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

FORM 10-Q

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

For the quarterly period ended September 30, 2019

OR

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

For the Transition Period From ________ To ________

Commission File Number: 001-36307

Installed Building Products, Inc.
(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**45-3707650** **(I.R.S. Employer Identification No.)**
495 South High Street, Suite 50 **Columbus, Ohio** **(Address of principal executive offices)**	**43215** **(Zip Code)**

(614) 221-3399
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	**IBP**	**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 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 a check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

On October 25, 2019, the registrant had 30,016,749 shares of common stock, par value $0.01 per share, outstanding.

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

INSTALLED BUILDING PRODUCTS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(in thousands, except share and per share amounts)

	September 30, 2019	December 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	$ 234,950	$ 90,442
Investments	4,980	10,060
Accounts receivable (less allowance for doubtful accounts of $6,712 and $5,085 at September 30, 2019 and December 31, 2018, respectively)	242,065	214,121
Inventories	63,547	61,162
Other current assets	32,955	35,760
Total current assets	578,497	411,545
Property and equipment, net	102,148	90,117
Operating lease right-of-use assets	42,553	—
Goodwill	184,574	173,049
Intangibles, net	144,321	149,790
Other non-current assets	11,589	10,157
Total assets	$ 1,063,682	$ 834,658
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Current maturities of long-term debt	$ 22,734	$ 22,642
Current maturities of operating lease obligations	15,032	—
Current maturities of finance lease obligations	3,133	4,806
Accounts payable	100,181	96,949
Accrued compensation	32,793	27,923
Other current liabilities	41,576	29,366
Total current liabilities	215,449	181,686
Long-term debt	542,510	432,182
Operating lease obligations	27,129	—
Finance lease obligations	3,682	3,824
Deferred income taxes	3,833	6,695
Other long-term liabilities	43,565	27,773
Total liabilities	836,168	652,160
Commitments and contingencies		
Stockholders' equity		
Preferred Stock; $0.01 par value: 5,000,000 authorized and 0 shares issued and outstanding at September 30, 2019 and December 31, 2018, respectively	—	—
Common stock; $0.01 par value: 100,000,000 authorized, 32,871,504 and 32,723,972 issued and 30,016,749 and 29,915,611 shares outstanding at September 30, 2019 and December 31, 2018, respectively	329	327
Additional paid in capital	188,216	181,815
Retained earnings	154,177	105,212
Treasury stock; at cost: 2,854,755 and 2,808,361 shares at September 30, 2019 and December 31, 2018, respectively	(106,756)	(104,425)
Accumulated other comprehensive loss	(8,452)	(431)
Total stockholders' equity	227,514	182,498
Total liabilities and stockholders' equity	$ 1,063,682	$ 834,658

See accompanying notes to consolidated financial statements

INSTALLED BUILDING PRODUCTS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (UNAUDITED)
(in thousands, except share and per share amounts)

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net revenue	$ 396,449	$ 348,999	$ 1,110,398	$ 983,311
Cost of sales	278,362	251,665	795,616	710,358
Gross profit	118,087	97,334	314,782	272,953
Operating expenses				
Selling	19,398	17,434	54,431	49,300
Administrative	55,098	48,337	156,022	137,511
Amortization	6,156	5,228	18,065	19,678
Operating income	37,435	26,335	86,264	66,464
Other expense				
Interest expense, net	8,458	5,282	19,783	15,013
Other	155	132	381	417
Income before income taxes	28,822	20,921	66,100	51,034
Income tax provision	7,610	5,358	17,135	12,762
Net income	$ 21,212	$ 15,563	$ 48,965	$ 38,272
Other comprehensive (loss) income, net of tax:				
Unrealized (loss) gain on cash flow hedge, net of tax benefit (provision) of $575 and ($278) for the three months ended September 30, 2019 and 2018, respectively, and $2,676 and ($822) for the nine months ended September 30, 2019 and 2018, respectively	(1,726)	818	(8,021)	2,453
Comprehensive income	$ 19,486	$ 16,381	$ 40,944	$ 40,725
Basic net income per share	$ 0.71	$ 0.50	$ 1.65	$ 1.22
Diluted net income per share	$ 0.71	$ 0.50	$ 1.64	$ 1.21
Weighted average shares outstanding:				
Basic	29,785,548	31,229,086	29,741,555	31,373,871
Diluted	29,877,056	31,312,756	29,839,873	31,512,104

See accompanying notes to consolidated financial statements

INSTALLED BUILDING PRODUCTS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (UNAUDITED)
FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2018 AND SEPTEMBER 30, 2019
(in thousands, except share amounts)

	Common Stock		Additional Paid In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Income	Stockholders' Equity
	Shares	Amount			Shares	Amount		
BALANCE - July 1, 2018	32,723,972	$ 327	$ 178,266	$ 73,919	(1,117,623)	$ (39,703)	$ 2,254	$ 215,063
Net income				15,563				15,563
Cumulative effect of accounting changes, net of tax				(746)				(746)
Issuance of common stock awards to employees								—
Surrender of common stock awards by employees					(681)			—
Share-based compensation expense			1,765					1,765
Share-based compensation issued to directors			75					75
Common stock repurchase					(380,694)	(18,187)		(18,187)
Other comprehensive income, net of tax							818	818
BALANCE - September 30, 2018	32,723,972	$ 327	$ 180,106	$ 88,736	(1,498,998)	$ (57,890)	$ 3,072	$ 214,351

	Common Stock		Additional Paid In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Loss	Stockholders' Equity
	Shares	Amount			Shares	Amount		
BALANCE - July 1, 2019	32,871,504	$ 329	$ 186,182	$ 132,965	(2,854,496)	$ (106,748)	$ (6,726)	$ 206,002
Net income				21,212				21,212
Issuance of common stock awards to employees								—
Surrender of common stock awards by employees					(259)	(8)		(8)
Share-based compensation expense			1,933					1,933
Share-based compensation issued to directors			101					101
Other comprehensive loss, net of tax							(1,726)	(1,726)
BALANCE - September 30, 2019	32,871,504	$ 329	$ 188,216	$ 154,177	(2,854,755)	$ (106,756)	$ (8,452)	$ 227,514

See accompanying notes to consolidated financial statements

INSTALLED BUILDING PRODUCTS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (UNAUDITED)
FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2018 AND SEPTEMBER 30, 2019
(in thousands, except share amounts)

	Common Stock		Additional Paid In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Income	Stockholders' Equity
	Shares	Amount			Shares	Amount		
BALANCE - January 1, 2018	32,524,934	$ 325	$ 174,043	$ 48,434	(662,788)	$ (12,781)	$ 507	$ 210,528
Net income				38,272				38,272
Cumulative effect of accounting changes, net of tax				2,030			112	2,142
Issuance of common stock awards to employees	194,093	2	(2)					—
Surrender of common stock awards by employees					(42,799)	(2,282)		(2,282)
Share-based compensation expense			5,965					5,965
Share-based compensation issued to directors	4,945		100					100
Common stock repurchase					(793,411)	(42,827)		(42,827)
Other comprehensive income, net of tax							2,453	2,453
BALANCE - September 30, 2018	32,723,972	$ 327	$ 180,106	$ 88,736	(1,498,998)	$ (57,890)	$ 3,072	$ 214,351

	Common Stock		Additional Paid In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Loss	Stockholders' Equity
	Shares	Amount			Shares	Amount		
BALANCE - January 1, 2019	32,723,972	$ 327	$ 181,815	$105,212	(2,808,361)	$(104,425)	$ (431)	$ 182,498
Net income				48,965				48,965
Issuance of common stock awards to employees	139,862	2	(2)					—
Surrender of common stock awards by employees					(46,394)	(2,331)		(2,331)
Share-based compensation expense			6,144					6,144
Share-based compensation issued to directors	7,670		259					259
Other comprehensive loss, net of tax							(8,021)	(8,021)
BALANCE - September 30, 2019	32,871,504	$ 329	$ 188,216	$154,177	(2,854,755)	$(106,756)	$ (8,452)	$ 227,514

See accompanying notes to consolidated financial statements

INSTALLED BUILDING PRODUCTS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
(in thousands)

	Nine months ended September 30, 2019	Nine months ended September 30, 2018
Cash flows from operating activities		
Net income	$ 48,965	$ 38,272
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation and amortization of property and equipment	28,575	24,567
Amortization of operating lease right-of-use assets	11,597	—
Amortization of intangibles	18,065	19,678
Amortization of deferred financing costs and debt discount	845	883
Provision for doubtful accounts	3,173	2,219
Write-off of debt issuance costs	2,774	1,164
Gain on sale of property and equipment	(69)	(551)
Noncash stock compensation	6,442	6,089
Changes in assets and liabilities, excluding effects of acquisitions		
Accounts receivable	(29,144)	(35,953)
Inventories	(852)	(6,799)
Other assets	(4,845)	(801)
Accounts payable	2,535	7,523
Income taxes receivable/payable	13,487	10,542
Other liabilities	4,969	2,016
Net cash provided by operating activities	106,517	68,849
Cash flows from investing activities		
Purchases of investments	(17,352)	(22,818)
Maturities of short term investments	22,560	37,500
Purchases of property and equipment	(37,267)	(27,051)
Acquisitions of businesses	(24,740)	(34,682)
Proceeds from sale of property and equipment	563	1,106
Other	(1,795)	(1,590)
Net cash used in investing activities	(58,031)	(47,535)
Cash flows from financing activities		
Proceeds from senior notes (Note 6)	300,000	—
Proceeds from term loan (Note 6)	—	100,000
Payments on term loan (Note 6)	(195,750)	(750)
Proceeds from vehicle and equipment notes payable	23,767	20,657
Debt issuance costs	(5,191)	(1,992)
Principal payments on long-term debt	(15,278)	(10,324)
Principal payments on finance lease obligations	(3,398)	(4,316)
Acquisition-related obligations	(5,797)	(2,901)
Repurchase of common stock	—	(42,827)
Surrender of common stock awards by employees	(2,331)	(2,282)
Net cash provided by financing activities	96,022	55,265
Net change in cash and cash equivalents	144,508	76,579
Cash and cash equivalents at beginning of period	90,442	62,510
Cash and cash equivalents at end of period	$ 234,950	$ 139,089
Supplemental disclosures of cash flow information		
Net cash paid during the period for:		
Interest	$ 17,746	$ 14,110
Income taxes, net of refunds	3,790	1,902
Supplemental disclosure of noncash activities		
Right-of-use assets obtained in exchange for operating lease obligations	11,593	—
Termination of operating lease obligations and right-of-use assets	(2,814)	—
Property and equipment obtained in exchange for finance lease obligations	2,175	1,034
Seller obligations in connection with acquisition of businesses	4,322	5,420
Unpaid purchases of property and equipment included in accounts payable	1,527	615

See accompanying notes to consolidated financial statements

INSTALLED BUILDING PRODUCTS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1 - ORGANIZATION

Installed Building Products ("IBP"), a Delaware corporation formed on October 28, 2011, and its wholly-owned subsidiaries (collectively referred to as the "Company," and "we," "us" and "our") primarily install insulation, waterproofing, fire-stopping, fireproofing, garage doors, rain gutters, window blinds, shower doors, closet shelving and mirrors and other products for residential and commercial builders located in the continental United States. The Company operates in over 175 locations and its corporate office is located in Columbus, Ohio.

