains a provision that allows the Board of Directors to evaluate factors other than the price offered when considering a proposed acquisition of us. The certificate of incorporation permits the Board of Directors to consider the social, legal and economic effects on our employees, suppliers, customers and the communities in which we operate. The Board of Directors can also consider any other factors it deems relevant, including not only the consideration offered in the proposed transaction relative to market price, but also our value in a freely negotiated transaction and in relation to the estimate by the Board of Directors of our future value as an independent entity. To be amended, this provision requires the affirmative vote of the holder or holders of not less than two-thirds of our outstanding voting stock.

Our by-laws establish advance notice procedures with regard to the nomination, other than by or at the direction of the Board of Directors or a committee thereof, of candidates for election as directors and with regard to certain matters to be brought before an annual meeting of our stockholders. These procedures provide that the notice of proposed stockholder nominations for the election of directors must be timely given in writing to the Secretary of the Company prior to the meeting at which directors are to be elected. To be timely, notice must be received at our principal executive offices not less than 90 or more than 120 days prior to the anniversary of the preceding year's annual meeting. If, however, the date of the annual meeting is more than 30 days before or more than 70 days after such anniversary date, notice by the stockholder must be delivered not earlier than the close of business on the 120th day prior to the annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which the public announcement of the date of such meeting is first made by us.

The procedures also provide that at an annual meeting, and subject to any other applicable requirements, only such business may be conducted as has been brought before the meeting by, or at the direction of, the Board of Directors or by a stockholder who has given timely prior written notice to the Secretary of the Company of such stockholder's intention to bring such business before the meeting. For such stockholder's notice to be timely, notice must also be received not less than 90 or more than 120 days before any annual meeting of stockholders. If,

however, the date of the annual meeting is more than 30 days before or more than 70 days after such anniversary date, notice by the stockholder must be delivered not earlier than the close of business on the 120th day prior to the annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which the public announcement of the date of such meeting, is first made by us. Such notice must contain certain information specified in the by-laws.

Liability of Directors; Indemnification. Our certificate of incorporation provides that a director will not be liable to us or our stockholders for acts or omissions as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the Delaware statutory or decisional law. Our by-laws provide that each current or former director, officer or employee of ours, or each such person who is or was serving or who had agreed to serve another corporation, trust or other enterprise in any capacity at our request, will be indemnified by us to the full extent permitted by law for liability arising from such service. Our by-laws require us to advance expenses incurred in defending a civil or criminal action, suit or proceeding, so long as the person undertakes in writing to repay such amounts if it is ultimately determined that such person is not entitled to indemnification. In addition, we purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of ours, or each such person who was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against and incurred by such person in any such capacity, or arising out of his status as such, whether or not we would have the power or the obligation to indemnify him against such liability.

Amendment. Our certificate of incorporation provides that the affirmative vote of the holder or holders of at least 80% of the voting power of the outstanding shares of voting stock, voting together as a single class, is required to amend provisions of the certificate of incorporation relating to the number, election and term of our directors; and the removal of directors. Our certificate of incorporation further provides that our by-laws may be amended by the Board of Directors or by the affirmative vote of the holder or holders of at least two-thirds of the outstanding shares of voting stock, voting together as a single class.

Registrar and Transfer Agent

The registrar and transfer agent for our common stock is Computershare Investor Services Inc.

Listing

Our common stock is listed on the NYSE under the symbol “CNR.”

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (this “**Agreement**”) is entered into as of November 16, 2018 (the “**Effective Date**”), between NCI Building Systems, Inc., a Delaware corporation (the “**Company**”), and its wholly-owned subsidiary, NCI Group, Inc., a Nevada corporation (“**Employer**”), and James Metcalf (“**Employee**”). The Company, Employer and Employee are sometimes hereinafter collectively referred to as the “**Parties**.”

BACKGROUND

Employer hires and retains in its employment such personnel as are required by the Company and its other Affiliates, and makes its employees so retained available to provide services to the Company and its Affiliates.

Effective as of the closing of those certain transactions contemplated by that certain Agreement and Plan of Merger by and among Ply Gem Parent LLC, the Company and for certain purposes, Clayton, Dubilier & Rice, LLC made as of July 17, 2018 (the “**Merger**”) Employee shall be appointed as Chairman and Chief Executive Officer of the Company, and as such Employer and Employee have agreed to reflect the terms and conditions of the employment of Employee by Employer, and the duties and responsibilities of Employee, on the one hand, and of Employer and the Company, on the other hand, to each other.

Capitalized terms not defined in the body of this Agreement have the meanings set forth on the attached Appendix “A.”

AGREEMENT AMONG PARTIES

In consideration of the foregoing and of the mutual covenants and agreements set forth in this Agreement, and subject to the terms and conditions set forth herein, the Parties agree as follows:

1. **Employment.** During the term of this Agreement, Employer hereby agrees to continue Employee in its employ, and Employee hereby agrees to remain in the employ of Employer, pursuant to the terms and conditions set forth herein.

2. **Duties and Authority.** During the term of this Agreement, Employee shall serve as the Chairman and Chief Executive Officer of the Company or such other more senior position or title to which Employee is promoted, with those authorities, duties and responsibilities customary to that position and such other authorities, duties and responsibilities as the Board of Directors of the Company (the “**Board**”) may reasonably assign Employee from time to time commensurate with Employee’s position as Chairman and Chief Executive Officer of the Company. Employee shall use Employee’s best efforts, including the highest standards of professional competence and integrity, and shall devote substantially all of Employee’s business time and effort in and to Employee’s employment hereunder, and shall not engage in any other business activity which would conflict with the rendition of Employee’s services hereunder, except that Employee may hold directorships or related positions in charitable, educational, for-profit or not-for-profit organizations to the extent expressly approved by the Board (with Employee’s current positions on the board of directors of Tenneco Inc. and the advisory board of Harvard University hereby approved), and make passive investments, which do not unreasonably interfere with Employee’s day-to-day performance of Employee’s responsibilities to the Company. During the remaining term of this Agreement, the Company shall nominate Employee for election to the Board each time Employee’s term as a member of the Board is scheduled to expire.

3. **Term.** This Agreement shall be effective as of the Effective Date, and shall remain in effect until November 16, 2021, subject to earlier termination or extension as described below. The period from the Effective Date until this Agreement shall have expired in accordance with this Section 3 or been terminated in accordance with Section 5 is hereafter referred to as “the term hereof” or “the term of this Agreement.” The term hereof shall be extended automatically for an additional year as of November 16, 2021 and as of each subsequent annual anniversary of such date (each such extension date is referred to herein as a “**Renewal Date**”) unless at least one (1) year prior to any such Renewal Date either Party shall have given notice to the other Party that the term of this Agreement shall not be so extended. Notwithstanding any provision of this Agreement to the contrary, if a Change in Control occurs, the term of this Agreement shall be extended for a period of two (2) years after the date of the occurrence of the Change in Control or Potential Change in Control, and, if this Agreement does not terminate during such period, the last day of such extended term shall become the applicable Renewal Date.

