

UNDERWRITING AGREEMENT

October 22, 2021

Quarterhill Inc.
25 King Street West, Suite 1101
Toronto, Ontario
M5L 2A1

Attention: Mr. Paul Hill, President and Chief Executive Officer
Mr. John Rim, Chief Financial Officer

Dear Sirs:

The undersigned, Raymond James Ltd., Canaccord Genuity Corp., CIBC World Markets Inc., Cormark Securities Inc., ATB Capital Markets Inc., M Partners Inc. and Stifel Nicolaus Canada Inc. (collectively, the “**Underwriters**”) understand that Quarterhill Inc. (the “**Corporation**”) proposes to issue and sell to the Underwriters 50,000 convertible unsecured subordinated debentures (each an “**Initial Debenture**”) with a face value of \$1,000 principal amount per Initial Debenture (the “**Issue Price**”), a coupon of 6.0% per annum, payable semi-annually in arrears on April 30 and October 31 of each year (each an “**Interest Payment Date**”) commencing on April 30, 2022 and with the last interest payment occurring on the maturity date of October 30, 2026 (the “**Maturity Date**”). The Corporation and the Underwriters agree that the terms and conditions of the Initial Debentures shall be substantially similar to such terms and conditions set out in the Letter Agreement (as defined herein) and shall be specified in the Indenture (as defined herein) to be dated as of the Closing Date (as defined herein).

Each \$1,000 principal amount of Initial Debentures will be convertible at the option of the holder at any time prior to the close of business on the earlier of the last business day immediately preceding the Maturity Date and the last Business Day immediately preceding the date fixed for redemption, into common shares in the capital of the Corporation (the “**Common Shares**”) at a conversion price of \$3.80 per Common Share (the “**Conversion Price**”), being a ratio of approximately 263 Shares per \$1,000 principal amount of Initial Debentures, subject to adjustment in certain events. The Conversion Price shall be subject to standard anti-dilutive provisions as set out in the Indenture. Holders of Initial Debentures who elect to convert an Initial Debenture shall receive any accrued but unpaid interest thereon for the period from the date of the then most recent Interest Payment Date to, but not including, the date of conversion. If a holder of Initial Debentures elects to convert its Initial Debentures in connection with a Change of Control (as defined in the Indenture) that occurs prior to the Maturity Date, the holder shall, upon conversion, be entitled to receive additional Common Shares in certain circumstances as set out in the Indenture.

On and after October 31, 2024 and prior to October 31, 2025, the Initial Debentures will be redeemable at the option of the Corporation, in whole or in part, on not more than 60 days’ and not less than 30 days’ prior notice at a redemption price equal to par plus accrued and unpaid interest, provided that the weighted average trading price of the Common Shares on the Toronto Stock Exchange (the “**TSX**”) for the twenty (20) consecutive trading days ending five (5) trading days prior to the date on which notice of redemption is given is not less than 125% of the

Conversion Price. On or after October 31, 2025 and prior to the Maturity Date, the Initial Debentures will be redeemable at the option of the Corporation on not more than 60 days' and not less than 30 days' prior notice at a price equal to their principal amount plus accrued and unpaid interest.

The Underwriters propose to distribute the Initial Debentures (i) in each of the provinces and territories of Canada, except Quebec, pursuant to the Prospectus (as defined herein), (ii) in the United States to Qualified Institutional Buyers as defined in Rule 144A promulgated under the United States *Securities Act of 1933*, as amended (the "**U.S. Securities Act**"), and (iii) in other offshore jurisdictions on a private placement basis, all in the manner contemplated by this Agreement. The Underwriters acknowledge that the Initial Debentures have not been and will not be registered under the U.S. Securities Act or the applicable laws of the United States. The Offered Debentures (as defined herein) may not be offered or sold to persons in the United States except pursuant to exemptions from the registration requirements of the U.S. Securities Act and the applicable laws of any state of the United States. Accordingly, the Corporation and each of the Underwriters agree that any offers or sales of the Offered Debentures shall be conducted only in the manner specified in Schedule "A" hereof.

Upon and subject to the terms and conditions set forth herein, the Underwriters severally and not jointly, agree to act as underwriters and purchase from the Corporation, in respect of the percentages set forth in Section 19 of this Agreement, and by its acceptance hereof, the Corporation agrees to sell to the Underwriters the Initial Debentures on the Closing Date at the Issue Price for an aggregate purchase price of \$50,000,000.

Upon and subject to the terms and conditions contained herein, the Corporation hereby grants the Underwriters an option (the "**Over-Allotment Option**") to purchase severally, and not jointly or jointly and severally, in the respective percentages set forth in Section 19 of this Agreement hereof, up to an additional \$7,500,000 aggregate principal amount of 6.0% convertible unsecured subordinated debentures of the same class as the Initial Debentures (the "**Optioned Debentures**"), and together with the Initial Debentures, the "**Offered Debentures**"). The purchase price for each Optioned Debenture shall be equal to the Issue Price. If and to the extent that the Lead Underwriter (as defined herein) determines to exercise, on behalf of the Underwriters, the Over-Allotment Option, the Underwriters shall have the right to purchase, or arrange for substituted purchasers to purchase, severally and not jointly, the Optioned Debentures from the Corporation on the same basis as the Initial Debentures. If the Lead Underwriter, on behalf of the Underwriters, elects to exercise such Over-allotment Option, the Lead Underwriter shall notify the Corporation in writing as soon as practicable and, in any event, not later than 30 days from the Closing Date, which notice shall specify the number of Optioned Debentures to be purchased by the Underwriters and the date (the "**Option Closing Date**") on which such Optioned Debentures are to be purchased. Such Option Closing Date may be the same as the Closing Date but not earlier than the later of (i) the Closing Date, and (ii) three Business Days after the date of such notice. Optioned Debentures may be purchased solely for the purpose of covering over-allotments made in connection with the offering of the Initial Debentures. If any Optioned Debentures are purchased, each Underwriter agrees, severally and not jointly, to purchase the percentage of such Optioned Debentures (subject to such adjustments to eliminate fractional Optioned Debentures as the Lead Underwriter may determine) equal to the percentage set out opposite the name of such Underwriter in Section 19 of this Agreement.

The Underwriters shall be entitled to appoint a soliciting dealer group consisting of other registered dealers acceptable to the Corporation for the purposes of arranging for purchasers of the Initial Debentures.

In consideration of the Underwriters' services to be rendered in connection with the Offering (as defined herein), including the agreement of the Underwriters to purchase the Initial Debentures and, if applicable, the Optioned Debentures, and to offer them to the public pursuant to the Prospectus (as defined herein), the Corporation shall pay to the Underwriters a cash commission (the "**Commission**") equal to 4.0% of the gross proceeds realized by the Corporation in respect of the sale of the Initial Debentures and the Optioned Debentures. For greater certainty, the above-mentioned Commission shall be inclusive of any and all sales taxes related thereto. The Commission shall be payable on the Closing Date with respect to the Offered Debentures sold on the Closing Date and, if applicable, the Option Closing Date with respect to the Offered Debentures sold on the Option Closing Date. Payment of the Commission shall be inclusive of the "work fee" payable to the Lead Underwriter. The Underwriters agree with the Corporation and each other Underwriter that the aggregate Commission shall be allocated as follows: (i) a "work fee" equal to 5.0% of the aggregate Commission shall be payable to the Lead Underwriter and (ii) the remainder of the aggregate Commission shall be payable to the Underwriters in accordance with their respective underwriting commitments as set forth in Section 19 hereof.

The following are the schedules attached to this Agreement, which schedules are deemed to be a part hereof and are hereby incorporated by reference herein:

Schedule "A" – U.S. Offers and Sales

Schedule "B" –Subsidiaries

Schedule "C" – List of Options, Warrants and Convertible Securities

DEFINITIONS

In this Agreement, in addition to the terms defined above or elsewhere in this Agreement, the following terms shall have the following meanings:

"Agreement" means the agreement resulting from the acceptance by the Corporation of the offer made hereby;

"Business Day" means a day which is not a Saturday, Sunday or statutory or civic holiday in the City of Toronto, Canada;

"Canadian Securities Regulators" means the applicable securities commission or securities regulatory authority in each of the Qualifying Jurisdictions;

"Claim" shall have the meaning ascribed thereto in subsection 16(d);

"Closing" means the completion of the issue and sale by the Corporation and the purchase by the Underwriters on the Closing Date of the Initial Debentures as contemplated by this Agreement;

“**Closing Date**” means October 27, 2021 or such other date as the Corporation and the Lead Underwriter, on behalf of the Underwriters, may agree, but in any event, no later than November 3, 2021;

“**Closing Time**” means 8:00 a.m. (Toronto time) on the Closing Date or such other time on the Closing Date as the Corporation and the Lead Underwriter, on behalf of the Underwriters, may agree;

“**Commission**” has the meaning ascribed thereto in the ninth paragraph of this Agreement;

“**Common Shares**” has the meaning ascribed thereto in the second paragraph of this Agreement;

“**Conversion Price**” has the meaning ascribed thereto in the second paragraph of this Agreement;

“**Corporation**” means Quarterhill Inc.;

“**Corporation’s Auditors**” means such firm of chartered accountants as the Corporation may have appointed or may from time to time appoint as auditors of the Corporation;

“**Documents Incorporated by Reference**” means all financial statements, management’s discussion and analysis, management information circulars, marketing materials, business acquisition reports, annual information forms, material change reports or other documents issued or filed by the Corporation, whether before or after the date of this Agreement, that are required to be incorporated by reference into the Shelf Prospectus and the Prospectus Supplement for purposes of the Offering;

“**Financial Statements**” means the financial statements of the Corporation included in the Documents Incorporated by Reference, including the notes to such statements and the related auditors’ report on such statements, if any;

“**Indemnified Party**” has the meaning ascribed thereto in subsection 16(d);

“**Indenture**” means the trust indenture to be dated as of the Closing Date to be entered into between the Corporation and the Trustee, providing for the issue of the Offered Debentures;

“**Initial Debentures**” has the meaning ascribed thereto in the first paragraph of this Agreement;

“**Interest Payment Date**” has the meaning ascribed thereto in the first paragraph of this Agreement;

“**Issue Price**” has the meaning ascribed thereto in the first paragraph of this Agreement;

“**Lead Underwriter**” means Raymond James Ltd.;

“**Letter Agreement**” means the letter agreement dated October 20, 2021 between the Corporation and the Lead Underwriter relating to the Offering;

“**marketing materials**” has the meaning ascribed to that term under NI 41-101;

“**Material Adverse Effect**” means any change (including a decision to implement such a change made by the board of directors or by senior management who believe that confirmation of the decision by the board of directors is probable), event, violation, inaccuracy, circumstance or effect that (i) is materially adverse to the business, assets (including intangible assets), capitalization, financial condition or results of operations of the Corporation and its subsidiaries taken as a whole, whether or not arising in the ordinary course of business of the Corporation or (ii) would result in the Prospectus or any Supplementary Material containing a misrepresentation;

“**Material Agreement**” has the meaning ascribed thereto in clause 7(a)(xxii)(B)(1) of this Agreement;

“**misrepresentation**”, “**material fact**”, “**material change**”, “**affiliate**”, “**associate**”, and “**distribution**” shall have the respective meanings ascribed thereto in the *Securities Act* (Ontario);

“**MI 11-102**” means Multilateral Instrument 11-102 – *Passport System* and its companion policy;

“**NI 41-101**” means National Instrument 41-101 – *General Prospectus Requirements*;

“**NI 44-101**” means National Instrument 44-101 – *Short Form Prospectus Distributions*;

“**NI 44-102**” means National Instrument 44-102 – *Shelf Distributions*;

“**NP 11-202**” means National Policy 11-202 – *Process for Prospectus Reviews in Multiple Jurisdictions*;

“**Offered Debentures**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

“**Offering**” means the issuance and sale of the Offered Debentures pursuant to this Agreement;

“**Offering Documents**” has the meaning ascribed thereto in subsection 5(a)(iii);

“**Option Closing Date**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

“**Option Closing Time**” means 8:00 a.m. (Toronto time) on the Option Closing Date or such other time on the Option Closing Date as the Corporation and the Lead Underwriter may agree;

“**Optioned Debenture**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

“**Over-allotment Option**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

“**Passport System**” means the system and process for prospectus reviews provided for under MI 11-102 and NP 11-202;

“**person**” shall be broadly interpreted and shall include any individual, corporation, partnership, limited liability company, joint venture, association, trust or other legal entity;

“**Prospectus**” means, collectively, the Shelf Prospectus and the Prospectus Supplement;

“**Prospectus Supplement**” means the prospectus supplement of the Corporation dated the date hereof, including all of the Documents Incorporated By Reference, prepared by the Corporation in accordance with NI 44-101 and NI 44-102 to be filed in each of the Qualifying Jurisdictions qualifying and certified by the Corporation and the Underwriters relating to the distribution of the Offered Debentures in the Qualifying Jurisdictions;

“**Public Disclosure Documents**” means, collectively, all of the publicly available documents which have been filed by or on behalf of the Corporation prior to the Closing Time with the relevant Canadian Securities Regulators pursuant to the requirements of Securities Laws of the Qualifying Jurisdictions, including all press releases, annual information forms, material change reports, financial statements, management’s discussion and analysis, information circulars, business acquisition reports and other documents that have been publicly disclosed by the Company and posted on SEDAR;

“**Qualifying Jurisdictions**” means, collectively, all of the provinces and territories of Canada, other than the province of Quebec;

“**Securities Laws**” means, unless the context otherwise requires, all applicable securities laws in each of the Qualifying Jurisdictions and the United States and the respective regulations made thereunder, together with applicable published fee schedules, prescribed forms, policy statements, orders, blanket rulings and other regulatory instruments of the securities regulatory authorities in such jurisdictions;

“**Securities Regulators**” means, collectively, the TSX, and the securities commissions or other securities regulatory authorities in the Qualifying Jurisdictions and the United States;

“**SEC**” means the United States Securities and Exchange Commission.

