



**Altus Group**

**ANNUAL  
INFORMATION  
FORM**

**2018**





**TABLE OF CONTENTS**

1.	EXPLANATORY NOTES .....	1
2.	CORPORATE STRUCTURE .....	2
3.	GENERAL DEVELOPMENT OF ALTUS GROUP .....	4
4.	BUSINESS OF ALTUS GROUP .....	9
5.	RISK FACTORS.....	15
6.	DIVIDENDS.....	22
7.	CAPITAL STRUCTURE OF ALTUS GROUP .....	23
8.	MARKET FOR SECURITIES .....	23
9.	ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER .....	24
10.	DIRECTORS AND OFFICERS .....	25
11.	AUDIT COMMITTEE .....	27
12.	LEGAL PROCEEDINGS .....	29
13.	INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS.....	29
14.	TRANSFER AGENT AND REGISTRAR.....	29
15.	MATERIAL CONTRACTS .....	29
16.	INTERESTS OF EXPERTS.....	29
17.	ADDITIONAL INFORMATION .....	29
18.	GLOSSARY OF TERMS.....	31
19.	SCHEDULE "A".....	i

## ALTUS GROUP LIMITED

### 1. EXPLANATORY NOTES

The information disclosed in this Annual Information Form (the “AIF”), Form 51-102F2, is stated as at December 31, 2018 or for the year ended December 31, 2018, as applicable, unless otherwise indicated.

Unless the context indicates otherwise, all references to “Altus Group”, the “Company”, “we”, “us”, “our” or similar terms refer to Altus Group Limited and its consolidated operations. For an explanation of other capitalized terms and expressions used herein, please refer to the “Glossary of Terms”. Unless otherwise indicated, all dollar amounts are expressed in Canadian dollars and references to “\$” are to the lawful currency of Canada.

The amounts in this Annual Information Form and the consolidated financial statements of Altus Group for the year ended December 31, 2018 have been prepared on the basis of International Financial Reporting Standards (“IFRS”).

#### **Forward-Looking Information**

Certain information in this AIF may constitute “forward-looking information” within the meaning of applicable securities legislation. All information contained in this AIF, other than statements of current and historical fact, is forward-looking information. Forward-looking information includes, but is not limited to, the discussion of our business and operating initiatives, focuses and strategies, our expectations of future performance for our various business units and our consolidated financial results, and our expectations with respect to cash flows and liquidity. Generally, forward-looking information can be identified by use of words such as “may”, “will”, “expect”, “believe”, “plan”, “would”, “could”, “remain” and other similar terminology. All of the forward-looking information in this AIF is qualified by this cautionary statement.

Forward-looking information is not, and cannot be, a guarantee of future results or events. Forward-looking information is based on, among other things, opinions, assumptions, estimates and analyses that, while considered reasonable by us at the date the forward-looking information is provided, inherently are subject to significant risks, uncertainties, contingencies and other factors that may cause actual results, performance or achievements, industry results or events to be materially different from those expressed or implied by the forward-looking information. The material factors or assumptions that we identified and were applied by us in drawing conclusions or making forecasts or projections set out in the forward-looking information include, but are not limited to: engagement and product pipeline opportunities in Altus Analytics will result in associated definitive agreements; settlement volumes in Property Tax will occur on a timely basis and that assessment authorities will process appeals in a manner consistent with expectations; the successful execution of our business strategies; consistent and stable economic conditions or conditions in the financial markets; consistent and stable legislation in the various countries in which we operate; no disruptive changes in the technology environment; the opportunity to acquire accretive businesses; the successful integration of acquired businesses; and the continued availability of qualified professionals.

Inherent in the forward-looking information are known and unknown risks, uncertainties and other factors that could cause our actual results, performance or achievements, or industry results, to differ materially from any results, performance or achievements expressed or implied by such forward-looking information.

Those risks, uncertainties and other factors that could cause actual results to differ materially from the forward-looking information include, but are not limited to: general state of the economy; currency risk; ability to maintain profitability and manage growth; commercial real estate market; competition in the industry; acquisitions; oil and gas sector; ability to attract and retain professionals; information from multiple sources; reliance on larger enterprise transactions with longer and less predictable sales cycles; success of new product introductions; ability to respond to technological change and develop products on a timely basis; protection of intellectual property or defending against claims of intellectual property rights of others; ability to implement technology strategy and ensure workforce adoption; information technology governance and security, including cyber security; engagement and product pipeline opportunities do not result in sufficient definitive agreements; property tax assessment regulators do not process appeals in a manner consistent with expectations; fixed-price and contingency engagements; appraisal and appraisal management mandates; Canadian multi-residential market; weather; legislative and regulatory changes; customer concentration and loss of material clients; interest rate risk; credit risk; income tax matters; revenue and cash flow volatility; health and safety hazards; performance of contractual obligations and client satisfaction; risk of legal proceedings; insurance limits; ability to meet solvency requirements to pay dividends; leverage and financial covenants; unpredictability and volatility of common share price; capital investment; and issuance of additional common shares diluting existing shareholders' interests, as described in this document under "Risk Factors".

Given these risks, uncertainties and other factors, investors should not place undue reliance on forward-looking information as a prediction of actual results. The forward-looking information reflects management's current expectations and beliefs regarding future events and operating performance and is based on information currently available to management. Although we have attempted to identify important factors that could cause actual results to differ materially from the forward-looking information contained herein, there are other factors that could cause results not to be as anticipated, estimated or intended. The forward-looking information contained herein is current as of the date of this AIF and, except as required under applicable law, we do not undertake to update or revise it to reflect new events or circumstances. Additionally, we undertake no obligation to comment on analyses, expectations or statements made by third parties in respect of Altus Group, our financial or operating results, or our securities.

Certain information in this AIF may be considered as "financial outlook" within the meaning of applicable securities legislation. The purpose of this financial outlook is to provide readers with disclosure regarding Altus Group's reasonable expectations as to the anticipated results of its proposed business activities for the periods indicated. Readers are cautioned that the financial outlook may not be appropriate for other purposes.

## 2. CORPORATE STRUCTURE

### **Name, Address and Incorporation**

Altus Group is governed by the *Business Corporations Act* (Ontario) (the "OBCA") pursuant to Articles of Arrangement dated January 1, 2011. The head and registered office of the Company is located at 33 Yonge Street, Suite 500, Toronto, Ontario, Canada M5E 1G4.

## Intercorporate Relationships

The following is a list of the principal subsidiaries of Altus Group as at December 31, 2018 (including jurisdictions of establishment/incorporation).

The list shows the percentages of the votes attached to all voting securities of each of the subsidiaries owned by Altus Group or over which control or direction is exercised by Altus Group.

There are certain subsidiaries not shown that each represent less than 10% of the Company's total consolidated revenues and total consolidated assets (although not each subsidiary shown necessarily represents more than 10% of total consolidated assets and total consolidated revenues) and, if considered in the aggregate as a single subsidiary, represent less than 20% of total consolidated revenues and total consolidated assets.

Subsidiary	Voting Securities	Jurisdiction of Incorporation
Altus Group Asia Pacific Limited	100%	Ontario
Altus Group Australia Pty Limited	100%	Australia
Altus Group Consulting Pty Limited	100%	Australia
Altus Group Cost Management Pty Limited	100%	Australia
Estate Master Group Holding Pty Limited	100%	Australia
Estate Master Pty Limited	100%	Australia
Altus Group (UK) Limited	100%	United Kingdom
Altus UK LLP	100%	United Kingdom
CVS (Commercial Valuers & Surveyors) Limited	100%	United Kingdom
Altus Group U.S. Inc.	100%	Delaware
ARGUS Software, Inc.	100%	Delaware
Altus Group Data Solutions Inc./Groupe Altus Gestion de Données Inc.	100%	Canada
ARGUS Software (UK) Ltd.	100%	United Kingdom
Taliance Group SAS	100%	France
Altus Geomatics General Partner Corporation	49% - Note 1	Alberta
Altus Geomatics Limited Partnership	99.9% - Note 2	Alberta
Altus Group Tax Consulting Paralegal Professional Corporation	Note 3	Ontario

Notes:

- Two land surveyors, who are employees of Altus Geomatics Limited Partnership and registered with the Alberta Land Surveyors' Association, own 51% of the shares.
- Altus Geomatics General Partner Corporation holds a 0.1% limited partnership interest in Altus Geomatics Limited Partnership and Altus Group Limited holds the remaining 99.9%.

- Altus Group Tax Consulting Paralegal Professional Corporation was formed in compliance with the regulations of the Law Society of Ontario (as defined in the *Law Society Act*). The Property Tax practice in Ontario is organized as a separate professional corporation to comply with the rules and regulations of the *Law Society Act*.

### 3. GENERAL DEVELOPMENT OF ALTUS GROUP

#### Strategy

Real estate investment allocation continues to steadily rise while commercial real estate (“CRE”) asset ownership is becoming more institutionalized, complex and globalized. After years of limited investment in technology, there is growing evidence that the CRE market is increasingly embracing technology and starting to better utilize data to optimize assets and mitigate risks. With the increased complexity of the CRE market, there is also a growing need for specialized expert services. Altus Group is at the forefront of this opportunity, with analytics solutions and expert services that help clients navigate the complexities of the CRE market to make better informed decisions and maximize the value of their real estate assets and investments.

We remain competitively positioned to capitalize on the growing demand for CRE technology, data and advisory solutions. Our key competitive strengths in the marketplace are comprised of our industry expertise, our data and software solutions, and the breadth and diversity of our offerings that position us to address a wide range of client needs in the CRE market and our customer base. Our global scale, existing client relationships with some of the world’s largest CRE companies, and independence from brokers and asset owners/investors are also key differentiators that enhance our reputation.

Our established industry position and favourable market trends support our long-term growth objectives and our determination to become a global leader in information and data analytics to the CRE market. Our strategy consists of various initiatives that contribute to our broader objective of scaling Altus Group globally with multi-product end-to-end solutions for the CRE market.

#### *Strategic Initiatives*

Across the business, we continually identify opportunities for improvement and capitalize on growth prospects to enhance all of our client offerings and internal capabilities. We have a disciplined approach to pursuing investments and prioritize opportunities that support our longer-term growth objectives and help us sustain our market leadership. While we continue to focus on enhancing every business (specifically through data and technology), we are especially focused on the following strategic initiatives for 2019:

#### Altus Analytics

Our long-term objective is to transition Altus Analytics from a collection of high value point solutions to an enterprise-grade software and data analytics market leader that unifies valuation and asset management capabilities into a single, cloud-based platform for the CRE industry. To achieve this, we will continue to expand the global adoption of ARGUS Enterprise (“AE”) software while developing a product roadmap aimed at integrating our solutions onto a cloud-based platform that will further enhance recurring revenues.

