

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended January 31, 2020

OR

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

For the transition period from _____ to _____
Commission File Number 1-33913

QUANEX BUILDING PRODUCTS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

26-1561397
(I.R.S. Employer
Identification No.)

1800 West Loop South, Suite 1500, Houston, Texas 77027

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (713) 961-4600

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.01 per share	NX	New York Stock Exchange

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

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

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

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

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

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

The number of shares outstanding of the registrant's Common Stock as of March 3, 2020 was 32,947,975.

QUANEX BUILDING PRODUCTS CORPORATION

INDEX

PART I.	FINANCIAL INFORMATION	<u>1</u>
Item 1:	Financial Statements (Unaudited)	<u>1</u>
	<u>Condensed Consolidated Balance Sheets – January 31, 2020 and October 31, 2019</u>	<u>1</u>
	<u>Condensed Consolidated Statements of Income (Loss) – Three Months Ended January 31, 2020 and 2019</u>	<u>2</u>
	<u>Condensed Consolidated Statements of Comprehensive Income (Loss) - Three Months Ended January 31, 2020 and 2019</u>	<u>3</u>
	<u>Condensed Consolidated Statements of Cash Flows – Three Months Ended January 31, 2020 and 2019</u>	<u>4</u>
	<u>Condensed Consolidated Statement of Stockholders’ Equity – Three Months Ended January 31, 2020 and 2019</u>	<u>5</u>
	<u>Notes to Unaudited Condensed Consolidated Financial Statements</u>	<u>6</u>
Item 2:	Management’s Discussion and Analysis of Financial Condition and Results of Operations	<u>25</u>
Item 3:	Quantitative and Qualitative Disclosures About Market Risk	<u>32</u>
Item 4:	Controls and Procedures	<u>33</u>
PART II.	OTHER INFORMATION	<u>34</u>
Item 1A:	Risk Factors	<u>34</u>
Item 2:	Unregistered Sales of Equity Securities and Use of Proceeds	<u>34</u>
Item 5:	Other Information	<u>34</u>
Item 6:	Exhibits	<u>35</u>

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

QUANEX BUILDING PRODUCTS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

	January 31, 2020	October 31, 2019
	(In thousands, except share amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 23,114	\$ 30,868
Accounts receivable, net of allowance for doubtful accounts of \$549 and \$393	64,036	82,946
Inventories, net	78,117	67,159
Prepaid and other current assets	7,931	9,353
Total current assets	173,198	190,326
Property, plant and equipment, net of accumulated depreciation of \$322,403 and \$317,568	192,148	193,600
Operating lease right-of-use assets	41,661	—
Goodwill	146,590	145,563
Intangible assets, net	104,338	107,297
Other assets	9,265	8,324
Total assets	\$ 667,200	\$ 645,110
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 49,092	\$ 63,604
Accrued liabilities	28,982	39,221
Income taxes payable	5,265	6,183
Current maturities of long-term debt	707	746
Current operating lease liabilities	6,532	—
Total current liabilities	90,578	109,754
Long-term debt	166,711	156,414
Noncurrent operating lease liabilities	35,505	—
Deferred pension and postretirement benefits	11,251	13,322
Deferred income taxes	19,741	19,363
Other liabilities	13,481	16,070
Total liabilities	337,267	314,923
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, no par value, shares authorized 1,000,000; issued and outstanding - none	—	—
Common stock, \$0.01 par value, shares authorized 125,000,000; issued 37,319,866 and 37,370,402, respectively; outstanding 32,963,475 and 33,021,789, respectively	373	374
Additional paid-in-capital	252,495	254,673
Retained earnings	182,989	185,703
Accumulated other comprehensive loss	(29,164)	(33,817)
Less: Treasury stock at cost, 4,356,391 and 4,348,613 shares, respectively	(76,760)	(76,746)
Total stockholders' equity	329,933	330,187
Total liabilities and stockholders' equity	\$ 667,200	\$ 645,110

The accompanying notes are an integral part of the financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF INCOME (LOSS)
(Unaudited)

	Three Months Ended	
	January 31,	
	2020	2019
	(In thousands, except per share amounts)	
Net sales	\$ 196,597	\$ 196,808
Cost and expenses:		
Cost of sales (excluding depreciation and amortization)	157,427	158,557
Selling, general and administrative	24,132	28,026
Restructuring charges	153	103
Depreciation and amortization	12,905	12,572
Operating income (loss)	1,980	(2,450)
Non-operating (expense) income:		
Interest expense	(1,582)	(2,442)
Other, net	36	256
Income (loss) before income taxes	434	(4,636)
Income tax (expense) benefit	(424)	987
Net income (loss)	\$ 10	\$ (3,649)
Basic earnings (loss) per common share	\$ —	\$ (0.11)
Diluted earnings (loss) per common share:	\$ —	\$ (0.11)
Weighted-average common shares outstanding:		
Basic	32,861	33,098
Diluted	33,078	33,098
Cash dividends per share	\$ 0.08	\$ 0.08

The accompanying notes are an integral part of the financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

	Three Months Ended	
	January 31,	
	2020	2019
	(In thousands)	
Net income (loss)	\$ 10	\$ (3,649)
<i>Other comprehensive income:</i>		
Foreign currency translation gain	2,743	4,066
Change in pension from net unamortized gain (loss) adjustment (pretax)	2,519	(11)
Change in pension from net unamortized gain (loss) adjustment tax (expense) benefit	(609)	7
Other comprehensive gain	4,653	4,062
Comprehensive income	<u>\$ 4,663</u>	<u>\$ 413</u>

The accompanying notes are an integral part of the financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Three Months Ended	
	January 31,	
	2020	2019
	(In thousands)	
Operating activities:		
Net income (loss)	\$ 10	\$ (3,649)
Adjustments to reconcile net income (loss) to cash used for operating activities:		
Depreciation and amortization	12,905	12,572
Stock-based compensation	(239)	224
Deferred income tax	(413)	(1,877)
Other, net	1,096	785
Changes in assets and liabilities:		
Decrease in accounts receivable	18,641	12,679
Increase in inventory	(10,657)	(11,601)
Decrease in other current assets	1,200	15
Decrease in accounts payable	(12,063)	(11,738)
Decrease in accrued liabilities	(12,519)	(18,850)
(Decrease) increase in income taxes payable	(936)	422
Increase in deferred pension and postretirement benefits	448	684
Decrease in other long-term liabilities	(405)	(27)
Other, net	(725)	118
Cash used for operating activities	(3,657)	(20,243)
Investing activities:		
Capital expenditures	(9,312)	(6,271)
Proceeds from disposition of capital assets	—	74
Cash used for investing activities	(9,312)	(6,197)
Financing activities:		
Borrowings under credit facilities	34,500	43,000
Repayments of credit facility borrowings	(24,500)	(23,000)
Repayments of other long-term debt	(285)	(454)
Common stock dividends paid	(2,659)	(2,675)
Issuance of common stock	3,075	27
Payroll tax paid to settle shares forfeited upon vesting of stock	(454)	(322)
Purchase of treasury stock	(4,639)	(2,016)
Cash provided by financing activities	5,038	14,560
Effect of exchange rate changes on cash and cash equivalents	177	333
Decrease in cash and cash equivalents	(7,754)	(11,547)
Cash and cash equivalents at beginning of period	30,868	29,003
Cash and cash equivalents at end of period	\$ 23,114	\$ 17,456

The accompanying notes are an integral part of the financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

Three Months Ended January 31, 2020	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Stockholders' Equity
	(In thousands, no per share amounts shown except in verbiage)					
Balance at October 31, 2019	\$ 374	\$ 254,673	\$ 185,703	\$ (33,817)	\$ (76,746)	\$ 330,187
Net income	—	—	10	—	—	10
Foreign currency translation adjustment	—	—	—	2,743	—	2,743
Common dividends (\$0.08 per share)	—	—	(2,659)	—	—	(2,659)
Purchase of treasury stock	—	—	—	—	(4,639)	(4,639)
Change in pension from net unamortized gain (net of tax expense of \$609)	—	—	—	1,910	—	1,910
<i>Stock-based compensation activity:</i>						
Stock-based compensation benefit	—	(239)	—	—	—	(239)
Stock options exercised	—	92	(159)	—	3,142	3,075
Restricted stock awards granted	—	(1,082)	94	—	988	—
Performance share awards vested	—	(495)	—	—	495	—
Other	(1)	(454)	—	—	—	(455)
Balance at January 31, 2020	\$ 373	\$ 252,495	\$ 182,989	\$ (29,164)	\$ (76,760)	\$ 329,933

Three Months Ended January 31, 2019	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Stockholders' Equity
	(In thousands, no per share amounts shown except in verbiage)					
Balance at October 31, 2018	\$ 374	\$ 254,678	\$ 243,904	\$ (30,705)	\$ (73,029)	\$ 395,222
Net loss	—	—	(3,649)	—	—	(3,649)
Foreign currency translation adjustment	—	—	—	4,066	—	4,066
Common dividends (\$0.08 per share)	—	—	(2,675)	—	—	(2,675)
Purchase of treasury stock	—	—	—	—	(2,016)	(2,016)
<i>Stock-based compensation activity:</i>						
Expense related to stock-based compensation	—	224	—	—	—	224
Stock options exercised	—	—	(35)	—	62	27
Restricted stock awards granted	—	(1,649)	(496)	—	2,145	—
Other	—	(322)	—	(4)	—	(326)
Balance at January 31, 2019	\$ 374	\$ 252,931	\$ 237,049	\$ (26,643)	\$ (72,838)	\$ 390,873

The accompanying notes are an integral part of the financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations and Basis of Presentation

Quanex Building Products Corporation is a component supplier to original equipment manufacturers (OEMs) in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include: (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. We also manufacture cabinet doors and other components for OEMs in the kitchen and bathroom cabinet industry. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We have organized our business into three reportable business segments. For additional discussion of our reportable business segments, see Note 13, "Segment Information." We use low-cost, short lead-time production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom (U.K.), and also serve customers in international markets through our operating plants in the U.K. and Germany, as well as through sales and marketing efforts in other countries.

Unless the context indicates otherwise, references to "Quanex", the "Company", "we", "us" and "our" refer to the consolidated business operations of Quanex Building Products Corporation and its subsidiaries.

The accompanying interim condensed consolidated financial statements include the accounts of Quanex Building Products Corporation. All intercompany accounts and transactions have been eliminated in consolidation. These financial statements have been prepared by us, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) have been condensed or omitted pursuant to such rules and regulations. The condensed consolidated balance sheet as of October 31, 2019 was derived from audited financial information, but does not include all disclosures required by U.S. GAAP. The accompanying financial statements should be read in conjunction with the audited consolidated financial statements and the notes thereto, included in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019. In our opinion, the accompanying financial statements contain all adjustments (which consist of normal recurring adjustments, except as disclosed herein) necessary to fairly present our financial position, results of operations and cash flows for the interim periods. The results of operations for the periods presented are not necessarily indicative of the results to be expected for the full year or for any future periods.

In preparing financial statements, we make informed judgments and estimates that affect the reported amounts of assets and liabilities as of the date of the financial statements and affect the reported amounts of revenues and expenses during the reporting period. We review our estimates on an on-going basis, including those related to impairment of long lived assets and goodwill, contingencies and income taxes. Changes in facts and circumstances may result in revised estimates and actual results may differ from these estimates.

Revenue from Contracts with Customers

Revenue recognition

We recognize revenue that reflects only the consideration we expect to receive for product sales upon transfer to customers. Revenue for product sales is recognized when control of the promised products is actually transferred to our customers, and we expect to be entitled to consideration in exchange for such transfer. We account for a contract when a customer provides us with a firm purchase order that identifies the products to be provided, the payment terms for those services, and when collectability of the consideration due is probable.

Performance obligations

A performance obligation is a promise to provide the customer with a good or service. Our performance obligations include product sales, with each product included in a customer contract being recognized as a separate performance obligation. For contracts with multiple performance obligations, the standalone selling price of each product is generally readily observable.

Revenue from product sales is recognized at a point in time when the product is transferred to the customer, in accordance with the shipping terms, which is generally upon shipment. We estimate a provision for sales returns and warranty allowances to account for product returns related to general returns and product nonconformance.

Pricing and sales incentives

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

Pricing is established at or prior to the time of sale with our customers and we record sales at the agreed-upon net selling price, reflective of current and prospective discounts.

Practical expedients and exemptions

We generally expense incremental costs of obtaining a contract when incurred because the amortization period would be less than one year. Additionally, we do not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less.

Shipping and handling costs

We account for shipping and handling services as fulfillment services; accordingly, freight revenue is combined with the product deliverable rather than being accounted for as a distinct performance obligation within the terms of the agreement. Shipping and handling costs incurred by us for the delivery of goods to customers are considered a cost to fulfill the contract and are included in Cost of sales in the accompanying Condensed Consolidated Statements of Income.

Contract assets and liabilities

Deferred revenue, which is not significant, is recorded when we have remaining unsatisfied performance obligations for which we have received consideration.

Disaggregation of revenue

We produce a wide variety of products that are used in the fenestration industry, including window spacer systems; extruded vinyl products; metal fabricated products; and astragals, thresholds and screens. In addition, we produce certain non-fenestration products, including kitchen and bath cabinet doors and components, flooring and trim moldings, solar edge tape, plastic decking, fencing, water retention barriers, conservatory roof components, and other products.

The following table summarizes our product sales for the three months ended January 31, 2020 and 2019 into groupings by segment which we believe depicts how the nature, amount, timing and uncertainty of our revenues and cash flows are affected by economic factors. For further details regarding our results by segment, refer to Note 13, "Segment Information".

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

	Three Months Ended	
	January 31,	
	2020	2019
(In thousands)		
North American Fenestration:		
United States - fenestration	\$ 96,847	\$ 93,884
International - fenestration	6,434	8,207
United States - non-fenestration	4,563	3,505
International - non-fenestration	2,608	3,453
	\$ 110,452	\$ 109,049
European Fenestration:		
International - fenestration	\$ 30,964	\$ 30,724
International - non-fenestration	5,802	4,530
	\$ 36,766	\$ 35,254
North American Cabinet Components:		
United States - fenestration	\$ 3,147	\$ 3,352
United States - non-fenestration	46,450	49,962
International - non-fenestration	447	539
	\$ 50,044	\$ 53,853
Unallocated Corporate & Other		
Eliminations	\$ (665)	\$ (1,348)
	\$ (665)	\$ (1,348)
Net sales	\$ 196,597	\$ 196,808

Restructuring

We accrue one-time severance costs pursuant to an approved plan of restructuring at the communication date, when affected employees have been notified of the potential severance and sufficient information has been provided for the employee to calculate severance benefits, in the event the employee is involuntarily terminated. In addition, we accrue costs associated with the termination of contractual commitments including operating leases at the time the lease is terminated pursuant to the lease provisions or in accordance with another agreement with the landlord. Otherwise, we continue to recognize operating lease expense through the cease-use date. After the cease-use date, we determine if our operating lease payments are at market. We assume sublet of the facility at the market rate. To the extent our lease obligations exceed the fair value rentals, we discount to arrive at the present value and record a liability. If the facility is not sublet, we expense the amount of the rental in the current period. For other costs directly related to the restructuring effort, such as equipment moving costs, we expense in the period incurred.

We closed a kitchen and bathroom cabinet door business in Mexico in October 2016 and another plant in Lansing, Kansas in September 2017. We closed two U.S. vinyl operations plants in November 2016 and January 2017. Pursuant to these restructuring efforts, we expensed \$0.1 million during the three months ended January 31, 2020 and 2019. We have not negotiated an exit from our lease obligation, which is deemed to be at fair market value, at one remaining closed plant location. We expect to continue to incur costs related to this operating lease during fiscal 2020 until we are able to sublet or otherwise exit the lease.

During the year ended October 31, 2019, our North American Cabinet Components segment experienced declines in current and forecasted demand as a result of an industry-wide shift from semi-custom cabinets to stock cabinets, and received notice about a change in strategy at one of our large customers that may result in lower sales volumes in the future. As a result, during the first quarter of fiscal 2020, we began to restructure our operations within that segment by announcing the closure of one of our plants. We incurred severance expense of less than \$0.1 million related to this plant closure during the three months ended January 31, 2020 and we expect to incur costs related to additional restructuring activities in future periods.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

2. Leases

Effective November 1, 2019, we adopted Accounting Standards Codification Topic 842, "Leases" (ASC Topic 842), which requires leases to be recognized on the balance sheet. We recognize a right-of-use (ROU) asset and lease liability for each operating and finance lease with a contractual term greater than 12 months at the time of lease inception. We include ROU assets and lease liabilities for leases that exist within other contracts. Leases with an original term of 12 months or less are not recognized on the balance sheet, and the rent expense related to those short-term leases is recognized over the lease term. We do not account for lease and non-lease (e.g. common area maintenance) components of contracts separately for any underlying asset class.

We lease certain manufacturing plants, warehouses, office space, vehicles and equipment under finance and operating leases. Lease commencement occurs on the date we take possession or control of the property or equipment. Original terms for our real estate-related leases are generally between five and twenty years. Original terms for equipment-related leases, primarily manufacturing equipment and vehicles, are generally between one and ten years. Some of our leases also include rental escalation clauses. Renewal options are included in the determination of lease payments when management determines the options are reasonably certain of exercise, considering financial performance, strategic importance and/or invested capital.

If readily determinable, the rate implicit in the lease is used to discount lease payments to present value; however, substantially all of our leases do not provide a readily determinable implicit rate. When the implicit rate is not determinable, our estimated incremental borrowing rate is utilized, determined on a collateralized basis, to discount lease payments based on information available at lease commencement.

Total lease costs recorded include fixed operating lease costs and variable lease costs. Most of our real estate leases require we pay certain expenses, such as CAM costs, of which the fixed portion is included in operating lease costs. We recognize operating lease costs on a straight-line basis over the lease term. In addition to the above costs, variable lease costs are recognized when probable and are not included in determining the present value of our lease liability.