“**SEDAR**” means the System for Electronic Document Analysis and Retrieval established by National Instrument 13-101 adopted by the Canadian Securities Regulators;

“**Selling Firm**” has the meaning ascribed thereto in paragraph 3(a);

“**Shelf Prospectus**” means the (final) short form base shelf prospectus of the Corporation dated October 19, 2021, including all of the Documents Incorporated by Reference, prepared and filed by the Corporation in accordance with NI 44-101 and NI 44-102 in each of the Qualifying Jurisdictions relating to the distribution of the Offered Debentures in the Qualifying Jurisdictions;

“**Standard Listing Conditions**” has the meaning ascribed thereto in subsection 4(a)(v);

“**Subsidiaries**” means the subsidiaries of the Corporation set forth in Schedule “B” and a “**Subsidiary**” means one of the Subsidiaries;

“**subsidiary**” shall have the meaning ascribed thereto in the *Canada Business Corporations Act*;

“**Supplementary Material**” means, collectively, any amendment to the Shelf Prospectus or the Prospectus Supplement, as applicable, any amendment or supplemental prospectus or ancillary

materials that may be filed by or on behalf of the Corporation with the Securities Regulators relating to the distribution of the Debentures;

“**template version**” shall have the meaning ascribed thereto in NI 41-101 and includes any revised template version of marketing materials as contemplated by NI 41-101;

“**Transfer Agent**” means the registrar and transfer agent of the Corporation, namely, Computershare Investor Services Inc.;

“**Trustee**” means Computershare Trust Company of Canada or its successor pursuant to the Indenture;

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

“**Underwriters**” has the meaning ascribed thereto in the first paragraph of this Agreement;

“**U.S. Affiliate**” means a duly registered U.S. broker-dealer affiliate of an Underwriter; and

“**U.S. Securities Act**” has the meaning ascribed thereto in the fourth paragraph of this Agreement.

TERMS AND CONDITIONS

1. **Compliance With Securities Laws.** The Corporation represents and warrants to, and covenants and agrees with, the Underwriters that the Corporation (i) has elected to rely upon the rules and procedures established pursuant to NI 44-102; (ii) has prepared and filed the Shelf Prospectus in the Qualifying Jurisdictions pursuant to the Passport System and obtained a receipt therefor from the Ontario Securities Commission, and a deemed receipt in respect of each of the other Qualifying Jurisdictions in respect thereto (the “**Final Receipt**”); (iii) shall as soon as possible and in any event no later than 7:00 p.m. (Toronto time) on the date hereof prepare and file the Prospectus Supplement, in form and substance satisfactory to the Underwriters, along with all other documents required under Securities Laws to be filed therewith, with the Canadian Securities Regulators, (iv) shall file the template version of any marketing materials that have been approved by the Corporation and the Lead Underwriter in the manner required under Securities Laws and, in any event on or before the day the marketing materials are first provided to any potential investor in the Offered Debentures. Any comparables shall be redacted from the template version of such marketing materials in accordance with NI 44-101 prior to filing such template version, and (v) will promptly fulfil and comply with, to the satisfaction of the Underwriters, acting reasonably, Securities Laws required to be fulfilled or complied with by the Corporation to enable the Offered Debentures to be lawfully distributed to the public in the Qualifying Jurisdictions through the Underwriters or any other investment dealers registered as such in the Qualifying Jurisdictions.

2. **Due Diligence.** Prior to the filing of the Prospectus Supplement and, if applicable, any Supplementary Material, the Corporation shall have permitted the Underwriters to review the Prospectus Supplement, the U.S. Memorandum (as defined below) and, if applicable, any Supplementary Material, and shall allow the Underwriters to conduct any due diligence investigations which each of them reasonably requires in order to fulfill its obligations as an underwriter under the Securities Laws of the Qualifying Jurisdictions and in order to enable it to responsibly execute the certificate in the Prospectus Supplement, and, if applicable, any Supplementary Material required to be executed by it.

3. **Distribution and Certain Obligations of the Underwriters.**

- (a) The Underwriters shall, and shall require any investment dealer or broker (other than the Underwriters) with which the Underwriters have a contractual relationship in respect of the distribution of the Offered Debentures (each, a “**Selling Firm**”) to agree to, comply with the Securities Laws in connection with the distribution of the Offered Debentures and shall offer the Offered Debentures for sale to the public directly and through Selling Firms upon the terms and conditions set out in the Prospectus and this Agreement. The Underwriters shall, and shall require any Selling Firm to, offer for sale to the public and sell the Offered Debentures, only in those jurisdictions where they may be lawfully offered for sale or sold. The Underwriters shall: (i) use all reasonable efforts to complete and cause each Selling Firm to complete the distribution of the Offered Debentures as soon as reasonably practicable; and (ii) promptly notify the Corporation when, in their opinion, the Underwriters and the Selling Firms have ceased distribution of the Offered Debentures and, within 30 days of the termination of the distribution, provide a breakdown of the number of Offered Debentures distributed in each of the Qualifying Jurisdictions where such breakdown is required for the purpose of calculating fees payable to the Canadian Securities Regulators.
- (b) The Underwriters shall, and shall require any Selling Firm to agree to, distribute the Offered Debentures in a manner which complies with and observes all applicable laws and regulations in each jurisdiction into and from which they may offer to sell the Offered Debentures or distribute the Prospectus, the U.S. Memorandum or any Supplementary Material in connection with the distribution of the Offered Debentures and will not, directly or indirectly, offer, sell or deliver any Offered Debentures or deliver the Prospectus or any Supplementary Material to any person in any jurisdiction other than in the Qualifying Jurisdictions except in a manner which will not require the Corporation to comply with the registration, prospectus, continuous disclosure or other similar requirements under the applicable securities laws of such other jurisdictions.
- (c) For the purposes of this Agreement, the Underwriters shall be entitled to assume that the Offered Debentures are qualified for distribution in any Qualifying Jurisdiction in which a receipt or similar document (including the Final Receipt issued under the Passport System) for the Shelf Prospectus shall have been obtained from the applicable Canadian Securities Regulator.
- (d) The obligations of the Underwriters under this Section 3 are several and not joint or joint and several. No Underwriter will be liable for any act, omission, default or conduct by any other Underwriter or any Selling firm appointed by any other Underwriter.
- (e) During the distribution of the Offered Debentures, the Underwriters will: (i) not provide to any potential investors of the Offered Debentures any marketing materials in respect of the Offered Debentures that are or would be required to be incorporated by reference into the Prospectus without the prior approval by the Corporation of the template version of such marketing materials, such approval to be evidenced by a written agreement, including, without limitation, by way of email

correspondence, between the Corporation and the Lead Underwriter; and (ii) provide a copy of the Shelf Prospectus and, if applicable, the Prospectus Supplement as required by Securities Laws to each potential investor in the Offered Debentures who receives any marketing materials referred to in this paragraph 3(e).

4. **Deliveries on Filing and Related Matters.**

- (a) On or prior to the filing of the Prospectus Supplement with the Canadian Securities Regulators, the Corporation shall deliver to each of the Underwriters:
 - (i) a copy of Prospectus Supplement in the English language signed and certified by the Corporation as required by the Securities Laws of the Qualifying Jurisdictions;
 - (ii) a copy of the Shelf Prospectus, as filed with the Canadian Securities Regulators in the Qualifying Jurisdictions, signed and certified as required by the Securities Laws of the Qualifying Jurisdictions and copies of all Documents Incorporated by Reference therein which have not previously been delivered to the Underwriters (provided that if any such Documents Incorporated by Reference is available to the public on SEDAR, such information shall be deemed to have been delivered in satisfaction of this requirement);
 - (iii) copies of any other document required to be filed by the Corporation under Securities Laws in connection with the filing of the Prospectus;
 - (iv) a “long form” comfort letter dated the date of the Prospectus Supplement, in form and substance satisfactory to the Underwriters, acting reasonably, addressed to the Underwriters and the directors of the Corporation from the Corporation’s Auditors with respect to financial and accounting information contained in the Prospectus Supplement, which letter shall be based on a review by the Corporation’s Auditors within a cut-off date of not more than two Business Days prior to the date of the letter, which letter shall be in addition to any auditors’ consent letter or comfort letter addressed to the Canadian Securities Regulators; and
 - (v) prior to the filing of the Prospectus Supplement with the Canadian Securities Regulators, copies of correspondence indicating that the application for the listing and posting for trading on the TSX of the Offered Debentures and the Common Shares issuable upon conversion, redemption or maturity of the Offered Debentures have been approved for listing subject only to satisfaction by the Corporation of customary post-closing conditions imposed by the TSX (the “**Standard Listing Conditions**”).
- (b) The Corporation shall also prepare and deliver promptly to the Underwriters signed copies of all Supplementary Material and shall deliver to the Underwriters, as soon as practicable after the Prospectus Supplement and any Supplementary Material are prepared, the private placement memorandum incorporating the Prospectus or any Supplementary Material, as the case may be, prepared for use in connection with

the offering for sale of the Offered Debentures in the United States (the “**U.S. Memorandum**”) and, forthwith after preparation, any amendment to the U.S. Memorandum.

- (c) Delivery of the Prospectus Supplement, the U.S. Memorandum and any Supplementary Material by the Corporation shall constitute the representation and warranty of the Corporation to the Underwriters that, as at their respective dates of filing or delivery, as applicable:
- (i) all information and statements (except information and statements relating solely to the Underwriters and provided by the Underwriters in writing expressly for inclusion in the Prospectus Supplement, U.S. Memorandum or any Supplementary Material) contained in the Prospectus, U.S. Memorandum or any Supplementary Material, as the case may be, are true and correct, in all material respects, and contain no misrepresentation and constitute full, true and plain disclosure of all material facts relating to the Corporation and the Offered Debentures;
 - (ii) no material fact or information has been omitted therefrom (except facts or information relating solely to the Underwriters) which is required to be stated in such disclosure or is necessary to make the statements or information contained in such disclosure not misleading in light of the circumstances under which they were made; and
 - (iii) except with respect to any information relating solely to the Underwriters and provided by the Underwriters in writing expressly for inclusion in the Prospectus Supplement or any Supplementary Material, the Prospectus and such Supplementary Material comply in all material respects with the requirements of the Securities Laws of the Qualifying Jurisdictions.

Such deliveries shall also constitute the Corporation’s consent to the Underwriters’ use of the Prospectus and any Supplementary Material in connection with the distribution of the Offered Debentures in the Qualifying Jurisdictions in compliance with this Agreement and the Securities Laws and the use of the U.S. Memorandum in connection with the offer and sale of the Offered Debentures in the United States, unless otherwise advised in writing.

- (d) The Corporation shall cause commercial copies of the Prospectus, the U.S. Memorandum and any Supplementary Material to be delivered to the Underwriters without charge, in such numbers and in such cities in the Qualifying Jurisdictions as the Underwriters may reasonably request by written instructions to the Corporation’s financial printer of the Prospectus. Such delivery of the Prospectus Supplement and the U.S. Placement Memorandum shall be effected as soon as possible after the filing thereof with the Canadian Securities Regulators but, in any event, to recipients located in the City of Toronto on or before noon (local time) on the first Business Day after filing the Prospectus Supplement, and to recipients located in other cities on or before noon (local time) on the second Business Day after filing the Prospectus Supplement. Such deliveries shall constitute the consent of the Company to the Underwriters’ use of the Prospectus for the distribution of

the Offered Debentures in the Qualifying Jurisdictions and of the U.S. Placement Memorandum in connection with offers and sales of the Offered Debentures in the United States, in each case, in compliance with the provisions of this Agreement and applicable Securities Laws. The Company shall similarly cause to be printed and delivered commercial copies of any Supplementary Material and hereby consents to the Underwriters' use thereof. The Company shall also cause to be provided to the Underwriters, without cost, such number of copies of any Documents Incorporated by Reference as the Underwriters may reasonably request for use in connection with the distribution of the Offered Debentures.

- (e) During the period commencing on the date hereof and until completion of the distribution of the Offered Debentures, the Corporation will promptly provide to the Underwriters drafts of any press releases of the Corporation for review by the Underwriters and the Underwriters' counsel prior to issuance.

5. **Material Changes.**

- (a) During the period prior to the Underwriters notifying the Corporation of the completion of the distribution of the Offered Debentures, the Corporation shall promptly inform the Underwriters (and if requested by the Underwriters, confirm such notification in writing) of the full particulars of:
 - (i) any material change (actual, anticipated, contemplated, threatened, financial or otherwise) in the assets, liabilities (contingent or otherwise), business, affairs, operations or capital of the Corporation and its subsidiaries taken as a whole;
 - (ii) any material fact which has arisen or has been discovered and would have been required to have been stated in the Prospectus Supplement or the U.S. Memorandum had the fact arisen or been discovered on, or prior to, the date of such document; and
 - (iii) any change in any material fact contained in the Prospectus, the U.S. Memorandum or any Supplementary Material (collectively, the "**Offering Documents**") or the occurrence of any event or state of facts after the date hereof, which, in any case, is, or may be, of such a nature as to render any of the Offering Documents untrue or misleading in any material respect or to result in any misrepresentation in any of the Offering Documents, or which would result in any of the Offering Documents not complying (to the extent that such compliance is required) with Securities Laws.
- (b) The Corporation will comply with Section 57 of the *Securities Act* (Ontario) and with the comparable provisions of the other Securities Laws, and the Corporation will prepare and file promptly any Supplementary Material which may be necessary and will otherwise comply with all legal requirements necessary to continue to qualify the Offered Debentures for distribution in each of the Qualifying Jurisdictions.