Our “ARGUS Everywhere” strategy encompasses:

- a) Increasing customer wallet share by broadening the use of AE across the organization and through additional AE modules and ARGUS branded solutions (add-on sales were a significant contributor to total license sales in 2018);
- b) Leveraging our large customer base to drive global adoption of AE, specifically focusing on our largest customers (we are especially focused on our Top 200 global clients, the majority of which have not yet deployed AE globally across their organizations); and
- c) Expanding into new markets (with a specific focus on strengthening our presence in Germany, France and Asia, where our market penetration remains modest).

This strategy complements our focus on pursuing large enterprise transactions with global, multi-product contracts for end-to-end client needs and increasing our recurring revenues through a higher mix of subscription contracts. Our global large client transactions will increasingly also include Appraisal Management solutions. Our product roadmap will continue to focus on integration across all of our capabilities and reflect the addition of functionality, data and applications that will allow clients to increasingly move to a cloud environment. The early phases of our cloud strategy consist of developing new applications that will be cloud-based but synchronized with AE on-premise solutions and ARGUS on Demand (“AOD”) through application programming interfaces (API) and portal functionality. These web applications will be sold separately on a SaaS basis.

In addition to our growth strategy for our ARGUS Software business, we remain focused on growing our Appraisal Management offering in the U.S. where favourable market trends support our organic growth initiatives, while expanding our market presence in Europe and Asia Pacific by leveraging our global U.S. relationships. Consistent with past years, we expect growth will be driven by both current customers increasing the number of assets on our platform and net new client additions.

### Property Tax

Our Property Tax practice continues to represent an attractive growth area. Our objective is to grow and scale our Property Tax business to a leading, independent global property tax advisory practice that leverages technology and data. Our data and expert knowledge combine to make us a leader in the industry.

Our strategic initiatives comprise of the following:

- a) Organic growth by leveraging Altus Analytics relationships, and by increasing business development and marketing efforts aimed at increasing market share;
- b) Pursuit of financially accretive acquisitions when opportunities arise - specifically in the U.S. where the market remains fragmented; and
- c) Enhancement of our service offering with technology and data through our Tax Analytics Platform (“TAP”) to enhance client value while improving internal efficiencies by automating workflows. In 2019 we plan to leverage TAP in Canada to drive improved performance, while continuing to tailor functionality for the U.S. and U.K. markets for broader adoption in 2020.

## Data Opportunity

Our leading Expert Services and Altus Analytics offerings collect valuable and detailed CRE industry data on various asset classes and for many major CRE markets. As ARGUS users increasingly move into a cloud environment, the depth of our data strengthens. This provides us with a unique long-term opportunity to re-purpose and eventually monetize this data to drive differentiation, launch new products and strengthen our recurring revenue streams. We have been laying the groundwork for this opportunity by developing technology that captures and organizes the data that we collect across each of our businesses and through strategic partnerships. In the long term, this infrastructure will enable us to better integrate our current products, to pursue more data-sharing partnerships, and to leverage the data to develop new applications and data-driven products in cloud-based environments.

## **Recent Developments in our Business**

We have completed a number of acquisitions and financing transactions in the last three years, including those listed below.

### *Acquisitions*

The key characteristics of our acquisitions over the past three years are summarized in the following table:

Entity	Key Characteristics
R2G Limited (2016)	Strengthened our Property Tax services in the U.K.
Axiom Cost Consulting Inc. (2017)	Expanded our Cost practice market share in Western Canada
Estate Master Group Holdings Pty Limited (2017)	Expanded our market share and strengthened our Altus Analytics product offerings
CVS (Commercial Valuers & Surveyors) Limited (2017)	Doubled the size of our Property Tax services in the U.K. based on volume of appeals filed
New Market Real Estate Group, LLC (2018)	Strengthened our Altus Analytics Appraisal Management practice in Northeastern U.S.
Aspect Property Consultants LLP (2018)	Strengthened our Property Tax services in the U.K. with added expertise in the industrial / warehouse markets
Taliance Group SAS (2018)	Strengthened our Altus Analytics offering with a new cloud software solution and expanded our position in Europe

## 2016

### *Altus Analytics*

On March 1, 2016, we announced the formation of a new business unit, Altus Analytics, which combined ARGUS Software with Research, Valuation & Advisory's U.S. and European Appraisal Management and Voyanta operations, as well as our Canadian market data products. The combination of our data, software and analytics offerings into one business unit enhances our ability to innovate and integrate our current solutions faster and more effectively for our clients. This strengthens the coordination of our sales, marketing, customer support, product development and services teams leading to a more compelling value proposition for clients. In line with the formation of Altus Analytics, restructuring activities were undertaken to consolidate the organizational leadership roles and increase operational alignment.

### *Altus Analytics New Product Launches and Upgrades*

In 2016, we expanded our core offerings with new and upgraded product releases.

In February of 2016, we launched a new product, AOD, a hosted subscription-based online service that provides access to AE and ARGUS Developer. This solution reduces the total cost of ownership and facilitates easy collaboration, rapid deployment and flexible user management for brokers, appraisers, developers and those involved with asset and investment management.

In 2016, we released two upgrades to our ARGUS Enterprise platform. AE 11.0, launched in January, added new portfolio management functionality unique to Europe and Asia Pacific and new functionality that reduces transactional cycle times for investment brokers, lenders and appraisers. AE 11.5, released in October, delivered more robust debt and risk management functionality along with enhanced ease of use capabilities.

In June of 2016, we launched ARGUS Developer 7.5, an upgrade to improve the management of the entire development life cycle.

### *Restructuring Activities*

In 2016, we undertook restructuring activities as part of the formation of Altus Analytics and a reorganization within the Property Tax practice in the U.S. In connection with these restructuring activities, a total of \$4.1 million in restructuring costs were recorded for the year ended December 31, 2016. These charges relate primarily to employee severance costs.

### *Dilution of our Investment in Real Matters Inc.*

On April 1, 2016, our investment in Real Matters Inc. ("Real Matters") was diluted due to a private placement and issuance of common shares in connection with an acquisition completed by Real Matters. These transactions reduced our equity interest from 16.4% to 13.9%. The partial deemed disposition of our investment resulted in a gain of \$9.9 million with a corresponding increase to the carrying value of our investment in Real Matters. In January 2017, Real Matters issued 1,500,000 common shares, which further diluted our investment to 13.8%.

### *Redemption of Altus UK LLP Class B and Class D Limited Liability Partnership Units*

In 2016, 78,227 Class B limited liability partnership units and 24,593 Class D limited liability partnership units of Altus UK LLP were redeemed at an average value of \$20.05 per unit. As a result, the equity derivative which was set to expire on November 16, 2016 was settled on April 1, 2016.

### ***Geomatics Severance and Impairment***

In 2016, the market conditions in Western Canada for Geomatics services continued to be adversely impacted by low oil prices and reduced drilling and pipeline activities and impacted our performance. As a result, we recorded a goodwill impairment charge of \$12.5 million.

### **2017**

#### ***Altus Analytics New Product Launches and Upgrades***

In the first quarter of 2017, we launched ARGUS Enterprise 11.6 (“AE 11.6”), an upgraded version of our industry-leading CRE and investment management platform. Enhancements in AE 11.6 included improved user experience (simplified for key transaction and valuation roles), advanced user productivity features, and more powerful reporting capabilities.

In the second quarter of 2017, we launched ARGUS Developer 7.7, an upgraded version of our industry leading software that models, forecasts, manages, analyzes and reports on development project costs and cash flows. Enhancements included increased language functionality through the addition of German and Spanish languages, as well as other user improvements.

#### ***Strategic Investment in Waypoint Building Group***

Consistent with our strategy of building and scaling our technology and data offerings through partnerships and direct investments, on March 17, 2017, we advanced US\$3.0 million to Waypoint Building Group, Inc. (“Waypoint”) in the form of a promissory note, with simple interest accrued at a rate of 5% and payable on maturity, 24 months from the date of issuance. The promissory note includes conversion features which are applicable on maturity or upon the occurrence of certain events such as an equity financing or corporate transaction.

Waypoint is an early-stage data analytics company. Founded in 2009, Waypoint is a San Francisco-based commercial real estate technology company that provides real-time local market operating expense information and benchmarking solutions to the North American commercial real estate market.

#### ***Early Redemption of Outstanding 6.75% Convertible Debentures***

The outstanding 6.75% convertible debentures (“2012 convertible debentures”) were redeemed by the Company on May 3, 2017, in accordance with the terms of the convertible debenture indenture and have been delisted from the Toronto Stock Exchange. The aggregate principal amount of the 2012 convertible debentures outstanding as of December 31, 2016 was \$6.1 million, of which \$5.7 million was converted into 570,900 common shares issued from treasury at a conversion price of \$10.00 per common share. The remaining principal amount of \$0.4 million of the 2012 convertible debentures was redeemed using available cash on hand.

#### ***Investment in Real Matters***

On May 11, 2017, Real Matters completed its initial public offering at \$13.00 per common share. As a result, our equity interest in Real Matters was diluted to 12.0%. The partial deemed disposition of our investment and re-measurement of our retained interest resulted in an accounting gain of \$115.7 million in the second quarter. At that time, the ongoing accounting treatment of our investment in Real Matters changed from equity accounting to an available-for-sale investment. Since then, gains or losses from mark-to-market adjustments were reflected directly in other comprehensive income (loss). Certain items such as dividends and impairment losses are recognized in profit or loss. When our investment was derecognized as a result of a sale or impairment, the cumulative gain or loss previously recognized in other comprehensive income (loss) was reclassified to profit or loss.

### *Restructuring Activities*

In the first quarter of 2017, we undertook company-wide restructuring activities under a corporate program to further optimize operations. This restructuring plan was completed in Q2 of 2017. In connection with these restructuring activities, a total of \$4.7 million in restructuring costs were recorded for the year ended December 31, 2017. These charges relate primarily to employee severance costs.

### *2018*

#### *Restructuring Activities*

In Q1 of 2018, we undertook and completed restructuring activities in Geomatics to reduce costs. In connection with these restructuring activities, a total of \$2.9 million in restructuring costs was recorded in the year. These charges relate primarily to employee severance costs and onerous leases.

In Q2 of 2018, we initiated restructuring activities in our Property Tax practice as a result of our integration efforts in the U.K. following the acquisition of CVS. This was completed in Q4 of 2018. In connection with these restructuring activities, a total of \$3.6 million in restructuring costs was recorded in the year. These charges relate primarily to employee severance costs and onerous leases.

#### *Sale of Investment in Real Matters*

In September 2018, we sold our shares related to our investment in Real Matters for net proceeds of \$54.2 million. The loss included in other comprehensive income (loss) up to the date of disposition of \$70.8 million was transferred to retained earnings. In October 2018, the proceeds were used to reduce the borrowings under the bank credit facilities.

