

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, 2018

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 0-19687

Synalloy

Synalloy Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

57-0426694

(I.R.S. Employer Identification No.)

4510 Cox Road, Suite 201, Richmond, Virginia

(Address of principal executive offices)

23060

(Zip Code)

(804) 822-3260

(Registrant's telephone number, including area code)

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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated Filer 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. Yes No

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

The number of shares outstanding of the registrant's common stock as of October 31, 2018 was 8,870,988.

Synalloy Corporation

Index

PART I. FINANCIAL INFORMATION

Item 1.	Financial Statements	
	Condensed Consolidated Balance Sheets as of September 30, 2018 (unaudited) and December 31, 2017	3
	Condensed Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2018 and September 30, 2017 (unaudited)	4
	Condensed Consolidated Statement of Cash Flows for the Nine Months Ended September 30, 2018 and September 30, 2017 (unaudited)	5
	Notes to Condensed Consolidated Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	16
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	19
Item 4.	Controls and Procedures	20

PART II. OTHER INFORMATION

Item 1.	Legal Proceedings	21
Item 1A.	Risk Factors	21
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	21
Item 3.	Defaults Upon Senior Securities	21
Item 4.	Mine Safety Disclosures	21
Item 5.	Other Information	21
Item 6.	Exhibits	21
	Signatures and Certifications	22

Synalloy Corporation
Condensed Consolidated Balance Sheets

	September 30, 2018 (unaudited)	December 31, 2017
Assets		
Current assets		
Cash and cash equivalents	\$ 1,872,360	\$ 14,706
Accounts receivable, less allowance for doubtful accounts of \$6,000 and \$35,000, respectively	49,555,481	28,704,481
Inventories, net	116,029,651	72,125,181
Prepaid expenses and other current assets	12,692,661	6,802,072
Total current assets	180,150,153	107,646,440
Non-current assets		
Property, plant and equipment, net of accumulated depreciation of \$54,988,727 and \$50,451,436 respectively	39,880,040	35,080,009
Goodwill	9,548,992	6,003,525
Intangible assets, net of accumulated amortization of \$12,326,049 and \$10,568,479 respectively	10,546,951	10,880,521
Deferred charges, net	237,001	263,655
Total assets	\$ 240,363,137	\$ 159,874,150
Liabilities and Shareholders' Equity		
Current liabilities		
Accounts payable	\$ 46,696,068	\$ 24,256,812
Accrued expenses and other current liabilities	15,184,210	8,993,454
Total current liabilities	61,880,278	33,250,266
Long-term debt	62,782,563	25,913,557
Deferred income taxes	1,349,745	635,910
Long-term deferred gain, sale-leaseback	5,682,645	5,933,350
Long-term portion of earn-out liability	5,679,350	3,170,099
Other long-term liabilities	1,224,861	1,270,542
Total non-current liabilities	76,719,164	36,923,458
Commitments and contingencies – See Note 11		
Shareholders' equity		
Common stock, par value \$1 per share; authorized 24,000,000 shares; issued 10,300,000 shares	10,300,000	10,300,000
Capital in excess of par value	36,413,908	35,193,152
Retained earnings	68,450,319	58,129,382
Accumulated other comprehensive loss	—	(10,864)
	115,164,227	103,611,670
Less cost of common stock in treasury: 1,435,228 and 1,566,769 shares, respectively	13,400,532	13,911,244
Total shareholders' equity	101,763,695	89,700,426
Total liabilities and shareholders' equity	\$ 240,363,137	\$ 159,874,150

See accompanying notes to condensed consolidated financial statements.

Synalloy Corporation
Condensed Consolidated Statements of Operations (Unaudited)

	Three Months Ended September 30		Nine Months Ended September 30	
	2018	2017	2018	2017
Net sales	\$ 77,792,878	\$ 54,595,924	\$ 208,167,243	\$ 148,310,548
Cost of sales	63,764,512	49,759,304	167,189,136	127,892,423
Gross profit	14,028,366	4,836,620	40,978,107	20,418,125
Selling, general and administrative expense	6,584,407	6,504,223	20,179,278	18,674,888
Acquisition related costs	180,671	37,402	870,888	782,397
Earn-out adjustments	(269,083)	62,804	2,192,574	145,200
Operating income	7,532,371	(1,767,809)	17,735,367	815,640
Other expense (income)				
Interest expense	585,888	279,598	1,303,724	715,131
Change in fair value of interest rate swaps	(7,490)	(8,497)	(99,948)	(33,000)
Other, net	493,413	(316,158)	522,598	(316,158)
Income before income taxes	6,460,560	(1,722,752)	16,008,993	449,667
Provision for income taxes	1,425,002	(516,000)	3,461,000	125,000
Net income	<u>\$ 5,035,558</u>	<u>\$ (1,206,752)</u>	<u>\$ 12,547,993</u>	<u>\$ 324,667</u>
Net income per common share:				
Basic	<u>\$ 0.57</u>	<u>\$ (0.14)</u>	<u>\$ 1.43</u>	<u>\$ 0.04</u>
Diluted	<u>\$ 0.56</u>	<u>\$ (0.14)</u>	<u>\$ 1.42</u>	<u>\$ 0.04</u>
Weighted average shares outstanding:				
Basic	8,828,523	8,716,893	8,783,876	8,696,884
Dilutive effect from stock options and grants	105,131	—	73,928	17,030
Diluted	<u>8,933,654</u>	<u>8,716,893</u>	<u>8,857,804</u>	<u>8,713,914</u>

See accompanying notes to condensed consolidated financial statements

Synalloy Corporation
Condensed Consolidated Statements of Cash Flows (Unaudited)

	Nine Months Ended September 30	
	2018	2017
Operating activities		
Net income	\$ 12,547,993	\$ 324,667
Adjustments to reconcile net income to net cash used in operating activities:		
Depreciation expense	4,584,005	3,916,131
Amortization expense	1,763,438	1,827,171
Amortization of debt issuance costs	73,932	40,829
Deferred income taxes	713,835	(32,978)
Gain on sale of available-for-sale securities	—	(310,043)
Earn-out adjustments	2,192,574	145,200
Payments of MUSA-Stainless earn-out liability in excess of acquisition date fair value	(194,462)	—
Provision for (reduction of) losses on accounts receivable	(29,000)	192,892
Provision for (reduction of) losses on inventories	995,033	500,338
Loss (gain) on disposal of property, plant and equipment	(17,762)	2,279
Amortization of deferred gain on sale-leaseback	(250,705)	(250,705)
Straight line lease cost	276,516	304,898
Change in fair value of interest rate swaps	(99,948)	(33,000)
Change in fair value of equity securities	522,703	—
Issuance of treasury stock for director fees	276,000	287,475
Employee stock option and grant compensation	621,699	486,740
Changes in operating assets and liabilities:		
Accounts receivable	(18,655,048)	(12,476,532)
Inventories	(42,153,503)	(4,772,884)
Other assets and liabilities, net	(2,483,326)	10,179,835
Accounts payable	21,388,017	8,084,756
Accrued expenses	2,247,339	(8,046,199)
Accrued income taxes	1,396,820	(2,392,073)
Net cash used in operating activities	(14,283,850)	(2,021,203)
Investing activities		
Purchases of property, plant and equipment	(4,482,427)	(3,692,571)
Proceeds from sale of property, plant and equipment	—	1,048
Purchases of equity securities	(4,970,470)	(3,831,521)
Proceeds from sale of available-for-sale securities	—	4,141,564
Acquisition of the stainless pipe and tube assets of Marcegaglia USA, Inc. ("MUSA")	—	(11,953,513)
Acquisition of the galvanized pipe and tube assets of MUSA	(10,378,281)	—
Net cash used in investing activities	(19,831,178)	(15,334,993)
Financing activities		
Net borrowings from line of credit	36,869,006	17,918,754
Payments on capital lease obligation	(78,369)	(91,565)
Payments of debt issuance costs	(53,146)	—
Payments on earn-out liabilities to MUSA	(1,618,767)	(518,456)
Proceeds from exercised stock options	141,852	—
Net proceeds from at-the-market offering	1,002,712	—
Tax withholdings related to net share settlements of exercised stock options	(290,606)	—
Net cash provided by financing activities	35,972,682	17,308,733
Increase in cash and cash equivalents	1,857,654	(47,463)
Cash and cash equivalents at beginning of period	14,706	62,873
Cash and cash equivalents at end of period	\$ 1,872,360	\$ 15,410
Supplemental disclosure		
Cash paid for:		
Interest	\$ 1,189,018	\$ 617,606
Income taxes	\$ 1,292,000	\$ 2,557,121

See accompanying notes to condensed consolidated financial statements

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

Unless indicated otherwise, the terms "Company," "we," "us," and "our" refer to Synalloy Corporation and its consolidated subsidiaries.

1. Basis of Financial Statement Presentation

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and notes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included as required by Regulation S-X, Rule 10-01. Operating results for the nine-month period ended September 30, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018. For further information, refer to the consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

Certain prior period amounts have been reclassified to conform to the current period presentation, including changes in the fair value of the Company's earn-out liabilities (see "Note 8 - Fair Value Information") from "Other Expense (Income)" to "Operating Income (Loss)" on the accompanying Condensed Consolidated Statements of Operations.

2. Recently Issued Accounting Standards

Recently Issued Accounting Standards - Adopted

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, "*Revenue from Contracts with Customers (Topic 606)*". Topic 606 supersedes the revenue recognition requirements in Topic 605 "Revenue Recognition" (Topic 605), and requires entities to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company adopted Topic 606 as of January 1, 2018 using the modified retrospective transition method. The adoption of this Topic did not have an effect on the Company's consolidated financial statements. See Note 3 for further details.

In January 2016, the FASB issued ASU No. 2016-01, "*Financial Instruments (Topic 825)*", to address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The standard is effective for all public companies for annual and interim reporting periods beginning after December 15, 2017. The standard requires equity investments (except for those under the equity method of accounting) to be measured at fair value, with changes in fair value recognized in net income. The amendments in the update supersede the guidance to classify equity securities with readily determinable fair values into different categories, and require equity securities to be measured at fair value with changes recognized in net income as opposed to other comprehensive income. The Company adopted ASU 2016-01 effective January 1, 2018 and the effects of this standard are included in the accompanying condensed consolidated financial statements for the three-month and nine-month periods ended September 30, 2018. The Company applied the amendments by means of a cumulative effective adjustment to the balance sheet as of January 1, 2018, which resulted in a reclassification of \$10,864 from Accumulated Other Comprehensive Loss to Retained Earnings.

In January 2017, the FASB issued ASU No. 2017-01 "*Business Combinations (Topic 805): Clarifying the Definition of a Business.*" ASU 2017-01 provides guidance to evaluate whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. If substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single asset or a group of similar assets, the assets acquired (or disposed of) are not considered a business. The Company adopted ASU 2017-01 as of January 1, 2018 on a prospective basis. The adoption of this Topic did not have an effect on the Company's consolidated financial statements as of September 30, 2018.

In May 2017, the FASB issued ASU 2017-09, "*Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting.*" which amends the scope of modification accounting for share-based payment arrangements, provides guidance on the types of changes to the terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting under ASC 718. The Company adopted ASU 2017-09 as of January 1, 2018 on a prospective basis. The adoption of this Topic did not have an impact on the Company's consolidated financial statements as of September 30, 2018.

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

Recently Issued Accounting Standards - Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)", to increase the transparency and comparability of lease recognition and disclosure. The update establishes a right of use ("ROU") model which requires lessees to recognize lease contracts with a term greater than one year on the balance sheet as ROU assets and lease liabilities. Leases will be classified as either financing or operating which will determine expense classification and recognition. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018. Early adoption is permitted. While the FASB had previously indicated that the modified retrospective approach must be applied to adopt the new standard, the FASB issued ASU No. 2018-11 in July, 2018, which provides entities with an additional (and optional) transition method to adopt the new leases standard. Under this new transition method, an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. While the Company expects ASU 2016-02 to add material ROU assets and lease liabilities to the consolidated balance sheets related to its current land and building operating leases, it is evaluating other effects that the new standard will have on the consolidated financial statements as well as its business processes, internal controls, and accounting policies. As part of its assessment, the Company is reviewing its lease portfolio and identifying which attributes of its leases will be impacted by ASU 2016-08. Information about our undiscounted future lease payments and the timing of those payments is in Note 12, "Leases" in our 2017 Form 10-K.

In August 2018, the FASB issued ASU No. 2018-13 "Fair Value Measurement (Topic 820)". The updated guidance improves the disclosure requirements on fair value measurements. The updated guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted for any removed or modified disclosures. The Company is currently assessing the timing and impact of adopting the updated provisions.

3. Revenues**Adoption of ASC Topic 606, "Revenue from Contracts with Customers"**

On January 1, 2018, the Company adopted Topic 606 using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Topic 605. The Company operates as a manufacturer of various products, and revenue is comprised of short-term contracts with point-in-time performance obligations. As a result, the Company did not identify any differences in its recognition of revenue between Topic 606 and Topic 605. Accordingly, there was no adjustment required to opening retained earnings for the cumulative impact of adopting Topic 606 and no impact to revenues for the three-month or nine-month periods ended September 30, 2018 as a result of applying Topic 606.

Revenue Recognition

Revenues are recognized when control of the promised goods or services is transferred to our customers upon shipment, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services.

The following table presents the Company's revenues, disaggregated by product group. Substantially all of the Company's revenues are derived from contracts with customers where performance obligations are satisfied at a point-in-time.

	Three Months Ended		Nine Months Ended	
	Sep 30, 2018	Sep 30, 2017	Sep 30, 2018	Sep 30, 2017
Storage tank and vessel	\$ 9,016,796	\$ 7,650,080	\$ 23,864,217	\$ 19,981,786
Seamless carbon steel pipe and tube	7,887,027	6,669,977	24,722,928	18,782,664
Stainless steel pipe	\$ 37,656,273	28,702,776	107,839,677	73,056,665
Galvanized pipe	6,464,277	—	6,464,277	—
Specialty chemicals	16,768,505	11,573,091	45,276,144	36,489,433
Total revenues	\$ 77,792,878	\$ 54,595,924	\$ 208,167,243	\$ 148,310,548

Arrangements with Multiple Performance Obligations

Our contracts with customers may include multiple performance obligations. For such arrangements, revenue for each performance obligation is based on its standalone selling price and revenue is recognized as each performance obligation is satisfied. The

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

Company generally determines standalone selling prices based on the prices charged to customers using the adjusted market assessment approach or expected cost plus margin.

Deferred Revenues

Deferred revenues are recorded when cash payments are received in advance of satisfying the performance obligation, including amounts which are refundable. The deferred revenue balance decreased \$43,054 during the first nine months of 2018 to \$141,820 as of September 30, 2018 due to receiving \$1,917,775 in advance of satisfying our performance obligations during the period, offset by \$1,960,829 of revenue that was recognized during the period after satisfying the performance obligations that were included in the beginning deferred revenue balance or received during the current period. Deferred revenues are included in "Accrued expenses and other current liabilities" on the accompanying Condensed Consolidated Balance Sheets.

Our payment terms vary by the financial strength or location of our customer and the products offered. The length of time between invoicing and when payment is due is not significant. For certain customers, payment is required before the products or services are delivered to the customer.

Practical Expedients and Elections

When shipping and handling activities are performed after a customer obtains control of goods, the Company reflects shipping and handling activities as part of satisfying the obligation of providing goods to the customer.

In some instances, the Company withholds various states' sales taxes upon shipments into those states. Accordingly, management makes an accounting policy election to exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are imposed on and concurrent with a specific revenue-producing transaction and collected from a customer.

The Company expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within selling, general, and administrative expenses.

The Company does not disclose the value of unsatisfied performance obligations since contracts are expected to be completed within one year.

4. Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined by either specific identification or weighted average methods. The components of inventories are as follows:

	Sep 30, 2018	Dec 31, 2017
Raw materials	\$ 65,458,268	\$ 37,748,316
Work-in-process	18,262,774	9,491,408
Finished goods	32,308,609	24,885,457
	<u>\$ 116,029,651</u>	<u>\$ 72,125,181</u>

5. Stock options and restricted stock

During the first nine months of 2018, stock options for 85,440 shares of common stock were exercised by officers or employees for an aggregate exercise price of \$1,033,108, including \$891,255 relating to cashless exercises during the period. No options were exercised by employees or directors during the first nine months of 2017. Stock compensation expense for the three and nine-month periods ended September 30, 2018 was \$205,520 and \$621,699, respectively. Stock compensation expense for the three and nine-month periods ended September 30, 2017 was \$156,502 and \$486,740, respectively.

On February 7, 2018, the Compensation & Long-Term Incentive Committee (the "Committee") of the Company's Board of Directors approved stock grants under the Company's 2015 Stock Awards Plan to certain management employees of the Company where 65,527 shares with a market price of \$12.47 per share were granted under the Plan. These stock awards vest in either 20 percent or 33 percent increments annually on a cumulative basis, beginning one year after the date of grant. In order for the awards to vest, the employee must be in the continuous employment of the Company since the date of the award. Any portion of an award that has not vested is forfeited upon termination of employment. The Company may terminate any portion of the award that has not vested upon an employee's failure to comply with all conditions of the award or the 2015 Stock Awards Plan. An employee is not entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable.

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

On May 17, 2018, a majority of the shareholders of the Company, upon the recommendation of the Company's Board of Directors, voted to amend and restate the 2015 Stock Awards Plan to increase the authorization of issuances from 250,000 shares to 500,000 shares.

The diluted earnings per share calculations exclude the effect of potentially dilutive shares when the inclusion of those shares in the calculation would have an anti-dilutive effect. For the nine-month periods ended September 30, 2018 and September 30, 2017 the Company had weighted average shares of common stock, in the form of stock grants and options, of 600 and 144,064, respectively, which were not included in the diluted earnings per share calculation as their effect was anti-dilutive.

6. Income Taxes

The Company and its subsidiaries are subject to U.S. federal income tax as well as income tax of multiple state jurisdictions. The Company is no longer subject to U.S. federal examinations for years before 2014 or state income tax examinations for years before 2013. During the first nine months of 2018, the Company did not identify nor reserve for any unrecognized tax benefits.

The effective tax rate was 22 percent for the three and nine-month periods ended September 30, 2018, respectively. The effective tax rate was 30 percent and 28 percent for the three and nine-month periods ended September 30, 2017. The prior year effective tax rate was different than the 34 percent statutory rate primarily due to state tax expense, net of federal benefit and other permanent differences, including the manufacturer's exemption.

On December 22, 2017, the Tax Cuts and Jobs Act ("the Act") was signed into law by the President of the United States, enacting significant changes to the Internal Revenue Code effective January 1, 2018. The Act included a number of provisions including, but not limited to, a permanent reduction of the U.S. corporate tax rate from a blended 35 percent to 21 percent, eliminating the deduction for domestic production activities, limiting the tax deductibility of interest expense, accelerating the expensing of certain business assets and reducing the amount of executive pay that could qualify as a tax deduction. Many effects of the Act are international in nature, such as the one-time transition tax, base erosion anti-abuse tax and the global intangible low-taxed income tax, and thus would not pertain to the Company as it has no international operations.

In December 2017, the Company recorded \$381,000 of income tax benefit related to adopting various provisions of the Act. Under Staff Accounting Bulletin No. 118 ("SAB 118") our income tax benefit is provisional in nature and is subject to further clarification of the new law, including but not limited to U.S. state conformity that cannot be estimated at this time and measurement of underlying tax basis in certain business assets. The ultimate impact may differ from provisional amounts due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, and additional regulatory guidance that may be issued. Further guidance may be forthcoming from federal and state agencies, which could result in additional adjustments. The accounting is expected to be completed no later than the filing of the 2017 U.S. corporate income tax return in 2018.

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

7. Segment Information

The following table summarizes certain information regarding segments of the Company's operations:

	Three Months Ended		Nine Months Ended	
	Sep 30, 2018	Sep 30, 2017	Sep 30, 2018	Sep 30, 2017
Net sales				
Metals Segment	\$ 61,024,373	\$ 43,022,833	\$ 162,891,099	\$ 111,821,115
Specialty Chemicals Segment	16,768,505	11,573,091	45,276,144	36,489,433
	<u>\$ 77,792,878</u>	<u>\$ 54,595,924</u>	<u>\$ 208,167,243</u>	<u>\$ 148,310,548</u>
Operating income (loss)				
Metals Segment	\$ 7,984,117	\$ (1,263,900)	\$ 23,091,164	\$ 2,659,666
Specialty Chemicals Segment	1,354,617	1,150,661	3,324,778	3,796,032
	<u>1,894,775</u>	<u>1,554,364</u>	<u>5,617,113</u>	<u>4,712,461</u>
Unallocated corporate expenses	1,894,775	1,554,364	5,617,113	4,712,461
Acquisition related costs	180,671	37,402	870,888	782,397
Earn-out adjustments	(269,083)	62,804	2,192,574	145,200
Operating income (loss)	<u>7,532,371</u>	<u>(1,767,809)</u>	<u>17,735,367</u>	<u>815,640</u>
Interest expense	585,888	279,598	1,303,724	715,131
Change in fair value of interest rate swaps	(7,490)	(8,497)	(99,948)	(33,000)
Other loss (income), net	493,413	(316,158)	522,598	(316,158)
Income before income taxes	<u>\$ 6,460,560</u>	<u>\$ (1,722,752)</u>	<u>\$ 16,008,993</u>	<u>\$ 449,667</u>

	As of	
	Sep 30, 2018	Dec 31, 2017
Identifiable assets		
Metals Segment	\$ 199,390,326	\$ 130,456,857
Specialty Chemicals Segment	31,109,653	25,394,078
Corporate	9,863,158	4,023,215
	<u>\$ 240,363,137</u>	<u>\$ 159,874,150</u>
Goodwill		
Metals Segment	\$ 8,194,262	\$ 4,648,795
Specialty Chemicals Segment	1,354,730	1,354,730
	<u>\$ 9,548,992</u>	<u>\$ 6,003,525</u>

8. Fair Value of Financial Instruments

The Company makes estimates of fair value in accounting for certain transactions, in testing and measuring impairment and in providing disclosures of fair value in its condensed consolidated financial statements. The Company determines the fair values of its financial instruments for disclosure purposes by maximizing the use of observable inputs and minimizing the use of unobservable inputs. Fair value disclosures for assets and liabilities are grouped into three levels. The levels prioritize the inputs used to measure the fair value of the assets or liabilities. These levels are:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted prices that are observable for assets and liabilities, either directly or indirectly. These inputs include quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in markets that are less active.

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

Level 3 - Unobservable inputs that are supported by little or no market activity for assets or liabilities and includes certain pricing models, discounted cash flow methodologies and similar techniques.

The Company's financial instruments include cash and cash equivalents, accounts receivable, derivative instruments, accounts payable, earn-out liabilities, revolving line of credit and equity investments. For short-term instruments, other than those required to be reported at fair value on a recurring basis and for which additional disclosures are included below, management concluded the historical carrying value is a reasonable estimate of fair value because of the short period of time between the origination of such instruments and their expected realization. Therefore, as of September 30, 2018 and December 31, 2017, the carrying amounts for cash and cash equivalents, accounts receivable, accounts payable and the Company's revolving line of credit, which is based on a variable interest rate, approximate their fair value.

During the third quarter of 2018, the Company recorded a loss on the investment in equity securities of \$493,518 which is included in "Other expense (income)" on the accompanying Condensed Consolidated Statements of Operations. The fair value of equity securities held by the Company as of September 30, 2018 and December 31, 2017 was \$4,985,000 and \$537,233, respectively, and is included in "Prepaid expenses and other current assets" on the accompanying Consolidated Balance Sheets. The equity securities are classified as a Level 1 financial instrument.

The Company has one interest rate swap contract, which is classified as a Level 2 financial instrument as it is not actively traded and is valued using pricing models that use observable market inputs. The fair value of the contract was an asset of \$227,929 and \$127,981 at September 30, 2018 and December 31, 2017, respectively. The interest rate swap was priced using discounted cash flow techniques. Changes in its fair value were recorded to other income (expense) with corresponding offsetting entries to current assets or liabilities, as appropriate. Significant inputs to the discounted cash flow model include projected future cash flows based on projected one-month LIBOR and the average margin for companies with similar credit ratings and similar maturities. It is classified as Level 2 as it is not actively traded and is valued using pricing models that use observable market inputs.

To manage the impact on earnings of fluctuating nickel prices, the Company occasionally enters into six-month forward option contracts, which are classified as Level 2. At September 30, 2018, the Company did not have any such contracts in place. At December 31, 2017, the Company had contracts in place with notional quantities totaling approximately 1,351,494 pounds with strike prices ranging from \$3.75 to \$4.64 per pound. The fair value of the option contract in place at December 31, 2017 was an asset of \$9,027. The fair value of the contracts was priced using discounted cash flows techniques based on forward curves and volatility levels by asset class determined on the basis of observable market inputs, when available. Changes in their fair value were recorded to "Other expense (income)" with corresponding offsetting entries to other current assets. The fair value of the forward option contracts approximates their carrying value.

The fair value of contingent consideration liabilities ("earn-out") resulting from the 2017 MUSA-Stainless acquisition and 2018 MUSA-Galvanized acquisition are classified as Level 3. The fair value of the MUSA-Stainless earn-out was estimated by applying the Monte Carlo Simulation approach using management's projection of pounds to be shipped and future price per unit. The fair value of the MUSA-Galvanized earn-out was estimated by applying the probability-weighted expected return method, using management's projection of pounds to be shipped and future price per unit. Each quarter-end, the Company re-evaluates its assumptions for both earn-out liabilities and adjusts to reflect the updated fair values. Changes in the estimated fair value of the earn-out liabilities are reflected in the results of operations in the periods in which they are identified. Changes in the fair value of the earn-out liabilities may materially impact and cause volatility in the Company's operating results.

The following table presents a summary of changes in fair value of the Company's earn-out liabilities during the period:

2017 MUSA-Stainless Earn-Out

Balance at December 31, 2017	\$ 4,833,850
Earn-out payments to MUSA	(1,685,519)
Change in fair value during the period	2,412,122
Balance at September 30, 2018	<u>\$ 5,560,453</u>

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

2018 MUSA-Galvanized Earn-Out

Balance at December 31, 2017	\$	—
Fair value of the earn-out liability associated with the MUSA-Galvanized acquisition		3,800,298
Earn-out payments to MUSA		(127,710)
Change in fair value during the period		(219,548)
Balance at September 30, 2018	\$	<u>3,453,040</u>

There were no transfers of assets or liabilities between Level 1, Level 2 and Level 3 in the three-month or nine-month periods ended September 30, 2018 or year ended December 31, 2017. During the first nine months of 2018, there have been no changes in the fair value methodologies used by the Company.

9. Acquisitions*Acquisition of the Galvanized Pipe and Tube Assets of Marcegaglia USA, Inc.*

On July 1, 2018, Bristol Metals, LLC ("BRISMET"), a subsidiary of the Company's Metals Segment, acquired Marcegaglia USA, Inc.'s ("MUSA") galvanized tube assets and operations ("MUSA-Galvanized") located in Munhall, PA. The purpose of the transaction was to enhance the Company's on-going business with additional capacity and technological advantages. The transaction was funded through an increase to the Company's current credit facility (refer to Note 10). The purchase price for the transaction totaled \$10,378,281. The assets purchased and liabilities assumed from MUSA include accounts receivable, inventory, equipment, and accounts payable.

The transaction is being accounted for using the acquisition method of accounting for business combinations. Under this method, the total consideration transferred to consummate the acquisition is allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values as of the closing date of the acquisition. The acquisition method of accounting requires extensive use of estimates and judgments to allocate the consideration transferred to the identifiable tangible and intangible assets acquired and liabilities assumed. Because the acquisition closed on July 1, 2018, the allocation of the consideration transferred in the consolidated financial statements is preliminary and will be adjusted upon completion of the final valuation of the assets acquired and liabilities assumed. Such adjustments could be significant. The final valuation is expected to be completed as soon as practicable but no later than twelve months after the closing date of the acquisition.

MUSA will receive quarterly earn-out payments for a period of four years following closing. Earn-out payments will equate to three percent of BRISMET's galvanized steel pipe and tube revenue. As of July 1, 2018, the Company forecasted earn out payments to be \$4,244,939, for which the Company established a fair value of \$3,800,298 using a probability-weighted expected return method and a discount rate applicable to future revenue of five percent. In determining the appropriate discount rate to apply to the contingent payments, the risk associated with the functional form of the earn-out, and the credit risk associated with the payment of the earn-out were all considered. The fair value of the contingent consideration was estimated by applying the probability-weighted expected return method using management's estimates of pounds to be shipped and future price per unit. At September 30, 2018 the fair value of the earn-out totaled \$3,453,040 with \$960,189 of this liability classified as a current liability since the payments will be made quarterly.

The total purchase price was allocated to the acquired net tangible and identifiable intangible assets based on their estimated fair values as of July 1, 2018 for purposes of the consolidated financial statements. These amounts are subject to change based on the results of the final valuations of assets acquired and liabilities assumed, which are expected to be completed within the twelve months following the acquisition. The fair value assigned to the customer list intangible will be amortized on an accelerated basis over 15 years. The excess of the consideration transferred over the fair value of the net tangible and identifiable intangible assets is reflected as goodwill. Goodwill consists of manufacturing cost synergies expected from combining MUSA-Galvanized's production capabilities with BRISMET's current operations. All of the goodwill recognized was assigned to the Company's Metals Segment and is expected to be deductible for income tax purposes. The preliminary allocation of the total consideration paid to the fair value of the assets acquired and liabilities assumed as of July 1, 2018 is as follows:

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

Inventories	\$ 2,746,000
Accounts Receivable	2,187,141
Other current assets - production and maintenance supplies	746,729
Property, plant and equipment	4,883,847
Customer list intangible	1,424,000
Goodwill	3,545,467
Contingent consideration	3,800,298
Accounts Payable	1,051,239
Other liabilities	303,366
	<u>\$ 10,378,281</u>

MUSA-Galvanized's results of operations since acquisition are reflected in the Company's consolidated statements of operations as follows:

	Three Months Ended Sep 30, 2018	Nine Months Ended Sep 30, 2018
Net sales	\$ 6,464,277	\$ 6,464,277
Income before income taxes	9,859	9,859

The following unaudited pro-forma information is provided to present a summary of the combined results of the Company's operations with MUSA-Galvanized as if the acquisition had occurred on January 1, 2017. The unaudited pro-forma financial information is for information purposes only and is not necessarily indicative of what the results would have been had the acquisition been completed on the date indicated above.

	Pro-Forma (Unaudited)			
	Three Months Ended		Nine Months Ended	
	Sept 30, 2018	Sept 30, 2017	Sept 30, 2018	Sept 30, 2017
Pro-forma net sales	\$ 77,792,878	\$ 59,731,468	\$ 220,099,018	\$ 167,533,174
Pro-forma net income (loss)	\$ 5,216,229	\$ (1,505,613)	\$ 11,442,902	\$ (690,066)
Earnings (loss) per share:				
Basic	\$ 0.59	\$ (0.17)	\$ 1.30	\$ (0.08)
Diluted	\$ 0.58	\$ (0.17)	\$ 1.29	\$ (0.08)

The pro-forma calculation for the three and nine months ended September 30, 2018 excludes non-recurring acquisition costs of \$180,671 and \$666,357, respectively, which were incurred by the Company during 2018. These expenditures included \$252,481 for professional fees associated with the preparation of MUSA-Galvanized's historical carved out galvanized financial statements and intangible assets identification and valuation, \$132,831 of travel costs, \$38,661 of legal fees, \$239,065 of closing costs, and \$3,319 of miscellaneous other costs. Pro-forma net income was reduced for both years for the amount of amortization on MUSA-Galvanized's customer list intangible and an estimated amount of interest expense associated with the additional line of credit borrowings.

Acquisition of the Stainless Pipe and Tube Assets of Marcegaglia USA, Inc.

