

NCI BUILDING SYSTEMS INC
Form 424B4
July 20, 2016

Filed Pursuant to Rule 424(b)(4)
Registration No. 333-210467

PROSPECTUS SUPPLEMENT To Prospectus dated April 8, 2016

9,000,000 Shares

NCI Building Systems, Inc.

Common Stock

All of the shares of common stock of NCI Building Systems, Inc., which we refer to in this prospectus supplement as NCI or the Company, are being sold by the selling stockholders identified in this prospectus supplement. NCI will not receive any of the proceeds from the sale of the shares being sold by the selling stockholders. We have agreed to bear all the expenses in connection with the registration of these shares. The selling stockholders will pay any applicable underwriting fees, discounts or commission and certain transfer taxes.

The common stock of NCI is listed on the New York Stock Exchange (the NYSE) under the symbol NCS. The last reported sale price of the common stock on July 19, 2016 was \$16.82 per share.

Investing in our common stock involves risks. See Risk Factors on page S-15 of this prospectus supplement and page 2 of the accompanying prospectus to read about factors you should consider before buying shares of the common stock.

Neither the U.S. Securities and Exchange Commission (the SEC) nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement. Any representation to the contrary is a criminal offense.

	Per Share	Total
Price to public	\$16.15	\$145,350,000
Underwriting discount ⁽¹⁾	\$0.686	\$6,174,000
Proceeds, before expenses, to the selling stockholders	\$15.464	\$139,176,000

(1) We refer you to Underwriting beginning on page S-29 of this prospectus supplement for additional information regarding underwriting compensation.

To the extent that the underwriters sell more than 9,000,000 shares of common stock, the underwriters have the option to purchase up to an additional 1,350,000 shares from the selling stockholders at the offering price less the underwriting discounts and commissions. NCI will not receive any of the proceeds from the shares of common stock sold by the selling stockholders pursuant to any exercise of the underwriters' option to purchase additional shares.

We have entered into an agreement with the selling stockholders to repurchase \$45 million of our common stock from the selling stockholders in a private transaction at the price per share at which the shares of common stock are sold to the public in this offering, less the underwriting discount. Pursuant to this agreement, we expect to repurchase a total of 2,909,983 shares of common stock from the selling stockholders. The closing of the share repurchase will be contingent on the closing of this offering. The closing of this offering is not contingent on the closing of the share repurchase. See Concurrent Company Repurchase of Common Stock.

The underwriters expect to deliver the shares against payment in New York, New York on July 25, 2016.

Credit Suisse

Citigroup

RBC Capital Markets

UBS Investment Bank

BB&T Capital Markets

Stephens Inc.

CJS Securities

Prospectus Supplement dated July 19, 2016

TABLE OF CONTENTS

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>About This Prospectus Supplement</u>	<u>S-ii</u>
<u>Prospectus Supplement Summary</u>	<u>S-1</u>
<u>The Offering</u>	<u>S-9</u>
<u>Summary Historical Consolidated Financial and Other Data</u>	<u>S-11</u>
<u>Risk Factors</u>	<u>S-15</u>
<u>Forward-Looking Statements</u>	<u>S-18</u>
<u>Use of Proceeds</u>	<u>S-20</u>
<u>Concurrent Company Repurchase of Common Stock</u>	<u>S-21</u>
<u>Dividend Policy</u>	<u>S-22</u>

	Page
<u>Price Range of Common Stock</u>	<u>S-23</u>
<u>Selling Stockholders</u>	<u>S-24</u>
<u>U.S. Federal Tax Considerations for</u> <u>Non-U.S. Holders</u>	<u>S-26</u>
<u>Underwriting</u>	<u>S-29</u>
<u>Where You Can Find More Information: Incorporated by Reference</u>	<u>S-35</u>
<u>Legal Matters</u>	<u>S-35</u>
<u>Experts</u>	<u>S-36</u>

Prospectus

	Page
<u>About This Prospectus</u>	<u>1</u>
<u>Our Company</u>	<u>1</u>
<u>Risk Factors</u>	<u>2</u>
<u>Forward-Looking Statements</u>	<u>2</u>
<u>Use of Proceeds</u>	<u>4</u>
<u>General Description of the Common Stock that the Selling Stockholders</u> <u>May Sell</u>	<u>4</u>

	Page
<u>Selling Stockholders</u>	<u>7</u>

<u>Plan of Distribution</u>	<u>8</u>
<u>Where You Can Find More Information</u>	<u>11</u>
<u>Legal Matters</u>	<u>12</u>
<u>Experts</u>	<u>12</u>

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement on Form S-3 that we have filed with the SEC using a shelf registration process. Pursuant to the accompanying prospectus dated April 8, 2016, the selling stockholders may, from time to time, sell up to a total of 43,211,817 shares of common stock held by them as of the date hereof described in the accompanying prospectus in one or more offerings. This prospectus supplement may add to, update or change the information contained in the prospectus. If there is any inconsistency between the information in the prospectus and any prospectus supplement, you should rely on the information in the prospectus supplement. Please carefully read the prospectus, the prospectus supplement and any pricing supplement, in addition to the information contained in the documents we refer to under the heading **Where You Can Find More Information; Incorporation by Reference** on page S-35 of this prospectus supplement.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus and any free writing prospectus we have prepared. Neither we, the selling stockholders nor the underwriters have authorized anyone to provide you with different information.

You should assume that the information appearing in this prospectus supplement and the accompanying prospectus is accurate only as of the dates on their respective cover pages and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since such dates.

S-ii

TABLE OF CONTENTS

PROSPECTUS SUPPLEMENT SUMMARY

The following summary does not contain all the information that may be important to purchasers of our common stock. You should carefully read the entire prospectus supplement, including the Risk Factors section, the accompanying prospectus and other information incorporated by reference in this prospectus supplement and the accompanying prospectus before making any investment decision. In this prospectus supplement, we refer to NCI, and its wholly owned and majority-owned subsidiaries as we, us or our, unless we specifically state otherwise or the context indicates otherwise.

Our Company

NCI is one of North America's largest integrated manufacturers and marketers of metal products for the nonresidential construction industry. Of the \$220 billion nonresidential construction industry, we primarily serve the low-rise nonresidential construction market (five stories or less) which, according to Dodge Data & Analytics (Dodge), represented approximately 86% of total nonresidential construction during our fiscal year 2015. Our broad range of products are used primarily in new construction activities and in repair and retrofit activities, mostly in North America.

We design, engineer, manufacture and market what we believe is one of the most comprehensive lines of metal components and engineered building systems in the industry, with a reputation for high quality and superior engineering and design. We go to market with well-recognized brands, which allow us to compete effectively within a broad range of end-user markets, including industrial, commercial, institutional and agricultural. Our service versatility allows us to support the varying needs of our diverse customer base, which includes general contractors and sub-contractors, developers, manufacturers, distributors, a current network of over 3,200 authorized builders across North America in our engineered building systems segment, over 1,000 dealer partners for our insulated metal panel (IMP) products and approximately 5,500 architects. We also provide metal coil coating services for commercial and construction applications, servicing both internal demand and external customers. We believe we have leading market positions in each of our three operating segments (Metal Coil Coating, Metal Components and Engineered Building Systems) with a high level of vertical integration and coordinated focus on commercial execution, lean manufacturing and supply chain optimization, all of which we believe distinguishes us from many of our competitors.

As of June 30, 2016, we operated 40 manufacturing facilities located in the United States, Mexico, Canada and China, with additional sales and distribution offices throughout the United States and Canada. Our broad geographic footprint, along with our hub-and-spoke distribution system, allows us to efficiently supply a broad range of customers with high-quality customer service and reliable deliveries.

Since 2011, we have executed on a strategy to become the leading provider of 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. We believe the IMP market remains underpenetrated in North America, with IMP-related nonresidential construction estimated to comprise approximately 3% of total nonresidential construction. We estimate this is approximately one fifth of the IMP penetration rate in Europe. Insulated metal panels 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.

In recent years, we have undertaken significant initiatives at all levels of our company intended to drive cash flow generation, efficiency and profitable growth. These initiatives have included actions designed to expand our revenue opportunities, decrease costs and enhance our operational efficiency in order to achieve profitable growth and improve margins, such as:

streamlining our organizational structure to remove segment presidents and add new positions for commercial, manufacturing and supply chain functions, with a coordinated focus across all operating segments on improving efficiency and execution;

revamping our sales and marketing functions with a focus on brand positioning, sales channel coordination, team effectiveness and cross-selling opportunities;

S-1

TABLE OF CONTENTS

reducing the size and cost of our manufacturing infrastructure, while maintaining flexibility and capacity through automating, retooling and streamlining key processes;

consolidating and upgrading our engineering and drafting organization and capabilities, while leveraging our enhanced estimating, design and detailing tools across our brand and product portfolios;

optimizing our supply chain and reducing procurement and input costs; and

further bolstering our leading position in the IMP market, both through existing buildings and components sales channels and through the growth in our acquired CENTRIA and Metl-Span businesses.

Our Segments

Our business is currently divided into three operating segments, all closely integrated and well-positioned to capitalize on rising interest in steel products among builders: (i) Metal Coil Coating, (ii) Metal Components and (iii) Engineered Building Systems. We operate these segments as a vertically integrated system, benefiting from common raw material usage, similar manufacturing processes and complementary distribution networks.

	Metal Coil Coating	Metal Components	Engineered Building Systems
Segment Description	Cleaning, treating and painting flat rolled metal coil substrates	Metal roof and wall systems, metal partitions and metal doors and insulated metal panels	Engineered building systems for low-rise nonresidential markets
Estimated Market Share ⁽¹⁾	39% market share in Heavy Gauge Coil Coating (#1 operator) 14% market share in Light Gauge Coil Coating (#2 operator)	11% market share in Metal Components (#1 operator) 49% market share in IMP (#1 operator)	22% market share (#2 operator)
Estimated Addressable Market Size ⁽²⁾	\$1.5 billion	\$6.8 billion	\$2.7 billion
Locations	6 manufacturing facilities in the United States	26 manufacturing facilities (24 in the United States, 1 in Canada and 1 in China)	8 manufacturing facilities (7 in the United States and 1 in Mexico)
Fiscal Q2 LTM Total Sales ⁽³⁾	\$233 million	\$992 million	\$661 million
Fiscal Q2 LTM Segment Operating Income	\$22 million	\$69 million	\$60 million
Fiscal Q2 LTM Segment Adjusted EBITDA and Margin ⁽⁴⁾	\$27 million / 11.5%	\$111 million / 11.2%	\$69 million / 10.5%

S-2

TABLE OF CONTENTS

	Metal Coil Coating	Metal Components	Engineered Building Systems
Customers	Manufacturers of metal components and engineered building systems and manufacturers of painted steel products such as metal buildings, appliances, garage and entry doors, light fixtures and HVAC	Small, medium and large contractors, specialty roofers, engineered building fabricators, distributors/lumberyards and end users	Network of over 3,200 builders, as well as general contractors, developers, custom fabrication customers and end users
Brands			

(1) Based on NCI management estimates. Market share estimates are based on 2015 tons shipped except for Metal Components, which is based on revenue.

(2) Based on NCI management estimates and the MBMA. Market size estimates based on 2015 data.

(3) Includes intersegment sales of \$263 million.

(4) Excludes corporate costs of \$58 million. Adjusted EBITDA is a non-GAAP measure used by management to provide comparability of underlying operating results. For a reconciliation of Adjusted EBITDA to net income (loss) from operations, see Summary Historical Consolidated Financial and Other Data.

Steel is the primary raw material used by each of our operating segments. The Metal Coil Coating segment provides substantially all of the metal coil coating requirements for our Metal Components and Engineered Building Systems segments. Our Engineered Building Systems segment sources a large portion of its components requirements from our Metal Components segment. Our nationwide hub-and-spoke manufacturing and distribution system supports and enhances the vertical integration of our segments. We believe our vertical integration, when combined with other attributes of our individual segments, reduces the impact of steel price volatility on our consolidated business due to the varying length of sales cycles and offsetting margin impacts across segments from changes in steel prices. We believe this helps drive more consistent gross profit margins for our consolidated business.

Our Industry

Demand for our products is driven primarily by new nonresidential construction activity, in particular the low-rise nonresidential market (five stories or less). Construction activity in this market depends on a number of factors, including the overall economic outlook, general business cycle, interest rates, availability of credit and demographic trends that influence the location and magnitude of construction related to new commercial activities.

After experiencing an unprecedented low level of demand in 2009 and 2010, we believe that nonresidential construction market activity is poised to continue to recover and strengthen. According to Dodge, new low-rise nonresidential construction starts were estimated to be 826 million square feet in calendar year 2015, which is up approximately 36% from 609 million square feet in calendar year 2010. However, new low-rise nonresidential construction activity remains materially below historical levels. We believe this represents a significant opportunity for growth as activity continues to recover.