- (c) In addition to the provisions of subsections 5(a) and 5(b) hereof, the Corporation shall in good faith discuss with the Underwriters any change, event or fact contemplated in subsections 5(a) and 5(b) which is of such a nature that there is or could be reasonable doubt as to whether notice should be given to the Underwriters under subsection 5(a) hereof and shall consult with the Underwriters with respect to the form and content of any amendment or other Supplementary Material proposed to be filed by the Corporation, it being understood and agreed that no such amendment or other Supplementary Material shall be filed with any Securities Regulator prior to the review thereof by the Underwriters and their counsel, acting reasonably and without undue delay.
- (d) If during the period of distribution of the Offered Debentures there shall be any change in Securities Laws which, in the opinion of the Underwriters, acting reasonably, requires the filing of any Supplementary Material, upon written notice from the Underwriters, the Corporation shall, to the satisfaction of the Underwriters, acting reasonably, promptly prepare and file any such Supplementary Material with the appropriate Securities Regulators where such filing is required.

6. **Covenants of the Corporation.** The Corporation hereby covenants to the Underwriters that the Corporation:

- (a) will co-operate in all respects with the Underwriters to allow and assist the Underwriters and their counsel to participate fully in the preparation of the Prospectus Supplement, the U.S. Memorandum, any marketing materials and any Supplementary Material and to review all Documents Incorporated by Reference;
- (b) will advise the Underwriters, promptly after receiving notice thereof, of the time when the Prospectus Supplement and any Supplementary Material has been filed and will provide evidence reasonably satisfactory to the Underwriters of each such filing;
- (c) will advise the Underwriters, promptly after receiving notice or obtaining knowledge thereof, of:
 - (i) the issuance by any Securities Regulator or the SEC of any order suspending or preventing the use of the Prospectus, the U.S. Memorandum or any Supplementary Material or the institution, threatening or contemplation of any proceeding for any such purposes;
 - (ii) the suspension of the qualification of the Offered Debentures or the Common Shares in any of the Qualifying Jurisdictions, or the institution, threatening or contemplation of any proceeding for any such purposes;
 - (iii) any order, ruling, or determination having the effect of suspending the sale or ceasing the trading in any securities of the Corporation (including the Offered Debentures and the Common Shares) has been issued by any Securities Regulator or the SEC or the institution, threatening or contemplation of any proceeding for any such purposes; or

- (iv) any requests made by any Securities Regulator for amending or supplementing the Prospectus, the U.S. Memorandum or any Supplementary Material or for additional information;

and will use its commercially reasonable efforts to prevent the issuance of any order referred to in (i), (ii) or (iii) above and, if any such order is issued, to obtain the withdrawal thereof as quickly as possible;

- (d) will duly appoint the Trustee as the debenture trustee under the Indenture at or prior to the Closing Time;
- (e) except to the extent the Corporation participates in a merger or business combination transaction which the Corporation's board of directors determines is in the best interest of the Corporation and following which the Corporation is not a "reporting issuer", will use its reasonable best efforts to maintain its status as a "reporting issuer" (or the equivalent thereof) not in default of the requirements of the Securities Laws of each of the Qualifying Jurisdictions which have such a concept to the date which is two years following the Closing Date;
- (f) except to the extent the Corporation participates in a merger or business combination transaction which the Corporation's board of directors determines is in the best interest of the Corporation and following which the Corporation is not listed on the TSX will use its reasonable best efforts to maintain the listing of the Common Shares on the TSX or such other recognized stock exchange or quotation system as the Underwriters may approve, acting reasonably, to the date that is two years following the Closing Date so long as the Corporation meets the minimum listing requirements of the TSX or such other exchange or quotation system;
- (g) the Corporation shall use its commercially reasonable best efforts to ensure that the Offered Debentures and the Common Shares issuable upon conversion, redemption or maturity of the Offered Debentures are or will be listed and posted for trading on the TSX upon their issue and the Corporation shall on or before the Closing Time provide to the Underwriters a copy of the conditional listing approval from the TSX for the same, subject only to the fulfillment of the Standard Listing Conditions;
- (h) will ensure that the Offered Debentures to be created and issued by the Corporation under the Indenture will be duly and validly created and issued by the Corporation and, when created and issued by the Corporation, such Offered Debentures will have in all material respects the attributes and characteristics set out in this Agreement, the Prospectus Supplement, the U.S. Memorandum and the Indenture; and
- (i) will use the net proceeds of the offering of Offered Debentures contemplated herein in the manner and subject to the qualifications described in the Prospectus Supplement under the heading "Use of Proceeds".

7. (a) **Representations and Warranties of the Corporation.** The Corporation represents and warrants to the Underwriters that (for the purposes of this Section 7(a), references

to the Corporation (on a consolidated basis) refers to the Corporation and the Subsidiaries, taken as a whole):

- (i) the Corporation and each of the Subsidiaries referred to in **Error! Reference source not found.** is a corporation duly incorporated, continued or amalgamated and validly existing under the laws of the jurisdiction in which it was incorporated, continued or amalgamated, as the case may be, has all requisite corporate power and authority and is duly qualified and holds all necessary material permits, licences and authorizations necessary or required to carry on its business as now conducted and to own, lease or operate its properties and assets and no steps or proceedings have been taken by any person, voluntary or otherwise, requiring or authorizing its dissolution or winding up, and the Corporation has all requisite power and authority to enter into this Agreement and the Indenture and to carry out its obligations hereunder and thereunder;
- (ii) except for security granted in connection with the credit facilities as disclosed in the Prospectus, the Corporation beneficially owns, directly or indirectly, all of the issued and outstanding shares in the capital of Subsidiaries free and clear of all mortgages, liens, charges, pledges, security interests, encumbrances, claims or demands of any kind whatsoever, all of such shares have been duly authorized and validly issued and are outstanding as fully paid and non-assessable shares and no person has any right, agreement or option, present or future, contingent or absolute, or any right capable of becoming a right, agreement or option, for the purchase from the Corporation of any interest in any of such shares or for the issue or allotment of any unissued shares in the capital of the Subsidiaries or any other security convertible into or exchangeable for any such shares; and other than Subsidiaries, the Corporation does not beneficially own or exercise control or direction over, 10% or more of the outstanding voting shares of any company;
- (iii) the Corporation (on a consolidated basis) holds all requisite licences, registrations, qualifications, permits and consents necessary or appropriate for carrying on its business as currently carried on and all such licences, registrations, qualifications, permits and consents are valid and subsisting and in good standing except where the failure to hold such licences, registrations, qualifications, permits and consents would not have a Material Adverse Effect;
- (iv) no approval, authorization, consent or other order of, and no filing, registration or recording with, any governmental authority or other person is required of the Corporation in connection with the execution and delivery of or with the performance by the Corporation of its obligations under this Agreement, except as disclosed in the Prospectus or as required by the Securities Laws with regard to the distribution of the Offered Debentures, if any, in the Qualifying Jurisdictions;

- (v) all consents, approvals, permits, authorizations or filings as may be required under applicable Securities Laws of the Qualifying Jurisdictions necessary for the execution and delivery of this Agreement and the issuance of the Offered Debentures and the consummation of the transaction contemplated hereby, have been made or obtained, as applicable, provided that the Corporation must file any applicable reports of trade along with the applicable filing fee and/or fee checklist, if any and subject to compliance with the listing requirements of the TSX to be set forth in the conditional listing approval letter of the TSX;
- (vi) the authorized capital of the Corporation consists of an unlimited number of Common Shares, an unlimited number of preferred shares issuable in series and 6,350.9 special preferred shares, of which 113,822,818 Common Shares and no preferred shares or special preferred shares are issued and outstanding as of October 21, 2021 as fully paid and non-assessable;
- (vii) the currently issued and outstanding Common Shares are listed and posted for trading on the TSX and no order ceasing or suspending trading in any securities of the Corporation or prohibiting the trading of any of the Corporation's issued securities has been issued and, to the knowledge of the Corporation, no proceedings for such purpose are pending or threatened;
- (viii) the definitive form of certificate representing the Common Shares is in proper form under the *Canada Business Corporations Act* and complies with the requirements of the TSX and does not conflict with the constating documents of the Corporation;
- (ix) the Financial Statements (i) prior to January 1, 2020, have been prepared in accordance with generally accepted accounting principles in the United States consistently applied throughout the period referred to therein and, commencing January 1, 2020, have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board consistently applied throughout the period referred to therein, and (ii) present fairly, in all material respects, the financial position (including the assets and liabilities, whether absolute, contingent or otherwise) of the Corporation (on a consolidated basis) as at such dates and results of operations of the Corporation for the periods then ended, and there has been no change in accounting policies or practices of the Corporation since the date reflected in the most recent Financial Statements;
- (x) since December 31, 2020, the Corporation has not declared or paid any dividends or declared or made any other payments or distributions on or in respect of any of its shares other than as disclosed in the Financial Statements or in the Public Disclosure Documents and has not, except as disclosed in the Public Disclosure Documents, directly or indirectly, redeemed, purchased or otherwise acquired any of its shares or agreed to do so or otherwise effected any return of capital with respect to such shares;

- (xi) all taxes (including income tax, capital tax, payroll taxes, employer health tax, workers' compensation payments, property taxes, custom and land transfer taxes), duties, royalties, levies, imposts, assessments, deductions, charges or withholdings and all liabilities with respect thereto including any penalty and interest payable with respect thereto (collectively, "Taxes") due and payable, or required to be collected or withheld and remitted, as applicable, by the Corporation and the Subsidiaries have been paid, collected or withheld and remitted, except for where the failure to do so would not have a Material Adverse Effect. Except as would not constitute a Material Adverse Effect, all tax returns, declarations, remittances and filings required to be filed by the Corporation have been filed with all appropriate governmental authorities and all such returns, declarations, remittances and filings are complete and accurate and no material fact or facts have been omitted therefrom which would make any of them misleading. To the best of the knowledge of the Corporation, no examination of any tax return of the Corporation or the Subsidiaries is currently in progress and there are no issues or disputes outstanding with any governmental authority respecting any Taxes that have been paid, or may be payable, by the Corporation or the Subsidiaries, in any case, except where such examinations, issues or disputes would not have a Material Adverse Effect;
- (xii) since December 31, 2020, there has not been any "reportable event" (within the meaning of National Instrument 51-102 of the Canadian Securities Administrators) with the Corporation's Auditors;
- (xiii) the Corporation's Auditors, who audited the Corporation's most recent annual financial statements, are independent public accountants as required under applicable Securities Laws of the Qualifying Jurisdictions and are registered with the Canadian Public Accountability Board;
- (xiv) since December 31, 2020, none of the Corporation or the Subsidiaries has approved, or has entered into any agreement in respect of (A) the purchase of any property or assets material to the Corporation (on a consolidated basis) or any interest therein or the sale, transfer or other disposition of any property or assets material to the Corporation (on a consolidated basis) or any interest therein currently owned, directly or indirectly, by the Corporation or its Subsidiaries, whether by asset sale, transfer of shares or otherwise, except as disclosed in the Prospectus; or (B) the change of control (by sale or transfer of shares or sale of all or substantially all of the property and assets of the Corporation or the Subsidiaries or otherwise) of the Corporation or the Subsidiaries;
- (xv) no person is entitled to any pre-emptive or any contractual or other similar rights to subscribe for or purchase any unissued Common Shares or other securities of the Corporation and except as set forth in Schedule "C" to this Agreement and the Over-Allotment Option, no rights, warrants or options to acquire, or instruments convertible into or exchangeable for, any shares in the capital of the Corporation are outstanding;

- (xvi) other than as disclosed in the Prospectus, no claims, litigation, legal or governmental proceedings are pending to which the Corporation or a Subsidiary is a party or to which their property is subject that would, individually or in the aggregate, have a Material Adverse Effect on the operation, business or condition of the Corporation (on a consolidated basis) and to the best of the Corporation's knowledge no such claim, litigation or proceedings have been threatened against or are contemplated with respect to the Corporation or the Subsidiaries or their respective properties;
- (xvii) each of the Corporation and the Subsidiaries is in compliance in all material respects with each material license and permit held by it and them and is not in violation of, or in default in any material respect under, the applicable statutes, ordinances, rules, regulations, orders or decrees of any governmental entities, regulatory agencies or bodies having, asserting or claiming jurisdiction over it or over any part of its respective operations or assets, except in any case where the Corporation or Subsidiary has received a valid and effective waiver of such violation or default;
- (xviii) each of the Corporation and the Subsidiaries has conducted and is conducting its business in compliance in all material respects with all applicable laws and regulations of each jurisdiction in which it carries on business and has not received a notice of non-compliance, nor knows of, nor has reasonable grounds to know of, any facts that could give rise to a notice of non-compliance with any such laws, regulations or permits which would have a Material Adverse Effect;
- (xix) the Corporation or a Subsidiary is the beneficial owner of the properties, business and assets or the interests in the properties, business or assets referred to as owned by it in the Prospectus, all agreements under which the Corporation or a Subsidiary holds an interest in a property, business or asset are in good standing according to their terms except where the failure to be in such good standing does not and will not have a Material Adverse Effect;
- (xx) the Corporation is qualified under NI 44-101 to file a prospectus in the form of a short form prospectus;
- (xxi) the Corporation is a reporting issuer under the applicable Securities Laws in each of the provinces and territories of Canada where such a concept exists. The Corporation is not in default in any material respect of any requirement of the applicable Securities Laws and the Corporation is not included in a list of defaulting reporting issuers maintained by the securities commissions of any province or territory of Canada. In particular, without limiting the foregoing, the Corporation is in compliance at the date hereof with its obligations to make timely disclosure of all material changes relating to it and, since December 31, 2020 (other than in respect of material change reports previously filed on a confidential basis and thereafter made public), no such disclosure has been made on a confidential basis and there is no material change relating to the Corporation which has occurred and with respect to which the requisite material change report has not been filed,

except to the extent that the Offering and the conditional approval of the listing of the Offered Debentures on the TSX may constitute a material change;