On February 28, 2017, BRISMET acquired the stainless steel pipe and tube assets of MUSA ("MUSA-Stainless") located in Munhall, PA.

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

MUSA-Stainless' results of operations since acquisition are reflected in the Company's consolidated statements of operations as follows:

	Three Months Ended		Nine Months Ended	
	Sep 30, 2018	Sep 30, 2017	Sep 30, 2018	Sep 30, 2017
Net sales	\$ 13,553,571	\$ 8,675,104	\$ 39,292,813	\$ 17,087,030
Income (loss) before income taxes	2,011,333	(559,078)	5,492,488	(114,601)

10. Long-term Debt

On June 29, 2018, the Company amended its Credit Agreement with its bank to increase the limit of the asset based line of credit (the "Line") by \$15,000,000 to a maximum of \$80,000,000. As a result of the amendment, the interest rate on the Line is now calculated using One Month LIBOR plus a spread of 1.65 percent. None of the other provisions of the Credit Agreement were changed as a result of this amendment.

Pursuant to the Credit Agreement, the Company is subject to certain covenants including maintaining a minimum fixed charge coverage ratio and a limitation on the Company's maximum amount of capital expenditures per year, which is in line with currently projected needs. At September 30, 2018, the Company was in compliance with all debt covenants.

11. Contingencies

The Company is from time-to-time subject to various claims, possible legal actions for product liability and other damages, and other matters arising out of the normal conduct of the Company's business.

Management is not currently aware of any asserted or unasserted matters which could have a material effect on the financial condition or results of operations of the Company.

12. Leases

On June 29, 2018, the Company and Store Master Funding XII, LLC, an affiliate of Store Capital Corporation ("Store"), entered into an Amended and Restated Master Lease Agreement (the "Master Lease"), pursuant to which the Company will lease the Munhall, PA facility, purchased by Store from MUSA on June 29, 2018, for the remainder of the initial term of 20 years set forth in the Master Lease, with two renewal options of ten years each. The Master Lease includes a rent escalator equal to the lesser of 1.25 times the percentage increase in the Consumer Price Index since the previous increase or 2 percent.

The amount of future minimum lease payments under operating leases are as follows:

Remainder of 2018	\$ 711,409
2019	2,859,865
2020	2,917,062
2021	2,975,404
2022	3,034,912
2023	3,095,610
Thereafter	45,337,403

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

13. Goodwill and Intangible Assets

As a result of the July 1, 2018 MUSA-Galvanized acquisition, the Company recognized \$3,545,467 in Goodwill for the excess of consideration transferred over the fair value of the acquired net tangible and identifiable intangible assets.

The Company also recorded a \$1,424,000 intangible asset for the fair value of the customer relationships that were acquired, to be amortized on an accelerated basis over 15 years.

The balance of intangible assets subject to amortization at September 30, 2018 and December 31, 2017 is as follows:

	September 30, 2018	December 31, 2017
Intangible assets, gross	\$ 22,873,000	\$ 21,449,000
Accumulated amortization of intangible assets	(12,326,049)	(10,568,479)
Intangible assets, net	<u>\$ 10,546,951</u>	<u>\$ 10,880,521</u>

Estimated amortization expense related to intangible assets for the next five years is as follows:

Remainder of 2018	\$ 615,523
2019	2,327,899
2020	2,157,765
2021	2,047,632
2022	1,814,415
2023	350,378
Thereafter	1,233,339

Synalloy Corporation
Notes to Condensed Consolidated Financial Statements (unaudited)

14. At the Market Offering

On August 9, 2018, the Company entered into an Equity Distribution Agreement pursuant to which the Company may issue and sell, from time to time, shares of the Company's common stock (the "Shares"), par value \$1.00 per share, with aggregate gross sales proceeds of up to \$10 million, through an "at-the-market" equity offering program under which BB&T Capital Markets, a division of BB&T Securities, LLC and Ladenburg Thalmann & Co. Inc. (the "Agents") will act as sales agents (the "ATM Program").

As of September 30, 2018, the Company had issued and sold 44,378 shares in connection with the ATM Program, with total net proceeds of \$1,002,712. The Agents received \$20,470 in commission on the sales.

15. Announcement of Dividend

On August 7, 2018, the Company announced that its Board of Directors had approved a cash dividend of \$0.25 per share on the issued and outstanding shares of the Common Stock of the Company, payable in December 2018 to shareholders of record of such shares. The Company estimates that it will pay out \$2,216,193 in the fourth quarter related to the dividend, and recorded a liability for the full amount in "Accrued expenses and other current liabilities" on the accompanying Condensed Consolidated Balance Sheets as of September 30, 2018.

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

The following is management's discussion of certain significant factors that affected the Company during the three-month and nine-month periods ended September 30, 2018.

Consolidated net sales for the third quarter of 2018 totaled \$77,792,878, an increase of \$23,196,954 or 42 percent compared to net sales for the third quarter of 2017 of \$54,595,924. The Company recorded net income of \$5,035,558, or \$0.56 per share (diluted) for the third quarter of 2018, compared to a net loss of \$1,206,752 or \$0.14 per share for the same quarter in the prior year.

Consolidated net sales for the first nine months of 2018 totaled \$208,167,243, an increase of \$59,856,695 or 40 percent compared to net sales for the first nine months of 2017 of \$148,310,548. The Company recorded net income of \$12,547,993, or \$1.42 per share (diluted) for the first nine months of 2018, compared to net income of \$324,667 or \$0.04 per share for the first nine months of 2017.

Impact of 2018 and 2017 Acquisitions on Financial Results

The third quarter and first nine months of 2018 include financial results in the Company's Metals Segment related to the MUSA-Stainless acquisition (which closed on February 28, 2017) as follows:

- For the third quarters of 2018 and 2017, net sales for MUSA-Stainless totaled \$13,553,571 and \$8,675,104, respectively, with pre-tax income of \$2,011,333 and a loss of \$559,078, respectively.
- For the first nine months of 2018 and 2017, net sales for MUSA-Stainless totaled \$39,292,813 and \$17,087,030, respectively, with pre-tax income of \$5,492,488 and a loss of \$114,601, respectively.

The third quarter and first nine months of 2018 include financial results in the Company's Metals Segment related to the MUSA-Galvanized acquisition (which closed on July 1, 2018) as follows:

- For both the three-month and nine-month periods ended September 30, 2018:
 - Net sales of \$6,464,277
 - Pre-tax income of \$9,859

Pre-tax income for the three-month and nine-month periods ended September 30, 2018 includes non-recurring acquisition costs of \$259,788 that were recorded in Metals Segment Cost of Sales.

Metals Segment

Metals Segment net sales for the third quarter of 2018 totaled \$61,024,373, an increase of \$18,001,540 or 42 percent from the third quarter of 2017. Net sales for the first nine months of 2018 were \$162,891,099, an increase of \$51,069,984 or 46 percent from 2017.

Sales for the third quarter and first nine months of 2018 compared to the prior year are summarized as follows:

	Sales Increase (decrease) from prior year period			
	\$	%	Average selling price (1)	Units shipped
Third quarter				
Storage tank and vessel	\$ 1,366,716	17.9%	38.0%	(20.1)%
Seamless carbon steel pipe and tube	1,217,049	18.2%	25.9%	(7.7)%
Stainless steel pipe	8,953,498	31.2%	25.8%	4.3%
Galvanized pipe	6,464,277	n/a	n/a	n/a
Total third quarter change	<u>\$ 18,001,540</u>			
First nine months				
Storage tank and vessel	\$ 3,882,431	19.4%	29.3%	(9.9)%
Seamless carbon steel pipe and tube	5,940,263	31.6%	23.3%	8.3%
Stainless steel pipe	34,783,011	47.6%	19.5%	23.5%
Galvanized pipe	6,464,277	n/a	n/a	n/a
Total first nine months change	<u>\$ 51,069,982</u>			

(1) Average price increases for the third quarter of 2018 as compared to the third quarter of 2017 primarily relate to the following:

- Storage tank and vessels - product mix change to larger, more complex tanks;
- Seamless carbon steel pipe and tube - pass through of higher input material costs primarily related to the imposition of Section 232 Aluminum and Steel Import Tariffs;
- Stainless steel pipe - pass through of input and cost increases related to:
 - a. Alloy surcharges increase of 17%;
 - b. Decrease of alloy mix with higher nickel content of 2%; and
 - c. Base raw material input mill pricing increase of 11%

For overall Metals Segment pricing averages, the addition of the galvanized product line pricing (from the July 1, 2018 MUSA-Galvanized acquisition) was impacted by the lower average selling prices of galvanized products as compared to other product lines in the Metals Segment. The inclusion of galvanized products lowered average pricing for the third quarter and nine months ended September 30, 2018 by 21% and 9%, respectively.

Average price increases for the first nine months of 2018 as compared to the first nine months of 2017 relate to the same factors indicated above, however with lower average impacts due to lower material cost inputs in the first quarter of 2018.

The Metals Segment's operating income increased \$9,248,017 to \$7,984,117 for the third quarter of 2018 compared to an operating loss of \$1,263,900 for the third quarter of 2017. For the first nine months of 2018, operating income for the Metals Segment increased \$20,431,498 to \$23,091,164 compared to operating income of \$2,659,666 for the same period of 2017.

Current year operating results were affected by the following factors:

- a. Nickel prices and resulting surcharges for 304 and 316 alloys ended the third quarter of 2018 lower than the previous quarter, with surcharges for both alloys decreasing by \$0.03 per pound; however, average nickel prices for the quarter generated a net favorable operating impact of \$1.6 million related to metal pricing;
- b. Year over year net improvements in volume, pricing, and product mix combined for a 241% improvement in gross profit margins in the third quarter of 2018 compared to the same quarter in 2017; and
- c. Seamless carbon pipe and tube showed significant improvement with a 18.2% increase in sales driving a 330% improvement in operating income over the prior year, with activity and margins driven by strong end markets and increased project related orders.

Specialty Chemicals Segment

Net sales for the Specialty Chemicals Segment in the third quarter of 2018 totaled \$16,768,505, representing a \$5,195,414 or 45 percent increase from the third quarter of 2017. Sales for the first nine months of 2018 were \$45,276,144, up \$8,786,711 or 24 percent from 2017 results.

Net sales continued to benefit during the third quarter and first nine months of 2018 primarily from the initial ramp up of seven significant customers, a new fire retardant and new asphalt additive customers at our subsidiary, CRI Tolling, LLC, two new oil and gas customers and two new pulp/paper customers at our subsidiary, Manufacturers Chemicals, LLC, and a new product launch from an existing customer at Manufacturers Chemicals.

Operating income for the Specialty Chemicals Segment for the third quarter of 2018 was \$1,354,617, an increase of \$203,956 or 18 percent. This result was an improvement over the third quarter of 2017 on a dollar basis, but slightly lower profit as a percent of sales, at eight percent versus prior year third quarter at 10 percent. Similar to last quarter, the primary difference in operating profit performance compared to prior year third quarter is the relative product mix experience experienced with material margins approximately 245 bps lower than the prior year third quarter, as more production in 2018 represented products with full material cost absorbed, compared to higher percentage of tolled, no material cost products in 2017.

Other Items

Unallocated corporate expenses for the third quarter of 2018 increased \$340,411, or 22 percent, to \$1,894,775 (two percent of sales) compared to \$1,554,364 (three percent of sales) for the third quarter of 2017. The third quarter increase resulted primarily from higher incentive bonus accruals (\$201,036). Unallocated corporate expenses for the first nine months of 2018 increased \$904,652, or 19 percent, to \$5,617,113 (three percent of sales) compared to \$4,712,461 for the first nine months of 2017. The year-over-year increase resulted primarily from higher incentive bonus accruals (\$1,546,685), offset by lower bad-debt expense (\$206,896).

Acquisition costs were \$396,426 for the third quarter of 2018 (\$215,755 recorded in Metals Segment Cost of Sales and \$180,671 in unallocated SG&A), and \$1,130,676 for the first nine months of 2018 (\$259,788 recorded in Metals Segment Cost of Sales and \$870,888 in unallocated SG&A) resulting from costs associated with the 2018 MUSA-Galvanized acquisition. This compares to \$186,763 (mainly in Metals Segment Cost of Sales) during the third quarter of 2017 and \$1,188,171 during the first nine months of 2017 (\$782,397 in unallocated SG&A and \$406,000 in Metals Segment Cost of Sales), related to the 2017 MUSA-Stainless acquisition.

Interest expense was \$585,888 and \$279,598 for the third quarters of 2018 and 2017, respectively, and \$1,303,724 and \$715,131 for the first nine months of 2018 and 2017, respectively. The increase was primarily related to higher average debt outstanding in the third quarter and first nine months of 2018 as additional borrowings were required to support working capital requirements associated with increased business activity.

During the third quarter of 2018, the Company decreased the earn-out liabilities resulting from the 2017 MUSA-Stainless and 2018 MUSA-Galvanized acquisitions, by \$269,083. The net change represents a decline in the fair value of the liabilities due to forecast changes in pricing and/or volume of small diameter stainless-steel pipe and tube (outside diameter of ten inches or less) and galvanized pipe and tube for the remainder of the measurement periods, which end in February, 2021 (stainless products) and June, 2022 (galvanized products).

The effective tax rate was 22 percent for the three-month and nine-month periods ended September 30, 2018, respectively. The Company's effective tax rate is materially equivalent compared to the U.S. statutory rate of 21 percent. The effective tax rate was 30 percent and 28 percent for the three and nine-month periods ended September 30, 2017. The 2017 effective tax rate was lower than the 34 percent federal statutory rate primarily due to state tax expense, net of the federal benefit and other permanent differences, including the manufacturer's exemption.

The Company's cash balance increased \$1,857,654 to \$1,872,360 as of September 30, 2018 compared to \$14,706 at December 31, 2017. Fluctuations during the period were comprised of the following:

- a. Net inventories increased \$43,904,470 at September 30, 2018 as compared to December 31, 2017. The increase, primarily related to the Metals Segment, included higher levels of pounds due to business activity (40% of the total or \$17.4 million), the inventories related to the completed MUSA- Galvanized acquisition on July 1, 2018 (\$4.3 million), stainless steel surcharges (\$5.6 million), higher special alloy content due to strong backlog (\$4.1 million), seasonal replenishment of seamless carbon steel pipe and tube inventory (\$8.4 million) and generally higher replacement costs during the first nine months of 2018. Inventory turns decreased from 2.51 turns at December 31, 2017, calculated on a three-month average basis, to 2.43 turns at September 30, 2018;
- b. Accounts payable increased \$22,439,256 as of September 30, 2018 as compared to December 31, 2017. The majority of the increase is related to increased levels of purchasing activity across all sectors of the business, including late third quarter receipts of inventory that were still unpaid on normal terms at the end of the quarter. Accounts payable days outstanding were approximately 44 days at September 30, 2018 compared to 60 days at December 31, 2017;
- c. Net accounts receivable increased \$20,851,000 at September 30, 2018 as compared to December 31, 2017, which primarily resulted from a 49% increase in sales for the last two months of the third quarter 2018 compared to the last two months of the fourth quarter of 2017. Days sales outstanding, calculated using a three-month average basis, decreased from 51 days outstanding at the end of December 2017 to 49 days at the end of the third quarter 2018;
- d. On July 1, 2018, the Company paid \$10,378,281 to complete the MUSA-Galvanized acquisition (refer to Note 9 for further details);
- e. The Company purchased \$4,970,470 in equity securities during the nine-month period ended September 30, 2018;
- f. Capital expenditures for the first nine months of 2018 were \$4,482,427;
- g. The Company paid out \$1,813,229 during the first nine months of 2018 related to the earn-out liability from the 2017 MUSA-Stainless acquisition; and
- h. The Company issued and sold 44,378 treasury shares at a net price of \$22.60 per share during the first nine months of 2018 in connection with the at-the-market ("ATM") program, raising total net proceeds of \$1,002,712.

The Company drew \$36,869,006 against its Line during the first nine months of 2018 and had \$62,782,563 of borrowings outstanding as of September 30, 2018. Covenants under the Credit Agreement include maintaining a minimum fixed charge coverage ratio and a limitation on the Company's maximum amount of capital expenditures per year, which is in line with currently projected needs. As of September 30, 2018, the Company had \$16,730,672 of remaining available capacity under its Line. The Company was in compliance with all covenants as of September 30, 2018.