TABLE OF CONTENTS

New low-rise nonresidential construction starts	Units (mm. sq. ft.)	2015 estimated	Percentage increase required to achieve level
Average of five cyclical troughs prior to recent downturn ⁽¹⁾	995	826	20 %
Long-term average ⁽²⁾	1,149	826	39 %
Average of six previous cyclical peaks ⁽³⁾	1,415	826	71 %

Source: Dodge Data & Analytics.

Note: Data shown based on calendar year-end.

- (1) Prior downturn troughs include 1970, 1975, 1982, 1992 and 2003.
(2) Average low-rise nonresidential construction starts from 1967 to 2015.
(3) Prior peaks include 1969, 1973, 1979, 1985, 2000 and 2007.

The leading indicators that typically have the most meaningful correlation to low-rise nonresidential construction starts are the American Institute of Architects Architecture Mixed Use Index, Dodge Residential single family starts and the Conference Board Leading Economic Index. Historically, these three leading indicators, when combined and seasonally adjusted, have been highly correlated to Dodge low-rise nonresidential construction starts. The combined forward projection of these metrics, based on a 9 to 14 month historical lag for each metric, indicates modest growth for low-rise new construction starts in fiscal 2016, with a majority of that growth expected in the second half of our fiscal year.

The nonresidential market is composed primarily of the commercial and industrial markets, and includes the institutional, agricultural, governmental and rural/community markets, as illustrated below.

The metal building industry has continued to gain share in the overall nonresidential construction market. The penetration of metal buildings in nonresidential construction increased from 2007 to 2015, as evidenced by a 20% increase in the ratio of Metal Buildings Manufacturers Association (MBMA) tons shipped to every 1,000 square feet of low-rise nonresidential construction starts reported by Dodge, based on a three-year rolling average, as shown in the chart below. According to the MBMA, domestic tons of steel sold for engineered building systems by its members grew at a compounded annual growth rate of approximately 6% from 2010 to 2015.

TABLE OF CONTENTS

Our Competitive Strengths

We leverage our competitive strengths to effectively compete for business and offer our customers a value proposition predicated upon premium quality, service and fast delivery times at a fair price. We believe our key competitive strengths include:

Leading market positions and strong brands. We believe we maintain leading positions in our operating segments, as well as select product lines:

- #1 in heavy gauge hot rolled steel coating;
- #2 in light gauge coil coating;
- #1 in metal components;
- #1 in insulated metal panel products; and
- #2 in engineered building systems.

Our high quality and well-respected brands are marketed through a broad network of affiliated builders, dealers and distributors. We believe these brands, many of which have been in use for several decades, are well-recognized by our customers and industry associations.

Significant scale relative to our competitors. We believe the combination of our segment leadership positions and overall scale provides us with distinct advantages in terms of cost, efficiency, productivity, talent acquisition and retention and breadth of market opportunity. Our segments utilize relatively similar steel coil, enabling substantial manufacturing efficiencies and purchasing leverage that results in favorable steel costs compared to market indices and flexible purchasing terms without having to enter into long-term contracts. Our size and resources have also allowed us to make investments in our IT systems that we believe many of our smaller competitors cannot afford. This includes a comprehensive array of web-based software solutions that let customers design, order and pay online for products ranging from metal components to engineered building systems. Our scale also provides us with resources needed to execute on closing and successfully integrating strategic acquisitions. Finally, our scale also facilitates the attraction, retention and training of our employees, propelled by a deep and established culture of continuous improvement. Our scale and national market presence have driven enhanced geographic diversity, while complementing our local market insights and relationships.

Structural advantage through vertical integration. We are vertically integrated, which we believe distinguishes us from our primary competitors. This vertical integration provides us cost and scale advantages, as well as other efficiencies in quality and lead times. We control our entire manufacturing process, which provides our Metal Components and Engineered Building Systems segments with enhanced quality control, and more efficient and consistent turnaround times from order to delivery than we believe our competitors are able to consistently achieve. Our Metal Coil Coating segment typically sells approximately half of its production internally to our Metal Components segment, which provides significant base loading and

TABLE OF CONTENTS

fixed-cost absorption, helping to achieve levels of profitability that we believe exceed the industry average. We believe our vertical integration, when combined with other attributes of our individual segments, also reduces the impact of steel price volatility on our consolidated business due to the varying length of sales cycles and offsetting margin impacts across segments from changes in steel prices. We believe this helps drive more consistent gross profit margins for our consolidated business.

Leading insulated metal panels platform. We believe we have the leading IMP platform in North America, with 49% share of the North American IMP market in 2015. Since 2011, we have executed on a strategy to become the leading provider of IMP products, which was accelerated through our acquisitions of Metl-Span in 2012 and CENTRIA in 2015. From 2011 to the twelve months ended May 1, 2016, we have expanded our IMP sales as a percentage of our total sales from 3% to 24%, respectively. We believe the IMP market remains underpenetrated in North America, with IMP-related nonresidential construction estimated to comprise approximately 3% of total nonresidential construction.

We estimate this is approximately one-fifth of the IMP penetration rate in Europe. Insulated metal panels possess several physical and cost-effective attributes that make them compelling alternatives to competing building materials, and we believe that growth within the IMP market will continue to outpace the broader metal buildings sector and the nonresidential construction industry as a whole due to the adoption of stricter environmental standards and codes by numerous states in the United States that are expected to increase the use of IMP products in construction projects. We have also had recent success in expanding IMP product sales across our existing builder network, which in turn has provided us with an entry point to pull through sales of other Engineered Buildings Systems and Metal Components products.

Efficient and flexible manufacturing and distribution model. We have a strategically developed hub-and-spoke manufacturing footprint and integrated business model that enables us to optimize the development, production and delivery of our metal building products to our customers. We believe we have a strong cost position and operate with high efficiency across all business lines, propelled by a deep and established culture of continuous improvement. Our cost structure is highly variable in nature and we can adjust our manufacturing infrastructure and engineering, selling, general and administrative expense levels quickly in response to changes in volume, enhancing our ability to deliver profitable results. We have 40 manufacturing plants located in the United States, Mexico, Canada and China, which are operated in an efficient hub-and-spoke network that places our manufacturing and distribution operations close to our customers. Our business model and manufacturing footprint allow us to shift manufacturing as needed to better address regional demand and most efficiently utilize excess capacity. We utilize a network of over 3,200 authorized builders who market our products to end users and are hired by those end users to erect engineered building systems and provide contracting services on construction projects. We also devote significant efforts to developing strong relationships with architects and project design teams to increase the rate at which our products are specified into architectural plans and used in final construction projects. We believe our affiliated builder network and specification efforts provide multiple market channels for our products.

Improved cost position and significantly enhanced operating leverage. We have an ongoing restructuring program for our manufacturing operations and our sales support and engineering organizations. We believe that the successful execution of this program in phases over the next six to 30 months will result in annual cost savings ranging from \$15 million to \$20 million by fiscal 2018. We are currently unable to make a good faith determination of cost estimates, or range of cost estimates, for actions associated with the plans. Restructuring charges will be recorded for these plans as they become estimable and probable. During the last 18 months, we eliminated one Engineered Buildings Systems plant, three Metal Components plants and two IMP plants, and reduced the number of components sales support locations from 13 to five. We have also made other substantial investments in technology and automation to further improve our production and logistical efficiency, enhancing our position as a low-cost producer. We believe these efforts have resulted in stronger operating leverage. As the nonresidential market continues to recover, we believe this operating leverage will allow us to drive higher profitability on comparable levels of industry activity. The benefits of

our restructuring efforts and the operating leverage inherent in our business model have already begun to result in increased profitability.

Motivated, experienced management team and dedicated workforce. The members of our management team have significant operating experience, with an average of 15 years in the nonresidential construction

S-6

TABLE OF CONTENTS

industry. We have also hired key employees from outside our industry in our commercial group, human resources and other key administrative functions who have driven meaningful changes within the business. Our team has proven its ability to operate and grow the business and to execute cost reduction and efficiency improvement initiatives.

Management has also proven its integration capabilities through a number of successful strategic acquisitions. Our management team is supported by our committed workforce, which has many years of experience, long-standing personal relationships with customers and experience managing adverse market conditions.

Our Strategies

Outpace expected growth in our core end market. Over recent years, we believe we have outpaced growth in our core low-rise nonresidential construction market, and we strive to continue this trend. From 2010 to 2015, we have grown our total sales per thousand square feet of low-rise nonresidential construction by 33%, from \$1,412 in fiscal 2010 to \$1,877 in fiscal 2015. We believe we can continue to outpace growth in our core market by continuing to gain market share and also by benefiting from the increasing penetration of metal buildings and components.

Achieve continued share gains in existing categories and geographies. We aim to capture a larger share of our existing categories and geographies by offering our customers an enhanced value proposition versus our competitors. We believe an enhanced value proposition can include a lower overall cost, better product performance (including greater energy efficiency), more attractive design and aesthetic characteristics and industry-leading sales and customer service. We believe our vertical integration, low-cost purchasing and manufacturing, efficient distribution footprint, strong brands, high product quality and dedicated sales and service network allow us to offer an enhanced value proposition, which we believe will continue to drive market share gains.

Increase penetration of metal buildings and components. Metal buildings and components have taken share from other building materials over recent years, as evidenced in part by the growth in the metal buildings industry. The reduced level of jobsite fabrication required by the builder or contractor enables metal buildings to be completed faster than traditional construction. In addition, technological advances in products, materials and engineering and design techniques have made metal building systems increasingly compatible with more traditional construction facades made of masonry, concrete, glass and wood, thereby increasing the attractiveness of metal buildings. Metal building products, including both engineered building systems and individual components, such as roofs and wall systems, have also demonstrated greater energy efficiency than competing materials due to increased thermal and insulating attributes. This is particularly true with respect to insulated metal panels, for which we believe we are the market leader in North America. We believe metal building products will continue to penetrate the nonresidential construction industry, and we aim to benefit from this trend by continuing to invest in sales and marketing initiatives and innovative product development that enhances the attributes of our products and promotes the time, cost and energy savings that can benefit users of our products.

Organic growth through new markets, products and services. In each of our operating segments, we are pursuing initiatives to expand our customer base by targeting new geographies and end markets and promoting new products and capabilities. In our Engineered Building Systems segment, we are expanding our low complexity building penetration by introducing our Express Plus system, which leverages our existing online estimating and sales systems and offers an accelerated order-to-delivery cycle. In addition, we are expanding our IMP product sales through our builder network by integrating insulated metal panels into our building designs, which has also enabled us to pull through sales of other Engineered Building Systems and Metal Components products. In our Metal Components segment, we are driving sales in areas with opportunities for high growth, such as insulated metal panels and metal roofing. In our Metal Coil Coating segment, we are diversifying our external customer base by marketing to original equipment manufacturers, who do not purchase directly from steel mills.

Continued investments in best-in-class operating capabilities to drive profitability. We will continue to invest in our operating capabilities, with particular focus on further executing on manufacturing and supply chain initiatives. Our goal is to be the undisputed leader in the industry by consistently delivering

S-7

TABLE OF CONTENTS

competitively priced, high-quality products, complete and on-time. In order to realize this goal, we have made substantial investments in quality, efficiency and speed that we believe differentiate us from our peers and provide added value to our customers. We continually seek to improve the quality of our production and delivery system, invest in training and developing skilled workers, standardize best practices for customer service and improve marketing to ensure we are the supplier of choice for our customers. We have eliminated the majority of manual drafting activities and automated the integration of our drafting system to the shop floor, thereby streamlining the design process and the communication between our engineering and manufacturing functions.

We have also invested extensively in operational initiatives that we believe will position us for profitable growth going forward. Select examples of these initiatives include:

Implemented increased automation and lean manufacturing processes;

Opened a new IMP facility in Hamilton, Ontario, Canada;

Improved our fixed-cost footprint through facility realignment and consolidation; and

Streamlined our supply chain and back office functions and improved steel purchasing.

We have several additional initiatives in various stages of implementation that we believe will continue to enhance our quality, efficiency and speed, providing tangible value to our customers and improving our operating capabilities and profitability.

Capitalize on the continued nonresidential construction recovery. As a leading manufacturer of metal building products for the nonresidential construction industry, we intend to capitalize on the continued recovery in the new nonresidential construction market. According to Dodge, low-rise nonresidential construction starts were estimated to be 826 million square feet in calendar year 2015, which is up approximately 36% from 609 million square feet in calendar year 2010. However, starts remain below historical levels. 2015 starts would have needed to increase approximately 20% to reach the average of the five cyclical troughs since 1967 prior to the current downturn, approximately 39% to achieve the market average since 1967 and approximately 71% to achieve the average of the six cyclical peaks since 1967. We believe this represents a significant opportunity for growth as activity improves.

Share Repurchase

We have entered into an agreement with the selling stockholders to repurchase \$45 million of our common stock, concurrently with the closing of this offering, directly from the selling stockholders in a private transaction at the price per share at which the shares of common stock are sold to the public in this offering, less the underwriting discount.