#### *Impairment of Geomatics*

On December 2, 2018, the Government of Alberta announced that it is mandating a short-term reduction in oil production in order to draw down the significant storage of raw crude and bitumen. Due to this announcement, the market conditions worsened in Western Canada for Geomatics services, given the impact of oil prices on drilling and pipeline activities. As a result, in the quarter ended December 31, 2018, we recorded a goodwill impairment charge of \$13.7 million (2017 - \$nil) reflecting the worsening market conditions.

## **4. BUSINESS OF ALTUS GROUP**

### **Overview**

Altus Group Limited is a leading provider of software, data solutions and independent advisory services to the global CRE industry. Our businesses, Altus Analytics and Altus Expert Services, reflect decades of experience, a range of expertise, and technology-enabled capabilities. Our solutions empower clients to analyze, gain insight and recognize value on their real estate investments. Headquartered in Canada, we have approximately 2,500 employees around the world, with operations in North America, Europe and Asia Pacific. Our clients include some of the world's largest commercial real estate industry participants.

We have three reporting business segments - Altus Analytics, Commercial Real Estate Consulting ("CRE Consulting") and Geomatics.

## Geographic Coverage

### *Revenue Contribution by Geography*

Altus Group revenue is geographically disbursed as follows:

	Year Ended December 31, 2018 (\$,000)	Year Ended December 31, 2017 <sup>(1)</sup> (\$,000)
Canada	210,213	213,968
U.S.	180,970	178,563
Europe	86,700	53,728
Asia Pacific	32,546	30,303
<b>Total</b>	<b>510,429</b>	<b>476,562</b>

<sup>(1)</sup> Restated for the impact of IFRS 15.

### *Altus Analytics*

Our Altus Analytics segment consists of revenues from software sold under the ARGUS brand (which includes license sales, maintenance, subscriptions, and related technology services) and from data solutions (that are made available to clients through our Appraisal Management offering, as well as through data subscription products). Altus Analytics clients predominately consist of large owners, managers and investors of CRE assets and CRE funds, as well as other CRE industry participants including service providers, brokers, and developers.

Our ARGUS software solutions are among the most recognized in the CRE industry and are sold globally. Our flagship AE software is the leading global solution for CRE valuation and portfolio management and is widely recognized as the industry property valuation standard in key CRE markets. AE's suite of functionality enables valuation and cash flow analysis, property budgeting and strategic planning, investment and fund structure forecasting, dynamic reporting capabilities, and scenario sensitivity and risk analysis. Other ARGUS products include ARGUS Developer and ARGUS EstateMaster (software for development feasibility analysis), AOD (a hosted version of AE and ARGUS Developer), ARGUS Voyanta (a cloud-based data management solution), ARGUS Taliance (cloud-based solutions for alternative investment firms), and ARGUS Acquire (a cloud-based deal management solution for CRE acquisitions). ARGUS Enterprise, ARGUS Developer and ARGUS EstateMaster are sold as perpetual licenses with ongoing maintenance, or on a subscription basis, and all of our cloud products are sold on a subscription basis.

In addition to our global software solutions, in the U.S., we offer appraisal management solutions with data and analytics functionality that allow institutional real estate investors to perform quarterly performance reviews, benchmarking and attribution analysis of their portfolios with the use of our proprietary data analytics platforms. Through our Appraisal Management offering, we manage the entire valuation process on behalf of our institutional clients, providing independent oversight and expertise while leveraging our data analytics platforms. This offering is also increasingly expanding into Europe and Asia. Our Appraisal Management clients primarily consist of open and closed real estate funds, including large pension funds. The contractual terms of our Appraisal Management agreements are generally for three to five year terms and pricing is primarily based on the number of real estate assets on our platform, adjusted for frequency of valuations and complexity. We enjoy very high contract renewal rates. Our Appraisal Management

teams are also engaged from time to time to perform due diligence assignments in connection with CRE transactions.

In Canada, Altus Analytics also includes data subscription products, such as RealNet and Altus InSite, which provide comprehensive real estate information on the Canadian residential, office, industrial and investment markets. Our Canadian data covers new homes, investment transactions and commercial market inventory in key markets, and also provides intelligence on the national housing market and consumer home buying and borrowing patterns.

A significant portion of Altus Analytics revenues is comprised of recurring revenues. Recurring revenues represent revenues related to software and data subscriptions (where the contract value for software subscriptions is recognized ratably over the contract term), maintenance for perpetual licenses, and Appraisal Management contracts. Consistent with recurring revenues disclosed in prior years, this depicts the economics of our renewable contracts.

Altus Analytics operates in Canada, the U.S., Europe and Asia Pacific.

#### ***Commercial Real Estate Consulting***

Our CRE Consulting services consist of the Property Tax and Valuation and Cost Advisory business segments. Through our various practice areas, we are well equipped to serve clients with an end-to-end solution that spans the life cycle of CRE assets - from feasibility, development, acquisition, management and disposition. Our professionals possess extensive industry, market and asset-specific knowledge that contribute to our proprietary internal data systems. We have long-standing relationships with the leading CRE market participants - including owner operators, developers, financial institutions, and various CRE asset holders and investors.

Our largest revenue contributor to CRE Consulting is our Property Tax business which operates in Canada, the U.S. and the U.K. Our team of Property Tax professionals help clients minimize the tax burden and reduce the cost of compliance. Our core real estate property tax services include assessment reviews, management and appeals, as well as in the U.S., personal property and state and local tax advisory services. Valuation services, which are predominantly provided in Canada, consist of appraisals of real estate portfolios, valuation of properties for transactional purposes, due diligence and litigation and economic consulting. Our Cost practice, offered in both the private and public sectors in North America and Asia Pacific, provides expert services in the areas of construction feasibility studies, budgeting, cost and loan monitoring and project management. Given the strength of our brand, our independence and quality of our work, we enjoy a high rate of client renewals across all of our CRE Consulting businesses. Pricing for our services is based on a fixed fee or time and materials fee basis, and for a significant number of projects in Property Tax, on a contingency basis.

CRE Consulting operates in Canada, the U.S., the U.K., and Asia Pacific.

#### ***Geomatics***

Our Geomatics business operates primarily in Western Canada, with a significant number of clients in the oil and gas exploration and development sector. Geomatics is the practice of recording and managing spatially referenced information, including land surveying, geographic information systems, global positioning systems and light detection and ranging. Our services, performed by highly qualified certified professionals, include land surveys and mapping for setting of property boundaries, route and corridor selection, land settlement, construction developments, and oil field and well-sites. Our competitive

advantages include the depth of our team's experience and specialized training, our strong track record of safety, the timeliness and quality of our work, and our geographic strength in Western Canada. Our services are primarily charged on a time and materials fee basis.

Geomatics operates in Canada.

### ***Revenue Contribution by Segment***

Set out below is a comparison of Altus Group's revenue, as reported by operational segment:

	Year Ended December 31, 2018 (\$,000)	Year Ended December 31, 2017 <sup>(1)</sup> (\$,000)
Altus Analytics	183,428	167,660
Commercial Real Estate Consulting:		
Property Tax	176,734	158,696
Valuation and Cost Advisory	107,214	102,511
Geomatics	43,632	48,536
Eliminations	(579)	(841)
<b>Total</b>	<b>510,429</b>	<b>476,562</b>

<sup>(1)</sup> Restated for the impact of IFRS 15.

## **Competitive Conditions**

### ***Competitive Strengths***

Altus Group is one of the world's leading providers of software, data solutions and independent advisory services to the global CRE industry. Our key competitive strengths in the marketplace are comprised of our independence, our industry expertise, the breadth and diversity of our offerings, our differentiated data and software solutions, and our growing global scale. Together they provide us with a competitive advantage that allows us to meet a diverse range of our clients' needs as a single provider. They have also allowed us to gain significant market share in our core markets, and have contributed to strong and long-standing client relationships across all of our business units. These capabilities are particularly important for larger clients, such as banks, pension funds, property development companies, insurance companies and public real estate investors. The strategic combination of our CRE practice areas also allows us to service clients through the entire life cycle of their real estate holdings, from feasibility, to acquisition or the development of a project, to construction, to operations and portfolio management, and eventually, asset disposition.

Combining our data and technology offerings under one organization has positioned us to serve global enterprise clients who require multiple solutions and professional services to address the complex needs of their CRE portfolios. We believe that the ability to provide common reporting and consistency on a global portfolio basis will continue to attract new clients. Additionally, the diversity of our offerings allows us to mitigate market volatility downturns with better resilience.

### ***Industry, Market and Asset-Specific Knowledge***

We possess extensive industry, market and asset-specific knowledge and information databases in the markets in which we operate. With approximately 2,500 employees worldwide, we have a critical mass of professionals that allows for increased specialization within our practice areas. The knowledge we have

amassed has positioned us to provide expert advice, and provide software and data solutions tailored to our clients' needs. In addition, having advised and compiled information on many of the most significant properties in various urban centres, we have an extensive database of these properties and are often retained to provide a variety of services over their life-cycle.

### **Competition**

Altus Group faces competition from five main sources:

- *Data providers* - although our data solutions and subscription products are unique in the industry, other data providers target similar customers and overall, there has been a rise in new data products introduced to the market from other CRE firms and start-ups.
- *Software providers* - although our software offerings are industry-standards in North America, we still face competition from other software providers primarily in real estate asset management, valuation, budgeting, forecasting, reporting and lease management solutions.
- *Local or regional firms offering professional real estate or land-based services* - these firms tend to be smaller in size than our Company and compete on projects where the real property is geographically proximate.
- *Real Property Brokerages* - although many leading brokerages are clients of our Altus Analytics offerings, these firms have a national and international base and also compete with us for larger clients with multi-jurisdictional and multi-service professional real estate service needs, primarily in the areas of valuations, due diligence, and some property tax assessments.
- *Accounting, law, specialty and engineering firms* - these firms have national and international bases and compete with us for larger clients with multi-jurisdictional and multi-service professional real estate service requirements.

### **Employees**

One of our key competitive advantages is our industry expertise. As such, our employees are our most valuable asset. In order to deliver on our clients' needs and provide the level of service our clients expect, we are dependent on being able to attract, retain and motivate qualified individuals. We have been successful in attracting and retaining talented professional staff due to, among other things, our global scale and position as an industry leader. This gives us the ability to offer professionals the opportunity to develop a broad and unique skill set through participation in a variety of projects, practice areas and high profile assignments.

Our dependence on being able to attract and retain employees is also one of our material risks. We strive to mitigate this risk by providing competitive benefits and compensation packages. We regularly benchmark our practices to those of our peers to ensure our benefits remain competitive and continue to meet our employees' needs. At our most senior levels, not only do we offer participation in our Long-Term Incentive Plan, but we also award a portion of our annual bonus in the form of equity. We offer flexible working arrangements that help improve our employees' work-life balance and overall wellness, and we provide a wide array of training, including technical, leadership and personal development aimed at empowering our employees to advance their careers within our company. In 2018 we launched a pilot program focused on training for new managers to equip them to successfully transition from a team member to a team leader. The response to the pilot was extremely positive and we have adopted the program globally and will roll out sessions across the globe regularly to support our new leaders.