The ROU asset is measured at the initial amount of the lease liability adjusted for lease payments made at or before the lease commencement date and initial direct costs. For operating leases, ROU assets are reduced over the lease term by the recognized straight-line lease expense less the amount of accretion of the lease liability determined using the effective interest method. For finance leases, ROU assets are amortized on a straight-line basis over the shorter of the useful life of the leased asset or the lease term. Interest expense on each finance lease liability is recognized utilizing the effective interest method. ROU assets are tested for impairment in the same manner as long-lived assets. Additionally, we monitor for events or changes in circumstances that may require a reassessment of one of our leases and determine if a remeasurement is required.

The table below presents the lease-related assets and liabilities recorded on the balance sheet at January 31, 2020 (in thousands):

Leases	Classification	January 31, 2020
Assets		
Operating lease assets	Operating lease right-of-use assets	\$ 41,661
Finance lease assets	Property, plant and equipment (less accumulated depreciation of \$308)	16,317
Total lease assets		\$ 57,978
Liabilities		
Current		
Operating	Current operating lease liabilities	\$ 6,532
Finance	Current maturities of long-term debt	975
Noncurrent		
Operating	Noncurrent operating lease liabilities	35,505
Finance	Long-term debt	14,921
Total lease liabilities		\$ 57,933

The table below presents the components of the lease costs for the three months ended January 31, 2020 (in thousands):

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

	Three months ended January 31, 2020
Components of lease costs	
Operating lease cost	\$ 2,058
Finance lease cost	
Amortization of leased assets	316
Interest on lease liabilities	144
Variable lease costs	125
Total lease cost	\$ 2,643

The table below presents supplemental cash flow information related to leases for the three months ended January 31, 2020 (in thousands):

	Three months ended January 31, 2020
Supplemental Cash Flow Information	
Cash paid for amounts included in the measurement of lease liabilities:	
Finance leases - financing cash flows	\$ 322
Finance leases - operating cash flows	\$ 144
Operating leases - operating cash flows	\$ 2,071
Right-of-use assets obtained in exchange for lease liabilities	
Operating leases	\$ 3,082
Finance Leases	\$ —

The table below presents the weighted average remaining lease terms and weighted average discount rates for the Company's leases as of January 31, 2020:

	January 31, 2020
Weighted average remaining lease term (in years)	
Operating leases	8.2
Financing leases	16.4
Weighted average discount rate	
Operating leases	4.08%
Financing leases	3.64%

The table below presents the maturity of the lease liabilities as of January 31, 2020 (in thousands):

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

	Operating Leases	Finance Leases
	(in thousands)	
2020 (remaining nine months)	\$ 6,141	\$ 1,177
2021	7,195	1,425
2022	6,531	1,391
2023	6,220	1,294
2024	5,516	1,190
Thereafter	17,730	14,208
Total lease payments	49,333	20,685
Less: present value discount	7,296	4,789
Total lease liabilities	\$ 42,037	\$ 15,896

As a result of the adoption of ASC Topic 842, we are required to present future minimum lease payments for operating and financing obligations having initial or remaining non-cancelable lease terms in excess of one year. These future minimum lease payments were previously disclosed in our 2019 Annual Report on Form 10-K and accounted for under previous lease guidance. Commitments as of October 31, 2019 were as follows:

	Operating Leases	Capital Leases
	(in thousands)	
2020	\$ 9,121	\$ 1,020
2021	6,981	810
2022	6,012	815
2023	5,506	973
2024	4,699	713
Thereafter	15,220	11,392
Total	47,539	15,723
Less: amount representing interest		5,064
Present value of minimum lease payments		10,659

3. Inventories

Inventories consisted of the following at January 31, 2020 and October 31, 2019:

	January 31, 2020	October 31, 2019
	(In thousands)	
Raw materials	\$ 40,423	\$ 32,818
Finished goods and work in process	39,461	35,538
Supplies and other	2,644	2,593
Total	82,528	70,949
Less: Inventory reserves	4,411	3,790
Inventories, net	\$ 78,117	\$ 67,159

Fixed costs related to excess manufacturing capacity, if any, have been expensed in the period they were incurred and, therefore, are not capitalized into inventory.

4. Goodwill and Intangible Assets

Goodwill

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

The change in the carrying amount of goodwill for the three months ended January 31, 2020 was as follows:

	Three Months Ended January 31, 2020	
	(In thousands)	
Beginning balance as of November 1, 2019	\$	145,563
Foreign currency translation adjustment		1,027
Balance as of the end of the period	\$	146,590

During the year ended October 31, 2019, we recorded impairment charges of \$74.6 million associated with our NA Cabinet Components segment, which reduced the goodwill balance applicable to this reporting unit from \$113.7 million to \$39.1 million. Our other reporting units were not deemed to be impaired at our annual goodwill impairment testing date, August 31, 2019. As of January 31, 2020, there were no further indicators of impairment. Should our actual results for our NA Cabinet Components operating segment be lower than expected in the future, the corresponding goodwill could become impaired and the impairment could be material. For a summary of the change in the carrying amount of goodwill by segment, see Note 13, "Segment Information."

Identifiable Intangible Assets

Amortizable intangible assets consisted of the following as of January 31, 2020 and October 31, 2019:

	January 31, 2020		October 31, 2019	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
	(In thousands)			
Customer relationships	\$ 154,727	\$ 73,029	\$ 153,950	\$ 70,103
Trademarks and trade names	55,988	35,811	55,745	35,210
Patents and other technology	22,397	19,934	22,386	19,471
Total	\$ 233,112	\$ 128,774	\$ 232,081	\$ 124,784

We had aggregate amortization expense related to intangible assets for the three months ended January 31, 2020 of \$3.7 million and \$4.0 million for the comparable prior year period.

Estimated remaining amortization expense, based on current intangible balances, for each of the fiscal years ending October 31, is as follows (in thousands):

	Estimated Amortization Expense
2020 (remaining nine months)	\$ 10,594
2021	12,619
2022	11,998
2023	11,251
2024	10,520
Thereafter	47,356
Total	\$ 104,338

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

5. Debt and Capital Lease Obligations

Debt consisted of the following at January 31, 2020 and October 31, 2019:

	January 31, 2020	October 31, 2019
(In thousands)		
Revolving Credit Facility	\$ 152,500	\$ 142,500
Finance lease obligations and other	16,047	15,865
Unamortized deferred financing fees	(1,129)	(1,205)
Total debt	\$ 167,418	\$ 157,160
Less: Current maturities of long-term debt	707	746
Long-term debt	\$ 166,711	\$ 156,414

As more fully described in our Annual Report on Form 10-K for the year ended October 31, 2019, on October 18, 2018, we amended and extended our prior credit facility by entering into a \$325.0 million revolving credit facility (the "Credit Facility"), with Wells Fargo Bank, National Association, as Agent, Swingline Lender and Issuing Lender, and Bank of America, N.A. serving as Syndication Agent. The Credit Facility has a five-year term, maturing on October 18, 2023, and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin or the LIBOR Rate plus an applicable margin. The Credit Facility contains appropriate provisions to substitute LIBOR with a replacement rate if necessary. In addition, we are subject to commitment fees for the unused portion of the Credit Facility.

The applicable margin and commitment fees are outlined in the following table:

Pricing Level	Consolidated Leverage Ratio	Commitment Fee	LIBOR Rate Loans	Base Rate Loans
I	Less than or equal to 1.50 to 1.00	0.200%	1.25%	0.25%
II	Greater than 1.50 to 1.00, but less than or equal to 2.25 to 1.00	0.225%	1.50%	0.50%
III	Greater than 2.25 to 1.00, but less than or equal to 3.00 to 1.00	0.250%	1.75%	0.75%
IV	Greater than 3.00 to 1.00	0.300%	2.00%	1.00%

In the event of default, outstanding borrowings would accrue interest at the Default Rate, as defined, whereby the obligations will bear interest at a per annum rate equal to 2% above the total per annum rate otherwise applicable.

The Credit Facility contains a: (1) Consolidated Interest Coverage Ratio requirement whereby we must not permit the Consolidated Interest Coverage Ratio, as defined, to be less than 2.25 to 1.00, and (2) Consolidated Leverage Ratio requirement, whereby we must not permit the Consolidated Leverage Ratio, as defined, to be greater than 3.25 to 1.00.

In addition to maintaining these financial covenants, the Credit Facility also limits our ability to enter into certain business transactions, such as to incur indebtedness or liens, to acquire businesses or dispose of material assets, make restricted payments, pay dividends (limited to \$20.0 million per year) and other transactions as further defined in the Credit Facility. Substantially all of our domestic assets, with the exception of real property, are utilized as collateral for the Credit Facility.

As of January 31, 2020, we had \$152.5 million of borrowings outstanding under the Credit Agreement (reduced by unamortized debt issuance costs of \$1.1 million), \$4.8 million of outstanding letters of credit and \$16.0 million outstanding primarily under finance leases and other debt. We had \$167.7 million available for use under the Credit Agreement at January 31, 2020. Outstanding borrowings under the Credit Agreement accrue interest at 3.15% per annum. Our weighted average borrowing rate for borrowings outstanding during the three months ended January 31, 2020 and 2019 was 3.27% and 4.03%, respectively. We were in compliance with our debt covenants as of January 31, 2020.

Other Debt Instruments

We maintain certain finance lease obligations related to equipment purchases, vehicles, and warehouse space. Refer to Note 2, "Leases" for further information regarding our finance leases.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

6. Retirement Plans

Pension Plan

Our non-contributory, single employer defined benefit pension plan covers a majority of our employees in the U.S. The net periodic pension cost for this plan for the three months ended January 31, 2020 and 2019 was as follows:

	Three Months Ended	
	January 31,	
	2020	2019
	(In thousands)	
Service cost	\$ 538	\$ 977
Interest cost	293	283
Expected return on plan assets	(491)	(543)
Amortization of net loss	108	16
Net periodic pension cost	<u>\$ 448</u>	<u>\$ 733</u>

On January 1, 2020, we enacted changes to our pension plan whereby the benefits for all participants were frozen and thereafter those participants will receive increased benefits in the company sponsored defined contribution plan in lieu of participation in a defined benefit plan. As a result of this action, we have remeasured the pension assets and obligations for the pension plan as of December 31, 2019. This resulted in a decrease in our projected benefit obligation and recognition of a net actuarial gain of approximately \$2.5 million that was recorded in accumulated other comprehensive income. The decrease in the projected benefit obligation was impacted by our asset performance through December 31, 2019, the impact of the pension plan freeze and an increase in the discount rate since October 31, 2019.

The remeasurement described above is in addition to our annual year-end measurement of the funded status of our benefit plans that we will record as of October 31, 2020. As a result, the change in our pension benefit obligation and net actuarial loss will differ from the \$2.5 million discussed above primarily as a result of any changes in interest rates and actual asset performance different from our expected return on assets during the year.

During September 2019, we contributed \$0.7 million to fund our plan, and we expect to make a contribution to our plan in September 2020 of approximately \$3.7 million.

Other Plans

We also have a supplemental benefit plan covering certain executive officers and key employees and a non-qualified deferred compensation plan covering members of the Board of Directors and certain key employees. As of January 31, 2020 and October 31, 2019, our liability under the supplemental benefit plan was approximately \$4.3 million and \$4.2 million, respectively. As of January 31, 2020 and October 31, 2019, the liability associated with the deferred compensation plan was approximately \$3.7 million and \$3.8 million, respectively. We record the current portion of liabilities associated with these plans under the caption "Accrued Liabilities," and the long-term portion under the caption "Other Liabilities" in the accompanying condensed consolidated balance sheets.

7. Warranty Obligations

We accrue warranty obligations as we recognize revenue associated with certain products. We make provisions for our warranty obligations based upon historical experience of costs incurred for such obligations adjusted, as necessary, for current conditions and factors. There are significant uncertainties and judgments involved in estimating our warranty obligations, including changing product designs, differences in customer installation processes and future claims experience which may vary from historical claims experience. Therefore, the ultimate amount we incur as warranty costs in the near and long-term may not be consistent with our current estimate.

A reconciliation of the activity related to our accrued warranty, including both the current and long-term portions (reported in accrued liabilities and other liabilities, respectively, on the accompanying condensed consolidated balance sheets) follows:

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

	Three Months Ended January 31, 2020
	(In thousands)
Beginning balance as of November 1, 2019	\$ 260
Warranty costs paid	(20)
Total accrued warranty as of January 31, 2020	\$ 240
Less: Current portion of accrued warranty	136
Long-term portion of accrued warranty	\$ 104

8. Income Taxes

To determine our income tax expense or benefit for interim periods, consistent with accounting standards, we apply the estimated annual effective income tax rate to year-to-date results. Our estimated annual effective tax rates for the three months ended January 31, 2020 and 2019 was 20.5% and 24.0%, respectively, excluding discrete items. The 2020 effective rate was impacted by an additional discrete charge of \$0.4 million related to the vesting or exercise of equity-based compensation awards.

The 2019 effective rate was primarily impacted by a net charge of \$1.4 million related to global intangible low-taxed income and foreign-derived intangible income, as well as discrete charges of \$0.6 million for the adjustment of the one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings and \$0.3 million related to the vesting or exercise of equity-based compensation awards.

As of January 31, 2020, our liability for uncertain tax positions (UTP) of \$0.6 million relates to certain state tax items regarding the interpretation of tax laws and regulations. Judgment is required in assessing the future tax consequences of events that have been recognized in our financial statements or tax returns. The final outcome of the future tax consequences of legal proceedings, if any, as well as the outcome of competent authority proceedings, changes in regulatory tax laws, or interpretation of those tax laws could impact our financial statements. We are subject to the effect of these matters occurring in various jurisdictions. The disallowance of the UTP would not materially affect the annual effective tax rate. We do not believe any of the UTP at January 31, 2020 will be recognized within the next twelve months.

We evaluate the likelihood of realization of our deferred tax assets by considering both positive and negative evidence. We maintain a valuation allowance for certain state net operating losses which totaled \$1.6 million at January 31, 2020 and October 31, 2019.

Final regulations were published by the Internal Revenue Service and U.S. Department of the Treasury regarding Uniform Capitalization (UNICAP) that became effective during fiscal 2020. We are evaluating the regulations but do not believe there will be a material impact on our consolidated financial statements.

10. Contingencies

Remediation and Environmental Compliance Costs

Under applicable state and federal laws, we may be responsible for, among other things, all or part of the costs required to remove or remediate wastes or hazardous substances at locations we, or our predecessors, have owned or operated. From time to time, we also have been alleged to be liable for all or part of the costs incurred to clean up third-party sites where there might have been an alleged improper disposal of hazardous substances. At present, we are not involved in any such matters.

From time to time, we incur routine expenses and capital expenditures associated with compliance with existing environmental regulations, including control of air emissions and water discharges, and plant decommissioning costs. We have not incurred any material expenses or capital expenditures related to environmental matters during the past three fiscal years, and do not expect to incur a material amount of such costs in fiscal 2020. While we will continue to have future expenditures related to environmental matters, any such amounts are impossible to reasonably estimate at this time. Based upon our experience to date, we do not believe that our compliance with environmental requirements will have a material adverse effect on our operations, financial condition or cash flows.

Litigation

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

From time to time, we, along with our subsidiaries, are involved in various litigation matters arising in the ordinary course of our business, including those arising from or related to contractual matters, commercial disputes, intellectual property, personal injury, environmental matters, product performance or warranties, product liability, insurance coverage and personnel and employment disputes.

We regularly review with legal counsel the status of all ongoing proceedings, and we maintain insurance against these risks to the extent deemed prudent by our management and to the extent such insurance is available. However, there is no assurance that we will prevail in these matters or that our insurers will accept full coverage of these matters, and we could, in the future, incur judgments, enter into settlements of claims, or revise our expectations regarding the outcome or insurability of matters we face, which could materially impact our results of operations.

We have been and are currently party to multiple claims, some of which are in litigation, relating to alleged defects in a commercial sealant product that was manufactured and sold during the 2000's. While we believe that our product was not defective and that we would prevail in these commercial sealant product claims if taken to trial, the timing, ultimate resolution and potential impact of these claims is not currently determinable. Nevertheless, after taking into account all currently available information, including our defenses, the advice of our counsel, and the extent and currently-expected availability of our existing insurance coverage, we believe that the eventual outcome of these commercial sealant claims will not have a material adverse effect on our overall financial condition, results of operations or cash flows, and we have not recorded any accrual with regard to these claims.

10. Fair Value Measurement of Assets and Liabilities

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market data developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to Level 1 and the lowest priority to Level 3. The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates) and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

As of January 31, 2020 and October 31, 2019, foreign currency derivatives were being measured on a recurring basis. Less than \$0.1 million of foreign currency derivatives were included in total assets as of January 31, 2020 and October 31, 2019. All of our derivative contracts are valued using quoted market prices from brokers or exchanges and are classified within Level 2 of the fair value hierarchy.

Carrying amounts reported on the balance sheet for cash, cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term maturity of these instruments. Our outstanding debt is variable rate debt that re-prices frequently, thereby limiting our exposure to significant change in interest rate risk. As a result, the fair value of our debt instrument approximates carrying value at January 31, 2020, and October 31, 2019 (Level 2 measurement).

The liability portion of our performance share awards are marked-to-market on a quarterly basis during a three-year vesting period based on market data (Level 2 measurement). For further information, refer to Note 11, "Stock-Based Compensation -Performance Share Awards."

11. Stock-Based Compensation

We have established and maintain an Omnibus Incentive Plan (2008 Plan) that provides for the granting of restricted stock awards, stock options, restricted stock units, performance share awards, performance restricted stock units, and other stock-based and cash-based awards. The 2008 Plan is administered by the Compensation and Management Development Committee of the Board of Directors.

The aggregate number of shares of common stock authorized for grant under the 2008 Plan is 7,650,000 as approved by

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

shareholders. In February 2020, shareholders authorized an increase of 1,300,000 shares for grant under a new 2020 plan, which became effective at that time. Any officer, key employee and/or non-employee director is eligible for awards under the 2008 Plan. We grant restricted stock units to non-employee directors on the first business day of each fiscal year. As approved by the Compensation & Management Development Committee of our Board of Directors annually, we grant a mix of restricted stock awards, restricted stock units, performance shares and/or performance restricted stock units to officers, management and key employees. We also historically granted stock options to certain officers, directors and key employees. Occasionally, we may make additional grants to key employees at other times during the year.