Pursuant to this agreement, we expect to repurchase a total of 2,909,983 shares of common stock from the selling stockholders. Following the closing of the share repurchase, the Company intends to cancel the shares it repurchases from the selling stockholders.

The agreement between the selling stockholders and us for the share repurchase represents a private, non-underwritten transaction that was approved and recommended by the Affiliate Transactions Committee of our board of directors.

We intend to fund the share repurchase with available liquidity, including liquidity available under our asset-based lending facility.

The closing of the share repurchase will be contingent on the closing of this offering and the satisfaction of certain other customary conditions. The closing of this offering is not conditioned on the closing of the share repurchase, and there can be no assurance that the share repurchase will be completed.

This description and the other information in this prospectus supplement regarding the share repurchase are included in this prospectus supplement solely for informational purposes. Nothing in this prospectus supplement should be construed as an offer to sell, or the solicitation of an offer to buy, any of our common stock subject to the share repurchase. See Concurrent Company Repurchase of Common Stock.

Corporate Information

Our principal executive offices are located at 10943 North Sam Houston Parkway West, Houston, Texas 77064, and our telephone number at that location is (281) 897-7788.

S-8

TABLE OF CONTENTS

THE OFFERING

Issuer

NCI Building Systems, Inc.

Selling stockholders

Clayton, Dubilier & Rice Fund VIII, L.P. and CD&R Friends & Family Fund VIII, L.P. (together, the CD&R Funds).

Common stock offered by the selling stockholders

9,000,000 shares, which represents approximately 21% of the shares currently held by the selling stockholders.

Common stock outstanding after this offering and the concurrent share repurchase

70,801,003 shares

Option to purchase additional shares of common stock

The underwriters have a 30-day option to purchase an additional 1,350,000 shares of common stock from the CD&R Funds at the public offering price less underwriting discounts and commissions.

Use of proceeds

The selling stockholders will receive all of the net proceeds from the sale of our common stock in this offering. We will not receive any of the proceeds from the sale of the shares of our common stock by the selling stockholders. See Use of Proceeds.

Concurrent share repurchase

We have entered into an agreement with the selling stockholders to repurchase \$45 million of our common stock directly from the selling stockholders, concurrently with the closing of this offering, in a private transaction at the price per share at which the shares of common stock are sold to the public in this offering, less the underwriting discount, contingent on the consummation of this offering. Pursuant to this agreement, we expect to repurchase a total of 2,909,983 shares of common stock from the selling stockholders. See Concurrent Company Repurchase of Common Stock.

Dividend policy

We do not expect to pay dividends on our common stock for the foreseeable future. See Dividend Policy.

New York Stock Exchange symbol

NCS

Risk factors

Investing in our common stock involves risks. See the section titled Risk Factors in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein, for a discussion of certain risks you should consider before investing in our common stock.

Except as otherwise indicated, the information in this prospectus supplement assumes no exercise of the underwriters option to purchase additional shares.

TABLE OF CONTENTS

The number of shares of our common stock to be outstanding immediately following this offering is based on a total of 73,710,986 shares of our common stock outstanding as of June 30, 2016, minus a total of 2,909,983 shares that we expect to repurchase in the share repurchase and that will no longer be outstanding following the consummation of this offering, and excludes:

998,607 shares of common stock issuable upon exercise of options to purchase shares outstanding as of June 30, 2016 at a weighted average exercise price of \$9.59 per share;

934,211 shares of common stock issuable pursuant to performance stock units as of June 30, 2016;⁽¹⁾ and
785,836 shares of common stock issuable pursuant to restricted stock units as of June 30, 2016.

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

S-10

TABLE OF CONTENTS**SUMMARY HISTORICAL CONSOLIDATED FINANCIAL AND OTHER DATA**

The following table presents our summary consolidated financial data, as of and for the periods indicated. The summary consolidated financial data for the fiscal years ended November 1, 2015, November 2, 2014 and November 3, 2013 and as of November 1, 2015 and November 2, 2014 have been derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended November 1, 2015 (the 2015 10-K), which is incorporated by reference in this prospectus supplement. The summary consolidated financial data for the fiscal six months ended May 1, 2016 and May 3, 2015 and as of May 1, 2016 have been derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the fiscal six months ended May 1, 2016 (the Q2 10-Q), which is incorporated by reference in this prospectus supplement.

This Summary Historical Consolidated Financial and Other Data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes included in applicable reports filed pursuant to the Securities Exchange Act of 1934, as amended (the Exchange Act) and incorporated by reference in this prospectus supplement, including the 2015 10-K and the Q2 10-Q. Our historical consolidated financial data may not be indicative of our future performance.

	Fiscal Year Ended		
	November 1, 2015	November 2, 2014	November 3, 2013 ⁽³⁾
	(Audited)		
	(dollars in thousands)		
Sales	\$1,563,693	\$1,370,540	\$1,308,395
Cost of sales, excluding fair value adjustment of acquired inventory and gain on insurance recovery	1,189,019	1,080,027	1,033,374
Fair value adjustment of acquired inventory	2,358		
Gain on insurance recovery		(1,311)	(1,023)
Gross profit	372,316	291,824	276,044
Engineering, selling, general and administrative expenses	286,840	257,635	252,803
Intangible asset amortization	16,903	4,053	4,053
Strategic development and acquisition related costs	4,201	4,998	
Restructuring and impairment charges	11,306	42	
Gain on legal settlements	(3,765)		
Income from operations	56,831	25,096	19,188
Interest income	72	126	131
Interest expense	(28,460)	(12,455)	(20,988)
Foreign exchange gain (loss)	(2,152)	(1,097)	65
Debt extinguishment costs, net			(21,491)
Other income, net	499	1,005	1,356
Income (loss) before income taxes	26,790	12,675	(21,739)
Provision (benefit) from income taxes	8,972	1,490	(8,854)
Net income (loss)	\$17,818	⁽¹⁾ \$11,185	⁽²⁾ \$(12,885) ⁽⁴⁾
Net income (loss) attributable to common shares	\$17,646	⁽¹⁾ \$11,085	⁽²⁾ \$(12,885) ⁽⁴⁾

Edgar Filing: NCI BUILDING SYSTEMS INC - Form 424B4

(1) 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 and impairment 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).

(2) Includes proceeds from insurance recovery of \$1.3 million (\$0.8 million after tax), secondary offering costs of \$0.8 million (\$0.5 million after tax), foreign exchange losses of \$1.1 million (\$0.7 million after tax), strategic development and acquisition related costs of \$5.0 million (\$3.1 million after tax) and reversal of Canadian deferred tax valuation allowance of \$2.7 million in fiscal 2014.

S-11

TABLE OF CONTENTS

(3) Fiscal 2013 includes 53 weeks of operating activity.

(4) Includes debt extinguishment costs of \$21.5 million (\$13.2 million after tax) and proceeds from insurance recovery of \$1.0 million (\$0.6 million after tax) and unreimbursed business interruption costs of \$0.5 million (\$0.3 million after tax) in fiscal 2013.

	Fiscal Six Months Ended	
	May 1, 2016	May 3, 2015
	(Unaudited)	
	(dollars in thousands)	
Sales	\$ 742,261	\$ 683,073
Cost of sales	564,822	535,045
Gain on sale of assets and asset recovery	(1,652)	
Gross profit	179,091	148,028
Engineering, selling, general and administrative expenses	144,498	135,904
Intangible asset amortization	4,821	5,868
Strategic development and acquisition-related costs	1,260	2,357
Restructuring and impairment charges	2,659	2,945
Income from operations	25,853	954
Interest income	74	39
Interest expense	(15,713)	(12,299)
Foreign exchange loss	(166)	(1,411)
Gain from bargain purchase	1,864	
Other income, net	62	332
Income (loss) before income taxes	11,974	(12,385)
Provision (benefit) from income taxes	3,662	(4,577)
Net income (loss)	\$ 8,312	\$ (7,808)
Net income allocated to participating securities	(79)	
Net income (loss) applicable to common shares	\$ 8,233	\$ (7,808)

	As of May 1, 2016 (Unaudited) (dollars in thousands)	As of November 1, 2015 (Audited) (dollars in thousands)	November 2, 2014
Balance sheet data:			
Cash and cash equivalents	\$ 77,916	\$ 99,662	\$ 66,651
Total assets	1,016,472	1,079,729	758,683
Long-term debt, net	424,147	444,147	233,003

S-12

TABLE OF CONTENTS**Other Data:**

The following table presents a reconciliation of Adjusted EBITDA to net income (loss) for the periods presented (dollars in thousands):

	Fiscal Six Months Ended		Trailing Twelve Months Ended	Fiscal Year Ended	
	May 1, 2016	May 3, 2015	May 1, 2016	November 1, 2015	November 2, 2014
Net income (loss)	\$8,312	\$(7,808)	\$33,939	\$17,819	\$11,185
Add:					
Depreciation and amortization	21,512	23,497	49,407	51,392	35,922
Consolidated interest expense, net	15,639	12,260	31,767	28,388	12,330
Provision (benefit) for income taxes	3,662	(4,577)	17,211	8,972	1,489
Restructuring and impairment charges	2,659	3,236	10,774	11,351	
Gain from bargain purchase	(1,864)		(1,864)		
Strategic development and acquisition related costs	1,260	2,357	3,104	4,201	4,998
Gain from legal settlements			(3,765)	(3,765)	
Fair value adjustment of acquired inventory		1,358	1,000	2,358	
Gain on insurance recovery					(1,311)
Secondary offering costs					754
Share-based compensation	5,050	5,134	9,295	9,379	10,168
Gain on sale of assets and asset recovery	(1,652)		(1,652)		
Adjusted EBITDA ⁽¹⁾	\$54,578	\$35,457	\$149,216	\$130,095	\$75,535

We define adjusted EBITDA on a consolidated basis as net income (loss) before interest expense, income tax expense (benefit) and depreciation and amortization, adjusted for items broadly consisting of selected items which management does not consider representative of our ongoing operations and certain non-cash items of the Company. Such measurements are not prepared in accordance with accounting principles generally accepted in the United States (GAAP) and should not be construed as an alternative to reported results determined in accordance with GAAP. Management believes the use of such non-GAAP measures assists investors in understanding the (1) ongoing operating performance by presenting the financial results between periods on a more comparable basis. You are encouraged to evaluate these adjustments and the reasons we consider them appropriate for supplemental analysis. In evaluating these measures, you should be aware that in the future we may incur expenses that are the same as, or similar to, some of the adjustments in these non-GAAP measures. In addition, certain financial covenants contained in the agreements governing our indebtedness are based on similar non-GAAP measures. The non-GAAP information provided is unique to the Company and may not be consistent with the methodologies used by other companies.

TABLE OF CONTENTS

The following tables present a reconciliation of Adjusted EBITDA to income (loss) from operations by segment for the periods presented (dollars in millions):

Metal Coil Coating

	Trailing Twelve Months Ended May 1, 2016	Fiscal Year Ended November 1, November 2, 2015 2014	
Income (loss) from operations	\$ 22.2	\$ 19.1	\$ 24.0
Depreciation and amortization	4.6	4.4	4.0
Restructuring charges (recoveries)		0.3	
Gain on insurance recovery			(1.3)
Adjusted EBITDA ⁽¹⁾	\$ 26.8	\$ 23.7	\$ 26.7

Metal Components

	Trailing Twelve Months Ended May 1, 2016	Fiscal Year Ended November 1, November 2, 2015 2014	
Income (loss) from operations	\$ 69.3	\$ 50.5	\$ 33.3
Depreciation	33.6	35.7	19.6
Restructuring charges (recoveries)	2.1	2.0	
Asset impairments (recoveries)	5.8	5.8	
Fair value adjustment of acquired inventory	1.0	2.4	
Other income (loss)	(0.4)	(0.2)	
Adjusted EBITDA ⁽¹⁾	\$ 111.4	\$ 96.2	\$ 52.9

Engineered Building Systems

	Trailing Twelve Months Ended May 1, 2016	Fiscal Year Ended November 1, 2015 November 2, 2014	
Income (loss) from operations	\$ 59.5	\$ 51.4	\$ 32.5
Depreciation	10.1	10.3	10.9
Restructuring charges (recoveries)	1.7	2.8	
Gain on sale of assets and asset recovery	(1.7)		
Other income (loss)	(0.2)	(1.6)	(0.6)
Adjusted EBITDA ⁽¹⁾	\$ 69.4	\$ 62.8	\$ 42.8

(1) We define adjusted EBITDA on a segment basis as income (loss) from operations before depreciation and amortization, adjusted for items broadly consisting of selected items which management does not consider representative of our ongoing operations and certain non-cash items. Such measurements are not prepared in

accordance with accounting principles generally accepted in the United States (GAAP) and should not be construed as an alternative to reported results determined in accordance with GAAP. Management believes the use of such non-GAAP measures assists investors in understanding the ongoing operating performance by presenting the financial results between periods on a more comparable basis. You are encouraged to evaluate these adjustments and the reasons we consider them appropriate for supplemental analysis. In evaluating these measures, you should be aware that in the future we may incur expenses that are the same as, or similar to, some of the adjustments in these non-GAAP measures. In addition, certain financial covenants contained in the agreements governing our indebtedness are based on similar non-GAAP measures. The non-GAAP information provided is unique to the Company and may not be consistent with the methodologies used by other companies.