(xxii) the execution and delivery of this Agreement and the Indenture and the performance of the transactions contemplated hereunder and thereunder, the issue and sale of the Offered Debentures and compliance by the Corporation with the provisions of this Agreement and the Indenture to be complied with by it does not and will not:

(A) require the consent, approval, authorization, registration or qualification of or with any governmental authority, stock exchange, securities regulatory authority or other third party, except: (i) such as have been obtained or will have been obtained by the Closing Time; or (ii) such as may be required under the applicable by-laws, policies, regulations and prescribed forms of the TSX;

(B) result in a breach of or default under, nor create a state of facts which, after notice or lapse of time or both, would result in a breach of or default under, nor conflict with:

(1) any of the terms, conditions or provisions of (i) the constating documents or resolutions of the shareholders, directors or any committee of directors of the Corporation or a Subsidiary or (ii) any material mortgage, note, indenture, license, permit, contract, agreement (written or oral), lease or other instrument to which the Corporation or a Subsidiary is a party or by which it or they are contractually bound or by which a material portion of the assets of the Corporation (on a consolidated basis) are bound (a “**Material Agreement**”); or

(2) any judgment, decree, order, statute, rule, regulation or law applicable to the Corporation including, without limitation, the applicable Securities Laws, or any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Corporation,

which default or breach, in the case of (B)(1)(ii) and (B)(2) above, might reasonably be expected to have a Material Adverse Effect;

(C) give rise to any lien, charge or claim in or with respect to the properties or assets now owned or hereafter acquired by the Corporation or any of its Subsidiaries or the acceleration of or the maturity of any debt under any indenture, mortgage, lease, agreement or instrument binding or affecting any of them or any of their properties except to the extent that such lien, charge or claim would not have a Material Adverse Effect;

- (xxiii) each of the Corporation and the Subsidiaries is not in violation of its constating documents or in default in the performance or observance of any Material Agreement;
- (xxiv) this Agreement has been and, as of the Closing Time, the Indenture will have been, duly authorized, executed and delivered;
- (xxv) upon the execution and delivery thereof, this Agreement and the Indenture shall each constitute valid and binding obligations of the Corporation and shall be enforceable against the Corporation in accordance with their respective terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium and other laws relating to or affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and by the fact that rights to indemnity, contribution and waiver, and the ability to sever unenforceable terms, may be limited by applicable law;
- (xxvi) at the Closing Time or the Option Closing Time, as the case may be, (i) all necessary corporate action will have been taken by the Corporation to validly create and issue the Initial Debentures, or if applicable, the Optioned Debentures, and the Initial Debentures, or, if applicable, the Optioned Debentures, shall be duly allotted, validly issued and outstanding as fully paid and non-assessable obligations of the Corporation, and (ii) all necessary corporate action will have been taken by the Corporation to validly issue the Common Shares issuable upon conversion, redemption or maturity of the Offered Debentures and upon issuance thereof in accordance with the Indenture, such Common Shares will, at the time of issue, be duly allotted, validly issued and outstanding as fully paid and non-assessable shares of the Corporation;
- (xxvii) all information which has been prepared by the Corporation relating to the Corporation and its subsidiaries and their business, property and liabilities, either publicly disclosed or provided to the Underwriters, including the Prospectus and the Documents Incorporated by Reference, is, as of the date of such information, true and correct in all material respects, and no fact or facts have been omitted therefrom which would make such information materially misleading;
- (xxviii) the Corporation has answered and will continue to answer, and to the best of the Corporation's knowledge, the directors and officers of the Corporation have answered every question or inquiry of the Underwriters and its counsel in connection with the Underwriters' due diligence investigations truthfully;
- (xxix) except as contemplated hereby (including any Selling Firms retained by the Underwriters under subsection 3(a) of this Agreement), there is no person acting or purporting to act at the request of the Corporation, who is entitled to any brokerage or agency fee in connection with the transactions contemplated herein;

- (xxx) the Corporation is not aware of any legislation, or proposed legislation (published by a legislative body), which it anticipates will have a Material Adverse Effect;
- (xxxii) each of the Corporation and the Subsidiaries is in compliance with all laws respecting employment and employment practices, terms and conditions of employment, pay equity and wages, except where such non-compliance would not have a Material Adverse Effect;
- (xxxiii) other than as disclosed in the Prospectus or inter-company loans, the Corporation and the Subsidiaries do not have any loans or other indebtedness outstanding which has been made to any of its or their respective shareholders, officers, directors or employees, past or present, or any person not dealing at arm's length with them, which in the aggregate exceed \$50,000;
- (xxxiiii) except as set out in the Prospectus, none of the directors, officers or employees of the Corporation, any known holder of more than 10% of any class of shares of the Corporation, or any known associate or affiliate of any of the foregoing persons, has had any material interest, direct or indirect, in any material transaction within the previous two years or any proposed material transaction which, as the case may be, materially affected, is material to or will materially affect the Corporation;
- (xxxv) the Trustee, at its principal offices in Toronto, Ontario has been or will be on or before the Closing Time duly appointed as the debenture trustee under the Indenture;
- (xxxvi) the Transfer Agent, at its principal offices in the City of Toronto, Ontario, has been duly appointed as transfer agent and registrar in respect of the Common Shares;
- (xxxvii) each of the Corporation and the Subsidiaries (i) is in compliance with any and all applicable foreign, federal, provincial, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("**Environmental Laws**"), (ii) has received all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its respective business, and (iii) is in compliance with all terms and conditions of any such permit, license or approval, except where such non-compliance, failure to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or be expected to have a Material Adverse Effect. To the best knowledge of the Corporation, there have been no past, and there are no pending or threatened claims, complaints, notices or requests for information received by the Corporation with respect to any alleged material violation of any Environmental Law, and no conditions exist at, on or under which, with the passage of time, or the giving of notice or both, would give rise to liability under any Environmental Law; except where such non-compliance, failure

to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or be expected to have a Material Adverse Effect;

(xxxvii) subsequent to December 31, 2020, except as has been publicly disclosed prior to the date of this Agreement in the Prospectus:

(A) there has not been any material change (actual, anticipated, contemplated, threatened, financial or otherwise) in the business, affairs, operations, assets, liabilities (contingent or otherwise) or capital of the Corporation and its Subsidiaries, taken as a whole; and

(B) each of the Corporation and the Subsidiaries has carried on business in the ordinary course;

(xxxviii) the Corporation is, and will be at the Closing Time, in material compliance with the by-laws, rules and regulations of the TSX;

(xxxix) the Corporation and the Subsidiaries have good and valid title to or has obtained valid and enforceable licenses or other rights to use all material intellectual property rights held, used, owned or licensed by the Corporation and the Subsidiaries or relating to the operation of their business, and will have good and valid title to all material intellectual property purchased or otherwise acquired by agreement, including patents (including patent applications), copyrights, industrial designs, trade marks, trade secrets, know how and proprietary rights useful or necessary to carry on its business (the “**Intellectual Property**”) free and clear of any and all encumbrances, except for royalty obligations and general bank security incurred or granted, as the case may be, in the ordinary course of business. To the extent any Intellectual Property owned by the Corporation or a Subsidiary has been created in whole or in part by current or past employees, consultants or independent contractors, any rights therein of such persons have been irrevocably assigned in writing to the Corporation or such Subsidiary and, as applicable, such persons have waived all moral rights in such person’s contribution to such Intellectual Property or component thereof. The Corporation has no knowledge of any Intellectual Property held by others that would prevent the development, manufacture, use, sale, lease, license and service of products now existing or under development by the Corporation or a Subsidiary, other than those sourced from third parties. To the knowledge of the Corporation, no employee or independent consultant of the Corporation or a Subsidiary is in violation of any term of any non-disclosure, proprietary rights or similar agreement between such employee and the Corporation or a Subsidiary or between such employee and any former employer. To the knowledge of the Corporation, all technical information developed by and belonging to the Corporation or a Subsidiary which has not been copyrighted or patented has been kept confidential;

(xl) there are no material restrictions on the ability of the Corporation or a Subsidiary and, except as set forth in the license agreements between the

Corporation or a Subsidiary and the licensees of the Corporation's or Subsidiary's Intellectual Property, there are no material restrictions on the ability of any third party to, use, exploit or authorize others to use and exploit all rights in the Intellectual Property. None of the rights of the Corporation and the Subsidiaries in the Intellectual Property will be impaired or affected in any way by the transactions contemplated by this Agreement;

- (xli) except as would not reasonably be expected to have a Material Adverse Effect or as disclosed in the Prospectus, to the Corporation's knowledge, (i) there are no rights of third parties to any such Intellectual Property other than under license agreements entered into in the ordinary course of the Corporation's business, (ii) there is no pending or threatened action, suit, proceeding or claim by others against the Corporation or any of the Subsidiaries challenging the Corporation's rights in or to any such Intellectual Property, and the Corporation is unaware of any facts which, to the Corporation's knowledge, would form a reasonable basis for any such claim; (iii) there is no pending or, to the Corporation's knowledge, threatened action, suit, proceeding or claim by others against the Corporation or any Subsidiary challenging the validity or scope of any such Intellectual Property, and the Corporation is unaware of any facts which, to its knowledge, would form a reasonable basis for any such claim; and (iv) there is no prior act of which the Corporation is aware that may reasonably be expected render any patent held by the Corporation or a Subsidiary invalid or any patent application held by the Corporation or a Subsidiary unpatentable which has not been disclosed to the applicable patent-issuing authority;
- (xlii) except for such matters as would not, individually or in the aggregate, have a Material Adverse Effect, any and all of the agreements and other documents and instruments pursuant to which the Corporation or a Subsidiary hold the property and assets thereof (including any interest in, or right to earn an interest in, any property) are valid and subsisting agreements, documents or instruments in full force and effect, enforceable in accordance with terms thereof; each of the Corporation and the Subsidiaries is not in default of any of the material provisions of any such agreements, documents or instruments and no such default has been alleged other than a default which would not have a Material Adverse Effect and such properties and assets are in good standing under the applicable statutes and regulations of the jurisdictions in which they are situated, other than a default which would not have a Material Adverse Effect; all leases, licences and claims pursuant to which the Corporation or a Subsidiary derive the interests thereof in such property and assets are in good standing and there has been no default by the Corporation or the Subsidiaries under any such lease, licence or claim that would have a Material Adverse Effect. None of the properties (or any interest in, or right to earn an interest in, any property) of the Corporation or a Subsidiary is subject to any right of first refusal or purchase or acquisition right which is not disclosed in the Prospectus;

- (xliv) with respect to each premises of the Corporation and the Subsidiaries and which the Corporation and the Subsidiaries occupies or will occupy as tenant (the “**Leased Premises**”) the Corporation occupies the Leased Premises and has the exclusive right to occupy and use the Leased Premises and each of the leases pursuant to which the Corporation and the Subsidiaries occupy the Leased Premises is in good standing and in full force and effect;
- (xlv) except for inter-company loans, the Corporation and the Subsidiaries have not made any loans to or guaranteed the obligations of any other person, except as has been disclosed in writing to the Underwriters;
- (xlv) no acquisition has been made by the Corporation during its three most recently completed fiscal years that would be a significant acquisition for the purposes of the Securities Laws of the Qualifying Jurisdictions, and no proposed acquisition by the Corporation has progressed to a state where a reasonable person would believe that the likelihood of the Corporation completing the acquisition is high and that, if completed by the Corporation at the date of the Prospectus Supplement, would be a significant acquisition for the purposes of the Securities Laws of the Qualifying Jurisdictions, in each case, that would require the prescribed disclosure in the Prospectus Supplement pursuant to such laws;
- (xlvi) the Corporation maintains a system of internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Canadian generally accepted accounting principles and maintains, or will following the Closing maintain, a system of disclosure controls and procedures that is designed to provide reasonable assurances that information required to be disclosed by the Corporation under the Securities Laws of the Qualifying Jurisdictions is recorded, processed, summarized and reported within the time periods specified under Securities Laws of the Qualifying Jurisdictions and to ensure that information required to be disclosed by the Corporation under the Securities Laws of the Qualifying Jurisdictions is accumulated and communicated to the Corporation’s management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure;
- (xlvii) other than as previously disclosed to the Underwriters in writing, there are no shareholders’ agreements, voting agreements, investors’ rights agreements or other agreements in force or effect which in any manner affects or will affect the voting or control of any of the securities of the Corporation or its subsidiaries or the operations or affairs of the Corporation or its subsidiaries;
- (xlviii) the attributes attaching to the Offered Debentures when issued will be consistent in all material respects with the description thereof in the Prospectus;

- (xlix) any statistical and market-related data included in the Prospectus is based on or derived from sources that the Corporation believes to be reliable and accurate, and the Corporation has obtained the consent to the use of such data from such sources to the extent required; and
- (l) the Corporation believes that it is not a “passive foreign investment company” under the meaning of Section 1297 of the United States Internal Revenue Code of 1986, as amended.
- (b) The Corporation further acknowledges that the Underwriters are relying upon the representations and warranties contained in this Section 7.