4. Compensation.

a. **Base Salary.** Employer shall pay Employee a base salary in the amount of not less than \$1,100,000.00 per year during the term hereof, payable in accordance with Employer’s normal payroll procedures. The salary of Employee will be reviewed for increase at least once annually by the Company and/or, to the extent required, the Compensation Committee of the Board (the “**Compensation Committee**”). In the event that any increase to Employee’s salary is required to be approved by the Compensation Committee, such review shall be conducted by the Compensation Committee at the same time as it reviews the salaries of other senior executives of the Company, and any adjustment shall be solely within the discretion of the Compensation Committee.

b. Annual Bonus. During the term of this Agreement, Employee shall have a target annual bonus opportunity equal to 135% of his base salary at the highest annualized rate in effect during the year preceding payment of such bonus (the “**Target Bonus**”). During the term of this Agreement, Employee shall participate under the currently existing cash annual incentive plan of NCI Building Systems, Inc., as amended and restated from time to time (the “**Bonus Plan**”) or, if the Bonus Plan is amended, replaced or superseded, under any amended, replacement or successor bonus program adopted for senior executives of the Company and its Affiliates. Bonuses, if any, paid to Employee pursuant to the Bonus Plan shall be paid after the end of each fiscal year of the Company at the same time as bonuses are paid to other participants, but no later than March 15 of the following calendar year. Employee understands that bonuses cannot be earned under the Bonus Plan except as specifically set forth therein based on the level of participation specified by the Compensation Committee in its discretion, but acknowledging the target annual bonus opportunity set forth herein, and, if the employment of a participant terminates for any reason prior to certain dates specified in the Bonus Plan, no bonus shall be payable thereunder except as expressly provided in this Section 4 and in Section 5 of this Agreement. In the event that Employee’s employment terminates for any reason other than by the Company for Cause, after the end of the fiscal year but before payment of the bonus for that fiscal year, Employee shall be entitled to receive the amount of the bonus that would have otherwise been payable under the Bonus Plan, as determined by the Compensation Committee, on the date bonuses are paid to other participants. Employee also understands that the Bonus Plan may be amended, replaced, superseded or terminated at any time and from time to time by the Board in its sole discretion, but in such event, Employee will still have the opportunity to earn a bonus subject to the achievement of performance goals established by the Compensation Committee at the target annual bonus level set forth herein.

c. Long-Term Incentives. In connection with the closing of the Merger and as an inducement to accept the employment offered under this Agreement, Employee shall be awarded “Founders Awards” in the same types of awards, in the same proportion thereof, as those provided to the Company’s other senior executive officers, having a total grant date fair value equal to \$4,300,000. Thereafter, awards in each of the first calendar quarters of 2020 and 2021 in the same types of awards, in the same proportion thereof, as those provided to the Company’s other senior executive officers, with an annual target grant date fair value of \$4,500,000. Any such long-term incentive awards shall be granted pursuant to, and subject to the terms and conditions of, NCI’s Amended and Restated 2003 Long-Term Incentive Plan, as amended, or any successor plan thereto (the “**Equity Plan**”), and such other terms and conditions set forth in the applicable award agreement, which award agreement shall be consistent with the terms and conditions provided to the Company’s senior executive officers.

d. Signing Bonus. On the first payroll date following the Effective Date, the Company shall pay Employee a cash payment equal to \$600,000. Employee will be required to repay the portion of the promotion bonus that Employee retained after payment of taxes in respect thereof to the Company if Employee’s employment with the Company is terminated by the Company for Cause. Such repayment will be required to be paid to the Company within thirty (30) days of Employee’s last day as an employee of the Company under circumstances requiring such repayment as specified above.

f. Retirement, Health and Welfare Benefits.

(i) Employee shall be entitled to participate in and receive the health, hospitalization, medical, dental, life insurance, accidental death, disability and other insurance plans and benefits provided by Employer and the Company, and to participate in the 401(k) and other qualified profit-sharing, deferred compensation, pension, savings and other similar plans of Employer and the Company, as and to the extent Employer and the Company provide such benefits generally to other employees of Employer and the Company or to executive employees of the Company. It is understood and agreed that such benefits may be changed or discontinued from time to time in the sole discretion of Employer and the Company. During the term of this Agreement, Employee shall be entitled to five (5) weeks of vacation per year.

(ii) In addition to the foregoing, Employee shall be entitled to: on an annual basis: a Company-provided executive physical; financial planning and tax services (the cost of which shall not exceed \$15,000 annually); and such other perquisites as may otherwise be provided to the named executive officers of the Company from time to time. To the extent that the Company institutes new perquisites relating to these matters which are generally applicable for senior executives of the Company, Employee shall receive such new perquisites on terms and conditions consistent with those provided to such other senior executives of the Company. The Company shall also provide Employee with a company-paid life insurance policy having a face value equal to \$3,300,000. Further, in connection with the negotiation and execution of this Agreement and any equity awards related thereto, the Company shall pay Employee’s attorneys’ fees in an amount not to exceed \$20,000.

g. Relocation Benefits. In connection with any relocation, at any time, of Employee’s family’s primary residence to Cary, North Carolina, Employee shall receive relocation benefits under the Company’s relocation policy for Tier I employees.

5. Termination Payments.

a. Minimum Termination Compensation. Employee shall serve in an at-will capacity and Employee, the Company and/or Employer may terminate the employment of Employee at any time with or without Cause. Upon any termination of employment of Employee for any reason other than as set forth in Section 5.b or Section 5.c, whether on, before or after the expiration of the term of this Agreement (including any extension of the term hereof pursuant to the provisions of this Agreement), Employee shall be entitled to receive (i) that portion of Employee’s annual base salary, at the rate then in

effect, earned by Employee or accrued for Employee's account through the date of the termination of Employee's employment hereunder or for which Employee is entitled to payment for events or circumstances occurring on or through the date of termination of Employee's employment, (ii) any bonus to which Employee is entitled under the Bonus Plan pursuant to Section 4.b for the fiscal year ending prior to the date of termination, (iii) reimbursement of business expenses properly incurred in accordance with applicable Company policy prior to the date of termination and (iv) subject to Section 5.f, any generally applicable vested benefits to which Employee is entitled as a former employee under the employee benefit plans of the Company and its Affiliates (collectively, the "**Minimum Termination Compensation**").

b. Payment Other than Following a Change in Control and Other than During a Potential Change in Control Period.

(i) If Employee's employment is terminated by the Company without Cause, or by Employee for Good Reason, in either case other than within twenty-four (24) months after a Change in Control and other than during a Potential Change in Control Period, then, in addition to the Minimum Termination Compensation, Employee shall be entitled to receive (A) two (2) times Employee's annual base salary at the highest annualized rate in effect during the one (1) year period immediately preceding the date of termination (the "**Base Severance Payment**"), (B) two (2) times Employee's Target Bonus (the "**Bonus Payment**"), (C) a prorated annual bonus under the Bonus Plan for the fiscal year in which the date of termination occurs based upon the elapsed number of days in such fiscal year through the date of termination applied to the bonus, if any, that would have been earned by Employee for such fiscal year if Employee had remained employed on the normal payment date of such bonus, based on actual performance under applicable financial metrics and applying any discretionary factors in substantially the same manner as such factors are applied to the senior executive officers of the Company whose employment has not terminated (the "**Pro Rata Bonus**") and (D) a lump sum payment equal to Employee's family premiums for medical and dental coverage, at the active employee rate, that would otherwise be payable for the period of coverage applicable to Employee (i.e., eighteen (18) months) under the Consolidated Omnibus Budget Reconciliation Act of 1985, currently embodied in Section 4980B of the Internal Revenue Code of 1986, as amended (the "**Code**") (the "**COBRA Premium Payment**").

(ii) The Base Severance Payment and Bonus Payment shall be payable in substantially equal installments on regular payroll dates over the two (2) year period following the date of termination, except as otherwise set forth in Section 25 hereof and subject to the next following sentence; *provided* that any installments that would be paid if the Release Effective Date (as defined below) were the date of termination shall be paid on the first payroll date after the Release Effective Date, unless the Release Period (as defined below) begins in one calendar year and ends in the subsequent calendar year, in which case such installments shall be paid on the first payroll date in the subsequent calendar year. Employee's right to receive the Base Severance Payment, the Bonus Payment, the Pro Rata Bonus, and the COBRA Premium Payment shall be conditioned on Employee's execution, delivery and non-revocation of a general release of any and all claims against the Company and its Affiliates within thirty (30) days following the date of termination (such release of claims, the "**Release**"; such thirty (30) day period, the "**Release Period**", and the effective date of the Release, the "**Release Effective Date**"), which Release shall include the release of claims attached hereto as Appendix B and such other terms and conditions as may be mutually agreed by the Parties. The Pro Rata Bonus and COBRA Premium Payment shall be paid in a lump sum not later than March 15th of the year following the year in which the date of termination occurs.

c. Payment Following a Change in Control or During a Potential Change in Control Period.

