

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

FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended December 31, 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: 001-15725

ALPHA PRO TECH, LTD.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

63-1009183
(I.R.S. Employer Identification No.)

60 Centurian Drive, Suite 112, Markham, Ontario, L3R 9R2
(Address of Principal Executive Offices, including zip code)

Registrant's telephone number, including area code: 905-479-0654

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

<u>Title of each Class</u>	<u>Name of each exchange on which registered</u>
Common Stock, Par Value \$.01 Per Share	NYSE American

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ___ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ___ No

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

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

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 30, 2018, was \$40,803,134.

As of March 1, 2019, the registrant had outstanding 13,516,016 shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2019 Annual Meeting of Shareholders to be held on June 11, 2019 are incorporated by reference into Part III of this Form 10-K.

ALPHA PRO TECH, LTD.
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PART I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements that are made pursuant to the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve risks, uncertainties and assumptions as described from time to time in registration statements, annual reports and other periodic reports and filings of the Company (as defined below) filed with the Securities and Exchange Commission (“SEC”). All statements, other than statements of historical facts that address the Company’s expectations of sources of capital or that express the Company’s expectations for the future with respect to financial performance or operating strategies can be identified as forward-looking statements. As a result, there can be no assurance that the Company’s future results will not be materially different from those described herein as “expected,” “anticipated,” “estimated,” “believed,” “predicted,” “intended,” “planned,” “potential,” “may,” “continue” or “should,” or using variations of such words or similar expressions, which reflect the current views of the Company with respect to future events. We caution readers that these forward-looking statements speak only as of the date hereof. The Company hereby expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any such statements to reflect any change in the Company’s expectations or any change in events, conditions or circumstances on which such statements are based.

Any expectations based on these forward-looking statements are subject to risks and uncertainties. These and many other factors could affect the Company’s future operating results and financial condition and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by the Company or on its behalf.

SPECIAL NOTE REGARDING SMALLER REPORTING COMPANY STATUS

We are filing this Annual Report on Form 10-K as a “smaller reporting company” (as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended) based on our public float (the aggregate market value of our common stock equity held by non-affiliates of the Company) as of the last business day of our second fiscal quarter of 2018. As a result of being a smaller reporting company, we are not required to provide certain disclosure in this Annual Report on Form 10-K. Where information is being omitted or reduced in this Annual Report on Form 10-K based on our smaller reporting company status, we have made a special notation herein.

Item 1. Business.

GENERAL

ALPHA PRO TECH, LTD. (“Alpha Pro Tech,” the “Company,” “we,” “our” or “us”) is the parent company of Alpha Pro Tech, Inc. and Alpha ProTech Engineered Products, Inc. The Company was incorporated in the State of Delaware on July 1, 1994 as a successor to a business that was organized in 1983. Our executive offices are located at 60 Centurian Drive, Suite 112, Markham, Ontario, Canada L3R 9R2, and our telephone number is (905) 479-0654. Our website is located at www.alphaprotech.com.

The Company continued to qualify as a smaller reporting company at the measurement date for determining such qualification during 2018. According to the disclosure requirements for smaller reporting companies, the Company has included consolidated balance sheets as of December 31, 2018 and 2017 and consolidated statements of income, comprehensive income, shareholders’ equity and cash flows for each of the two years in the period ended December 31, 2018.

BUSINESS

Alpha Pro Tech is in the business of protecting people, products and environments. We accomplish this by developing, manufacturing and marketing a line of high-value, disposable protective apparel and infection control products for the cleanroom, industrial, pharmaceutical, medical and dental markets through our wholly owned subsidiary, Alpha Pro Tech, Inc. We also manufacture a line of building supply construction weatherization products through our wholly owned subsidiary, Alpha ProTech Engineered Products, Inc. Our products are sold under the Alpha Pro Tech brand name, as well as under private label.

Our products are grouped into three business segments: (1) the Building Supply segment, consisting of construction weatherization products, such as housewrap and synthetic roof underlayment, as well as other woven material; (2) the Disposable Protective Apparel segment, consisting of disposable protective apparel, such as shoecovers, bouffant caps, gowns, coveralls, lab coats, frocks and other miscellaneous products; and (3) the Infection Control segment, consisting of face masks and eye shields. All financial information presented herein reflects the current segmentation.

Our principal strategy focuses on developing, producing and marketing differentiated, innovative high value products that protect people, products and environments. Our key sales growth strategies are based on communicating directly with end users and developing innovative products to suit individual end users’ needs.

Our products are used primarily in cleanrooms, industrial safety manufacturing environments and health care facilities, such as hospitals, laboratories and dental offices, as well as building and re-roofing sites. Our products are distributed principally in the United States of America (“United States” or “U.S.”) through a network consisting of purchasing groups, national distributors, local distributors, independent sales representatives, and our own sales and marketing force.

PRODUCTS

Our principal products are grouped into three business segments:

Building Supply:

- Housewrap
- Synthetic roof underlayment
- Other woven material

Disposable Protective Apparel:

- Shoecovers
- Bouffant caps
- Gowns
- Coveralls
- Lab coats
- Frocks

Infection Control:

- Face masks
- Eye shields

Building Supply

The Building Supply segment consists of a line of construction supply weatherization products, namely housewrap and synthetic roof underlayment, as well as other woven material. This line of products is a natural extension of our core capabilities: creating proprietary products designed to protect people and environments.

The usage of these construction supply weatherization products offers great advantages in decreasing the time that it takes to construct a home, as well as reducing costs. The housewrap, under the trademark REX™, offers a weather resistant barrier and, to the homeowner, years of lower energy consumption. REX™ Wrap and REX™ Wrap Plus are woven and coated polypropylene micro perforated weather resistant barriers, and REX™ Wrap Fortis with JX ALTA 360° Drainage Technology™ is a one-of-a-kind breathable product that uniquely enables the drainage of water in every direction to protect buildings from the elements exponentially better, we believe, than a traditional housewrap, while decreasing job site material waste, simplifying installation to reduce labor and allowing fewer products to be carried onto the job site.

The proprietary synthetic roof underlayment, REX™ SynFelt, has the ability to resist the environment, as opposed to conventional organic roofing underlayment that is prone to rapid degradation and mold growth. We also manufacture and distribute TECHNOply™ and TECHNO™ SB, economy versions of our synthetic roof underlayment, to capture market share in the lower end of the market.

These products are manufactured in our manufacturing facility in Valdosta, Georgia and through our joint venture in India, as described in more detail below under “Manufacturing.”

Disposable Protective Apparel

The Disposable Protective Apparel segment includes many different styles of disposable products, such as shoecovers, bouffant caps, gowns, coveralls, lab coats, frocks and other miscellaneous products. The vast majority of these products are manufactured through our joint venture in India, and to a much lesser extent, other subcontractors in Asia and Mexico, as described in more detail below under “Manufacturing.” Certain proprietary products are made using materials supplied by us.

Infection Control

The Infection Control segment includes face masks and eye shields. Our face masks come in a wide variety of filtration efficiencies and styles. Our patented Positive Facial Lock® feature provides a custom fit to the face to prevent blow-by for better protection. The term “blow-by” is used to describe the potential for infectious material to enter or escape a facemask without going through the filter as a result of gaps or openings in the face mask. Our Magic Arch® feature holds the mask away from the nose and mouth, creating a comfortable breathing chamber. One of our masks that incorporates both the Positive Facial Lock® feature and the Magic Arch® feature is the N-95

Particulate Respirator face mask, which was recommended by the Centers for Disease Control and Prevention to combat the spread of the H1N1 Influenza A pandemic in 2009.

All eye shields are made from an optical-grade polyester film and have a permanent anti-fog feature. This provides the wearer with extremely lightweight, distortion-free protection that can be worn for hours, and the eye shields will not fog up from humidity and/or perspiration. An important feature of all face masks and eye and face shields is that they are disposable, which eliminates the possibility of cross infection between patients and saves users, such as hospitals, the expense of sterilization after every use.

This segment could experience increased demand during outbreaks of infectious disease, such as H1N1 in 2009 and the Ebola crisis in 2014.

As described in more detail below under “Manufacturing,” our face masks are primarily manufactured in our facility in Salt Lake City, Utah. Our eye shields are produced in our facility in Nogales, Arizona and assembled by a subcontractor in Mexico.

Financial information related to the three segments can be found in Activity of Business Segments (Note 14) of the Notes to Consolidated Financial Statements.

MARKETS

Our products are sold to the following markets: construction weatherization products (building supply products) are sold to construction supply and roofing distributors, and disposable protective apparel and infection control products are sold to the industrial, cleanroom, medical and dental markets.

Our target customers are construction building supply and roofing distributors, pharmaceutical manufacturing, bio-pharmaceutical manufacturing, medical device manufacturing, lab animal research, high technology electronics manufacturing (which includes the semiconductor market), and medical and dental distributors.

DISTRIBUTION

We rely primarily on a network of independent distributors for the sale of our products.

We do not generally have backlog orders, as orders are usually placed for shipment and shipped within 30 days. Appropriate levels of inventories are maintained to supply distributors on a timely basis. From time to time, we will stockpile inventory for periods of unusually high demand.

Standard payment terms are net 30 days from the date of shipment. All pricing and payment for our products are in U.S. dollars. Authorized returns must be unopened, in good condition and in the original carton and may be returned within 90 days of the original date of shipment. All authorized returns are subject to a restocking fee of 20% of the original invoice.

FINANCIAL INFORMATION ABOUT GEOGRAPHIC AREAS

The following table summarizes the Company’s net sales by geographic region for the Company’s last two years. All amounts have been rounded to the nearest thousand.

	Years Ended December 31,	
	2018	2017
Net sales by geographic region		
United States	\$ 45,595,000	\$ 43,169,000
International	1,029,000	856,000
Consolidated net sales	<u>\$ 46,624,000</u>	<u>\$ 44,025,000</u>

Net sales by geographic region are based on the countries in which our customers are located. For the years ended December 31, 2018 and 2017, the Company did not generate sales from any single country, other than the United States, that were significant to the Company’s consolidated net sales.

The following table summarizes the locations of the Company’s long-lived assets by geographic region as of December 31, 2018 and 2017.

	December 31,	
	2018	2017
Long-lived assets by geographic region		
United States	\$ 2,528,000	\$ 2,593,000
International	716,000	565,000
Consolidated total long-lived assets	<u>\$ 3,244,000</u>	<u>\$ 3,158,000</u>

MANUFACTURING

Our wholly owned subsidiary, Alpha ProTech Engineered Products, Inc., which manufactures and distributes a line of construction weatherization products for the Building Supply segment, comprised primarily of housewrap and synthetic roof underlayment, operates in a 165,400 square foot facility located at 301 South Blanchard Street, Valdosta, Georgia.

Alpha ProTech Engineered Products, Inc. has a 41.66% ownership interest in a joint venture with Maple Industries and associates, a manufacturer in India, for the production of Building Supply segment products, such as housewrap and synthetic roof underlayment products, in a semi-finished state, and the production of Disposable Protective Apparel segment products. The name of the joint venture is Harmony Plastics Private Limited (“Harmony”). Harmony has four facilities in India, three owned and one rented. One facility is a 113,000 square foot building for use in the manufacturing of building products. There is a 73,000 square foot facility for use in the manufacturing of coated material and the sewing of proprietary disposable protective apparel. There is also a 16,000 square foot facility for use in the sewing of proprietary disposable protective apparel. The rented building is a 93,000 square foot facility for use in the manufacturing of Building Supply segment products.

We cut, warehouse and ship disposable protective apparel products in a 60,000 square foot facility located at 1287 West Fairway Drive, Nogales, Arizona. The majority of these products are manufactured by subcontractors in Asia and, to a much lesser extent, a subcontractor in Mexico. These goods are manufactured pursuant to our specifications and quality assurance guidelines. Certain proprietary products are being made in Asia using materials supplied by us.

Our mask production facility is located in a 34,500 square foot building located at 236 North 2200 West, Salt Lake City, Utah.

Certain proprietary products are made using materials supplied by us. We do not anticipate any problems with respect to the sources and availability of these proprietary materials needed to produce our products. Our business is not subject to significant seasonal considerations, although it is necessary for us to have adequate raw materials and finished inventory in stock.

COMPETITION

We face substantial competition from numerous companies, including many companies with greater marketing and financial resources. Our major competitors in the construction supply weatherization market are DuPont for housewrap and Interwrap Inc. for synthetic roof underlayment. Our major competitor in the medical and dental markets is Kimberly-Clark Corporation of Fort Worth, Texas. Other large competitors include 3M Company, Johnson & Johnson, White Knight Engineered Products (Precept Medical Products, Inc.), Cardinal Health, Inc. and Medline Industries Inc. Our major competitors in the industrial and cleanroom market are our former largest distributor, VWR International, LLC, Kimberly-Clark Corporation, 3M Company, Kappler, Inc., DuPont and Allegiance Healthcare Corporation. VWR International, LLC, Cardinal Health, Inc. and Medline Industries Inc. are also distributors of our products.

REGULATORY REQUIREMENTS

We are not required to obtain regulatory approval from the U.S. Food and Drug Administration (“FDA”) with respect to the sale of our products. Our products are, however, subject to prescribed good manufacturing practices as defined by the FDA, and our manufacturing facilities are inspected by the FDA every two years to ensure compliance with such good manufacturing practices. We are marketing a N-95 Particulate Respirator face mask that meets the Occupational Safety and Health Administration (OSHA) respirator guidelines and has been approved by the National Institute for Occupational Safety and Health (NIOSH). This product is designed to help prevent the inhalation of the tuberculosis bacteria.