We have one operating segment and a single reportable segment. We offer our portfolio of services for new and existing single-family and multi-family residential and commercial building projects from our national network of branch locations.

Each of our branches has the capacity to serve all of our end markets. See Note 3, Revenue Recognition, for information on our revenues by product and end market.

NOTE 2 - SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements include all of our wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated.

The information furnished in the Condensed Consolidated Financial Statements includes normal recurring adjustments and reflects all adjustments which are, in the opinion of management, necessary for a fair presentation of the results of operations and statements of financial position for the interim periods presented. Certain information and footnote disclosures normally included in the consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the rules and regulations of the Securities and Exchange Commission (the "SEC") have been omitted pursuant to such rules and regulations. We believe that the disclosures are adequate to prevent the information presented from being misleading when read in conjunction with our audited consolidated financial statements and the notes thereto included in Part II, Item 8, Financial Statements and Supplementary Data, of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (the "2018 Form 10-K"), as filed with the SEC on February 28, 2019. The December 31, 2018 Condensed Consolidated Balance Sheet data herein was derived from the audited consolidated financial statements but does not include all disclosures required by U.S. GAAP.

Our interim operating results for the three and nine months ended September 30, 2019 are not necessarily indicative of the results to be expected in future operating quarters. See Item 1A, Risk Factors, in our 2018 Form 10-K for additional information regarding risk factors that may impact our results.

Note 2 to the audited consolidated financial statements in our 2018 Form 10-K describes the significant accounting policies and estimates used in preparation of the audited consolidated financial statements. There have been no changes to our significant accounting policies during the three or nine months ended September 30, 2019, except for the manner in which we account for leases as described in Note 7, Leases.

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Recently Adopted Accounting Pronouncements

Standard	Adoption
ASU 2016-02, *Leases (Topic 842)*	This Accounting Standards Update ("ASU") requires substantially all leases, with the exception of leases with a term of one year or less, to be recorded on the balance sheet as a lease liability measured as the present value of the future lease payments with a corresponding right-of-use asset. This ASU also requires disclosures designed to give financial statement users information on the amount, timing and uncertainty of cash flows. See Note 7, Leases, for further information regarding our lease accounting policies.

Recently Issued Accounting Pronouncements Not Yet Adopted

We are currently evaluating the impact of certain ASU's on our Condensed Consolidated Financial Statements or Notes to Consolidated Financial Statements, which are described below:

Standard	Description	Effective Date	Effect on the financial statements or other significant matters
ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326)*	This pronouncement and subsequently-issued amendments change the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration. In addition, these amendments require the measurement of all expected credit losses for financial assets, including trade accounts receivable, held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts.	Annual periods beginning after December 15, 2019, including interim periods therein. Early adoption is permitted.	Upon adoption of this pronouncement, we expect the accounts receivable balance and the contract assets balance included in other current assets on our Condensed Consolidated Balance Sheets to be affected, with an offsetting amount recorded to retained earnings in the period of adoption. We are currently assessing the quantitative impact the adoption will have on our financial statements.

ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*	To address concerns over the cost and complexity of the two-step goodwill impairment test, this pronouncement removes the second step of the goodwill impairment test. Going forward, an entity will apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit's carrying amount over its fair value, not to exceed the total amount of goodwill allocated to the reporting unit.	Annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019, including interim periods therein. Early adoption is permitted.	We anticipate the adoption of this ASU will not have a material impact on our consolidated financial statements or disclosures.
ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*	This pronouncement amends Topic 820 to eliminate, add and modify certain disclosure requirements for fair value measurements.	Annual periods beginning after December 15, 2019, including interim periods therein. Early adoption is permitted.	We are currently evaluating the provisions of this ASU and the impact it will have on our disclosures.

NOTE 3 - REVENUE RECOGNITION

Our revenues are derived primarily through contracts with customers whereby we install insulation and other complementary building products and are recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. We account for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. We recognize revenue using the percentage-of-completion method of accounting, utilizing a cost-to-cost input approach as we believe this represents the best measure of when control of goods and services are transferred to the customer. An insignificant portion of our sales, primarily retail sales, is accounted for on a point-in-time basis when the sale occurs, adjusted accordingly for any return provisions. We do offer assurance-type warranties on certain of our installed products and services that do not represent a separate performance obligation and, as such, do not impact the timing or extent of revenue recognition.

When the percentage-of-completion method is used, we estimate the costs to complete individual contracts and record as revenue that portion of the total contract price that is considered complete based on the relationship of costs incurred to date to total anticipated costs (the cost-to-cost approach). Under the cost-to-cost approach, the use of estimated costs to complete each contract is a significant variable in the process of determining recognized revenue, requires judgment and can change throughout the duration of a contract due to contract modifications and other factors impacting job completion. The costs of earned revenue include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools and repairs. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined.

Our long-term contracts can be subject to modification to account for changes in contract specifications and requirements. We consider contract modifications to exist when the modification either creates new, or changes the existing, enforceable rights and obligations. Most of our contract modifications are for goods or services that are not distinct from the existing contract due to the significant integration service provided in the context of the contract and are accounted for as if they were part of that existing contract. The effect of a contract modification on the transaction price and our measure of progress for the performance obligation to which it relates, is recognized as an adjustment to revenue (either as an increase in or a reduction of revenue) on a cumulative catch-up basis.

Sales terms typically do not exceed 30 days for short-term contracts and typically do not exceed 60 days for long-term contracts with customers. All contracts are billed either contractually or as work is performed. Billing on our long-term contracts occurs primarily on a monthly basis throughout the contract period whereby we submit invoices for customer payment based on actual or estimated costs incurred during the billing period. On certain of our long-term contracts the customer may withhold payment on an invoice equal to a percentage of the invoice amount, which will be subsequently paid after satisfactory completion of each installation project. This amount is referred to as retainage and is common practice in the construction industry, as it allows for customers to ensure the quality of the service performed prior to full payment. Retainage receivables are classified as current or long-term assets based on the expected time to project completion.

We disaggregate our revenue from contracts with customers by end market and product, as we believe it best depicts how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors. The following tables present our revenues disaggregated by end market and product (in thousands):

	Three months ended September 30,				Nine months ended September 30,			
	2019		2018		2019		2018	
Residential new construction	$ 297,003	75%	$ 268,254	77%	$ 840,806	76%	$ 755,800	77%
Repair and remodel	25,029	6%	23,107	7%	71,254	6%	65,453	7%
Commercial	74,417	19%	57,638	16%	198,338	18%	162,058	16%
Net revenues	$ 396,449	100%	$ 348,999	100%	$ 1,110,398	100%	$ 983,311	100%

	Three months ended September 30,				Nine months ended September 30,			
	2019		2018		2019		2018	
Insulation	$ 253,311	64%	$ 225,503	65%	$ 710,005	64%	$ 646,270	66%
Waterproofing	32,781	8%	25,980	7%	84,024	8%	73,477	7%
Shower doors, shelving and mirrors	27,011	7%	23,190	7%	77,828	7%	66,222	7%
Garage doors	22,336	6%	21,781	6%	65,790	6%	56,574	6%
Rain gutters	13,366	3%	12,163	4%	37,561	3%	31,429	3%
Window blinds	10,615	3%	7,811	2%	30,780	3%	21,196	2%
Other building products	37,029	9%	32,571	9%	104,410	9%	88,143	9%
Net revenues	$ 396,449	100%	$ 348,999	100%	$ 1,110,398	100%	$ 983,311	100%

Contract Assets and Liabilities

Our contract assets consist of unbilled amounts typically resulting from sales under contracts when the cost-to-cost method of revenue recognition is utilized and revenue recognized, based on costs incurred, exceeds the amount billed to the customer. Our contract assets are recorded in other current assets in our Condensed Consolidated Balance Sheets. Our contract liabilities consist of customer deposits and billings in excess of revenue recognized, based on costs incurred and is included in other current liabilities in our Consolidated Balance Sheets.

Contract assets and liabilities related to our uncompleted contracts and customer deposits were as follows (in thousands):

	September 30, 2019	December 31, 2018
Contract assets	$ 22,278	$ 15,092
Contract liabilities	(8,729)	(7,468)

Uncompleted contracts were as follows (in thousands):

	September 30, 2019	December 31, 2018
Costs incurred on uncompleted contracts	$ 120,905	$ 114,826
Estimated earnings	64,436	58,952
Total	185,341	173,778
Less: Billings to date	168,587	163,112
Net under billings	$ 16,754	$ 10,666

Net under billings were as follows (in thousands):

	September 30, 2019	December 31, 2018
Costs and estimated earnings in excess of billings on uncompleted contracts (contract assets)	$ 22,278	$ 15,092
Billings in excess of costs and estimated earnings on uncompleted contracts (contract liabilities)	(5,524)	(4,426)
Net under billings	$ 16,754	$ 10,666

The difference between contract assets and contract liabilities as of September 30, 2019 compared to December 31, 2018 is primarily the result of timing differences between our performance of obligations under contracts and customer payments. During the nine months ended September 30, 2019, we recognized $7.1 million of revenue that was included in the contract liability balance at December 31, 2018. We did not recognize any such revenue during the three months ended September 30, 2019. During the three and nine months ended September 30, 2019 or 2018, we did not recognize any impairment losses on our receivables and contract assets.

Remaining performance obligations represent the transaction price of contracts for which work has not been performed and excludes unexercised contract options and potential modifications. As of September 30, 2019, the aggregate amount of the transaction price allocated to remaining uncompleted contracts was $83.5 million. We expect to satisfy remaining performance obligations and recognize revenue on substantially all of these uncompleted contracts over the next 18 months.

Practical Expedients and Exemptions

We generally expense sales commissions and other incremental costs of obtaining a contract when incurred because the amortization period is usually one year or less. Sales commissions are recorded within selling expenses on the Condensed Consolidated Statements of Operations and Comprehensive Income.

We do not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less.

NOTE 4 - INVESTMENTS

Cash and cash equivalents includes investments in money market funds that are valued based on the net asset value of the funds. The investments in these funds were $107.5 million and $69.8 million as of September 30, 2019 and December 31, 2018, respectively.

All other investments are classified as held-to-maturity and consist of highly liquid instruments, primarily including corporate bonds and commercial paper. As of September 30, 2019 and December 31, 2018, the amortized cost of these investments equaled the net carrying value, which was $5.0 million and $10.1 million, respectively. All held-to-maturity securities as of September 30, 2019 mature in one year or less. See Note 8, Fair Value Measurements, for additional information.

NOTE 5 - GOODWILL AND INTANGIBLES

Goodwill

The change in carrying amount of goodwill was as follows (in thousands):

	Goodwill (Gross)	Accumulated Impairment Losses	Goodwill (Net)
January 1, 2019	$ 243,053	$ (70,004)	$ 173,049
Business Combinations	11,332	—	11,332
Other	193	—	193
September 30, 2019	$ 254,578	$ (70,004)	$ 184,574

Other changes included in the above table represent minor adjustments for the allocation of certain acquisitions still under measurement and four immaterial acquisitions completed during the nine months ended September 30, 2019.