Restricted Stock Awards

Restricted stock awards are granted to key employees and officers annually, and typically cliff vest over a three year period with service and continued employment as the only vesting criteria. The recipient of the restricted stock award is entitled to all of the rights of a shareholder, except that the award is nontransferable during the vesting period. The fair value of the restricted stock award is established on the grant date and then expensed over the vesting period resulting in an increase in additional paid-in-capital. Shares are generally issued from treasury stock at the time of grant.

A summary of non-vested restricted stock awards activity during the three months ended January 31, 2020 is presented below:

	<u>Restricted Stock Awards</u>	<u>Weighted Average Grant Date Fair Value per Share</u>
Non-vested at October 31, 2019	230,100	\$ 17.02
Granted	56,000	\$ 19.40
Forfeited	(27,300)	\$ 17.31
Vested	(55,000)	\$ 19.45
Non-vested at January 31, 2020	<u>203,800</u>	<u>\$ 16.98</u>

The total weighted average grant-date fair value of restricted stock awards that vested during each of the three month periods ended January 31, 2020 and 2019 was \$1.1 million and \$1.3 million, respectively. As of January 31, 2020, total unrecognized compensation cost related to unamortized restricted stock awards was \$2.2 million. We expect to recognize this expense over the remaining weighted average vesting period of 2.2 years.

Stock Options

Historically, stock options have been awarded to key employees, officers and non-employee directors. Effective May 2015, the director compensation structure was revised to eliminate the annual grant of stock options to non-employee directors. During December 2017, the Compensation & Management Development Committee of the Board of Directors approved a change to the long-term incentive award program eliminating the grant of stock options and replacing this award with a grant of performance restricted stock units as further described below. As a result, stock options were not granted during the years ended October 31, 2018, 2019 or during the three months ended January 31, 2020. Employee stock options typically vest ratably over a three-year period with service and continued employment as the vesting conditions. Our stock options may be exercised up to a maximum of ten years from the date of grant. The fair value of the stock options is determined on the grant date and expensed over the vesting period resulting in an increase in additional paid-in-capital. For employees who are nearing retirement-eligibility, we recognize stock option expense ratably over the shorter of the vesting period or the period from the grant-date to the retirement-eligibility date.

We use a Black-Scholes pricing model to estimate the fair value of stock options. A description of the methodology for the valuation assumptions was disclosed in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes our stock option activity for the three months ended January 31, 2020:

	Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (000s)
Outstanding at October 31, 2019	1,416,186	\$ 18.71		
Granted	—	\$ —		
Exercised	(178,033)	\$ 16.93		
Forfeited/Expired	(58,734)	\$ 20.61		
Outstanding at January 31, 2020	<u>1,179,419</u>	\$ 18.89	4.2	\$ 395
Vested or expected to vest at January 31, 2020	<u>1,179,419</u>	\$ 18.89	4.2	\$ 395
Exercisable at January 31, 2020	<u>1,179,419</u>	\$ 18.89	4.2	\$ 395

Intrinsic value is the amount by which the market price of the common stock on the date of exercise exceeds the exercise price of the stock option. The total intrinsic value of stock options exercised during the three months ended January 31, 2020 and 2019 was \$0.5 million and less than \$0.1 million, respectively. The weighted-average grant date fair value of stock options that vested during the three months ended January 31, 2020 and 2019 was \$0.4 million and \$1.1 million, respectively. As of January 31, 2020, all compensation cost related to stock options has been recognized.

Restricted Stock Units

Restricted stock units may be awarded to key employees and officers from time to time, and annually to non-employee directors. The non-employee director restricted stock units vest immediately but are payable only upon the director's cessation of service unless an election is made by the non-employee director to settle and pay the award on an earlier specified date. Restricted stock units awarded to employees and officers typically cliff vest after a three-year period with service and continued employment as the vesting conditions. Restricted stock units are not considered outstanding shares and do not have voting rights, although the holder does receive a cash payment equivalent to the dividend paid, on a one-for-one basis, on our outstanding common shares. Once the criteria is met, each restricted stock unit is payable to the holder in cash based on the market value of one share of our common stock. Accordingly, we record a liability for the restricted stock units on our balance sheet and recognize any changes in the market value during each reporting period as compensation expense.

During the three months ended January 31, 2020 and 2019, non-employee directors received 25,326 and 25,920 restricted stock units, respectively, at a grant date fair value of \$19.02 per share and \$15.31 per share, respectively, which vested immediately. As of January 31, 2020, there were 26,390 non-vested restricted stock units, which were awarded in June 2019 and January 2020 to key employees at a weighted average grant date fair value of \$17.01. During the three months ended January 31, 2019, we paid approximately \$0.1 million to settle previously vested restricted stock units; there were no corresponding payments to settle vested restricted stock units during the three months ended January 31, 2020.

Performance Share Awards

We have awarded annual grants of performance shares to key employees and officers. These awards cliff vest after a three-year period. Performance share awards issued prior to fiscal 2019 vest with service and performance measures (relative total shareholder return (R-TSR) and earnings per share (EPS) growth), as vesting conditions. The number of shares earned is variable depending on the metrics achieved, and the settlement method is 50% in cash and 50% in our common stock. Performance share awards issued during fiscal 2019 and 2020 vest with return on net assets (RONA) as the vesting condition and pay out 100% in cash.

To account for these awards, we have bifurcated the portion subject to a market condition (R-TSR) and the portion subject to an internal performance measure (EPS or RONA). We have further bifurcated these awards based on the settlement method, as the portion expected to settle in stock (equity component) and the portion expected to settle in cash (liability component).

To value the shares subject to the market condition, we utilized a Monte Carlo simulation model to arrive at a grant-date fair value. This amount will be expensed over the three-year term of the award with a credit to additional paid-in-capital. To value the shares subject to the EPS and RONA performance measures, we used the value of our common stock on the date of grant as the grant-date fair value per share. This amount is being expensed over the three-year term of the award, with a credit to additional paid-in-capital, and could fluctuate depending on the number of shares ultimately expected to vest based on our assessment of the probability that the performance conditions will be achieved. The portion of the awards expected to settle in cash is recorded as

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

a liability and is being marked to market over the three-year term of the award, and can fluctuate depending on the number of shares ultimately expected to vest. Depending on the achievement of the performance conditions, 0% to 200% of the awarded performance shares may ultimately vest.

The following table summarizes our performance share grants and the grant date fair value for the EPS, R-TSR and RONA performance metrics:

Grant Date	Shares Awarded	Grant Date Fair Value			Shares Forfeited
		EPS	R-TSR	RONA	
December 7, 2017	146,500	\$ 20.70	\$ 21.81	\$ —	46,608
December 5, 2018	131,500	\$ —	\$ —	\$ 13.63	33,500
December 5, 2019	55,900	\$ —	\$ —	\$ 19.40	—

On November 30, 2019, a total of 56,103 shares vested pursuant to the November 2016 grant, which were settled with 28,051 shares of common stock and a cash payment of \$0.6 million. We recorded a decrease in compensation expense of \$0.5 million for the three months ended January 31, 2020 related to the expected payout of our performance share awards that are outstanding as of January 31, 2020. During the three months ended January 31, 2019, we recorded a decrease in compensation expense of \$0.3 million related to the expected payouts of performance share awards that were outstanding as of January 31, 2019.

Performance share awards are not considered outstanding shares and do not have voting rights, although dividends are accrued over the performance period and will be payable in cash based upon the number of performance shares ultimately earned.

The performance shares are excluded from the diluted weighted-average shares used to calculate earnings per share until the performance criteria is probable to result in the issuance of contingent shares. As of January 31, 2020, we have deemed 18,730 shares related to the December 2017 grants of performance shares as probable to vest.

Performance Restricted Stock Units

We awarded performance restricted stock units to key employees and officers beginning in December 2017. These awards cliff vest upon a three-year service period with the absolute total shareholder return of our common stock over this three-year term as the vesting criteria. The number of shares earned is variable depending on the metric achieved, and the settlement method is 100% in our common stock, with accrued dividends paid in cash at the time of vesting, assuming the shares had been outstanding throughout the performance period.

To value the performance restricted stock units, we utilized a Monte Carlo simulation model to arrive at a grant-date fair value. This amount will be adjusted for forfeitures and expensed over the three-year term of the award with a credit to additional paid-in-capital. Depending on the achievement of the performance conditions, a minimum of 0% and a maximum of 150% of the awarded performance restricted stock units may vest. Specifically, the awards vest on a continuum with the following Absolute Total Shareholder Return (A-TSR) milestones:

Vesting Level	Vesting Criteria	Percentage of Award Vested
Level 1	A-TSR greater than or equal to 50%	150%
Level 2	A-TSR less than 50% and greater than or equal to 20%	100%
Level 3	A-TSR less than 20% and greater than or equal to -20%	50%
Level 4	A-TSR less than -20%	—%

The following table summarizes our performance restricted stock unit grants and the grant date fair value for the A-TSR performance metric:

Grant Date	Shares Awarded	Grant Date Fair Value	Shares Forfeited
December 7, 2017	78,200	\$ 17.76	24,854
December 5, 2018	89,200	\$ 13.63	25,500
December 5, 2019	35,000	\$ 19.40	—

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

During the three months ended January 31, 2020, we recorded compensation expense of approximately \$0.1 million and \$0.2 million, respectively, for the comparable prior year period related to our performance share restricted units.

Similar to performance shares, the performance restricted stock units are not considered outstanding shares, do not have voting rights, and are excluded from diluted weighted-average shares used to calculate earnings per share until the performance criteria is probable to result in the issuance of contingent shares. As of January 31, 2020, we have deemed 28,449 shares related to the December 2017 grants of performance restricted stock units as probable to vest.

Treasury Shares

We record treasury stock purchases under the cost method whereby the entire cost of the acquired stock is recorded as treasury stock. Shares are generally issued from treasury stock at the time of grant of restricted stock awards, upon the exercise of stock options, and upon the vesting of performance shares and performance restricted stock units. On the subsequent issuance of treasury shares, we record proceeds in excess of cost as an increase in additional paid in capital. A deficiency of such proceeds relative to costs would be applied to reduce paid-in-capital associated with prior issuances to the extent available, with the remainder recorded as a charge to retained earnings. We recorded a charge to retained earnings of \$0.1 million during the three months ended January 31, 2020.

The following table summarizes the treasury stock activity during the three months ended January 31, 2020:

	Three Months Ended January 31, 2020
Beginning balance as of November 1, 2019	4,348,613
Restricted stock awards granted	(56,000)
Performance share awards vested	(28,051)
Stock options exercised	(178,033)
Treasury stock repurchases	269,862
Balance at January 31, 2020	<u>4,356,391</u>

12. Other Income

Other income, included under the caption "Other, net" on the accompanying condensed consolidated statements of income (loss), consisted of the following for the three months ended January 31, 2020 and 2019:

	Three Months Ended January 31,	
	2020	2019
	(In thousands)	
Foreign currency transaction losses	\$ (49)	\$ (32)
Foreign currency derivative (losses) gains	(11)	11
Pension service benefit	90	244
Interest income	5	30
Other	1	3
Other, net	<u>\$ 36</u>	<u>\$ 256</u>

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. Segment Information

We present three reportable business segments in accordance with ASC Topic 280-10-50, "Segment Reporting" (ASC 280): (1) North American Fenestration segment (NA Fenestration), comprising three operating segments primarily focused on the fenestration market in North America including vinyl profiles, insulating glass spacers, screens & other fenestration components; (2) European Fenestration segment (EU Fenestration), comprising our U.K.-based vinyl extrusion business, manufacturing vinyl profiles & conservatories, and the European insulating glass business manufacturing insulating glass spacers; and (3) North American Cabinet Components segment (NA Cabinet Components), comprising our cabinet door and components operations. We maintain an Unallocated Corporate & Other grouping which includes corporate office charges, and inter-segment eliminations, less an allocation of a portion of the general and administrative costs associated with the corporate office which have been allocated to the reportable business segments, based upon relative share of revenue, in order to more accurately reflect each reportable business segment's administrative cost. Certain costs are not allocated to the reportable operating segments, but remain in Unallocated Corporate & Other, including transaction expenses, stock-based compensation, long-term incentive awards based on the performance of our common stock and other factors, certain severance and legal costs not deemed to be allocable to all segments, depreciation of corporate assets, interest expense, other, net, income taxes, inter-segment eliminations, and executive incentive compensation and medical expense fluctuations relative to planned costs as determined during the annual planning process. The accounting policies of our operating segments are the same as those used to prepare the accompanying condensed consolidated financial statements. Corporate general and administrative expense allocated during the three month period ended January 31, 2020 was \$5.5 million and \$4.8 million for the prior year comparable period.

ASC 280 permits aggregation of operating segments based on factors including, but not limited to: (1) similar nature of products serving the building products industry, primarily the fenestration business; (2) similar production processes, although there are some differences in the amount of automation amongst operating plants; (3) similar types or classes of customers, namely the primary OEMs; (4) similar distribution methods for product delivery, although the extent of the use of third-party distributors will vary amongst the businesses; (5) similar regulatory environment; and (6) converging long-term economic similarities.

Segment information for the three months ended January 31, 2020 and 2019, and total assets as of January 31, 2020 and October 31, 2019 are summarized in the following table (in thousands):

	<u>NA Fenestration</u>	<u>EU Fenestration</u>	<u>NA Cabinet Comp.</u>	<u>Unallocated Corp. & Other</u>	<u>Total</u>
<u>Three Months Ended January 31, 2020</u>					
Net sales	\$ 110,452	\$ 36,766	\$ 50,044	\$ (665)	\$ 196,597
Depreciation and amortization	6,979	2,408	3,402	116	12,905
Operating income (loss)	1,631	3,164	(2,115)	(700)	1,980
Capital expenditures	6,928	1,219	1,075	90	9,312
<u>Three Months Ended January 31, 2019</u>					
Net sales	\$ 109,049	\$ 35,254	\$ 53,853	\$ (1,348)	\$ 196,808
Depreciation and amortization	6,873	2,236	3,339	124	12,572
Operating income (loss)	1,843	2,781	(2,267)	(4,807)	(2,450)
Capital expenditures	3,436	1,708	1,127	—	6,271
<u>As of January 31, 2020</u>					
Total assets	\$ 247,396	\$ 219,133	\$ 181,746	\$ 18,925	\$ 667,200
<u>As of October 31, 2019</u>					
Total assets	\$ 226,243	\$ 212,239	\$ 181,416	\$ 25,212	\$ 645,110

The following table summarizes the change in the carrying amount of goodwill by reportable business segment for the three months ended January 31, 2020 (in thousands):

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

	NA Fenestration	EU Fenestration	NA Cabinet Comp.	Unallocated Corp. & Other	Total
Balance as of October 31, 2019	\$ 38,712	\$ 67,704	\$ 39,147	\$ —	\$ 145,563
Foreign currency translation adjustment	—	1,027	—	—	1,027
Balance as of January 31, 2020	<u>\$ 38,712</u>	<u>\$ 68,731</u>	<u>\$ 39,147</u>	<u>\$ —</u>	<u>\$ 146,590</u>

For further details of Goodwill, see Note 4, "Goodwill & Intangible Assets", located herewith.

We did not allocate non-operating loss or income tax benefit to the reportable segments. The following table reconciles operating income (loss) as reported above to net income (loss) for the three months ended January 31, 2020 and 2019:

	Three Months Ended	
	January 31,	
	2020	2019
	(In thousands)	
Operating income (loss)	\$ 1,980	\$ (2,450)
Interest expense	(1,582)	(2,442)
Other, net	36	256
Income tax (expense) benefit	(424)	987
Net income (loss)	<u>\$ 10</u>	<u>\$ (3,649)</u>

14. Earnings Per Share

We compute basic earnings (loss) per share by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted earnings per common and potential common shares include the weighted average of additional shares associated with the incremental effect of dilutive employee stock options, non-vested restricted stock as determined using the treasury stock method prescribed by U.S. GAAP and contingent shares associated with performance share awards, if dilutive.

Basic and diluted earnings (loss) per share for the three months ended January 31, 2020 and 2019 were calculated as follows (in thousands, except per share data):

	Net Income (Loss)	Weighted Average Shares	Per Share
Three Months Ended January 31, 2020			
Basic earnings per common share	\$ 10	32,861	\$ —
<i>Effect of dilutive securities:</i>			
Stock options		77	
Restricted stock awards		93	
Performance shares		28	
Performance restricted stock units		19	
Diluted earnings per common share	<u>\$ 10</u>	<u>33,078</u>	\$ —
Three Months Ended January 31, 2019			
Basic loss per common share	\$ (3,649)	33,098	\$ (0.11)
Diluted loss per common share ⁽¹⁾	\$ (3,649)	33,098	\$ (0.11)

⁽¹⁾ The computation of diluted earnings per share excludes outstanding stock options and other common stock equivalents when their inclusion would be anti-dilutive. This is always the case when an entity incurs a net loss. During the three months ended January 31, 2019, 6,775 shares of common stock equivalent and 96,507 shares of restricted stock were excluded from the

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

computation of diluted earnings per share. In addition 15,735 potentially dilutive contingent shares related to performance share awards for the three months ended 2019 were excluded.

We had common stock equivalents that were potentially dilutive in future earnings per share calculations of 772,756 for the three months ended January 31, 2020 and 1,694,464 for the comparable prior year period. We also had 56,000 restricted stock award equivalents that were potentially dilutive in future earnings per calculations for the three months ended January 31, 2020 and no corresponding equivalents for the corresponding prior year. Such dilution will be dependent on the excess of the market price of our stock over the exercise price and other components of the treasury stock method.