Our operations are subject to federal, state and local laws, regulations and ordinances relating to various environmental, health and safety matters. We believe that our operations are in compliance with, or we are taking actions designed to ensure compliance with, these laws, regulations and ordinances. However, the nature of our operations exposes us to the risk of claims concerning non-compliance with environmental, health and safety laws or standards, and there can be no assurance that material costs or liabilities will not be incurred in connection with those claims. We are not currently named as a party in any judicial or administrative proceeding relating to environmental, health and safety matters, and we currently have no anticipated capital expenditures for environmental projects that are expected to have a material effect on our financial condition, results of operations or liquidity.

PATENTS AND TRADEMARKS

Patents

Our policy is to protect our intellectual property rights, products, designs and processes through the filing of patents in the United States and, where appropriate, in Canada and other countries. At present, we have 15 United States patents relating to several of our products. In addition, we have a United States patent on a method to fold and put on sterile garments. We believe that our patents may offer a competitive advantage, but there can be no assurance that any patents, issued or in process, will not be circumvented or invalidated. We also rely on trade secrets and proprietary know-how to maintain and develop our commercial position.

The various United States patents issued have remaining durations of approximately 1 to 6 years before expiration.

Trademarks

Many of our products are sold under various trademarks and trade names, including Alpha Pro Tech. We believe that many of our trademarks and trade names have significant recognition in our principal markets, and we take customary steps to register or otherwise protect our rights in our trademarks and trade names.

EMPLOYEES

As of March 1, 2019, we had 108 full-time employees, including 15 employees at our principal executive office in Markham, Ontario, Canada; 9 employees at our face mask production facility in Salt Lake City, Utah; 27 employees at our Disposable Protective Apparel segment cutting, warehouse and shipping facility in Nogales, Arizona; 39 employees at our Building Supply segment facility in Valdosta, Georgia; 17 employees on our sales and marketing team, located in various areas throughout the United States; and 1 employee in China.

None of our employees are subject to collective bargaining agreements. We have had no labor-related work stoppages, and we believe that our relations with our employees are good.

AVAILABLE INFORMATION

We make available free of charge on our Internet website (<http://www.alphaprotech.com>) our most recent Annual Report on Form 10-K, our most recent Quarterly Report on Form 10-Q, any current reports on Form 8-K furnished or filed since our most recent Annual Report on Form 10-K and any amendments to such reports as soon as reasonably practicable following the electronic filing of such reports with the SEC. These reports are also available on the SEC's website (<http://www.sec.gov>).

The Company is not including the information contained on or available through its website as a part of, or incorporating such information into, this Annual Report on Form 10-K.

Item 1A. Risk Factors.

Making or continuing an investment in common stock issued by the Company involves certain risks that you should carefully consider. The risks and uncertainties described below are not the only risks that may have a material adverse effect on the Company. Additional risks and uncertainties also could adversely affect our business and our results. If any of the following risks actually occur, our business, financial condition and results of operations could be negatively affected, the market price of our common stock could decline and you could lose all or a part of your investment. Further, to the extent that any of the information contained in this Annual Report on Form 10-K constitutes forward-looking statements, the risk factors set forth below also are cautionary statements identifying important factors that could cause the Company's actual results to differ materially from those expressed in any forward-looking statements made by or on behalf of the Company.

Global economic conditions could adversely affect the Company's business and financial results.

Unfavorable economic conditions, including the impact of recessions and general economic downturns in the United States and throughout the world, may negatively affect the Company's business and financial results. These economic conditions could negatively impact (i) demand for our products, (ii) the mix of our products' sales, (iii) our ability to collect accounts receivable on a timely basis from certain customers and (iv) the ability of certain suppliers to fill our orders for raw materials or other goods and services. A prolonged recession could result in decreased revenue, margins and earnings.

The loss of any large customer or a reduction in orders from any large customer could reduce our net sales and harm our operating results.

Our operating results could be negatively affected by the loss of revenue from one or more large customers. Our customers are not contractually obligated to purchase any fixed quantities of products, and they may stop placing orders with us at any time. We are subject to the risk of losing large customers or incurring significant reductions in sales to these customers.

We rely on suppliers and contractors, and our business could be seriously harmed if these suppliers and contractors are not able to meet our requirements.

We rely on a limited number of suppliers and contractors for our Disposable Protective Apparel and Building Supply segments. If we lose the services of these key suppliers and contractors, or if they are not willing or able to satisfy our requirements, finding substitute suppliers or contractors may be time-consuming and would affect our results of operations in the near term.

There are risks associated with international manufacturing that could have a significant effect on our business.

We subcontract the manufacturing of some of our goods to Asia. These goods are manufactured pursuant to our specifications and quality assurance guidelines. Certain proprietary products are being made in Asia using materials supplied by us.

We expect that a significant portion of our product sales will be derived from the sale of products for which we subcontract the manufacturing to Asia, but we cannot be certain that we will be able to maintain such subcontracting at current levels. If our ability to subcontract some of our manufacturing to Asia were to decline significantly, our business, results of operations and financial condition could be materially adversely affected. International manufacturing is subject to a number of risks, including the following:

- changes in foreign government regulations and technical standards;
- difficulty of protecting intellectual property;
- requirements or preferences of foreign nations for the manufacture of domestic products;
- the imposition of duties, border adjustment taxes or tariffs and other barriers to trade;
- fluctuations in currency exchange rates relative to the U.S. dollar; and
- political and economic instability.

Our joint venture may present risks that are not present when third parties are not involved.

We currently participate in a joint venture in India and may in the future enter into joint ventures with other companies or enterprises in international markets, including joint ventures where we may have a lesser degree of control over the business operations, which may expose us to additional operational, financial, legal or compliance risks. We may be dependent on a joint venture counterparty for product distribution, local market knowledge or other resources. If we are unable to effectively cooperate with joint venture partners, or any joint venture partner fails to meet its obligations under the joint venture arrangement, encounters financial difficulty, or elects to alter, modify or terminate the relationship, we may be unable to achieve our objectives and our results of operations may be negatively impacted thereby.

Our success depends in part on protection of our intellectual property, and our failure to do so could adversely affect our competitive advantage, our brand recognition and our business.

The success and competitiveness of our products depend in part upon our ability to protect our current and future technology, manufacturing processes and brand names, including Alpha Pro Tech, through a combination of patent, trademark, trade secret and unfair competition laws.

We enter into confidentiality and non-disclosure of intellectual property agreements with certain of our employees, consultants and vendors and generally control access to and distribution of our proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use our proprietary information without authorization or to develop similar information independently.

Policing unauthorized use of intellectual property is difficult. The laws of other countries may afford little or no effective protection of our technology. We cannot assure you that the steps taken by us will prevent misappropriation of our technology or that agreements entered into for that purpose will be enforceable. In addition, litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets and to determine the validity and scope of the proprietary rights of others. Litigation may result in substantial costs and diversion of resources, either of which could have a material adverse effect on our business, results of operations and financial condition.

Our industry is highly competitive, which may affect our ability to grow our customer base and generate sales.

The markets for our products are intensely competitive. We currently experience competition from numerous companies in each of the markets in which we participate.

Many of our competitors are more established, benefit from greater market recognition and have substantially greater financial, development, manufacturing and marketing resources than we have.

If we do not compete successfully with respect to these or other companies, it could materially adversely affect our business, results of operations and financial condition.

The Company's results are affected by competitive conditions and customer preferences.

Demand for the Company's products, which impacts revenue and profit margins, is affected by (i) the development and timing of the introduction of competitive products; (ii) the Company's response to downward pricing to stay competitive; (iii) changes in customer order patterns, such as changes in the levels of inventory maintained by customers and the timing of customer purchases; and (iv) changes in customers' preferences for our products, including the success of products offered by our competitors and changes in customer designs for our competitors' products that can affect the demand for the Company's products.

The Company's growth objectives are largely dependent on the timing and market acceptance of its new product offerings, including its ability to continually renew its pipeline of new products and to bring those products to market.

This ability may be adversely affected by difficulties or delays in product development, such as the inability to identify viable new products, obtain adequate intellectual property protection or gain market acceptance of new products. There are no guarantees that new products will prove to be commercially successful.

Security breaches and other disruptions to the Company's information technology infrastructure could interfere with the Company's operations, compromise information belonging to the Company and its customers and suppliers and expose the Company to liability, which could adversely impact the Company's business and reputation.

In the ordinary course of business, the Company relies on information technology networks and systems, some of which are managed by third parties, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities. Additionally, the Company collects and stores sensitive data, including proprietary business information. Despite security measures and business continuity plans, the Company's information technology networks and infrastructure may be vulnerable to damage, disruptions or shutdowns due to attack by hackers, breaches, employee error or malfeasance, power outages, computer viruses, telecommunication or utility failures, systems failures, natural disasters or other catastrophic events. While we have not experienced any material losses related to cyber-attacks or information security breaches to date, any and any such event could result in legal claims or proceedings, liability or penalties under privacy laws, disruption in operations and damage to the Company's reputation, which could adversely affect the Company's business.

The Company's future results may be affected by various legal and regulatory proceedings and legal compliance risks.

From time to time, the Company is subject to certain legal and regulatory proceedings in the ordinary course of business and otherwise. The outcome of these legal proceedings may differ from the Company's expectations because the outcomes of litigation, including regulatory matters, are often difficult to reliably predict. Various factors or developments can lead the Company to change current estimates of liabilities and related insurance receivables where applicable, or make such estimates for matters previously not susceptible to reasonable estimates, such as a significant judicial ruling or judgment, settlement, regulatory development or change in applicable law. A future adverse ruling, settlement or unfavorable development could result in charges that could have a material adverse effect on the Company's results of operations or cash flows in any particular period.

Our common stock price is volatile, which could result in substantial losses for individual shareholders.

The market price of our common stock has been volatile, and we expect that it will continue to be volatile. In particular, our common stock may be subject to significant fluctuations in response to a variety of factors, including, but not limited to:

- general economic and business conditions;
- changing market conditions in the industries that we serve;
- monetary and fiscal policies, laws and regulations and other activities of government agencies and similar organizations;
- conditions in U.S. and global securities markets and other capital markets;
- actual or anticipated variations in quarterly operating results;
- failure to meet analyst predictions and projections;
- costs and other effects of legal and administrative proceedings, claims, settlements and judgments;
- additions or departures of key personnel;
- announcements of innovations or new services by us or our competitors;
- our sales of common stock or other securities in the future; and
- other events or factors, many of which are beyond our control.

Due to these factors, you may not be able to sell your stock at or above the price you paid for it, which could result in substantial losses.

We invest in a publicly traded entity with a common stock price that is volatile, which could result in substantial losses for the Company.

The market price of the entity's common stock has been volatile, and we expect that it will continue to be volatile as it is a publicly traded stock. In particular, the entity's common stock may be subject to significant fluctuations in response to a variety of factors, including, but not limited to:

- general economic and business conditions;
- changing market conditions in the industries that it serves;
- monetary and fiscal policies, laws and regulations and other activities of government agencies and similar organizations;
- conditions in U.S. and global securities markets and other capital markets;
- actual or anticipated variations in quarterly operating results;
- failure to meet analyst predictions and projections;
- costs and other effects of legal and administrative proceedings, claims, settlements and judgments;
- additions or departures of key personnel;
- announcements of innovations or new services by the entity or its competitors;
- its sales of common stock or other securities in the future; and
- other events or factors, many of which are beyond its control.

Due to these factors, we may not be able to sell the investment in the publicly traded entity at or above the price we paid for it, which could result in substantial losses.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

The Company's principal executive office is located at 60 Centurian Drive, Suite 112, Markham, Ontario, Canada, L3R 9R2. The approximate monthly rent is \$2,800 for 4,200 square feet under a lease expiring February 28, 2021. Working out of the principal executive office are the President and Chief Executive Officer, Lloyd Hoffman, and the Chief Financial Officer, Colleen McDonald.

The Building Supply segment manufacturing facility is located at 301 South Blanchard Street, Valdosta, Georgia. The average monthly rent is \$37,500 for 165,400 square feet. This lease expires on January 1, 2024.

The Disposable Protective Apparel segment has its cutting operation, warehousing and shipping facility at 1287 Fairway Drive, Nogales, Arizona. The approximate monthly rent is \$27,000 for 60,000 square feet. This lease expires on December 31, 2019.

The Company manufactures its surgical face masks at 236 North 2200 West, Salt Lake City, Utah. The monthly rent is \$16,500 for 34,500 square feet. This lease expires on July 31, 2024.

The Company believes that these arrangements are suitable and adequate for its present needs and that other premises, if required, are readily available.

Item 3. Legal Proceedings.

The Company is subject to various pending and threatened litigation actions in the ordinary course of business. Although it is not possible to determine with certainty at this point in time what liability, if any, the Company will have as a result of such litigation, based on consultation with legal counsel, management does not anticipate that the ultimate liability, if any, resulting from such litigation will have a material effect on the Company’s financial condition and results of operations.

Item 4. Mine Safety Disclosures.

N/A

PART II

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

MARKET INFORMATION

The Company’s common stock trades on the NYSE American (formerly the NYSE MKT, the NYSE Amex and the American Stock Exchange) (the “NYSE American”) under the symbol “APT.”

As of March 1, 2019, the Company’s common stock was held by 138 shareholders of record and approximately 4,500 beneficial owners.

ISSUER PURCHASES OF EQUITY SECURITIES

The following table sets forth purchases made by or on behalf of the Company or any “affiliated purchaser,” as defined in Rule 10b-18 (a)(3) of the Securities Exchange Act of 1934, during the fourth quarter of 2018.