We test goodwill for impairment annually during the fourth quarter of our fiscal year or earlier if there is an impairment indicator. No impairment was recognized during either of the nine month periods ended September 30, 2019 or 2018. Accumulated impairment losses included within the above table were incurred over multiple periods, with the latest impairment charge being recorded during the year ended December 31, 2010.

Intangibles, net

The following table provides the gross carrying amount, accumulated amortization and net book value for each major class of intangibles (in thousands):

	As of September 30, 2019			As of December 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Amortized intangibles:						
Customer relationships	$ 157,242	$ 64,884	$ 92,358	$ 148,635	$ 52,514	$ 96,121
Covenants not-to-compete	16,035	9,857	6,178	14,682	7,572	7,110
Trademarks and trade names	67,048	21,489	45,559	64,432	18,256	46,176
Backlog	14,080	13,854	226	14,060	13,677	383
	$ 254,405	$ 110,084	$ 144,321	$ 241,809	$ 92,019	$ 149,790

The gross carrying amount of intangibles increased approximately $12.6 million during the nine months ended September 30, 2019 primarily due to business combinations. See Note 15, Business Combinations, for more information. Remaining estimated aggregate annual amortization expense is as follows (amounts, in thousands, are for the fiscal year ended):

Remainder of 2019	$ 6,147
2020	23,867
2021	22,525
2022	21,604
2023	18,693
Thereafter	51,485

NOTE 6 - LONG-TERM DEBT

Long-term debt consisted of the following (in thousands):

	As of September 30, 2019	As of December 31, 2018
Senior Notes due 2028, net of unamortized debt issuance costs of $4,989 and $0, respectively	$ 295,011	$ —
Term loan, net of unamortized debt issuance costs of $2,164 and $4,834, respectively	197,836	390,916
Vehicle and equipment notes, maturing through September 2024; payable in various monthly installments, including interest rates ranging from 2.5% to 4.8%	69,430	60,391
Various notes payable, maturing through March 2025; payable in various monthly installments, including interest rates ranging from 4% to 6%	2,967	3,517
	565,244	454,824
Less: current maturities	(22,734)	(22,642)
Long-term debt, less current maturities	$ 542,510	$ 432,182

5.75% Senior Notes due 2028

In September 2019, we issued $300.0 million in aggregate principal amount of 5.75% senior unsecured notes (the “Senior Notes”). The Senior Notes will mature on February 1, 2028 and interest will be payable semi-annually in cash in arrears on February 1 and August 1, commencing on February 1, 2020. The net proceeds from the Senior Notes offering were $295.0 million after debt issuance costs. We used some of the net proceeds to repay a portion of our outstanding obligations (including accrued and unpaid interest) under our term loan credit agreement (as defined below) and to pay fees and expenses related to the Senior Notes offering and the entry into a new revolving credit facility described below.

The indenture covering the Senior Notes contains restrictive covenants that, among other things, limit the ability of the Company and certain of our subsidiaries (subject to certain exceptions) to: (i) incur additional debt and issue preferred stock; (ii) pay dividends on, redeem or repurchase stock; (iii) prepay subordinated debt; (iv) create liens; (v) make specified types of investments; (vi) apply net proceeds from certain asset sales; (vii) engage in transactions with affiliates; (viii) merge, consolidate or sell substantially all of our assets; and (ix) pay dividends and make other distributions from subsidiaries.

Credit Facilities

As of September 30, 2019, we had $197.8 million, net of unamortized debt issuance costs, due on our $400 million, seven-year term loan facility (the “Term Loan”) under our credit agreement (the “Term Loan Agreement”). The Term Loan is due April 2025 and has a margin of (A) 2.50% in the case of Eurodollar rate loans and (B) 1.50% in the case of base rate loans.

In September 2019, we also entered into a new asset-based lending credit agreement (the “ABL Credit Agreement”). The ABL Credit Agreement provides for an asset-based lending credit facility (the “ABL Revolver”) of up to $200.0 million with a five-year maturity, which replaced the Company’s previous revolving credit facility. Borrowing availability under the ABL Revolver is based on a percentage of the value of certain assets securing the Company’s obligations and those of the subsidiary guarantors thereunder. As of September 30, 2019, there were no borrowings outstanding under the ABL Revolver.

The ABL Revolver bears interest at either the Eurodollar rate or the base rate (which approximated the prime rate), at the Company’s election, plus a margin of (A) 1.25% or 1.50% in the case of Eurodollar rate loans (based on a measure of availability under the ABL Credit Agreement) and (B) 0.25% or 0.50% in the case of base rate loans (based on a measure of availability under the ABL Credit Agreement).

The ABL Revolver also provides incremental revolving credit facility commitments of up to $50.0 million. The terms and conditions of any incremental revolving credit facility commitments must be no more favorable than the terms of the ABL Revolver. The ABL Revolver also allows for the issuance of letters of credit of up to $75.0 million in aggregate and borrowing of swingline loans of up to $20.0 million in aggregate.

The ABL Credit Agreement contains a financial covenant requiring the satisfaction of a minimum fixed charge coverage ratio of 1.0x in the event that we do not meet a minimum measure of availability under the ABL Revolver.

In connection with the September 2019 transactions, we wrote off $2.8 million in previously capitalized loan costs during the three months ended September 30, 2019. This amount is included in interest expense, net on the Condensed Consolidated Statements of Operations and Comprehensive Income. We also had $9.0 million of capitalized deferred financing costs and debt issuance costs, net of accumulated amortization, as of September 30, 2019, which includes $6.2 million in new costs associated with the above transactions incurred during the three months ended September 30, 2019. The deferred financing costs are included in other non-current assets while the debt issuance costs are included in long-term debt on the Condensed Consolidated Balance Sheets. These costs are amortized over the term of the related debt on a straight-line basis which approximates the effective interest method.

NOTE 7 - LEASES

On January 1, 2019, we adopted ASC 842, “Leases” which, among other changes, requires us to record liabilities classified as operating leases on our Condensed Consolidated Balance Sheets along with a corresponding right-of-use asset. Results for reporting periods beginning after January 1, 2019 are presented under Topic 842, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Topic 840. We elected the package of practical expedients available for expired or existing contracts, which allowed us to carryforward our historical assessments of whether contracts are or contain leases, lease classification tests and treatment of initial direct costs. We also elected to not separate lease components from non-lease components for all fixed payments, and we exclude variable lease payments in the measurement of right-of-use assets and lease obligations.

Upon adoption of ASC 842, we recorded a $44.9 million increase in other assets, a $1.4 million decrease to other current assets, a $1.0 million decrease to other current liabilities and a $44.5 million increase to operating lease obligations. These adjustments are the result of assigning a right-of-use asset and related lease liability to our operating leases. We did not record any cumulative effect adjustments to opening retained earnings, and adoption of the lease standard had no impact to cash from or used in operating, financing, or investing activities on our consolidated cash flow statements.

We determine if an arrangement is a lease at inception. Most of our operating leases do not provide an implicit rate so we use our incremental borrowing rate based on the information available at the commencement date to determine the present value of future payments. We lease various assets in the ordinary course of business as follows: warehouses to store our materials and perform staging activities for certain products we install; various office spaces for selling and administrative activities to support our business; certain manufacturing facilities to produce insulation materials; and certain vehicles and equipment to facilitate our operations, including, but not limited to, trucks, forklifts and office equipment. Leases with an initial term of 12 months or less are not recorded on the balance sheet as we recognize lease expense for these leases on a straight-line basis over the lease term.

Most lease agreements include one or more renewal options, all of which are at our sole discretion. Generally, future renewal options that have not been executed as of the balance sheet date are excluded from right-of-use assets and related lease liabilities. Certain leases also include options to purchase the leased property. The depreciable life of assets and leasehold improvements are limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. Some of our vehicle lease agreements include provisions for residual value guarantees and any expected payment is included in our lease liability.

Lease Position as of September 30, 2019

The table below presents the lease-related assets and liabilities recorded on the Condensed Consolidated Balance Sheet:

(in thousands)	Classification	As of September 30, 2019
Assets		
Non-Current		
Operating	Operating lease right-of-use assets	$ 42,553
Finance	Property and equipment, net	7,691
Total lease assets		$ 50,244
Liabilities		
Current		
Operating	Current maturities of operating lease obligations	$ 15,032
Financing	Current maturities of finance lease obligations	3,133
Non-Current		
Operating	Operating lease obligations	27,129
Financing	Finance lease obligations	3,682
Total lease liabilities		$ 48,976

Weighted-average remaining lease term	
Operating leases	3.8 years
Finance leases	2.6 years
Weighted-average discount rate (1)	
Operating leases	4.85%
Finance leases	4.75%

(1) Upon adoption of the new lease standard, discount rates used for existing leases were established at January 1, 2019.

Lease Costs

The table below presents certain information related to the lease costs for finance and operating leases during 2019:

(in thousands)	Classification	Three months ended September 30, 2019	Nine months ended September 30, 2019
Operating lease cost (1)	Administrative	$ 5,225	$ 15,266
Finance lease cost			
Amortization of leased assets (2)	Cost of sales	1,144	3,955
Interest on finance lease obligations	Interest expense, net	84	268
Total lease costs		$ 6,453	$ 19,489

(1) Includes variable lease costs of $0.5 million and $1.5 million, respectively, and short-term lease costs of $0.2 million and $0.6 million, respectively.
(2) Includes variable lease costs of $0.2 million and $0.7 million, respectively.

Other Information

The table below presents supplemental cash flow information related to leases during 2019 (in thousands):

	Three months ended September 30, 2019	Nine months ended September 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	$ 4,488	$ 13,009
Operating cash flows for finance leases	84	268
Financing cash flows for finance leases	917	3,398

Undiscounted Cash Flows

The table below reconciles the undiscounted cash flows for each of the first five years and total of the remaining years for the finance lease obligations and operating lease obligations recorded on the Condensed Consolidated Balance Sheet as of September 30, 2019 (in thousands):

	Finance Leases	Operating Leases		
		Related Party	Other	Total Operating
Remainder of 2019	$ 1,233	$ 260	$ 4,213	$ 4,473
2020	2,854	1,055	14,490	15,545
2021	1,845	910	9,947	10,857
2022	911	836	5,708	6,544
2023	532	415	3,386	3,801
Thereafter	131	823	4,304	5,127
Total minimum lease payments	7,506	$ 4,299	$42,048	46,347
Less: Amounts representing executory costs	(195)			—
Less: Amounts representing interest	(496)			(4,186)
Present value of future minimum lease payments	6,815			42,161
Less: Current obligation under leases	(3,133)			(15,032)
Long-term lease obligations	$ 3,682			$ 27,129

Disclosures Related to Periods Prior to Adoption of ASC 842 under ASU 2016-02

Lease amounts presented as of December 31, 2018 and for the nine months ended September 30, 2018 are in accordance with accounting guidance in effect prior to adoption of ASC 842, “Leases,” on January 1, 2019. Total assets relating to capital leases were approximately $58.7 million and a total of approximately $32.0 million were fully depreciated as of December 31, 2018. The net book value of assets under capital leases was approximately $9.5 million as of December 31, 2018. Amortization of assets held under capital leases is included within cost of sales on the Consolidated Statements of Operations and Comprehensive Income.