S-14

TABLE OF CONTENTS

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before you make an investment decision, you should carefully consider the risks described below and other information contained in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein, including the risks and uncertainties discussed in Item 1A. Risk Factors in the 2015 10-K, which is incorporated by reference into this prospectus supplement. If any of these risks occur, our business, financial condition, results of operations or cash flows could be materially adversely affected.

Risks Relating to Our Common Stock and this Offering

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;
general conditions in the metal components and engineered building systems industries;
uncertainty about current global economic conditions;
fluctuations in stock market price and volume; and
other general economic conditions.

During fiscal 2015, our stock price on the NYSE ranged from a high of \$20.85 per share to a low of \$9.55 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.

This offering will result in a substantial amount of shares of our common stock being traded that were not previously traded, which may depress the market price of our common stock.

Of the 73,710,986 shares of our common stock issued and outstanding as of June 30, 2016, approximately 60.46% were held by our officers, directors and the CD&R Funds collectively, with approximately 58.62% held by the CD&R Funds. The remainder of our shares of issued and outstanding common stock were freely tradable on the NYSE without restriction or further registration under the Securities Act of 1933, as amended (the Securities Act), unless purchased by our affiliates as that term is defined in Rule 144 under the Securities Act. The shares of common stock being sold in this offering were not freely tradable prior to the completion of this offering, and the sale by the CD&R Funds of the shares of common stock in this offering will increase the number of shares of our common stock eligible to be traded on the NYSE, which could depress the market price of our common stock.

Future sales or issuances of substantial amounts of our common stock or the possibility of such sales or issuances may adversely affect the market price of our common stock.

As of June 30, 2016, our officers, directors and the CD&R Funds collectively controlled approximately 60.46% of our issued and outstanding common stock, with the CD&R Funds controlling approximately 58.62% of our issued and outstanding common stock. Future sales of our common stock 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

TABLE OF CONTENTS

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 the CD&R Funds 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.

We, each of the CD&R Funds, our directors and our chief executive officer and our chief financial officer have agreed to a lock-up, meaning that, subject to certain exceptions, neither we nor they will sell any shares without the prior consent of Credit Suisse Securities (USA) LLC before October 17, 2016. See Underwriting. Following the expiration of this 90-day lock-up period, shares of our common stock held by the CD&R Funds and our directors and officers party to the lock-up will be eligible for future sale, subject to the applicable volume, manner of sale, holding period and other limitations of Rule 144.

In connection with the CD&R Funds equity investment in the Company, we entered into a stockholders agreement with the CD&R Funds pursuant to which the CD&R Funds have substantial governance and other rights and setting forth certain terms and conditions regarding the equity investment and the ownership of the CD&R Funds shares of common stock.

Pursuant to the stockholders agreement with the CD&R Funds, subject to certain ownership and other requirements and conditions, the CD&R Funds are entitled to nominate or designate to serve on our board of directors a number of individuals proportionate to the CD&R Funds percentage of the voting power of the Company, including the Lead Director or Chairman of the Executive Committee of our board of directors, and have consent rights over a variety of significant corporate and financing matters, including, subject to certain customary exceptions and specified baskets, sales and acquisitions of assets, issuances and redemptions of equity, incurrence of debt, the declaration or payment of extraordinary distributions or dividends and changes to the Company's line of business. In addition, the CD&R Funds are granted subscription rights under the terms and conditions of the stockholders agreement.

Upon completion of this offering, we will no longer be a controlled company within the meaning of the NYSE rules and the rules of the SEC. However, we may continue to rely on exemptions from certain corporate governance requirements during a one year transition period.

After the completion of this offering, the CD&R Funds will no longer control a majority of the voting power of our outstanding common stock. As a result, we will no longer be a controlled company within the meaning of the corporate governance rules of the NYSE. Consequently, under the NYSE corporate governance rules, we will be required to (i) appoint a majority of independent directors to our board of directors within one year of the date we no longer qualify as a controlled company, (ii) appoint a majority of independent directors to each of the compensation and nominating and corporate governance committees within 90 days of the date we no longer qualify as a controlled company and have such committees be composed entirely of independent directors within one year of such date and (iii) have an annual performance evaluation of the nominating and corporate governance and compensation committees. During these transition periods, we may continue to utilize the available exemptions from certain

corporate governance requirements as permitted by the NYSE rules. Accordingly, during the transition periods, you will not have the same protections afforded to stockholders of companies that are subject to all of the NYSE corporate governance standards. Further, if, within the transition periods, we are not able to recruit additional directors that would qualify as independent, or we are not able to otherwise comply with the NYSE listing requirements, we may be subject to enforcement actions by the NYSE.

The CD&R Funds or their affiliates may compete directly against us.

Corporate opportunities may arise in the area of potential competitive business activities that may be attractive to us as well as to the CD&R Funds, including through potential acquisitions by the CD&R Funds or their affiliates of competing businesses. Any competition could intensify if an affiliate or subsidiary of the CD&R Funds were to enter into or acquire a business similar to ours.

TABLE OF CONTENTS

If securities analysts do not publish research or reports about our Company, or if they issue unfavorable commentary about us or our industry or downgrade our common stock, the price of our common stock could decline.

The trading market for our common stock depends in part on the research and reports that third-party securities analysts publish about our Company and our industry. If one or more analysts cease coverage of our Company, we could lose visibility in the market. In addition, one or more of these analysts could downgrade our common stock or issue other negative commentary about our Company or our industry. As a result of one or more of these factors, the trading price of our common stock could decline.

We do not intend to pay dividends on our common stock and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We do not intend to declare and pay dividends on our common stock for the foreseeable future. We currently intend to use our future earnings, if any, to repay debt, to fund our growth, to develop our business, for working capital needs and general corporate purposes. Therefore, you are not likely to receive any dividends on your common stock for the foreseeable future and the success of an investment in shares of our common stock will depend upon any future appreciation in their value. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which our stockholders have purchased their shares. Further, the agreements governing our credit facilities significantly restrict the ability of our subsidiaries to pay dividends or otherwise transfer assets to us, which limits the amount of cash available to us for the payment of dividends. In addition, the payment of dividends is subject to applicable state law limitations that may restrict our ability to pay dividends to holders of our common stock.

TABLE OF CONTENTS

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and some of the documents we have incorporated herein and therein by reference include 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. 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, project, or similar words. We have based our forward-looking statements on our 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 information, including any earnings guidance, if applicable. 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 the 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;
- volatility in the U.S. economy and abroad, generally, and in the credit markets;
- substantial indebtedness and our ability to incur substantially more indebtedness;
- our ability to generate significant cash flow required to service or refinance our existing debt and obtain future financing;
- our ability to comply with the financial tests and covenants in our existing and future debt obligations;
- operational limitations or restrictions in connection with our debt;
- increases in interest rates;
- recognition of asset impairment charges;
- commodity price increases and/or limited availability of raw materials, including steel;
- our ability to make strategic acquisitions accretive to earnings;
- retention and replacement of key personnel;
- enforcement and obsolescence of intellectual property rights;
- fluctuations in customer demand;
- costs related to environmental clean-ups and liabilities;
- competitive activity and pricing pressure;
- increases in energy prices;
- volatility of our stock price;
- dilutive effect on our common stockholders of potential future sales of our common stock held by our sponsor;
- substantial governance and other rights held by our sponsor;
- breaches of our information system security measures and damage to our major information management systems;

S-18

TABLE OF CONTENTS

hazards that may cause personal injury or property damage, thereby subjecting us to liabilities and possible losses, which may not be covered by insurance;

changes in laws or regulations, including the Dodd-Frank Act;

our ability to integrate the acquisition of CENTRIA with our business and to realize the anticipated benefits of such acquisition;

costs and other effects of legal and administrative proceedings, settlements, investigations, claims and other matters;

timing and amount of our stock repurchases; and

other risks detailed under the caption **Risk Factors** on page S-15 of this prospectus supplement and in Item 1A of the 2015 10-K and other reports we file with the SEC.

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 prospectus supplement, the accompanying prospectus and the documents that we have incorporated by reference, including those described under the caption **Risk Factors** in Item 1A of the 2015 10-K and other reports we file with the SEC. 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.

TABLE OF CONTENTS

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders identified in this prospectus supplement, their pledgees, donees, transferees or other successors in interest. The selling stockholders will receive all of the net proceeds from the sale of these shares. See Selling Stockholders.

S-20

TABLE OF CONTENTS

CONCURRENT COMPANY REPURCHASE OF COMMON STOCK

We have entered into an agreement with the selling stockholders to repurchase \$45 million of our common stock directly from the selling stockholders in a private transaction at the price per share at which the shares of common stock are sold to the public in this offering, less the underwriting discount. Pursuant to this agreement, we expect to repurchase a total of 2,909,983 shares of common stock from the selling stockholders. The agreement between the selling stockholders and us for the share repurchase represents a private, non-underwritten transaction that was approved and recommended by the Affiliate Transactions Committee of our board of directors. We intend to fund the share repurchase with available liquidity, including liquidity available under our asset-based lending facility. The closing of the share repurchase will be contingent on the closing of, and is expected to occur concurrently with, this offering. The closing of this offering is not contingent on the closing of the share repurchase.

Following the closing of the share repurchase, the Company intends to cancel the shares it repurchases from the selling stockholders. The information in this prospectus supplement regarding the share repurchase is included herein solely for informational purposes. Nothing in this prospectus supplement should be construed as an offer to sell, or the solicitation of an offer to buy, any of our common stock subject to the share repurchase.

S-21

TABLE OF CONTENTS

DIVIDEND POLICY

We do not expect to pay dividends on our common stock for the foreseeable future.

S-22

TABLE OF CONTENTS**PRICE RANGE OF COMMON STOCK**

Our common stock is listed on the NYSE under the symbol NCS.

On July 19, 2016, the last quoted price per share of our common stock on the NYSE was \$16.82. As of June 30, 2016, there were 35 registered holders of our common stock.

The following table sets forth the high and low sales prices per share of our common stock as reported on the NYSE:

Fiscal Year 2013 Quarter Ended	High	Low
January 27	\$ 15.38	\$ 10.87
April 28	\$ 17.85	\$ 15.01
July 28	\$ 17.47	\$ 14.00
November 3	\$ 15.17	\$ 11.22
Fiscal Year 2014 Quarter Ended		
February 2	\$ 20.14	\$ 14.38
May 4	\$ 18.77	\$ 14.93
August 3	\$ 19.88	\$ 15.54
November 2	\$ 21.68	\$ 16.90
Fiscal Year 2015 Quarter Ended		
February 1	\$ 20.85	\$ 15.39
May 3	\$ 17.82	\$ 15.22
August 2	\$ 16.11	\$ 12.23
November 1	\$ 13.13	\$ 9.55
Fiscal Year 2016 Quarter Ended		
January 31	\$ 13.01	\$ 9.25
May 1	\$ 15.50	\$ 9.07
July 31 (through July 19, 2016)	\$ 17.59	\$ 14.46

S-23

TABLE OF CONTENTS

SELLING STOCKHOLDERS

The table below sets forth certain information known to us with respect to the beneficial ownership of the shares of our common stock held by the selling stockholders. The percentage of shares beneficially owned is based on 73,710,986 shares of our common stock outstanding as of June 30, 2016. Beneficial ownership is determined under the rules of the SEC and generally includes voting or investment power with respect to securities. Unless indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of the determination date are deemed to be outstanding and to be beneficially owned by the person holding such options for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

* Based on 73,710,986 shares of common stock outstanding as of June 30, 2016.

** Pursuant to the share repurchase agreement, we expect to repurchase a total of 2,909,983 shares of common stock from the selling stockholders.

Based on 70,801,003 shares of common stock outstanding following the consummation of this offering. This total is calculated based on 73,710,986 shares of common stock outstanding as of June 30, 2016, minus the 2,909,983 shares that we expect to repurchase from the selling stockholders and will no longer be outstanding following the consummation of this offering. In the event that this offering is completed but the share repurchase is not, Clayton, Dubilier & Rice Fund VIII, L.P. will be the beneficial owner of 34,126,384 shares and approximately 46.30% of our issued and outstanding common stock assuming no exercise of the underwriters' option to purchase additional shares of common stock (or 32,779,756 shares of common stock assuming the underwriters' option is fully exercised), and CD&R Friends & Family Fund VIII, L.P. will be the beneficial owner of 85,433 shares and approximately 0.12% of our issued and outstanding common stock assuming no exercise of the underwriters' option to purchase additional shares of common stock (or 82,061 shares of common stock assuming the underwriters' option is fully exercised).