(i) If Employee's employment is terminated by the Company without Cause, or by Employee for Good Reason within twenty-four (24) months after a Change in Control, then, in addition to the Minimum Termination Compensation, Employee shall be entitled to receive (A) the Base Severance Payment, (B) three (3) times the target annual bonus of Employee for the year in which the date of termination occurs (the "**CIC Bonus Payment**"), (C) the Pro Rata Bonus, and (D) the COBRA Premium Payment.

(ii) The CIC Bonus Payment shall be payable on the same schedule as the Bonus Payment would have been paid, as described in Section 5.b. Employee's right to receive the Base Severance Payment, the CIC Bonus Payment, the Pro Rata Bonus and the COBRA Premium Payment shall be conditioned on Employee's execution, delivery and non-revocation of the Release during the Release Period. The Pro Rata Bonus and COBRA Premium Payment shall be paid in a lump sum not later than March 15th of the year following the year in which the date of termination occurs. Notwithstanding the payment provisions under 5.b(ii) and this 5.c(ii) above, if Employee is entitled to payment of the Base Severance Payment and the CIC Bonus Payment pursuant to Section 5.c(i), then, to the maximum extent permissible under Section 409A (including, but not limited to, the application of Treas. Reg. §1.409A-1(b)(4), Treas. Reg. §1.409A-1(b)(9)(iii) and Treas. Reg. §1.409A-3(c) (clause (1) (in each case as and to the extent applicable)), the Base Severance Payment and the CIC Bonus Payment shall be paid in a lump sum on the first payroll date following the Release Effective Date, except as otherwise set forth in Section 25 hereof (and any portion of the Base Severance Payment and CIC Bonus Payment that is not capable of being paid at such time shall be paid as provided in Section 5.b and Section 5.c as aforesaid, and subject to Section 25).

(iii) In addition, if Employee's employment is terminated by the Company without Cause or by Employee for Good Reason during a Potential Change in Control Period, then Employee will be entitled to the severance payments and termination benefits set forth in Section 5.b, subject to the terms and conditions of such Section (including payment schedules),

and, if and when the Change in Control related to such Potential Change in Control Period subsequently occurs, Employee will only be entitled to receive the excess, if any, of (x) the CIC Bonus Payment over (y) the Bonus Payment, with such portion of the CIC Bonus Payment to be paid subject to the terms and conditions (including payment provisions) of Section 5.c.ii above.

d. **Impact of Termination on Equity Awards.** In the event of any termination of Employee's employment (either by Employee or the Company), the terms of the applicable equity award agreements and Equity Plan pursuant to which such awards were granted shall govern; *provided, however*, that if Employee resigns his employment for any reason following the third anniversary of the Effective Date, the Board may, in its sole discretion, determine that outstanding stock options or other equity awards will continue to vest on their regularly scheduled vesting dates (including, if such awards are performance-based, subject to achievement of applicable performance metrics), through the third anniversary of the effective date of Employee's resignation, subject in all instances to Employee's continued compliance with all restrictive covenants to which Employee may be subject (including without limitation those set forth in Section 7 of this Agreement, except that in this instance the Restricted Period (as such term is defined therein) shall be extended through such third anniversary).

e. **Parachute Tax Limitation.** Notwithstanding anything in this Agreement to the contrary, if any amounts due to Employee under this Agreement and any other plan or program or award of Employer, the Company or any Affiliate (collectively, the "Payments") constitute a "parachute payment" (as such term is defined in Section 280G(b)(2) of the Code) that would be subject to the excise tax imposed pursuant to Section 4999 of the Code (the "Excise Tax"), the Payments shall be reduced to the amount equal to (x) three times Employee's "base amount," as defined in Section 280G(b)(3) of the Code, minus (y) one dollar, to the extent such a reduction would result in Employee retaining a larger amount, on an after-tax basis (taking into account federal, state and local income taxes and the Excise Tax), than if Employee retained all of the Payments. The calculations to be made with respect to this subsection shall be made by an accounting firm jointly selected by the Company and Employee and paid by the Company, and in order to avoid the imputation of any tax, penalty or interest under Section 409A of the Code, the Payments shall be reduced or eliminated by first reducing or eliminating the Base Severance Payment (in reverse order beginning with the payments to be paid the farthest in time from the date Release Effective Date, then each other lump sum cash severance or other payment due under this Agreement, then by reducing or eliminating those payments or benefits which are not payable in cash, in each case in reverse order beginning with the payments to be paid the farthest in time from the date of the Change in Control).

f. **No Duty to Mitigate Nor Offsets; No Other Severance; No Reduction for Deferred Compensation.** Notwithstanding anything in this Agreement to the contrary, if Employee's employment is terminated (whether or not following a Change in Control of the Company), Employee shall have no duty to seek other employment nor shall any payments made or to be made to Employee pursuant to this Agreement be offset by any amount earned from other employment or for any other reason. The payments and benefits to be provided to Employee pursuant to this Section 5 upon termination of Employee's employment shall constitute the exclusive payments and benefits in the nature of severance or termination pay or salary continuation and termination benefits which shall be due to Employee upon a termination of employment and shall be in lieu of any other such payments under any plan, program, policy or other arrangement which has heretofore been or shall hereafter be established by the Company or any of its Affiliates. The calculations of the Minimum Termination Compensation, Base Severance Payment, Bonus Payment, Pro Rata Bonus, COBRA Premium Payment, and the CIC Bonus Payment shall be made without reduction for any voluntary deferral of compensation made by Employee.

g. **Full Satisfaction of Obligations.** Payment by Employer or the Company of the amounts owed to Employee pursuant to this Section 5 shall fully satisfy all obligations of Employer and the Company to Employee under this Agreement if the employment of Employee is terminated hereunder prior to the expiration of the term of this Agreement, and all obligations of Employer and Employee to each other set forth in Sections 1 through 4 of this Agreement shall terminate and be of no further force or effect as of the date of termination. No termination of employment hereunder, whether by Employer or Employee and whether with or without Cause or Good Reason, shall terminate the provisions of Sections 6 or 7 or any subsequent sections of this Agreement and each of such sections shall remain in full force and effect as binding obligations of the Parties in accordance with their express terms.

6. **Business Disclosures.** Employee acknowledges that Employee has had and will have access to and has or will become familiar with all or substantially all of the Confidential Information of the Company and its Affiliates. As a material inducement to the Company and Employer to enter into this Agreement and to pay to Employee the compensation stated herein, Employee covenants and agrees that Employee will not, at any time during or following the termination of Employee's employment with the Company, directly or indirectly divulge or disclose for any purpose whatsoever any Confidential Information that has been obtained by or disclosed to Employee in connection with Employee's employment with the Company or any of its Affiliates. If Employee is required in or pursuant to any legal, judicial or administrative proceeding (by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or similar process) to disclose any Confidential Information, Employee shall notify, as promptly as practicable, the Company of such request or requirement so that the Company, at its expense, may seek an appropriate protective order or waive compliance with the provisions of this Agreement, and/or take any other action deemed appropriate by the Company. If, in the absence of a protective order or the receipt of a waiver hereunder, Employee is compelled or required by law or the order of any governmental, regulatory or self-regulatory body to disclose the Confidential Information, Employee may disclose only that portion of the requested Confidential Information which Employee is compelled or required to disclose, and Employee will

exercise Employee's reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the Confidential Information.