15. New Accounting Guidance

Accounting Standards Recently Adopted

Effective November 1, 2019, we adopted Accounting Standards Update (ASU) 2016-02, Leases (Topic 842), using the modified retrospective approach and did not have a cumulative-effect adjustment in retained earnings as a result of the adoption. Topic 842 significantly changes accounting for leases by requiring that lessees recognize a liability representing the obligation to make lease payments and a related right-of-use (ROU) asset for virtually all lease transactions. Upon adoption, we implemented policy elections and practical expedients which include the following:

- package of practical expedients which allows us to avoid reassessing contracts that commenced prior to adoption that were properly evaluated under legacy lease accounting guidance;
- excluding ROU assets and lease liabilities for leases with terms that are less than one year;
- combining lease and non-lease components and accounting for them as a single lease (elected by asset class);
- excluding land easements that existed or expired prior to adoption; and
- policy election that eliminates the need for adjusting prior period comparable financial statements prepared under legacy (Accounting Standards Codification Topic 840) lease accounting guidance.

As a result of adopting Topic 842, we recorded additional lease liabilities of approximately \$39.3 million and ROU assets of approximately \$38.9 million on our consolidated balance sheet. The difference between the lease liabilities and ROU assets is due to rent holiday and lease build-out incentives that were recorded as deferred lease liabilities under legacy accounting guidance. The adoption of Topic 842 did not materially change our consolidated statements of income or consolidated statements of cash flow. See Note 2, "Leases" for further discussion.

Accounting Standards Recently Not Yet Adopted

In June 2016, the Financial Accounting Standards Board issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326). This amendment replaces the incurred loss impairment methodology in current U.S. GAAP and requires that financial assets be measured on an amortized cost basis and presented at the net amount expected to be collected. This new methodology reflects expected credit losses (rather than probable credit losses) and requires consideration of a broader range of supportable information when determining these estimated credit losses, including relevant experience, current conditions and supportable forecasts to determine collectability. In addition, the amendment provides guidance with regard to the use of an allowance for credit losses for purchased financial assets and available-for-sale debt securities. This amendment becomes effective for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. We expect to adopt this amendment during fiscal 2021, with no material impact on our consolidated financial statements.

Unless the context indicates otherwise, references to "Quanex", the "Company", "we", "us" and "our" refer to the consolidated business operations of Quanex Building Products Corporation and its subsidiaries.

Cautionary Note Regarding Forward-Looking Statements

Certain of the statements contained in this document and in documents incorporated by reference herein, including those made under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" are "forward-looking" statements as defined under the Private Securities Litigation Reform Act of 1995. Generally, the words "expect," "believe," "intend," "estimate," "anticipate," "project," "will" and similar expressions identify forward-looking statements, which generally are not historical in nature. Forward looking statements are (1) all statements which address future operating performance, (2) events or developments that we expect or anticipate will occur in the future, including statements relating to volume, sales, operating income and earnings per share, and (3) statements expressing general outlook about future operating results. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our current projections or expectations. As and when made, we believe that these forward-looking statements are reasonable. However, caution should be taken not to place undue reliance on any such forward-looking statements since such statements speak only as of the date when made and there can be no assurance that such forward-looking statements will occur. We are not obligated to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Factors that could cause actual results to differ materially from those expressed or implied by the forward-looking statements include, but are not limited to the following:

- changes in market conditions, particularly in the new home construction, and residential remodeling and replacement (R&R) activity markets in the U.S., U.K. and Germany;
- changes in non-pass-through raw material costs;
- changes in domestic and international economic conditions;
- changes in purchases by our principal customers;
- fluctuations in foreign currency exchange rates;
- our ability to maintain an effective system of internal controls;
- our ability to successfully implement our internal operating plans and acquisition strategies;
- our ability to successfully implement our plans with respect to information technology (IT) systems and processes;
- our ability to control costs and increase profitability;
- changes in environmental laws and regulations;
- changes in warranty obligations;
- changes in energy costs;
- changes in tax laws, and interpretations thereof;
- changes in interest rates;
- our ability to service our debt facilities and remain in good standing with our lenders;
- changes in the availability or applicability of our insurance coverage;
- our ability to maintain a good relationship with our suppliers, subcontractors, and key customers; and
- the resolution of litigation and other legal proceedings.

For information on additional factors that could cause actual results to differ materially, please refer to the section entitled "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019.

About Third-Party Information

In this report, we rely on and refer to information regarding industry data obtained from market research, publicly available information, industry publications, U.S. government sources and other third parties. Although we believe this information is reliable, we cannot guarantee the accuracy or completeness of the information and have not independently verified it.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with the accompanying unaudited condensed consolidated financial statements and related notes as of January 31, 2020, and for the three months ended January 31, 2020 and 2019, included elsewhere herein. For additional information pertaining to our business, including risk factors which should be considered before investing in our common stock, refer to our Annual Report on Form 10-K for the fiscal year ended October 31, 2019.

Our Business

We manufacture components for original equipment manufacturers (OEMs) in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. We also manufacture cabinet doors and other components for OEMs in the kitchen and bathroom cabinet industry. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We use low-cost, short lead-time production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the U.K., and also serve customers in international markets through our operating plants in the U.K. and Germany, as well as through sales and marketing efforts in other countries.

We currently have three reportable business segments: (1) North American Fenestration segment (NA Fenestration), comprising three operating segments primarily focused on the fenestration market in North America manufacturing vinyl profiles, insulating glass spacers, screens & other fenestration components; (2) European Fenestration segment (EU Fenestration), comprising our U.K.-based vinyl extrusion business, manufacturing vinyl profiles and conservatories, and the European insulating glass business manufacturing insulating glass spacers; and (3) North American Cabinet Components segment (NA Cabinet Components), comprising our cabinet door and components operations. We maintain a grouping called Unallocated Corporate & Other, which includes transaction expenses, stock-based compensation, long-term incentive awards based on performance of our common stock and other factors, certain severance and legal costs not allocable to our operating segments, depreciation of corporate assets, interest expense, other, net, income taxes, inter-segment eliminations, and executive incentive compensation and medical expense fluctuations relative to planned costs as determined during the annual planning process. Other corporate general and administrative costs have been allocated to the reportable business segments, based upon a relative measure of profitability in order to more accurately reflect each reportable business segment's administrative costs. The accounting policies of our operating segments are the same as those used to prepare our accompanying condensed consolidated financial statements.

We continue to invest in organic growth initiatives, enhance our product offerings, provide new complementary technology, enhance our leadership position within the markets we serve, expand into new markets or service lines, and explore strategic acquisitions. We have disposed of non-core businesses in the past, and continue to evaluate our business portfolio to ensure that we are investing in markets where we believe there is potential future growth.

Recent Transactions and Events

During the year ended October 31, 2019, our North American Cabinet Components segment experienced declines in current and forecasted demand as a result of an industry-wide shift from semi-custom cabinets to stock cabinets, and received notice about a change in strategy at one of our large customers that may result in lower sales volumes in the future. As a result, during the first quarter of fiscal 2020, we began to restructure our operations within that segment by announcing the closure of one of our plants. We incurred severance expense of less than \$0.1 million related to this plant closure during the three months ended January 31, 2020 and we expect to incur costs related to additional restructuring activities in future periods.

Market Overview and Outlook

We believe the primary drivers of our operating results continue to be North American new home construction and residential remodeling and replacement (R&R) activity. We believe that housing starts and window shipments are indicators of activity levels in the homebuilding and window industries, and we use this data, as published by or derived from third-party sources, to evaluate the market. We have historically evaluated the market using data from the National Association of Homebuilders (NAHB) with regard to housing starts, and published reports by Ducker Worldwide, LLC (Ducker), a consulting and research firm, with regard to window shipments in the U.S. We obtain market data from Catalina Research, a consulting and research firm, for insight into the U.S. residential wood cabinet demand.

The NAHB has forecasted calendar-year housing starts (excluding manufactured units) to increase slightly through calendar year 2021. Ducker indicated that window shipments in the R&R market are expected to increase 1% during the calendar year ended 2020 and increase 1.5% in 2021. Derived from reports published by Ducker, the overall decline in window shipments for

the trailing twelve months ended December 31, 2019 was 1.0%. During this period, R&R and new construction activities decreased 1.1% and 0.9%, respectively. Catalina Research estimates that residential semi-custom cabinet demand in the U.S. will decline slightly through 2020.

We utilize several commodities in our business for which pricing can fluctuate, including polyvinyl resin (PVC), titanium dioxide (TiO₂), petroleum products, aluminum and wood. For the majority of our customers and critical suppliers, we have price adjusters in place which effectively share the base pass-through price changes for our primary commodities with our customers commensurate with the market at large. Our long-term exposure to these price fluctuations is somewhat mitigated due to the contractual component of the adjuster program. However, these adjusters are not in place with all customers and for all commodities, and there is a level of exposure to such volatility due to the lag associated with the timing of price updates in accordance with our customer agreements, particularly with regard to hardwoods. In addition, some of these commodities, such as silicone, are in high demand, particularly in Europe, which can affect the cost of the raw materials, a portion of which we may not be able to fully recover.

On June 23, 2016, voters in the U.K. voted for the U.K. to exit the European Union (E.U.) (referred to as Brexit). In October 2019, the U.K. and E.U. ratified a withdrawal agreement, and subsequently the U.K. left the E.U. on January 31, 2020. A transition period is in place until December 31, 2020 while the U.K. and E.U. negotiate additional arrangements. The current rules for trade, travel, and business for the U.K. and E.U. will continue to apply during the transition period and any new rules will take effect January 1, 2021. Since the 2016 vote, the primary impact on Quanex's financial performance has been related to foreign currency fluctuations of the British Pound Sterling. This fluctuation has driven foreign currency translation impacts, as well as raw material cost increases from upstream suppliers located outside of the U.K.

Given the lack of comparable precedent, it is difficult for us to predict the future impacts on our U.K. based operations, which accounted for approximately 15% of our total sales for the year ended October 31, 2019. Due to the fact that we manufacture and sell a majority of our U.K. products within the U.K., there is minimal risk to our ability to physically deliver goods and complete sales. As such, we believe we are well positioned within the U.K. to respond to potential changes to underlying demand as a result of the final Brexit outcome. The primary focus for our U.K. operations centers on the availability and pricing of raw materials. While we source the majority of our raw materials from within the U.K., many of the primary upstream raw materials our vendors utilize are being sourced from outside of the U.K., which could expose us to cross-border issues and raw material price impacts due to foreign currency volatility. In February 2020, the U.K. announced its intention to introduce border controls and our U.K. businesses have positioned themselves well to cope with additional demands that this will bring in order to comply and facilitate the flow of goods in and out of the U.K.

Results of Operations

Three Months Ended January 31, 2020 Compared to Three Months Ended January 31, 2019

	Three Months Ended January 31,			
	2020	2019	Change \$	% Variance
	(Dollars in millions)			
Net sales	\$ 196.6	\$ 196.8	\$ (0.2)	— %
Cost of sales (excluding depreciation and amortization)	157.4	158.6	(1.2)	1 %
Selling, general and administrative	24.1	28.0	(3.9)	14 %
Restructuring charges	0.2	0.1	0.1	(100)%
Depreciation and amortization	12.9	12.6	0.3	(2)%
Operating income	\$ 2.0	\$ (2.5)	\$ 4.5	180 %
Interest expense	(1.6)	(2.4)	0.8	33 %
Other, net	—	0.3	(0.3)	(100)%
Income tax expense	(0.4)	1.0	(1.4)	(140)%
Net income	\$ —	\$ (3.6)	\$ 3.6	100 %

Our period-over-period results by reportable segment follow.

Changes Related to Operating Income by Reportable Segment:
NA Fenestration

	Three Months Ended January 31,			
	2020	2019	\$ Change	% Variance
	(Dollars in millions)			
Net sales	\$ 110.5	\$ 109.0	\$ 1.5	1%
Cost of sales (excluding depreciation and amortization)	88.7	87.1	1.6	(2)%
Selling, general and administrative	13.1	13.1	—	—%
Restructuring charges	0.1	0.1	—	—%
Depreciation and amortization	7.0	6.9	0.1	(1)%
Operating income	\$ 1.6	\$ 1.8	\$ (0.2)	(11)%
Operating income margin	1%	2%		

Net Sales. Net sales increased \$1.5 million, or 1%, for the three months ended January 31, 2020 compared to the same period in 2019, which was primarily driven by price increases.

Cost of Sales. The cost of sales increased \$1.6 million when comparing the three months ended January 31, 2020 to the same period in 2019. Cost of sales increased primarily due to inflationary cost increases for raw materials.

Selling, General and Administrative. Selling, general and administrative expenses remained flat when comparing the three months ended January 31, 2020 to the same period in 2019.

Restructuring Charges. Restructuring charges for each of the three month periods ended January 31, 2020 and 2019 of \$0.1 million relate to facility lease expense for a vinyl extrusion plant which was closed in January 2017 in the U.S. that has not been sublet or otherwise exited as of January 31, 2020.

EU Fenestration

	Three Months Ended January 31,			
	2020	2019	\$ Change	Variance %
	(Dollars in millions)			
Net sales	\$ 36.7	\$ 35.3	\$ 1.4	4%
Cost of sales (excluding depreciation and amortization)	25.2	24.5	0.7	(3)%
Selling, general and administrative	5.9	5.7	0.2	(4)%
Depreciation and amortization	2.4	2.2	0.2	(9)%
Operating income	\$ 3.2	\$ 2.9	\$ 0.3	10%
Operating income margin	9%	8%		

Net Sales. Net sales increased \$1.4 million, or 4%, when comparing the three months ended January 31, 2020 to the same period in 2019. This increase reflects \$1.0 million of volume increases, \$0.2 million of base price increases, and \$0.2 million of foreign currency exchange rate changes.

Cost of Sales. The cost of sales increased \$0.7 million for the three months ended January 31, 2020 compared to the same period in 2019. Higher volumes and unfavorable foreign currency exchange rate changes were partially offset by lower material costs incurred during the period.

Selling, General and Administrative. Selling, general and administrative expense increased \$0.2 million, or 4%, for the three months ended January 31, 2020 compared to the same period in 2019. The increase was attributable to selling costs at our U.K. vinyl business and unfavorable foreign currency exchange rate changes.

NA Cabinet Components

	Three Months Ended January 31,			
	2020	2019	\$ Change	Variance %
	(Dollars in millions)			
Net sales	\$ 50.0	\$ 53.8	\$ (3.8)	(7)%
Cost of sales (excluding depreciation and amortization)	43.8	47.9	(4.1)	9%
Selling, general and administrative	4.8	4.9	(0.1)	2%
Restructuring charges	0.1	—	0.1	(1)%
Depreciation and amortization	3.4	3.3	0.1	(3)%
Operating income	<u>\$ (2.1)</u>	<u>\$ (2.3)</u>	<u>\$ 0.2</u>	9%
Operating income margin	(4)%	(4)%		

Net Sales. Net sales decreased \$3.8 million for the three months ended January 31, 2020 compared to the same period in 2019. The decrease in sales was driven by \$2.7 million of lower volume, primarily related to a strategy change specific to one customer, as well as a \$1.1 million decline in raw materials surcharges and price.

Cost of Sales. Cost of sales decreased \$4.1 million, or 9%, for the three months ended January 31, 2020 compared with the same period in 2019 as a result of lower volume and decreases in costs for raw materials.

Selling, General and Administrative. Selling, general and administrative expense remained relatively flat for the three months ended January 31, 2020 compared to the same period in 2019.

Restructuring Charges. Restructuring charges incurred during the three months ended January 31, 2020 related to severance charges incurred for a plant closure as further described in Note 1, "Nature of Operations and Basis of Presentation - Restructuring" to the accompanying unaudited condensed consolidated financial statements contained elsewhere herein.

Unallocated Corporate & Other

	Three Months Ended January 31,			
	2020	2019	\$ Change	Variance %
	(Dollars in millions)			
Net sales	\$ (0.6)	\$ (1.3)	\$ 0.7	54%
Cost of sales (excluding depreciation and amortization)	(0.3)	(0.9)	0.6	(67)%
Selling, general and administrative	0.3	4.3	(4.0)	93%
Depreciation and amortization	0.1	0.2	(0.1)	50%
Operating loss	<u>\$ (0.7)</u>	<u>\$ (4.9)</u>	<u>\$ 4.2</u>	86%

Net Sales. Net sales for Unallocated Corporate & Other represents the elimination of inter-segment sales for the three months ended January 31, 2020 and 2019.

Cost of Sales. Cost of sales for Unallocated Corporate & Other consists of the elimination of inter-segment sales, profit in inventory, and other costs.

Selling, General and Administrative. Selling, general and administrative expenses decreased \$4.0 million for the three months ended January 31, 2020 compared to the same period in 2019 primarily due to lower medical expenses due to a decline in medical claims experience compared to the prior year period, as well as lower severance expense during 2020.

Changes related to Non-Operating Items:

Interest Expense. Interest expense decreased \$0.8 million for the three months ended January 31, 2020 compared to the same period in 2019 as a result of a lower average outstanding debt balance and lower interest rates during the period.

Other, net. The decrease in other, net of \$0.3 million at January 31, 2020 compared to the same period in 2019 relates primarily to a reduction in the pension service benefit.

Income Taxes. We recorded income tax expense of \$0.4 million on pre-tax income of \$0.4 million for the three months ended January 31, 2020, an effective rate of 97.7% and income tax benefit of \$1.0 million on pre-tax loss of \$4.6 million for the three months ended January 31, 2019, an effective rate of 21.3%. The difference in the effective rate between these periods reflects an increased charge from the vesting or exercise of equity-based compensation awards.

Liquidity and Capital Resources

Overview

Historically, our principal sources of funds have been cash on hand, cash flow from operations, and borrowings under our credit facilities.

We maintain a \$325.0 million revolving credit facility (the Credit Facility). The Credit Facility matures in 2023 (5-year term) and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin (0.25% to 1.00%) or the LIBOR Rate plus an applicable margin (1.25% to 2.00%). The applicable rate during the three months ended January 31, 2020 was LIBOR + 1.50%. In addition to the Consolidated Leverage Ratio covenant, we are required to meet a Consolidated Interest Coverage Ratio covenant, and there are limitations on certain transactions including our ability to incur indebtedness, incur liens, dispose of material assets, acquire businesses, make restricted payments and pay dividends (limited to \$20.0 million per year). We are amortizing deferred financing fees of \$1.1 million straight-line over the remaining term of the facility.