Unless otherwise indicated, Clayton, Dubilier & Rice Fund VIII, L.P. and CD&R Friends & Family Fund VIII, L.P. are referred to in this footnote collectively as the Investors. Does not include 66,852 shares of restricted (1) common stock and 21,400 shares of restricted stock units issued to Clayton, Dubilier & Rice LLP (CD&R, LLC), as assignee of director compensation payable to Messrs. James G. Berges, Nathan K. Sleeper and Jonathan L. Zrebiec.

The general partner of each of the Investors is CD&R Associates VIII, Ltd., whose sole stockholder is CD&R Associates VIII, L.P. The general partner of CD&R Associates VIII, L.P. is CD&R Investment Associates VIII, Ltd.

CD&R Investment Associates VIII, Ltd. is managed by a two-person board of directors, Donald J. Gogel and Kevin J. Conway, who, as the directors of CD&R Investment Associates VIII, Ltd., may be deemed to share beneficial ownership of the shares of common stock shown as beneficially owned by the Investors. Such persons expressly disclaim such beneficial ownership. Investment and voting decisions with respect to shares held by each of the Investors are made by an investment committee of limited partners of CD&R Associates VIII, L.P., currently consisting of more than ten individuals

TABLE OF CONTENTS

(the Investment Committee). All members of the Investment Committee disclaim beneficial ownership of the shares shown as beneficially owned by the Investors.

Each of CD&R Associates VIII, L.P., CD&R Associates VIII, Ltd. and CD&R Investment Associates VIII, Ltd. expressly disclaims beneficial ownership of the shares held by the Investors and the restricted shares held by CD&R, LLC as assignee of director compensation payable to Messrs. Berges, Sleeper and Zrebiec. The Investors expressly disclaim beneficial ownership of the restricted shares held by CD&R, LLC as assignee of director compensation payable to Messrs. Berges, Sleeper and Zrebiec. CD&R, LLC expressly disclaims beneficial ownership of the shares held by the Investors.

The address for the Investors, CD&R Associates VIII, L.P., CD&R Associates VIII, Ltd. and CD&R Investment Associates VIII, Ltd. is c/o Maples Corporate Services Limited, P.O. Box 309, Umland House, South Church Street, George Town, Grand Cayman, KY1-1104, Cayman Islands, British West Indies. The address for CD&R, LLC is 375 Park Avenue, 18th Floor, New York, New York 10152.

S-25

TABLE OF CONTENTS

U.S. FEDERAL TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a discussion of certain U.S. federal income tax considerations relating to the purchase, ownership and disposition of our common stock by Non-U.S. Holders (as defined below) that purchase our common stock pursuant to this offering and hold such common stock as a capital asset. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended (the Code), U.S. Treasury regulations promulgated or proposed thereunder, and administrative and judicial interpretations thereof, all as in effect on the date hereof and all of which are subject to change, possibly with retroactive effect, or to different interpretation. This discussion does not address all of the U.S. federal income tax considerations that may be relevant to specific Non-U.S. Holders in light of their particular circumstances or to Non-U.S. Holders subject to special treatment under U.S. federal income tax law (such as banks, insurance companies, dealers in securities or other Non-U.S. Holders that generally mark their securities to market for U.S. federal income tax purposes, foreign governments, international organizations, tax-exempt entities, certain former citizens or residents of the United States, or Non-U.S. Holders that hold our common stock as part of a straddle, hedge, conversion or other integrated transaction). This discussion does not address any U.S. state or local or non-U.S. tax considerations or any U.S. federal gift or alternative minimum tax considerations.

As used in this discussion, the term Non-U.S. Holder means a beneficial owner of our common stock that, for U.S. federal income tax purposes, is:

an individual who is neither a citizen nor a resident of the United States;
a corporation that is not created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
an estate that is not subject to U.S. federal income tax on income from non-U.S. sources which is not effectively connected with the conduct of a trade or business in the United States; or
a trust unless (i) a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of its substantial decisions or (ii) it has in effect a valid election under applicable U.S. Treasury regulations to be treated as a U.S. person.
If an entity treated as a partnership for U.S. federal income tax purposes invests in our common stock, the U.S. federal income tax considerations relating to such investment will depend in part upon the status and activities of such entity and the particular partner. Any such entity should consult its own tax advisor regarding the U.S. federal income tax considerations applicable to it and its partners relating to the purchase, ownership and disposition of our common stock.

PERSONS CONSIDERING AN INVESTMENT IN OUR COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE U.S. FEDERAL, STATE AND LOCAL AND NON-U.S. INCOME, ESTATE AND OTHER TAX CONSIDERATIONS RELATING TO THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK IN LIGHT OF THEIR PARTICULAR CIRCUMSTANCES.

Distributions on Common Stock

If we make a distribution of cash or other property (other than certain pro rata distributions of our common stock or rights to acquire our common stock) with respect to a share of our common stock, the distribution generally will be treated as a dividend to the extent it is paid from our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). If the amount of such distribution exceeds our current and accumulated earnings and profits, such excess generally will be treated first as a tax-free return of capital to the extent of the Non-U.S.

Holder's adjusted tax basis in such share of our common stock, and then as capital gain (which will be treated in the manner described below under "Sale, Exchange or Other Disposition of Common Stock"). Distributions treated as dividends on our common stock that are paid to or for the account of a Non-U.S. Holder generally will be subject to U.S. federal withholding tax at a rate of 30%, or at a lower rate if provided by an applicable tax treaty and the Non-U.S. Holder provides the documentation (generally, Internal Revenue Service (IRS) Form W-8BEN or W-8BEN-E) required to claim benefits under such tax treaty to the applicable withholding agent. Even if

S-26

TABLE OF CONTENTS

our current or accumulated earnings and profits are less than the amount of the distribution, the applicable withholding agent may elect to treat the entire distribution as a dividend for U.S. federal withholding tax purposes. Each Non-U.S.

Holder should consult its own tax advisor regarding U.S. federal withholding tax on distributions, including such Non-U.S. Holder's eligibility for a lower rate and the availability of a refund of any excess U.S. federal tax withheld.

If, however, a dividend is effectively connected with the conduct of a trade or business in the United States by a Non-U.S. Holder, such dividend generally will not be subject to the 30% U.S. federal withholding tax if such

Non-U.S. Holder provides the appropriate documentation (generally, IRS Form W-8ECI) to the applicable withholding agent. Instead, such Non-U.S. Holder generally will be subject to U.S. federal income tax on such dividend in substantially the same manner as a U.S. person (except as provided by an applicable tax treaty). In addition, a Non-U.S. Holder that is treated as a corporation for U.S. federal income tax purposes may be subject to a branch profits tax at a rate of 30% (or a lower rate if provided by an applicable tax treaty) on its effectively connected income for the taxable year, subject to certain adjustments.

The foregoing discussion is subject to the discussion below under **FATCA Withholding** and **Information Reporting and Backup Withholding**.

Sale, Exchange or Other Disposition of Common Stock

A Non-U.S. Holder generally will not be subject to U.S. federal income tax on any gain recognized on the sale, exchange or other disposition of our common stock unless:

- such gain is effectively connected with the conduct of a trade or business in the United States by such Non-U.S. Holder, in which event such Non-U.S. Holder generally will be subject to U.S. federal income tax on such gain in (i) substantially the same manner as a U.S. person (except as provided by an applicable tax treaty) and, if it is treated as a corporation for U.S. federal income tax purposes, may also be subject to a branch profits tax at a rate of 30% (or a lower rate if provided by an applicable tax treaty);
- (ii) such Non-U.S. Holder is an individual who is present in the United States for 183 days or more during the taxable year of such sale, exchange or other disposition and certain other conditions are met, in which event such gain (net of certain U.S. source losses) generally will be subject to U.S. federal income tax at a rate of 30% (except as provided by an applicable tax treaty); or
- (iii) NCI is or has been a United States real property holding corporation for U.S. federal income tax purposes at any time during the shorter of (x) the five-year period ending on the date of such sale, exchange or other disposition and (y) such Non-U.S. Holder's holding period with respect to such common stock, and certain other conditions are met.

Generally, a corporation is a United States real property holding corporation if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business (all as determined for U.S. federal income tax purposes). We believe that NCI presently is not, and we do not presently anticipate that NCI will become, a United States real property holding corporation.

The foregoing discussion is subject to the discussion below under **FATCA Withholding** and **Information Reporting and Backup Withholding**.

FATCA Withholding

Under the Foreign Account Tax Compliance Act provisions of the Code and related U.S. Treasury guidance (FATCA), a withholding tax of 30% will be imposed in certain circumstances on payments of (i) dividends on our common stock and (ii) on or after January 1, 2019, gross proceeds from the sale or other disposition of our common stock. In the case of payments made to a foreign financial institution (generally including a bank, a broker, an investment fund or, in certain cases, a holding company), as a beneficial owner or as an intermediary, this tax generally will be imposed, subject to certain exceptions, unless such institution (i) has agreed to (and does) comply with the requirements of an agreement with the United States (an FFI Agreement) or (ii) is required by (and does comply with) applicable foreign law enacted in connection with

S-27

TABLE OF CONTENTS

an intergovernmental agreement between the United States and a foreign jurisdiction (an IGA) to, among other things, collect and provide to the U.S. tax authorities or other relevant tax authorities certain information regarding U.S. account holders of such institution and, in either case, such institution provides the withholding agent with a certification as to its FATCA status. In the case of payments made to a foreign entity that is not a financial institution (as a beneficial owner), the tax generally will be imposed, subject to certain exceptions, unless such entity provides the withholding agent with a certification as to its FATCA status and, in certain cases, identifies any substantial U.S. owner (generally, any specified U.S. person that directly or indirectly owns more than a specified percentage of such entity). If our common stock is held through a foreign financial institution that has agreed to comply with the requirements of an FFI Agreement or is subject to similar requirements under applicable foreign law enacted in connection with an IGA, such foreign financial institution (or, in certain cases, a person paying amounts to such foreign financial institution) generally will be required, subject to certain exceptions, to withhold tax on payments made to (i) a person (including an individual) that fails to provide any required information or documentation or (ii) a foreign financial institution that has not agreed to comply with the requirements of an FFI Agreement and is not subject to similar requirements under applicable foreign law enacted in connection with an IGA. Each Non-U.S. Holder should consult its own tax advisor regarding the application of FATCA to the ownership and disposition of our common stock.

Information Reporting and Backup Withholding

Amounts treated as payments of dividends on our common stock paid to a Non-U.S. Holder and the amount of any U.S. federal tax withheld from such payments generally must be reported annually to the IRS and to such Non-U.S. Holder by the applicable withholding agent.

The information reporting and backup withholding rules that apply to payments of dividends to certain U.S. persons generally will not apply to payments of dividends on our common stock to a Non-U.S. Holder if such Non-U.S. Holder certifies under penalties of perjury that it is not a U.S. person (generally by providing an IRS Form W-8BEN or W-8BEN-E to the applicable withholding agent) or otherwise establishes an exemption.

Proceeds from the sale, exchange or other disposition of our common stock by a Non-U.S. Holder effected outside the United States through a non-U.S. office of a non-U.S. broker generally will not be subject to the information reporting and backup withholding rules that apply to payments to certain U.S. persons, provided that the proceeds are paid to the Non-U.S. Holder outside the United States. However, proceeds from the sale, exchange or other disposition of our common stock by a Non-U.S. Holder effected through a non-U.S. office of a non-U.S. broker with certain specified U.S. connections or of a U.S. broker generally will be subject to these information reporting rules (but generally not to these backup withholding rules), even if the proceeds are paid to such Non-U.S. Holder outside the United States, unless such Non-U.S. Holder certifies under penalties of perjury that it is not a U.S. person (generally by providing an IRS Form W-8BEN or W-8BEN-E to the applicable withholding agent) or otherwise establishes an exemption. Proceeds from the sale, exchange or other disposition of our common stock by a Non-U.S. Holder effected through a U.S. office of a broker generally will be subject to these information reporting and backup withholding rules unless such Non-U.S. Holder certifies under penalties of perjury that it is not a U.S. person (generally by providing an IRS Form W-8BEN or W-8BEN-E to the applicable withholding agent) or otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules generally will be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability if the required information is furnished by such Non-U.S. Holder on a timely basis to the IRS.

U.S. Federal Estate Tax

Shares of our common stock owned or treated as owned by an individual Non-U.S. Holder at the time of such Non-U.S. Holder's death will be included in such Non-U.S. Holder's gross estate for U.S. federal estate tax purposes and may be subject to U.S. federal estate tax unless an applicable estate tax treaty provides otherwise.

S-28

TABLE OF CONTENTS**UNDERWRITING**

Under the terms and subject to the conditions contained in the underwriting agreement, dated July 19, 2016, the selling stockholders have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC, Citigroup Global Markets Inc., RBC Capital Markets, LLC and UBS Securities LLC are acting as representatives, and each underwriter has severally agreed to purchase the following respective numbers of shares of common stock set forth opposite its name below.