Future minimum lease payments under noncancellable operating leases (with initial or remaining lease terms in excess of one year) and future minimum capital lease payments as of December 31, 2018 were as follows (in thousands):

	Capital Leases	Operating Leases		
		Related Party	Other	Total Operating
2019	$ 5,207	$ 1,159	$ 14,418	$ 15,577
2020	2,253	1,184	11,293	12,477
2021	1,339	1,058	7,014	8,072
2022	452	972	4,335	5,307
2023	93	51	2,613	2,664
Thereafter	—	—	4,695	4,695
	9,344	$ 4,424	$ 44,368	$ 48,792
Less: Amounts representing executory costs	(255)			
Less: Amounts representing interest	(459)			
Total obligation under capital leases	8,630			
Less: Current portion of capital leases	(4,806)			
Long term capital lease obligation	$ 3,824			

NOTE 8 - FAIR VALUE MEASUREMENTS

Assets and Liabilities Measured at Fair Value on a Recurring Basis

In many cases, a valuation technique used to measure fair value includes inputs from multiple levels of the fair value hierarchy. The lowest level of significant input determines the placement of the entire fair value measurement in the hierarchy. During the periods presented, there were no transfers between fair value hierarchical levels.

Assets Measured at Fair Value on a Nonrecurring Basis

Certain assets, specifically other intangible and long-lived assets, are measured at fair value on a nonrecurring basis in periods subsequent to initial recognition. Assets measured at fair value on a nonrecurring basis as of September 30, 2019 and December 31, 2018 are categorized based on the lowest level of significant input to the valuation. The assets are measured at fair value when our impairment assessment indicates a carrying value for each of the assets in excess of the asset's estimated fair value. Undiscounted cash flows, a Level 3 input, are utilized in determining estimated fair values. During each of the three and nine months ended September 30, 2019 and 2018, we did not record any impairments on these assets required to be measured at fair value on a nonrecurring basis.

Estimated Fair Value of Financial Instruments

Accounts receivable, accounts payable and accrued liabilities as of September 30, 2019 and December 31, 2018 approximate fair value due to the short-term maturities of these financial instruments. The carrying amounts of certain long-term debt, including the Term Loan and ABL Revolver as of September 30, 2019 and December 31, 2018, approximate fair value due to the variable rate nature of the agreements. The carrying amounts of our operating lease right-of-use assets and the obligations associated with our operating and finance leases as well as our vehicle and equipment notes approximate fair value as of September 30, 2019 and December 31, 2018. All debt classifications represent Level 2 fair value measurements.

Derivative financial instruments are measured at fair value based on observable market information and appropriate valuation methods. Contingent consideration liabilities arise from future earnout payments to the sellers associated with certain acquisitions and are based on predetermined calculations of certain future results. These future payments are estimated by considering various factors, including business risk and projections. The contingent consideration liabilities are measured at fair value by discounting estimated future payments to their net present value using the appropriate weighted average cost of capital (WACC). The fair values of financial assets and liabilities that are recorded at fair value in the Condensed Consolidated Balance Sheets and not described above were as follows (in thousands):

	As of September 30, 2019				As of December 31, 2018			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Financial assets:								
Cash equivalents	$ 107,535	$ 107,535	$ —	$ —	$ 69,807	$ 69,807	$ —	$ —
Derivative financial instruments	—	—	—	—	1,765	—	1,765	—
Total financial assets	$ 107,535	$ 107,535	$ —	$ —	$ 71,572	$ 69,807	$ 1,765	$ —
Financial liabilities:								
Derivative financial instruments	$ 11,207	$ —	$ 11,207	$ —	$ 2,275	$ —	$ 2,275	$ —
Contingent consideration	3,724	—	—	3,724	5,098	—	—	5,098
Total financial liabilities	$ 14,931	$ —	$ 11,207	$ 3,724	$ 7,373	$ —	$ 2,275	$ 5,098

See Note 4, Investments, for more information on cash equivalents included in the table above. Also see Note 9, Derivatives and Hedging Activities, for more information on derivative financial instruments.

The change in fair value of the contingent consideration (a Level 3 input) was as follows (in thousands):

Contingent consideration liability - January 1, 2019	$ 5,098
Preliminary purchase price	2,275
Fair value adjustments	(410)
Accretion in value	434
Amounts paid to sellers	(371)
Amounts cancelled	(3,302)
Contingent consideration liability - September 30, 2019	$ 3,724

The accretion in value of contingent consideration liabilities is included within administrative expenses on the Condensed Consolidated Statements of Operations and Comprehensive Income.

The carrying values and associated fair values of financial assets and liabilities that are not recorded at fair value in the Condensed Consolidated Balance Sheets and not described above include our Senior Notes and investments. To estimate fair values of these items, we utilized third-party quotes which are derived all or in part from model prices, external sources, market prices, or the third-party's internal records. Both represent a Level 2 fair value measurement and are as follows (in thousands):

	As of September 30, 2019		As of December 31, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Investments	$ 4,980	$ 4,983	$ 10,060	$ 10,053
Senior Notes (1)	300,000	309,000	—	—

(1) Excludes the impact of unamortized debt issuance costs.

NOTE 9 - DERIVATIVES AND HEDGING ACTIVITIES

Cash Flow Hedges of Interest Rate Risk

Our purpose for using interest rate derivatives is to add stability to interest expense and to manage our exposure to interest rate movements. During the first nine months of 2019, such derivatives were used to hedge the variable cash flows associated with existing variable-rate debt. To accomplish these objectives, we primarily use interest rate swaps as part of our interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount. As of September 30, 2019, we had two interest rate swaps, each with an associated floor, with a total beginning notional of $200.0 million, one that amortizes quarterly to $95.3 million at a maturity date of May 31, 2022 and one that amortizes quarterly to $93.3 million at a maturity date of April 15, 2025. We also had a forward interest rate swap with an associated floor beginning May 31, 2022 with a beginning notional of $100.0 million that amortizes quarterly to $97.0 million at a maturity date of April 15, 2025. These three swaps serve to hedge substantially all of the variable cash flows on our Term Loan until maturity. The assets and liabilities associated with these derivative instruments are included in other current assets, other non-current assets, other current liabilities, and other long-term liabilities on the Condensed Consolidated Balance Sheets at their fair value amounts as described in Note 8, Fair Value Measurements.

The changes in the fair value of derivatives designated and that qualify as cash flow hedges are recorded in other comprehensive income, net of tax on the Condensed Consolidated Statements of Operations and Comprehensive Income and in accumulated other comprehensive income on the Condensed Consolidated Balance Sheets and subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. We had no such changes during the nine months ended September 30, 2019 or 2018.

Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest expense, net as interest payments are made on our variable-rate debt. Over the next twelve months, we estimate that an additional $1.5 million will be reclassified as an increase to interest expense, net.

Additionally, we do not use derivatives for trading or speculative purposes and we currently do not have any derivatives that are not designated as hedges. As of September 30, 2019, the Company has not posted any collateral related to these agreements.

NOTE 10 - STOCKHOLDERS' EQUITY

As of September 30, 2019, we had $8.5 million in accumulated other comprehensive loss on our Condensed Consolidated Balance Sheet, which represents the unrealized loss on our derivative instruments. For additional information, see Note 9, Derivatives and Hedging Activities.

During the three and nine months ended September 30, 2018, we repurchased approximately 380 thousand and 793 thousand shares of our outstanding common stock, respectively. The aggregate purchase price of our 2018 stock repurchases was $18.2 million and $42.8 million, or $47.75 and $53.96 average price per share, for the three and nine months ended September 30, 2018, respectively. We did not repurchase any shares during the three or nine months ended September 30, 2019. The stock repurchase plan is in effect through February 28, 2020, unless extended by our board of directors. The effect of these treasury shares reducing the number of common shares outstanding is reflected in our earnings per share calculation.

NOTE 11 - EMPLOYEE BENEFITS

Healthcare

Our healthcare benefit expense (net of employee contributions) for all plans was approximately $5.6 million and $4.5 million for the three months ended September 30, 2019 and 2018, respectively, and $15.7 million and $13.3 million for the nine months ended September 30, 2019 and 2018, respectively. An accrual for estimated healthcare claims incurred but not reported ("IBNR") is included within accrued compensation on the Condensed Consolidated Balance Sheets and was $2.9 million and $2.3 million as of September 30, 2019 and December 31, 2018, respectively.

Workers' Compensation

Workers' compensation expense totaled $4.0 million and $4.4 million for the three months ended September 30, 2019 and 2018, respectively, and $11.8 million and $9.7 million for the nine months ended September 30 2019 and 2018, respectively. Workers' compensation known claims and IBNR reserves included on the Condensed Consolidated Balance Sheets were as follows (in thousands):

	September 30, 2019	December 31, 2018
Included in other current liabilities	$ 5,768	$ 5,795
Included in other long-term liabilities	11,813	9,447
	$ 17,581	$ 15,242

We also had an insurance receivable for claims that exceeded the stop loss limit included on the Condensed Consolidated Balance Sheets. This receivable offsets an equal liability included within the reserve amounts noted above and was as follows (in thousands):

	September 30, 2019	December 31, 2018
Included in other non-current assets	$ 1,819	$ 1,888

Retirement Plans

We participate in multiple 401(k) plans, whereby we provide a matching contribution of wages deferred by employees and can also make discretionary contributions to each plan. Certain plans allow for discretionary employer contributions only. These plans cover substantially all our eligible employees. We recognized 401(k) plan expenses of $0.5 million and $0.3 million during the three months ended September 30, 2019 and 2018, respectively, and we recognized $1.5 million and $1.2 million for the nine months ended September 30, 2019 and 2018, respectively. These expenses are included in administrative expenses on the accompanying Condensed Consolidated Statements of Operations and Comprehensive Income.

Share-Based Compensation

Common Stock Awards

We periodically grant shares of our common stock to our board of directors and our employees. During the nine months ended September 30, 2019 and 2018, we granted approximately eight thousand and five thousand shares of our common stock, respectively, under our Omnibus Incentive Plan to non-employee members of our board of directors. The stock issued will vest over a one year service term. Accordingly, we recorded $0.1 million and $0.3 million of compensation expense during the three and nine months ended September 30, 2019 and $25 thousand and $0.1 million during the three and nine months ended September 30, 2018.

In addition, we granted approximately 0.1 million shares of our common stock under our 2014 Omnibus Incentive Plan to employees during the nine months ended September 30, 2019 and 2018. The shares granted during the nine months ended September 30, 2019 and 2018 vest in three equal installments (rounded to the nearest whole share) annually on April 20 through 2022.

Share-based compensation expense associated with non-performance based awards issued to employees was $1.0 million and $3.3 million for the three and nine months ended September 30, 2019, respectively, and $1.0 million and $2.9 million for the three and nine months ended September 30, 2018, respectively.

As of September 30, 2019, we had $5.9 million of unrecognized compensation expense related to these nonvested common stock awards issued to the board of directors and our employees. This expense is subject to future adjustments for forfeitures and is expected to be recognized on a straight-line basis over the remaining weighted-average period of 1.9 years. Shares forfeited are returned as treasury shares and available for future issuances. See the table below for changes in shares and related weighted average fair market value per share.