Issuer Purchases of Equity Securities

<u>Period</u>	<u>Total Number of Shares Purchased (1)</u>	<u>Weighted Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Program (1)</u>	<u>Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program (1)</u>
October 1 - 31, 2018	72,600	\$3.53	72,600	\$1,193,000
November 1 - 30, 2018	48,400	3.51	48,400	1,021,000
December 1 - 31, 2018	85,900	3.71	85,900	2,699,000
	<u>206,900</u>	<u>\$3.60</u>	<u>206,900</u>	

(1) Pursuant to the Company’s share repurchase program, on December 20, 2018, the Company announced that the Board of Directors had authorized a \$2,000,000 expansion of the Company’s existing share repurchase program. All of the shares included in this table were purchased pursuant to this program. Since the inception of the share repurchase program, the Company has authorized the repurchase of \$35,520,000 of common stock, of which \$2,699,000 was available to repurchase as of December 31, 2018.

UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

We did not sell any unregistered equity securities during the periods covered by this Annual Report on Form 10-K.

Item 6. Selected Financial Data

As a smaller reporting company, we are not required to provide the information required by this Item.

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

You should read the following discussion and analysis together with our consolidated financial statements and the notes to our consolidated financial statements, which appear elsewhere in this report.

Special Note Regarding Forward-Looking Statements

Certain information set forth in this Annual Report on Form 10-K contains “forward-looking statements” within the meaning of federal securities laws. Forward-looking statements include statements concerning our plans, objectives, goals, strategies, future events, future revenues or performance, capital expenditures, financing needs, plans or intentions relating to potential acquisitions and other information that is not historical information. When used in this report, the words “estimates,” “expects,” “anticipates,” “forecasts,” “plans,” “intends,” “believes” and variations of such words or similar expressions are intended to identify forward-looking statements. We may make additional forward-looking statements from time to time. All forward-looking statements, whether written or oral and whether made by us or on our behalf, are expressly qualified by this special note.

Any expectations based on these forward-looking statements are subject to risks and uncertainties. These and many other factors could affect the Company’s future operating results and financial condition and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by the Company or on its behalf.

Special Note Regarding Smaller Reporting Company Status

We are filing this Annual Report on Form 10-K as a “smaller reporting company” (as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended) based on our public float (the aggregate market value of our common equity held by non-affiliates of the Company) as of the last business day of our second fiscal quarter of 2018. As a result of being a smaller reporting company, we are allowed and have elected to omit certain information from this Management’s Discussion and Analysis of Financial Condition and Results of Operations; however, we have provided all information for the periods presented that we believe to be appropriate and necessary to aid in an understanding of the current consolidated financial position, changes in financial position and results of operations of the Company.

Critical Accounting Policies and Estimates

The preparation of our financial statements in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of net sales and expenses during the periods reported. We base estimates on past experience and on various other assumptions that are believed to be reasonable under the circumstances. The application of these accounting policies on a consistent basis enables us to provide timely and reliable financial information. Our significant accounting policies and estimates are more fully described in “Note 2 – Summary of Significant Accounting Policies” in the notes to our consolidated financial statements in Item 8. Our critical accounting policies and estimates include the following:

Accounts Receivable: Accounts receivable are recorded at the invoice amount and do not bear interest, the general terms for receivables is net 30 days. The allowance for doubtful accounts is the Company’s best estimate of the amount of probable credit losses in the Company’s existing accounts receivable; however, changes in circumstances relating to accounts receivable may result in a requirement for additional allowances in the future. The Company determines the allowance based upon historical write-off experience and known conditions about customers’ current ability to pay. Account balances are charged against the allowance when the potential for recovery is considered remote.

Inventories: Inventories include freight-in, materials, labor and overhead costs and are stated at the lower of cost or net realizable value. Allowances are recorded for slow-moving, obsolete or unusable inventory. We assess our inventory for estimated obsolescence or unmarketable inventory and write down the difference between the cost of inventory and the estimated net realizable value based upon assumptions about future sales and supply on-hand, if necessary. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

Revenue Recognition: Net sales include products and shipping and handling charges, net of estimates for product returns and any related sales incentives. Revenue is measured as the amount of consideration that we expect to receive in exchange for transferring products. All revenue is recognized when we satisfy our performance obligations under the contract. We recognize revenue by transferring the promised products to the customer, with revenue being recognized at the point in time the customer obtains control of the products, at which time a receivable is created for the invoice sent to the customer. We recognize revenue for shipping and handling charges at the time the products are delivered to or picked up by the customer. We estimate product returns based on historical return rates and rebates based upon contractual agreements. Using probability assessments, we estimate sales incentives expected to be paid over the term of the contract. Our contracts have a single performance obligation. Sales taxes and value added taxes in foreign jurisdictions that are collected from customers and remitted to governmental authorities are accounted for on a net basis and therefore are excluded from net sales. The

Company manufactures certain private label goods for customers and has determined that control does not pass to the customer at the time of manufacture, based upon the nature of the private labelling. The Company had no material contract assets, and the Company concluded that its contract liabilities (rebates) had the right of offset against customer receivables.

Sales Returns, Rebates and Allowances: Sales are reduced for any anticipated sales returns, rebates and allowances based on historical experience. Since our return policy is only 90 days and our products are not generally susceptible to external factors such as technological obsolescence or significant changes in demand, we are able to make a reasonable estimate for returns. We offer end-user product specific and sales volume rebates to select distributors. Our rebates are based on actual sales and are accrued monthly.

Stock-Based Compensation: The Company accounts for stock-based awards using Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 718, *Stock Compensation*: ASC 718 requires companies to record compensation expense for the value of all outstanding and unvested share-based payments, including employee stock options and similar awards.

The fair values of stock option grants are determined using the Black-Scholes option-pricing model and are based on the following assumptions: expected stock price volatility based on historical data and management’s expectations of future volatility, risk-free interest rates from published sources, expected term based on historical data and no dividend yield, as the Board of Directors currently has no plans to pay dividends in the foreseeable future. The Company accounts for option forfeitures as they occur. The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and that are fully transferable. In addition, the option-pricing model requires the input of highly subjective assumptions, including expected stock price volatility. Our stock options have characteristics significantly different from those of traded options, and changes in the subjective input assumptions can materially affect the fair value of such options.

OVERVIEW

Alpha Pro Tech is in the business of protecting people, products and environments. We accomplish this by developing, manufacturing and marketing a line of high-value, disposable protective apparel and infection control products for the cleanroom, industrial, pharmaceutical, medical and dental markets. We also manufacture a line of building supply construction weatherization products. Our products are sold under the Alpha Pro Tech brand name, as well as under private label.

Our products are grouped into three business segments: the Building Supply segment, consisting of construction weatherization products, such as housewrap and synthetic roof underlayment, as well as other woven material; the Disposable Protective Apparel segment, consisting of disposable protective apparel, such as shoecovers, bouffant caps, gowns, coveralls, lab coats, frocks and other miscellaneous products; and the Infection Control segment, consisting of face masks and eye shields. All financial information presented herein reflects the current segmentation.

Our target markets include pharmaceutical manufacturing, bio-pharmaceutical manufacturing and medical device manufacturing, lab animal research, high technology electronics manufacturing (which includes the semi-conductor market), medical and dental distributors, and construction, building supply and roofing distributors.

Our products are used primarily in cleanrooms, industrial safety manufacturing environments, health care facilities, such as hospitals, laboratories and dental offices, and building and re-roofing sites. Our products are distributed principally in the United States through a network consisting of purchasing groups, national distributors, local distributors, independent sales representatives and our own sales and marketing force.

RESULTS OF OPERATIONS

The following table sets forth certain operational data as a percentage of sales for the years indicated:

	<u>2018</u>	<u>2017</u>
Net sales	100.0%	100.0%
Gross profit	38.0%	39.6%
Selling, general and administrative expenses	28.6%	31.7%
Income from operations	8.3%	6.6%
Income before provision for income taxes	9.5%	8.3%
Net income	7.8%	6.0%

Fiscal Year 2018 Compared to Fiscal Year 2017

Sales. Consolidated sales for the year ended December 31, 2018 increased to \$46,624,000, from \$44,025,000 for the year ended December 31, 2017, representing an increase of \$2,599,000, or 5.9%. This increase consisted of increased sales in the Building Supply segment of \$1,394,000, and increased sales in the Disposable Protective Apparel segment of \$1,362,000, partially offset by decreased sales in the Infection Control segment of \$157,000.

Building Supply segment sales for the year ended December 31, 2018 increased by \$1,394,000, or 5.7%, to \$26,035,000, compared to \$24,641,000 for 2017. This segment increase was primarily due to an increase in sales of housewrap (including REX™ Wrap, REX™ Wrap Plus and REX™ Wrap Fortis with JX ALTA 360° Drainage Technology™) and an increase in sales of other woven material, partially offset by a decrease in sales of synthetic roof underlayment (including REX™, TECHNOply™ and TECHNO SB®). The sales mix of the Building Supply segment for the year ended December 31, 2018 was 44% for synthetic roof underlayment, 44% for housewrap and 12% for other woven material. This compared to 50% for synthetic roof underlayment, 41% for housewrap and 9% for other woven material for the year ended December 31, 2017.

Management is encouraged by housewrap sales, as we have achieved strong sales growth in each of the last three years. Our economy housewrap (REX™ Wrap and REX™ Wrap Plus) enjoyed a record year of sales in 2018. Our premium housewrap (REX™ Wrap Fortis), which was introduced in the latter part of 2017, contributed considerably to the growth of housewrap sales in 2018. We expect continued growth of housewrap sales in the coming year. Sales of synthetic roof underlayment in 2018 were affected primarily by lower shipments to two private label distributors. Although overall synthetic roof underlayment sales were down, sales of our TECHNO SB® product were up in 2018 compared to 2017. Based on the success of TECHNO SB®, (to be renamed TECHNO SB® 50), during the first quarter of 2019 we will be announcing the expansion of the line to include an economy and premium version, TECHNO SB® 25 and TECHNO SB® Ultra. These products are multi-layered, offering increased strength, durability, rigidity and walkability. These new products should provide us with significant growth opportunities going forward.

Sales for the Disposable Protective Apparel segment for the year ended December 31, 2018 increased by \$1,362,000, or 9.6%, to \$15,612,000, compared to \$14,250,000 for 2017. The increase was primarily due to increased sales to our major international supply chain partner, our national distributors, and to a lesser extent, regional distributors.

Infection Control segment sales for the year ended December 31, 2018 decreased by \$157,000, or 3.1%, to \$4,977,000, compared to \$5,134,000 for 2017. Mask sales were down by 8.3%, or \$293,000, to \$3,264,000, primarily due to lower sales to private label distributors. Shield sales were up by 8.6%, or \$136,000, to \$1,713,000, primarily due to higher sales to a national distributor.

Gross Profit. Gross profit increased by \$259,000, or 1.5%, to \$17,711,000 for the year ended December 31, 2018, from \$17,452,000 for 2017. The gross profit margin was 38.0% for the year ended December 31, 2018, compared to 39.6% for 2017. Gross profit margin was affected by increased rebates, increased freight cost and a change in product mix in the Building Supply segment in 2018. Management expects gross profit margin in 2019 to be similar to 2018.

Selling, General and Administrative Expenses. Selling, general and administrative expenses decreased by \$643,000, or 4.6%, to \$13,312,000 for the year ended December 31, 2018, from \$13,955,000 for 2017. As a percentage of net sales, selling, general and administrative expenses decreased to 28.6% for the year ended December 31, 2018, from 31.7% for 2017. The decrease in selling, general and administrative expenses was primarily due to an accrual in 2017 of \$619,000 related to the death benefit provided in the employment agreement of Alexander Millar, our former President and Chairman, who passed away in December 2017, which accrual was not repeated in 2018.

The change in expenses by segment was as follows: Building Supply was up \$238,000, or 5.0%; Disposable Protective Apparel was up \$373,000, or 10.9%; Infection Control was up \$24,000, or 4.3%; and corporate unallocated expenses were down \$1,278,000, or 24.7%, with approximately half of the decrease related to the death benefit accrual in 2017 as discussed above. The increases in the Building Supply and Disposable Protective Apparel segments were primarily as a result of our expanded sales team and enhancement of our marketing programs to support future growth.

In accordance with the terms of his employment agreement, the Company's current President and Chief Executive Officer is entitled to an annual bonus equal to 5% of the pre-tax profits of the Company, excluding bonus expense. In 2017, pursuant to their employment agreements, the Company's current President and Chief Executive Officer and former President were each entitled to a bonus equal to 5% of the pre-tax profits of the Company, excluding bonus expense. An executive bonus of \$233,000 was accrued for the year ended December 31, 2018, compared to \$118,000 for the same period of 2017. The executives voluntarily accepted reduced bonuses for 2017.

Depreciation and Amortization. Depreciation and amortization expense decreased by \$46,000, or 8.1%, to \$525,000 for the year ended December 31, 2018, from \$571,000 for 2017.

Income from Operations. Income from operations increased by \$948,000, or 32.4%, to \$3,874,000 for the year ended December 31, 2018, compared to \$2,926,000 for 2017. The increased income from operations was primarily due to an increase in gross profit of \$259,000, a decrease in selling, general and administrative expenses of \$643,000, and a decrease in depreciation and amortization expense of \$46,000.

Other Income. Other income decreased by \$204,000, or 27.4%, to \$540,000 for the year ended December 31, 2018, from \$744,000 for 2017. The decrease of \$204,000 was primarily due to the gain on the sale of property of \$385,000 during the third quarter of 2017, which was not repeated in 2018, partially offset by an increase of equity in income of unconsolidated affiliate of \$232,000.