Underwriters	Number of Shares
Credit Suisse Securities (USA) LLC	2,700,000
Citigroup Global Markets Inc.	1,800,000
RBC Capital Markets, LLC	1,800,000
UBS Securities LLC	1,800,000
BB&T Capital Markets, a division of BB&T Securities, LLC	360,000
Stephens Inc.	360,000
CJS Securities Inc.	180,000
Total	9,000,000

In addition, we have entered into an agreement with the selling stockholders to repurchase \$45 million of our common stock, concurrently with the closing of this offering, directly from the selling stockholders in a private transaction at the price per share at which the shares of common stock are sold to the public in this offering, less the underwriting discount. Pursuant to this agreement, we expect to repurchase a total of 2,909,983 shares of common stock from the selling stockholders. The closing of the share repurchase will be contingent on the closing of this offering. The closing of this offering is not contingent on the closing of the share repurchase. See Concurrent Company Repurchase of Common Stock.

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus supplement. After the public offering of the shares, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters. The underwriters have advised us that they do not intend to confirm discretionary sales in excess of 5% of the shares of common stock offered in this offering.

The selling stockholders have granted the underwriters a 30-day option to purchase on a pro rata basis up to 1,350,000 additional shares at the public offering price less the underwriting discounts and commissions.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	No	Full
	exercise	exercise
Per share	\$ 0.686	\$ 0.686
Total	\$ 6,174,000	\$ 7,100,100

The expenses of the offering, including expenses incurred by the selling stockholders but not including any underwriting discounts or commissions, are estimated at \$1 million and are payable by us. We have also agreed to reimburse the underwriters for all expenses relating to the clearance of this offering with the Financial Industry Regulatory Authority (FINRA) in an amount up to \$15,000.

S-29

TABLE OF CONTENTS

We have agreed, subject to certain customary exceptions, that we will not offer, sell, contract to sell, pledge, grant any option to purchase make any short sale or otherwise dispose of, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, including but not limited to any options or warrants to purchase our common stock, or enter into any hedging or other transaction which is designed or which reasonably could be expected to lead to or result in a sale or disposition of our common stock, without the prior written consent of Credit Suisse Securities (USA) LLC for a period of 90 days after the date of this prospectus supplement, except issuances pursuant to employee stock option plans, stock incentive plans or director incentive plans existing on, or upon or in connection with the conversion, exercise, exchange or settlement of, or offer to convert, exchange or settle, any option or convertible or exchangeable securities outstanding on the date hereof.

The selling stockholders, our directors and our chief executive officer and our chief financial officer have agreed, subject to certain customary exceptions, that they will not offer, sell, contract to sell, or otherwise dispose of, any shares of our common stock or any options or warrants to purchase shares of our common stock, or securities convertible into or exchangeable or exercisable for any shares of our common stock, or enter into a transaction that would have the same effect (other than pursuant to employee stock option plans, stock incentive plans or director incentive plans existing on, or upon or in connection with the conversion, exercise, exchange or settlement of, or offer to convert, exchange or settle, any option or convertible or exchangeable securities outstanding as of, the date of this prospectus supplement), without, in each case, the prior written consent of Credit Suisse Securities (USA) LLC for a period of 90 days after the date of this prospectus. This lock-up also applies to common stock owned now or acquired later by the person executing the lock-up agreement in connection with the exercise of any option.

The restrictions described in the immediately preceding paragraph do not prohibit our directors and our chief executive officer and chief financial officer from (i) entering into written trading plans pursuant to Rule 10b5-1 of the Exchange Act for the transfer of shares of common stock, provided that such plan does not provide for the transfer of common stock during the lock-up period and (ii) transferring shares of common stock in accordance with a trading plan pursuant to Rule 10b5-1 of the Exchange Act already in place as of, and only shares scheduled thereunder on, the date hereof.

In addition, our chief executive officer may enter into a written trading plan established pursuant to Rule 10b5-1 of the Exchange Act during the lock-up period and may sell up to 345,891 shares of common stock at any time after the first 30 days of the lock-up period pursuant to such plan.

We and the selling stockholders have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

Shares of our common stock are listed on the NYSE under the symbol NCS.

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of our common stock in the open market for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. These stabilizing transactions may include making short sales of our common stock, which involves the sale by the underwriters of a greater number of shares of our common stock than they are required to purchase in this offering, and purchasing shares of our common stock on the open market to cover positions created by short sales. Short sales may be covered shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional shares referred to above, or may be naked shorts, which are short positions in excess of that amount. The underwriters may close out any short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available

for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

S-30

TABLE OF CONTENTS

The underwriters have advised us that, pursuant to Regulation M under the Exchange Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of our common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock, and, as a result, the price of our common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the NYSE, in the over-the-counter market or otherwise.

A prospectus in electronic format may be made available on the web sites maintained by the underwriters and the underwriters may distribute prospectuses electronically. The underwriters may allocate a number of shares for sale to online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

The underwriters and their affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. The underwriters and their affiliates have provided and may in the future provide, certain commercial banking, financial advisory, investment banking and other services for us and the selling stockholders and to persons and entities with relationships with us and the selling stockholders, for which they received or will receive customary fees and expenses. Certain of the underwriters and their affiliates are lenders, administrative agents and/or bookrunners and syndication agents for various credit facilities and other borrowings by us and our affiliates, which may include our asset-based lending facility and certain of our term loans pursuant to our credit agreement. In addition, from time to time, the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. Furthermore, the underwriters and their affiliates may enter into arms-length transactions with us and the selling stockholders in the ordinary course of their business.

In the ordinary course of their various business activities, the underwriters and their affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the Company (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the Company. The underwriters and their affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

Canada

The shares of common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares of common stock must be

made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement and the accompanying prospectus (including any amendment thereto) contain a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser s

S-31

TABLE OF CONTENTS

province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, no offer of shares which are the subject of the offering contemplated by this prospectus supplement may be made in that Relevant Member State other than:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the issuer and relevant underwriters for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares shall require the issuer or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or a supplemental prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase any shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

Hong Kong

No shares of common stock have been offered or sold, and no shares of common stock may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to professional investors as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (SFO) and any rules made under that Ordinance; or in other circumstances which do not result in the document being a prospectus as defined in the Companies Ordinance (Cap. 32) of Hong Kong (CO) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the shares of common stock has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to shares of common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors as defined in the SFO

and any rules made under that Ordinance.

This prospectus supplement and the accompanying prospectus have not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus supplement and the accompanying prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus supplement and the relevant offering documents and that he is not acquiring, and has not been offered any shares of common stock in circumstances that contravene any such restrictions.

S-32

TABLE OF CONTENTS

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended) (FIEL), and the underwriters will not offer or sell any shares of common stock, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus supplement and the accompanying prospectus have not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and the accompanying prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of common stock may not be circulated or distributed, nor may the shares of common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the notes pursuant to an offer made under Section 275 of the SFA except:
 - (i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
 - (ii) where no consideration is or will be given for the transfer;
 - (iii) where the transfer is by operation of law;
 - (iv) as specified in Section 276(7) of the SFA; or
 - (v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The shares of common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the SIX) or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement and the accompanying prospectus have been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement and the accompanying prospectus nor any other offering or marketing material relating to the common stock or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

S-33

TABLE OF CONTENTS

Neither this prospectus supplement and the accompanying prospectus nor any other offering or marketing material relating to the offering, the Company or the shares of common stock have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement and the accompanying prospectus will not be filed with, and the offer of shares of common stock will not be supervised by, the Swiss Financial Market Supervisory Authority, and the offer of shares of common stock has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (the CISA). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of the shares of common stock.

United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and are only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the Order) and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated (each such person being referred to as a relevant person). This prospectus supplement and the accompanying prospectus and their contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

S-34

TABLE OF CONTENTS

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

We file annual, quarterly and current reports and other information with the SEC under the Exchange Act. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call 1-800-SEC-0330 for further information about the operation of the Public Reference Room. Materials also may be obtained from the SEC's website (<http://www.sec.gov>), which contains reports, proxy and information statements and other information regarding companies that file electronically with the SEC. Our filings are also available to the public at our website (<http://www.ncibuildingsystems.com>). The information on our website and any other website is not incorporated in this prospectus supplement by reference, and you should not consider it a part of this prospectus supplement. In addition, documents filed by us can be inspected at the offices of the New York Stock Exchange, Inc., 20 Broad Street, New York, New York 10005. You may also request a copy of our filings by contacting our Investor Relations Department, attention K. Darcey Matthews at: (281) 897-7785 or by writing to us at 10943 North Sam Houston Parkway West, Houston, Texas 77064, Attention: Investor Relations.

The SEC allows us to incorporate by reference into this prospectus supplement the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the SEC under section 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is completed or otherwise terminated (other than information that is furnished and not deemed filed under the Exchange Act):

our Definitive Proxy Statement on Schedule 14A, filed on January 27, 2016;
our Annual Report on Form 10-K for the fiscal year ended November 1, 2015, filed on December 22, 2015;
our Quarterly Reports on Form 10-Q for the quarter ended May 1, 2016, filed on June 1, 2016, and for the quarter ended January 31, 2016, filed on March 9, 2016;
our Current Reports on Form 8-K filed July 18, 2016, March 29, 2016, February 29, 2016, January 8, 2016, December 11, 2015, November 19, 2015 and December 30, 2014; and
the description of our common stock contained in our Form 8-A/A, filed on June 25, 1999 and any subsequent amendment thereto filed for the purpose of updating such description.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus supplement is delivered, upon written or oral request, a copy of any document incorporated by reference into this prospectus supplement, other than exhibits to any such document not specifically described above. Requests for such documents should be directed to our Investor Relations Department, K. Darcey Matthews at (281) 897-7785 or by writing to us at 10943 North Sam Houston Parkway West, Houston, Texas 77064, Attention: Investor Relations.

LEGAL MATTERS

The validity of the common stock offered in this prospectus supplement will be passed upon by Debevoise & Plimpton LLP. Certain legal matters in connection with the offering of the securities made by this prospectus supplement will be passed upon by Latham & Watkins LLP, New York, New York, counsel for the underwriters in this offering.

TABLE OF CONTENTS

EXPERTS

The consolidated financial statements of NCI Building Systems, Inc. appearing in NCI Building Systems, Inc.'s Annual Report on Form 10-K for the fiscal year ended November 1, 2015, and the effectiveness of NCI Building Systems, Inc.'s internal control over financial reporting as of November 1, 2015, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein and incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of CENTRIA and subsidiaries appearing in NCI Building Systems, Inc.'s Current Reports on Form 8-K dated December 30, 2014 and March 29, 2016 have been audited by Ernst & Young LLP, independent auditors, as stated in their reports thereon, included therein, and incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

S-36

TABLE OF CONTENTS

Prospectus

NCI BUILDING SYSTEMS, INC.

**43,211,817 Shares of Common Stock Offered by the
Selling Stockholders**

This prospectus relates to up to 43,211,817 shares of our common stock, par value \$.01 per share, which may be offered for sale from time to time by the selling stockholders named in this prospectus. The selling stockholders may elect to sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may elect to sell their shares of common stock in the section titled "Plan of Distribution" on page 8 of this prospectus. We and the selling stockholders named in this prospectus are parties to a registration rights agreement with respect to the shares of our common stock held by the selling stockholders. We will not receive any proceeds from any sale of shares of common stock by any selling stockholder. We will bear all expenses of any offering of common stock, except that the selling stockholders will pay any applicable underwriting fees, discounts or commissions and certain transfer taxes.

You should read this prospectus and the related prospectus supplement carefully before you invest in our securities. No person may use this prospectus to offer and sell our securities unless a prospectus supplement accompanies this prospectus.

Our common stock is listed on the New York Stock Exchange (NYSE) under the trading symbol NCS.

You should consider carefully the risk factors on page 2 of this prospectus and in any applicable prospectus supplement before purchasing any of our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 8, 2016.

TABLE OF CONTENTS

TABLE OF CONTENTS

	Page
<u>About This Prospectus</u>	1
<u>Our Company</u>	1
<u>Risk Factors</u>	2
<u>Forward-Looking Statements</u>	2
<u>Use of Proceeds</u>	4
<u>General Description of the Common Stock that the Selling Stockholders May Sell</u>	4

	Page
<u>Selling Stockholders</u>	7
<u>Plan of Distribution</u>	8
<u>Where You Can Find More Information</u>	11
<u>Legal Matters</u>	12
<u>Experts</u>	12

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we have filed with the U.S. Securities and Exchange Commission (the SEC) using a shelf registration process. Pursuant to this prospectus, the selling stockholders named on page 7 may, from time to time, on or after the date hereof, sell up to a total of 43,211,817 shares of common stock described in this prospectus in one or more offerings. This prospectus only provides you with a general description of the securities the selling stockholders may offer. If required by applicable law, each time the selling stockholders use this prospectus to offer securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering, including specific amounts, prices and terms of the securities offered. The prospectus supplement may also add to, update or change the information contained in this prospectus. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information in the prospectus supplement. Please carefully read this prospectus, the prospectus supplement and any pricing supplement, in addition to the information contained in the documents we refer to under the heading Where You Can Find More Information on page 11 of this prospectus.