Employees – Performance-Based Stock Awards

During the nine months ended September 30, 2019, we issued under our 2014 Omnibus Incentive Plan approximately 46 thousand shares of our common stock to certain officers, which vest in two equal installments on each of April 20, 2020 and April 20, 2021. In addition, during the nine months ended September 30, 2019, we established, and our Board of Directors approved, performance-based targets in connection with common stock awards to be issued to certain officers in 2020 contingent upon achievement of these targets. Share-based compensation expense associated with these performance-based awards and prior performance-based grants was $0.8 million and $2.3 million for the three and nine months ended September 30, 2019, respectively, and $0.6 million and $1.6 million for the three and nine months ended September 30, 2018, respectively.

As of September 30, 2019, we had $4.2 million of unrecognized compensation expense related to nonvested performance-based common stock awards. This expense is subject to future adjustments for forfeitures and is expected to be recognized over the remaining weighted-average period of 1.8 years using the graded-vesting method. See the table below for changes in shares and related weighted average fair market value per share.

Employees – Performance-Based Restricted Stock Units

During 2018, we established, and our board of directors approved, performance-based restricted stock units in connection with common stock awards which were issued to certain employees during the nine months ended September 30, 2019 based upon achievement of a performance target. In addition, during the nine months ended September 30, 2019, we established, and our board of directors approved, performed-based restricted stock units in connection with common stock awards to be issued to certain employees in 2020 based upon achievement of a performance target. These units will be accounted for as equity-based awards that will be settled with a fixed number of common shares. We recorded $0.2 million and $0.5 million in compensation expense associated with these performance-based units during the three and nine months ended September 30, 2019, respectively, and $0.3 million and $1.5 million for the three and nine months ended September 30, 2018, respectively.

As of September 30, 2019, we had $0.4 million of unrecognized compensation expense related to nonvested performance-based common stock units. This expense is subject to future adjustments for forfeitures and is expected to be recognized on a straight-line basis over the remaining weighted-average period of 0.6 years. See the table below for changes in shares and related weighted average fair market value per share.

Share-Based Compensation Summary

During the nine months ended September 30, 2019 and 2018, our employees surrendered approximately 45 thousand and 41 thousand shares of our common stock, respectively, to satisfy tax withholding obligations arising in connection with the vesting of common stock awards issued under our 2014 Omnibus Incentive Plan. We recognized excess tax benefits of $0.3 million and $0.5 million for the nine months ended September 30, 2019 and 2018, respectively, within the income tax provision in the Condensed Consolidated Statements of Operations and Comprehensive Income.

Amounts and changes for each category of equity-based award for employees were as follows:

	Common Stock Awards		Performance-Based Stock Awards		Performance-Based Restricted Stock Units	
	Awards	Weighted Average Grant Date Fair Value Per Share	Awards	Weighted Average Grant Date Fair Value Per Share	Units	Weighted Average Grant Date Fair Value Per Share
Nonvested awards/units at December 31, 2018	173,189	$ 47.40	115,698	$ 52.25	13,248	$ 56.05
Granted	88,529	50.94	82,692	45.65	13,933	51.62
Vested	(106,347)	42.27	(31,404)	41.00	(12,808)	56.05
Forfeited/Cancelled	(1,767)	52.25	(6,697)	65.60	(840)	53.94
Nonvested awards/units at September 30, 2019	153,604	$ 52.93	160,289	$ 50.49	13,533	$ 51.62

We recorded the following stock compensation expense by income statement category (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Cost of sales	$ 97	$ 94	$ 280	$ 749
Selling	48	30	149	402
Administrative	1,954	1,769	6,012	4,938
	$ 2,099	$ 1,893	$ 6,441	$ 6,089

Administrative stock compensation expense includes all stock compensation earned by our administrative personnel, while cost of sales and selling stock compensation represents all stock compensation earned by our installation and sales employees, respectively.

NOTE 12 - INCOME TAXES

Our provision for income taxes as a percentage of pretax earnings is based on a current estimate of the annual effective income tax rate adjusted to reflect the impact of discrete items.

During the three and nine months ended September 30, 2019, our effective tax rate was 26.4% and 25.9%, respectively. The rate for the nine months ended September 30, 2019 was favorably impacted by excess tax benefits from share-based compensation arrangements. The rates for both periods were unfavorably impacted by separate tax filing entities in a loss position for which a full valuation allowance is required, resulting in no tax benefit for recognized losses.

NOTE 13 - RELATED PARTY TRANSACTIONS

We sell installation services to other companies related to us through common or affiliated ownership and/or board of directors and/or management relationships. We also purchase services and materials and pay rent to companies with common or affiliated ownership.

We lease our headquarters and certain other facilities from related parties. See Note 7, Leases, for future minimum lease payments to be paid to these related parties.

The amount of sales to related parties as well as the purchases from and rent expense paid to related parties were as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Sales	$ 3,736	$ 3,259	$ 9,658	$ 9,361
Purchases	469	372	1,327	1,207
Rent	256	257	773	829

As of September 30, 2019 and December 31, 2018, we had related party balances of approximately $1.8 million and $2.3 million, respectively, included in accounts receivable on our Condensed Consolidated Balance Sheets. These balances primarily represent trade accounts receivable arising during the normal course of business with various related parties. M/I Homes, Inc., a customer whose Chairman, President and Chief Executive Officer is a member of our board of directors, accounted for $1.4 million and $1.2 million of these balances as of September 30, 2019 and December 31, 2018, respectively.

NOTE 14 - COMMITMENTS AND CONTINGENCIES

Accrued General Liability and Auto Insurance

Accrued general liability and auto insurance reserves included on the Condensed Consolidated Balance Sheets were as follows (in thousands):

	September 30, 2019	December 31, 2018
Included in other current liabilities	$ 2,514	$ 1,848
Included in other long-term liabilities	12,511	6,608
	$ 15,025	$ 8,456

We also had insurance receivables and an indemnification asset included on the Condensed Consolidated Balance Sheets that, in aggregate, offset an equal liability included within the reserve amounts noted above. The amounts were as follows (in thousands):

	September 30, 2019	December 31, 2018
Insurance receivable and indemnification asset for claims under a fully insured policy	$ 2,484	$ 2,484
Insurance receivable for claims that exceeded the stop loss limit	2,738	53
Total insurance receivables included in other non-current assets	$ 5,222	$ 2,537

Leases

See Note 7, Leases, for further information regarding our lease commitments.

Other Commitments and Contingencies

From time to time, various claims and litigation are asserted or commenced against us principally arising from contractual matters and personnel and employment disputes. In determining loss contingencies, management considers the likelihood of loss as well as the ability to reasonably estimate the amount of such loss or liability. An estimated loss is recorded when it is considered probable that such a liability has been incurred and when the amount of loss can be reasonably estimated. As litigation is subject to inherent uncertainties, we cannot be certain that we will prevail in these matters. However, we do not believe that the ultimate outcome of any pending matters will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

During the year ended December 31, 2018, we entered into an agreement with one of our suppliers to purchase a portion of the insulation materials we utilize across our business. This agreement is effective January 1, 2019 through December 31, 2021 with a purchase obligation of $16.4 million for 2019, $21.4 million for 2020 and $15.0 million for 2021. For the nine months ended September 30, 2019, we have satisfied $7.2 million of our purchase obligation under this agreement. Additionally, we entered into an agreement with a chemical supplier with a purchase obligation of $0.6 million in 2019. Actual purchases made under this agreement for the nine months ended September 30, 2019 was $0.4 million.

NOTE 15 - BUSINESS COMBINATIONS

As part of our ongoing strategy to expand geographically and increase market share in certain markets, we completed four business combinations and four insignificant tuck-in acquisitions merged into existing operations during the nine months ended September 30, 2019 and eight business combinations and one insignificant tuck-in acquisition merged into existing operations during the nine months ended September 30, 2018, respectively, in which we acquired 100% of the ownership interests in each.

The largest of these acquisitions were 1st State Insulation, LLC ("1st State Insulation") in March 2019, Expert Insulation, Inc. and Expert Insulation of Brainerd, Inc. (collectively, "Expert Insulation") in June 2019 and Custom Overhead Door, LLC dba Custom Door & Gate (collectively, "CDG") in March 2018. Net Income, as noted below, includes amortization, taxes and interest allocations when appropriate. Below is a summary of each significant acquisition by year, including revenue and net income (loss) since date of acquisition, shown for the year of acquisition (in thousands):

						Three months ended September 30, 2019		Nine months ended September 30, 2019	
2019 Acquisitions	Date	Acquisition Type	Cash Paid	Seller Obligations	Total Purchase Price	Revenue	Net Income	Revenue	Net Income
1st State Insulation	3/18/2019	Asset	$ 5,125	$ 1,355	$ 6,480	$ 3,156	$ 174	$ 6,586	$ 374
Expert Insulation	6/24/2019	Asset	16,165	1,993	18,158	3,147	193	3,339	160
Other	Various	Asset	3,450	974	4,424	7,262	591	7,262	591
Total			$ 24,740	$ 4,322	$ 29,062	$ 13,565	$ 958	$ 17,187	$ 1,125

						Three months ended September 30, 2018		Nine months ended September 30, 2018	
2018 Acquisitions	Date	Acquisition Type	Cash Paid	Seller Obligations	Total Purchase Price	Revenue	Net Income	Revenue	Net Income
CDG	3/19/2018	Asset	$ 9,440	$ 1,973	$ 11,413	$ 3,848	$ 164	$ 7,572	$ 229
Other	Various	Shares/Asset	25,242	3,447	28,689	7,003	42	12,782	423
Total			$ 34,682	$ 5,420	$ 40,102	$ 10,851	$ 206	$ 20,354	$ 652

Acquisition-related costs recorded within administrative expenses on the Condensed Consolidated Statements of Operations and Comprehensive Income amounted to $0.3 million and $1.3 million for the three and nine months ended September 30, 2019, respectively, and $0.7 million and $1.9 million for the three and nine months ended September 30, 2018, respectively. The goodwill recognized in conjunction with these business combinations represents the excess cost of the acquired entity over the net amount assigned to assets acquired and liabilities assumed. We expect to deduct approximately $9.6 million of goodwill for tax purposes as a result of 2019 acquisitions.

Purchase Price Allocations

The estimated fair values of the assets acquired and liabilities assumed for the acquisitions, as well as total purchase prices and cash paid, approximated the following (in thousands):

	As of September 30, 2019				As of September 30, 2018		
	1st State	Expert	Other	Total	CDG	Other	Total
Estimated fair values:							
Accounts receivable	$ —	$ 1,796	$ 254	$ 2,050	$ 1,731	$ 3,229	$ 4,960
Inventories	291	723	338	1,352	514	1,027	1,541
Other current assets	—	—	3	3	28	879	907
Property and equipment	989	235	667	1,891	933	1,893	2,826
Intangibles	3,382	6,740	2,242	12,364	3,711	16,681	20,392
Goodwill	1,857	8,545	930	11,332	4,898	7,007	11,905
Other non-current assets	—	161	13	174	36	19	55
Accounts payable and other current liabilities	(39)	(42)	(23)	(104)	(438)	(2,046)	(2,484)
Fair value of assets acquired and purchase price	6,480	18,158	4,424	29,062	11,413	28,689	40,102
Less seller obligations	1,355	1,993	974	4,322	1,973	3,447	5,420
Cash paid	$ 5,125	$ 16,165	$ 3,450	$ 24,740	$ 9,440	$ 25,242	$ 34,682

Contingent consideration is included as "seller obligations" in the above table or within "fair value of assets acquired" if subsequently paid during the period presented. These contingent payments consist primarily of earnouts based on performance that are recorded at fair value at the time of acquisition, and/or non-complete agreements and amounts based on working capital calculations. When these payments are expected to be made over one year from the acquisition date, the contingent consideration is discounted to net present value using our weighted average cost of capital (WACC), when appropriate.