7. Non-Competition; Non-Solicitation; Non-Disparagement and Non-Interference.

a. Employee shall not, directly or indirectly and whether on Employee's own behalf or on behalf of any other person, partnership, association, corporation or other entity, engage in or be an owner, director, officer, employee, agent, consultant or other representative of or for, or lend money or equipment to or otherwise support, any business that manufactures, engineers, markets, sells or provides, within a 250-mile radius of any then-existing manufacturing facility of the Company and its subsidiaries and Affiliates, metal building systems or components (including, without limitation, primary and secondary framing systems, roofing systems, end or side wall panels, insulated metal panels, sectional or roll-up doors, windows, or other metal components of a building structure), coated or painted steel or metal coils, coil coating or coil painting services, or any other products or services that are the same as or similar to those manufactured, engineered, marketed, sold or provided by the Company or its subsidiaries and such Affiliates during the period of employment of Employee. Ownership by Employee of equity securities of the Company, or of equity securities in other public or privately-owned companies that compete with the Company constituting less than 1% of the voting securities in such companies, shall be deemed not to be a breach of this covenant. Employee agrees and stipulates that in any action or claim brought by Employee or in any action or claim brought against Employee involving the provisions of this Section 7, Employee hereby waives any claim or defense that the above non-competition covenants are unenforceable, void or voidable, for any reason, including, but not limited to, fraud, misrepresentation, illegality, unenforceable restraint of trade, failure of consideration, illusory contract, mistake, or any other substantive legal defense.

b. Employee shall not, directly or indirectly and whether on Employee's own behalf or on behalf of any other person, partnership, association, corporation or other entity, either (i) seek to hire or solicit the employment or service of any employee, agent or consultant of the Company or its Affiliates in a commercial capacity; (ii) in any manner attempt to influence or induce any employee, agent or consultant of the Company or its Affiliates to leave the employment or service of the Company or its Affiliates; (iii) use or disclose to any person, partnership, association, corporation or other entity any information concerning the names and addresses of any employees, agents or consultants of the Company or its Affiliates unless such use or disclosure is of a personal nature, is requested by the Company or is required by due process of law; or (iv) call upon, solicit, divert or attempt to call upon, solicit or divert the business of any customer, vendor or acquisition prospect of the Company or any of its Affiliates with whom Employee dealt, directly or indirectly, during Employee's engagement with the Company or its Affiliates. Employee shall not be prohibited from hiring or soliciting the employment or service of an agent or consultant of the Company or its Affiliates for purposes which do not violate Section 7 of this Agreement. Employee agrees and stipulates that in any action or claim brought by Employee or in any action or claim brought against Employee involving the provisions of this Section 7, Employee hereby waives any claim or defense that the above non-solicitation covenants are unenforceable, void or voidable, for any reason, including, but not limited to, fraud, misrepresentation, illegality, unenforceable restraint of trade, failure of consideration, illusory contract, mistake, or any other substantive legal defense.

c. To the extent permitted by the law, Employee agrees to refrain from any criticisms or disparaging comments about the Company or any Affiliates (including any current officer, director or employee of the Company), and Employee agrees not to take any action, or assist any person in taking any other action, that is adverse to the interests of the Company or any Affiliate or inconsistent with fostering the goodwill of the Company and its Affiliates; *provided, however*, that nothing in this Agreement shall apply to or restrict in any way the communication of information by the Company or Employee to any state or federal law enforcement, regulatory or judicial agency or official or to the Board or senior management of the Company or require notice to the Company thereof, and Employee will not be in breach of the covenant contained above solely by reason of testimony which is compelled by process of law. To the extent permitted by the law, the Company and any Affiliates agree to (i) refrain from making or endorsing any public criticisms or public disparaging comments about Employee and (ii) direct its current officers not to make or endorse any disparaging or negative remarks or statements (whether oral, written, or otherwise) about Employee; *provided, however*, that nothing in this Agreement shall apply to or restrict in any way the communication of information by the Company or Employee to any state or federal law enforcement, regulatory, Congressional or judicial agency, body or official or to the Board or senior management of the Company or require notice to the Company thereof, and the Company will not be in breach of the covenant contained above by reason of testimony which is compelled by process of law. Nothing in this paragraph restricts, or is intended to restrict, any rights of Employee that cannot be lawfully restricted. Nothing in this Agreement shall be interpreted in a manner that limits or restricts Employee from exercising any legally protected whistleblower rights (including pursuant to Rule 21F promulgated under the Securities Exchange Act of 1934, as amended).

The foregoing covenants in this Section 7 shall remain in effect (i) during the period of employment of Employee by the Company and Employer, and (ii) for a period of two (2) years following Employee's termination of employment (whether initiated by Employee or by the Company or Employer) for any reason (the "**Restricted Period**"). The foregoing covenants in Section 6 and this Section 7 shall not apply to Employee's good faith performance of his duties during the term of this Agreement for the benefit of the Company or its Affiliates.

8. Consideration for Covenants; Reasonableness. Employee acknowledges and agrees as follows:

a. The Confidential Information of the Company and its Affiliates is unique and was developed or acquired by them through the expenditure of valuable time and resources; that Employer, the Company and their Affiliates derive independent economic value from this Confidential Information not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; that Employer, the Company and their Affiliates have taken all prudent and necessary measures to preserve the proprietary and confidential nature of its Confidential Information, and that the covenants set forth in Sections 6 and 7 are the most reasonable, efficient and practical means to protect the Confidential Information.

b. The covenants set forth in Sections 6 and 7 are necessary to protect the goodwill of the Company and its Affiliates during the employment of Employee hereunder, and to ensure that such goodwill will be preserved and continued for the benefit of the Company and its Affiliates after Employee's employment terminates.

c. Due to the nature of the business as heretofore conducted by the Company and its Affiliates and as contemplated to be continued and conducted by the Company and its Affiliates, the scope and the duration of the covenants set forth in Sections 6 and 7 of this Agreement are in all respects reasonable.

d. The covenants set forth in Sections 6 and 7 each constitute a separate agreement independently supported by good and adequate consideration and that each such agreement shall be severable from the other provisions of this Agreement and shall survive this Agreement. The existence of any claim or cause of action of Employee against Employer or the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by Employer and the Company of the covenants and agreements of Employee set forth in Sections 6 and 7.

9. **Surrender of Books and Records.** Employee shall on the termination of Employee's employment in any manner immediately surrender to the Company all lists, books, and records and other documents incident to the business of the Company and its Affiliates, and all other property belonging to any of them, it being understood that all such lists, books, records and other documents are the property of the Company and its Affiliates; *provided, however*, that Employee shall be permitted to retain a copy of his contacts and calendar as well as a copy of all publicly filed plans and agreements, benefit plans in which Employee participates, employee handbooks applicable to Employee and statements of Employee's compensation and benefits that have been provided to Employee by the Company, its Affiliates or any of their designated plan service providers.

10. **Waiver of Breach.** The failure of the Company, Employer or Employee at any time to require performance by the other of any provision hereof shall in no way affect any of their respective rights thereafter to enforce the same, nor shall the waiver by the Company, Employer or Employee of any breach of any provision hereof be taken or held to be a waiver of any succeeding breach of any provision or as a waiver of the provision itself.

11. **Remedies.** In the event of Employee's breach, or threatened breach, of any term or provision contained in Sections 6 or 7 of this Agreement, Employee agrees that the Company and its Affiliates shall suffer irreparable harm not compensable by damages or other legal remedies, and that accordingly the Company and/or Employer shall be entitled to both temporary and permanent injunctive relief without the necessity of independent proof by it as to the inadequacy of legal remedies or the nature or extent of the irreparable harm suffered by it. The right of the Company and/or Employer to such relief shall not be construed to prevent it from pursuing, either consecutively or concurrently, any and all other legal or equitable remedies available to it for such breach or threatened breach, specifically including, without limitation, the recovery of monetary damages. Without limiting the generality of the relief that may be sought by the Company and/or Employer pursuant to this Section 11, if Employee intentionally and materially violates any provision of Section 6 or 7, the Company may, after (a) giving written notice to Employee of the Board's reasonable, good faith belief that Employee has or is intentionally and materially violating any of the covenants contained in Section 6 or 7, upon delivery to Employee of a certified copy of a resolution of the Board adopted by the affirmative vote of a majority of the entire membership of the Board following a meeting at which Employee was given an opportunity to be heard on at least five (5) business days' advance written notice finding that Employee was guilty of such conduct and specifying the particulars thereof, and (b) thereafter giving Employee 15 business days in which to cease and cure such violation, and Employee fails to cease and desist from such violation and/or does not, in the Board's reasonable and good faith determination, cure such violation, immediately cease all payments that it may be providing to Employee pursuant to this Agreement and, at the reasonable and good faith demand of the Company and/or Employer, Employee shall be required to repay the severance payments that have been paid to Employee after such breach pursuant to Section 5 to the extent that the Company and/or Employer reasonably and in good faith determines that such repayment does not exceed the damages caused thereby; *provided, however*, that the foregoing shall be in addition to such other remedies as may be available to the Company and shall not be deemed to permit Employee to forego or waive such payments in order to avoid his obligations under Section 6 or 7; *provided, further*, that any Release previously executed by Employee shall continue in effect except that any such Release shall not preclude Employee from challenging, defending against, or asserting any claim, fact or circumstance related Company's and/or Employer's breach of this provision.