Safe Harbor Statement Under the Private Securities Litigation Reform Act of 1995

This quarterly report includes and incorporates by reference "forward-looking statements" within the meaning of the federal securities laws. All statements that are not historical facts are "forward-looking statements." The words "estimate," "project," "intend," "expect," "believe," "should," "anticipate," "hope," "optimistic," "plan," "outlook," "should," "could," "may" and similar expressions identify forward-looking statements. The forward-looking statements are subject to certain risks and uncertainties, including without limitation those identified below, which could cause actual results to differ materially from historical results or those anticipated. Readers are cautioned not to place undue reliance on these forward-looking statements. The following factors could cause actual results to differ materially from historical results or those anticipated: adverse economic conditions; the impact of competitive products and pricing; product demand and acceptance risks; raw material and other increased costs; raw materials availability; employee relations; ability to maintain workforce by hiring trained employees; labor efficiencies; customer delays or difficulties in the production of products; new fracking regulations; a prolonged decrease in oil and nickel prices; unforeseen delays in completing the integrations of acquisitions; risks associated with mergers, acquisitions, dispositions and other expansion activities; financial stability of our customers; environmental issues; unavailability of debt financing on acceptable terms and exposure to increased market interest rate risk; inability to comply with covenants and ratios required by our debt financing arrangements; ability to weather an economic downturn; loss of consumer or investor confidence and other risks detailed from time-to-time in the Company's SEC filings. The Company assumes no obligation to update the information included in this report.

Item 3. Quantitative and Qualitative Disclosures about Market Risks

Information about the Company's exposure to market risk was disclosed in its Annual Report on Form 10-K for the year ended December 31, 2017, which was filed with the SEC on March 13, 2018. There have been no material quantitative or qualitative changes in market risk exposure since the date of that filing.

Item 4. Controls and Procedures

Based on the evaluation required by 17 C.F.R. Section 240.13a-15(b) or 240.15d-15(b) of the Company's disclosure controls and procedures (as defined in 17 C.F.R. Sections 240.13a-15(e) and 240.15d-15(e)), the Company's Chief Executive Officer and Chief Financial Officer concluded that that such controls and procedures, as of the end of the period covered by this quarterly report, were effective.

Changes in Internal Control over Financial Reporting

The Company's management, including the Chief Executive Officer and Chief Financial Officer, identified no change in the Company's internal control over financial reporting that occurred during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's control over financial reporting.

PART II

Item 1. Legal Proceedings

It is not unusual for us and our subsidiaries to be involved in various unresolved legal actions, administrative proceedings and claims in the ordinary course of business involving, among other things, product liability, commercial, employment, workers' compensation, and environmental matters. We establish reserves in a manner that is consistent with accounting principles generally accepted in the U.S. for costs associated with such matters when a liability is probable and those costs are capable of being reasonably estimated. We cannot predict with any certainty the outcome of these unresolved legal actions or the range of possible loss or recovery. Based on current information, however, we believe that the eventual outcome of these unresolved legal actions, either individually or in the aggregate, will not have a material adverse effect on our financial position, results of operations or cash flows. There were no material changes in our Legal Proceedings, as discussed in Part I, Item 3 in the Company's Annual Report on Form 10-K for the period ending December 31, 2017.

Item 1A. Risk Factors

There were no material changes in our assessment of risk factors as discussed in Part I, Item 1A in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

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

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit No.	Description
10.1	Equity Distribution Agreement, dated August 9, 2018, by and between Synalloy Corporation and BB&T Capital Markets, a division of BB&T Securities, LLC, and Ladenburg Thalmann & Co. Inc. (filed as Exhibit 1.1 to the Current Report on Form 8-K filed August 10, 2018).
31.1	Rule 13a-14(a)/15d-14(a) Certifications of Chief Executive Officer
31.2	Rule 13a-14(a)/15d-14(a) Certification of the Chief Financial Officer
32	Certifications Pursuant to 18 U.S.C. Section 1350
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase
101.LAB*	XBRL Taxonomy Extension Label Linkbase
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
*	In accordance with Regulation S-T, the XBRL-related information in Exhibit 101 to this Quarterly Report on Form 10-Q shall be deemed "furnished" and not "filed."

SIGNATURES

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

SYNALLOY CORPORATION

(Registrant)

Date: November 6, 2018

By: /s/ Craig C. Bram

Craig C. Bram
President and Chief Executive Officer
(principal executive officer)

Date: November 6, 2018

By: /s/ Dennis M. Loughran

Dennis M. Loughran
Senior Vice President and Chief Financial Officer
(principal accounting officer)

SYNALLOY CORPORATION

Up to \$10,000,000 of Common Stock

EQUITY DISTRIBUTION AGREEMENT

August 9, 2018

BB&T Capital Markets, a division
of BB&T Securities, LLC
901 East Byrd Street
Richmond, Virginia 23219

Ladenburg Thalmann & Co. Inc.
277 Park Avenue, 26th Floor
New York, New York 10172

Ladies and Gentlemen:

Synalloy Corporation, a Delaware corporation (the "Company"), confirms its agreement (this "Agreement") with BB&T Capital Markets, a division of BB&T Securities, LLC, and Ladenburg Thalmann & Co. Inc. (individually, an "Agent" and collectively, the "Agents"), as follows:

SECTION 1. Description of Securities.

The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through the Agents, each acting as sales agent, shares (the "Securities") of the Company's common stock, par value \$1.00 per share (the "Common Stock"), having an aggregate sale price of up to \$10,000,000 (the "Maximum Amount"). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitations set forth in this Section 1 regarding the number and aggregate sale price of the Securities issued and sold under this Agreement shall be the sole responsibility of the Company, and the Agents shall have no obligation in connection with such compliance. The issuance and sale of the Securities through the Agents will be effected pursuant to the Registration Statement (as defined below) filed by the Company with the Securities and Exchange Commission (the "Commission") and which became effective on February 3, 2016.

The Company has filed, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "Securities Act"), with the Commission a registration statement on Form S-3 (File No. 333-204850), including a base prospectus, relating to certain securities, including the Securities to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the "Exchange Act"). The Company has prepared a prospectus supplement specifically relating to the Securities (the "Prospectus Supplement") to the base prospectus included as part of such registration statement. The Company will furnish to the Agents, for use by the Agents, copies of the prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement, relating to the Securities. The "Registration Statement", as of any time, means such registration statement as amended by any post-effective amendments thereto at such time, including the exhibits and any schedules thereto at such time, the documents incorporated or deemed to be incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the Securities Act and the documents and information otherwise deemed to be a part thereof as of such time pursuant to Rule 430B under the Securities Act ("Rule 430B"); *provided*,

however, that the "Registration Statement" without reference to a time means such registration statement as amended by any post-effective amendments thereto as of the time of the first contract of sale for the Securities, which time shall be considered the "new effective date" of the Registration Statement with respect to the Securities within the meaning of paragraph (f)(2) of Rule 430B, including the exhibits and schedules thereto at such time, the documents and information incorporated or deemed to be incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the Securities Act and the documents otherwise deemed to be a part thereof as of such time pursuant to Rule 430B. The base prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as it may be supplemented by the Prospectus Supplement, in the form in which such prospectus and/or Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act is herein called the "Prospectus." Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include any copy filed with the Commission pursuant to EDGAR.

SECTION 2. Placements.

Each time that the Company wishes to issue and sell the Securities hereunder (each, a "Placement"), it will notify the applicable Agent by email notice (or other method mutually agreed to in writing by the parties) containing the parameters in accordance with which it desires the Securities to be sold, which shall at a minimum include the number of Securities to be issued (the "Placement Securities"), the time period during which sales are requested to be made, any limitation on the number of Securities that may be sold in any one day and any minimum price below which sales may not be made (a "Placement Notice"), a form of which containing such minimum sales parameters necessary is attached hereto as Exhibit A. The Company shall submit a Placement Notice to sell Placement Securities to only one Agent, if any, on any single Trading Day. The Placement Notice shall originate from any of the individuals from the Company set forth on Exhibit B (with a copy to each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals identified by such Agent set forth on Exhibit B, as such Exhibit B may be amended from time to time. If an Agent wishes to accept such proposed terms included in the Placement Notice (which it may decline to do so for any reason in its sole discretion) or, following discussion with the Company, wishes to accept amended terms, the applicable Agent will, prior to 8:30 a.m. (Richmond, Virginia time) on the business day following the business day on which such Placement Notice is delivered to such Agent, issue to the Company a notice by email (or other method mutually agreed to in writing by the parties) addressed to all of the individuals from the Company and such Agent set forth on Exhibit B setting forth the terms that such Agent is willing to accept. Where the terms provided in the Placement Notice are amended as provided for in the immediately preceding sentence, such terms will not be binding on the Company or such Agent until the Company delivers to that Agent an acceptance by email (or other method mutually agreed to in writing by the parties) of all of the terms of such Placement Notice, as amended (the "Acceptance"), which email shall be addressed to all of the individuals from the Company and such Agent set forth on Exhibit B. The Placement Notice (as amended by the corresponding Acceptance, if applicable) shall be effective upon receipt by the Company of such Agent's acceptance of the terms of the Placement Notice or upon receipt by such Agent of the Company's Acceptance, as the case may be, unless and until (i) the Maximum Amount of the Placement Securities has been sold, (ii) the amount of Placement Securities indicated on such Placement Notice has been sold, (iii) in accordance with the notice requirements set forth in the second sentence of this paragraph, the Company terminates the Placement Notice, (iv) the Company issues a subsequent Placement Notice with parameters superseding those on the earlier dated Placement Notice, (v) this Agreement has been terminated under the provisions of Section 13 or (vi) either party shall have suspended the sale of the Placement Securities in accordance with Section 4 below. The amount of any discount, commission or other compensation to be paid by the Company to such Agent in connection

with the sale of the Placement Securities shall be two percent (2%) of the gross sale price of the Securities sold pursuant to this Agreement. It is expressly acknowledged and agreed that neither the Company nor the Agents will have any obligation whatsoever with respect to a Placement or any Placement Securities unless and until the Company delivers a Placement Notice to such Agent and either (i) such Agent accepts the terms of such Placement Notice or (ii) where the terms of such Placement Notice are amended, the Company accepts such amended terms by means of an Acceptance pursuant to the terms set forth above, and then only upon the terms specified in the Placement Notice (as amended by the corresponding Acceptance, if applicable) and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice (as amended by the corresponding Acceptance, if applicable), the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable) will control.

SECTION 3. Sale of Placement Securities by the Agents.

Each Agent, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the Placement Securities up to the amount specified, and otherwise in accordance with the terms of such Placement Notice (as amended by the corresponding Acceptance, if applicable). The applicable Agent will provide written confirmation to the Company no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Securities hereunder setting forth the number of Placement Securities sold on such day, the compensation payable by the Company to such Agent pursuant to Section 2 with respect to such sales, and the Net Proceeds (as defined below) payable to the Company, with an itemization of the deductions made by such Agent (as set forth in Section 6(b)) from the gross proceeds that it receives from such sales. Subject to the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable), such Agent may sell Placement Securities by any method permitted by law deemed to be an “at the market” offering as defined in Rule 415 under the Securities Act, including without limitation sales made on any existing trading market for the Common Stock or to or through a market maker. Subject to the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable), such Agent may also sell Placement Securities by any other method permitted by law, including but not limited to privately negotiated transactions. The Company acknowledges and agrees that (i) there can be no assurance that such Agent will be successful in selling Placement Securities, and (ii) such Agent will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Securities for any reason other than a failure by such Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such Placement Securities as required under this Section 3. For the purposes hereof, “Trading Day” means any day on which shares of Common Stock are purchased and sold on the principal market on which the Common Stock is listed or quoted.

SECTION 4. Suspension of Sales. The Company or the applicable Agent may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on Exhibit B, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by verifiable facsimile transmission or email correspondence to each of the individuals of the other party set forth on Exhibit B), suspend any sale of Placement Securities; *provided, however*, that such suspension shall not affect or impair either party’s obligations with respect to any Placement Securities sold hereunder prior to the receipt of such notice. Each of the parties agrees that no such notice under this Section 4 shall be effective against the other unless it is made to one of the individuals named on Exhibit B hereto, as such exhibit may be amended from time to time.

SECTION 5. Representations and Warranties.

(a) *Representations and Warranties by the Company.* The Company represents and warrants to each Agent as of the date hereof and as of each Representation Date (as defined below) on which a certificate is required

to be delivered pursuant to Section 7(o) of this Agreement, as of each Applicable Time and as of each Settlement Date (as defined below), and agrees with each Agent, as follows:

(1) Compliance with Registration Requirements. The Securities have been duly registered under the Securities Act pursuant to the Registration Statement. The Registration Statement has become effective under the Securities Act, and no stop order preventing or suspending the use of any base prospectus, the Prospectus Supplement, the Prospectus or any Permitted Free Writing Prospectus (as defined below), or the effectiveness of the Registration Statement and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated by the Commission, and any request on the part of the Commission for additional information has been complied with.

At the time the Registration Statement and any post-effective amendments thereto became or becomes effective and as of the date hereof, the Registration Statement and any amendments and supplements thereto complied and will comply in all material respects with the requirements of the Securities Act. The Company satisfies the conditions for the use of Form S-3, as set forth in the General Instructions thereto, and the Registration Statement meets, and the offering and sale of the Securities as contemplated hereby complies with, the requirements of Rule 415 under the Securities Act (including, without limitation, Rule 415(a)(5)). The Registration Statement, as of the date hereof and each effective date with respect thereto, did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as of the date hereof, complied and as amended or supplemented, if applicable, will comply in all material respects with the requirements of the Securities Act. Neither the Prospectus nor any amendments or supplements thereto, as of their respective dates, and at each Applicable Time and Settlement Date, as the case may be, included or includes an untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The representations and warranties set forth in the immediately preceding paragraph shall not apply to statements in or omissions from the Registration Statement or the Prospectus, as amended or supplemented, made in reliance upon and in conformity with information furnished to the Company in writing by or on behalf of any Agent expressly for use therein. For purposes of this Agreement, the only information so furnished shall be such Agent's name (the "Agent Information").

Each Issuer Free Writing Prospectus relating to the Securities, if any, as of its issue date and as of each Applicable Time and Settlement Date, complied, complies and will comply in all material respects with the requirements of the Securities Act. Each Issuer Free Writing Prospectus relating to the Securities, as of its issue date and as of each Applicable Time and Settlement Date, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, including any incorporated document deemed to be a part thereof that has not been superseded or modified, or included, includes or will include an untrue statement of a material fact or, when taken together with the Registration Statement and the Prospectus, omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in light of the circumstances, prevailing at that subsequent time, not misleading. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by any Agent specifically for use therein.

The copies of the Registration Statement, each Issuer Free Writing Prospectus that is required to be filed with the Commission pursuant to Rule 433 under the Securities Act, the Prospectus and any amendments or supplements thereto delivered and to be delivered to the Agents (electronically or otherwise) in connection with the offering of the Securities were and will be identical to the electronically

transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

The documents incorporated by reference in the Registration Statement or the Prospectus, when they were filed with the Commission, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, and any documents so filed and incorporated by reference subsequent to the date of this Agreement or any further amendment or supplement to the Prospectus will, when they are filed with the Commission, conform in all material respects to the requirements of the Securities Act or the Exchange Act; and none of such documents, when read together with the other information in the Registration Statement and the Prospectus, include or will include any untrue statement of a material fact or omit or will omit to state any material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

(2) Pursuant to the Exchange Act. The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act.

(3) Stock Exchange Listing. The Common Stock has been approved for listing on The Nasdaq Global Market (the “NasdaqGM”). The Company has taken no action designed to, or likely to have the effect of delisting either the Common Stock from the NasdaqGM, nor has the Company received any notification that the NasdaqGM is contemplating terminating either such listing. Since January 1, 2016, the Company has not received any notice from the NasdaqGM regarding the delisting of the Company’s Common Stock from the NasdaqGM.