Further adjustments to the allocation for each acquisition still under its measurement period are expected as third-party and internal valuations are finalized, certain tax aspects of the transaction are completed and customary post-closing reviews are concluded during the measurement period attributable to each individual business combination. As a result, insignificant adjustments to the fair value of assets acquired, and in some cases total purchase price, have been made to certain business combinations since the date of acquisition and future adjustments may be made through the end of each measurement period. Goodwill and intangibles per the above table do not agree to the total gross increases of these assets as shown in Note 5, Goodwill and Intangibles, during each of the three months ended September 30, 2019 and 2018 due to minor adjustments to goodwill for the allocation of certain acquisitions still under measurement as well as other immaterial intangible assets added during the ordinary course of business. In addition, goodwill and intangibles increased during each of the nine months ended September 30, 2019 and 2018 due to small tuck-in acquisitions merged into existing operations that do not appear in the above table as discussed above.

Estimates of acquired intangible assets related to the acquisitions are as follows (in thousands):

	For the nine months ended September 30,			
	2019		2018	
Acquired intangibles assets	Estimated Fair Value	Weighted Average Estimated Useful Life (yrs.)	Estimated Fair Value	Weighted Average Estimated Useful Life (yrs.)
Customer relationships	$ 8,566	8	$ 14,480	8
Trademarks and trade names	2,615	15	3,920	14
Non-competition agreements	1,183	5	1,530	5
Backlog			460	2

Pro Forma Information

The unaudited pro forma information for the combined results of the Company has been prepared as if the 2019 acquisitions had taken place on January 1, 2018 and the 2018 acquisitions had taken place on January 1, 2017. The unaudited pro forma information is not necessarily indicative of the results that we would have achieved had the transactions actually taken place on January 1, 2018 and 2017, respectively, and the unaudited pro forma information does not purport to be indicative of future financial operating results (in thousands, except per share data):

	Unaudited pro forma for the three months ended September 30,		Unaudited pro forma for the nine months ended September 30,	
	2019	2018	2019	2018
Net revenue	$ 397,839	$ 367,600	$ 1,123,820	$ 1,046,717
Net income	21,240	16,856	49,154	41,997
Basic net income per share	0.71	0.54	1.65	1.34
Diluted net income per share	0.71	0.54	1.65	1.33

Unaudited pro forma net income reflects additional intangible asset amortization expense of $29 thousand and $0.6 million for the three and nine months ended September 30, 2019, respectively, and $1.1 million and $3.8 million for the three and nine months ended September 30, 2018, respectively, as well as additional income tax expense of $10 thousand and $66 thousand for the three and nine months ended September 30, 2019, respectively, and $0.5 million and $1.2 million for the three and nine months ended September 30, 2018, respectively, that would have been recorded had the 2019 acquisitions taken place on January 1, 2018 and the 2018 acquisitions taken place on January 1, 2017.

NOTE 16 - INCOME PER COMMON SHARE

Basic net income per common share is calculated by dividing net income by the weighted average shares outstanding during the period, without consideration for common stock equivalents.

Diluted net income per common share is calculated by adjusting weighted average shares outstanding for the dilutive effect of common stock equivalents outstanding for the period, determined using the treasury stock method. Potential common stock is included in the diluted income per common share calculation when dilutive. The dilutive effect of outstanding restricted stock awards after application of the treasury stock method was 92 thousand and 98 thousand shares for the three and nine months ended September 30, 2019, respectively, and 84 thousand and 138 thousand shares for the three and nine months ended September 30, 2018, respectively.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements and related notes in "Item 1. Financial Statements" of this Form 10-Q, as well as our 2018 Form 10-K.

OVERVIEW

We are one of the nation's largest insulation installers for the residential new construction market and are also a diversified installer of complementary building products, including waterproofing, fire-stopping and fireproofing, garage doors, rain gutters, window blinds, shower doors, closet shelving, mirrors and other products throughout the United States. We offer our portfolio of services for new and existing single-family and multi-family residential and commercial building projects in all 48 continental states and the District of Columbia from our national network of over 175 branch locations. Substantially all of our net revenue comes from service-based installation of these products in the residential new construction, repair and remodel and commercial construction end markets. We believe our business is well positioned to continue to profitably grow due to our strong balance sheet, liquidity and our continuing acquisition strategy.

A large portion of our net revenue comes from the U.S. residential new construction market, which depends upon a number of economic factors including demographic trends, interest rates, consumer confidence, employment rates, housing inventory levels, foreclosure rates, the health of the economy and availability of mortgage financing. The strategic acquisitions of multiple companies over the last several years contributed meaningfully to our consistent increase in net revenue during that time.

2019 Third Quarter Highlights

Net revenue increased 13.6% to $396.4 million while gross profit increased 21.3% to $118.1 million during the three months ended September 30, 2019 compared to 2018. This increase in net revenue and gross profit was primarily driven by selling price increases, the continued recovery of the housing markets, the contribution of our recent acquisitions and growth across our end markets and products. We experienced strong sales growth year-over-year of approximately 11% in our combined residential new construction and repair and remodel end markets and approximately 29% in our commercial end-market.

During the three months ended September 30, 2019, we modified our debt structure in order to take advantage of the current attractive bond market. We issued $300.0 million aggregate principal amount at maturity of senior unsecured notes (the "Senior Notes") with interest payable semi-annually in cash in arrears on February 1 and August 1, commencing on February 1, 2020. The net proceeds from the Senior Notes offering were $295.0 million after debt issuance costs, a portion of which we used to partially repay our outstanding obligations (including accrued and unpaid interest) under our term loan credit agreement (the "Term Loan Agreement") and pay fees and expenses related to the Senior Notes offering and entry into the ABL Credit Agreement as defined below. As of September 30, 2019, we had $197.8 million, net of unamortized debt issuance costs, due on our $400 million, seven-year term loan facility (the "Term Loan") under our Term Loan Agreement. We intend to use the remaining net proceeds for general corporate purposes. In addition, during the three months ended September 30, 2019, we entered into a new asset-based lending credit agreement (the "ABL Credit Agreement"). The ABL Credit Agreement provides for an asset-based lending credit facility (the "ABL Revolver") of up to $200.0 million with a five-year maturity, which replaced our previous revolving credit facility of up to $150.0 million. As of September 30, 2019, we had no amounts outstanding on the ABL Revolver. See Liquidity and Capital Resources section below for further information about our debt.

We were successful at realizing selling price increases during the last two quarters to offset previous material cost increases. While we continue to proactively work with customers and suppliers to mitigate these cost impacts, we will likely continue to experience inflation on our materials in 2020.

We believe there are several trends that should drive long-term growth in the housing market, even if there are temporary periods of slower or declining growth. These long-term trends include an aging housing stock, population growth, household formation growth and the fact that housing starts are currently below long-term historic averages. We expect that our net revenue, gross profit and operating income will benefit from this growth.

Net revenue, cost of sales and gross profit

The components of gross profit were as follows (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2019	Change	2018	2019	Change	2018
Net revenues	$ 396,449	13.6%	$ 348,999	$ 1,110,398	12.9%	$ 983,311
Cost of sales	278,362	10.6%	251,665	795,616	12.0%	710,358
Gross profit	$ 118,087	21.3%	$ 97,334	$ 314,782	15.3%	$ 272,953
Gross profit percentage	29.8%		27.9%	28.3%		27.8%

Net revenues increased during the three and nine months ending September 30, 2019 compared to 2018, primarily driven by acquisitions, organic growth from our existing branches and increased selling prices. For the three and nine months ended September 30, 2019, on a same branch basis, net revenue improved 9.3% and 8.2%, respectively, with approximately 5.4% and 5.1% of this increase attributable to price gains and more favorable customer and product mix with the remainder attributable to growth in the number of completed jobs. We also saw organic growth in our commercial construction end market of 29.1% and 22.4% during the three and nine months ended September 30, 2019, respectively, over 2018.

As a percentage of net revenue, gross profit improved from 27.9% to 29.8% during the three months ended September 30, 2019 compared to 2018 primarily due to selling price increases.

Operating expenses

Operating expenses were as follows (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2019	Change	2018	2019	Change	2018
Selling	$ 19,398	11.3%	$ 17,434	$ 54,431	10.4%	$ 49,300
Percentage of total net revenue	4.9%		5.0%	4.9%		5.0%
Administrative	$ 55,098	14.0%	$ 48,337	$ 156,022	13.5%	$ 137,511
Percentage of total net revenue	13.9%		13.9%	14.1%		14.0%
Amortization	$ 6,156	17.8%	$ 5,228	$ 18,065	-8.2%	$ 19,678
Percentage of total net revenue	1.6%		1.5%	1.6%		2.0%

Selling

The dollar increases in selling expenses for the three and nine months ended September 30, 2019 were primarily driven by an increase in selling wages and commissions to support our increased net revenue of 13.6%. Selling expense as a percentage of sales slightly decreased for the three and nine months ended September 30, 2019 compared to 2018 primarily due to the leverage on expenses gained through increased net revenue.

Administrative

The dollar increases in administrative expenses for the three and nine months ended September 30, 2019 were primarily due to an increase in wages, benefits and facility costs attributable to both acquisitions and organic growth. Administrative expense remained flat as a percentage of sales for the three months ended September 30, 2019 compared to 2018 as expenses remained proportional to the increase in net revenue.

Other expense

Other expense, net was as follows (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2019	Change	2018	2019	Change	2018
Interest expense, net	$ 8,458	60.1%	$ 5,282	$ 19,783	31.8%	$ 15,013
Other	155	17.4%	132	381	-8.6%	417
Total other expense	$ 8,613	59.1%	$ 5,414	$ 20,164	30.7%	$ 15,430

The increase in interest expense, net during the three and nine months ended September 30, 2019 compared to 2018 was primarily due to a $2.8 million write off of previously capitalized loan costs associated with debt transactions completed during September 2019.

Income tax provision

Income tax provision and effective tax rates were as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Income tax provision	$ 7,610	$ 5,358	$ 17,135	$ 12,762
Effective tax rate	26.4%	25.6%	25.9%	25.0%

During the three and nine months ended September 30, 2019, our effective tax rate was 26.4% and 25.9%, respectively. The rate for the nine months ended September 30, 2019 was favorably impacted by excess tax benefits from share-based compensation arrangements. The rates for both periods were unfavorably impacted by separate tax filing entities in a loss position for which a full valuation allowance is required, resulting in no tax benefit for recognized losses.

Other comprehensive (loss) income, net of tax

Other comprehensive (loss) income, net of tax was as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Unrealized (loss) gain on cash flow hedge, net of taxes	$ (1,726)	$ 818	$ (8,021)	$ 2,453

During the three and nine months ended September 30, 2019, our cash flow hedge position decreased primarily due to unexpected declines in interest rates.