8. **Closing Deliveries.** The purchase and sale of the Initial Debentures and, if applicable, the Optioned Debentures shall be completed electronically at the Closing Time or the Option Closing Time, as the case may be, or at such other place as the Lead Underwriter and the Corporation may agree. At or prior to the Closing Time or the Option Closing Time, as the case may be, the Corporation shall duly and validly deliver to the Underwriters one or more certificate(s) in definitive form representing the Initial Debentures or the Optioned Debentures, as the case may be, registered in such name or names as the Underwriters may notify the Corporation in writing not less than 48 hours prior to Closing Time in such proportions equal to the percentages set out in Section 19 or as otherwise directed by the Lead Underwriter in writing, against payment by the Underwriters to the Corporation, at the direction of the Corporation, in lawful money of Canada by wire transfer of an amount equal to the aggregate purchase price for the Initial Debentures and/or the Optioned Debentures, as the case may be, being issued and sold hereunder less the Commission and all of the estimated out-of-pocket expenses of the Underwriters payable by the Corporation to the Underwriters in accordance with Section 17 hereof.

9. **Underwriters’ Obligation to Purchase.** The obligation of the Underwriters to purchase the Initial Debentures at the Closing Time shall be subject to the following conditions (it being understood that the Underwriters may waive in whole or in part or extend the time for compliance with any of such terms and conditions without prejudice to its rights in respect of any other of the following terms and conditions or any other or subsequent breach or non-compliance, provided that to be binding on the Underwriters any such waiver or extension must be in writing and signed by all of them):

- (a) the Underwriters shall have received an opinion, dated the Closing Date, in form and substance satisfactory to the Underwriters, and subject to customary qualifications, of Norton Rose Fulbright Canada LLP or from local counsel in Qualifying Jurisdictions other than Ontario, Alberta, British Columbia and Quebec (it being understood that such counsel may rely to the extent appropriate in the circumstances, (i) as to matters of fact, on certificates of the Corporation executed on its behalf by a senior officer of the Corporation and on certificates of the Transfer Agent, as to the issued capital of the Corporation; and (ii) as to matters of fact not independently established, on certificates of the Corporation’s Auditors or a public official) with respect to the following matters:
 - (i) as to the incorporation and subsistence of the Corporation under the laws of its jurisdiction of incorporation, continuance or amalgamation and as to the corporate power of the Corporation to carry on its business as presently

carried on, to carry out its obligations under this Agreement and the Indenture, and to issue the Offered Debentures and Common Shares issuable upon conversion, redemption or maturity of the Offered Debentures;

- (ii) as to the authorized capital of the Corporation;
- (iii) as to the existence of the Corporation's material Canadian Subsidiaries;
- (iv) that the Corporation has taken all necessary corporate action to authorize the execution and delivery of this Agreement and the Indenture and this Agreement and the Indenture each constitute legal, valid and binding obligations of the Corporation enforceable against the Corporation in accordance with their respective terms;
- (v) that the execution and delivery of this Agreement and the Indenture and the performance by the Corporation of its obligations hereunder and thereunder, including the creation and issuance of the Offered Debentures in accordance with the terms of this Agreement and the issuance of the Common Shares issuable on conversion, redemption or maturity of the Offered Debentures, do not and will not conflict with, result in a breach of or create a state of facts which, whether with or without the giving of notice or lapse of time or both, will result in a breach or violation of any of the terms, conditions or provisions of the articles or by-laws of the Corporation;
- (vi) that the Initial Debentures and the Optioned Debentures have been duly authorized and validly issued as fully paid and non-assessable obligations of the Corporation;
- (vii) that the Common Shares issuable upon conversion, redemption or maturity of the Offered Debentures have been authorized for issuance and, when issued in accordance with the terms of the Indenture, will be validly issued as fully paid and non-assessable shares of the Corporation;
- (viii) that the attributes of the Initial Debentures, the Optioned Debentures and the Common Shares conform in all material respects with the description thereof contained in the Prospectus Supplement;
- (ix) that all necessary corporate action has been taken by the Corporation to authorize the execution and delivery of the Shelf Prospectus and the Prospectus Supplement and the filing of such documents as are required under the Securities Laws in each of the Qualifying Jurisdictions;
- (x) that no consent, approval, authorization or order of or filing, registration or qualification with any court, governmental agency or body or regulatory authority having jurisdiction is required at this time for the execution and delivery by the Corporation of this Agreement or the Indenture and the performance of its obligations hereunder and thereunder, except for such as have been made or obtained;

- (xi) that all approvals, permits, consents, orders and authorizations have been obtained, all necessary documents have been filed and all other legal requirements have been fulfilled under Securities Laws of the Qualifying Jurisdictions to qualify the issuance or distribution and sale of the Initial Debentures and the Optioned Debentures to the public in each of the Qualifying Jurisdictions and to permit the issuance, sale and delivery of such Initial Debentures and the Optioned Debentures to the public through dealers registered under the applicable laws of each of the Qualifying Jurisdictions who have complied with the relevant provisions of such laws and the terms of their registration;
- (xii) that the issuance of the Common Shares by the Corporation on the conversion, redemption or maturity of the Offered Debentures thereof in accordance with the Indenture, is exempt from the prospectus requirements of Securities Laws of the Qualifying Jurisdictions;
- (xiii) that the first trade in the Offered Debentures and the Common Shares acquired upon the conversion, redemption or maturity of the Offered Debentures will not be subject to the prospectus requirements of the Securities Laws of the Qualifying Jurisdictions and no prospectus or other document is required to be filed, no proceedings are required to be taken and no approvals, permits, consents or authorizations of regulatory authorities are required to be obtained under the Securities Laws of the Qualifying Jurisdictions to permit the first trade of such securities by the holder thereof through registrants or dealers registered under the Securities Laws of such Qualifying Jurisdictions who have complied with such laws;
- (xiv) that the statements set forth in the Prospectus Supplement under the heading “Certain Canadian Federal Income Tax Considerations” insofar as they purport to describe the provisions of the laws referred to therein, are fair and adequate summaries of the matters discussed therein, subject to the qualifications, assumptions and limitations set out under such heading;
- (xv) that the form of certificate representing the Common Shares has been approved and adopted by the Corporation and complies in all material respects with the constating documents of the Corporation, the *Canada Business Corporations Act* and the requirements of the TSX;
- (xvi) that the form of the definitive certificates representing the Offered Debentures has been approved and adopted by the Corporation and complies with in all material respects with the constating documents of the Corporation, the *Canada Business Corporations Act* and the provisions of the Indenture;
- (xvii) that the Initial Debentures and the Optioned Debentures have been conditionally approved for listing on the TSX subject only to the Standard Listing Conditions;

- (xviii) that the Transfer Agent has been duly appointed as the transfer agent and registrar for the Common Shares; and
- (xix) as to such other matters as the Underwriter's legal counsel may reasonably request prior to the Closing Time;
- (b) if any Offered Debentures are sold in the United States, the Underwriters shall have received a legal opinion addressed to the Underwriters from Norton Rose Fulbright US LLP, in its capacity as United States counsel to the Corporation, dated as of the Closing Date, in form and substance satisfactory to the Underwriters, acting reasonably, that the offer and sale of Offered Debentures in the United States, in the manner contemplated by this Agreement (including Schedule "A" hereto), do not require registration under the U.S. Securities Act;
- (c) the Underwriters shall have received a favourable legal opinion from their counsel, Osler, Hoskin & Harcourt LLP, dated the Closing Date, in form and substance satisfactory to the Underwriters acting reasonably, in relation to certain corporate and securities matters;
- (d) the Underwriters shall have received a certificate dated as of the Closing Date, addressed to the Underwriters and signed by appropriate officers of the Corporation, with respect to the constating documents of the Corporation, all resolutions of the board of directors of the Corporation relating to this Agreement and the Indenture, the incumbency and specimen signatures of signing officers of the Corporation and such other matters as the Underwriters may reasonably request;
- (e) the Underwriters shall have received a certificate, dated the Closing Date, of such two senior officers of the Corporation as are acceptable to the Lead Underwriter, addressed to the Underwriters and their counsel to the effect that, to the best of their knowledge, information and belief, after due enquiry and without personal liability:
 - (i) the representations and warranties of the Corporation in this Agreement are true and correct in all material respects as at the Closing Time or in the case of representations and warranties that are qualified by materiality or by Material Adverse Effect, are true and correct at the Closing Time, as if made at and as of the Closing Time and the Corporation has performed all covenants and agreements and satisfied all conditions on its part to be performed or satisfied in all material respects at or prior to the Closing Time;
 - (ii) no order, ruling or determination having the effect of suspending the sale or ceasing, suspending or restricting the trading of Offered Debentures or the Common Shares in the Qualifying Jurisdictions has been issued or made by any stock exchange, securities commission or regulatory authority and is continuing in effect and no proceedings, investigations or enquiries for that purpose have been instituted or are pending;

- (iii) since the date of the Prospectus Supplement, there has been no material adverse change in the business, affairs, operations, assets, liabilities or capital of the Corporation; and
- (iv) none of the documents filed with applicable securities regulatory authorities since December 31, 2020 contained a misrepresentation as at the time the relevant document was filed that has not since been corrected, including by way of disclosure in the Prospectus Supplement,

and each such statement shall, in fact, be true and the Underwriters shall have no knowledge to the contrary.

- (f) the Underwriters shall have received a letter dated as of the Closing Date, in form and substance satisfactory to the Underwriters, addressed to the Underwriters and the directors of the Corporation from the Corporation's Auditors confirming the continued accuracy of the comfort letter to be delivered to the Underwriters pursuant to subsection 4(a)(iv) hereof with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Closing Date, which changes shall be acceptable to the Underwriters;
- (g) the Offered Debentures and the Common Shares issuable upon conversion, redemption or maturity of the Offered Debentures shall have been approved for listing on the TSX, subject only to the official notices of issuance and fulfilment of the Standard Listing Conditions;
- (h) the Underwriters and their counsel shall have been provided with information and documentation, reasonably requested relating to its due diligence inquiries and investigations and have not identified any material adverse changes or misrepresentations or any items materially adversely affecting the Corporation's affairs which exist as of the date hereof but which have not been disseminated to the public in accordance with applicable Securities Laws;
- (i) the Underwriters shall have received a certificate of compliance in respect of the Corporation and a certificate of status in respect of the Subsidiaries referred to in Section **Error! Reference source not found.**;
- (j) the Underwriters shall have received certificates, issued under the Securities Laws of the Qualifying Jurisdictions stating that the Corporation is not in default under such Securities Laws; and
- (k) the Underwriters shall have received a certificate from the Transfer Agent as to the number of Common Shares issued and outstanding as at a date no more than two Business Days prior to the Closing Date.

10. **Purchase of Optioned Debentures.** The Underwriters' several obligation to purchase the Optioned Debentures on the Option Closing Date (in the event that the Over-allotment Option is exercised) shall be subject to the accuracy of the representations and warranties of the Corporation

contained in this Agreement as of the Option Closing Date and the performance by the Corporation of its obligations under this Agreement and subject to the following conditions:

- (a) the Underwriters shall have received a favourable legal opinion from the Corporation's counsel, Norton Rose Fulbright Canada LLP, dated the Option Closing Date, in form and substance satisfactory to the Underwriters acting reasonably, in relation to Ontario, Alberta, British Columbia and Quebec;
- (b) the Underwriters shall have received a favourable legal opinion from their counsel, Osler, Hoskin & Harcourt LLP, dated the Option Closing Date, in form and substance satisfactory to the Underwriters acting reasonably, in relation to certain corporate and securities matters;
- (c) the Underwriters shall have received a letter dated as of the Option Closing Date, in form and substance satisfactory to the Underwriters, addressed to the Underwriters and the directors of the Corporation from the Corporation's Auditors confirming the continued accuracy of the comfort letter to be delivered to the Underwriters pursuant to subsection 4(a)(iv) hereof with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Option Closing Date, which changes shall be acceptable to the Underwriters;
- (d) the Underwriters shall have received a certificate dated as of the Option Closing Date, addressed to the Underwriters and signed by appropriate officers of the Corporation, with respect to the constating documents of the Corporation, all resolutions of the board of directors of the Corporation relating to this Agreement and the Indenture, the incumbency and specimen signatures of signing officers of the Corporation and such other matters as the Underwriters may reasonably request;
- (e) the Underwriters shall have received a certificate in the form set out in subsection 9(e) dated as of the Option Closing Date; and
- (f) the Underwriters shall have received such other certificates, agreements, materials or documents as they may reasonably request.

11. Restrictions on Further Issues or Sales.

- (a) The Corporation agrees not to issue, or announce any intention to issue any Common Shares or any securities convertible into or exchangeable for or exercisable to acquire Common Shares for a period commencing on the date hereof and ending ninety (90) days following the Closing Date, without the prior written consent of the Lead Underwriter, such consent not to be unreasonably withheld, except in conjunction with the exercise of stock options and other similar issuances pursuant to the existing employee share purchase plan of the Corporation and other share compensation arrangements outstanding as of the date hereof (including DSUs and RSUs).