(4) No Stop Orders, etc. Neither the Commission nor, to the Company’s knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement or the Prospectus or has instituted or, to the Company’s knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) from the Commission for additional information.

(5) Disclosure of Agreements. The agreements and documents described in the Registration Statement and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act to be described in the Registration Statement and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement and the Prospectus, or (ii) is material to the Company’s business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company’s knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors’ rights generally, (y) as enforceability of any indemnification provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company’s knowledge, any other party is in default thereunder and, to the Company’s knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company’s knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, guidelines, notices, codes, judgment, order or decree of any governmental or regulatory agency, body or court, domestic or foreign, having jurisdiction over the

Company or any Subsidiary or any of their respective assets or businesses (each, a "Governmental Entity"), including, without limitation, those relating to environmental laws and regulations.

(6) Prior Securities Transactions. Since December 31, 2016, no securities of the Company have been sold by the Company, except as disclosed in the Registration Statement and the Prospectus.

(7) Regulations. The disclosures in the Registration Statement and the Prospectus concerning the effects of federal, state, local and all foreign laws, rules and regulations relating to the Company's business as currently conducted or contemplated are correct and complete in all material respects and no other such laws, rules or regulations are required to be disclosed in the Registration Statement and the Prospectus which are not so disclosed.

(8) No Other Distribution of Offering Materials. The Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Securities to be sold hereunder by the Agents, other than the Prospectus and any Permitted Free Writing Prospectus reviewed and consented to by the Agents. The Company will file with the Commission all Issuer Free Writing Prospectuses, if any, in the time and manner required under Rules 163(b)(2) and 433(d) under the Securities Act.

(9) Changes After Dates in Registration Statement.

a. Since the respective dates as of which information is given in the Registration Statement and the Prospectus, except as otherwise specifically stated therein: (i) there has been no material adverse change in the financial position or results of operations of the Company, nor any change or development that, singularly or in the aggregate, would involve a material adverse change in or affecting the condition (financial or otherwise), results of operations, business, assets, properties or prospects of the Company (a "Material Adverse Change"); (ii) there have been no material transactions entered into by the Company, other than as contemplated pursuant to this Agreement; and (iii) no officer or director of the Company has resigned from any position with the Company.

b. Recent Securities Transactions, etc. Subsequent to the respective dates as of which information is given in the Registration Statement and the Prospectus, and except as may otherwise be indicated or contemplated herein or disclosed in the Registration Statement and the Prospectus, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

(10) Disclosures in Commission Filings. Since January 1, 2016, (i) none of the Company's filings with the Commission, at the time they were filed, contained any untrue statement of a material fact or omitted to state any material fact necessary in order to make the statements therein, in light of the circumstances in which they were made, not misleading; and (ii) the Company has made all filings with the Commission required under the Exchange Act.

(11) Independent Accountants. To the knowledge of the Company, KPMG LLP (the "Auditor"), whose report is filed with the Commission as part of the Registration Statement and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Public Company Accounting Oversight Board. The Auditor has not, during the period covered by its audit report, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

(12) Financial Statements, etc. The historical financial statements, including the notes thereto and supporting schedules included in the Registration Statement and the Prospectus, fairly present in all

material respects the consolidated financial position and the results of operations of the Company at the dates and for the periods to which they apply; and such financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”), consistently applied throughout the periods involved (provided that unaudited interim financial statements are subject to year-end audit adjustments that are not expected to be material in the aggregate and do not contain all footnotes required by GAAP); and the supporting schedules included in the Registration Statement present fairly in all material respects the information required to be stated therein. Except as included therein, no historical or pro forma financial statements are required to be included in the Registration Statement or the Prospectus under the Securities Act. The pro forma and pro forma as adjusted financial information and the related notes, if any, included in the Registration Statement and the Prospectus have been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein. All disclosures contained in the Registration Statement or the Prospectus regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of the Commission), if any, comply in all material respects with Regulation G under the Exchange Act and Item 10(e) of Regulation S-K under the Securities Act, to the extent applicable. Each of the Registration Statement and the Prospectus discloses all material off-balance sheet transactions, arrangements, obligations (including contingent obligations), and other relationships of the Company with unconsolidated entities or other persons that may have a material current or future effect on the Company’s financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenues or expenses. Except as disclosed in the Registration Statement and the Prospectus, (a) neither the Company nor any of its direct and indirect subsidiaries, disclosed or described in the Registration Statement and the Prospectus as being a subsidiary of the Company (each, a “Subsidiary” and, collectively, the “Subsidiaries”), has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, (c) there has not been any change in the capital stock of the Company or any of its Subsidiaries, (d) other than in the ordinary course of business and consistent with the Company’s prior policies, made any grants under any stock compensation plan, and (e) there has not been any material adverse change in the Company’s long-term or short-term debt.

(13) Authorized Capital; Options, etc. The Company had, at the date or dates indicated in the Registration Statement and the Prospectus, the duly authorized, issued and outstanding historical capitalization as set forth therein. Except as set forth in, or contemplated by, the Registration Statement and the Prospectus, on the date hereof, as of each Applicable Time and on each Settlement Date, there will be no stock options, warrants, or other rights to purchase or otherwise acquire any authorized but unissued shares of Common Stock of the Company or any security convertible or exercisable into shares of Common Stock of the Company, or any contracts or commitments to issue or sell shares of Common Stock or any such options, warrants, rights or convertible securities.

(14) Valid Issuance of Securities, etc.

a. Outstanding Securities. All issued and outstanding securities of the Company issued prior to the transactions contemplated by this Agreement have been duly authorized and validly issued and are fully paid and non-assessable; the holders thereof have no contractual rights of rescission or the ability to force the Company to repurchase such securities with respect thereto, and are not subject to personal liability by reason of being such holders; and none of such securities were issued in violation of the preemptive rights, rights of first refusal or rights of participation of any holders of any security of the Company or similar contractual rights granted by the Company. The authorized shares of Common Stock conform in all material respects to all

statements relating thereto contained in the Registration Statement and the Prospectus. The offers and sales of the outstanding shares of Common Stock were at all relevant times either registered under the Securities Act and the applicable state securities or “blue sky” laws or, based in part on the representations and warranties of the purchasers of such shares of Common Stock, exempt from such registration requirements. All of the Company’s options, warrants and other rights to purchase or exchange any securities for shares of the Company’s Common Stock or other securities convertible into shares of the Company’s Common Stock have been duly authorized and validly issued and were issued under the Securities Act and the applicable state securities or “blue sky” laws or, based in part on the representations and warranties of the purchasers of such shares of Common Stock, exempt from such registration requirements. The description of the Company’s stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in Prospectus, accurately and fairly present, in all material respects, the information required to be shown with respect to such plans, arrangements, options and rights.

b. Securities Sold Pursuant to this Agreement. The Securities have been duly authorized for issuance and sale and, when issued and paid for, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; the Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company; and all corporate action required to be taken for the authorization, issuance and sale of the Securities has been duly and validly taken. The Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement and the Prospectus.

(15) Registration Rights of Third Parties. Except as set forth in the Registration Statement and the Prospectus, no holders of any securities of the Company or any options, warrants, rights or other securities exercisable for or convertible or exchangeable into securities of the Company have the right to require the Company to register any such securities of the Company under the Securities Act or to include any such securities in the Registration Statement of any other registration statement to be filed by the Company.

(16) Validity and Binding Effect of Agreement. The execution, delivery and performance of this Agreement have been duly and validly authorized by the Company, and, when executed and delivered, this Agreement will constitute, the valid and binding agreements of the Company, enforceable against the Company in accordance with its terms, except: (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors’ rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

(17) No Conflicts, etc. The execution, delivery and performance by the Company of this Agreement and all ancillary documents, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms hereof and thereof do not and will not, with or without the giving of notice or the lapse of time or both: (i) result in a breach of, or conflict with any of the terms and provisions of, or constitute a default under, or result in the creation, modification, termination or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any Subsidiary pursuant to the terms of any indenture, mortgage, deed of trust, loan agreement or any other agreement or instrument to which the Company or any Subsidiary is a party or as to which any property of the Company or any Subsidiary is a party; (ii) result in any violation of the provisions of the Company’s Certificate of Incorporation (as the same have been amended or restated from time to time, the

“Charter”) or the by-laws of the Company; or (iii) violate any existing applicable law, rule, regulation, judgment, order or decree of any Governmental Entity as of the date hereof; except for in the case of clauses (i) and (iii) those conflicts, breaches, violations, defaults or other results that would not result in a Material Adverse Change.

(18) No Defaults; Violations. No default exists in the due performance and observance of any term, covenant or condition of any material license, contract, indenture, mortgage, deed of trust, note, loan or credit agreement, or any other agreement or instrument evidencing an obligation for borrowed money, or any other material agreement or instrument to which the Company or any Subsidiary is a party or by which the Company or any Subsidiary may be bound or to which any of the properties or assets of the Company or any Subsidiary is subject, except for such default as would not, individually or in the aggregate, result in a Material Adverse Change. Neither the Company nor any Subsidiary is in violation of any term or provision of its Charter or by-laws, or in violation of any franchise, license, permit, applicable law, rule, regulation, guidelines, notices, codes, judgment, order or decree of any Governmental Entity.

(19) Corporate Power; Licenses; Consents.

a. Conduct of Business. Except as described in the Registration Statement and the Prospectus, each of the Company and each Subsidiary has all requisite corporate power and authority, and has all necessary consents, authorizations, approvals, orders, licenses, certificates, qualifications, registrations and permits (collectively, the “Authorizations”) of and from all Governmental Entity that it needs to conduct its business purpose as described in the Registration Statement and the Prospectus, except where the failure to do so would not, individually or in the aggregate, result in a Material Adverse Change.

b. Transactions Contemplated Herein. The Company has all corporate power and authority to enter into this Agreement and to carry out the provisions and conditions hereof, and all Authorizations required in connection therewith have been obtained. No Authorization of, and no filing with, any Governmental Entity is required for the valid issuance, sale and delivery of the Securities and the consummation of the transactions and agreements contemplated by this Agreement and as contemplated by the Registration Statement and the Prospectus, except such as have been already obtained or as may be required with respect to the Securities Act, applicable state securities laws, the rules and regulations of the Financial Industry Regulatory Authority, Inc. (“FINRA”) or the listing of the Securities on the NasdaqGM.

(20) Litigation; Governmental Proceedings. There is no action, suit, proceeding, inquiry, arbitration, investigation, litigation or governmental proceeding pending or, to the Company’s knowledge, threatened against, or involving the Company or any Subsidiary or, to the Company’s knowledge, any executive officer or director relating to the Company’s business which are required to be disclosed in the Registration Statement and the Prospectus and are not disclosed therein or which, if determined adversely to the Company or any of the Subsidiaries, would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change.

(21) Good Standing. The Company has been duly organized and is validly existing as a corporation and is in good standing under the laws of its jurisdiction of incorporation, and is duly qualified to do business and is in good standing in each other jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify, singularly or in the aggregate, would not have or reasonably expected to result in a Material Adverse Change.

(22) Insurance. The Company and each Subsidiary carries or is entitled to the benefits of insurance (including, without limitation, as to directors and officers insurance coverage), with reputable insurers, in such amounts and covering such risks which the Company believes are adequate, and all such

insurance is in full force and effect. Since January 1, 2016, neither the Company nor any of the Subsidiaries has been refunded any insurance coverage sought or applied for. The Company has no reason to believe that it or any Subsidiary will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Change.

(23) Foreign Corrupt Practices Act. None of the Company and its Subsidiaries or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company and its Subsidiaries or any other person acting on behalf of the Company and its Subsidiaries, has, directly or indirectly, given or agreed to give any money, gift or similar benefit (other than legal price concessions to customers in the ordinary course of business) to any customer, supplier, employee or agent of a customer or supplier, or official or employee of any governmental agency or instrumentality of any government (domestic or foreign) or any political party or candidate for office (domestic or foreign) or other person who was, is, or may be in a position to help or hinder the business of the Company (or assist it in connection with any actual or proposed transaction) that (i) might subject the Company to any damage or penalty in any civil, criminal or governmental litigation or proceeding, (ii) if not given in the past, might have had a Material Adverse Change or (iii) if not continued in the future, might adversely affect the assets, business, operations or prospects of the Company. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the Foreign Corrupt Practices Act of 1977, as amended.

(24) Compliance with OFAC. None of the Company and its Subsidiaries or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company and its Subsidiaries or any other person acting on behalf of the Company and its Subsidiaries, is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("OFAC"), and the Company will not, directly or indirectly, use the proceeds from the sales of Securities hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(25) Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(26) Forward-Looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the Registration Statement or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(27) Officers' Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to you or to your counsel shall be deemed a representation and warranty by the Company to the Agents as to the matters covered thereby.

(28) Subsidiaries. All direct and indirect Subsidiaries of the Company are duly organized, validly existing and in good standing under the laws of the place of organization or incorporation, and each Subsidiary is in good standing in each jurisdiction in which its ownership or lease of property or the

conduct of business requires such qualification, except where the failure to qualify would not have a Material Adverse Change. The Company's ownership and control of each Subsidiary is as described in the Registration Statement and the Prospectus. All the outstanding shares of capital stock of each Subsidiary have been duly authorized and validly issued, are fully paid and non-assessable and, except to the extent set forth in the Prospectus, are owned by the Company directly or indirectly through one or more wholly-owned subsidiaries, free and clear of any claim, lien, encumbrance, security interest, restriction upon voting or transfer or any other claim of any third party. Except as disclosed in the Registration Statement or the Prospectus, no director, officer or key employee of the Company named in the Prospectus holds any direct equity, debt or other pecuniary interest in any Subsidiary or, to the best of the Company's knowledge, any Person with whom the Company or any Subsidiary does business or is in privity of contract with, other than, in each case, indirectly through the ownership by such individuals of shares of Common Stock.

(29) Related Party Transactions.

a. Business Relationships. There are no business relationships or related party transactions involving the Company or any other person required to be described in the Registration Statement and the Prospectus that have not been described as required.

b. No Relationships with Customers and Suppliers. No relationship, direct or indirect, exists between or among the Company and any Subsidiary on the one hand, and the directors, officers, 5% or greater stockholders, customers or suppliers of the Company or any Subsidiary or any of the Company's or such Subsidiary's affiliates on the other hand, which is required to be described in the Prospectus or a document incorporated by reference therein and which is not so described.

c. No Unconsolidated Entities. There are no transactions, arrangements or other relationships between and/or among the Company or any Subsidiary, any of their affiliates (as such term is defined in Rule 405 under the Securities Act) and any unconsolidated entity, including, but not limited to, any structure finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company or any Subsidiary's liquidity or the availability of or requirements for its capital resources required to be described in the Prospectus or a document incorporated by reference therein which have not been described as required.

d. No Loans or Advances to Affiliates. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company or any Subsidiary to or for the benefit of any of the officers or directors of the Company, any Subsidiary or any of their respective family members, except as disclosed in the Registration Statement and the Prospectus. All transactions by the Company with office holders or control persons of the Company have been duly approved by the board of directors of the Company, or duly appointed committees or officers thereof.

(30) Board of Directors. The Board of Directors of the Company is comprised of the persons set forth in the Registration Statement and the Prospectus. The qualifications of the persons serving as board members and the overall composition of the board comply with the Exchange Act, the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder (the "Sarbanes-Oxley Act") applicable to the Company and the listing rules of the NasdaqGM. At least one member of the Audit Committee of the Board of Directors of the Company qualifies as an "audit committee financial expert," as such term is defined under Regulation S-K and the listing rules of the NasdaqGM. In addition, at least a majority of the persons serving on the Board of Directors qualify as "independent," as defined under the listing rules of the NasdaqGM.

(31) Sarbanes-Oxley Compliance.

a. Disclosure Controls. The Company has developed and currently maintains disclosure controls and procedures that comply with Rule 13a-15 or 15d-15 under the Exchange Act, and such controls and procedures are effective to ensure that all material information concerning the Company will be made known on a timely basis to the individuals responsible for the preparation of the Company's Exchange Act filings and other public disclosure documents.

b. Compliance. The Company has at all times been, is, and at each Applicable Time and on each Settlement Date will be, in material compliance with the provisions of the Sarbanes-Oxley Act applicable to it, and has implemented such programs and taken reasonable steps to ensure the Company's future compliance (not later than the relevant statutory and regulatory deadlines therefor) with all of the material provisions of the Sarbanes-Oxley Act.