12. **Severability.** It is the desire and intent of the Parties that the provisions of Sections 6 and 7 be enforced to the fullest extent permissible under the laws and public policies of each jurisdiction in which enforcement is sought. If any provision of Sections 6 or 7 relating to the time period, scope of activities or geographic area of restrictions is declared by a court of competent jurisdiction to exceed the maximum permissible time period, scope of activities or geographic area, the same

shall be reduced to the maximum which such court deems enforceable. If any provisions of Sections 6 and 7 other than those described in the preceding sentence are adjudicated to be invalid or unenforceable, the invalid or unenforceable provisions shall be deemed amended (with respect only to the jurisdiction in which such adjudication is made) in such manner as to render them enforceable and to effectuate as nearly as possible the intentions and agreement of the Parties. Furthermore, if any other provision contained in this Agreement should be held illegal, invalid or unenforceable in whole or in part by a court of competent jurisdiction, then it is the intent of the Parties hereto that the balance of this Agreement be enforced to the fullest extent permitted by applicable law and, in lieu of such illegal, invalid or unenforceable provision, there shall be added automatically as part of this Agreement, a provision as similar in its terms to such invalid provision as may be possible and be legal, valid, and enforceable.

13. Attorneys' Fees. In the event of any suit or judicial proceeding (other than an arbitration proceeding) between the Parties hereto with respect to this Agreement, the court in which such suit is decided may award reasonable attorneys' fees and costs, as actually incurred and including, without limitation, attorneys' fees and costs incurred in appellate proceedings to the party that prevails in such dispute; *provided, however*, that in respect of a suit that arises in respect of matters occurring during a Potential Change in Control Period or following a Change in Control, only Employee will be entitled to recover the attorneys' fees and costs under the circumstances described in this Section.

14. Survival. Notwithstanding anything to the contrary contained herein, the provisions of this Agreement that contemplate performance by the Parties following termination of this Agreement (including without limitation Sections 5-7 and 28 hereof) shall survive the termination of this Agreement.

15. Notice. All notices hereunder shall be in writing and shall be delivered personally, sent by facsimile transmission or sent by certified, registered or overnight mail, postage prepaid. Such notices shall be deemed to have been duly given upon receipt, if personally delivered, upon telephonic confirmation of receipt if sent by facsimile transmission, and if mailed, five (5) days after the date of mailing (two (2) days in the case of overnight mail), in each case addressed to the Parties at the following addresses or at such other addresses as shall be specified in writing and in accordance with this Section:

If to Employee: Address shown on the employment records of the Company

If to the Company or Employer: NCI Building Systems, Inc.
10943 North Sam Houston Parkway West
Houston, Texas 77064
Telecopier: (281) 477-9670
Attention: Executive Vice President, General Counsel & Corporate Secretary

16. Entire Agreement. This Agreement, together with the execution copies of the agreements attached as exhibits hereto and any rights to indemnification or advancement (including pursuant to the Indemnification Agreement (as defined in Section 28 below)), supersedes any and all other agreements, either oral or written, between the Parties hereto with respect to the subject matter hereof, including without limitation the Prior Agreement, and contains all of the covenants and agreements between the Parties with respect thereto. Except as expressly provided herein, the specific arrangements referred to herein are not intended to exclude or limit Employee's participation in other benefits available to Employee or personnel of the Company generally, or to preclude or limit other compensation or benefits as may be authorized by the Board at any time, or to limit or reduce any compensation or benefits to which Employee would be entitled but for the Agreement.

17. Modification. No change or modification of this Agreement shall be valid or binding upon the Parties hereto, nor shall any waiver of any term or condition in the future be so binding, unless such change or modification or waiver shall be in writing and signed by the Parties hereto.

18. Governing Law and Venue. This Agreement, and the rights and obligations of the Parties hereunder, shall be governed by and construed in accordance with the laws of the State of Texas and venue for any action pursuant hereto shall be in the appropriate state or federal court in Harris County, Texas.

19. Acknowledgment Regarding Counsel. Each of the Parties to this Agreement acknowledges that each of them has had the opportunity to seek and has sought counsel to review this Agreement and to obtain and has obtained the advice of such counsel relating thereto.

20. Counterparts. This Agreement may be executed in counterparts, each of which shall constitute an original, but all of which shall constitute one and the same document.

21. Assignment. Subject to compliance with the provisions of this Agreement, each of the Company and Employer shall have the right to assign this Agreement and its obligations hereunder to any of their Affiliates. No such assignment shall

operate to relieve Employer, the Company or any successor assignor from liability hereunder, and this Agreement shall remain an enforceable obligation of Employer, the Company and each such successor. The rights, duties and benefits to Employee hereunder are personal to him, and no such right or benefit may be assigned by him. For purposes of this Agreement, all references herein to Employer and the Company is deemed to be also a reference to any Affiliate of Employer or the Company that either has or is required to assume the obligations of the Company pursuant to this section.

22. Tax Withholding. The Company and/or Employer, as appropriate, may withhold from any payments or benefits payable under this Agreement all federal, state, city or other taxes required to be withheld pursuant to any law or governmental regulation or ruling.

23. Joint and Several Obligations. The duties and obligations of Employer and the Company set forth herein shall be the joint and several obligations of each of them.

24. Payment to Estate. If Employee dies prior to full satisfaction of the obligations owed to Employee under this Agreement, any monies that may be due Employee under this Agreement as of the date of Employee's death will be paid to Employee's estate.

25. Section 409A.

a. If Employee is a "specified employee," as such term is defined in Section 409A and determined as described below in this Section 25(a), and if any portion of the Base Severance Payment, Bonus Payment or CIC Bonus Payment is subject to Section 409A, the character and timing of the payment thereof shall be as determined in this Section 25(a). It is hereby specified that as much of the Base Severance Payment, Bonus Payment or CIC Bonus Payment as can be paid without the application of Section 409A(a)(2)(B)(i) and Treas. Reg. §1.409A-1(i) shall be paid at times consistent with Section 5.b or Section 5.c as applicable and without application of this Section 25. The remaining portion of the Base Severance Payment, Bonus Payment or CIC Bonus Payment shall not be payable before the earlier of (i) the date that is six (6) months after Employee's termination, (ii) the date of Employee's death, or (iii) one or more dates that otherwise comply with the requirements of Section 409A. Employee shall be a "specified employee" for the twelve-month period beginning on April 1st of a year if Employee is a "key employee" as defined in Section 416(i) of the Code (without regard to Section 416(i)(5)) as of December 31 of the preceding year or using such dates as designated by the Compensation Committee in accordance with Section 409A and in a manner that is consistent with respect to all of the Company's nonqualified deferred compensation plans. For purposes of determining the identity of specified employees, the Compensation Committee may establish such procedures as it deems appropriate in accordance with Section 409A.

b. Employee and the Company agree that this Agreement is intended to comply with or be exempt from Section 409A and that any ambiguous provisions will be construed in a manner that is compliant with or exempt from the application of Section 409A. Without limiting the generality of the immediately preceding sentence, it is intended that the CIC Bonus Payment and the Pro Rata Bonus shall be "short-term deferrals" within the meaning of Treas. Reg. §1.409A-1(b)(4) that are exempt from Section 409A. For purposes of Section 409A, each installment in a series of installment payments is intended to be a separate payment.

26. Captions. The captions, headings, and arrangements used in this Agreement are for convenience only and do not in any way affect, limit, amplify, or modify the terms and provisions hereof.

27. Binding Effect. This Agreement shall be binding upon the Parties hereto, together with their respective executors, administrators, successors, personal representatives, heirs and assigns.