As of January 31, 2020, we had \$23.1 million of cash and equivalents, \$152.5 million outstanding under the Credit Facility, \$4.8 million of outstanding letters of credit and \$16.0 million outstanding under finance leases and other debt. We had \$167.7 million available for use under the Credit Facility at January 31, 2020.

We repatriated \$3.1 million and \$2.3 million of foreign cash during the three months ended January 31, 2020 and 2019, respectively. We expect to repatriate excess cash moving forward and utilize the funds to retire debt or meet current working capital needs.

Analysis of Cash Flow

The following table summarizes our cash flow results for the three months ended January 31, 2020 and 2019:

	Three Months Ended	
	January 31,	
	2020	2019
	(In millions)	
Cash used for operating activities	\$ (3.7)	\$ (20.2)
Cash used for investing activities	\$ (9.3)	\$ (6.2)
Cash provided by financing activities	\$ 5.0	\$ 14.6

Operating Activities. Cash used for operating activities for the three months ended January 31, 2020 declined approximately \$16.5 million compared to the three months ended January 31, 2019. Cash receipts were favorably impacted by an increase in net income as well as favorable working capital changes, including a lower payout of accrued incentives and improved accounts receivable collections compared to the same period in 2019.

Investing Activities. Cash used for investing activities increased \$3.1 million when comparing the three months ended January 31, 2020 to the same period in 2019 as a result of higher capital expenditures.

Financing Activities. Cash provided by financing activities was \$5.0 million for the three months ended January 31, 2020, primarily attributable to \$9.7 million of net debt borrowings and \$3.1 million of proceeds received from stock option exercises, partially offset by \$4.6 million related to the purchase of treasury stock and \$2.7 million of dividends paid to our shareholders. For the three months ended January 31, 2019, cash provided by financing activities was \$14.6 million primarily attributable to \$19.5 million of net borrowings of debt, partially offset by dividends paid to our shareholders of \$2.7 million and \$2.0 million related to the purchase of treasury stock.

Liquidity Requirements

Our strategy for deploying cash is to invest in organic growth opportunities, develop our infrastructure, and exploring strategic acquisitions. Other uses of cash include paying cash dividends to our shareholders and repurchasing our common stock. We have historically invested cash and cash equivalents in commercial paper with terms of three months or less. We did not have any investments during the three months ended January 31, 2020 and 2019. We maintain cash balances in foreign countries which total \$9.5 million as of January 31, 2020. During the three months ended January 31, 2020 and 2019, we repatriated \$3.1 million and \$2.3 million, respectively, of foreign earnings from our foreign locations.

Critical Accounting Policies and Estimates

The preparation of our financial statements in accordance with accounting principles generally accepted in the U.S. (U.S. GAAP) requires us to make estimates and assumptions that affect the reported amount of assets, liabilities, revenues and expenses and related disclosures of contingent assets and liabilities. Estimates and assumptions about future events and their effects cannot be perceived with certainty. Estimates may change as new events occur, as more experience is acquired, as additional information becomes available and as our operating environment changes. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, and that we believe provide a basis for making judgments about the carrying value of assets and liabilities that are not readily available through open market quotes. We must use our judgment with regard to uncertainties in order to make these estimates. Actual results could differ from these estimates.

For a description of our critical accounting policies and estimates, see our Annual Report on Form 10-K for the fiscal year ended October 31, 2019. During the three months ended January 31, 2020, we adopted new lease accounting guidance. For further details of this change, refer to "Part I, Financial Information" of this Quarterly Report on Form 10-Q.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standards setting bodies that we adopt as of the specified effective date. Unless otherwise discussed, we believe the impact of any recently issued standards that are not yet effective are either not applicable to us at this time or will not have a material impact on our consolidated financial statements upon adoption.

In June 2016, the FASB issued Accounting Standards Update No. 2016-13, Financial Instruments - Credit Losses (Topic 326). This amendment replaces the incurred loss impairment methodology in current U.S. GAAP and requires that financial assets be measured on an amortized cost basis and presented at the net amount expected to be collected. This new methodology reflects expected credit losses (rather than probable credit losses) and requires consideration of a broader range of supportable information when determining these estimated credit losses, including relevant experience, current conditions and supportable forecasts to determine collectability. In addition, the amendment provides guidance with regard to the use of an allowance for credit losses for purchased financial assets and available-for-sale debt securities. This amendment becomes effective for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. We expect to adopt this amendment during fiscal 2021, with no material impact on our consolidated financial statements.

Refer to our Annual Report on Form 10-K for the year ended October 31, 2019 for additional standards we are currently evaluating.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The following discussion of our exposure to various market risks contains “forward looking statements” regarding our estimates, assumptions and beliefs concerning our exposure. Although we believe these estimates and assumptions are reasonable in light of information currently available to us, we cannot provide assurance that these estimates will not materially differ from actual results due to the inherent unpredictability of interest rates, foreign currency rates and commodity prices as well as other factors. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate Risk

Our outstanding debt bears interest at variable rates and accordingly is sensitive to changes in interest rates. Based upon the balances of the variable rate debt at January 31, 2020, a hypothetical 1.0% increase or decrease in interest rates could result in approximately \$1.5 million of additional pretax charges or credit to our operating results per year. This sensitivity is impacted by the amount of borrowings under our credit facilities, and amounts outstanding under finance leases.

Foreign Currency Rate Risk

Our international operations have exposure to foreign currency rate risks, primarily due to fluctuations in the Euro, the British Pound Sterling and the Canadian Dollar. From time to time, we enter into foreign exchange contracts associated with our operations to manage a portion of the foreign currency rate risk. Less than \$0.1 million of foreign currency derivatives were included in total assets as of January 31, 2020 and October 31, 2019. These foreign currency derivative contracts hedge cross-border intercompany and commercial activity for our insulating glass spacer business. Although these derivatives hedge our exposure to fluctuations in foreign currency rates, we do not apply hedge accounting and therefore, the change in the fair value of these foreign currency derivatives is recorded directly to other income and expense in the accompanying condensed consolidated statements of income (loss). To the extent the gain or loss on the derivative instrument offsets the gain or loss from the re-measurement of the underlying foreign currency balance, changes in exchange rates should have no effect.

Commodity Price Risk

We purchase PVC as the significant raw material consumed in the manufacture of vinyl extrusions. We have a monthly resin adjuster in place with a majority of our customers and our resin supplier that is adjusted based upon published industry indices for resin prices for the prior month. This adjuster effectively shares the base pass-through price changes of PVC with our customers commensurate with the market at large. Our long-term exposure to changes in PVC prices is somewhat mitigated due to the contractual component of the resin adjuster program. In addition, there is a level of exposure to short-term volatility due to the one month lag.

We also charge certain customers a surcharge related to petroleum-based raw materials. The surcharge is intended to offset the rising cost of products which are highly correlated to the price of oil including butyl and other oil-based raw materials. The surcharge is in place with the majority of our customers who purchase these products and is adjusted monthly based upon the 90-day average published price for Brent crude. The oil-based raw materials that we purchase are subject to similar pricing schemes. As such, our long-term exposure to changes in oil-based raw material prices is significantly reduced under this surcharge program.

Similarly, our NA Cabinet Components business includes a surcharge provision in the majority of its customer arrangements to insulate against significant fluctuations in the price for various hardwood products used as the primary raw material for kitchen and bathroom cabinet doors. We are exposed to short-term volatility in wood prices due to a lag in the timing of price updates which generally could extend for up to three months.

While we maintain surcharges and other adjusters to manage our exposure to changes in the prices of our critical raw materials, we utilize several commodities in our business that are not covered by contractual surcharges or adjusters for which pricing can fluctuate, including titanium dioxide (TiO₂), aluminum, silicone and other inputs. Further discussion of our industry risks is included within our Annual Report on Form 10-K for the year ended October 31, 2019.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Interim Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (1934 Act) as of January 31, 2020. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of January 31, 2020, the disclosure controls and procedures are effective.

Changes in Internal Control over Financial Reporting

Effective November 1, 2019, we adopted new lease accounting guidance. For further details of this change, refer to "Part I, Financial Information" of this Quarterly Report on Form 10-Q. As a result, we implemented a new accounting system and modified existing reporting systems, processes and internal controls over leases to assist us in the application of the new accounting guidance. There have been no other changes in internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the 1934 Act) during the most recent fiscal quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1A. Risk Factors**Company Risks****Epidemics, pandemics or other disease outbreaks could significantly disrupt our operations or those of our customers or suppliers.**

If the COVID-19 coronavirus spreads worldwide, or if similar widespread disease outbreaks occur in the future, our business, financial condition and results of operations could be negatively affected to the extent such event harms the worldwide economy. If we or any of our customers or suppliers are forced to temporarily cease manufacturing operations as a part of any voluntary or mandatory effort to prevent or contain an outbreak, then we may be unable to supply our customers in a timely manner and our business, cash flow, and results of operations may suffer as a result.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**Issuer Purchases of Equity Securities**

During the three months ended January 31, 2020, we repurchased common stock as follows:

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	(d) Maximum US Dollars Remaining that May Yet Be Used to Purchase Shares Under the Plans or Programs ⁽¹⁾
November 2019	13,626	\$ 19.45	—	\$ 18,415,158
December 2019	99,609	17.73	89,999	16,836,834
January 2020	179,863	17.02	179,863	13,776,306
Total	293,098	\$ 17.37	269,862	

⁽¹⁾ On August 30, 2018, our Board of Directors approved a stock repurchase program that authorized the repurchase of up to \$60.0 million worth of shares of our common stock. Repurchases under the new program will be made in open market transactions or privately negotiated transactions, subject to market conditions, applicable legal requirements and other relevant factors. The program does not have an expiration date or a limit on the number of shares that may be repurchased.

⁽²⁾ November 2019 includes 13,626 shares cancelled in connection with tax withholding related to the vesting of restricted share awards. December 2019 includes 9,610 shares cancelled in connection with tax withholding related to the vesting of performance share awards. Shares so cancelled pursuant to the terms of our 2008 Omnibus Incentive Plan, as amended, are not part of any publicly announced share repurchase authorizations.

Item 5. Other Information

In February 2020, the stockholders of Quanex Building Products Corporation (the “*Company*”) approved the adoption of the Quanex Building Products Corporation 2020 Omnibus Incentive Plan (as approved, the “*2020 Plan*”). The 2020 Plan provides for the granting of various equity awards, including restricted stock, stock options, stock appreciation rights, restricted stock units, performance shares, performance units, annual incentive awards, other stock-based awards and cash-based awards.

For more information related to the contents of the 2020 Plan and the changes approved as part of the 2020 Plan, please see the description of the 2020 Plan under [Proposal No. 2](#) included in the Company’s Definitive Proxy Statement relating to its 2020 Annual Meeting of Stockholders, as filed with the Securities and Exchange Commission on January 29, 2020, which description of the 2020 Plan is incorporated herein by reference. For the full text of the 2020 Plan, please see Exhibit 10.2 of the Company’s Current Report on Form 8-K, as filed with the Securities and Exchange Commission on March 2, 2020.

The Company’s Compensation and Management Development Committee (the “*Committee*”) has also adopted a new form of award agreement to be used in connection with future grants of restricted stock awards under the 2020 Plan (the “*RSA Form*”). From time to time in the future, and pursuant to the terms and conditions of the RSA Form and the 2020 Plan, the Committee may grant restricted stock to employees of the Company as permitted by the 2020 Plan.

The RSA Form as approved by the Committee is attached to this Quarterly Report on Form 10-Q as Exhibit 10.1, and is incorporated by reference herein.

Item 6. Exhibits

The exhibits required to be furnished pursuant to Item 6 are listed in the Exhibit Index filed herewith, which Exhibit Index is incorporated herein by reference.

SIGNATURES

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

QUANEX BUILDING PRODUCTS CORPORATION

Date: March 6, 2020

/s/ Scott M. Zuehlke

Scott M. Zuehlke

Senior Vice President - Chief Financial Officer & Treasurer
(Principal Financial Officer)

EXHIBIT INDEX

Exhibit Number	Description of Exhibits
3.1	Restated Certificate of Incorporation of the Registrant dated as of March 4, 2016, filed as Exhibit 3.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on March 7, 2016, and incorporated herein by reference.
*3.2	Fourth Amended and Restated Bylaws of the Registrant dated as of February 27, 2020.
4.1	Form of Registrant's Common Stock certificate, filed as Exhibit 4.1 of Amendment No. 1 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on February 14, 2008, and incorporated herein by reference.
4.2	Credit Agreement dated as of October 18, 2018, by and among the Company; the lenders party thereto; and Wells Fargo Bank, National Association, as Agent; filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on October 18, 2018, and incorporated herein by reference.
*+10.1	Form of Restricted Stock Award Agreement for Employees under the Quanex Building Products Corporation 2020 Omnibus Incentive Plan.
*31.1	Certification by chief executive officer pursuant to Rule 13a-14(a)/15d-14(a).
*31.2	Certification by chief financial officer pursuant to Rule 13a-14(a)/15d-14(a).
*32.1	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
*101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
*101.SCH	XBRL Taxonomy Extension Schema Document
*101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
*101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
*101.LAB	XBRL Taxonomy Extension Label Linkbase Document
*101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith

† Management Compensation or Incentive Plan

As permitted by Item 601(b)(4)(iii)(A) of Regulation S-K, the Registrant has not filed with this Quarterly Report on Form 10-Q certain instruments defining the rights of holders of long-term debt of the Registrant and its subsidiaries because the total amount of securities authorized under any of such instruments does not exceed 10% of the total assets of the Registrant and its subsidiaries on a consolidated basis. The Registrant agrees to furnish a copy of any such agreements to the Securities and Exchange Commission upon request.

FOURTH AMENDED AND RESTATED BY-LAWS
of
QUANEX BUILDING PRODUCTS CORPORATION
(a Delaware Corporation)

ARTICLE I
Offices

1.1. Registered Office. The Corporation shall at all times maintain a registered office in the State of Delaware.

1.2. Other Offices. The Corporation may also have offices at such other places within or outside of the State of Delaware as the Board of Directors shall from time to time appoint or the business of the Corporation require.

ARTICLE II
Capital Stock

2.1. Issuance of Stock. The Board of Directors may authorize the issuance of the capital stock of the Corporation at such times, for such consideration, and on such terms and conditions as the Board may deem advisable, subject to any restrictions and provisions of law, the Certificate of Incorporation of the Corporation as amended and restated from time to time (the "Certificate of Incorporation") or any other provisions of these By-laws.

2.2. Certificates for Shares. The shares of the Corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by, the chairman or vice-chairman of the board of directors, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue. The certificates shall otherwise be in such form as may be determined by the Board of Directors, shall be issued in numerical order, shall be entered in the books of the Corporation as they are issued and shall exhibit the holder's name and number of shares.

2.3. Transfer of Shares. The shares of the capital stock of the Corporation are transferable only on the books of the Corporation upon surrender, in the case of certificated shares, of the certificates therefor properly endorsed for transfer, or otherwise properly assigned, and upon the presentation of such evidences of ownership of the shares and validity of the assignment as the Corporation may require.

2.4. Registered Stockholders. The Corporation shall be entitled to treat the person in whose name any share of stock is registered as the owner thereof for purposes of dividends and other distributions in the course of business or in the course of recapitalization, consolidation, merger, reorganization, liquidation, or otherwise, and for the purpose of votes, approvals and consents by stockholders, and for the purpose of notices to stockholders, and for all other purposes whatsoever, and shall not be bound to recognize any equitable or other claim to or interest in such share on the part of any other person, whether or not the Corporation shall have notice thereof, save as expressly required by the laws of the State of Delaware.

2.5. Transfer Agent and Registrar. The Board of Directors may appoint one or more transfer agents and registrars, and may require certificates for shares to bear the signature of such transfer agent(s) and registrar(s).

2.6. Replacement Certificates. Upon the presentation to the Corporation of a proper affidavit attesting the loss, destruction or mutilation of any certificate for shares of stock of the Corporation, the Board of Directors may direct the issuance of a new certificate or uncertificated shares in lieu of and to replace the certificate so alleged to be lost, destroyed or mutilated. The Board of Directors may require as a condition precedent to the issuance of a new certificate or uncertificated shares any or all of the following: (a) additional evidence of the loss, destruction or mutilation claimed; (b) advertisement of the loss in such manner as the Board of Directors may direct or approve; (c) a bond or agreement of indemnity, in such form and amount and with such surety (or without surety) as the Board of Directors may direct or approve; and (d) the order of approval of a court.

ARTICLE III
Stockholders and Meetings of Stockholders

3.1. Places of Meetings. All meetings of stockholders shall be held at such place within or outside of the State of Delaware, including by means of remote communication, as shall be fixed by the Board of Directors and stated in the notice of meeting.

3.2. Annual Meeting. The Annual Meeting of Stockholders of the Corporation shall be held on such date and at such time as is fixed by the Board of Directors and stated in the notice of meeting. Directors shall be elected in accordance with the provisions of the Certificate of Incorporation and these By-laws and such other business shall be transacted as may properly come before the meeting.

3.3. Adjournment of Annual Meeting. The Annual Meeting of Stockholders may be adjourned by the presiding officer of the meeting for any reason (including, if the presiding officer determines that it would be in the best interests of the Corporation to extend the

period of time for the solicitation of proxies) from time to time and place to place until the presiding officer shall determine that the business to be conducted at the meeting is completed, which determination shall be conclusive.

3.4. Conduct of Business at Annual Meeting.

(a) At an Annual Meeting of the Stockholders, only such business, including without limitation, nominations of persons for election to the board of directors, shall be conducted as shall have been properly brought before the meeting. To be properly brought before an Annual Meeting, business must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (ii) otherwise properly brought before the meeting by or at the direction of the Board of Directors or (iii) otherwise properly brought before the meeting by a stockholder of the Corporation who (A) was a stockholder of record of the Corporation at the time the notice provided for in this Section 3.4 is delivered to the Secretary of the Corporation and at the time of the Annual Meeting, (B) shall be entitled to vote at such meeting, and (C) complies with the notice procedures set forth in this Section 3.4 as to such business or nomination. Clause (C) shall be the exclusive means for a stockholder to make nominations or submit business (other than matters properly brought under Rule 14a-8 (or any successor thereto) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder (or any subsequent provisions replacing such Act, rules or regulations), and indicated in the Corporation's notice of meeting) at an Annual Meeting.