(32) Accounting Controls. The Company and its Subsidiaries maintain systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as disclosed in the Registration Statement and the Prospectus, the Company is not aware of any material weaknesses in its internal controls. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are known to the Company's management and that have adversely affected or are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and (ii) any fraud known to the Company's management, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

(33) No Investment Company Status. The Company is not and, after giving effect to the sales of the Securities and the application of the proceeds therefrom as described in the Registration Statement and the Prospectus, will not be, required to register as an "investment company," as defined in the Investment Company Act of 1940, as amended (the "Investment Company Act").

(34) No Labor Disputes. No labor dispute with the employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is imminent. The Company is not aware that any key employee or significant group of employees of the Company or any Subsidiary plans to terminate employment with the Company or any Subsidiary.

(35) Intellectual Property Rights. The Company and each of its Subsidiaries owns or possesses or has valid rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets software, databases, know-how, internet domain names, other unpatented and/or unpatentable proprietary confidential information systems, processes or procedures and similar rights ("Intellectual Property Rights") necessary for the conduct of the business of the Company and its Subsidiaries as currently carried on and as described in the Registration Statement and the Prospectus, except where the failure to do so would not, individually or in the aggregate, result in a Material Adverse Change. The Intellectual Property licenses described in the Registration Statement and the Prospectus are valid, binding upon and enforceable against the parties

thereto in accordance with their terms, except where such failure, individually or in the aggregate, would result in a Material Adverse Change. To the knowledge of the Company, no action or use by the Company or any of its Subsidiaries necessary for the conduct of its business as currently carried on and as described in the Registration Statement and the Prospectus will involve or give rise to any infringement of, or license or similar fees for, any Intellectual Property Rights of others. Neither the Company nor any of its Subsidiaries has received any notice alleging any such infringement, fee or conflict with asserted Intellectual Property Rights of others. Except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any of the Intellectual Property Rights owned by the Company; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the rights of the Company in or to any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim, that would, individually or in the aggregate, together with any other claims in this Section 5(a)(35), reasonably be expected to result in a Material Adverse Change; (C) the Intellectual Property Rights owned by the Company and, to the knowledge of the Company, the Intellectual Property Rights licensed to the Company have not been adjudged by a court of competent jurisdiction invalid or unenforceable, in whole or in part, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 5(a)(35), reasonably be expected to result in a Material Adverse Change; (D) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property Rights or other proprietary rights of others, the Company has not received any written notice of such claim and the Company is unaware of any other facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 5(a)(35), reasonably be expected to result in a Material Adverse Change; and (E) to the Company's knowledge, no employee of the Company is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company, or actions undertaken by the employee while employed with the Company and could reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change. To the Company's knowledge, all material technical information developed by and belonging to the Company which has not been patented has been kept confidential. The Company is not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property Rights of any other person or entity that are required to be set forth in the Registration Statement and the Prospectus and are not described therein. The Registration Statement and the Prospectus contain in all material respects the same description of the matters set forth in the preceding sentence. None of the technology employed by the Company has been obtained or is being used by the Company in violation of any material contractual obligation binding on the Company or, to the Company's knowledge, any of its officers, directors or employees, or otherwise in violation of the rights of any persons.

(36) Taxes. Each of the Company and its Subsidiaries has filed all returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof. Each of the Company and its Subsidiaries has paid all taxes (as hereinafter defined) shown as due on such returns that were filed and has paid all taxes imposed on or assessed against the Company or such respective Subsidiary. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. Except as disclosed in writing to the Agent, (i) no issues have been raised (and are currently

pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company or its Subsidiaries, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company or its Subsidiaries. There are no tax liens against the assets, properties or business of the Company or any Subsidiary. The term “taxes” means all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind whatever, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term “returns” means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

(37) Compliance with Laws. Each of the Company and each Subsidiary: (A) is and at all times has been in compliance with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company or any Subsidiary (“Applicable Laws”), except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change; (B) has not received any written notices, statements or other correspondence or notice from any Governmental Entity alleging or asserting noncompliance with any Applicable Laws or any Authorizations; (C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (D) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Entity or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received notice that any Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such governmental authority is considering such action; and (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct on the date filed (or were corrected or supplemented by a subsequent submission).

(38) Compliance with Environmental Laws. Except as described in the Registration Statement and the Prospectus and except as would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Change, (i) neither the Company nor any Subsidiary is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products (collectively, “Hazardous Materials”) or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, “Environmental Laws”), (ii) the Company and each Subsidiary has all material permits, authorizations and approvals required under any applicable Environmental Laws and is in compliance with their requirements, (iii) there are no pending or, to the Company’s knowledge, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any Subsidiary and (iv) to the Company’s knowledge, there are no events or circumstances that might reasonably be expected to form the basis of an order for

clean-up or remediation, or an action, suit or proceeding by any private party or governmental body or agency, against or affecting the Company or any Subsidiary relating to Hazardous Materials or any Environmental Laws.

(39) ERISA Compliance. The Company, each Subsidiary and any “employee benefit plan” (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, “ERISA”)) established or maintained by the Company or its “ERISA Affiliates” (as defined below) are in compliance in all material respects with ERISA. “ERISA Affiliate” means, with respect to the Company, any member of any group of organizations described in Sections 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the “Code”) of which the Company is a member. No “reportable event” (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates. No “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates, if such “employee benefit plan” were terminated, would have any “amount of unfunded benefit liabilities” (as defined under ERISA). Neither the Company nor any of its ERISA Affiliates has incurred or reasonably expects to incur any material liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each “employee benefit plan” established or maintained by the Company or any Subsidiary or any of its ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the knowledge of the Company, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification. Each pension plan for which the Company and each Subsidiary would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification. The execution of this Agreement, or consummation of the sales of the Securities hereunder does not constitute a triggering event under any employee benefit plan or any other employment contract, whether or not legally enforceable, which (either alone or upon the occurrence of any additional or subsequent event) will or may result in any payment (of severance pay or otherwise), acceleration, increase in vesting, or increase in benefits to any current or former participant, employee or director of the Company or any Subsidiary other than an event that is not material to the financial condition or business of the Company or any Subsidiary, either individually or taken as a whole.

(40) Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the time of effectiveness of the Registration Statement and any amendment thereto, at the earliest time thereafter that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Securities and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405 under the Securities Act, without taking account of any determination by the Commission pursuant to Rule 405 under the Securities Act that it is not necessary that the Company be considered an ineligible issuer.

(41) Industry Data. The statistical, industry and market-related data included in each of the Registration Statement and the Prospectus are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company’s good faith estimates that are made on the basis of data derived from such sources.

(42) Margin Securities. Neither the Company nor any Subsidiary owns any “margin securities” as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the “Federal Reserve Board”), and none of the proceeds from the sales of Securities under this Agreement will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the shares of Common

Stock to be considered a “purpose credit” within the meanings of Regulation T, U or X of the Federal Reserve Board.

(43) Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the sale of the Securities hereunder to be integrated with prior offerings by the Company for purposes of the Securities Act which would require the registration of any such securities under the Securities Act.

(44) Title to Real Property. Each of the Company and each Subsidiary has good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and any Subsidiary, in each case free and clear of all liens, encumbrances, security interests, claims and defects that do not, singularly or in the aggregate, materially affect the business of the Company and do not interfere with the use made of such property by the Company or any Subsidiary; and all of the leases and subleases material to the business of the Company and any Subsidiary, and under which the Company holds properties described in the Prospectus, are, to the Company’s knowledge in full force and effect, and neither the Company nor any Subsidiary has received any notice of any material claim of any sort that have been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease, which would result in a Material Adverse Change.

(45) Confidentiality and Non-Competitions. To the Company’s knowledge, no director, officer, key employee or consultant of the Company is subject to any confidentiality, non-disclosure, non-competition agreement or non-solicitation agreement with any employer or prior employer which could materially affect his ability to be and act in his respective capacity of the Company or result in a Material Adverse Change.

(46) Corporate Records. The minute books of the Company and each Subsidiary have been made available to you and your counsel, and such books (i) contain a summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company and each Subsidiary since the time of its respective incorporation or organization through the date of the latest meeting and action, and (ii) material reflect all transactions referred to in such minutes.

(b) Certificates. Any certificate signed by or other representation made by an officer of the Company delivered or otherwise provided to you or your counsel shall be deemed to be a representation.

SECTION 6. Settlement and Delivery.

(a) Settlement of Placement Securities. Unless otherwise specified in the applicable Placement Notice (as amended by the corresponding Acceptance, if applicable), settlement for sales of Placement Securities will occur on the second (2nd) Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each, a “Settlement Date”). The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Securities sold (the “Net Proceeds”) will be equal to the aggregate sales price received by the Agent at which such Placement Securities were sold, after deduction for (i) such Agent’s commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof and (ii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales.

(b) Delivery of Placement Securities. On or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Placement Securities being sold by crediting the applicable Agent’s or its designee’s account (provided such Agent shall have given the Company written notice of such

designee prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradable, transferable, registered shares in good deliverable form. On each Settlement Date, the applicable Agent will deliver the related Net Proceeds in same day funds to an account designated by the Company on, or prior to, the Settlement Date. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to deliver Placement Securities on a Settlement Date, the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 10(a) hereto, it will (i) hold the Agents harmless against any loss, liability, claim, damage, or expense whatsoever (including reasonable legal fees and expenses), as incurred, arising out of or in connection with such default by the Company or its transfer agent and (ii) pay to the Agents any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

(c) *Denominations; Registration.* Certificates for the Securities, if any, shall be in such denominations and registered in such names as the Agents may request in writing at least one full business day before the Settlement Date. The certificates for the Securities, if any, will be made available for examination and packaging by the Agents in The City of New York not later than noon (New York time) on the business day prior to the Settlement Date. The Company shall deliver the Securities, if any, through the facilities of The Depository Trust Company unless the Agents shall otherwise instruct.

(d) *Limitations on Offering Size.* Under no circumstances shall the Company cause or request the offer or sale of any Securities, if after giving effect to the sale of such Securities, the aggregate offering price of the Securities sold pursuant to this Agreement would exceed the lesser of (A) the Maximum Amount, (B) the amount available for offer and sale under the currently effective Registration Statement and (C) the amount authorized from time to time to be issued and sold under this Agreement by the Company and notified to the Agents in writing. Under no circumstances shall the Company cause or request the offer or sale of any Securities pursuant to this Agreement at a price lower than the minimum price authorized from time to time by the Company's Board of Directors or a duly authorized committee thereof and notified to the Agents in writing. Further, under no circumstances shall the aggregate offering price of Securities sold pursuant to this Agreement exceed the Maximum Amount.

(e) *Black-out Limitations.* Notwithstanding any other provision of this Agreement, (A) the Company shall not offer or sell, or instruct the Agents to offer or sell, any Securities, (B) the Company shall cancel any instructions for any such offer or sale of any Securities prior to the commencement of the periods referenced below and (C) the Agents shall not be obligated to make any such offer or sale of Securities, in each case, (i) during any period in which the Company is, or could be deemed to be, in possession of material non-public information or (ii) except as provided in Section 6(e)(1) hereof, at any time during the period commencing on the last day of a calendar quarter through and including the time that is 24 hours after the Company files its Quarterly Report on Form 10-Q or an Annual Report on Form 10-K with respect to such quarter (a "Filing Time") through and including the time that is 24 hours after the Filing Time.

(1) If the Company wishes to offer or sell Securities through any Agent at any time during the period from the 10th business day prior to a Filing Time through and including the time that is 24 hours after the corresponding Filing Time, the Company shall first provide such Agent with the officers' certificate and opinion of counsel specified in Section 7(o) and (p), respectively, hereof, and (ii) afford such Agent the opportunity to conduct a due diligence review in accordance with Section 7(m) hereof prior to filing the Company's Quarterly Report on Form 10-Q or Annual Report on Form 10-K, as applicable. For purposes of clarity, the parties hereto agree that (A) the delivery of any officers' certificate or opinion or letter of counsel pursuant to this Section 6(e) shall not relieve the Company from any of its obligations under this Agreement with respect to any Quarterly Report on Form 10-Q or Annual Report on Form 10-K, as the case may be, including, without limitation, the obligation to deliver officers' certificates, opinions and letters of counsel and accountants' letters as provided in Section 7(o), (p) and (q), respectively, hereof,

and (B) this Section 6(e)(1) shall in no way affect or limit the operation of clause (i) of Section 6(e) hereof, which shall have independent application.

SECTION 7. Covenants of the Company. The Company covenants with the Agents as follows:

(a) *Registration Statement Amendments; Payment of Fees*. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Securities is required to be delivered by the applicable Agent under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify the Agents promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus has been filed and of any comment letter from the Commission or any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information; (ii) the Company will prepare and file with the Commission, promptly upon an Agent's request, any amendments or supplements to the Registration Statement or Prospectus that, in such Agent's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Securities by the Agents (*provided, however*, that the failure of the Agents to make such request shall not relieve the Company of any obligation or liability hereunder, or affect the Agents' right to rely on the representations and warranties made by the Company in this Agreement); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus, other than documents incorporated by reference, relating to the Placement Securities or a security convertible into the Placement Securities unless a copy thereof has been submitted to the Agents within a reasonable period of time before the filing and the Agents have not reasonably objected thereto (*provided, however*, that the failure of the Agents to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Agents' right to rely on the representations and warranties made by the Company in this Agreement) and the Company will furnish to the Agents at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; and (iv) the Company will cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) under the Securities Act (without reliance on Rule 424(b)(8) under the Securities Act).

(b) *Notice of Commission Stop Orders*. The Company will advise the Agents, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any other order preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus, or of the suspension of the qualification of the Placement Securities for offering or sale in any jurisdiction or of the loss or suspension of any exemption from any such qualification, or of the initiation or threatening of any proceedings for any of such purposes, or of any examination pursuant to Section 8(e) of the Securities Act concerning the Registration Statement or if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the offering of the Securities. The Company will make every reasonable effort to prevent the issuance of any stop order, the suspension of any qualification of the Securities for offering or sale and any loss or suspension of any exemption from any such qualification, and if any such stop order is issued or any such suspension or loss occurs, to obtain the lifting thereof as soon as reasonably practicable.

(c) *Delivery of Registration Statement and Prospectus*. The Company will furnish to the Agents and their counsel (at the expense of the Company) copies of the Registration Statement, the Prospectus (including all documents incorporated by reference therein) and all amendments and supplements to the Registration Statement or Prospectus, and any Issuer Free Writing Prospectuses, that are filed with the Commission during any period in which a Prospectus relating to the Placement Securities is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities and at such locations as the Agents may from time to time reasonably request provided, however, that the Company shall not be required to furnish any document

(other than the Prospectus) to the Agents to the extent such document is available on EDGAR. The copies of the Registration Statement and the Prospectus and any supplements or amendments thereto furnished to the Agents will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) *Continued Compliance with Securities Laws.* If at any time when a Prospectus is required by the Securities Act or the Exchange Act to be delivered in connection with a pending sale of the Placement Securities (including, without limitation, pursuant to Rule 172), any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Agents or for the Company, to amend the Registration Statement or amend or supplement the Prospectus in order that the Prospectus will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser, or if it shall be necessary, in the opinion of such counsel, at any such time to amend the Registration Statement or amend or supplement the Prospectus in order to comply with the requirements of the Securities Act, the Company will promptly notify the Agents to suspend the offering of Placement Securities during such period and the Company will promptly prepare and file with the Commission such amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement or the Prospectus comply with such requirements, and the Company will furnish to the Agents such number of copies of such amendment or supplement as the Agents may reasonably request. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted, conflicts or would conflict with the information contained in the Registration Statement or the Prospectus or included, includes or would include an untrue statement of a material fact or omitted, omits or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances, prevailing at that subsequent time, not misleading, the Company will promptly notify the Agents to suspend the offering of Placement Securities during such period and the Company will, subject to Section 7(a) hereof, promptly amend or supplement such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(e) *Blue Sky and Other Qualifications.* The Company will use its commercially reasonable efforts, in cooperation with the Agents, to qualify the Placement Securities for offering and sale, or to obtain an exemption for the Securities to be offered and sold, under the applicable securities laws of such states and other jurisdictions of the United States as the Agents may designate and to maintain such qualifications and exemptions in effect for so long as required for the distribution of the Securities (but in no event for less than one year from the date of this Agreement); *provided, however,* that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject. In each jurisdiction in which the Placement Securities have been so qualified or exempt, the Company will file such statements and reports as may be required by the laws of such jurisdiction to continue such qualification or exemption, as the case may be, in effect for so long as required for the distribution of the Placement Securities (but in no event for less than one year from the date of this Agreement).