We regularly review our talent and succession pipeline, giving visibility of our top talent to our Executive team across the business. We highlight and apprise our Board regularly in regards to our key talent and ensure the Board has direct exposure to these individuals.

Our professionals have a variety of academic and professional backgrounds, including business, CRE industry and technology, with specific experience ranging from appraisal and valuations, business administration, software sales, engineering, legal, accounting, land surveying, quantity surveying, economics, software development, forestry and land-use.

### ***Regulations***

The professional associations to which our employees belong regulate membership, set professional standards and provide oversight. They have the authority to censure or expel members who do not abide by their codes of conduct.

Altus Group is also globally regulated by the Royal Institution of Chartered Surveyors (“RICS”), the world’s leading qualification for professional standards in land, property and construction. RICS is the global professional body that promotes and enforces the highest international standards in the valuation, management and development of land, real estate, construction and infrastructure.

To our best knowledge, we remain the only Canadian publicly-traded company regulated by RICS. Among other things, RICS requires us to adhere to certain valuation standards that take into account sustainability factors, such as environment and climate change, health and well-being and corporate responsibility. With our commitment to regulation by RICS, the Company aligns itself with RICS’ recognition of the growing relevance of sustainability factors as a market influence.

### **Intangible Property**

#### ***Trademarks***

We believe that the trademarks Altus®, Altus Group® and Altus Analytics® enjoy significant brand recognition within the CRE industry.

We also believe that the trademark ARGUS® and its software product trade names and/or related trademarks also enjoy significant brand recognition within the CRE industry. ARGUS is recognized as an industry standard in providing software solutions for managing and growing a CRE portfolio.

We believe that the trademarks RealNet® and Altus InSite™ and their data subscription products enjoy significant brand recognition within the Canadian CRE industry.

#### ***Proprietary Software and Data Analytics Solutions***

Altus Group’s proprietary software and data analytics solutions are critical components of our success and a key differentiator in the marketplace. We have developed and acquired software customized to our practice areas. We have taken a proactive approach to identify areas where we can improve our technology in order to better serve our clients. Clients increasingly rely on information technology to manage complex real property portfolios and property development and that responds more quickly to informational needs. We protect our technology and data offerings through a combination of copyright, trade secrets, confidentiality procedures and contractual arrangements.

ARGUS branded products are the leading solutions for analyzing and managing the value of CRE investments worldwide. With a global client base, it has been the solution of choice to the CRE industry for over 30 years. Our software portfolio includes industry-standard products, including AE - a leading platform for valuation, budgeting and asset management solutions.

Our proprietary appraisal management data analytics platforms enable the capture, management and reporting of data to our clients. These capabilities empower our clients to analyze their holdings and thereby have the opportunity to enhance the performance of their overall portfolios. We also have data subscription products in Canada, namely RealNet and Altus InSite, which provide comprehensive real estate information on the Canadian residential, office, industrial and investment markets. We also own VALeRI, a software that allows a user to obtain an estimate of value and the associated variables for single family residential properties. VALeRI has been extended into the residential mortgage market for use by real estate agents, and is being used to create the Canadian home price index (“HPI”).

#### *Technology, Data, and Channel Partnerships*

From time to time, we enter into technology, data, and channel partnerships with other companies to drive the sales and adoption of our technologies and solutions worldwide. Our technology and data partnerships are often intended to enable interoperability between other systems and data sources commonly used by our customers.

In addition to our established software and data analytics offerings, Property Tax relies on its information systems in Canada, the U.S. and the U.K. to manage property tax appeal processes. Through these systems, Property Tax is able to make an assessment of the property tax applicable to a particular property or portfolio of properties.

## 5. RISK FACTORS

The risks and uncertainties that could significantly affect our financial condition and future results of operations are summarized below.

#### *General state of the economy*

The businesses operated by us are affected by general economic conditions, including international, national, regional and local economic conditions, all of which are outside of our control. Economic slowdowns or downturns, adverse economic conditions, cyclical trends, increases in interest rates, variations in currency exchange rates, reduced client spending and other factors could have a material adverse effect on our business, financial condition and results of operations. Although our operations are functionally and geographically diversified, significant erosion in levels of activity in any segment in which we operate could have a negative impact on our business, financial condition and results of operations.

#### *Currency risk*

Our reporting currency is the Canadian dollar.

We have operations in Canada, the U.S., the U.K., Australia and various countries throughout Asia. Our exposure to foreign currency risk is primarily in the following areas:

- Profit (loss) generated by operations in foreign countries, which are translated into Canadian dollars using the average exchange rate;

- Net assets of foreign subsidiaries, which are translated into Canadian dollars using the period end exchange rate with any gains or losses recorded under accumulated other comprehensive income (loss) within shareholders' equity; and
- Non-Canadian dollar denominated monetary assets and liabilities, which are translated into Canadian dollars using the period end exchange rate with any gains or losses recorded through profit (loss).

The exchange rate between the Canadian dollar and the U.S. dollar ranged from \$1.2551 at December 31, 2017 to \$1.3630 at December 31, 2018. The exchange rate between the Canadian dollar and the British pound ranged from \$1.6932 at December 31, 2017 to \$1.7357 at December 31, 2018. The exchange rate between the Canadian dollar and the Australian dollar ranged from \$0.9796 at December 31, 2017 to \$0.9613 at December 31, 2018.

#### ***Ability to maintain profitability and manage growth***

Our ability to achieve revenue growth and sustain profitability in future periods depends on our ability to execute our strategic plan and effectively manage our growth. A failure to do so could have a material adverse effect on our business, financial condition and results of operations.

#### ***Commercial real estate market***

The businesses we operate are affected by the state of commercial real estate as an investment asset class. Economic slowdowns triggered by credit liquidity, interest rates, regulatory policy, tax policy, etc., could negatively impact the market and result in fewer appraisals, cost assignments and license and subscription sales. This could have a material adverse effect on our business, financial condition, liquidity and results of operations.

#### ***Competition in the industry***

We face competition from other service, software and data analytics providers. Competition for our professional services includes a broad mix of competitors, ranging from smaller, locally-based professional service firms to national, multi-regional professional service providers and to large engineering, accounting and law firms. Software providers also compete with us in respect of real estate asset management, valuation, budgeting, forecasting, reporting and lease management solutions. There are also new companies entering the market with competitive data analytics solutions. These competitive forces could result in a material adverse effect on our business, financial condition and results of operations by reducing our relative share in the markets we serve.

#### ***Acquisitions***

We intend to make acquisitions as part of our strategy to grow our business. Acquisitions may increase the size of our operations, as well as increase the amount of indebtedness that we may have to service. The successful integration and management of acquired businesses involve numerous risks and there is no assurance that we will be able to successfully integrate our acquisitions. Such failure could adversely affect our business, financial condition and results of operations.

#### ***Oil and gas sector***

The land survey practice of Geomatics has significant client exposure in the oil and gas industry in Western Canada and is impacted by the associated capital spending from that sector. The risks to the outlook for the land survey practice in Western Canada arise from world markets for oil and gas and the associated impact on capital spending. Historically, the prices for oil and gas have been volatile and subject to wide fluctuations in response to changes in the supply of and demand for oil and gas, market uncertainty and a

variety of additional factors beyond our control. We cannot predict future oil and gas price movements. If oil and gas prices experience a prolonged decline, there could be a material adverse effect on our business, financial condition, liquidity and operating results.

***Ability to attract and retain professionals***

Our success and ability to grow are dependent on the expertise, experience and efforts of our professionals. Competition for employees with the qualifications we desire, particularly with commercial real estate technology experience, is intense and puts upward pressure on compensation costs. We expect that competition for qualified professionals will continue to increase, thereby causing compensation costs to escalate. Should we be unable to attract and retain professionals that meet the desired level of skills and ability, our business may be jeopardized.

***Information from multiple sources***

The quality of our databases supporting certain of our products depends substantially on information provided by a number of sources, including commercial real estate brokers, agents and property owners, trade associations, tax assessors, deed recorders, municipal planners, corporate web sites, the business and trade press, and selected third party vendors of business information. If we are unable to collect information from a significant number of these sources this could negatively affect certain of our products and may potentially result in subscriber cancellations and failure to acquire new subscribers.

***Reliance on larger enterprise transactions with longer and less predictable sales cycles***

The ability to meet revenue targets is becoming more dependent on larger transactions which have longer sales cycles. The presence or absence of one or more of these transactions may have a material positive or negative effect on anticipated revenue in any given period.

***Success of new product introductions***

As new products are developed and introduced to the marketplace, client adoption may not achieve anticipated levels. As a result, revenue expectations may not be achieved. If cash flows from new products do not reach sufficient levels, asset impairments may need to be taken on any capitalized costs related to the development of the products.

***Ability to respond to technological change and develop products on a timely basis***

Our ability to generate future revenues from software is dependent upon meeting the changing needs of the market and evolving industry standards through new product introductions and product enhancements. In order to maintain or enhance product market share over the long-term, it is imperative to anticipate and develop products that meet client and industry needs. In the short to medium term, the ability to complete product developments on a timely basis is important to achieving revenue and cost targets.

***Protection of intellectual property or defending against claims of intellectual property rights of others***

We rely on protecting our intellectual property rights including copyrights, trademarks, trade secrets, databases and methodologies, which have been important factors in maintaining our competitive position. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to obtain and use information that we regard as proprietary. There can be no assurance that we will be successful in protecting our proprietary rights and, if we are not, our business, financial condition, liquidity and results of operations could be materially adversely affected. Additionally, we may be subject to claims by third parties regarding technology infringement. Responding to such claims could result in substantial expense and may result in damages or injunctive relief. We may also be required to indemnify customers pursuant

to our indemnification obligations, enter into licensing agreements on unfavourable terms or redesign or stop selling affected products, which could materially disrupt the conduct of our business.

***Ability to implement technology strategy and ensure workforce adoption***

Our business relies on the use of information technology systems to deliver expert services, data and software solutions to our clients. If we are unable to effectively implement our information technology strategies or adopt new technologies and technology-enabled processes relevant to our offerings in a timely or cost-effective manner, or if our employees fail to adopt in an effective and timely manner new technologies or technology-enabled processes, then our ability to deliver services and solutions that meet client needs or our ability to remain competitive in the market may be materially impaired.