28. Indemnification. The Company will indemnify Employee in accordance with the terms of that certain Indemnification Agreement entered into by and between the Company and Employee dated as of [the date of this Agreement] in connection with his appointment as Chairman and Chief Executive Officer of the Company, as the same may be amended from time to time by the parties thereto, and will also indemnify Employee in accordance with the terms of that certain indemnification agreement previously entered into by and between the Company and Employee in connection with Employee's appointment to the Board in the form executed by all other members of the Board as publicly filed from time to time (together, the "**Indemnification Agreements**"). The indemnification provided by this Section 28 does not limit, and is not exclusive of, any other rights to which Employee may be entitled under the articles of incorporation, charter, bylaws, or the regulations of the Company or any Affiliate, or any agreement, vote of shareholders or disinterested directors, or otherwise, both as to action in Employee's official capacity and as to action in another capacity while holding such office (including as a director, trustee, agent or fiduciary of the Company or any subsidiary or benefit plan thereof), and will continue as to Employee after Employee has ceased to be a director, trustee, officer, employee or agent and will inure to the benefit of Employee's heirs, executors, and administrators. In particular, and without limiting Employee's rights under this Section 28, Employee will additionally be entitled to the full benefit of any indemnification agreement provided by the Company or its Affiliates to its officers and directors and Employee shall participate in any director or officer insurance maintained by the Company and its Affiliates.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement effective as of the date set forth herein.

EMPLOYEE

/s/James Metcalf

James Metcalf

NCI BUILDING SYSTEMS, INC.

By: /s/Todd R. Moore

Todd R. Moore

Executive Vice President

and General Counsel

NCI GROUP, INC.

By: /s/Todd R. Moore

Todd R. Moore

Executive Vice President

and General Counsel

APPENDIX A DEFINITIONS

The following terms have the indicated meanings for purposes of this Agreement:

(a) “Affiliate” means any entity controlled by, controlling or under common control with a person or entity.

(b) “Bonus Plan” has the meaning set forth in Section 4.b.

(c) “Cause” shall mean any of the following occurring after the Effective Date: (i) Employee’s willful and continued failure to substantially perform Employee’s duties and other obligations under this Agreement, if such failure continues for a period of thirty (30) days after written notice by the Company of the existence of such failure; (ii) Employee’s willful and material violation of the Company or Employer’s code of conduct, which violation is not cured within thirty (30) days after written notice by the Company of the existence of such violation; provided however, that only one such notice by the Company need be sent and, if such failure re-occurs thereafter, no further notice and opportunity to cure such failure shall be required; (iii) the willful engaging by Employee in gross misconduct materially and demonstrably injurious to the Company, as determined by the Company; or (iv) Employee’s conviction for committing an act of fraud, embezzlement, theft or other act constituting a felony (which shall not include any act or offense involving the operation of a motor vehicle); provided, however, that the Board or the then current Lead Independent Director of the Board (if any) must first provide to Employee written notice clearly and fully describing the particular acts or omissions which the Board or the then current Lead Independent Director of the Board (if any) reasonably believes in good faith constitutes Cause hereunder, and providing an opportunity, within thirty (30) days following the receipt of such notice, to meet in person with the Board or the then current Lead Independent Director of the Board (if any) to explain the alleged acts or omissions relied upon by the Board and, to the extent practicable, to cure such acts or omissions. For purposes of this Agreement, any termination of Employee’s employment for Cause shall be effective only upon delivery to Employee of a certified copy of a resolution of the Board, adopted by the affirmative vote of a majority of the entire membership of the Board following a meeting at which Employee was given an opportunity to be heard on at least five (5) business days’ advance written notice, finding that Employee was guilty of the conduct constituting Cause, and specifying the particulars thereof. Further, for the purposes of this Agreement, no act or failure to act on Employee’s part shall be considered willful unless done, or omitted from being done, by Employee not in good faith and without reasonable belief that Employee’s action or omission was in the best interest of the Company.

(d) “Change in Control” of the Company means the first occurrence of any of the following events following the Effective Date:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934) is or becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 25 percent or more of the combined voting power of the Company’s then outstanding securities, excluding (x) any such acquisition by any person that owns such percentage of the Company’s then outstanding securities as of the Effective Date (a “**Controlling Person**”) and (y) any acquisition of the Company’s then outstanding securities following the Effective Date by a person which is inadvertent and/or otherwise not entered into for the purpose of, and does not have the effect of, changing or influencing the control of, the Company (including, but not limited to, the sale of securities by a Controlling Person in the public market) (clause (x) or (y), a “**Non-Control Transaction**”);

(ii) as a result of, or in connection with, any tender offer or exchange offer, merger, or other business combination (a “**Transaction**”), the persons who were directors of the Company immediately before the Transaction (each, an “**Incumbent Director**”) shall cease to constitute a majority of the Board or the board of directors or any successor to the Company (or, if applicable, the parent thereof resulting from the Transaction); provided that any director elected or nominated for election to the Board (or such board) by a majority of the Incumbent Directors then still in office shall be deemed to be an Incumbent Director for purposes of this clause (ii), except that any member of the Board whose initial assumption of office occurs as a result of (including by reason of the settlement of) an actual or threatened proxy contest, election contest or other contested election of directors shall in no event be considered an Incumbent Director;

(iii) the Company is merged or consolidated with another person, or transfers substantially all of its assets to another person, and immediately following the merger, consolidation or transfer either (x)(I) less than 50 percent of the outstanding voting securities of the acquiring, surviving or resulting person (as applicable) shall then be owned in the aggregate by the former stockholders of the Company or (II) 50 percent or more of the outstanding voting securities of the acquiring, surviving or resulting person (as applicable) shall then be owned in the aggregate by the former stockholders of the Company but other than in substantially the same relative proportions as immediately prior to such transaction, and in each case excluding a Non-Control Transaction or (y) the individuals who were members of the Incumbent Board immediately prior to the agreement providing for such transaction constitute less than a majority of the members of the board of directors of the acquiring, surviving or resulting person (as applicable), or, if applicable the ultimate parent entity of such person, and in each case excluding a Non-Control Transaction; or

(iv) a tender offer or exchange offer is made and consummated for the ownership of securities of the Company representing 25 percent or more of the combined voting power of the Company's then outstanding voting securities (excluding a Non-Control Transaction).

In addition, and for avoidance of doubt, in no event shall a Change in Control be deemed to have occurred (a) solely as a result of investment funds affiliated with Clayton, Dubilier & Rice, LLC selling in the public market equity securities held by them as of the Effective Date or (b) solely as a result of the closing of the Merger.

Notwithstanding anything in this definition, to the extent that any payment or benefit provided for under this Agreement constitutes "nonqualified deferred compensation" (within the meaning of Section 409A of the Code) that is payable as a result of (either directly or indirectly) a Change in Control shall only be payable if such Change in Control also constitutes a "change in control event" within the meaning of Section 409A of the Code.

(e) "Confidential Information" means all information, whether oral or written, previously or hereafter developed, that relates to the business as heretofore conducted by the Company, or which is hereafter otherwise acquired or used by the Company or its subsidiaries and Affiliates, that is not generally known to others in the Company's area of business or, if known, was obtained wrongfully by such other person or entity or with knowledge that it was proprietary or confidential information of or relating to the business as heretofore conducted by the Company or of or relating to the business of the Company or its subsidiaries and Affiliates. Confidential Information shall include, without limitation, trade secrets, methods or practices, financial results or plans, customer or client lists, personnel information, information relating to negotiations with clients or prospective clients, proprietary software, databases, programming or data transmission methods, or copyrighted materials (including without limitation, brochures, layouts, letters, art work, copy, photographs or illustrations). It is expressly understood that the foregoing list shall be illustrative only and is not intended to be an exclusive or exhaustive list of Confidential Information.

(f) "Director Cause" means (i) for any breach of Employee's duty of loyalty to the Company or such subsidiary or the stockholders thereof; (ii) an acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law; or (iii) for any transaction from which Employee derived an improper personal benefit. For purposes of this Agreement, the existence of Director Cause shall be effective only upon delivery to Employee of a certified copy of a resolution of the Board, adopted by the affirmative vote of a majority of the entire membership of the Board following a meeting at which Employee was given an opportunity to be heard on at least five (5) business days' advance written notice, finding that Employee was guilty of the conduct constituting Director Cause, and specifying the particulars thereof.