Other income consisted of equity in income of unconsolidated affiliate of \$587,000, a loss on marketable securities of \$50,000 and interest income of \$3,000 for the year ended December 31, 2018. Other income consisted primarily of equity in income of unconsolidated affiliate of \$355,000, gain on sale of property of \$385,000 and interest income of \$4,000 for the year ended December 31, 2017. Equity in income of unconsolidated affiliate was higher in 2018 due to higher gross margin.

Income before Provision for Income Taxes. Income before provision for income taxes for the year ended December 31, 2018 was \$4,414,000, compared to income before provision for income taxes of \$3,670,000 for 2017, representing an increase of \$744,000, or 20.3%. This increase in income before provision for income taxes was primarily due to an increase in income from operations of \$948,000, partially offset by a decrease in other income of \$204,000.

Provision for Income Taxes. The provision for income taxes for the year ended December 31, 2018 was \$789,000, compared to \$1,037,000 for 2017. The estimated effective tax rate was 17.9% for the year ended December 31, 2018, compared to 28.3% for 2017. The Company does not record a tax provision on equity in income of unconsolidated affiliate, which reduces the effective tax rate.

The lower effective rate for 2018 compared to 2017 was primarily due to U.S. tax reform (U.S. Tax Cuts and Jobs Act) that was enacted in December 2017, which lowered the federal tax rate for corporations from 34% to 21%.

Net Income. Net income for the year ended December 31, 2018 was \$3,625,000, compared to net income of \$2,633,000 for 2017, representing an increase of \$992,000, or 37.7%. The net income increase was due to an increase in income before provision for income taxes of \$744,000 and a decrease in provision for income taxes of \$248,000. Net income as a percentage of net sales for the year ended December 31, 2018 was 7.8%, and net income as a percentage of net sales for 2017 was 6.0%. Basic and diluted earnings per common share for the years ended December 31, 2018 and 2017 were \$0.26 and \$0.18, respectively.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2018, we had cash of \$7,007,000 and working capital of \$24,540,000, representing an increase in working capital of 1.5%, or \$363,000, from December 31, 2017. As of December 31, 2018, our current ratio (current assets/current liabilities) was 14:1, compared to a 10:1 current ratio as of December 31, 2017. Cash decreased by 20.0%, or \$1,756,000, to \$7,007,000 as of December 31, 2018, compared to \$8,763,000 as of December 31, 2017. The decrease in cash was due to cash used in financing activities of \$3,186,000 and cash used in investing activities of \$570,000, offset by cash provided by operating activities of \$2,000,000.

We have a \$3,500,000 credit facility with Wells Fargo Bank, consisting of a line of credit with interest at prime plus 0.5%. As of December 31, 2018, the prime interest rate was 5.50%. This credit line will expire in May 2020. The available line of credit is based on a formula of eligible accounts receivable and inventories. Our borrowing capacity on the line of credit was \$3,500,000 as of December 31, 2018. As of December 31, 2018, we did not have any borrowings under this credit facility and do not anticipate using it in the near future. The credit facility contains customary representations and warranties, affirmative covenants and events of default. We were in compliance with the covenants as of December 31, 2018.

Net cash provided by operating activities of \$2,000,000 for the year ended December 31, 2018 was due to net income of \$3,625,000, impacted primarily by the following: share-based compensation expense of \$432,000, depreciation and amortization expense of \$525,000, gain on sales of marketable securities of \$7,000, an unrealized loss on marketable securities of \$57,000, equity in income of unconsolidated affiliate of \$587,000, an increase in accounts receivable of \$360,000, an increase in prepaid expenses of \$1,334,000, a decrease in inventory of \$371,000, a decrease in accounts payable and accrued liabilities of \$881,000 and a change in in deferred income taxes of \$159,000.

Net cash provided by operating activities of \$4,008,000 for the year ended December 31, 2017 was due to net income of \$2,633,000, impacted primarily by the following: share-based compensation expense of \$296,000, depreciation and amortization expense of \$571,000, equity in income of unconsolidated affiliate of \$355,000, gain on sale of property of \$385,000, a change in deferred income taxes of \$378,000, an increase in accounts receivable of \$136,000, a decrease in prepaid expenses of \$681,000, a decrease in inventory of \$745,000, and an increase in accounts payable and accrued liabilities of \$336,000.

Accounts receivable increased by \$360,000, or 7.3%, to \$5,318,000 as of December 31, 2018, from \$4,958,000 as of December 31, 2017. The increase in accounts receivable was primarily related to higher sales in the fourth quarter of 2018 compared to 2017. The number of days that sales remained outstanding as of December 31, 2018, calculated by using an average of accounts receivable outstanding and annual revenue, was 40 days, compared to 41 days as of December 31, 2017.

Inventory decreased by \$371,000, or 3.6%, to \$9,878,000 as of December 31, 2018, from \$10,249,000 as of December 31, 2017. The decrease was primarily due to a decrease in inventory for the Disposable Protective Apparel segment of \$10,000, or 0.3%, to \$3,454,000,

a decrease in inventory for the Building Supply segment of \$267,000, or 5.8%, to \$4,302,000, and a decrease in inventory for the Infection Control segment of \$94,000, or 4.2%, to \$2,122,000.

Prepaid expenses and other current assets increased by \$1,334,000, or 50.0%, to \$3,999,000 as of December 31, 2018, from \$2,665,000 as of December 31, 2017. The increase was primarily due to deposits for the purchase of inventory.

Accounts payable and accrued liabilities as of December 31, 2018 decreased by \$881,000, or 31.4%, to \$1,920,000 from \$2,801,000 as of December 31, 2017. The change was primarily due to a decrease in trade payables and a decrease in accrued liabilities.

Net cash used in investing activities was \$570,000 for the year ended December 31, 2018, compared to net cash used in investing activities of \$685,000 for 2017. Investing activities for the year ended December 31, 2018 consisted of the purchase of property and equipment of \$606,000 and proceeds from the sale of marketable securities of \$36,000. Investing activities for the year ended December 31, 2017 consisted of the purchase of property and equipment of \$1,222,000 and proceeds from the sale of property of \$537,000.

Net cash used in financing activities was \$3,186,000 for the year ended December 31, 2018, compared to net cash used in financing activities of \$4,016,000 for 2017. Net cash used in financing activities for the year ended December 31, 2018 resulted from the payment of \$3,580,000 for the repurchase of common stock, partially offset by proceeds of \$394,000 from the exercise of stock options. Net cash used in financing activities for the year ended December 31, 2017 resulted from the payment of \$4,226,000 for the repurchase of common stock, partially offset by proceeds of \$210,000 from the exercise of stock options.

As of December 31, 2018, we had \$2,699,000 available for additional stock purchases under our stock repurchase program. For the year ended December 31, 2018, we repurchased 999,900 shares of common stock at a cost of \$3,580,000. As of December 31, 2018, we had repurchased a total of 17,203,907 shares of common stock at a cost of \$32,821,000 through our repurchase program. We retire all stock upon its repurchase. Future repurchases are expected to be funded from cash on hand and cash flows from operating activities.

We believe that our current cash balance and the funds available under our credit facility will be sufficient to satisfy our projected working capital and planned capital expenditures for the foreseeable future.

Related Parties

During 2018, the Company had no related party transactions. During 2017, the Company used a law firm whose majority member was also a member of the Company's Board of Directors for a portion of the year. The amounts charged by the law firm were billed at the law firm's normal billing rates.

See "Note 7-Equity Investments in Unconsolidated Affiliate" regarding our relationship with our non-consolidated affiliated Harmony Plastics Private Limited.

New Accounting Standards

Effective January 1, 2018, we adopted the Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers (Topic 606), and ASU 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date, which deferred the effective date of ASU 2014-09 by one year. ASU 2014-09 supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and is based on the principle that revenue is recognized to depict the transfer of 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. It also requires additional disclosure about the nature, amount, timing and uncertainty of revenue, cash flows arising from customer contracts, including significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. The adoption of ASU 2014-09, using a full retrospective approach, had no significant impact on our results of operations, cash flows or financial position. Revenue continues to be recognized at a point in time for our product sales when products are delivered to or picked up by the customer, and revenue for shipping and handling charges continues to be recognized when products are delivered to or picked up by the customer. We continue to reduce revenue for estimates of sales incentives based on probability estimates and for product returns based on historical return rates.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, which provides guidance for the recognition, measurement, presentation and disclosure of financial instruments. The new guidance revises the accounting requirements related to the classification and measurement of investments in equity securities and the presentation of certain fair value changes for financial liabilities measured at fair value. The guidance also changes certain disclosure requirements associated with the fair value of financial instruments. These changes will require an entity to measure, at fair value, investments in equity securities and other ownership interests in an entity and recognize the changes in fair value within net income. The guidance is effective for fiscal years and interim periods within those years beginning after December 15, 2017. As a result of adopting this guidance effective January 1, 2018, the Company recorded a cumulative-effect adjustment to reclassify the \$458,000 accumulated other comprehensive loss balance to retained earnings, which balance was the result of unrealized losses on marketable securities. Effective January 1, 2018, unrealized gains and losses on marketable securities are recorded in the consolidated statement of income.

In February 2016, the FASB issued ASU 2016-02, Leases, which introduces the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous guidance. The update is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those reporting periods, with early adoption permitted. The original guidance required application on a modified retrospective basis with the earliest period presented. In August 2018, the FASB issued ASU 2018-11, Targeted Improvements to ASC 842, which includes an option to not restate comparative periods in transition and elect to use the effective date of ASC 842, Leases, as the date of initial application of transition. Based on the effective date, this guidance will apply and we will adopt this ASU beginning on January 1, 2019 and plan to elect the transition option provided under ASU 2018-11. We expect this standard will have a material effect on our consolidated balance sheets with the recognition of new right of use assets and lease liabilities for all operating leases, as these leases typically have a non-cancelable lease term of greater than one year. Upon adoption, we estimate that both assets and liabilities on our consolidated balance sheets will increase by approximately \$3,500,000. Changes in our lease population or changes in incremental borrowing rates may alter this estimate. We will expand our consolidated financial statement disclosures upon adoption of this standard.

In March 2016, the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting, which simplifies several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. The provisions of this guidance were effective for annual reporting periods beginning after December 15, 2016 and interim periods within those annual periods, with early adoption permitted. The Company adopted this guidance during the quarter ended March 31, 2017, and the Company recorded a one-time \$866,000 cumulative-effect adjustment to reduce additional paid-in capital and increase retained earnings for excess tax benefits from stock option exercises that had previously been recorded to additional paid-in capital. The adoption of this guidance also increased the number of dilutive shares because excess tax benefits are no longer included in the assumed proceeds when calculating the number of dilutive shares. In addition, the effective tax rate will be reduced in future periods when there are excess tax benefits from stock options exercised.

In June 2016, the FASB issued ASU 2016-13 Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. ASU 2016-13 requires an organization to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. ASU 2016-13 is effective for public entities for the annual periods, including interim periods within those annual periods, beginning after December 15, 2019. This guidance is applicable to the Company's fiscal year beginning January 1, 2020. Management is currently evaluating the requirements of this guidance and has not yet determined the impact on the adoption of the Company's financial position or results from operations.

In June 2018, the FASB issued ASU No. 2018-07, Compensation - Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting. This ASU is intended to simplify aspects of share-based compensation issued to non-employees by making the guidance consistent with accounting for employee share-based compensation. ASU 2018-07 is effective for annual periods beginning after December 15, 2018 and interim periods within those annual periods, with early adoptions permitted but no earlier than an entity's adoption date of ASC Topic 606. The new guidance is required to be applied retrospectively with the cumulative effect recognized at the date of initial application. We will adopt the provisions of this ASU in the first quarter of 2019. Adoption of the new standard is not expected to have a material impact on our consolidated financial statements.

Management periodically reviews new accounting standards that are issued. Management has not identified any other new standards that it believes merit further discussion at this time.

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

We subcontract the manufacturing of products in China and, to a lesser extent in Mexico, and have a joint venture in India. In addition, our principal executive office, with 15 employees, is located in Canada. We do not believe that we have a material foreign currency exposure due to the fact that our purchase agreements with companies in China, India and Mexico are settled in U.S dollars. In addition, all sales transactions are in U.S. dollars. In Canada, our foreign currency exposure is not material due to the fact that we do not conduct manufacturing operations in Canada. Our exposure is limited to payroll expenses in the Canadian branch office.

We do not expect any significant effect on our consolidated results of operations from inflation, interest or currency rate fluctuations. We do not hedge interest rates or foreign exchange risks.

Alpha Pro Tech, Ltd.

Item 8. Financial Statements and Supplementary Data.

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All schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

Alpha Pro Tech, Ltd.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) and Rule 15d-15(f) under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, our principal executive and principal financial officers, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our principal executive and principal financial officers, we assessed, as of December 31, 2018, the effectiveness of our internal control over financial reporting. This assessment was based on criteria established in accordance with the Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment, our management concluded that our internal control over financial reporting was effective as of December 31, 2018.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Alpha Pro Tech, Ltd.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Alpha Pro Tech, Ltd. and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, shareholders’ equity, and cash flows for the years then ended, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risk of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Tanner LLC

We have served as the Company’s auditor since 2011.

Salt Lake City, Utah
March 6, 2019

Alpha Pro Tech, Ltd.