***Information technology governance and security, including cyber security***

In the ordinary course of our business, we collect, store, process and/or transmit sensitive data belonging to clients, partners, vendors, employees and contractors as well as our own proprietary business information and intellectual property. The secure processing, maintenance and transmission of this information is critical to our workflow operations and delivery of products and services to our clients. We have implemented a secure operating framework which includes policies and governance, prevention and detection technologies, back-up and recovery processes and other procedures and technology in the protection of our data, software and infrastructure assets from loss, theft, unauthorized access, vandalism, cyber attacks, or events such as power outages or surges, floods, fires or other natural disasters. We have also implemented a major incidence process whereby breaches or unauthorized access to our systems are assessed and reported based on established communication protocols. Despite our security measures, our data, systems and infrastructure may be vulnerable to cyber attacks or breached due to employee error, malfeasance or other disruptions. These security breaches could materially compromise our information, disrupt our business operations or cause us to breach our client obligations thereby exposing us to liability, reputational harm and/or significant remediation costs. A theft, loss, corruption, exposure, fraudulent use or misuse of client information whether by third parties or as a result of employee malfeasance could result in significant remediation and other costs, fines, litigation or regulatory actions against us, as well as cause reputational harm, negatively impact our competitive position and affect our financial results. We are increasingly relying on third-party data storage providers, including cloud storage solution providers, resulting in less direct control over our data and system processing. Such third parties may also be vulnerable to security breaches for which we may not be indemnified and which could cause materially adverse harm to our reputation and competitive position and affect our financial results.

***Engagement and product pipeline opportunities do not result in sufficient definitive agreements***

Our forecast is built on a pipeline of client opportunities at varying stages within the sales process. Our ability to achieve the forecast is dependent on completion of the sales cycle and client acceptance of mutually agreeable terms. Certain factors are beyond our control, including our clients' evaluation of our offerings, budgetary constraints, timing of their approval processes, etc. Our pipeline of opportunities may not close on terms and timing in line with our forecast. This may have a material positive or negative effect on anticipated revenue in any given period.

***Property tax assessment regulators do not process appeals in a manner consistent with expectations***

Our Property Tax practice is significantly influenced by property tax assessment regulators and their appeal settlement processes. The timing and volume of appeals processed and whether the outcomes are favourable may cause fluctuations on a quarterly and annual basis, in addition to spillover effects outside any particular valuation cycle. This may have a material positive or negative effect on anticipated revenue in any given period.

#### ***Fixed-price and contingency engagements***

A portion of our revenues comes from fixed-price engagements. A fixed-price engagement requires us to either perform all or a specified part of work under the engagement for a specified lump sum payment. Fixed-price engagements expose us to a number of risks not inherent in cost-plus engagements, including underestimation of costs, ambiguities in specifications, unforeseen or changed costs or difficulties, problems with new technologies, delays beyond our control, failures of subcontractors to perform and economic or other changes that may occur during the term of engagement. Increasing reliance on fixed-price engagements and/or increases in the size of such engagements would increase the exposure to this risk. Economic loss under fixed-price engagements could have a material adverse effect on our business.

We are also engaged to provide services on a contingency basis, meaning that we receive our fees only if certain results are achieved. We may experience adverse financial effects from having devoted professional and other resources to a project, which, due to a failure to meet the contingency goals, are not recouped through fees.

#### ***Appraisal and appraisal management mandates***

Some clients rotate their appraisal mandates to different service providers. As a result, we may be rotated out of an appraisal engagement.

#### ***Canadian multi-residential market***

A significant part of the Canadian Cost practice area's annual revenues are derived from the rental apartment and condominium sectors of the multi-residential development market. Any significant decline in the multi-unit residential development market could have a material adverse effect on our Cost practice's operating results.

#### ***Weather***

The level of activity in the oilfield services industry and natural resources industry are influenced by seasonal weather patterns and natural or other disasters, such as floods and forest fires. Spring break-up often experienced during the second quarter leaves many secondary roads temporarily incapable of supporting the weight of field equipment, which results in severe restrictions in the provision of field work for Geomatics' survey services and land-use consulting. The timing and duration of spring break-up are dependent on regional weather patterns but generally occur in April and May.

The demand for survey services and forestry and land-use services may also be affected by the severity of Canadian winters, and excessively rainy periods or forest fires, thereby adversely affecting operations. The uncertainty of weather and temperature can therefore create unpredictability in activity and utilization rates.

#### ***Legislative and regulatory changes***

Changes to any of the laws, rules, regulations or policies affecting our business would have an impact on our business. Certain elements of our business are influenced by the regulatory environment of our clients, such as the requirement for pension fund managers to obtain property valuations on an annual basis. In addition, elements of our business, such as our Property Tax practice area, are significantly influenced by the regulatory regime and any changes thereto. Any change to laws, rules, regulations or policies may significantly and adversely affect our operations and financial performance.

***Customer concentration and loss of material clients***

Although we are not dependent on one or a small number of clients, certain of our business segments have significant clients. Loss of any significant client that contributes a substantial portion to that business segments' revenues could have a negative impact on our revenues and could impact our ability to attract and retain other clients.

***Interest rate risk***

We are exposed to fluctuations in interest rates under our borrowings. Increases in interest rates may have an adverse effect on our earnings.

***Credit risk***

We may be materially and adversely affected if the collectability of our trade receivables is impaired for any reason. In certain parts of Asia, it is often common business practice to pay invoices over an extended period of time and/or at the completion of the project. This practice increases the risk and likelihood of future bad debts. In addition, the risk of non-collection of trade receivables is greater in Asia Pacific compared to North American or European countries.

***Income tax matters***

In the ordinary course of business, we may be subject to audits by tax authorities. While management anticipates that our tax filing positions will be appropriate and supportable, it is possible that tax matters, including the calculation and determination of revenue, expenditures, deductions, credits and other tax attributes, taxable income and taxes payable, may be reviewed and challenged by the authorities. If such challenge were to succeed, it could have a material adverse effect on our tax position. Further, the interpretation of and changes in tax laws, whether by legislative or judicial action or decision, and the administrative policies and assessing practices of tax authorities, could materially adversely affect our tax position.

***Revenue and cash flow volatility***

Our revenue, cash flow, operating results and profitability may experience fluctuations from quarter to quarter, based on project terms and conditions for billing and rendering of services.

***Health and safety hazards***

Our employees are sometimes required to attend client worksites, including construction worksites in the case of both Cost and Geomatics and remote, wilderness areas in the case of Geomatics. The activities at these worksites may involve certain operating hazards that can result in personal injury and loss of life. We have implemented health and safety policies and procedures as well as provide required employee health and safety training programs. Despite these programs, there can be no assurance that our insurance will be sufficient or effective under all circumstances or against all claims or hazards to which we may be subject or that we will be able to continue to obtain adequate insurance protection. A successful claim for damage resulting from a hazard for which it is not fully insured could adversely affect our results of operations.

***Performance of contractual obligations and client satisfaction***

Our success depends largely on our ability to fulfill our contractual obligations and ensure client satisfaction. If we fail to properly define the scope of our work, communicate the boundaries or use of the advice and reports we provide, define the limits of our liability, satisfactorily perform our obligations, or make professional errors in the advice or services that we provide, clients could terminate projects, refuse payment for our services or take legal action for the loss or harm they suffer, thereby exposing us to legal liability, loss of professional reputation, enhanced risk of loss and/or reduced profits.

***Risk of legal proceedings***

We are threatened from time to time with, or are named as a defendant in, or may become subject to various legal proceedings in the ordinary course of conducting our business, including lawsuits based upon professional errors and omissions. A significant judgment against us, or the imposition of a significant fine or penalty as a result of a finding that we have failed to comply with laws, regulations, contractual obligations or other arrangements or professional standards, could have a significant adverse impact on our financial performance. Should any indemnities made in our favor in respect of certain assignments fail to be respected or enforced, we may suffer material adverse financial effects.

***Insurance limits***

Management believes that our professional errors and omissions insurance coverage and directors' and officers' liability insurance coverage address all material insurable risks, provide coverage that is similar to that which would be maintained by a prudent operator of a similar business and are subject to deductibles, limits and exclusions, which are customary or reasonable given the cost of procuring insurance and current operating conditions. However, there can be no assurance that such insurance will continue to be offered on an economically affordable basis, that all events that could give rise to a loss or liability are insurable or that the amounts of insurance will at all times be sufficient to cover each and every loss or claim that may occur involving our assets or operations.

***Ability to meet solvency requirements to pay dividends***

Our ability to pay dividends is dependent on our operations and assets, and is subject to various factors including our financial performance, our obligations under applicable bank credit facilities, fluctuations in our working capital, the sustainability of our margins and our capital expenditure requirements.

***Leverage and financial covenants***

Our ability to pay dividends or make other payments or advances is subject to applicable laws and contractual restrictions contained in the instruments governing any indebtedness owed by us or our subsidiaries (including the bank credit facilities). The degree to which we are leveraged could have important consequences to our shareholders. For example, our ability to obtain additional financing for working capital, capital expenditures or acquisitions in the future may be limited; a significant portion of our cash flow from operations may be dedicated to the payment of principal and interest on our indebtedness, thereby reducing funds available for future operations; certain of our borrowings will be subject to variable rates of interests, which exposes us to the risk of increased interest rates; and we may be more vulnerable to economic downturns and be limited in our ability to withstand competitor pressures.

The bank credit facilities contain numerous financial covenants that limit the discretion of our management with respect to certain business matters. These covenants place significant restrictions on, among other things, our ability to create liens or other encumbrances, to pay dividends or make certain other payments, investments, loans and guarantees and to sell or otherwise dispose of assets and merge or consolidate with another entity. In addition, the bank credit facilities contain a number of financial covenants that require us to meet certain financial ratios and financial condition tests. Failure to comply with the obligations provided in the bank credit facilities could result in a default which, if not cured or waived, could result in the termination of dividends paid by us and accelerate the repayment of the relevant indebtedness. If repayments of indebtedness under the bank credit facilities were to be accelerated, there can be no assurance that our assets would be sufficient to repay the relevant indebtedness in full. There can be no assurance that future borrowings or equity financing will be available to us or available on acceptable terms, in an amount sufficient to fund our needs. If we are unable to obtain financing on the expiration of

the bank credit facilities or are unable to obtain financing on favourable terms, our ability to pay dividends may be adversely affected.

***Unpredictability and volatility of common share price***

Our common shares do not necessarily trade at prices determined by reference to the underlying value of our business and cannot be predicted. The market price of the common shares may be subject to significant fluctuations in response to variations in quarterly operating results and other factors. In addition, securities markets have experienced significant price and volume fluctuations from time to time in recent years that are often unrelated or disproportionately related to the operating performance of particular issuers. These broad fluctuations may adversely affect the market price of our common shares.

***Capital investment***

The timing and amount of capital expenditures made by us or any of our subsidiaries indirectly affects the amount of cash available for investments, debt payments or dividend payments. Dividends may be reduced, or even eliminated, at times when we deem it necessary to make significant capital or other expenditures.

***Issuance of additional common shares diluting existing shareholders' interests***

We are authorized to issue an unlimited number of common shares for such consideration and on such terms and conditions as may be determined by the Board of Directors without shareholder approval, except as required by the TSX. An issuance such as this may dilute the interests of current shareholders.