(g) "Good Reason" means any of the following events that occurs without Employee's prior written consent after the Effective Date:

(i) any material reduction in the amount of Employee's then current base salary or target bonus opportunity, in either case other than as part of a reduction of less than ten percent (10%) applied generally across-the-board to all of the senior executive officers of the Company;

(ii) (A) a material reduction in Employee's title; or (B) a material, adverse reduction in the duties or responsibilities of Employee relative to Employee's duties or responsibilities as described in Section 2 hereof; (which for the avoidance of doubt shall be deemed to have occurred upon a Change in Control pursuant to which the Company becomes a wholly owned division, unit or subsidiary of the acquiring company);

(iii) the breach or failure by the Company or Employer to perform any of its material covenants contained in this Agreement (including the failure to nominate Employee to the Board or the removal of Employee from the Board other than for Director Cause);

(iv) any relocation of Employee's principal place of employment by more than fifty (50) miles, as long as such relocation increases Employee's normal daily commute excluding, for the avoidance of doubt, the expected relocation referenced in Section 4(c)(ii) of this Agreement); or

(v) the Company's failure to cause any successor to all or substantially all of the business or assets of the Company and/or the Employer to expressly agree to assume the obligations of the Company and/or the Employer under this Agreement, unless such assumption occurs automatically by operation of law.

In order for a termination of Employee to constitute a termination for Good Reason, Employee must notify the Company of the circumstances claimed to constitute Good Reason in writing not later than the ninetieth (90th) day after such circumstances have arisen or occurred and must provide the Company with at least thirty (30) days within which to cure such circumstances before terminating employment, and, failing a cure, Employee must terminate Employee's employment within thirty (30) days following the expiration of such cure period.

(h) "Potential Change in Control" of the Company shall be deemed to have occurred, if:

(i) the Company enters into an agreement, the consummation of which would result in the occurrence of a Change in Control of the Company;

(ii) any person (including the Company) publicly announces an intention to take or to consider taking actions which if consummated would constitute a Change in Control of the Company; or

(iii) the Board adopts a resolution to the effect that, for purposes of this Agreement, a Potential Change in Control has occurred.

(i) "Potential Change in Control Period" means the period beginning on the date the Potential Change in Control occurs and ending as of the earlier of (i) the date on which a Change in Control occurs or (ii) the date the Board makes a good faith determination that the risk of a Change in Control has terminated. In addition, Employee's employment shall be deemed to have been terminated during a Potential Change in Control Period if such termination occurs prior to a Change in Control and such termination is by the Company other than for Cause and is (x) at the request of the counterparty in such Change in Control or (y) otherwise reasonably in anticipation of such Change in Control, provided that such Change in Control actually occurs.

(j) "Section 409A" means Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

Appendix B General Release

Release and Waiver of Claims. In consideration of the payments and benefits to which you are entitled under that certain Agreement, effective as of November 16, 2018 to which you, NCI Building Systems, Inc., and NCI Group, Inc. (the "**Companies**") are parties (the "**Agreement**"), you hereby waive and release and forever discharge each of the Companies and their respective parent entities, subsidiaries, divisions, limited partnerships, affiliated corporations, successors and assigns and their respective past and present directors, managers, officers, stockholders, partners, agents, employees, insurers, attorneys, and servants each in his, her or its capacity as such, and each of them, separately and collectively (collectively, "**Releasees**"), from any and all existing claims, charges, complaints, liens, demands, causes of action, obligations, damages and liabilities, known or unknown, suspected or unsuspected, whether or not mature or ripe, that you ever had and now have against any Releasee arising out of or in any way related to your employment with or separation from the Companies, to any services performed for the Companies, to any status, term or condition in such employment, or to any physical or mental harm or distress from such employment or non-employment or claim to any hire, rehire or future employment of any kind by the Companies, all to the extent allowed by applicable law. This release of claims includes, but is not limited to, claims based on express or implied contract, compensation plans, covenants of good faith and fair dealing, wrongful discharge, claims for discrimination, harassment and retaliation, violation of public policy, tort or common law, whistleblower or retaliation claims; and claims for additional compensation or damages or attorneys' fees or claims under federal, state, and local laws, regulations and ordinances, including but not limited to Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Americans with Disabilities Act, the Age Discrimination in Employment Act, the Worker Adjustment and Retraining Notification Act ("**WARN**"), or equivalent state WARN act, the Employee Retirement Income Security Act, and the Sarbanes-Oxley Act of 2002. You understand that this release of claims includes a release of all known and unknown claims through the date on which this release of claims becomes irrevocable.

Limitation of Release: Notwithstanding the foregoing, this release of claims will not prohibit you from filing a charge of discrimination with the National Labor Relations Board, the Equal Employment Opportunity Commission or an equivalent state civil rights agency, but you agree and understand that you are waiving your right to monetary compensation thereby if any such agency elects to pursue a claim on your behalf. Further, nothing in this release of claims shall be construed to waive any right that is not subject to waiver by private agreement under federal, state or local employment or other laws, such as claims for workers' compensation or unemployment benefits or any claims that may arise after the date on which this release of claims becomes irrevocable. In addition, nothing in this release of claims will be construed to affect any of the following claims, all rights in respect of which are reserved:

- (a) Any payment or benefit set forth in the Agreement;
 - (b) Any rights as a shareholder of NCI Building Systems, Inc.;
 - (c) Reimbursement of unreimbursed business expenses properly incurred prior to the termination date in accordance with policy of the Companies;
 - (d) Claims in respect of equity compensation owned by you or rights to any Founders Grants or other equity awards under any Equity Plan;
 - (e) Vested benefits under the general employee benefit plans (other than severance pay or termination benefits under any general plan or policy of the Companies, all rights to which are hereby waived and released);
 - (f) Any claim for unemployment compensation or workers' compensation administered by a state government to which you are presently or may become entitled;
 - (g) Any claim that either of the Companies has breached this release of claims; and
-

(h) Indemnification as a current or former director or officer of either of the Companies or any of its subsidiaries (including as a fiduciary of any employee benefit plan), or inclusion as a beneficiary of any insurance policy related to your service in such capacity (including under any Indemnification Agreement).

Cornerstone Building Brands, Inc.
List of Subsidiaries

Alenco Building Products Management, L.L.C.	Delaware
Alenco Extrusion GA, L.L.C.	Delaware
Alenco Extrusion Management, L.L.C.	Delaware
Alenco Holding Corporation	Delaware
Alenco Interests, L.L.C.	Delaware
Alenco Trans, Inc.	Delaware
Alenco Window GA, L.L.C.	Delaware
Aluminum Scrap Recycle, L.L.C.	Delaware
American Screen Manufacturers, Inc.	Delaware
Atrium Corporation	Delaware
Atrium Extrusion Systems, Inc.	Delaware
Atrium Intermediate Holdings, Inc.	Delaware
Atrium Parent, Inc.	Delaware
Atrium Windows and Doors, Inc.	Delaware
AWC Arizona, Inc.	Delaware
AWC Holding Company	Delaware
Briden Acquisition, LLC	Delaware
Brock Doors & Windows Ltd.	Ontario, Canada
Brockmeyer Acquisition, LLC	Delaware
Building Systems de Mexico, S.A. de C.V.	Mexico
Canyon Acquisition, LLC	Delaware
CENTRIA	Pennsylvania General Partnership
CENTRIA, Inc.	Delaware
CENTRIA Services Group, LLC	Pennsylvania
Champion Window, Inc.	Delaware
Environmental Materials, Inc.	Delaware
Environmental Materials, LLC	Delaware
Environmental Materials L.P.	Delaware
Environmental Stoneworks, LLC	Delaware
Environmental Stucco LLC	Delaware
Foundation Labs by Ply Gem, LLC	Delaware
Gienow Canada Inc.	Alberta, Canada
Glazing Industries Management, L.L.C.	Delaware
Great Lakes Window, Inc.	Ohio
Kroy Building Products, Inc.	Delaware
Mastic Home Exteriors, Inc.	Ohio
Mitten, Inc.	Ontario, Canada
MW Manufacturers Inc.	Delaware
MWM Holding, Inc.	Delaware
Napco, Inc.	Delaware
NCI Group, Inc.	Nevada
NCI Latin American Services, S.R.L.	Costa Rica