Consolidated Balance Sheets

	December 31,	
	2018	2017
Assets		
Current assets:		
Cash	\$ 7,007,000	\$ 8,763,000
Investments	258,000	343,000
Accounts receivable, net of allowance for doubtful accounts of \$64,000 and \$83,000 as of December 31, 2018 and 2017, respectively	4,935,000	4,597,000
Accounts receivable, related party	383,000	361,000
Inventories	9,878,000	10,249,000
Prepaid expenses	3,999,000	2,665,000
Total current assets	<u>26,460,000</u>	<u>26,978,000</u>
Property and equipment, net	3,244,000	3,158,000
Goodwill	55,000	55,000
Definite-lived intangible assets, net	16,000	21,000
Deferred income tax assets	-	19,000
Equity investments in unconsolidated affiliate	4,480,000	3,893,000
Total assets	<u>\$ 34,255,000</u>	<u>\$ 34,124,000</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 578,000	\$ 1,236,000
Accrued liabilities	1,342,000	1,565,000
Total current liabilities	<u>1,920,000</u>	<u>2,801,000</u>
Deferred income tax liabilities	141,000	-
Total liabilities	<u>2,061,000</u>	<u>2,801,000</u>
Commitments		
Shareholders' equity:		
Common stock, \$.01 par value: 50,000,000 shares authorized; 13,502,684 and 14,290,749 shares outstanding as of December 31, 2018 and 2017, respectively	135,000	143,000
Additional paid-in capital	2,669,000	5,415,000
Accumulated other comprehensive loss	-	(458,000)
Retained earnings	29,390,000	26,223,000
Total shareholders' equity	<u>32,194,000</u>	<u>31,323,000</u>
Total liabilities and shareholders' equity	<u>\$ 34,255,000</u>	<u>\$ 34,124,000</u>

The accompanying notes are an integral part of these consolidated financial statements.

Alpha Pro Tech, Ltd.

Consolidated Statements of Income

	Years Ended December 31,	
	2018	2017
Net sales	\$ 46,624,000	\$ 44,025,000
Cost of goods sold, excluding depreciation and amortization	28,913,000	26,573,000
Gross profit	17,711,000	17,452,000
Operating expenses:		
Selling, general and administrative	13,312,000	13,955,000
Depreciation and amortization	525,000	571,000
Total operating expenses	13,837,000	14,526,000
Income from operations	3,874,000	2,926,000
Other income (expense):		
Equity in income of unconsolidated affiliate	587,000	355,000
Gain on sale of property	-	385,000
Losses from marketable securities	(50,000)	-
Interest income, net	3,000	4,000
Total other income, net	540,000	744,000
Income before provision for income taxes	4,414,000	3,670,000
Provision for income taxes	789,000	1,037,000
Net income	\$ 3,625,000	\$ 2,633,000
Basic earnings per common share	\$ 0.26	\$ 0.18
Diluted earnings per common share	\$ 0.26	\$ 0.18
Basic weighted average common shares outstanding	13,909,688	14,825,600
Diluted weighted average common shares outstanding	13,962,819	14,993,009

The accompanying notes are an integral part of these consolidated financial statements.

Alpha Pro Tech, Ltd.

Consolidated Statements of Comprehensive Income

	Years Ended December 31,	
	2018	2017
Net income	\$ 3,625,000	\$ 2,633,000
Other comprehensive loss:		
Change in unrealized loss on marketable securities, net of tax	-	(254,000)
Comprehensive income	\$ 3,625,000	\$ 2,379,000

The accompanying notes are an integral part of these consolidated financial statements.

Alpha Pro Tech, Ltd.

Consolidated Statements of Shareholders' Equity

	Common Stock		Additional Paid-in Capital	Accumulated	Retained Earnings	Total
	Shares	Amount		Other Comprehensive Income (Loss)		
Balance as of December 31, 2016	15,411,556	\$ 154,000	\$ 9,990,000	\$ (204,000)	\$ 22,724,000	\$ 32,664,000
Common stock repurchased and retired	(1,232,476)	(12,000)	(4,214,000)	-	-	(4,226,000)
Share-based compensation expense	-	-	296,000	-	-	296,000
Options exercised	111,669	1,000	209,000	-	-	210,000
Net income	-	-	-	-	2,633,000	2,633,000
Other comprehensive loss	-	-	-	(254,000)	-	(254,000)
Cumulative-effect adjustment of change in accounting for stock-based compensation	-	-	(866,000)	-	866,000	-
Balance as of December 31, 2017	14,290,749	143,000	5,415,000	(458,000)	26,223,000	31,323,000
Common stock repurchased and retired	(999,900)	(10,000)	(3,570,000)	-	-	(3,580,000)
Share-based compensation expense	-	-	432,000	-	-	432,000
Options exercised	211,835	2,000	392,000	-	-	394,000
Net income	-	-	-	-	3,625,000	3,625,000
Cumulative-effect adjustment of change in accounting for unrealized loss on marketable securities	-	-	-	458,000	(458,000)	-
Balance as of December 31, 2018	<u>13,502,684</u>	<u>\$ 135,000</u>	<u>\$ 2,669,000</u>	<u>\$ -</u>	<u>\$ 29,390,000</u>	<u>\$ 32,194,000</u>

The accompanying notes are an integral part of these consolidated financial statements.

Alpha Pro Tech, Ltd.

Consolidated Statements of Cash Flows

	Years Ended December 31,	
	2018	2017
Cash Flows From Operating Activities:		
Net income	\$ 3,625,000	\$ 2,633,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Share-based compensation	432,000	296,000
Depreciation and amortization	525,000	571,000
Losses from marketable securities	50,000	-
Equity in income of unconsolidated affiliate	(587,000)	(355,000)
Gain on sale of property	-	(385,000)
Deferred income taxes	159,000	(378,000)
Changes in assets and liabilities:		
Accounts receivable, net	(338,000)	51,000
Accounts receivable, related party	(22,000)	(187,000)
Inventories	371,000	745,000
Prepaid expenses	(1,334,000)	681,000
Accounts payable and accrued liabilities	(881,000)	336,000
Net cash provided by operating activities	<u>2,000,000</u>	<u>4,008,000</u>
Cash Flows From Investing Activities:		
Purchase of property and equipment	(606,000)	(1,222,000)
Proceeds from sales of marketable securities	36,000	-
Proceeds from sale of property	-	537,000
Net cash used in investing activities	<u>(570,000)</u>	<u>(685,000)</u>
Cash Flows From Financing Activities:		
Proceeds from exercise of stock options	394,000	210,000
Repurchase of common stock	(3,580,000)	(4,226,000)
Net cash used in financing activities	<u>(3,186,000)</u>	<u>(4,016,000)</u>
Decrease in cash	(1,756,000)	(693,000)
Cash, beginning of the year	<u>8,763,000</u>	<u>9,456,000</u>
Cash, end of the year	<u>\$ 7,007,000</u>	<u>\$ 8,763,000</u>
Supplemental disclosure of cash flow information:		
Cash paid for income taxes	<u>\$ 908,000</u>	<u>\$ 1,078,000</u>

The accompanying notes are an integral part of these consolidated financial statements.

Alpha Pro Tech, Ltd.

Notes to Consolidated Financial Statements

1. The Company

Alpha Pro Tech, Ltd. (“Alpha Pro Tech” or the “Company”) is in the business of protecting people, products and environments. The Company accomplishes this by developing, manufacturing and marketing a line of building supply products for the new home and re-roofing markets; a line of disposable protective apparel for the cleanroom, the industrial markets and the pharmaceutical markets; and a line of infection control products for the medical and dental markets.

The Building Supply segment consists of construction weatherization products, such as housewrap and synthetic roof underlayment, as well as other woven material.

The Disposable Protective Apparel segment consists of a complete line of shoecovers, bouffant caps, coveralls, gowns, frocks and lab coats.

The Infection Control segment consists of a line of face masks and eye shields.

The Company’s products are sold under the Alpha Pro Tech brand name, and under private label, and are predominantly sold in the United States of America (“U.S.”).

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements of the Company include the accounts of the Company and its wholly-owned subsidiaries, Alpha Pro Tech, Inc. and Alpha ProTech Engineered Products, Inc. All significant intercompany accounts and transactions have been eliminated in consolidation.

Events that occurred after December 31, 2018 through the date on which these financial statements were filed with the Securities and Exchange Commission (“SEC”) were considered in the preparation of these financial statements.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses for the reporting period. Actual results could differ from these estimates.

Periods Presented

All amounts have been rounded to the nearest thousand with the exception of the share data. The Company qualified as a smaller reporting company at the measurement date for determining such qualification during 2018. According to the disclosure requirements for smaller reporting companies, the Company has included balance sheets as of the end of the two most recent years and statements of income, comprehensive income, shareholders’ equity and cash flows for each of the two most recent years.

Investments

The Company periodically invests a portion of its cash in excess of short-term operating needs in marketable equity securities. These investments are classified as available-for-sale in accordance with U.S. GAAP. The Company does not have any investments in securities that are classified as held-to-maturity or trading. Available-for-sale investments are carried at their fair values using quoted prices in active markets for identical securities, with realized and unrealized gains and losses reported in net income. Prior to January 1, 2018, unrealized gains and losses net of tax, were reported as a component of accumulated other comprehensive income (loss), and declines in value deemed to be other-than-temporary on available-for-sale investments, were recognized in net income. The cost of securities sold is based on the specific identification method. Investments that the Company intends to hold for more than one year are classified as long-term investments in the accompanying balance sheets.

Alpha Pro Tech, Ltd.

Notes to Consolidated Financial Statements

Accounts Receivable

Accounts receivable are recorded at the invoice amount and do not bear interest. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable; however, changes in circumstances relating to accounts receivable may result in a requirement for additional allowances in the future. The Company determines the allowance based upon historical write-off experience and known conditions about its customers' current ability to pay. Account balances are charged against the allowance when management determines that the probability for collection is remote.

Inventories

Inventories include freight-in, materials, labor and overhead costs and are stated at the lower of cost or net realizable value. Allowances are recorded for slow-moving, obsolete or unusable inventories. The Company assesses inventories for estimated obsolescence or unmarketable products and writes down the difference between the cost of the inventories and the estimated net realizable values based upon assumptions about future sales and supplies on-hand.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Costs to develop internal use software are charged to expense as incurred until the preliminary project stage has been completed and application development begins. The Company discontinues capitalization upon entering the post-implementation stage and expenses ongoing maintenance and support costs. Property and equipment are depreciated or amortized using the straight-line method over the shorter of the respective useful lives of the assets or the related lease terms as follows:

Buildings (in years)	25
Machinery and equipment (in years)	5-15
Office furniture and equipment (in years)	2-7
Leasehold improvements (in years)	4-5
Software (in years)	5

Expenditures for renewals and betterments are capitalized, whereas costs of maintenance and repairs are charged to operations in the period incurred.

Goodwill and Intangible Assets

The Company accounts for goodwill and definite-lived intangible assets in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 350, *Intangibles – Goodwill and Other*. Goodwill is not amortized, but rather is tested annually for impairment. Intangible assets with finite lives are amortized over their useful lives (see Note 6). The Company's patents and trademarks are recorded at cost and are amortized using the straight-line method over their estimated useful lives of 5-17 years.

Fair Value of Financial Instruments

The estimated fair values of financial instruments are determined based on relevant market information and cannot be determined with precision. The Company's financial instruments consist primarily of cash and marketable securities.

The Company's marketable securities are classified as available-for-sale and are carried at fair market value based on quoted market prices.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in its business circumstances indicate that the carrying amounts of the assets may not be fully recoverable. If it is determined that the undiscounted future net cash flows are not sufficient to recover the carrying values of the assets, an impairment loss is recognized for the excess of the carrying values over the fair values of the assets. The Company believes that the future undiscounted net cash flows to be received from its long-lived assets exceed the assets' carrying values and, accordingly, the Company has not recognized any impairment losses for the years ended December 31, 2018 and 2017.

Alpha Pro Tech, Ltd.

Notes to Consolidated Financial Statements

Revenue Recognition

As of January 1, 2018 the Company adopted the new accounting standard, ASU 2014-09. This standard was retrospectively adopted for the 2017 year, and there was no cumulative effect upon adoption. Net sales include products and shipping and handling charges, net of estimates for product returns and any related sales incentives. Revenue is measured as the amount of consideration that we expect to receive in exchange for transferring products. All revenue is recognized when we satisfy our performance obligations under the contract. We recognize revenue by transferring the promised products to the customer, with revenue being recognized at the point in time when the customer obtains control of the products, at which time a receivable is created for the invoice sent to the customer. We recognize revenue for shipping and handling charges at the time the products are delivered to or picked up by the customer. We estimate product returns based on historical return rates and rebates based upon contractual agreements. Using probability assessments, we estimate sales incentives expected to be paid over the term of the contract. Our contracts have a single performance obligation. Sales taxes and value added taxes in foreign jurisdictions that are collected from customers and remitted to governmental authorities are accounted for on a net basis and therefore are excluded from net sales. The Company manufactures certain private label goods for customers and has determined that control does not pass to the customer at the time of manufacture, based upon the nature of the private labelling. The Company had no material contract assets, and the Company concluded that its contract liabilities (mostly rebates) had the right of offset against customer receivables.

Shipping and Handling Costs

The costs of shipping products to distributors are recorded in cost of goods sold.

Stock-Based Compensation

The Company maintains a stock option plan under which the Company may grant incentive stock options and non-qualified stock options to employees and non-employee directors. Stock options have been granted with exercise prices at or above the fair market value of the underlying shares of common stock on the date of grant. Options vest and expire according to terms established at the grant date.

The Company accounts for share-based awards in accordance with ASC 718, *Stock Compensation*. ASC 718 requires companies to record compensation expense for the value of all outstanding and unvested share-based awards, including employee stock options.

For the years ended December 31, 2018 and 2017, there were 349,750 and 85,000 stock options granted, respectively, under the Company's option plan. The Company recognized \$432,000 and \$296,000 in share-based compensation expense for the years ended December 31, 2018 and 2017, respectively, related to outstanding options.