(f) *Rule 158.* The Company will timely file such reports pursuant to the Exchange Act as are necessary in order to make generally available to its securityholders as soon as practicable an earnings statement for the purposes of, and to provide to the Agents the benefits contemplated by, the last paragraph of Section 11(a) of the Securities Act.

(g) *Use of Proceeds.* The Company will use the net proceeds received by it from the sale of the Securities in the manner specified in the Prospectus under "Use of Proceeds."

(h) *Listing.* During any period in which the Prospectus relating to the Placement Securities is required to be delivered by the Agents under the Securities Act with respect to a pending sale of the Placement Securities (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act),

the Company will use its commercially reasonable efforts to cause the Placement Securities to be listed on the NasdaqGM.

(i) *Filings with the NasdaqGM.* The Company will timely file with the NasdaqGM all material documents and notices required by the NasdaqGM of companies that have or will issue securities that are traded on the NasdaqGM.

(j) *Reporting Requirements.* The Company, during any period when the Prospectus is required to be delivered under the Securities Act and the Exchange Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), will file all documents required to be filed with the Commission pursuant to Section 13(a) or Section 15(d) of the Exchange Act within the time periods required by the Exchange Act.

(k) *Notice of Other Sales.* The Company will not, without (i) giving the Agents at least three (3) business days' prior written notice specifying the nature of the proposed sale and the date of such proposed sale and (ii) the Agents suspending activity under this program for such period of time as requested by the Company or as deemed appropriate by the Agents in light of the proposed sale, (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, lend or otherwise transfer or dispose of, directly or indirectly, any Common Stock or securities convertible into or exchangeable or exercisable for or repayable with Common Stock, or file any registration statement under the Securities Act with respect to any of the foregoing (other than a shelf registration statement under Rule 415 under the Securities Act, a registration statement on Form S-8 or Form S-4 or a post-effective amendment to the Registration Statement) or (B) enter into any swap or other agreement or any transaction that transfers in whole or in part, directly or indirectly, any of the economic consequence of ownership of the Common Stock, or any securities convertible into or exchangeable or exercisable for or repayable with Common Stock, whether any such swap or transaction described in clause (A) or (B) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. The foregoing sentence shall not apply to (x) the Common Stock to be offered and sold through the Agents pursuant to this Agreement and (y) equity incentive awards approved by the Board of Directors or the compensation (or equivalent) committee thereof or the issuance of Common Stock upon exercise thereof.

(l) *Change of Circumstances.* The Company will, at any time during a fiscal quarter in which the Company intends to tender a Placement Notice or sell Placement Securities, advise the Agents promptly after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document provided to the Agents pursuant to this Agreement.

(m) *Due Diligence Cooperation.* The Company will cooperate with any reasonable due diligence review conducted by the Agents or their respective agents in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior officers, during regular business hours and at the Company's principal offices, as the Agents may reasonably request.

(n) *Disclosure of Sales.* The Company will disclose in its Quarterly Reports on Form 10-Q and in its Annual Report on Form 10-K the number of Placement Securities sold through the Agents, the Net Proceeds to the Company and the compensation payable by the Company to the Agents with respect to such Placement Securities during the period covered by such report.

(o) *Representation Dates; Certificate.* On the date of this Agreement and:

(1) each time the Company:

a. files the Prospectus relating to the Placement Securities or amends or supplements the Registration Statement or the Prospectus relating to the Placement Securities by means of a post-effective amendment, sticker, or supplement but not by means of incorporation of

documents by reference into the Registration Statement or the Prospectus relating to the Placement Securities;

- b. files an Annual Report on Form 10-K under the Exchange Act;
- c. files a Quarterly Report on Form 10-Q under the Exchange Act; or
- d. files a current report on Form 8-K containing amended financial information (other than an earnings release or to “furnish” information pursuant to Items 2.02 or 7.01 of Form 8-K) under the Exchange Act; and

(2) at any other time reasonably requested by the Agents (each such date of filing of one or more of the documents referred to in clauses (1)(a) through (d) and any time of request pursuant to this Section 7(o) shall be a “Representation Date”), the Company shall furnish the Agents with a certificate, in the form attached hereto as Exhibit C within three (3) Trading Days of any Representation Date. The requirement to provide a certificate under this Section 7(o)(2) shall be waived for any Representation Date occurring at a time at which no Placement Notice (as amended by the corresponding Acceptance, if applicable) is pending, which waiver shall continue until the earlier to occur of the date the Company delivers a Placement Notice hereunder (which for such calendar quarter shall be considered a Representation Date) and the next occurring Representation Date; *provided, however*, that such waiver shall not apply for any Representation Date on which the Company files its Annual Report on Form 10-K. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Securities following a Representation Date when the Company relied on such waiver and did not provide the Agents with a certificate under this Section 7(o), then before the Company delivers the Placement Notice or the Agents sell any Placement Securities, the Company shall provide the Agent with a certificate, in the form attached hereto as Exhibit C, dated the date of the Placement Notice.

(p) *Legal Opinion*. On the date of this Agreement and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit C for which no waiver is applicable, the Company shall cause to be furnished to the Agents a written opinion or opinions of Williams Mullen, counsel to the Company (“Company Counsel”), or other counsel satisfactory to the Agents, in form and substance satisfactory to the Agents and their counsel, dated the date that the opinion is required to be delivered, substantially in the form attached hereto as Exhibit D; *provided, however*, that in lieu of such opinions for subsequent Representation Dates, counsel may furnish the Agents with a letter (a “Reliance Letter”) to the effect that the Agents may rely on a prior opinion delivered under this Section 7(p) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(q) *Comfort Letter*. On the date of this Agreement and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit C for which no waiver is applicable, the Company shall cause its independent accountants (and any other independent accountants whose report is included in the Registration Statement or the Prospectus) to furnish the Agents letters (the “Comfort Letters”), dated the date the Comfort Letter is delivered, in form and substance satisfactory to the Agents, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act, the Exchange Act and the Public Company Accounting Oversight Board, (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants’ “comfort letters” to underwriters in connection with registered public offerings (the first such letter, the “Initial Comfort Letter”) and (iii) updating the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(r) *Opinion of Counsel for the Agent.* On the date of this Agreement and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit C for which no waiver is applicable, the Agents shall have received the favorable written opinion or opinions of Troutman Sanders LLP, counsel for the Agents, dated such date, with respect to such matters as the Agents may reasonably request.

(s) *Market Activities.* The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or (ii) sell, bid for, or purchase the Securities to be issued and sold pursuant to this Agreement, or pay anyone any compensation for soliciting purchases of the Securities to be issued and sold pursuant to this Agreement other than the Agents; *provided, however,* that the Company may bid for and purchase its Common Stock in accordance with Rule 10b-18 under the Exchange Act; and provided further, that no such bids or purchases shall be made by the Company during the three (3) Trading Days before or after any sale of any Securities pursuant to this Agreement.

(t) *Investment Company Act.* The Company will conduct its affairs in such a manner so as to reasonably ensure that neither it nor its subsidiaries will be required to register, at any time prior to the termination of this Agreement, as an “investment company,” as such term is defined in the Investment Company Act, assuming no change in the Commission’s current interpretation as to entities that are not considered an investment company.

(u) *Securities Act and Exchange Act.* The Company will use its best efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the continuance of sales of, or dealings in, the Placement Securities as contemplated by the provisions hereof and the Prospectus.

(v) *No Offer to Sell.* Other than a free writing prospectus (as defined in Rule 405 under the Securities Act) approved in advance in writing by the Company and the Agents in their capacities as agents hereunder, the Company (including its agents and representatives, other than the Agents in their capacities as such) will not, directly or indirectly, make, use, prepare, authorize, approve or refer to any free writing prospectus relating to the Securities to be sold by the Agents hereunder.

(w) *Sarbanes-Oxley Act.* The Company and its subsidiaries will use their best efforts to comply with all effective applicable provisions of the Sarbanes-Oxley Act of 2002.

(x) *Renewal Deadline.* If, immediately prior to the third anniversary of the initial effective date of the Registration Statement (the “Renewal Deadline”), this Agreement is still in effect, the Company will, prior to the Renewal Deadline, (i) promptly notify the Agents and (ii) promptly file a new shelf registration statement on the proper form relating to the Securities, in a form and substance satisfactory to the Agents, (iii) use its commercially reasonable efforts to cause such new shelf registration statement to be declared effective within 90 days after the Renewal Deadline and (iv) promptly notify the Agents of such effectiveness. The Company will take all other action necessary or appropriate to permit the offering and sale of the Placement Securities to continue as contemplated in the expired Registration Statement. References herein to the “Registration Statement” shall include such new shelf registration statement.

SECTION 8. Payment of Expenses.

(a) *Expenses.* The Company will pay or cause to be paid the following expenses incident to the performance of its obligations under this Agreement: (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and of each amendment and supplement thereto, (ii) the word processing, printing and delivery to the Agents of this Agreement and such other documents as may be required in connection with the offering, purchase, sale, issuance or delivery of the Placement Securities, (iii) the preparation, issuance and delivery of the certificates, if any, for the Placement Securities to the Agents,

including any stock or other transfer taxes and any capital duties, stamp duties or other duties or taxes payable upon the sale, issuance or delivery of the Placement Securities to the Agents, (iv) the fees and disbursements of the counsel, accountants and other advisors to the Company, (v) the qualification or exemption of the Placement Securities under securities laws in accordance with the provisions of Section 7(e) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Agents in connection therewith, (vi) the printing and delivery to the Agents of copies of any Permitted Free Writing Prospectus and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Agents to investors, (vii) the fees and expenses of the transfer agent and registrar for the Securities, (viii) the filing fees incident to, and the reasonable fees and disbursements of counsel to the Agents in connection with, any review by FINRA of the terms of the sale of the Securities, and (ix) the fees and expenses incurred in connection with the listing of the Placement Securities on the NasdaqGM.

(b) *Termination of Agreement.* If this Agreement is terminated by the Agents in accordance with the provisions of Section 9(m) or Section 13(a) hereof, or by the Company in accordance with the provisions of Section 13(b) hereof, or if the Registration Statement is not renewed in accordance with the terms set forth in Section 7(x) hereof, in each case at any time prior to the Agents' sales of Securities having an aggregate sale price of less than \$2,500,000, the Company shall reimburse the Agents for the Agents' reasonably incurred out of pocket expenses, including the reasonable fees and disbursements of counsel for the Agents, in an aggregate amount not to exceed the difference between (x) \$50,000 and (y) the aggregate discounts, commissions or other compensation received by the Agents as of the date of such termination or non-renewal; provided, however, that if the Company engages an Agent in any underwriting, sales agent, placement agent or similar capacity in connection with additional offerings or issuances of the Company's equity or debt securities within a two (2) year period following the date of such termination or non-renewal, such Agent shall credit the Company for the amount of reimbursement pursuant to this Section 8(b) against discounts, commissions or other compensation to be paid by the Company to such Agent in connection with such offerings or issuances.

SECTION 9. Conditions of the Agents' Obligations. The obligations of the Agents hereunder with respect to a Placement will be subject to the continuing accuracy and completeness of the representations and warranties of the Company contained in this Agreement or in certificates of any officer of the Company or any subsidiary of the Company delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement.* The Registration Statement shall have become effective and shall be available for (i) all sales of Placement Securities issued pursuant to all prior Placement Notices (each as amended by a corresponding Acceptance, if applicable) and (ii) the sale of all Placement Securities contemplated to be issued by any Placement Notice (each as amended by a corresponding Acceptance, if applicable).

(b) *No Material Notices.* None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its Subsidiaries of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which, in the opinion of the Company at the time of such receipt or request, would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus, or any Issuer Free Writing Prospectus, or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related Prospectus, or any Issuer Free Writing Prospectus, or such documents so that, in the case of the Registration Statement, it will not contain any materially untrue statement of a material fact or omit to

state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus and any Issuer Free Writing Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) *No Misstatement or Material Omission.* An Agent shall not have advised the Company that the Registration Statement or Prospectus, or any Issuer Free Writing Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact that in such Agent's reasonable opinion is material, or omits to state a fact that in such Agent's reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) *Material Changes.* Except as contemplated in the Prospectus or disclosed in the Company's reports filed with the Commission, there shall not have been any material adverse change in the condition, financial or otherwise, or in the earnings or business affairs or business prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business.

(e) *Opinion of Counsel for Company.* The Agents shall have received the favorable opinion of Company Counsel, required to be delivered pursuant to Section 7(p) on or before the date on which such delivery of such opinion is required pursuant to Section 7(p).

(f) *Representation Certificate.* The Agents shall have received the certificate required to be delivered pursuant to Section 7(o) on or before the date on which delivery of such certificate is required pursuant to Section 7(o).

(g) *Accountant's Comfort Letter.* The Agents shall have received the Comfort Letter required to be delivered pursuant Section 7(q) on or before the date on which such delivery of such Comfort Letter is required pursuant to Section 7(q).

(a) *No Suspension.* Trading in the Securities shall not have been suspended on the NasdaqGM.

(b) *Additional Documents.* On each date on which the Company is required to deliver a certificate pursuant to Section 7(o), counsel for the Agents shall have been furnished with such documents and opinions as they may reasonably require for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, contained in this Agreement.

(c) *Securities Act Filings Made.* All filings with the Commission required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424.

(d) *Termination of Agreement.* If any condition specified in this Section 9 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Agents by written notice to the Company, and such termination shall be without liability of any party to any other party except as provided in Section 8 hereof and except that, in the case of any termination of this Agreement, Sections 10, 11, 12 and 22 hereof shall survive such termination and remain in full force and effect.

SECTION 10. Indemnification.

(a) *Indemnification by the Company.* The Company agrees to indemnify and hold harmless the Agents, their affiliates (within the meaning of Rule 405 under the Securities Act), and each person, if any, who controls the Agents within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act as follows:

(1) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, or arising out of any untrue statement or alleged untrue statement of a material fact included in any Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(2) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 10(d) below) any such settlement is effected with the written consent of the Company; and

(3) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel chosen by the Agents), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (1) or (2) above,

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with the Agent Information.

(b) *Indemnification by Agents.* Each Agent, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section 10, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), any Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Agent Information.

(c) *Actions against Parties; Notification.* Each indemnified party shall give notice as promptly as reasonably practicable to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve such indemnifying party from any liability hereunder to the extent it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability which it may have otherwise than on account of this indemnity agreement. Counsel to the indemnified parties shall be selected as follows: counsel to the Agents and each person, if any, who controls the Agents within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall be selected by the Agents; and counsel to the Company, its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall be selected by the Company. An indemnifying party may participate at its own expense in the defense of any such action; *provided, however*, that counsel to the indemnifying party shall not (except with the consent of the indemnified party) also be counsel to the indemnified party. In no event shall the indemnifying parties be liable for the fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for the Agents and each person, if any, who controls the Agents within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, and the fees and expenses of more than one counsel (in addition to

any local counsel) separate from their own counsel for the Company, its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in each case in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever in respect of which indemnification or contribution could be sought under this Section 10 or Section 11 hereof (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Settlement Without Consent if Failure to Reimburse.* If at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel that indemnifying party is required to reimburse to such indemnified party pursuant to this Section 10, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 10(a)(ii) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

SECTION 11. Contribution. If the indemnification provided for in Section 10 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and any Agent on the other hand from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and of any Agent on the other hand in connection with the statements or omissions.