(b) Without qualification, for business to be properly brought before an Annual Meeting by a stockholder, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation and any such business must constitute a proper matter for stockholder action. To be timely, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the Corporation, (a) with respect to business to be brought before the Annual Meeting in 2016, not later than the close of business on the 120th day nor earlier than 150 days prior to the first anniversary date of the date that the Corporation mailed its proxy materials related to its immediately preceding Annual Meeting and (b) with respect to business to be brought before the Annual Meeting in 2017 or any Annual Meeting thereafter, not later than the close of business on the 90th day nor earlier than 120 days prior to the first anniversary date of the Corporation's immediately preceding Annual Meeting; provided, however, that in the event that the date of the Annual Meeting is more than 60 days later than the anniversary date of the immediately preceding Annual Meeting, notice by the stockholder to be timely must be received not later than the close of business on the 10th day following the earlier of the date on which a written statement setting forth the date of the Annual Meeting was mailed to stockholders or the date on which it is first disclosed to the public. In no event shall the public announcement of an adjournment or postponement of the Annual Meeting of stockholders commence a new time period (or extend the time period) for the giving of a stockholder's notice as described above. To be in proper form, a stockholder's notice to the Secretary of the Corporation shall set forth:

(i) as to each person, if any, whom the stockholder proposes to nominate for election as a director (A) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to and in accordance with Section 14 of the Exchange Act and the rules and regulations promulgated thereunder (or any subsequent provisions replacing such Act, rules or regulations), (B) such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected, and (C) include a completed and signed questionnaire, representation and agreement required by paragraph (e) of this Section 3.4;

(ii) as to each matter the stockholder proposes to bring before the Annual Meeting (other than the nomination of persons for election as directors), (A) a brief description of the business desired to be brought before the Annual Meeting, (B) the reasons for conducting such business at the Annual Meeting, (C) the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the by-laws of the Corporation, the language of the proposed amendment), (D) any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made, and (E) a description of all agreements, arrangements and understandings between such stockholder and beneficial owner, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder; and

(iii) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is made, (A) the name and address, as they appear on the Corporation's books, of such stockholder proposing such proposal, and of such beneficial owner, if any, (B)(1) the class and number of shares of the Corporation which are directly or indirectly owned beneficially or of record by such stockholder and by such beneficial owner, (2) the existence and material terms of any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder or beneficial owner, if any, has a right to vote any shares of any security of the Corporation (including, if applicable, any contract, arrangement, understanding or relationship pursuant to which any economic interest in the capital stock to be voted is beneficially owned by a person or persons other than the stockholder of record as of the record date), (3) any short interest in any security of the Corporation (for purposes of this Section 3.4, a person shall be deemed to have a short interest in a security if such person directly or indirectly, through a contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security), in each case with respect to the information required to be included in the notice pursuant to (1) through (3) above, as of the date of such notice and including, without limitation, any such interests held by members of such stockholder's or such beneficial owner's immediate family sharing the same household, (D) any other information relating to such stockholder and beneficial owner, if any, that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitation of proxies for election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations thereunder (or any subsequent provisions replacing such Act, rules or regulations), (E) a representation that the person is a holder of record or otherwise has the right to vote shares of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, (F) if the person does not own any stock of record, a representation as to who owns the shares of stock the person intends to vote of record and the basis upon which the person has the right to vote the shares of stock, and (G) a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group that intends (1) to deliver a proxy statement or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or elect the nominees or (2) otherwise to solicit proxies from stockholders in support of such proposal or nomination.

(c) The Corporation may require any proposed nominee to furnish such other information as it may reasonably require (i) to determine the eligibility of such proposed nominee to serve as a director of the Corporation, (ii) to determine whether such nominee qualifies

as an “independent director” or “audit committee financial expert” under applicable law, securities exchange rule or regulation, or any publicly-disclosed corporate governance guideline or committee charter of the Corporation; and (iii) that could be material to a reasonable stockholder’s understanding of the independence and qualifications, or lack thereof, of such nominee. In addition, if the stockholder’s ownership of shares of the Corporation, as set forth in the notice, is solely beneficial, documentary evidence of such ownership must accompany the notice. Notwithstanding anything in these By-laws to the contrary, no business shall be conducted at an Annual Meeting except in accordance with the procedures set forth in this Section 3.4. The presiding officer of an Annual Meeting shall, if the facts warrant, determine and declare to the meeting that any business which was not properly brought before the meeting is out of order and shall not be transacted at the meeting.

(d) Notwithstanding anything in the second sentence of paragraph (b) of this Section 3.4 to the contrary, in the event that the number of directors to be elected to the board of directors of the Corporation at an Annual Meeting is increased and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased board of directors at least one hundred (100) days prior to the first anniversary of the preceding year’s Annual Meeting, a stockholder’s notice required by this Section 3.4 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary of the Corporation at the principal executive offices of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

(e) To be eligible to be a nominee for election or reelection as a director of the Corporation (other than a nominee nominated pursuant to Section 3.4(a)(i) or (ii) or Section 3.5(b)(i)), a person must deliver (in accordance with the time periods prescribed for delivery of notice under Sections 3.4 and 3.5 hereof, as applicable) to the Secretary at the principal executive offices of the Corporation a written questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in the form provided by the Secretary upon written request) that such person (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the Corporation, will act or vote on any issue or question (a “Voting Commitment”) that has not been disclosed to the Corporation or (B) any Voting Commitment that could limit or interfere with such person’s ability to comply, if elected as a director of the Corporation, with such person’s fiduciary duties under applicable law, (ii) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed therein, and (iii) in such person’s individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a director of the Corporation, and will comply with all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock trading policies and guidelines of the Corporation.

3.5. Special Meetings.

(a) Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation’s notice of meeting. Nominations of persons for election to the board of directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation’s notice of meeting (i) by the Board of Directors or a committee appointed by the Board of Directors or (ii) provided that the Board of Directors has determined that the directors shall be elected at such meeting, by any stockholder of the Corporation who (A) was a stockholder of record at the time the notice provided for in Section 3.4 hereof is delivered to the Secretary of the Corporation and at the time of the special meeting, (B) shall be entitled to vote at the meeting and upon such election, and (C) complies with the notice procedures set forth in this Article III. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation’s notice of meeting, if the stockholder’s notice in the same form as required by paragraph (b) of Section 3.4 hereof with respect to any nomination (including the completed and signed questionnaire, representation and agreement required by Section 3.4(e)) shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the 120th day prior to such special meeting and not later than the close of business on the later of the 90th day prior to such special meeting or the tenth day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder’s notice as described above.

(b) Only such business shall have been conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Article III and only such persons who are nominated in accordance with the procedures set forth in this Article III shall be eligible to be elected at an annual or special meeting of the stockholders of the Corporation. Except as otherwise required by law and subject to the rights of the holders of any claim or series of stock having a preference over the common stock of the Corporation (the “Common Stock”) as to dividends or on liquidation, a special meeting of stockholders may be called only by the Chairman of the Board or the President or by the Secretary at the written request of a majority of the directors or, solely in accordance with Section 3.5(g) of these By-laws, a stockholder, or a group of stockholders formed for the purpose of making such request, that beneficially own 25% or more of the outstanding Common Stock. The request shall state the purpose or purposes for which the meeting is to be called. The notice of every special meeting of stockholders shall state the purpose for which it is called.

(c) Except as otherwise required by law and subject to the rights of the holders of any claim or series of stock having a preference over the Common Stock as to dividends or on liquidation, the Chairman of the meeting shall have the power and duty (a) to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Article III and (b) if any proposed nomination or business was not made or proposed in compliance with this Article III, in the reasonable judgment of the presiding officer of the meeting under the circumstances existing at the time and given the information available to such officer, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted. Notwithstanding the foregoing provisions of this Section 3.5, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the Corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 3.5, to be considered a qualified

representative of the stockholder, a person must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of the stockholders.

(d) For purpose of this Article III, “public announcement” shall include disclosure in a press release reported by the Dow Jones News Service, Associated Press, or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14, or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder.

(e) Nothing in this Article III, shall be deemed to affect any rights (a) of stockholders to request inclusion of proposals or nominations in the Corporation’s proxy statement pursuant to Rule 14a-8 (or any successor thereto) promulgated under the Exchange Act or (b) of the holders of any series of preferred stock to nominate and elect directors pursuant to and to the extent provided in any applicable provisions of the Articles of Incorporation.

(f) Any special meeting of stockholders may be adjourned by the presiding officer of the meeting for any reason (including, if the presiding officer determines that it would be in the best interests of the Corporation to extend the period of time for the solicitation of proxies) from time to time and from place to place until the presiding officer shall determine that the business to be conducted at the meeting is completed, which determination shall be conclusive.

(g) Stockholder Requests for Special Meetings. (i) Special meetings of stockholders (each a “Stockholder Requested Special Meeting”) shall be called by the Secretary upon the written request of a stockholder, or a group of stockholders formed for the purpose of making such request, that beneficially own 25% or more of the outstanding common stock (the “Threshold Percentage”) as of the date of submission of the written request. Compliance by the requesting stockholder or group with the requirements of this Section 3.5(g) and related provisions of these By-laws shall be determined by the Board of Directors, which determination shall be conclusive and binding on the stockholder or stockholders making such request for a Stockholder Requested Special Meeting. Except in accordance with this Section 3.5(g), stockholders shall not be permitted to propose business to be brought before a special meeting of stockholders.

(i) A request for a Stockholder Requested Special Meeting must be in writing and signed by the beneficial owners of the Threshold Percentage of the common stock (or their duly authorized agents) and be delivered to the Secretary at the principal executive offices of the Corporation by registered mail, return receipt requested. Such request shall (A) set forth a statement of the specific purpose or purposes of the Stockholder Requested Special Meeting and the matters proposed to be acted on at such Stockholder Requested Special Meeting (including the text of any resolution or resolutions proposed for consideration), (B) bear the date of signature of each stockholder (or duly authorized agent) signing the request, (C) set forth (1) the name and address, as they appear in the Corporation’s books, of each stockholder signing such request (or on whose behalf the request is signed), (2) the number of shares of common stock as to which such stockholder has beneficial ownership and (3) include evidence of the fact and duration of such stockholder’s beneficial ownership of such stock consistent with that which is required under Regulation 14A under the Exchange Act, (D) set forth all information relating to each such stockholder that is required to be disclosed in solicitations of proxies for election of directors in an election contest (even if an election contest is not involved), or is otherwise required, in each case, pursuant to Regulation 14A under the Exchange Act, (E) describe any material interest of each such stockholder in the specific purpose or purposes of the meeting, (F) describe any agreement, arrangement or understanding between or among the stockholders requesting the Stockholder Requested Special Meeting or between or among the stockholder or stockholders requesting the Stockholder Requested Special Meeting and any other person or entity in connection with the request or the matters proposed to be acted on at the Stockholder Requested Special Meeting and (G) include an acknowledgment by each stockholder and any duly authorized agent that any disposition of shares of common stock as to which such stockholder has beneficial ownership as of the date of delivery of the request and prior to the record date for the proposed Stockholder Requested Special Meeting requested by such stockholder shall constitute a revocation of such request with respect to such shares. In addition, the stockholder and any duly authorized agent shall promptly provide any other information reasonably requested by the Corporation to allow it to satisfy its obligations under applicable law. Any requesting stockholder may revoke a request for a special meeting at any time prior to the commencement of the Stockholder Requested Special Meeting by written revocation delivered to the Secretary at the principal executive offices of the Corporation. If, following such revocation at any time before the commencement of the Stockholder Requested Special Meeting, the remaining requests are from stockholders holding in the aggregate less than the Threshold Percentage, the Board of Directors, in its discretion, may cancel the Stockholder Requested Special Meeting.

(ii) Notwithstanding the foregoing, the Secretary shall not be required to call a Stockholder Requested Special Meeting if (A) the request for such special meeting does not comply with this Section 3.5(g), (B) the Board of Directors or the Chief Executive Officer has called or calls an annual or special meeting of stockholders to be held not later than ninety (90) days after the date on which a valid request has been delivered to the Secretary (the “Delivery Date”), (C) the request is received by the Secretary during the period commencing ninety (90) days prior to the first anniversary of the date of the immediately preceding Annual Meeting and ending on the date of the next Annual Meeting, (D) the request contains an identical or substantially similar item (a “Similar Item”) to an item that was presented at any meeting of stockholders held within one hundred and twenty (120) days prior to the Delivery Date (and, for purposes of this clause (D) the election of directors shall be deemed a “Similar Item” with respect to all items of business involving the election or removal of directors), (E) the request relates to an item of business that is not a proper subject for action by the stockholders of the Corporation under applicable law or (F) the request was made in a manner that involved a violation of Regulation 14A under the Exchange Act or other applicable law.

(iii) Any Stockholder Requested Special Meeting shall be held at such date, time and place within or without the state of Delaware as may be fixed by the Board of Directors; provided, however, that the date of any Stockholder Requested Special Meeting shall be not more than sixty (60) days after the record date for such meeting, which shall be fixed in accordance with these By-laws. Business transacted at any Stockholder Requested Special Meeting shall be limited to the purpose(s) stated in the request; provided, however, that nothing herein shall prohibit the Corporation from submitting matters to a vote of the stockholders at any Stockholder Requested Special Meeting.

3.6. Notice of Meetings. Written notice of each meeting of stockholders shall be mailed to each stockholder of record at his last address as it appears on the books of the Corporation at least ten days, but no more than 60 days prior to the date of the meeting.

3.7. Record Date. The Board of Directors shall have power to close the stock transfer books of the Corporation for a period not more than sixty nor less than ten days preceding the date of any meeting of stockholders, or the date for payment of any dividend, or the date for the allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect; provided, however, that in lieu of closing the stock transfer books as aforesaid, the Board of Directors may fix in advance a date not more than sixty nor less than ten days preceding the date of any meeting of stockholders, or the date for any payment of dividends, or the date for allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect, as a record date for the determination of the stockholders entitled to vote at any such meeting or entitled to receive payment of any such dividend or to any such allotment of rights, or to exercise the rights in respect of any such change, conversion or exchange of capital stock, and in such cases only such stockholders as shall be stockholders of record on the date so fixed shall be entitled to vote at such meeting, or to receive payment of such dividend, or to receive such allotment of rights, or to exercise such rights, as the case may be, notwithstanding any transfer of any stock on the books of the Corporation after any such record date fixed as aforesaid. This By-law shall in no way affect the rights of a stockholder and his transferee or transferor as between themselves.

3.8. Stockholder List. The officer who has charge of the stock ledger of the Corporation shall make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least 10 days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information received to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the principal place of business of the Corporation. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

3.9. Quorum. The holders of a majority of the outstanding shares of stock of the Corporation having voting power with respect to a subject matter (excluding shares held by the Corporation for its own account) present or represented by proxy shall constitute a quorum at the meeting of stockholders for the transaction of business with respect to such subject matter; provided, however, that if the subject matter is one as to which a higher vote is required (as contemplated by the Certificate of Incorporation or the laws of the State of Delaware, then the holders of that number of shares equal to at least that higher number of outstanding shares of stock of the Corporation having voting power with respect to such subject matter (excluding shares held by the Corporation for its own account) present or represented by proxy shall constitute a quorum at the meeting of stockholders solely for the transaction of business with respect to such subject matter. In the absence of a quorum with respect to a particular subject, the presiding officer of the meeting shall have power to adjourn the meeting from time to time, without notice other than an announcement at the meeting stating the time, place, if any, thereof, and the means of remote communication if any, until a quorum is present with respect to that subject matter. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. At such adjourned meeting, any business may be transacted which might have been transacted at the meeting as originally notified.

3.10. Majority Vote. When a quorum is present or represented at any meeting of stockholders, the affirmative vote of the holders of a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders in all matters, unless the matter is one upon which, by express provision of the corporation laws of the State of Delaware, of the Certificate of Incorporation or of these By-laws, a different vote is required, in which case such express provision shall govern and control the decision of that matter. Each director shall be elected by the vote of the majority of the votes cast with respect to the director at any meeting of stockholders for the election of directors at which a quorum is present, provided that if as of a date that is fourteen (14) days in advance of the date the Corporation files its definitive proxy statement (regardless of whether or not thereafter revised or supplemented) with the Securities and Exchange Commission the number of nominees exceeds the number of directors to be elected, the directors shall be elected by the vote of a plurality of the shares represented in person or by proxy at any such meeting and entitled to vote on the election of directors. For purposes of this section, a majority of the votes cast means that the number of shares voted "for" a director must exceed the number of votes cast against that director. The Nominating & Corporate Governance Committee has established procedures under which any director who is not elected shall offer to tender his or her resignation to the Board. The Nominating & Corporate Governance Committee will make a recommendation to the Board on whether to accept or reject the resignation, or whether other action should be taken. The Board will act on the Committee's recommendation and publicly disclose its decision and the rationale behind it within 90 days from the date of the certification of the election results. Directors shall hold office until the next Annual Meeting and until their successors shall be duly elected and qualified.

3.11. Proxies. Every stockholder having the right to vote shall be entitled to vote in person, or by proxy appointed by an instrument in writing subscribed by such stockholder (which for purposes of this Section may include a signature and form of proxy pursuant to a facsimile or telegraphic form of proxy or any other instruments acceptable to the Judge of Election), bearing a date not more than three years prior to voting, unless such instrument provides for a longer period, and filed with the Secretary of the Corporation before, or at the time of, the meeting. If such instrument shall designate two or more persons to act as proxies, unless such instrument shall provide to the contrary, a majority of such persons present at any meeting at which their powers thereunder are to be exercised shall have and may exercise all the powers of voting thereby conferred, or if only one be present, then such powers may be exercised by that one; or, if an even number attend and a majority do not agree on any particular issue, each proxy so attending shall be entitled to exercise such powers in respect of the same portion of the shares as he is of the proxies representing such shares.