Income Taxes

The Company accounts for income taxes using the asset and liability method. A valuation allowance is recorded to reduce the carrying amounts of deferred income tax assets unless it is more likely than not that such assets will be realized. The Company's policy is to record any interest and penalties assessed by the Internal Revenue Service as a component of the provision for income taxes. The Company provides allowances for uncertain income tax positions when it is more likely than not that the position will not be sustained upon examination by the tax authority.

Alpha Pro Tech, Ltd. and its subsidiaries file income tax returns in the U.S. federal jurisdiction, and in various state and foreign jurisdictions.

The Tax Cuts and Jobs Act (the "Tax Act") was enacted in December 2017. The Tax Act significantly changed U.S. tax law by, among other things, lowering U.S. corporate income tax rates, implementing a territorial tax system and imposing a one-time transition tax on deemed repatriated earnings of foreign subsidiaries. The Tax Act reduced the U.S. corporate income tax rate from 35% to 21%, effective January 1, 2018.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to reverse. As a result of the reduction in the U.S. corporate income tax rate from 35% to 21% under the Tax Act, we revalued our ending net deferred tax assets at December 31, 2017 (see also Note 11).

Alpha Pro Tech, Ltd.

Notes to Consolidated Financial Statements

Earnings Per Common Share

The following table provides a reconciliation of both net income and the number of shares used in the computation of “basic” earnings per common share (“EPS”), which utilizes the weighted average number of common shares outstanding without regard to potential common shares, and “diluted” EPS, which includes all potential common shares which are dilutive for the years ended December 31, 2018 and 2017.

	Years Ended December 31,	
	2018	2017
Net income (numerator)	\$ 3,625,000	\$ 2,633,000
Shares (denominator):		
Basic weighted average common shares outstanding	13,909,688	14,825,600
Add: Dilutive effect of common stock options	53,131	167,409
Diluted weighted average common shares outstanding	13,962,819	14,993,009
Earnings per common share:		
Basic	\$ 0.26	\$ 0.18
Diluted	\$ 0.26	\$ 0.18

Translation of Foreign Currencies

Transactions in foreign currencies are translated into U.S. dollars at the exchange rate prevailing at the transaction date. Monetary assets and liabilities in foreign currencies at each period end are translated at the exchange rate in effect at that date. Transaction gains or losses on foreign currencies are reflected in selling, general and administrative expenses and were not material for the years ended December 31, 2018 and 2017.

The Company does not have a material foreign currency exposure due to the fact that all purchase agreements with companies in Asia and Mexico are in U.S. dollars. In addition, all sales transactions are in U.S. dollars. The Company’s only foreign currency exposure is with its Canadian branch office. The foreign currency exposure is not material due to the fact that the Company does not manufacture in Canada. The exposure primarily relates to payroll expenses in the Company’s administrative branch office in Canada.

Research and Development Costs

Research and development costs are expensed as incurred and are included in selling, general and administrative expenses. Such costs were not material for the years ended December 31, 2018 and 2017.

Advertising Costs

The Company expenses advertising costs as incurred. These costs are included in selling, general and administrative expenses and were \$32,000 and \$46,000 for the years ended December 31, 2018 and 2017, respectively.

Loss Contingencies

The outcomes of legal proceedings and claims brought against the Company are subject to uncertainty. An estimated loss from a loss contingency such as a legal proceeding or claim is accrued if it is probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated. In determining whether a loss should be accrued, we evaluate, among other factors, the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss.

Fair Value Measurements

ASC 820, *Fair Value Measurements and Disclosures*, establishes a framework for measuring fair value in accordance with U.S.

Alpha Pro Tech, Ltd.

Notes to Consolidated Financial Statements

GAAP, clarifies the definition of fair value within that framework and expands disclosures about the use of fair value measurements. On a quarterly basis, the Company measures at fair value certain financial assets using a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's own assumptions. The following fair value hierarchy prioritizes the inputs into three broad levels.

This hierarchy requires the Company to minimize the use of unobservable inputs and to use observable market data, if available, when determining fair value. The fair values of the Company's financial assets as of December 31, 2018 and 2017 were determined using the following levels of inputs:

- Level 1—Quoted prices for identical instruments in active markets;
- Level 2—Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and
- Level 3—Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

	Fair Value Measurements as of December 31,			
	Total	Level 1	Level 2	Level 3
Assets:				
Marketable securities 2018	\$ 258,000	\$ 258,000	\$ -	\$ -
Marketable securities 2017	343,000	343,000	-	-

The fair values for the marketable securities, classified as Level 1, were obtained from quoted market prices.

New Accounting Standards

Effective January 1, 2018, we adopted the Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers (Topic 606), and ASU 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date, which deferred the effective date of ASU 2014-09 by one year. ASU 2014-09 supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and is based on the principle that revenue is recognized to depict the transfer of 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. It also requires additional disclosure about the nature, amount, timing and uncertainty of revenue, cash flows arising from customer contracts, including significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. The adoption of ASU 2014-09, using the modified retrospective approach, had no significant impact on our results of operations, cash flows or financial position. Revenue continues to be recognized at a point in time for our product sales when products are delivered to or picked up by the customer, and revenue for shipping and handling charges continues to be recognized when products are delivered to or picked up by the customer. We continue to reduce revenue for estimates of sales incentives based on probability estimates and for product returns based on historical return rates.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, which provides guidance for the recognition, measurement, presentation and disclosure of financial instruments. The new guidance revises the accounting requirements related to the classification and measurement of investments in equity securities and the presentation of certain fair value changes for financial liabilities measured at fair value. The guidance also changes certain disclosure requirements associated with the fair value of financial instruments. These changes will require an entity to measure, at fair value, investments in equity securities and other ownership interests in an entity and recognize the changes in fair value within net income. The guidance is effective for fiscal years and interim periods within those years beginning after December 15, 2017. As a result of adopting this guidance effective January 1, 2018, the Company recorded a cumulative-effect adjustment to reclassify the \$458,000 accumulated other comprehensive loss balance to retained earnings, which balance was the result of unrealized losses on marketable securities. Effective January 1, 2018, unrealized gains and losses on marketable securities are recorded in the consolidated statement of income.

In February 2016, the FASB issued ASU 2016-02, Leases, which introduces the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous guidance. The update is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those reporting periods, with early adoption permitted. The

Alpha Pro Tech, Ltd.

Notes to Consolidated Financial Statements

original guidance required application on a modified retrospective basis with the earliest period presented. In August 2018, the FASB issued ASU 2018-11, Targeted Improvements to ASC 842, which includes an option to not restate comparative periods in transition and elect to use the effective date of ASC 842, Leases, as the date of initial application of transition. Based on the effective date, this guidance will apply and we will adopt this ASU beginning on January 1, 2019 and plan to elect the transition option provided under ASU 2018-11. We expect this standard will have a material effect on our consolidated balance sheets with the recognition of new right of use assets and lease liabilities for all operating leases, as these leases typically have a non-cancelable lease term of greater than one year. Upon adoption, we estimate that both assets and liabilities on our consolidated balance sheets will increase by approximately \$3,500,000. Changes in our lease population or changes in incremental borrowing rates may alter this estimate. We will expand our consolidated financial statement disclosures upon adoption of this standard.

In March 2016, the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting, which simplifies several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. The provisions of this guidance were effective for annual reporting periods beginning after December 15, 2016 and interim periods within those annual periods, with early adoption permitted. The Company adopted this guidance during the quarter ended March 31, 2017, and the Company recorded a one-time \$866,000 cumulative-effect adjustment to reduce additional paid-in capital and increase retained earnings for excess tax benefits from stock option exercises that had previously been recorded to additional paid-in capital. The adoption of this guidance also increased the number of dilutive shares because excess tax benefits are no longer included in the assumed proceeds when calculating the number of dilutive shares. In addition, the effective tax rate will be reduced in future periods when there are excess tax benefits from stock options exercised.

In June 2016, the FASB issued ASU 2016-13 Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. ASU 2016-13 requires an organization to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. ASU 2016-13 is effective for public entities for the annual periods, including interim periods within those annual periods, beginning after December 15, 2019. This guidance is applicable to the Company's fiscal year beginning January 1, 2020. Management is currently evaluating the requirements of this guidance and has not yet determined the impact on the adoption of the Company's financial position or results from operations.

In June 2018, the FASB issued ASU No. 2018-07, Compensation - Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting. This ASU is intended to simplify aspects of share-based compensation issued to non-employees by making the guidance consistent with accounting for employee share-based compensation. ASU 2018-07 is effective for annual periods beginning after December 15, 2018 and interim periods within those annual periods, with early adoptions permitted but no earlier than an entity's adoption date of ASC Topic 606. The new guidance is required to be applied retrospectively with the cumulative effect recognized at the date of initial application. We will adopt the provisions of this ASU in the first quarter of 2019. Adoption of the new standard is not expected to have a material impact on our consolidated financial statements.

Management periodically reviews new accounting standards that are issued. Management has not identified any other new standards that it believes merit further discussion at this time.

3. Investments

As of December 31, 2018 and 2017, investments totaled \$258,000 and \$343,000, respectively, which consisted of marketable securities. Certain marketable securities were sold during the year ended December 31, 2018. No marketable securities were sold during the year ended December 31, 2017. The total loss on marketable securities during the year ended December 31, 2018 was \$50,000. The loss was due to an unrealized loss of \$57,000 partially offset by a realized gain of \$7,000. The change in unrealized loss of \$254,000 in the statements of comprehensive income is presented net of tax for the year ended December 31, 2017. The tax benefit on the unrealized loss was \$10,000 in 2017.

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4. Inventories

Inventories consisted of the following:

	December 31,	
	2018	2017
Raw materials	\$ 4,732,000	\$ 4,567,000
Work in process	825,000	1,058,000
Finished goods	4,321,000	4,624,000
	<u>\$ 9,878,000</u>	<u>\$ 10,249,000</u>

5. Property and Equipment

Property and equipment consisted of the following:

	December 31,	
	2018	2017
Buildings	\$ 493,000	\$ 493,000
Machinery and equipment	11,231,000	11,036,000
Office furniture and equipment	1,260,000	1,151,000
Leasehold improvements	508,000	507,000
Software	373,000	177,000
	<u>13,865,000</u>	<u>13,364,000</u>
Less accumulated depreciation and amortization	<u>(10,621,000)</u>	<u>(10,206,000)</u>
	<u>\$ 3,244,000</u>	<u>\$ 3,158,000</u>

Depreciation and amortization expense for property and equipment was \$520,000 and \$558,000 for the years ended December 31, 2018 and 2017, respectively.

6. Goodwill and Intangible Assets

Management evaluates goodwill for impairment on an annual basis (fourth quarter), and no impairment charge was identified for the years presented.

Definite-lived intangible assets, consisting of patents and trademarks, are amortized over their useful lives. Intangible assets consisted of the following:

	December 31, 2018				December 31, 2017			
	Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and Trademarks	3.0	<u>\$474,000</u>	<u>(\$458,000)</u>	<u>\$16,000</u>	4.0	<u>\$474,000</u>	<u>(\$453,000)</u>	<u>\$21,000</u>

Amortization expense for intangible assets was \$5,000 and \$13,000 for the years ended December 31, 2018 and 2017,

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respectively.

Estimated future amortization expense related to definite-lived intangible assets is as follows:

Years ending December 31,

2019	\$	4,000
2020		3,000
2021		2,000
2022		2,000
2023		2,000
Thereafter		3,000
		<u>\$ 16,000</u>

7. Equity Investments in Unconsolidated Affiliate

In 2005, Alpha ProTech Engineered Products, Inc. (a subsidiary of Alpha Pro Tech, Ltd.) entered into a joint venture with a manufacturer in India for the production of building products. Under the terms of the joint venture agreement, a private company, Harmony Plastics Private Limited (“Harmony”), was created with ownership interests of 41.66% by Alpha ProTech Engineered Products, Inc. and 58.34% by Maple Industries and associates.

This joint venture positions Alpha ProTech Engineered Products, Inc. to respond to current and expected increased product demand for housewrap and synthetic roof underlayment and provides future capacity for sales of specialty roofing component products and custom products for industrial applications requiring high quality extrusion coated fabrics. The joint venture also supplies products for the Disposable Protective Apparel segment.

The capital from the initial funding and a bank loan, which loan is guaranteed exclusively by the individual shareholders of Maple Industries and associates and collateralized by the assets of Harmony, were utilized to purchase the original manufacturing facility in India. Harmony currently has four facilities in India (three owned and one rented), consisting of: (1) a 113,000 square foot building for manufacturing building products; (2) a 73,000 square foot building for manufacturing coated material and sewing proprietary disposable protective apparel; (3) a 16,000 square foot facility for sewing proprietary disposable protective apparel; (4) a 93,000 square foot rental for manufacturing of Building Supply segment products. All additions have been financed by Harmony with no guarantees from the Company.

In accordance with ASC 810, *Consolidation*, the Company assesses whether or not related entities are variable interest entities (“VIEs”). For those related entities that qualify as VIEs, ASC 810 requires the Company to determine whether or not the Company is the primary beneficiary of the VIE, and, if so, to consolidate the VIE. The Company has determined that Harmony is not a VIE and is, therefore, considered to be an unconsolidated affiliate.

The Company records its investment in Harmony as “equity investments in unconsolidated affiliate” in the accompanying balance sheets. The Company records its equity interest in Harmony’s results of operations as “equity in income of unconsolidated affiliate” in the accompanying statements of income. The Company reviews annually its investment in Harmony for impairment. Management has determined that no impairment existed as of December 31, 2018 and 2017.

For the years ended December 31, 2018 and 2017, the Company purchased \$16,517,000 and \$14,618,000 of inventories, respectively, from Harmony. For the years ended December 31, 2018 and 2017, the Company recorded equity in income of unconsolidated affiliate of \$587,000 and \$355,000, respectively.