- (b) In addition, it shall be a condition of Closing that directors and senior officers of the Corporation shall have entered into agreements on terms and conditions satisfactory to the Lead Underwriter in which they covenant and agree that, subject to certain exceptions, they will not, for a period commencing on the date hereof and ending 90 days following the Closing Date, directly or indirectly, offer, sell, contract to sell, lend, swap or enter into any other agreement to transfer the economic consequences of, or otherwise dispose of or deal with, or publicly announce any intention to offer, sell, contract to sell, grant or sell any option to purchase, hypothecate, pledge, transfer, assign, purchase any option or contract to sell, lend, swap or enter into any agreement to transfer the economic consequences of, or otherwise dispose of or deal with, whether through the facilities of a stock exchange, by private placement or otherwise, Common Shares or any other securities of the Corporation held by them, directly or indirectly, without first obtaining the written consent of the Lead Underwriter, which consent will not be unreasonably withheld or delayed, and will not be withheld upon the occurrence of a take-over bid or similar transaction involving a change of control of the Corporation.

12. **All Terms to be Conditions.** The Corporation agrees that the conditions contained in Section 9 will be complied with insofar as the same relate to acts to be performed or caused to be performed by the Corporation and that it will use its best efforts to cause all such conditions to be complied with. Any breach or failure to comply with any of the conditions set out in Section 9 shall entitle each of the Underwriters to terminate its obligation to purchase the Initial Debentures, by written notice to that effect given to the Corporation at or prior to the Closing Time. It is understood that the Underwriters may waive, in whole or in part, or extend the time for compliance with, any of such terms and conditions without prejudice to the rights of the Underwriters in respect of any such terms and conditions or any other or subsequent breach or non-compliance, provided that to be binding on the Underwriters any such waiver or extension must be in writing and signed by all the Underwriters.

13. **Termination Events.** Each Underwriter may terminate its obligations under this Agreement on or before the Closing Time if:

- (a) there shall have occurred, be discovered by an Underwriter or be announced by the Corporation any material change or change in a material fact or a new material fact arises or is discovered (other than a change or fact related solely to the Underwriters), in each case which has not been publicly disclosed as of the date hereof and which, in the reasonable opinion of the Underwriter, has or would reasonably be expected to have a significant adverse effect on the market price or value of the Offered Debentures or the Common Shares;
- (b) any inquiry, action, suit, proceeding or investigation (whether formal or informal) (including matters of regulatory transgression or unlawful conduct), is commenced, announced, threatened or any order is made by any governmental authority or the TSX in relation to the Corporation, or any law or regulation is enacted or changed, in each case which, in the reasonable opinion of the Underwriter, operates to prevent or restrict the trading or distribution of the Offered Debentures or the Common Shares or materially and adversely affects or will materially and adversely

affect the market price or value of the Offered Debentures, the Common Shares or any other securities of the Corporation;

- (c) there should develop, occur or come into effect or existence any event, action, state, condition or major financial occurrence of national or international consequence (including matters caused by, related to or resulting from any material adverse development in or related to the COVID-19 pandemic after the date of this letter agreement) or any law or regulation or a change thereof which, in the reasonable opinion of the Underwriter, seriously adversely affects, or will or could reasonably be expected to seriously adversely affect the financial markets or the business, operations or affairs of the Corporation and the Subsidiaries, taken as a whole;
- (d) except as previously disclosed, there is an investigation (whether formal or informal) in relation to the Corporation or any of the officers or directors of the Corporation or any of its principal shareholders commenced by a securities regulatory authority in each case which, in the reasonable opinion of the Underwriters (or any of them), operates to prevent or restrict the trading or distribution of the Offered Debentures or the Common Shares or materially and adversely affects or will materially and adversely affect the market price or value of the Offered Debentures, the Common Shares or any other securities of the Corporation; or
- (e) the Corporation is in breach of, or there is a failure by the Corporation to comply with, any term, condition or covenant of this Agreement, or any representation or warranty given by the Corporation in this Agreement becomes or is false.

Any Underwriter shall be entitled to terminate and cancel its obligations to the Corporation hereunder in accordance with this Section 13 by written notice to that effect given to the Corporation and the Lead Underwriter at any time prior to the Closing.

14. Exercise of Termination Right. If this Agreement is terminated by any of the Underwriters pursuant to Section 13, there shall be no further liability to the Corporation on the part of such Underwriter or of the Corporation to such Underwriter, except in respect of any liability which may have arisen or may thereafter arise under Sections 16 and 17. The right of the Underwriters or any one of them to terminate their respective obligations under this Agreement is in addition to such other remedies as an Underwriter may have in respect of any default, act or failure to act of the Corporation in respect of any of the matters contemplated by this Agreement. A notice of termination given by one Underwriter under Section 13 shall not be binding upon the other Underwriters.

15. Survival of Representations and Warranties. All terms, warranties, representations, covenants and agreements herein contained or contained in any documents delivered pursuant to this Agreement and in connection with the transactions herein contemplated shall survive the purchase and sale of the Offered Debentures and will continue in full force and effect for the benefit of the Underwriters and/or the Corporation, as the case may be, regardless of any subsequent disposition of the Offered Debentures or any investigation by or on behalf of the Underwriters with respect thereto for a period ending on the latest date under applicable Securities Laws (non-residents of Canada being deemed to be resident in the Province of Ontario for such purposes) that an action may be commenced or a right of rescission may be exercised with respect

to a misrepresentation contained in the Prospectus or, if applicable, any Supplementary Material. The Underwriters will be entitled to rely on the representations and warranties of the Corporation contained in this Agreement or delivered pursuant to this Agreement notwithstanding any investigation which the Underwriters may undertake or which may be undertaken on the Underwriters' behalf.

16. **Indemnity.**

- (a) The Corporation shall indemnify and save harmless each of the Underwriters and their respective affiliates and each and every one of the directors, officers, employees, partners and agents of the Underwriters (individually, an “**Indemnified Party**” and collectively, the “**Indemnified Parties**”) from and against any and all expenses, losses (other than loss of profits), claims, actions, damages or liabilities, whether joint or several (including, without limitation, the aggregate amount paid in reasonable settlement of any actions, suits, proceedings or claims, and the reasonable fees and expenses of its counsel that may be incurred in advising with respect to and/or defending any of the foregoing), in any way caused by, or arising directly or indirectly from, or in consequence of:
- (i) any information or statement contained in the Prospectus or the U.S. Memorandum, and any and all amendments thereto (except any information or statement relating solely to the Underwriters and provided to them in writing expressly for inclusion in such document) which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation or an untrue statement of a material fact;
 - (ii) any information or statement contained in any certificate of the Corporation delivered under or pursuant to this Agreement (except any information or statement relating solely to the Underwriters and provided to them in writing expressly for inclusion in such certificate) which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation or an untrue statement of a material fact;
 - (iii) any omission or alleged omission to state in the Prospectus, the U.S. Memorandum, or any certificate of the Corporation delivered pursuant to this Agreement, any and all amendments thereto, any material fact (except facts relating solely to the Underwriters) required to be stated in such document or necessary to make any statement in such document not misleading in light of the circumstances under which it was made;
 - (iv) the non-compliance or alleged non-compliance by the Corporation with any requirements of any Securities Laws;
 - (v) any order made or any inquiry, investigation or proceeding commenced or threatened by any securities regulatory authority, stock exchange or by any other competent authority, based upon any misrepresentation or alleged misrepresentation (except a misrepresentation or alleged misrepresentation relating solely to the Underwriters) in the Prospectus, the U.S. Memorandum or any and all amendments thereto preventing or restricting

the trading in or the sale or distribution of the Offered Debentures, the Common Shares or any of them in the Qualifying Jurisdictions, the United States or any state of the United States or internationally; or

- (vi) a material breach of any representation, warranty or covenant of the Corporation contained in this Agreement or the failure of the Corporation to comply in all material respects with any of its obligations under this Underwriting Agreement,

and will reimburse the Underwriters promptly for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such losses, claims, damages, liabilities or actions in respect thereof, as incurred.

- (b) **When Indemnity Does Not Apply.** Notwithstanding anything to the contrary contained herein, this indemnity shall cease to apply to an Indemnified Party if and to the extent that a court of competent jurisdiction in a final judgment that has become non-appealable shall determine that:
 - (i) such Indemnified Party has been grossly negligent or guilty of willful misconduct or fraud in the course of the performance of its obligations for the Corporation in connection with the matters referred to in this Agreement; and
 - (ii) the expenses, losses, claims, damages or liabilities, as to which indemnification is claimed, were caused by the gross negligence, willful misconduct or fraud referred to in subsection 16(b)(i).

For greater certainty, the Corporation and the Underwriters agree that they do not intend that any failure by the Underwriters to conduct such reasonable investigation as necessary to provide the Underwriters with reasonable grounds for believing the Offering Documents contained no misrepresentation shall constitute “gross negligence”, “willful misconduct” or “fraud” for purposes of this Section 16 or otherwise disentitle the Underwriters from indemnification hereunder unless the applicable court of competent jurisdiction shall have expressly determined in a final judgment that has become non-appealable that such failure to conduct such reasonable investigation falls under subsections 16(b)(i) and 16(b)(ii) above.

- (c) **Contribution.** If for any reason (other than the occurrence of any of the events itemized in this Section 16), the foregoing indemnification is unavailable to any Indemnified Party or insufficient to hold any Indemnified Party harmless, then the Corporation shall contribute to the amount paid or payable by any Indemnified Party as a result of such expense, loss, claim, damage or liability in such proportion as is appropriate to reflect not only the relative benefits received by the Corporation on the one hand and the Indemnified Party on the other hand but also the relative fault of the Corporation and the Indemnified Party, as well as any relevant equitable considerations; provided that the Corporation shall, in any event, contribute to the amount paid or payable by the Indemnified Party as a result of such expense, loss, claim, damage or liability, any excess of such amount over the amount of the fees

received by the Indemnified Party or its related underwriter hereunder pursuant to this Agreement.

- (d) **Notification of Claim.** Promptly after receipt of notice of the commencement of any action, suit, proceeding, claim or investigation or any matter or thing contemplated by subsection 16(a) (a “**Claim**”) against an Indemnified Party or after receipt of notice of the commencement of any investigation, which is based, directly or indirectly, upon any Claim in respect of which indemnification may be sought from the Corporation by the Indemnified Party, the Indemnified Party will notify the Corporation in writing of the commencement thereof and, throughout the course thereof, will provide copies of all relevant documentation to the Corporation, will keep the Corporation advised of the progress thereof and will discuss with the Corporation all significant actions proposed. The omission so to notify the Corporation shall not relieve the Corporation of any liability which the Corporation may have to the Indemnified Party except only to the extent that any such delay in giving or failure to give notice as herein required materially prejudices the defence of such action, suit, proceeding, claim or investigation or results in any material increase in the liability which the Corporation would otherwise have under this indemnity had the Indemnified Party not so delayed in giving or failed to give the notice required hereunder.
- (e) **Counsel.** The Corporation shall be entitled, at its own expense, to participate in and, to the extent it may wish to do so, assume the defence of any Claim within 30 days of receipt of notice thereof, provided such defence is conducted by experienced and competent counsel acceptable to the Indemnified Parties, acting reasonably. Upon the Corporation notifying the Indemnified Party in writing of its election to assume the defence and retaining counsel, the Corporation shall not be liable to the Indemnified Party for any legal expenses subsequently incurred by them in connection with such defence. If such defence is assumed by the Corporation, the Corporation throughout the course thereof will provide copies of all relevant documentation to the Indemnified Party, will keep the Indemnified Party advised of the progress thereof and will discuss with the Indemnified Party all significant actions proposed.

Notwithstanding the foregoing paragraph, any Indemnified Party shall have the right, at the Corporation’s expense, to employ counsel of such Indemnified Party’s choice, in respect of the defence of any Claim if: (i) the employment of such counsel has been authorized by the Corporation; (ii) the Corporation has not assumed the defence and employed counsel therefor within 30 days after receiving notice of such Claim; or (iii) counsel retained by the Corporation or the Indemnified Party has advised the Indemnified Party in writing that representation of both parties by the same counsel would be inappropriate because there is a conflict of interest between the Corporation and the Indemnified Party, or the subject matter of the Claim may not fall within the indemnity set forth herein or additional defenses are available to the Indemnified Parties that are not available to the Corporation, which makes representation by the same counsel inappropriate; or (iv) an Indemnified Party shall have reasonably concluded that there may be legal defences available to it that are different from or in addition to those available to the Corporation (in

either any of which events the Indemnitor shall not have the right to assume or direct the defence on the Indemnified Party's behalf).

- (f) **Settlement.** No admission of liability and no settlement of any Claim shall be made without the consent of the Indemnified Party. No admission of liability shall be made and the Corporation shall not be liable for any settlement of any Claim made without its consent.
- (g) **Indemnity and Contribution Obligations in Addition to Other Liabilities.** The indemnity and contribution obligations of the Corporation shall be in addition to any liability which the Corporation may otherwise have, shall extend upon the same terms and conditions to the Personnel of the Underwriters and shall be binding upon and enure to the benefit of any successors, assigns, heirs and personal representatives of the Corporation, the Underwriters and any of the Personnel of the Underwriters, as the case may be. The rights to contribution provided in this Section 16 shall be in addition to and not in derogation of any other right to contribution which the Underwriters may have by statute or otherwise at law. The foregoing provisions shall survive the completion of the Underwriters' obligations for the Corporation under this Agreement or any termination of the authorization given by this Agreement.
- (h) **Right of Indemnity in Favour of Others.** With respect to any Indemnified Party who is not a party to this Agreement, the Underwriters shall obtain and hold the rights and benefits of this Section 16 in trust for and on behalf of such Indemnified Party.