## 6. DIVIDENDS

The following table sets out the dividends on the Common Shares declared by the Company during 2016, 2017 and 2018.

Record Date	Total Dividends per Common Share		
	2018	2017	2016
March 31	\$0.15	\$0.15	\$0.15
June 30	\$0.15	\$0.15	\$0.15
September 30	\$0.15	\$0.15	\$0.15
December 31	\$0.15	\$0.15	\$0.15
<b>Total</b>	<b>\$0.60</b>	<b>\$0.60</b>	<b>\$0.60</b>

Altus Group's policy is to pay a quarterly dividend to Shareholders as determined by the Board from time to time. Altus Group's dividend policy is subject to the discretion of the Board and may vary depending on, among other things, Altus Group's earnings, financial requirements, the satisfaction of certain customary covenants contained in the Credit Facilities documents, and/or the satisfaction of solvency tests imposed by the OBCA for the declaration of dividends.

Shareholders who are non-residents of Canada will be paid their dividends net of withholding taxes. Non-residents should consult their own tax advisors regarding the tax consequences of investing in Altus Group's Common Shares.

## 7. CAPITAL STRUCTURE OF ALTUS GROUP

The authorized capital of Altus Group consists of an unlimited number of Common Shares and an unlimited number of Preferred Shares issuable in series. As at December 31, 2018, Altus Group had 39,303,079 Common Shares and no Preferred Shares issued and outstanding. The following is a summary of the rights, privileges, restrictions and conditions attaching to the Common Shares and Preferred Shares.

### Common Shares

Holders of Common Shares are entitled to one vote per share at meetings of Shareholders of Altus Group, to receive dividends if as and when declared by the Board and to receive a pro-rata share of the remaining property and assets of Altus Group upon its dissolution or wind-up, subject to the rights of shares having priority over the Common Shares.

### Preferred Shares

Our Preferred Shares may be issued in one or more series with each series to consist of such number of shares and to have such rights, privileges, restrictions and conditions as determined by the Board before the issuance thereof. Holders of Preferred Shares, except as required by law, are not entitled to vote at meetings of Shareholders of Altus Group. The Preferred Shares rank ahead of the Common Shares and any other shares ranking junior to the Preferred Shares with respect to the payment of dividends and the distribution of assets in the event of the liquidation, dissolution or wind-up of Altus Group, whether voluntary or involuntary, and may also be given such other preferences over the Common Shares and any other shares ranking junior to the Preferred Shares as may be determined at the time of creation of any series of Preferred Shares.

### Information and Reports

We will furnish to Shareholders, in accordance with applicable securities laws, all our consolidated financial statements (including quarterly and annual financial statements) and other reports as required by applicable law, including prescribed forms needed for the completion of tax returns under the Tax Act and equivalent provincial legislation.

The directors and senior officers of the Company and of our subsidiaries are required to file insider reports and comply with insider trading provisions under applicable Canadian securities legislation in respect of trades made by such persons in the Company's securities.

## 8. MARKET FOR SECURITIES

The Common Shares of Altus Group are listed for trading on the TSX under the symbol AIF. The following table sets out the price range and volume traded of the Common Shares on the TSX for each month during 2018.

Month End	High (\$)	Low (\$)	Volume Traded
January 2018	37.55	33.57	2,414,140
February 2018	34.75	31.10	2,044,220
March 2018	32.81	30.71	1,620,110
April 2018	32.70	31.48	1,108,410
May 2018	32.42	27.47	2,966,320
June 2018	30.83	28.58	1,389,910
July 2018	30.22	27.99	1,437,110
August 2018	32.25	27.98	2,108,700
September 2018	31.87	29.97	1,187,780
October 2018	30.82	27.38	1,542,700
November 2018	30.87	23.27	1,792,070
December 2018	26.76	21.74	1,813,150

## 9. ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

Designation of class	Number of securities held in escrow or that are subject to a contractual restriction on transfer	Percentage of class
Common Shares	1,107,847	2.8%

Common Shares are held in escrow as a result of the following:

- Typically as a condition of the acquisition agreements we enter into, a portion of the equity consideration (Common Shares) paid to vendors is subject to certain escrow conditions for a specified period of time following closing of each acquisition transaction. These tend to be periods of three to five years, following which, assuming all conditions have been met or satisfied, the Common Shares are released to the vendor(s).
- In 2013, Altus Group established a Restricted Share Plan in Canada as part of our annual short-term incentive award program for senior management. Under this Plan, a portion of an employee's annual incentive award is deferred in the form of restricted shares which vest in the year of the award but are held in escrow and released to the employee on the third anniversary of the award grant date.
- In March 2017, prior to the approval of the Long-Term Incentive Plan and as part of the Equity Compensation Plan, Common Shares were issued to certain senior employees in escrow and will not be available until four years following the date of grant. At that time, these Common Shares will be released, provided, subject to certain exceptions such as retirement, disability or death, the individual is employed with the Company at the time of release. If the employee resigns from the Company or is terminated for cause, the Common Shares will be forfeited.

## 10. DIRECTORS AND OFFICERS

The following table sets out the directors and officers of Altus Group, their province and country of residence, the positions held by such directors and officers within Altus Group and the period during which they have exercised such mandate, and each of their principal and past occupations or employment during the past five years. The term of office for each of the directors of Altus Group expires at the time of the next annual meeting of Shareholders. Additional information regarding the directors of Altus Group can be found in the Company's most recent Management Information Circular, which is available on SEDAR at [www.sedar.com](http://www.sedar.com).

<b>Directors</b>		
Name, Province and Country of Residence	Director Since	Principal and Previous Occupations
<b>Angela L. Brown</b> <sup>(1)(2)</sup> Florida, United States	June 2016	<b>President and Chief Executive Officer of Moneris Solutions Corporation</b> (a provider of payment processing solutions). Group Executive, Enterprise Development, Merchants & Acceptance, MasterCard Worldwide.
<b>Robert G. Courteau</b> Ontario, Canada	September 2012	<b>Chief Executive Officer of Altus Group.</b> President, North America, of SAP AG (a global provider of enterprise application software).
<b>Carl Farrell</b> <sup>(1)(2)(4)</sup> Ontario, Canada	June 2014	<b>President of Altus Group as of January 23, 2018.</b> Executive Vice-President & Chief Revenue Officer of SAS Institute Inc. Executive Vice President of Americas, SAS Institute Inc.
<b>Anthony Gaffney</b> <sup>(3)</sup> Ontario, Canada	June 2012	<b>Managing Partner, Board and CEO Services at Odgers Berndtson</b> (a global executive search firm). Chief Executive Officer of Aon Hewitt Canada (a human capital and management consulting company). Managing Partner, Toronto of Accenture Inc. (a management consulting, technology services and outsourcing company).
<b>Diane MacDiarmid</b> <sup>(2)(3)</sup> Ontario, Canada	June 2012	<b>Chief Talent Officer of QuadReal Property Group</b> (a global real estate company). Senior Client Partner of Korn/Ferry International (a global executive search firm).

---

**Directors**


---

Name, Province and Country of Residence	Director Since	Principal and Previous Occupations
<b>Raymond Mikulich</b> <sup>(2)(3)</sup> New York, United States	December 2013	<b>Corporate Director.</b> <b>Managing Partner of Ridgeline Capital Group, LLC</b> (a real estate investment and consulting company). Head of Apollo Global Real Estate North America.
<b>Eric W. Slavens</b> <sup>(1)(2)</sup> Ontario, Canada	May 2005	<b>Corporate Director.</b>
<b>Janet Woodruff</b> <sup>(1)(3)</sup> British Columbia, Canada	May 2015	<b>Corporate Director.</b> Consultant as acting Chief Executive Officer and interim Chief Financial Officer of Transportation Investment Corporation, a B.C. Crown corporation.

---



---

**Officers (who are not directors of Altus Group)**


---

<b>Angelo Bartolini</b> Ontario, Canada	<b>Chief Financial Officer.</b>
<b>Liana L. Turrin</b> Ontario, Canada	<b>General Counsel &amp; Corporate Secretary.</b>

---

<sup>(1)</sup> Member of the Audit Committee.

<sup>(2)</sup> Member of the Corporate Governance and Nominating Committee.

<sup>(3)</sup> Member of the Human Resource and Compensation Committee.

<sup>(4)</sup> Carl Farrell resigned from the Audit Committee and the Corporate Governance and Nominating Committee as at January 23, 2018 upon being appointed President of Altus Group.

**Shareholdings of Directors and Officers**

As of December 31, 2018, our directors and executive officers, as a group, beneficially owned or controlled or directed, directly or indirectly 172,442 Common Shares, representing approximately 0.44% of the aggregate number of voting securities of the Company issued and outstanding. The foregoing information as to the shares beneficially owned, controlled or directed, directly or indirectly by the directors and officers of Altus Group which has been provided by each of the directors and officers is not within the direct knowledge of the Company.

## 11. AUDIT COMMITTEE

### Audit Committee Charter

Our Board has approved a written charter for the Audit Committee which sets out its purpose, authority, function, membership, qualifications and responsibilities, the text of which is set out in Schedule “A” to this AIF. Our Company’s Audit Committee Charter may also be viewed on Altus Group’s website at <http://www.altusgroup.com/wp-content/uploads/2017/04/audit-committee-charter.pdf>

### Composition of the Audit Committee

The members of our Audit Committee from January 1, 2018 to January 23, 2018 were Eric W. Slavens (Chair), Carl Farrell and Janet P. Woodruff. Carl Farrell resigned from the Audit Committee on January 23, 2018 when he joined the Company as President. Following January 23, 2018, the Audit Committee was composed of the following independent directors: Eric W. Slavens (Chair), Angela Brown and Janet P. Woodruff. Our Board, upon the recommendation of the Corporate Governance and Nominating Committee, has determined that all members of the Company’s Audit Committee are independent and financially literate within the meaning of applicable securities laws and have the following general business experience and education that is relevant to the performance of their responsibilities as Audit Committee members. Carl Farrell was appointed as the President of Altus Group as at January 23, 2018. He continues to serve as a member of the Board but is no longer an independent director. As such, Mr. Farrell has resigned from the Audit Committee as at January 23, 2018.

Name	Education and Experience
Eric W. Slavens (Chair)	Mr. Slavens is a Fellow of the Chartered Professional Accountants of Ontario and was a partner of PricewaterhouseCoopers LLP for thirty years, serving most recently as the National Leader, IPO Services. Mr. Slavens has a Bachelor of Commerce from the University of Toronto and is a graduate of the Directors’ Education Program co-sponsored by Rotman School of Management and the Institute of Corporate Directors.
Angela Brown	Ms. Brown is the President and Chief Executive Officer of Moneris Solutions Corporation. Prior to joining Moneris, Ms. Brown served as Group Executive, Enterprise Development, Merchants & Acceptance, for MasterCard Worldwide. Previously, Ms. Brown spent 13 years at the Canadian Imperial Bank of Commerce within the payments business. Ms. Brown holds a Master’s degree in Business Administration from the Schulich School of Business at York University in Toronto and a Bachelor of Arts from the University of Toronto. She is also a graduate of the Directors’ Education Program co-sponsored by Rotman School of Management and the Institute of Corporate Directors, the Financial Literacy Program, Rotman School of Management and holds a CERT Certificate in Cybersecurity Oversight from the Software Engineering Institute/Carnegie Mellon University.