As of December 31, 2018, the Company’s investment in Harmony was \$4,480,000, which consisted of its original \$1,450,000 investment and cumulative equity in income of unconsolidated affiliate of \$4,049,000, less \$942,000 in repayments of an advance and payments of \$77,000 in dividends.

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8. Accrued Liabilities

Accrued liabilities consisted of the following:

	December 31,	
	2018	2017
Payroll expenses and tax payable	\$ 269,000	\$ 232,000
Commission and bonuses payable and general accrued liabilities	1,073,000	1,333,000
	<u>\$ 1,342,000</u>	<u>\$ 1,565,000</u>

Contract liabilities were \$1,327,000 and \$1,118,000 as of December 31, 2018 and 2017, respectively, which are netted against the related accounts receivable due to the legal right of offset.

9. Notes Payable

The Company maintains a credit facility with Wells Fargo Bank that expires in May 2021. Pursuant to the terms of the credit facility, the Company has a borrowing capacity up to \$3,500,000 based on eligible accounts receivable and inventories. The credit facility bears interest at prime plus 0.5% (prime rate was 5.50% and 4.50% as of December 31, 2018 and 2017, respectively) and is collateralized by accounts receivable, inventories, trademarks, patents and property and equipment. Under the terms of the facility, the Company pays a 0.5% unused loan fee on a quarterly basis.

As of December 31, 2018, the Company had no outstanding borrowings on its line of credit and no other debt.

10. Shareholders' Equity

Repurchase Program

During the year ended December 31, 2018, the Company repurchased and retired 999,900 shares of its common stock for \$3,580,000. During the year ended December 31, 2017, the Company repurchased and retired 1,232,476 shares of its common stock for \$4,226,000. As of December 31, 2018, the Company had \$2,699,000 available to repurchase common shares under the repurchase program.

Option Activity

The 2004 Stock Option Plan (the "2004 Plan") is an equity compensation plan that provides for grants of both incentive stock options and non-qualified stock options to eligible individuals. The 2004 Plan is intended to recognize the contributions made to the Company by key employees of the Company, provide key employees with additional incentive to devote themselves to the future success of the Company and improve the ability of the Company to attract, retain and motivate individuals. The 2004 Plan also is intended as an incentive to certain members of the Board of Directors of the Company to continue to serve on the Board of Directors and to devote themselves to the future success of the Company.

The 2004 Plan provides for a total of 5,000,000 common shares eligible for issuance.

Under the 2004 Plan, approximately 4,639,750 options had been granted as of December 31, 2018. Under the 2004 Plan, option grants have a three-year vesting period and, since 2005, expire no later than the fifth anniversary from the date of grant. The exercise price of the options is determined based on the fair market value of the stock on the date of grant.

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The following table summarizes option activity for the years ended December 31, 2018 and 2017:

	Shares	Weighted Average Exercise Price Per Option
Options outstanding, December 31, 2016	1,065,000	2.06
Granted to non-employee directors	85,000	3.83
Exercised	(111,669)	1.88
Canceled/expired/forfeited	(153,333)	1.58
Options outstanding, December 31, 2017	884,998	2.26
Granted to employees and directors	349,750	3.27
Exercised	(211,835)	1.86
Canceled/expired/forfeited	-	-
Options outstanding, December 31, 2018	1,022,913	2.69
Options exercisable, December 31, 2018	406,835	2.30

Stock options to purchase 1,022,913 and 884,998 shares of common stock were outstanding as of December 31, 2018 and 2017, respectively. All except 145,000 and 130,000 of the stock options, which were anti-dilutive, were included in the computation of the weighted-average number of dilutive common shares outstanding for the years ended December 31, 2018 and 2017.

The fair values of the share-based compensation awards granted were estimated using the Black-Scholes option-pricing model with the following assumptions and weighted average fair values:

	Stock Options	
	For the Years Ended December 31,	
	2018	2017
Exercise price	\$3.27	\$3.83
Risk-free interest rate	2.73 %	2.13 %
Expected volatility	57.75 %	58.38 %
Expected life in years	4.25	4.25
Dividend rate	-	-
Black-Scholes fair value	\$1.57	\$1.81

The Company used the Black-Scholes option-pricing model to value the options. The Company uses historical data to estimate the expected term of the options. The risk-free interest rate for periods consistent with the expected term of the award is based on the U.S. Treasury rates in effect at the time of grant. The expected volatility is based on historical volatility. The Company uses an estimated dividend payout ratio of zero, as the Company has not paid dividends in the past and, at this time, does not expect to do so in the foreseeable future. The Company accounts for option forfeitures as they occur.

The following table summarizes information about stock options as of December 31, 2018:

Range of Exercise Prices	Options Outstanding				Options Exercisable			
	Options	Weighted Average Exercise Price	Weighted Average Remaining Contract Life (in years)	Aggregate Intrinsic Value	Options	Weighted Average Exercise Price	Weighted Average Remaining Contract Life (in years)	Aggregate Intrinsic Value
\$1.58-								
\$3.90	1,022,913	\$2.69	3.21	\$1,047,000	406,835	\$2.30	2.57	\$573,000

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The intrinsic value is the amount by which the market value of the underlying common stock exceeds the exercise price of the respective stock options. The aggregate intrinsic value of stock options exercised during the years ended December 31, 2018 and 2017 was \$356,000 and \$177,000, respectively.

As of December 31, 2018, \$648,000 of total unrecognized compensation cost related to stock options was expected to be recognized over a weighted-average remaining period of 1.81 years. Cash received from 211,835 options exercised for the year ended December 31, 2018 was \$394,000.

Dividends

The holders of the Company's common stock are entitled to receive such dividends as may be declared by the Board of Directors of the Company from time to time to the extent that funds are legally available for payment thereof. The Company has never declared or paid any dividends on any of its outstanding shares of common stock. The Board of Directors' current policy is not to pay dividends but rather to use available funds to repurchase common shares in accordance with the Company's repurchase program and to fund the continued development and growth of the Company. Consequently, the Company currently has no plans to pay cash dividends in the foreseeable future.

11. Income Taxes

The provision (benefit) for income taxes consisted of the following:

	For the Years Ended December 31,	
	2018	2017
Current	\$ 630,000	\$ 1,415,000
Deferred	159,000	(378,000)
	<u>\$ 789,000</u>	<u>\$ 1,037,000</u>

Deferred income tax assets (liabilities) consisted of the following:

	December 31,	
	2018	2017
Temporary differences:		
Property and equipment	\$ (448,000)	\$ (379,000)
Intangible assets	(6,000)	(4,000)
Marketable securities	122,000	122,000
Inventory reserve	45,000	60,000
Accrued expenses and inventory	336,000	355,000
Basis difference in investments	(80,000)	(80,000)
Foreign exchange	(14,000)	(8,000)
AMT/Foreign tax credits	25,000	-
Other	(65,000)	(26,000)
State income taxes	(56,000)	(21,000)
Net deferred income tax assets (liabilities)	<u>\$ (141,000)</u>	<u>\$ 19,000</u>

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Notes to Consolidated Financial Statements

The provision for income taxes differs from the amount that would be obtained by applying the U.S. statutory rate to income before income taxes as a result of the following:

	For the Years Ended December 31,	
	2018	2017
Income taxes based on U.S. statutory rate of 21% and 34%, respectively	\$ 928,000	\$ 1,247,000
Non-deductible meals and entertainment	5,000	6,000
Deemed foreign repatriation	-	468,000
Domestic manufacturer's deduction	-	(97,000)
FDII deduction	(56,000)	-
Foreign taxes	(123,000)	(500,000)
State taxes	89,000	82,000
Effect of Federal tax rate reduction from 34% to 21%	-	(53,000)
Other	(54,000)	(116,000)
	<u>\$ 789,000</u>	<u>\$ 1,037,000</u>

12. Commitments and Contingencies

Operating Lease Commitments: The Company leases its facilities under non-cancelable operating leases expiring on various dates through January 1, 2024.

The following summarizes future minimum lease payments required under non-cancelable operating lease agreements:

<u>Years Ending December 31,</u>	<u>Future Minimum Lease Payments</u>
2019	\$ 1,007,000
2020	690,000
2021	669,000
2022	670,000
2023	676,000
Thereafter	134,000
	<u>\$ 3,846,000</u>

Total rent expense under operating leases for the years ended December 31, 2018 and 2017 was \$1,075,000 and \$1,047,000, respectively.

Legal Proceedings:

The Company is subject to various pending and threatened litigation actions in the ordinary course of business. Although it is not possible to determine with certainty at this point in time what liability, if any, the Company will have as a result of such litigation, based on consultation with legal counsel, management does not anticipate that the ultimate liability, if any, resulting from such litigation will have a material effect on the Company's financial condition and results of operations.

13. Employee Benefit Plans

The Company has certain benefit plans. Under the plans, employees may contribute up to 12% of their gross earnings subject to certain limitations. The Company contributes an additional 0.5% of gross earnings for those employees contributing 1% of their gross earnings and contributes 1% of gross earnings for those employees contributing 2% to 12% of their gross earnings. The amounts contributed to the plans by the Company were \$40,000 and \$36,000 for the years ended December 31, 2018 and 2017, respectively.

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The Company does not have any other significant pension, profit sharing or similar plans established for its employees. Pursuant to his employment agreement with the Company, Lloyd Hoffman, our President and Chief Executive Officer, is contractually entitled to receive from the Company at the conclusion of each fiscal year a cash bonus in an amount equal to 5% pre-tax profits of the Company, excluding bonus expense, as presented in the Company's audited consolidated statements of income for such fiscal year, subject to a maximum payment of \$1,000,000. The Company's former President and Chairman, Al Millar, who passed away in December 2017, was entitled to a similar 5% of pre-tax profits bonus for 2017, in accordance with his employment agreement. For 2017, Mr. Hoffman and Mr. Millar's beneficiary voluntarily determined to accept reduced bonuses for 2017. The Company accrued \$233,000 for the year ended December 31, 2018, compared to \$118,000 for 2017, in connection with these bonuses.

14. Activity of Business Segments

The Company operates through three segments:

Building Supply: consisting of a line of construction supply weatherization products. The construction supply weatherization products consist of housewrap and synthetic roof underlayment, as well as other woven material. A portion of the Company's equity in income of unconsolidated affiliate (Harmony) is included in the total segment income for the Building Supply segment.

Disposable Protective Apparel: consisting of a complete line of disposable protective clothing, such as shoecovers (including the Aqua Trak® and spunbond shoecovers), bouffant caps, coveralls, frocks, lab coats, gowns and hoods for the pharmaceutical, cleanroom, industrial and medical markets. A portion of the Company's equity in income of unconsolidated affiliate (Harmony) is included in the total segment income for the Disposable Protective Apparel segment.

Infection Control: consisting of a line of face masks and eye shields.

The accounting policies of the segments are the same as those described previously under Summary of Significant Accounting Policies (see Note 2). Segment data excludes charges allocated to the principal executive office and other corporate unallocated expenses and income taxes. The Company evaluates the performance of its segments and allocates resources to them based primarily on net sales.

The following table presents net sales for each segment:

	Years Ended December 31,	
	2018	2017
Building Supply	\$ 26,035,000	\$ 24,641,000
Disposable Protective Apparel	15,612,000	14,250,000
Infection Control	4,977,000	5,134,000
Consolidated net sales	<u>\$ 46,624,000</u>	<u>\$ 44,025,000</u>

The following table presents the reconciliation of total segment income to total consolidated net income:

	Years Ended December 31,	
	2018	2017
Building Supply	\$ 3,836,000	\$ 4,143,000
Disposable Protective Apparel	2,862,000	2,516,000
Infection Control	1,722,000	1,844,000
Total segment income	<u>8,420,000</u>	<u>8,503,000</u>
Unallocated corporate overhead expenses	4,006,000	4,833,000
Provision for income taxes	789,000	1,037,000
Consolidated net income	<u>\$ 3,625,000</u>	<u>\$ 2,633,000</u>

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The following table presents net sales and long-lived asset information by geographic area:

	Years Ended December 31,	
	2018	2017
Net sales by geographic region		
United States	\$ 45,595,000	\$ 43,169,000
International	1,029,000	856,000
Consolidated net sales	<u>\$ 46,624,000</u>	<u>\$ 44,025,000</u>
	As of December 31,	
	2018	2017
Long-lived assets by geographic region		
United States	\$ 2,528,000	\$ 2,593,000
International	716,000	565,000
Consolidated total long-lived assets	<u>\$ 3,244,000</u>	<u>\$ 3,158,000</u>

Net sales by geographic region are based on the countries in which the customers are located. For the years ended December 31, 2018 and 2017, the Company did not generate sales from any single country, except the United States, that were significant to the Company's consolidated net sales.

The following table presents the consolidated net property, equipment, goodwill and intangible assets by segment:

	As of December 31,	
	2018	2017
Disposable Protective Apparel	\$ 386,000	\$ 336,000
Building Supply	1,908,000	2,098,000
Infection Control	14,000	13,000
Total segment assets	<u>2,308,000</u>	<u>2,447,000</u>
Unallocated corporate assets	<u>1,007,000</u>	<u>787,000</u>
Total consolidated assets	<u>\$ 3,315,000</u>	<u>\$ 3,234,000</u>

15. Concentration of Risk

The Company maintains its cash in various bank accounts, the balances of which at times may exceed federally insured limits. The Company has not experienced any losses related to these accounts, and management does not believe that the Company is exposed to significant credit risk.

The Company's investments in marketable securities are in one publicly traded entity. The Company recognized a gain on investment in common stock warrants in a prior period and during 2018 recognized a realized gain of \$7,000 and an unrealized loss of \$57,000 in the consolidated income statement. During 2017, the Company recognized an unrealized loss in comprehensive income (loss) for changes in the fair value of the investment. The Company is exposed to the fluctuation in the stock price of this investment.