3.12. One Vote Per Share. Unless otherwise provided by the Certificate of Incorporation or by the corporation laws of the State of Delaware, each stockholder of the Corporation shall, at every meeting of stockholders, be entitled to one vote in person or by proxy for each share of capital stock of the Corporation registered in his name.

3.13. Shares Held by Certain Holders. Any other corporation owning voting shares in this Corporation may vote the same by its President or by proxy appointed by him, unless some other person shall be appointed to vote such shares by resolution of the Board of Directors of such stockholder corporation. A partnership holding shares of this Corporation may vote such shares by any general partner or by proxy appointed by any general partner. Shares standing in the name of a deceased person may be voted by the executor or administrator of such deceased person, either in person or by proxy. Shares standing in the name of a guardian, conservator or trustee may be voted by such fiduciary, either in person or by proxy, but no such fiduciary shall be entitled to vote shares held in such fiduciary capacity without a transfer

of such shares into the name of such fiduciary. Shares standing in the name of a receiver may be voted by such receiver. A stockholder whose shares are pledged shall be entitled to vote such shares, unless in the transfer by the pledgor on the books of the Corporation, he has expressly empowered the pledgee to vote thereon, in which case only the pledgee, or his proxy, may represent the stock and vote thereon.

3.14. Conduct of Business. The order of business and all other matters of procedure at every meeting of the stockholders may be determined by the presiding officer of the meeting, who shall be the Chairman of the Board of Directors, the President or such other officer of the Corporation as designated by the Board. The presiding officer of the meeting shall have all the powers and authority vested in a presiding officer by law or practice without restriction, including, without limitation, the authority, in order to conduct an orderly meeting, to impose reasonable limits on the amount of time at the meeting taken up in remarks by any one stockholder and to declare any business not properly brought before the meeting to be out of order.

3.15. Judge of Election. The Board shall appoint one or more Judges of Election to serve at every meeting of the stockholders.

ARTICLE IV

Directors and Meetings of Directors

4.1. General Powers. The business and affairs of the Corporation shall be managed by a Board of Directors (herein the "Board of Directors" or the "Board") who may exercise all the powers of the Corporation not reserved to or conferred on the stockholders by statute, the Certificate of Incorporation or the By-laws of the Corporation.

4.2. Number of Directors. Except as otherwise fixed pursuant to the provisions of the Certificate of Incorporation relating to the rights of the holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation to elect additional directors under specified circumstances, the number of directors shall be as fixed from time to time by resolution of the Board, provided the number shall be not less than three. The directors, other than those who may be elected by the holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation, shall be divided into three classes as nearly equal in number as possible, with the term of office of one class expiring each year. The term of office of each director shall expire at the third Annual Meeting of Stockholders after election of the class to which he belongs. Notwithstanding the foregoing, effective as of the Annual Meeting of Stockholders to be held in 2017 and at each Annual Meeting of Stockholders thereafter, except as otherwise provided by law, each director to be elected at any such Annual Meeting of Stockholders shall be elected to serve until the next Annual Meeting of Stockholders and until his or her successor is duly elected and qualified; provided, however, that any director who prior to the Annual Meeting of Stockholders in 2017 was elected to a three year term that continues beyond the date of the Annual Meeting of Stockholders in 2017, shall continue to serve as a director for the remainder of his or her elected three year term or until his or her earlier resignation, removal, death, or other incapacity. As a result, effective as of the Annual Meeting of Stockholders in 2019, the Board of Directors will no longer be classified under Section 141(d) of the Delaware General Corporation Law and directors shall no longer be divided into classes. During the intervals between Annual Meetings of Stockholders, any vacancy occurring in the Board of Directors caused by resignation, removal, death or other incapacity, and any newly-created directorships resulting from an increase in the number of directors, shall be filled by a majority vote of the directors then in office, whether or not a quorum. Each director chosen to fill a vacancy shall hold office for the unexpired term in respect of which such vacancy occurs. Each director chosen to fill a newly-created directorship following the Annual Meeting of Stockholders in 2016 shall hold office for a term expiring at the next Annual Meeting of Stockholders. Directors are not required to be residents of Delaware or stockholders of the Corporation.

4.3. Maximum Age of Directors. No person may be elected or re-elected a director of the Corporation if at the time of his election or reelection he shall have attained the age of 72 years, provided however, that a director who shall attain the age of 72 years while serving as a director shall continue in office until the expiration of the term for which he was elected.

4.4. Removal of Directors.

(a) Notwithstanding anything in the By-laws to the contrary, any director may be removed from office as a director, with or without cause.

(b) The removal of any director, with or without cause, shall require the affirmative vote of stockholders of record holding a majority of the outstanding shares of stock of the Corporation entitled to vote in elections of directors at a meeting of the stockholders called for that purpose.

4.5. Regular Meetings. Regular meetings of the Board of Directors shall be held at such times and at such place or places as the directors shall, from time to time, determine at a prior meeting. Special meetings of the Board may be called by the Chairman of the Board or President of the Corporation and shall be called by either of said officers upon the written request of any two directors. Special meetings shall be held at the office of the Corporation or at such place as is stated in the notice of the meeting. No notice shall be required for regular meetings of the Board. Notices of special meetings shall be given by mail at least five days before the meeting or by telephone, telecopy or telegram at least 24 hours before the meeting. Notices may be waived. Notices need not include any statement of the purpose of the meeting.

4.6. Unanimous Action; Telephonic and Other Participation. When all of the directors shall be present at any meeting, however called or notified, they may act upon any business that might lawfully be transacted at regular meetings of the Board, or at special meetings duly called, and action taken at such meetings shall be as valid and binding as if legally called and notified. Members of the Board of Directors may participate in a meeting of the Board by means of conference telephone or similar communications equipment to the full extent and with the same effect as authorized and permitted by the laws of the State of Delaware.

4.7. Quorum. One-third of the total number of the members of the Board of Directors shall constitute a quorum for the transaction of business, and the acts of a majority of the directors present at any meeting at which there is a quorum present shall be the acts of the Board; provided, however, that the directors may act in such other manner, with or without a meeting, as may be permitted by the laws of the State of Delaware and provided further, that if all of the directors shall consent in writing to any action taken by the Corporation, such action shall be as valid as though it had been authorized at a meeting of the Board.

4.8. Compensation. Directors shall receive such compensation and such fees for attendance at meetings of the Board or of committees thereof and such other compensation as shall be fixed by a majority of the entire Board.

ARTICLE V

Committees of Directors

5.1. Designation. The Board of Directors may designate from among its members an executive committee and/or one or more other committees, each consisting of one or more directors. The designation of a committee, and the delegation of authority to it, shall not operate to relieve the Board of Directors, or any member thereof, of any responsibility imposed by law. No member of any committee shall continue to be a member thereof after ceasing to be a director of the Corporation. The Board of Directors shall have the power at any time to increase or decrease the number of members of any committee, to fill vacancies thereon, to change any member thereof and to change the functions or terminate the existence thereof.

5.2. Powers. Any such committee, to the extent provided by resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the Certificate of Incorporation; adopting an agreement of merger or consolidation; recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets; recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution; or amending the By-laws of the Corporation; and, unless the resolution expressly so provides, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock or to adopt a certificate of ownership and merger with respect to the merger into the Corporation of a subsidiary of which at least 90 percent of the outstanding shares of each class are owned by the Corporation.

5.3. Procedures; Meetings; Quorum.

(a) The Board of Directors shall appoint a chairman from among the members of the committee and shall appoint a secretary who may, but need not, be a member of the committee. The chairman shall preside at all committee meetings and the secretary of the committee shall keep a record of its acts and proceedings.

(b) Regular meetings of a committee, of which no notice shall be necessary, shall be held on such days and at such places as shall be fixed by resolution adopted by the committee. Special meetings of a committee shall be called at the request of the Chief Executive Officer or of any member of the committee, and shall be held upon such notice as is required by these By-laws for special meetings of the Board of Directors, provided that notice by word of mouth or telephone shall be sufficient if received in the city where the meeting is to be held not later than the day immediately preceding the day of the meeting. A waiver of notice of a meeting, signed by the person or persons entitled to such notice, whether before or after the event stated therein, shall be deemed equivalent to the giving of such notice.

(c) Attendance of any member of a committee at a meeting shall constitute a waiver of notice of the meeting. A majority of a committee, from time to time, shall be necessary to constitute a quorum for the transaction of any business, and the act of a majority of the members present at a meeting at which a quorum is present shall be the act of the committee. Members of a committee may hold a meeting of such committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in such a meeting shall constitute presence in person at the meeting.

(d) Any action which may be taken at a meeting of a committee may be taken without a meeting if a consent in writing, setting forth the actions so taken shall be signed by all members of the committee entitled to vote with respect to the subject matter thereof. The consent shall have the same effect as a unanimous vote of the committee.

(e) The Board of Directors may vote to the members of any committee a reasonable fee as compensation for attendance at meetings of the committee.

ARTICLE VI

Officers

6.1. Number. The Board of Directors shall elect a Chief Executive Officer, a President, who may also be the Chief Executive Officer, and a Secretary, and may elect a Chairman, a Treasurer, one or more vice presidents, including an Executive or Senior Vice President and a Vice President-Finance, a Controller, a Controller-Operations, and one or more assistant secretaries and assistant treasurers. The Chief Executive Officer of the Corporation and the Chairman shall be directors of the Corporation; other officers need not be directors. Any two of the above offices, except those of President and Vice President, may be held by the same person but no officers shall execute, acknowledge or verify any instrument in more than one capacity.

6.2. Election and Term of Office. Officers of the Corporation shall hold office until their death or resignation or until their successors are duly chosen and qualified. Any officer, agent or employee may be removed at any time, with or without cause, by the Board but such removal shall be without prejudice to the contractual rights, if any, of the person so removed. Election or appointment of an officer or agent shall not of itself create contract rights. Vacancy occurring in any office or position at any time may be filled by the Board. All officers, agents and employees of the Corporation shall respectively have such authority and perform such duties in the conduct and management of the Corporation as may be delegated by the Board of Directors or by these By-laws.

6.3. Compensation. Officers shall receive such compensation as may from time to time be determined by the Board of Directors, and no officer shall be prevented from receiving such compensation by reason of such officer also being a director. Agents and employees shall receive such compensation as may from time to time be determined by the President of the Corporation or, if the Board of Directors has elected a Chairman of the Board and has designated such Chairman of the Board to be the Chief Executive Officer of the Corporation, by the Chairman of the Board.

6.4. Chairman of the Board. The Chairman of the Board shall preside at all meetings of the stockholders and at all meetings of the directors. In the absence of the Chairman of the Board, the Chairman of the Nominating and Corporate Governance Committee shall so preside.

6.5. Chief Executive Officer and President. The Board of Directors shall designate either the Chairman of the Board or the President as the Chief Executive Officer of the Corporation. The Chief Executive Officer of the Corporation shall supervise and direct the operations of the business in accordance with the policies determined by the Board of Directors. If the President is not designated the Chief Executive Officer, the President shall be the Chief Operating Officer of the Corporation and shall be responsible for the general supervision and control of the business and the affairs of the Corporation subject to the directions of the Chairman of the Board and the Board of Directors. The Chief Operating Officer, in the absence or incapacity of the Chief Executive Officer, shall perform the duties of that office.

6.6. Vice President. In the absence or incapacity of the President, the Board of Directors shall designate a Vice President, Senior or Executive Vice President to perform the duties of the President during such absence or incapacity.” Each Vice President shall have such other duties and authority as shall be assigned by the President or may be delegated by the Board of Directors. The Vice President-Finance shall be responsible for and direct the Treasurer and Controller of the Corporation in all treasury, accounting, cost and budgeting, and data collection functions. He will report directly to the President with a report and policy relationship to the Chairman of the Board and the Board of Directors.

6.7. Chief Financial Officer. The Chief Financial Officer shall be the principal financial and accounting officer of the Corporation. He shall have general direction of and supervision over the financial and accounting affairs of the Corporation. He shall render to the Chief Executive Officer, the President and the Board of Directors, at regular meetings of the Board of Directors, or whenever they may require it, an account of the financial condition of the Corporation. He shall have such other powers and perform such other duties as may be prescribed from time to time by the Board of Directors, the Chief Executive Officer or the President.

6.8. General Counsel. The General Counsel shall be the principal legal officer of the Corporation. He shall have general direction of and supervision over the legal affairs of the Corporation and shall advise the Board of Directors and officers of the Corporation on all legal matters. He shall have such other powers and perform such other duties as may be prescribed from time to time by the Board of Directors, the Chief Executive Officer or the President.

6.9. Secretary. The Secretary shall attend all meetings of the Board of Directors and all meetings of stockholders and shall record all votes and minutes from all proceedings in a book to be kept for that purpose. He shall keep in safe custody the seal of the Corporation and, when authorized by the Board, affix the same to any instrument requiring it, and when so affixed, it shall be attested by his signature or by the signature of the Treasurer or an Assistant Secretary; provided, however, that the affixing of the seal of the Corporation to any document or instrument specifically shall not be required in order for such document or instrument to be binding on or the official act of the Corporation, and the signature of any authorized officer, without the seal of the Corporation, shall be sufficient for such purposes. The Secretary shall perform such other duties and have such other authorities as are delegated to him by the Board of Directors.

6.10. Treasurer. The Treasurer shall be responsible for the care and custody of all funds and other financial assets, taxes, corporate debt, order entry and sales invoicing including credit memos, credit and collection of accounts receivable, cash receipts, and the banking and insurance functions of the Corporation. He shall report directly to and perform such other duties as shall be assigned by the Vice President-Finance.

6.11. Controller. The Controller shall be responsible for the installation and supervision of all general accounting records of the Corporation, preparation of financial statements and the annual and operating budgets and profit plans, continuous audit of accounts and records of the Corporation, preparation and interpretation of statistical records and reports, taking and costing of all physical inventories and administering the inventory levels, supervision of accounts payable and cash disbursements function and hourly and salary payrolls. He shall report directly to and perform such other functions as shall be assigned him by the Vice President-Finance.

ARTICLE VII

Notice

7.1. Methods of Giving Notice. Whenever, under the provisions of applicable statutes, the Certificate of Incorporation or these By-laws, notice is required to be given to any director, member of any committee or stockholder, such notice may be given in writing and delivered personally or mailed to such director, member or stockholder; provided that in the case of a director or a member of any committee such notice may be given orally or by telephone. If mailed, notice to a director, member of a committee or stockholder shall be deemed to be given when deposited in the United States mail first class in a sealed envelope, with postage thereon prepaid, addressed, in the case of a stockholder, to the stockholder at the stockholder’s address as it appears on the records of the Corporation or, in the case of a director or member of a committee, to such persons at his business address. Notice to directors and stockholders may also be given by facsimile telecommunication. Notice may also be given to any director, member of any committee or stockholder by a form of electronic transmission as that term is defined in Section 232 of the Delaware General Corporation Law.

7.2. Written Waiver. Whenever any notice is required to be given under the provisions of an applicable statute, the Certificate of Incorporation or these By-laws, a waiver thereof in writing signed by the person or persons entitled to such notice, or a waiver by electronic transmission by the person or persons entitled to such notice, in each case either before or after the time stated therein, shall be deemed equivalent to the required notice.

ARTICLE VIII

Banking, Checks and Other Instruments

8.1. Banks. The Board of Directors shall by resolution designate the bank or banks in which the funds of the Corporation shall be deposited, and such funds shall be deposited in the name of the Corporation and shall be subject to checks drawn as authorized by resolution

of the Board of Directors.

8.2. Contracts and Other Instruments. The Board of Directors may in any instance designate the officers and agents who shall have authority to execute any contract, conveyance, or other instrument on behalf of the Corporation; or may ratify or confirm any execution. When the execution of any instrument has been authorized without specification of the executing officer or agents, the Chairman of the Board, if designated as the Chief Executive Officer of the Corporation, President or any Vice President, and the Secretary or Assistant Secretary or Treasurer or Assistant Treasurer may execute the same in the name and on behalf of the Corporation and may affix the corporate seal thereto.

ARTICLE IX Fiscal Year

The fiscal year of the Corporation shall begin on the first day of November and end on the thirty-first day of October.

ARTICLE X Books and Records

The proper officers and agents of the Corporation shall keep and maintain such books, records and accounts of the Corporation's business and affairs and such stock ledgers and lists of stockholders as the Board of Directors shall deem advisable and as shall be required by the laws of the State of Delaware or other states or jurisdictions empowered to impose such requirements.

ARTICLE XI Indemnification

11.1. Indemnification and Advancement of Expenses. Each director or officer of the Corporation or a subsidiary of the Corporation (an "Article XI Person") who was or is made a party or is threatened to be made a party to or is involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, (i) is or was a director or officer of the Corporation or a subsidiary of the Corporation, or (ii) is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, in each case whether or not serving in such capacity at the time any claim is asserted or any liability or expense is incurred, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the laws of the State of Delaware (but, in the case of any amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against all expenses, (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators. The right to indemnification conferred in this Section shall be a contract right and shall include the right to be paid by the Corporation the expenses incurred in defending any pending, threatened or completed proceeding in advance of its final disposition; provided, however, that, if the laws of the State of Delaware require, the payment of such expenses incurred by an Article XI Person in advance of the final disposition of a proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such Article XI Person, to repay all amounts so advanced if it shall ultimately be determined that such Article XI Person is not entitled to be indemnified under the applicable provisions of the laws of the State of Delaware. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation or a subsidiary of the Corporation with the same scope and effect as the foregoing indemnification of directors and officers.

11.2. Claims. If a claim for indemnification or advancement of expenses under this Article XI is not paid in full within thirty days after a written claim therefor by the Article XI Person has been received by the Corporation, the Article XI Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the Article XI Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

11.3. Other Sources. The Corporation's obligation, if any, to indemnify or to advance expenses to any Article XI Person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such Article XI Person actually collects as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise; *provided* that the person shall not be under any obligation to bring any action or otherwise pursue recovery of any such other right to indemnification or advancement of expenses.