Name	Education and Experience
Carl Farrell	Mr. Farrell was appointed as President of Altus Group on January 23, 2018. Previously, he was the Executive Vice-President & Chief Revenue Officer of SAS Institute Inc. and has over 30 years of global experience in the software and related services industry. He has gained financial expertise through his various executive positions.
Janet Woodruff	Ms. Woodruff is Fellow of the Chartered Professional Accountants of British Columbia and a Certified Director. She has gained financial expertise through her 30 year executive career, which included positions as Chief Executive Officer and Chief Financial Officer. Ms. Woodruff has a Honors Bachelor of Science from University of Western Ontario and a Master of Business Administration from York University.

### External Auditor's Services

The aggregate amounts paid or accrued by Altus Group with respect to fees payable to the auditor, Ernst & Young LLP, of Altus Group for professional services for the years ended December 31, 2018 and 2017 were as follows:

Type of Service	Year Ended December 31, 2018	Year Ended December 31, 2017
Audit <sup>(1)</sup>	\$ 1,195,956	\$ 1,073,232
Audit-related <sup>(2)</sup>	212,421	281,212
Tax <sup>(3)</sup>	317,198	194,995
<b>Total</b>	<b>\$ 1,725,575</b>	<b>\$ 1,549,439</b>

<sup>(1)</sup> For professional services rendered by Ernst & Young LLP for the audit and quarterly reviews of the Company's consolidated financial statements and fees associated with statutory audits of certain of our subsidiaries in foreign jurisdictions.

<sup>(2)</sup> For professional services rendered by Ernst & Young LLP for the review of financial accounting and reporting matters and review of purchase price allocations.

<sup>(3)</sup> For professional services rendered by Ernst & Young LLP for tax compliance, tax advice and tax planning with respect to Canadian, U.S. and certain international jurisdictions; review of tax filings; assistance with the preparation of tax filings; tax advice relating to potential asset and business acquisitions/combinations; and other tax-related transaction services.

### Engagement of Non-Audit Services

Our Audit Committee reviewed and approved the auditor's scope of work and budget for the year. All engagements of the auditor for non-audit and non-compliance tax services must be pre-approved by the Audit Committee. For 2018, there were total fees of \$317,198 with respect to approved non-audit services. These fees were incurred for various tax related services and were included in the tax category in the summary of professional fees payable to our auditor.

## 12. LEGAL PROCEEDINGS

In the ordinary course of business, we are involved in legal claims and suits made both by and against us. In our opinion, none of the claims or suits currently pending against us is expected to have a material effect on our financial position.

## 13. INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

No director or officer or principal Shareholder of Altus Group, or any associate or affiliate of any of the foregoing, has had any material interest, direct or indirect, in any transaction since January 1, 2016 that has materially affected or is reasonably expected to materially affect Altus Group.

## 14. TRANSFER AGENT AND REGISTRAR

AST Trust Company acts as transfer agent and registrar of Altus Group. The register of transfers of each class of securities of Altus Group is located at AST Trust Company's principal transfer office in Toronto.

## 15. MATERIAL CONTRACTS

Except for those contracts entered into in the ordinary course of business, we have entered into the following material contracts which have been filed by Altus Group with Canadian securities regulators pursuant to Section 12.2 of National Instrument 51-102 - *Continuous Disclosure Obligations* and remain in effect:

- i. the amended credit agreement dated April 28, 2015 among Altus Group, the Bank of Montreal, National Bank of Canada, HSBC Bank Canada and TD Bank, pursuant to which Altus Group established the Credit Facilities, as further described under "General Development of Altus Group".

Copies of the foregoing documents are available on SEDAR at [www.sedar.com](http://www.sedar.com).

## 16. INTERESTS OF EXPERTS

Ernst & Young LLP, our auditor, has been named as having provided an opinion on the consolidated financial statements for the year ended December 31, 2018 contained in filings pursuant to National Instrument 51-102 - *Continuous Disclosure Obligations*. Ernst & Young LLP has advised that it is independent with respect to the Company in accordance with the CPA Code of Professional Conduct of the Chartered Professional Accountants of Ontario.

## 17. ADDITIONAL INFORMATION

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, is contained in our Management Information Circular for our most recent annual meeting of Shareholders at which directors were elected. Additional financial information is provided in our consolidated financial statements and management's discussion and analysis for the year ended December 31, 2018.



Such documentation and additional information relating to Altus Group is available on SEDAR at [www.sedar.com](http://www.sedar.com), the internet site maintained by the Canadian Securities Administration, and on Altus Group's corporate website at [www.altusgroup.com](http://www.altusgroup.com).

## 18. GLOSSARY OF TERMS

“**Altus Analytics**” means a core service line of Altus Group that provides data, analytics software and technology-related services.

“**Altus Group**” means Altus Group Limited, a corporation incorporated under the OBCA.

“**Asia Pacific**” means the Asia Pacific regions that Altus Group operates in, including Australia, China, Hong Kong, Thailand and Vietnam.

“**Board**” means the Board of Directors of Altus Group.

“**Common Shares**” means the common shares in the capital of Altus Group.

“**CRE Consulting**” means Commercial Real Estate Consulting, a core service line of Altus Group, combining Property Tax and Valuation and Cost Advisory services.

“**Credit Facilities**” means the credit facilities with our banking syndicate, as amended from time to time.

“**Geomatics**” means the land survey and land use core service line of Altus Group.

“**OBCA**” means the *Business Corporations Act* (Ontario) and the regulations thereunder.

“**Preferred Shares**” means the preferred shares in the capital of Altus Group.

“**SEDAR**” means the System for Electronic Document Analysis and Retrieval maintained by the Canadian Securities Administrators.

“**Shareholders**” means the holders of Common Shares of Altus Group.

“**Tax Act**” means the *Income Tax Act* (Canada) and the regulations thereunder.

“**TSX**” means the Toronto Stock Exchange.

“**U.K.**” means the United Kingdom.

“**U.S.**” means the United States of America.

## 19. SCHEDULE "A"

### ALTUS GROUP LIMITED (the "Corporation")

#### *AUDIT COMMITTEE CHARTER*

##### PURPOSE

The Audit Committee (the "Committee") of the Corporation is appointed by the board of directors of the Corporation (the "Board") to assist the Board in fulfilling its responsibilities of oversight and supervision of:

- the integrity of the accounting and financial reporting practices and procedures of the Corporation;
- the adequacy of the internal accounting controls and procedures of the Corporation;
- the compliance by the Corporation with legal and regulatory requirements in respect of financial disclosure;
- the quality and integrity of the consolidated financial statements of the Corporation;
- the qualification, independence and performance of the Independent Auditor of the Corporation; and
- the assessment, monitoring and management of the financial risks of the Corporation's business ("Risks").

In addition, the Committee provides an avenue for communication between the Independent Auditor, the Corporation's Chief Financial Officer ("CFO") and other financial Senior Management, other employees and the Board concerning accounting, auditing and Risk management matters.

The Committee has the authority to conduct any investigation appropriate to fulfilling its responsibilities.

##### **Authority**

In discharging its obligations, the Committee shall act in accordance with its fiduciary duties. In this regard, nothing in this Charter is intended to, or shall have the effect of, limiting or impairing the independent decision making authority or responsibility of the Board as mandated by applicable law.

##### **Delegation**

The Committee's responsibilities are the sole responsibility of the Committee and may not be delegated by the Board to a different committee without revisions to this Charter.

## ROLES & RESPONSIBILITIES

The Committee shall:

### 1. Independent Auditor

- (i) **Selection and Compensation of Independent Auditor:** recommend to the Board:
  - The Independent Auditor to be nominated for the purpose of preparing or issuing an audit report or related work or performing other audit, review or attest services for the Corporation (“Independent Auditor”);
  - The termination of the Independent Auditor; and
  - The compensation of the Independent Auditor.
- (ii) **Oversight of Independent Auditor:** oversee the work of the Independent Auditor, including with respect to the resolution of disagreements between Senior Management and the Independent Auditor regarding financial reporting.
- (iii) **Pre-Approval of Audit Fees:** pre-approve, or establish procedures and policies for the pre-approval of, the engagement and compensation of the Independent Auditor in respect of the provision of all audit, audit-related, review or attest engagements required by applicable law.
- (iv) **Pre-Approval of Non-Audit Fees:** pre-approve all non-audit services permitted to be provided by the Independent Auditor in accordance with applicable law and rules governing the Independent Auditor, provided that the Committee may pre-approve certain services within designated thresholds on an annual basis and further provided that the Committee may delegate to the Chair of the Committee, or such other member or members of the Committee that it deems appropriate, certain pre-approval authority provided that any such approval granted by such persons shall be reported at the next regularly scheduled meeting of the Committee.
- (v) **Audit Scope:** annually review and approve the objectives and general scope of the external audit (including the overall audit plan, the proposed timing and completion dates) and discuss the external audit with the Independent Auditor.
- (vi) **Independent Auditor’s Quality Control Procedures, Performance and Independence:** evaluate the quality control procedures, performance and independence of the Independent Auditor in carrying out its responsibilities, including obtaining and reviewing, at least annually, a report by the Independent Auditor describing:
  - The firm’s internal quality-control procedures;
  - Any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the firm, and any steps taken to deal with any such issues; and

- All relationships between the Independent Auditor and the Corporation.
- (vii) **Staffing of Audit Team:** review the experience and qualifications of the Independent Auditor's audit team assigned to the audit of the Corporation and make annual recommendations to the Board as to the need (if any) for rotation of the Independent Auditor or the members of the Independent Auditor's audit team assigned to the audit of the Corporation.
- (viii) **Relationship between Independent Auditor and Management:** satisfy itself generally that there is a good working relationship between Senior Management and the Independent Auditor, and review:
- Any management representations letters;
  - The Independent Auditor's management letters and management's responses thereto;
  - The Independent Auditor's schedule of unadjusted differences; and
  - Any other reports of the Independent Auditor.
- (ix) **Hiring from Independent Auditor:** review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and any former Independent Auditor.
- (x) **Evaluation of Independent Auditor:** conduct a periodic evaluation (taking into account Senior Management's opinion) of the Independent Auditor's qualifications, performance and independence, and present to the Board the Committee's conclusions. The evaluation must consider and assess independence, objectivity and professional skepticism, quality of the engagement team, and quality of communications and interactions with the Independent Auditor. While assessments should be completed annually, a comprehensive review should take place at least every five years.