The relative benefits received by the Company on the one hand and any Agent on the other hand in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company and the total commissions received by such Agent, in each case as set forth on the cover of the Prospectus, bear to the aggregate public offering price of the Securities as set forth on such cover.

The relative fault of the Company on the one hand and any Agent on the other hand shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by such Agent and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Agents agree that it would not be just and equitable if contribution pursuant to this Section 11 were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 11. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 11 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or

body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission.

Notwithstanding the provisions of this Section 11, an Agent shall not be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten or placed by it and distributed to the public were offered to the public exceeds the amount of any damages which such Agent has otherwise been required to pay by reason of any such untrue or alleged untrue statement or omission or alleged omission.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

For purposes of this Section 11, each person, if any, who controls each Agent within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as such Agent, as applicable, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as the Company.

SECTION 12. Representations, Warranties and Agreements to Survive Delivery. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect, regardless of any investigation made by or on behalf of the Agents or controlling person, or by or on behalf of the Company, and shall survive delivery of the Securities to the Agents.

SECTION 13. Termination of Agreement.

(a) *Termination; General.* Each Agent may terminate this Agreement, by notice to the Company, as hereinafter specified at any time (i) if there has been, since the time of execution of this Agreement or since the date as of which information is given in the Prospectus, any Material Adverse Change in the condition, financial or otherwise, or in the earnings or business affairs of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, or (ii) if there has occurred any material adverse change in the financial markets in the United States, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of such Agent, impracticable or inadvisable to market the Securities or to enforce contracts for the sale of the Securities, or (iii) if trading in the Placement Securities has been suspended or materially limited by the Commission or the NasdaqGM, or (iv) if trading generally on the NasdaqGM has been suspended or limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by said exchange or by order of the Commission, the FINRA or any other governmental authority, or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, or (v) if a banking moratorium has been declared by either Federal or New York authorities.

(b) *Termination by the Company.* The Company shall have the right, by giving three (3) days' notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement.

(c) *Termination by the Agents.* Each Agent shall have the right, by giving three (3) days' notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this Agreement.

(d) *Automatic Termination.* Unless earlier terminated pursuant to this Section 13, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Securities through the Agents on the terms and subject to the conditions set forth herein with an aggregate sale price equal to the amount set forth in Section 1 of this Agreement.

(e) *Continued Force and Effect.* This Agreement shall remain in full force and effect unless terminated pursuant to Section 9(m) or Sections 13(a), (b), (c) or (d) above or otherwise by mutual agreement of the parties.

(f) *Effectiveness of Termination.* Any termination of this Agreement shall be effective on the date specified in such notice of termination; *provided, however,* that such termination shall not be effective until the close of business on the date of receipt of such notice by the Agents or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Securities, such Placement Securities shall settle in accordance with the provisions of this Agreement.

(g) *Liabilities.* If this Agreement is terminated pursuant to this Section 13, such termination shall be without liability of any party to any other party except as provided in Section 8 hereof, and except that, in the case of any termination of this Agreement, Section 10, Section 11, Section 12, and Section 22 hereof shall survive such termination and remain in full force and effect.

SECTION 14. Notices. Except as otherwise provided in this Agreement, all notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Agents shall be directed BB&T Capital Markets, a division of BB&T Securities, LLC, 901 East Byrd Street, Suite 300, Richmond, Virginia 23219, fax no.: (804) 780-3250, Attention of Reid Burford, and Ladenburg Thalmann & Co. Inc., 277 Park Avenue, 26th Floor, New York, New York 10172, fax no.: (212) 409-2169, Attention of Jeffrey Caliva, and notices to the Company shall be directed to it at Synalloy Corporation, 4510 Cox Road, Suite 201, Richmond, Virginia 23060, fax no.: (804) 222-3270, Attention of Craig C. Bram, President and Chief Executive Officer.

SECTION 15. Parties. This Agreement shall inure to the benefit of and be binding upon each of the Agents and the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Agents, the Company and their respective successors and the controlling persons and officers and directors referred to in Sections 10 and 11 and their heirs and legal representatives, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Agents, the Company and their respective successors, and said controlling persons and officers and directors and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from any of the Agents shall be deemed to be a successor by reason merely of such purchase.

SECTION 16. Adjustments for Stock Splits. The parties acknowledge and agree that all stock-related numbers contained in this Agreement shall be adjusted to take into account any stock split, stock dividend or similar event effected with respect to the Securities.

SECTION 17. Governing Law and Time. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

SECTION 18. Effect of Headings. The Section and Exhibit headings herein are for convenience only and shall not affect the construction hereof.

SECTION 19. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile or e-mail transmission.

SECTION 20. Definitions. As used in this Agreement, the following terms have the respective meanings set forth below:

“Applicable Time” means the time of each sale of any Securities or any securities pursuant to this Agreement.

“EDGAR” means the Commission’s Electronic Data Gathering, Analysis and Retrieval system.

“Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, relating to the Securities that (i) is required to be filed with the Commission by the Company, or (ii) is exempt from filing pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, and all free writing prospectuses that are listed in Exhibit E hereto, in each case in the form furnished (electronically or otherwise) to the Agents for use in connection with the offering of the Securities.

All references in this Agreement to financial statements and schedules and other information that is “contained,” “included” or “stated” in the Registration Statement or the Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information that is incorporated by reference in the Registration Statement or the Prospectus, as the case may be.

All references in this Agreement to the Registration Statement, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to EDGAR; all references in this Agreement to any Issuer Free Writing Prospectus (other than any Issuer Free Writing Prospectuses that, pursuant to Rule 433 under the Securities Act, are not required to be filed with the Commission) shall be deemed to include the copy thereof filed with the Commission pursuant to EDGAR; and all references in this Agreement to “supplements” to the Prospectus shall include, without limitation, any supplements, “wrappers” or similar materials prepared in connection with any offering, sale or private placement of any Placement Securities by the Agents outside of the United States.

SECTION 21. Permitted Free Writing Prospectuses. The Company represents, warrants and agrees that, unless it obtains the prior consent of the Agents, and each Agent represents, warrants and agrees that, unless it obtains the prior consent of the Company, it has not made and will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus, or that would otherwise constitute a “free writing prospectus,” as defined in Rule 405 under the Securities Act, required to be filed with the Commission. Any such free writing prospectus consented to by the Agents or by the Company, as the case may be, is hereinafter referred to as a “Permitted Free Writing Prospectus.” The Company represents and warrants that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. For the purposes of clarity, the parties hereto agree that all free writing prospectuses, if any, listed in Exhibit E hereto are Permitted Free Writing Prospectuses.

SECTION 22. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) Each Agent is acting solely as an agent in connection with the public offering of the Securities and in connection with each transaction contemplated by this Agreement and the process leading to such transactions, and no fiduciary or advisory relationship between the Company or any of its respective affiliates, shareholders (or other equity holders), creditors or employees or any other party, on the one hand, and the Agents, on the other hand, has been or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether or not the Agents have advised or are advising the Company on other matters, and each Agent has no obligation to the Company with respect to the transactions contemplated by this Agreement except the obligations expressly set forth in this Agreement;

(b) the public offering price of the Securities set forth in this Agreement was not established by the Agent;

(c) it is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(d) no Agent has provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated by this Agreement and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate;

(e) it is aware that the Agents and their respective affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and the Agents have no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; and

(f) it waives, to the fullest extent permitted by law, any claims it may have against the Agents for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that the Agents shall not have any liability (whether direct or indirect, in contract, tort or otherwise) to it in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on its behalf or in right of it or the Company, employees or creditors of Company.

[Signature Page Follows.]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement between each Agent and the Company in accordance with its terms.

Very truly yours,

SYNALLOY CORPORATION

By:

Name: Craig C. Bram
Title: President and Chief Executive Officer

CONFIRMED AND ACCEPTED, as of the
date first above written:

BB&T CAPITAL MARKETS, A
DIVISION OF BB&T SECURITIES, LLC

By _____
Authorized Signatory

LADENBURG THALMANN & CO. INC.

Authorized Signatory

Exhibit A

Form of Placement Agent Notice

FORM OF PLACEMENT NOTICE

From: []
Cc: []
To: []
Subject: Equity Distribution Agreement - Placement Notice

Ladies and Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Equity Distribution Agreement (the "Agreement"), dated August 9, 2018, between Synalloy Corporation (the "Company") and BB&T Capital Markets, a division of BB&T Securities, LLC, and Ladenburg Thalmann & Co. Inc. (individually, an "Agent" and collectively, the "Agents"), I hereby request on behalf of the Company that the Agent sell shares of the Company's common stock, par value \$1.00 per share, having an aggregate sale price of up to \$ _____ (the "Placement Securities"), at a minimum market price of \$ _____ share.

The time period during which sales are requested to be made shall be between _____.

[There shall be no limitation on the number of Placement Securities that may be sold on any one (1) trading day.][Shares of the Company's common stock, par value \$1.00 per share, having an aggregate sale price of no more than \$ _____ may be sold in any one (1) trading day.]

ADDITIONAL SALES PARAMETERS MAY BE ADDED, SUCH AS SPECIFIC DATES THE PLACEMENT SECURITIES MAY NOT BE SOLD ON, AND/OR THE MANNER IN WHICH SALES ARE TO BE MADE BY THE AGENT.

Very truly yours,

Exhibit B

Authorized Individuals for Placement Notices and Acceptances

BB&T Capital Markets, a division of BB&T Securities, LLC:

Reid Burford
Adam Hahn
Liz Smith

Ladenburg Thalmann & Co. Inc.:

Peter Blum
Steve Kaplan
Robert Mateicka
Joseph Giovanniello, Jr.

The Company:

Craig C. Bram
Dennis M. Loughran

Exhibit C

Company Officer's Certificate

The undersigned, the duly qualified and elected _____ of Synalloy Corporation (the "Company"), does hereby certify in such capacity and on behalf of the Company, pursuant to Section 7(o)(2) of the Equity Distribution Agreement dated August 9, 2018 (the "Agreement") between the Company and BB&T Capital Markets, a division of BB&T Securities, LLC, and Ladenburg Thalmann & Co. Inc., that to the best of the knowledge of the undersigned:

(i) The representations and warranties of the Company in Section 5(a) of the Agreement are true and correct in all material respects on and as of the date hereof, with the same force and effect as if expressly made on and as of the date hereof; *provided, however*, that the representations and warranties that contain an express materiality qualification were true and correct in all respects as of the date hereof; and

(ii) The Company has complied in all material respects with all agreements and satisfied all conditions on its part to be performed or satisfied pursuant to the Agreement at or prior to the date hereof.

By: _____

Name:

Title:

Date:

Exhibit D

Form of Opinion of Company Counsel

1. The Company is validly existing and in good standing under the laws of the State of Delaware, with the corporate power and authority to own or lease, as the case may be, and operate its properties and conduct its business as described in the Registration Statement, the Prospectus and the Permitted Free Writing Prospectuses, to execute, deliver and perform its obligations under the Agreement and to consummate the transactions contemplated thereby, including, without limitation, to issue, sell and deliver the Securities contemplated by the Agreement.
 2. The Company is qualified to do business and is in good standing as a foreign corporation in: Virginia, South Carolina and Georgia. To our knowledge, other than the Company's interests in the Subsidiaries, the Company does not own, directly or indirectly, any capital stock or other equity securities of any other corporation or any ownership interest in any limited liability company, partnership, joint venture or other association.
 3. The execution and delivery of the Agreement by the Company and the consummation by the Company of the transactions contemplated thereby do not and will not (i) result in a violation of the Charter or the Bylaws, (ii) violate any statute or regulation of any Included Law binding upon or applicable to the Company or the Subsidiaries or any of their respective properties or assets, (iii) violate any decree, judgment or order identified on Schedule A attached or (iv) result in any breach of, or constitute a default under (or constitute any event that, with notice, the lapse of time, or both would constitute a breach of or default under), any provision of any of the agreements and contracts of the Company or the Subsidiaries filed as Exhibits 10 to the Company's Annual Report on Form 10-K for the year ended December 31, 2017 (collectively, the "Material Contracts").
 4. The execution and delivery of the Agreement have been duly authorized by all necessary corporate action of the Company, and the Agreement has been duly executed and delivered by the Company.
 5. No consent, approval, authorization, order, registration or qualification of or with any governmental agency or body is required under the Included Laws in connection with the execution and delivery of the Agreement by the Company and the consummation of the transactions contemplated thereby, including the sale and delivery of the Securities by the Company as contemplated therein, other than (i) such as have been obtained or made under the Securities Act or the Exchange Act and (ii) where the failure to obtain or make such consent, approval, authorization, order, or registration would not, individually or in the aggregate, materially and adversely affect the ability of the Company to perform its obligations under the Agreement (it being understood that we express no opinion as to any necessary qualification under the state securities, blue sky or real estate syndication laws of the various jurisdictions in which the Securities are being offered by you or under the rules and regulations of the FINRA).
 6. The Securities have been duly authorized by the Company for issuance and sale pursuant to the Agreement. The Securities, when issued and delivered by the Company in accordance with such authorization and pursuant to the Agreement, against payment of the consideration specified in the Agreement, will be validly issued, fully paid and nonassessable.
 7. The issuance and sale of the Securities by the Company are not subject to preemptive or other similar rights arising by operation of the Charter or Bylaws or the laws of the State of Delaware, or under any provision of any Material Contract.
-

8. The Common Stock is duly listed and admitted and authorized for trading on the NasdaqGM.
 9. To our knowledge, except as otherwise described in the Registration Statement, the Prospectus, the documents incorporated therein by reference or the exhibits filed in connection therewith, there are no persons with registration or other similar rights to have any securities registered pursuant to the Registration Statement or otherwise registered by the Company under the Securities Act.
 10. The Registration Statement, at the last deemed effective date of the Registration Statement pursuant to Rule 430B(f)(2) of the Securities Act, and the Prospectus, as of the date of this letter, complied as to form in all material respects with the requirements of the Securities Act (it being understood that we express no opinion with respect to the financial statements, related schedules and other data derived from such financial statements, schedules and other financial information included or incorporated by reference therein or excluded therefrom).
 11. To our knowledge, there are no actions, suits or proceedings pending against the Company or any of its officers or directors (in connection with the discharge of their duties as officers, directors or employees of the Company) which are required by the Securities Act and the rules thereunder to be described in the Registration Statement or the Prospectus but are not so described.
 12. Any required filing of the Prospectus pursuant to Rule 424(b) under the Securities Act has been made in the manner and within the time required by Rule 424(b).
 13. The Registration Statement has become effective under the Securities Act, and, to our knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued under the Securities Act; and, to our knowledge, no proceeding for that purpose or pursuant to Section 8A of the Securities Act against the Company or in connection with the issuance and sale of the Placement Securities is pending or threatened by the Commission.
 14. The Company is not now, nor, after giving effect to the issuance and sale of the Securities and the application of the Net Proceeds therefrom as described in the Prospectus, will it be, required to register as an "investment company," as such term is defined in the Investment Company Act.
 15. The statements under the captions "Description of Capital Stock" and "Description of Common Stock" in the Prospectus, insofar as such statements purport to summarize or describe matters of law and legal conclusions, constitute accurate summaries thereof in all material respects.
-

Exhibit E

Permitted Free Writing Prospectuses

None.

CERTIFICATIONS

I, Craig C. Bram, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Synalloy Corporation;
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 officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 6, 2018 /s/ Craig C. Bram
Craig C. Bram
Chief Executive Officer

CERTIFICATIONS

I, Dennis M. Loughran, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Synalloy Corporation;
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 officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 6, 2018 /s/ Dennis M. Loughran
Dennis M. Loughran
Chief Financial Officer

Certifications Pursuant to 18 U.S.C. Section 1350

The undersigned, who are the chief executive officer and the chief financial officer of Synalloy Corporation, each hereby certifies that, to the best of his knowledge, the accompanying Form 10-Q of the issuer fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and that information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: November 6, 2018 /s/ Craig C. Bram
Craig C. Bram
Chief Executive Officer

Date: November 6, 2018 /s/ Dennis M. Loughran
Dennis M. Loughran
Chief Financial Officer