11.4. Amendment or Repeal. Any repeal or modification of the foregoing provisions of this Article XI shall not adversely affect any right or protection hereunder of any person in respect of any proceeding (regardless of when such proceeding is first threatened, commenced or completed and even if such proceeding is not commenced or completed until after such repeal or modification) arising out of, or related to, any act or omission occurring prior to the time of such repeal or modification.

11.5. Other Indemnification and Advancement of Expenses. This Article XI shall not limit the right of the Corporation, to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Article XI Persons when and as authorized by appropriate corporate action.

11.6. Non-Exclusivity. The indemnification and advancement of expenses provided in Section 11.1 of these By-laws shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any agreement, vote of stockholders, vote of disinterested directors, insurance arrangement or otherwise, both as to action in his or her official capacity and as to action in another capacity.

ARTICLE XII
Other Matters

12.1. Severability. Any determination that any provision of these By-laws is for any reason inapplicable, invalid, illegal or otherwise ineffective shall not affect or invalidate any other provision of these By-laws.

12.2. Evidence of Authority. A certificate by the Secretary or an Assistant Secretary as to any action taken by the stockholders, directors, any committee or any officer or representative of the Corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

ARTICLE XIII
Amendments

These By-laws may be altered, amended or repealed and new by-laws may be adopted at any regular meeting of the stockholders or Board of Directors; or at any special meeting of the stockholders or Board of Directors; provided that notice of such proposed making, alteration or repeal be included in the notice of such special meeting. The Board of Directors may take such action by the vote of a majority of those Directors present and voting at a meeting where a quorum is present. In accordance with the provisions of the Certificate of Incorporation, the stockholders may make new by-laws, or adopt, alter, amend, or repeal by-laws adopted by either the stockholders or the Board of Directors by the affirmative vote of the holders of not less than two-thirds (66 2/3rd %) of the voting power of all of the then outstanding shares of capital stock of the Corporation then entitled to vote generally for the election of directors. The power of the stockholders and the Board shall include the fixing and appointing of the number of directors in accordance with the provisions of the Certificate of Incorporation.

QUANEX BUILDING PRODUCTS CORPORATION
RESTRICTED STOCK AWARD AGREEMENT

[_____]
Grantee

Date of Award: [_____]
Number of Shares: [_____]
General Vesting Schedule/Restricted Period: [_____]

AWARD OF RESTRICTED STOCK

1. **GRANT OF RESTRICTED STOCK AWARD.** The Compensation Committee (the “*Committee*”) of the Board of Directors of Quanex Building Products Corporation, a Delaware corporation (the “*Company*”), subject to the terms and provisions of the Quanex Building Products Corporation 2020 Omnibus Incentive Plan (the “*Plan*”), hereby awards to you, the above-named Grantee, effective as of the Date of Award set forth above (the “*Date of Award*”), that number of shares (the “*Shares*”) of the Company’s common stock, \$0.01 par value per share (the “*Common Stock*”), set forth above as restricted stock (the “*Restricted Stock*”) on the following terms and conditions:

During the Restricted Period, the Shares of Restricted Stock will be evidenced by entries in the stock register of the Company reflecting that such Shares of Restricted Stock have been issued in your name. For purposes of this Agreement, the term “*Restricted Period*” means the period designated above by the Committee during which the Restricted Stock may not be sold, assigned, transferred, pledged, or otherwise encumbered.

The Shares that are awarded hereby to you as Restricted Stock shall be subject to the prohibitions and restrictions set forth herein with respect to the sale or other disposition of such Shares and the obligation to forfeit and surrender such Shares to the Company under the circumstances set forth herein (the “*Forfeiture Restrictions*”). The Restricted Period and all Forfeiture Restrictions on the Restricted Stock covered hereby shall lapse as to those Shares when the Shares become vested and you meet all other terms and conditions of this Restricted Stock Award Agreement awarded to you (this “*Agreement*”).

2. **TERMINATION OF EMPLOYMENT/CHANGE IN CONTROL.** The following provisions will apply in the event your employment with the Company and all Affiliates (collectively, the “*Company Group*”) terminates, or a Change in Control of the Company occurs, before the end of the Restricted Period under this Agreement:

2.1 Termination Generally. Except as otherwise expressly provided to the contrary in this Section 2, if your employment with the Company Group terminates for any reason, the number of Shares of Restricted Stock then subject to Forfeiture Restrictions shall be forfeited to the Company without consideration on the date your employment terminates.

2.2 Change in Control of the Company. If a Change in Control (as such term is defined in the Plan) of the Company occurs while this Award remains outstanding, and the successor company in the Change in Control does not otherwise assume or substitute for this Award of Restricted Stock, then the unvested Restricted Stock subject to this Award shall vest in full immediately prior to the Change in Control.

If this Award is assumed or substituted for in connection with a Change in Control, and if you incur an involuntary termination by the Company or its successor without Cause, or you voluntarily terminate employment for Good Reason, in each case within twenty-four (24) months following the effective date of a Change in Control of the Company, then any unvested portion of this Award shall vest in full upon such termination. For purposes of this Award, the following terms are defined as follows:

“*Cause*” means any action or inaction by the Grantee that constitutes (a) gross negligence or willful misconduct in connection with the Grantee’s duties or in the course of the Grantee’s employment with the Company; (b) any act of fraud, embezzlement or theft in connection with Grantee’s duties or in the course of employment with the Company; (c) intentional wrongful damage to property of the Company; (d) a substantial failure by the Grantee to perform his or her duties after notice to the Grantee and a reasonable opportunity to cure; (e) the Grantee’s material breach of restrictive covenants contained in any Company policy or any agreement between the Grantee and the Company; or (f) the Grantee’s intentional wrongful disclosure of secret processes or confidential information of the Company.

“*Good Reason*” means, to the extent any such action has been taken without the Grantee’s written consent, the occurrence of any of the following events: (a) the Company or its successor assigns to the Grantee any duties materially inconsistent with such Grantee’s position (including offices, titles and reporting requirements), authority, duties or responsibilities with the Company in effect immediately before the occurrence of the Change in Control, or otherwise makes any material negative change in any such position, authority, duties or responsibilities; (b) the Company or its successor takes any other action that results in a material diminution in such position, authority, duties or responsibilities or otherwise take any action that materially interferes therewith; (c) the Company or its successor materially reduces the Grantee’s annual base salary or target annual bonus as in effect immediately before the occurrence of the Change in Control, other than as part of a reduction of less than ten percent (10%) that is applicable to all executives of the Company or its successor; or (d) the Company or its successor relocates the Grantee’s principal office more than fifty (50) miles from the Grantee’s principal office at the time of the Change in Control, provided that such relocation results in an increase to the Grantee’s daily commute time.

2.3 **Disability.** If your employment with the Company Group terminates due to your Disability, then any remaining Forfeiture Restrictions shall lapse and your Award (to the extent unvested) shall vest, in each case, on the date of such termination of employment and on a prorated basis with respect to the number of Shares determined by dividing the number of days during the period commencing on the later of the Date of Award or the last anniversary vesting date and ending on the date of your Disability by the total number of days between the later of the Date of Award or the last anniversary vesting date and the final vesting date as set forth above.

2.4 **Death.** If your employment with the Company Group terminates due to your death, then any remaining Forfeiture Restrictions shall lapse and your Award (to the extent unvested) shall vest, in each case, on the date of such termination of employment and on a prorated basis with respect to the number of Shares determined by dividing the number of days during the period commencing on the later of the Date of Award or the last anniversary vesting date and ending on the date of your death by the total number of days between the later of the Date of Award or the last anniversary vesting date and the final vesting date as set forth above.

3. **TAX WITHHOLDING.** To the extent that the receipt of the Shares of Restricted Stock or the lapse of any Forfeiture Restrictions results in income, wages or other compensation to you for any income, employment or other tax purposes with respect to which the Company has a withholding obligation, you shall deliver to the Company at the time of such receipt or lapse, as the case may be, such amount of money as the Company may require to meet its obligation under applicable tax laws or regulations, and, if you fail to do so, the Company is authorized to withhold from the Shares awarded hereby or from any cash or stock remuneration or other payment then or thereafter payable to you any tax required to be withheld by reason of such taxable income, wages or compensation sufficient to satisfy the withholding obligation based on the last per share sales price of the Common Stock for the trading day immediately preceding the date that the withholding obligation arises, as reported in the New York Stock Exchange Composite Transactions.
4. **NONTRANSFERABILITY.** Notwithstanding anything in this Agreement to the contrary and except as specified below, the Shares of Restricted Stock awarded to you under this Agreement shall not be transferable or assignable by you other than by will or the laws of descent and distribution to the extent then subject to Forfeiture Restrictions. You may transfer the Shares to (a) a member or members of your immediate family, (b) to a revocable living trust established exclusively for you or you and your spouse, (c) a trust under which your immediate family members are the only beneficiaries or (d) a partnership of which your immediate family members are the only partners. For this purpose, "immediate family" means your spouse, children, stepchildren, grandchildren, parents, grandparents, siblings (including half brothers and sisters), and individuals who are family members by adoption.

The terms applicable to the assigned Shares shall be the same as those in effect for the Shares immediately prior to such assignment and shall be set forth in such documents to be executed by the assignee as the Committee may deem appropriate. You may also designate one or more persons as the beneficiary or beneficiaries of your Shares of Restricted Stock under the Plan, and those Shares shall, in accordance with such designation, automatically be transferred to such beneficiary or beneficiaries upon your death while holding those Shares. Such beneficiary or beneficiaries shall take the transferred Shares of Restricted Stock subject to all the terms and conditions of this Agreement. Except for the limited transferability provided by the foregoing, outstanding Shares of Restricted Stock under the Plan shall not be assignable or transferable to the extent then subject to Forfeiture Restrictions.

None of the Company, its employees or directors makes any representations or guarantees concerning the tax consequences associated with the inclusion of this provision in this Agreement or your transfer of the Shares of Restricted Stock. It is your sole responsibility to seek advice from your own tax advisors concerning those tax consequences. You are entitled to rely upon only the tax advice of your own tax advisors.

Further, the Shares awarded hereby that are no longer subject to Forfeiture Restrictions may not be sold or otherwise disposed of in any manner that would constitute a violation of any applicable federal or state securities laws. You also agree that (a) the Company may refuse to cause the transfer of the Shares to be registered on the stock register of the Company if such proposed transfer would in the opinion of counsel satisfactory to the Company constitute a violation of any applicable federal or state securities law and (b) the Company may give related instructions to the transfer agent, if any, to stop registration of the transfer of the Shares. Upon the lapse of the Forfeiture Restrictions with respect to Shares awarded hereby such Shares shall be transferable by you (except to the extent that any proposed transfer would, in the opinion of counsel satisfactory to the Company, constitute a violation of applicable federal or state securities law).

5. **CAPITAL ADJUSTMENTS AND REORGANIZATIONS.** The existence of the Shares of Restricted Stock shall not affect in any way the right or power of the Company or any company the stock of which is awarded pursuant to this Agreement to make or authorize any adjustment, recapitalization, reorganization or other change in its capital structure or its business, engage in any merger or consolidation, issue any debt or equity securities, dissolve or liquidate, or sell, lease, exchange or otherwise dispose of all or any part of its assets or business, or engage in any other corporate act or proceeding.
6. **RIGHTS REGARDING DISTRIBUTIONS MADE BY THE COMPANY DURING THE RESTRICTED PERIOD.** During the Restricted Period, (a) any securities of the Company distributed by the Company in respect of the Shares of Restricted Stock will be evidenced by entries in the appropriate securities register of the Company reflecting that such securities of the Company, if any, have been issued in your name (the "*Retained Company Securities*") and (b) any securities of any company other than the Company or any other property (other than regular cash dividends) distributed by the Company in respect of the Shares of Restricted Stock will be evidenced in your name by such certificates or in such other manner as the Company determines (the "*Retained Other Securities and Property*") and may bear a restrictive legend to the effect that ownership of such Retained Other Securities and Property and the enjoyment of all rights appurtenant thereto, are subject to the restrictions, terms, and conditions provided in the Plan and this Agreement. The Retained Company Securities and the Retained Other Securities and Property (collectively, the "*Retained Distributions*") shall be subject to the same restrictions, terms and conditions as are applicable to the Shares of Restricted Stock.
7. **RIGHTS WITH RESPECT TO SHARES OF RESTRICTED STOCK AND RETAINED DISTRIBUTIONS DURING**

RESTRICTED PERIOD. You shall have the right to vote the Shares of Restricted Stock awarded to you, and to exercise all other rights, powers and privileges of a holder of the Common Stock, with respect to such Shares of Restricted Stock, with the exception that (a) you shall not be entitled to have custody of such Shares of Restricted Stock until the Forfeiture Restrictions applicable thereto shall have lapsed, (b) the Company shall retain custody of all Retained Distributions made or declared with respect to the Shares of Restricted Stock until such time, if ever, as the Forfeiture Restrictions applicable to the Shares of Restricted Stock with respect to which such Retained Distributions shall have been made, paid, or declared shall have lapsed, and such Retained Distributions shall not bear interest or be segregated in separate accounts and (c) you may not sell, assign, transfer, pledge, exchange, encumber, or dispose of the Shares of Restricted Stock or any Retained Distributions during the Restricted Period. During the Restricted Period, the Company may, in its sole discretion, issue certificates for some or all of the Shares of Restricted Stock, in which case all such certificates shall be delivered to the Corporate Secretary of the Company or to such other depository as may be designated by the Committee as a depository for safekeeping until the forfeiture of such Shares of Restricted Stock occurs or the Forfeiture Restrictions lapse. When requested by the Company, you shall execute such stock powers or other instruments of assignment as the Company requests relating to transfer to the Company of all or any portion of such Shares of Restricted Stock and any Retained Distributions that are forfeited in accordance with the Plan and this Agreement. Cash dividends, stock, and any other property (other than cash) distributed as a dividend or otherwise with respect to any Share of Restricted Stock shall be accumulated, and shall be subject to restrictions and risk of forfeiture to the same extent as otherwise set forth in this Agreement. The combined value of any such distributions shall be paid to you at the time such restrictions and risk of forfeiture lapse.

8. **EMPLOYMENT RELATIONSHIP.** For purposes of this Agreement, you shall be considered to be in the employment of the Company Group as long as you have an employment relationship with the Company Group. The Committee shall determine any questions as to whether and when there has been a termination of such employment relationship, and the cause of such termination, under the Plan and the Committee's determination shall be final and binding on all persons.
9. **SECTION 83(B) ELECTION.** You may exercise the election permitted under Section 83(b) of the Code with respect to the Shares of Restricted Stock, provided that you provide prompt notice of such election to the Chief Financial Officer or General Counsel of the Company.
10. **NOT AN EMPLOYMENT AGREEMENT.** This Agreement is not an employment agreement, and no provision of this Agreement shall be construed or interpreted to create an employment relationship between you and the Company or any Affiliate or guarantee the right to remain employed by the Company or any Affiliate for any specified term.
11. **SECURITIES ACT LEGEND.** If you are an officer or affiliate of the Company under the Securities Act of 1933, you consent to the placing on any certificate for the Shares of an appropriate legend restricting resale or other transfer of the Shares except in accordance with such Act and all applicable rules thereunder.
12. **REGISTRATION.** The Shares that may be issued under the Plan are registered with the Securities and Exchange Commission under a Registration Statement on Form S-8.
13. **LIMIT OF LIABILITY.** Under no circumstances will the Company or any Affiliate be liable for any indirect, incidental, consequential or special damages (including lost profits) of any form incurred by any person, whether or not foreseeable and regardless of the form of the act in which such a claim may be brought, with respect to the Plan.
14. **MISCELLANEOUS.** This Agreement is awarded pursuant to and is subject to all of the provisions of the Plan, including amendments to the Plan, if any. In the event of a conflict between this Agreement and the Plan provisions, the Plan provisions will control. The term "you" and "your" refer to the Grantee named in this Agreement. Capitalized terms that are not defined herein shall have the meanings ascribed to such terms in the Plan. This Agreement shall be binding on the Company's successors and assigns.

In accepting the award of Shares of Restricted Stock set forth in this Agreement you accept and agree to be bound by all the terms and conditions of the Plan and this Agreement.

QUANEX BUILDING PRODUCTS CORPORATION

[Name]
[Title]

Restricted Stock Award

CHIEF EXECUTIVE OFFICER CERTIFICATION

I, George L. Wilson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quanex Building Products Corporation (the “Registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures [as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)] and internal control over financial reporting [as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)] for the Registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the Registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the Registrant’s internal control over financial reporting that occurred during the Registrant’s most recent fiscal quarter (the Registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant’s internal control over financial reporting; and
5. The Registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant’s auditors and the audit committee of the Registrant’s board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant’s ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant’s internal control over financial reporting.

March 6, 2020

/s/ George L. Wilson

George L. Wilson
President and Chief Executive Officer
(Principal Executive Officer)

CHIEF FINANCIAL OFFICER CERTIFICATION

I, Scott M. Zuehlke, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quanex Building Products Corporation (the “Registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures [as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)] and internal control over financial reporting [as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)] for the Registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the Registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the Registrant’s internal control over financial reporting that occurred during the Registrant’s most recent fiscal quarter (the Registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant’s internal control over financial reporting; and
5. The Registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant’s auditors and the audit committee of the Registrant’s board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant’s ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant’s internal control over financial reporting.

March 6, 2020

/s/ Scott M. Zuehlke

Scott M. Zuehlke
Senior Vice President - Chief Financial Officer and Treasurer
(Principal Financial Officer)

Certification Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002

We hereby certify that the accompanying Quarterly Report on Form 10-Q of Quanex Building Products Corporation for the quarter ended January 31, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Report fairly presents, in all material respects, the financial condition and results of operations of Quanex Building Products Corporation.

March 6, 2020

/s/ George L. Wilson

George L. Wilson
President and Chief Executive Officer
(Principal Executive Officer)

/s/ Scott M. Zuehlke

Scott M. Zuehlke
Senior Vice President—Chief Financial Officer and Treasurer
(Principal Financial Officer)