KEY FACTORS AFFECTING OUR OPERATING RESULTS

Cost of Materials

We purchase the materials that we install primarily from manufacturers. The industry supply of materials we install was disrupted due to a catastrophic failure at a manufacturer's facility during the fourth quarter of 2017, resulting in insulation material allocation for certain insulation products and, as a result, contributed to increased market pricing throughout 2018. Increased market pricing, regardless of the catalyst, has and could continue to impact our results of operations in 2019, to the extent that price increases cannot be passed on to our customers. We began to see improvement in our selling prices in the second quarter of 2019, and this continued into the third quarter as evidenced by our 21.3% improvement in gross profit during the three months ended September 30, 2019 compared to the three months ended September 20, 2018. We will continue to work with our customers to adjust selling prices to offset the aforementioned higher costs.

Labor Costs and Charitable Activities

Our business is labor intensive. While the availability of labor in many markets continued to tighten as the demand for employees, particularly installers, increases, we experienced improved employee retention, turnover and labor efficiency rates in the nine months ended September 30, 2019. We believe this is partially a result of various programs meant to benefit our employees, including our financial wellness plan and longevity stock compensation plan for employees. While improved retention drives lower costs to recruit and train new employees and improves installer productivity, these improvements are somewhat offset by the additional costs of these incentives. We expect to continue to spend more to hire, train and retain installers to support our growing business in 2019, as tight labor availability continues within the construction industry. During the nine months ended September 30, 2019, we also launched the Installed Building Products Foundation meant to benefit IBP employees, their families and their communities. We set a goal to donate more than $1.0 million to not-for-profit entities and individuals in 2019 through the Foundation's programs and as of the date of this filing, expect to meet or exceed this goal.

LIQUIDITY AND CAPITAL RESOURCES

Our capital resources primarily consist of cash from operations and borrowings under our various debt agreements and capital equipment leases and loans. Our primary capital requirements are to fund working capital needs, operating expenses, acquisitions and capital expenditures and meet required principal and interest payments. We may also use our resources to fund our optional stock repurchase program. Our investments consist of highly liquid instruments including corporate bonds and commercial paper. As of September 30, 2019, we had no outstanding borrowings under our ABL Revolver.

5.75% Senior Notes due 2028

In September 2019, we issued $300.0 million in aggregate principal amount of Senior Notes. The Senior Notes will mature on February 1, 2028 and interest will be payable semi-annually in cash in arrears on February 1 and August 1, commencing on February 1, 2020. The net proceeds from the Senior Notes offering were $295.0 million after debt issuance costs. We used some of the net proceeds to repay a portion of our outstanding obligations (including accrued and unpaid interest) under our Term Loan Agreement and to pay fees and expenses related to the Senior Notes offering and entry into the ABL Credit Agreement.

The indenture covering the Senior Notes contains restrictive covenants that, among other things, limit the ability of the Company and certain of our subsidiaries (subject to certain exceptions) to: (i) incur additional debt and issue preferred stock; (ii) pay dividends on, redeem or repurchase stock; (iii) prepay subordinated debt; (iv) create liens; (v) make specified types of investments; (vi) apply net proceeds from certain asset sales; (vii) engage in transactions with affiliates; (viii) merge, consolidate or sell substantially all of our assets; and (ix) pay dividends and make other distributions from subsidiaries.

Credit Facilities

As of September 30, 2019, we had $197.8 million, net of unamortized debt issuance costs, due on our $400 million, seven-year Term Loan. The Term Loan is due April 2025 and has a margin of (A) 2.50% in the case of Eurodollar rate loans and (B) 1.50% in the case of base rate loans.

In September 2019, we also entered into an ABL Credit Agreement, which provides an ABL Revolver of up to $200.0 million with a five-year maturity, which replaced the Company's previous revolving credit facility. Borrowing availability under the ABL Revolver is based on a percentage of the value of certain assets securing the Company's obligations and those of the subsidiary guarantors thereunder. As of September 30, 2019, there were no borrowings outstanding under the ABL Revolver.

The ABL Revolver bears interest at either the Eurodollar rate or the base rate (which approximated the prime rate), at the Company's election, plus a margin of (A) 1.25% or 1.50% in the case of Eurodollar rate loans (based on a measure of availability under the ABL Credit Agreement) and (B) 0.25% or 0.50% in the case of base rate loans (based on a measure of availability under the ABL Credit Agreement).

The ABL Revolver also provides incremental revolving credit facility commitments of up to $50.0 million. The terms and conditions of any incremental revolving credit facility commitments must be no more favorable than the terms of the ABL Revolver. The ABL Revolver also allows for the issuance of letters of credit of up to $75.0 million in aggregate and borrowing of swingline loans of up to $20.0 million in aggregate.

The ABL Credit Agreement contains a financial covenant requiring the satisfaction of a minimum fixed charge coverage ratio of 1.0xin the event that we do not meet a minimum measure of availability under the ABL Revolver.

In connection with the September 2019 transactions, we wrote off $2.8 million in previously capitalized loan costs during the three months ended September 30, 2019. This amount is included in interest expense, net on the Condensed Consolidated Statements of Operations and Comprehensive Income. We also had $9.0 million of capitalized deferred financing costs and debt issuance costs, net of accumulated amortization, as of September 30, 2019, which includes $6.2 million in new costs associated with the above transactions incurred during the three months ended September 30, 2019. The deferred financing costs are included in other non-current assets while the debt issuance costs are included in long-term debt on the Condensed Consolidated Balance Sheets. These costs are amortized over the term of the related debt on a straight-line basis which approximates the effective interest method.

At September 30, 2019, we were in compliance with all applicable covenants under the Term Loan Agreement, ABL Credit Agreement and the Senior Notes.

Derivative Instruments

As of September 30, 2019, we had two interest rate swaps, each with an associated floor, with a total beginning notional of $200.0 million, one that amortizes quarterly to $95.3 million at a maturity date of May 31, 2022 and one that amortizes quarterly to $93.3 million at a maturity date of April 15, 2025. These two swaps combined serve to hedge $196.5 million of the variable cash flows on our Term Loan as of September 30, 2019. We also had a forward interest rate swap with an associated floor beginning May 31, 2022 with a beginning notional of $100.0 million that amortizes quarterly to $97.0 million at a maturity date of April 15, 2025. These three swaps serve to hedge substantially all of the variable cash flows on our Term Loan until maturity.

Vehicle and Equipment Notes

We have financing loan agreements with various lenders to provide financing for the purpose of purchasing or leasing vehicles and equipment used in the normal course of business. Vehicles and equipment purchased or leased under each financing arrangement serve as collateral for the note applicable to such financing arrangement. Regular payments are due under each note for a period of typically 60 consecutive months after the incurrence of the obligation.

Total outstanding loan balances relating to our master loan and equipment agreements were $69.4 million and $60.4 million as of September 30, 2019 and December 31, 2018, respectively.

Letters of Credit and Bonds

We may use performance bonds to ensure completion of our work on certain larger customer contracts that can span multiple accounting periods. Performance bonds generally do not have stated expiration dates; rather, we are released from the bonds as the contractual performance is completed. In addition, we occasionally use letters of credit and cash to secure our performance under our general liability and workers' compensation insurance programs. Permit and license bonds are typically issued for one year and are required by certain municipalities when we obtain licenses and permits to perform work in their jurisdictions. The following table summarizes our outstanding bonds, letters of credit and cash-collateral (in thousands):

	As of September 30, 2019
Performance bonds	$ 52,264
Insurance letters of credit and cash-collateral[1]	44,498
Permit and license bonds	6,964
Total bonds and letters of credit	$ 103,726

(1) Subsequent to September 30, 2019, we increased our outstanding letters of credit by a net amount of $7.0 million in conjunction with renewals of certain insurance programs.

In January 2018, we posted $10.0 million into a trust to serve as additional collateral for our workers' compensation and general liability policies. This $10.0 million can be converted to a letter of credit at our discretion and is therefore not considered to be restricted cash.

Summary

The following table summarizes our liquidity (in thousands):

	As of September 30, 2019	As of December 31, 2018
Cash and cash equivalents	$ 234,950	$ 90,442
Short-term investments	4,980	10,060
ABL Revolver	200,000	150,000
Less: outstanding letters of credit and cash-collateral[1]	(34,498)	(28,887)
Total liquidity[2]	$ 405,432	$ 221,615

(1) Subsequent to September 30, 2019, we increased our outstanding letters of credit by a net amount of $7.0 million in conjunction with renewals of certain insurance programs.

(2) Total liquidity reflects full borrowing base capacity under our ABL Revolver and may be limited by certain cash collateral limitations depending upon the status of our borrowing base availability. These potential deductions would lower our available cash and cash equivalents balance shown in the table above. As of September 30, 2019, total liquidity would be reduced by $51.9 million due to these cash collateral limitations. In addition, total liquidity is further reduced by $10.0 million within cash and cash equivalents above which was deposited into a trust to serve as additional collateral for our workers' compensation and general liability policies. This amount can be converted to a letter of credit at our discretion and would reduce the availability on our ABL Revolver included in the table above.

We believe that our cash flows from operations, combined with our current cash levels and available borrowing capacity, will be adequate to support our ongoing operations and to fund our debt service requirements, capital expenditures and working capital for at least the next 12 months as evidenced by our net positive cash flows from operations for each of the nine months ended September 30, 2019 and 2018.

Historical cash flow information

Cash flows from operating activities

Net cash provided by operating activities was $106.5 million and $68.8 million for the nine months ended September 30, 2019 and 2018, respectively. Generally, the primary driver of our cash flows from operating activities is operating income adjusted for certain noncash items, offset by cash payments for taxes and interest on our outstanding debt. Our cash flows from operations can be impacted by the timing of our cash collections on sales and collection of retainage amounts. In addition, cash flows are seasonally stronger in the third and fourth quarters as a result of increased construction activity.

Cash flows from investing activities

Business Combinations. During the nine months ended September 30, 2019 and 2018, we made cash payments of $24.7 million and $34.7 million, respectively, on various business combinations. The amount of cash paid is dependent on various factors, including the size and determined value of the business being acquired.

Capital Expenditures. Total cash paid for property and equipment was $37.3 million and $27.1 million for the nine months ended September 30, 2019 and 2018, respectively, and was primarily related to purchases of vehicles and various equipment to support our growing operations. We expect to continue to support any increases in future net revenue through further capital expenditures. A majority of these capital expenditures were subsequently reimbursed via various vehicle and equipment notes payable, with related cash inflows shown in cash flows from financing activities.

Other. During the nine months ended September 30, 2019 and 2018, we invested $17.4 million and $22.8 million, respectively, in short-term investments consisting primarily of corporate bonds and commercial paper and had $22.6 million and $37.5 million in short-term investments mature during the nine months ended September 30, 2019 and 2018, respectively.