## 2. Internal Controls

- (a) **System of Internal Controls:** satisfy itself through review and discussion that Senior Management has established and is maintaining an adequate and effective system of internal control over financial reporting and is responding on a timely basis to any material weaknesses or significant deficiencies which have been identified, including by meeting with and reviewing significant reports of the Independent Auditor relating to the Corporation's internal controls.
- (b) **Reports on Internal Controls:** review:
1. Any concerns, weaknesses or deficiencies disclosed in connection with the interim and annual CEO and CFO certifications relating to the effectiveness of the Corporation's disclosure controls and procedures, internal control over financial reporting and changes in internal controls over financial reporting; and

2. The Independent Auditor's management letter and whether recommendations have been acted on and, if not, the reasons why they have not been acted on.

### 3. Accounting Matters

- (a) **Critical Accounting Policies:** review and discuss with the Independent Auditor:
  1. The selection, use and application of, as well as proposed material changes to, critical accounting policies, principles, practices and related judgments; and
  2. Alternative IFRS treatments for policies and practices relating to material items, including the ramifications of such alternative disclosures or treatments and any recommended treatment,to ensure that the critical accounting policies and practices and IFRS treatments adopted are appropriate and consistent with the Corporation's needs and applicable requirements.
- (b) **Disagreements:** satisfy itself that there is an agreed course of action leading to the resolution of significant unsettled issues between Senior Management and the Independent Auditor that do not affect the audited financial statements (e.g. disagreements regarding correction of internal control weaknesses or the application of accounting principles to proposed transactions), if any.
- (c) **Contingent Liabilities:** review all material contingent liabilities and the related accounting presentation and disclosure.
- (d) **Related Party Transactions:** review all material related party transactions and the related accounting presentation and disclosure.
- (e) **Off-Balance Sheet Transactions:** review all material off-balance sheet transactions and the related accounting presentation and disclosure.
- (f) **Other Board Committee Reports:** receive and review reports from other board committees with regard to matters that could affect financial reporting.
- (g) **Expense Reports:** review the Chairman and Chief Executive Officer ("CEO") expense reports. Such authority may be delegated to the Chair of the Committee.

### 4. Financial Disclosures

- (a) **Disclosure Controls:** satisfy itself that procedures are in place for the review of the Corporation's public disclosure to ensure consistent presentation of financial information extracted or derived from the Corporation's financial statements and assessing the adequacy of those procedures annually.
- (b) **Approval of Disclosures:** meet to review and discuss the Corporation's financial statements with Senior Management and the Independent Auditor and recommend, where appropriate to do so, to the Board, prior to release, the adoption and dissemination of all financial statements of the Corporation, together with related Management's Discussion & Analysis of Results of Operations

and Financial Position (“MD&A”), earnings press releases, Annual Information Form (“AIF”) and all other public disclosure documents of the Corporation containing financial information of the Corporation.

- (c) **Audit Committee Report:** prepare the Audit Committee report for inclusion in the Corporation’s public disclosure documents in the form and at the time required by the laws, rules and regulations of applicable regulatory authorities.
- (d) **Other Financial Information:** review and discuss financial information and earnings guidance provided to analysts and rating agencies; this review need not be done on a case-by-case basis but may be done generally (consisting of a discussion of the types of information disclosed and the types of presentations made) and need not take place in advance of the disclosure.

## 5. Risk Management

- (a) **Financial Risk Management:** assess with Senior Management the Corporation’s material risk exposure to financial and financial reporting matters and the Corporation’s actions to identify, monitor and mitigate such exposure.
- (b) **Insurance Coverage:** periodically review the adequacy of insurance coverages maintained by the Corporation.
- (c) **Taxation:** periodically review the status of taxation matters of the Corporation.
- (d) **Legal Matters:** review with the Corporation’s General Counsel legal matters that may have a material impact on the financial statements, the Corporation’s compliance with applicable laws and regulations and any material reports or inquiries received from regulators or governmental agencies.

## 6. Ethical Business Conduct

- (a) **Code of Conduct:** monitor compliance with the Corporation’s Code of Business Conduct and Ethics and the Corporation’s policies and procedures regarding compliance with applicable laws and regulations; make recommendations to the Board, where appropriate, as to any waivers of compliance of such Code.
- (b) **Whistleblower Procedures:** provide recommendations to the Corporate Governance and Nominating Committee and, as appropriate, the Board with respect to the implementation, operation and effectiveness of the Corporation’s Whistleblower Policy as it relates to:
  1. The receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal controls, and auditing matters; and
  2. The confidential, anonymous submission of complaints by employees of the Corporation regarding questionable accounting or auditing matters.

## 7. Reports to the Board

The Committee shall report to the Board on a regular basis and, in any event, before the public disclosure by the Corporation of its quarterly and annual financial results. The reports of the Committee shall include any issues of which the Committee is aware with respect to the quality or integrity of the consolidated financial statements of the Corporation, its compliance with legal or regulatory requirements, and the performance and independence of the Independent Auditor and changes in Risks.

### LIMITATION OF AUDIT COMMITTEE ROLE

The Committee is not responsible for:

- planning or conducting audits; or
- certifying or determining the completeness or accuracy of the Corporation's financial statements or that those financial statements are in accordance with International Financial Reporting Standards ("IFRS").

Each member of the Committee shall be entitled to rely in good faith upon:

- financial statements of the Corporation presented to him or her by Senior Management of the Corporation or in a written report of the Independent Auditor to present fairly the financial position of the Corporation in accordance with IFRS; and
- any report of a lawyer, accountant, engineer, appraiser or other person whose profession lends credibility to a statement made by any such person.

"Good faith reliance" means that the Committee member has considered the relevant issues, questioned the information provided and assumptions used, and assessed whether the analysis provided by Senior Management or the expert is reasonable. Generally, good faith reliance does not require that the member question the honesty, competence and integrity of Senior Management or the expert unless there is a reason to doubt their honesty, competency and integrity.

### SIZE, COMPOSITION AND INDEPENDENCE

- (a) **Size:** The members of the Committee shall be three or more individuals who are appointed (and may be replaced) by the Board on the recommendation of the Corporate Governance and Nominating Committee. The appointment of members of the Committee shall take place annually at the first meeting of the Board after a meeting of shareholders at which directors are elected, provided that if the appointment of members of the Committee is not so made, the directors who are then serving as members of the Committee shall continue as members of the Committee until their successors are appointed. The Board may appoint a member to fill a vacancy that occurs in the Committee between annual election of directors. Any member of the Committee may be removed from the Committee by a resolution of the Board. Unless the Chair is elected by the Board,

the members of the Committee may designate a Chair by majority vote of the members of the Committee.

- (b) **Independence:** Each of the members of the Committee shall meet the Corporation's Categorical Standard for Determining Independence of Directors.
- (c) **Financial Literacy and Expertise:** Each of the members of the Committee shall be "financially literate" (or acquire that literacy within a reasonable period after appointment) in accordance with applicable legislation and stock exchange requirements.
- (d) **Limit on Outside Audit Committees:** No member shall concurrently serve on the audit committee of more than three other public companies without the prior approval of the Committee, the Corporate Governance and Nominating Committee and the Board and their determination that such simultaneous service would not impair the ability of the member to effectively serve on the Committee (which determination shall be disclosed in the Corporation's annual management information circular).
- (e) **Independent Advisors:** The Committee may retain and compensate such outside financial, legal and other advisors at the expense of the Corporation as it deems reasonably necessary to assist and advise the Committee in carrying out the Committee's duties and responsibilities.
- (f) **Role of Chair:** The Chair of the Committee shall generally provide leadership to enhance the effectiveness of the Committee and act as the liaison between the Committee and the Board as well as between the Committee and Senior Management. The Chair shall also manage the Committee's activities and meetings, manage any outside legal or other advisors retained by the Committee and manage the process of reporting to the Board on the Committee's activities and related recommendations.

#### COMMITTEE MEETING ADMINISTRATION

- (a) **Meetings:** The Committee will meet as many times as is necessary to carry out its responsibilities but in no event will the Committee meet less than four times a year. Meetings will be at the call of the Chair. Notwithstanding the foregoing, the Independent Auditor or any member of the Committee may call a meeting of the Committee on not less than 48 hours' notice. The notice period may be waived by a quorum of the Committee.
- (b) **Committee Access to Employees and Others:** The Committee shall periodically meet separately with Senior Management and the Independent Auditor and may request any member of the Corporation's Senior Management or the Corporation's outside counsel or Independent Auditor to attend meetings of the Committee or with any members of, or advisors to, the Committee. The Committee may also meet with the investment bankers, financial analysts and rating agencies that provide services to, or follow, the Corporation.
- (c) **Meeting Agendas:** The Committee Chair shall establish a preliminary agenda for each Committee meeting. Any director or other person entitled to call a meeting may request items to be included on the agenda for any meeting.

- (d) **Quorum:** A quorum for meetings shall be a majority of the members of the Committee or such greater number as the Committee shall by resolution determine. The powers of the Committee may be exercised at a meeting at which a quorum of the Committee is present in person or by telephone or other electronic means or by a resolution in writing signed by all the members of the Committee entitled to vote on that resolution at a meeting of the Committee. Each member (including the Chair) is entitled to one (but only one) vote in Committee proceedings.

#### ANNUAL EVALUATION

At least annually and more frequently at the request of the General Counsel, the Committee shall, in a manner it determines to be appropriate:

- perform a review and evaluation of the performance of the Committee and its members, including the compliance of the Committee with this Charter, to be reviewed with the Board; and
- review and assess the adequacy of this Charter and the position description for its Chair and recommend to the Board any changes to this Charter or the position description of the Chair that the Committee determines to be appropriate, except for minor technical amendments to this Charter authority for which is delegated to General Counsel, who will report any such amendments to the Board at its next regular meeting.

**Board Approved: May 4, 2018**





# Altus Group

## LISTINGS

Toronto Stock Exchange  
Stock trading symbol: AIF

## AUDITORS

ERNST & YOUNG LLP

## TRANSFER AGENT

AST TRUST COMPANY (CANADA)  
P.O. Box 700  
Station B  
Montreal, Quebec, Canada H3B 3K3  
Toronto: (416) 682-3860  
Toll-free throughout North America: 1 (800) 387-0825  
Facsimile: 1 (888) 249-6189  
Website: [www.astfinancial.com/ca-en](http://www.astfinancial.com/ca-en)  
Email: [inquiries@astfinancial.com](mailto:inquiries@astfinancial.com)

## HEADQUARTERS

33 Yonge Street, Suite 500  
Toronto, Ontario, Canada M5E 1G4  
Telephone: (416) 641-9500  
Toll-free Telephone: 1 (877) 953-9948  
Facsimile: (416) 641-9501  
Website: [www.altusgroup.com](http://www.altusgroup.com)  
Email: [info@altusgroup.com](mailto:info@altusgroup.com)

[altusgroup.com](http://altusgroup.com)