17. **Expenses.** The Corporation shall pay all expenses and fees in connection with the offering of Offered Debentures contemplated by this Agreement, including, without limitation, all expenses of or incidental to the issue, sale or distribution of the Initial Debentures and the filing of the Offering Documents and all expenses of or incidental to all other matters in connection with the transactions set out in this Agreement, including, without limitation, the fees and expenses payable in connection with the distribution of the Initial Debentures and the Optioned Debentures, the fees and expenses of the Corporation's counsel and of local counsel to the Corporation, the fees and expenses of the Corporation's Auditors and the transfer agent for the Common Shares, all costs incurred in connection with the preparation and printing of the Offering Documents and certificates representing the Initial Debentures, filing fees and listing fees, and the reasonable fees and disbursements of the Underwriters' counsel (which Underwriters counsel fees are not to exceed \$150,000 (excluding HST and reasonable disbursements), whether or not the Offering is completed. All fees and expenses incurred by the Underwriters or on their behalf shall be payable by the Corporation immediately upon receiving an invoice therefor from the Underwriters and shall be payable whether or not the Offering is completed. At the option of the Underwriters, such fees and expenses may be deducted from the gross proceeds otherwise payable to the Corporation at Closing.

18. **Advertisements.** The Corporation acknowledges that the Underwriters shall have the right, subject always to compliance with Securities Laws, at their own expense, subject to the prior consent of the Corporation, such consent not to be unreasonably withheld, to place such advertisement or advertisements relating to the sale of the Initial Debentures contemplated herein as the Underwriters may consider desirable or appropriate and as may be permitted by applicable

law. The Corporation and the Underwriters each agree that they will not make or publish any advertisement in any media whatsoever relating to, or otherwise publicize, the transaction provided for herein so as to result in any exemption from the prospectus and registration or other similar requirements under Securities Laws in any of the provinces or territories of Canada or any other jurisdiction in which the Offered Debentures shall be offered and sold being unavailable in respect of the sale of the Offered Debentures to prospective purchasers.

19. **Underwriters' Obligations.** The Underwriters' obligations under this Agreement shall be several and not joint, and the Underwriters' respective obligations and rights and benefits hereunder shall be as to the following percentages:

Raymond James Ltd.	- 50%
Canaccord Genuity Corp.	- 20%
CIBC World Markets Inc.	- 12%
Cormark Securities Inc.	- 12%
ATB Capital Markets Inc.	- 2%
M Partners Inc.	- 2%
Stifel Nicolaus Canada Inc.	- 2%

If an Underwriter (a "**Refusing Underwriter**") shall not complete the purchase and sale of the Offered Debentures which such Underwriter has agreed to purchase hereunder for any reason whatsoever, the other Underwriters (the "**Continuing Underwriters**") shall be entitled, at their option, to purchase all but not less than all of the Offered Debentures which would otherwise have been purchased by such Refusing Underwriter *pro rata* to their respective percentages set forth above or in such proportion as the Continuing Underwriters shall agree in writing. Subject to the immediately following paragraph, if the Continuing Underwriters do not elect to purchase the balance of the Offered Debentures pursuant to the foregoing:

- (a) the Continuing Underwriters shall not be obliged to purchase any of the Initial Debentures that any Refusing Underwriter is obliged to purchase; and
- (b) the Corporation shall not be obliged to sell less than all of the Initial Debentures or the Optioned Debentures, as applicable,

and the Corporation shall be entitled to terminate its obligations under this Agreement arising from its acceptance of this offer, in which event there shall be no further liability on the part of the Corporation or the Continuing Underwriters, except pursuant to the provisions of Sections 16 and 17 hereof. Nothing in this Agreement shall oblige any U.S. Affiliate to purchase any Offered Debentures.

Notwithstanding the foregoing paragraph, the Continuing Underwriters shall be obligated to purchase all but not less than all of the Initial Debentures which would otherwise have been purchased by any Refusing Underwriter *pro rata* according to the number of Initial Debentures to have been acquired by the Continuing Underwriters hereunder or in such proportion as the Continuing Underwriters shall agree in writing if the aggregate applicable percentage that was to be purchased by each Refusing Underwriter is less than ten percent (10%) of the aggregate number of Initial Debentures to be sold under the Offering; provided, however, that nothing contained in this Section 19 shall limit an Underwriter's right to otherwise terminate its obligations in accordance with the terms and conditions of this Agreement.

20. **Compliance with U.S. Securities Laws.** The Underwriters make the representations, warranties and covenants applicable to them in Schedule “A” hereto and agree, on behalf of themselves and their U.S. Affiliates, for the benefit of the Corporation, to comply with the U.S. selling restrictions imposed by the laws of the United States and set forth in Schedule “A” hereto, which forms part of this Agreement. Notwithstanding the foregoing provisions of this section, an Underwriter will not be liable to the Corporation under this section or Schedule “A” with respect to a violation by another Underwriter of the provisions of this section or Schedule “A” if the former Underwriter is not itself also in violation; and the Corporation makes the representations, warranties and covenants applicable to it in Schedule “A” hereto.

21. **Underwriters’ Authority.** The Corporation shall be entitled to and shall act on any notice, request, direction, consent, waiver, extension and other communication given or agreement entered into by or on behalf of the Underwriters by the Lead Underwriter who shall represent the Underwriters and have authority to bind the Underwriters hereunder, except for any waiver of a condition under Section 12, any termination notice under Section 13, or any notice of Claim or settlement of any Claim under Section 16. The Lead Underwriter shall consult with the other Underwriters concerning any matter in respect of which it acts as representative of the Underwriters.

22. **Notices.** Unless otherwise expressly provided in this Agreement, any notice or other communication to be given under this Agreement (a “**notice**”) shall be in writing addressed as follows:

- (a) If to the Corporation, to:

Quarterhill Inc.
25 King Street West, Suite 1101
Toronto, Ontario M5L 2A1

Attention: Paul Hill, President & Chief Executive Officer
Email: paul.hill@quarterhill.com and legal@quarterhill.com

with a copy (for information purposes only and not constituting notice) to:

Norton Rose Fulbright Canada LLP
Suite 3000
222 Bay Street
Box 53
Toronto, Ontario M5K 1E7

Attention: Paul Amirault
Email: paul.amirault@nortonrosefulbright.com

- (b) If to the Underwriters, to:

Raymond James Ltd.
40 King Street West
Suite 5400

Toronto, Ontario M5N 3Y2

Attention: Yong Kwon
Email: yong.kwon@raymondjames.ca

Canaccord Genuity Corp.
161 Bay Street, Brookfield Place
Suite 3100
P.O. Box 516
Toronto, Ontario M5J 2S1

Attention: Mike Lauzon
Email: mlauzon@cgf.com

CIBC World Markets Inc.
161 Bay Street, Brookfield Place
7th Floor
Toronto, Ontario M5J 2S8

Attention: Kathy Butler
Email: Kathy.butler@cibc.ca

Cormark Securities Inc.
200 Bay Street
North Tower, Suite 1800
Toronto, Ontario M5J 2J2

Attention: James Austen
Email: jausten@cormark.com

ATB Capital Markets Inc.
585 8th Avenue SW
Suite 410
Calgary, Alberta T2P 1G1

Attention: Tim Hart
Email: thart@atb.com

M Partners Inc.
70 York St. #1500
Toronto, Ontario M5J 1S9

Attention: Steve Isenberg
Email: si@mpartners.ca

Stifel Nicolaus Canada Inc.
145 King Street West
Suite 300

Toronto, Ontario M5H 1J8

Attention: Alex Lane
Email: alane@stifel.com

with a copy (for information purposes only and not constituting notice) to:

Osler, Hoskin & Harcourt LLP
100 King Street West
1 First Canadian Place, Suite 6200
Toronto, Ontario M5X 1B8

Attention: Desmond Lee and Rosalind Hunter
Email: dlee@osler.com and rhunter@osler.com

and if so given, shall be deemed to have been validly and effectively given and received on the date of personal delivery or transmission by email or similar means of recorded communication if such date is a Business Day and such delivery was made prior to 4:30 p.m. (local time in the place of receipt) and otherwise on the next Business Day.

23. **Time of the Essence.** Time shall, in all respects, be of the essence hereof.
24. **Canadian Dollars.** All references herein to dollar amounts are to lawful money of Canada.
25. **Headings.** The headings contained herein are for convenience only and shall not affect the meaning or interpretation hereof.
26. **Singular and Plural, etc.** Where the context so requires, words importing the singular number include the plural and vice versa, and words importing gender shall include the masculine, feminine and neuter genders.
27. **Entire Agreement.** This Agreement constitutes the only agreement between the parties with respect to the subject matter hereof and shall supersede any and all prior negotiations and understandings, including, without limitation, the Letter Agreement. This Agreement may be amended or modified in any respect by written instrument only signed by each of the parties hereto.
28. **Severability.** If one or more provisions contained herein shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, but this Agreement shall be construed as if such invalid, illegal or unenforceable provision or provisions had never been contained herein.
29. **No Fiduciary Duty.** The Corporation hereby acknowledges that (i) the purchase and sale of the Offered Debentures pursuant to this Agreement is an arm's-length commercial transaction between the Corporation, on the one hand, and each of the Underwriters and any affiliate through which it may be acting, on the other, (ii) each of the Underwriters is acting as principal and not as an agent or fiduciary of the Corporation and (iii) the Corporation's engagement of each of the Underwriters in connection with the Offering and the process leading up to the Offering is as independent contractors and not in any other capacity. Furthermore, the Corporation agrees that it is solely responsible for making its own judgments in connection with the Offering (irrespective

of whether any of the Underwriters has advised or is currently advising the Corporation on related or other matters). The Corporation agrees that it will not claim that the Underwriters have rendered advisory services of any nature or respect or owes an agency, fiduciary or similar duty to the Corporation, in connection with such transaction or the process leading thereto.

30. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein. Each of the Corporation and the Underwriters irrevocably agrees that the courts of the Province of Ontario shall have non-exclusive jurisdiction to hear and decide any suit, action or proceedings, and/or to settle any disputes, which may arise out of or in connection with this Agreement and the transactions contemplated hereby ("**Proceedings**") and, for these purposes, each of them irrevocably submits to the jurisdiction of the Ontario courts and waives (and irrevocably agrees not to raise) any objection which it may have now or hereafter to the laying of the venue of any Proceedings in any such court and any claim that any such Proceedings have been brought in an inconvenient forum and further irrevocably agrees that a judgment in any Proceedings brought in any Ontario court shall be conclusive and binding upon it and may be enforced in the courts of any other jurisdiction.

31. **Successors and Assigns.** The terms and provisions of this Agreement shall be binding upon and enure to the benefit of the Corporation and the Underwriters and their respective successors and permitted assigns. This Agreement shall not be assignable by any party hereto without the prior written consent of the other party.

32. **Further Assurances.** Each of the parties hereto shall do or cause to be done all such acts and things and shall execute or cause to be executed all such documents, agreements and other instruments as may reasonably be necessary or desirable for the purpose of carrying out the provisions and intent of this Agreement.

33. **Effective Date.** This Agreement is intended to and shall take effect as of the date first set forth above, notwithstanding its actual date of execution or delivery.

34. **Counterparts and Execution.** This Agreement may be executed in any number of counterparts and any party may execute any such counterpart by email, in portable document format or other electronic means, each of which when executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument.

[remainder of page intentionally blank]

If the Corporation is in agreement with the foregoing terms and conditions, please so indicate by executing a copy of this Agreement where indicated below and delivering the same to the Underwriters.

Yours very truly,

RAYMOND JAMES LTD.

Per: (signed) *Yong Kwon*
Managing Director

CANACCORD GENUITY CORP.

Per: (signed) *Mike Lauzon*
Managing Director

CIBC WORLD MARKETS INC.

Per: (signed) *Kathy Butler*
Managing Director

CORMARK SECURITIES INC.

Per: (signed) *James Austen*
Managing Director, Investment Banking

ATB CAPITAL MARKETS INC.

Per: (signed) *Tomthy J. Hart*
Managing Director

M PARTNERS INC.

Per: (signed) *Steve Isenberg*
CEO

STIFEL NICOLAUS CANADA INC.

Per: (signed) *Alexander Lane*
Director, IB

The foregoing is hereby accepted on the terms and conditions therein set forth.

DATED as of the 22nd day of October, 2021.

QUARTERHILL INC.

Per: (signed) *Paul Hill*
President and CEO

SCHEDULE “A”

U.S. OFFERS AND SALES

As used in this Schedule “A” and related exhibits, capitalized terms used herein and not defined herein shall have the meanings ascribed thereto in the Underwriting Agreement to which this Schedule “A” is annexed and to which it forms a part.