Cash flows from financing activities

We utilize our credit facilities primarily to support our operations as well as fund acquisitions and our discretionary stock repurchase program. To support those initiatives, we received $300.0 million in proceeds from issuance of our Senior Notes, paid off $195.8 million of our Term Loan balance and paid $5.2 million in debt issuance costs during the nine months ended September 30, 2019, resulting in a net cash inflow of $99.0 million. We received $100.0 million in cash, reduced by $2.0 million in debt issuance costs, by amending our Term Loan during the nine months ended September 30, 2018. During the nine months ended September 30, 2019 and 2018, we also received proceeds of $23.8 million and $20.7 million, respectively, from our fixed asset loans which serve to offset a significant portion of the capital expenditures included in cash outflows from investing activities as described above. We made payments on these fixed asset loans and various other notes payable of $15.3 million and $10.3 million during the nine months ended September 30, 2019 and 2018, respectively. We also made $3.4 million and $4.3 million in principal payments on our finance leases and paid $5.8 million and $2.9 million of acquisition-related obligations during the nine months ended September 30, 2019 and 2018, respectively. Lastly, we repurchased approximately 793 thousand shares of our common stock for $42.8 million during the nine months ended September 30, 2018 as part of our stock repurchase plan.

Contractual Obligations

During the nine months ended September 30, 2019, our long-term debt obligations changed due to the issuance of our Senior Notes, the lowered aggregate principal of our Term Loan, and additional vehicle-related borrowings. The updated future expected payments are shown in the table below. During the nine months ended September 30, 2019, we had no significant changes to the other obligations disclosed in our 2018 Form 10-K. See Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations within our 2018 Form 10-K for additional information on these other contractual obligations.

	Payments due by period						
(in thousands)	Total	2019	2020	2021	2022	2023	Thereafter
Long-term debt obligations (1)	$ 768,482	$ 9,821	$ 51,118	$ 45,329	$ 40,759	$ 34,864	$ 586,591

(1) Long-term debt obligations include interest payments on our Senior Notes, Term Loan, our notes payable to sellers of acquisitions, and vehicles purchased under the Master Loan and Security Agreement, the Master Equipment Agreement and the Master Loan Agreements. Long-term debt obligations do not include commitment fees on the unused portion of the ABL Revolver since those fees are subject to change based on the factors described in the ABL Credit Agreement. Interest on seller obligations maturing through March 2025 is estimated using current market rates. For additional information, see Part II, Item 8 Financial Statements and Supplementary Data, Note 7, Long-Term Debt within our 2018 Form 10-K.

Critical Accounting Policies and Estimates

During the nine months ended September 30, 2019, we changed our accounting policy regarding leases upon adoption of ASC 842. See Note 7, Leases, for more information. There have been no other changes to our critical accounting policies and estimates from those previously disclosed in our 2018 Form 10-K.

Recently Adopted Accounting Pronouncements

Standard	Adoption
ASU 2016-02, *Leases (Topic 842)*	This ASU requires substantially all leases, with the exception of leases with a term of one year or less, to be recorded on the balance sheet as a lease liability measured as the present value of the future lease payments with a corresponding right-of-use asset. This ASU also requires disclosures designed to give financial statement users information on the amount, timing and uncertainty of cash flows. See Note 7, Leases, for further information regarding our lease accounting policies.

Forward-Looking Statements

This report contains forward-looking statements within the meaning of the federal securities laws, including with respect to the housing market and industry conditions, our financial and business model, our efforts to navigate the material pricing environment, our ability to increase selling prices, our material and labor costs, demand for our services and product offerings, expansion of our national footprint and diversification, our ability to capitalize on the new home and commercial construction recovery, our ability to grow and strengthen our market position, our ability to pursue and integrate value-enhancing acquisitions, our ability to improve sales and profitability and expectations for demand for our services and our earnings in 2019. Forward-looking statements may generally be identified by the use of words such as “anticipate,” “believe,” “estimate,” “project,” “predict,” “possible,” “forecast,” “may,” “could,” “would,” “should,” “expect,” “intends,” “plan,” and “will” or, in each case, their negative, or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Any forward-looking statements that we make herein and in any future reports and statements are not guarantees of future performance, and actual results may differ materially from those expressed in or suggested by such forward-looking statements as a result of various factors, including, without limitation, general economic and industry conditions, the material price environment, the timing of increases in our selling prices and the factors discussed in the “Risk Factors” section of our 2018 Form 10-K, as the same may be updated from time to time in our subsequent filings with the SEC. Any forward-looking statement made by the Company in this report speaks only as of the date hereof. New risks and uncertainties arise from time to time and it is impossible for the Company to predict these events or how they may affect it. The Company has no obligation, and does not intend, to update any forward-looking statements after the date hereof, except as required by federal securities laws.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks related to fluctuations in interest rates on our outstanding variable rate debt. Upon the issuance of our Senior Notes during the three months ended September 30, 2019, we used a portion of the proceeds to lower our Term Loan aggregate principal amount to $200.0 million. As of September 30, 2019, we had $197.8 million outstanding on the Term Loan, net of unamortized debt issuance costs, no outstanding borrowings on the ABL Revolver and $0.1 million outstanding under various finance leases subject to variable interest rates. Our two interest rate swaps, each with an associated floor, combine to reduce exposure to market risks on our Term Loan by $196.5 million as of September 30, 2019. As a result, total variable rate debt of $3.6 million was exposed to market risks as of September 30, 2019. A hypothetical one percentage point increase (decrease) in interest rates on our variable rate debt would increase (decrease) our annual interest expense by approximately $36 thousand.

For variable rate debt, interest rate changes generally do not affect the fair value of the debt instrument, but do impact future earnings and cash flows, assuming other factors are held constant. We have not entered into and currently do not hold derivatives for trading or speculative purposes.

LIBOR is used as a reference rate for our Term Loan and our interest rate swap agreements we use to hedge our interest rate exposure. In 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021, and it is unclear whether new methods of calculating LIBOR will be established. Our Term Loan Agreement was amended on November 30, 2017 to include a mechanism to establish an alternative Eurodollar rate if certain circumstances arise such that LIBOR may no longer be used. We continue to review the impact the LIBOR phase-out will have on the Company.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We have evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") as required by Exchange Act Rules 13a-15(e) and 15d-15(e). Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of September 30, 2019.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the three months ended September 30, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

See Part I, Item 1. Financial Statements, Note 14, Commitments and Contingencies – Other Commitments and Contingencies, for information about existing legal proceedings.

Item 1A. Risk Factors

There have been no material changes for the three months ended September 30, 2019 from the risk factors as disclosed in our 2018 Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The following table shows the stock repurchase activity for the three months ended September 30, 2019:

	Total Number of Shares Purchased (1)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased under the Plans or Programs (2)
July 1 - 31, 2019	124	$ 59.22	—	—
August 1 - 31, 2019	—	—	—	—
September 1 - 30, 2019	—	—	—	—
	124	$ 59.22	—	$60.6 million

(1) Represents shares surrendered to the Company by employees to satisfy tax withholding obligations arising in connection with the vesting of 403 shares of restricted stock awarded under our 2014 Omnibus Incentive Plan.

(2) On February 28, 2018, our board of directors authorized a $50 million stock repurchase program effective March 2, 2018 through February 28, 2019, unless extended by the board of directors. On October 31, 2018, our board of directors approved an additional stock repurchase program, effective November 5, 2018, pursuant to which we may purchase up to an additional $100 million of our outstanding common stock. The program will remain in effect until February 28, 2020, unless extended by the board of directors. During the three or nine months ended September 30, 2019, we did not repurchase any shares under our stock repurchase program.

Item 3. Defaults Upon Senior Securities

There have been no material defaults in senior securities.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

(a)(3) Exhibits

The following exhibits are being filed as part of this Quarterly Report on Form 10-Q:

Exhibit Number	Description
4.1	Indenture, dated September 26, 2019, among Installed Building Products, Inc., the guarantors named therein and U.S. Bank National Association, as Trustee (including the Form of Note). (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on September 27, 2019).
10.1	Purchase Agreement, dated as of September 16, 2019, by and among Installed Building Products, Inc., as issuer, the subsidiary guarantors party thereto, and BofA Securities, Inc. for itself and on behalf of several initial purchasers. (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 17, 2019).
10.2	Credit Agreement, dated September 26, 2019, among Installed Building Products, Inc., the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as issuing bank, swing bank and administrative agent, with KeyBank National Association, as a syndication agent and U.S. Bank National Association, as a syndication agent, and Bank of America, N.A., as lead arranger and bookrunner. (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on September 27, 2019).
10.3	Security Agreement, dated September 26, 2019, among Installed Building Products, Inc., the other grantors party thereto and Bank of America, N.A., as administrative agent. (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on September 27, 2019).
31.1*	CEO Certification pursuant to Exchange Act Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	CFO Certification pursuant to Exchange Act Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	CEO Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	CFO Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	Inline XBRL Instance Document - the instance document does not appear in the interactive date file because its XBRL tags are embedded within the Inline XBRL document
101.SCH**	Inline XBRL Taxonomy Extension Schema Document
101. CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101. LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document
101. PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101. DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document
104**	Cover Page Interactive Data File (formatted in Inline XBRL)

* Filed herewith.
** Submitted electronically with the report.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: November 1, 2019

INSTALLED BUILDING PRODUCTS, INC.

By: /s/ Jeffrey W. Edwards
Jeffrey W. Edwards
President and Chief Executive Officer

By: /s/ Michael T. Miller
Michael T. Miller
Executive Vice President and Chief Financial Officer

Exhibit 31.1

INSTALLED BUILDING PRODUCTS, INC.

Certification Required by Rule 13a-14(a) or 15d-14(a)
of the Securities Exchange Act of 1934

I, Jeffrey W. Edwards, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Installed Building Products, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer 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;

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.

Dated: November 1, 2019

By: /s/ Jeffrey W. Edwards
Jeffrey W. Edwards
President and Chief Executive Officer

Exhibit 31.2

INSTALLED BUILDING PRODUCTS, INC.

Certification Required by Rule 13a-14(a) or 15d-14(a)
of the Securities Exchange Act of 1934

I, Michael T. Miller, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Installed Building Products, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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;
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.

Dated: November 1, 2019

By: /s/ Michael T. Miller
Michael T. Miller
Executive Vice President and Chief Financial Officer

Exhibit 32.1

INSTALLED BUILDING PRODUCTS, INC.

Certification Required by Rule 13a-14(b) or 15d-14(b)
of the Securities Exchange Act of 1934 and
Section 1350 of Chapter 63 of Title 18 of the
United States Code

The certification set forth below is being submitted in connection with the Installed Building Products, Inc. Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Jeffrey W. Edwards, the President and Chief Executive Officer, of Installed Building Products, Inc., certifies that, to the best of his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the consolidated financial condition and results of operations of Installed Building Products, Inc.

Dated: November 1, 2019

By: /s/ Jeffrey W. Edwards
Jeffrey W. Edwards
President and Chief Executive Officer

Exhibit 32.2

INSTALLED BUILDING PRODUCTS, INC.

Certification Required by Rule 13a-14(b) or 15d-14(b)
of the Securities Exchange Act of 1934 and
Section 1350 of Chapter 63 of Title 18 of the
United States Code

The certification set forth below is being submitted in connection with the Installed Building Products, Inc. Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019 (the “Report”) for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Michael T. Miller, the Executive Vice President and Chief Financial Officer, of Installed Building Products, Inc., certifies that, to the best of his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the consolidated financial condition and results of operations of Installed Building Products, Inc.

Dated: November 1, 2019

By: /s/ Michael T. Miller
Michael T. Miller
Executive Vice President and Chief Financial Officer