You should rely only on the information contained in or incorporated by reference into this prospectus and any prospectus supplement. We have not authorized anyone to provide you with different information. You should assume that the information appearing in or incorporated by reference into this prospectus and any prospectus supplement is accurate only as of the date on its cover page and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since such dates.

OUR COMPANY

NCI Building Systems, Inc. is one of North America's largest integrated manufacturers and marketers of metal products for the nonresidential construction industry. Of the \$220 billion nonresidential construction industry, we primarily serve the low-rise nonresidential construction market (five stories or less) which, according to Dodge Data & Analytics represented approximately 86% of the total nonresidential construction industry during our fiscal year 2015. Our broad range of products are used in repair, retrofit and new construction activities, primarily in North America.

We design, engineer, manufacture and market what we believe is one of the most comprehensive lines of metal components and engineered building systems in the industry, with a reputation for high quality and superior engineering and design. We go to market with well-recognized brands, which allow us to compete effectively within a broad range of end-user markets including industrial, commercial, institutional and agricultural. Our service versatility allows us to support the varying needs of our diverse customer base, which includes general contractors and sub-contractors, developers, manufacturers, distributors and a current network of over 3,100 authorized builders across North America. We also provide metal coil coating services for commercial and construction applications, servicing both internal and external customers.

We are comprised of a family of companies operating 42 manufacturing facilities, as of November 1, 2015, spanning the United States, Mexico and China, with additional sales and distribution offices throughout the United States and Canada. Our broad geographic footprint, along with our hub-and-spoke distribution system, allows us to efficiently supply a broad range of customers with high quality customer service and reliable deliveries.

The Company was founded in 1984 and reincorporated in Delaware in 1991. In 1998, we acquired Metal Building Components, Inc. (MBCI) and doubled our revenue base. As a result of the acquisition of MBCI, 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 is 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. In 2012, we completed the acquisition of Metl-Span LLC, a Texas limited liability company (Metl-Span). Metl-Span, prior to the completion of certain operational integration activities, operated five manufacturing facilities in the United States serving the nonresidential building products market with cost-effective and

TABLE OF CONTENTS

energy efficient insulated metal wall and roof panels. This transaction strengthened our position as a leading fully integrated supplier to the nonresidential building products industry in North America, providing our customers a comprehensive suite of building products.

In January 2015, we acquired CENTRIA, a Pennsylvania general partnership (CENTRIA), for \$255.8 million in cash, which includes cash acquired of \$8.7 million. The purchase price was subject to post-closing working capital adjustments, which we settled during the first quarter of fiscal 2016 for additional cash consideration of approximately \$2.1 million payable to the seller. CENTRIA is a leader in the design, engineering and manufacturing of architectural insulated metal panel (IMP) wall and roof systems and a provider of integrated coil coating services for the nonresidential construction industry. The acquisition enhances our existing portfolio of cold storage and commercial and industrial solutions and expands our product offering into new high-end IMP capabilities. CENTRIA also contributes new specialty continuous metal coil coating capabilities. CENTRIA operates four production facilities in the United States, 36 satellite sales locations and a manufacturing facility in China. CENTRIA s results are included in our metal components segment. To fund this acquisition, we incurred \$250.0 million of indebtedness.

In this prospectus, we refer to NCI, its wholly owned and majority owned subsidiaries as we, us or our, unless we specifically state otherwise or the context indicates otherwise. Our principal executive offices are located at 10943 North Sam Houston Parkway West, Houston, Texas 77064, and our telephone number at that location is (281) 897-7788.

RISK FACTORS

An investment in our securities involves risks. You should carefully consider all of the information contained in or incorporated by reference in this prospectus and other information which may be incorporated by reference in this prospectus or any prospectus supplement as provided under Where You Can Find More Information, including the risks described under Risk Factors and Management s Discussion and Analysis of Financial Condition and Results of Operations in our Annual Reports on Form 10-K and our Quarterly Reports on Form 10-Q. This prospectus also contains forward-looking statements that involve risks and uncertainties. Please read Forward-Looking Statements. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including the risks described elsewhere in this prospectus or any prospectus supplement and in the documents incorporated by reference into this prospectus or any prospectus supplement. If any of these risks occur, our business, financial condition or results of operations could be adversely affected. Additional risks not currently known to us or that we currently deem immaterial may also have a material adverse effect on us.

FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement and some of the documents we have incorporated herein and therein by reference include 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, ex forecast, goal, intend, may, objective, plan, potential, predict, projection, should, will or other based our forward-looking statements on our 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 information, including any earnings guidance, if applicable. 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 the 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;

2

TABLE OF CONTENTS

challenging economic conditions affecting the nonresidential construction industry;
volatility in the U.S. economy and abroad, generally, and in the credit markets;
substantial indebtedness and our ability to incur substantially more indebtedness;
our ability to generate significant cash flow required to service or refinance our existing debt, including the 8.25% senior notes due 2023, and obtain future financing;
our ability to comply with the financial tests and covenants in our existing and future debt obligations;
operational limitations or restrictions in connection with our debt;
increases in interest rates;
recognition of asset impairment charges;
commodity price increases and/or limited availability of raw materials, including steel;
our ability to make strategic acquisitions accretive to earnings;
retention and replacement of key personnel;
enforcement and obsolescence of intellectual property rights;
fluctuations in customer demand;
costs related to environmental clean-ups and liabilities;
competitive activity and pricing pressure;
increases in energy prices;
volatility of our stock price;
dilutive effect on our common stockholders of potential future sales of our common stock held by our sponsor;
substantial governance and other rights held by our sponsor;
breaches of our information system security measures and damage to our major information management systems;
hazards that may cause personal injury or property damage, thereby subjecting us to liabilities and possible losses, which may not be covered by insurance;
changes in laws or regulations, including the Dodd-Frank Act;
our ability to integrate the acquisition of CENTRIA with our business and to realize the anticipated benefits of such acquisition;
costs and other effects of legal and administrative proceedings, settlements, investigations, claims and other matters;
and
timing and amount of our stock repurchases.

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 prospectus and the documents that we have incorporated by reference, including those described under the caption

Risk Factors in Item 1A of our most recent annual report on Form 10-K and subsequently filed quarterly reports on Form 10-Q. We expressly disclaim any obligations to

TABLE OF CONTENTS

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.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders identified in this prospectus, their pledgees, donees, transferees or other successors in interest. The selling stockholders will receive all of the net proceeds from the sale of their shares or our common stock. See Selling Stockholders.

GENERAL DESCRIPTION OF THE COMMON STOCK THAT THE SELLING STOCKHOLDERS MAY SELL

The following is a description of NCI Building Systems, Inc.'s restated certificate of incorporation (Certificate of Incorporation) and fourth amended and restated by-laws (By-Laws). The following descriptions of our capital stock and provisions of the Certificate of Incorporation and By-Laws are summaries of their material terms and provisions and are qualified by reference to the Certificate of Incorporation and By-Laws. The descriptions do not purport to be complete statements of the provisions of the Certificate of Incorporation and By-Laws. You must read those documents for complete information on the terms of our capital stock.

Our authorized capital stock consists of:

100,000,000 shares of common stock, \$.01 par value per share, of which 72,882,822 shares were issued and outstanding as of March 3, 2016; and

1,000,000 shares of Convertible Preferred Stock, \$1.00 par value per share, of which no shares were issued and outstanding as of March 3, 2016.

The shares of common stock registered hereby were issued to the selling stockholders upon conversion of the Series B Cumulative Convertible Participating Preferred Stock (the Convertible Preferred Stock, and shares thereof, the Preferred Shares) held by them, after giving effect to accrued but unpaid cash and Convertible Preferred Stock dividends in the amount of \$5.8 million, at the initial conversion price of \$6.374 per share as specified in the Certificate of Designations governing the Convertible Preferred Stock, as amended through the date hereof.

The following summary of certain provisions of our common stock and preferred stock does not purport to be complete and is subject to, and qualified in its entirety by, our Certificate of Incorporation and By-Laws.

Common Stock

Holders of 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. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available therefor. Subject to the rights of the holders of any outstanding series of preferred stock, the number of authorized shares of any class or classes of stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holder or holders of a majority of the stock of the corporation entitled to vote generally in the election of

directors. The holders of common stock, as such, shall not be entitled to vote on any amendment to our Certificate of Incorporation (including any certificate of designation relating to any series of preferred stock) that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to our Certificate of Incorporation (including any certificate of designation relating to any series of preferred stock) or pursuant to the General Corporation Law of the State of Delaware.

The common stock is not redeemable, does not have any conversion rights and is not subject to call. If we are liquidated, dissolved or wound up, the holders of 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. Except as otherwise provided in our stockholders' agreement,

TABLE OF CONTENTS

holders of shares of common stock have no preemptive rights to maintain their respective percentage of ownership in future offerings or sales of stock by us. All outstanding shares of our common stock are fully paid and nonassessable.

Preferred 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, redemption rights, liquidation rights, sinking fund provisions, conversion rights and other rights, preferences and limitations as may be fixed by the Board of Directors without any further stockholder approval. The issuance of preferred stock, while providing desired flexibility in connection with possible acquisition and other corporate purposes, could adversely affect the voting power of holders of our common stock. It could also affect the likelihood that holders of common stock will receive dividend payments and payments upon liquidation. In May 2013, the Investors converted all of their Preferred Shares into 54.1 million shares of our Common Stock. As of the date of this prospectus, there were no shares of our Preferred Stock outstanding.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of the New York Stock Exchange, which would apply so long as the common stock remains listed on the New York Stock Exchange, 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 Delaware General Corporation Law (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. We made a determination that the acquisition of our equity interests by the Clayton, Dubilier & Rice Fund VIII, L.P. and CD&R Friends & Family Fund VIII, L.P. (the "Investors") would not be subject to the provisions of the Section 203 of the DGCL.

Our Certificate of Incorporation and By-Laws

Anti-Takeover Provisions. The provisions of our Certificate of Incorporation and By-Laws summarized in the succeeding 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.

TABLE OF CONTENTS

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

TABLE OF CONTENTS

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 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.

Dividend Policy

We do not currently intend to pay dividends on our common stock in the foreseeable future and currently intend to retain any earnings for use in our business. Our board of directors will determine whether we will pay future dividends on our common stock. Any payment of cash dividends in the future will depend upon our financial condition, our capital requirements and earnings, any applicable contractual restrictions on our ability to pay dividends and such other factors our board may deem relevant. Our existing senior credit agreement and existing indenture limits our ability to pay dividends.

Stockholders Agreement and Registration Rights Agreement

For information regarding the stockholders agreement and registration rights agreement between us and the selling stockholders named herein, see Item 1. Business and Item 1A. Risk Factors of our Annual Report on Form 10-K for the fiscal year ended November 1, 2015, incorporated herein by reference.

Registrar and Transfer Agent

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

Listing

Our common stock is listed on the New York Stock Exchange under the symbol NCS.

SELLING STOCKHOLDERS

The registration statement of which this prospectus forms a part has been filed in order to permit the selling stockholders to resell to the public shares of our common stock they currently own or any common stock that we may issue or may be issuable by reason of any stock split, stock dividend or similar transaction involving these shares. We and the selling stockholders are parties to a registration rights agreement, and under the terms of this agreement, we will pay all expenses of the registration of their shares of our common stock, including SEC filing fees, except that the selling stockholders will pay all underwriting discounts and selling commissions, if any.

The selling stockholders identified below may resell the common stock that are the subject of this prospectus in the manner contemplated under the Plan of Distribution or as otherwise permitted by applicable law. The table below sets

forth certain information known to us, based upon written representations from the selling stockholders, with respect to the beneficial ownership of the shares of our common stock held by the selling stockholders as of January 14, 2016.

Because the selling stockholders may sell, transfer or otherwise dispose of all, some or none of the shares of our common stock covered by this prospectus, we cannot determine the number of such shares that will be sold, transferred or otherwise disposed of by the selling stockholders, or the amount or percentage of shares of our common stock that will be held by the selling stockholders upon termination of any particular offering. See Plan of Distribution. When we refer to the selling stockholders in this prospectus, we mean the entities listed in the table below, as well as their pledgees, donees, assignees, transferees, and successors in interest.