New Alenco Extrusion, Ltd.	Texas
New Alenco Window, Ltd.	Texas
New Glazing Industries, Ltd.	Texas
PBCS Acquisition, LLC	Delaware
Ply Gem Holdings, Inc.	Delaware
Ply Gem Industries, Inc.	Delaware
Ply Gem Pacific Windows Corporation	Delaware
Ply Gem Specialty Products, LLC	Delaware
Robertson Building Systems Limited	Ontario, Canada
Robertson-Ceco II Corporation	Delaware
Schuylkill Stone, LLC	Delaware
Silver Line Building Products LLC	Delaware
Simex, Inc.	West Virginia
Simonton Building Products LLC	Delaware
Simonton Industries, Inc.	California
Simonton Windows & Doors, Inc.	Delaware
Simonton Windows, Inc.	West Virginia
St. Croix Acquisition, LLC	Delaware
Steelbuilding.com, LLC	Delaware
Talus Systems, LLC	Delaware
Thermal Industries, Inc.	Delaware
Van Well Acquisition, LLC	Delaware
Variform, Inc.	Missouri

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 3, 2020, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of Cornerstone Building Brands, Inc. on Form 10-K for the year ended December 31, 2019. We consent to the incorporation by reference of said reports in the Registration Statements of Cornerstone Building Brands, Inc. on Forms S-8 (File No. 333-186467, File No. 333-176737, File No. 333-193057, File No. 333-173417, File No. 333-172822, File No. 333-166279, File No. 333-162568, File No. 333-139983, File No. 333-124266, File No. 333-111142, File No. 333-111139, File No. 333-34899, File No. 333-14957, File No. 333-12921, File No. 333-225973, File No. 333-225974, File No. 333-224001, File No. 333-228456, and File No. 333-233257) and on Forms S-3 (File No. 333-210467, and File No. 229743).

/s/ GRANT THORNTON LLP

Raleigh, North Carolina
March 3, 2020

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

(1) NCI Building Systems, Inc. Form S-8	File No. 333-186467
(2) NCI Building Systems, Inc. Form S-8	File No. 333-176737
(3) NCI Building Systems, Inc. Form S-8	File No. 333-193057
(4) NCI Building Systems, Inc. Form S-8	File No. 333-173417
(5) NCI Building Systems, Inc. Form S-8	File No. 333-172822
(6) NCI Building Systems, Inc. Form S-8	File No. 333-166279
(7) NCI Building Systems, Inc. Form S-8	File No. 333-162568
(8) NCI Building Systems, Inc. Form S-8	File No. 333-139983
(9) NCI Building Systems, Inc. Form S-8	File No. 333-124266
(10) NCI Building Systems, Inc. Form S-8	File No. 333-111142
(11) NCI Building Systems, Inc. Form S-8	File No. 333-111139
(12) NCI Building Systems, Inc. Form S-8	File No. 333-34899
(13) NCI Building Systems, Inc. Form S-8	File No. 333-14957
(14) NCI Building Systems, Inc. Form S-8	File No. 333-12921
(15) NCI Building Systems, Inc. Form S-8	File No. 333-225973
(16) NCI Building Systems, Inc. Form S-8	File No. 333-225974
(17) NCI Building Systems, Inc. Form S-8	File No. 333-224001
(18) NCI Building Systems, Inc. Form S-8	File No. 333-228456
(19) Cornerstone Building Brands, Inc. Form S-8	File No. 333-233257
(20) NCI Building Systems, Inc. Form S-3	File No. 333-210467
(21) NCI Building Systems, Inc. Form S-3	File No. 333-229743

of our report dated December 19, 2018, except with respect to the effects of the change in the composition of reportable segments, change in the income statement presentation of service cost and other components for defined benefit pension and other postretirement benefit plans, and change in presentation of restricted cash in the statement of cash flows as discussed in Notes 1, 3, and 20 as to which the date is February 19, 2019, included in this Annual Report (Form 10-K) of Cornerstone Building Brands, Inc. (formerly named NCI Building Systems, Inc.) for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Houston, Texas
March 3, 2020

CORNERSTONE BUILDING BRANDS, INC.

Power of Attorney

WHEREAS, CORNERSTONE BUILDING BRANDS, INC., a Delaware corporation (the “Company”), intends to file with the Securities and Exchange Commission (the “Commission”) pursuant to the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission promulgated thereunder, its Annual Report on Form 10-K, together with any and all exhibits, documents and other instruments and documents necessary, advisable or appropriate in connection therewith, including any amendments thereto (the “Form 10-K”);

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James S. Metcalf, Jeffery S. Lee and Todd R. Moore, and each of them severally, his or her true and lawful attorney or attorneys-in-fact and agents, with full power to act with or without the others and with full power of substitution and resubstitution, to execute in his or her name, place and stead, in any and all capacities, this Form 10-K and any or all amendments to this Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents and each of them full power and authority, to do and perform in the name and on behalf of the undersigned, in any and all capacities, each and every act and thing necessary or desirable to be done in and about the premises, to all intents and purposes and as fully as they might or could do in person, hereby ratifying, approving and confirming all that said attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof.

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 indicated as of the 3rd day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Kathleen J. Affeldt</u> Kathleen J. Affeldt	Director
<u>/s/ George L. Ball</u> George L. Ball	Director
<u>/s/ Gary L. Forbes</u> Gary L. Forbes	Director
<u>/s/ John J. Holland</u> John J. Holland	Director
<u>/s/ Wilbert W. James, Jr</u> Wilbert W. James, Jr	Director
<u>/s/ Daniel Janki</u> Daniel Janki	Director
<u>/s/ John Krenicki</u> John Krenicki	Director
<u>/s/ George Martinez</u> George Martinez	Director
<u>/s/ Timothy O’Brien</u> Timothy O’Brien	Director
<u>/s/ Nathan K. Sleeper</u> Nathan K. Sleeper	Director
<u>/s/ Jonathan L. Zrebiec</u> Jonathan L. Zrebiec	Director

RULE 13a-14(a)/15d-14(a) CERTIFICATIONS

I, James S. Metcalf, certify that

1. I have reviewed this annual report on Form 10-K of Cornerstone Building Brands, 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 3, 2020

/s/ James S. Metcalf

James S. Metcalf

Chairman of the Board and Chief Executive Officer

RULE 13a-14(a)/15d-14(a) CERTIFICATIONS

I, Jeffery S. Lee, certify that:

1. I have reviewed this annual report on Form 10-K of Cornerstone Building Brands, 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 3, 2020

/s/ Jeffery S. Lee

Jeffery S. Lee

Chief Financial Officer

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report on Form 10-K of Cornerstone Building Brands, Inc. (the “Company”) for the period ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, James S. Metcalf, Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. I have reviewed this Report of Cornerstone Building Brands, Inc.;
2. This Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
3. The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 3, 2020

/s/ James S. Metcalf

James S. Metcalf

Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to Cornerstone Building Brands, Inc. and will be retained by Cornerstone Building Brands, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

These Certifications shall not be deemed to be “filed” or part of the Report or incorporated by reference into any of the registrant’s filings with the Securities and Exchange Commission by implication or by any reference in any such filing to the Report.

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report on Form 10-K of Cornerstone Building Brands, Inc. (the “Company”) for the period ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jeffery S. Lee, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. I have reviewed this Report of Cornerstone Building Brands, Inc.;
2. This Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
3. The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 3, 2020

/s/ Jeffery S. Lee

Jeffery S. Lee

Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Cornerstone Building Brands, Inc. and will be retained by Cornerstone Building Brands, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

These Certifications shall not be deemed to be “filed” or part of the Report or incorporated by reference into any of the registrant’s filings with the Securities and Exchange Commission by implication or by any reference in any such filing to the Report.