Management believes that adequate provision has been made for risk of loss on all credit transactions.

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Notes to Consolidated Financial Statements

The Company buys a significant amount of its disposable protective apparel products from a limited number of subcontractors located in Asia and, to a much lesser extent, a subcontractor in Mexico. Management believes that other suppliers could provide similar products at comparable terms. A change in suppliers, however, could cause a delay in shipment and a possible loss of sales, which would affect operating results adversely.

The Building Supply segment buys semi-finished housewrap and synthetic roof underlayment from its joint venture, Harmony, located in India. Although there are a limited number of manufacturers of the particular product, management believes that other suppliers could provide similar products at comparable terms. A change in suppliers, however, could cause a delay in shipment and a possible loss of sales, which would affect operating results adversely.

The Company provides products to customers located primarily in the United States. Customers accounting for 10% or more of accounts receivable as of December 31, 2018 and 2017, and 10% or more of net sales for the years ended December 31, 2018 and 2017, were as follows:

Accounts receivable:	2018	2017
Customer A	24%	26%
Customer B	14%	*
Net sales:		
Customer A	20%	19%
Customer B	12%	10%

* Customer's balance was below the 10% threshold for accounts receivable as of December 31, 2017.

16. Employment Agreements

The Company has entered into employment agreements with its current President and Chief Executive Officer and its former President and Chairman, which have terms of approximately five years and which renew in accordance with their terms. The agreements provide that, if the officers' employment is terminated without cause, as defined in the agreements, the officers are entitled to receive certain severance payments. If termination occurs due to retirement, the officers will enter into a four-year consulting arrangement with the Company at a specified percentage of the officers' then current salaries. Upon death or disability, the Company will also make certain payments to the executive or the executive's estate or beneficiary, as applicable.

During the fourth quarter of 2017, the Company's former President and Chairman passed away, which resulted in a death benefit expense of \$619,000, in accordance with his employment agreement. The expense for the years ended December 31, 2018 and 2017 was \$0 and \$619,000, respectively. The related accrued liability as of December 31, 2018 and 2017 was \$430,000 and \$619,000, respectively.

17. Related Party Transactions

During 2018, the Company had no related party transactions. During 2017, the Company used a law firm whose majority member was also a member of the Company's Board of Directors until March 31, 2017. For the year ended December 31, 2018 and 2017, payments for legal services to this related party were \$0, and legal expenses incurred in connection with this related party for the years ended December 31, 2018 and 2017 were \$0 and \$65,000, respectively. As of each of December 31, 2018 and 2017, the Company's outstanding balance to this related party was \$0. See "Note 7-Equity Investments in Unconsolidated Affiliate" regarding our relationship with our non-consolidated affiliated Harmony Plastics Private Limited.

18. Subsequent Events

The Company has reviewed and evaluated whether any additional material subsequent events have occurred from December 31, 2018 through the filing date of the Company's Annual Report on Form 10-K. All appropriate subsequent event disclosures have been made in the consolidated financial statements.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our (i) President and Chief Executive Officer (principal executive officer) and (ii) Chief Financial Officer (principal financial officer), we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”)) as of December 31, 2018 pursuant to the evaluation of these controls and procedures required by Rule 13a-15 of the Exchange Act. Disclosure controls and procedures are the controls and other procedures that we have designed to ensure that we record, process, summarize and report in a timely manner the information that we must disclose in reports that we file with or submit to the SEC under the Exchange Act.

In designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives and that we are required to apply our judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation, our principal executive and financial officers concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

Management’s Report on Internal Control over Financial Reporting

This report is included in Item 8 and is incorporated herein by reference.

Attestation Report of the Independent Registered Public Accounting Firm

As a result of being a smaller reporting company, we are not required to provide an attestation report from our independent registered public accounting firm regarding our internal control over financial reporting. We have elected not to include such an attestation report in this Annual Report on Form 10-K, which election was approved by the Audit Committee of the Company’s Board of Directors.

Changes in Internal Control Over Financial Reporting

During the fourth quarter of the year ended December 31, 2018 , there was no change in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

We have adopted a Code of Business Conduct and Ethics applicable to all of our directors, officers and employees. A copy of the Code of Business Conduct and Ethics is available on the Company’s website at www.alphaprotech.com in the “Investors” section under “Corporate Governance.”

Other information required by this Item is incorporated by reference pursuant to General Instruction G(3) of Form 10-K from the Company’s definitive Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission (“SEC”) pursuant to Regulation 14A. The registrant’s definitive Proxy Statement for the Annual Meeting of Shareholders will be filed with the SEC on or before April 30, 2019.

Item 11. Executive Compensation.

The information required by this Item is incorporated by reference pursuant to General Instruction G(3) of Form 10-K from the Company's definitive Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed with the SEC pursuant to Regulation 14A. The registrant's definitive Proxy Statement for the Annual Meeting of Shareholders will be filed with the SEC on or before April 30, 2019.

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

Certain of the information required by this Item is incorporated by reference pursuant to General Instruction G(3) of Form 10-K from the Company's definitive Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed with the SEC pursuant to Regulation 14A. The registrant's definitive Proxy Statement for the Annual Meeting of Stockholders will be filed with the SEC on or before April 30, 2019.

EQUITY COMPENSATION PLAN INFORMATION

The following table summarizes information as of December 31, 2018 relating to equity compensation plans of the Company under which the Company's common stock is authorized for issuance.

Plan Category	Number of securities to be issued upon exercise of outstanding options (a)	Weighted-average exercise price of outstanding options (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plan approved by shareholders	1,022,913 (1)	\$2.69	1,522,250 (2)

(1) The number shown in column (a) is the number of shares that may be issued upon exercise of outstanding options under the shareholder approved Alpha Pro Tech, Ltd. 2004 Stock Option Plan (the "2004 Plan").

(2) The number shown in column (c) is the number of shares that may be issued upon exercise of options granted in the future under the 2004 Plan.

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

The information required by this Item is incorporated by reference pursuant to General Instruction G(3) of Form 10-K from the Company's definitive Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed with the SEC pursuant to Regulation 14A. The registrant's definitive Proxy Statement for the Annual Meeting of Shareholders will be filed with the SEC on or before April 30, 2019.

Item 14. Principal Accountant Fees and Services.

The information required by this Item is incorporated by reference pursuant to General Instruction G(3) of Form 10-K from the Company's definitive Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed with the SEC pursuant to Regulation 14A. The registrant's definitive Proxy Statement for the Annual Meeting of Shareholders will be filed with the SEC on or before April 30, 2019.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a)(1) Financial Statements.

The consolidated financial statements of the Company and its subsidiaries, included herein in Item 8, are as follows:

- Management's Report on Internal Control over Financial Reporting;
- Report of Independent Registered Public Accounting Firm;
- Consolidated Balance Sheets – December 31, 2018 and 2017;
- Consolidated Statements of Income – Years Ended December 31, 2018 and 2017;
- Consolidated Statements of Comprehensive Income – Years Ended December 31, 2018 and 2017;
- Consolidated Statements of Shareholders' Equity – Years Ended December 31, 2018 and 2017;
- Consolidated Statements of Cash Flows – Years Ended December 31, 2018 and 2017;
- Notes to Consolidated Financial Statements.

(a)(2) Financial Statement Schedules.

The financial statement schedules pursuant to this Item are not included herein because they are not required for a smaller reporting company.

(a)(3) & (b) Exhibits.

The following exhibits are filed with this report or incorporated by reference:

EXHIBIT INDEX
ITEM 15(a)(3)

<u>Exhibit No.</u>	<u>Description</u>
3.1.1	Certificate of Incorporation of Alpha Pro Tech, Ltd., incorporated by reference to Exhibit 3(f) to Form 10-K for the year ended December 31, 1994, filed on March 31, 1995 (File No. 000-19893).
3.1.2	Certificate of Amendment of Certificate of Incorporation of Alpha Pro Tech, Ltd., incorporated by reference to Exhibit 3(j) to Form 10-K for the year ended December 31, 1994, filed on March 31, 1995 (File No. 000-19893).
3.1.3	Certificate of Ownership and Merger (BFD Industries, Inc. into Alpha Pro Tech, Ltd.), incorporated by reference to Exhibit 3(l) to Form 10-K for the year ended December 31, 1994, filed on March 31, 1995 (File No. 000-19893).
3.2	Bylaws of Alpha Pro Tech, Ltd., incorporated by reference to Exhibit 3(g) to Form 10-K for the year ended December 31, 1994, filed on March 31, 1995 (File No. 000-19893).
10.1	Alpha Pro Tech, Ltd. 2004 Stock Option Plan, incorporated by reference to Exhibit B to Schedule 14A, filed on April 29, 2004 (File No. 001-15725), in connection with the 2004 Annual Meeting of Stockholders held on June 8, 2004.*
10.1A	Alpha Pro Tech, Ltd. 2004 Stock Option Plan (As Amended on June 7, 2010), incorporated by reference to Exhibit 10.1 to Form 8-K, filed on June 11, 2010.*
10.2	Non-Qualified Stock Option Agreement of John Ritota, incorporated by reference to Exhibit 4.4 to Form S-8, filed on December 13, 2004 (File No. 333-121184).*
10.3	Non-Qualified Stock Option Agreement of Russell Manock, incorporated by reference to Exhibit 4.5 to Form S-8, filed on December 13, 2004 (File No. 333-121184).*
10.4	Incentive Stock Option Agreement of Alexander W. Millar, incorporated by reference to Exhibit 4.6 to Form S-8, filed on December 13, 2004 (File No. 333-121184).*
10.5	Incentive Stock Option Agreement of Lloyd Hoffman, incorporated by reference to Exhibit 4.8 to Form S-8, filed on December 13, 2004 (File No. 333-121184).*
10.6	Employment Agreement between the Company and Alexander Millar, dated May 15, 2015, incorporated by reference to Exhibit 10.2 to Form 10-Q/A for the quarter ended June 30, 2015, filed on November 5, 2015 (File No. 001-15725).*
10.7	Employment Agreement between the Company and Lloyd Hoffman, dated August 31, 2016, incorporated by reference to Exhibit 10.1 to Form 8-K, filed on September 2, 2016 (File No. 001-15725).*
10.7A	Amendment One to Employment Agreement between the Company and Lloyd Hoffman, dated October 24, 2017, incorporated by reference to Exhibit 10.1 to Form 8-K, filed on October 26, 2017 (File No. 001-15725).*
14	Alpha Pro Tech, Ltd. Code of Business Conduct and Ethics, incorporated by reference to Exhibit 10(r) to Form 10-K/A, filed on April 29, 2004 (File No. 001-15725).
21	Subsidiaries of Alpha Pro Tech, Ltd.
23.1	Consent of Independent Registered Public Accounting Firm
31.1	Certification of President and Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act, as amended.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act, as amended.
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – President and Chief Executive Officer.
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – Chief Financial Officer.
101	Interactive Data Files

* Indicates a management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on March 6, 2019.

ALPHA PRO TECH, LTD.

DATE: <u>March 6, 2019</u>	BY: <u><i>/s/ Lloyd Hoffman</i></u> Lloyd Hoffman President and Chief Executive Officer
DATE: <u>March 6, 2019</u>	BY: <u><i>/s/ Colleen McDonald</i></u> Colleen McDonald Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 6, 2019.

/s/ Lloyd Hoffman

Lloyd Hoffman, President and Chief Executive Officer and Director
(Principal Executive Officer)

/s/ Colleen McDonald

Colleen McDonald, Chief Financial Officer
(Principal Financial and Accounting Officer)

/s/ Danny Montgomery

Danny Montgomery, Senior Vice President Manufacturing and Director

/s/ Donna Millar

Donna Millar, Investor Relations and Director

/s/ David Garcia

David Garcia, Director

/s/ Russ Manock

Russ Manock, Director

/s/ Dr. John Ritota

Dr. John Ritota, Director

/s/ James Buchan

James Buchan, Director

SUBSIDIARIES OF ALPHA PRO TECH, LTD.

<u>Name of Subsidiary</u>	<u>State of Incorporation</u>
Alpha Pro Tech, Inc.	Oklahoma
Alpha ProTech Engineered Products, Inc.	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As an independent registered public accounting firm, we hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-121184 and No. 333-169056) of our report dated March 6, 2019, relating to the consolidated financial statements of Alpha Pro Tech, Ltd. as of and for the years ended December 31, 2018 and 2017 included in the Annual Report on Form 10-K of Alpha Pro Tech, Ltd. for the year ended December 31, 2018.

/s/ Tanner LLC

Salt Lake City, Utah
March 6, 2019

Certification

I, Lloyd Hoffman, certify that:

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

DATE: March 6, 2019

BY: */s/ Lloyd Hoffman*

Lloyd Hoffman
President and Chief Executive Officer
(Principal Executive Officer)

Certification

I, Colleen McDonald, certify that:

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

DATE: March 6, 2019

BY: */s/Colleen McDonald*

Colleen McDonald
Chief Financial Officer
(Principal Financial and Accounting Officer)

Alpha Pro Tech, Ltd.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Alpha Pro Tech, Ltd. on Form 10-K for the year ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lloyd Hoffman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

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

DATE: March 6, 2019

BY: */s/ Lloyd Hoffman*

Lloyd Hoffman
President and Chief Executive Officer

Alpha Pro Tech, Ltd.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Alpha Pro Tech, Ltd. on Form 10-K for the year ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Colleen McDonald, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

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

DATE: March 6, 2019

/s/ Colleen McDonald
BY: _____

Colleen McDonald
Chief Financial Officer