In the table below, the percentage of shares beneficially owned is based on 72,882,822 shares of our common stock outstanding as of March 3, 2016. Beneficial ownership is determined under the rules of the SEC and generally includes voting or investment power with respect to securities. Unless indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with

TABLE OF CONTENTS

respect to all shares beneficially owned, subject to community property laws where applicable. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of the date of this prospectus are deemed to be outstanding and to be beneficially owned by the person holding such options for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

Name of Beneficial Owner	Shares Beneficially Owned		Number of Shares Registered Hereby	Shares Beneficially Owned After Sale of All Shares Offered Hereby	
	Number	Percentage		Number	Percentage
Clayton, Dubilier & Rice Fund VIII, L.P. ⁽¹⁾	43,103,910	57.71 %	43,103,910		
CD&R Friends & Family Fund VIII, L.P. ⁽¹⁾	107,907	0.14 %	107,907		

Unless otherwise indicated, Clayton, Dubilier & Rice VIII, L.P. and CD&R Friends & Family Fund VIII, L.P. are referred to collectively as the Investors. Does not include 66,852 shares of restricted common stock and 21,400 (1) shares of restricted stock units issued to Clayton, Dubilier & Rice LLP (CD&R, LLC), as assignee of director compensation payable to Messrs. James G. Berges, Nathan K. Sleeper and Jonathan L. Zrebiec. The Investors hold approximately 57.94% of the voting power of NCI as of March 3, 2016.

The general partner of each of the Investors is CD&R Associates VIII, Ltd., whose sole stockholder is CD&R Associates VIII, L.P. The general partner of CD&R Associates VIII, L.P. is CD&R Investment Associates VIII, Ltd.

CD&R Investment Associates VIII, Ltd. is managed by a two-person board of directors, Donald J. Gogel and Kevin J.

Conway, who, as the directors of CD&R Investment Associates VIII, Ltd., may be deemed to share beneficial ownership of the shares of common stock shown as beneficially owned by the Investors. Such persons expressly disclaim such beneficial ownership. Investment and voting decisions with respect to shares held by each of the

Investors are made by an investment committee of limited partners of CD&R Associates VIII, L.P., currently consisting of more than ten individuals (the Investment Committee). All members of the Investment Committee disclaim beneficial ownership of the shares shown as beneficially owned by the Investors.

Each of CD&R Associates VIII, L.P., CD&R Associates VIII, Ltd. and CD&R Investment Associates VIII, Ltd. expressly disclaims beneficial ownership of the shares held by the Investors and the restricted shares held by CD&R, LLC as assignees of director compensation payable to Messrs. Berges, Sleeper and Zrebiec. The Investors expressly disclaim beneficial ownership of the restricted shares held by CD&R, LLC as assignees of director compensation payable to Messrs. Berges, Sleeper and Zrebiec. CD&R, LLC expressly disclaims beneficial ownership of the shares held by the Investors.

The address for the Investors, CD&R Associates VIII, L.P., CD&R Associates VIII, Ltd. and CD&R Investment Associates VIII, Ltd. is c/o Maples Corporate Services Limited, P.O. Box 309, Uglan House, South Church Street, George Town, Grand Cayman, KY1-1104, Cayman Islands, British West Indies. The address for CD&R, LLC is 375 Park Avenue, 18th Floor, New York, NY 10152.

PLAN OF DISTRIBUTION

General

The selling stockholders may sell the shares of our common stock covered by this prospectus, in accordance with the terms of the stockholders agreement and registration rights agreement, using one or more of the following methods:

underwriters in a public offering;
at the market to or through market makers or into an existing market for the securities;
ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

8

TABLE OF CONTENTS

block trades in which a broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
privately negotiated transactions;

through the writing or settlement of standardized or over-the-counter options or other hedging or derivative transactions, whether through an options exchange or otherwise;

by pledge to secure debts and other obligations;

in other ways not involving market makers or established trading markets, including direct sales to purchasers or sales effected through agents;

a combination of any such methods of sale; and
any other method permitted pursuant to applicable law.

To the extent required by law, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. Any prospectus supplement relating to a particular offering of our common stock by the selling stockholders may include the following information to the extent required by law:

the terms of the offering;

the names of any underwriters or agents, and the amount of securities underwritten or purchased by each of them;

the purchase price of the securities;

any delayed delivery arrangements;

any over-allotment options under which underwriters may purchase additional common stock from the selling stockholders;

any underwriting discounts and other items constituting underwriters' compensation;

any public offering price and the proceeds to the selling stockholders; and

any discounts or concessions allowed or reallocated or paid to dealers.

The selling stockholders may distribute the common stock from time to time in one or more transactions:

at a fixed price or prices, which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to the prevailing market prices; or

at negotiated prices.

The selling stockholders may offer our common stock to the public through underwriting syndicates represented by managing underwriters or through underwriters without an underwriting syndicate. If underwriters are used for the sale of our common stock, the securities will be acquired by the underwriters for their own account. The underwriters may resell the common stock in one or more transactions, including in negotiated transactions at a fixed public offering price or at varying prices determined at the time of sale. In connection with any such underwritten sale of common stock, underwriters may receive compensation from the selling stockholders, for whom they may act as agents, in the form of discounts, concessions or commissions. Underwriters may sell common stock to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents. Such compensation may be in excess of customary discounts, concessions or commissions.

TABLE OF CONTENTS

If the selling stockholders use an underwriter or underwriters to effectuate the sale of common stock, we and/or they will execute an underwriting agreement with those underwriters at the time of sale of those securities. To the extent required by law, the names of the underwriters will be set forth in the prospectus supplement used by the underwriters to sell those securities. The selling stockholders may use underwriters with whom we or the selling stockholders have a material relationship. We will describe the nature of such relationship in the prospectus supplement, naming the underwriter. Unless otherwise indicated in the prospectus supplement relating to a particular offering of common stock, the obligations of the underwriters to purchase the securities will be subject to customary conditions precedent and the underwriters will be obligated to purchase all of the securities offered if any of the securities are purchased.

In effecting sales, brokers or dealers engaged by the selling stockholders may arrange for other brokers or dealers to participate. Broker-dealers may receive discounts, concessions or commissions from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. Such compensation may be in excess of customary discounts, concessions or commissions. If dealers are utilized in the sale of securities, the names of the dealers and the terms of the transaction will be set forth in a prospectus supplement, if required.

The selling stockholders may also sell shares of our common stock from time to time through agents. We will name any agent involved in the offer or sale of such shares and will list commissions payable to these agents in a prospectus supplement, if required. These agents will be acting on a best efforts basis to solicit purchases for the period of their appointment, unless we state otherwise in any required prospectus supplement.

Each underwriter, dealer and agent participating in the distribution of any offered securities that are issuable in bearer form will agree that it will not offer, sell, resell or deliver, directly or indirectly, offered securities in bearer form in the United States or to United States persons except as otherwise permitted by Treasury Regulations Section 1.163-5(c)(2)(i)(D).

The selling stockholders may sell shares of our common stock directly to purchasers. In this case, they may not engage underwriters or agents in the offer and sale of such shares.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the selling stockholders' shares of common stock or interests therein may be underwriters within the meaning of the Securities Act of 1933 (the Securities Act). Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are underwriters within the meaning of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act. We will make copies of this prospectus available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act, if applicable. If any entity is deemed an underwriter or any amounts deemed underwriting discounts and commissions, the prospectus supplement will identify the underwriter or agent and describe the compensation received from the selling stockholders.

We are not aware of any plans, arrangements or understandings between any of the selling stockholders and any underwriter, broker-dealer or agent regarding the sale of any shares of our common stock by the selling stockholders. We cannot assure you that the selling stockholders will sell any or all of the shares of our common stock offered by them pursuant to this prospectus. In addition, we cannot assure you that the selling stockholders will not transfer, devise or gift the shares of our common stock by other means not described in this prospectus. Moreover, shares of common stock covered by this prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus.

From time to time, one or more of the selling stockholders may pledge, hypothecate or grant a security interest in some or all of the shares owned by them. The pledgees, secured parties or persons to whom the shares have been hypothecated will, upon foreclosure, be deemed to be selling stockholders. The number of a selling stockholder's shares offered under this prospectus will decrease as and when it takes such actions. The plan of distribution for that selling stockholder's shares will otherwise remain unchanged.

TABLE OF CONTENTS

A selling stockholder may enter into hedging transactions with broker-dealers and the broker-dealers may engage in short sales of the shares in the course of hedging the positions they assume with that selling stockholder, including, without limitation, in connection with distributions of the shares by those broker-dealers. A selling stockholder may enter into option or other transactions with broker-dealers that involve the delivery of the shares offered hereby to the broker-dealers, who may then resell or otherwise transfer those securities.

A selling stockholder which is an entity may elect to make a pro rata in-kind distribution of the shares of common stock to its members, partners or shareholders. In such event we may file a prospectus supplement to the extent required by law in order to permit the distributees to use the prospectus to resell the common stock acquired in the distribution. A selling stockholder which is an individual may make gifts of shares of common stock covered hereby. Such donees may use the prospectus to resell the shares or, if required by law, we may file a prospectus supplement naming such donees.

If more than 10% of the net proceeds of any offering of securities made under this prospectus will be received by members of the Financial Industry Regulatory Authority (FINRA) participating in the offering or affiliates or associated persons of such FINRA members, the offering will be conducted in accordance with FINRA Rule 5110(h).

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

Indemnification

We and the selling stockholders may enter agreements under which underwriters, dealers and agents who participate in the distribution of our common stock may be entitled to indemnification by us and/or the selling stockholders against various liabilities, including liabilities under the Securities Act, and to contribution with respect to payments which the underwriters, dealers or agents may be required to make.

Price Stabilization and Short Positions

If underwriters or dealers are used in a sale of the common stock offered hereby, until the distribution of the securities is completed, rules of the SEC may limit the ability of any underwriters to bid for and purchase the securities. As an exception to these rules, representatives of any underwriters are permitted to engage in transactions that stabilize the price of the securities. These transactions may consist of bids or purchases for the purpose of pegging, fixing or maintaining the price of the securities. If the underwriters create a short position in the securities in connection with the offering (that is, if they sell more securities than are set forth on the cover page of the prospectus supplement) the representatives of the underwriters may reduce that short position by purchasing securities in the open market.

We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, we make no representation that the representatives of any underwriters will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC under the Securities Exchange Act of 1934 (the Exchange Act) (Commission File No. 001-14315). You may read and copy any document we file with the

Edgar Filing: NCI BUILDING SYSTEMS INC - Form 424B4

SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call 1-800-SEC-0330 for further information about the operation of the Public Reference Room. Materials also may be obtained from the SEC's website (<http://www.sec.gov>), which contains reports, proxy and information statements and other information regarding companies that file electronically with the SEC. Our filings are also available to the public at our website (<http://www.ncibuildingsystems.com>). The information on our website and any other website is not incorporated in this prospectus by reference, and you should not consider it a part of this prospectus. In addition, documents filed by us can be inspected at the offices of the New York Stock Exchange, Inc., 20 Broad Street, New York, New York 10005. You may also request a copy of our filings by contacting our Investor Relations Department at: (281) 897-7788 or by writing to us at 10943 North Sam Houston Parkway West, Houston, Texas 77064, Attention: Investor Relations.

TABLE OF CONTENTS

The SEC allows us to incorporate by reference into this prospectus the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below (File No. 001-14315) and any future filings we make with the SEC under section 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is completed or otherwise terminated (other than information that is furnished and not deemed filed under the Exchange Act):

our Annual Report on Form 10-K for the fiscal year ended November 1, 2015;

our Definitive Proxy Statement on Schedule 14A, filed January 27, 2016;

our Quarterly Report on Form 10-Q for the quarter ended January 31, 2016;

our Current Reports on Form 8-K filed December 30, 2014 and March 29, 2016; and

the description of our common stock contained in our Form 8-A/A, filed on June 25, 1999, and any subsequent amendment thereto filed for the purpose of updating such description.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any document incorporated by reference into this prospectus, other than exhibits to any such document not specifically described above. Requests for such documents should be directed to our Investor Relations Department at (281) 897-7788 or by writing to us at 10943 North Sam Houston Parkway West, Houston, Texas 77064, Attention: Investor Relations.

LEGAL MATTERS

The validity of the common stock offered in this prospectus will be passed upon by Debevoise & Plimpton LLP. If certain legal matters in connection with an offering of the securities made by this prospectus and a related prospectus supplement are passed on by counsel for the underwriters of such offering, that counsel will be named in the applicable prospectus supplement related to that offering.

EXPERTS

The consolidated financial statements of NCI Building Systems, Inc. appearing in NCI Building Systems, Inc.'s Annual Report on Form 10-K for the year ended November 1, 2015, and the effectiveness of NCI Building Systems, Inc.'s internal control over financial reporting as of November 1, 2015 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of CENTRIA appearing in NCI Building Systems, Inc.'s Current Reports on Form 8-K dated December 30, 2014 and March 29, 2016 have been audited by Ernst & Young LLP, independent auditors, as stated in their reports therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

TABLE OF CONTENTS

9,000,000 Shares

NCI Building Systems, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

**Credit Suisse
Citigroup
RBC Capital Markets
UBS Investment Bank**

**BB&T Capital Markets
Stephens Inc.
CJS Securities**

July 19, 2016