Representations, Warranties and Covenants of the Corporation

The Corporation hereby represents, warrants, covenants and agrees to and with the Underwriters that:

1. The Corporation is a “foreign issuer” with no “substantial U.S. market interest”, as such terms are defined in Regulation S under the U.S. Securities Act (“**Regulation S**”), with respect to the Offered Debentures or Common Shares.
2. None of the Corporation or its affiliates or any person acting on its or their behalf (other than the Underwriters, the U.S. Affiliates, or any member of the selling group formed by them (collectively the “**Selling Group**”), as to whom the Corporation makes no representation), has engaged or will engage in any “directed selling efforts” (within the meaning of Regulation S) or has engaged or will engage in any form of “general solicitation” or “general advertising” (as those terms are used in Regulation D under the U.S. Securities Act (“**Regulation D**”)) with respect to the Offered Debentures.
3. The Offered Debentures satisfy the requirements set out in Rule 144A(d)(3) under the U.S. Securities Act.
4. So long as any Offered Debentures which have been sold in the United States in reliance upon Rule 144A are outstanding and are “restricted securities” within the meaning of Rule 144(a)(3) under the U.S. Securities Act, the Corporation shall either:
 - (a) comply with the requirements of Rule 12g3-2(b) under the United States Securities Exchange Act of 1934, as amended (the “**1934 Act**”);
 - (b) file reports and other information with the United States Securities and Exchange Commission (the “**SEC**”) under Section 13 or 15(d) of the 1934 Act; or
 - (c) in the event it is not exempt from reporting pursuant to Rule 12g3-2(b) nor subject to and in compliance with Section 13 or 15(d) of the 1934 Act, furnish to any holder of the Offered Debentures and any prospective purchaser of the Offered Debentures designated by such holder, upon request of such holder, the information required to be delivered pursuant to Rule 144A(d)(4) under the U.S. Securities Act (so long as such requirement is necessary in order to permit holders of the Offered Debentures to effect resales under Rule 144A).
5. The Corporation is not an open-end investment company, unit investment trust or face-amount certificate company that is or is required to be registered under Section 8 of the United States Investment Company Act of 1940, as amended.

6. Neither the Corporation nor any of its affiliates, nor any person acting on its or their behalf (other than the Underwriters, their affiliates, the Selling Group and any person acting on any of their behalf, as to which no representation, warranty, covenant or agreement is made), has taken or will take any action that would cause the exclusion afforded by Rule 903 of Regulation S or the exemption afforded by Rule 144A to be unavailable for offers and sales of the Offered Debentures pursuant to this Schedule “A” and the Agreement to which it is annexed.
7. Other than through the Underwriters and their U.S. Affiliates, neither the Corporation nor any of its affiliates, nor any person acting on its or their behalf, has made or will make any offer or sale of Offered Debentures in the United States.
8. Neither the Corporation nor any of its affiliates, nor any person acting on its or their behalf (other than the Underwriters, their affiliates, the Selling Group and any person acting on any of their behalf, as to which no representation, warranty, covenant or agreement is made) the Corporation will not pay or give any commission or other remuneration, directly or indirectly, for soliciting the issuance of securities pursuant to the conversion of the Qualified Debentures.

Representations, Warranties and Covenants of the Underwriters

Each Underwriter, severally and not jointly, acknowledges that the Offered Debentures have not been and will not be registered under the U.S. Securities Act or any United States state securities laws and may be offered and sold only in transactions exempt from or not subject to the registration requirements of the U.S. Securities Act and applicable state securities laws. Accordingly, each Underwriter, severally and not jointly, represents, warrants and covenants to and with the Corporation and will cause its U.S. Affiliate to comply with such representations, warranties and covenants, that:

1. It has not offered or sold, and will not offer or sell, any Offered Debentures constituting part of its allotment within the United States, except as provided in this Schedule “A” or outside the United States except in accordance with Regulation S. Accordingly, neither it nor any of its affiliate(s) nor any persons acting on its or their behalf have engaged or will, engage in any “directed selling efforts” (within the meaning of Regulation S) in the United States with respect to the Offered Debentures or, except as provided in this Agreement or this Schedule “A”, engage in (i) any offer to sell, or any solicitation of an offer to buy, any Offered Debentures to any person in the United States, or (ii) any sale of Offered Debentures to any purchaser unless, at the time the buy order was or will have been originated, the purchaser was outside the United States, or such Underwriter, affiliate or person acting on behalf of either reasonably believed that such purchaser was outside the United States.
2. It has not entered and will not enter into any contractual arrangement with respect to the distribution of the Offered Debentures, except with its affiliates, any member of the Selling Group or with the prior written consent of the Corporation.

Each of the Underwriters agrees with the Corporation that:

1. All offers and sales of the Offered Debentures in the United States will be effected through its U.S. Affiliate or by such Underwriter in accordance with Rule 15a-6 under the 1934 Act and in accordance with all applicable U.S. broker-dealer requirements.
2. Any U.S. Affiliate selling Offered Debentures in the United States is duly registered as a broker-dealer pursuant to Section 15(b) of the 1934 Act and the securities laws of each state in which such offer or sale is made (unless exempted from the respective state's broker-dealer registration requirements) and is a member of, and in good standing with, the Financial Industry Regulatory Authority, Inc. on the date hereof.
3. It has not used and will not use any written material other than the U.S. Memorandum relating to the offering of the Offered Debentures in the United States, and, a reasonable time prior to the confirmation of sales of Offered Debentures in the United States, it agrees to deliver, through its U.S. Affiliate, a copy of the U.S. Memorandum (which includes the Prospectus), to each person in the United States purchasing Offered Debentures from it or its U.S. Affiliate.
4. It will not, either directly or through its U.S. Affiliate, solicit offers for, or offer to sell, the Offered Debentures in the United States by means of any form of "general solicitation" or "general advertising" (as those terms are used in Regulation D) or in any manner involving a public offering within the meaning of Section 4(a)(2) of the U.S. Securities Act.
5. It will solicit, and will cause its U.S. Affiliate to solicit, offers for the Offered Debentures in the United States only from, and will offer the Offered Debentures only to, persons it reasonably believes to be a "qualified institutional buyer" as that term is defined in Rule 144A ("**Qualified Institutional Buyer**").
6. It will inform, and cause its U.S. Affiliate to inform, all purchasers of the Offered Debentures in the United States who are buying the Offered Debentures that the Offered Debentures have not been and will not be registered under the U.S. Securities Act and are being sold to them without registration under the U.S. Securities Act in reliance on Rule 144A.
7. Prior to the completion of any sale of Offered Debentures to any U.S. purchaser, such purchaser shall be required to provide to the Underwriter or the U.S. Affiliate of the Underwriter the U.S. purchaser's letter in the form set forth in Exhibit A attached to the U.S. Memorandum.
8. Prior to the Closing Date, it will provide the Corporation and the transfer agent for the Offered Debentures with a list of all purchasers of the Offered Debentures in the United States.
9. At the Closing Time, it, together with its U.S. Affiliate selling Offered Debentures in the United States, will provide a certificate, substantially in the form of Exhibit A to this Schedule "A", relating to the manner of the offer and sale of the Offered Debentures in the United States.
10. None of it, any of its affiliates or any person acting on any of their behalf will solicit the issuance of any securities pursuant to the conversion of the Offered Debentures or will pay,

give or receive any commission or other remuneration, directly or indirectly, for soliciting the issuance of any securities pursuant to the conversion of the Offered Debentures.

11. The Underwriters shall require each member of the Selling Group to agree, for the benefit of the Corporation to comply with, and shall use their best efforts to ensure that each member of the Selling Group complies with, the provisions of this Schedule "A" as if such provisions applied to such member of the Selling Group.

EXHIBIT “A”

TO SCHEDULE “A”

UNDERWRITER’S CERTIFICATE

In connection with the private placement in the United States of 6.0% Convertible Unsecured Subordinated Debentures (the “**Securities**”) of Quarterhill Inc. (the “**Corporation**”) pursuant to the underwriting agreement dated October 22, 2021 among the Corporation and the Underwriters named therein (the “**Underwriting Agreement**”), each of the undersigned does hereby certify as follows:

1. *[Name of U.S. broker-dealer affiliate]* (the “**U.S. Affiliate**”) is a duly registered broker or dealer with the United States Securities and Exchange Commission and is a member in good standing of the Financial Industry Regulatory Authority, Inc. and all offers and sales of Securities in the United States were effected by us or our U.S. Affiliate in accordance with all applicable U.S. broker-dealer requirements;
2. each purchaser from in the United States was provided with a copy of the U.S. Memorandum prior to the time of such offeree’s purchase of Offered Debentures, and no other written material (except the purchaser’s letter in the form set forth in Exhibit A attached to the U.S. Memorandum) was used in connection with the offer or sale of Securities in the United States immediately prior to our transmitting such U.S. Memorandum to such offerees, we had reasonable grounds to believe and did believe that each such offeree was a Qualified Institutional Buyer and on the date hereof, we continue to believe that such purchaser purchasing from us is a Qualified Institutional Buyer;
3. immediately prior to our transmitting such U.S. Memorandum to such offerees, we had reasonable grounds to believe and did believe that each such offeree was either a Qualified Institutional Buyer and on the date hereof, we continue to believe that such purchaser purchasing from us is a Qualified Institutional Buyer;
4. no form of “general solicitation” or “general advertising” (as those terms are used in Regulation D under the U.S. Securities Act) was used by us, including advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or broadcast over radio, television or the Internet, or any seminar or meeting whose attendees had been invited by general solicitation or general advertising, in connection with the offer or sale of the Securities in the United States;
5. no “directed selling efforts” (within the meaning of Regulation S) have been undertaken by us in the United States with respect to the Securities;
6. the offering of the Securities in the United States has been conducted by us in accordance with the Underwriting Agreement; and
7. prior to any sales of Securities in the United States, we caused each U.S. purchaser to execute a U.S. purchaser’s letter in the form of Exhibit A to the U.S. Private Placement Memorandum.

Terms used in this certificate have the meanings given to them in the Underwriting Agreement unless otherwise defined herein.

Dated this [●] day of [●].

[UNDERWRITER]

[U.S. BROKER-DEALER AFFILIATE]

By: _____
Name:
Title:

By: _____
Name:
Title:

SCHEDULE "B"

LIST OF SUBSIDIARIES

3DN, LLC
8479267 Canada Inc.
Achlys Technologies Inc.
ACP ETC Blocker Corp.
Adaptive Headlamp Technologies Inc.
Adaptive Streaming Inc.
Advanced Microscopy Inc.
Alsephina Innovations Inc.
Anton Innovations Inc.
Aquila Innovations Inc.
Atria Technologies Inc.
Auriga Innovations, Inc.
Automation Middleware Solutions, Inc.
Back Bay Medical Inc.
Cetus Technologies Inc.
Collabo Innovation, Inc.
Collision Avoidance Technologies Inc.
Columbia Technologies Inc.
Commercial Copy Innovations Inc.
Content Delivery Inc.
Copy Protection LLC
Daoling Technologies Inc.
Device Enhancement LLC
Display Innovations Inc.
Electronic Transaction Consultants LLC
Elpis Technologies Inc.
Emulation Technology LLC
Eridanus Technologies, Inc.
ETC Intermediate LLC
ETC Parent Holding LLC
Gladios IP, Inc.
HPLP Technologies, Inc.
Icoms Detections S.A.
Improved Search LLC
Innovative Building Management Systems Inc.
Innovative Memory Systems Inc.
International Road Dynamics Corporation
International Road Dynamics Inc.
International Road Dynamics South Asia Private Limited
Intuitive Building Controls, Inc.
IPA Technologies Inc.
MCU Clocking Solutions, Inc.
Micro-Optimus Technologies, Inc.
Mobile Charging Solutions Inc.
Mobile Data Off-Loading Inc.
Modern Vehicle Innovations Inc.
Mount Chilwell Inc.
Network Managing Solutions, LLC
North Star Innovations Inc.
Online Connectivity, Inc.
Onpa Technologies Inc.
Open Network Solutions Inc.
Orthopedic Innovations Inc.
PAT Traffic Limitada
PAT Traffic Ltd.
PAT Traffic Mexico, SA de CV
PLL Technologies, Inc.
Polaris Innovations Limited
Printer Technology Innovations, Inc.
Quarterhill ITS Inc.
Quarterhill USA, Inc.
Radio Network Systems Innovations Inc.
Reversible Connections LLC
Rideshare Services Inc.
SecureWave Storage Solutions, Inc.
Security Video Camera Systems Inc.
Sensor Line – Gesellschaft für optoelektronische Sensoren GmbH
Sensor Line Trading GmbH
Solana Technologies Inc.
Smart Meter Technologies Inc.
Smart Wearable Technologies Inc.
Sparkmotion Inc.
Surgical Irrigation Technologies Inc.
Treehouse Avatar LL
Universal Connectivity Technologies Inc.
VDS Verkehrstechnik GmbH
Wi-LAN Inc.
Wi-LAN International Inc.
Wi-LAN International Japan Inc.
Wi-LAN International Taiwan Inc.
Wi-LAN Labs, Inc.
Wi-LAN Research Inc.
Wi-LAN Technologies, Inc.
Wi-LAN Tech Transfer Inc.
Wi-LAN USA, Inc.

Wireless Future Technologies, Inc.
Wireless Protocol Innovations, Inc.
Woden Technologies, Inc.
Xueshan Technologies Inc.
Xuzhou PAT Control Technology Co. Ltd.
(50%)

SCHEDULE “C”

LIST OF OPTIONS, WARRANTS AND CONVERTIBLE SECURITIES

As at October 21, 2021:

	Options	Share RSUs	PSUs	Broker Warrants	Warrants
Outstanding:	8,473,125	371,137	123,936	0	0